REPORT

295 GRAY'S INN ROAD
LONDON WC1

DAYLIGHT ANALYSIS
TO
NEIGHBOURING RESIDENTIAL
BUILDINGS
AND
PROPOSED ACCOMODATION

BVP
BROOKE VINCENT + PARTNERS

RICS

CONTENTS OF REPORT

BVP
BROOKE VINCENT + PARTNERS

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London E2 6JQ

Our Ref: JC/SAU/8878

Date: 12th May 2009

Dear Sirs

295 Gray's Inn Road, London WC1

Daylight To Neighbouring Property & Proposed Accommodation

We are instructed to report upon the daylight aspects of this Planning Application. Our report is based upon the scheme drawings prepared by Loren Design Limited (which now include a minor revision, further detailed in the body of this report), site inspection and measurement, plus relevant daylight studies.

1.0 SUMMARY

1.1 This report has been drafted by reference to the Building Research Establishment (BRE) publication, *"Site layout planning for daylight and sunlight. A guide to good practice"*, and the requirements of the London Borough of Camden's Unitary Development Plan (UDP).

1.2 Consideration is given to the daylight received by the immediately adjacent residential property. This report confirms there would be no adverse affect.

1.3 A daylight analysis has also been carried out to habitable rooms within the proposed accommodation and following a recommendation to made a minor alteration to the scheme this also satisfies BRE's guidance.

1.4 The recommendations of BRE's guide to good practice and the requirements of the Local Planning Authority's UDP are satisfied.

Yours faithfully

John Carter FRICS
for Brooke Vincent + Partners

email: john.carter@brooke-vincent.co.uk

2.0 INTRODUCTION

2.1 This report is based upon the application drawings of Loren Design Limited, to which a minor revision has been made to accord with a recommendation arising from this analysis.

2.2 The London Borough of Camden's Unitary Development Plan (UDP) makes the following policy statement under the heading of AMENITY.

SD6 - Amenity for occupiers and neighbours

"The council will not grant planning permission for development that it considers harmful to the amenity of occupiers and neighbours. The factors the council will consider include:

(b) Sunlight and daylight levels."

In explanation of this policy the UDP then goes on to confirm;

"On sunlight and daylight, the council will apply the standards recommended in the Building Research Establishment's "site layout plan for daylight and sunlight - a guide to good practice" (1991).

2.3 We confirm all calculations and considerations within this report are based upon the BRE report referred to above. This Guide does not contain mandatory requirements, but in the Introduction provides a full explanation of its purpose:

"The Guide is intended for building designers and their clients, consultants and planning officials."

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy."

"It aims to help rather than constrain the designer."

"Although it gives numerical guidelines these should be interpreted flexibly because 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 levels. For example, in an historic city centre, a high degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."

2.4 Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.

2.5 The simplest methods are rarely appropriate in a central urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.

2.6 The BRE Guide states *"If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffused daylighting of the existing building may be adversely affected.*

This will be the case if the Vertical Sky Component measured at the centre of an existing main window is less than 27% and less than 0.8 times its former value".

2.7 Daylighting to proposed accommodation is compared to the BRE test of average daylight factor. However where guidance on interior daylighting is required, not simply the receipt of diffused daylighting on the face of the window, BRE again recommends the calculation of average daylight factor (ADF).

2.8 This uses the VSC calculation to confirm the angle of visible sky and then goes on to consider the area of glass receiving light from the sky and the transmittance qualities of the glass. This is then related to the size and reflectance value of the room beyond, together with its use.

2.9 With the rooms complemented by artificial lighting, the BRE guide seeks ADF's at or in excess of:

2%	Kitchen
1.5%	Living Room
1%	Bedroom

3.0 DAYLIGHT

3.1 Generally

3.1.1 It is generally necessary to consider neighbouring residential property facing the reference site from all points of the compass. However in this particular locality there is only one residential window that can be giving cause for concern and that is at second floor level in the back addition of the immediately adjoining building.

3.1.2 The 3D computer aided design model seen in Appendix 1 has been used to calculate daylight, through the application of our specialist software, to the neighbouring window just referred to and the proposed accommodation within No. 295.

