

**DAYLIGHT &
SUNLIGHT
REPORT**

relating to the

**PROPOSED
DEVELOPMENT**

at

**REAR OF No 177
KINGS ROAD,
READING**

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1.0 EXECUTIVE SUMMARY

The findings detailed in this daylight and sunlight report shows that the proposals (3 storey scheme) will have overall, relatively minor effects on the neighbouring residential properties assessed in respect of daylight/sunlight.

The results of our examination are based upon the standard assessment procedure of the BRE Guide 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' Edition 2011 (The BRE Guide). The results show that for any applicable reductions to the neighbouring habitable windows / rooms analysed, these all meet target criteria for the vertical sky component (VSC) to all primary windows with only one isolated exception and in such instance, this is still close to target criteria / not considered material. For the applicable neighbouring rooms reviewed high levels of internal daylight distribution are maintained in the proposed scenario, typically meeting BRE Guide target criteria with only one isolated exception and in such instance very close to target criteria thus, on balance, there is no material adverse effect resulting from the proposal, daylight is suitably maintained / typically meeting the BRE Guide target criteria.

For sunlight review, BRE Guide target criteria is met for sunlight ('total suns') to all neighbouring living rooms / sun important rooms. In terms of shadowing, given the arrangement of neighbouring rear gardens / amenity spaces to the proposed site these will readily meet the BRE Guide target criteria.

Therefore, it is considered the proposal, does not have any materially adverse effect on neighbouring residential daylighting or sunlight, including to amenity areas.

For the main proposed new-build habitable rooms, these all satisfy the requirements in terms of provision of adequate daylight (Average Daylight Factor) so that the proposals meet the BRE Guide target criteria (and BS8206) for daylight, and the scheme has reasonable provision of sunlight availability to the new habitable living rooms.

2.0 OVERVIEW

The proposed scheme consists of the redevelopment of the site to a new 3-storey residential building. Since the proposals are shown in detail on the planning drawings, these are not reproduced herein albeit within Appendix 2, we have, however, shown existing and proposed perspective views and the surrounding building window references (please see Appendix 2) to enable the analysis tables and other descriptions in this report to be more readily understood.

3.0 INSTRUCTIONS

Our instructions are to assess the effects of the planning proposals on the surrounding properties in terms of daylight and sunlight and to report on our findings for submission to the local planning authority. In addition, we have assessed the proposed development to determine the Average Daylight Factors (ADFs) to demonstrate whether the proposed habitable rooms attain reasonable levels of daylight and sunlight amenity, especially to living rooms.

4.0 DAYLIGHT & SUNLIGHT

4.1 BACKGROUND

Daylight and sunlight amenities are considerations that the local planning authority can take into account when determining planning applications. There is no national planning policy relating to daylight and sunlight and overshadowing impacts. General guidance is, however, given on the need to protect existing amenity as set out in the National Planning Policy Framework.

The site is located within Reading and Reading Borough Council's 'Reading Borough Local Development Framework Core Strategy (2008) (altered 2015) effectively considers daylight and sunlight review in reference to the Building Research Establishment's 'Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice' (The BRE Guide).

Accordingly, we have utilised the BRE Guide's latest edition (2011) as our methodology for our review as industry standard for assessment of daylight and sunlight which enables an objective assessment to be made as to the neighbouring daylight and sunlight, in the existing situation and as to what effect the proposal will have upon these.

When considering the Guide's requirements, it is important to remember that the Guide is not a set of planning rules, which are either passed or failed. Numerical values are given and used, not as proscriptive or prescriptive values but as a way of comparing situations and coming to a judgement. The Guide is conceived as an aid to planning officers and designers by giving objective means of making assessments. The values given as desirable in the Guide may not be obtainable in dense urban areas where the grain of development is tight while higher values might well be desirable in suburban or rural areas where the grain is contrastingly open.

4.2 METHODOLOGY

We have carried out an analysis of the proposed situations following the methodology set out in the BRE Guide on Site Layout Planning for Daylight and Sunlight (2nd Ed / 2011). We have considered daylight, both in terms of vertical sky component (VSC) and daylight distribution analysis and have also considered sunlight (again, by the method set out in the Guide) to see as applicable the proportion of the annual probable sunlight hours (APSHs) that the surrounding windows will benefit from in the existing and proposed scenario. We have not considered the BRE Guides initial 'rules of thumb / preliminary guidance' in respect of the '25° test' or '45° approach' but focused on the detailed analysis in respect of VSC, daylight distribution and APSHs which forms the basis of this report.

We have utilised architect's existing and proposed drawings, site photos, OS to form a 3D model of existing and proposed arrangement, ready for analysis by industry recognised specialist software for daylight/sunlight review.

As the scheme drawings form part of the formal submission, these are not reproduced here. We have, however, shown existing and proposed perspective views and the surrounding building window references (please see Appendix 2).

In terms of neighbouring properties applicable for detailed daylight/sunlight review, this relates to those listed below;

175-177 Kings Road - Neighbouring residential building located to the south of the development site, comprises Lower ground floor, Ground-floor plus three storeys.

169 Kings Road - Neighbouring residential building located to the west of the development site, comprises ground-floor plus three storeys.

6-12 Morriss Court - Neighbouring residential building located to the north of the development site, comprises ground-floor plus two storeys.

Whilst we have not accessed any neighbouring properties, we have made reasonable assumptions and interpreted where necessary, likely room arrangements / uses to these particular properties based from our review of the exterior and utilising in part, information available on arrangements found within the public realm (planning portal / estate agent details).

For self-test review, we have assessed the average daylight factor (ADFs) for the new habitable rooms being formed within the proposal which has been undertaken on the basis of standardised internal finishes such as pale colours carpets / floor coverings, magnolia walls and white ceilings.

4.3 DAYLIGHT - VSC

The Guide considers that in terms of vertical sky component (VSC), as a target value, if the VSC with the new development in place is both, less than 27% and less than 0.8 times its former value, occupants of the existing building will notice the reduction in the amount of skylight. The maximum value obtainable at a flat window in a vertical wall is effectively 40%.

VSC represents a ratio of the part of illuminance at a point on a given vertical plane (usually the centre point of window on the window wall face), that would be received directly from an overcast sky (CIE standard overcast sky) to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. The VSC does not include reflected light, either from the ground or from other buildings.

Table 1 (VSC and Sunlight for neighbouring properties) within Appendix 1 sets out the results of our examination. This shows the proposed VSC (and the annual probable sunlight hours and the winter proportion), in the existing and proposed situations, based on the Architects' design proposals. The assessment calculates current daylight reaching the windows of surrounding buildings and what effects the alterations as proposed will have on the existing situation.

