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# Daylight and Sunlight Study (Neighbouring Properties) Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

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DAYLIGHT AND SUNLIGHT STUDY
Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

#### 1 EXECUTIVE SUMMARY

#### 1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned to undertake a daylight and sunlight study of the proposed development at Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ.
- 1.1.2 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring properties at 21 & 23 Bertram Street, 110 to 112, 114 to 116, 118, 120 & 122 Croftdown Road, 3, 14, 16, 18 to 20, 22 & 24, 26, 28 & 32 Winscombe Street. The study is based on 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' by P J Littlefair 2011.
- 1.1.3 The window key in Appendix 1 identifies the windows analysed in this study.

  Appendix 2 gives the numerical results of the various daylight and sunlight tests.
- 1.1.4 The majority of the windows tested meet or surpass the BRE numerical recommendations. Whilst some windows do not meet the recommendations, the results are not unusual in the context of an urban location. The BRE guide 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 drawings:

Greenhatch	group
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20931_01	Existing Ground Floor Plan	Rev –
20931_02	Existing First Floor Plan	Rev –
20931_03	Existing Second Floor Plan	Rev –
20931_04	Existing Roof Plan	Rev –
20931_05	Topographical Survey	Rev –
20931_06	Existing Building Elevations	Rev –
20931_07	Existing Building Elevations	Rev –
20931_08	Existing Building Elevations & Sections	Rev –
20931_09_UG	Underground Utility Survey	Rev 0

# **HNCC**

1415 Architect's 3D Model Rev –

# **RCKA**

PL-GA-A-599	Basement Floor Plan (Building A)	Rev N
PL-GA-A-600	Ground Floor Plan	Rev O
PL-GA-A-601	First Floor Plan	Rev M
PL-GA-A-602	Second Floor Plan	Rev L
PL-GA-A-603	Third Floor Plan	Rev L
PL-GA-A-604	Fourth Floor Plan	Rev L
PL-GA-A-605	Roof Plan	Rev J
PL-GA-B-599	Basement Floor Plan (Building B)	Rev M
PL-GA-B-600	Ground Floor Plan	Rev M
PL-GA-B-601	First Floor Plan	Rev M
PL-GA-B-602	Second Floor Plan	Rev M
PL-GA-B-603	Third Floor Plan	Rev M
PL-GA-B-604	Roof Plan	Rev L
PL-GA-C-600	(Building C) As Proposed	Rev B
PL-GA-700	Section AA	Rev K
PL-GA-701	Proposed Section BB	Rev H
PL-GA-702	Proposed Section CC	Rev G
PL-GA-703	Proposed Section DD	Rev H
PL-GA-706	Proposed Section GG	Rev H
PL-GA-707	Proposed Section HH	Rev E
PL-GA-712	Proposed Section JJ	Rev E
PL-GA-713	Proposed Section LL	Rev –
PL-GA-714	Long Section AA	Rev –
PL-GA-715	Long Section BB	Rev –

PL-GA-ST-800	Site Plan as Proposed	Rev H
PL-GA-ST-801	Proposed First Floor	Rev F
PL-GA-ST-802	Second, First Floor	Rev G
PL-GA-ST-803	Third, First Floor	Rev G
PL-GA-ST-804	Fourth, First Floor Plan	Rev G
PL-GA-ST-805	Roof Plan	Rev C
PL-GA-899	Proposed Basement Plan	Rev D

# 3 METHODOLOGY OF THE STUDY

#### 3.1 BRE Guide: Site Layout Planning for Daylight and Sunlight

- 3.1.1 The study is based on 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' by P J Littlefair 2011. In general, the BRE tests are based on the requirements of the British Standard, BS 8206 Part 2.
- 3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The following statement is quoted directly from the BRE guide:
- 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."

#### 3.2 Daylight to Windows

3.2.1 Diffuse daylight is the light received from the sun which has been diffused through the sky. Even on a cloudy day when the sun is not visible, a room will continue to be lit with light from the sky. This is diffuse daylight.

Diffuse daylight calculations should be undertaken to all rooms where daylight is required, including living rooms, kitchens and bedrooms. Usually, if a kitchen is less than  $13\text{m}^2$  it is considered to be a non-habitable room and the daylight tests need not be applied. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

- 3.2.2 The BRE guide contains two tests which measure diffuse daylight:
- 3.2.3 Test 1 Vertical Sky Component

The percentage of the sky visible from the centre of a window is known as the Vertical Sky Component. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

#### 3.2.4 Test 2 Daylight Distribution

The BRE guide states that where room layouts are known, the impact on the daylighting distribution can be found by plotting the ho sky line' in each of the main rooms. The no-sky line is a line which separates areas of the working plane that can and cannot have a direct view of the sky. Daylight may be adversely affected if after the development the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

#### 3.3 Sunlight availability to Windows

- 3.3.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight.
- 3.3.2 The BRE guide states that sunlight availability may be adversely affected if the centre of the window:
  - receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and
  - receives less than 0.8 times its former sunlight hours during either period and
  - has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

#### 3.4 Overshadowing to Gardens and Open Spaces

- 3.4.1 The availability of sunlight should be checked for all open spaces where sunlight is required. This would normally include:
  - § Gardens, usually the main back garden of a house
  - § Parks and playing fields
  - § Children's playgrounds
  - § Outdoor swimming pools and paddling pools
  - § Sitting out areas, such as those between non-domestic buildings and in public squares
  - § Focal points for views such as a group of monuments or fountains.

The BRE guide recommends that at least 50% of the area of each amenity space 3.4.2 listed above should receive at least two hours of sunlight on 21st March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21st March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

#### 4 RESULTS OF THE STUDY

#### 4.1 Windows & Amenity Areas Considered

4.1.1 Appendix 1 provides a plan and photographs to indicate the positions of the windows and gardens analysed in this study.

#### 4.2 Numerical Results

4.2.1 Appendix 2 lists the detailed numerical daylight and sunlight test results. The results are interpreted below.

#### 4.3 Daylight to Windows

- 4.3.1 All main habitable room windows pass the Vertical Sky Component test with the exception of some windows at 21, 23 and 22 to 24 Bertram Street, 114 to 116 & 118 Croftdown Road however there are mitigating factors to mention.
- 4.3.2 Firstly, ten windows fall short of the recommendations at 118 Croftdown Road but five of these ten windows are already hampered by a projecting wing. The BRE guide acknowledges that where a window has an overhang or projecting wings on one or both sides of it, as is the case with windows 130, 131, 132, 137 & 138, a larger relative reduction in VSC may be unavoidable, as the building itself contributes to its poor daylighting. One way to test whether the building is the main factor in poor daylighting is to test the windows without the obstructions in place. In this instance, without the wings in place, the aforementioned windows meet the BRE criteria. The results are presented in appendix 4.
- 4.3.3 Secondly, of the fifteen remaining windows falling short of the recommendations, eleven of these results are borderline and achieve a before/after ratio of slightly less than the recommended 0.8. The worst affected window has a before/after ratio of 0.7.
- 4.3.4 Finally, the BRE guide is intended to be used flexibly, particularly in urban locations, such as this. In this instance, we are of the opinion that the impact of the proposed development on the existing neighbouring properties is acceptable.

#### 4.4 Sunlight to Windows

4.4.1 All main habitable room windows which face within 90 degrees of due south have been tested for direct sunlight. All of these windows pass the sunlight test with the exception of a number of windows at 20, 21 23 & 22 to 24 Bertram Street. However, from our external observations of the twelve windows falling short of the sunlight test it appears that eight of these windows are unlikely to serve main living rooms and therefore would not be required to be tested under the BRE guidelines. We are therefore of the opinion that the impact of the proposed development on the existing neighbouring properties is acceptable.

#### 4.5 Overshadowing to Gardens and Open Spaces

4.5.1 The results of the overshadowing test show that sunlight availability after the development will be no less than 0.88 its former value for five out of the eight gardens tested. This is better than the BRE minimum requirement which permits sunlight to be reduced by up to 0.8 times. Three of the gardens tested (Garden 1, 7 & 8) will have their sunlight availability reduced to less than 0.8 times their former value after the proposed development. This is because the existing sunlight availability is already low and therefore even a small reduction in absolute terms results in a lower than normal before/after ratio. Since the level of overshadowing is relatively small in area terms, we are of the opinion that the proposed development will not have a harmful effect.

#### 4.6 Conclusion

4.6.1 The majority of the windows tested meet or surpass the BRE numerical recommendations. Whilst some windows do not meet the recommendations, the results are not unusual in the context of an urban location. The BRE guide 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