3.1.3 Conveying the comprehensive provision of windows and skylights to the proposed accommodation, is not easy to do in a readily identifiable format, which is why we have provided views of the model in both solid and wire frame format. By reference to the model, green defines the neighbouring buildings and magenta 295 Gray's Inn Road. The results are detailed in Appendix 2, with the analysis of these results explained in the body of the report.

3.2 Neighbouring Building - 293 Gray's Inn Road

3.2.1 The second floor window of 293 Gray's Inn Road which looks directly towards the proposed scheme, is clearly identified on the images of the model in Appendix 1.

3.2.2 The daylighting result is defined at the top of the result sheet in Appendix 2. This shows that VSC, the receipt of daylight at the central point of the window face, will be less than 27% and less than 0.8 the former value. Item 2.6 confirms BRE's commentary when this situation rises and concludes that an adverse affect may occur. However it is clear that this relatively small back addition room is served by a large window and that the measurement of light at the centre point of this window fails to convey the true levels of daylight within the room. We have therefore carried out the calculation of Average Daylight Factor as more fully explained in items 2.7 to 2.9.

3.2.3 The results sheet confirms an ADF of 1.8%. For the purposes of analysis we have defined the room as a living room. BRE expects the minimum daylight level to be 1.5% ADF and this standard has comfortably been satisfied. In fact we suspect that the room is a bedroom which only requires 1% ADF.

3.2.4 Although sunlight hours have been calculated, these are irrelevant as this is a north facing window and BRE seeks no analysis of windows that do not face within 90° of south. In an urban environment north facing windows can have no expectation of sunlight. Our results show that what little sunlight is received, will not vary.

3.3 Daylight To Proposed Accommodation

3.3.1 There are five rooms within the proposed accommodation that will not benefit from a relative open view of the sky, to either the front or rear of the property.

3.3.1 These are defined on the model in Appendix 1 and can be cross referenced to the results in Appendix 2. However a number of these rooms are served by a variety of windows/skylights and for an appropriate reading to be gained from a skylight, two readings have to be taken, each one facing half the visible sky. The sum total of these readings creates a single ADF for each room and these are identified by the reading set within the blocks of yellow in the ADF column.

3.3.2 Furthermore, it should be noted that the ground floor window W1 and second floor window W1, are single windows each serving a single room. At lower ground level the readings are based upon a window and glazed door to each bed sitting room which, for the purposes of ADF comparison, are defined as living rooms.

3.3.3 In accordance with modern layout design, kitchens are set at the rear of the bed sitting rooms and can be considered internal rooms where task lighting is used in accordance with modern practice and expectations.

3.3.4 As stated earlier in the report, BRE seeks minimum standards of daylighting as detailed below.

Living room	1.5%
Bedroom	1%

The result sheets confirm that all the rooms and their respective uses will satisfy BRE requirements.