We have set out in Table 1 results for the properties analysed. From **Table 1** the following results can be summarised;

175-177 Kings Road

All VSC reductions are readily meeting the BRE Guide target criteria of not greater than a 20% reduction with the isolated exception of 1 No. window at lower ground floor; W1 (serving R1 - Studio) with a reduction of 24% – such isolated reductions could be considered as 'minor adverse' / still close to target criteria, given also that the window still maintains in the proposed scenario a VSC value of 19.21 which could be considered reasonable for an urban context, and in view of the daylight distribution to this room also being satisfactory (please see section 4.4) we would not consider this reduction 'material'.

169 Kings Road

VSC reductions are limited ranging up to 6%, thus readily meeting the BRE Guide target criteria of not greater than a 20% reduction.

6-12 Morriss Court

VSC reductions are limited ranging up to 2%, thus readily meeting the BRE Guide target criteria of not greater than a 20% reduction.

Thus, in summary, the VSC to all neighbouring windows in the proposed scenario meet the BRE Guide target criteria with the isolated exception of 1 No. window, considered minor adverse / still close to target criteria. Thus, we consider there is no 'material' or adverse effect to applicable neighbouring windows on this basis from the proposal.

4.4 DAYLIGHT DISTRIBUTION

Using the information previously mentioned, we have derived internal room layouts and prepared a set of daylight distribution or no-sky line calculations both as existing and as proposed to show what effects the proposal may have on neighbouring properties in terms of the daylight penetration into any habitable rooms applicable (**Table 2 – Daylight Distribution for neighbouring properties – Appendix 1**).

From this Table 2, it can be seen in terms of daylight distribution, reductions in daylight distribution range;

175-177 Kings Road

All Daylight distribution reductions are readily meeting the BRE Guide target criteria of not greater than a 20% reduction with the isolated exception of 1 No room; ground floor R1 (Living room) - 21% reduction, marginally below target such isolated reductions very close to target criteria and we consider not a material reduction to daylight. To highlight this room still retains access to direct daylight at the working plane to 79% of the room area.

169 Kings Road

Daylight distribution reductions are negligible ranging up to 1%, thus readily meeting the BRE Guide target criteria of not greater than a 20% reduction.

6-12 Morriss Court

Daylight distribution reductions are negligible ranging up to 1%, thus readily meeting the BRE Guide target criteria of not greater than a 20% reduction.

Thus, in terms of daylight distribution, for the neighbouring residential rooms applicable for analysis, there is limited reduction in daylight distribution, typically meeting BRE Guide target criteria, with the neighbouring rooms analysed maintaining high levels of daylight distribution in the proposed scenario.

Therefore, we concluded in reference to both daylight VSC and daylight distribution review that there is no "material" / adverse effect on the daylight to the habitable rooms of neighbouring properties resulting from the proposals as in the proposed scenario, daylight is suitably maintained / typically meet the BRE Guide target criteria.

4.5 SUNLIGHT

On sunlight, only the windows that face within 90° of South, that is to say, facing from 90° to 270°, are normally considered under the sunlight criteria. We therefore, pass comment on the windows with this orientation. Within **Table 1 (VSC and Sunlight for neighbouring properties)**, the windows that face within 90° of north, which is to say, from 270° to 360° and from 360° to 90°, are marked as “north” are north facing and these windows are not, therefore, considered / commented upon for sunlight.

The BRE recommendation is that windows facing within 90° of South should have 25% of annual probable hours with 5% in the winter months (from the autumn equinox to the spring equinox). Where reductions below the recommended levels are contemplated, these should be target limited to one fifth or 0.2 times the present value (unless a reduction of sunlight received over the whole year is not greater than 4% of annual probable sunlight hours).

To highlight, analysis review of windows primarily relates to main living rooms and conservatories i.e. sun important rooms as per the BRE Guide. Notwithstanding this, we have analysed all habitable windows for sunlight review as considered previously for daylight.

As can be seen from Table 1 (Appendix 1), in terms of sunlight, all the habitable rooms assessed (that face within 90° of South and serving living rooms / sun important rooms), where reductions are appropriate for consideration, adhere to the BRE Guide target criteria in reference to both APSH and winter (‘Total suns per room’ – existing and proposed).

In summary, the proposal does not result in any material reductions to sunlight in reference to the BRE Guide to the neighbouring properties.

4.6 SUN ON THE GROUND

The shadow path is ordinarily considered for amenity areas only – this is different to calculation of available sunlight hours to neighbouring windows which is covered in **section 4.5 of this report**.

Given the arrangement of the neighbouring rear gardens / amenity spaces to the proposed site, we have not submitted a detailed review of the BRE 2-hour sunlight test although we can confirm that any reduction would readily meet the BRE Guide target criteria / there is no adverse effect.

In summary, the proposals satisfy the BRE Guide target criteria / there is no material effect.

4.7 PROPOSED NEW BUILDING – AVERAGE DAYLIGHT FACTOR (ADF)

We have assessed the proposed new accommodation to determine whether or not the new proposed habitable rooms will be provided with adequate daylight by reference to Average Daylight Factors (ADFs). The average daylight factor is an overall calculation / combined consideration of such aspects as *theta* for available sky at the window face (derived from VSC), the area of the glazing and size of the room served by such glazing, the average reflectance's of the surfaces inside the room, etc. This gives a more detailed assessment for the daylight that will be available in the room than the measure of VSC which gives details of the potential for reasonable daylighting within the space rather than an actual measure of the internal daylighting.

BS 8206 Pt2, which is in part incorporated into the BRE Guide, recommends that interiors intended to have supplementary electric lighting – in other words, normal building interiors – should have an ADF of 2%. The BS sets minimum standards of 1% for bedrooms, 1.5% for living rooms and 2% for kitchens. In terms of any applicable open-plan arrangements for 'kitchen/ living/ dining room', we have taken the target ADF for the predominant room use which being primarily 'living/ dining room', we have allowed a target ADF of 1.5%.

We have analysed ADFs to the main habitable rooms within the new building. The results of this analysis are set out in **Table 3 – Self-test - ADFs** in Appendix 3 (along with an Internal Room Map for reference). These confirm that all the proposed 'habitable' rooms meet the minimum ADF target criteria, indeed some by a considerable margin.

In summary, therefore, the development meets the recommendations of the BRE Guide and BS 8206 in terms of ADFs.

