SOLAR ACCESS

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PROPOSED 23 APARTMENTS

20 – 26 Avon Road, Dee Why

30th January 2022 – Revision 2

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1.0 PRELIMINARIES AND SUMMARY

1.1 PRELIMINARIES

1.1.1 This expert opinion report is an analysis and verification of projected **solar access** compliance for the DA proposal comprising of 26 apartments at 20-26 Avon Road Dee Why.

1.1.2 Our qualifications and experience are summarized in *A.0 APPENDIX A: CREDENTIALS*.

1.1.3 The documents referred to in this report are detailed in *2.1 DOCUMENTS*.

1.2 SUMMARY OF DA SCHEME

1.2.1 SOLAR ACCESS FOR APARTMENTS

To undertake the analysis we use a 3D model of the proposal located in the surrounding context. We then take half hourly views from the sun (Appendix B), and a detailed compliance table of the DA scheme is prepared (Appendix C).

15/23 (65.2%) of the dwellings achieve 2 hours or more sunlight to the living area glazing and Private Open Space (POS) between 9am-3pm on June 21st. **This does not represent full compliance with design criterion 1 of the ADG Objective 4A-1.** The applicant has still achieved the objective as all northern and western units comply, there are no south facing units, and the only units that do not comply are east facing units which the applicant has accepted the directions of councils preferred setbacks. All steps have been taken to maximise solar access.

0/23 (0%) of the dwellings are projected to achieve no sun 9am - 3pm June 21. **This represents full compliance with design criterion 3 of the ADG Objective 4A-1**

1.3 SUMMARY OF OVERSHADOWING IMPACTS

1.3.1 OVERSHADOWING OF 17 RICHMOND AVENUE

17 Richmond Avenue currently has 5 out of 9 (55.6%) of units receiving 2 hours of solar access to their living room between 9am-3pm. With the new development application proposal, there is a **0% reduction** which is **compliant with Objective 3B-2 of the ADG.**

Council has raised concerns relating to overshadowing on Unit 7. We can confirm that this apartment is overshadowed from 9:00am until 9:02am where at 9:03am the living area receives more than $1m^2$ of sun. There is no overshadowing at all to the living room by 9:14am.

1.3.2 OVERSHADOWING OF 18 AVON ROAD

18 Avon Road currently has 5 out of 9 (55.6%) of units receiving 2 hours of solar access to their living room between 9am-3pm. With the new development application proposal, there is a **0% reduction** which is **compliant with Objective 3B-2 of the ADG.**

2.0 DOCUMENTS AND INFORMATION

2.1 DOCUMENTENTS

2.1.1 We base our analysis and opinion on drawings by Walsh Architects:

DRAWING NO.	DRAWING NAME	ISSUE
DA090	PROPOSED SITE PLAN	B
DA100	BASEMENT PLAN	D
DA101	GROUND FLOOR PLAN	E
DA102	LEVEL 1 PLAN	D
DA103	LEVEL 2 PLAN	D
DA104	ATTIC PLAN	C
DA105	ROOF PLAN	D
DA201	SECTIONS	E
DA202	SECTIONS	E
DA203	SECTIONS	C
DA300	ELEVATIONS	E
DA301	ELEVATIONS	D

3D digital model in Revit 2021.
Survey information from Bee and Lethbridge dated 28/05/2021.

2.2 SITE

The site is rectangle in shape with the short boundaries facing North and South. The road has two frontages being Richmond Avenue and Avon Road. There is good separation to the buildings from the North and East meaning the site will not be overshadowed from those neighbouring buildings.

Solar access compliance relies heavily on the north and west elevation of the site; however, due to the road frontages and privacy implications, it may not be ideal to maximise the western elevation with apartments.

The site has a gentle slope with the highest point in the South West corner and the lowest in the North East corner.

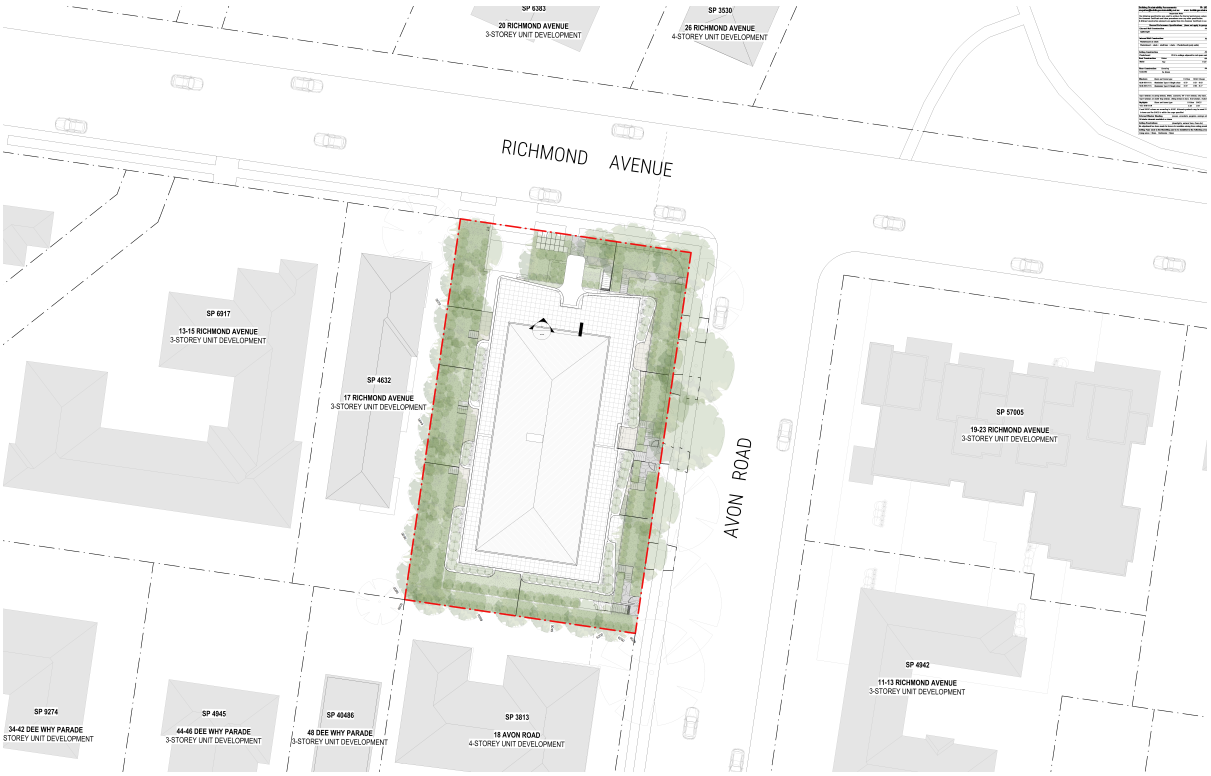

Figure 1: Site Plan

3.0 SOLAR ACCESS

3.1 RELEVANT SOLAR ACCESS STANDARDS

3.1.1 APARTMENT DESIGN GUIDE

The *Apartment Design Guide (ADG)* gives effect to SEPP65 for assessing solar access and other amenity provisions and gives the following quantified recommendations:

Objective 4A-1	
To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	
Design criteria	
1.	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas
2.	In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter
3.	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter

3.1.2 LOCAL CONTROLS

We note that **Solar access (6.1)** *Design criteria* in the ADG are *discretionary controls* which, by virtue of Cl. 6A of SEPP65, take precedence over controls contained in Councils' DCPs.

