Daylight & Sunlight Report

Client: Boultbee Brooks (Hatton Wall) Ltd

Project: 20-28 Hatton Wall, London EC1N 8JH

Change in shape of plant enclosure

Report date: 8th August 2016

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About *MES Building Solutions*

***MES Building Solutions* is an established consultancy practice specialising in providing building solutions throughout the UK.**

We offer a full range of services for both residential and commercial buildings from small individual properties through to highly complex mixed use developments.

We are an industry leader in delivering a professional, accredited and certified service to a wide range of clients including architects, developers, builders, housing associations, the public sector and private householders.

Employing highly qualified staff, our team comes from a variety of backgrounds within the construction industry with combined knowledge of building design, engineering, assessment, construction, development, research and surveying.

MES Building Solutions maintains its position at the forefront of changes in building regulations and planning requirements as well as technological advances. Our clients, large or small are therefore assured of a cost effective, cohesive and fully integrated professional service.

About the Authors

Alex Hole is the CEO of *MES Building Solutions*. Alex is a Fellow of the Royal Institution of Chartered Surveyors having been a member for over 20 years. He has a degree in Estate Management and a Diploma in Non Domestic Energy Assessment. He is also an accredited SAP & Code for Sustainable Homes Assessor and is registered with the Institute of Non Destructive Testing. Alex specialises in Daylighting matters.

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Section 1: Executive Summary

This report provides technical Daylight and Sunlight results in connection with the application for consent for a larger plant area on the roof of 20-28 Hatton Wall, London EC1N 8JH.

We have calculated results for the Vertical Sky Component, Available Sunlight Hours and Daylight Distribution. This report compares the difference in results between the two different sized plant enclosures.

The Appendix contains these results.

The figures in green are the figures relating to the existing scheme with the original plant enclosure. The figures in red are those relating to the scheme with the larger plant enclosure.

As the proposed plant area is slightly larger than the original application there is a very small effect on some neighbours' windows. However this is negligible and in our opinion would not be noticed by the neighbours when compared to the already consented scheme.

In the normal way these calculations follow guidance in BRE guide 'Site Layout Planning for Daylight & Sunlight' (SLPDS), PJ Littlefair 2011 to ascertain the impact of the proposed redevelopment of 20-28 Hatton wall, London EC1N 8JH, on the daylight and sunlight in neighbouring properties.

In our opinion the proposals therefore accord with the intent and context of the planning guidance in this case.

Section 2: Introduction

The purpose of this report is to assess the impact of the increase in size of the plant room on the roof of the proposed redevelopment of 20-28 Hatton Wall, London EC1N 8JH, on the daylight and sunlight of key neighbours.

This report considers the daylight and sunlight issues against the criteria set out for national guidance in the following publications:

- Site Layout Planning for Daylight & Sunlight (SLPDS), PJ Littlefair 2011 published by the BRE (Building Research Establishment).

  The SLPDS is the culmination of research undertaken by the BRE to determine whether or not a new development will adversely affect the light to nearby properties. The BRE tests are approved by the Department of the Environment and are widely used by local authorities when deciding on development applications.

- BS 8206-2- Code of practice for skylighting.

There are no minimum mandatory requirements for sunlight & skylight in Building Regulations for England & Wales but the guidance set out in SLPDS is widely accepted as the approved methodology when calculating sunlight & skylight.

It is worthy of note that SLPDS was first published in 1991 and BS 8206-2 in 1992. However SLPDS was updated in Oct 2011 and we have therefore undertaken this study on the basis of this guidance document.

Section 3: Description of Development

The scheme comprises the redevelopment of 20-28 Hatton Wall, London EC1N 8JH that will increase the height and massing of the existing building.

The propety is located on the north side of Hatton Wall and is situated amongst a number of buildings that include office, residential and retail uses.

Site location and neighbouring properties

Section 4: Assessment Process

The effect on neighbouring properties:

The SLPDS describes three parameters to be assessed in order to measure the impact of the proposed new building on Daylight/Sunlight availability to the key adjacent properties. The three parameters to be assessed are as follows:

1) Daylight:
Vertical Sky Component (VSC)
Daylight Distribution (DD)

2) Sunlight:
Annual Probable Sunlight Hours (APSH)

3) Overshadowing (Amenity Space)
On relevant open spaces

The guidance states that rooms to be assessed should be living rooms, kitchens and bedrooms in residential properties. In non-domestic buildings rooms where occupants 'have a reasonable expectation of daylight' should be assessed. Although these spaces are not defined, examples are given of the type of non-domestic buildings that would normally fall into this category. These include schools, hospitals, hotels and hostels, small workshops and *some* offices.

