



**MIDDLESEX HOSPITAL ANNEX SITE**

**CLEVELAND STREET, LONDON W1**

**DAYLIGHT, SUNLIGHT AND OVERSHADOWING ASSESSMENT**

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## INTRODUCTION

Delva Patman Redler LLP have been instructed by UCLH Charity Trust to assess the impact of the proposed development on the site known as Middlesex Annex, Cleveland Street for daylight, sunlight and overshadowing to neighbouring residential properties.

This assessment has been carried out in accordance with the recommendations of the Building Research Establishment Report “Site Layout Planning for Daylight & Sunlight 2011” (BRE 209).

## THE PROPOSAL

The proposals consist of the refurbishment of the listed building located on the western half of the development site, as well as the retention and refurbishment of the existing buildings to the north and south. A new ground plus 7 storey commercial/residential building being constructed on the eastern half of the development site.

## POLICY / GUIDELINES

The study has been carried out in accordance with the recommendations of the Building Research Establishment report “Site Layout Planning for Daylight & Sunlight 2011”. This is the standard specifically identified in the London Borough of Camden Local Plan by which daylight, sunlight and overshadowing should be assessed.

The BRE guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and the report should not be seen as a part of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design. In certain circumstances the developer or planning authority may wish to use alternative target values.

Whilst technical analysis can be carried out in accordance with numerical guidelines and reported factually by comparison with those guidelines, the final assessment as to whether affected dwellings are left with acceptable amounts of daylight and sunlight in an inner city context where the findings are to be interpreted in a flexible manner is a matter of subjective opinion.

## DAYLIGHT

The Daylight assessments have been undertaken by reference to the Building Research Establishment (BRE) guidelines “Site Layout Planning for Daylight & Sunlight 2011”.

The BRE Report advises that daylight levels should be assessed for the main habitable rooms of neighbouring residential properties. Habitable rooms in residential properties are defined as kitchens, living rooms and dining rooms. Bedrooms are less important as they are mainly occupied at night time.

The BRE is principally set up for residential properties. It is common practice to test only residential properties unless the neighbouring buildings are sensitive receptors such as schools or hospitals.

The BRE Guide states that:

*“If, for any part of the new development, this angle is more than 25°, a more detailed check is needed to find the loss of skylight to the existing building.”*

The BRE guidelines propose several methods for calculating daylight.

The three main methods adopted within this report are the Vertical Sky Component (VSC), the No Sky Line and the Average Daylight Factor assessment (ADF).

The VSC calculation is a general test of potential for daylight to a building, measuring the light available on the outside plane of windows. When a development is being proposed on a vacant site, the VSC method of assessment does not give a true reflection of the impact to light levels within the neighbouring residential properties, and the NSL and ADF method gives a better representation of the impacts the proposed scheme may have in daylight terms.

The “No-Sky” Line divides those areas of the working plane which can receive direct skylight, from those which cannot. It provides an indication of how good the daylight distribution is within a room.

The Average Daylight Factor (ADF) calculation complements the VSC study. It assesses the quality and distribution of light within a room served by a window and takes into account the VSC value, the size and number of the windows and room and the use to which the room is put. ADF assesses actual light distribution within a defined room area whereas the VSC considers potential light. British Standard 8206, Code of Practice for Daylighting recommends ADF values of 1% in bedrooms, 1.5% in living rooms and 2% in kitchens. For other uses, where it is expected that supplementary electric lighting will be used throughout the daytime, such as in offices, the ADF value should be 2%. There is no general requirement within the BRE guidelines to assess ADF values, other than for neighbouring residential buildings or sensitive receptors such as museums or schools.

Room layouts have been obtained from the local planning archives for Astor College, 11-12 Tottenham Mews and 10 Tottenham Mews. 1 Foley Street and 45-49 Cleveland Street have been based on measured survey information. All other properties have been based on external inspection.

The properties assessed for the daylight study are identified on drawing 16066/LOC/DS/801, attached at Appendix A.

## Sunlight

The BRE have produced sunlight templates for London, Manchester and Edinburgh indicating the Annual Probable Sunlight Hours (APSH) for these regions. The London template has been selected for this study as the London indicator template is the closest of the three available from BRE in terms of latitude.

Sunlight analysis is undertaken by measuring annual probable sunlight hours (APSH) for the main windows of rooms which face within 90° of due south. The maximum number of annual probable sunlight hours for the London orientation is 1,486 hours. The BRE guidelines propose that the appropriate date for undertaking a sunlight assessment is on 21<sup>st</sup> March, being the spring equinox. Calculations of both summer and winter availability are made with the winter analysis covering the period from the 21<sup>st</sup> September to 21<sup>st</sup> March. For residential accommodation, the main requirement for sunlight is in living rooms and it is regarded as less important in bedrooms and kitchens.

This report has assessed sunlight to living rooms in accordance with the guidance outlined in the BRE. Only 1 Foley Street, Astor College and 10 Tottenham Mews have been considered for this assessment and identified on drawing 16066/LOC/DS/801, attached at Appendix A.

### Overshadowing

The BRE advises that amenity spaces such as gardens, parks and children's playgrounds should be considered for overshadowing assessments. It recommends that at least half of the amenity areas should receive at least two hours of sunlight on 21<sup>st</sup> March.

The amenity areas considered in this analysis are highlighted in drawings 16066/SHA/504-507 in Appendix E.

### SOURCE DATA

The studies have been undertaken by calculating the daylight and sunlight based on the template drawings provided within the BRE guidelines. The study was undertaken with external drawings derived from:

- Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P, 13514-03 – 07E.
- Proposed Scheme: Llewelyn Davies Architecture:  
Dwg No's: P\_GA\_00 – 03 Rev E & 3D model (received 2/12/2016)
- Astor College: Levitt Bernstein Architects:  
Dwg No's: 2869-L49\_P6, L50, L52\_P6, L57\_P6, L198\_P4, L199\_P2, L200\_P2, L250\_P14 – L253\_P3.
- 11-12 Tottenham Mews: Claridge Architects:  
Dwg No's: 11053 – EX00 – EX09, GE-00 & GS-00.
- 10 Tottenham Mews: Nick Willson Architects:  
Dwg No's: A100 – A104, A110, A120 – A121.

### SIGNIFICANCE CRITERIA

The guidance given by BRE has been used as a basis for the criteria to assess the Development's potential effects. The guidance has been drafted primarily for use with low density suburban developments and should be used flexibly when dealing with dese urban sites, stating that:

*'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 been 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..... In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.....'*

When a neighbouring building has obstructions such as balconies or recesses restricting the windows ability to see visible sky, the BRE guidance specifies that one way to demonstrate this would be to carry out an additional calculation of the VSC, without the obstruction in place, stating that:

*"...even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct skylight. One way to demonstrate this would be to carry out an additional calculation of the VSC and area receiving direct skylight, for both the existing and proposed situations, without the balcony in place.*

In describing the significance criteria as set out below, it should be noted that they have been developed to protect residential properties, which are the most sensitive receptors.

### DAYLIGHT

The BRE guidance is summarised in Table 1 and this has been used as the basis for the criteria used in the assessment of daylight and sunlight impacts.

**TABLE 1: BRE Daylight Guidance used in the Assessment**

Issue	Criteria
Daylight	A window may be affected if the vertical sky component ( <b>VSC</b> ) measured at the centre of the window is less than 27% and less than 0.8 times its former value.
	A room may be adversely affected if a significant area of the room is beyond the <b>No-Sky Line</b> and is less than 0.8 times its former value.
	A room may be adversely affected if the average daylight factor ( <b>ADF</b> ) is less than 1% for a bedroom, 1.5% for a living room or 2% for a kitchen. For offices a minimum figure of 2% is required.
Sunlight	A window may be adversely affected if a point at the centre of the window receives in the year less than 25% of the annual probable sunlight hours including at least 5% of the annual probable sunlight hours ( <b>APSH</b> ) during the winter months (21 September to 21 March) and less than 0.8 times its former sunlight hours during either period.
Overshadowing	At least half of the amenity areas should receive at least two hours of sunlight on 21 <sup>st</sup> March.

### BASELINE CONDITIONS

An analysis of the impact of the existing buildings (the baseline conditions) against which to compare any potential impact arising from the development has been undertaken based on Drawing 16066/SPT/802 in Appendix A.

The development site is enclosed to the north and east by the Windeyer Building (UCL) and Astor College respectively, the east boundary faces onto lower residential buildings across Cleveland Street and Middlesex House with Tottenham Mews to the south. The neighbouring residential properties generally receive good levels of light over and above the existing building, which are relatively low considering the dense urban nature of the immediate surrounding area.

An analysis of the existing daylight levels enjoyed by all relevant neighbouring properties has been undertaken in order to provide a baseline against which the impacts arising from the proposed development can be assessed. The detailed results of this analysis are presented in Technical Appendix B.

### RESULTS – COMPLETED DEVELOPMENT

DAYLIGHT – VSC

The full results of the daylight analyses are presented in Appendix B in graphical and tabular form. A summary of the results of the Vertical Sky Component (VSC) analysis on the relevant overlooking windows are presented in Table 2 below. This identifies where habitable rooms / windows are left with adequate light.

TABLE 2: NUMBER OF WINDOW EXPERIENCING DAYLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (VSC METHOD)

Address	Total Number of Windows Tested	Number of Windows Experiencing Adverse Impacts			
		< 20% difference Represents negligible Levels of light.	20-30% difference represents minor adverse losses	30-40% difference Represents Moderate adverse losses	more than 40% difference represents substantial losses
1 Foley Street	25	25	0	0	0
45-49 Cleveland Street	16	16	0	0	0
51 Cleveland Street	9	9	0	0	0
53 Cleveland Street	8	8	0	0	0
55 Cleveland Street	8	8	0	0	0
57-59 Cleveland Street	12	12	0	0	0
61 Cleveland Street	9	9	0	0	0
63 Cleveland Street	9	9	0	0	0
168 New Cavendish Street	12	12	0	0	0
Astor College	192	152	17	12	11
10 Tottenham Mews	6	6	0	0	0
Total	306	266	17	12	11

Table 2 indicates that of the 306 windows considered 266 (86.9%) will fully comply with the target values set by the BRE for Vertical Sky Component method of assessment, and a further 17 (5.5%) will suffer from no more than a minor adverse loss.

With the exception of Astor College to the east, all neighbouring residential properties will fully comply with the BRE target value for the VSC method of assessment.

DAYLIGHT – No SKY LINE

The full results of the daylight analysis are presented in Appendix B in tabular form. A summary of the results of the No Sky Line Component (NSL) analysis on the relevant overlooking rooms are presented in Table 3 below. This identifies where habitable rooms are left with adequate light.

TABLE 3: NUMBER OF ROOMS EXPERIENCING DAYLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (NSL METHOD)

Address	Total Number of Rooms Tested	Number of Rooms Experiencing Adverse Impacts			
		< 20% difference Represents negligible Levels of light.	20-30% difference represents minor adverse losses	30-40% difference Represents Moderate adverse losses	more than 40% difference represents substantial losses
1 Foley Street	9	9	0	0	0

45-49 Cleveland Street	16	14	2	0	0
51 Cleveland Street	3	3	0	0	0
53 Cleveland Street	4	4	0	0	0
55 Cleveland Street	4	4	0	0	0
57-59 Cleveland Street	6	6	0	0	0
61 Cleveland Street	3	3	0	0	0
63 Cleveland Street	6	6	0	0	0
168 New Cavendish Street	4	4	0	0	0
Astor College	181	157	6	5	13
10 Tottenham Mews	4	4	0	0	0
Total	240	214	8	5	13

Table 3 indicates that of the 240 habitable rooms considered 214 (89.2%) will fully comply with the target values set by the BRE for No Sky Line assessment, and a further 8 (3.3%) will suffer from no more than a minor adverse loss.

With the exception of Astor College, none of the neighbouring properties will experience more than a minor adverse effect as a result of the proposed development.

DAYLIGHT – ADF

The full results of the daylight analysis are presented in Appendix B in tabular form. A summary of the results of the Average Daylight Factor (ADF) analysis on the relevant overlooking rooms are presented in Table 4 below. This identifies where habitable rooms are left with adequate light.

TABLE 4: NUMBER OF ROOMS EXPERIENCING DAYLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (ADF METHOD)

Address	Total Number of Rooms Tested	Number of Rooms Experiencing Adverse Impacts			
		< 20% difference Represents negligible Levels of light.	20-30% difference represents minor adverse losses	30-40% difference Represents Moderate adverse losses	more than 40% difference represents substantial losses
1 Foley Street	9	9	0	0	0
45-49 Cleveland Street	16	14	2	0	0
51 Cleveland Street	3	3	0	0	0
53 Cleveland Street	4	4	0	0	0
55 Cleveland Street	4	4	0	0	0
57-59 Cleveland Street	6	6	0	0	0
61 Cleveland Street	3	3	0	0	0
63 Cleveland Street	6	6	0	0	0
168 New Cavendish Street	4	4	0	0	0
Astor College	181	170	3	3	5
10 Tottenham Mews	4	4	0	0	0
Total	240	227	5	3	5

Table 4 indicates that of the 240 neighbouring habitable rooms assessed 227 (94.6%) will fully comply with the target values set by the BRE for Average Daylight Factor assessment, and 5 (2.0%) will have a minor adverse loss.



**DAYLIGHT SUMMARY**

The Vertical Sky Component, No Sky Line and Average Daylight Factor methods of assessment indicates that with the exception of Astor College, all neighbouring residential properties will generally comply with the BRE target values for daylight.

Astor College is a purpose built student accommodation block, the tenants differ on a yearly basis resulting in a temporary form of accommodation. It is generally accepted that, due to the relatively short tenancies in student housing and the lifestyle of the occupants, different amenity standards should apply from those for permanent accommodation.

The scheme proposals are therefore, of appropriate scale and massing for the development site and will generally have a negligible on the relevant neighbouring properties in daylight terms.

**NEIGHBOURING SUNLIGHT – APSH**

The full results of the sunlight analyses are presented in Appendix B in tabular form. A summary of the results of the Annual Probable Sunlight Hours (APSH) analysis on the relevant overlooking windows are presented in Table 8 below. This identifies where habitable rooms are left with adequate light.

**TABLE 5: NUMBER OF WINDOWS EXPERIENCING SUNLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (APSH METHOD)**

Address	Total Number of Windows Tested	Windows Meeting BRE Guidelines for APSH	Number of Windows Experiencing Adverse Impacts		
			20-29.9% reduction (minor adverse impact)	30-39.9% reduction (moderate adverse impact)	>40% reduction (substantial adverse impact)
1 Foley Street	17	17	0	0	0
10 Tottenham Mews	6	6	0	0	0
Total	23	23	0	0	5

Table 5 indicates that all of the 23 windows considered for assessment will fully comply with the target values outlined in the BRE for APSH.

Overall, the development proposals are considered to have a negligible impact on sunlight to neighbouring habitable rooms and will comply with the BRE guidelines in sunlight terms.

**INTERNAL DAYLIGHT ADEQUACY (SELF-TEST) – AVERAGE DAYLIGHT FACTOR (ADF)**

The proposed scheme is split into a number of different residential blocks. The ground to third floors have been assessed to illustrate the design compliance of the current proposals. Drawings 16066/LOC/822-825 in Appendix D shows the rooms considered for assessment

Out of the 87 rooms assessed 72 (82.7%) fully comply with the BRE guidelines for Internal Daylight Adequacy. It should be noted that 8 of the rooms that fall below the required BRE target values are situated behind recessed balconies. Recessed balconies hinder a window/rooms ability to see visible sky as the window serving the space will not benefit from oblique or high level light gained round the sides or over the top of neighbouring buildings as a result of being set back.

For the Kitchen/Dining spaces we have used an ADF pass rate of 2%, it is not uncommon for 1.5% to be the appropriate pass rate for mixed use spaces, also Kitchens that are less than 13m2 are not generally considered habitable room because they are too small for an inhabitant to spend a large amount of time in. If the pass rate for the Kitchen/Dining spaces was assessed at 1.5% and the small kitchens discounted, the overall pass rate would increase to (85.1%).

**OVERSHADOWING**

Drawings 16066/SHD/504 and 506 in appendix E show the areas of the neighbouring amenity that have been considered for assessment on March and June 21<sup>st</sup> respectively. The red contour shows the parts of the neighbouring amenity that currently see 2 hours of direct sunlight and the green contours shows the areas that will see that standard with the proposed scheme in place.

Due to the enclosed nature of the amenity space and as a result of the sun being lower in the sky on March 21<sup>st</sup>, none of the amenity spaces considered comply with the BRE target values for the overshadowing method of assessment. However, drawing 14314/SHD/506 shows that on June 21<sup>st</sup> 77% of the neighbouring amenity space will see at least 2 hours direct sunlight, and therefore comply with the BRE target values.

Drawings 16066/SHD/505 and 507 in appendix E shows the proposed new amenity spaces considered for assessment on March and June 21<sup>st</sup> respectively. Drawing 16066/SHD/505 indicates that 18% of the proposed amenity space will see at least 2 hours direct sunlight on March 21<sup>st</sup>. However drawing 16066/SHD/507 shows that on June 21<sup>st</sup>, at least 77% of the proposed amenity space will see the required standard and therefore comply with the BRE target values.

**CONCLUSIONS**

The proposals consist of the refurbishment of the listed buildings located on the western half of the development site, with a new ground plus 7 storey commercial/residential building being constructed on the eastern half.

This assessment accords with the BRE Site Layout Planning for Daylight & Sunlight 2011. This is the standard identified in the London Borough of Camden Local Plan.

To assess the development's potential impact on daylight on neighbouring properties a baseline assessment was undertaken. The methods of assessment used to calculate the daylight was the Vertical Sky Component (VSC), No Sky Line (NSL) and the Average Daylight Factor (ADF).