4.8 PROPOSED NEW BUILDING – SUNLIGHT

The BRE Guide requires assessments to be made of living rooms (and conservatories although not applicable in this scheme). Thus, we have assessed the sunlight reaching all living room windows within the new dwelling, notwithstanding the absence of any appropriate orientation for review (i.e. with a window that faces within 90° of South).

The BRE Guide recommends that living rooms should have an availability of 25% of annual probable sunlight hours and with 5% available in the winter months but for new development group dwellings, this is an aim and not a requirement for all dwellings .

As for ADF review, we have analysed applicable living rooms to units in the development, for sunlight availability. However, we highlight that in reference to the BRE Guide, the target criteria may not always be met as for new development group dwellings (i.e. multi-unit development), this is an aim and not a requirement for all dwellings due to inevitable site constraints.

Examination of **Table 4 – Proposal Self-test – Sunlight** in Appendix 3 (along with an Internal Room Map for reference) shows that for all living rooms notwithstanding the absence of any appropriate window orientation for review (i.e. with a window that faces within 90° of South), they receive reasonable levels of sunlight availability given the site orientation and for a multi-unit scheme.

5.0 CONCLUSION

The results of our examination show that for any applicable reductions to the neighbouring habitable windows / rooms analysed, these all meet target criteria for the vertical sky component (VSC) to all primary windows with only one isolated exception and in such instance, this is still close to target criteria / not considered material. For the applicable neighbouring rooms reviewed high levels of internal daylight distribution are maintained in the proposed scenario, meeting BRE Guide target criteria with only one isolated exception and in such instance, still very close to target criteria thus, on balance, there is no material adverse effect resulting from the proposal, daylight is suitably maintained / typically meeting the BRE Guide target criteria.

For sunlight review, BRE Guide target criteria is met for sunlight ('total suns') to all neighbouring living rooms / sun important rooms. In terms of shadowing, given the arrangement of neighbouring rear gardens / amenity spaces to the proposed site these will readily meet the BRE Guide target criteria.

Therefore, it is considered the proposal, does not have any materially adverse effect on neighbouring residential daylighting or sunlight, including to amenity areas.

For the main proposed new-build habitable rooms, these all satisfy the requirements in terms of provision of adequate daylight (Average Daylight Factor) so that the proposals meet the BRE Guide target criteria (and BS8206) for daylight, and the scheme has reasonable provision of sunlight availability to the new habitable living rooms.

APPENDICES

Appendix 1 - Table 1 - VSC and Sunlight for neighbouring properties
Table 2 - Daylight Distribution for neighbouring properties

Appendix 2 - Existing & Proposed 3D Perspective Views and
Neighbouring Building Context and Window References

Appendix 3 - Table 3 - Self-test ADF
Table 4 - Self-test Sunlight
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Appendix 1 - Table 1 - VSC and Sunlight for neighbouring properties
Table 2 - Daylight Distribution for neighbouring properties

Table 1 - VSC and Sunlight for neighbouring properties

Floor Ref.	Room Ref.	Room Use.	Window Ref.	VSC	Pr/Ex	Meets BRE Criteria	Annual	Winter	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
175 to 177 Kings Road												
Basement	R1	Studio-Apt	W1	Existing Proposed	25.22 19.21	0.76	Below	*North*	*North*			
	R2	Living Room	W2	Existing Proposed	0.59 0.59	1.00	YES	2 2	0 0	*North*	*North*	*North*
	R3	Bedroom	W3	Existing Proposed	32.26 25.96	0.80	YES	*North*	*North*	2 2	YES	0 0
	R4	Living Room	W4	Existing Proposed	29.43 24.41	0.82	YES	*North*	*North*	*North*	*North*	*North*
										North	*North*	*North*
Ground	R1	Living Room	W1	Existing Proposed	37.05 30.76	0.83	YES	*North*	*North*			
	R2	Living Room	W2	Existing Proposed	18.19 16.77	0.92	YES	10 10	0 0	*North*	*North*	*North*
			W3	Existing Proposed	37.57 30.78	0.81	YES	*North*	*North*			
	R3	Bedroom	W4	Existing Proposed	37.43 31.69	0.84	YES	*North*	*North*	10 10	YES	0 0
	R4	Bedroom	W5	Existing Proposed	37.19 32.53	0.87	YES	*North*	*North*	*North*	*North*	*North*
First	R1	Living Room	W1	Existing Proposed	38.48 36.16	0.93	YES	*North*	*North*			
	R2	Living Room	W2	Existing Proposed	38.19 35.71	0.93	YES	*North*	*North*	*North*	*North*	*North*
			W3	Existing Proposed	38.06 35.84	0.94	YES	*North*	*North*			
	R3	Bedroom	W4	Existing Proposed	37.39 35.49	0.94	YES	*North*	*North*	*North*	*North*	*North*
										North	*North*	*North*
Second	R1	Bedroom	W1	Existing Proposed	38.25 38.25	1.00	YES	*North*	*North*			
										North	*North*	*North*
169 Kings Road												
Ground	R1	Bedroom	W1	Existing Proposed	23.68 22.92	0.96	YES	*North*	*North*			
			W2	Existing Proposed	19.15 18.48	0.96	YES	*North*	*North*			
	R2	Unknown-Resi	W3	Existing Proposed	28.78 27.26	0.94	YES	29 28	0 0	*North*	*North*	*North*
	R3	Unknown-Resi	W4	Existing Proposed	37.34 36.97	0.99	YES	*North*	*North*	29 28	YES	0 0
			W5	Existing Proposed	37.35 37.10	0.99	YES	*North*	*North*			
			W6	Existing Proposed	37.18 36.97	0.99	YES	*North*	*North*			
			W7	Existing Proposed	37.21 37.06	0.99	YES	*North*	*North*			
First	R1	Living Room	W1	Existing Proposed	16.41 16.15	0.98	YES	*North*	*North*			
	R2	Unknown-Resi	W2	Existing Proposed	30.65 30.16	0.98	YES	34 34	1 1	*North*	*North*	*North*
	R3	Unknown-Resi	W3	Existing Proposed	32.81 32.33	0.98	YES	38 38	3 3	34 34	YES	1 1
	R4	Living Room	W4	Existing Proposed	34.67 34.30	0.98	YES	41 41	7 7	38 38	YES	3 3
			W5	Existing	38.76	0.99	YES	*North*	*North*			