Because it is difficult to be sure of the specific use of neighbouring spaces we have taken a view on the relevance of the spaces adjacent to the proposed development. If we have been in any doubt we have carried out the assessment. However it should be noted some of the spaces we have assessed could fall outside the test requirement criteria.

We have assessed the same neighbouring windows as in our original Daylight & Sunlight report dated 29th August 2014.

The neighbouring properties we have assessed are as follows:

- 17-21 Hatton Wall
- 18 Hatton Wall
- 23-27 Hatton Wall
- 29 Hatton Wall
- 31 Hatton Wall
- 86 Leather Lane
- 88 Leather Lane
- 90-92 Leather Lane
- 94 Leather Lane
- 96 Leather Lane
- 98-100 Leather Lane

Section 5: Daylight

Vertical Sky Component:

Daylight is the light received from the sun which is diffused through the sky's clouds. 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 also known as 'diffuse light'. Any reduction in the total amount of daylight can be calculated by finding the 'Vertical Sky Component'.

The Vertical Sky Component (VSC) is the ratio of the direct skylight illuminance falling on a vertical face at a reference point (usually the centre of a window), to the simultaneous horizontal illuminance under an unobstructed sky.

This report compares the VSC for the original smaller plant area (in red) against the proposed larger plant area (in green).

VSC Results

Calculations were undertaken in accordance with the planning guidance contained in BRE document 209 'Site Layout Planning for Daylight & Sunlight' - PJ Littlefair 2011.

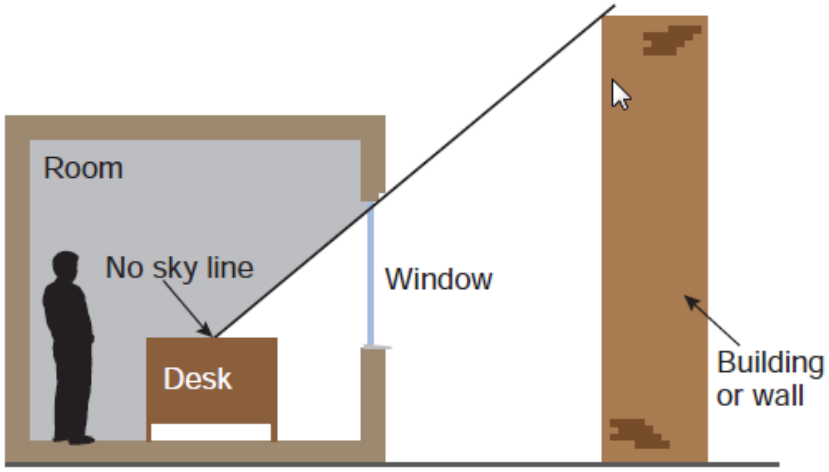
Detailed results are in Appendix A.

As can be seen there is a negligible difference between the two plant enclosures. In our opinion this difference would not be noticeable by the neighbours.

Daylight Distribution:

Where room layouts are known (or estimated) the impact on daylighting distribution can be found by plotting what is known as the 'no sky line' in each of the main rooms. These are the same rooms as used for the VSC test.

The no sky line effectively divides the points on the working plane (0.85m high for residential properties and 0.7m high for offices) that cannot see the sky. Therefore areas beyond the no sky line will receive no direct daylight but will instead be lit from reflected light.



BRE 209

We have estimated internal layouts to assess the Daylight Distribution in rooms adjacent to the development.

This report compares the Daylight Distribution for the original smaller plant enclosure (in red) against the proposed larger plant enclosure (in green).

Daylight Distribution Results

Calculations were undertaken in accordance with the planning guidance contained in BRE document 209 'Site Layout Planning for Daylight & Sunlight' - PJ Littlefair 2011.

Detailed results are in Appendix A.

As can be seen there is a negligible difference between the two plant enclosures. In our opinion this difference would not be noticeable by the neighbours.

Section 6: Sunlight

Available Sunlight Hours

Guidance for minimum sunlight values can be found in Section 3 of Site Layout Planning for Daylight and Sunlight (SLPDS).