In quantifying the compliance for solar access for this application, we rely on satisfying the ADG as also satisfying any DCP requirement.

3.2 PREDICTED SOLAR ACCESS: METHODOLOGY

We employ the following analysis methodology.

3.2.1 3D DIGITAL MODEL

For a detailed analysis of overshadowing and solar access, we refer to a 3D model that has produced in Autodesk Revit 2021.

3.2.2 MODEL LOCATION

We have geo-located the model and verified the direction of North with reference to the survey.

3.2.3 ACCURACY OF THE MODEL

From the model, we have summarily checked topographical and building dimensions that might otherwise give rise to any errors, by reference to figured RL dimensions. With further reference to the survey, we have established the accuracy of the key points and thus we feel confident to rely on the general accuracy of the modelling.

3.2.4 VIEWS FROM THE SUN

The Autodesk Revit software prepares the shadow projections by reference to accurate solar geometry. Because of the complexity of demonstrating the quantification of solar access to glazing and private open space of various orientations, our detailed analysis was performed primarily by using projections known as **'View from the Sun'** taken at half hourly intervals.

A view from the sun shows all sunlit surfaces at a given time and date. It therefore allows a very precise count of sunlight hours on any glazing or horizontal surface, with little or no requirement for secondary calculations or interpolation. The technique is illustrated in Figure 1.

Note that a 'view from the sun' by definition does not show any shadows.

Figure 2: View from the sun, 12pm June 21

3.3 CHARACTERISATION OF SOLAR ACCESS COMPLIANCE

3.3.1 SUN PATCHES ON GLAZING

For the purpose of calculating the compliance with the control, we examine sun patches on the relevant glazing line of each apartment. Because of its key importance in the determination of what is 'effective sunlight' for characterisation of compliance, for both glazing and private open space, we refer specifically to the relevant *L+EC Planning Principle (The Benevolent Society v Waverley Council [2010] NSWLEC 1082)* in that:

- We quantify as complying all sun patches of 'reasonable size', which we generally take to be a minimum of approximately $1m^2$.
- We ignore very large angles of incidence to the glazing surface, and unusably small areas of sunlit glazing.

There is no accepted standard for the absolute limit of acceptable area of the sun patch on partly shaded glazing. In accordance with the Court's Planning Principle, we consider this to be approximately $1m^2$ (on the basis that it exceeds 50% of the area of a standard window 1500 x 1200 high which would normally be accepted as complying).

3.3.2 SUN TO BEDROOMS

Periods of sun available to bedrooms contribute significantly to the amenity of any apartment that may have an otherwise unfavourably oriented or overshadowed living area. This characterisation is consistent with the interpretation of *the BenSoc Principle* (and its predecessor *Parsonage Principle*) as previously accepted by the Land and Environment Court, and by various Councils.

That said, in evaluating this development, we ***do not*** *rely on periods of sun to bedrooms in lieu of living areas to characterise apartments as complying with the ADG Design criterion.*

3.3.4 SUN TO BOTH POS AND LIVING

Objective 4A-1 of the ADG states "Living rooms **and** private open spaces". The use of the conjuctive "and" has been tested in the Land and Environment Court in the case *Landmark Group Australia Pty Ltd v Council of the City of Sydney [2019] NSWLEC 1338* where in 227, Commissioner Smithson did not agree that a development could count living rooms **or** private open space. In line with the ADG wording and the LEC case noted above, we only count units that receive complying sun to both living rooms and private open space.

4.0 SOLAR ACCESS

4.1 PREDICTED SOLAR ACCESS OF APARTMENTS

Table 1 below summarises the projected solar access for the living area glazing and private open space of the Development Application. Appendix C records the detailed solar access for individual apartments.

Total number of Apartments	23	
Apartments which achieve 2 hours or more sunlight to living and POS 9am - 3pm June 21	15	**65.2%**
Units with no sun between 9am and 3pm June 21	0	**0%**

Table 1: Summary of solar access for DA scheme

The ADG Design criteria recommends a minimum of 70% of apartments should have the amenity of two hours winter sun between 9 AM and 3 PM. This Development Application has 65.2% (15/23) total of such apartments. **Overall compliance for solar access is therefore not fully satisfied.**

The previous application achieved 70%; however, council has pushed the applicant to align the balconies to the southern neighbour and have living rooms aligned to the southern neighbour. The assessment report noted:

> *"the proposal to have a 3.5m setback to both the facade and balconies is inconsistent with the predominant street setback, which on the adjoining southern site is 5.4m to the facade and 3.9m to balconies."*

This push from council to align to the neighbouring setbacks led to the applicant following their instructions, which does not maximise solar access as now the living areas do not receive sun from 9am to 11am like they previously did. The east facing apartments are the only non-complying apartments. All Northern and Western units comply, and there are no south facing apartments. We consider the objective has been achieved as the applicant has maximised solar access where possible and the only apartments that do not comply are due to council's preferred setbacks.

The ADG design criteria recommends that a maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter. This Development Application has 0% (0/26) total of such apartments **Overall compliance for solar access is therefore fully satisfied.**

The proposed development also has maximised indirect light to all of the apartments, with appropriate ceiling heights and floor-to-ceiling glazing along the full width of the living space of each of the apartments. As such, the proposed apartments should feel light and airy.

5.0 OVERSHADOWING IMPACT ON NEIGHBOURING PROPERTIES

The same views from the sun employed for the solar access analysis for the subject site are also the most effective technique for identifying potential overshadowing impacts for neighbouring properties.

5.1 POTENTIALLY AFFECTED PROPERTIES

There are two apartment buildings that will be affected by the new development application.