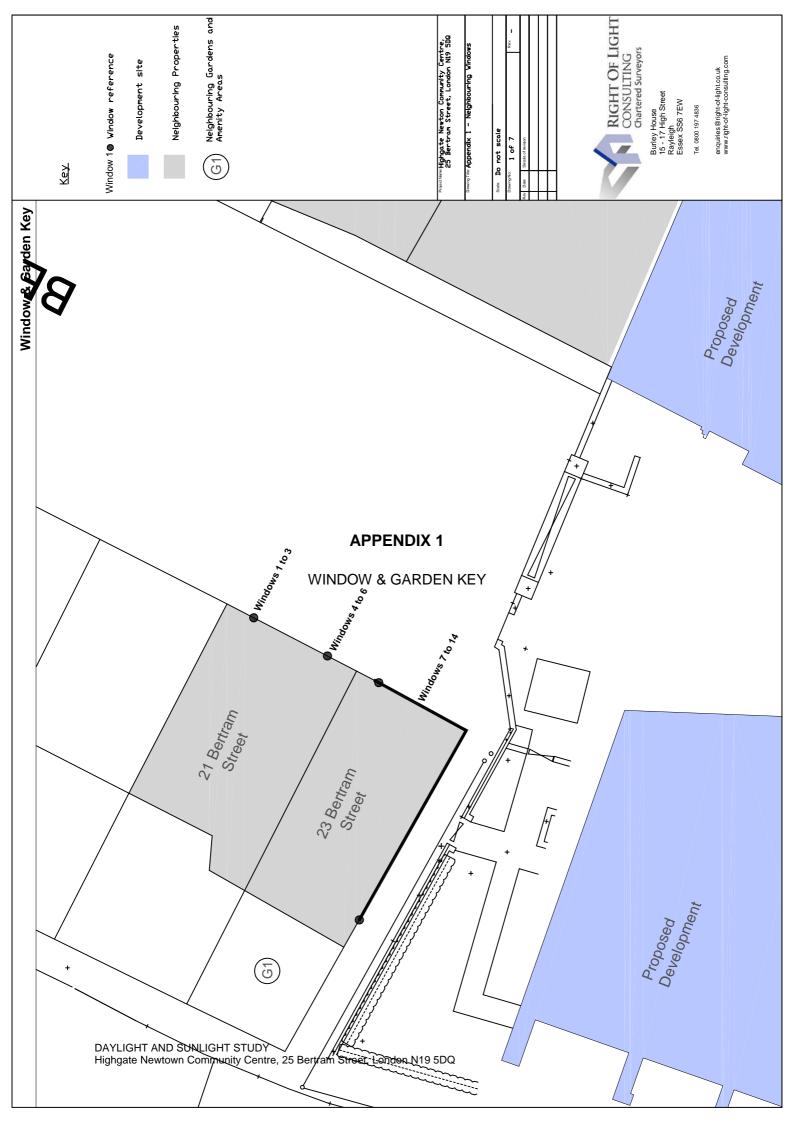
#### 5.1 General

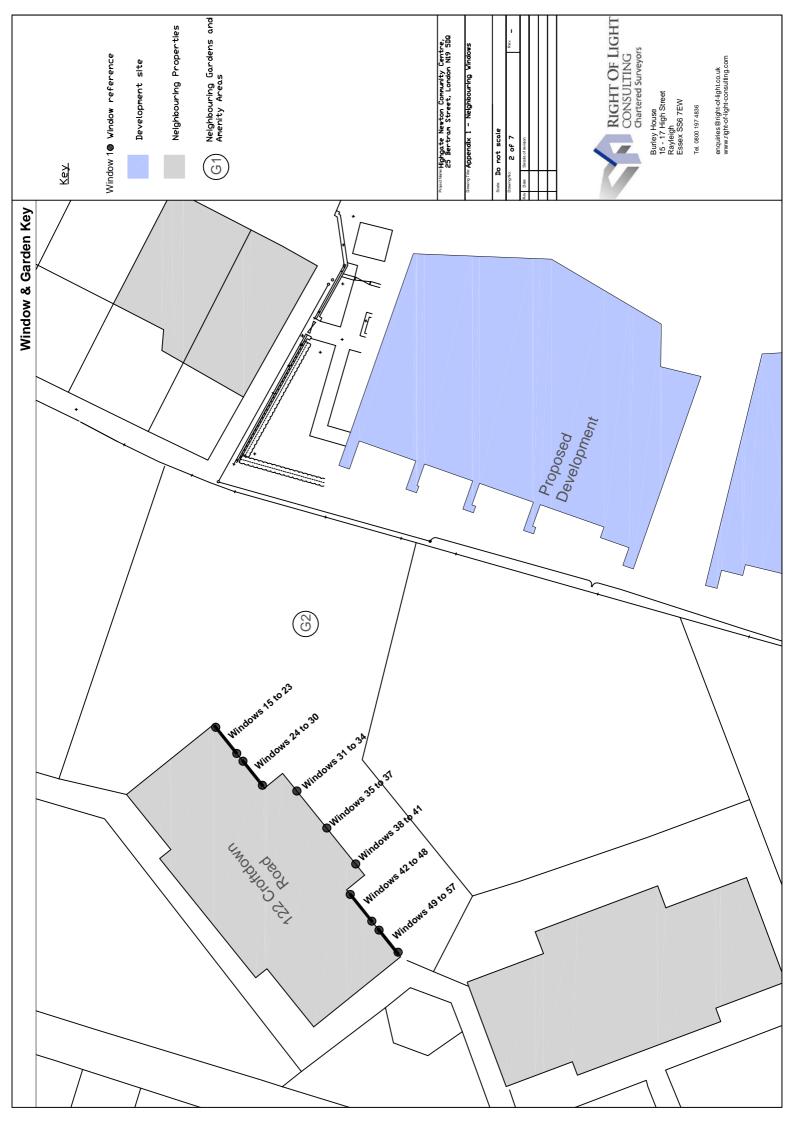
- 5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.
- 5.1.2 We have undertaken the survey following the guidelines of the RICS publication "Surveying Safely".
- 5.1.3 We have used our best endeavours to ensure all relevant windows within the neighbouring properties have been identified.
- 5.1.4 Where limited access is available, reasonable assumptions will have been made.
- 5.1.5 We have adopted the conventional approach of assessing all habitable rooms within domestic properties.
- 5.1.6 Right of Light Consulting have endeavoured to include in the report those matters, which they have knowledge of or of which they have been made aware, that might adversely affect the validity of the opinion given.

#### 5.2 Project Specific

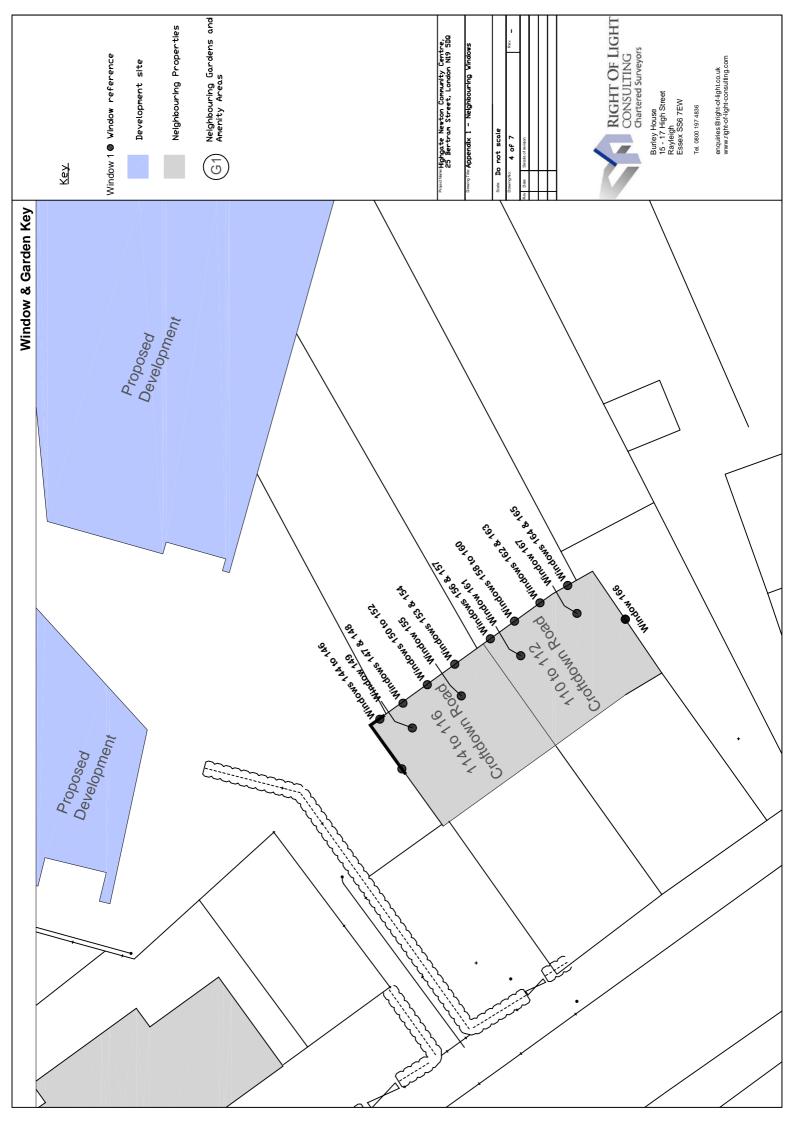
5.2.1 None.