Habitable rooms in domestic buildings that face within 90° of due south are tested, as are rooms in non-domestic buildings that have a particular requirement for sunlight.

There is no requirement for windows that face within 90° of due north so windows that fall into this category have not been considered for sunlight calculations.

This report compares the Available Sunlight Hours for the original smaller plant enclosure against the proposed larger plant enclosure.

Available Sunlight Hours Results

Calculations were undertaken in accordance with the planning guidance contained in BRE document 209 'Site Layout Planning for Daylight & Sunlight' - PJ Littlefair 2011.

Detailed results are in Appendix A.

As can be seen there is no difference between the two plant enclosures.

Section 7: Amenity Space

Recent guidance through the BRE suggests that at least 50% of any garden or open spaces should receive no less than 2 hours of direct sun on the spring equinox (March 21st).

Open spaces 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

Amenity Space *Results*

There are no applicable amenity spaces and therefore we have not carried out this assessment in this case.

Appendix A

Results:

Vertical Sky Component
Available Sunlight Hours

Daylight Distribution

Results for Vertical Sky Component & Available Sunlight Hours

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: VSC and ASH
Iteration Description: Plant room size comparison
Date of Analysis: 04/08/2016
Key drawings:

Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
17-21 Hatton Wall									
Ground	R1	W1	Existing	11.85	1.00	*North Facing			
			Proposed	11.85					
Ground	R1	W2	Existing	11.45	1.00	*North Facing			
			Proposed	11.45					
Ground	R1	W3	Existing	11.17	1.00	*North Facing			
			Proposed	11.17					
Ground	R1	W4	Existing	11.22	1.00	*North Facing			
			Proposed	11.22					
Ground	R1	W5	Existing	12.34	1.00	*North Facing			
			Proposed	12.34					
Ground	R1	W6	Existing	10.75	1.00	*North Facing			
			Proposed	10.75					
Ground	R1	W7	Existing	10.56	1.00	*North Facing			
			Proposed	10.56					
Ground	R1	W8	Existing	10.35	1.00	*North Facing			
			Proposed	10.35					
Ground	R1	W9	Existing	11.43	1.00	*North Facing			
			Proposed	11.43					
First	R1	W1	Existing	19.45	1.00	*North Facing			
			Proposed	19.45					
First	R2	W2	Existing	17.78	1.00	*North Facing			
			Proposed	17.78					
First	R3	W3	Existing	16.73	1.00	*North Facing			
			Proposed	16.73					
Second	R1	W1	Existing	28.05	1.00	*North Facing			
			Proposed	28.05					
Second	R2	W2	Existing	25.32	1.00	*North Facing			
			Proposed	25.32					
Second	R3	W3	Existing	23.39	1.00	*North Facing			
			Proposed	23.39					
Third	R1	W1	Existing	34.57	1.00	*North Facing			
			Proposed	34.56					
Third	R1	W2	Existing	34.19	1.00	*North Facing			
			Proposed	34.18					

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Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
Third	R1	W3	Existing	33.74	1.00	*North Facing			
			Proposed	33.73					
Third	R1	W4	Existing	33.24	1.00	*North Facing			
			Proposed	33.22					
Third	R1	W5	Existing	32.79	1.00	*North Facing			
			Proposed	32.78					
Third	R1	W6	Existing	32.32	1.00	*North Facing			
			Proposed	32.31					
Third	R1	W7	Existing	31.85	1.00	*North Facing			
			Proposed	31.83					
Third	R1	W8	Existing	31.36	1.00	*North Facing			
			Proposed	31.34					