1. 17 Richmond Avenue
2. 18 Avon Road

Survey data included the West Facing windows of 17 Richmond Avenue and the North Facing windows of 18 Avon Road.

5.2 APPLICABLE CONTROL

5.2.1 The ADG provides a test for acceptable additional overshadowing impact on adjacent multi-residential properties:

Objective 3B-2
Overshadowing of neighbouring properties is minimised during mid winter
Design guidance
Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A Solar and daylight access
Solar access to living rooms, balconies and private open spaces of neighbours should be considered
Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%

5.3 17 RICHMOND AVENUE

17 Richmond Avenue is located directly to the west of the proposed development. All apartments have an East West orientation, with all of them having a Private Open Space facing East.

There are only 2 units (Units 6 & 7) which are partially overshadowed by the proposed development. Out of these units, only 1 of the 2 complied which is due to the living room facing East and West. The compliance of that 1 unit is maintained with the proposed development.

Appendix D reports the full table of direct sun access for all individual apartments in 17 Richmond Avnue, and highlights the periods of loss of sun exposure for individual apartments due to the overshadowing.

Table 2 below summarises the existing and projected solar access status for 17 Richmond Avnue.

	EXISTING	PROJECTED	CHANGE
>2 hrs 9-3 Living	5 / 9 = 55.6%	5 / 9 = 55.6%	0%
No sun	0 / 9 = 0%	0 / 9 = 0%	0%

Table 2: Summary of Overshadowing to 17 Richmond Avenue

The projected overshadowing impact of the development proposal does not change compliance of 17 Richmond Avenue. There is a 0% reduction in compliance across the whole development which is **compliant with Objective 3B-2 of the ADG.**

Of the two overshadowed apartments, council has raised concerns relating to overshadowing on Unit 7. We can confirm that this apartment is overshadowed from 9:00am until 9:02am where at 9:03am the living area receives more than $1m^2$ of sun. There is no overshadowing at all to the living room by 9:14am.

5.3 18 AVON ROAD

18 Avon Road is located to the south the proposed development. This development has a total of 18 unites spread across two buildings.

We undertook the detailed quantification of the present and projected solar access status of individual apartments. We only undertook the Northern Building as the proposed development has no impact to the southern building.

Appendix E reports the full table of direct sun access for all individual apartments in 18 Avon Road, and highlights the periods of loss of sun exposure for individual apartments due to the overshadowing.

Table 3 below summarises the existing and projected solar access status for 18 Avon Road.

	EXISTING	PROJECTED	CHANGE
>2 hrs 9-3 Living	5 / 9 = 55.6%	5 / 9 = 55.6%	0%
No sun	0 / 9 = 0%	0 / 9 = 0%	0%

Table 3: Summary of Overshadowing to 18 Avon Road

The projected overshadowing impact of the development proposal does not change compliance of 18 Avon Road. There is a 0% reduction in compliance across the whole development which is **compliant with Objective 3B-2 of the ADG.**

6.0 CONCLUSIONS

6.1 SOLAR ACCESS FOR APARTMENTS

6.1.1 ADG COMPLIANCE

The ADG *Design criteria* recommend a minimum of 70% of apartments should have the amenity of two hours winter sun between 9 AM and 3 PM.

15/23 (65.2%) of the apartments are projected to achieve 2 hours or more sunlight to glazing and POS 9am - 3pm June 21. **This does not represent full compliance with design criterion 1 of the ADG Objective 4A-1.** The applicant has maximised solar access and any short fall is due to councils preferred setback requirements which required east facing apartments to have living rooms setback further than balconies.

0/23 (0%) of the apartments are projected to achieve no sun 9am - 3pm June 21. **This represents full compliance with design criterion 3 of the ADG Objective 4A-1.**

6.2 OVERSHADOWING OF 17 RICHMOND AVENUE

The overshadowing impact of the proposal does not reduce the amount of units receiving 2 hours of solar access to their living room between 9am-3pm. The number of complying apartments in both existing and proposed conditions is 5 out of 9 which equals 55.6%. There is a **0% reduction** which is **compliant with Objective 3B-2 of the ADG.**

Council has raised concerns relating to overshadowing on Unit 7. We can confirm that this apartment is overshadowed from 9:00am until 9:02am where at 9:03am the living area receives more than $1m^2$ of sun. There is no overshadowing at all to the living room by 9:14am.

6.2 OVERSHADOWING OF 18 AVON ROAD

The overshadowing impact of the proposal does not reduce the amount of units receiving 2 hours of solar access to their living room between 9am-3pm. The number of complying apartments in both existing and proposed conditions is 5 out of 9 which equals 55.6%. There is a **0% reduction** which is **compliant with Objective 3B-2 of the ADG.**

A.0 APPENDIX A: CREDENTIALS

Walsh Architects provides opinion based services primarily in relation to analysis and reporting of solar access and overshadowing compliance of multi residential projects.

Scott Walsh is a Director of Walsh Architects. He developed his specialised expertise under Steve King, a well-known expert in the field.

Scott started working for Steve King in 2011 as a tutor of Environmental Design at the University of New South Wales. From 2013 Scott has contracted to Steve King to undertake modelling and numerical analysis of solar access to large apartment projects. Over a number of years Scott contributed significantly to fine-tune the way the analysis was undertaken, and assisted in providing to the architects feedback in regards to areas that could be adjusted to improve solar access.

Scott holds a Masters of Architecture from the University of New South Wales as well as a Bachelor of Architecture. He is a registered architect in New South Wales *(10366)* and the Australian Capital Territory *(2624)* and a director of Walsh Architects.

