Nathaniel Lichfield & Partners
Planning. Design. Economics.

51-53 Agar Grove

Daylight, Sunlight and Shadow Assessment

Majesty Developments Ltd

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1.0 Introduction

1.1 This report considers the effects of the proposed redevelopment of the site at Nos. 51-53 Agar Grove and No. 21 St Paul's Crescent in Camden on the levels of daylight and sunlight received by nearby residential properties and their gardens. It also considers the levels of natural light that will be experienced within the proposed residential units and amenity space in the development. The assessment has been prepared on behalf of Majesty Developments Ltd.

1.2 The proposal comprises the redevelopment of the site to provide two new buildings containing eight new residential units, plus amenity space.

1.3 The daylight and sunlight assessment considers the effects of the proposal on residential properties situated opposite and adjacent to the site on Agar Grove and St Paul's Crescent. It considers the levels of daylight and sunlight that will be received within all of the proposed residential units in the development. The assessment also considers the levels of sunlight and shadow that will be experienced within the neighbouring amenity spaces and proposed gardens.

1.4 The quantitative assessment has been undertaken in accordance with the guidelines set out in the revised Building Research Establishment (BRE) report "*Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice*" (October 2011). The Guide is intended to be advisory and does not contain mandatory standards. The introduction states:

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not 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."

1.5 This assessment considers the impacts of the development in terms of daylight and sunlight. It does not address rights to light, which is a legal matter rather than a material planning consideration.

1.6 This assessment has been carried out using the following information:

- The planning application drawings prepared by DMFK Architects;
- Measured site survey drawings and a photogrammetric survey of neighbouring properties;
- Ordnance Survey Superplan digital mapping of the area;
- A photographic survey of the site and surroundings.

1.7 The report is divided into the following subsequent sections:

- Section 2.0 provides a brief description of the site and surroundings and the nature of the proposed development, highlighting features of relevance to the assessment of daylight and sunlight levels;
- Section 3.0 outlines the scope of the assessment;
- Section 4.0 sets out relevant planning policy considerations;
- Section 5.0 provides an assessment of the impacts of the proposal on levels of daylight;
- Section 6.0 considers the proposal's impacts in terms of sunlighting;
- Section 7.0 considers the scheme's overshadowing effects;
- Section 8.0 provides a summary of the assessment and our conclusions are drawn.

1.8 The assessment is supported by a series of reference plans and results tables attached at Appendices 1-8.

2.0 Site, surroundings and the proposal

2.1 The application site is situated on the northern side of Agar Grove immediately east of its junction with St Paul's Crescent. It was formerly occupied by a semi-detached pair of three storey properties above lower ground floor levels (Nos. 51 and 53 Agar Grove), plus their rear gardens. No. 51 Agar Grove was demolished in 2010 after it was considered to be unsafe following excavation works beneath the building in 2009. The works also resulted in the substantial demolition of no. 53 Agar Grove. The site is currently vacant, other than the remaining lower floors of No. 53 Agar Grove. The former buildings at the site have been included in the daylight and sunlight assessment as they represent a long term baseline position.

2.2 To the north east of the site, Agar Grove is fronted by four pairs of three storey semi-detached properties, plus lower ground floor levels, which are identical to the properties which formerly occupied the site (Nos. 55-69 Agar Grove). Across Agar Grove is a further group of semi-detached properties. Nos. 104-108 Agar Grove are situated immediately opposite the site.

2.3 To the west, across St Paul's Crescent, No. 49 Agar Grove is a detached three storey property with a lower ground floor level. A modern two storey infill development has recently been introduced to the rear (No. 36A St Paul's Crescent), beyond which, Nos. 26-36 St Paul's Crescent comprises a three storey residential block. To the north of the site, the western side of St Paul's Crescent is fronted by a three storey terrace of properties. No. 19 St Paul's Crescent forms the southern property closest to the site.

2.4 On the basis of this review of neighbouring buildings, the assessment has focused on the effects of the development on residential accommodation within Nos. 49, 55, 104, 106 and 108 Agar Grove, and Nos. 19, 26-36 and 36A St Paul's Crescent. Other buildings in the vicinity of the site are non-residential in use and/or are situated a sufficient distance from the site to be unaffected in daylight and sunlight terms.

2.5 The site and its context are illustrated in Appendix 1. A complete description of the site and surroundings is provided in the submitted Planning Statement and Design and Access Statement.

The Proposal

2.6 The proposed development comprises the construction of two residential buildings, plus landscaped amenity space. The principal building (Nos. 51-53 Agar Grove) will replicate the scale, mass and configuration of the former buildings at the site and neighbouring semi-detached properties. It will rise to four storeys and will have a shallow hipped roof and a projecting rear range. The building will accommodate seven residential units.

2.7 To the north, No. 21 St Paul's Crescent will form a three storey townhouse set above a basement level.

2.8 The development will include a range of landscaped amenity space including private gardens serving the ground floor level unit and roof terraces.

2.9 The layout and heights of the proposed development and its relationship with surrounding buildings are illustrated in Appendix 1.

3.0 Scope of Assessment

3.1 This section of the assessment provides an overview of the scope of the daylight and sunlight assessment in terms of the neighbouring properties, proposed units and amenity spaces assessed.

3.2 The locations of the window reference points and main rooms/bedrooms assessed are illustrated in the layouts and model images attached at Appendix 2.

Neighbouring Properties Assessed

3.3 The assessment has provided an analysis of the impacts of the development on natural light levels within neighbouring residential accommodation. As outlined in the preceding section, the assessment has focused on the effects of the development on residential accommodation within Nos. 49, 55, 104, 106 and 108 Agar Grove, and Nos. 19, 26-36 and 36A St Paul's Crescent.

3.4 We have assessed the closest windows serving the residential accommodation in these buildings. The following provides a summary of the neighbouring properties assessed on this basis:

Address	Floors	Orientation	No. windows assessed	
			Daylight	Sunlight*
26-36 St Paul's Crescent	G-2	SE	3	3
36A St Paul's Crescent	1	SE	1	1
49 Agar Grove	1-3	East	5	0
104 Agar Grove	G-3	North	6	0
106 Agar Grove	G-3	North	6	0
108 Agar Grove	G-3	North	6	0
55 Agar Grove	1-3	N & W	4	1
19 St Paul's Crescent	G-2	SE & SW	4	4
Total			**35 windows**	**9 windows**

Table 3.1: Neighbouring Properties Assessed [*windows orientated within 90 degrees of due south]

3.5 All of the windows identified for daylight assessment have been considered in terms of Vertical Sky Component (VSC). The south facing windows have also been assessed in terms of Annual Probable Sunlight Hours and Winter Sunlighting.

3.6 Overall, the assessment has considered the effects of the development on the ambient daylight levels received by 35 windows within neighbouring properties and the sunlight levels received by nine south facing windows.

Proposed Units Assessed

3.7 The proposed accommodation has been designed to ensure internal daylight and sunlight levels within the units are maximised. The assessment has considered the levels of natural light that will be received by all of the windows and main rooms/bedrooms within the proposed residential units. The following table provides a summary of the proposed accommodation assessed.

Property	Floor	No. windows (rooms) assessed	
		Daylight	Sunlight*
No. 51-53 Agar Grove	Ground	10 (7)	6
	First	8 (5)	5
	Second	9 (5)	5
	Third	7 (4)	5
No. 21 St Paul's Crescent	Basement	1** (1)	0
	Ground	2 (1)	1
	First	2 (2)	1
	Second	2 (1)	1
Total		**41 windows (26 rooms)**	**24 windows**

Table 3.2: Proposed accommodation assessed within each building [*windows orientated within 90 degrees of due south; ** excluding roof light]

3.8 The daylight analysis has considered 41 windows serving 26 rooms within the proposed units. Of these windows, 24 are south facing and have also been assessed in terms of sunlight availability.

3.9 All of these windows have been assessed in terms of ambient daylight (VSC) levels. The rooms they serve have been assessed in terms of internal daylighting (Average Daylight Factor and Daylight Distribution). The south facing windows serving main rooms and bedrooms have been assessed in terms of annual and winter sunlight availability.

Overshadowing

3.10 The shadow analysis has considered the levels of sunlight and shadow received by the following amenity spaces and gardens serving neighbouring properties:

- Rear garden to No. 19 St Paul's Crescent.
- Rear garden to No. 55 Agar Grove.
- First floor terrace to No. 55 Agar Grove.

3.11 Within the proposed development, the following areas of amenity space have been considered:

- Private garden serving unit F1
- Private garden serving unit F2
- Private garden serving unit F3

- Private garden serving mews property
- Communal ground floor space
- First floor terrace serving unit F4
- First floor terrace serving unit F5
- Third floor terrace serving unit F6
- Third floor terrace serving unit F7

3.12 Overall, therefore, the assessment has considered the proportions of sunlight and shadow that will be experienced within three neighbouring areas of amenity space and nine areas of amenity space within the development.

3.13 These areas of amenity space have been assessed in terms of the BRE two-hour sunlight contour analysis.

4.0 Planning Policy Context

4.1 The statutory development plan covering the proposal site is formed by the London Plan (2011) and the London Borough of Camden's Core Strategy DPD and Development Policies DPD. The following outlines planning policy of relevance to the daylight and sunlight assessment.

4.2 The London Plan addresses the residential amenity effects of development. Policy 7.6 states that proposals for buildings should, amongst other things, *"not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate"*. Amenity in this case is considered to include access to adequate daylight and sunlight.

4.3 At the local level, Policy CS9 of the Local Plan Core Strategy DPD states that the Council will protect residential amenity in Inner London.

4.4 Policy DP26 of the LDF Development Policies DPD addresses managing the impact of development on occupiers and neighbours. It states that the Council will seek to protect the quality of life of occupiers and neighbours in terms of amenity, including daylight and sunlight levels. The accompanying text indicates that the BRE guide will form the basis for assessment of a development's daylight and sunlight impacts.

4.5 The Council's CPG (Housing) (2011) also states that new development should be designed to maximise daylight and sunlight levels.

5.0 Daylight

5.1 This section of the assessment assesses the impact of the proposed development on the level of daylight received at the aforementioned window reference points and rooms.

Methodology

5.2 The daylight assessment is based on two analyses: Vertical Sky Component (VSC) and Average Daylight Factor (ADF). The neighbouring properties requiring assessment have been analysed in terms of VSC. The proposed accommodation has been assessed in terms of both VSC and ADF.

5.3 The following sets out the methodology for calculating VSC and ADF.

Vertical Sky Component

5.4 The level of ambient daylight received by a window is quantified in terms of its Vertical Sky Component (VSC), which represents the amount of vertical skylight falling on a vertical window. The daylight assessment has been based on three dimensional AutoCAD models constructed for the site and surroundings as existing and with the proposed development in place. The heights and locations of the surrounding buildings and the proposed development have been taken from measured site survey information, a photogrammetric survey, Ordnance Survey digital plan data, site observations, aerial photography of the site and surroundings and drawings produced by DMFK Architects.

5.5 The VSC level at each of the windows requiring assessment has been quantified using Waldram Tools daylight and sunlight software (MBS Software Ltd).

5.6 The BRE good practice guide outlines numerical guidelines that represent flexible targets for new developments in relation to the vertical sky component at nearby reference points. The document states that:

*"If the vertical sky component, with the new development in place, is **both** less than 27% **and** less than 0.8 times its former value, then the loss of light is likely to be noticeable." (our emphasis)*

5.7 The guidelines therefore require that either the VSC target or the degree of change in daylighting are met (i.e. if the 27% target is adhered to, there is no requirement under the BRE guidelines for the resultant VSC level to remain at 0.8 times the former VSC level).

Average Daylight Factor

5.8 The BRE guide advises that the calculation of Average Daylight Factor (ADF) provides an alternative means of assessing the level of daylight received by the interior of the room served by a window. It is an appropriate means of

assessment for proposed accommodation where the parameters required for the ADF calculations are known. In this case, given that neighbouring properties' internal room layouts and window parameters are known, ADF calculations have also been undertaken for neighbouring accommodation.

5.9 The calculation of ADF again provides a more sophisticated method of calculating the daylight level experienced within a room than VSC as it takes into account the size and reflectance of room's surfaces and the number, size and transmittance of its window(s), as well as the ambient daylight level (VSC) received at the window(s).