3.4 Daylight Summary

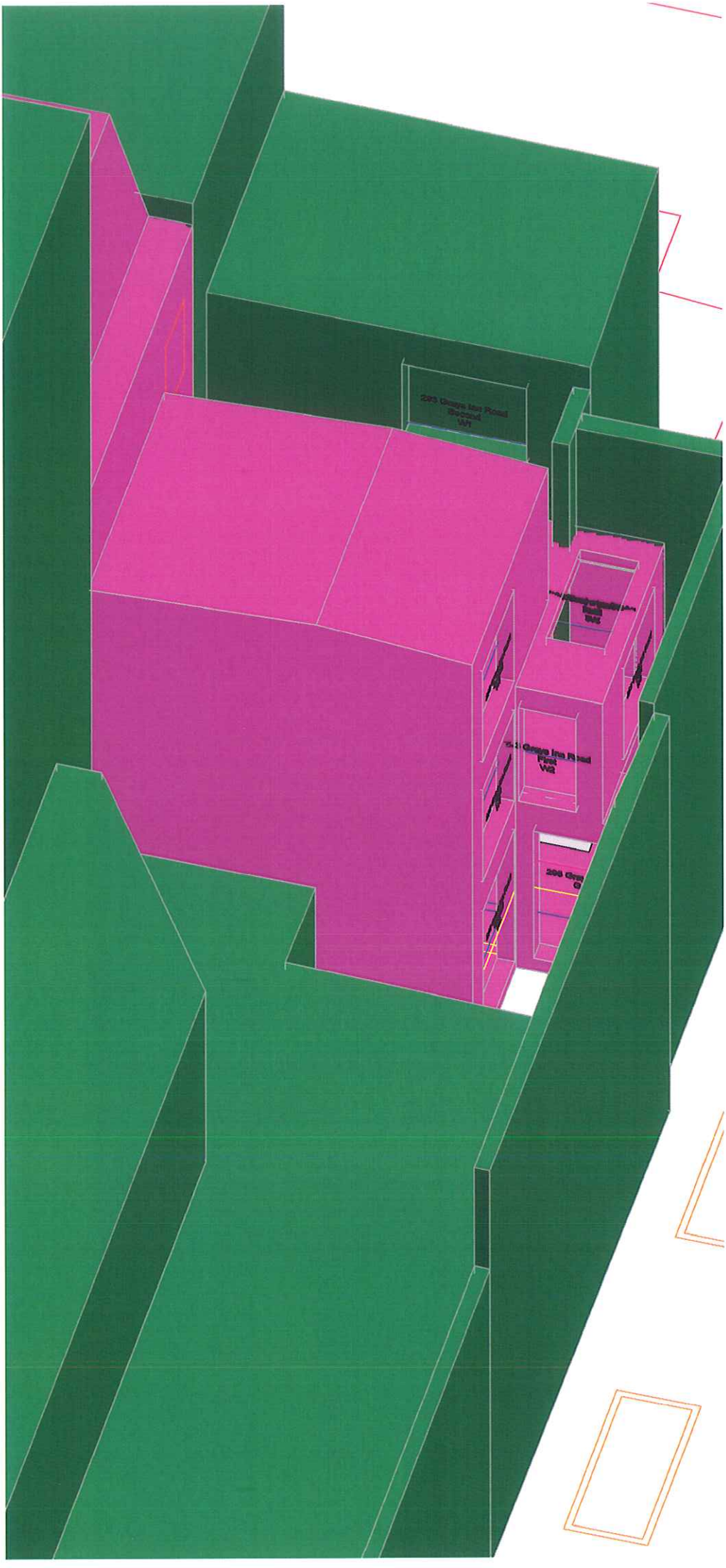
3.4.1 We are able to confirm through the comprehensive calculation of ADF that accommodation within the scheme, as well as the immediately neighbouring window which faces towards the rear of the scheme, will all benefit from internal daylighting that satisfies BRE recommendations and therefore Camden's UDP Daylighting Policy.