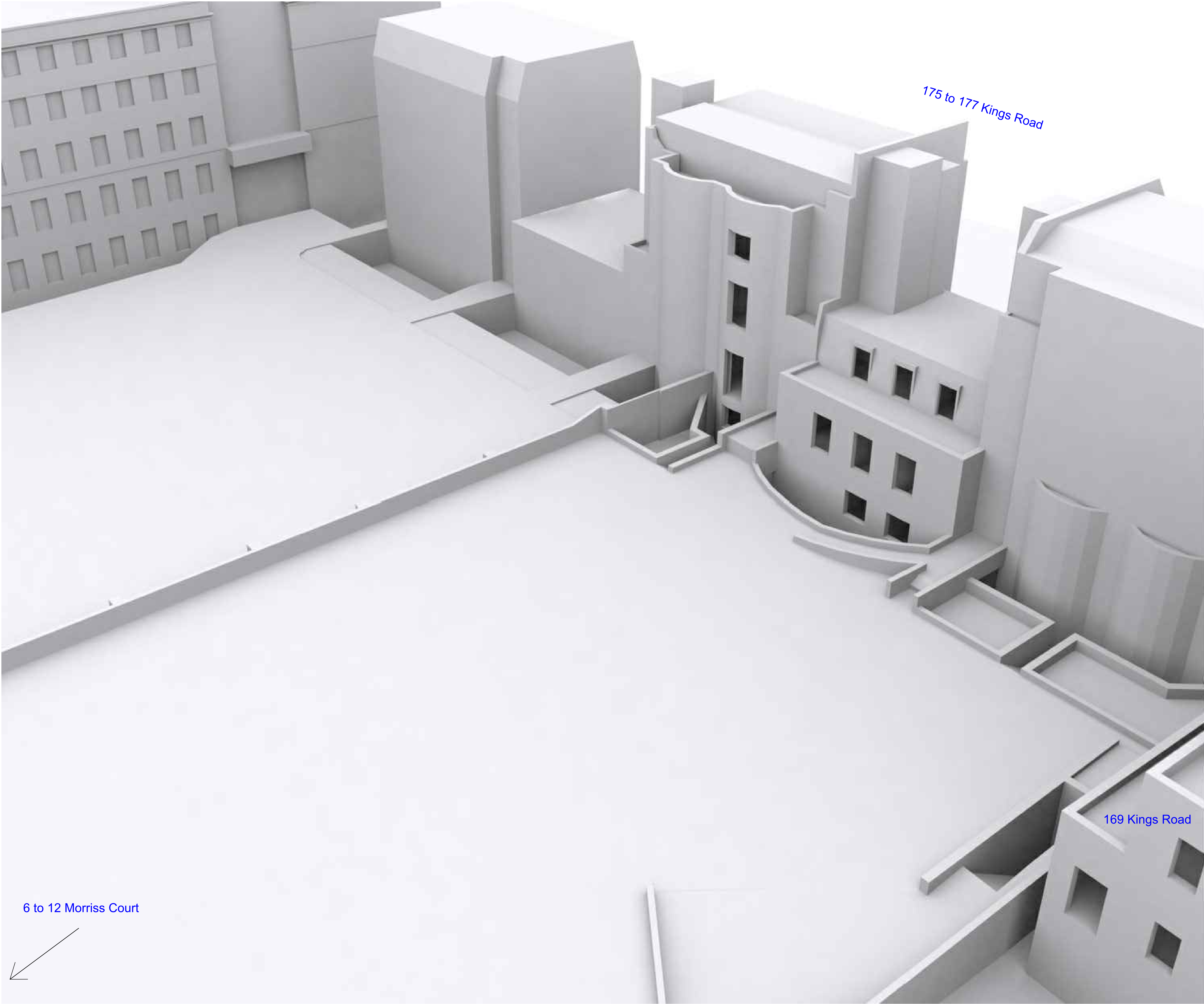
Table 1 - VSC and Sunlight for neighbouring properties

Floor Ref.	Room Ref.	Room Use.	Window Ref.	VSC	Pr/Ex	Meets BRE Criteria	Annual	Winter	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
			W6	Proposed 38.66 Existing 38.66	0.99	YES	*North*	*North*				
			W7	Proposed 38.58 Existing 38.80 Proposed 38.75	0.99	YES	*North*	*North*				
									42 42	YES	7 7	YES
Second	R1	Living Room	W1	Existing 23.47 Proposed 23.45	0.99	YES	*North*	*North*				
	R2	Bedroom	W2	Existing 33.96 Proposed 33.94	0.99	YES	40 40	6 6	*North*	*North*	*North*	*North*
	R3	Living Room	W3	Existing 35.50 Proposed 35.48	0.99	YES	42 42	8 8		YES	6 6	YES
			W4	Existing 39.50 Proposed 39.49	0.99	YES	*North*	*North*				
			W5	Existing 39.48 Proposed 39.47	0.99	YES	*North*	*North*				
			W6	Existing 39.52 Proposed 39.52	1.00	YES	*North*	*North*				
									43 43	YES	8 8	YES
6 to 12 Morriss Court												
Ground	R1	Unknown-Resi	W1	Existing 29.20 Proposed 28.65	0.98	YES	62 61	21 20				
	R2	Unknown-Resi	W2	Existing 28.11 Proposed 27.66	0.98	YES	63 63	22 22	62 61	YES	21 20	YES
	R3	Unknown-Resi	W3	Existing 31.05 Proposed 30.71	0.98	YES	68 66	23 21	63 63	YES	22 22	YES
									68 66	YES	23 21	YES
First	R1	Unknown-Resi	W1	Existing 33.22 Proposed 32.78	0.98	YES	69 68	22 21				
	R2	Unknown-Resi	W2	Existing 34.13 Proposed 33.88	0.99	YES	73 73	25 25	69 68	YES	22 21	YES
	R3	Unknown-Resi	W3	Existing 34.37 Proposed 34.18	0.99	YES	74 74	26 26	73 73	YES	25 25	YES
									74 74	YES	26 26	YES
Second	R1	Unknown-Resi	W1	Existing 30.76 Proposed 30.53	0.99	YES	62 62	24 24				
	R2	Unknown-Resi	W2	Existing 30.85 Proposed 30.65	0.99	YES	62 62	24 24	62 62	YES	24 24	YES
	R3	Unknown-Resi	W3	Existing 30.98 Proposed 30.92	0.99	YES	62 62	24 24	62 62	YES	24 24	YES
	R4	Unknown-Resi	W4	Existing 31.17 Proposed 31.09	0.99	YES	64 64	26 26	62 62	YES	24 24	YES
									64 64	YES	26 26	YES