Average Probable Sunlight Hours (APSH) and an Overshadowing assessment have been undertaken to assess the impact on sunlight to the relevant neighbouring properties and surrounding area.

The neighbouring residential properties generally receive good levels of light over and above the existing building, which are relatively low considering the dense urban nature of the immediate surrounding area.

The VSC results show that 92.4% of the windows assessed will have no more than a minor adverse effect as a result of the proposed development. With the exception of the student accommodation in Astor College, all neighbouring residential windows considered will fully comply with the BRE target values for the VSC method of assessment.

The NSL results show that 92.5% of rooms assessed will have no more than a minor adverse effect. With the exception of the student accommodation in Astor College, all but 2 of the neighbouring residential rooms considered will fully comply with the BRE target values for the NSL method of assessment.

The ADF daylight assessment shows that 96.6% of the rooms assessed will have no more than a minor adverse effect as a result of the proposed development. With the exception of the student accommodation in Astor College, all neighbouring residential considered will fully comply with the BRE target values for the ADF method of assessment.

The APSH results show all of the windows assessed fully comply with the BRE standard for APSH.

The overshadowing results show that the neighbouring amenity and new proposed amenity area will comply with the guidance outlined in the BRE on June 21<sup>st</sup>.

The internal daylight adequacy analysis of the scheme shows that 85.1% of rooms assessed on the ground to third floors will fully comply with the BRE target values, if 1.5% was used as the pass rate for mixed use spaces, which is considered appropriate for such a dense urban environment.

With the exception of the neighbouring student accommodation, the scheme is considered to have a predominately negligible to minor impact when measured against the significance criteria of the vertical sky component, no sky line and the average daylight factor method for daylight assessment.

With the exception of the neighbouring student accommodation, the scheme is considered to have a predominately negligible impact when measured against the significance criteria for sunlight assessment.

Overall, the analysis undertaken demonstrates that given the approach recommended by the BRE guidelines, the proposed development will generally create a negligible impact on the residential amenity adjacent to the development site and is considered to be acceptable in daylight and sunlight terms on the surrounding properties given this urban location.

Delva Patman Redler LLP


**APPENDIX A**

**LOCATION DRAWINGS**

**16066/SPT/802 AND LOC/DS/801, 810 - 817**







NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Existing

Proposed

Surrounding

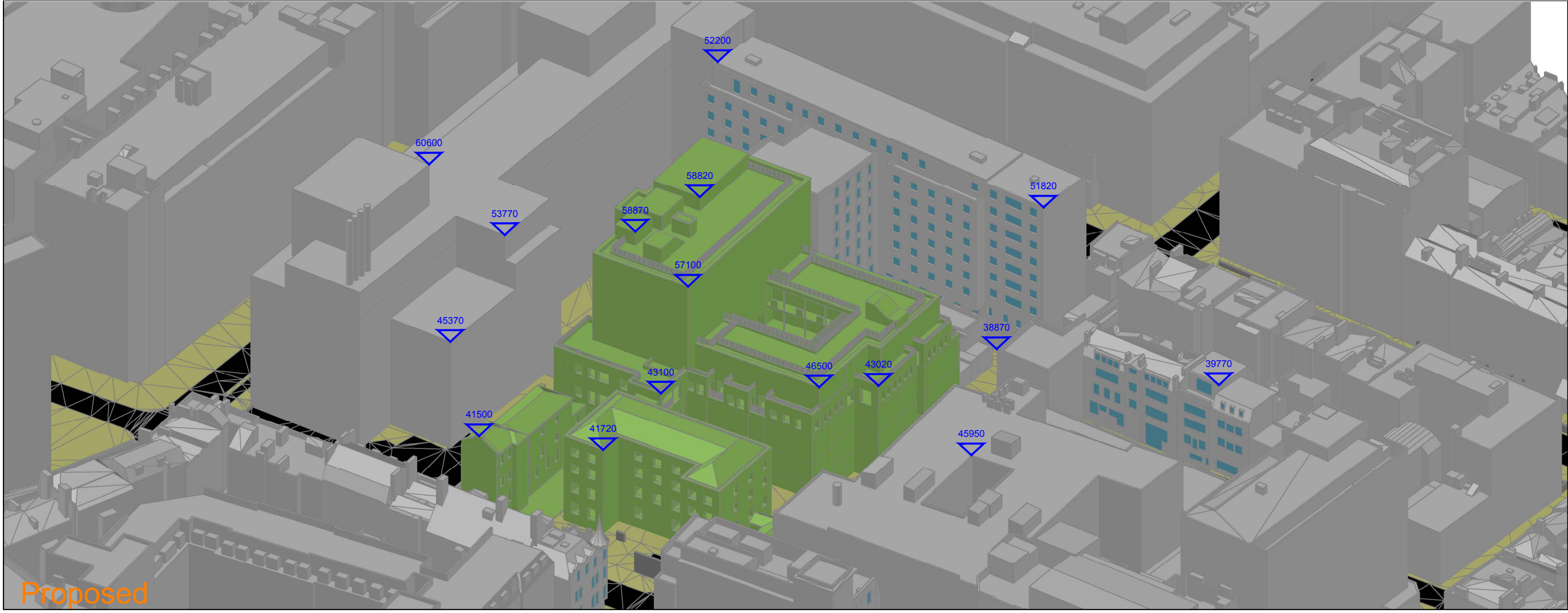
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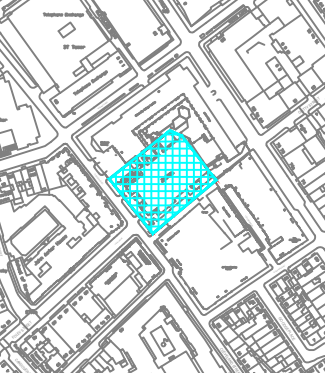
Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E  
  
Proposed Scheme:  
Llewelyn Davies:  
Dwg No's: 3D model (received 17/01/2017)  
P\_GA\_00  
P\_GA\_01  
P\_GA\_02  
P\_GA\_03  
  
Z Map Model

NOTES

All heights are measured in mm AOD.


Site Plan





REV	Description	Drawn	Ch'kd	Date

**DELVA PATMAN REDLER**  
Chartered Surveyors



Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

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info@delvapatmanredler.co.uk  
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TITLE:

MIDDLESEX HOSPITAL ANNEX  
CLEVELAND STREET  
LONDON

DAYLIGHT / SUNLIGHT ANALYSIS

DRAWING:

Middlesex Hospital Annex  
Daylight / Sunlight Analysis  
Key Building Heights  
Existing & Proposed  
-  
-

DRAWN: MJ

SCALE: NTS

DATE: 19/01/2017

JOB NO:

16066

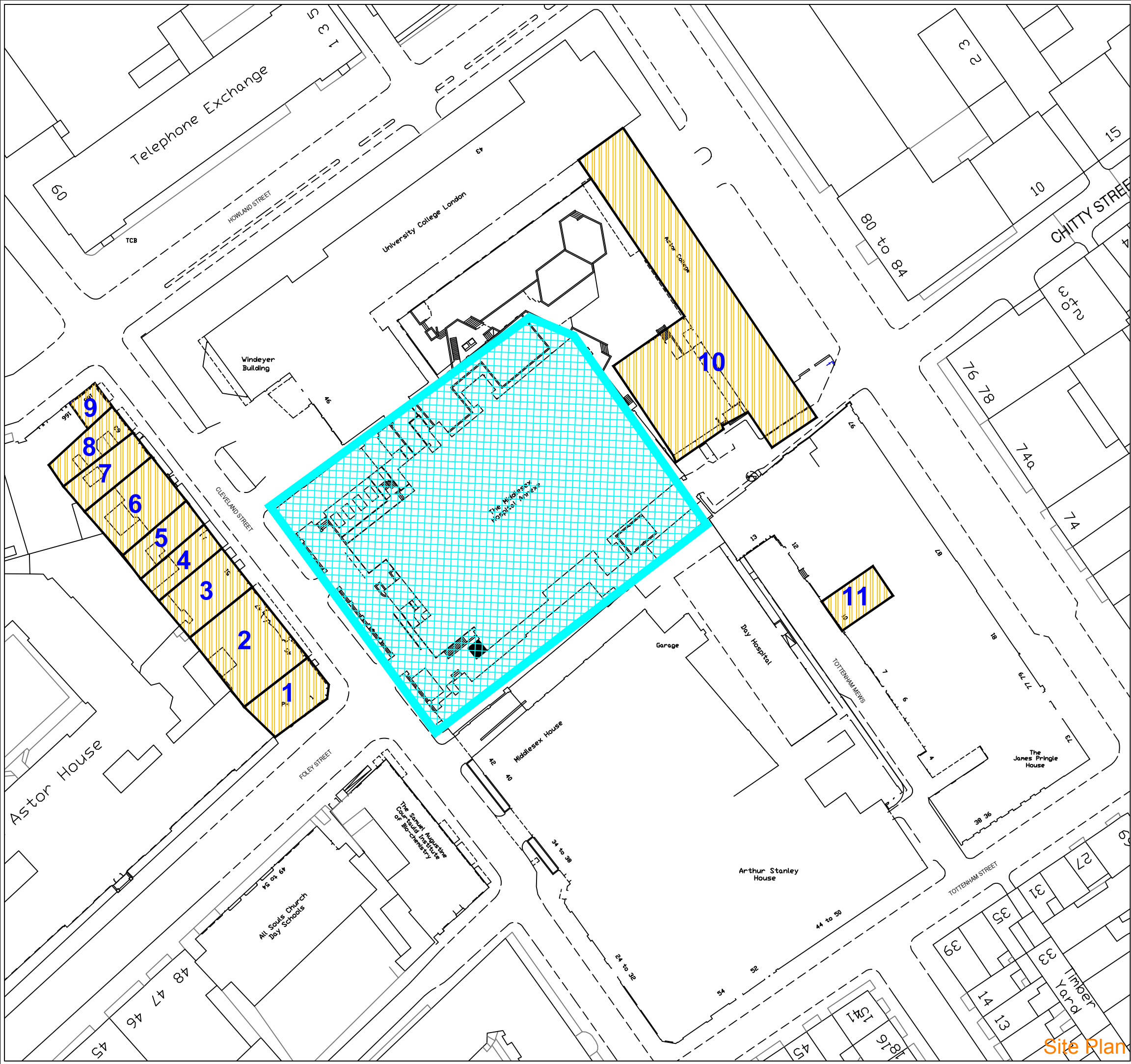
DWG NO:

SPT/802

REV:

-





- Development Site**  
**The Middlesex Hospital Annexe**  
Dwg No: 16066/SPT/801
- 1: King & Queen PH, 1 Foley Street**  
Dwg No: 16066/LOC/810
- 2: 45-49 Cleveland Street**  
Dwg No: 16066/LOC/811
- 3: 51 Cleveland Street**  
Dwg No: 16066/LOC/812
- 4: 53 Cleveland Street**  
Dwg No: 16066/LOC/813
- 5: 55 Cleveland Street**  
Dwg No: 16066/LOC/814
- 6: 57-59 Cleveland Street**  
Dwg No: 16066/LOC/815
- 7: 61 Cleveland Street**  
Dwg No: 16066/LOC/815
- 8: 63 Cleveland Street**  
Dwg No: 16066/LOC/815
- 9: 168 New Cavendish Street**  
Dwg No: 16066/LOC/815
- 10: Astor College**  
Dwg No: 16066/LOC/816
- 11: 10 Tottenham Mews**  
Dwg No: 16066/LOC/817

Indicative

NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Site Boundary

Residential Buildings

SOURCE DATA

Drawings Used:  
OS Plan

NOTES

All neighbouring properties considered for analysis.

Site Plan

REV	Description	Drawn	Chk'd	Date

**DELVA PATMAN REDLER**  
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Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

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TITLE:  
MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

DAYLIGHT / SUNLIGHT ANALYSIS

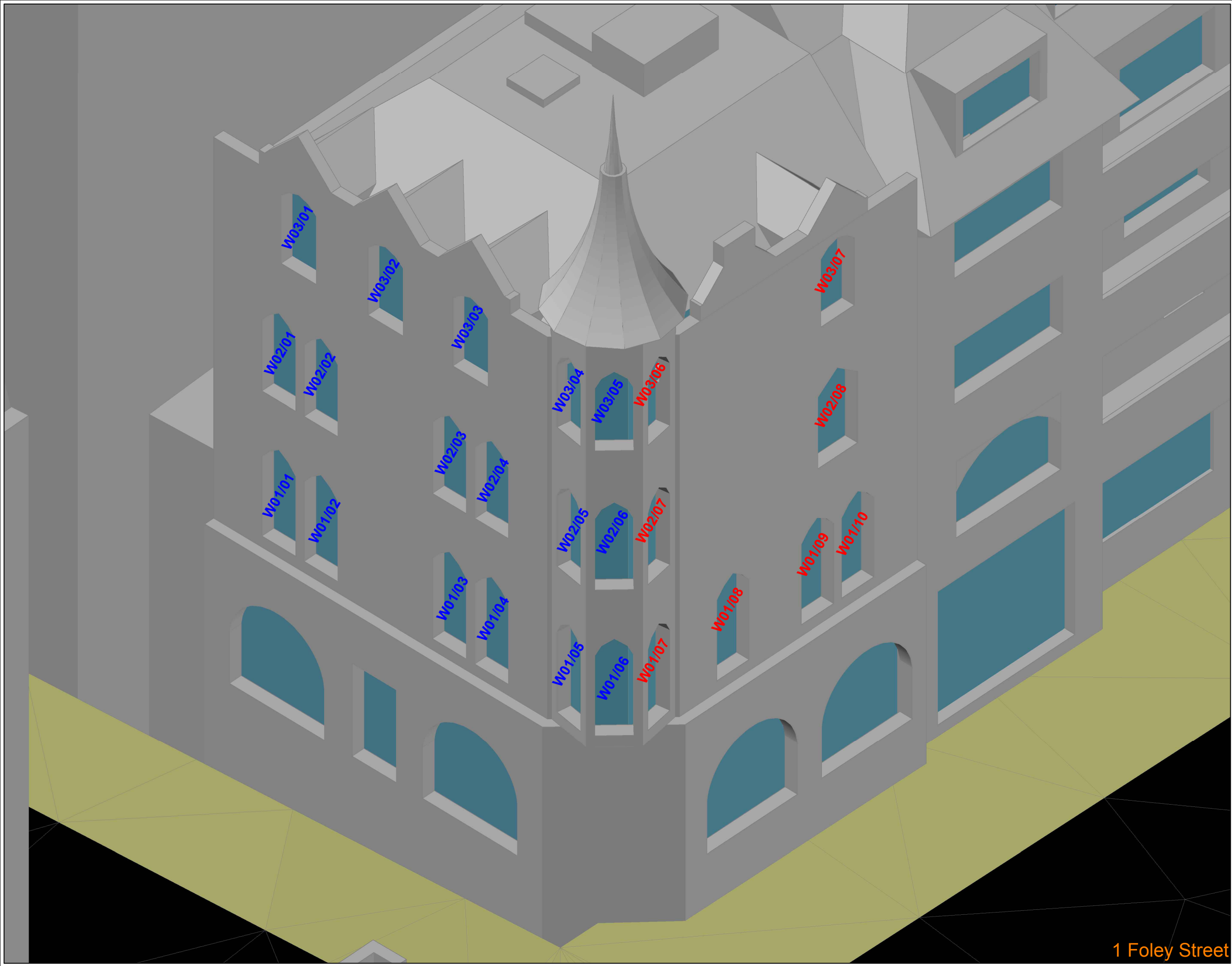
DRAWING:  
Middlesex Hospital Annexe  
Property Location Plan  
Existing & Proposed Schemes

DRAWN: MJ  
SCALE: NTS  
DATE: 12/12/2016

JOB NO:  
16066

DWG NO:  
LOC/DS/801

REV:  
-



Indicative

NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Existing

Proposed

Surrounding

W1/08

W1/08

Window Tested  
Daylight only

Window Tested  
Daylight &  
Sunlight

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E

Z Map Model

NOTES

Building accessed February 2010 to  
measure internal configuration.