5.10 The Average Daylight Factor (df) is defined as the average internal illuminance as a percentage of the unobstructed external illuminance under standard overcast conditions.

5.11 ADF can be calculated using the following formula (amended in the updated BRE guide, 2011):

$$df = \frac{TA_W \theta}{A(1-R^2)} \%$$

Where:

- T is the diffuse visible transmittance of the glazing (a value of 0.65 is typical for double glazed clear glass; a value of 0.18 is used for obscured glazing);
- A_w is the net glazed area of the window (m^2);
- θ is the angle of visible sky in degrees;
- A is the total area of the room surfaces: ceiling, floor, walls and windows (m^2);
- R is the average reflectance (a value of 0.7 is applicable for new/proposed accommodation with light internal surface treatments[1]).

5.12 The updated BRE guide (2011) introduces a separate procedure for floor to ceiling windows and glazed doors. It states that areas of glazing below the working plane should be treated as a separate window and an extra factor is applied to it to take account of the reduced effectiveness of low level glazing in lighting the room. The BRE states that a value equivalent to the floor reflectance can be taken for this factor. An adjustment factor of 0.3 is appropriate for medium timber floors and has been used in this case.

5.13 The approach to assessing internal daylighting using the ADF method is set out at Appendix C of the BRE guide. The BRE guide and British Standard

[1] A 0.7 reflectance value assumes white painted walls and ceiling (0.85) and a medium wooden floor (0.3).

BS8206 set the following minimum recommended ADF levels for different room types:

- Kitchens: 2%;
- Living rooms: 1. 5%;
- Bedrooms: 1%.

Daylight Results: Neighbouring Properties

5.14 The following table provides a summary of the VSC results obtained for the neighbouring buildings assessed. The results are set out in full at Appendix 3).

Address	No. windows	Above		Below		
		No.	%	No.	%	Marginal
26-36 St Paul's Cresc.	3	3	100.0%	0	0.0%	-
36A St Paul's Cresc.	1	1	100.0%	0	0.0%	-
49 Agar Grove	5	5	100.0%	0	0.0%	-
104 Agar Grove	6	6	100.0%	0	0.0%	-
106 Agar Grove	6	6	100.0%	0	0.0%	-
108 Agar Grove	6	6	100.0%	0	0.0%	-
55 Agar Grove	4	4	100.0%	0	0.0%	-
19 St Paul's Cresc.	4	4	100.0%	0	0.0%	-
Total	*35*	*35*	*100.0%*	*0*	*0.0%*	-

Table 5.1: Neighbouring Properties – Summary of VSC Results

5.15 The results of the daylight analysis demonstrate that all of the 35 windows assessed serving neighbouring residential properties will comply with the BRE guide levels for VSC. The windows serving Nos. 49, 55, 104, 106 and 108 Agar Grove, and Nos. 19, 26-36 and 36A St Paul's Crescent will be fully compliant with the BRE guidance with the development in place. None of these properties will experience a noticeable reduction in daylight result of the proposed development.

5.16 The windows assessed serve the neighbouring properties that are most likely to be affected by the proposed development. On the basis that all of these windows comply with the BRE guide levels for VSC, it is reasonable to conclude that the scheme similarly will not cause any unacceptable effects on other neighbouring properties.

5.17 Overall, the proposed development will not result in any unacceptable effects on the daylight levels experienced by neighbouring properties in the context of the BRE guidance.

Daylight Results: Proposed Units

5.18 The development has been designed to ensure daylight levels within the proposed units are maximised.

5.19 The following table provides a summary of the VSC and ADF results obtained for the proposed residential accommodation within the development. The results are set out in full at Appendices 4-5.

	Building	Floor	No. windows	Above		Below		
				No.	%	No	%	Marginal
VSC	51-53 Agar Grove	Ground	10	5	50.0%	5	50.0%	4
		First	8	5	62.5%	3	37.5%	3
		Second	9	5	55.6%	4	44.4%	3
		Third	7	7	100.0%	0	0.0%	-
	2 St Paul's Crescent	Basement	1	0	0.0%	1	100.0%	-
		Ground	2	1	50.0%	1	50.0%	1
		First	2	2	100.0%	0	0.0%	-
		Second	2	2	100.0%	0	0.0%	-
	Total		*41*	*27*	*65.9%*	*14*	*34.1%*	*11*
	Building	**Floor**	**No. rooms**	**Above**		**Below**		
				No.	**%**	**No**	**%**	**Marginal**
ADF	51-53 Agar Grove	Ground	7	7	100.0%	0	0.0%	-
		First	5	5	100.0%	0	0.0%	-
		Second	5	5	100.0%	0	0.0%	-
		Third	4	4	100.0%	0	0.0%	-
	2 St Paul's Crescent	Basement	1	0	0.0%	1	100.0%	0
		Ground	1	1	100.0%	0	0.0%	-
		First	2	2	100.0%	0	0.0%	-
		Second	1	1	100.0%	0	0.0%	-
	Total		*26*	*25*	*96.2%*	*1*	*3.8%*	*0*

Table 5.2: Proposed Units – Summary of Daylight Results

5.20 The results of the daylight analyses for the proposed units show that 27 of the 41 windows serving the proposed units' main rooms and bedrooms will comply with the BRE guide levels for VSC (65.9%). This is a typical level of compliance for an urban development in Inner London. Many of the windows that will receive VSC levels below the BRE guide levels will experience only marginal effects, are secondary windows serving a room with another window that will receive higher/compliant VSC levels.

5.21 On the basis that some of the proposed windows assessed will experience VSC levels below the guide levels, Average Daylight Factor (ADF) calculations have been undertaken for the rooms they serve. VSC provides a measure of the ambient daylight (skylight) received at the midpoint of a single window. The calculation of ADF provides a more sophisticated and accurate means of quantifying the daylight received by a room than VSC as it take into account the size and layout of a room, size and number of its window(s), internal surface reflectance, the transmittance of a window's glazing and the type of room being assessed, as well as external obstructions to natural light.

5.22 The results of the ADF analysis shows that 25 of the 26 main habitable rooms and bedrooms within the development will comply with the BRE guide levels (96.2%). A single room at basement level within No. 2 St Paul's Crescent will experience an interior daylight level below the BS/BRE guide level. This is a secondary reception room and all other rooms within this large townhouse will comply fully with the BS/BRE guide levels for ADF (the principal living room for example will experience a very high ADF level of 5.1%). The room is also served by a rooflight which cannot be factored into the calculation of ADF, but in reality will allow further light to penetrate into its eastern section.

5.23 ADF is the most comprehensive and accurate means of assessing the internal daylight within proposed residential accommodation. In this case, all but one of the main rooms and bedrooms within the proposed development will comply with the respective ADF guide levels. A single secondary reception room that is also served by a rooflight will receive a lower level of ADF. This is an isolated impact. On this basis, the proposed units' internal daylight levels are considered to be acceptable.

5.24 Overall, it is considered that the proposed residential units within the development will experience good levels of interior daylight for an urban development project in Inner London in the context of the BRE guidance.

6.0 Sunlight

6.1 This section of the assessment assesses the impact of the proposed development on the level of sunlight received at the south facing window reference points.

Methodology

6.2 Of the windows considered in the daylight assessment, nine windows serving Nos. 26-36 St Paul's Crescent, 36A St Paul's Crescent and Nos. 19 and 55 Agar Grove are orientated within 90 degrees of due south and require assessment in terms of sunlight availability. In addition, 24 of the windows serving the proposed residential accommodation are orientated due south and have been assessed in terms of sunlighting.

6.3 The levels of sunlight availability at the window reference points assessed have been calculated based on the three dimensional AutoCAD models of the site and surroundings as existing and with the development in place, using the Waldram Tools daylight and sunlight software. The calculations provide the percentage year round sunlight availability and the percentage of sunlight availability received during the winter months.

6.4 The BRE good practice guide states that the sunlighting of an existing dwelling may be adversely affected by a development "…if the centre of the window:

receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and

receives less than 0.8 times its former sunlight hours during either period and

has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours"

6.5 As with daylight, the guidelines require that either the sunlight availability targets or the degree of change in sunlighting or a reduction of less than 4% of APSH are achieved (i.e. if the 25%/5% targets are adhered to, there is no requirement under the BRE guidelines for the resultant sunlight levels to remain at 0.8 times the former levels etc.).

Sunlight Results: Neighbouring Properties

6.6 The following table provides a summary of the sunlight availability results obtained for the neighbouring buildings assessed. The results are set out in full at Appendix 6).

Address	No. windows	Above		Below		
		No.	%	No.	%	Marginal
26-36 St Paul's Cresc.	3	3	100.0%	0	0.0%	-
36A St Paul's Cresc.	1	1	100.0%	0	0.0%	-
49 Agar Grove	-	-	-	-	-	-
104 Agar Grove	-	-	-	-	-	-
106 Agar Grove	-	-	-	-	-	-
108 Agar Grove	-	-	-	-	-	-
55 Agar Grove	1	4	100.0%	0	0.0%	-
19 St Paul's Cresc.	4	4	100.0%	0	0.0%	-
Total	*9*	*9*	*100.0%*	*0*	*0.0%*	-

Table 6.1: Neighbouring Properties – Summary of Sunlight Results

6.7 The results of the sunlight assessment for the neighbouring properties demonstrate that all nine of the south facing windows requiring assessment will comply with the BRE guide levels for annual and winter sunlighting.

6.8 As with daylighting, the windows assessed serving neighbouring properties are the windows that will be most affected by the development in the vicinity of the site. It is therefore reasonable to conclude that the scheme will also have an acceptable effect on other neighbouring properties in terms of sunlight availability.

6.9 On this basis, it is considered that the development will not give rise to any unacceptable effects in terms of the annual and winter sunlight levels experienced by neighbouring properties.

Sunlight Results: Proposed Units

6.10 The following table provides a summary of the annual and winter sunlight results for the proposed residential accommodation. The results are set out in full at Appendix 7.

Building	Floor	No. windows	Above		Below		
			No.	%	No	%	Marginal
51-53 Agar Grove	Ground	6	5	83.3%	1	16.7%	0
	First	5	4	80%	1	20%	0
	Second	5	4	80%	1	20%	0
	Third	5	5	100.0%	0	0.0%	-
2 St Paul's Crescent	Basement	0	-	-	-	-	-
	Ground	1	0	0%	1	100.0%	1
	First	1	1	100.0%	0	0.0%	-
	Second	1	1	100.0%	0	0.0%	-
Total		*24*	*20*	*83.3%*	*4*	*16.7%*	*1*

Table 6.2: Proposed Units – Summary of Sunlight Results

6.11 The results of the sunlight analyses for the proposed units demonstrate that 20 of the 24 south facing windows serving residential units within the development

will comply with the BRE guide levels for annual and winter sunlighting (83.3%). The windows receiving lower levels of annual and winter sunlight comprise west facing windows situated to the north of other elements of the development. The rooms served by these windows will experience good levels of interior daylight so will provide an acceptable residential environment in terms of natural light.

6.12 Overall, it is considered that the proposed accommodation will experience good levels of sunlighting for an urban development in Inner London.

7.0 Overshadowing

7.1 The effects of the development on the levels of sunlight experienced within neighbouring and proposed areas of amenity space have been assessed. The following outlines the methodology and results of this overshadowing assessment.

Methodology

7.2 The BRE 'test' for a development's overshadowing impacts relates to the area of an amenity space that receives more than two hours of sunlight on 21 March (the Spring Equinox). The guide states:

"…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 sunlight is likely to be noticeable".

7.3 The assessment has, therefore, considered the area of amenity space that can receive more than two hours of direct sunlight on this date.

Results

Neighbouring Amenity Space

7.4 As outlined at Section 3.0, the assessment has considered the effects of the development on the private garden serving No. 55 Agar Grove and the private garden and terrace serving No. 19 St Paul's Crescent.

7.5 These areas of amenity space have been assessed in terms of the BRE two-hour sunlight contour analysis.

7.6 The following table provides a summary of the results of the overshadowing assessment (the results are outlined in full at Appendix 8).

