

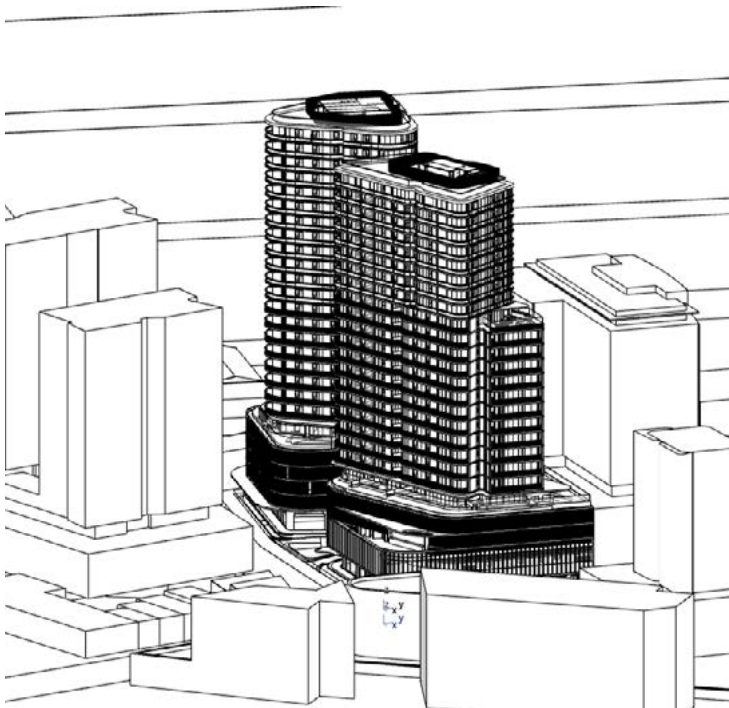
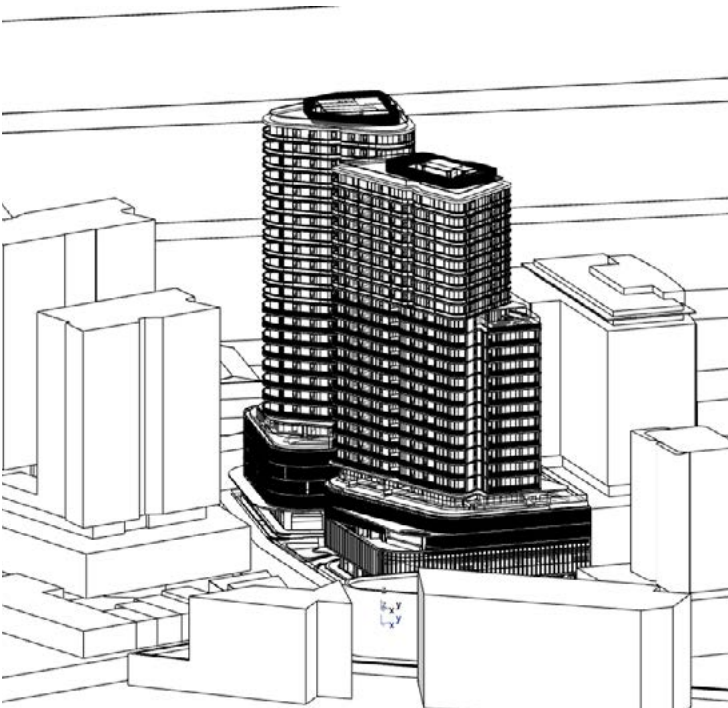
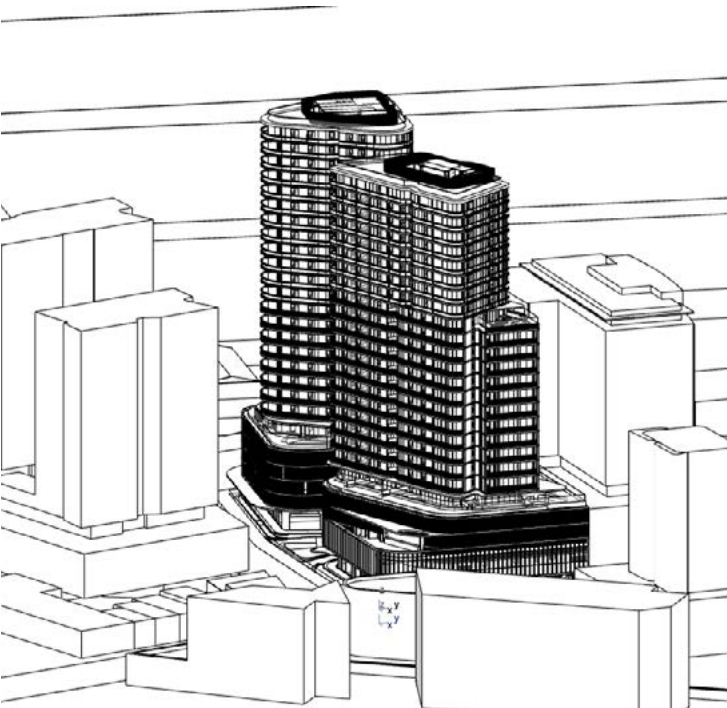
DESIGN RESPONSE

ADG SOLAR ACCESS



DA RESPONSE

SUMMARY - SOLAR ANALYSIS



DA assessment		
2hrs 9am-3pm		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
2hrs 8am-4pm		
Stage 1	123/136	90.4%
Stage 2	81/122	66.4%
TOTAL	204/258	79.1%
No Solar	38/258	14.7%

Council assessment		
2hrs 9am-3pm		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%

Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%
No Solar	37/257	14.4%

Summary:
The proposed towers were accepted at the competition stage as angled rather than aligning themselves parallel to National Park Street to allow their eastern face to achieve the minimum two hours of sunlight. It has also been accepted from both the DIP and the UDRP that Tower 1 would capture the majority of solar given the North/South orientation of the site and that compliance review would be on a combined basis. Clarity has been provided to the eastern units for Stage 1 which confirm that 2hrs minimum can be achieved between 9am-11am on 21st June.

The detailed design overtime including the development of services, structure and nuances to the built form has meant that in some instances a minor discrepancy in the minimum two hours is achieved from 8:25am and not 9am. This is such a case for Stage 2 Unit type 03 between levels 6-19. This adjustment sees compliance with 2 hours direct sunlight at Winter solstice being achieved for 74.7% of apartments however for 16 of these apartments the time period is extended by 35 minutes.

Clarifications:
Stage 1 Unit type 02 on levels 18-24, and penthouses 02 & 03 have their living rooms overshadowed by the proposed awning overhang, achieving less than 2hrs as required. Their habitable rooms are stepped back from the building edge sub-sequently allowing the full length of their generous balconies to achieve direct sunlight. These clarifications in the sun eye model have resulted in a small reduction in Stage 1's level of compliance.

In Stage 2, clarity is provided on to Unit Type 02 which is closely overshadowed by the adjacent property and therefore compliance is only achieved for this unit type for levels 11 and above.

Pages 11-13 for Stage 1, and pages 21-22 for Stage 2 of this package provide further clarity on the apartments Council's assessment noted as under two hours using sun eye views and elevational area calculations to provide great certainty on the accuracy of the calculations..

DA RESPONSE

STAGE 01 - COMPLIANCE TABLES

	Apt	Compliance
LEVEL 05		
	1.05.01	
	1.05.02	
	1.05.03	
	1.05.04	
LEVEL 06		
	1.06.01	
	1.06.02	
	1.06.03	
	1.06.04	
	1.06.05	
	1.06.06	
	1.06.07	
	1.06.08	
LEVEL 07		
	1.07.01	
	1.07.02	
	1.07.03	
	1.07.04	
	1.07.05	
	1.07.06	
	1.07.07	
	1.07.08	
LEVEL 08		
	1.08.01	
	1.08.02	
	1.08.03	
	1.08.04	
	1.08.05	
	1.08.06	
	1.08.07	
	1.08.08	
LEVEL 09		
	1.09.01	
	1.09.02	
	1.09.03	
	1.09.04	
	1.09.05	
	1.09.06	
	1.09.07	
	1.09.08	

STAGE 1	Compliant	Compliant
Zero	7	5.1%
Less than 2 hours	17	12.5%
2 hours within 8am to 3pm	0	0.0%
2 hours within 9am - 3pm	112	82.4%
Total	136	100

	Apt	Compliant
LEVEL 10		
	1.10.01	
	1.10.02	
	1.10.03	
	1.10.04	
	1.10.05	
	1.10.06	
	1.10.07	
	1.10.08	
LEVEL 11		
	1.11.01	
	1.11.02	
	1.11.03	
	1.11.04	
	1.11.05	
	1.11.06	
	1.11.07	
	1.11.08	
LEVEL 12		
	1.12.01	
	1.12.02	
	1.12.03	
	1.12.04	
	1.12.05	
	1.12.06	
	1.12.07	
	1.12.08	
LEVEL 13		
	1.13.01	
	1.13.02	
	1.13.03	
	1.13.04	
	1.13.05	
	1.13.06	
	1.13.07	
	1.13.08	
LEVEL 14		
	1.14.01	
	1.14.02	
	1.14.03	
	1.14.04	
	1.14.05	
	1.14.06	
	1.14.07	
	1.14.08	

	Apt	
LEVEL 15		
	1.15.01	
	1.15.02	
	1.15.03	
	1.15.04	
	1.15.05	
	1.15.06	
	1.15.07	
	1.15.08	
LEVEL 16		
	1.16.01	
	1.16.02	
	1.16.03	
	1.16.04	
	1.16.05	
	1.16.06	
	1.16.07	
	1.16.08	
LEVEL 17		
	1.17.01	
	1.17.02	
	1.17.03	
	1.17.04	
	1.17.05	
	1.17.06	
LEVEL 18		
	1.18.01	
	1.18.02	
	1.18.03	
	1.18.04	
	1.18.05	
LEVEL 19		
	1.19.01	
	1.19.02	
	1.19.03	
	1.19.04	
	1.19.05	

	Apt	Compliant
LEVEL 20		
	1.20.01	
	1.20.02	
	1.20.03	
	1.20.04	
	1.20.05	
LEVEL 21		
	1.21.01	
	1.21.02	
	1.21.03	
	1.21.04	
	1.21.05	
LEVEL 22		
	1.22.01	
	1.22.02	
	1.22.03	
	1.22.04	
	1.22.05	
LEVEL 23		
	1.23.01	
	1.23.02	
	1.23.03	
	1.23.04	
	1.23.05	
LEVEL 24		
	1.24.01	
	1.24.02	
	1.24.03	
	1.24.04	
	1.24.05	
LEVEL 25		
	1.25.01	
	1.25.02	
	1.25.03	

DA RESPONSE

STAGE 02 - COMPLIANCE TABLES

	Apt	Compliance
LEVEL 01		
	2.01.01	
	2.01.02	
	2.01.03	
LEVEL 02		
	2.02.01	
	2.02.02	
	2.02.03	
LEVEL 03		
	2.03.01	
	2.03.02	
	2.03.03	
LEVEL 04		
	2.04.01	
	2.04.02	
	2.04.03	
LEVEL 05		
	2.05.01	
	2.05.02	
	2.05.03	
	2.05.04	
LEVEL 06		
	2.06.01	
	2.06.02	
	2.06.03	
	2.06.04	
	2.06.05	
	2.06.06	
LEVEL 07		
	2.07.01	
	2.07.02	
	2.07.03	
	2.07.04	
	2.07.05	
	2.07.06	
LEVEL 08		
	2.08.01	
	2.08.02	
	2.08.03	
	2.08.04	
	2.08.05	
	2.08.06	

STAGE 2	Compliant	Compliant
Zero	30	24.8%
Less then 2 hours	11	9.1%
2 hours within 8:25am to 3:30pm	17	14.0%
2 hours within 9am - 3pm	63	52.1%
Total	121	100

	Apt	
LEVEL 09		
	2.09.01	
	2.09.02	
	2.09.03	
	2.09.04	
	2.09.05	
	2.09.06	
LEVEL 10		
	2.10.01	
	2.10.02	
	2.10.03	
	2.10.04	
	2.10.05	
	2.10.06	
LEVEL 11		
	2.11.01	
	2.11.02	
	2.11.03	
	2.11.04	
	2.11.05	
	2.11.06	
LEVEL 12		
	2.12.01	
	2.12.02	
	2.12.03	
	2.12.04	
	2.12.05	
	2.12.06	
LEVEL 13		
	2.13.01	
	2.13.02	
	2.13.03	
	2.13.04	
	2.13.05	
	2.13.06	
LEVEL 14		
	2.14.01	
	2.14.02	
	2.14.03	
	2.14.04	
	2.14.05	
LEVEL 15		
	2.15.01	
	2.15.02	
	2.15.03	
	2.15.04	
	2.15.05	

	Apt	
LEVEL 16		
	2.16.01	
	2.16.02	
	2.16.03	
	2.16.04	
	2.16.05	
LEVEL 17		
	2.17.01	
	2.17.02	
	2.17.03	
	2.17.04	
	2.17.05	
LEVEL 18		
	2.18.01	
	2.18.02	
	2.18.03	
	2.18.04	
	2.18.05	
LEVEL 19		
	2.19.01	
	2.19.02	
	2.19.03	
	2.19.04	
	2.19.05	
LEVEL 20		
	2.20.01	
	2.20.02	
	2.20.03	
	2.20.04	
	2.20.05	
LEVEL 21		
	2.21.01	
	2.21.02	
	2.21.03	
	2.21.04	
	2.21.05	
LEVEL 22		
	2.22.01	
	2.22.02	
	2.22.03	
	2.22.04	
	2.22.05	