Steve King:

> *I am pleased to provide my commendation and support for Walsh Architects. Scott has undertaken solar access and overshadowing analysis of over 150 apartment buildings from as small as 10 units up to over 1000 units. I have relied on his technical expertise and accuracy to provide advice to architects, planners and to the Land and Environment Court, including independent third-party peer review of others' characterisation and reporting of compliance.*

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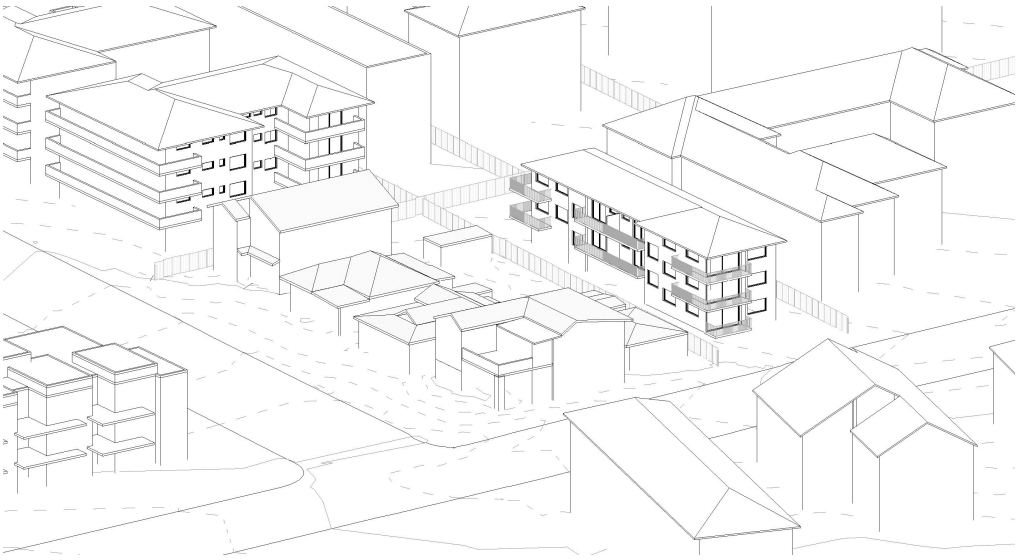
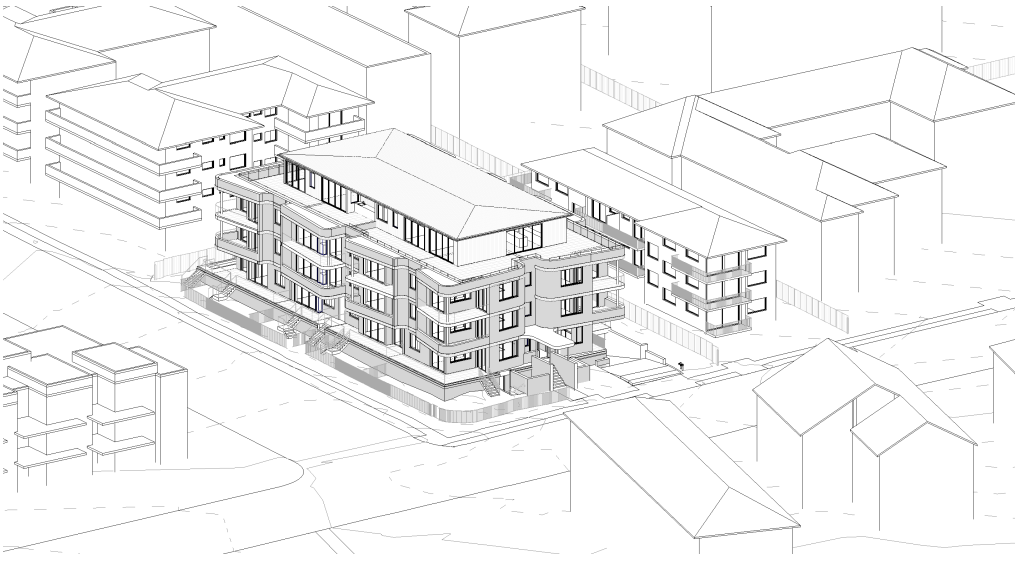
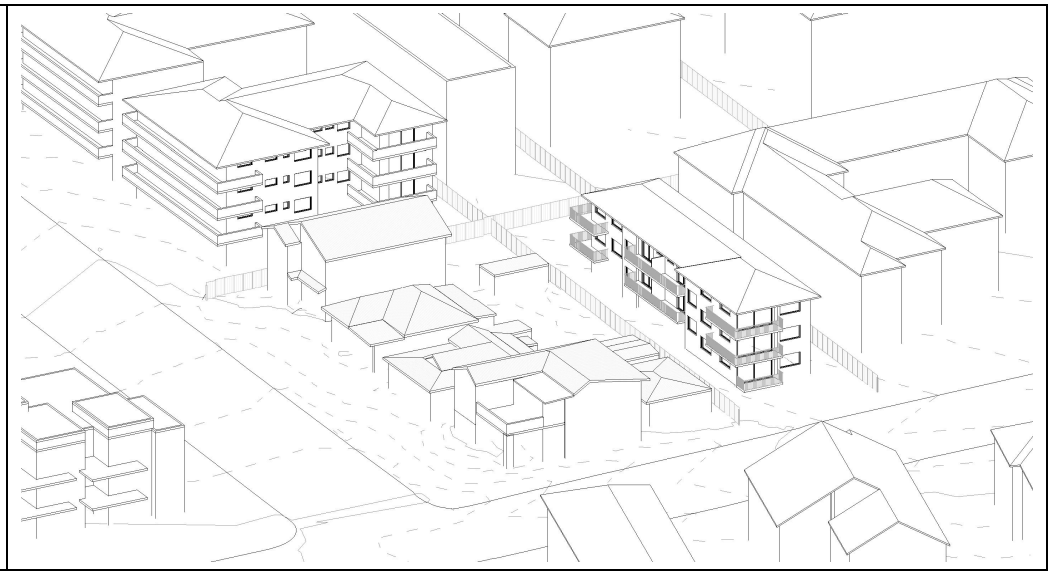
B.0 APPENDIX B: VIEWS FROM THE SUN

The table shows half-hourly views of solar access projections for June 21.