Table 2 - Daylight Distribution for neighbouring properties

Floor Ref.	Room Ref.	Room Use.	Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
175 to 177 Kings Road							
Basement	R1	Studio-Apt	23.51	20.97 89%	17.42 74%	0.83	YES
	R2	Living Room	16.20	8.10 50%	8.10 50%	1.00	YES
	R3	Bedroom	8.11	7.86 97%	7.86 97%	1.00	YES
	R4	Living Room	17.47	16.75 96%	13.69 78%	0.81	YES
Ground	R1	Living Room	27.64	27.50 100%	21.76 79%	0.79	Marginally below
	R2	Living Room	27.69	26.75 97%	26.22 95%	0.98	YES
	R3	Bedroom	7.92	7.77 98%	7.77 98%	0.99	YES
	R4	Bedroom	10.10	9.62 95%	9.62 95%	0.99	YES
First	R1	Living Room	21.17	21.06 99%	21.06 99%	1.00	YES
	R2	Living Room	24.87	24.20 97%	24.20 97%	0.99	YES
	R3	Bedroom	14.00	13.19 94%	13.19 94%	1.00	YES
Second	R1	Bedroom	17.58	17.48 99%	17.48 99%	1.00	YES
169 Kings Road							
Ground	R1	Bedroom	11.16	10.82 97%	10.82 97%	0.99	YES
	R2	Unknown-Resi	14.91	8.41 56%	8.41 56%	0.99	YES
	R3	Unknown-Resi	37.97	37.39 98%	37.38 98%	0.99	YES
First	R1	Living Room	46.42	37.44 81%	37.44 81%	0.99	YES
	R2	Unknown-Resi	14.31	13.94 97%	13.94 97%	0.99	YES
	R3	Unknown-Resi	14.31	13.96 98%	13.96 98%	0.99	YES
	R4	Living Room	31.58	31.49 100%	31.49 100%	1.00	YES
Second	R1	Living Room	46.42	41.09 89%	41.09 89%	1.00	YES
	R2	Bedroom	15.44	14.72 95%	14.72 95%	1.00	YES
	R3	Living Room	31.58	31.41 99%	31.41 99%	1.00	YES
6 to 12 Morriss Court							
Ground	R1	Unknown-Resi	17.71	17.01 96%	17.01 96%	0.99	YES
	R2	Unknown-Resi	16.48	15.87 96%	15.87 96%	0.99	YES
	R3	Unknown-Resi	15.05	14.66 97%	14.66 97%	0.99	YES
First	R1	Unknown-Resi	17.71	17.05 96%	17.05 96%	0.99	YES
	R2	Unknown-Resi	16.48	15.95 97%	15.95 97%	0.99	YES
	R3	Unknown-Resi	15.05	14.49 96%	14.49 96%	0.99	YES
Second	R1	Unknown-Resi	13.93	13.54 97%	13.54 97%	1.00	YES
	R2	Unknown-Resi	17.71	17.07 96%	17.07 96%	1.00	YES
	R3	Unknown-Resi	16.48	15.93 97%	15.93 97%	1.00	YES
	R4	Unknown-Resi	15.05	14.60 97%	14.60 97%	1.00	YES

**Appendix 2 - Existing & Proposed 3D Perspective Views and
Neighbouring Building Context and Window References**



SOURCES

REV.	NOTES	DWN	DATE

Notes:



CHARTERED BUILDING SURVEYORS

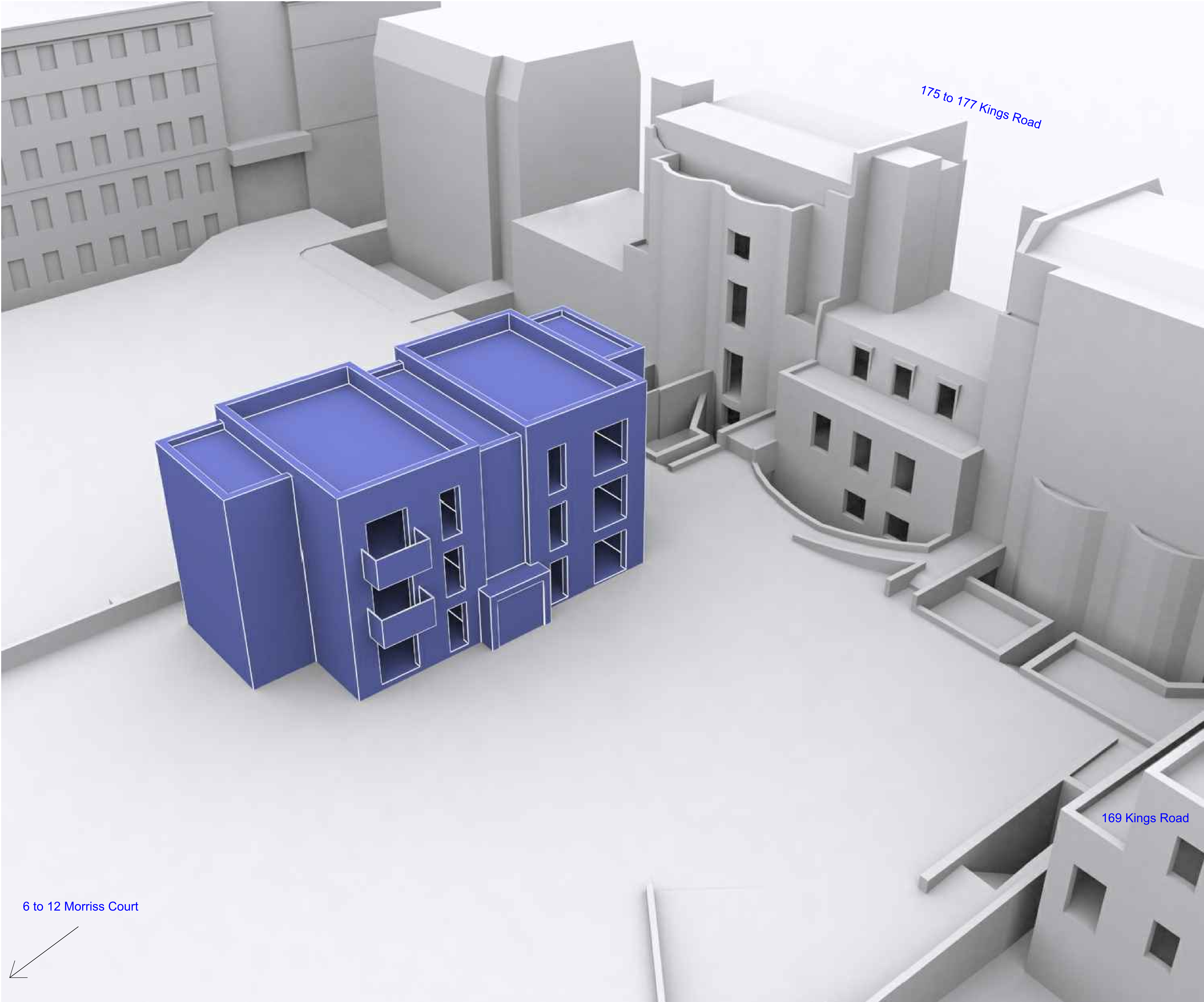
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DRAWN	-	
CHECKED	-	
		SCALE
		NTS (A3 Sheet)