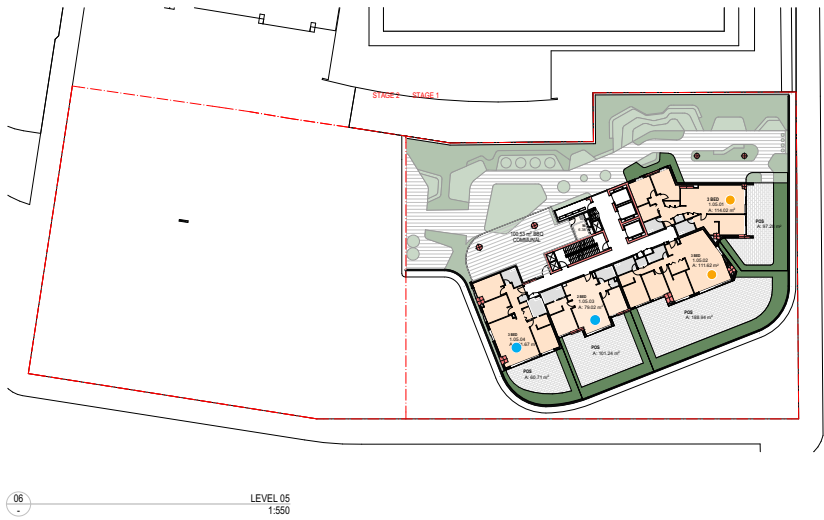
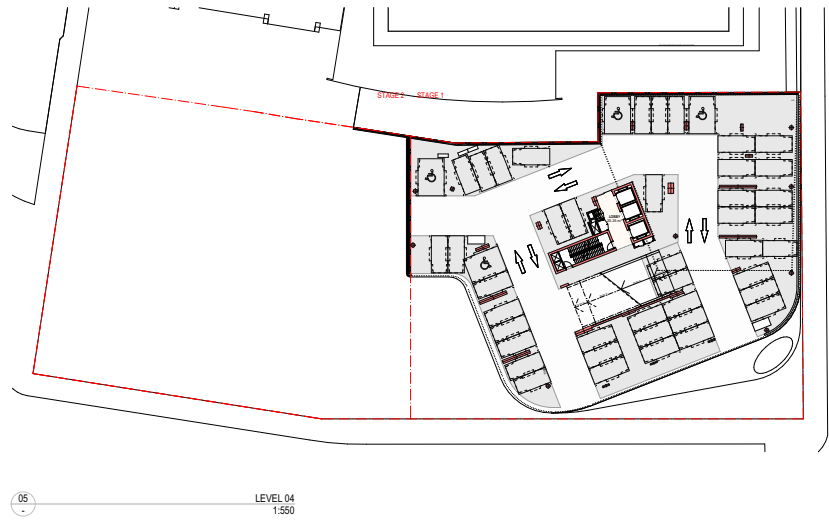
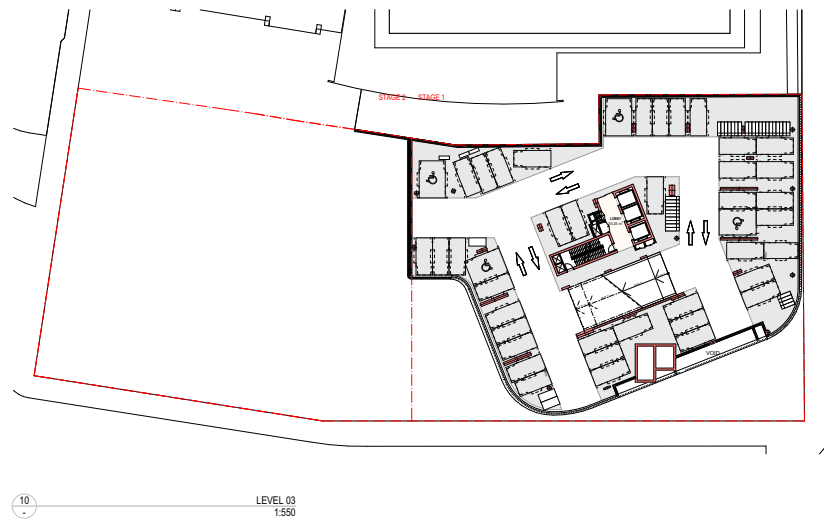
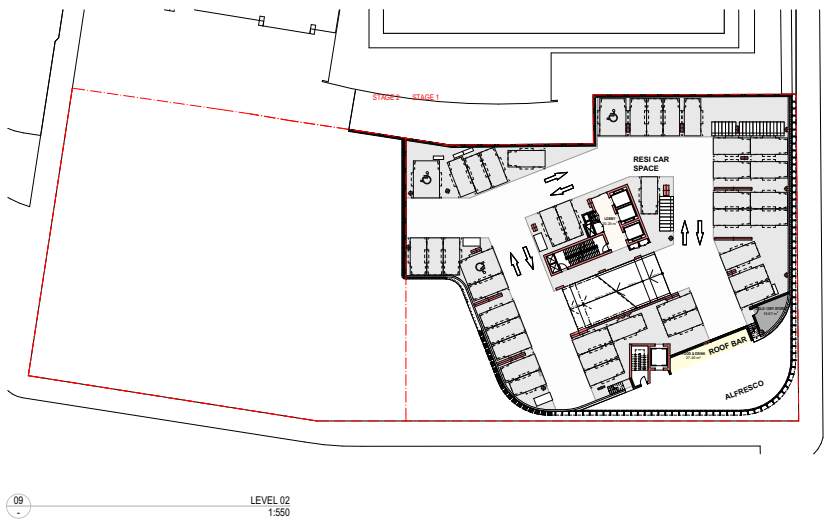
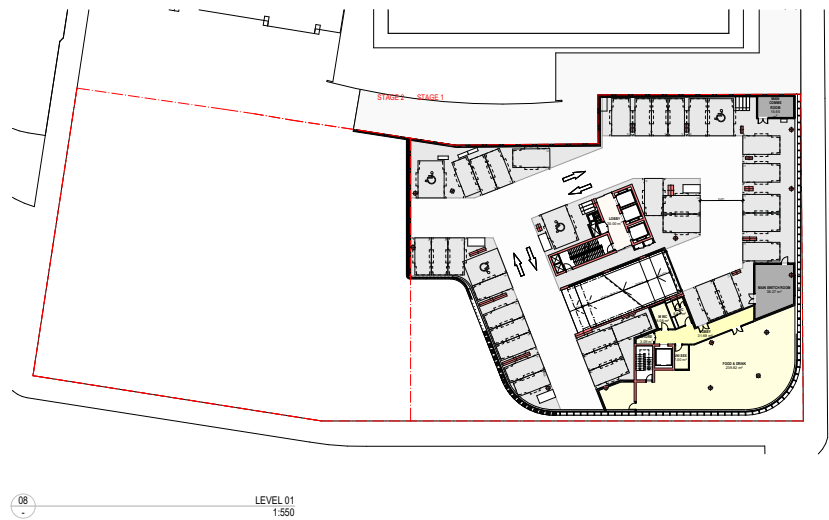
	Apt	Compliant
LEVEL 23		
	2.23.01	
	2.23.02	
	2.23.03	
	2.23.04	
	2.23.05	
LEVEL 24		
	2.24.01	
	2.24.02	
	2.24.03	
	2.24.04	
	2.24.05	
LEVEL 25		
	2.25.01	
	2.25.02	
	2.25.03	

Combined Stage 1 & 2	Compliant	Compliant
Zero	37	14.4%
less then 2 hours	28	10.9%
2 hours within 8:25am to 3:30pm	17	6.6%
2 hours within 9am - 3pm	175	68.1%
Total	257	100

SOLAR ACCESS
STAGE 01
FINAL ASSESSMENT

DA RESPONSE

STAGE 1 SOLAR ACCESS LEVELS 1-9: FINAL ASSESSMENT



STAGE 1		
	Unit Comply	Total Unit
LEVEL 1		
LEVEL 2		
LEVEL 3		
LEVEL 4		
LEVEL 5	2	4
LEVEL 6	6	8
LEVEL 7	6	8
LEVEL 8	6	8
LEVEL 9	6	8
LEVEL 10	6	8
LEVEL 11	6	8
LEVEL 12	7	8
LEVEL 13	8	8
LEVEL 14	8	8
LEVEL 15	8	8
LEVEL 16	8	8
LEVEL 17	6	6
LEVEL 18	5 4	5
LEVEL 19	5 4	5
LEVEL 20	5 4	5
LEVEL 21	5 4	5
LEVEL 22	5 4	5
LEVEL 23	5 4	5
LEVEL 24	5 4	5
LEVEL 25	3 1	3
TOTAL	121 112	136
PERCENTAGE	89%	82.4%

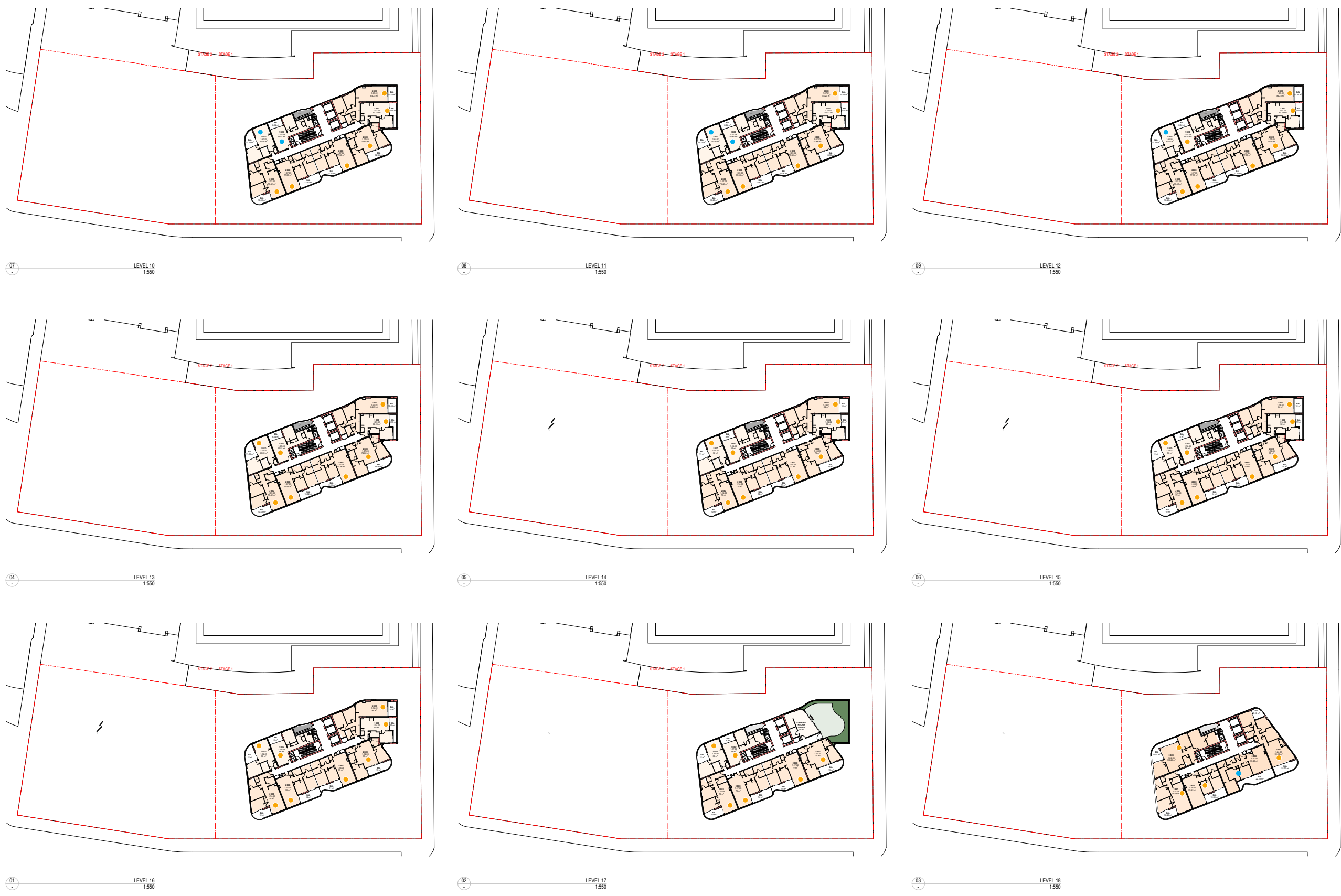
SOLAR ACCESS 21 JUN 9AM TO 3PM

- ACHIEVE 2 HOURS SOLAR ACCESS
- LESS THAN 2 HOURS SOLAR ACCESS
- ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
- NO SOLAR ACCESS

DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

DA RESPONSE

STAGE 1 SOLAR ACCESS LEVELS 10-18: *FINAL ASSESSMENT*



STAGE 1		
	Unit Comply	Total Unit
LEVEL 1		
LEVEL 2		
LEVEL 3		
LEVEL 4		
LEVEL 5	2	4
LEVEL 6	6	8
LEVEL 7	6	8
LEVEL 8	6	8
LEVEL 9	6	8
LEVEL 10	6	8
LEVEL 11	6	8
LEVEL 12	7	8
LEVEL 13	8	8
LEVEL 14	8	8
LEVEL 15	8	8
LEVEL 16	8	8
LEVEL 17	6	6
LEVEL 18	5 4	5
LEVEL 19	5 4	5
LEVEL 20	5 4	5
LEVEL 21	5 4	5
LEVEL 22	5 4	5
LEVEL 23	5 4	5
LEVEL 24	5 4	5
LEVEL 25	3 1	3
TOTAL	121 112	136
PERCENTAGE		89% 82.4%