Site Plan

REV	Description	Drawn	Ch'kd	Date

DELVA PATMAN REDLER

Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

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www.delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

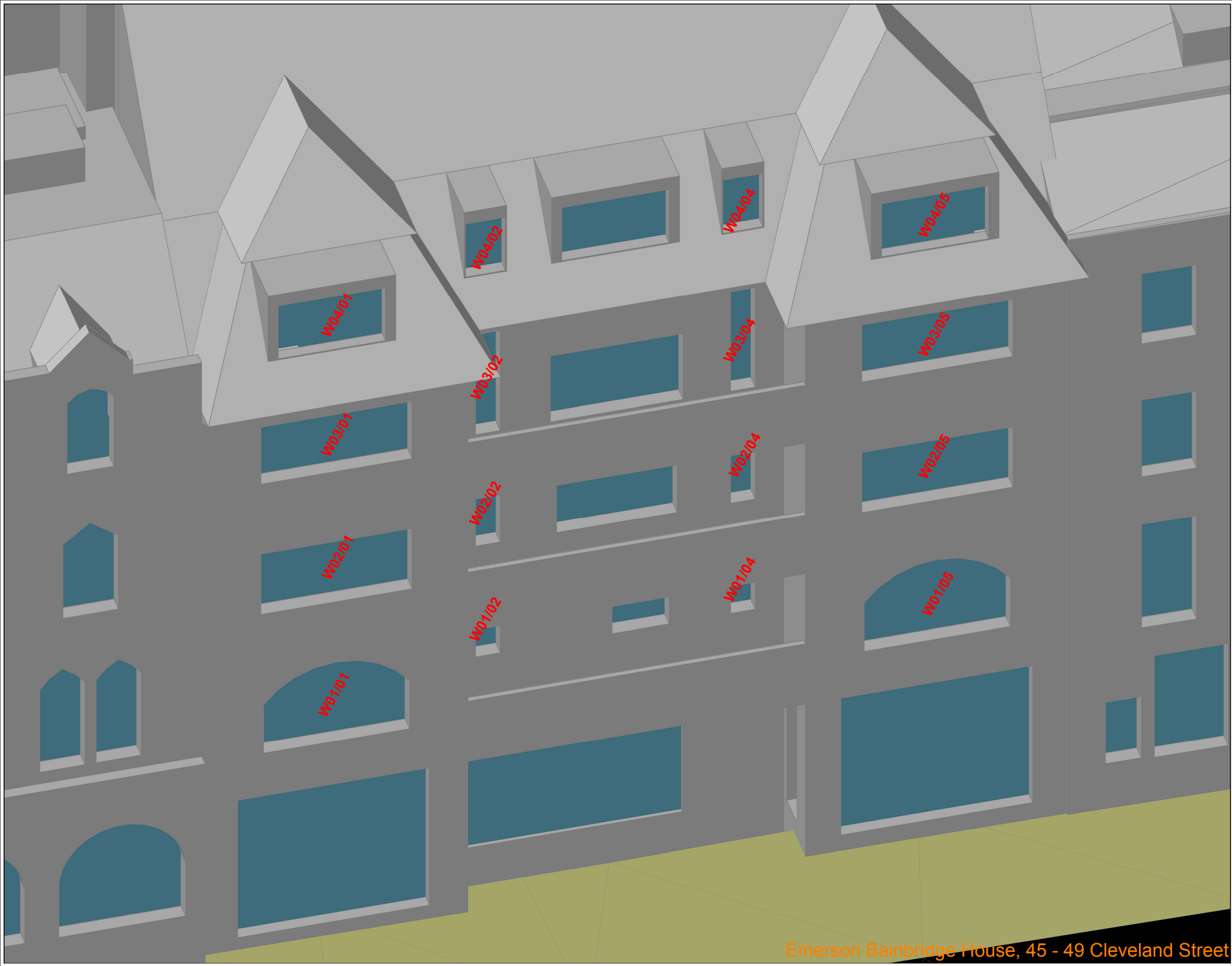
DRAWING:

1 Foley Street  
Daylight / Sunlight Analysis  
Key Window Locations  
-  
-  
-

DRAWN: MJ	JOB NO:
SCALE: NTS	16066
DATE: 12/12/2016	

DWG NO:	REV:
LOC/810	-





Indicative

NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Existing

Proposed

Surrounding

W1/08

W1/08

Window Tested  
Daylight only

Window Tested  
Daylight &  
Sunlight

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E

Z Map Model

NOTES

Building accessed February 2010 to  
measure internal configuration.

Site Plan

REV	Description	Drawn	Ch'kd	Date

DELVA PATMAN REDLER

Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

020 7936 3668  
info@delvapatmanredler.co.uk  
www.delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

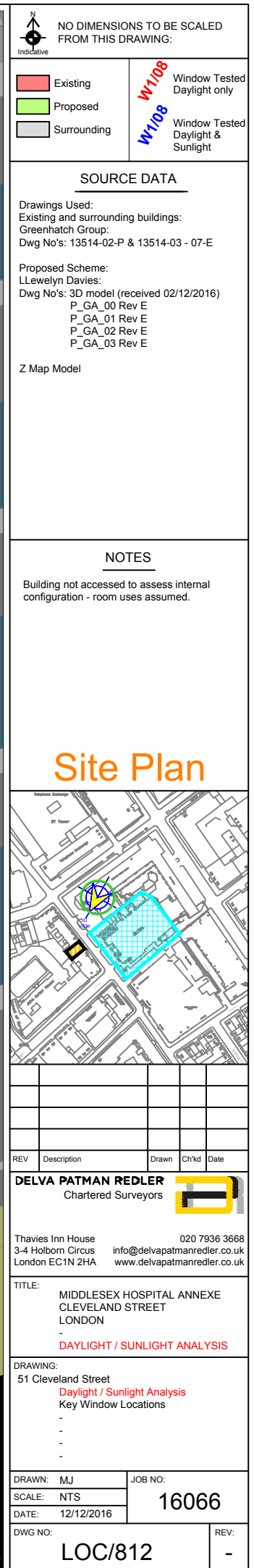
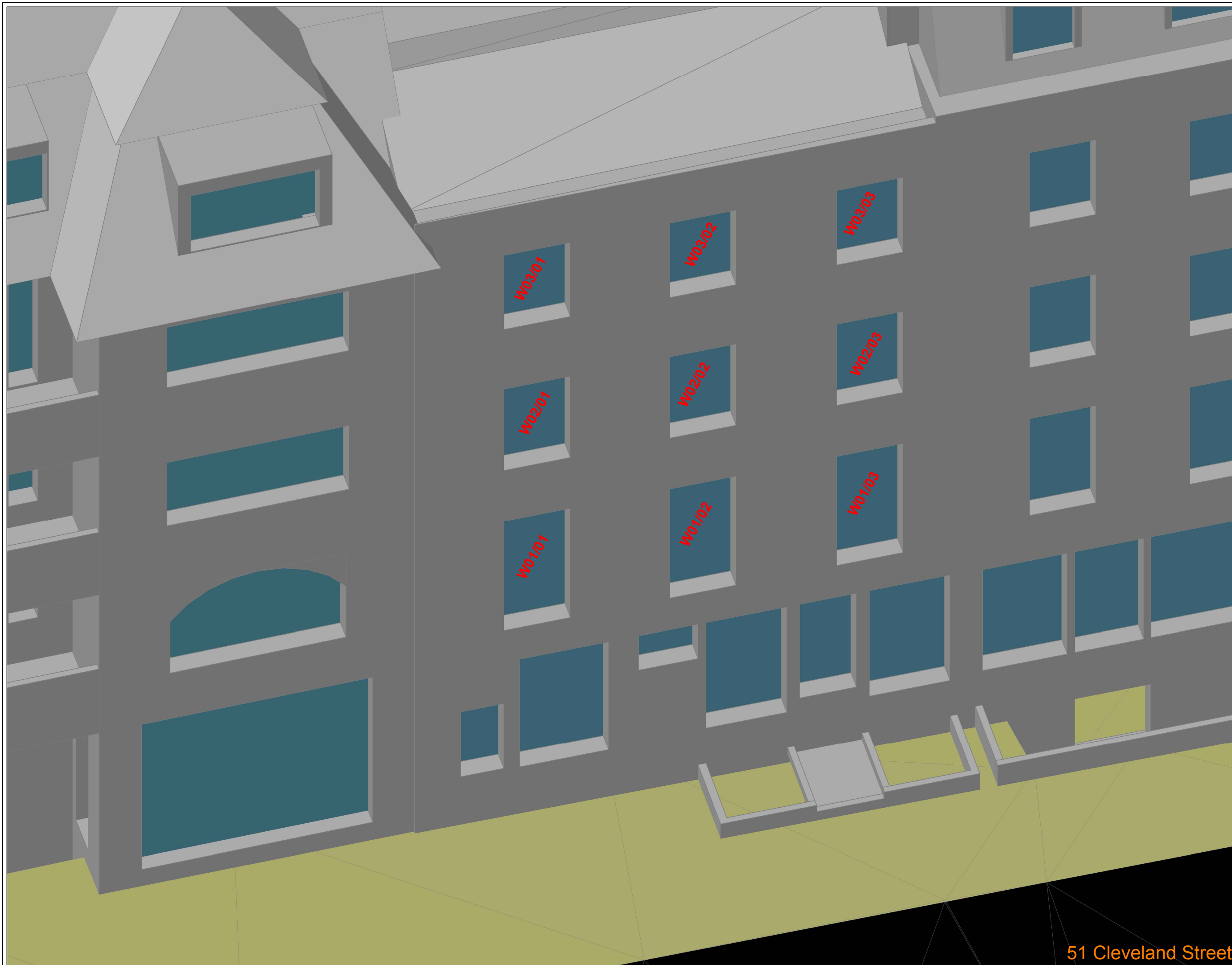
DRAWING:

Emerson Bainbridge House, Cleveland Street  
Daylight / Sunlight Analysis  
Key Window Locations  
-  
-  
-

DRAWN: MJ	JOB NO:
SCALE: NTS	16066
DATE: 12/12/2016	

DWG NO:	REV:
LOC/811	-

Emerson Bainbridge House, 45 - 49 Cleveland Street









Indicative

NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Existing

Proposed

Surrounding

W1/08

W1/08

Window Tested  
Daylight only

Window Tested  
Daylight &  
Sunlight

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E

Z Map Model

NOTES

Building not accessed to assess internal  
configuration - room uses assumed.

Site Plan

REV	Description	Drawn	Ch'kd	Date

DELVA PATMAN REDLER

Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

020 7936 3668  
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www.delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

DAYLIGHT / SUNLIGHT ANALYSIS

DRAWING:

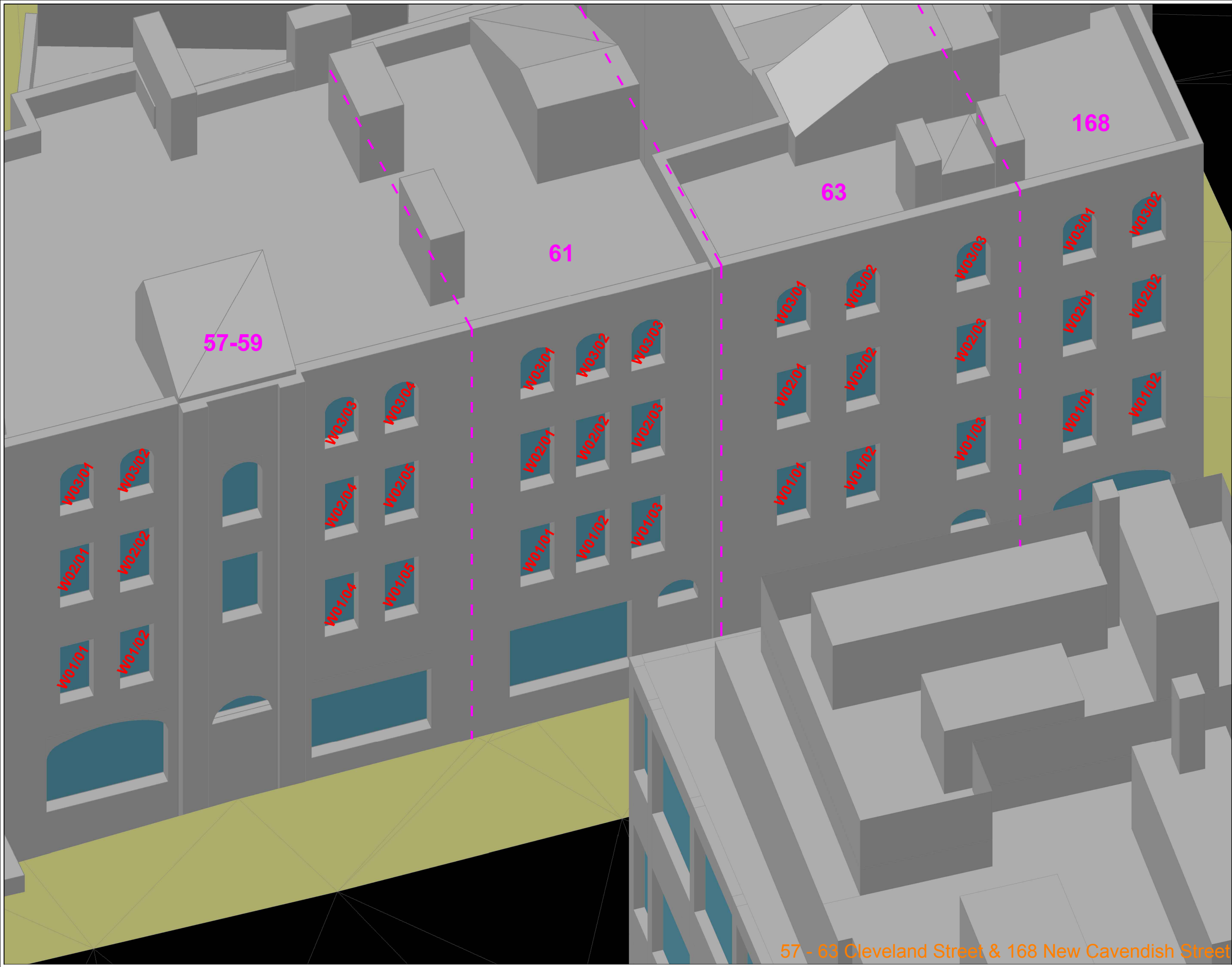
55 Cleveland Street  
Daylight / Sunlight Analysis  
Key Window Locations  
-  
-  
-

DRAWN: MJ	JOB NO:
SCALE: NTS	16066
DATE: 12/12/2016	

DWG NO:	REV:
LOC/814	-

55 Cleveland Street





Indicative

Existing

Proposed

Surrounding

W1/08

W1/08

Window Tested Daylight only

Window Tested Daylight & Sunlight

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E

Z Map Model

NOTES

Building not accessed to assess internal configuration - room uses assumed.

Site Plan

REV	Description	Drawn	Ch'kd	Date

DELVA PATMAN REDLER

Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

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TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

DAYLIGHT / SUNLIGHT ANALYSIS

DRAWING:

57-63 Cleveland Street & 168 New Cavendish St  
Daylight / Sunlight Analysis  
Key Window Locations

DRAWN: MJ

SCALE: NTS

DATE: 12/12/2016

JOB NO:

16066

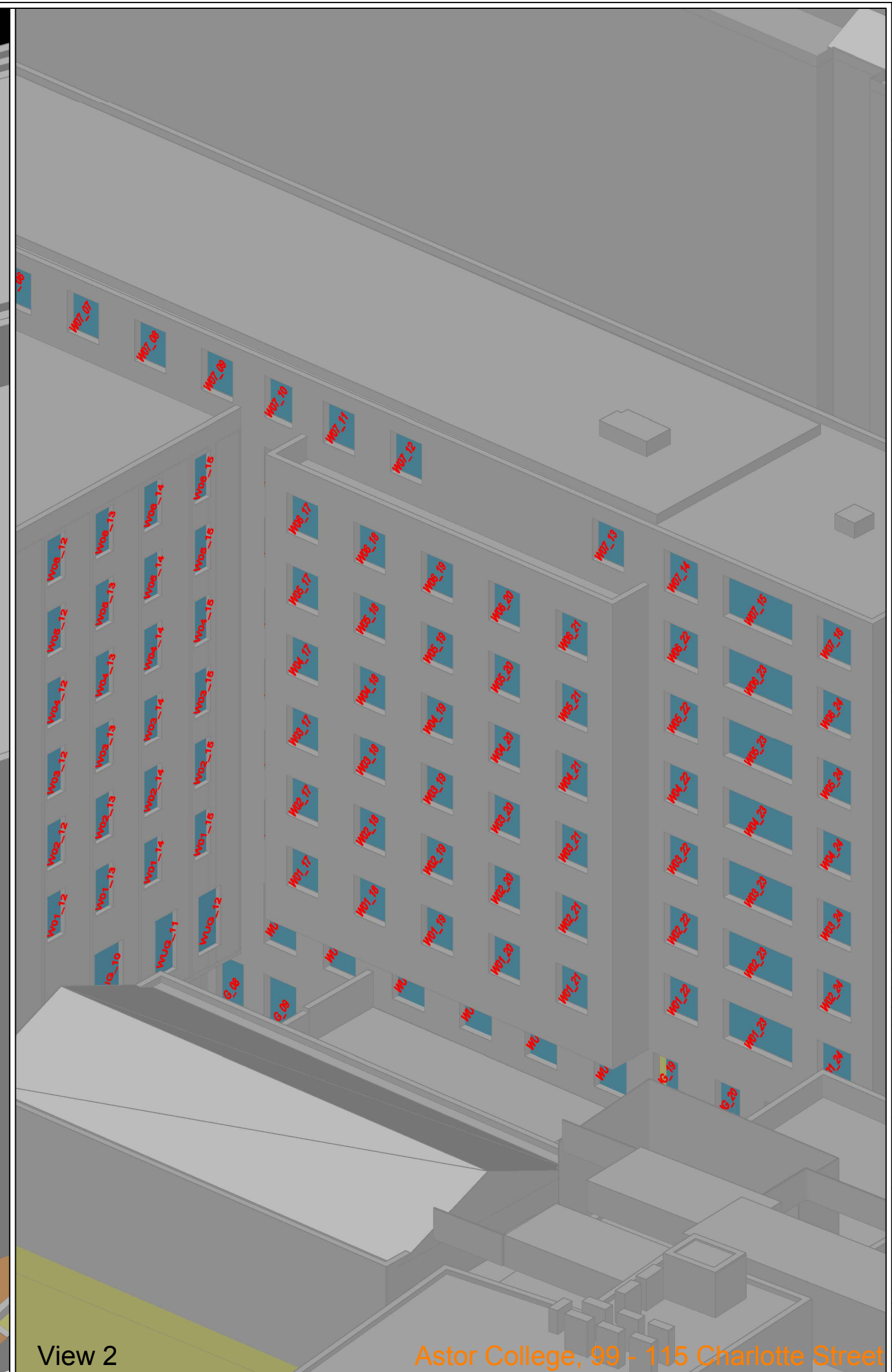
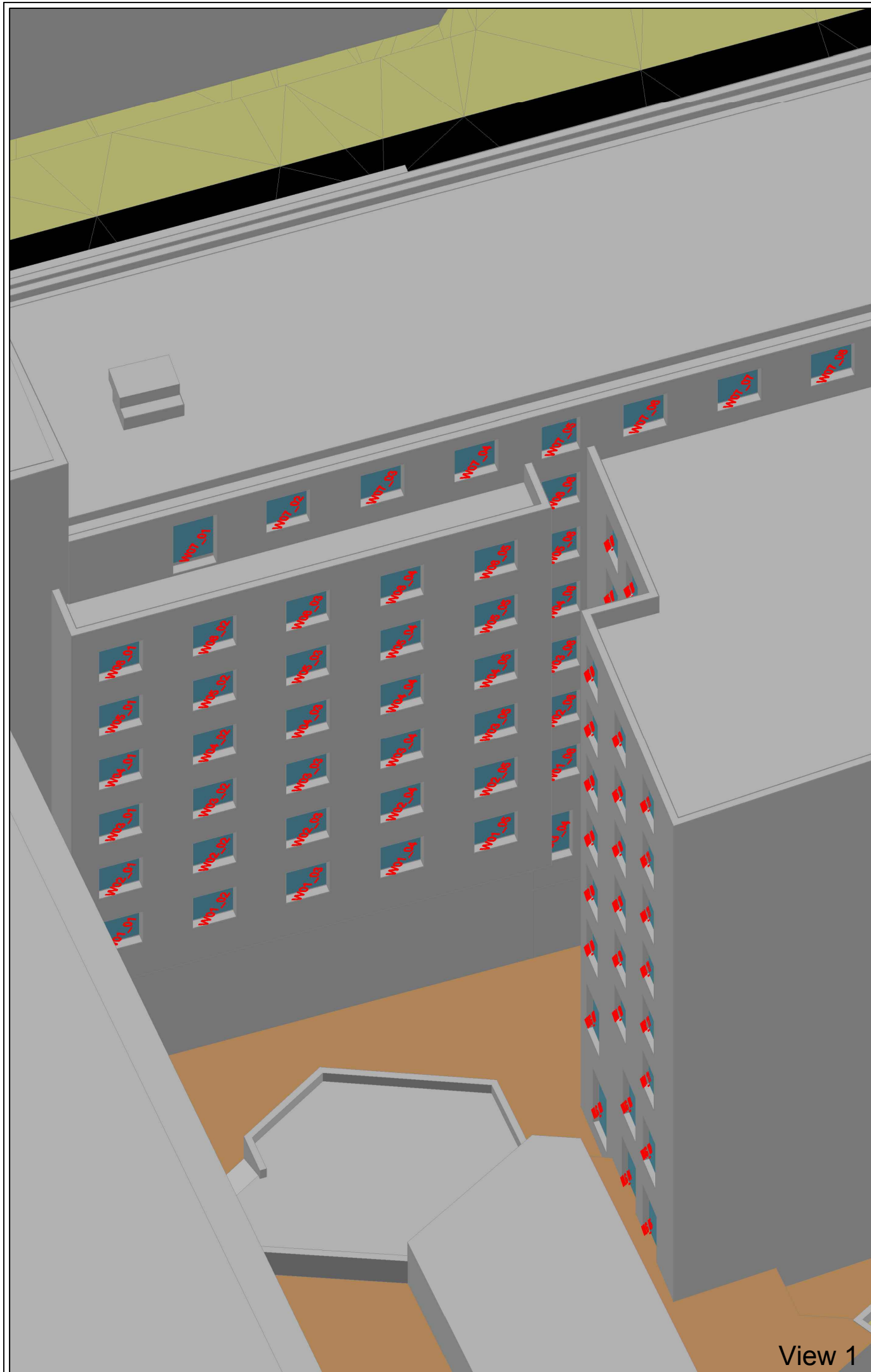
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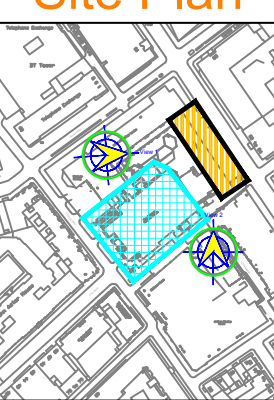