Level	Amenity Space		Area	Lit Area: Existing	Lit Area: Resultant	Change	Above/Below BRE Guide Level
Ground	Rear garden to No. 55 Agar Grove [Amenity Space N1]	Area (sqm)	122.81	120.92	113.02	93%	Above
		%		98%	92%		
Ground	Rear garden to No. 19 St Paul's Crescent [Amenity Space N2]	Area (sqm)	59.2	58.9	38.3	65%	Above
		%		100%	65%		
First	First floor terrace to No. 19 St Paul's Crescent [Amenity Space N3]	Area (sqm)	21.79	21.68	21.68	100%	Above
		%		99%	99%		

Table 7.1: Summary of Shadow Results for Neighbouring Properties' Amenity Space

7.7 The results of the shadow analysis for neighbouring properties demonstrate that the three gardens/amenity spaces requiring assessment will all comply with the BRE guide levels with the development in place. These spaces will experience good levels of sunlight at the March Equinox and throughout the summer months.

7.8 On this basis, the effects of the development on the levels of sunlight and shadow received by neighbouring amenity spaces and gardens will be acceptable.

Proposed Amenity Space

7.9 The assessment has considered the areas of the proposed amenity spaces within the development that will experience in excess of two hours of direct sunlight at the March Equinox.

7.10 The following table provides a summary of the results of the shadow analysis for the proposed gardens (the results are again outlined in full at Appendix 9).

Level	Amenity Ref		Area	Lit Area: Resultant	Above/Below BRE Guide Level
Ground	Private garden serving unit F1 [Amenity Space P1]	Area (sqm)	42.21	31.90	Above
		%		76%	
Ground	Private garden serving unit F2 [Amenity Space P2]	Area (sqm)	18.78	9.49	Above
		%		51%	
Ground	Private garden serving unit F3 [P3]	Area (sqm)	19.77	0.00	Below
		%		0%	
Ground	Private garden serving mews property [Amenity Space P4]	Area (sqm)	31.23	7.36	Below
		%		24%	
Ground	Communal ground floor space [P5]	Area (sqm)	51.45	7.88	Below
		%		15%	
First	Terrace serving unit F4 [Amenity Space P6]	Area (sqm)	12.76	0.00	Below
		%		0%	
First	Terrace serving unit F5 [Amenity Space P7]	Area (sqm)	14.77	0.00	Below
		%		0%	
Third	Terrace serving unit F6 [Amenity Space P8]	Area (sqm)	18.59	13.30	Above
		%		72%	
Third	Terrace serving unit F7 [Amenity Space P9]	Area (sqm)	23.66	4.00	Below
		%		17%	

Table 7.2: Summary of Shadow Results for Proposed Amenity Space

7.11 The results of the shadow analysis for the proposed amenity space illustrate that the gardens and amenity spaces situated on the southern and western sides of the proposed development will comply with the guide levels. The amenity spaces situated to the rear of the building at Nos. 51-53 Agar Grove will receive lower levels of direct sunlight at the March Equinox. This is an unavoidable outcome of developing a site on the northern side of a road with a development that appropriately addresses the street and includes private amenity space to the rear. These spaces will receive higher levels of sunlight in the Summer months and will provide a suitable amenity function subject to appropriate landscaping and planting.

7.12 On this basis, the development as a whole will provide a good range of private amenity space which will receive acceptable levels of sunlight.

8.0 Summary and Conclusions

8.1 This assessment has considered the effects of the development at Nos. 51-53 Agar Grove and No. 21 St Paul's Crescent on the levels of daylight, sunlight and overshadowing received by nearby residential properties and gardens. It also considers the levels of natural light that will be experienced within the proposed residential units and amenity spaces in the development. The assessment has been carried out in accordance with BRE guidelines relating to the analysis of daylight and sunlight.

8.2 The assessment has considered the scheme's effects on the levels of daylight received by 35 windows serving neighbouring residential accommodation within Nos. 49, 55, 104, 106 and 108 Agar Grove, and Nos. 19, 26-36 and 36A St Paul's Crescent. The levels of sunlight experienced by nine south facing windows serving these properties have also been analysed. Other buildings in the vicinity of the site are non residential in use or are situated a sufficient distance from the site to be unaffected in daylight and sunlight terms.

8.3 The assessment has considered the levels of daylight received by all of the windows and main rooms/bedrooms in the residential units within the development. This constitutes 41 windows serving 26 proposed rooms. The levels of sunlight availability experienced by the development's 24 south facing windows have also been analysed.

8.4 Finally, the assessment has considered the development's effects on 12 areas of neighbouring and proposed amenity space and gardens.

Daylight

8.5 The daylight analyses demonstrate that all of the neighbouring windows requiring assessment will comply with the BRE guide levels for VSC.

8.6 The results of the internal daylight analyses for the proposed units have shown that all but one of the proposed main rooms and bedrooms within the development will achieve the respective BS/BRE guide levels for ADF. A single room at basement level will experience a lower interior daylight level. This is a secondary reception room, which is also served by a rooflight that cannot be factored into the ADF calculation, but will, in reality, allow further light to penetrate into the room. The levels of internal daylighting that will be experienced within the main rooms and bedrooms across the scheme will, therefore, be high.

8.7 Overall, it is considered that the proposed development will not result in any unacceptable effects on the daylight levels experienced by neighbouring properties in the context of the BRE guidance. The proposed development will also provide a good quality residential environment in terms of interior daylighting.

Sunlight

8.8 The sunlight analysis has demonstrated that the windows assessed serving neighbouring properties will all comply fully with the BRE guide levels for annual and winter sunlighting.

8.9 Similarly, the majority of the south facing windows serving the proposed accommodation within the development will comply with the BRE guide levels for annual and winter sunlight availability (83.3%). The windows receiving lower levels of annual sunlight primarily comprise windows situated to the north of other elements of the scheme. Importantly, the rooms served by these windows will all experience good levels of interior daylight so will provide an acceptable residential environment in terms of natural light.

8.10 Overall, the assessment demonstrates that the development will not result in any unacceptable effects on neighbouring residential accommodation in terms of sunlighting and that good levels of sunlight will be experienced by the proposed residential units.

Overshadowing

8.11 The overshadowing analysis demonstrates that the gardens and amenity spaces serving neighbouring properties will comply with the BRE guide levels with the development in place.

8.12 While some of the proposed gardens and terraces will experience higher levels of shadow, this reflects the nature and position of the site and the orientation of the development.

8.13 Consequently, the development will not cause any effects on neighbouring properties' gardens and the proposed amenity spaces will experience an acceptable environment in terms of shadow.

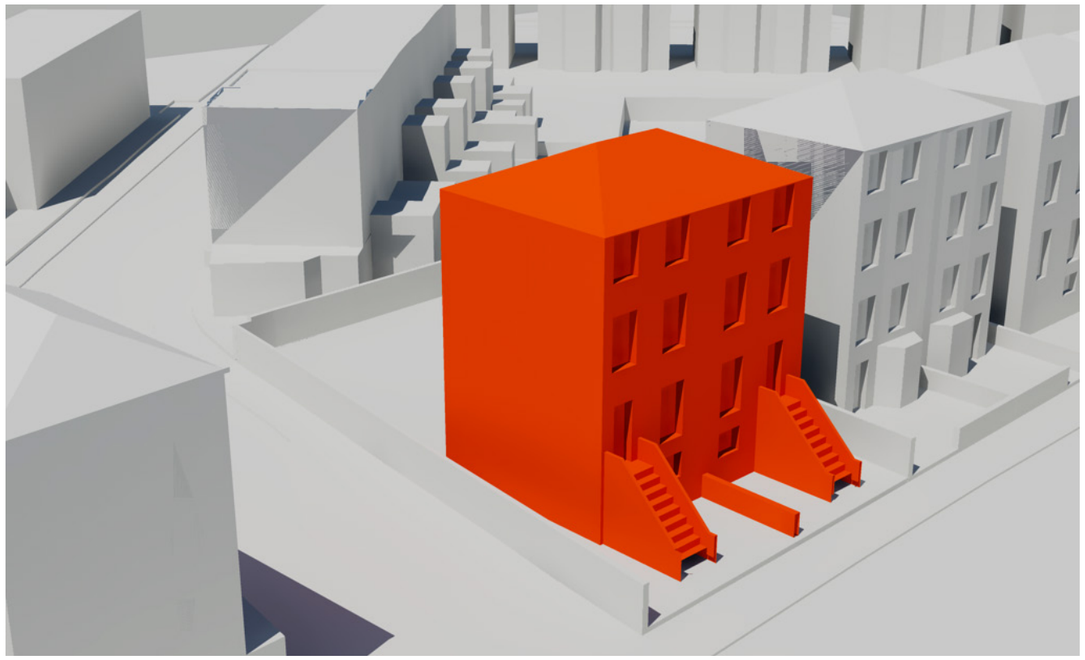
Overall Conclusions

8.14 The results of the assessment demonstrate that all of the windows assessed serving neighbouring residential properties will comply with the BRE daylight and sunlight guide levels following construction of the proposed development. Similarly, the scheme will have no effects on the sunlight levels received by neighbouring gardens and areas of amenity space. The proposed units will also achieve good levels of both internal daylighting and sunlight availability.

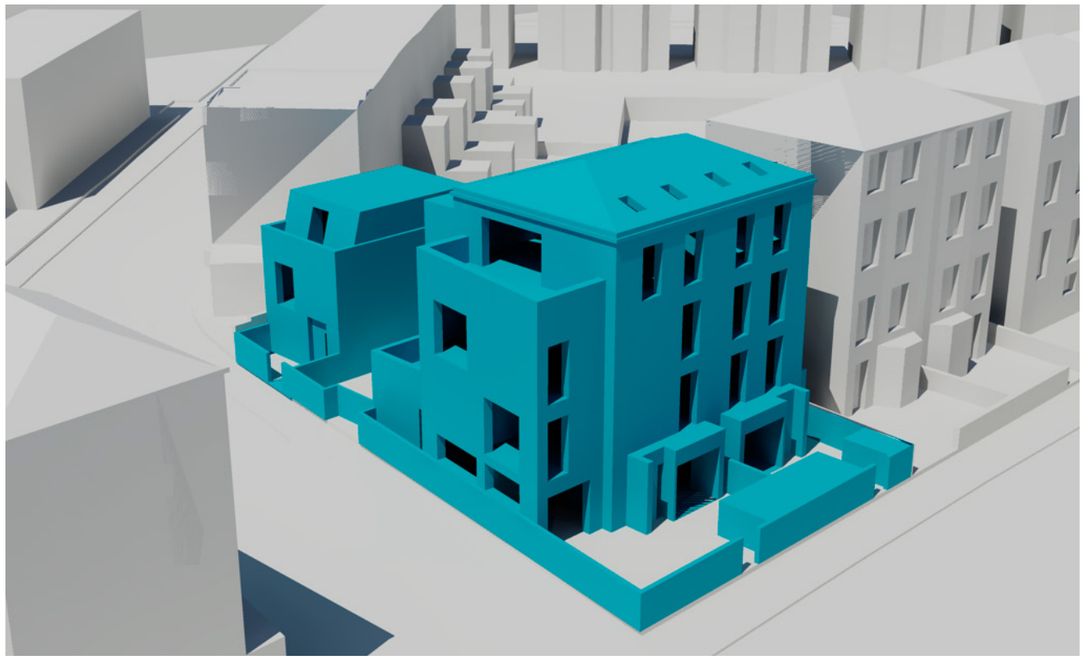
8.15 In conclusion, it is considered that the proposed development will not result in any materially unacceptable daylight, sunlight or overshadowing effects in relation to neighbouring residential properties, the proposed accommodation and existing/proposed areas of amenity space. The development is, therefore, consistent with the objectives and requirements of the BRE guidance and relevant planning policy. We respectfully conclude that there are no reasons on which planning permission should be refused on daylight or sunlight impact grounds.

