ETHOS URBAN

ACN. 615 087 931

173-185 Sussex St
Sydney NSW 2000

E. info@ethosurban.com.au
W. ethosurban.com.au

T. +61 2 9956 6962

Smart people, people smart.

Our Ref:18-6410

19 June 2018

General Manager
Blacktown City Council
62 Flushcombe Road
Blacktown NSW 2148

Attention: Ms Holly Palmer

Dear Holly,

JRPP-16 -04459 – Impacts of a future development of the Department of Housing land on the proposal at 26 Second Avenue, Blacktown NSW

1.1 Introduction

We refer to the above matter which was considered at the Sydney Central City Planning Panel (the 'panel') at is meeting on 24 May 2018. The matter was deferred at this meeting by the panel for the following reasons:

1. *To enable Blacktown City Council to assess the amended plans that were lodged on the 24th May 2018.*

2. *To enable the applicant to undertake and provide to Council an assessment of the impacts of future development on the adjoining site to the east (the Department of Housing site) on the subject development proposal. This assessment is to examine shadowing, privacy and outlook impacts. The hypothetical future development on the adjoining site is to assume 12m separation between buildings above the podium levels and compliance with front and rear setbacks as given in Blacktown Development Control Plan 2015.*

This submission addresses item 2 of the panel's decision. It is to be read in conjunction with the solar penetration analysis prepared by the project architect Conrad Gargett Ancher Mortlock Woolley, which is provided in **Appendix A and B**.

1.2 Shadow/solar analysis

Impact on the proposal by a future development of the Department of Housing (DoH) land

A future building envelope on the Department of Housing (DoH) land to the east of our client's site, which is the subject of development application JRPP-16-04459 at 26 Second Avenue, Blacktown (the 'site') has assumed a nil setback for a 3-storey podium. A 6m setback has been included for the tower component above the podium for the front, rear and eastern boundaries, which comply with the Blacktown Development Control Plan (BDCP). A 9m setback is provided to the eastern and common boundary with our clients' site for reasons as outlined below.

The building envelope assumed on the DoH land, which takes into account the above setbacks, achieves the maximum permitted FSR of 8.5:1 and building height of 72m under Blacktown Local Environmental Plan 2015 (BLEP 2015). An assessment of the shadow/solar impacts of a future building envelope on the DoH land, where a separation of 12m was provided between assumed habitable rooms and balconies and those of the proposed development on our clients' site, demonstrated that achieving the

ETHOS URBAN

Apartment Design Guideline (ADG) of at least 70% of the living rooms and private open spaces receiving a minimum of 2 hours of direct sunlight between 9am and 3pm in mid-winter, would not be possible.

To maintain consistency with the 70% ADG guideline, the tower component of a future development on DoH land would need to be separated from our clients' proposal at least 13.5m. This equates to a common side boundary setback requirement of 9m with our clients' site.

We submit that increasing the separation by an additional 1.5m to 13.5m does not result in an unreasonable outcome or constrain a future development on the DoH land for the following reasons:

- The building envelope provided for a future development on the DoH land is a simple box form and represents an unrefined design. The final built form for the tower could be designed such that it has, for example, a curved façade which may allow for solar access to our clients' site in excess of the 70% guideline

- The maximum FSR and building height for a future envelope is not compromised by the separation distance of 13.5m to our clients' proposal

- A 13.5m separation and/or a 9m setback for the tower of a future development on the DoH land is also a concession with respect to the ADG guideline, which technically recommends a 12m setback apply for the building height possible on this site. The same concessions have been provided on 28 Second Avenue and our clients proposal. The size of the DoH land, which is unconstrained allows for a greater separation.

Impact of the proposal on a future development on the DoH land

An assessment of the potential solar access impact of our clients' proposal on the future building envelope described above on the DoH land has also been undertaken (**see Appendix B**). This is, as also described above, very unlikely to be the final built form. The final elevations are likely to be curved stepped or angled and, therefore, improving the outcome presented below.

A shadow analysis has been undertaken from 10.30am in mid-winter to 3pm. The reason the assessment from 9am was not undertaken is that our clients' proposal would result in no overshadowing of the DoH land until after 10.30am given the north-south orientation of the two sites.

A future tower above a 3-storey podium on the DoH land, would not receive any overshadowing from our clients' proposal until 12.30pm on its western elevation only. The extent of overshadowing at this time would equate to less than 25% of its total area. Over half the western elevation of a future tower on DoH land would still receive solar access between 12.30pm and 1.30pm. By 3pm approximately 25% of the western elevation would still receive solar access.

The worst-case scenario presented in this assessment demonstrates that our clients' proposal will not reduce the solar access to any unit of the assumed future development of DoH land to less than 2hours between 9am and 3pm in mid-winter. Moreover, it is anticipated that our clients' proposal would not hinder a future development on the DoH land attaining solar access to more than 70% of the total apartments.

It is also not unreasonable to expect that any future design on the DoH land will have regard for its constraints, which are far less that our clients' site, and be refined to comfortably achieve acceptable amenity outcomes sought within the ADG.

ETHOS
URBAN

1.3 Privacy

It is difficult to determine what the final built form and the what the western elevation of the tower on the DoH land may look like. However, much like how the design of our clients' proposal has had to respond and have regard for the existing development on 28 Second Avenue, the onus will be on the future developer of the DoH land to have regard for the constraints on adjoining properties. This will include the built form presented by our clients' proposal. The future design will need to take into consideration providing adequate separation, off-setting balconies and the orientation of primary internal living spaces as required by the Apartment Design Guide (ADG) to mitigate adverse privacy and/or amenity. The DoH land has twice the width and area as our clients' site, which enables the future design of its development to address privacy and overlooking issues within the configuration of its own façade system.

Furthermore, a separation of greater than 13.5m may be required by Council in assessing a future DA on the DoH land, based on providing potential concessions on other setbacks where a more positive outcome may be achieved in terms of maintaining adequate visual privacy.

1.4 Outlook

The same can be said as that outlined for privacy above. By off-setting habitable windows and balconies with our clients' development a reasonable outlook can still be maintained when combined with the relatively unhindered separation possible for a development on the DoH land.

Given the DoH land has limited constraints, one would envisage that a future development would attempt to take as much advantage of its exposure to its unobstructed northern aspect. Hence, it may be possible that the number of units in a future tower on the DoH land are not actually orientated towards our clients' proposal.

2.0 Conclusion

The project architect has developed a worst-case scenario-built form for the adjoining DoH land with setbacks complying with the BDCP and achieving the maximum FSR and building height permitted under BLEP 2015. The panel sought that an assessment of the impacts of solar access, privacy and outlook on our clients' proposal be undertaken on the basis that the future development on the DoH land was separated 12m from our clients' proposal on the adjoining site at 26 Second Avenue, Blacktown.

The assessment revealed that a 12m separation would not result in our clients' proposal maintaining the minimum 70% solar access guideline in the ADG. However, by relocating potential tower on the DoH land an additional 1.5m to provide a 13.5m separation, the guidelines for solar access would still be achieved.