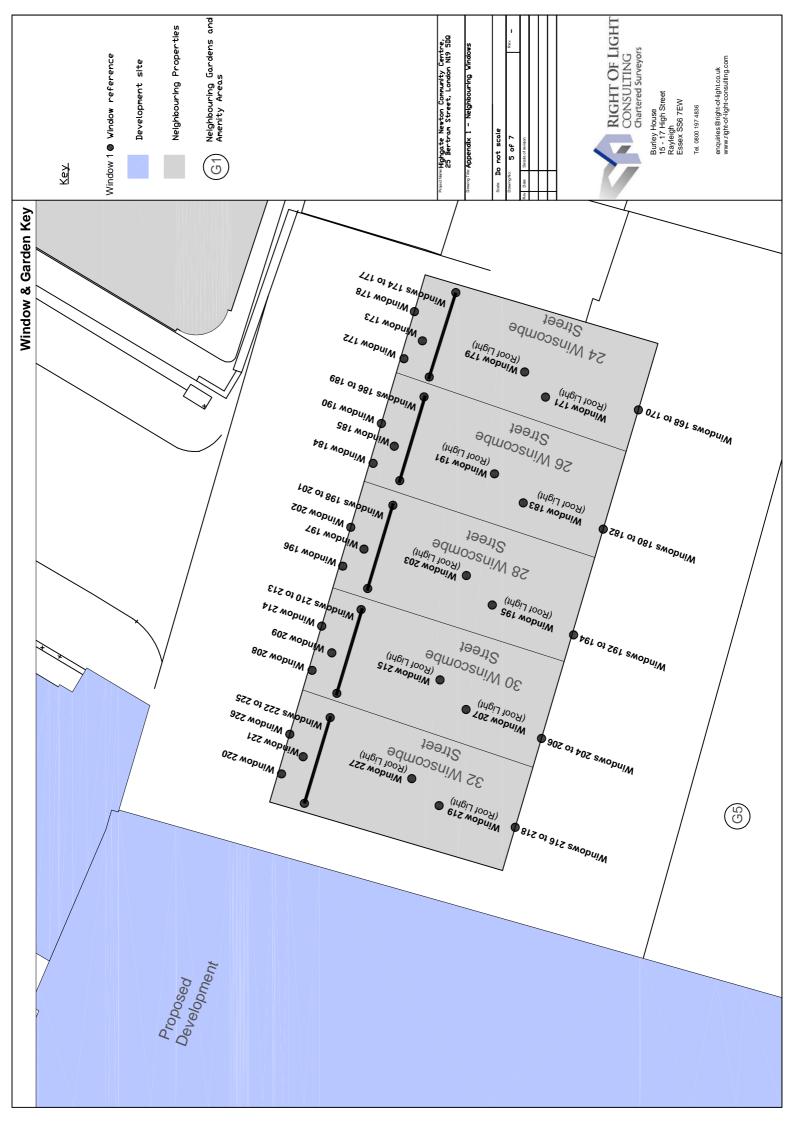


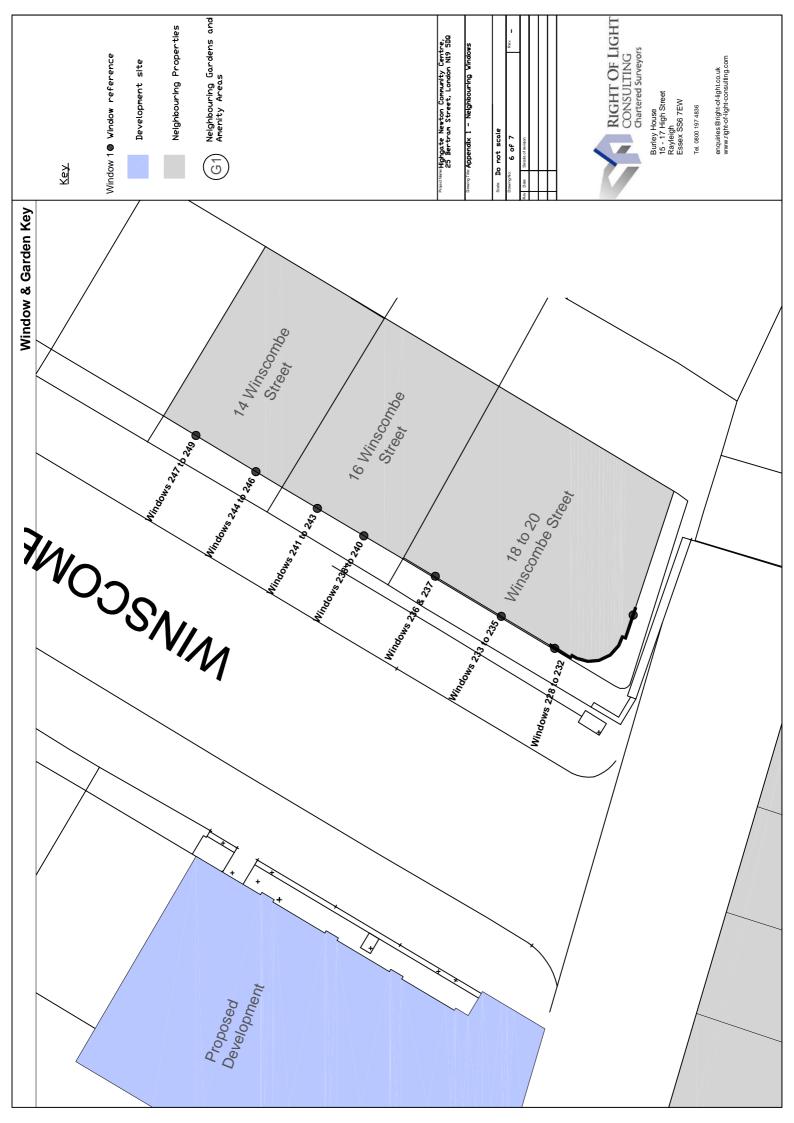


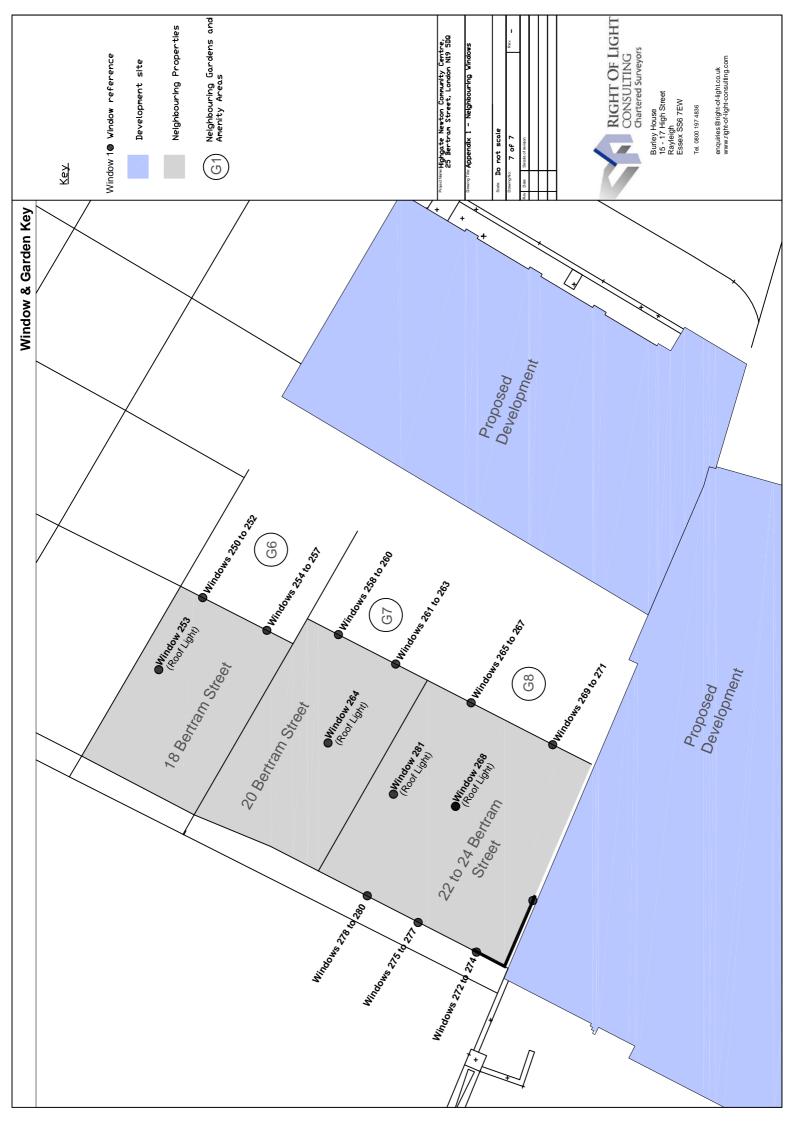












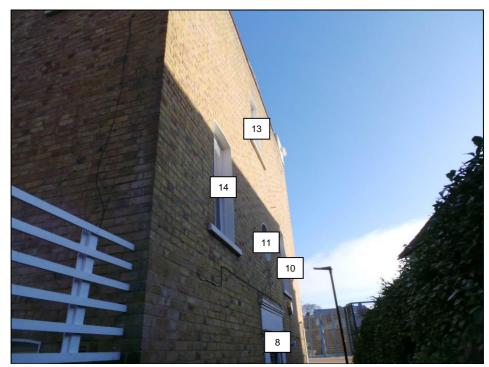
# **Neighbouring Windows**



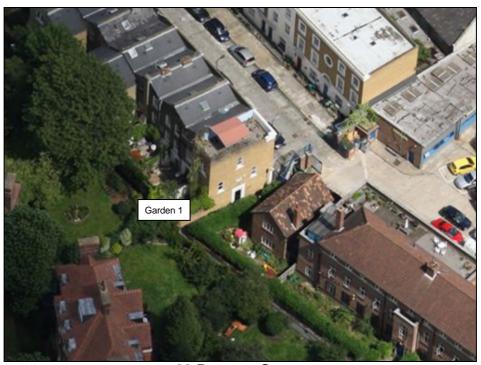
21 Bertram Street



23 Bertram Street



23 Bertram Street



23 Bertram Street



122 Croftdown Road



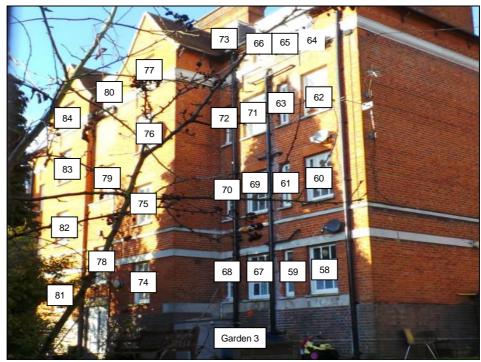
122 Croftdown Road



122 Croftdown Road



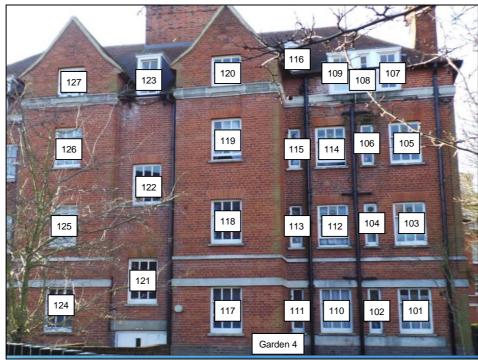
122 Croftdown Road



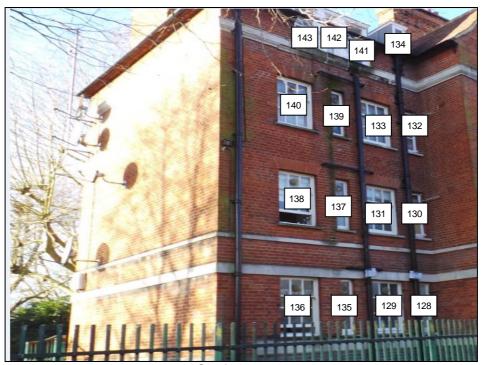
120 Croftdown Road



120 Croftdown Road



118 Croftdown Road



118 Croftdown Road





110 to 112 Croftdown Road



110 to 112 Croftdown Road



24 Winscombe Street



24 Winscombe Street



24 Winscombe Street



26 Winscombe Street



26 Winscombe Street



26 Winscombe Street



28 Winscombe Street



28 Winscombe Street



28 Winscombe Street



30 Winscombe Street



30 Winscombe Street



30 Winscombe Street



32 Winscombe Street



32 Winscombe Street



32 Winscombe Street



18 to 20 Winscombe Street



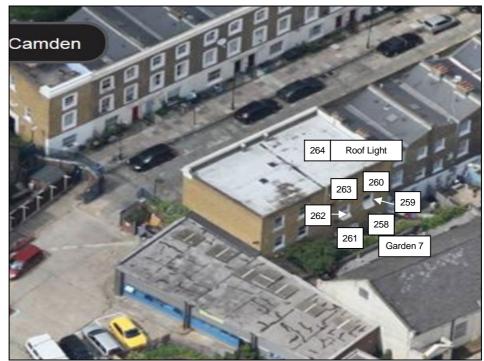
16 Winscombe Street



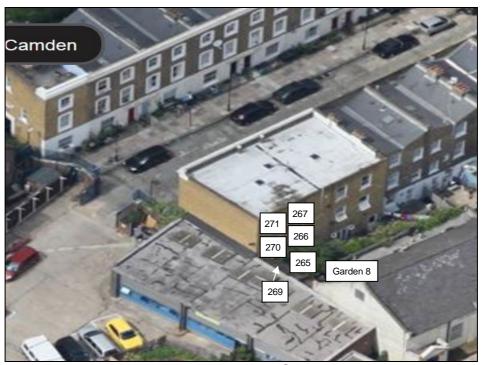
14 Winscombe Street



18 Bertram Street



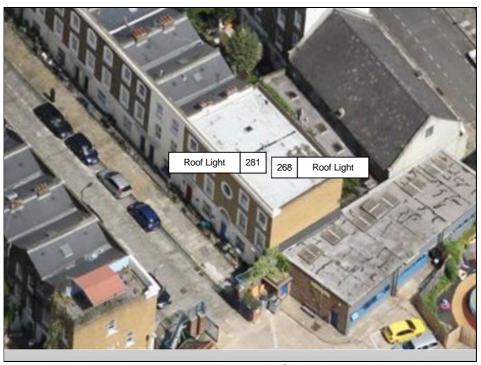
20 Bertram Street



22 to 24 Bertram Street



22 to 24 Bertram Street



22 to 24 Bertram Street

## **APPENDIX 2**

DAYLIGHT AND SUNLIGHT RESULTS

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
21 Bertram Street					
Window 1	Habitable	27.9%	23.3%	4.6%	0.84
Window 2	Habitable	32.2%	27.4%	4.8%	0.85
Window 3	Habitable	36.5%	32.6%	3.9%	0.89
Window 4	Habitable	27.4%	21.3%	6.1%	0.78
Window 5	Habitable	32.8%	26.5%	6.3%	0.81
Window 6	Habitable	36.8%	31.8%	5.0%	0.86
23 Bertram Street					
Window 7	Habitable	28.5%	20.0%	8.5%	0.7
Window 8	Non Habitable	24.5%	10.9%	13.6%	0.44
Window 9	Habitable	33.8%	24.9%	8.9%	0.74
Window 10	Non Habitable	29.6%	11.9%	17.7%	0.4
Window 11	Non Habitable	29.5%	13.2%	16.3%	0.45
Window 12	Habitable	37.2%	30.0%	7.2%	0.81
Window 13	Habitable	35.5%	19.1%	16.4%	0.54
Window 14	Habitable	31.1%	16.4%	14.7%	0.53
122 Croftdown Road					
Window 15	Habitable	32.5%	28.6%	3.9%	0.88
Window 16	Habitable	31.6%	27.9%	3.7%	0.88
Window 17	Habitable	35.1%	32.0%	3.1%	0.91
Window 18	Habitable	34.0%	31.0%	3.0%	0.91
Window 19	Habitable	37.1%	35.1%	2.0%	0.95
Window 20	Habitable	36.1%	34.2%	1.9%	0.95
Window 21	Habitable	37.2%	36.3%	0.9%	0.98
Window 22	Habitable	38.3%	37.3%	1.0%	0.97
Window 23	Habitable	37.3%	36.4%	0.9%	0.98
Window 24	Habitable	28.9%	25.3%	3.6%	0.88
Window 25	Habitable	20.0%	17.0%	3.0%	0.85
Window 26	Habitable	31.1%	28.1%	3.0%	0.9
Window 27	Habitable	21.7%	19.3%	2.4%	0.89
Window 28	Habitable	32.9%	31.0%	1.9%	0.94
Window 29	Habitable	22.7%	21.2%	1.5%	0.93