Appendix 1

VIEWS OF ASSESSMENT MODEL



MODEL OF FORMER BUILDINGS AT THE SITE

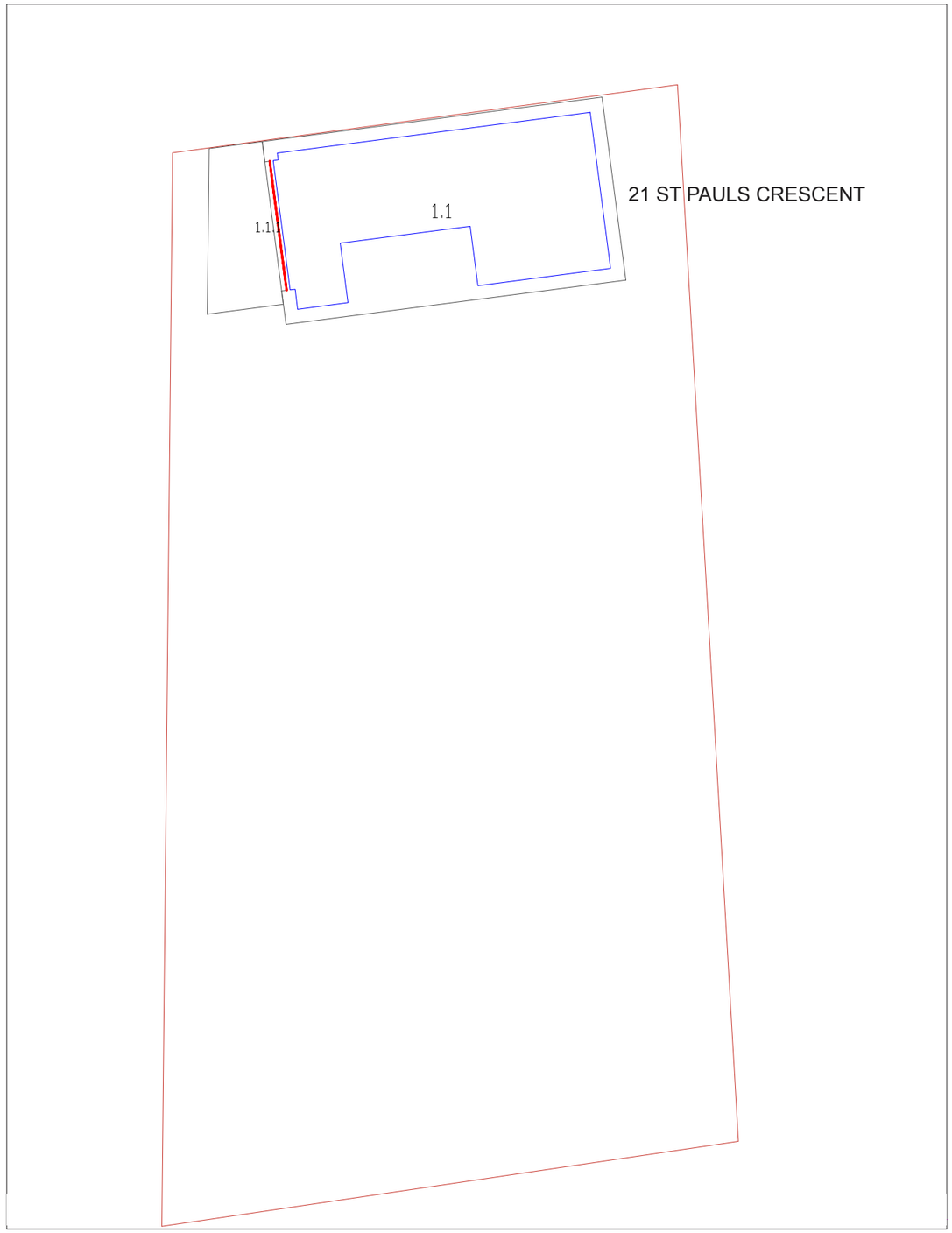


MODEL OF PROPOSED DEVELOPMENT

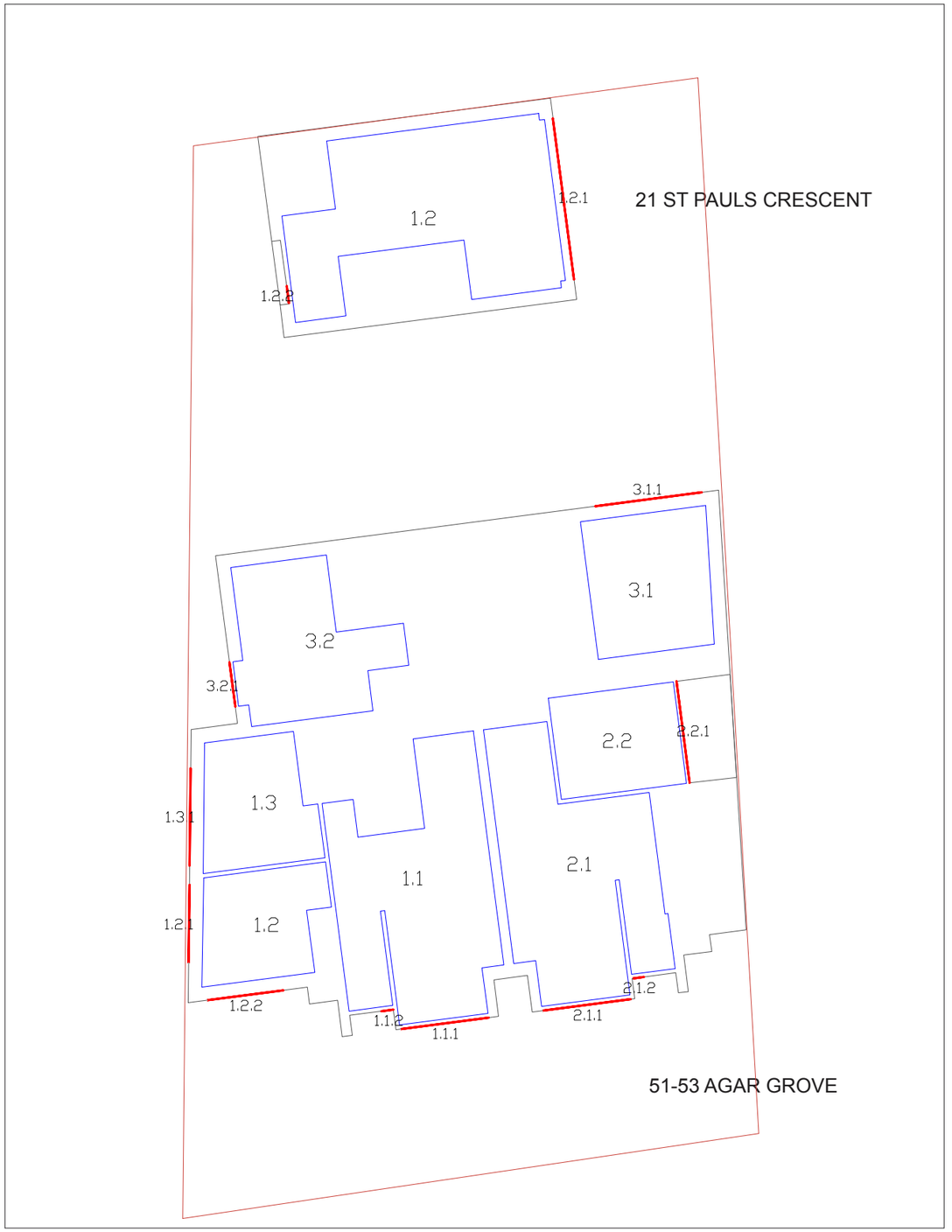
Appendix 2

WINDOW & ROOM REFERENCES

PROPOSED SITE AND NEIGHBOURING PROPERTIES ASSESSED

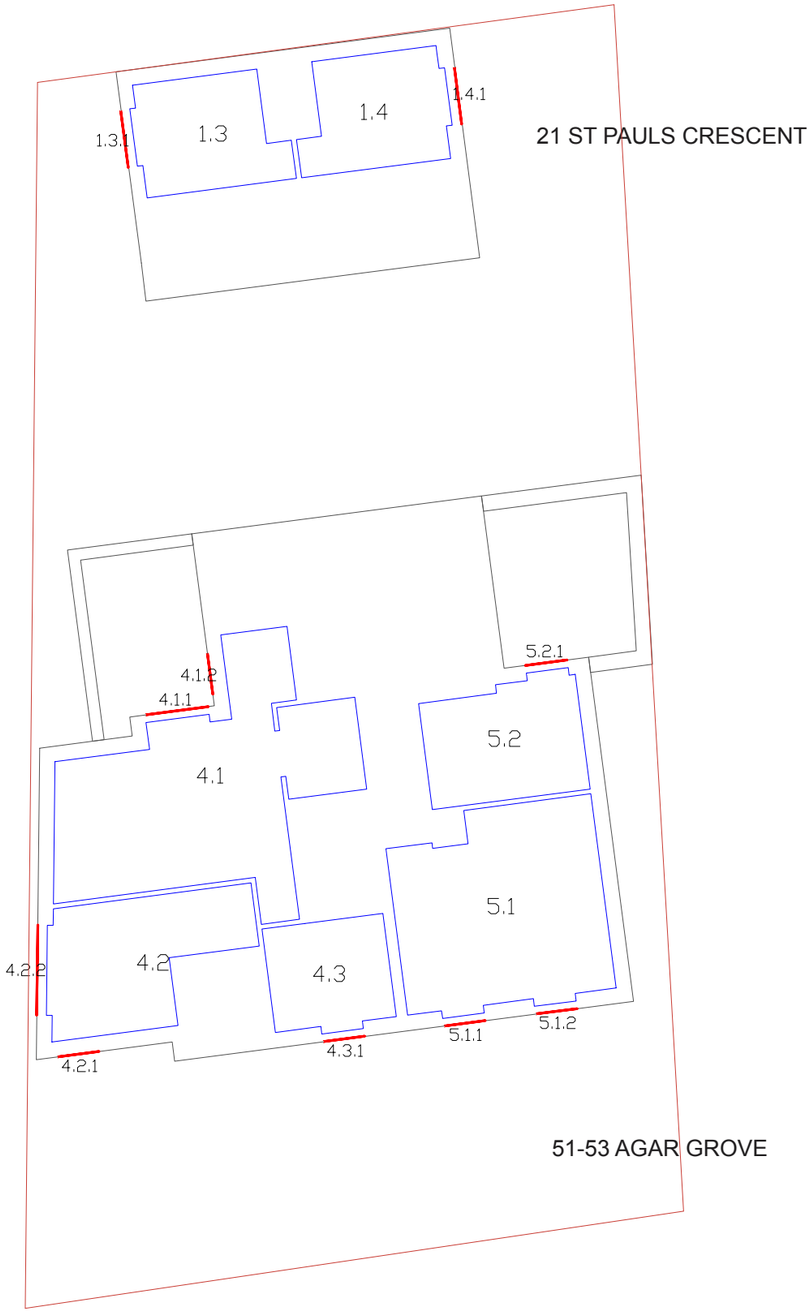


PROPOSED DEVELOPMENT BASEMENT FLOOR

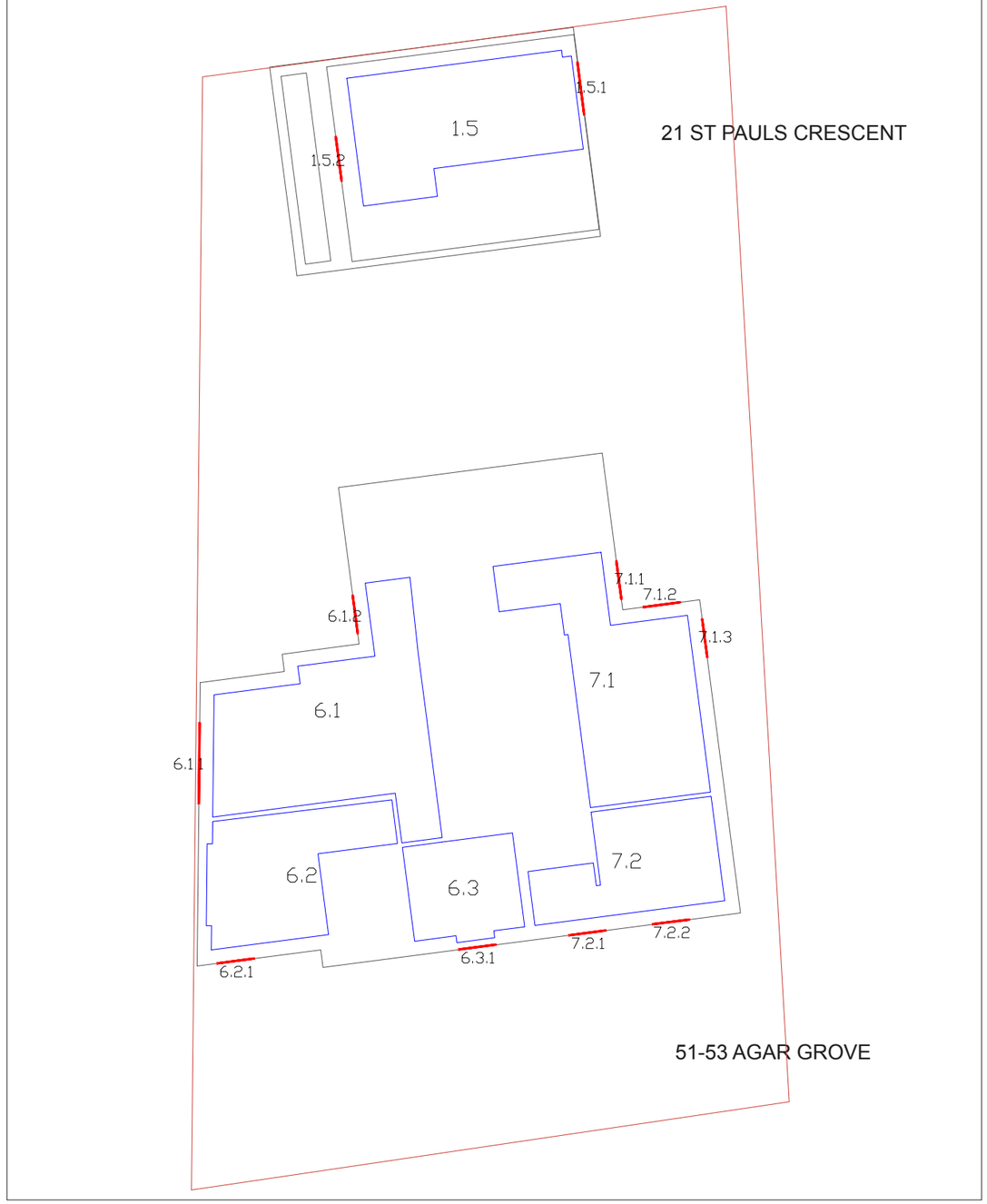


PROPOSED DEVELOPMENT GROUND FLOOR

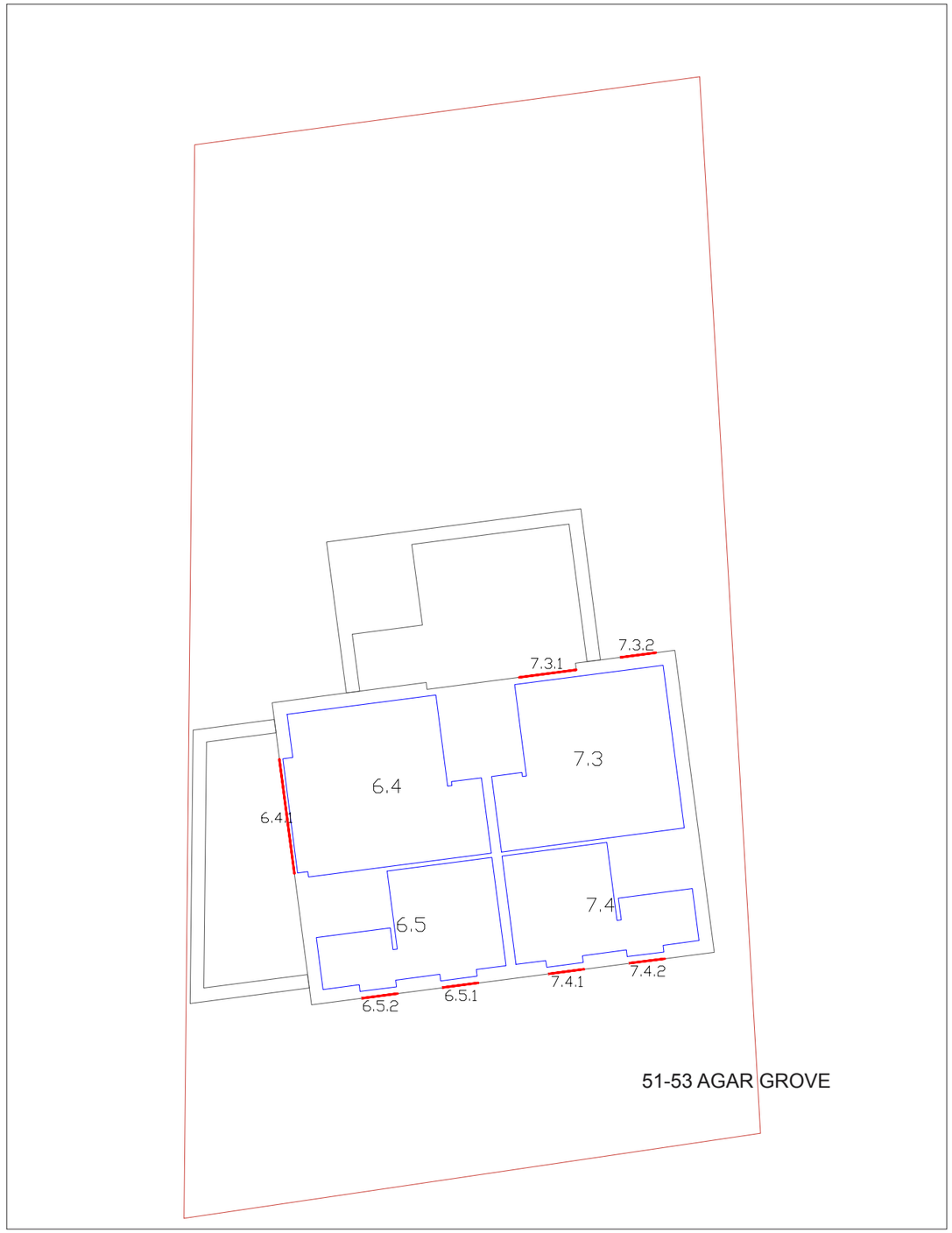
ST PAULS CRESCENT - APPENDIX 2



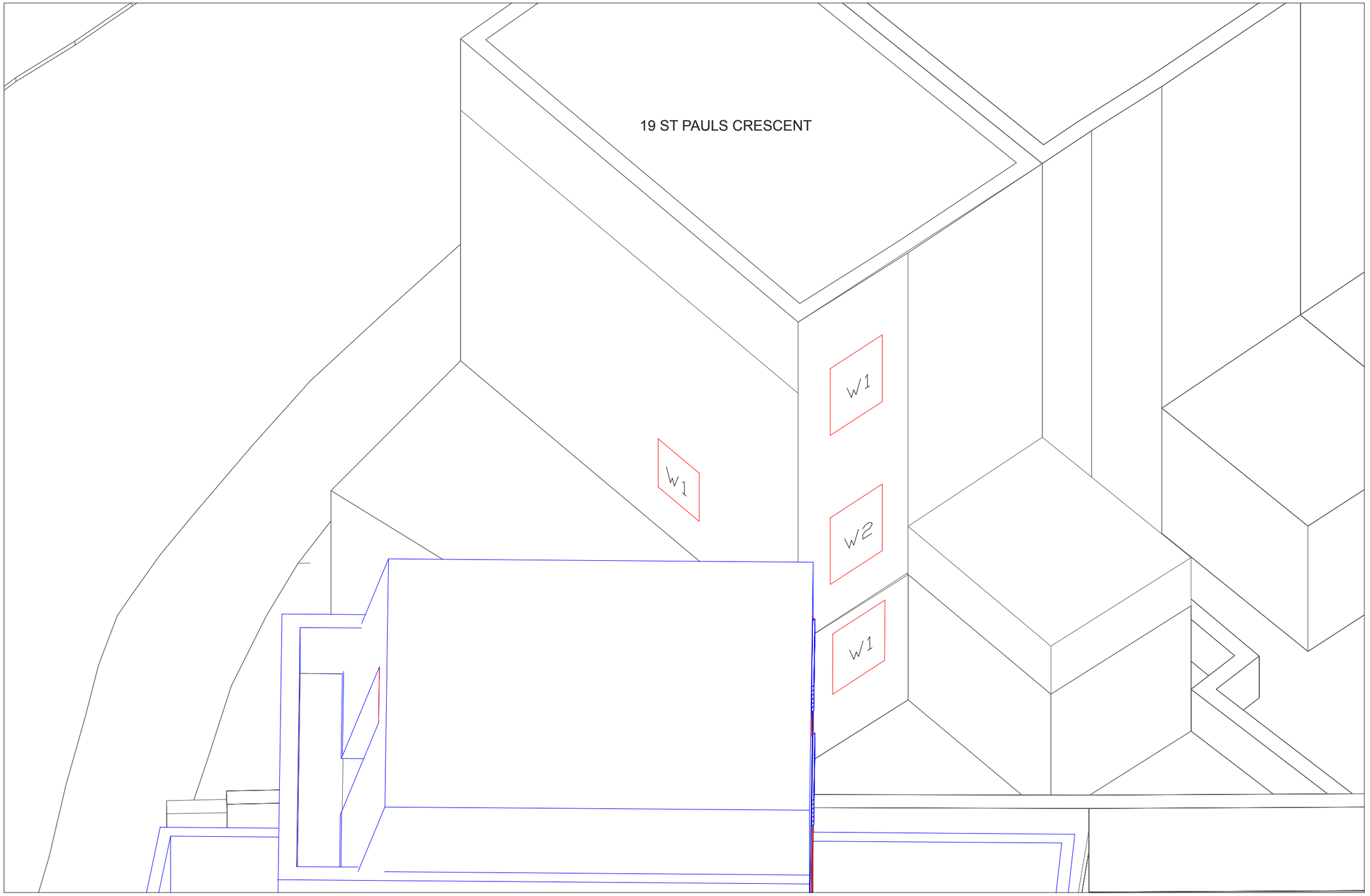
PROPOSED DEVELOPMENT FIRST FLOOR



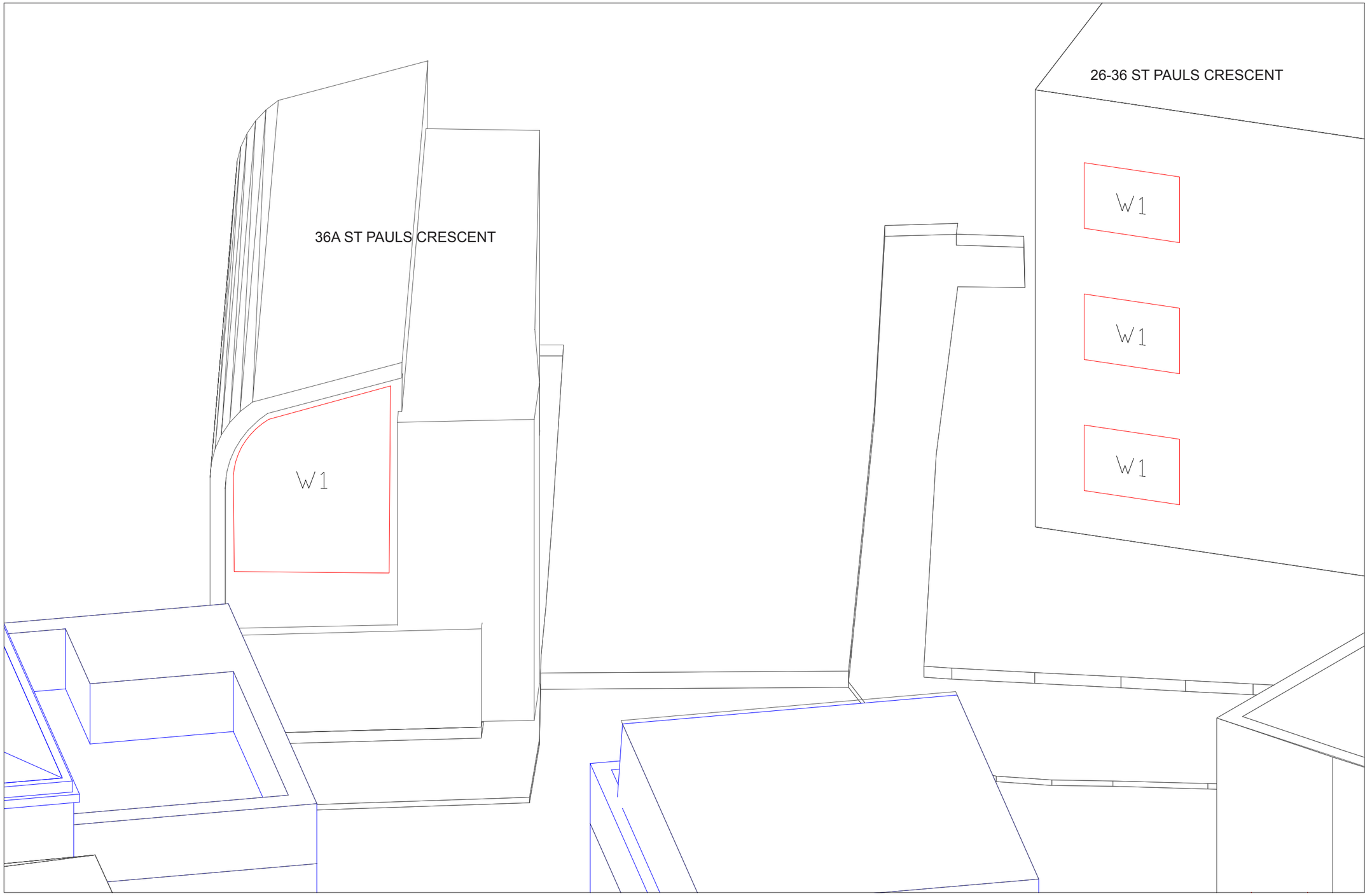
PROPOSED DEVELOPMENT SECOND FLOOR



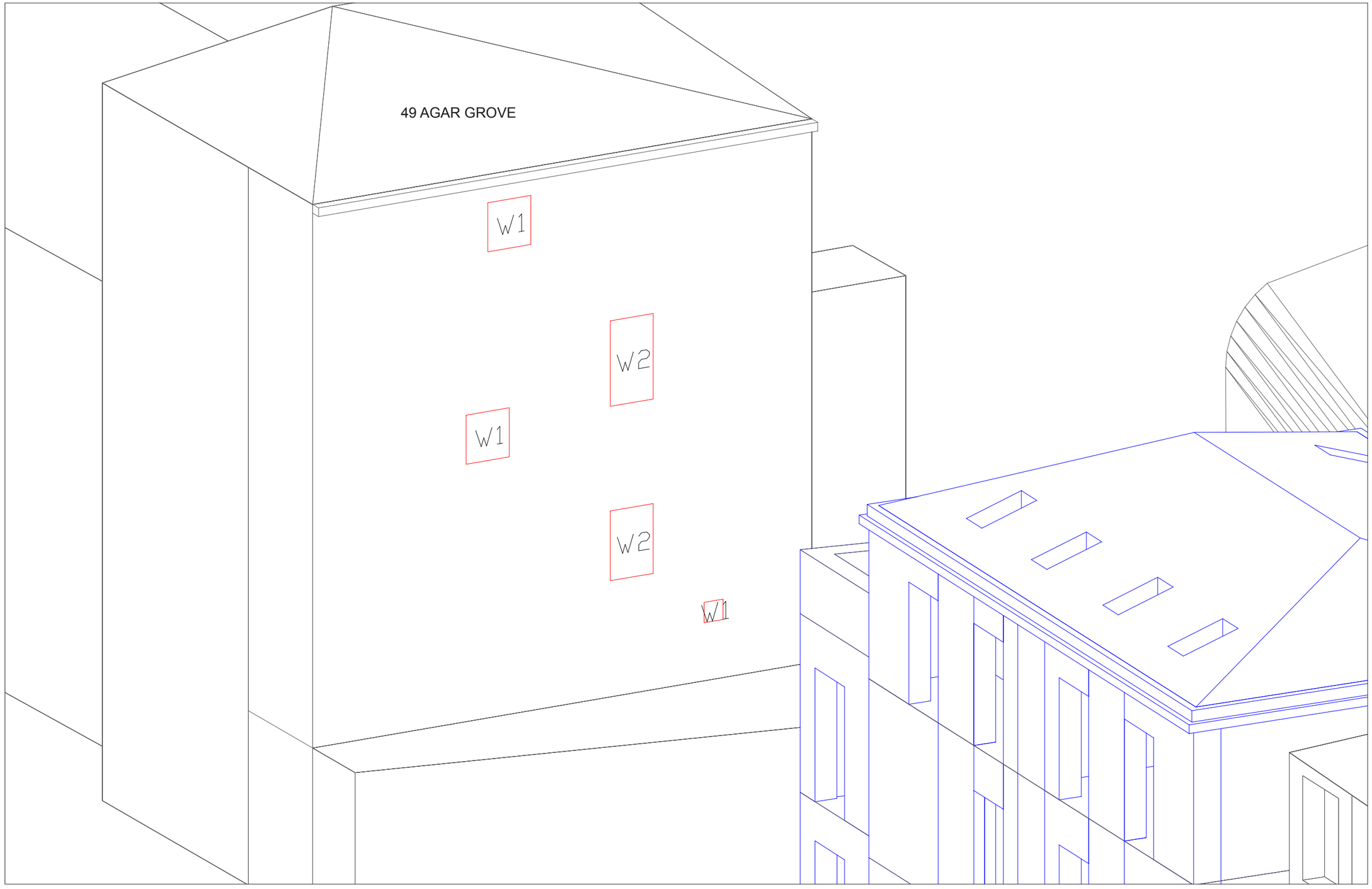
PROPOSED DEVELOPMENT THIRD FLOOR



NEIGHBOURING BUILDINGS: 19 ST PAULS CRESCENT



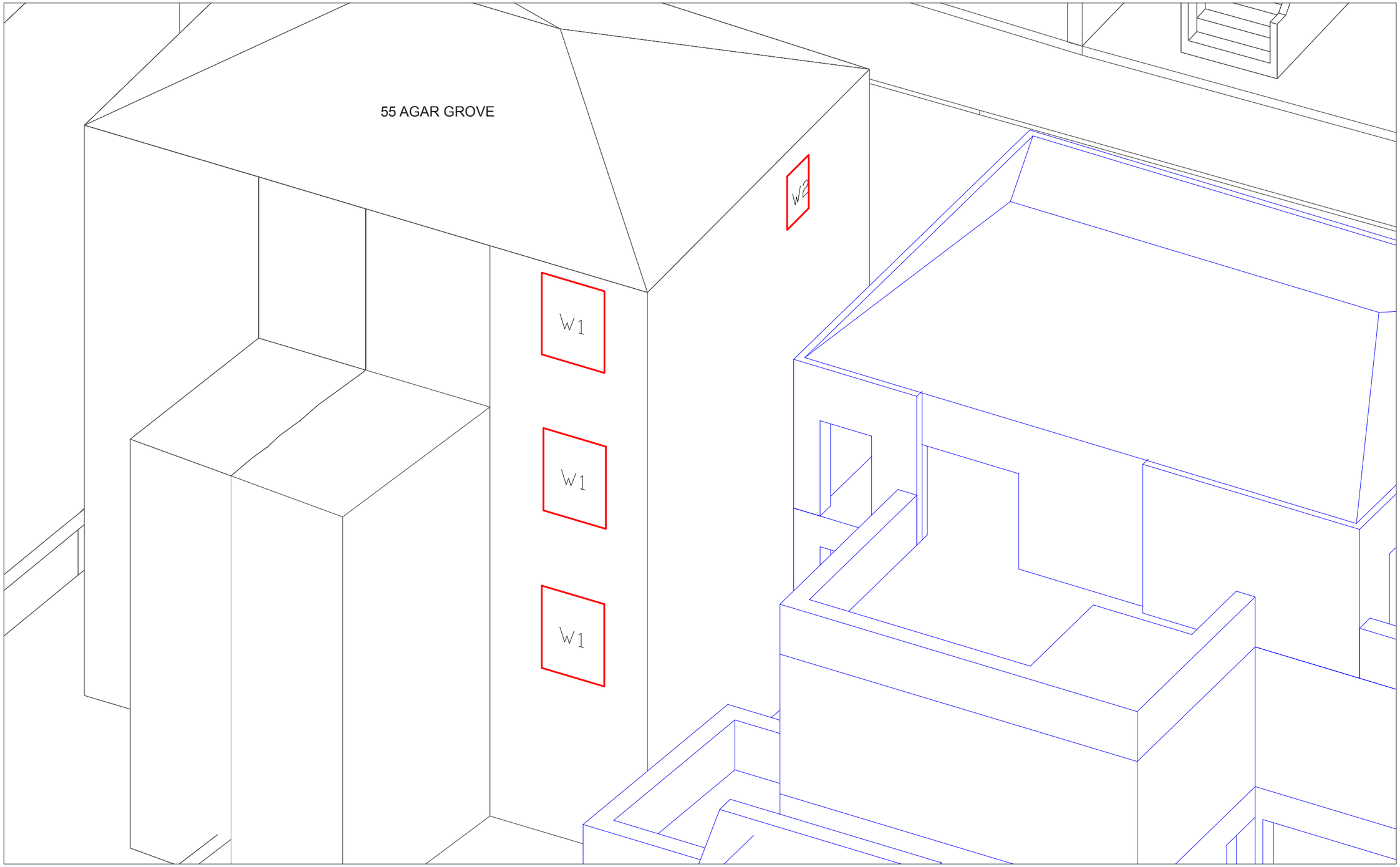
NEIGHBOURING BUILDINGS: 26-36 AND 36A ST PAULS CRESCENT



NEIGHBOURING BUILDINGS: 49 AGAR GROVE

NEIGHBOURING BUILDINGS: 104-108 AGAR GROVE