It has also been demonstrated that our clients' proposal would not hinder a future development on DoH land meeting the acceptable solar access outcomes in the ADG.

Although it is difficult to envisage the final built form of the tower on the DoH land, we submit that privacy impacts can be off set through appropriate design responses, much like in the manner our clients' proposal has had to respond to the existing development at 28 Second Avenue. In terms of outlook, the same principles adopted for privacy will aid in providing an adequate outcome in this regard. Moreover, it's possible that many of the units in a future development on DoH land will be orientated to take advantage of the northern aspect available and not towards our clients' development.

ETHOS
URBAN

In essence, unlike our clients' site, a future development on the DoH land is relatively unrestricted and provides for greater flexibility in terms of addressing impacts on existing and future adjoining development.

If you seek any further clarification on matters contained herein or required additional information, please don't hesitate to contact the undersigned on 0419193259.

Yours sincerely

Ben Haynes
Director, Planning

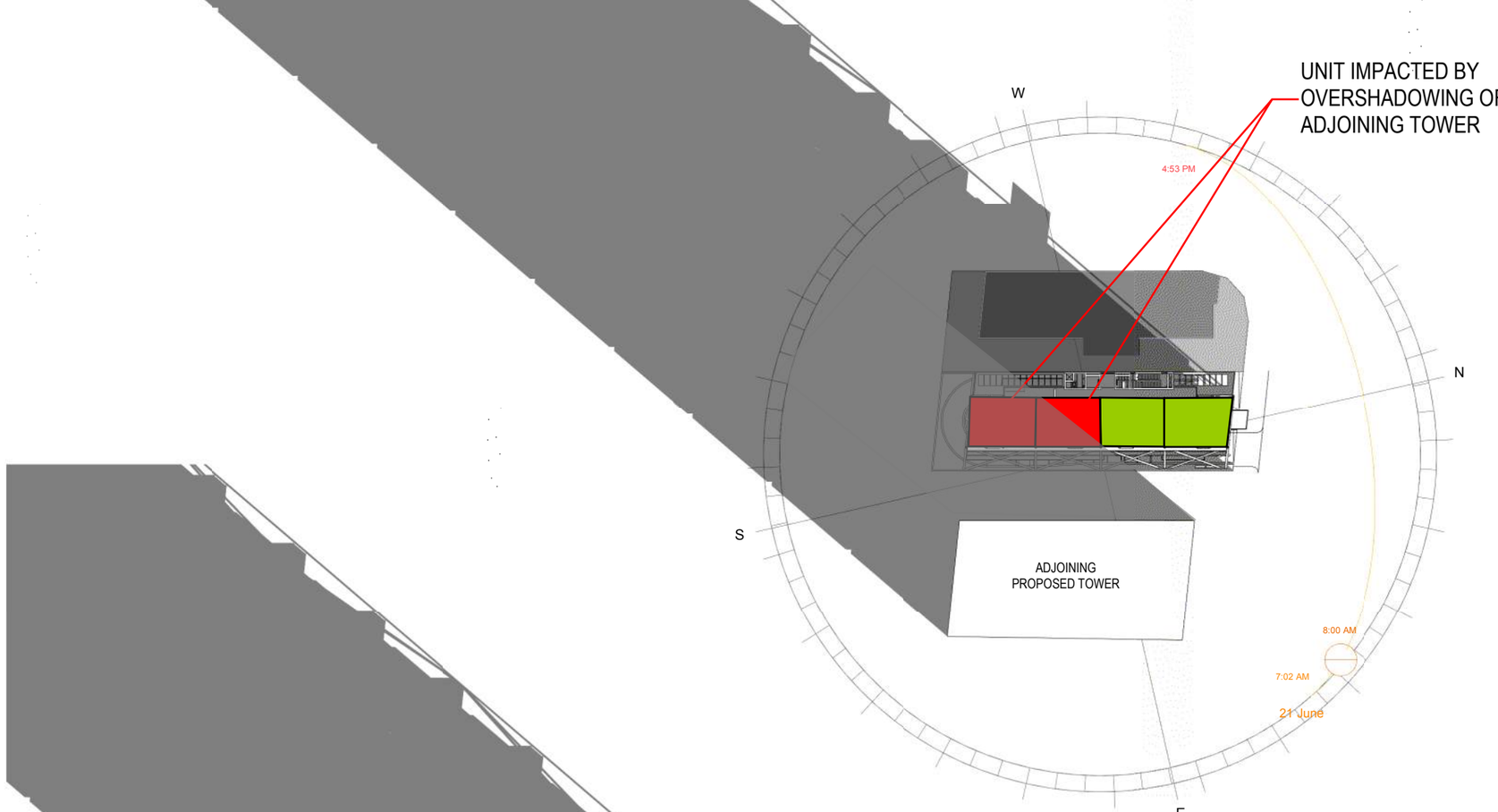
ETHOS
URBAN

Appendix A.