Rear of No 177 Kings Rd, Reading

Perspective View Existing

Job No	Rev	Drawing Number
200BV	-	01
Date : 160818		



SOURCES

REV.	NOTES	DWN	DATE

Notes:



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DRAWN	-	
CHECKED	-	
		SCALE
		NTS (A3 Sheet)

Rear of No 177 Kings Rd, Reading

Perspective View Proposed

Job No	Rev	Drawing Number
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Date : 050619		



SOURCES

REV.	NOTES	DWN	DATE

Notes:



CHARTERED BUILDING SURVEYORS

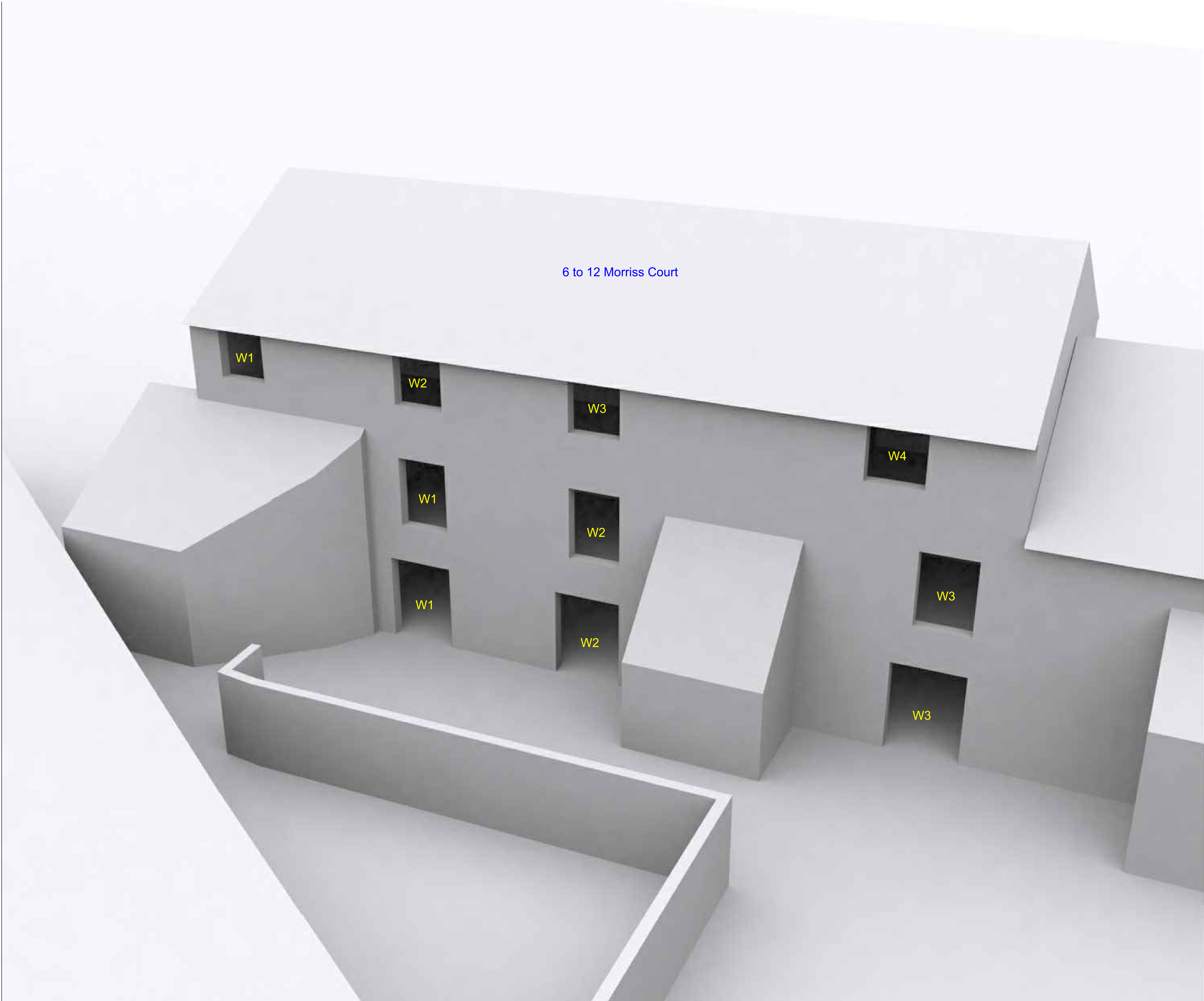
Chartered Building Surveyors
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T 020 7582 6916 E info@sbegg.co.uk W www.sbegg.co.uk

DRAWN	-	
CHECKED	-	
		SCALE
		NTS (A3 Sheet)

Rear of No 177 Kings Rd, Reading

Window Map

Job No	Rev	Drawing Number
200BV	-	03
Date : 160818		



SOURCES

REV.	NOTES	DWN	DATE

Notes:



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Rear of No 177 Kings Rd, Reading