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						Annual %	Diff	Winter %	Diff
18 Hatton Wall									
First	R1	W3	Existing	12.69	1.00	*North Facing			
			Proposed	12.7					
First	R2	W2	Existing	13	1.00	*North Facing			
			Proposed	13					
First	R3	W1	Existing	5.64	1.00	*North Facing			
			Proposed	5.64					
Second	R1	W3	Existing	17.89	1.00	*North Facing			
			Proposed	17.89					
Second	R2	W2	Existing	16.97	1.00	*North Facing			
			Proposed	16.97					
Second	R3	W1	Existing	6.54	1.00	*North Facing			
			Proposed	6.54					
Third	R1	W3	Existing	24.09	1.00	*North Facing			
			Proposed	24.08					
Third	R2	W2	Existing	21.17	1.00	*North Facing			
			Proposed	21.17					
Third	R3	W1	Existing	7.36	1.00	*North Facing			
			Proposed	7.36					
Fourth	R1	W3	Existing	30.88	1.00	*North Facing			
			Proposed	30.82					
Fourth	R2	W2	Existing	25.73	1.00	*North Facing			
			Proposed	25.68					
Fourth	R3	W1	Existing	8.31	1.00	*North Facing			
			Proposed	8.31					
Fifth	R1	W2	Existing	24.29	0.99	*North Facing			
			Proposed	24.15					
Fifth	R2	W1	Existing	9.82	1.00	*North Facing			
			Proposed	9.82					
Fifth	R2	W3	Existing	28.94	1.00	57	1.00	25	1.00
			Proposed	28.94		57		25	

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						Annual %	Diff	Winter %	Diff
23-27 Hatton Wall									
Ground	R1	W1	Existing	9.97	1.00	*North Facing			
			Proposed	9.97					
Ground	R1	W2	Existing	11.85	1.00	*North Facing			
			Proposed	11.85					
Ground	R1	W3	Existing	9.89	1.00	*North Facing			
			Proposed	9.89					
Ground	R1	W4	Existing	11.78	1.00	*North Facing			
			Proposed	11.78					
Ground	R2	W5	Existing	10.44	1.00	*North Facing			
			Proposed	10.44					
Ground	R2	W6	Existing	10.25	1.00	*North Facing			
			Proposed	10.25					
Ground	R2	W7	Existing	9.59	1.00	*North Facing			
			Proposed	9.59					
Ground	R2	W8	Existing	11.14	1.00	*North Facing			
			Proposed	11.14					
First	R1	W1	Existing	16.2	1.00	*North Facing			
			Proposed	16.2					
First	R2	W2	Existing	15.91	1.00	*North Facing			
			Proposed	15.91					
First	R2	W3	Existing	17.36	1.00	*North Facing			
			Proposed	17.36					
First	R2	W4	Existing	15.94	1.00	*North Facing			
			Proposed	15.94					
First	R2	W5	Existing	17.39	1.00	*North Facing			
			Proposed	17.39					
First	R3	W6	Existing	16.33	1.00	*North Facing			
			Proposed	16.33					
Second	R1	W1	Existing	22.26	1.00	*North Facing			
			Proposed	22.26					

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						Annual %	Diff	Winter %	Diff
Second	R2	W2	Existing	22.1	1.00	*North Facing			
			Proposed	22.1					
Second	R3	W3	Existing	22.24	1.00	*North Facing			
			Proposed	22.22					
Third	R1	W1	Existing	29.88	1.00	*North Facing			
			Proposed	29.86					
Third	R1	W2	Existing	29.63	1.00	*North Facing			
			Proposed	29.61					
Third	R2	W3	Existing	29.43	1.00	*North Facing			
			Proposed	29.41					

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						Annual %	Diff	Winter %	Diff
29 Hatton Wall									
Ground	R1	W1	Existing	9.61	1.00	*North Facing			
			Proposed	9.61					
Ground	R1	W2	Existing	6.09	1.00	*North Facing			
			Proposed	6.09					
First	R1	W1	Existing	16.39	1.00	*North Facing			
			Proposed	16.39					
First	R1	W2	Existing	16.54	1.00	*North Facing			
			Proposed	16.54					
First	R2	W3	Existing	16.68	1.00	*North Facing			
			Proposed	16.67					
Second	R1	W1	Existing	23.17	1.00	*North Facing			
			Proposed	23.15					
Second	R1	W2	Existing	23.47	1.00	*North Facing			
			Proposed	23.45					
Second	R2	W3	Existing	23.78	1.00	*North Facing			
			Proposed	23.76					
Third	R1	W1	Existing	7.5	1.00	*North Facing			
			Proposed	7.48					
Third	R1	W2	Existing	6.45	1.00	*North Facing			
			Proposed	6.44					
Third	R1	W3	Existing	32.89	1.00	*North Facing			
			Proposed	32.89					