ST PAULS CRESCENT - APPENDIX 2



NEIGHBOURING BUILDINGS: 55 AGAR GROVE

AMENITY AREAS

Appendix 3

VSC RESULTS FOR NEIGHBOURING PROPERTIES

Agar Grove: Daylight and Sunlight Assessment: Appendix 3 - VSC Results for Neighbouring Properties							
Floor Ref.	**Room Ref.**	**Room Use**	**Window Ref.**	**Scenario**	**VSC**	**Difference**	**Above/Below BRE Guide Levels**
26-36 St Pauls Crescent							
Ground	NoRoomAttached	-	W1	Existing Proposed	34.01 30.71	0.90	Above
First	NoRoomAttached	-	W1	Existing Proposed	36.13 33.76	0.93	Above
Second	NoRoomAttached	-	W1	Existing Proposed	37.93 36.55	0.96	Above
36A St Pauls Crescent							
First	NoRoomAttached	-	W1	Existing Proposed	36.55 31.83	0.87	Above
49 Agar Grove							
First	NoRoomAttached	-	W1	Existing Proposed	37.81 33.66	0.89	Above
First	NoRoomAttached	-	W2	Existing Proposed	38.25 35.07	0.92	Above
Second	NoRoomAttached	-	W1	Existing Proposed	38.72 37.01	0.96	Above
Second	NoRoomAttached	-	W2	Existing Proposed	38.82 37.38	0.96	Above