OVERSHADOWING STUDY OF ADJOINING PROPOSED TOWER

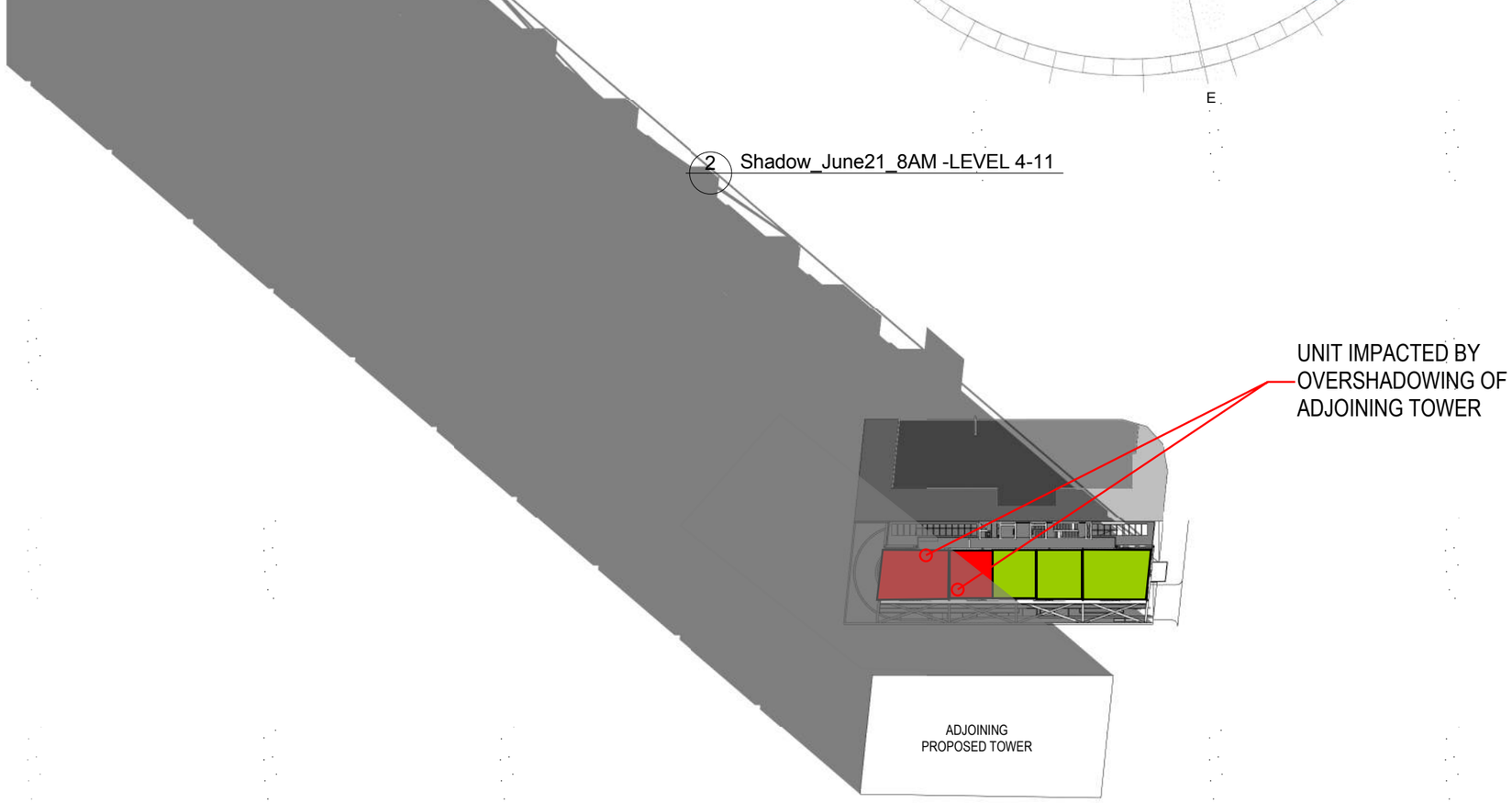
SITE PLAN

8 AM -21 JUNE
LEVEL 2 -11



2 Shadow_June21_8AM -LEVEL 4-11

8 AM -21 JUNE
LEVEL 12-21



1 Shadow_June21_8AM

5 0 5 10 15 20 25
SCALE 500 @ A1. m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

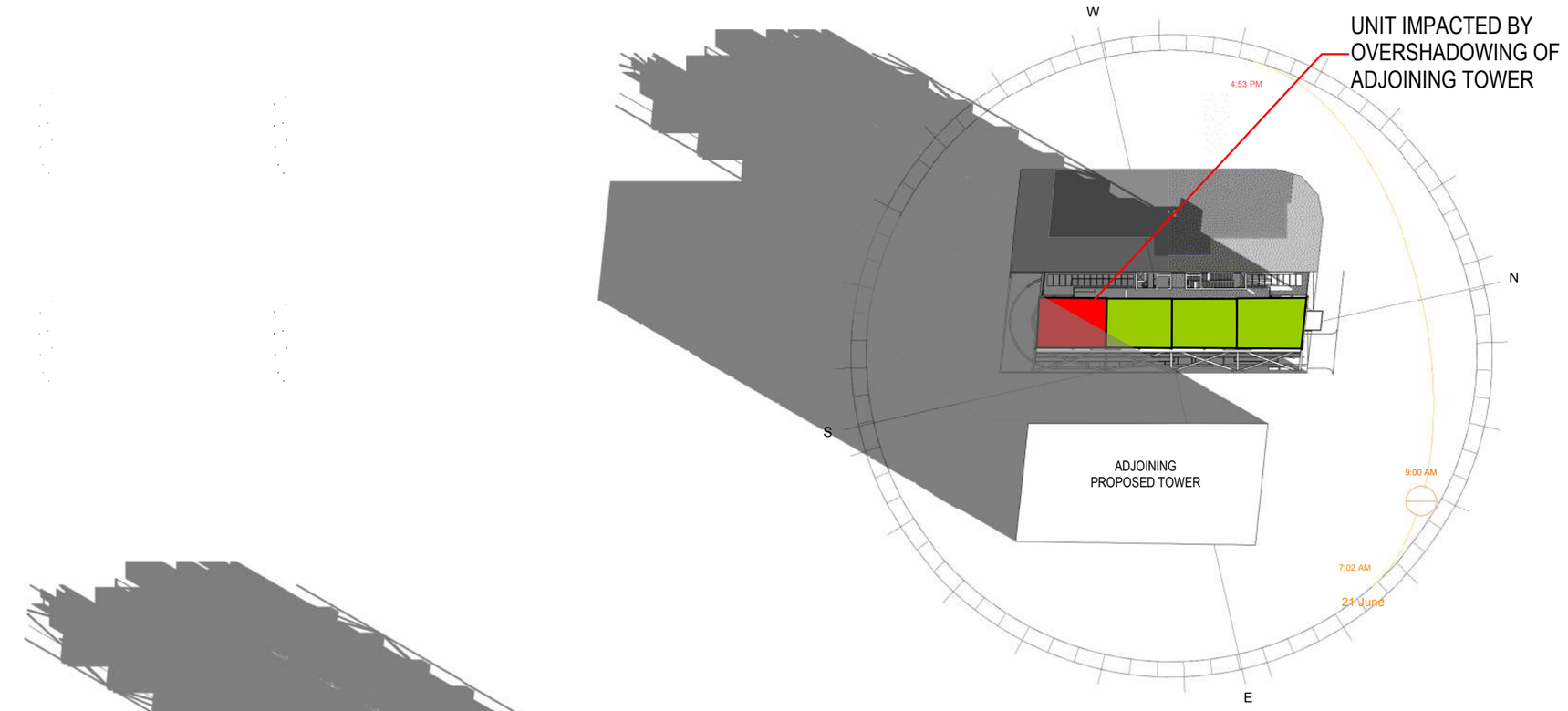
PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Analysis - Winter Solstice