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class				
		Before	After	Loss	Ratio
Window 30	Habitable	35.7%	35.1%	0.6%	0.98
Window 31	Habitable	32.7%	28.9%	3.8%	0.88
Window 32	Habitable	35.3%	32.3%	3.0%	0.92
Window 33	Habitable	37.4%	35.5%	1.9%	0.95
Window 34	Habitable	38.7%	37.6%	1.1%	0.97
Window 35	Habitable	32.3%	29.0%	3.3%	0.9
Window 36	Habitable	35.0% 37.8%	32.7% 36.8%	2.3% 1.0%	0.93
Window 37	Habitable	31.5%	28.3%	3.2%	0.97
Window 38	Habitable	34.3%	31.7%	2.6%	0.9
Window 39	Habitable	36.8%	35.0%	1.8%	0.92
Window 40	Habitable	38.2%	37.2%	1.0%	0.95
Window 41	Habitable	17.1%	16.1%	1.0%	0.97
Window 42	Habitable	24.7%	22.5%	2.2%	0.94
Window 43	Habitable	19.0%	18.0%	1.0%	0.91
Window 44	Habitable	27.3%	25.5%	1.8%	0.95
Window 45	Habitable	20.6%	19.9%	0.7%	0.93
Window 46	Habitable	30.1%	28.8%	1.3%	0.97
Window 47	Habitable	34.7%	34.2%	0.5%	0.96
Window 48	Habitable	27.0%	24.4%	2.6%	0.99
Window 49	Habitable	27.2% 29.9%	24.6% 27.7%	2.6% 2.2%	0.9
Window 50	Habitable	30.2%	28.1%	2.2 %	0.9
Window 51	Habitable	33.1%	31.6%	1.5%	0.93
Window 52	Habitable	33.6%	32.1%	1.5%	0.93
Window 53	Habitable	35.7%	34.9%	0.8%	0.95
Window 54	Habitable	36.7%	35.8%	0.9%	0.96
Window 55	Habitable	35.9%	35.1%	0.8%	0.98
Window 56	Habitable				0.98
Window 57	Habitable				0.98
100 0 11 5 1		26.2%	24.4%	1.8%	
120 Croftdown Road		26.3%	24.6%	1.7%	
Window 58	Habitable	29.3%	27.8% 27.8%	1.5% 1.4%	0.93
Window 59	Habitable	29.2%	21.0%	1.4/0	0.94
Window 60	Habitable				0.95
Window 61	Habitable				0.95

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Window 62         Habitable         33.0%         31.9%         1.1%         0.97           Window 63         Habitable         32.6%         31.6%         1.0%         0.97           Window 64         Habitable         35.8%         35.2%         0.6%         0.98           Window 65         Habitable         36.4%         35.9%         0.5%         0.99           Window 66         Habitable         35.5%         35.1%         0.4%         0.99           Window 67         Habitable         17.1%         16.4%         0.7%         0.94           Window 68         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         35.6%         35.5%         0.1%         0.99           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         36.6%         35.0%         1.6%         0.94           Window 75         Habitable         32.5%	Reference	Use Class		Vertical Sky	Component	
Window 63         Habitable         32.6%         31.6%         1.0%         0.97           Window 64         Habitable         35.8%         35.2%         0.6%         0.98           Window 65         Habitable         36.4%         35.9%         0.5%         0.99           Window 66         Habitable         24.5%         23.1%         1.4%         0.99           Window 67         Habitable         17.1%         16.4%         0.7%         0.94           Window 68         Habitable         27.1%         25.9%         1.2%         0.96           Window 69         Habitable         18.8%         18.2%         0.6%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         35.6%         35.5%         0.1%         0.99           Window 72         Habitable         31.5%         28.9%         2.6%         1.0           Window 73         Habitable         34.1%         32.0%         2.1%         0.92           Window 74         Habitable         36.6%         35.0%         1.6%         0.94           Window 75         Habitable         32.1%			Before	After	Loss	Ratio
Window 64         Habitable         35.8%         35.2%         0.6%         0.98           Window 65         Habitable         36.4%         35.9%         0.5%         0.99           Window 66         Habitable         35.5%         35.1%         0.4%         0.99           Window 67         Habitable         24.5%         23.1%         1.4%         0.94           Window 68         Habitable         17.1%         16.4%         0.7%         0.94           Window 69         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         34.1%         32.0%         2.1%         0.92           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         38.2%         37.3%         0.9%         0.96           Window 76         Habitable         32.1%	Window 62	Habitable	33.0%	31.9%	1.1%	0.97
Window 65         Habitable         36.4%         35.9%         0.5%         0.99           Window 66         Habitable         35.5%         35.1%         0.4%         0.99           Window 67         Habitable         17.1%         16.4%         0.7%         0.94           Window 68         Habitable         17.1%         16.4%         0.7%         0.96           Window 69         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         34.1%         32.0%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         38.2%         37.3%         0.9%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         37.9%	Window 63	Habitable	32.6%	31.6%	1.0%	0.97
Window 66         Habitable         35.5%         35.1%         0.4%         0.99           Window 67         Habitable         24.5%         23.1%         1.4%         0.94           Window 68         Habitable         17.1%         16.4%         0.7%         0.96           Window 69         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         36.6%         35.0%         1.6%         0.92           Window 75         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         34.8%         32.8%         2.0%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         37.9%	Window 64	Habitable	35.8%	35.2%	0.6%	0.98
Window 67         Habitable         24.5%         23.1%         1.4%         0.94           Window 68         Habitable         17.1%         16.4%         0.7%         0.96           Window 69         Habitable         18.8%         18.2%         0.6%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         36.6%         35.0%         1.6%         0.92           Window 75         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         34.8%         32.8%         2.0%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.92           Window 80         Habitable         35.1%         32.5%         2.9%         0.97           Window 81         Habitable         37.3%	Window 65	Habitable				0.99
Window 67         Habitable         17.1%         16.4%         0.7%         0.94           Window 69         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         29.9%         29.1%         0.8%         0.97           Window 72         Habitable         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         36.6%         35.0%         1.6%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         37.9%         36.9%         1.0%         0.94           Window 78         Habitable         37.3%         2.9.4%         3.1%         0.99           Window 80         Habitable         37.3%         32.5%         2.6%         0.93           Window 81         Habitable         37.3%         35.4%	Window 66	Habitable				0.99
Window 68         Habitable         27.1%         25.9%         1.2%         0.96           Window 70         Habitable         18.8%         18.2%         0.6%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 79         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         37.3%         32.5%         2.6%         0.9           Window 81         Habitable         37.3%	Window 67	Habitable				0.94
Window 69         Habitable         18.8%         18.2%         0.6%         0.96           Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         34.8%         32.8%         2.0%         0.98           Window 79         Habitable         35.1%         32.5%         2.6%         0.92           Window 80         Habitable         37.3%         35.4%         1.9%         0.94           Window 81         Habitable         37.3%         35.4%         1.9%         0.9           Window 82         Habitable         21.3%	Window 68	Habitable				0.96
Window 70         Habitable         29.9%         29.1%         0.8%         0.97           Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         34.8%         32.8%         2.0%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.94           Window 79         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 80         Habitable         37.3%         35.4%         1.9%         0.99           Window 81         Habitable         37.3%         35.4%         1.9%         0.93           Window 82         Habitable	Window 69	Habitable				0.96
Window 71         Habitable         20.3%         20.0%         0.3%         0.97           Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.92           Window 79         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         37.3%         32.5%         2.6%         0.97           Window 81         Habitable         37.3%         35.4%         1.9%         0.94           Window 82         Habitable         37.3%         35.4%         1.9%         0.93           Window 83         Habitable         19.5%	Window 70	Habitable				0.97
Window 72         Habitable         35.6%         35.5%         0.1%         0.99           Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         38.2%         37.3%         0.9%         0.96           Window 76         Habitable         32.1%         29.5%         2.6%         0.98           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.92           Window 79         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 80         Habitable         37.3%         35.4%         1.9%         0.9           Window 81         Habitable         37.3%         35.4%         1.9%         0.9           Window 82         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable	Window 71	Habitable				0.97
Window 73         Habitable         31.5%         28.9%         2.6%         1.0           Window 74         Habitable         34.1%         32.0%         2.1%         0.92           Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         34.8%         32.8%         2.0%         0.98           Window 79         Habitable         37.9%         36.9%         1.0%         0.92           Window 80         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 81         Habitable         35.1%         32.5%         2.6%         0.97           Window 82         Habitable         37.3%         35.4%         1.9%         0.9           Window 83         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable         21.3%         18.6%         25.0%         2.7%         0.84           Window 86	Window 72	Habitable				0.99
Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         34.8%         32.8%         2.0%         0.92           Window 79         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 81         Habitable         37.3%         35.4%         1.9%         0.9           Window 82         Habitable         38.8%         37.6%         1.2%         0.93           Window 83         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable         21.3%         18.6%         3.0%         0.87           Window 86         Habitable         30.7%         25.0%         2.7%         0.84           Window 87         Habitable         32.7%         20.6%         2.2%         0.9           Window 89         Habitable	Window 73	Habitable	31.5%	28.9%	2.6%	1.0
Window 75         Habitable         36.6%         35.0%         1.6%         0.94           Window 76         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         37.9%         36.9%         1.0%         0.92           Window 79         Habitable         32.5%         29.4%         3.1%         0.94           Window 80         Habitable         35.1%         32.5%         2.6%         0.97           Window 81         Habitable         37.3%         35.4%         1.9%         0.9           Window 82         Habitable         38.8%         37.6%         1.2%         0.93           Window 83         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable         21.3%         18.6%         3.6%         0.97           Window 85         Habitable         30.7%         25.0%         2.7%         0.84           Window 87         Habitable         32.7%         2.0%         0.87           Window 88         Habitable         36.8%         30.5%	Window 74	Habitable	34.1%	32.0%	2.1%	0.92
Window 76         Habitable         38.2%         37.3%         0.9%         0.96           Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         34.8%         32.8%         2.0%         0.92           Window 79         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 81         Habitable         35.1%         32.5%         2.6%         0.97           Window 82         Habitable         37.3%         35.4%         1.9%         0.9           Window 83         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable         28.6%         25.0%         3.6%         0.97           Window 85         Habitable         30.7%         18.6%         3.0%         0.87           Window 87         Habitable         32.7%         20.6%         2.2%         0.9           Window 89         Habitable         31.2%         36.0%         3.8%         0.93           Window 90         Habitable	Window 75	Habitable	36.6%	35.0%	1.6%	
Window 77         Habitable         32.1%         29.5%         2.6%         0.98           Window 78         Habitable         34.8%         32.8%         2.0%         0.92           Window 79         Habitable         37.9%         36.9%         1.0%         0.94           Window 80         Habitable         35.1%         32.5%         29.4%         3.1%         0.94           Window 81         Habitable         35.1%         32.5%         2.6%         0.97           Window 82         Habitable         38.8%         37.6%         1.2%         0.93           Window 83         Habitable         19.5%         16.4%         3.1%         0.95           Window 84         Habitable         28.6%         25.0%         2.7%         0.84           Window 85         Habitable         30.7%         18.6%         3.0%         0.87           Window 87         Habitable         32.7%         20.6%         2.2%         0.9           Window 88         Habitable         32.7%         20.6%         2.2%         0.9           Window 90         Habitable         31.2%         36.0%         3.8%         0.93           Window 91         Habitable	Window 76		38.2%	37.3%	0.9%	
Window 78       Habitable       34.8%       32.8%       2.0%       0.92         Window 79       Habitable       37.9%       36.9%       1.0%       0.94         Window 80       Habitable       32.5%       29.4%       3.1%       0.94         Window 81       Habitable       35.1%       32.5%       2.6%       0.97         Window 82       Habitable       37.3%       35.4%       1.9%       0.9         Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       3.6%       0.97         Window 85       Habitable       21.3%       18.6%       3.0%       0.87         Window 86       Habitable       30.7%       20.6%       2.7%       0.84         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.9%       3.3%       0.88	Window 77	Habitable	32.1%	29.5%	2.6%	
Window 79       Habitable       37.9%       36.9%       1.0%       0.94         Window 80       Habitable       32.5%       29.4%       3.1%       0.97         Window 81       Habitable       35.1%       32.5%       2.6%       0.97         Window 82       Habitable       38.8%       37.6%       1.2%       0.93         Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       2.7%       0.84         Window 85       Habitable       21.3%       18.6%       3.0%       0.87         Window 86       Habitable       30.7%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.9%       3.3%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88	Window 78	Habitable				
Window 80       Habitable       32.5%       29.4%       3.1%       0.97         Window 81       Habitable       37.3%       35.4%       1.9%       0.9         Window 82       Habitable       38.8%       37.6%       1.2%       0.93         Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       2.7%       0.84         Window 85       Habitable       21.3%       18.6%       3.0%       0.87         Window 86       Habitable       22.6%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88	Window 79	Habitable				
Window 81       Habitable       37.3%       32.5%       2.6%       0.9         Window 82       Habitable       38.8%       37.6%       1.2%       0.93         Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       3.6%       0.97         Window 85       Habitable       21.3%       18.6%       3.0%       0.87         Window 86       Habitable       30.7%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.9%       27.4%       4.0%       0.98         Window 91       Habitable       33.6%       27.9%       3.3%       0.88         Window 92       Habitable       33.6%       27.9%       3.3%       0.88	Window 80	Habitable				
Window 82       Habitable       38.8%       37.6%       1.2%       0.93         Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       2.7%       0.84         Window 85       Habitable       30.7%       18.6%       3.0%       0.87         Window 86       Habitable       22.6%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.9%       27.4%       4.0%       0.98         Window 91       Habitable       33.6%       27.9%       3.3%       0.88         Window 92       Habitable       33.6%       27.9%       3.3%       0.88	Window 81	Habitable				
Window 83       Habitable       19.5%       16.4%       3.1%       0.95         Window 84       Habitable       28.6%       25.0%       3.6%       0.97         Window 85       Habitable       21.3%       18.6%       3.0%       0.87         Window 86       Habitable       22.6%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88						
Window 84       Habitable       28.6%       25.0%       3.6%       0.97         Window 85       Habitable       21.3%       18.6%       2.7%       0.84         Window 86       Habitable       30.7%       27.7%       2.0%       0.87         Window 87       Habitable       32.7%       20.6%       2.2%       0.9         Window 88       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.4%       4.0%       0.98         Window 92       Habitable       30.3%       0.88						
Window 85       Habitable       21.3%       25.0%       2.7%       0.84         Window 86       Habitable       30.7%       27.7%       2.0%       0.87         Window 87       Habitable       22.6%       27.7%       2.0%       0.87         Window 88       Habitable       32.7%       20.6%       2.2%       0.9         Window 89       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.9%       27.4%       4.0%       0.98         Window 91       Habitable       33.6%       27.9%       3.3%       0.88         Window 92       Habitable       30.3%       0.88						
Window 86       Habitable       30.7%       18.6%       3.0%       0.87         Window 87       Habitable       22.6%       27.7%       2.0%       0.87         Window 88       Habitable       32.7%       20.6%       2.2%       0.9         Window 89       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88						
Window 87       Habitable       22.6%       27.7%       2.0%       0.87         Window 88       Habitable       32.7%       20.6%       2.2%       0.9         Window 89       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       33.6%       27.4%       4.0%       0.98         Window 92       Habitable       30.3%       0.88			30.7%		3.0%	
Window 88       Habitable       32.7%       20.6%       2.2%       0.9         Window 89       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       31.9%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88			22.6%	27.7%	2.0%	
Window 89       Habitable       36.8%       30.5%       0.8%       0.91         Window 90       Habitable       31.2%       36.0%       3.8%       0.91         Window 91       Habitable       31.9%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88			32.7%		2.2%	
Window 90       Habitable       31.2%       36.0%       3.8%       0.93         Window 91       Habitable       31.9%       27.4%       4.0%       0.98         Window 92       Habitable       33.6%       27.9%       3.3%       0.88			36.8%	30.5%	0.8%	
Window 91     Habitable     31.9%     27.4%     4.0%     0.98       Window 92     Habitable     33.6%     27.9%     3.3%     0.88			31.2%	36.0%	3.8%	
Window 92 Habitable 33.6% 27.9% 3.3% 0.88			31.9%	27.4%	4.0%	
			33.6%	27.9%	3.3%	
Villabile   U.07				30.3%		
Window 94 Habitable 0.9						