Window Map

Job No	Rev	Drawing Number
200BV	-	04
Date : 160818		

**Appendix 3 - Table 3 - Self-test ADF
Table 4 - Self-test Sunlight
Internal Room / Window References**

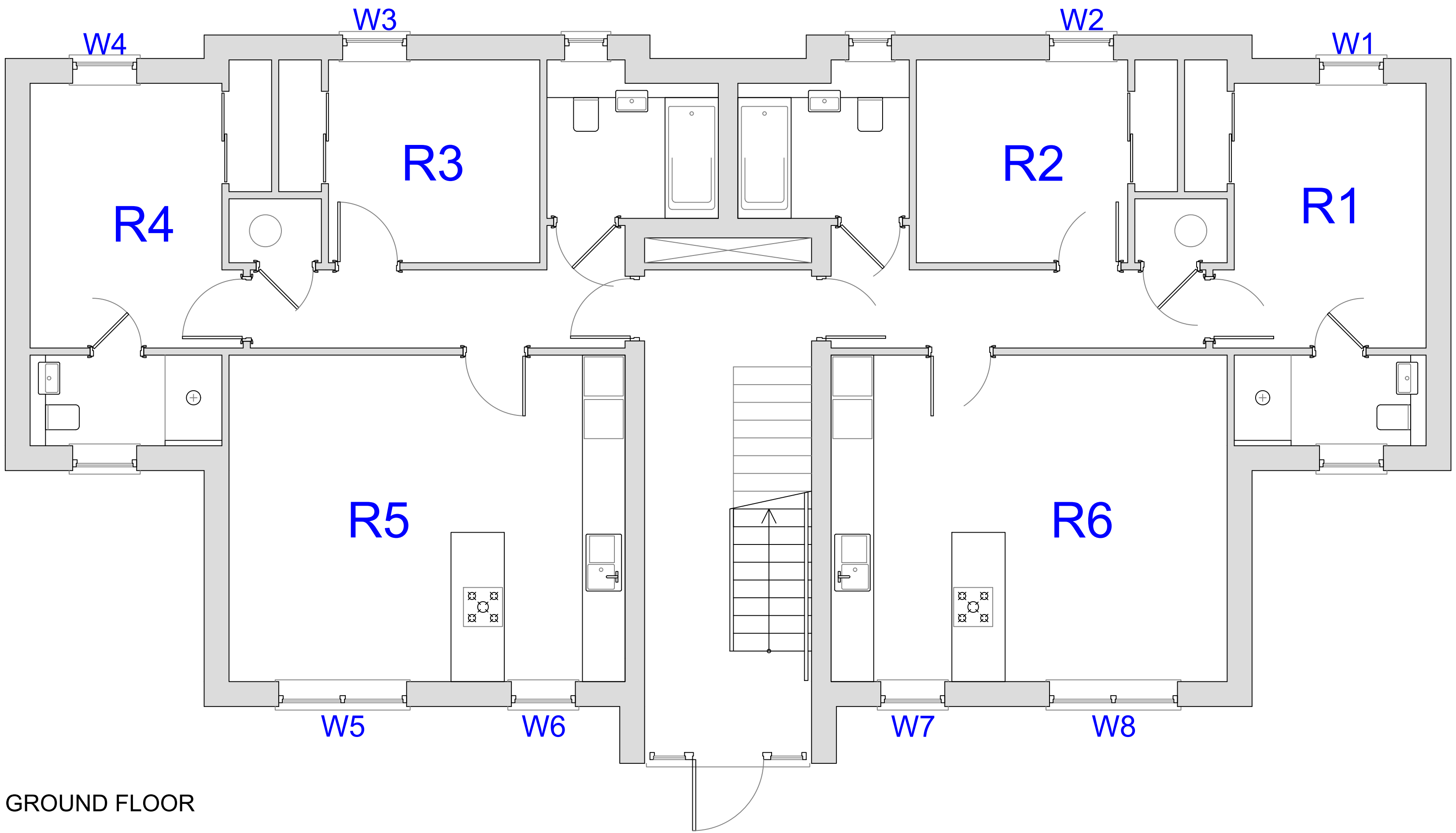
Table 3 - Self-test ADF

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRE Criteria
Ground	R1	Bedroom	W1	0.68	0.92	0.86	64.33	53.06	0.66	1.00	1.16 1.16	1.00	YES
Ground	R2	Bedroom	W2	0.68	0.92	0.86	66.46	44.97	0.66	1.00	1.42 1.42	1.00	YES
Ground	R3	Bedroom	W3	0.68	0.92	0.86	69.97	44.97	0.66	1.00	1.50 1.50	1.00	YES
Ground	R4	Bedroom	W4	0.68	0.92	0.86	70.94	53.05	0.66	1.00	1.28 1.28	1.00	YES
Ground	R5	Living Room	W5-L W5-U W6	0.68 0.68 0.68	0.92 0.92 0.92	1.22 1.80 0.86	67.18 50.78 67.27	99.33 99.33 99.33	0.64 0.64 0.64	0.15 1.00 1.00	0.13 0.97 0.62 1.73	1.50	YES
Ground	R6	Living Room	W7 W8-L W8-U	0.68 0.68 0.68	0.92 0.92 0.92	0.86 1.22 1.80	64.05 67.84 67.44	99.33 99.33 99.33	0.64 0.64 0.64	1.00 0.15 1.00	0.59 0.13 1.29 2.02	1.50	YES
First	R1	Bedroom	W1	0.68	0.92	0.86	69.89	44.97	0.66	1.00	1.50 1.50	1.00	YES
First	R2	Bedroom	W2	0.68	0.92	0.86	72.69	44.97	0.66	1.00	1.56 1.56	1.00	YES
First	R3	Bedroom	W3	0.68	0.92	0.86	73.46	53.05	0.66	1.00	1.33 1.33	1.00	YES
First	R4	Living Room	W4-L W4-U W5	0.68 0.68 0.68	0.92 0.92 0.92	1.22 1.80 0.86	46.99 53.22 71.70	99.33 99.33 99.33	0.64 0.64 0.64	0.15 1.00 1.00	0.09 1.02 0.66 1.77	1.50	YES
First	R5	Living Room	W6 W7-L W7-U	0.68 0.68 0.68	0.92 0.92 0.92	0.86 1.21 1.78	71.55 71.95 71.49	99.33 99.33 99.33	0.64 0.64 0.64	1.00 0.15 1.00	0.66 0.14 1.36 2.15	1.50	YES
First	R6	Bedroom	W8	0.68	0.92	0.86	68.14	53.05	0.66	1.00	1.23 1.23	1.00	YES
Second	R1	Bedroom	W1	0.68	0.92	0.86	73.17	44.97	0.66	1.00	1.57 1.57	1.00	YES
Second	R2	Bedroom	W2	0.68	0.92	0.86	75.30	44.97	0.66	1.00	1.61 1.61	1.00	YES
Second	R3	Bedroom	W3	0.68	0.92	0.86	75.86	53.05	0.66	1.00	1.37 1.37	1.00	YES
Second	R4	Living Room	W4-L W4-U W5	0.68 0.68 0.68	0.92 0.92 0.92	1.22 1.80 0.86	54.12 79.77 76.88	99.33 99.33 99.33	0.64 0.64 0.64	0.15 1.00 1.00	0.11 1.53 0.71 2.35	1.50	YES
Second	R5	Living Room	W6 W7-L W7-U	0.68 0.68 0.68	0.92 0.92 0.92	0.86 1.21 1.78	75.01 76.24 75.72	99.33 99.33 99.33	0.64 0.64 0.64	1.00 0.15 1.00	0.69 0.15 1.44 2.27	1.50	YES
Second	R6	Bedroom	W8	0.68	0.92	0.86	71.86	53.05	0.66	1.00	1.30 1.30	1.00	YES