LOC/815

REV:

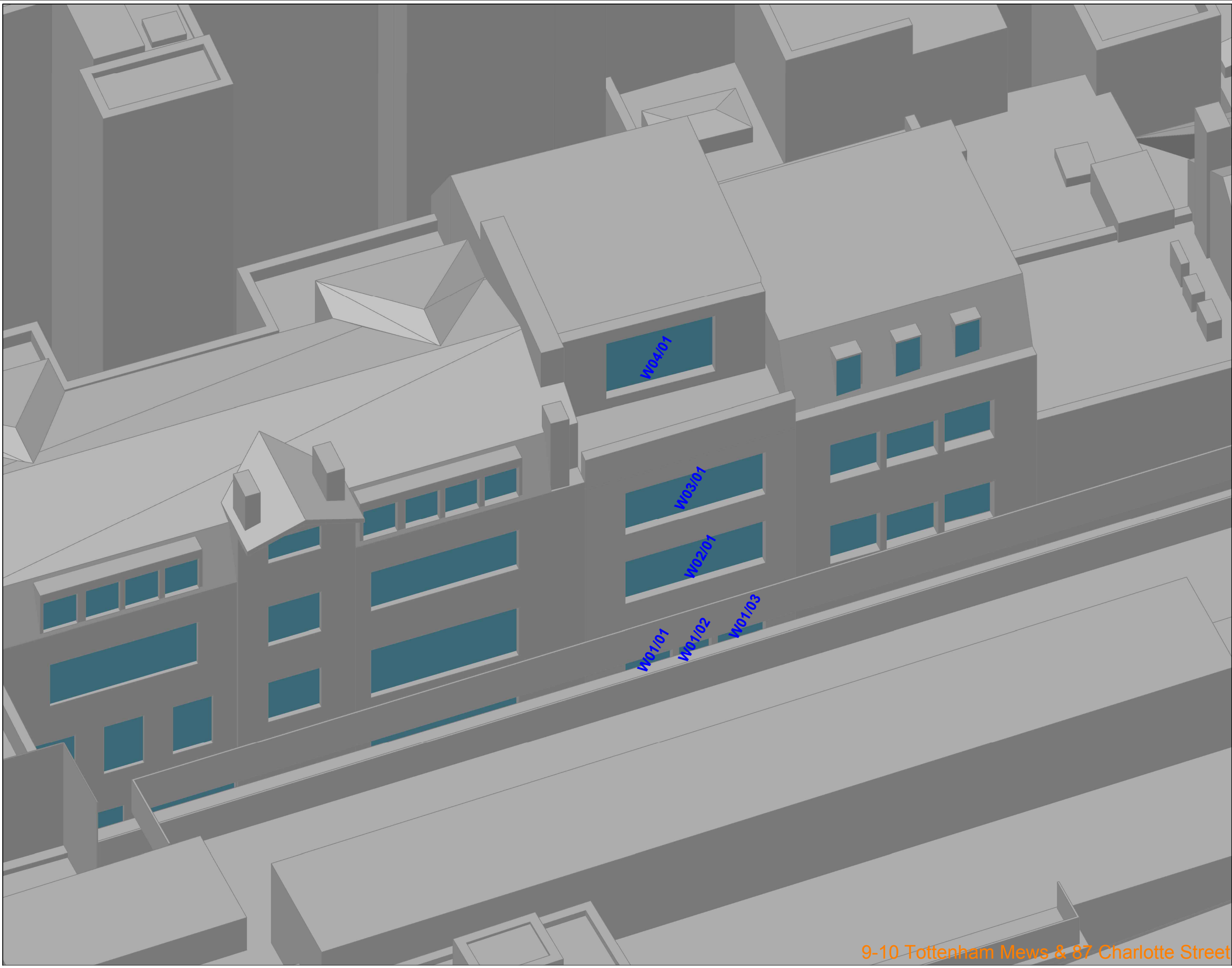
-

57 - 63 Cleveland Street & 168 New Cavendish Street



	<b>NO DIMENSIONS TO BE SCALED FROM THIS DRAWING:</b>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <div style="background-color: red; width: 20px; height: 10px; margin-bottom: 5px;"></div> Existing             </div> <div style="width: 40%;"> <div style="background-color: limegreen; width: 20px; height: 10px; margin-bottom: 5px;"></div> Proposed             </div> <div style="width: 40%;"> <div style="background-color: lightgrey; width: 20px; height: 10px; margin-bottom: 5px;"></div> Surrounding             </div> </div>	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); color: red; font-weight: bold; font-size: 1.2em; margin-right: 10px;">W1/08</div> <div style="flex-grow: 1;">Window Tested Daylight only</div> </div> <hr style="border: none; border-top: 1px solid black; margin: 5px 0;"/> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); color: blue; font-weight: bold; font-size: 1.2em; margin-right: 10px;">W1/08</div> <div style="flex-grow: 1;">Window Tested Daylight &amp; Sunlight</div> </div>			
<h3>SOURCE DATA</h3> <hr style="width: 50%; margin: auto;"/> <p><b>Drawings Used:</b></p> <ul style="list-style-type: none"> <li>Existing and surrounding buildings:</li> <li>Greenhatch Group:</li> <li>Dwg No's: 13514-02-P &amp; 13514-03 - 07-E</li> </ul> <p><b>Proposed Scheme:</b></p> <p>Llewelyn Davies:</p> <p>Dwg No's: 3D model (received 02/12/2016)</p> <ul style="list-style-type: none"> <li>P_GA_00 Rev E</li> <li>P_GA_01 Rev E</li> <li>P_GA_02 Rev E</li> <li>P_GA_03 Rev E</li> </ul> <p>Z Map Model</p>				
<h3>NOTES</h3> <hr style="width: 50%; margin: auto;"/> <p>Building not accessed to assess internal configuration - floor plans from archive was used.</p> <p>Levitt Bernstein</p> <p>Dwg No: 2869 L900 Rev P2</p> <ul style="list-style-type: none"> <li>2869 L100 Rev P21</li> <li>2869 L101 Rev P16</li> <li>2869 L103 Rev P18</li> </ul>				
<h1 style="color: orange;">Site Plan</h1>				
				
REV	Description	Drawn	Ch'kd	Date
<b>DELVA PATMAN REDLER</b> Chartered Surveyors				
Thavies Inn House 3-4 Holborn Circus London EC1N 2HA		020 7936 3668 <a href="mailto:info@delvapatmanredler.co.uk">info@delvapatmanredler.co.uk</a> <a href="http://www.delvapatmanredler.co.uk">www.delvapatmanredler.co.uk</a>		
<b>TITLE:</b> MIDDLESEX HOSPITAL ANNEXE CLEVELAND STREET LONDON - <span style="color: red;"><b>DAYLIGHT / SUNLIGHT ANALYSIS</b></span>				
<b>DRAWING:</b> Astor College, 99 - 115 Charlotte Street <span style="color: red;">Daylight / Sunlight Analysis</span> Key Window Locations - - -				
DRAWN: MJ		JOB NO:		
SCALE: NTS		16066		
DATE: 12/12/2016				
DWG NO:				REV:
LOC/816				-





9-10 Tottenham Mews & 87 Charlotte Street

NO DIMENSIONS TO BE SCALED  
FROM THIS DRAWING:

Existing

Proposed

Surrounding

Window Tested  
Daylight only

Window Tested  
Daylight &  
Sunlight

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E  
  
Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E  
  
Z Map Model

NOTES

Building not accessed to assess internal  
configuration - room uses assumed.

Site Plan

REV	Description	Drawn	Ch'kd	Date

**DELVA PATMAN REDLER**  
Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

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info@delvapatmanredler.co.uk  
www.delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON  
  
DAYLIGHT / SUNLIGHT ANALYSIS

DRAWING:

9-10 Tottenham Mews & 87 Charlotte Street  
Daylight / Sunlight Analysis  
Key Window Locations  
-  
-  
-

DRAWN: MJ  
SCALE: NTS  
DATE: 12/12/2016

JOB NO:  
**16066**

DWG NO:  
**LOC/817**

REV:  
-

**APPENDIX B**  
**DAYLIGHT AND SUNLIGHT ANALYSIS**

				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
Astor College	Lower Ground	Student Accommodation/R1	WLG_01	4.29	4.29	0.00%	0.00%	52.12%	52.12%	0.00%	1.56%	1.56%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	WLG_02	2.90	2.90	0.00%	0.00%	49.34%	49.34%	0.00%	1.22%	1.22%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	WLG_03	6.61	6.58	-0.49%	-0.49%	51.70%	51.70%	0.00%	1.92%	1.92%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	WLG_04	7.17	7.15	-0.36%	-0.36%	51.92%	51.92%	0.00%	2.01%	2.01%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	WLG_05	7.51	7.50	-0.15%	-0.15%	50.37%	50.37%	0.00%	1.96%	1.96%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	WLG_06	3.18	3.18	0.00%	-0.68%	69.77%	69.74%	-0.05%	1.53%	1.53%	-0.49%	N/A	N/A	N/A	N/A	N/A	N/A
			WLG_07	4.50	4.44	-1.36%		69.77%	69.74%	-0.05%	1.53%	1.53%	-0.49%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	WLG_08	5.72	4.19	-26.72%	-26.72%	82.85%	35.61%	-57.02%	0.97%	0.80%	-16.88%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	WLG_09	8.78	5.75	-34.45%	-34.45%	87.91%	43.00%	-51.09%	2.17%	1.72%	-20.79%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	WLG_10	6.06	3.40	-43.88%	-43.88%	89.50%	54.00%	-39.67%	1.76%	1.24%	-29.63%	N/A	N/A	N/A	N/A	N/A	N/A
	Upper Ground	Student Accommodation/R1	WUG_01	4.05	2.14	-47.15%	-47.15%	61.72%	49.77%	-19.36%	0.83%	0.49%	-41.04%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	WUG_02	3.39	2.09	-38.41%	-38.41%	76.21%	73.26%	-3.87%	0.73%	0.48%	-34.37%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	WUG_03	2.36	1.92	-18.88%	-18.88%	79.23%	74.45%	-6.03%	0.42%	0.34%	-18.49%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	WUG_04	2.34	2.30	-1.54%	-1.54%	36.50%	36.50%	0.00%	0.42%	0.42%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	WUG_05	4.26	4.26	0.00%	0.00%	35.21%	35.21%	0.00%	1.21%	1.21%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	WUG_06	3.71	3.71	0.00%	0.00%	33.38%	33.38%	0.00%	1.01%	1.01%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	WUG_07	7.91	7.91	0.00%	0.00%	26.09%	26.09%	0.00%	1.45%	1.45%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	WUG_08	8.94	8.90	-0.46%	-0.46%	37.81%	37.81%	0.00%	1.58%	1.58%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	WUG_09	9.38	9.34	-0.45%	-0.45%	32.34%	32.34%	0.00%	1.54%	1.54%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	WUG_10	17.42	15.06	-13.57%	-13.57%	72.07%	72.04%	-0.04%	2.03%	1.86%	-8.10%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	WUG_11	15.87	13.69	-13.73%	-13.73%	70.67%	70.67%	0.00%	2.04%	1.88%	-7.65%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	WUG_12	13.07	11.13	-14.86%	-14.86%	85.44%	85.39%	-0.05%	1.72%	1.58%	-7.92%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	WUG_13	8.74	4.00	-54.23%	-54.23%	65.98%	39.24%	-40.52%	1.32%	0.87%	-34.44%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R14	WUG_14	3.36	0.05	-98.37%	-98.37%	80.39%	13.39%	-83.34%	0.85%	0.02%	-97.66%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R15	WUG_15	3.53	0.07	-97.91%	-97.91%	84.86%	14.94%	-82.40%	0.83%	0.02%	-97.53%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R16	WUG_16	3.54	0.11	-96.92%	-96.00%	89.25%	31.42%	-64.80%	1.07%	0.04%	-96.09%	N/A	N/A	N/A	N/A	N/A	N/A
			WUG_17	3.39	0.17	-95.07%		89.25%	31.42%	-64.80%	1.07%	0.04%	-96.09%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R17	WUG_18	3.76	0.89	-76.28%	-76.28%	100.00%	62.66%	-37.34%	1.58%	0.43%	-72.44%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R18	WUG_19	16.27	13.13	-19.33%	-19.33%	91.55%	64.37%	-29.69%	1.70%	1.50%	-11.82%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R19	WUG_20	22.52	16.87	-25.09%	-25.09%	94.03%	77.78%	-17.28%	2.08%	1.72%	-17.03%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R20	WUG_21	22.62	17.58	-22.26%	-22.26%	96.11%	82.33%	-14.34%	2.08%	1.77%	-15.07%	N/A	N/A	N/A	N/A	N/A	N/A
	First	Student Accommodation/R1	W01_01	18.51	14.41	-22.19%	-22.19%	76.15%	76.15%	0.00%	2.14%	1.84%	-14.42%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	W01_02	18.98	14.91	-21.44%	-21.44%	90.60%	90.60%	0.00%	2.15%	1.85%	-13.92%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	W01_03	18.19	14.59	-19.77%	-19.77%	93.01%	93.01%	0.00%	2.09%	1.82%	-12.72%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	W01_04	16.16	13.69	-15.32%	-15.32%	97.92%	95.20%	-2.77%	1.96%	1.77%	-9.71%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	W01_05	12.92	12.10	-6.32%	-6.32%	88.28%	83.52%	-5.39%	1.65%	1.59%	-3.78%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	W01_06	3.10	3.10	0.00%	0.00%	40.16%	40.16%	0.00%	0.64%	0.64%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	W01_07	6.21	6.21	0.00%	0.00%	26.32%	26.32%	0.00%	1.01%	1.01%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_08	4.81	4.81	0.00%		26.32%	26.32%	0.00%	1.01%	1.01%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	W01_09	9.79	9.75	-0.40%	-0.40%	22.31%	22.31%	0.00%	1.22%	1.22%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	W01_10	10.77	10.73	-0.38%	-0.38%	27.60%	27.60%	0.00%	1.26%	1.26%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	W01_11	11.62	11.57	-0.37%	-0.37%	28.15%	28.15%	0.00%	1.28%	1.28%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	W01_12	22.99	18.61	-19.04%	-19.04%	94.13%	93.87%	-0.27%	1.64%	1.45%	-11.35%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	W01_13	21.59	17.87	-17.22%	-17.22%	94.15%	93.90%	-0.27%	1.60%	1.45%	-9.80%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	W01_14	19.47	16.43	-15.63%	-15.63%	93.77%	93.53%	-0.25%	1.46%	1.34%	-8.51%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R14	W01_15	16.55	14.13	-14.65%	-14.65%	84.89%	84.68%	-0.24%	1.14%	1.06%	-7.41%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R15	W01_16	10.71	5.51	-48.57%	-48.57%	38.87%	18.48%	-52.44%	0.61%	0.42%	-30.23%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R16	W01_17	22.30	13.38	-40.01%	-40.01%	97.17%	47.31%	-51.32%	2.30%	1.67%	-27.61%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R17	W01_18	25.18	15.16	-39.81%	-39.81%	97.45%	47.19%	-51.57%	2.47%	1.78%	-28.11%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R18	W01_18	25.18	15.16	-39.81%	-39.81%	97.45%	47.19%	-51.57%	2.47%	1.78%	-28.11%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R19	W01_19	26.87	16.68	-37.90%	-37.90%	98.69%	49.50%	-49.84%	2.62%	1.91%	-27.17%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R20	W01_20	27.55	17.98	-34.72%	-34.72%	99.84%	52.68%	-47.23%	2.65%	1.99%	-25.06%	N/A	N/A	N/A	N/A	N/A	N/A