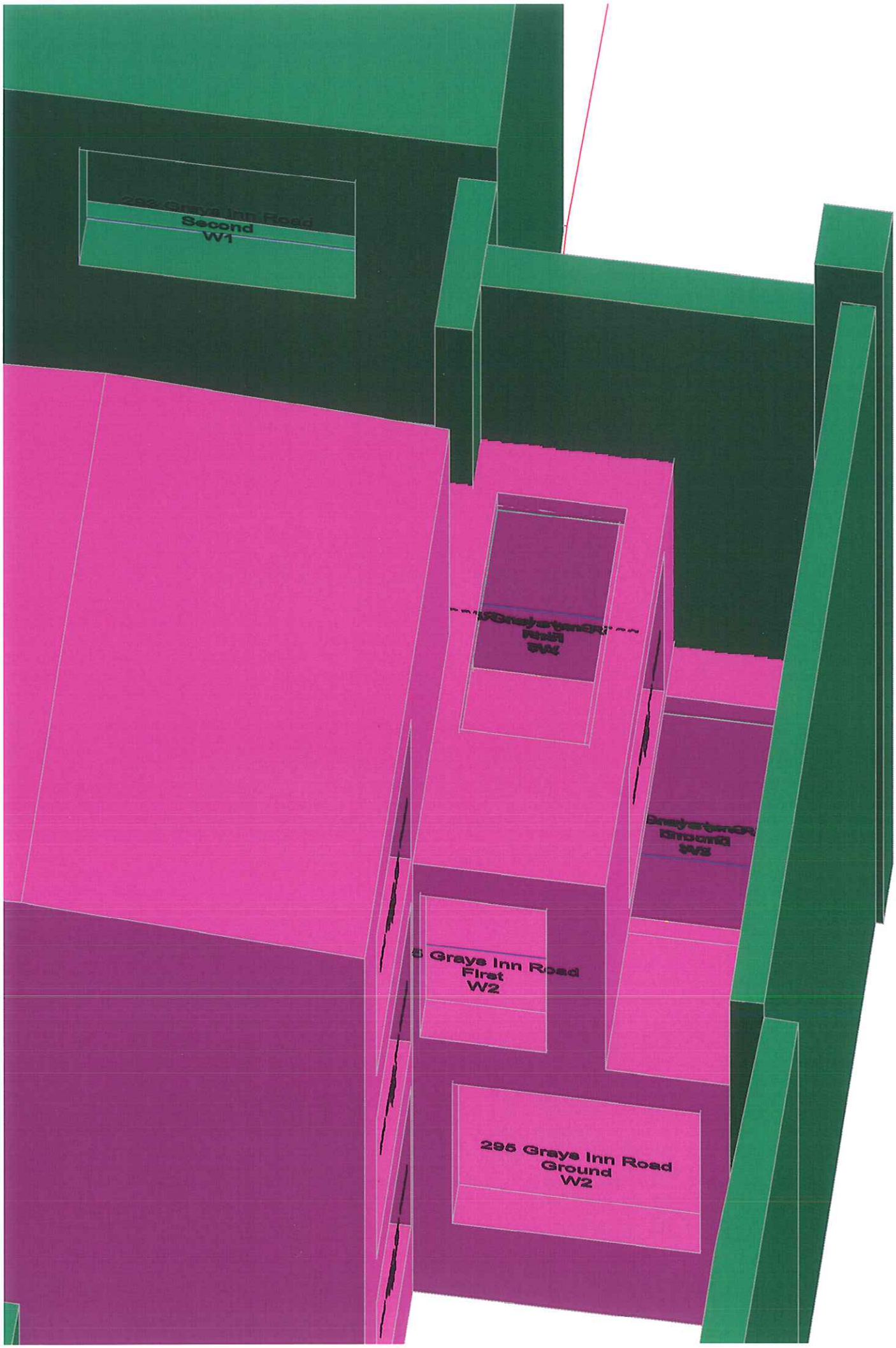
APPENDIX 1

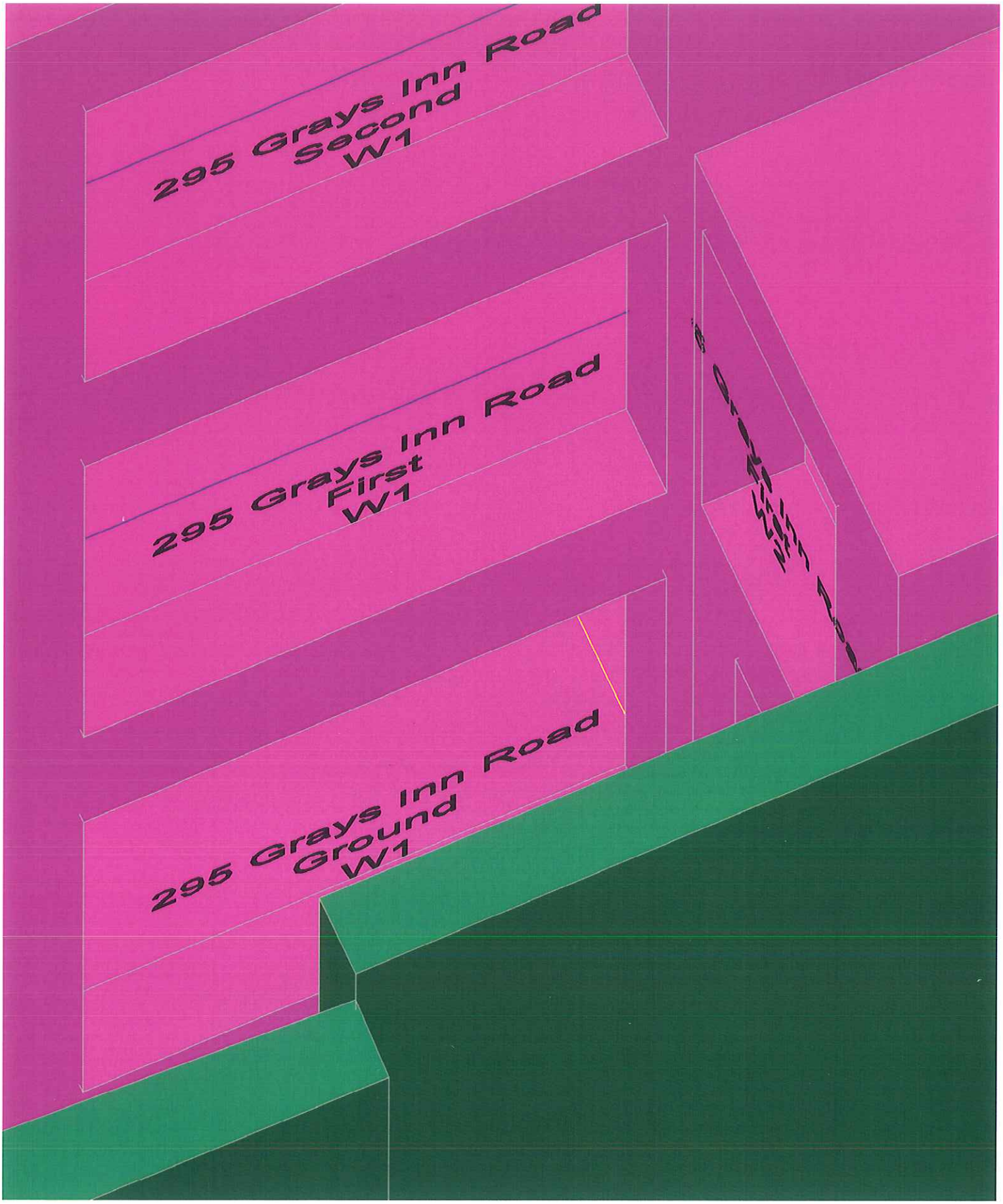
LOCATION PLAN
AND
CAD MODEL