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						Annual %	Diff	Winter %	Diff
31 Hatton Wall									
Ground	R1	W1	Existing	11.01	1.00	*North Facing			
			Proposed	11.01					
Ground	R2	W2	Existing	10.56	1.00	*North Facing			
			Proposed	10.56					
Ground	R2	W3	Existing	10.76	1.00	*North Facing			
			Proposed	10.76					
First	R1	W1	Existing	14.9	1.00	*North Facing			
			Proposed	14.9					
First	R2	W2	Existing	14.95	1.00	*North Facing			
			Proposed	14.95					
First	R2	W3	Existing	15.08	1.00	*North Facing			
			Proposed	15.08					
Second	R1	W1	Existing	19.9	1.00	*North Facing			
			Proposed	19.89					
Second	R2	W2	Existing	20.06	1.00	*North Facing			
			Proposed	20.05					
Second	R2	W3	Existing	20.29	1.00	*North Facing			
			Proposed	20.28					
Third	R1	W1	Existing	25.53	1.00	*North Facing			
			Proposed	25.52					
Third	R2	W2	Existing	25.92	1.00	*North Facing			
			Proposed	25.91					
Third	R2	W3	Existing	26.25	1.00	*North Facing			
			Proposed	26.24					

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Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
86 Leather Lane									
First	R1	W1	Existing	2.8	1.00	*North Facing			
			Proposed	2.8					
Second	R1	W1	Existing	4.89	1.00	*North Facing			
			Proposed	4.89					
Third	R1	W1	Existing	8.62	1.00	*North Facing			
			Proposed	8.62					
Third	R1	W2	Existing	12.15	1.00	*North Facing			
			Proposed	12.15					
Fourth	R1	W1	Existing	16.41	1.00	*North Facing			
			Proposed	16.41					
88 Leather Lane									
Second	R1	W1	Existing	8.64	1.00	*North Facing			
			Proposed	8.64					
Second	R1	W2	Existing	7.62	1.00	*North Facing			
			Proposed	7.62					
Third	R1	W1	Existing	17.13	1.00	*North Facing			
			Proposed	17.13					
Third	R2	W2	Existing	15.73	1.00	*North Facing			
			Proposed	15.73					
Fourth	R1	W1	Existing	25.61	1.00	*North Facing			
			Proposed	25.6					
Fourth	R1	W2	Existing	22.73	1.00	*North Facing			
			Proposed	22.72					

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Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
90-92 Leather Lane									
First	R1	W3	Existing	3.74	1.00	*North Facing			
			Proposed	3.74					
First	R2	W2	Existing	3.27	1.00	*North Facing			
			Proposed	3.27					
First	R3	W1	Existing	1.62	1.00	*North Facing			
			Proposed	1.62					
Second	R1	W4	Existing	5.91	1.00	*North Facing			
			Proposed	5.91					
Second	R2	W2	Existing	5.03	1.00	*North Facing			
			Proposed	5.03					
Second	R2	W3	Existing	5.31	1.00	*North Facing			
			Proposed	5.31					
Second	R3	W1	Existing	4.05	1.00	*North Facing			
			Proposed	4.05					
Third	R1	W5	Existing	10.06	1.00	*North Facing			
			Proposed	10.06					
Third	R2	W2	Existing	8.77	1.00	*North Facing			
			Proposed	8.77					
Third	R2	W3	Existing	8.99	1.00	*North Facing			
			Proposed	8.99					
Third	R2	W4	Existing	18.49	1.00	*North Facing			
			Proposed	18.49					
Third	R3	W1	Existing	12.46	1.00	*North Facing			
			Proposed	12.46					
Fourth	R1	W3	Existing	16.08	1.00	*North Facing			
			Proposed	16.08					
Fourth	R2	W2	Existing	23.26	1.00	*North Facing			
			Proposed	23.25					
Fourth	R3	W1	Existing	19.68	1.00	*North Facing			
			Proposed	19.68					

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Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
94 Leather Lane									
First	R1	W1	Existing	5.71	1.00	*North Facing			
			Proposed	5.71					
First	R1	W2	Existing	5.68	1.00	*North Facing			
			Proposed	5.68					
Second	R1	W1	Existing	9.71	1.00	*North Facing			
			Proposed	9.71					
Second	R1	W2	Existing	10.2	1.00	*North Facing			
			Proposed	10.2					
Third	R1	W1	Existing	16.47	1.00	*North Facing			
			Proposed	16.47					
Third	R1	W2	Existing	16.39	1.00	*North Facing			
			Proposed	16.39					
Fourth	R1	W1	Existing	22.78	1.00	*North Facing			
			Proposed	22.76					
Fourth	R1	W2	Existing	23.03	1.00	*North Facing			
			Proposed	23					