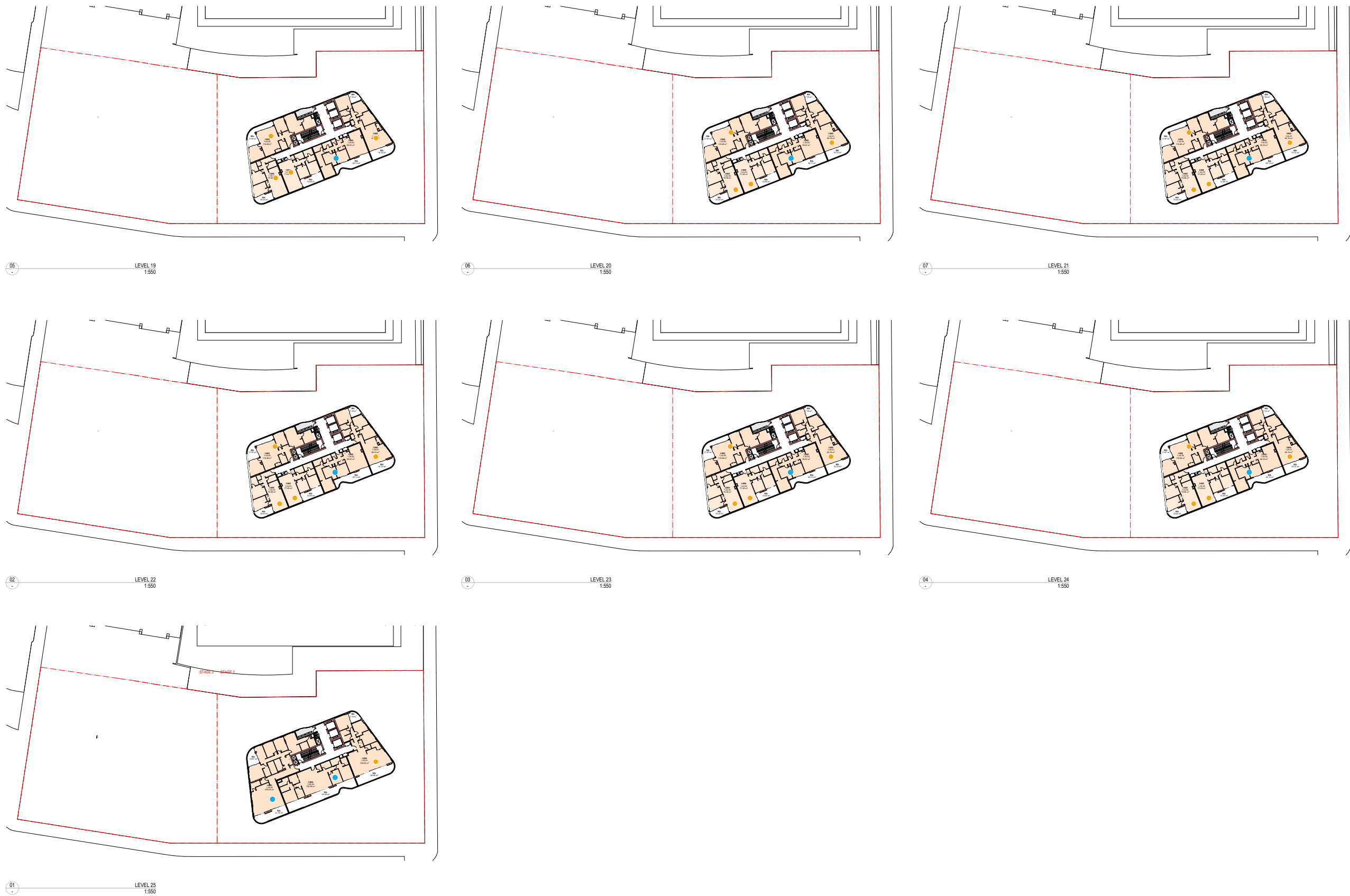
SOLAR ACCESS 21 JUN 9AM TO 3PM

- ACHIEVE 2 HOURS SOLAR ACCESS
- LESS THAN 2 HOURS SOLAR ACCESS
- ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
- NO SOLAR ACCESS

DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%
2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

DA RESPONSE

STAGE 1 SOLAR ACCESS LEVELS 19-25: *FINAL ASSESSMENT*



STAGE 1		
	Unit Comply	Total Unit
LEVEL 1		
LEVEL 2		
LEVEL 3		
LEVEL 4		
LEVEL 5	2	4
LEVEL 6	6	8
LEVEL 7	6	8
LEVEL 8	6	8
LEVEL 9	6	8
LEVEL 10	6	8
LEVEL 11	6	8
LEVEL 12	7	8
LEVEL 13	8	8
LEVEL 14	8	8
LEVEL 15	8	8
LEVEL 16	8	8
LEVEL 17	6	6
LEVEL 18	5 4	5
LEVEL 19	5 4	5
LEVEL 20	5 4	5
LEVEL 21	5 4	5
LEVEL 22	5 4	5
LEVEL 23	5 4	5
LEVEL 24	5 4	5
LEVEL 25	3 1	3
TOTAL	121 112	136
PERCENTAGE		89% 82.4%

SOLAR ACCESS 21 JUN 9AM TO 3PM

- ACHIEVE 2 HOURS SOLAR ACCESS
- LESS THAN 2 HOURS SOLAR ACCESS
- ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
- NO SOLAR ACCESS

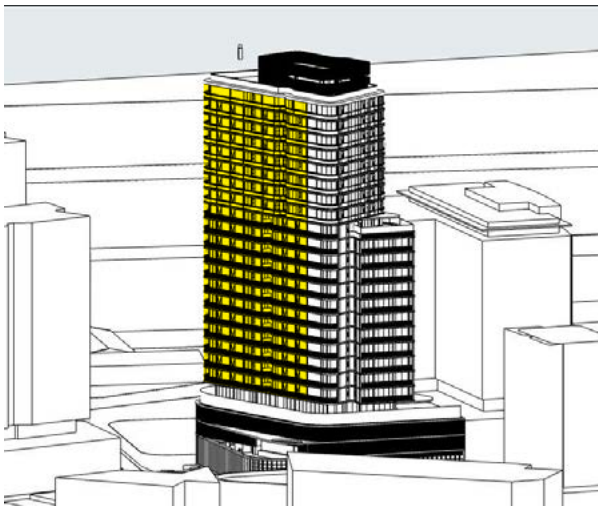
DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

SOLAR ACCESS

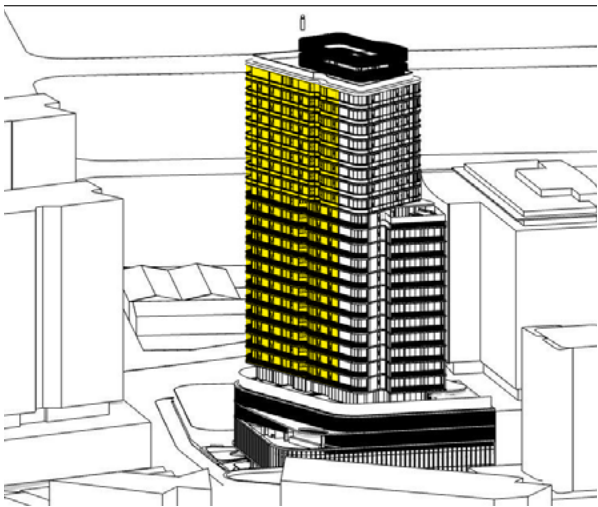
STAGE 01

DA RESPONSE

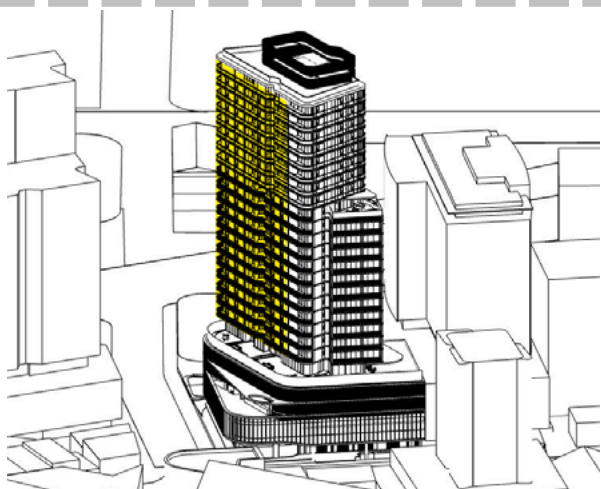
STAGE 1 SUN EYE VIEWS 8AM - 11AM: *UNITS REQUIRING CLARITY*



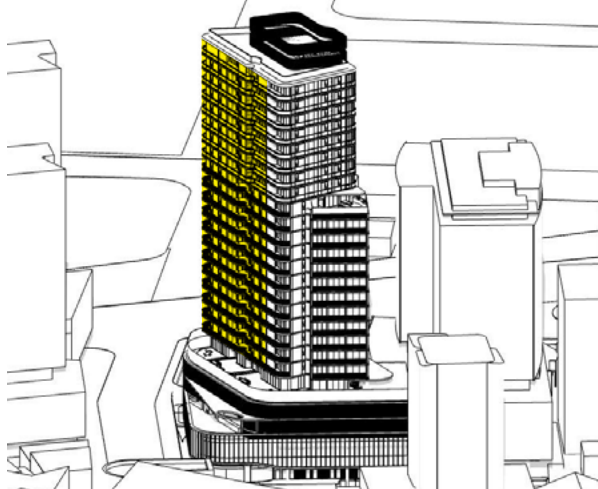
01 21 JUN 8AM



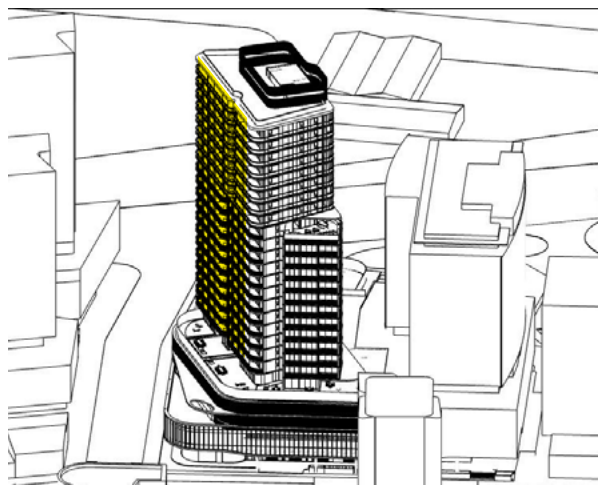
02 21 JUN 8:30AM



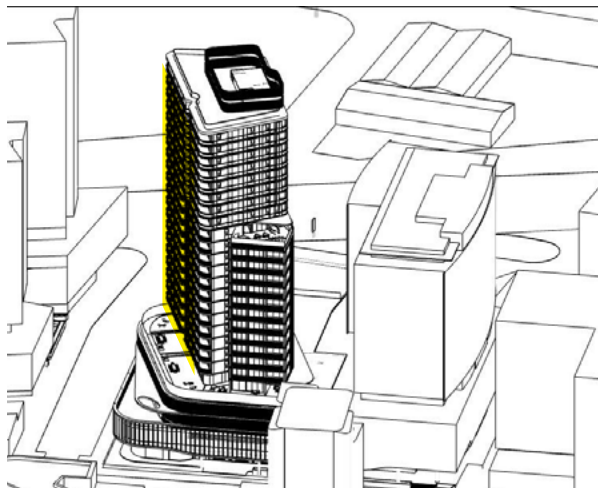
03 21 JUN 9AM



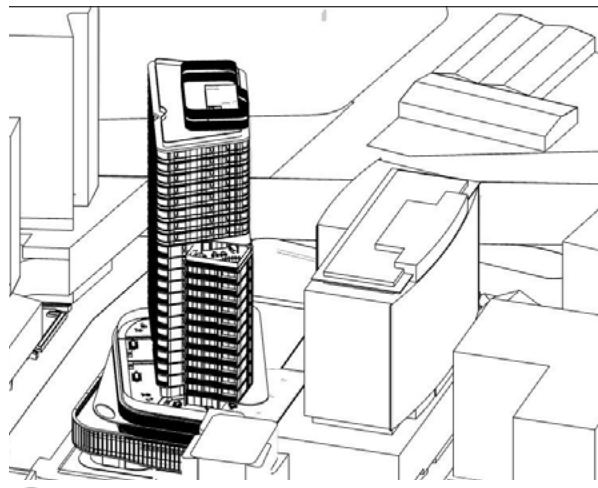
04 21 JUN 9:30AM



05 21 JUN 10AM



06 21 JUN 10:30AM



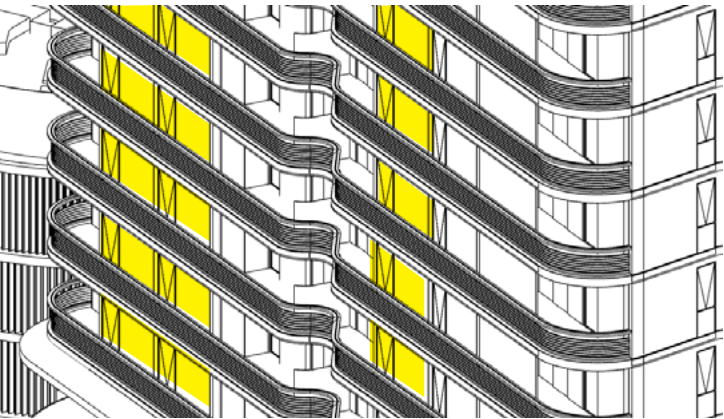
01 21 JUN 11AM

For Stage 1, additional clarity has been provided in response to Council's independent review for 58 units to demonstrate how they are achieving the required minimum 2hrs to their main internal living space and balconies in mid winter.

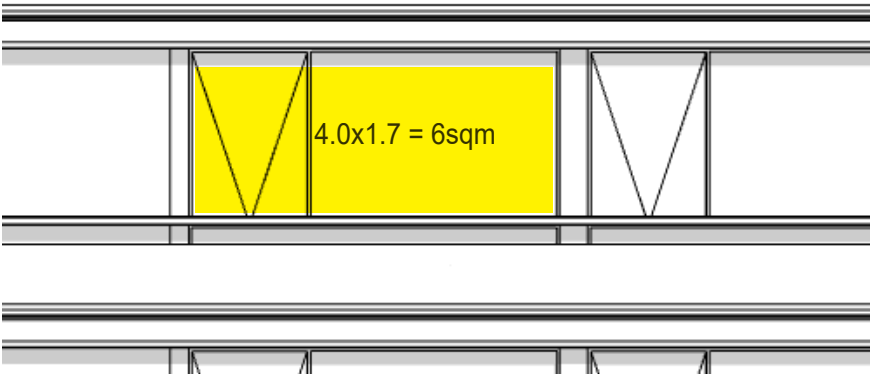
All of these are situated on the south east facade which are shown in the sun eye views to get the required sun between 9am and 11am, and can achieve more continuous hours from 8am.

DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
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2hrs 8:25am-3:30pm	
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Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

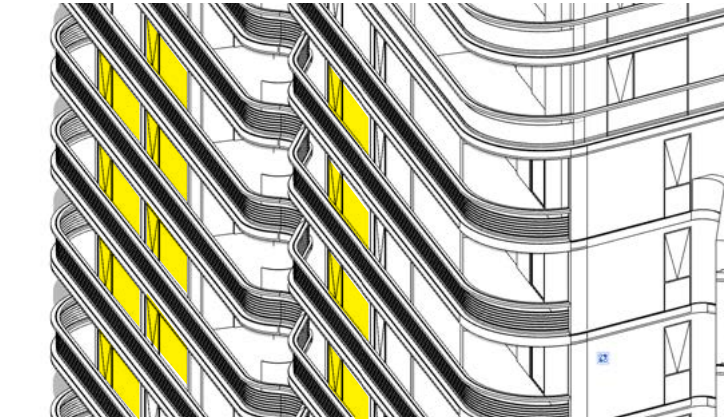
DA RESPONSE
STAGE 1 LEVEL 6-17: TYPICAL UNITS DETAILED ANALYSIS



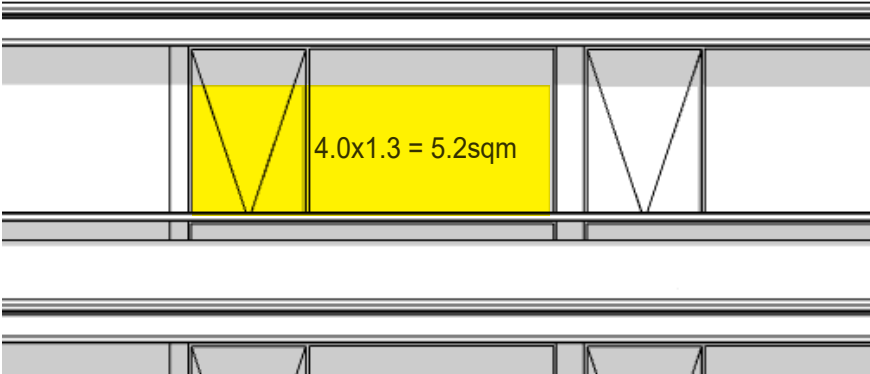
21 JUN 9AM SUN EYE VIEW



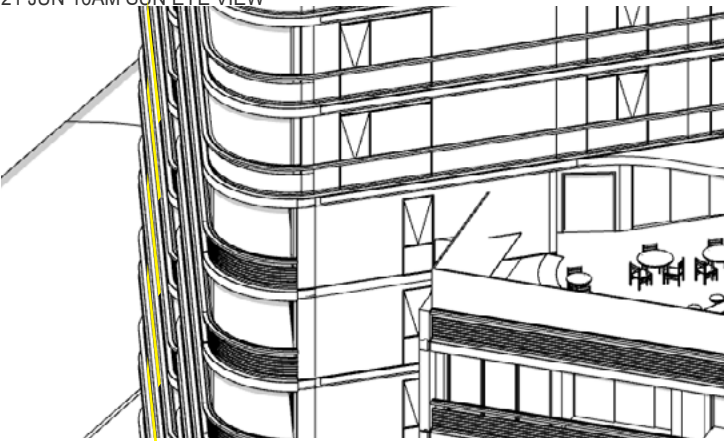
21 JUN 9AM ELEVATIONAL VIEW



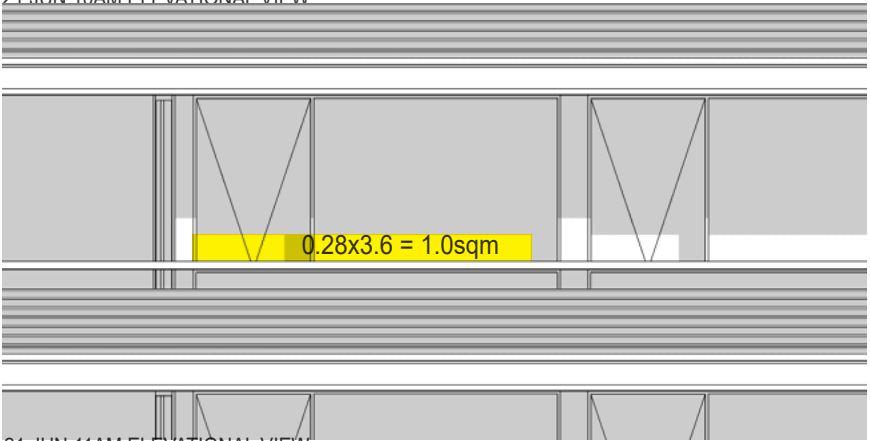
21 JUN 10AM SUN EYE VIEW



21 JUN 10AM ELEVATIONAL VIEW



21 JUN 11AM SUN EYE VIEW



21 JUN 11AM ELEVATIONAL VIEW

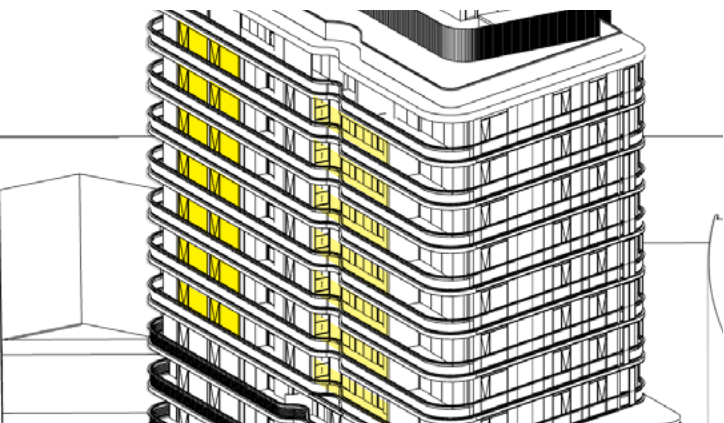


Sun studies shown as views from the sun and elevationally demonstrate that direct sun can be definitely achieved to these apartments from 9am to 11am on June 21st for typical apartments 1.07.04, 05 & 06 between levels 6 and 17.

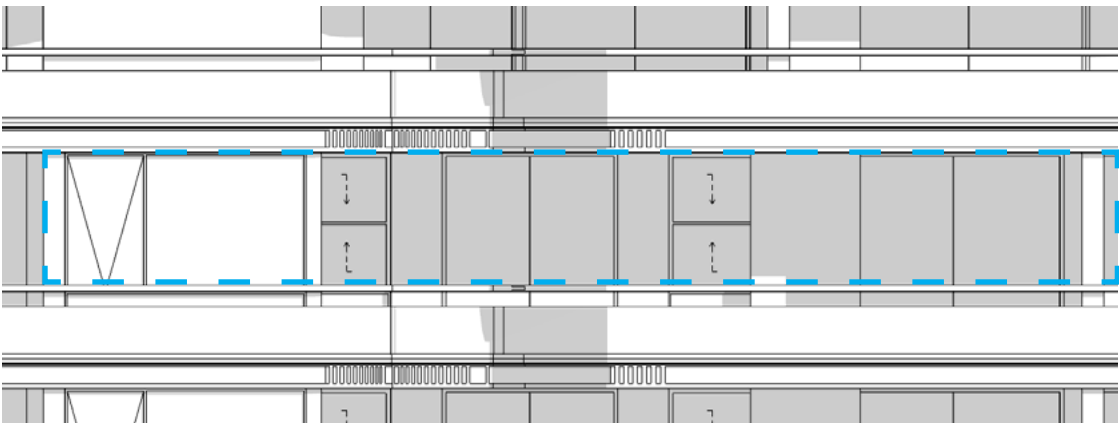
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TOTAL	192/257	74.7%

DA RESPONSE

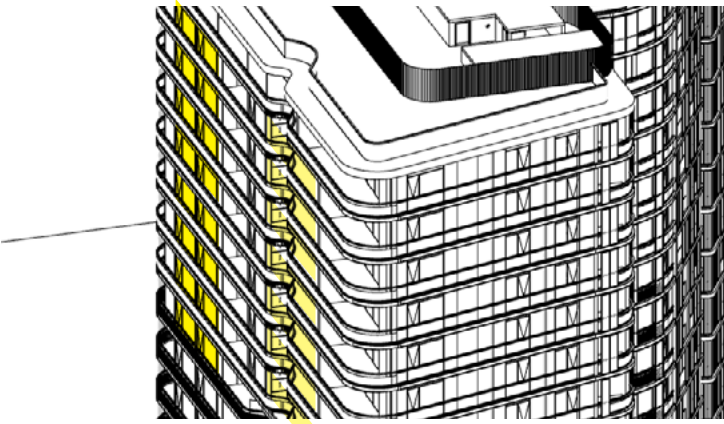
STAGE 1 LEVEL 18-24: *TYPICAL UNITS DETAILED ANALYSIS*



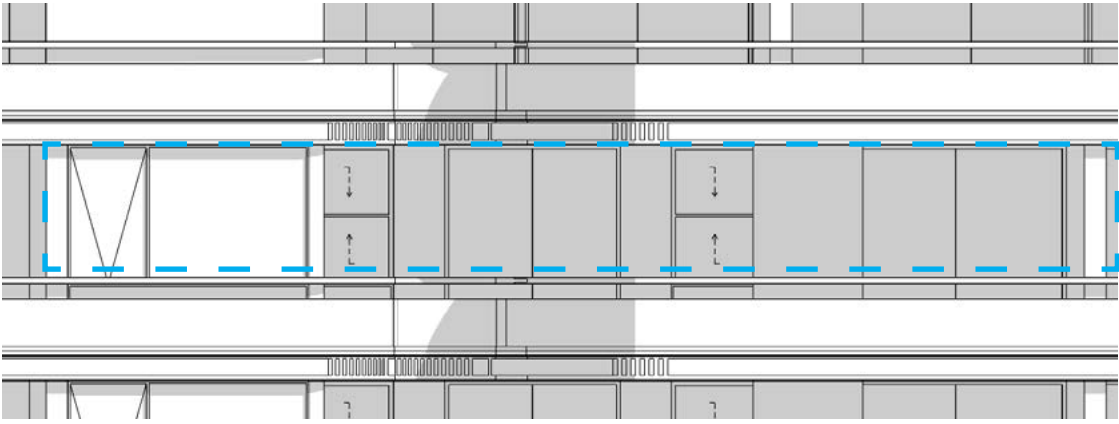
21 JUN 9AM SUN EYE VIEW



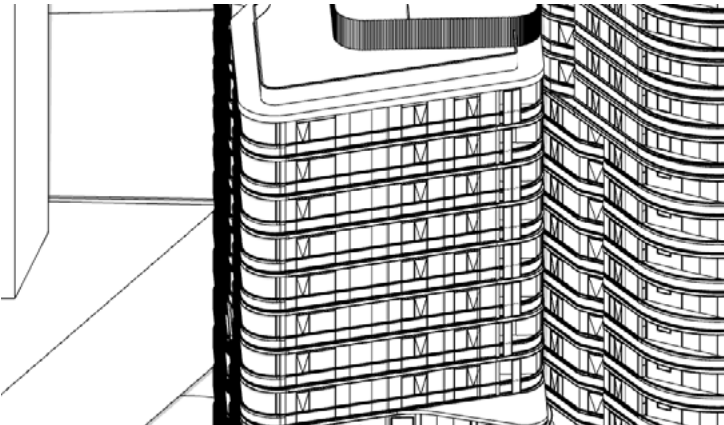
21 JUN 9AM ELEVATIONAL VIEW



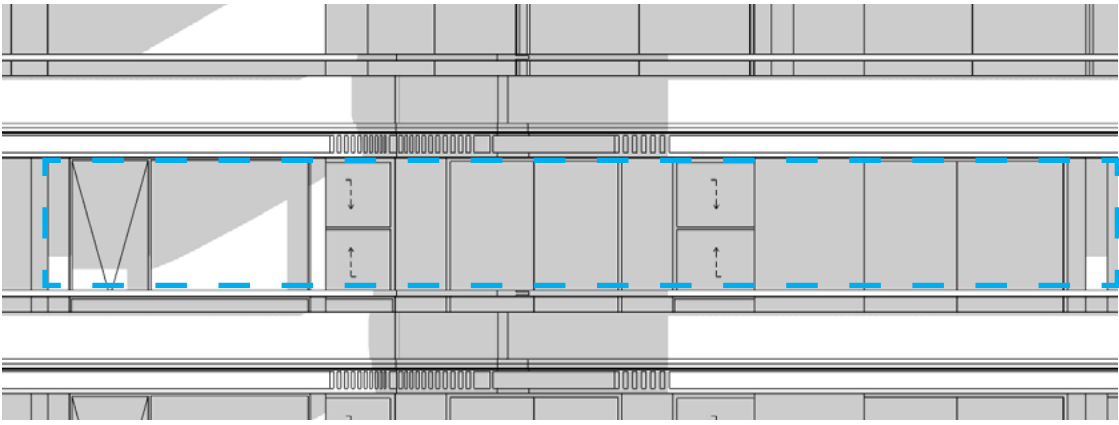
21 JUN 10AM SUN EYE VIEW



21 JUN 10AM ELEVATIONAL VIEW



21 JUN 11AM SUN EYE VIEW



21 JUN 11AM ELEVATIONAL VIEW

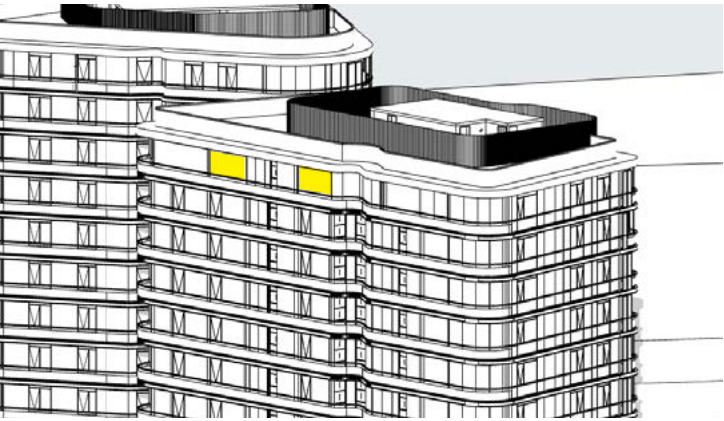


As per the units in levels 6-17 below, unit types 1.18.03 & 1.18.04 between the levels 18-24 can achieve direct sun between 9-11am.