9.00 EXISTING	
9.00 PROPOSED	

9.30 EXISTING	
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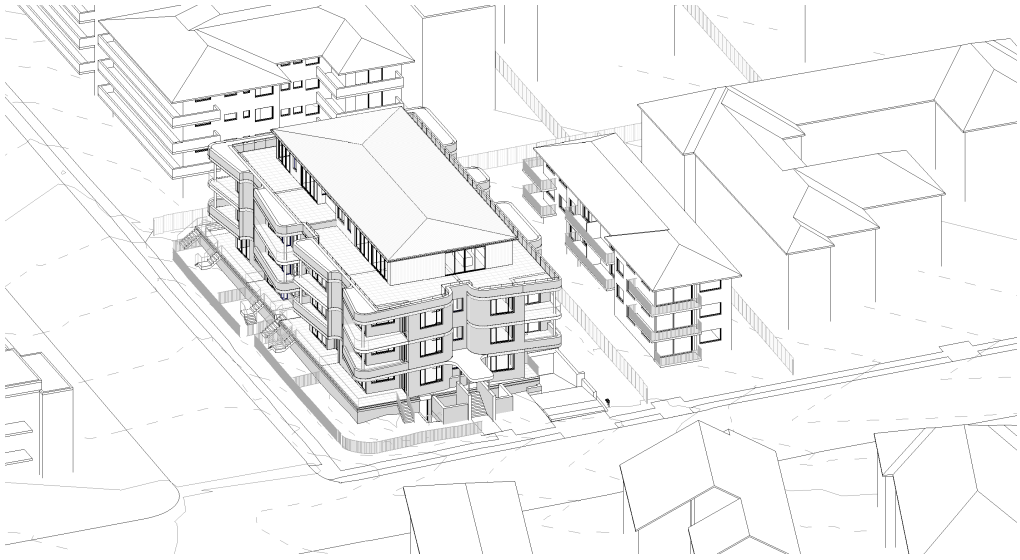
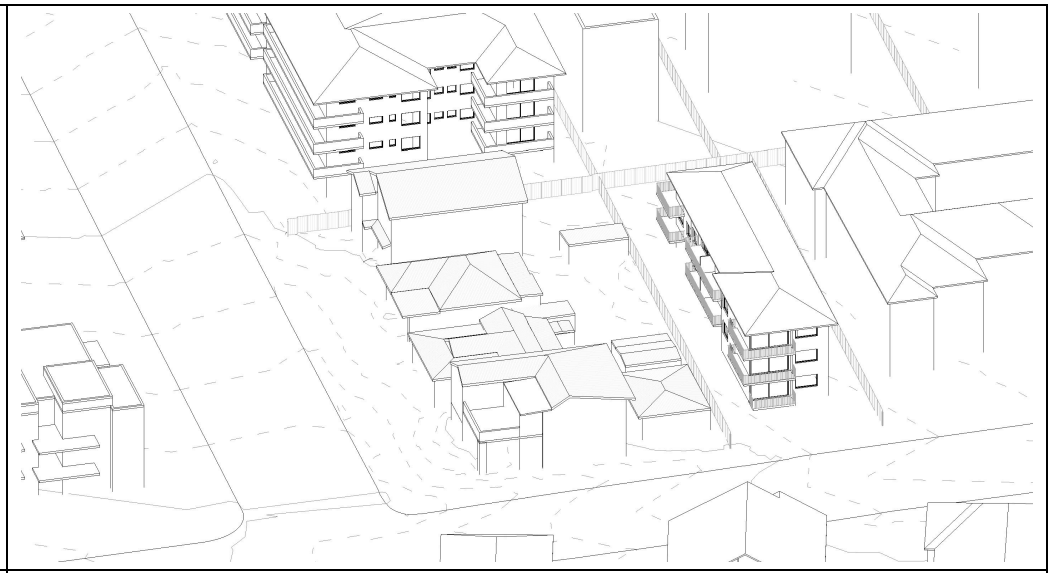
10.00 PROPOSED	

10.30 EXISTING	
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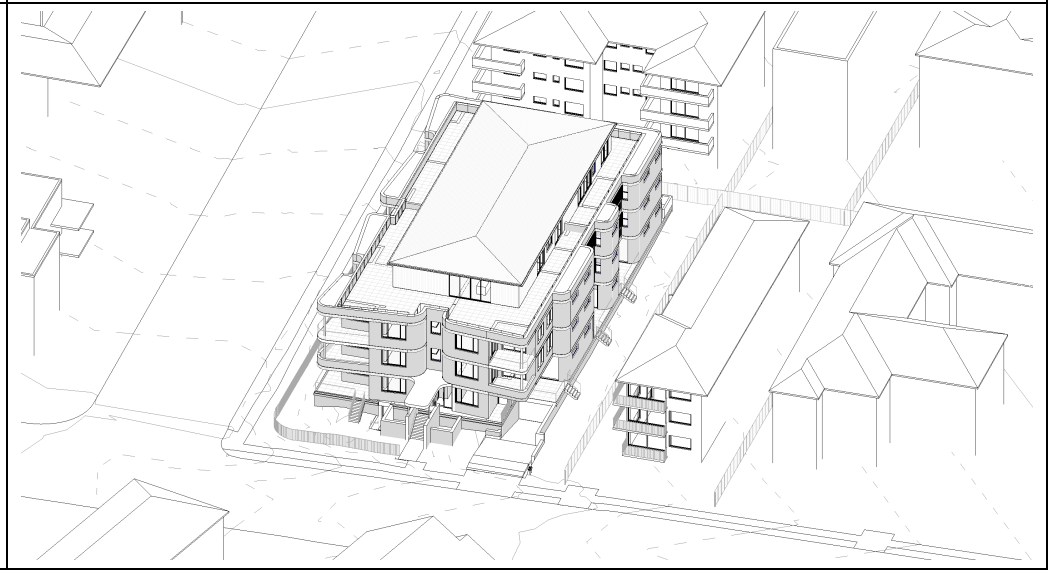
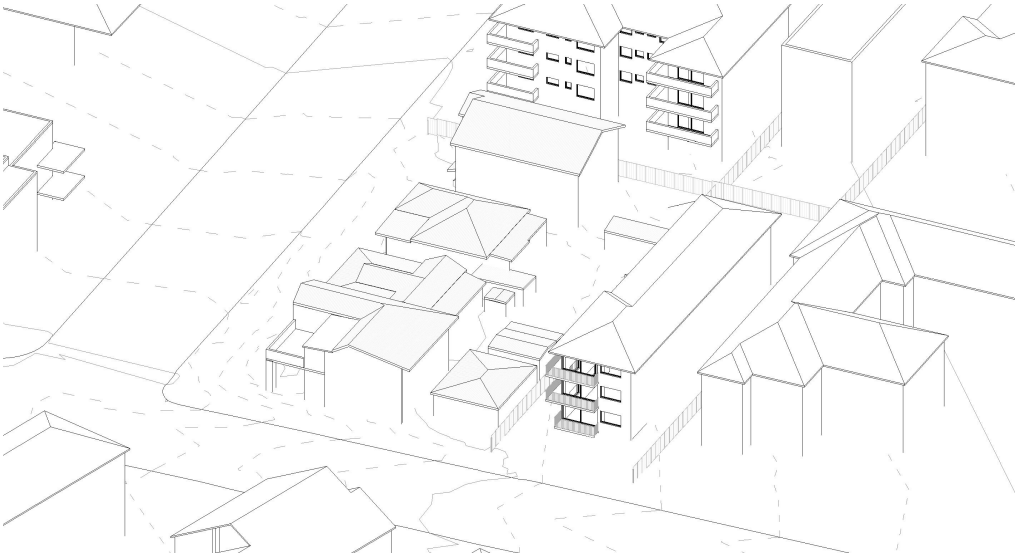
11.00 EXISTING	
11.00 PROPOSED	