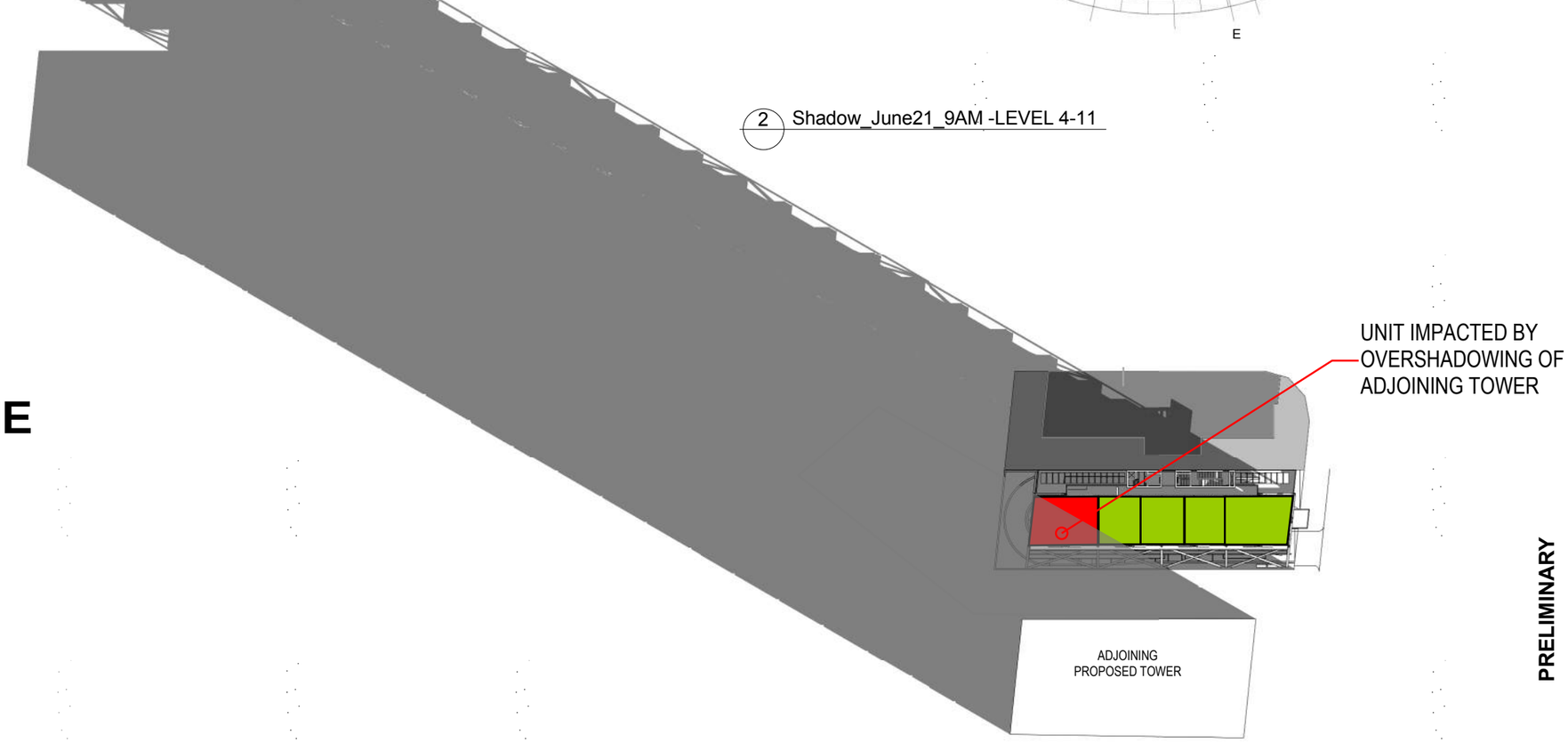
PROJECT No: 15 323
STATUS: SD
DRAWING No: A9903
REV:
A1 SCALE

9 AM - 21 JUNE
LEVEL 2 -11



2 Shadow_June21_9AM -LEVEL 4-11

9 AM - 21 JUNE
LEVEL 12-21



1 Shadow_June21_9AM -LEVEL 12-22

5 0 5 10 15 20 25
SCALE 500 @ A1. m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

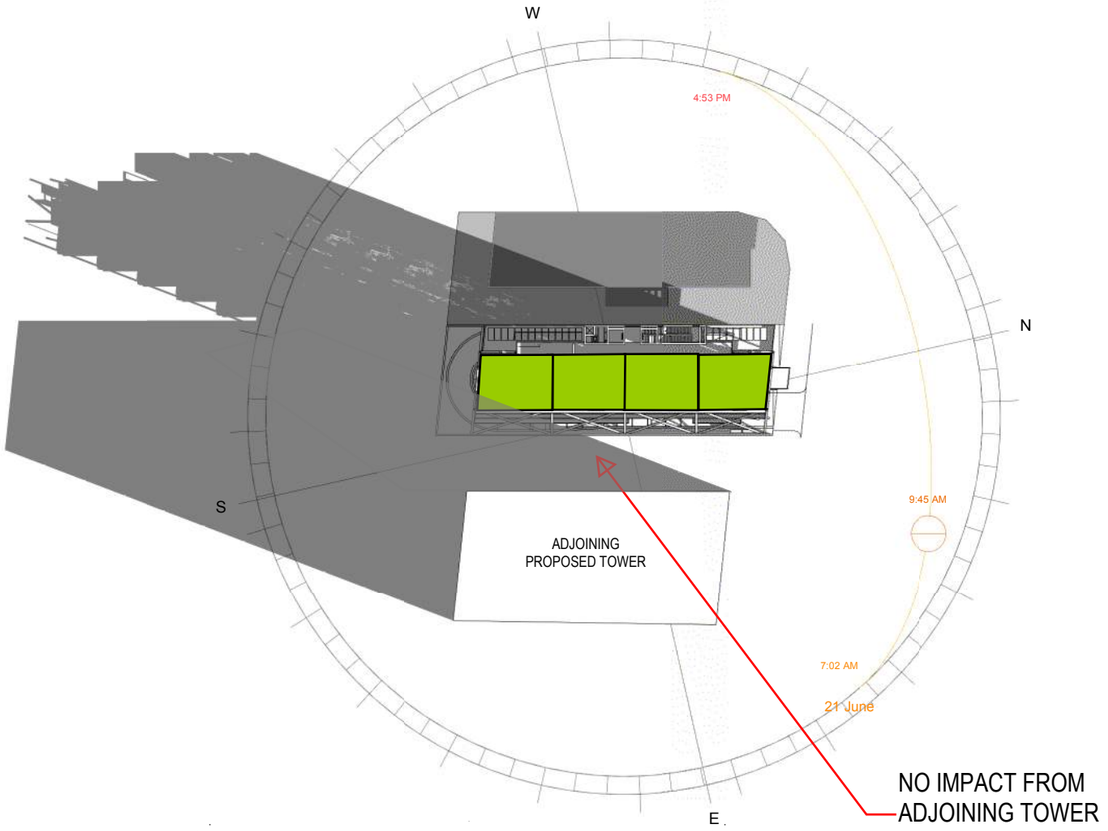
PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Analysis - Winter Solstice