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
Window 95	Habitable	34.5%	31.0%	3.5%	0.9
Window 96	Habitable	35.9%	33.5%	2.4%	0.93
Window 97	Habitable	36.7%	34.2%	2.5%	0.93
Window 98	Habitable	37.5%	36.1%	1.4%	0.96
Window 99	Habitable	38.5%	37.0%	1.5%	0.96
Window 100	Habitable	37.5%	35.9%	1.6%	0.96
118 Croftdown Road					
Window 101	Hobitoble	27.4%	23.2%	4.2%	0.05
Window 101	Habitable	26.8%	22.3%	4.5%	0.85
Window 102	Habitable	30.1%	26.3%	3.8%	0.83
Window 103	Habitable	29.4%	25.4%	4.0%	0.87
Window 104	Habitable	32.9%	29.7%	3.2%	0.86
Window 105	Habitable	32.4%	29.0%	3.4%	0.9
Window 106	Habitable	35.7%	33.3%	2.4%	0.9
Window 107	Habitable	36.0%	33.5%	2.5%	0.93
Window 108	Habitable	35.1%	32.6%	2.5%	0.93
Window 109	Habitable	24.3%	20.6%	3.7%	0.93
Window 110	Habitable	18.1%	16.3%	1.8%	0.85
Window 111	Habitable	26.6%	23.3%	3.3%	0.9
Window 112	Habitable	19.4%	17.9%	1.5%	0.88
Window 113	Habitable	29.3% 20.5%	26.4% 19.4%	2.9% 1.1%	0.92
Window 114	Habitable	34.2%	32.5%	1.7%	0.9
Window 115	Habitable	30.1%	24.4%	5.7%	0.95
Window 116	Habitable	33.0%	27.6%	5.4%	0.95
Window 117	Habitable	35.7%	31.1%	4.6%	0.81
Window 118	Habitable	37.5%	34.0%	3.5%	0.84
Window 119	Habitable	30.5%	24.3%	6.2%	0.87
Window 120	Habitable	33.6%	28.0%	5.6%	0.91
Window 121	Habitable	37.1%	33.3%	3.8%	0.8
Window 121	Habitable	30.3%	23.4%	6.9%	0.83
Window 123	Habitable	33.3%	26.6%	6.7%	0.83
Window 124	Habitable	36.0%	30.1%	5.9%	0.9
Window 125					
	Habitable				0.8
Window 126	Habitable				0.84

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
Window 127	Habitable	37.8%	33.3%	4.5%	0.88
Window 128	Habitable	17.9%	12.8%	5.1%	0.72
Window 129	Habitable	26.7%	19.7%	7.0%	0.74
Window 130	Habitable	20.1%	14.9%	5.2%	0.74
Window 131	Habitable	29.2%	22.6%	6.6%	0.77
Window 132	Habitable	21.7%	17.0%	4.7%	0.78
Window 133	Habitable	31.7%	25.9%	5.8%	0.82
Window 134	Habitable	35.1%	31.7%	3.4%	0.9
Window 135	Habitable	29.7% 30.8%	22.5% 23.4%	7.2% 7.4%	0.76
Window 136	Habitable	32.4%	25.4% 25.6%	6.8%	0.76
Window 137	Habitable	33.5%	26.6%	6.9%	0.79
Window 138	Habitable	35.0%	29.1%	5.9%	0.79
Window 139	Habitable	36.0%	30.0%	6.0%	0.83
Window 140	Habitable	36.6%	32.4%	4.2%	0.83
Window 141	Habitable	37.6%	33.4%	4.2%	0.89
Window 142	Habitable	36.6%	32.3%	4.3%	0.89
Window 143	Habitable				0.88
114 to 116 Croftdown Road		31.5%	24.4%	7.1%	
Window 144	   Habitable	29.2%	22.1%	7.1%	0.77
Window 145	Non Habitable	31.2%	27.9%	3.3%	0.77
Window 145 Window 146	Habitable	31.9%	25.4%	6.5%	
Window 147	Habitable	29.5%	23.0%	6.5%	0.89
		37.0%	31.2%	5.8%	
Window 148	Habitable	32.4%	26.1%	6.3%	0.78
Window 149	Habitable	32.8% 29.8%	26.5% 23.7%	6.3%   6.1%	0.84
Window 150	Habitable	32.9%	27.1%	5.8%	0.81
Window 151	Habitable	30.1%	24.5%	5.6%	0.81
Window 152	Habitable	37.3%	32.3%		0.8
Window 153	Habitable	37.5/0	02.070	5.0%	0.82
Window 154	Habitable				0.81
Window 155	Habitable	33.4%	27.9%	5.5%	0.87
110 to 112 Croftdown Road				3.3,0	
Window 156	Habitable				0.84