				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
Astor College	First	Student Accommodation/R21	W01_21	27.56	19.04	-30.90%	-30.90%	96.71%	55.49%	-42.63%	2.69%	2.09%	-22.32%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R22	W01_22	23.79	18.47	-22.36%	-22.36%	100.00%	71.91%	-28.09%	3.01%	2.56%	-14.82%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R23	W01_23	27.71	21.86	-21.13%	-21.13%	100.00%	90.84%	-9.16%	4.45%	3.77%	-15.20%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R24	W01_24	27.36	22.49	-17.81%	-17.81%	100.00%	93.17%	-6.83%	3.30%	2.88%	-12.82%	N/A	N/A	N/A	N/A	N/A	N/A
	Second	Student Accommodation/R1	W02_01	20.33	16.48	-18.93%	-18.93%	83.83%	83.83%	0.00%	2.27%	1.99%	-12.36%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	W02_02	20.91	17.06	-18.38%	-18.38%	96.68%	96.68%	0.00%	2.28%	2.00%	-12.06%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	W02_03	20.11	16.68	-17.06%	-17.06%	97.65%	97.65%	0.00%	2.22%	1.98%	-11.04%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	W02_04	17.85	15.52	-13.07%	-13.07%	99.56%	97.75%	-1.82%	2.08%	1.91%	-8.31%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	W02_05	14.26	13.49	-5.41%	-5.41%	89.62%	85.38%	-4.74%	1.75%	1.69%	-3.29%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	W02_06	3.51	3.51	0.00%	0.00%	40.82%	40.82%	0.00%	0.70%	0.70%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	W02_07	7.22	7.22	0.00%	0.00%	33.29%	33.29%	0.00%	1.10%	1.10%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_08	5.83	5.83	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	W02_09	11.61	11.57	-0.34%	-0.34%	27.57%	27.57%	0.00%	1.35%	1.35%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	W02_10	12.84	12.80	-0.32%	-0.32%	34.75%	34.75%	0.00%	1.39%	1.39%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	W02_11	13.84	13.80	-0.31%	-0.31%	37.43%	37.43%	0.00%	1.42%	1.42%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	W02_12	26.33	21.54	-18.19%	-18.19%	94.86%	94.82%	-0.04%	1.79%	1.59%	-10.92%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	W02_13	24.07	20.44	-15.07%	-15.07%	94.48%	94.44%	-0.05%	1.72%	1.57%	-8.53%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	W02_14	21.23	18.48	-12.99%	-12.99%	93.82%	93.77%	-0.06%	1.54%	1.43%	-6.92%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R14	W02_15	17.67	15.55	-11.95%	-11.95%	85.09%	85.03%	-0.08%	1.19%	1.12%	-5.80%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R15	W02_16	11.64	6.77	-41.79%	-41.79%	38.95%	27.70%	-28.87%	0.64%	0.47%	-25.61%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R16	W02_17	24.70	15.98	-35.31%	-35.31%	97.40%	63.19%	-35.13%	2.46%	1.86%	-24.60%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R17	W02_18	28.09	18.17	-35.32%	-35.32%	97.73%	65.25%	-33.23%	2.67%	1.99%	-25.50%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R18	W02_19	30.19	19.95	-33.90%	-33.90%	99.54%	69.66%	-29.02%	2.85%	2.13%	-25.14%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R19	W02_20	31.15	21.37	-31.39%	-31.39%	99.93%	72.39%	-27.56%	2.91%	2.22%	-23.69%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R20	W02_21	31.45	22.58	-28.20%	-28.20%	96.72%	73.50%	-24.01%	2.97%	2.33%	-21.46%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R21	W02_22	26.94	21.46	-20.37%	-20.37%	100.00%	87.39%	-12.61%	3.28%	2.81%	-14.11%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R22	W02_23	31.46	25.50	-18.95%	-18.95%	100.00%	96.24%	-3.76%	4.90%	4.18%	-14.55%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R23	W02_24	31.73	26.75	-15.71%	-15.71%	100.00%	98.17%	-1.83%	3.69%	3.24%	-12.27%	N/A	N/A	N/A	N/A	N/A	N/A
	Third	Student Accommodation/R1	W03_01	22.51	18.95	-15.79%	-15.79%	90.99%	90.99%	0.00%	2.42%	2.17%	-10.60%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	W03_02	23.18	19.60	-15.44%	-15.44%	98.83%	98.83%	0.00%	2.44%	2.18%	-10.44%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	W03_03	22.46	19.24	-14.32%	-14.32%	99.37%	99.37%	0.00%	2.39%	2.16%	-9.53%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	W03_04	20.01	17.83	-10.89%	-10.89%	99.73%	99.24%	-0.49%	2.23%	2.08%	-7.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	W03_05	15.92	15.20	-4.53%	-4.53%	90.51%	86.63%	-4.28%	1.87%	1.82%	-2.77%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	W03_06	4.12	4.12	0.00%	0.00%	41.72%	41.72%	0.00%	0.78%	0.78%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	W03_07	8.44	8.44	0.00%	0.00%	43.10%	43.10%	0.00%	1.21%	1.21%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_08	7.20	7.20	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	W03_09	13.91	13.87	-0.27%	-0.27%	35.40%	35.40%	0.00%	1.50%	1.50%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	W03_10	15.38	15.34	-0.26%	-0.26%	45.50%	45.50%	0.00%	1.56%	1.56%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	W03_11	16.44	16.40	-0.26%	-0.26%	50.49%	50.49%	0.00%	1.58%	1.58%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	W03_12	28.49	24.84	-12.84%	-12.84%	95.28%	95.26%	-0.01%	1.89%	1.75%	-7.38%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	W03_13	25.98	23.32	-10.24%	-10.24%	94.82%	94.80%	-0.02%	1.81%	1.71%	-5.57%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	W03_14	22.66	20.69	-8.69%	-8.69%	93.90%	93.88%	-0.02%	1.61%	1.54%	-4.42%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R14	W03_15	18.42	16.94	-8.03%	-8.03%	85.29%	85.27%	-0.03%	1.22%	1.17%	-3.62%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R15	W03_16	12.36	8.28	-33.00%	-33.00%	39.17%	34.00%	-13.21%	0.66%	0.53%	-20.17%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R16	W03_17	26.32	18.95	-27.99%	-27.99%	97.20%	80.77%	-16.90%	2.57%	2.06%	-19.81%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R17	W03_18	30.05	21.59	-28.16%	-28.16%	99.69%	82.54%	-17.20%	2.81%	2.22%	-20.88%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R18	W03_19	32.11	23.47	-26.89%	-26.89%	99.95%	90.68%	-9.27%	2.99%	2.38%	-20.67%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R19	W03_20	33.26	24.91	-25.09%	-25.09%	99.96%	93.40%	-6.57%	3.07%	2.46%	-19.84%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R20	W03_21	33.88	26.13	-22.88%	-22.88%	96.72%	96.05%	-0.69%	3.16%	2.58%	-18.48%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R21	W03_22	29.02	24.14	-16.82%	-16.82%	100.00%	100.00%	0.00%	3.45%	3.04%	-11.94%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R22	W03_23	33.93	28.59	-15.74%	-15.74%	100.00%	100.00%	0.00%	5.22%	4.54%	-13.15%	N/A	nn	N/A	N/A	N/A	N/A
		Student Accommodation/R23	W03_24	34.29	29.87	-12.89%	-12.89%	100.00%	100.00%	0.00%	3.94%	3.50%	-11.09%	N/A	N/A	N/A	N/A	N/A	N/A

				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
Astor College	Fourth	Student Accommodation/R1	W04_01	24.93	21.69	-13.01%	-13.01%	97.77%	97.77%	0.00%	2.60%	2.36%	-9.08%	0	0	N/A	0	0	N/A
		Student Accommodation/R2	W04_02	25.86	22.55	-12.81%	-12.81%	99.22%	99.22%	0.00%	2.63%	2.39%	-9.02%	0	0	N/A	0	0	N/A
		Student Accommodation/R3	W04_03	25.35	22.34	-11.90%	-11.90%	99.55%	99.55%	0.00%	2.59%	2.38%	-8.30%	0	0	N/A	0	0	N/A
		Student Accommodation/R4	W04_04	22.90	20.83	-9.05%	-9.05%	99.76%	99.76%	0.00%	2.44%	2.29%	-6.09%	0	0	N/A	0	0	N/A
		Student Accommodation/R5	W04_05	18.23	17.54	-3.76%	-3.76%	92.84%	89.81%	-3.27%	2.03%	1.99%	-2.34%	0	0	N/A	0	0	N/A
		Student Accommodation/R6	W04_06	5.18	5.18	0.00%	0.00%	43.54%	43.54%	0.00%	0.90%	0.90%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R7	W04_07	10.01	10.01	0.00%	0.00%	56.98%	56.98%	0.00%	1.35%	1.35%	0.00%	0	0	N/A	0	0	N/A
			W04_08	9.18	9.18	0.00%								0	0	N/A	0	0	N/A
		Student Accommodation/R8	W04_09	16.92	16.88	-0.21%	-0.21%	47.20%	47.20%	0.00%	1.69%	1.69%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R9	W04_10	18.41	18.37	-0.21%	-0.21%	59.10%	59.10%	0.00%	1.74%	1.74%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R10	W04_11	19.47	19.43	-0.22%	-0.22%	62.70%	62.70%	0.00%	1.76%	1.76%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R11	W04_12	30.61	28.39	-7.25%	-7.25%	95.41%	95.40%	0.00%	1.99%	1.92%	-3.65%	0	0	N/A	0	0	N/A
		Student Accommodation/R12	W04_13	28.21	26.65	-5.52%	-5.52%	95.01%	95.00%	-0.01%	1.92%	1.87%	-2.56%	0	0	N/A	0	0	N/A
		Student Accommodation/R13	W04_14	24.38	23.28	-4.53%	-4.53%	93.98%	93.98%	-0.01%	1.69%	1.66%	-1.95%	0	0	N/A	0	0	N/A
		Student Accommodation/R14	W04_15	19.12	18.33	-4.15%	-4.15%	85.52%	85.51%	-0.01%	1.25%	1.23%	-1.52%	0	0	N/A	0	0	N/A
		Student Accommodation/R15	W04_16	13.38	10.21	-23.65%	-23.65%	39.85%	35.37%	-11.23%	0.69%	0.59%	-14.65%	0	0	N/A	0	0	N/A
		Student Accommodation/R16	W04_17	28.15	22.46	-20.22%	-20.22%	98.89%	84.81%	-14.23%	2.70%	2.30%	-14.61%	0	0	N/A	0	0	N/A
		Student Accommodation/R17	W04_18	31.93	25.34	-20.62%	-20.62%	99.95%	86.71%	-13.25%	2.94%	2.47%	-15.97%	0	0	N/A	0	0	N/A
		Student Accommodation/R18	W04_19	33.72	27.11	-19.61%	-19.61%	99.99%	94.34%	-5.64%	3.12%	2.63%	-15.91%	0	0	N/A	0	0	N/A
		Student Accommodation/R19	W04_20	34.63	28.37	-18.06%	-18.06%	99.96%	98.21%	-1.75%	3.18%	2.70%	-15.19%	0	0	N/A	0	0	N/A
		Student Accommodation/R20	W04_21	35.16	29.42	-16.34%	-16.34%	96.72%	96.57%	-0.16%	3.26%	2.80%	-14.11%	0	0	N/A	0	0	N/A
		Student Accommodation/R21	W04_22	29.83	26.40	-11.51%	-11.51%	100.00%	100.00%	0.00%	3.52%	3.23%	-8.27%	0	0	N/A	0	0	N/A
		Student Accommodation/R22	W04_23	35.16	31.24	-11.16%	-11.16%	100.00%	100.00%	-9.95%	5.39%	4.85%	-9.95%	0	0	N/A	0	0	N/A
		Student Accommodation/R23	W04_24	35.61	32.35	-9.14%	-9.14%	100.00%	100.00%	0.00%	4.07%	3.73%	-8.33%	0	0	N/A	0	0	N/A
	Fifth	Student Accommodation/R1	W05_01	27.68	24.73	-10.67%	-10.67%	98.75%	98.75%	0.00%	2.79%	2.57%	-7.72%	0	0	N/A	0	0	N/A
		Student Accommodation/R2	W05_02	28.93	25.81	-10.79%	-10.79%	99.47%	99.47%	0.00%	2.84%	2.62%	-7.93%	0	0	N/A	0	0	N/A
		Student Accommodation/R3	W05_03	28.90	25.96	-10.18%	-10.18%	99.68%	99.68%	0.00%	2.84%	2.63%	-7.48%	0	0	N/A	0	0	N/A
		Student Accommodation/R4	W05_04	27.00	24.84	-8.00%	-8.00%	100.00%	100.00%	0.00%	2.73%	2.58%	-5.68%	0	0	N/A	0	0	N/A
		Student Accommodation/R5	W05_05	22.17	21.44	-3.31%	-3.31%	98.78%	94.55%	-4.28%	2.30%	2.25%	-2.19%	0	0	N/A	0	0	N/A
		Student Accommodation/R6	W05_06	7.51	7.51	0.00%	0.00%	48.58%	48.58%	0.00%	1.10%	1.10%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R7	W05_07	12.47	12.47	0.00%	0.00%	75.29%	75.29%	0.00%	1.57%	1.57%	0.00%	0	0	N/A	0	0	N/A
			W05_08	12.48	12.48	0.00%								0	0	N/A	0	0	N/A
		Student Accommodation/R8	W05_09	20.64	20.61	-0.15%	-0.15%	62.55%	62.55%	0.00%	1.92%	1.92%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R9	W05_10	21.90	21.86	-0.16%	-0.16%	69.61%	69.61%	0.00%	1.94%	1.94%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R10	W05_11	22.85	22.81	-0.18%	-0.18%	70.79%	70.79%	0.00%	1.95%	1.95%	0.00%	0	0	N/A	0	0	N/A
		Student Accommodation/R11	W05_12	32.88	31.95	-2.85%	-2.85%	95.42%	95.42%	0.00%	2.10%	2.09%	-0.58%	0	0	N/A	0	0	N/A
		Student Accommodation/R12	W05_13	30.91	30.32	-1.91%	-1.91%	95.04%	95.03%	0.00%	2.05%	2.05%	-0.32%	0	0	N/A	0	0	N/A
		Student Accommodation/R13	W05_14	27.19	26.82	-1.37%	-1.37%	94.01%	94.01%	0.00%	1.82%	1.82%	-0.16%	0	0	N/A	0	0	N/A
		Student Accommodation/R14	W05_15	20.37	20.11	-1.23%	-1.23%	85.54%	85.54%	0.00%	1.30%	1.30%	-0.04%	0	0	N/A	0	0	N/A
		Student Accommodation/R15	W05_16	15.43	13.11	-15.03%	-15.03%	40.57%	37.18%	-8.34%	0.75%	0.68%	-9.63%	0	0	N/A	0	0	N/A
		Student Accommodation/R16	W05_17	30.99	26.76	-13.66%	-13.66%	99.99%	90.47%	-9.52%	2.90%	2.59%	-10.42%	0	0	N/A	0	0	N/A
		Student Accommodation/R17	W05_18	34.09	29.16	-14.48%	-14.48%	99.99%	91.80%	-8.19%	3.11%	2.73%	-12.21%	0	0	N/A	0	0	N/A
		Student Accommodation/R18	W05_19	35.32	30.54	-13.54%	-13.54%	99.99%	98.23%	-1.75%	3.25%	2.86%	-11.93%	0	0	N/A	0	0	N/A
		Student Accommodation/R19	W05_20	35.91	31.57	-12.07%	-12.07%	99.97%	99.97%	0.00%	3.29%	2.93%	-10.91%	0	0	N/A	0	0	N/A
		Student Accommodation/R20	W05_21	36.25	32.39	-10.65%	-10.65%	96.72%	96.69%	-0.03%	3.35%	3.03%	-9.77%	0	0	N/A	0	0	N/A
		Student Accommodation/R21	W05_22	30.58	28.45	-6.96%	-6.96%	100.00%	100.00%	0.00%	3.58%	3.40%	-5.13%	0	0	N/A	0	0	N/A
		Student Accommodation/R22	W05_23	36.21	33.55	-7.34%	-7.34%	100.00%	100.00%	0.00%	5.52%	5.15%	-6.80%	0	0	N/A	0	0	N/A
		Student Accommodation/R23	W05_24	36.54	34.33	-6.04%	-6.04%	100.00%	100.00%	0.00%	4.16%	3.93%	-5.66%	0	0	N/A	0	0	N/A
	Sixth	Student Accommodation/R1	W06_01	30.63	28.02	-8.53%	-8.53%	99.25%	99.25%	0.00%	3.01%	2.81%	-6.60%	0	0	N/A	0	0	N/A
		Student Accommodation/R2	W06_02	32.13	29.16	-9.25%	-9.25%	99.58%	99.58%	0.00%	3.08%	2.85%	-7.48%	0	0	N/A	0	0	N/A
		Student Accommodation/R3	W06_03	32.77	29.59	-9.71%	-9.71%	99.96%	99.96%	0.00%	3.13%	2.88%	-8.01%	0	0	N/A	0	0	N/A
		Student Accommodation/R4	W06_04	32.33	29.46	-8.87%	-8.87%	100.00%	100.00%	0.00%	3.13%	2.90%	-7.23%	0	0	N/A	0	0	N/A