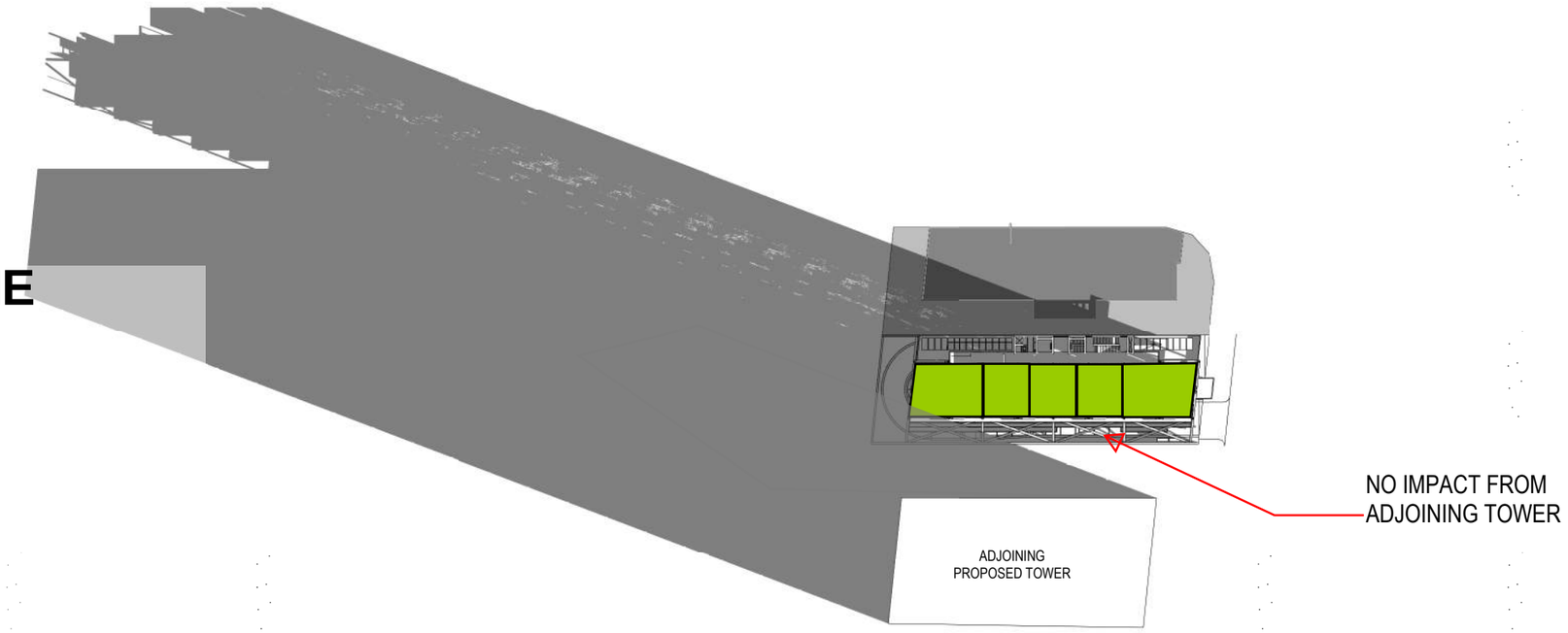
PROJECT No: 15 323
STATUS SD
DRAWING No: A9904
REV:
A1 SCALE

9.45 AM - 21 JUNE
LEVEL 2 -11



2 Shadow_June21_9.45 AM -LEVEL 4-11

9.45 AM - 21 JUNE
LEVEL 12-21



1 Shadow_June21_9.45 AM

5 0 5 10 15 20 25
SCALE 500 @ A1. m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

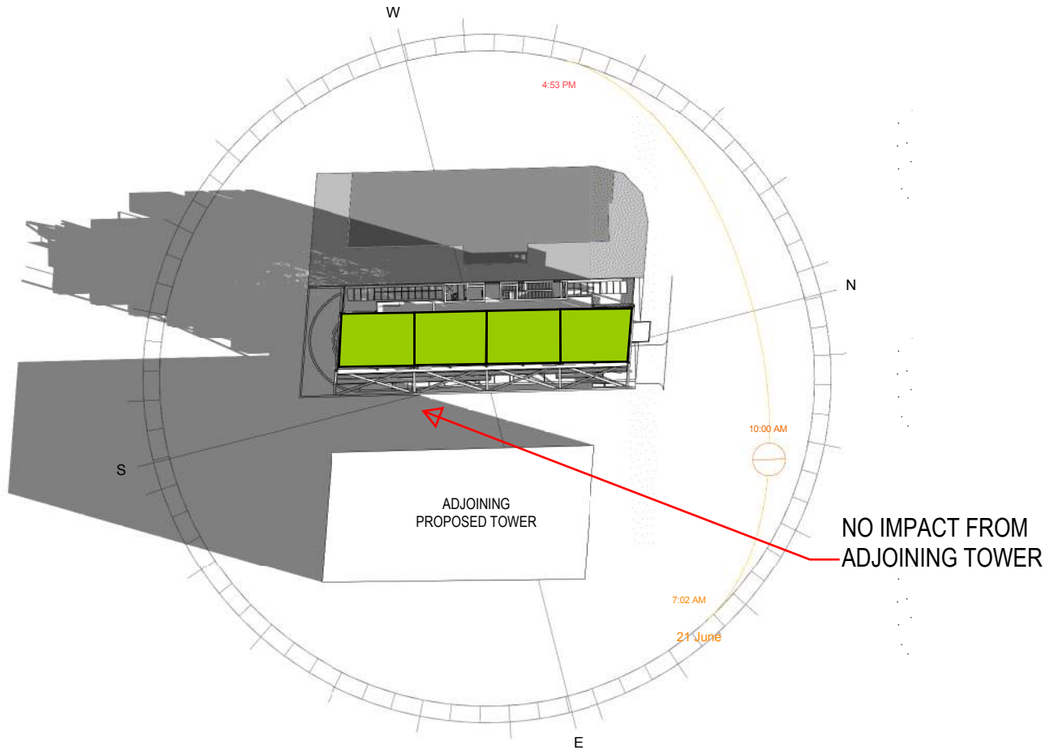
PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Analysis - Winter Solstice

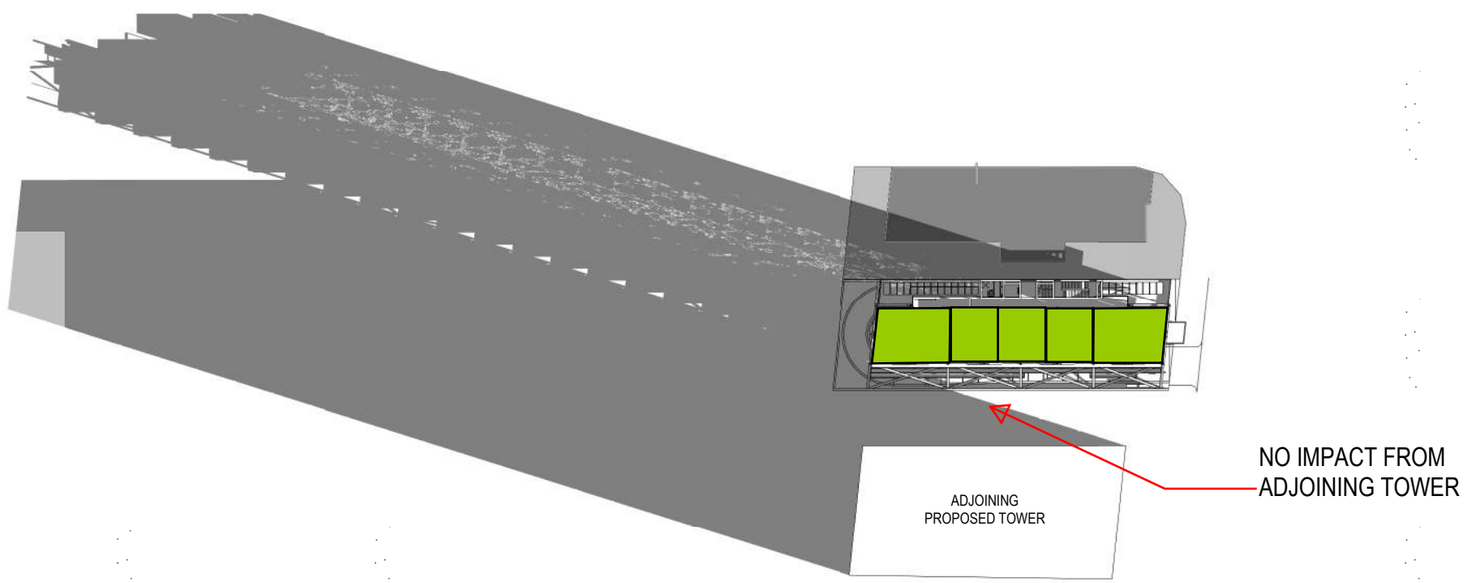
PROJECT No: 15 323
STATUS SD
DRAWING No: A9904A
REV:
A1 SCALE