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
Window 157	Habitable	30.4%	25.3%	5.1%	0.83
Window 158	Habitable	33.7%	28.4%	5.3%	0.84
Window 159	Habitable	34.1%	29.0%	5.1%	0.85
Window 160	Habitable	30.7%	25.9%	4.8%	0.84
Window 161	Habitable	37.7%	33.6%	4.1%	0.89
Window 162	Habitable	34.1%	29.3%	4.8%	0.86
Window 163	Habitable	30.9%	26.5% 30.0%	4.4%	0.86
Window 164	Habitable	34.5% 31.1%	27.1%	4.5% 4.0%	0.87
Window 165	Habitable	36.6%	36.6%	0.0%	0.87
Window 166	Habitable	37.9%	34.5%	3.4%	1.0
Window 167	Habitable	07.1070	0 1.070	3.4%	0.91
24 Winscombe Street		32.8%	32.7%	0.40/	
Window 168	Habitable	27.8%	27.1%	0.1%	1.0
Window 169	Habitable	38.4%	37.9%	0.7%	0.97
Window 170	Habitable	93.8%	87.2%	0.5%	0.99
Window 171	Habitable	16.5%	16.5%	6.6%	0.93
Window 172	Habitable	12.9%	12.9%	0.0%	1.0
Window 173	Habitable	15.4%	15.4%	0.0%	1.0
Window 174	Habitable	8.9%	8.9%	0.0%	1.0
Window 175	Habitable	0.6% 1.2%	0.6% 1.2%	0.0%	1.0
Window 176	Habitable	30.5%	30.4%	0.0%	1.0
Window 177	Habitable	93.5%	87.3%	0.0%	1.0
Window 178	Habitable	00.070	07.070	0.1%	1.0
Window 179	Habitable			6.2%	0.93
26 Winscombe Street		33.0%	32.6%		
		27.8%	26.9%	0.4%	
Window 180	Habitable	38.4%	37.7%	0.9%	0.99
Window 181	Habitable	93.6%	86.5%	0.7%	0.97
Window 182	Habitable	20.9%	20.9%	7.1%	0.98
Window 183	Habitable	3.6%	3.6%	0.0%	0.92
Window 184	Habitable	13.7%	13.7%	0.0%	1.0
Window 185	Habitable			0.0%	1.0
Window 186	Habitable				1.0

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
Window 187	Habitable	11.3%	11.3%	0.0%	1.0
Window 188	Habitable	1.0%	1.0%	0.0%	1.0
Window 189	Habitable	0.7%	0.7%	0.0%	1.0
Window 190	Habitable	32.6%	32.5%	0.1%	1.0
Window 191	Habitable	93.9%	87.2%	6.7%	0.93
28 Winscombe Street					
28 Willscombe Street		32.7%	32.1%	0.6%	
Window 192	Habitable	27.8%	26.5%	1.3%	0.98
Window 193	Habitable	38.4%	37.4%	1.0%	0.95
Window 194	Habitable	93.4%	85.5%	7.9%	0.97
Window 195	Habitable	22.3%	22.3%	0.0%	0.92
Window 196	Habitable	4.2%	4.2%	0.0%	1.0
Window 197	Habitable	15.9%	15.9%	0.0%	1.0
Window 198	Habitable	11.8%	11.7%	0.1%	1.0
Window 199	Habitable	1.1%	1.1%	0.0%	0.99
Window 200	Habitable	1.1%	1.1%	0.0%	1.0
Window 201	Habitable	33.3%	33.1%	0.2%	1.0
Window 202	Habitable	93.7%	86.3%	7.4%	0.99
Window 203	Habitable				0.92
30 Winscombe Street		31.9%	31.2%	0.7%	
Window 204	Habitable	27.5%	25.8%	1.7%	0.98
Window 205	Habitable	38.3%	36.9%	1.4%	0.94
Window 206	Habitable	93.2%	84.2%	9.0%	0.96
Window 207	Habitable	22.3%	22.3%	0.0%	0.9
Window 208	Habitable	5.6%	5.6%	0.0%	1.0
Window 209	Habitable	16.0%	16.0%	0.0%	1.0
Window 210	Habitable	11.3%	11.1%	0.2%	1.0
Window 211	Habitable	1.1%	1.1%	0.0%	0.98
Window 212	Habitable	1.1%	1.1%	0.0%	1.0
Window 213	Habitable	33.2%	32.7%	0.5%	1.0
Window 214	Habitable	93.4%	85.1%	8.3%	0.98
Window 215	Habitable				0.91

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
32 Winscombe Street					
Window 216	Habitable	30.0%	29.5%	0.5%	0.98
Window 217	Habitable	27.0%	24.9%	2.1%	0.92
Window 218	Habitable	38.0%	36.0%	2.0%	0.95
Window 219	Habitable	89.5%	81.3%	8.2%	0.91
Window 220	Habitable	18.2%	18.2%	0.0%	1.0
Window 221	Habitable	5.9%	5.9%	0.0%	1.0
Window 222	Habitable	12.2%	11.8%	0.4%	0.97
Window 223	Habitable	11.8%	9.4%	2.4%	0.8
Window 224	Habitable	1.0%	1.0%	0.0%	1.0
Window 225	Habitable	1.0% 32.1%	1.0% 30.6%	0.0% 1.5%	1.0
Window 226	Habitable	93.2%	83.6%	9.6%	0.95
Window 227	Habitable	93.276	03.076	9.076	0.9
40 to 00 Winesember Office					
18 to 20 Winscombe Street		26.3%	25.2%	1.1%	
Window 228	Habitable	18.9%	18.6%	0.3%	0.96
Window 229	Habitable	30.8%	29.7%	1.1%	0.98
Window 230	Habitable	31.8%	31.6%	0.2%	0.96
Window 231	Habitable	35.1%	33.7%	1.4%	0.99
Window 232	Habitable	26.1%	25.2%	0.9%	0.96
Window 233	Habitable	30.6%	29.6%	1.0%	0.97
Window 234	Habitable	34.8%	33.6% 26.5%	1.2%	0.97
Window 235	Habitable	27.3% 32.8%	26.5% 31.8%	0.8%	0.97
Window 236	Habitable	32.070	31.070	1.0%	0.97
Window 237	Habitable				0.97
40.04		25.8%	25.3%	0.5%	
16 Winscombe Street		30.2%	29.5%	0.7%	
Window 238	Habitable	34.6%	33.7%	0.7%	0.98
Window 239	Habitable	26.5%	26.0%	0.5%	0.98
Window 240	Habitable	29.8%	29.1%	0.5%	0.97
Window 241	Habitable	34.2%	33.4%	0.7%	0.98
Window 242	Habitable			0.0%	0.98
Window 243	Habitable	2F 10/			0.98
14 Winscombe Street		25.1%	24.7%	0.4%	
Window 244	Habitable				0.98

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
Window 245 Window 246 Window 247 Window 248 Window 249  18 Bertram Street Window 250 Window 251 Window 252 Window 253 Window 254 Window 255	Habitable	30.0% 34.6% 26.0% 29.7% 34.4% 19.9% 25.8% 33.1% 83.9% 20.9% 20.2%	29.4% 33.9% 25.6% 29.2% 33.8% 19.5% 25.4% 32.9% 83.0% 20.5% 20.0%	0.6% 0.7% 0.4% 0.5% 0.6% 0.4% 0.2% 0.4% 0.2% 0.2% 0.2%	0.98 0.98 0.98 0.98 0.98 0.98 0.99 0.99
Window 256 Window 257	Habitable Habitable	26.5% 33.5%	26.3% 33.4%	0.2%	0.99 0.99 1.0
20 Bertram Street Window 258 Window 259 Window 260 Window 261 Window 262 Window 263 Window 264	Habitable Habitable Habitable Habitable Habitable Habitable Habitable	20.1% 29.1% 36.1% 20.3% 29.7% 36.4% 92.4%	19.1% 28.0% 35.7% 18.5% 27.7% 35.8% 89.5%	1.0% 1.1% 0.4% 1.8% 2.0% 0.6% 2.9%	0.95 0.96 0.99 0.91 0.93 0.98 0.97
22 to 24 Bertram Street Window 265 Window 266 Window 267 Window 268 Window 269 Window 270 Window 271	Habitable Habitable Habitable Habitable Habitable Habitable Habitable	20.0% 31.1% 37.1% 91.3% 15.7% 32.3% 37.6%	16.1% 25.0% 35.1% 75.6% 12.1% 20.2% 32.0%	3.9% 6.1% 2.0% 15.7% 3.6% 12.1% 5.6%	0.81 0.8 0.95 0.83 0.77 0.63 0.85

Appendix 2 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class	Vertical Sky Component					
		Before	After	Loss	Ratio		
Window 272	Habitable	26.2%	22.2%	4.0%	0.85		
Window 273	Habitable	30.0%	26.3%	3.7%	0.88		
Window 274	Habitable	34.5%	31.7%	2.8%	0.92		
Window 275	Habitable	24.5%	21.7%	2.8%	0.89		
Window 276	Habitable	29.8%	27.2%	2.6%	0.91		
Window 277	Habitable	34.5%	32.8%	1.7%	0.95		
Window 278	Habitable	25.7%	23.5%	2.2%	0.91		
Window 279	Habitable	27.6%	25.5%	2.1%	0.92		
Window 280	Habitable	32.9%	31.4%	1.5%	0.95		
Window 281	Habitable	91.5%	84.0%	7.5%	0.92		

Appendix 2 - Sunlight to Windows Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

					Sunlight to	o Windov	vs		
Reference	Use Class	Т	otal Sun	light Ho	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
21 Bertram Street									
Window 1	Habitable	49%	41%	8%	0.84	14%	6%	8%	0.43
Window 2	Habitable	57%	49%	8%	0.86	17%	9%	8%	0.53
Window 3	Habitable	63%	57%	6%	0.9	20%	14%	6%	0.7
Window 4	Habitable	49%	34%	15%	0.69	15%	4%	11%	0.27
Window 5	Habitable	58%	45%	13%	0.78	18%	6%	12%	0.33
Window 6	Habitable	63%	54%	9%	0.86	20%	11%	9%	0.55
	, idolidadio	0070	0 170	0,70	0.00	20,0	, ,	0,70	0.00
23 Bertram Street									
Window 7	Habitable	49%	27%	22%	0.55	14%	4%	10%	0.29
Window 8	Non Habitable	53%	22%	31%	0.42	9%	0%	9%	0.0
Window 9	Habitable	58%	43%	15%	0.74	18%	7%	11%	0.39
Window 10	Habitable	63%	24%	39%	0.38	18%	2%	16%	0.11
Window 11	Non Habitable	63%	28%	35%	0.44	18%	0%	18%	0.0
Window 12	Habitable	63%	51%	12%	0.81	20%	8%	12%	0.4
Window 13	Habitable	73%	46%	27%	0.63	26%	4%	22%	0.15
Window 14	Habitable	65%	34%	31%	0.52	21%	2%	19%	0.1
122 Croftdown Road									
Window 15	Habitable	63%	57%	6%	0.9	21%	15%	6%	0.71
Window 16	Habitable	57%	51%	6%	0.89	18%	12%	6%	0.67
Window 17	Habitable	66%	63%	3%	0.95	23%	20%	3%	0.87
Window 18	Habitable	60%	57%	3%	0.95	20%	17%	3%	0.85
Window 19	Habitable	70%	68%	2%	0.97	23%	21%	2%	0.91
Window 20	Habitable	63%	61%	2%	0.97	20%	18%	2%	0.9
Window 21	Habitable	67%	67%	0%	1.0	23%	23%	0%	1.0
Window 22	Habitable	71%	71%	0%	1.0	23%	23%	0%	1.0
Window 23	Habitable	67%	67%	0%	1.0	20%	20%	0%	1.0
Window 24	Habitable	49%	43%	6%	0.88	14%	8%	6%	0.57
Window 25	Habitable	33%	30%	3%	0.91	5%	3%	2%	0.6
Window 26	Habitable	51%	48%	3%	0.94	15%	12%	3%	0.8
Window 27	Habitable	36%	33%	3%	0.92	7%	4%	3%	0.57
Window 28	Habitable	50%	48%	2%	0.96	15%	13%	2%	0.87
Window 29	Habitable	36%	35%	1%	0.97	7%	6%	1%	0.86