Third	NoRoomAttached	-	W1	Existing Proposed	37.47 37.07	0.99	Above
104 Agar Grove							
Ground	NoRoomAttached	-	W1	Existing Proposed	37.2 34.29	0.92	Above
First	NoRoomAttached	-	W1	Existing Proposed	37.92 35.74	0.94	Above
Second	NoRoomAttached	-	W1	Existing Proposed	38.92 37.76	0.97	Above
Second	NoRoomAttached	-	W2	Existing Proposed	38.92 37.91	0.97	Above
Third	NoRoomAttached	-	W1	Existing Proposed	39.49 39.12	0.99	Above
Third	NoRoomAttached	-	W2	Existing Proposed	39.49 39.15	0.99	Above
106 Agar Grove							
Ground	NoRoomAttached	-	W1	Existing Proposed	37.28 34.02	0.91	Above
First	NoRoomAttached	-	W1	Existing Proposed	37.97 35.51	0.94	Above
Second	NoRoomAttached	-	W1	Existing Proposed	38.95 37.64	0.97	Above
Second	NoRoomAttached	-	W2	Existing Proposed	39.01 37.63	0.96	Above
Third	NoRoomAttached	-	W1	Existing Proposed	39.5 39.08	0.99	Above
Third	NoRoomAttached	-	W2	Existing Proposed	39.51 39.07	0.99	Above
108 Agar Grove							
Ground	NoRoomAttached	-	W1	Existing Proposed	37.6 34.85	0.93	Above