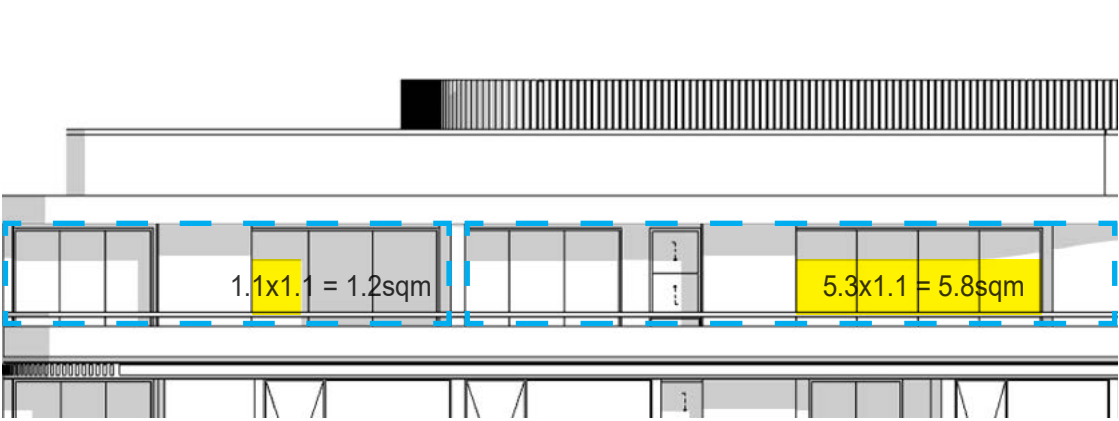
Unit 1.18.02 has its living room overshadowed by the balcony above and therefore only achieves 2hrs direct sunlight to its private open space between 9-11am. This unit's solar assessment is redefined as achieving less than 2hrs.

DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%
2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

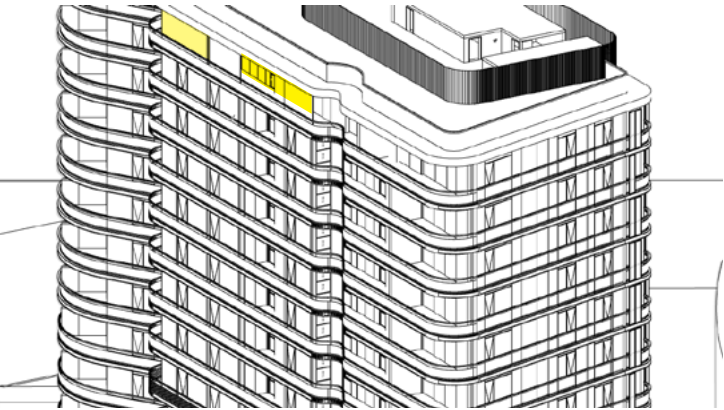
DA RESPONSE
STAGE 1 LEVEL 25



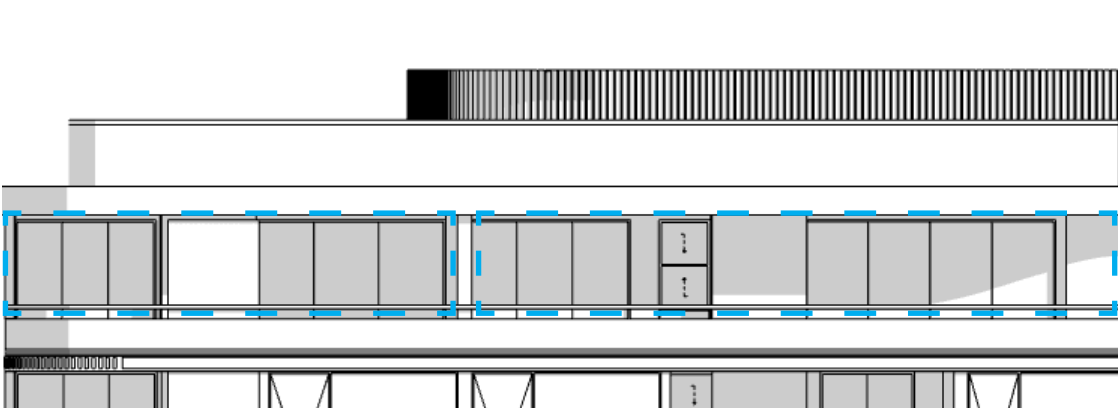
21 JUN 8AM SUN EYE VIEW



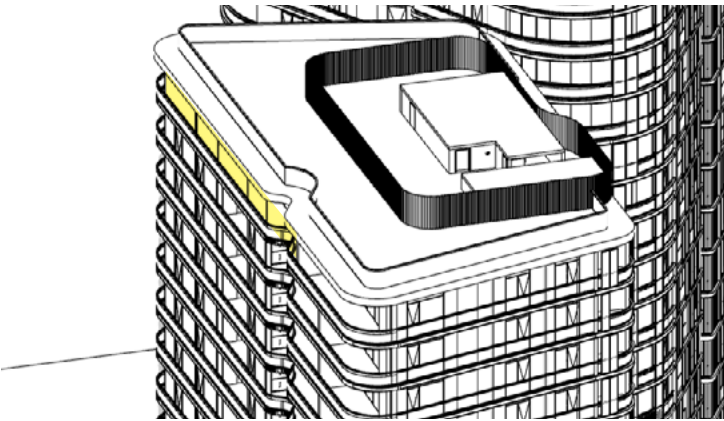
21 JUN 8AM ELEVATIONAL VIEW



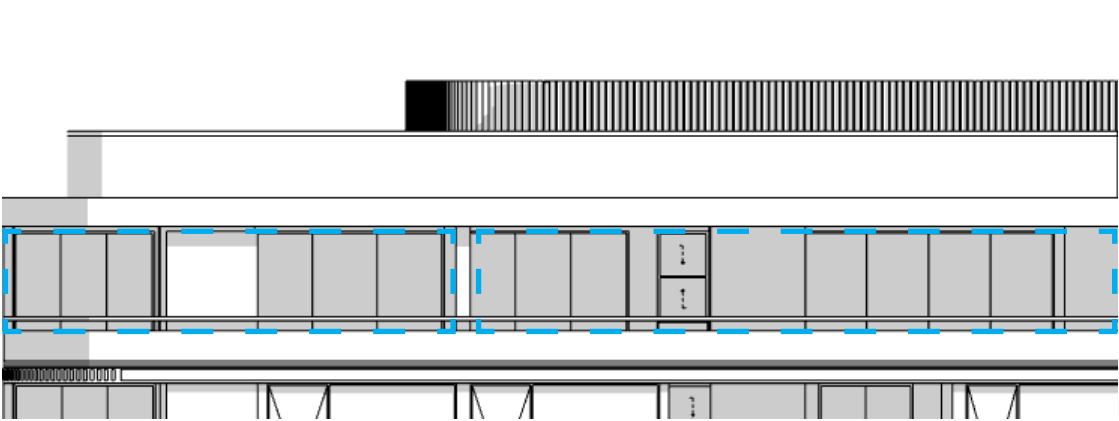
21 JUN 9AM SUN EYE VIEW



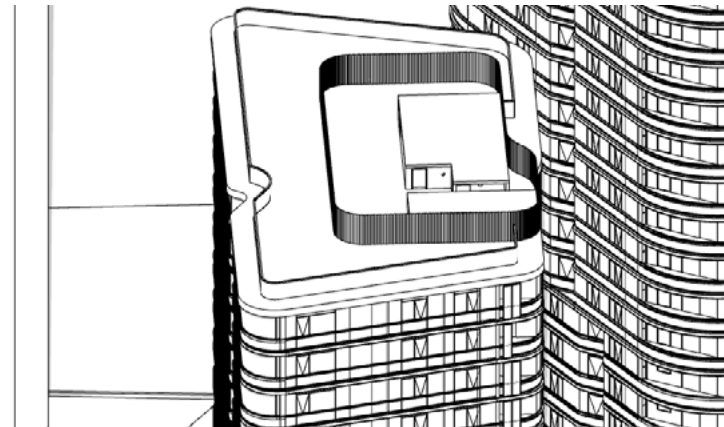
21 JUN 9AM ELEVATIONAL VIEW



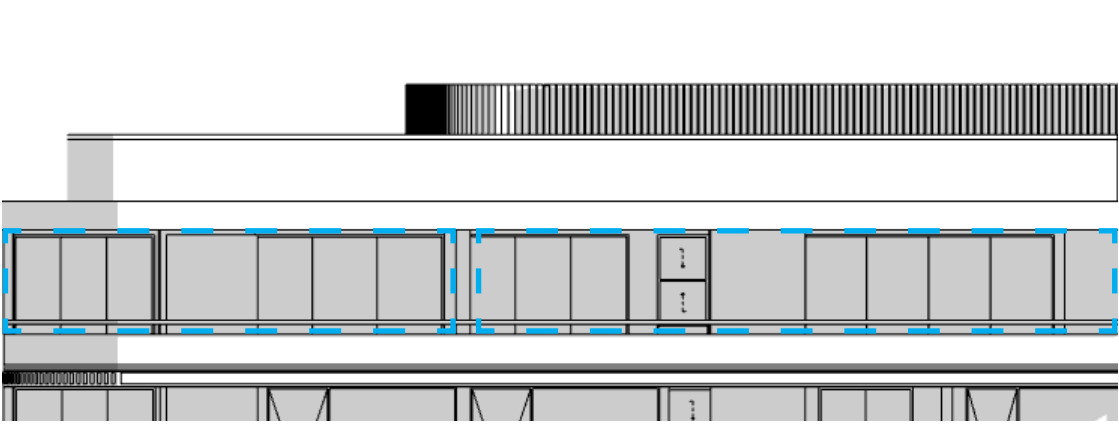
21 JUN 10AM SUN EYE VIEW



21 JUN 10AM ELEVATIONAL VIEW



21 JUN 11AM SUN EYE VIEW



21 JUN 11AM ELEVATIONAL VIEW



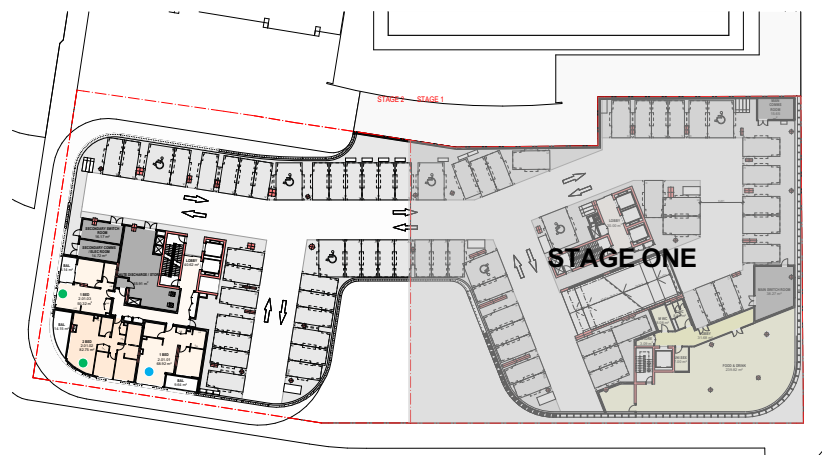
Penthouse units are overshadowed by the awning covers over deep balconies. living rooms and private open space can still enjoy direct morning sun. This unit's solar assessment is redefined as achieving less than 2hrs.

DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

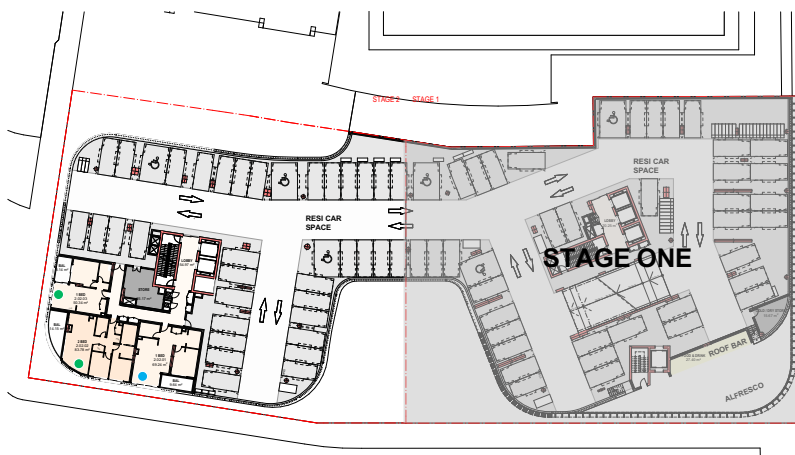
SOLAR ACCESS
STAGE 02
FINAL ASSESSMENT

DA RESPONSE

STAGE 2 SOLAR ACCESS LEVELS 1-9: FINAL ASSESSMENT



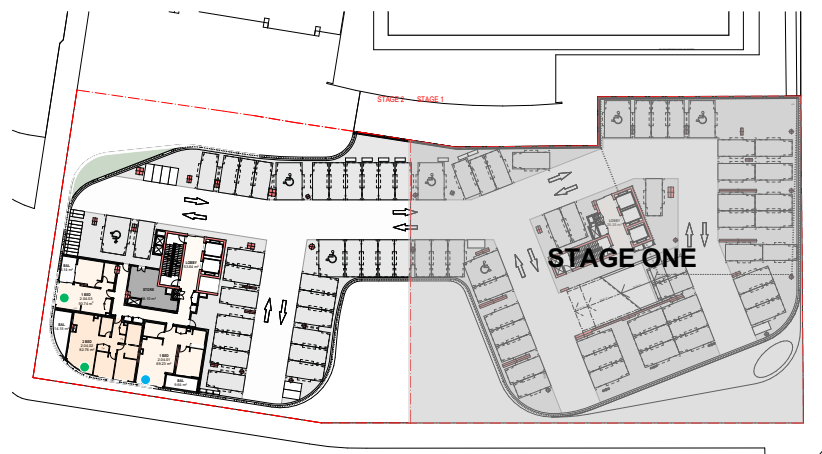
08



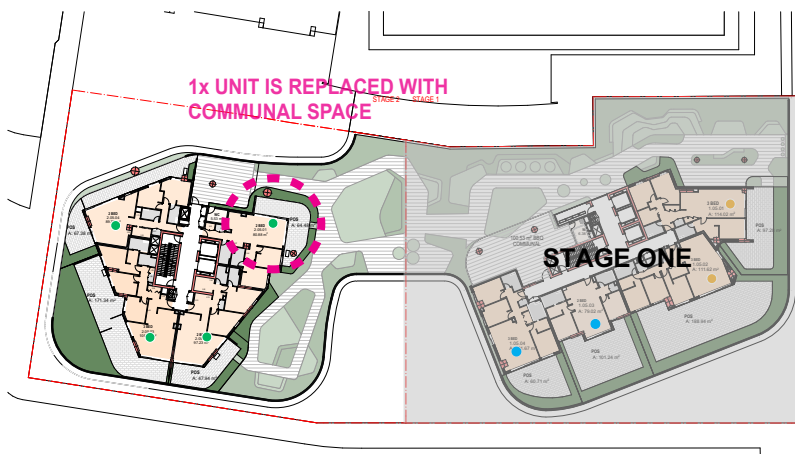
09



10



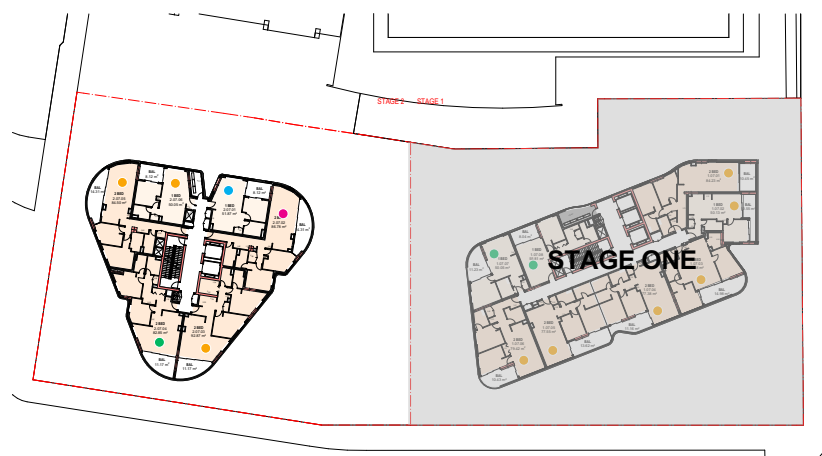
05



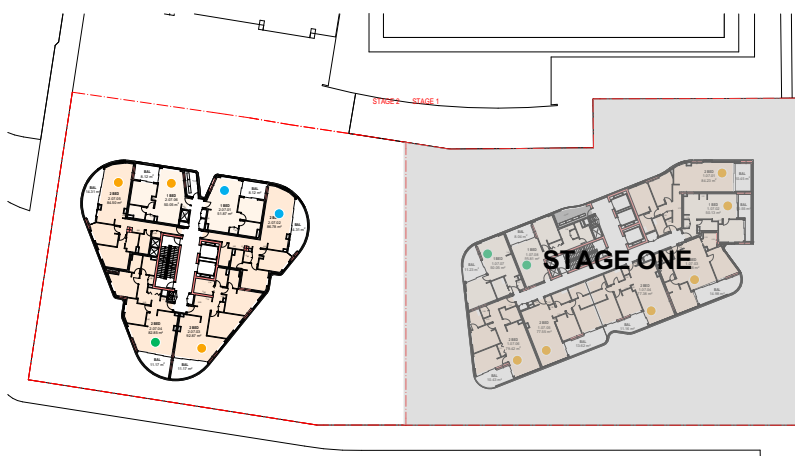
06



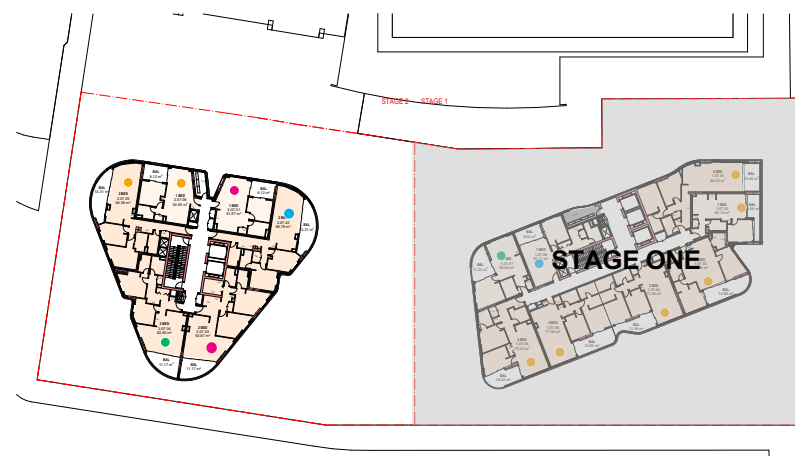
07



01



03



04

STAGE 2		
	Unit Comply	Total Unit
LEVEL 1	0	3
LEVEL 2	0	3
LEVEL 3	0	3
LEVEL 4	0	3
LEVEL 5	0	4 3
LEVEL 6	3 2	6
LEVEL 7	3 2	6
LEVEL 8	3 2	6
LEVEL 9	4 2	6
LEVEL 10	4 2	6
LEVEL 11	5 4	6
LEVEL 12	5 4	6
LEVEL 13	5 4	6
LEVEL 14	4 3	5
LEVEL 15	4 3	5
LEVEL 16	4 3	5
LEVEL 17	4 3	5
LEVEL 18	4 3	5
LEVEL 19	4 3	5
LEVEL 20	4	5
LEVEL 21	4	5
LEVEL 22	4	5
LEVEL 23	4	5
LEVEL 24	4	5
LEVEL 25	3	3
TOTAL	79 63	122 121

TOTAL STAGE 1 AND STAGE 2 2 HOURS SOLAR ACCESS	200 176/257	78% 68.5%
TOTAL STAGE 1 AND STAGE 2 NO SOLAR ACCESS	38 37/257	14.7% 14.3%

SOLAR ACCESS 21 JUN 9AM TO 3PM	
●	ACHIEVE 2 HOURS SOLAR ACCESS
●	LESS THAN 2 HOURS SOLAR ACCESS
●	ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
●	NO SOLAR ACCESS

DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%

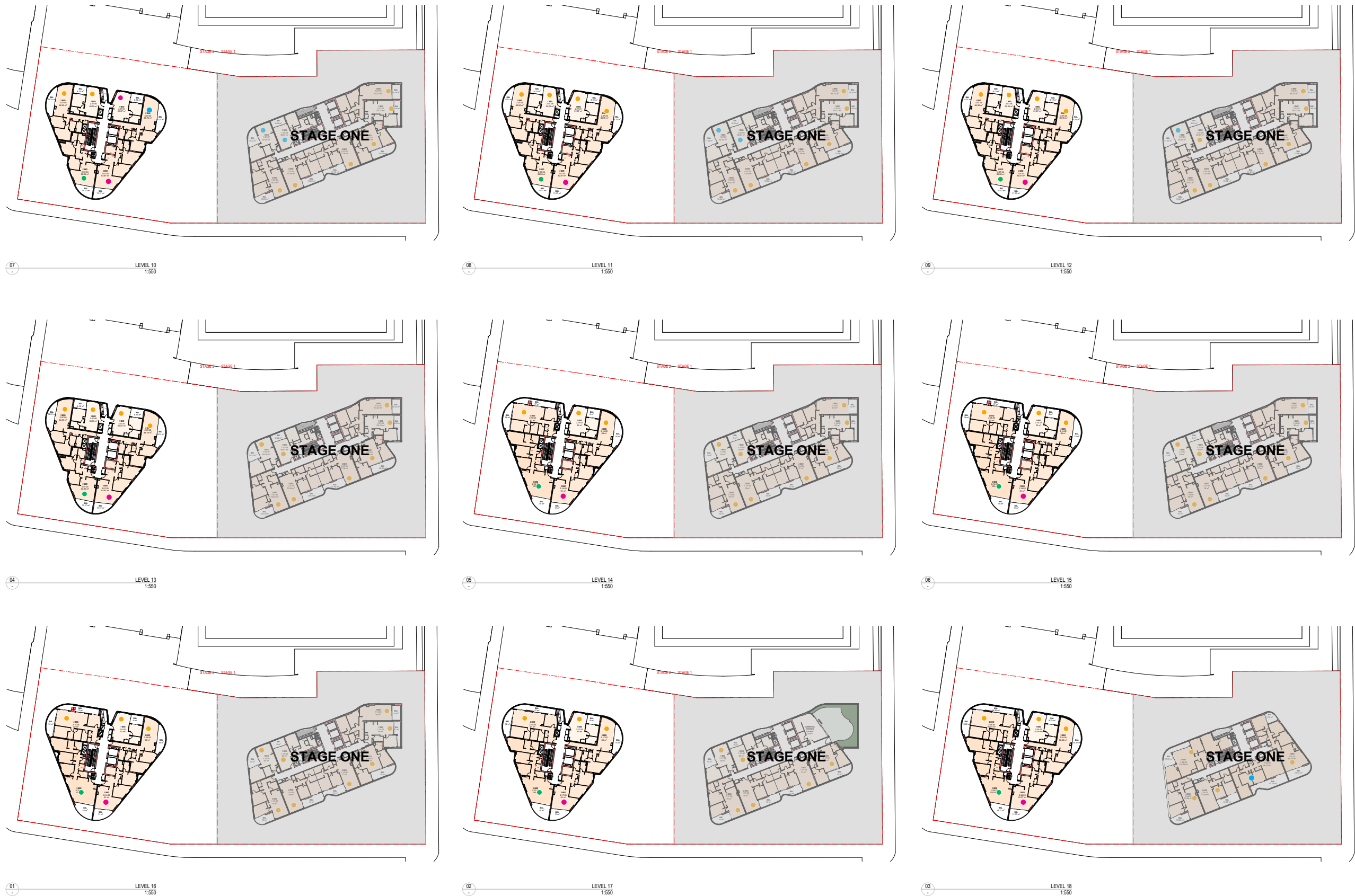
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%

Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%

2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

DA RESPONSE

STAGE 2 SOLAR ACCESS LEVELS 10-18: FINAL ASSESSMENT



STAGE 2		
	Unit Comply	Total Unit
LEVEL 1	0	3
LEVEL 2	0	3
LEVEL 3	0	3
LEVEL 4	0	3
LEVEL 5	0	4
LEVEL 6	3	6
LEVEL 7	3	6
LEVEL 8	3	6
LEVEL 9	4	6
LEVEL 10	4	6
LEVEL 11	5	6
LEVEL 12	5	6
LEVEL 13	5	6
LEVEL 14	4	5
LEVEL 15	4	5
LEVEL 16	4	5
LEVEL 17	4	5
LEVEL 18	4	5
LEVEL 19	4	5
LEVEL 20	4	5
LEVEL 21	4	5
LEVEL 22	4	5
LEVEL 23	4	5
LEVEL 24	4	5
LEVEL 25	3	3
TOTAL	79	121

TOTAL STAGE 1 AND STAGE 2 2 HOURS SOLAR ACCESS	200	176/257	78%	68.5%
TOTAL STAGE 1 AND STAGE 2 NO SOLAR ACCESS	38	37/257	14.7%	14.3%

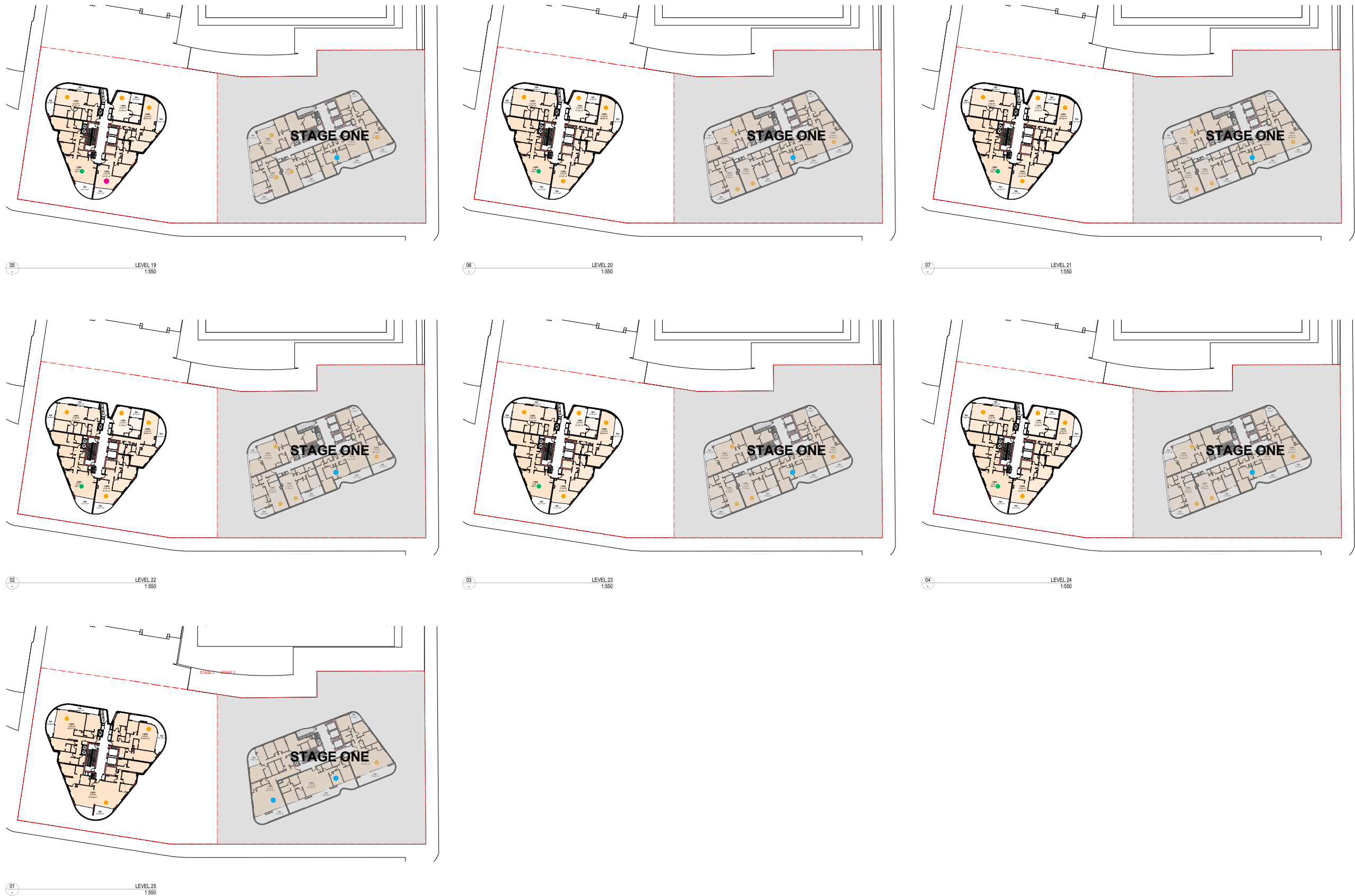
SOLAR ACCESS 21 JUN 9AM TO 3PM

- ACHIEVE 2 HOURS SOLAR ACCESS
- LESS THAN 2 HOURS SOLAR ACCESS
- ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
- NO SOLAR ACCESS

DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%
2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

DA RESPONSE

STAGE 2 SOLAR ACCESS LEVELS 19-25: *REVISED* ASSESSMENT



STAGE 2		
	Unit Comply	Total Unit
LEVEL 1	0	3
LEVEL 2	0	3
LEVEL 3	0	3
LEVEL 4	0	3
LEVEL 5	0	4 3
LEVEL 6	3 2	6
LEVEL 7	3 2	6
LEVEL 8	3 2	6
LEVEL 9	4 2	6
LEVEL 10	4 2	6
LEVEL 11	5 4	6
LEVEL 12	5 4	6
LEVEL 13	5 4	6
LEVEL 14	4 3	5
LEVEL 15	4 3	5
LEVEL 16	4 3	5
LEVEL 17	4 3	5
LEVEL 18	4 3	5
LEVEL 19	4 3	5
LEVEL 20	4	5
LEVEL 21	4	5
LEVEL 22	4	5
LEVEL 23	4	5
LEVEL 24	4	5
LEVEL 25	3	3
TOTAL	79 63	122 121

TOTAL STAGE 1 AND STAGE 2 2 HOURS SOLAR ACCESS	200 176/257	78% 68.5%
TOTAL STAGE 1 AND STAGE 2 NO SOLAR ACCESS	38 37/257	14.7% 14.3%

SOLAR ACCESS 21 JUN 9AM TO 3PM

- ACHIEVE 2 HOURS SOLAR ACCESS
- LESS THAN 2 HOURS SOLAR ACCESS
- ACHIEVE 2 HOURS SOLAR ACCESS (8AM-4PM)
- NO SOLAR ACCESS

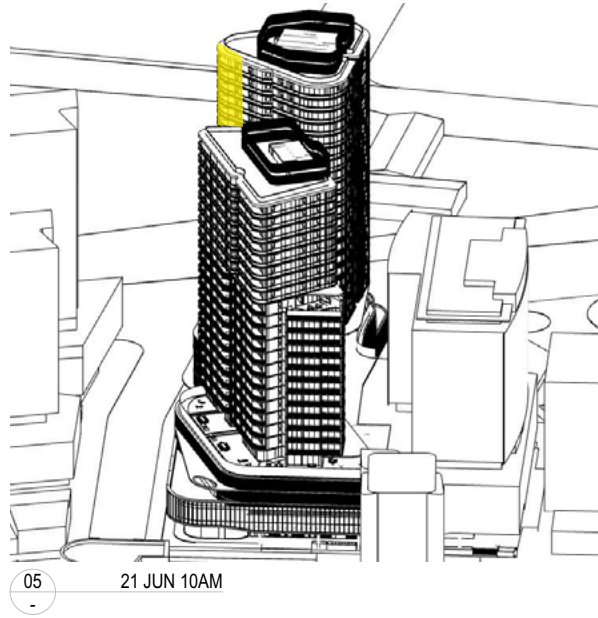
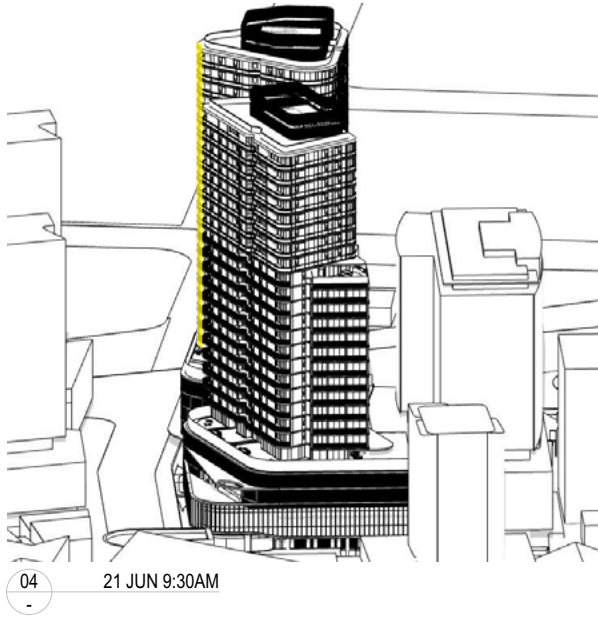
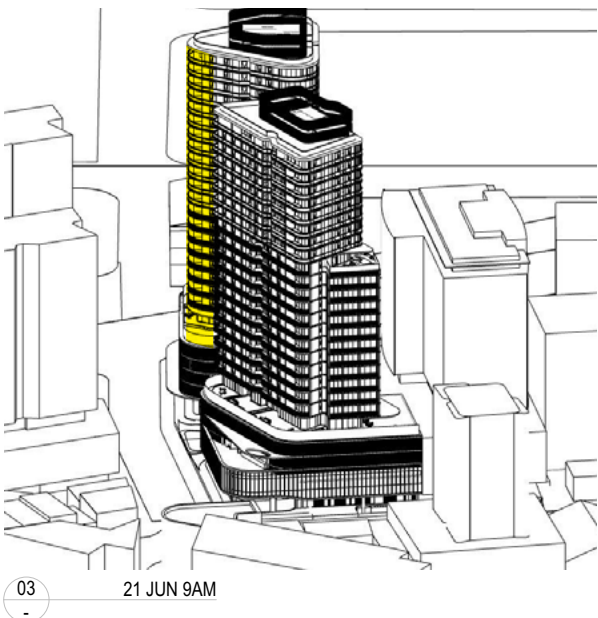
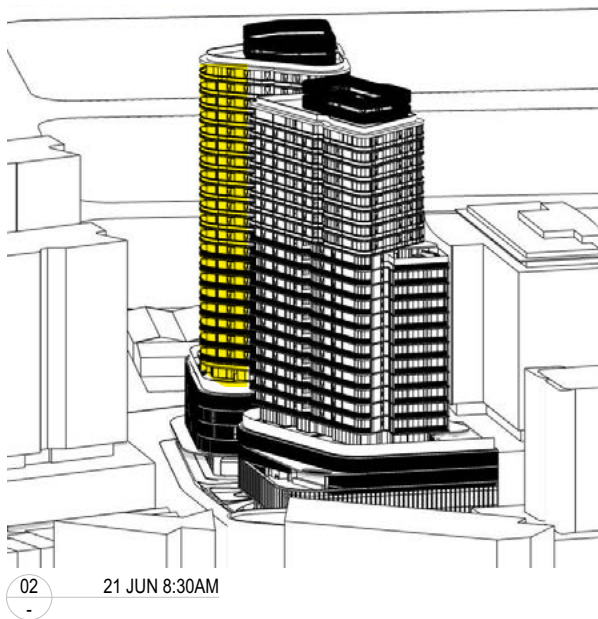
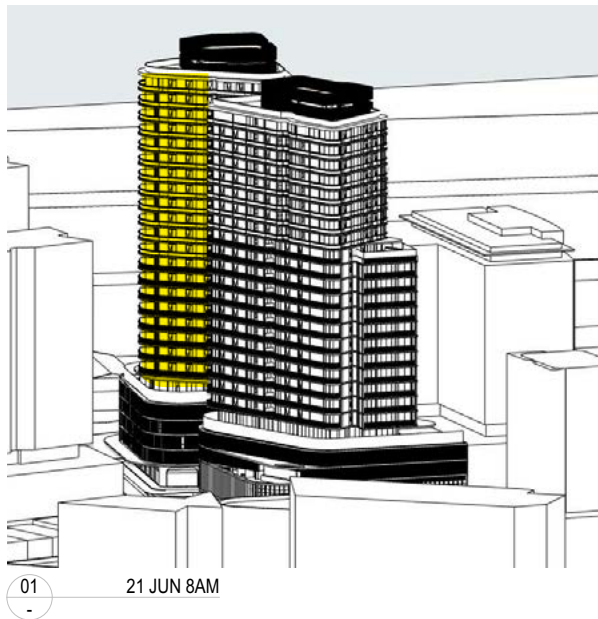
DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%
2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

SOLAR ACCESS

STAGE 02

DA RESPONSE

STAGE 2 SUN EYE VIEWS 8AM - 10AM: *UNITS REQUIRING CLARITY*

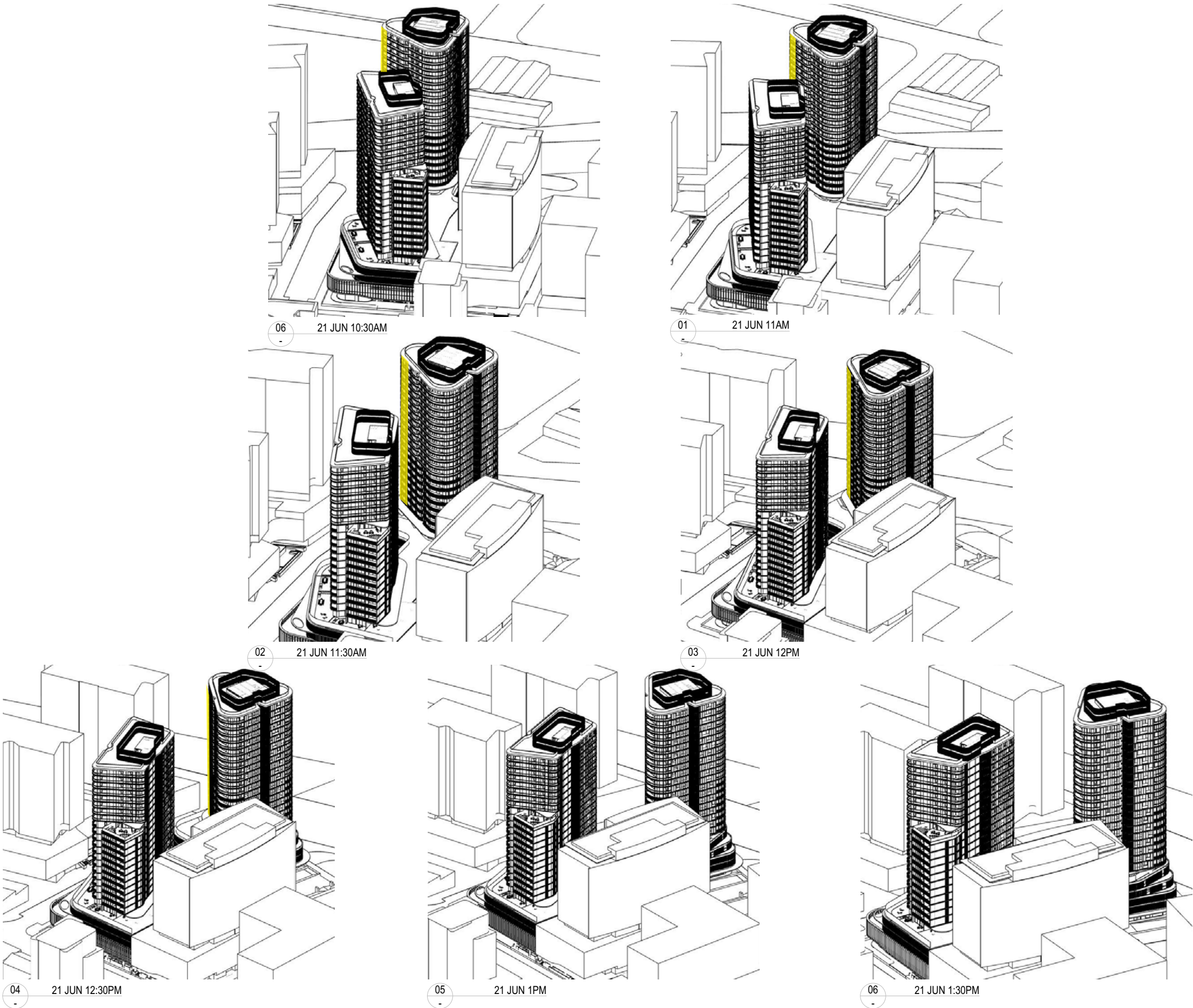


For Stage 2, additional clarity has been provided in response to Council's independent review for 17 units to demonstrate how they are achieving the required minimum 2hrs to their main internal living space and balconies in mid winter.

Most of these are situated on the north east facade which are indicated in the sun eye views to get direct sun around 9-9.30am, and between 11am and 12.30pm, and can achieve more continuous hours from 8am.

DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

STAGE 2 SUN EYE VIEWS 10:30PM - 1:30PM: *UNITS REQUIRING CLARITY*



For Stage 2, additional clarity has been provided in response to Council's independent review for 17 units to demonstrate how they are achieving the required minimum 2hrs to their main internal living space and balconies in mid winter.

Most of these are situated on the north east facade which are indicated in the sun eye views to get direct sun around 9-9.30am, and between 11am and 12.30pm, and can achieve more continuous hours from 8am.