11.30 EXISTING	
11.30 PROPOSED	

12.00 EXISTING	
12.00 PROPOSED	

12.30 EXISTING	
12.30 PROPOSED	

13.00 EXISTING	
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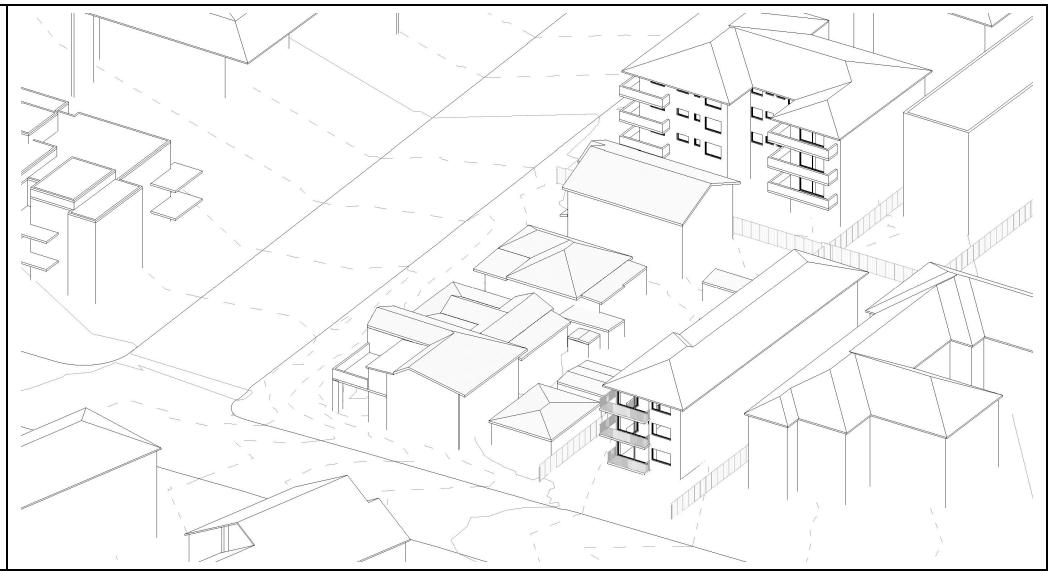
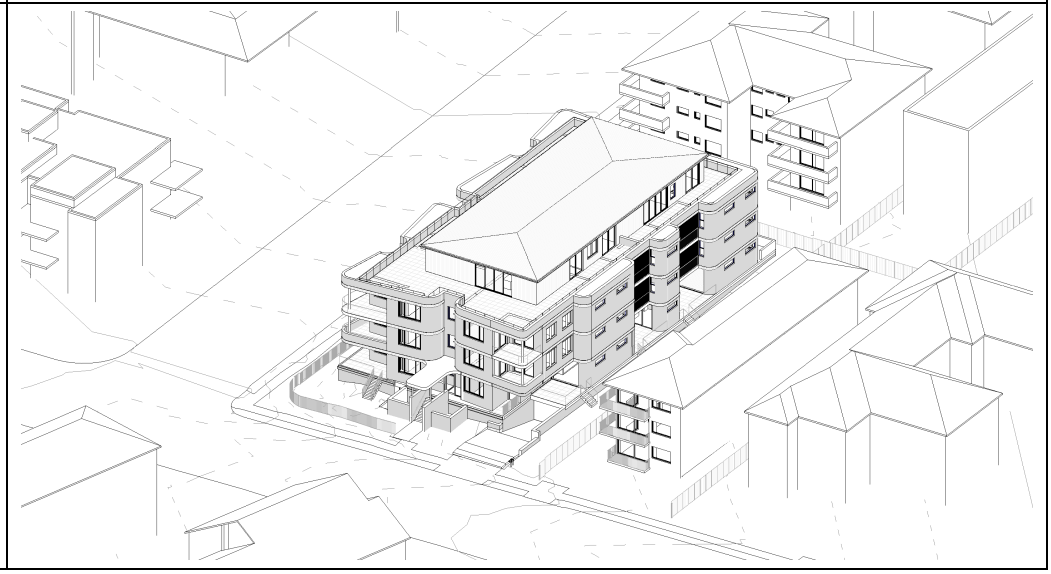
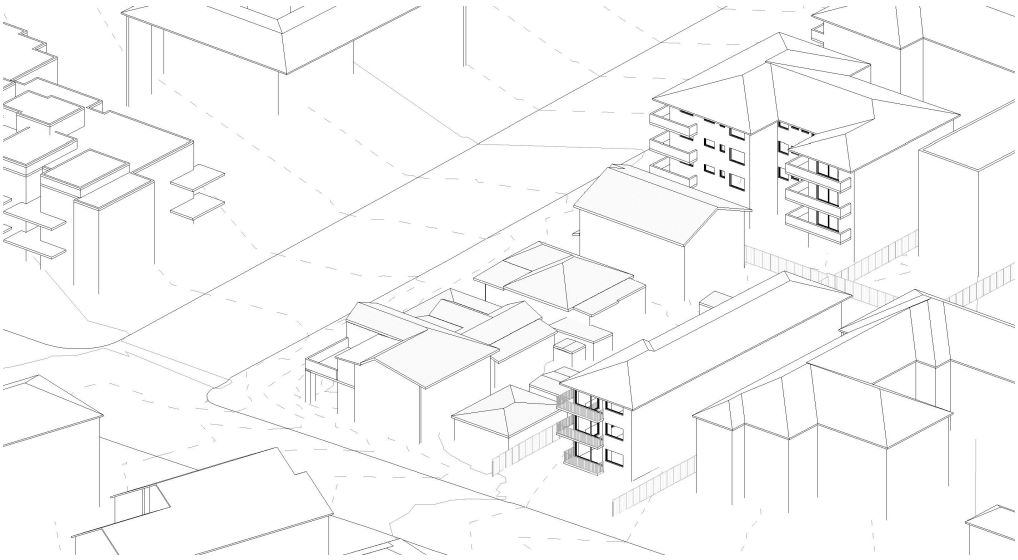
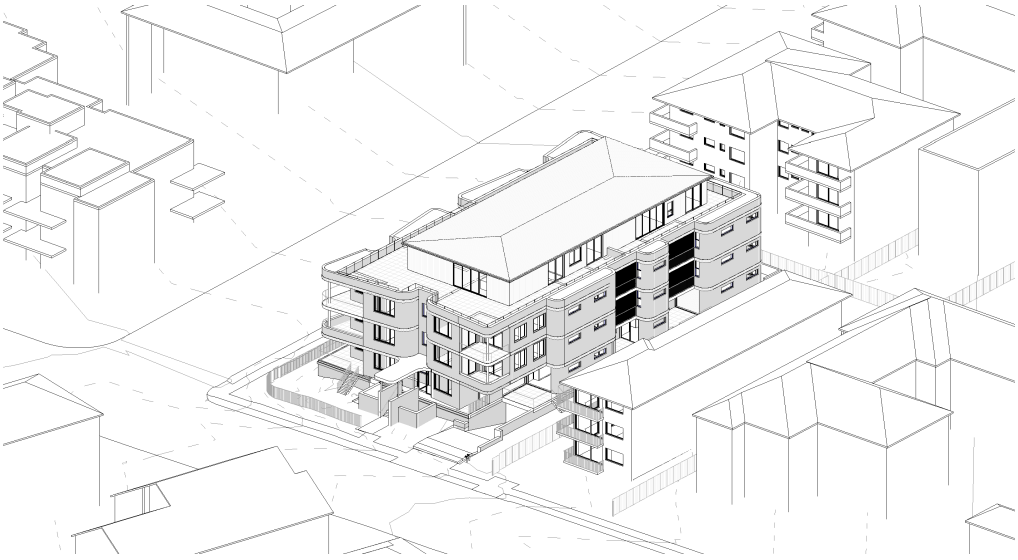
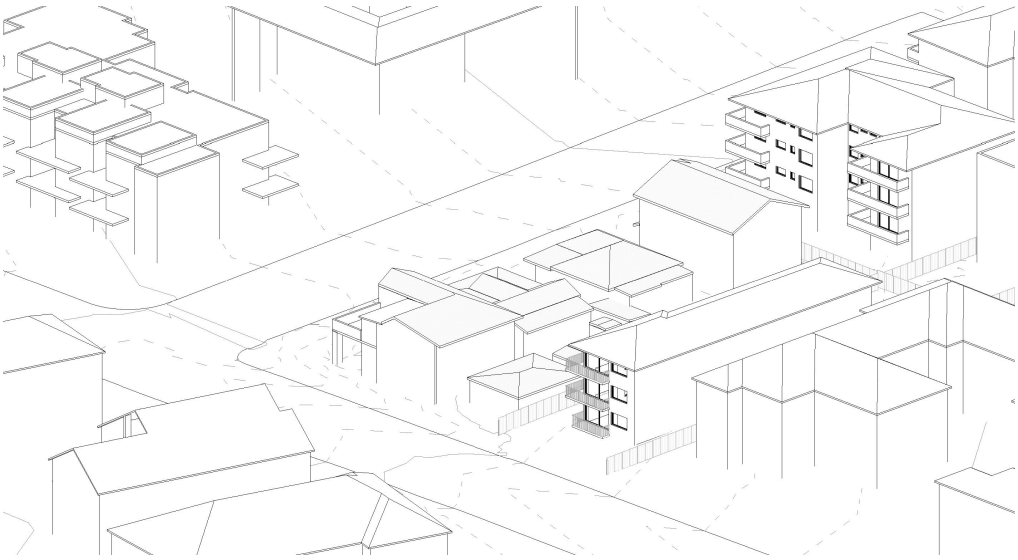
13.30 EXISTING	
13.30 PROPOSED	