10 AM - 21 JUNE
LEVEL 2 -11



2 Shadow_June21_10AM-LEVEL 4-11

10 AM - 21 JUNE
LEVEL 12-21



1 Shadow_June21_10AM-LEVEL 12-22

5 0 5 10 15 20 25
SCALE 500 @ A1. m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

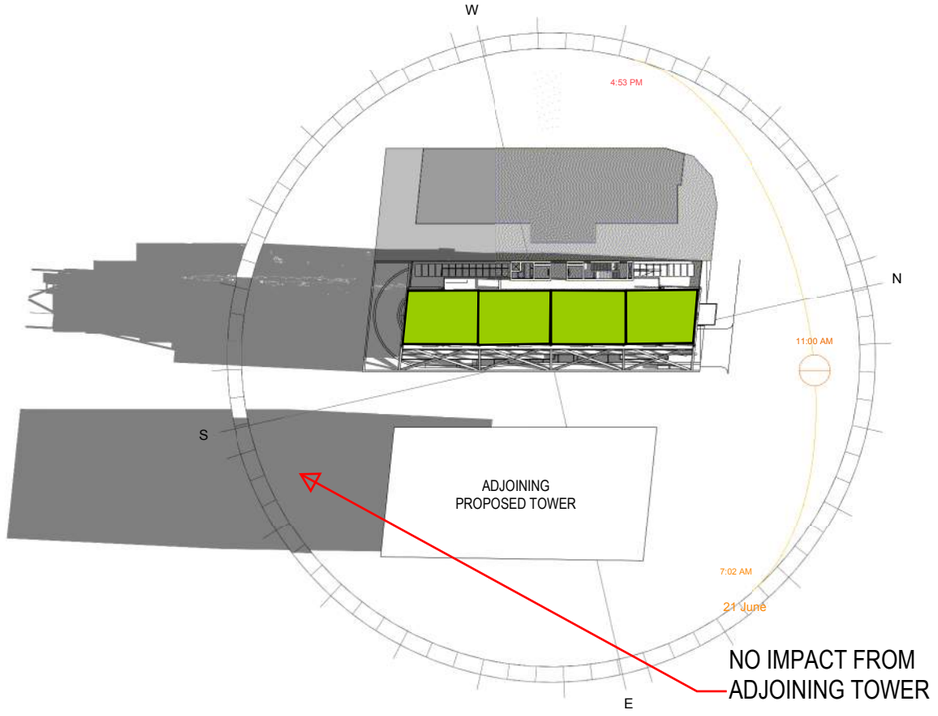
PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Analysis - Winter Solstice

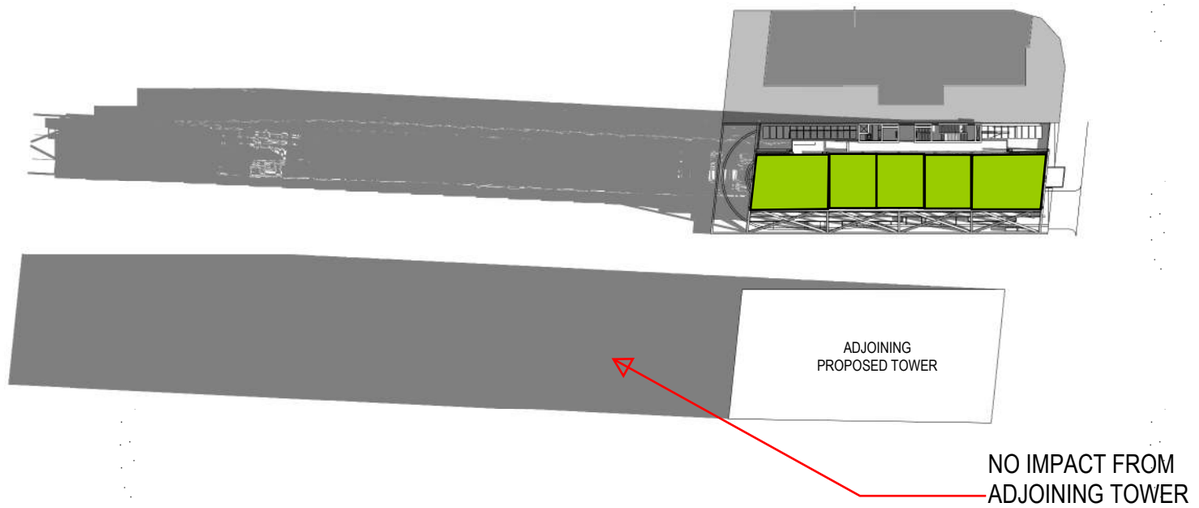
PROJECT No: 15 323
STATUS SD
DRAWING No: A9905
REV:
A1 SCALE

11:00 AM -21 JUNE
LEVEL 2 -11



2 Shadow_June21_11AM - LEVEL 4-11

11:00 AM -21 JUNE
LEVEL 12-21



1 Shadow_June21_11AM - LEVEL 12-22

5 0 5 10 15 20 25
SCALE 500 @ A1. m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