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Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
96 Leather Lane									
First	R1	W1	Existing	5.6	1.00	9	1.00	2	1.00
			Proposed	5.6		9		2	
First	R2	W2	Existing	4.47	1.00	*North Facing			
			Proposed	4.47					
First	R3	W3	Existing	3.2	1.00	*North Facing			
			Proposed	3.2					
Second	R1	W1	Existing	10.48	1.00	14	1.00	2	1.00
			Proposed	10.48		14		2	
Second	R2	W2	Existing	8.24	1.00	*North Facing			
			Proposed	8.24					
Second	R3	W3	Existing	5.8	1.00	*North Facing			
			Proposed	5.8					
Third	R1	W1	Existing	16.69	1.00	24	1.00	5	1.00
			Proposed	16.69		24		5	
Third	R2	W2	Existing	14.99	1.00	*North Facing			
			Proposed	14.99					
Third	R2	W3	Existing	11.17	1.00	*North Facing			
			Proposed	11.17					
Fourth	R1	W1	Existing	24.21	1.00	37	1.00	11	1.00
			Proposed	24.21		37		11	
Fourth	R1	W2	Existing	22.55	1.00	*North Facing			
			Proposed	22.55					
Fourth	R1	W4	Existing	30.4	1.00	45	1.00	6	1.00
			Proposed	30.4		45		6	
Fourth	R2	W3	Existing	18.67	1.00	*North Facing			
			Proposed	18.67					

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: VSC and ASH
Iteration Description: Plant room size comparison
Date of Analysis: 04/08/2016
Key drawings:

Floor Ref.	Room Ref.	Window Ref.	Scenario	VSC	Difference	Available Sunlight Hours			
						Annual %	Diff	Winter %	Diff
98-100 Leather Lane									
First	R1	W1	Existing	7.15	1.00	*North Facing			
			Proposed	7.15					
First	R2	W2	Existing	6.93	1.00	*North Facing			
			Proposed	6.93					
Second	R1	W1	Existing	9.67	1.00	*North Facing			
			Proposed	9.67					
Second	R2	W2	Existing	8.78	1.00	*North Facing			
			Proposed	8.78					
Third	R1	W1	Existing	13.59	1.00	*North Facing			
			Proposed	13.59					
Third	R2	W2	Existing	11.29	1.00	*North Facing			
			Proposed	11.29					
Fourth	R1	W1	Existing	18.96	1.00	*North Facing			
			Proposed	18.96					
Fourth	R2	W2	Existing	14.35	1.00	*North Facing			
			Proposed	14.35					

Results for Daylight Distribution

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

17-21 Hatton Wall

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
Ground	R1	Area m2 % of room	66.94	27.53 41.13%	27.53 41.13%	1.00
First	R1	Area m2 % of room	20.54	11.47 55.84%	11.47 55.84%	1.00
First	R2	Area m2 % of room	19.66	9.59 48.78%	9.59 48.78%	1.00
First	R3	Area m2 % of room	24.94	11.72 46.99%	11.72 46.99%	1.00
Second	R1	Area m2 % of room	20.54	19.55 95.18%	19.55 95.18%	1.00
Second	R2	Area m2 % of room	19.66	16.04 81.59%	16.04 81.59%	1.00
Second	R3	Area m2 % of room	24.94	18.1 72.57%	18.1 72.57%	1.00
Third	R1	Area m2 % of room	39.62	38.4 96.92%	38.4 96.92%	1.00