Agar Grove: Daylight and Sunlight Assessment: Appendix 3 - VSC Results for Neighbouring Properties							
Floor Ref.	**Room Ref.**	**Room Use**	**Window Ref.**	**Scenario**	**VSC**	**Difference**	**Above/Below BRE Guide Levels**
First	NoRoomAttached	-	W1	Existing Proposed	38.23 36.13	0.95	Above
Second	NoRoomAttached	-	W1	Existing Proposed	39.07 37.84	0.97	Above
Second	NoRoomAttached	-	W2	Existing Proposed	39.05 37.75	0.97	Above
Third	NoRoomAttached	-	W1	Existing Proposed	39.52 39.12	0.99	Above
Third	NoRoomAttached	-	W2	Existing Proposed	39.52 39.09	0.99	Above
55 Agar Grove							
First	NoRoomAttached	-	W1	Existing Proposed	37.84 34.61	0.91	Above
Second	NoRoomAttached	-	W1	Existing Proposed	39.06 38.11	0.98	Above
Third	NoRoomAttached	-	W1	Existing Proposed	39.62 39.61	1.00	Above
Third	NoRoomAttached	-	W2	Existing Proposed	39.51 33.17	0.84	Above
19 St Pauls Crescent							
Ground	NoRoomAttached	-	W1	Existing Proposed	26.85 21.44	0.80	Above
First	NoRoomAttached	-	W1	Existing Proposed	37.38 28.79	0.77	Above
First	NoRoomAttached	-	W2	Existing Proposed	38.53 34.68	0.90	Above
Second	NoRoomAttached	-	W1	Existing Proposed	39.06 38.04	0.97	Above

Appendix 4

VSC RESULTS FOR PROPOSED UNITS

Agar Grove: Daylight and Sunlight Assessment: Appendix 4 - VSC Results for Proposed Units						
Floor Ref.	**Room Ref.**	**Room Use**	**Window Ref.**	**Scenario**	**VSC**	**Above/Below BRE Guide Levels**
51-53 Agar Grove						
Ground	1.1	Kitchen	1.1.1	Existing Proposed	N/A 35.92	Above
Ground	1.1	Kitchen	1.1.2	Existing Proposed	N/A 22.42	Below(M)
Ground	1.2	Bedroom	1.2.1	Existing Proposed	N/A 31.91	Above
Ground	1.2	Bedroom	1.2.2	Existing Proposed	N/A 35.87	Above
Ground	1.3	Bedroom	1.3.1	Existing Proposed	N/A 32.21	Above
Ground	2.1	Kitchen	2.1.1	Existing Proposed	N/A 35.75	Above
Ground	2.1	Kitchen	2.1.2	Existing Proposed	N/A 22.02	Below(M)
Ground	2.2	Bedroom	2.2.1	Existing Proposed	N/A 0.27	Below
Ground	3.1	Kitchen	3.1.1	Existing Proposed	N/A 25.57	Below(M)
Ground	3.2	Bedroom	3.2.1	Existing Proposed	N/A 23.05	Below(M)
First	4.1	Kitchen	4.1.1	Existing Proposed	N/A 22.72	Below(M)
First	4.1	Kitchen	4.1.2	Existing Proposed	N/A 23.47	Below(M)
First	4.2	Bedroom	4.2.1	Existing Proposed	N/A 39.12	Above
First	4.2	Bedroom	4.2.2	Existing Proposed	N/A 33.4	Above
First	4.3	Bedroom	4.3.1	Existing Proposed	N/A 39.51	Above
First	5.1	Kitchen	5.1.1	Existing Proposed	N/A 39.51	Above
First	5.1	Kitchen	5.1.2	Existing Proposed	N/A 39.5	Above
First	5.2	Bedroom	5.2.1	Existing Proposed	N/A 22.91	Below(M)
Second	6.1	Kitchen	6.1.1	Existing Proposed	N/A 36.57	Above
Second	6.1	Kitchen	6.1.2	Existing Proposed	N/A 25.32	Below(M)
Second	6.2	Bedroom	6.2.1	Existing Proposed	N/A 39.17	Above
Second	6.3	Bedroom	6.3.1	Existing Proposed	N/A 39.46	Above
Second	7.1	Kitchen	7.1.1	Existing Proposed	N/A 23.94	Below(M)
Second	7.1	Kitchen	7.1.2	Existing Proposed	N/A 25.52	Below(M)
Second	7.1	Kitchen	7.1.3	Existing Proposed	N/A 20.84	Below
Second	7.2	Bedroom	7.2.1	Existing Proposed	N/A 39.45	Above

Agar Grove: Daylight and Sunlight Assessment: Appendix 4 - VSC Results for Proposed Units						
Floor Ref.	**Room Ref.**	**Room Use**	**Window Ref.**	**Scenario**	**VSC**	**Above/Below BRE Guide Levels**
Second	7.2	Bedroom	7.2.2	Existing Proposed	N/A 39.45	Above
Third	6.4	Kitchen	6.4.1	Existing Proposed	N/A 38.08	Above
Third	6.5	Bedroom	6.5.1	Existing Proposed	N/A 39.28	Above
Third	6.5	Bedroom	6.5.2	Existing Proposed	N/A 39.3	Above
Third	7.3	Kitchen	7.3.1	Existing Proposed	N/A 37.74	Above
Third	7.3	Kitchen	7.3.2	Existing Proposed	N/A 39	Above
Third	7.4	Bedroom	7.4.1	Existing Proposed	N/A 39.27	Above
Third	7.4	Bedroom	7.4.2	Existing Proposed	N/A 39.28	Above
21 St Pauls Crescent						
Basement	1.1	Kitchen	1.1.1	Existing Proposed	N/A 6.23	Below
Ground	1.2	Living room	1.2.1	Existing Proposed	N/A 33.21	Above
Ground	1.2	Living room	1.2.2	Existing Proposed	N/A 26.14	Below(M)
First	1.3	Bedroom	1.3.1	Existing Proposed	N/A 35.72	Above
First	1.4	Bedroom	1.4.1	Existing Proposed	N/A 36.94	Above
Second	1.5	Bedroom	1.5.1	Existing Proposed	N/A 32.93	Above
Second	1.5	Bedroom	1.5.2	Existing Proposed	N/A 36.5	Above

Appendix 5

ADF RESULTS FOR PROPOSED UNITS

Agar Grove: Daylight and Sunlight Assessment: Appendix 5 - ADF Results for Neighbouring Properties

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Guide Level	Above/Below BS/BRE Guide Levels
51-53 Agar Grove												
Ground	1.1	Kitchen	1.1.1-L	0.68	1.77	63.14	142.48	0.70	0.30	0.31		
			1.1.1-U	0.68	3.24	86.61	142.48	0.70	1.00	2.63		
			1.1.2-L	0.68	0.23	47.41	142.48	0.70	0.30	0.03		
			1.1.2-U	0.68	0.43	51.81	142.48	0.70	1.00	0.21		
										3.18	2.00	Above
Ground	1.2	Bedroom	1.2.1	0.68	2.19	69.64	56.08	0.70	1.00	3.63		
			1.2.2-L	0.68	1.53	69.32	56.08	0.70	0.30	0.76		
			1.2.2-U	0.68	2.81	82.78	56.08	0.70	1.00	5.53		
										9.91	1.00	Above
Ground	1.3	Bedroom	1.3.1	0.68	2.70	70.18	58.35	0.70	1.00	4.33		
										4.33	1.00	Above
Ground	2.1	Kitchen	2.1.1-L	0.68	1.77	61.96	136.02	0.70	0.30	0.32		
			2.1.1-U	0.68	3.24	86.61	136.02	0.70	1.00	2.75		
			2.1.2-L	0.68	0.23	45.45	136.02	0.70	0.30	0.03		
			2.1.2-U	0.68	0.43	51.81	136.02	0.70	1.00	0.22		
										3.32	2.00	Above
Ground	2.2	Bedroom	2.2.1-L	0.68	2.03	4.01	54.94	0.70	0.30	0.06		
			2.2.1-U	0.68	3.72	10.55	54.94	0.70	1.00	0.95		
										1.01	1.00	Above
Ground	3.1	Kitchen	3.1.1-L	0.68	2.13	53.79	82.29	0.70	0.30	0.56		
			3.1.1-U	0.68	3.96	63.24	82.29	0.70	1.00	4.06		
										4.61	2.00	Above
Ground	3.2	Bedroom	3.2.1-L	0.68	0.89	41.51	82.19	0.70	0.30	0.18		
			3.2.1-U	0.68	1.63	59.99	82.19	0.70	1.00	1.59		
										1.77	1.00	Above
First	4.1	Kitchen	4.1.1-L	0.68	1.11	56.07	153.28	0.70	0.30	0.16		
			4.1.1-U	0.68	2.06	60.25	153.28	0.70	1.00	1.08		
			4.1.2-L	0.68	0.73	56.63	153.28	0.70	0.30	0.11		
			4.1.2-U	0.68	1.27	60.68	153.28	0.70	1.00	0.67		
										2.02	2.00	Above
First	4.2	Bedroom	4.2.1-L	0.68	0.73	85.77	72.63	0.70	0.30	0.34		
			4.2.1-U	0.68	1.36	84.61	72.63	0.70	1.00	2.11		
			4.2.2-L	0.68	1.57	73.69	72.63	0.70	0.30	0.64		
			4.2.2-U	0.68	2.92	74.37	72.63	0.70	1.00	3.99		
										7.08	1.00	Above
First	4.3	Bedroom	4.3.1-L	0.68	0.73	85.77	46.61	0.70	0.30	0.54		
			4.3.1-U	0.68	1.36	84.61	46.61	0.70	1.00	3.29		
										3.83	1.00	Above
First	5.1	Kitchen	5.1.1-L	0.68	0.73	85.77	105.99	0.70	0.30	0.24		
			5.1.1-U	0.68	1.36	84.61	105.99	0.70	1.00	1.45		
			5.1.2-L	0.68	0.73	85.77	105.99	0.70	0.30	0.24		
			5.1.2-U	0.68	1.36	84.61	105.99	0.70	1.00	1.45		
										3.37	2.00	Above
First	5.2	Bedroom	5.2.1-L	0.68	0.73	51.40	59.43	0.70	0.30	0.25		
			5.2.1-U	0.68	1.36	55.90	59.43	0.70	1.00	1.71		
										1.96	1.00	Above
Second	6.1	Kitchen	6.1.1-L	0.68	1.56	80.22	120.31	0.70	0.30	0.42		
			6.1.1-U	0.68	2.73	80.24	120.31	0.70	1.00	2.43		
			6.1.2-L	0.68	0.73	59.06	120.31	0.70	0.30	0.14		
			6.1.2-U	0.68	1.27	59.48	120.31	0.70	1.00	0.84		
										3.82	2.00	Above
Second	6.2	Bedroom	6.2.1-L	0.68	0.73	85.75	72.94	0.70	0.30	0.34		
			6.2.1-U	0.68	1.27	84.38	72.94	0.70	1.00	1.96		
										2.30	1.00	Above
Second	6.3	Bedroom	6.3.1-L	0.68	0.73	85.76	46.61	0.70	0.30	0.54		
			6.3.1-U	0.68	1.27	84.38	46.61	0.70	1.00	3.07		
										3.60	1.00	Above
Second	7.1	Kitchen	7.1.1-L	0.68	0.73	57.25	105.18	0.70	0.30	0.16		
			7.1.1-U	0.68	1.27	57.42	105.18	0.70	1.00	0.92		
			7.1.2-L	0.68	0.73	59.02	105.18	0.70	0.30	0.16		
			7.1.2-U	0.68	1.10	60.14	105.18	0.70	1.00	0.84		
			7.1.3-L	0.68	0.73	51.02	105.18	0.70	0.30	0.14		
			7.1.3-U	0.68	1.27	52.54	105.18	0.70	1.00	0.85		
										3.07	2.00	Above
Second	7.2	Bedroom	7.2.1-L	0.68	0.73	85.76	70.42	0.70	0.30	0.36		
			7.2.1-U	0.68	1.27	84.38	70.42	0.70	1.00	2.03		
			7.2.2-L	0.68	0.73	85.76	70.42	0.70	0.30	0.36		
			7.2.2-U	0.68	1.27	84.38	70.42	0.70	1.00	2.03		
										4.77	1.00	Above
Third	6.4	Kitchen	6.4.1-L	0.68	2.28	72.90	101.00	0.70	0.30	0.66		
			6.4.1-U	0.68	3.44	84.05	101.00	0.70	1.00	3.82		
										4.48	2.00	Above
Third	6.5	Bedroom	6.5.1-L	0.68	0.73	85.54	74.75	0.70	0.30	0.33		
			6.5.1-U	0.68	1.10	83.72	74.75	0.70	1.00	1.64		
			6.5.2-L	0.68	0.73	85.54	74.75	0.70	0.30	0.33		
			6.5.2-U	0.68	1.10	83.72	74.75	0.70	1.00	1.64		
										3.95	1.00	Above
Third	7.3	Kitchen	7.3.1-L	0.68	1.14	70.76	97.52	0.70	0.30	0.33		
			7.3.1-U	0.68	1.72	79.56	97.52	0.70	1.00	1.87		
			7.3.2-L	0.68	0.73	75.54	97.52	0.70	0.30	0.23		
			7.3.2-U	0.68	1.10	83.72	97.52	0.70	1.00	1.26		
										3.69	2.00	Above
Third	7.4	Bedroom	7.4.1-L	0.68	0.73	85.54	74.75	0.70	0.30	0.33		
			7.4.1-U	0.68	1.10	83.72	74.75	0.70	1.00	1.64		
			7.4.2-L	0.68	0.73	85.54	74.75	0.70	0.30	0.33		
			7.4.2-U	0.68	1.10	83.72	74.75	0.70	1.00	1.64		
										3.95	1.00	Above
21 St Pauls Crescent												
Basement	1.1	Kitchen	1.1.1-L	0.68	2.58	22.01	150.44	0.70	0.30	0.15		
			1.1.1-U	0.68	3.89	32.61	150.44	0.70	1.00	1.12		
										1.28	2.00	Below
Ground	1.2	Living room	1.2.1-L	0.68	3.22	66.39	136.31	0.70	0.30	0.63		
			1.2.1-U	0.68	5.42	78.11	136.31	0.70	1.00	4.14		
			1.2.2-L	0.68	0.34	53.49	136.31	0.70	0.30	0.05		
			1.2.2-U	0.68	0.50	56.82	136.31	0.70	1.00	0.28		
										5.10	1.50	Above
First	1.3	Bedroom	1.3.1-L	0.68	1.01	77.58	54.52	0.70	0.30	0.57		
			1.3.1-U	0.68	1.69	78.21	54.52	0.70	1.00	3.23		
										3.81	1.00	Above