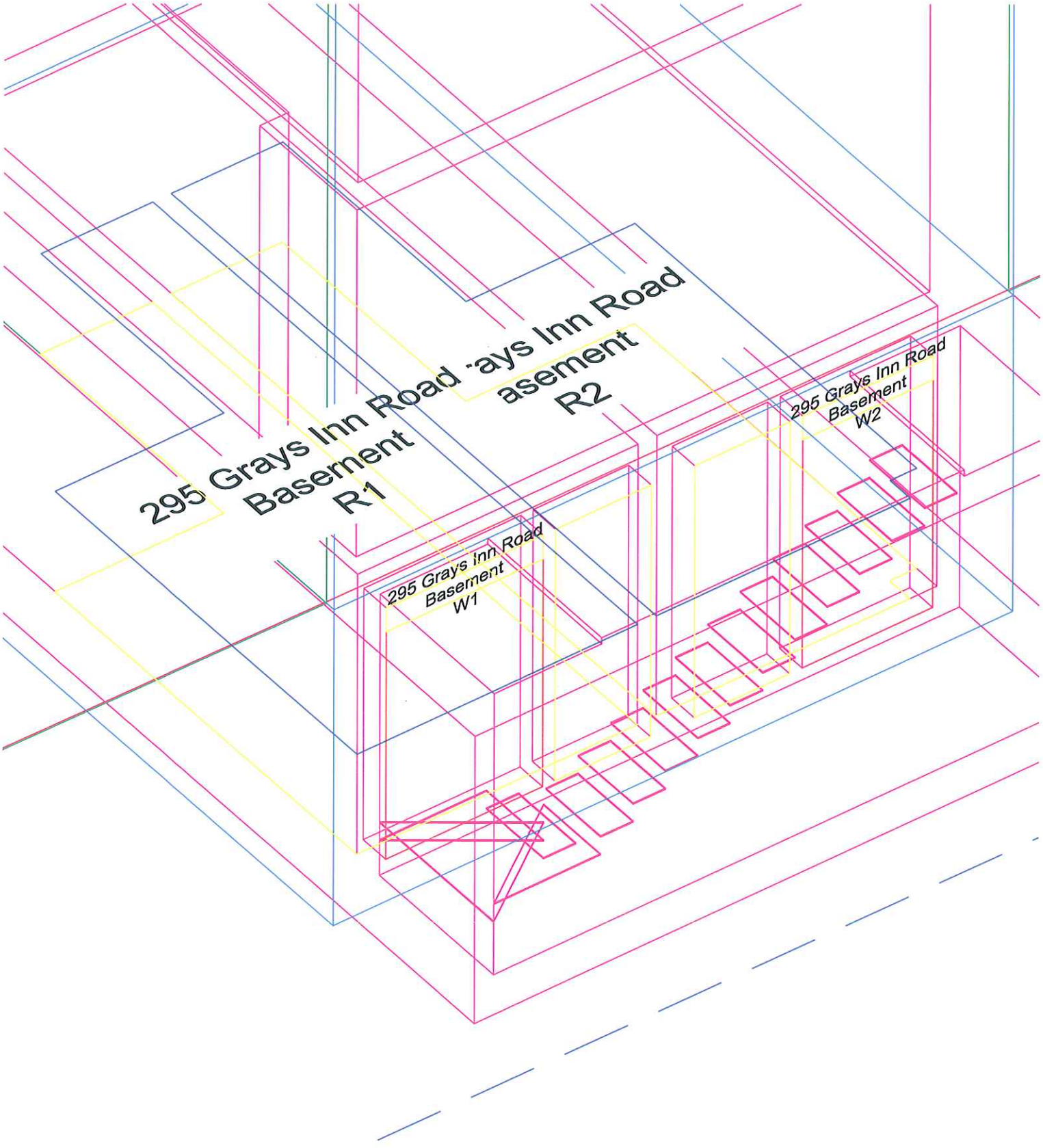
12
311
GRAY'S
FB
340
50
48
46
City and
Guilds of
London
Institute
40 to 44