Appendix 2 - Sunlight to Windows Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

					Sunlight to	Windov	vs		
Reference	Use Class	Т	otal Sun	light Ho	ırs	W	inter Su	nlight Ho	urs
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 30	Habitable	65%	65%	0%	1.0	17%	17%	0%	1.0
Window 31	Habitable	67%	61%	6%	0.91	19%	15%	4%	0.79
Window 32	Habitable	70%	68%	2%	0.97	21%	19%	2%	0.9
Window 33	Habitable	74%	73%	1%	0.99	25%	24%	1%	0.96
Window 34	Habitable	75%	75%	0%	1.0	26%	26%	0%	1.0
Window 35	Habitable	63%	58%	5%	0.92	19%	16%	3%	0.84
Window 36	Habitable	64%	63%	1%	0.98	20%	19%	1%	0.95
Window 37	Habitable	70%	70%	0%	1.0	23%	23%	0%	1.0
Window 38	Habitable	61%	58%	3%	0.95	14%	13%	1%	0.93
Window 39	Habitable	67%	66%	1%	0.99	18%	17%	1%	0.94
Window 40	Habitable	72%	71%	1%	0.99	23%	22%	1%	0.96
Window 41	Habitable	74%	74%	0%	1.0	25%	25%	0%	1.0
Window 42	Habitable	38%	37%	1%	0.97	12%	11%	1%	0.92
Window 43	Habitable	49%	47%	2%	0.96	12%	11%	1%	0.92
Window 44	Habitable	42%	42%	0%	1.0	15%	15%	0%	1.0
Window 45	Habitable	55%	54%	1%	0.98	15%	14%	1%	0.93
Window 46	Habitable	45%	45%	0%	1.0	16%	16%	0%	1.0
Window 47	Habitable	58%	57%	1%	0.98	19%	18%	1%	0.95
Window 48	Habitable	72%	72%	0%	1.0	27%	27%	0%	1.0
Window 49	Habitable	52%	50%	2%	0.96	12%	11%	1%	0.92
Window 50	Habitable	52%	50%	2%	0.96	11%	10%	1%	0.91
Window 51	Habitable	57%	56%	1%	0.98	14%	13%	1%	0.93
Window 52	Habitable	57%	56%	1%	0.98	13%	12%	1%	0.92
Window 53	Habitable	61%	60%	1%	0.98	19%	18%	1%	0.95
Window 54	Habitable	65%	64%	1%	0.98	18%	17%	1%	0.94
Window 55	Habitable	67%	67%	0%	1.0	22%	22%	0%	1.0
Window 56	Habitable	71%	71%	0%	1.0	22%	22%	0%	1.0
Window 57	Habitable	66%	66%	0%	1.0	20%	20%	0%	1.0
110 to 112 Croftdown Road									
Window 166	Habitable	77%	77%	0%	1.0	27%	27%	0%	1.0
24 Winscombe Street									
Window 168	Habitable	68%	68%	0%	1.0	22%	22%	0%	1.0

Appendix 2 - Sunlight to Windows Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

		Sunlight to Windows							
Reference	Use Class	Т	otal Sun	light Ho	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 169	Habitable	55%	53%	2%	0.96	27%	26%	1%	0.96
Window 170	Habitable	83%	81%	2%	0.98	29%	28%	1%	0.97
Window 171	Habitable	92%	78%	14%	0.85	29%	27%	2%	0.93
Window 173	Habitable	13%	13%	0%	1.0	0%	0%	0%	1.0
Window 179	Habitable	89%	76%	13%	0.85	28%	26%	2%	0.93
26 Winscombe Street									
Window 180	Habitable	69%	68%	1%	0.99	22%	21%	1%	0.95
Window 181	Habitable	53%	51%	2%	0.96	26%	25%	1%	0.96
Window 182	Habitable	82%	81%	1%	0.99	28%	28%	0%	1.0
Window 183	Habitable	90%	73%	17%	0.81	28%	24%	4%	0.86
Window 185	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 191	Habitable	90%	73%	17%	0.81	29%	24%	5%	0.83
28 Winscombe Street									
Window 192	Habitable	67%	66%	1%	0.99	21%	21%	0%	1.0
Window 193	Habitable	54%	51%	3%	0.94	27%	25%	2%	0.93
Window 194	Habitable	83%	80%	3%	0.96	29%	27%	2%	0.93
Window 195	Habitable	85%	70%	15%	0.82	26%	22%	4%	0.85
Window 197	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 203	Habitable	86%	71%	15%	0.83	26%	22%	4%	0.85
30 Winscombe Street									
Window 204	Habitable	66%	65%	1%	0.98	22%	21%	1%	0.95
Window 205	Habitable	53%	51%	2%	0.96	26%	25%	1%	0.96
Window 206	Habitable	83%	80%	3%	0.96	29%	27%	2%	0.93
Window 207	Habitable	87%	66%	21%	0.76	25%	21%	4%	0.84
Window 209	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 215	Habitable	87%	69%	18%	0.79	24%	21%	3%	0.88
32 Winscombe Street									
Window 216	Habitable	60%	60%	0%	1.0	18%	18%	0%	1.0
Window 217	Habitable	54%	50%	4%	0.93	26%	22%	4%	0.85
Window 218	Habitable	81%	80%	1%	0.99	28%	27%	1%	0.96

Appendix 2 - Sunlight to Windows Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

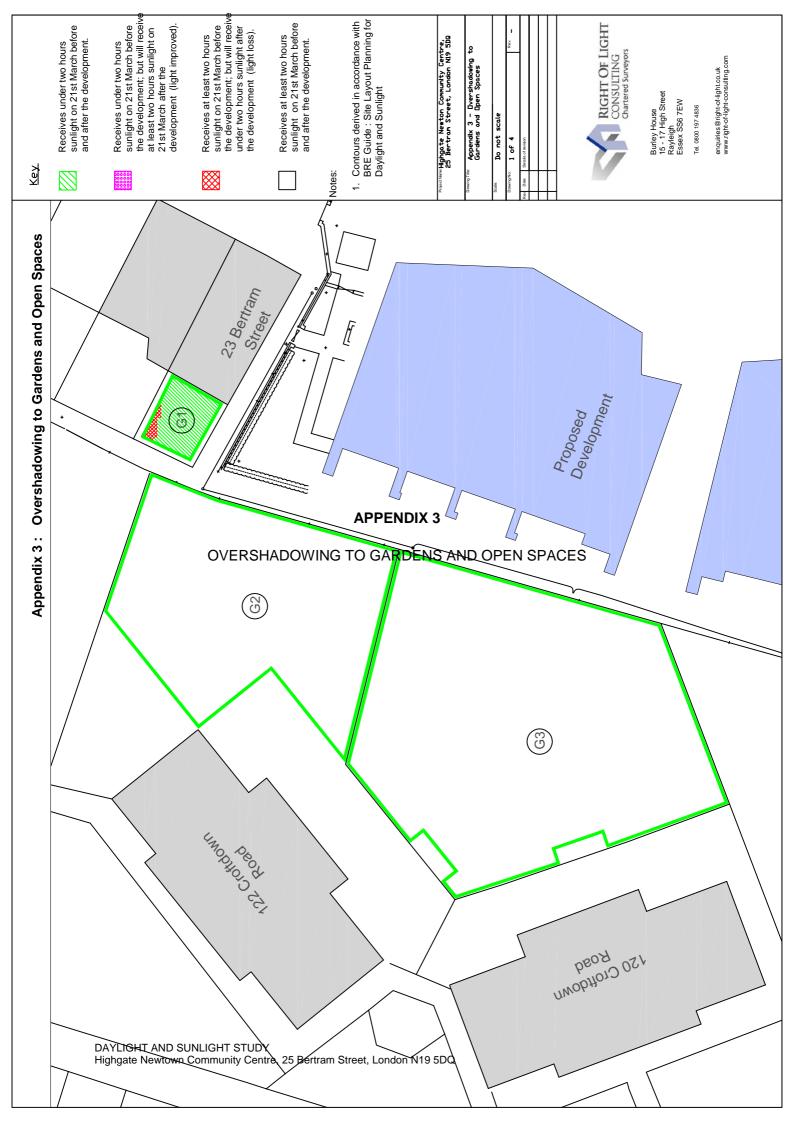
		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 219	Habitable	73%	60%	13%	0.82	21%	18%	3%	0.86
Window 221	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 227	Habitable	83%	65%	18%	0.78	23%	20%	3%	0.87
18 to 20 Winscombe Street									
Window 229	Habitable	51%	48%	3%	0.94	5%	5%	0%	1.0
Window 231	Habitable	71%	69%	2%	0.97	19%	19%	0%	1.0
18 Bertram Street									
Window 250	Habitable	32%	29%	3%	0.91	10%	7%	3%	0.7
Window 251	Habitable	43%	42%	1%	0.98	12%	11%	1%	0.92
Window 252	Habitable	57%	57%	0%	1.0	17%	17%	0%	1.0
Window 253	Habitable	95%	90%	5%	0.95	30%	25%	5%	0.83
Window 254	Habitable	33%	31%	2%	0.94	9%	7%	2%	0.78
Window 255	Habitable	28%	27%	1%	0.96	6%	5%	1%	0.83
Window 256	Habitable	38%	38%	0%	1.0	11%	11%	0%	1.0
Window 257	Habitable	51%	51%	0%	1.0	14%	14%	0%	1.0
20 Bertram Street									
Window 258	Habitable	38%	32%	6%	0.84	11%	5%	6%	0.45
Window 259	Habitable	51%	47%	4%	0.92	16%	12%	4%	0.75
Window 260	Habitable	62%	60%	2%	0.97	21%	19%	2%	0.9
Window 261	Habitable	35%	28%	7%	0.8	7%	1%	6%	0.14
Window 262	Habitable	52%	45%	7%	0.87	17%	10%	7%	0.59
Window 263	Habitable	63%	60%	3%	0.95	21%	19%	2%	0.9
Window 264	Habitable	91%	80%	11%	0.88	29%	18%	11%	0.62
22 to 24 Bertram Street									
Window 265	Habitable	31%	17%	14%	0.55	5%	0%	5%	0.0
Window 266	Habitable	55%	38%	17%	0.69	18%	3%	15%	0.17
Window 267	Habitable	63%	58%	5%	0.92	21%	19%	2%	0.9
Window 268	Habitable	89%	41%	48%	0.46	29%	7%	22%	0.24
Window 269	Habitable	16%	6%	10%	0.38	0%	0%	0%	1.0
Window 270	Habitable	55%	23%	32%	0.42	18%	0%	18%	0.0