Agar Grove: Daylight and Sunlight Assessment: Appendix 5 - ADF Results for Neighbouring Properties

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Guide Level	Above/Below BS/BRE Guide Levels
First	1.4	Bedroom	1.4.1-L	0.68	1.01	80.35	54.52	0.70	0.30	0.60		
			1.4.1-U	0.68	1.69	63.31	54.52	0.70	1.00	2.62		
										3.21	1.00	Above
Second	1.5	Bedroom	1.5.1	0.68	1.53	67.26	88.72	0.70	1.00	1.55		
			1.5.2-L	0.68	0.85	54.22	88.72	0.70	0.30	0.21		
			1.5.2-U	0.68	1.38	79.48	88.72	0.70	1.00	1.65		
										3.40	1.00	Above

Appendix 6

SUNLIGHT RESULTS FOR NEIGHBOURING PROPERTIES

Agar Grove: Daylight and Sunlight Assessment: Appendix 6 - Sunlight Results for Neighbouring Properties										
					Available Sunlight Hours					
Floor Ref.	Room Ref.	Room Use	Window Ref.	Scenario	Annual %	Change	Above/Below BRE Guide Levels	Winter %	Change	Above/Below BRE Guide Levels
26-36 St Pauls Crescent										
Ground	NoRoomAttach	-	W1	Existing Proposed	49 48	0.98	Above	13 12	0.92	Above
First	NoRoomAttach	-	W1	Existing Proposed	60 60	1.00	Above	20 20	1.00	Above
Second	NoRoomAttach	-	W1	Existing Proposed	62 62	1.00	Above	20 20	1.00	Above
36A St Pauls Crescent										
First	NoRoomAttach	-	W1	Existing Proposed	49 44	0.90	Above	15 12	0.80	Above
49 Agar Grove										
First	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
First	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
104 Agar Grove										
Ground	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
First	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
106 Agar Grove										
Ground	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
First	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
108 Agar Grove										
Ground	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
First	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W2	Existing Proposed	*North Facing					
55 Agar Grove										
First	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Second	NoRoomAttach	-	W1	Existing Proposed	*North Facing					
Third	NoRoomAttach	-	W1	Existing Proposed	*North Facing					

Agar Grove: Daylight and Sunlight Assessment: Appendix 6 - Sunlight Results for Neighbouring Properties										
					Available Sunlight Hours					
Floor Ref.	Room Ref.	Room Use	Window Ref.	Scenario	Annual %	Change	Above/Below BRE Guide Levels	Winter %	Change	Above/Below BRE Guide Levels
Third	NoRoomAttach	-	W2	Existing Proposed	52 44	0.85	Above	17 14	0.82	Above
19 St Pauls Crescent										
Ground	NoRoomAttach	-	W1	Existing Proposed	54 35	0.65	Above	20 11	0.55	Above
First	NoRoomAttach	-	W1	Existing Proposed	71 56	0.79	Above	24 9	0.38	Above
First	NoRoomAttach	-	W2	Existing Proposed	67 57	0.85	Above	21 12	0.57	Above
Second	NoRoomAttach	-	W1	Existing Proposed	70 70	1.00	Above	24 24	1.00	Above

Appendix 7

SUNLIGHT RESULTS FOR PROPOSED UNITS

Agar Grove: Daylight and Sunlight Assessment: Appendix 7 - Sunlight Results for Proposed Units								
Floor Ref.	Room Ref.	Room Use	Window Ref.	Scenario	Available Sunlight Hours			
					Annual %	Above/Below BRE Guide Levels	Winter %	Above/Below BRE Guide Levels
51-53 Agar Grove								
Ground	1.1	Kitchen	1.1.1	Existing	N/A	Above	N/A	Above
				Proposed	86		29	
Ground	1.1	Kitchen	1.1.2	Existing	N/A	Above	N/A	Above
				Proposed	44		19	
Ground	1.2	Bedroom	1.2.1	Existing	*North Facing			
				Proposed				
Ground	1.2	Bedroom	1.2.2	Existing	N/A	Above	N/A	Above
				Proposed	77		28	
Ground	1.3	Bedroom	1.3.1	Existing	*North Facing			
				Proposed				
Ground	2.1	Kitchen	2.1.1	Existing	N/A	Above	N/A	Above
				Proposed	85		28	
Ground	2.1	Kitchen	2.1.2	Existing	N/A	Above	N/A	Above
				Proposed	42		18	
Ground	2.2	Bedroom	2.2.1	Existing	*North Facing			
				Proposed				
Ground	3.1	Kitchen	3.1.1	Existing	*North Facing			
				Proposed				
Ground	3.2	Bedroom	3.2.1	Existing	N/A	Below	N/A	Below
				Proposed	18		2	
First	4.1	Kitchen	4.1.1	Existing	*North Facing			
				Proposed				
First	4.1	Kitchen	4.1.2	Existing	N/A	Below	N/A	Below
				Proposed	13		0	
First	4.2	Bedroom	4.2.1	Existing	N/A	Above	N/A	Above
				Proposed	85		30	
First	4.2	Bedroom	4.2.2	Existing	*North Facing			
				Proposed				
First	4.3	Bedroom	4.3.1	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
First	5.1	Kitchen	5.1.1	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
First	5.1	Kitchen	5.1.2	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
First	5.2	Bedroom	5.2.1	Existing	*North Facing			
				Proposed				
Second	6.1	Kitchen	6.1.1	Existing	*North Facing			
				Proposed				
Second	6.1	Kitchen	6.1.2	Existing	N/A	Below	N/A	Below
				Proposed	15		0	
Second	6.2	Bedroom	6.2.1	Existing	N/A	Above	N/A	Above
				Proposed	86		30	
Second	6.3	Bedroom	6.3.1	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
Second	7.1	Kitchen	7.1.1	Existing	*North Facing			
				Proposed				
Second	7.1	Kitchen	7.1.2	Existing	*North Facing			
				Proposed				
Second	7.1	Kitchen	7.1.3	Existing	*North Facing			
				Proposed				
Second	7.2	Bedroom	7.2.1	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
Second	7.2	Bedroom	7.2.2	Existing	N/A	Above	N/A	Above
				Proposed	86		30	
Third	6.4	Kitchen	6.4.1	Existing	N/A	Above	N/A	Above
				Proposed	50		15	
Third	6.5	Bedroom	6.5.1	Existing	N/A	Above	N/A	Above
				Proposed	86		30	
Third	6.5	Bedroom	6.5.2	Existing	N/A	Above	N/A	Above
				Proposed	87		30	
Third	7.3	Kitchen	7.3.1	Existing	*North Facing			
				Proposed				
Third	7.3	Kitchen	7.3.2	Existing	*North Facing			
				Proposed				
Third	7.4	Bedroom	7.4.1	Existing	N/A	Above	N/A	Above
				Proposed	86		30	
Third	7.4	Bedroom	7.4.2	Existing	N/A	Above	N/A	Above
				Proposed	86		30	

Agar Grove: Daylight and Sunlight Assessment: Appendix 7 - Sunlight Results for Proposed Units								
Floor Ref.	**Room Ref.**	**Room Use**	**Window Ref.**	**Scenario**	**Available Sunlight Hours**			
					Annual %	**Above/Below BRE Guide Levels**	**Winter %**	**Above/Below BRE Guide Levels**
21 St Pauls Crescent								
Basement	1.1	Kitchen	1.1.1	Existing Proposed	*North Facing			
Ground	1.2	Living room	1.2.1	Existing Proposed	*North Facing			
Ground	1.2	Living room	1.2.2	Existing Proposed	N/A 23	Below(M)	N/A 0	Below
First	1.3	Bedroom	1.3.1	Existing Proposed	N/A 47	Above	N/A 12	Above
First	1.4	Bedroom	1.4.1	Existing Proposed	*North Facing			
Second	1.5	Bedroom	1.5.1	Existing Proposed	*North Facing			
Second	1.5	Bedroom	1.5.2	Existing Proposed	N/A 43	Above	N/A 9	Above

Appendix 8

OVERSHADOWING RESULTS

Agar Grove: Daylight and Sunlight Assessment: Appendix 8 - Shadow Results					
Floor Ref.	Amenity Ref.		Amenity Area	Lit Area Proposed	Above/ Below BRE Guide Levels
51-53 Agar Grove					
Ground	P1	Area m2	42.21	31.90	Above
		Percentage		0.76	
Ground	P2	Area m2	18.78	9.49	Above
		Percentage		0.51	
Ground	P8	Area m2	18.59	13.30	Below
		Percentage		0.72	
Ground	P6	Area m2	12.76	0.00	Below
		Percentage		0.00	
Ground	P9	Area m2	23.66	4.00	Below
		Percentage		0.17	
Ground	P7	Area m2	14.77	0.00	Below
		Percentage		0.00	
Ground	P5	Area m2	51.45	7.88	Below
		Percentage		0.15	
Ground	P3	Area m2	19.77	0.00	Above
		Percentage		0.00	
Ground	P4	Area m2	31.23	7.36	Below
		Percentage		0.24	
Ground	N1	Area m2	122.81	113.02	Above
		Percentage		0.92	
Ground	N2	Area m2	59.20	38.26	Above
		Percentage		0.65	
Ground	N3	Area m2	21.79	21.68	Above
		Percentage		0.99	