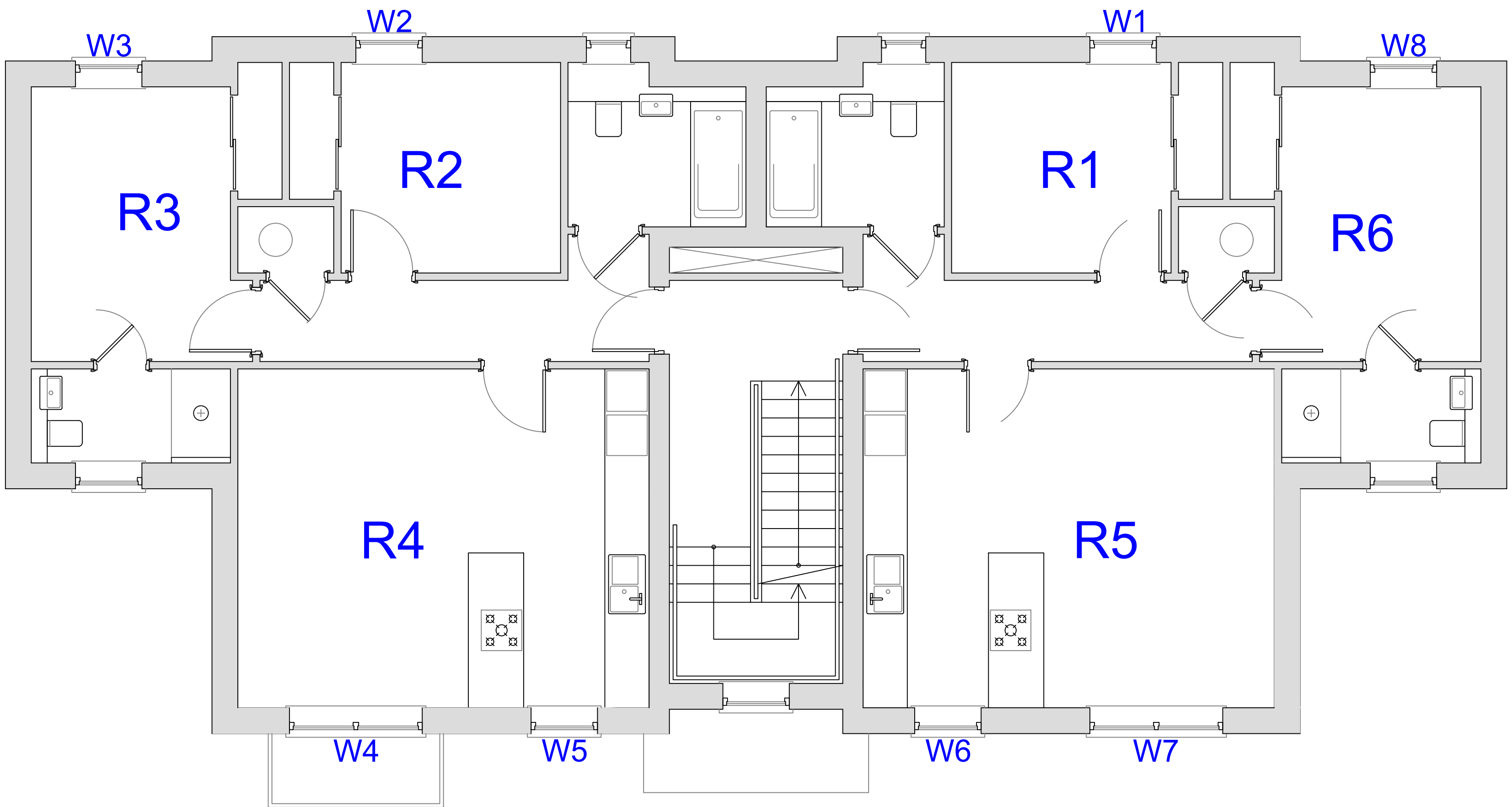
Reflectance Values

Floor 0.4
 Walls 0.7
 Ceiling 0.8
 Windows 0.0

Table 4 - Self-test Sunlight									
Floor Ref.	Room Ref.	Room Use.	Window Ref.	Annual	Winter	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
Ground	R1	Bedroom	W1	32	1	32	YES	1	Below
	R2	Bedroom	W2	36	4	36	YES	4	Below
	R3	Bedroom	W3	39	6	39	YES	6	YES
	R4	Bedroom	W4	43	9	43	YES	9	YES
	R5	Living Room	W5 W6	26 23	3 0	30	YES	3	Below
	R6	Living Room	W7 W8	26 24	1 0	28	YES	1	Below
	R1	Bedroom	W1	38	5	38	YES	5	YES
	R2	Bedroom	W2	44	10	44	YES	10	YES
First	R3	Bedroom	W3	47	12	47	YES	12	YES
	R4	Living Room	W4 W5	28 30	4 3	32	YES	4	Below
	R5	Living Room	W6 W7	29 29	2 2	32	YES	3	Below
	R6	Bedroom	W8	42	5	42	YES	5	YES
	R1	Bedroom	W1	42	8	42	YES	8	YES
	R2	Bedroom	W2	44	10	44	YES	10	YES
	R3	Bedroom	W3	48	12	48	YES	12	YES
	R4	Living Room	W4 W5	35 31	6 4	35	YES	6	YES
Second	R5	Living Room	W6 W7	31 32	4 4	35	YES	6	YES
	R6	Bedroom	W8	48	10	48	YES	10	YES



GROUND FLOOR



FIRST & SECOND FLOOR

SOURCES

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	SCALE
	NTS (A3 Sheet)

Rear of No 177 Kings Rd, Reading

Internal Room & Window Map		
Job No	Rev	Drawing Number
200BV	A	05
Date : 050819		