35
275
277
12
334
336
39
37
311
GRAY'S INN ROAD
Pioneer House
City and
Guilds of
London
Institute
46
73
52


283 Grays Inn Road
Ground
WC1
Flat
W2
Flat
W2


295 Graye Inn Road
Second
W1
295 Graye Inn Road
First
W2
295 Graye Inn Road
Ground
W2


295 Grays Inn Road
Second
W1
295 Grays Inn Road
First
W1
295 Grays Inn Road
Ground
W1


295 Grays Inn Road
Basement
R1
-ays Inn Road
asement
R2
295 Grays Inn Road
Basement
W1
295 Grays Inn Road
Basement
W2

APPENDIX 2

DAYLIGHT ANALYSIS

Grays Inn Road Daylight & ADF Analysis 05.05.2009

Building Ref.	Floor Ref.	Window Ref.		VSC	Proposed / Existing	Available Sunlight Hour Annual %	Winter %		adf	Glass Height	Glass width	Floor Area	Peri	Height	Aw	A	R	T	θ
293 Grays Inn Road	Second	W1	Existing	22.90	0.65	2	0												
			Proposed	14.82		2	0	Living Rm	1.8	2.200	2.000	22.750	20.000	2.450	4.400	94.500	0.500	0.700	40.677
295 Grays Inn Road	Ground	W1	Existing	n/a	n/a	n/a	n/a												
			Proposed	3.17		n/a	0	Bedroom	1.0	2.350	1.450	9.420	14.136	2.950	3.408	60.541	0.500	0.700	19.658
295 Grays Inn Road	Ground	W2	Existing	n/a	n/a	n/a	n/a												
			Proposed	9.27		n/a	0	Bedroom	1.0	1.330	2.000	13.107	18.072	2.950	2.661	79.525	0.500	0.700	31.149
295 Grays Inn Road	Ground	W3	Existing	n/a	n/a	n/a	n/a		1.7										
			Proposed	5.56		n/a	0	Bedroom	0.4	1.312	1.000	13.107	18.072	2.950	1.312	79.525	0.500	0.700	26.867
295 Grays Inn Road	Ground	W4	Existing	n/a	n/a	n/a	n/a												
			Proposed	0.61		n/a	n/a	Bedroom	0.3	1.312	1.000	13.107	18.072	2.950	1.312	79.525	0.500	0.700	17.789
295 Grays Inn Road	First	W1	Existing	n/a	n/a	n/a	n/a												
			Proposed	7.72		n/a	0	Bedroom	0.9	1.330	2.000	18.275	19.653	2.150	2.661	78.803	0.500	0.700	28.823
295 Grays Inn Road	First	W2	Existing	n/a	n/a	n/a	n/a												
			Proposed	11.30		n/a	0	Bedroom	0.5	2.200	0.500	18.275	19.653	2.150	1.100	78.803	0.500	0.700	35.270
295 Grays Inn Road	First	W3	Existing	n/a	n/a	n/a	n/a												
			Proposed	1.72		n/a	0	Bedroom	0.6	1.330	2.000	18.275	19.653	2.150	2.661	78.803	0.500	0.700	17.968
295 Grays Inn Road	First	W4	Existing	n/a	n/a	n/a	n/a		3.0										
			Proposed	12.37		n/a	0	Bedroom	0.6	1.312	1.000	18.275	19.653	2.150	1.312	78.803	0.500	0.700	39.341
295 Grays Inn Road	First	W5	Existing	n/a	n/a	n/a	n/a												
			Proposed	5.75		n/a	n/a	Bedroom	0.4	1.312	1.000	18.275	19.653	2.150	1.312	78.803	0.500	0.700	27.200
295 Grays Inn Road	Second	W1	Existing	n/a	n/a	n/a	n/a												
			Proposed	24.92		n/a	8	Bedroom	2.2	1.330	2.000	13.312	17.127	2.400	2.661	67.727	0.500	0.700	59.526
295 Grays Inn Road	Basement	W1	Existing	n/a	n/a	n/a	n/a												
			Proposed	5.09		n/a	0	Living Rm	1.0	1.870	1.100	9.339	15.221	2.100	2.057	50.642	0.500	0.700	26.001
295 Grays Inn Road	Basement	W1A	Existing	n/a	n/a	n/a	n/a		1.8										
			Proposed	12.66		n/a	0	Living Rm	0.8	1.870	0.600	9.339	15.221	2.100	1.122	50.642	0.500	0.700	39.872
295 Grays Inn Road	Basement	W2	Existing	n/a	n/a	n/a	n/a												
			Proposed	5.98		n/a	2	Living Rm	1.0	1.870	1.000	9.279	15.218	2.100	1.870	50.515	0.500	0.700	27.637
295 Grays Inn Road	Basement	W2A	Existing	n/a	n/a	n/a	n/a		1.8										
			Proposed	10.94		n/a	0	Living Rm	0.8	1.870	0.600	9.279	15.218	2.100	1.122	50.515	0.500	0.700	36.727