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

18 Hatton Wall

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
First	R1	Area m2	19.07	15.65	15.65	1.00
		% of room		82.07%	82.07%	
First	R2	Area m2	15.54	14.01	14.01	1.00
		% of room		90.15%	90.15%	
First	R3	Area m2	10.42	10.03	10.03	1.00
		% of room		96.26%	96.26%	
Second	R1	Area m2	19.07	17.69	17.68	1.00
		% of room		92.76%	92.71%	
Second	R2	Area m2	15.54	14.22	14.22	1.00
		% of room		91.51%	91.51%	
Second	R3	Area m2	10.42	10.07	10.07	1.00
		% of room		96.64%	96.64%	
Third	R1	Area m2	19.07	18.3	18.29	1.00
		% of room		95.96%	95.91%	
Third	R2	Area m2	15.54	14.85	14.85	1.00
		% of room		95.56%	95.56%	
Third	R3	Area m2	7.33	7.14	7.14	1.00
		% of room		97.41%	97.41%	
Fourth	R1	Area m2	19.07	19.07	19.07	1.00
		% of room		100.00%	100.00%	
Fourth	R2	Area m2	15.54	15.54	15.54	1.00
		% of room		100.00%	100.00%	
Fourth	R3	Area m2	7.33	7.29	7.29	1.00
		% of room		99.45%	99.45%	
Fifth	R1	Area m2	18.8	18.59	18.59	1.00
		% of room		98.88%	98.88%	
Fifth	R2	Area m2	24.22	24.19	24.19	1.00
		% of room		99.88%	99.88%	

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

23-27 Hatton Wall

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
Ground	R1	Area m2 % of room	15.71	4.72 30.04%	4.72 30.04%	1.00
Ground	R2	Area m2 % of room	115.69	11.93 10.31%	11.93 10.31%	1.00
First	R1	Area m2 % of room	11.92	8.17 68.54%	8.18 68.62%	1.00
First	R2	Area m2 % of room	8.96	5.19 57.92%	5.19 57.92%	1.00
First	R3	Area m2 % of room	10.4	9.95 95.67%	9.9 95.19%	0.99
Second	R1	Area m2 % of room	11.92	10.19 85.49%	10.19 85.49%	1.00
Second	R2	Area m2 % of room	8.96	8.77 97.88%	8.77 97.88%	1.00
Second	R3	Area m2 % of room	10.4	10.18 97.88%	10.18 97.88%	1.00
Third	R1	Area m2 % of room	21.19	14.66 69.18%	14.66 69.18%	1.00
Third	R2	Area m2 % of room	17.11	14.03 82.00%	14.03 82.00%	1.00

29 Hatton Wall

First	R1	Area m2 % of room	18.47	8.59 46.51%	8.59 46.51%	1.00
First	R2	Area m2 % of room	15.71	6.88 43.79%	6.87 43.73%	1.00
Second	R1	Area m2 % of room	18.47	12.79 69.25%	12.79 69.25%	1.00
Second	R2	Area m2 % of room	15.71	9.72 61.87%	9.72 61.87%	1.00
Third	R1	Area m2 % of room	33.33	31.42 94.27%	31.42 94.27%	1.00

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

31 Hatton Wall

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
Ground	R1	Area m2	2.53	1.25	1.25	1.00
		% of room		49.41%	49.41%	
Ground	R2	Area m2	25.46	5.71	5.71	1.00
		% of room		22.43%	22.43%	
First	R1	Area m2	4.23	2.2	2.2	1.00
		% of room		52.01%	52.01%	
First	R2	Area m2	23.51	7.69	7.69	1.00
		% of room		32.71%	32.71%	
Second	R1	Area m2	4.23	3.66	3.66	1.00
		% of room		86.52%	86.52%	
Second	R2	Area m2	23.51	11.34	11.34	1.00
		% of room		48.23%	48.23%	
Third	R1	Area m2	4.23	4.08	4.08	1.00
		% of room		96.45%	96.45%	
Third	R2	Area m2	23.51	14.77	14.77	1.00
		% of room		62.82%	62.82%	

86 Leather Lane

First	R1	Area m2	14.98	0.81	0.81	1.00
		% of room		5.41%	5.41%	
Second	R1	Area m2	14.98	2.12	2.12	1.00
		% of room		14.15%	14.15%	
Third	R1	Area m2	14.98	4.05	4.05	1.00
		% of room		27.04%	27.04%	
Fourth	R1	Area m2	14.98	5.66	5.66	1.00
		% of room		37.78%	37.78%	

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

88 Leather Lane

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
Second	R1	Area m2	18.14	4.69	4.69	1.00
		% of room		25.85%	25.85%	
Third	R1	Area m2	8.75	4.08	4.08	1.00
		% of room		46.63%	46.63%	
Third	R2	Area m2	6.42	4.27	4.27	1.00
		% of room		66.51%	66.51%	
Fourth	R1	Area m2	18.9	12.17	12.14	1.00
		% of room		64.39%	64.23%	