14.00 EXISTING	
14.00 PROPOSED	

14.30 EXISTING	
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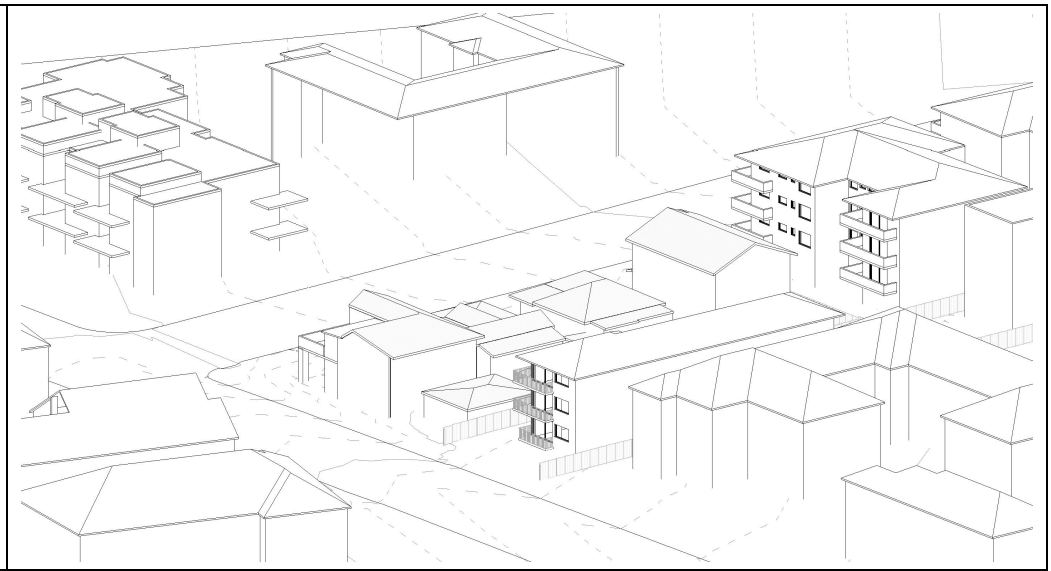
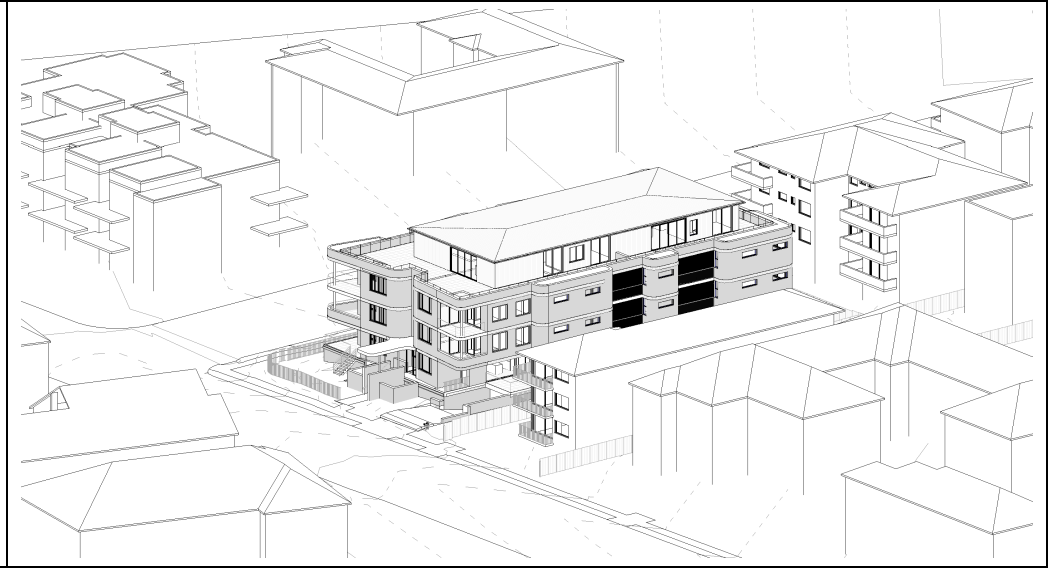
15.00 EXISTING	
15.00 PROPOSED	