				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
Astor College	Sixth	Student Accommodation/R5	W06_05	29.89	28.38	-5.06%	-5.06%	98.81%	97.61%	-1.21%	2.83%	2.72%	-4.01%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	W06_06	14.80	14.15	-4.41%	-4.41%	53.82%	53.82%	0.00%	1.61%	1.57%	-2.88%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	W06_07	18.57	18.57	0.00%	0.00%	88.70%	88.70%	0.00%	2.02%	2.02%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
			W06_08	19.20	19.20	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	W06_09	24.94	24.91	-0.11%	-0.11%	78.31%	78.31%	0.00%	2.17%	2.17%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	W06_10	25.76	25.73	-0.12%	-0.12%	84.80%	84.80%	0.00%	2.17%	2.17%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	W06_11	26.45	26.41	-0.14%	-0.14%	76.90%	76.90%	0.00%	2.15%	2.15%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	W06_12	35.47	34.86	-1.73%	-1.73%	95.42%	95.42%	0.00%	2.24%	2.24%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	W06_13	34.09	33.73	-1.07%	-1.07%	95.04%	95.04%	0.00%	2.22%	2.22%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	W06_14	31.51	31.29	-0.70%	-0.70%	94.01%	94.01%	0.00%	2.03%	2.03%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R14	W06_15	24.42	24.28	-0.60%	-0.60%	85.54%	85.54%	0.00%	1.47%	1.47%	0.00%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R15	W06_16	22.33	20.02	-10.34%	-10.34%	42.18%	40.88%	-3.08%	0.94%	0.88%	-6.93%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R16	W06_17	34.94	30.92	-11.51%	-11.51%	100.00%	96.41%	-3.59%	3.21%	2.88%	-10.12%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R17	W06_18	36.36	32.21	-11.42%	-11.42%	99.99%	97.65%	-2.35%	3.29%	2.95%	-10.46%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R18	W06_19	36.80	33.15	-9.94%	-9.94%	99.99%	99.99%	0.00%	3.37%	3.06%	-9.22%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R19	W06_20	37.03	33.90	-8.46%	-8.46%	99.97%	99.97%	0.00%	3.38%	3.11%	-7.92%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R20	W06_21	37.19	34.51	-7.20%	-7.20%	96.72%	96.71%	-0.01%	3.43%	3.20%	-6.78%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R21	W06_22	32.65	31.34	-4.00%	-4.00%	100.00%	100.00%	0.00%	3.78%	3.66%	-3.22%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R22	W06_23	37.21	35.48	-4.65%	-4.65%	100.00%	100.00%	0.00%	5.66%	5.42%	-4.38%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R23	W06_24	37.38	35.94	-3.86%	-3.86%	100.00%	100.00%	0.00%	4.24%	4.08%	-3.66%	N/A	N/A	N/A	N/A	N/A	N/A
	Seventh	Student Accommodation/R1	W07_01	34.04	31.82	-6.54%	-6.71%	99.94%	99.94%	0.00%	6.48%	6.11%	-5.78%	N/A	N/A	N/A	N/A	N/A	N/A
			W07_02	35.22	32.79	-6.89%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R2	W07_03	35.87	33.10	-7.71%	-7.71%	99.84%	99.84%	0.00%	3.39%	3.15%	-7.11%	N/A	N/A	N/A	N/A	N/A	N/A
			W07_04	36.31	33.15	-8.72%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R3	W07_05	36.52	33.02	-9.59%	-9.16%	100.00%	100.00%	0.00%	4.31%	3.95%	-8.43%	N/A	N/A	N/A	N/A	N/A	N/A
			W07_06	36.57	32.84	-10.18%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R4	W07_06	36.57	32.84	-10.18%	-10.18%	100.00%	100.00%	0.00%	3.48%	3.15%	-9.38%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R5	W07_07	36.44	32.79	-10.03%	-10.03%	100.00%	100.00%	0.00%	3.47%	3.15%	-9.28%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R6	W07_08	36.61	33.06	-9.71%	-9.71%	99.99%	99.99%	0.00%	3.49%	3.17%	-9.02%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R7	W07_09	37.09	33.65	-9.25%	-9.25%	100.00%	100.00%	0.00%	3.53%	3.22%	-8.62%	N/A	N/A	N/A	N/A	N/A	N/A
			W07_10	37.41	34.23	-8.49%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R8	W07_11	37.57	34.61	-7.88%	-8.19%	99.99%	99.99%	0.00%	4.42%	4.08%	-7.65%	N/A	N/A	N/A	N/A	N/A	N/A
			W07_12	37.65	35.04	-6.92%								N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R9	W07_12	37.65	35.04	-6.92%	-6.92%	99.93%	99.93%	0.00%	3.54%	3.31%	-6.48%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R10	W07_13	37.83	36.18	-4.35%	-4.35%	99.58%	99.58%	0.00%	3.72%	3.57%	-4.08%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R11	W07_14	37.90	36.51	-3.65%	-3.65%	100.00%	100.00%	0.00%	4.47%	4.32%	-3.42%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R12	W07_15	37.93	36.78	-3.03%	-3.03%	100.00%	100.00%	0.00%	5.88%	5.71%	-2.84%	N/A	N/A	N/A	N/A	N/A	N/A
		Student Accommodation/R13	W07_16	37.98	37.03	-2.48%	-2.48%	100.00%	100.00%	0.00%	4.47%	4.37%	-2.32%	N/A	N/A	N/A	N/A	N/A	N/A
10 Tottenham Mews	First	Living Room/R1	W01_01	9.84	9.84	0.00%	-0.01%	17.59%	17.59%	0.00%	1.62%	1.62%	-0.02%	7	7	0.00%	0	0	N/A
			W01_02	9.53	9.53	0.00%								6	6	0.00%	0	0	N/A
			W01_03	9.84	9.84	-0.03%								7	7	0.00%	0	0	N/A
	Second	Room/R1	W02_01	13.08	13.05	-0.26%	-0.26%	39.30%	39.30%	0.00%	2.81%	2.80%	-0.22%	18	18	0.00%	2	2	0.00%
	Third	Room/R1	W03_01	17.11	17.02	-0.48%	-0.48%	39.71%	39.35%	-0.90%	2.90%	2.89%	-0.41%	27	27	0.00%	4	4	0.00%
	Fourth	Living Room/R1	W04_01	23.40	23.39	-0.03%	-0.03%	99.06%	99.06%	0.00%	3.77%	3.76%	-0.24%	39	39	0.00%	7	7	0.00%
1 Foley Street	First	Room/R1	W01_01	19.20	19.21	0.06%	0.06%	96.41%	96.41%	0.00%	0.39%	0.39%	0.04%	27	27	0.00%	6	6	0.00%
			W01_02	19.15	19.16	0.05%								26	26	0.00%	6	6	0.00%
		Room/R2	W01_03	19.45	19.46	0.03%	-1.91%	100.00%	99.89%	-0.11%	0.99%	0.98%	-1.48%	26	26	0.00%	4	4	0.00%
			W01_04	19.74	19.75	0.06%								27	27	0.00%	4	4	0.00%
			W01_05	20.28	20.29	0.06%								28	28	0.00%	5	5	0.00%
			W01_06	22.78	22.32	-2.02%								23	23	0.00%	2	2	0.00%
			W01_07	24.58	23.38	-4.88%								4	4	0.00%	0	0	N/A
			W01_08	24.72	23.56	-4.69%								6	6	0.00%	0	0	N/A
		Room/R3	W01_09	24.71	23.57	-4.61%	-4.56%	98.85%	98.85%	0.00%	0.55%	0.53%	-3.64%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_10	24.71	23.59	-4.51%								N/A	N/A	N/A	N/A	N/A	N/A

				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
1 Foley Street	Second	Room/R1	W02_01	22.56	22.56	0.00%	-0.01%	91.08%	91.08%	0.00%	0.39%	0.39%	0.01%	32	32	0.00%	8	8	0.00%
			W02_02	22.46	22.45	-0.01%								33	33	0.00%	9	9	0.00%
		Room/R2	W02_03	22.68	22.67	-0.04%	-1.67%	100.00%	100.00%	0.00%	0.83%	0.82%	-1.15%	33	33	0.00%	7	7	0.00%
			W02_04	22.97	22.96	-0.03%								32	32	0.00%	5	5	0.00%
			W02_05	23.33	23.34	0.01%								30	30	0.00%	6	6	0.00%
			W02_06	26.53	25.88	-2.47%								25	25	0.00%	2	2	0.00%
			W02_07	28.46	26.81	-5.80%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R3	W02_08	28.69	27.07	-5.64%	-5.64%	97.58%	96.73%	-0.87%	0.34%	0.32%	-4.47%	N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	25.77	25.77	-0.01%	-0.01%	96.25%	96.25%	0.00%	0.34%	0.34%	0.03%	40	40	0.00%	11	11	0.00%
			W03_02	25.74	25.74	-0.01%								40	40	0.00%	10	10	0.00%
		Room/R2	W03_03	26.06	26.06	-0.02%	-2.09%	100.00%	100.00%	0.00%	0.68%	0.67%	-1.52%	41	41	0.00%	9	9	0.00%
			W03_04	26.42	26.42	0.01%								36	36	0.00%	8	8	0.00%
			W03_05	30.11	29.36	-2.49%								28	28	0.00%	2	2	0.00%
			W03_06	31.77	29.90	-5.87%								N/A	N/A	N/A	N/A	N/A	N/A
			W03_07	32.24	30.30	-6.01%	-6.01%	96.38%	95.57%	-0.84%	0.29%	0.27%	-5.16%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R3	W03_08	32.24	30.30	-6.01%	-6.01%	96.38%	95.57%	-0.84%	0.29%	0.27%	-5.16%	N/A	N/A	N/A	N/A	N/A	N/A
45 To 49 Cleveland Street	First	Room/R1	W01_01	24.10	23.21	-3.67%	-3.67%	99.07%	95.28%	-3.82%	0.53%	N/A	0.52%	-3.00%	N/A	N/A	N/A	N/A	N/A
		Room/R2	W01_02	10.63	9.53	-10.34%	-10.34%	68.97%	58.00%	-15.90%	0.06%	0.05%	-21.26%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R4	W01_04	12.03	10.18	-15.40%	-15.40%	74.52%	53.90%	-27.68%	0.07%	0.05%	-27.07%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R5	W01_05	23.78	21.46	-9.75%	-9.75%	98.57%	87.99%	-10.73%	0.51%	0.48%	-6.76%	N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	27.51	26.07	-5.24%	-5.24%	99.68%	99.68%	0.00%	0.57%	0.55%	-4.07%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R2	W02_02	12.98	12.18	-6.09%	-6.09%	91.27%	73.47%	-19.50%	0.08%	0.07%	-12.77%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R4	W02_04	14.07	13.24	-5.89%	-5.89%	91.94%	73.12%	-20.47%	0.09%	0.07%	-14.30%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R5	W02_05	27.60	25.14	-8.89%	-8.89%	99.74%	99.39%	-0.35%	0.54%	N/A	0.51%	-6.25%	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	29.31	27.40	-6.52%	-6.52%	96.11%	96.11%	0.00%	0.52%	N/A	0.49%	-5.31%	N/A	N/A	N/A	N/A	N/A
		Room/R2	W03_02	11.68	11.68	0.00%	0.00%	92.22%	92.22%	0.00%	0.17%	0.16%	-6.51%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R4	W03_04	12.37	12.37	0.00%	0.00%	92.12%	92.12%	0.00%	0.18%	0.16%	-7.17%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R5	W03_05	29.09	26.61	-8.52%	-8.52%	96.21%	96.21%	0.00%	0.49%	0.46%	-6.67%	N/A	N/A	N/A	N/A	N/A	N/A
	Fourth	Room/R1	W04_01	33.52	31.45	-6.18%	-6.18%	84.45%	82.55%	-2.25%	0.40%	0.38%	-5.18%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R2	W04_02	30.72	28.73	-6.49%	-6.49%	93.42%	92.69%	-0.78%	0.25%	0.24%	-4.91%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R4	W04_04	31.95	29.80	-6.75%	-6.75%	93.57%	93.57%	0.00%	0.27%	0.25%	-5.31%	N/A	N/A	N/A	N/A	N/A	N/A
		Room/R5	W04_05	32.90	30.51	-7.27%	-7.27%	89.92%	89.92%	0.00%	0.39%	0.37%	-5.92%	N/A	N/A	N/A	N/A	N/A	N/A
51A_51 Cleveland Street	First	Room/R1	W01_01	22.09	19.97	-9.59%	-6.37%	96.21%	88.55%	-7.97%	0.47%	0.45%	-4.39%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	21.22	19.79	-6.75%								N/A	N/A	N/A	N/A	N/A	N/A
			W01_03	20.84	20.27	-2.76%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	26.40	23.99	-9.14%	-6.39%	98.70%	94.64%	-4.11%	0.43%	0.41%	-4.94%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	25.55	23.79	-6.89%								N/A	N/A	N/A	N/A	N/A	N/A
			W02_03	24.99	24.21	-3.14%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	30.06	27.42	-8.77%	-7.66%	98.68%	98.09%	-0.60%	0.45%	0.43%	-6.10%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	29.56	27.22	-7.89%								N/A	N/A	N/A	N/A	N/A	N/A
			W03_03	29.02	27.19	-6.32%								N/A	N/A	N/A	N/A	N/A	N/A
53 Cleveland Street	First	Room/R1	W01_01	21.49	21.11	-1.74%	-2.66%	95.41%	94.11%	-1.37%	0.39%	0.39%	-1.92%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	21.57	20.80	-3.58%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	24.99	24.34	-2.60%	-3.73%	97.01%	94.02%	-3.08%	0.36%	0.35%	-3.37%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	24.92	23.71	-4.87%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	28.60	26.82	-6.20%	-6.67%	98.07%	97.44%	-0.64%	0.38%	0.36%	-5.51%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	28.25	26.24	-7.13%								N/A	N/A	N/A	N/A	N/A	N/A
	Fourth	Room/R1	W04_01	31.34	29.10	-7.13%	-7.12%	98.95%	98.95%	0.00%	0.34%	0.32%	-5.46%	N/A	N/A	N/A	N/A	N/A	N/A
			W04_02	30.85	28.65	-7.12%								N/A	N/A	N/A	N/A	N/A	N/A
55 Cleveland Street	First	Room/R1	W01_01	21.70	20.43	-5.85%	-6.59%	95.99%	93.68%	-2.40%	0.42%	0.40%	-4.75%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	21.57	19.99	-7.33%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	24.85	23.10	-7.04%	-7.49%	95.23%	92.24%	-3.14%	0.37%	0.35%	-5.59%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	24.59	22.64	-7.94%								N/A	N/A	N/A	N/A	N/A	N/A