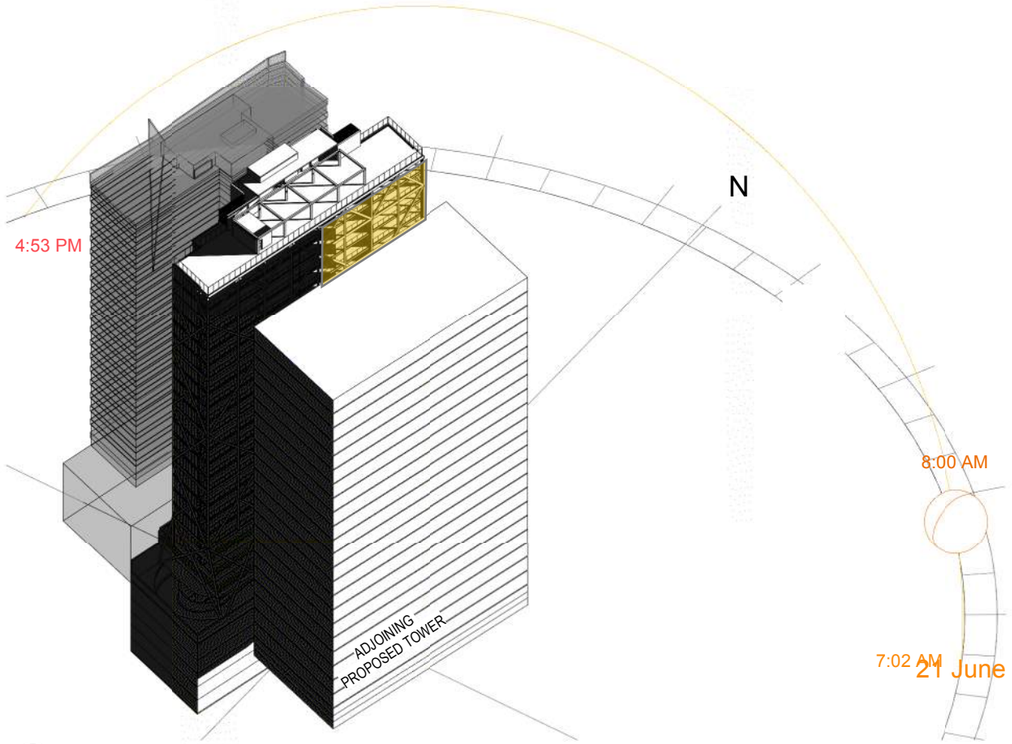
PRELIMINARY

PROJECT
26 Second Avenue, Blacktown

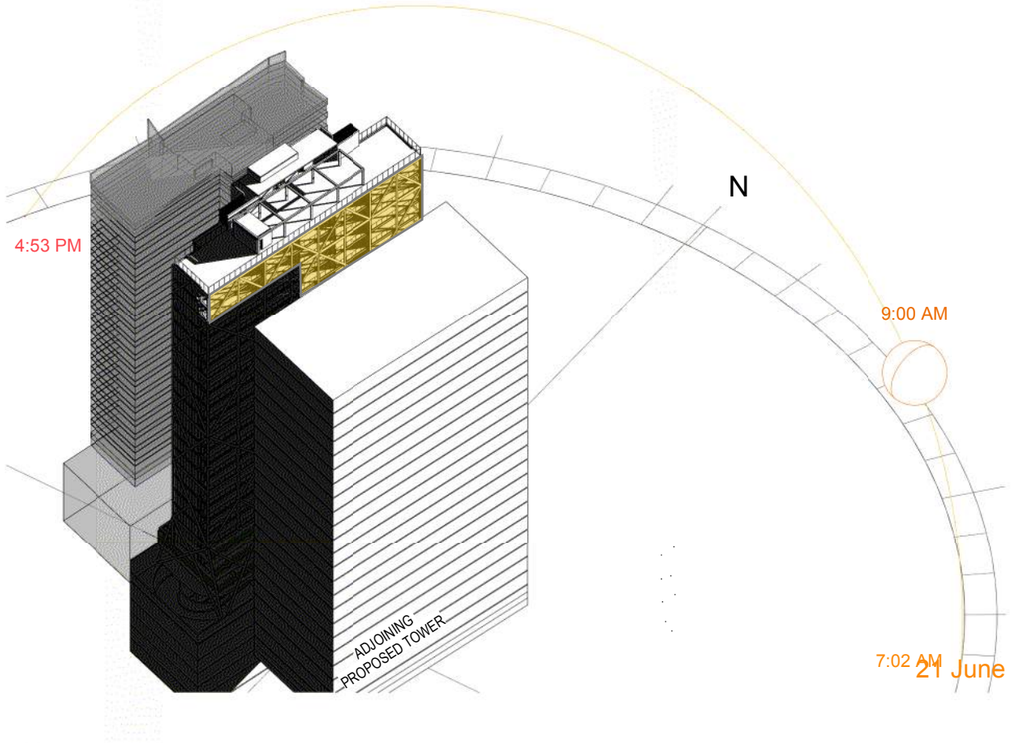
CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Analysis - Winter Solstice

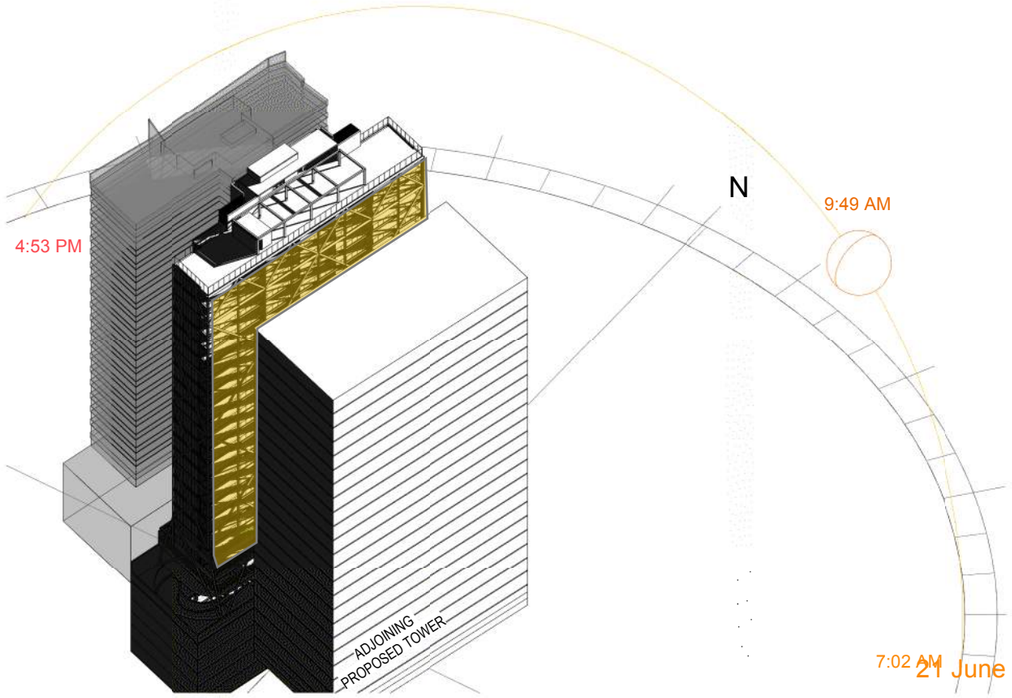
PROJECT No: 15 323
STATUS SD
DRAWING No: A9907
REV:
A1 SCALE



2 Shadow_June21_8AM -facade



1 Shadow_June21_9AM -facade



3 Shadow_June21_9.45-AM -facade

E

10 0 10 20 30 40 50
SCALE 1 @ A1. mm

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Solar Penetration Facade

NORTH

PROJECT No: 15 323
STATUS SD
DRAWING No: A9904B
REV:
A1 SCALE

LEVEL 20-21

UNIT TYPE	WINTER SOLSTICE SUNLIGHT SCHEDULE - (Sun to living rooms and private open spaces)																
	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00
Aa																	
Ab																	
Ac																	
Ca					P	P											
Cb					P	P											
Cc				P	P	P											
D					P	P											
Total (min. 2 hrs 9am - 3pm) - (Dense Urban Area)	All units - 100%																
*P = Sunlight to private open space (balcony) only for these hours																	