C.0 APPENDIX C: DETAILED COMPLIANCE TABLE

The following table sets out in detail the solar access status of each Apartment in the current DA Scheme.

LEVEL	UNIT NUM.	ROOM	9	930	10	1030	11	1130	12	1230	13	1330	14	1430	15	>2 hrs 9-3	Comply for Living + POS >2 hrs	No sun	Comments
GROUND FLOOR	G01	Living	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	N	YES	YES		SUN FROM 1215 UNTIL 1415. TIME ADJUSTED AT 1430.
		POS	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	YES.		N/A	
	G02	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	G03	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	G04	Living	Y	Y	Y	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	G05	Living	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	G06	Living	Y	Y	N	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	G07	Living	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	N	YES	YES		SUN FROM 1215 UNTIL 1415. TIME ADJUSTED AT 1430.
		POS	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	YES.		N/A	
LEVEL 1	101	Living	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	YES.		N/A	
	102	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	103	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	104	Living	Y	Y	Y	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	105	Living	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	106	Living	Y	Y	N	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	107	Living	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	YES.		N/A	
LEVEL 2	201	Living	N	N	N	N	N	H	H	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	YES.		N/A	
	202	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	203	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	204	Living	Y	Y	Y	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	205	Living	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES	YES		SUN TO LIVING AREA UNTIL 11:20AM
		POS	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	YES.		N/A	
	206	Living	Y	Y	N	N	N	N	N	N	N	N	N	N	N				
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	YES.		N/A	
	207	Living	N	N	N	N	N	H	H	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	YES.		N/A	
LEVEL 3	301	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	
	302	Living	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	YES	YES		
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.		N/A	

15	15	0
65.2%	65.2%	0.0%
	65.2%	0.0%

D.0 APPENDIX D: COMPLIANCE TABLE – 17 RICHMOND AVENUE

The following table sets out in detail the solar access status of each apartment

LEVEL	UNIT NUM.	ROOM	9	930	10	1030	11	1130	12	1230	13	1330	14	1430	15	>3 hrs 9-3	Comply for Living + POS >3 hrs	>2 hrs 9-3	Comply for Living + POS >2 hrs	No sun
EXISTING SOLAR COMPLIANCE																				
	9															5	3	0	5	0
																55.6%	33.3%	0.0%	55.6%	0.0%
																			55.6%	0.0%

PROPOSED SOLAR COMPLIANCE																				
GROUND FLOOR	1	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
LEVEL 1	2	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	3	Living	Y	Y	N	N	N	N	N	N	H	H	H	H	N					
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N			YES.		N/A
	6	Living	N	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	N	YES			YES	
		POS	N	Y	Y	Y	Y	Y	N	N	N	N	N	N	N			YES.		N/A
	7	Living	N	Y	N	N	N	N	N	N	H	H	H	H	N					
		POS	N	Y	Y	Y	Y	N	N	N	N	N	N	N	N					N/A
LEVEL 2	4	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	5	Living	Y	Y	N	N	N	N	N	N	H	H	H	H	H					
		POS	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N			YES.		N/A
	8	Living	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y	Y	YES			YES	
		POS	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N			YES.		N/A
	9	Living	Y	Y	Y	Y	N	N	N	N	H	H	H	H	H					
		POS	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N			YES.		N/A
	9															5	3	0	5	0
																55.6%	33.3%	0.0%	55.6%	0.0%
																			55.6%	0.0%

LEGEND

Y	RECEIVES COMPLIANT SUN
H	HABITABLE SPACES RECEIVES COMPLIANT SUN
N	DOES NOT COMPLY
N	LIVING NOW OVERSHADOWED

E.0 APPENDIX E: COMPLIANCE TABLE – 18 AVON ROAD

The following table sets out in detail the solar access status of each apartment

LEVEL	UNIT NUM.	ROOM	9	930	10	1030	11	1130	12	1230	13	1330	14	1430	15	>3 hrs 9-3	Comply for Living + POS >3 hrs	>2 hrs 9-3	Comply for Living + POS >2 hrs	No sun
EXISTING SOLAR COMPLIANCE																				
	9															5	5	0	5	0
																55.6%	55.6%	0.0%	55.6%	0.0%
																			55.6%	0.0%

PROPOSED SOLAR COMPLIANCE																				
LEVEL 1	10	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	11	Living	Y	H	N	N	N	N	N	N	N	N	N	N	N					
		POS	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N					N/A
	12	Living	Y	H	H	H	H	Y	Y	Y	Y	Y	Y	Y	H	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	YES.				N/A
LEVEL 2	13	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	14	Living	Y	H	H	H	H	Y	Y	Y	Y	Y	Y	Y	H	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	15	Living	Y	H	N	N	N	N	N	N	N	N	N	N	N					
		POS	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N					N/A
LEVEL 3	16	Living	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES	YES		YES	
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	17	Living	Y	H	N	N	N	N	N	N	N	N	N	N	N					
		POS	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N					N/A
	18	Living	Y	H	H	H	H	H	H	H	H	H	H	H	H					
		POS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	YES.				N/A
	9															5	5	0	5	0
																55.6%	55.6%	0.0%	55.6%	0.0%
																			55.6%	0.0%

LEGEND

Y	RECEIVES COMPLIANT SUN
H	HABITABLE SPACES RECEIVES COMPLIANT SUN
N	DOES NOT COMPLY
N	LIVING NOW OVERSHADOWED
HH	LIVING OVERSHADOWED BUT HABITABLE ROOM GETS SUN