				VSC				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	%age Diff
55 Cleveland Street	Third	Room/R1	W03_01	27.81	25.63	-7.86%	-7.93%	97.76%	97.14%	-0.63%	0.39%	0.37%	-5.84%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	27.36	25.17	-8.00%								N/A	N/A	N/A	N/A	N/A	N/A
	Fourth	Room/R1	W04_01	30.24	28.12	-7.03%	-7.01%	99.07%	99.07%	0.00%	0.34%	0.32%	-5.23%	N/A	N/A	N/A	N/A	N/A	N/A
			W04_02	29.64	27.56	-7.00%								N/A	N/A	N/A	N/A	N/A	N/A
57 To 59 Cleveland Street	First	Room/R1	W01_01	20.67	18.90	-8.56%	-8.88%	88.23%	86.34%	-2.14%	0.34%	0.32%	-6.08%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	19.86	18.03	-9.19%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R3	W01_04	18.25	16.49	-9.65%	-9.23%	78.60%	68.66%	-12.64%	0.30%	0.29%	-6.12%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_05	18.41	16.78	-8.82%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	23.46	21.44	-8.59%	-8.78%	94.17%	94.17%	0.00%	0.38%	0.35%	-6.15%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	22.55	20.53	-8.97%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R3	W02_04	20.76	18.93	-8.81%	-8.43%	85.69%	85.41%	-0.32%	0.33%	0.32%	-5.66%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_05	20.91	19.23	-8.05%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	26.08	23.96	-8.13%	-8.25%	91.21%	91.06%	-0.16%	0.31%	0.29%	-5.98%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	25.10	23.00	-8.37%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R2	W03_03	23.22	21.35	-8.01%	-7.70%	83.37%	82.14%	-1.47%	0.28%	0.26%	-5.41%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_04	23.40	21.67	-7.39%								N/A	N/A	N/A	N/A	N/A	N/A
61 Cleveland Street	First	Room/R1	W01_01	16.85	15.54	-7.78%	-7.29%	74.82%	65.95%	-11.85%	0.32%	0.30%	-5.29%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	16.24	15.05	-7.32%								N/A	N/A	N/A	N/A	N/A	N/A
			W01_03	15.78	14.71	-6.76%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	19.27	17.90	-7.11%	-6.74%	83.48%	83.01%	-0.56%	0.36%	0.34%	-4.95%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	18.63	17.37	-6.75%								N/A	N/A	N/A	N/A	N/A	N/A
			W02_03	18.13	16.97	-6.37%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	21.71	20.26	-6.70%	-6.43%	80.74%	78.54%	-2.73%	0.29%	0.28%	-4.88%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	21.09	19.74	-6.43%								N/A	N/A	N/A	N/A	N/A	N/A
			W03_03	20.58	19.31	-6.15%								N/A	N/A	N/A	N/A	N/A	N/A
63 Cleveland Street	First	Room/R1	W01_01	15.47	14.67	-5.18%	-4.89%	76.61%	74.73%	-2.46%	0.28%	0.27%	-3.41%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	15.27	14.57	-4.59%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R2	W01_03	15.24	14.69	-3.62%	-3.62%	50.27%	50.27%	0.00%	0.20%	0.20%	-2.60%	N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	17.70	16.78	-5.20%	-4.98%	85.55%	85.13%	-0.49%	0.31%	0.30%	-3.50%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	17.44	16.61	-4.76%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R2	W02_03	17.32	16.64	-3.93%	-3.93%	54.36%	54.36%	0.00%	0.23%	0.22%	-2.76%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_01	20.11	19.05	-5.27%								N/A	N/A	N/A	N/A	N/A	N/A
		Room/R1	W03_02	19.78	18.82	-4.86%	-5.07%	83.41%	79.68%	-4.47%	0.26%	0.25%	-3.63%	N/A	N/A	N/A	N/A	N/A	N/A
168 New Cavendish Street	First	Room/R1	W03_03	19.58	18.81	-3.94%	-3.94%	51.82%	51.82%	0.00%	0.19%	0.18%	-2.83%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_01	15.60	15.16	-2.81%	-1.27%	96.96%	96.96%	0.00%	0.55%	0.55%	-0.90%	N/A	N/A	N/A	N/A	N/A	N/A
			W01_02	16.12	15.75	-2.27%								N/A	N/A	N/A	N/A	N/A	N/A
			W01_03	17.02	17.02	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
			W01_04	16.59	16.59	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
	Second	Room/R1	W02_01	17.61	17.08	-3.01%	-1.35%	96.99%	96.99%	0.00%	0.60%	0.59%	-0.94%	N/A	N/A	N/A	N/A	N/A	N/A
			W02_02	18.08	17.64	-2.41%								N/A	N/A	N/A	N/A	N/A	N/A
			W02_03	18.65	18.65	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
			W02_04	18.18	18.18	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
	Third	Room/R1	W03_01	19.77	19.19	-2.96%	-1.33%	96.97%	96.97%	0.00%	0.49%	0.48%	-0.92%	N/A	N/A	N/A	N/A	N/A	N/A
			W03_02	20.18	19.71	-2.35%								N/A	N/A	N/A	N/A	N/A	N/A
			W03_03	20.42	20.42	0.00%								N/A	N/A	N/A	N/A	N/A	N/A
			W03_04	19.92	19.92	0.00%								N/A	N/A	N/A	N/A	N/A	N/A

**APPENDIX D**

**INTERNAL DAYLIGHT ADEQUACY ANALYSIS  
16066/LOC/822-825**



NO DIMENSIONS TO BE SCALED FROM THIS DRAWING:

Floor Plan

Room Layouts

Unit Layouts

Window Tested Daylight only

Window Tested Daylight & Sunlight

**SOURCE DATA**

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
LLewelyn Davies:  
Dwg No's: 3D model (received 17/01/2017)  
P\_GA\_00  
P\_GA\_01  
P\_GA\_02  
P\_GA\_03

Z Map Model

**NOTES**

Standard Double Glazed Transmittance value of 65% used for ADF assessments.

Cross Hatched Rooms do not comply with BS 8206-2:2008.

REV	Description	Drawn	Ch'kd	Date
1	Initial Issue			

**DELVA PATMAN REDLER**  
Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
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020 7936 3668  
www.delvapatmanredler.co.uk

The Plaza  
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Liverpool L3 9QJ  
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TITLE:

MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON

DAYLIGHT / SUNLIGHT ANALYSIS

DRAWING:

Middlesex Hospital Annexe  
Daylight / Sunlight Analysis  
Key Window Locations

DRAWN: MJ

SCALE: 1:200@A3

DATE: 19/01/207

JOB NO:

16066

DWG NO:

LOC/822

REV:

-

Ground Floor Plan

The floor plan shows a residential building with a central corridor and several rooms. The rooms are labeled as follows:

- Top Left:** R1 Study, R2 Bedroom, R3 Bedroom (hatched), R4 Study.
- Top Right:** R5 Bedroom, R4 Bedroom (hatched).
- Middle Left:** R1 LKD, R2 Bedroom, R3 Living Room (hatched).
- Middle Right:** R2 Bedroom, R3 Living Room (hatched).
- Bottom Left:** R2 Bedroom, R3 Bedroom, R4 Bedroom, R5 LKD, R6 Bedroom, R7 Bedroom.

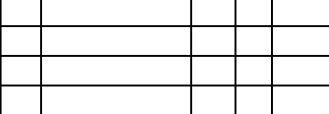
The central corridor is labeled "Work House" in blue text. The corridor is marked with yellow lines and red labels: W01\_01, W01\_02, W01\_03, W01\_04, W01\_05, W01\_06, W01\_07, W01\_08, W01\_09, W01\_10, and W01\_11. The rooms are outlined in cyan, and the hatched rooms are filled with a pink cross-hatch pattern.

## Affordable

## First Floor Plan

W1/08  
80/1M

W1/08  
80/1M











Dwg No	Address	Floor Level	Room Name	Window ID	ADF (Room) %age	Pass Rate %age	Condition
-	North House	Ground	KD/R1	WG_01	3.30%	2.00%	Pass
-				WG_02			
-			Living Room/R2	WG_03	1.72%	1.50%	Pass
-				WG_04			
-			Living Room/R3	WG_05	1.89%	1.50%	Pass
-				WG_06			
-			KD/R4	WG_07	0.95%	2.00%	Fail
-		First	Study/R1	W01_01	5.38%	-1.00%	Pass
-				W01_02			
-			Bedroom/R2	W01_03	1.57%	1.00%	Pass
-				W01_04			
-			Bedroom/R3	W01_05	0.86%	1.00%	Fail
-			Study/R4	W01_06	1.45%	-1.00%	Pass
-		Second	Bedroom/R1	W02_01	4.77%	1.00%	Pass
-				W02_02			
-			Bedroom/R2	W02_03	1.97%	1.00%	Pass
-				W02_04			
-			Bedroom/R3	W02_05	1.07%	1.00%	Pass
-							
-	WorkHouse	Ground	LKD/R1	WG_01	3.86%	2.00%	Pass
-				WG_02			
-				WG_03			
-			Bedroom/R2	WG_04	2.41%	1.00%	Pass
-			Bedroom/R3	WG_05	3.53%	1.00%	Pass
-				WG_06			
-			Bedroom/R4	WG_07	3.98%	1.00%	Pass
-				WG_08			
-				WG_09			
-			Bedroom/R5	WG_10	1.69%	1.00%	Pass
-		First	LKD/R1	W01_01	5.23%	2.00%	Pass
-				W01_02			
-				W01_03			
-			Bedroom/R2	W01_04	2.75%	1.00%	Pass
-			Bedroom/R3	W01_05	2.67%	1.00%	Pass
-			Bedroom/R4	W01_06	2.59%	1.00%	Pass
-			LKD/R5	W01_07	4.78%	2.00%	Pass
-				W01_08			
-				W01_09			
-			Bedroom/R6	W01_10	2.68%	1.00%	Pass
-			Bedroom/R7	W01_11	2.13%	1.00%	Pass
-		Second	LKD/R1	W02_01	4.53%	2.00%	Pass
-				W02_02			
-				W02_03			
-			Bedroom/R2	W02_04	2.92%	1.00%	Pass
-			Bedroom/R3	W02_05	2.82%	1.00%	Pass
-			Bedroom/R4	W02_06	2.66%	1.00%	Pass
-			LKD/R5	W02_07	3.90%	2.00%	Pass
-				W02_08			
-				W02_09			
-			Bedroom/R6	W02_10	2.59%	1.00%	Pass
-			Bedroom/R7	W02_11	2.35%	1.00%	Pass
-		Third	Living Room/R1	W03_01	4.32%	1.50%	Pass
-				W03_02			

Dwg No	Address	Floor Level	Room Name	Window ID	ADF (Room) %age	Pass Rate %age	Condition	
-	WorkHouse	Third	Living Room/R1	W03_03	4.32%	1.50%	Pass	
-			KD/R2	W03_04	3.44%	2.00%	Pass	
-				W03_05				
-			Living Room/R3	W03_06	2.25%	1.50%	Pass	
-			LD/R4	W03_07	3.78%	1.50%	Pass	
-				W03_08				
-				W03_09				
-				W03_10				
-			Bedroom/R5	W03_11	1.91%	1.00%	Pass	
-	South House	First	LKD/R1	W01_01	1.41%	2.00%	Fail	
-				W01_02				
-			Living Room/R2	W01_03	1.68%	1.50%	Pass	
-				W01_04				
-			LK/R3	W01_05	4.12%	2.00%	Pass	
-				W01_06				
-				W01_07				
-			Second	Study/R1	W02_01	1.48%	-1.00%	Pass
-		Bedroom/R2		W02_02	0.90%	1.00%	Fail	
-		Bedroom/R3		W02_03	2.75%	1.00%	Pass	
-				W02_04				
-		Bedroom/R4		W02_05	4.10%	1.00%	Pass	
-				W02_06				
-				W02_07				
-		Affordable		First	LKD/R1	W01_01	2.67%	2.00%
-			W01_02					
-	Bedroom/R2		W01_03		2.72%	1.00%	Pass	
-	Living Room/R3		W01_04		1.18%	1.50%	Fail	
-			W01_05					
-	Bedroom/R4		W01_06		0.49%	1.00%	Fail	
-	Bedroom/R5		W01_07		1.24%	1.00%	Pass	
-	Second		LKD/R1	W02_01	4.12%	2.00%	Pass	
-				W02_02				
-				W02_03				
-			Bedroom/R2	W02_04	2.41%	1.00%	Pass	
-			Living Room/R3	W02_05	1.64%	1.50%	Pass	
-				W02_06				
-			Bedroom/R4	W02_07	0.85%	1.00%	Fail	
-			Bedroom/R5	W02_08	1.34%	1.00%	Pass	
-	Third		LKD/R1	W03_01	4.47%	2.00%	Pass	
-				W03_02				
-				W03_03				
-			Bedroom/R2	W03_04	2.80%	1.00%	Pass	
-			Living Room/R3	W03_05	2.52%	1.50%	Pass	
-				W03_06				
-			Living Room/R4	W03_07	3.22%	1.50%	Pass	
-				W03_08				
-				W03_09				
-			Kitchen/R5	W03_10	2.36%	2.00%	Pass	
-			Living Room/R6	W03_11	3.69%	1.50%	Pass	
-				W03_12				
-				W03_13				
-			Kitchen/R7	W03_14	2.38%	2.00%	Pass	

Red Text Cells do not meet the BRE recommendations  
Positive %age figures indicate an improvement  
in the natural lighting conditions

Dwg No	Address	Floor Level	Room Name	Window ID	ADF (Room) %age	Pass Rate %age	Condition
-	Affordable	Third	LKD/R8	W03_15	4.95%	2.00%	Pass
-				W03_16			
-				W03_17			
-				W03_18			
-				W03_19			
-			Bedroom/R9	W03_20	4.69%	1.00%	Pass
-				W03_21			
-			Bedroom/R10	W03_22	2.44%	1.00%	Pass
-				W03_23			
-			Bedroom/R11	W03_24	6.05%	1.00%	Pass
-				W03_25			
-				W03_26			
-			Bedroom/R12	W03_27	3.19%	1.00%	Pass
-				W03_28			
-			Living Room/R13	W03_29	2.79%	1.50%	Pass
-				W03_30			
-			LKD/R14	W03_31	4.18%	2.00%	Pass
-				W03_32			
-				W03_33			
-				W03_34			
-				W03_35			
-			Bedroom/R15	W03_36	2.63%	1.00%	Pass
-				W03_37			
-				W03_38			
-			KD/R16	W03_39	1.65%	2.00%	Fail
-				W03_40			
-			Living Room/R17	W03_41	2.66%	1.50%	Pass
-				W03_42			
-				W03_43			
-			KD/R18	W03_44	1.66%	2.00%	Fail
-				W03_45			
-			Living Room/R19	W03_46	2.60%	1.50%	Pass
-				W03_47			
-				W03_48			
-			Living Room/R20	W03_49	1.29%	1.50%	Fail
-			Bedroom/R21	W03_50	1.04%	1.00%	Pass
-				W03_51			
-			Bedroom/R22	W03_52	0.00%	1.00%	Fail
-				W03_53			
-			Bedroom/R23	W03_54	0.00%	1.00%	Fail
-			LD/R24	W03_55	2.11%	1.50%	Pass
-				W03_56			
-				W03_57			
-				W03_58			
-				W03_59			
-			Kitchen/R25	W03_60	1.31%	2.00%	Fail
-			Bedroom/R26	W03_61	1.07%	1.00%	Pass
-			Bedroom/R27	W03_62	1.99%	1.00%	Pass
-			Living Room/R28	W03_63	2.98%	1.50%	Pass
-				W03_64			
-			Bedroom/R29	W03_65	1.23%	1.00%	Pass
-			Bedroom/R30	W03_66	0.52%	1.00%	Fail

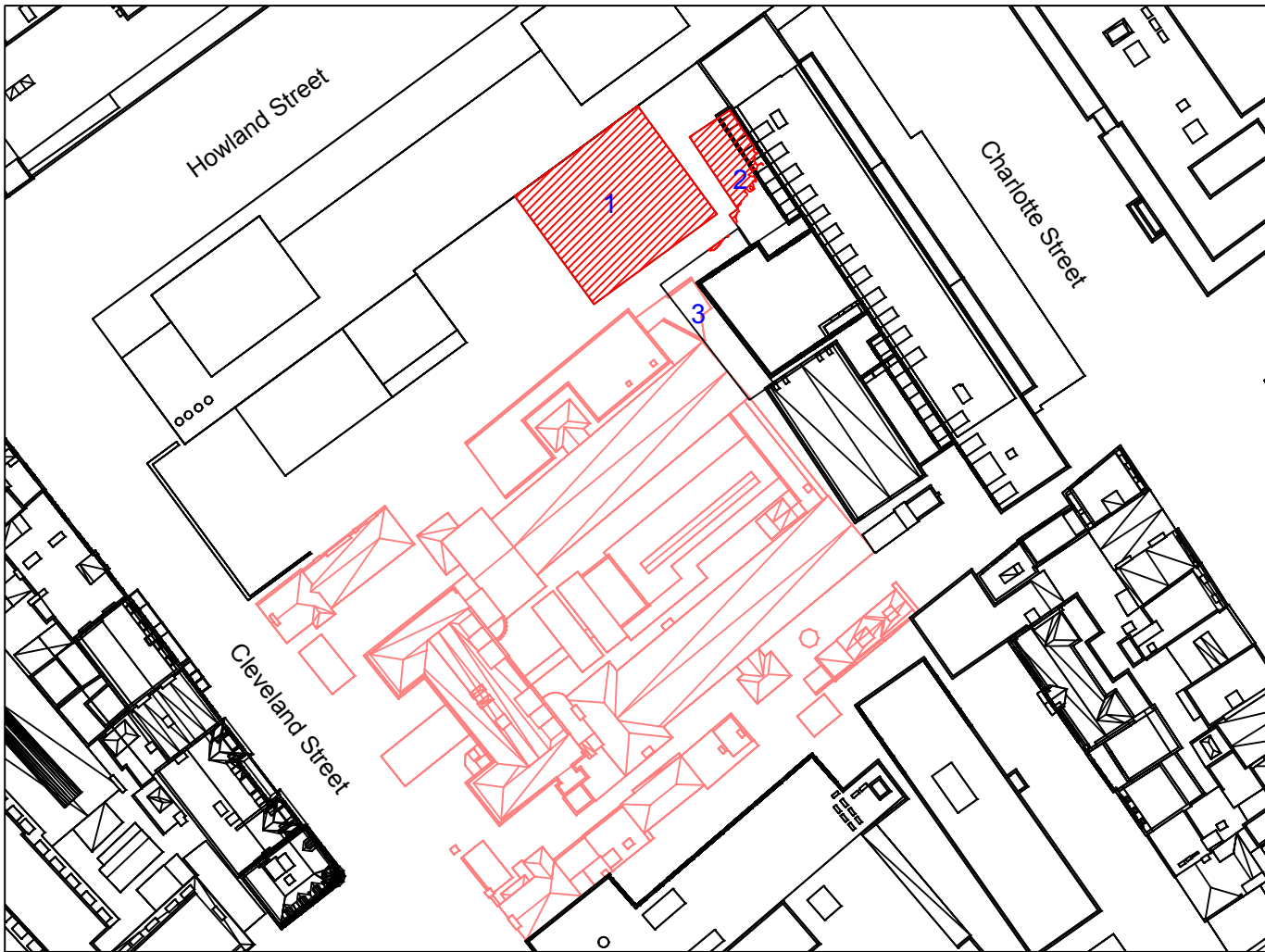
Dwg No	Address	Floor Level	Room Name	Window ID	ADF (Room) %age	Pass Rate %age	Condition
-	Affordable	Third	Living Room/R31	W03_67	1.76%	1.50%	Pass
-			Bedroom/R32	W03_68	2.28%	1.00%	Pass
-			Bedroom/R33	W03_69	2.00%	1.00%	Pass
-			Kitchen/R34	W03_70	0.00%	2.00%	Fail