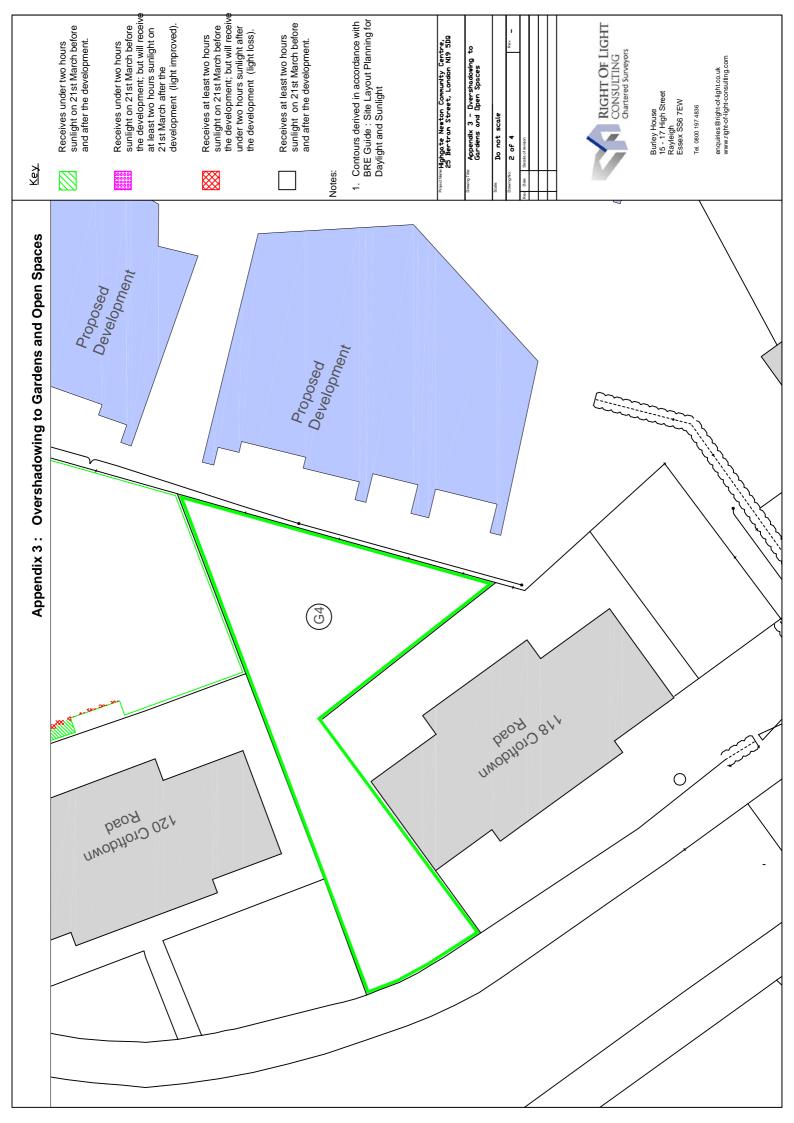
## Appendix 2 - Sunlight to Windows Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

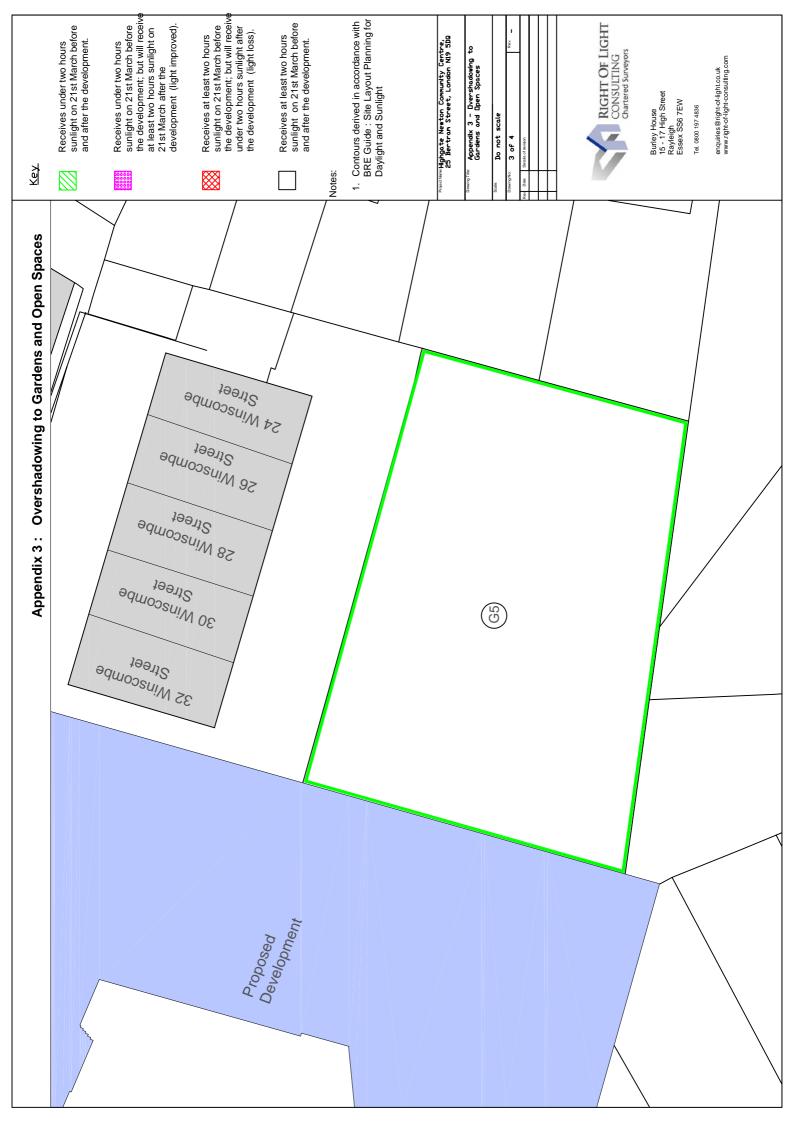
		Sunlight to Windows								
Reference	Use Class	Т	Total Sunlight Hours W					Vinter Sunlight Hours		
		Before	After	Loss	Ratio	Before	After	Loss	Ratio	
Window 271	Habitable	64%	45%	19%	0.7	22%	10%	12%	0.45	
Window 281	Habitable	85%	62%	23%	0.73	27%	9%	18%	0.33	

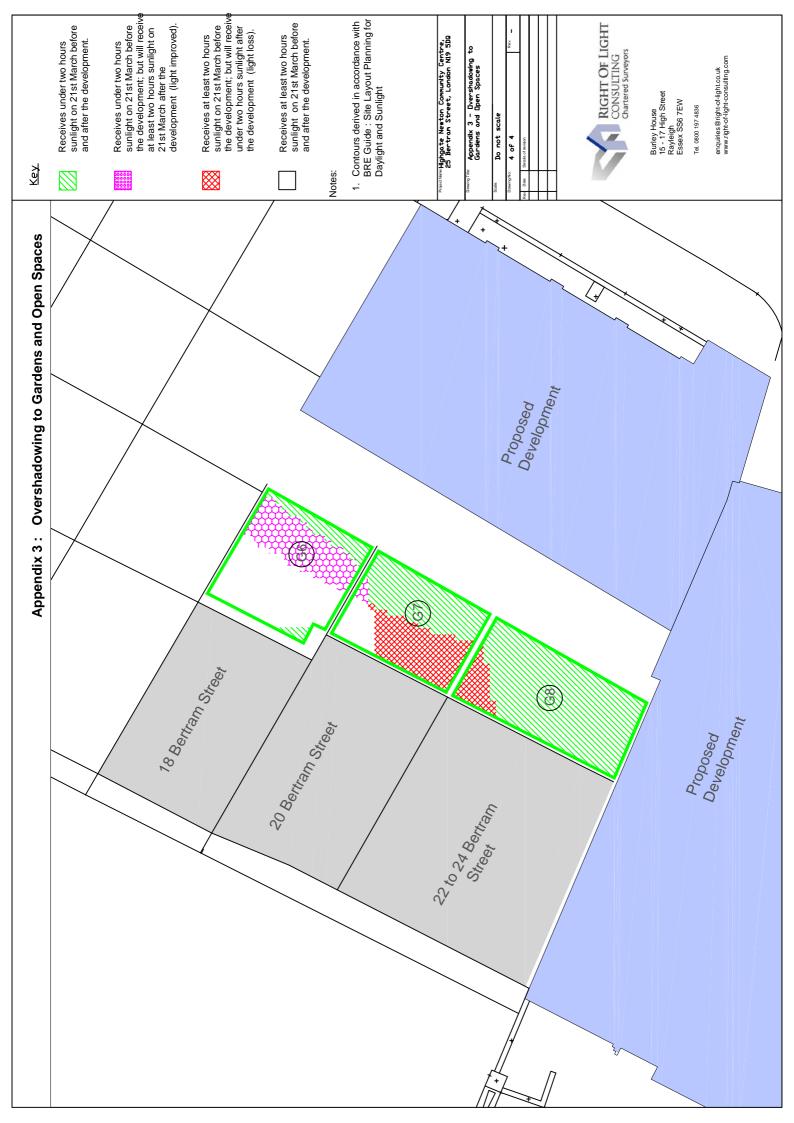
Appendix 2 - Overshadowing to Gardens and Open Spaces
Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Total Area	Area receiving at least two hours of sunlight on 21st March								
		Before		After		Loss		Ratio		
23 Bertram Street										
Garden 1	14.43 m2	1.4 m2	10%	0.0 m2	0%	1.4 m2	10%	0.0		
122 Croftdown Road										
Garden 2	190.37 m2	190.35 m2	100%	190.35 m2	100%	0.0 m2	0%	1.0		
120 Croftdown Road										
Garden 3	330.46 m2	329.1 m2	100%	328.54 m2	99%	0.56 m2	1%	0.99		
118 Croftdown Road										
Garden 4	233.02 m2	209.26 m2	90%	184.75 m2	79%	24.51 m2	11%	0.88		
24 Winscombe Street										
Garden 5	547.62 m2	547.6 m2	100%	547.6 m2	100%	0.0 m2	0%	1.0		
18 Bertram Street										
Garden 6	22.75 m2	11.98 m2	53%	19.57 m2	86%	-7.59 m2	-33%	1.62		
20 Bertram Street										
Garden 7	19.39 m2	9.94 m2	51%	2.94 m2	15%	7.0 m2	36%	0.29		
22 to 24 Bertram Street										
Garden 8	24.75 m2	2.41 m2	10%	0.0 m2	0%	2.41 m2	10%	0.0		









## **APPENDIX 4**

ALTERNATIVE DAYLIGHT RESULTS

Appendix 4 - Vertical Sky Component Highgate Newtown Community Centre, 25 Bertram Street, London N19 5DQ

Reference	Use Class	Vertical Sky Component							
		Before	After	Loss	Ratio				
118 Croftdown Road									
Window 130	Habitable	34.0%	27.6%	6.4%	0.81				
Window 131	Habitable	34.1%	27.5%	6.6%	0.81				
Window 132	Habitable	36.5%	30.9%	5.6%	0.85				
Window 137	Habitable	34.3%	27.5%	6.8%	0.8				
Window 138	Habitable	34.4%	27.6%	6.8%	0.8				