ADF

APPENDIX 3

CREDENTIALS

JOHN CARTER FRICS 2009

A Founding Partner of Brooke Vincent + Partners in 1974, a Director from May 2007 and a Fellow of the Royal Institution of Chartered Surveyors since 1981.

Professional experience covers most aspects of a Chartered Building Surveyor's workload. Now almost exclusively Rights To Light and Daylighting but also Party Wall legislation, boundary disputes and building surveys of a wide variety of building styles and ages.

Past Chairman of the Pyramus & Thisbe Club (a club for surveyors advising on boundary related disciplines) and Honorary Secretary from 2000 to 2007. Previously a member of two of the Institution's skills panels (residential surveys and geodetics) and a consulting member to the boundaries panel.

Whilst with the residential survey panel, co-opted onto the working party responsible for revising and extending the RICS Good Practice Note for Residential Building Surveys and thereafter scripting and presenting an educational tape on the same subject.

A frequent speaker on light, party wall and survey matters and previously an independent assessor of candidates undertaking their RICS Assessment of Professional Competence.

In 1999, received CEDR accreditation as a mediator and became a member of the RICS panel of mediators (now lapsed).

Recent Commercial Clients - Rights to Light and Daylight/Sunlight

Alburn Limited
Amsprop Limited
Antler Homes
Associated Newspapers
Barratt Homes
Bee Bee Developments Limited
Berkeley Homes
Brockton Capital
Bryant Homes
Canon Estates Limited
City North Group Plc
City & Thames
Crest Nicholson
George Wimpey
Grainger Trust Plc
Heritage Group
Imperial College
Ipsus Developments Limited
Islington & Shoreditch Housing Association
J.G. Land + Estates Limited
London & Quadrant Housing Association
Londonewcastle
Michael Shanley Homes
Morris Homes
Notting Hill Housing Group
Ossis Property Developers
Pinnacle Estates Limited
Quintain Estates & Development Plc
Redrow Homes Limited
Reit Asset Management
Rialto Homes
Rushbond Group
St. James Homes Limited
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Shaftesbury Plc
Systemhaven Limited
Swan Hill Properties
Taylor Woodrow Developments
Tesco Stores Limited
Urban Sense
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Wilson Bowden
Windmill Properties Limited