Red Text Cells do not meet the BRE recommendations  
Positive %age figures indicate an improvement  
in the natural lighting conditions

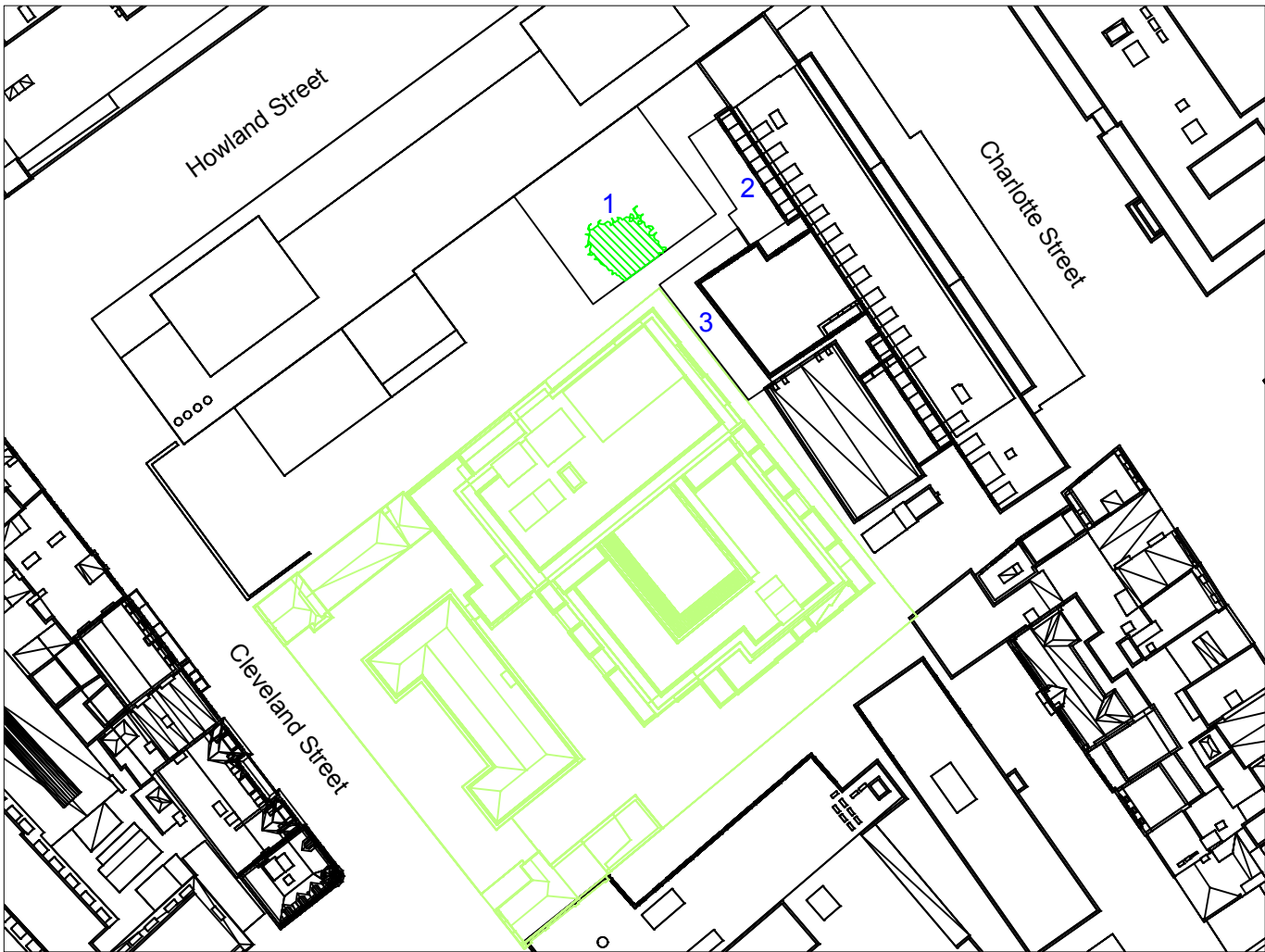
**APPENDIX E**

**OVERSHADOWING ANALYSIS**

**16066/SHA/504-507**



Existing Shadow Contour



Proposed Shadow Contour

Amenity Area (m²)		BRE Recommendations (At least 50% of Amenity Area)	Existing Area	Existing %age of Area	Proposed Area	Proposed %age of Area	%age Change	Condition
Ground Area 1	287.96	143.98	287.62	100%	43.57	15%	85%	Fail
Lower Ground Area 2	94.00	47.00	49.22	52%	0.00	0%	100%	Fail
Lower Ground Area 3	79.77	39.88	0.60	1%	0.00	0%	100%	Fail
Total	461.73	230.87	337.44	73%	43.57	9%	87%	Fail

Indicative

Existing

Proposed

Surrounding

Roads

Ground

Amenity

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
Llewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E

Z Map Model

NOTES

For it to appear adequately sunlit throughout the year at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 march is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

Site Plan

REV	Description	Drawn	Ch'kd	Date

DELVA PATMAN REDLER

Chartered Surveyors

Thavies Inn House  
3-4 Holborn Circus  
London EC1N 2HA

020 7936 3668  
info@delvapatmanredler.co.uk  
www.delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEX  
CLEVELAND STREET  
LONDON  
-  
SHADOW ANALYSIS

DRAWING:

Middlesex Hospital Annex  
Shadow Analysis  
Existing v's Proposed Schemes  
-  
Permanent Shadow Areas  
-  
21st March

DRAWN: MJ

SCALE: NTS

DATE: 15/12/2016

JOB NBR:

16066

DWG NO:

SHD/504

REV:

-





Proposed Shadow Contour

Amenity Area (m²)		BRE Recommendations (At least 50% of Amenity Area)	Existing Area	Existing %age of Area	Proposed Area	Proposed %age of Area	%age Change	Condition
Ground Area 1	1051.68	525.84	0.00	0%	193.38	18%	0%	Fail
Third Area 2	112.54	56.27	0.00	0%	17.16	15%	0%	Fail
Total	1164.22	582.11	0.00	0%	210.54	18%	0%	Fail

NO DIMENSIONS TO BE SCALED FROM THIS DRAWING:

Proposed

Surrounding

Roads

Ground

Amenity

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E  
  
Proposed Scheme:  
Llewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E  
  
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NOTES

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Site Plan

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100 Old Hall Street  
Liverpool L3 9QU  
0151 242 0980  
info@delvapatmanredler.co.uk

TITLE:

MIDDLESEX HOSPITAL ANNEX  
CLEVELAND STREET  
LONDON  
-  
SHADOW ANALYSIS

DRAWING:

Middlesex Hospital Annex  
Shadow Analysis  
Proposed Schemes  
-  
Permanent Shadow Areas  
21st March  
SELF TEST - GARDEN TERRACE

DRAWN: MJ

SCALE: NTS

DATE: 15/12/2016

JOB NBR:

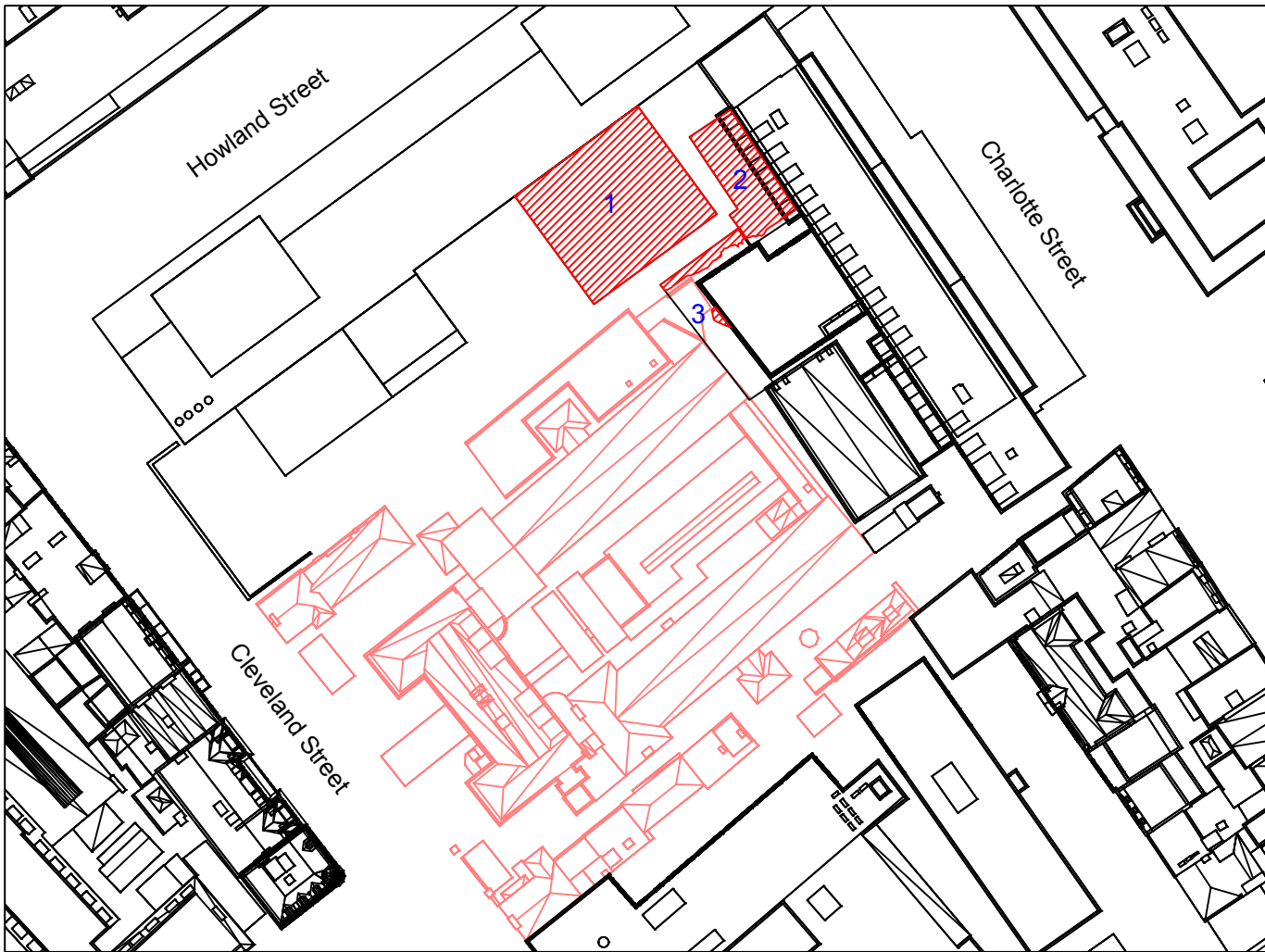
16066

DWG NO:

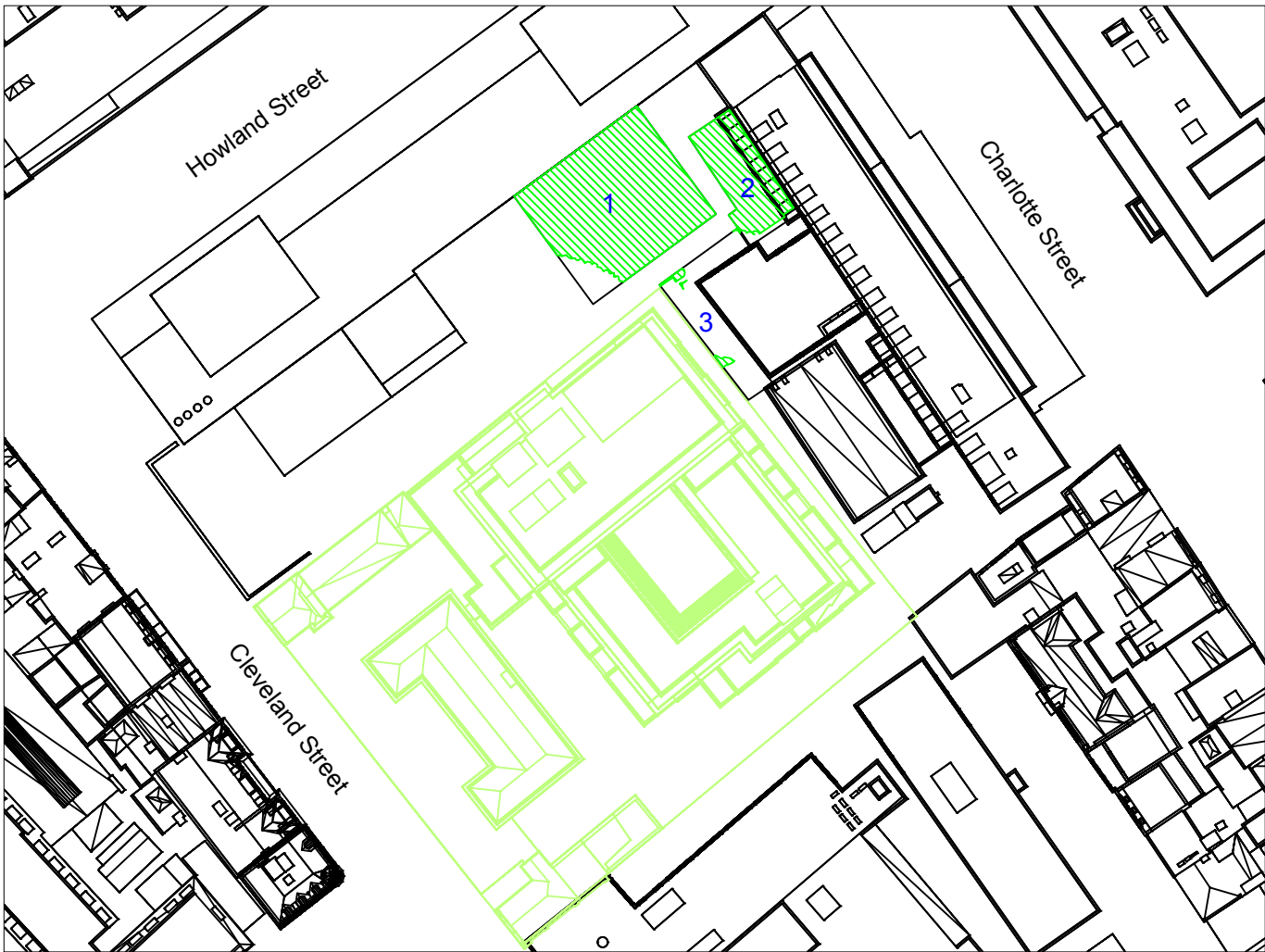
SHD/505

REV:

-



Existing Shadow Contour



Proposed Shadow Contour

Amenity Area (m²)		BRE Recommendations (At least 50% of Amenity Area)	Existing Area	Existing %age of Area	Proposed Area	Proposed %age of Area	%age Change	Condition
Ground Area 1	287.96	143.98	287.62	100%	268.14	93%	7%	Pass
Lower Ground Area 2	94.00	47.00	86.32	92%	84.42	90%	2%	Pass
Lower Ground Area 3	79.77	39.88	16.25	20%	3.31	4%	79%	Fail
Total	461.73	230.87	390.19	85%	355.87	77%	9%	Pass

Indicative

Existing

Proposed

Surrounding

Roads

Ground

Amenity

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E

Proposed Scheme:  
Llewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
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LONDON  
-  
SHADOW ANALYSIS

DRAWING:

Middlesex Hospital Annex  
Shadow Analysis  
Existing v's Proposed Schemes  
-  
Permanent Shadow Areas  
-  
21st June

DRAWN: MJ

SCALE: NTS

DATE: 15/12/2016

JOB NBR:

16066

DWG NO:

SHD/506

REV:

-





Proposed Shadow Contour

Amenity Area (m²)		BRE Recommendations (At least 50% of Amenity Area)	Existing Area	Existing %age of Area	Proposed Area	Proposed %age of Area	%age Change	Condition
Ground Area 1	1051.68	525.84	0.00	0%	800.30	76%	0%	Pass
Third Area 2	112.54	56.27	0.00	0%	91.17	81%	0%	Pass
Total	1164.22	582.11	0.00	0%	891.47	77%	0%	Pass

NO DIMENSIONS TO BE SCALED FROM THIS DRAWING:

Proposed

Surrounding

Roads

Ground

Amenity

SOURCE DATA

Drawings Used:  
Existing and surrounding buildings:  
Greenhatch Group:  
Dwg No's: 13514-02-P & 13514-03 - 07-E  
  
Proposed Scheme:  
L.Lewelyn Davies:  
Dwg No's: 3D model (received 02/12/2016)  
P\_GA\_00 Rev E  
P\_GA\_01 Rev E  
P\_GA\_02 Rev E  
P\_GA\_03 Rev E  
  
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MIDDLESEX HOSPITAL ANNEXE  
CLEVELAND STREET  
LONDON  
-  
SHADOW ANALYSIS

DRAWING:

Middlesex Hospital Annexe  
Shadow Analysis  
Proposed Schemes  
-  
Permanent Shadow Areas  
21st June  
SELF TEST - GARDEN TERRACE

DRAWN: MJ

SCALE: NTS

DATE: 15/12/2016

JOB NBR:

16066

DWG NO:

SHD/507

REV:

-