90-92 Leather Lane

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
First	R1	Area m2	10.62	0.5	0.5	1.00
		% of room		4.71%	4.71%	
First	R2	Area m2	2.68	0.1	0.1	1.00
		% of room		3.73%	3.73%	
First	R3	Area m2	11.8	0.53	0.53	1.00
		% of room		4.49%	4.49%	
Second	R1	Area m2	10.62	0.57	0.57	1.00
		% of room		5.37%	5.37%	
Second	R2	Area m2	2.68	0.41	0.41	1.00
		% of room		15.30%	15.30%	
Second	R3	Area m2	9.74	1.57	1.57	1.00
		% of room		16.12%	16.12%	
Third	R1	Area m2	10.62	1.15	1.15	1.00
		% of room		10.83%	10.83%	
Third	R2	Area m2	2.68	2.68	2.68	1.00
		% of room		100.00%	100.00%	
Third	R3	Area m2	17.06	5.87	5.87	1.00
		% of room		34.41%	34.41%	
Fourth	R1	Area m2	8.38	1.7	1.7	1.00
		% of room		20.29%	20.29%	
Fourth	R2	Area m2	8.68	5.27	5.27	1.00
		% of room		60.71%	60.71%	
Fourth	R3	Area m2	6.35	3.91	3.91	1.00
		% of room		61.57%	61.57%	

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

94 Leather Lane

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
First	R1	Area m2	17.56	3.48	3.48	1.00
		% of room		19.82%	19.82%	
Second	R1	Area m2	17.56	5.69	5.69	1.00
		% of room		32.40%	32.40%	
Third	R1	Area m2	17.56	8.96	8.96	1.00
		% of room		51.03%	51.03%	
Fourth	R1	Area m2	14.78	8.16	8.14	1.00
		% of room		55.21%	55.07%	

96 Leather Lane

First	R1	Area m2	17.62	8.4	8.4	1.00
		% of room		47.67%	47.67%	
First	R2	Area m2	2.88	2.38	2.38	1.00
		% of room		82.64%	82.64%	
Second	R1	Area m2	10.42	4.95	4.95	1.00
		% of room		47.50%	47.50%	
Second	R2	Area m2	4.38	3.37	3.37	1.00
		% of room		76.94%	76.94%	
Second	R3	Area m2	1.92	1.53	1.53	1.00
		% of room		79.69%	79.69%	
Third	R1	Area m2	10.88	6.86	6.86	1.00
		% of room		63.05%	63.05%	
Third	R2	Area m2	3.27	3.13	3.13	1.00
		% of room		95.72%	95.72%	
Third	R3	Area m2	1.92	1.8	1.8	1.00
		% of room		93.75%	93.75%	

Project Name: Hatton Wall
Project No:
Report Title:
Architect:
Scheme Iteration No: Daylight Distribution
Iteration Description: Plant room size comparison
Date of Analysis: 03/08/2016
Key drawings:

98-100 Leather Lane

Floor	Room	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference
First	R1	Area m2	11.52	8.86	8.86	1.00
		% of room		76.91%	76.91%	
First	R2	Area m2	7.69	5.17	5.17	1.00
		% of room		67.23%	67.23%	
Second	R1	Area m2	11.52	9.4	9.4	1.00
		% of room		81.60%	81.60%	
Second	R2	Area m2	7.69	5.2	5.2	1.00
		% of room		67.62%	67.62%	
Third	R1	Area m2	11.52	10.22	10.22	1.00
		% of room		88.72%	88.72%	
Third	R2	Area m2	7.69	5.35	5.35	1.00
		% of room		69.57%	69.57%	
Fourth	R1	Area m2	11.52	10.77	10.77	1.00
		% of room		93.49%	93.49%	
Fourth	R2	Area m2	7.69	5.36	5.36	1.00
		% of room		69.70%	69.70%	

Notes

This report has been prepared for the sole use of the Client. No representation or warranty (expressed or implied) is given to any other parties. Therefore this report should not be relied upon by any third party and we accept no liability from the use of this report by any other party.

Where full access was not available we have made reasonable estimations of internal layouts, floor areas, window sizes and positions etc.

Our model has been built from a combination of architect's plans, laser scan, partial site survey, site and aerial photographs.

We are not aware of any conflicts of interest between ourselves and any other party concerning this project.