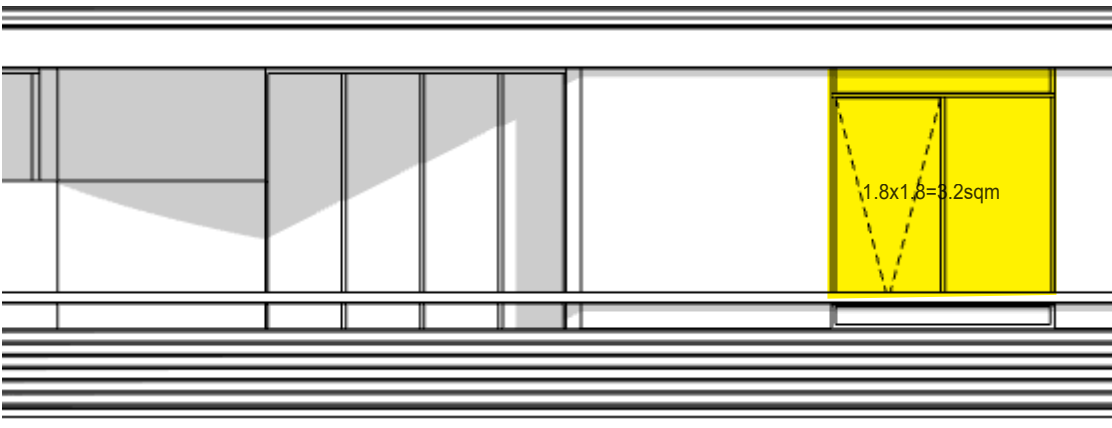
DA assessment	
Stage 1 121/136	89%
Stage 2 79/122	65%
TOTAL 200/258	78%
No Solar 38/258	14.7%
Council assessment	
Stage 1 63/136	46.3%
Stage 2 62/122	50.8%
TOTAL 125/258	48.4%
No Solar 42/258	16.3%
Final assessment	
2hrs 9am-3pm	
Stage 1 112/136	82.3%
Stage 2 63/121	52.1%
TOTAL 176/257	68.1%
No Solar 37/257	14.4%
2hrs 8:25am-3:30pm	
Stage 1 112/136	82.3%
Stage 2 80/121	66.1%
TOTAL 192/257	74.7%

DA RESPONSE

STAGE 2 LEVEL 6-19: TYPICAL UNITS DETAILED ANALYSIS



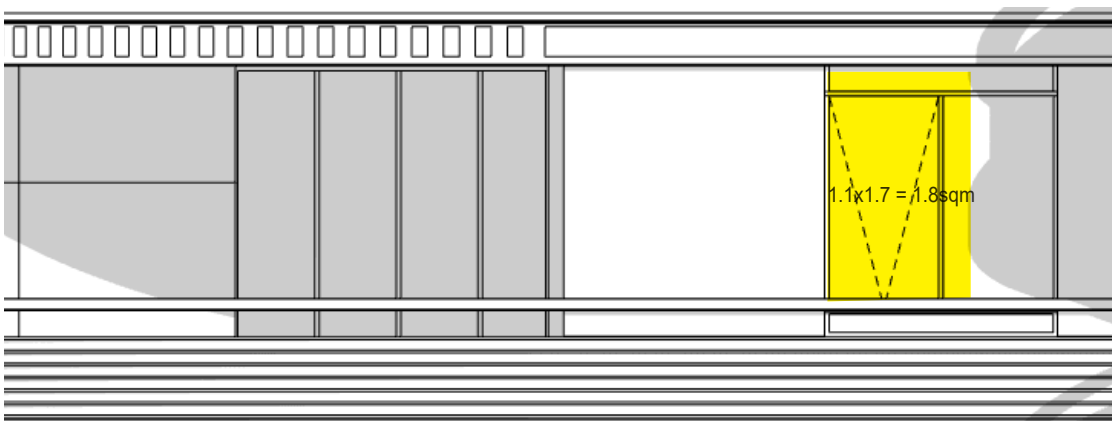
21 JUN 8:25AM SUN EYE VIEW



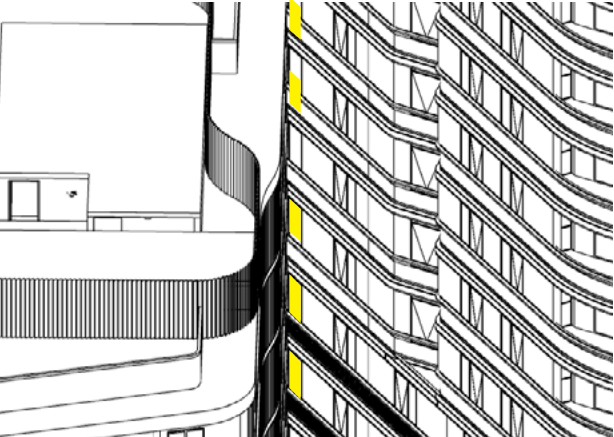
21 JUN 8:25AM ELEVATIONAL VIEW



21 JUN 9:00AM SUN EYE VIEW



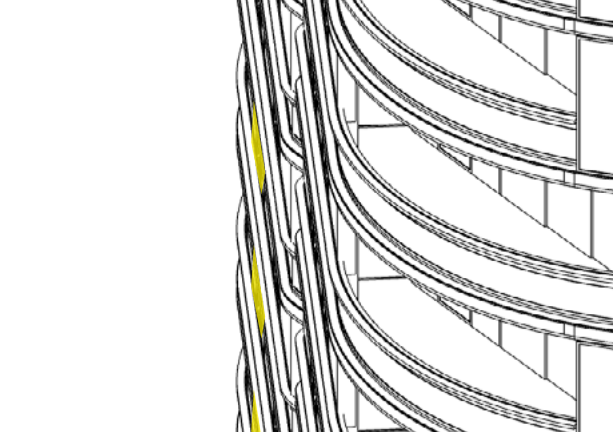
21 JUN 9AM ELEVATIONAL VIEW



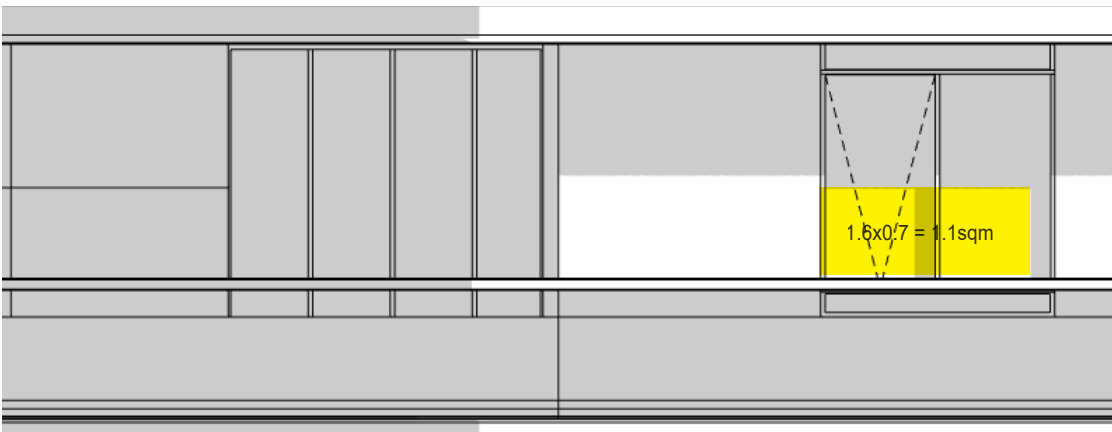
21 JUN 11:15AM SUN EYE VIEW



21 JUN 11:15AM ELEVATIONAL VIEW



21 JUN 12:40PM SUN EYE VIEW



21 JUN 12:40PM ELEVATIONAL VIEW

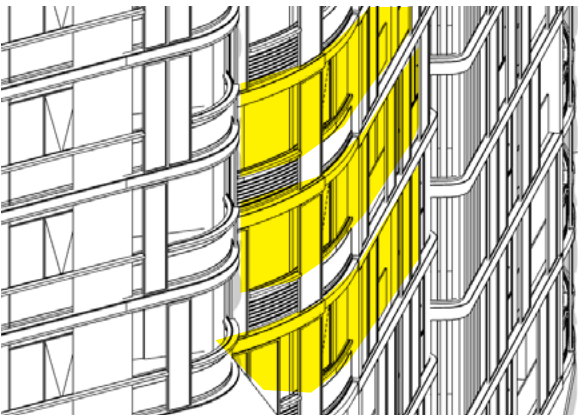


A detailed study shows that this north eastern unit can 35 minutes of direct sunlight to a minimum of 1sqm above 1m between 8:25am and 9am, and 1hour and 25 minutes between 11.15am and 12.40pm.

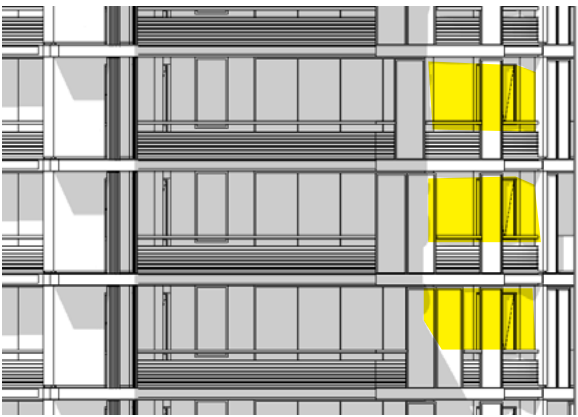
DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

DA RESPONSE

STAGE 2 LEVEL 9-11: TYPICAL UNITS DETAILED ANALYSIS



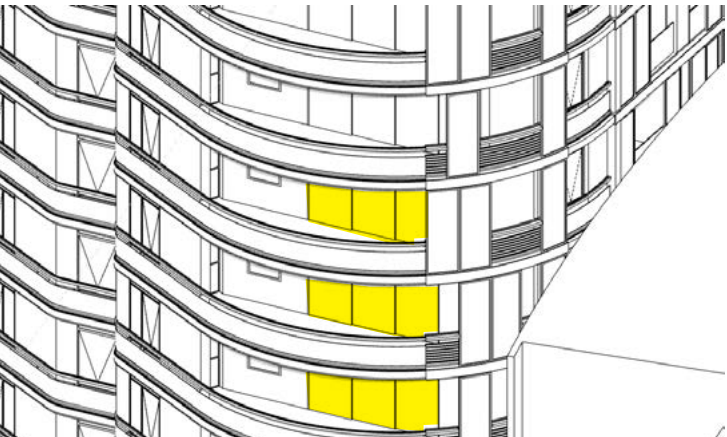
21 JUN 10:00AM SUN EYE VIEW



21 JUN10:00AM ELEVATIONAL VIEW NORTH



21 JUN10:00AM ELEVATIONAL VIEW WEST



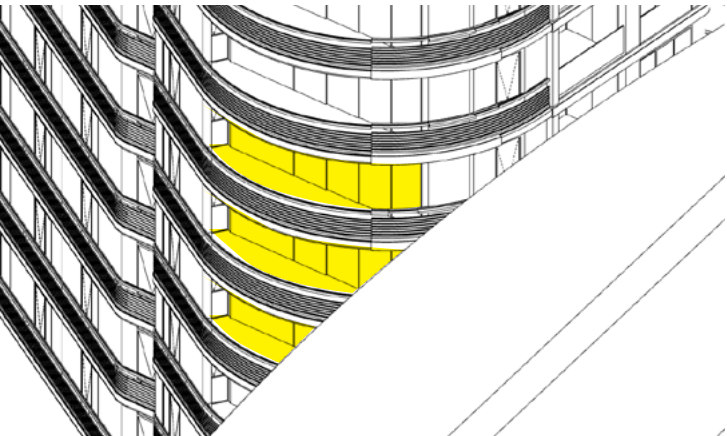
21 JUN 11AM SUN EYE VIEW



21 JUN 11AM ELEVATIONAL VIEW NORTH



21 JUN 11AM ELEVATIONAL VIEW WEST



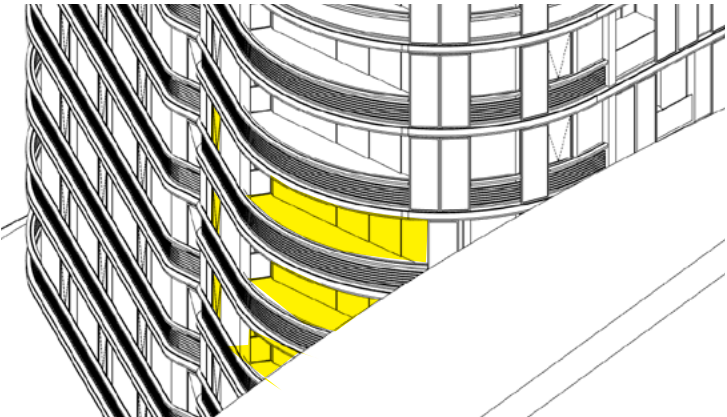
21 JUN 11:30AM SUN EYE VIEW



21 JUN 11AM ELEVATIONAL VIEW NORTH



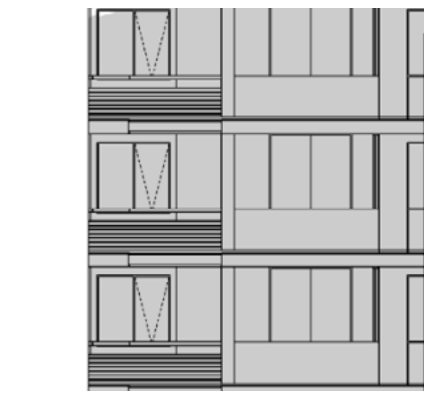
21 JUN 11AM ELEVATIONAL VIEW WEST



21 JUN 12PM SUN EYE VIEW



21 JUN 12PM ELEVATIONAL VIEW NORTH



21 JUN 12PM ELEVATIONAL VIEW WEST

Units at the northwest corner between levels 9-11 are impacted by the adjacent building. These detailed studies demonstrate that the living rooms and balconies are receiving direct solar for 2hrs between 10-12pm.

Living rooms:		Balconies:	
L9 unit:			
1hr 10-11:00am		2hrs min. 10-12pm	
L10 unit:			
1.5hrs 10-11:30am		2hrs min. 10-12pm	
L11 unit:			
2hrs 10-12pm		2hrs min. 10-12pm	

DA assessment		
Stage 1	121/136	89%
Stage 2	79/122	65%
TOTAL	200/258	78%
No Solar	38/258	14.7%
Council assessment		
Stage 1	63/136	46.3%
Stage 2	62/122	50.8%
TOTAL	125/258	48.4%
No Solar	42/258	16.3%
Final assessment		
2hrs 9am-3pm		
Stage 1	112/136	82.3%
Stage 2	63/121	52.1%
TOTAL	176/257	68.1%
No Solar	37/257	14.4%
2hrs 8:25am-3:30pm		
Stage 1	112/136	82.3%
Stage 2	80/121	66.1%
TOTAL	192/257	74.7%

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