LEVEL 20-21
OVERALL UNITS
10
DAYLIGHT ACCESS UNITS
10
PERCENTAGE
100%

LEVEL 12-19

UNIT TYPE	WINTER SOLSTICE SUNLIGHT SCHEDULE - (Sun to living rooms and private open spaces)																
	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00
Aa																	
Ab																	
Ac																	
	units impacted by overshadowing of adjacent proposed building																
Ca					P	P											
Cb					P	P											
Cc				P	P	P											
D					P	P											
Total (min. 2 hrs 9am - 3pm) - (Dense Urban Area)	All units - 100%																
*P = Sunlight to private open space (balcony) only for these hours																	

LEVEL 12-19
OVERALL UNITS
40
DAYLIGHT ACCESS UNITS
24
PERCENTAGE
60%

LEVEL 2-11

UNIT TYPE	WINTER SOLSTICE SUNLIGHT SCHEDULE - (Sun to living rooms and private open spaces)																
	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00
Aa																	
Ab																	
Ac																	
Ba					P	P											
Bb					P	P											
Bc				P	P	P											
Ca					P	P											
Cb					P	P											
Cc				P	P	P											
	units impacted by overshadowing of adjacent proposed building																
Total (min. 2 hrs 9am - 3pm) - (Dense Urban Area)	All units - 100%																
*P = Sunlight to private open space (balcony) only for these hours																	

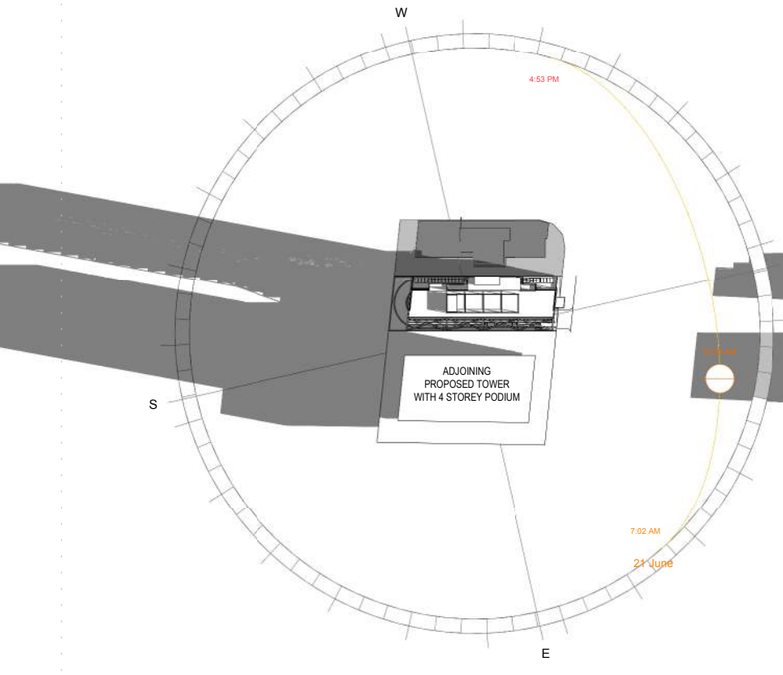
LEVEL 2-11
OVERALL UNITS
40
DAYLIGHT ACCESS UNITS
30
PERCENTAGE
75%

OVERALL DAYLIGHT ACCESS UNITS
PERCENTAGE

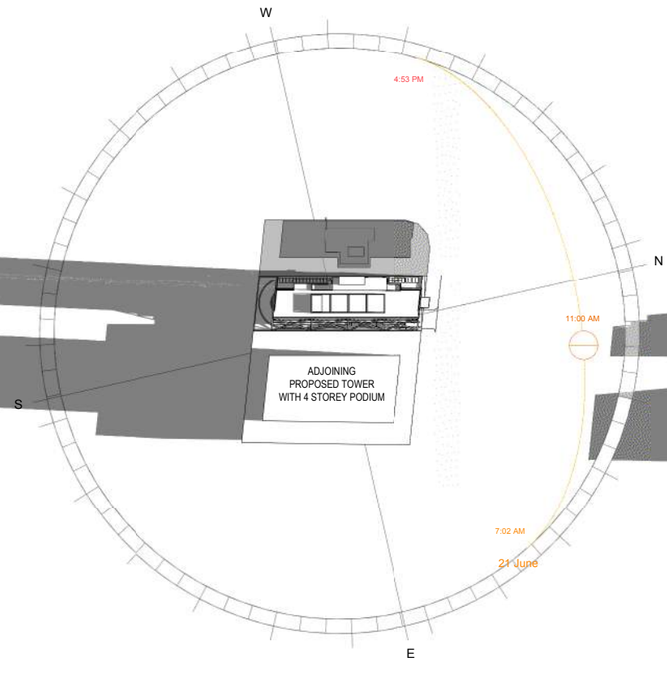
64/90 = 71%

ETHOS
URBAN

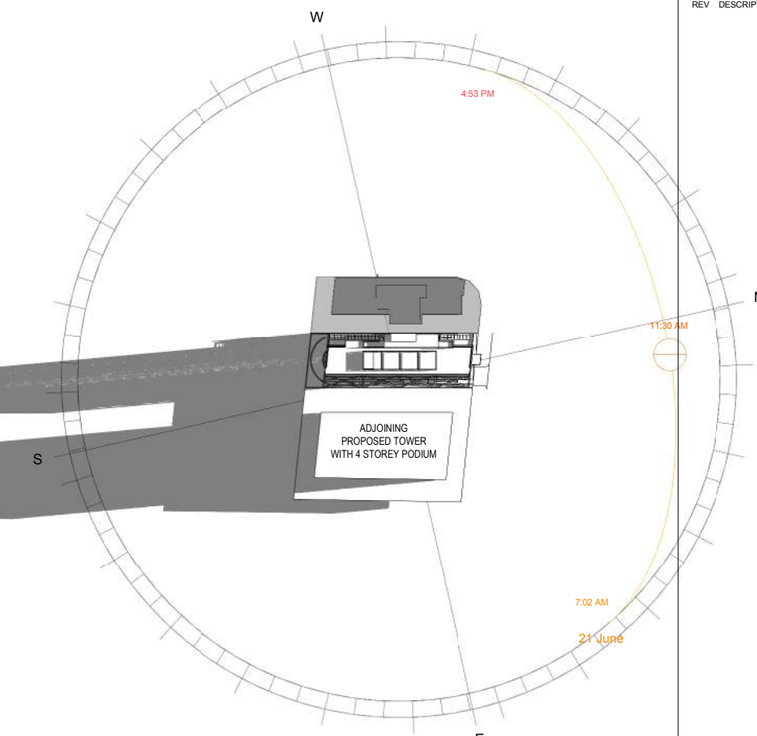
Appendix B.



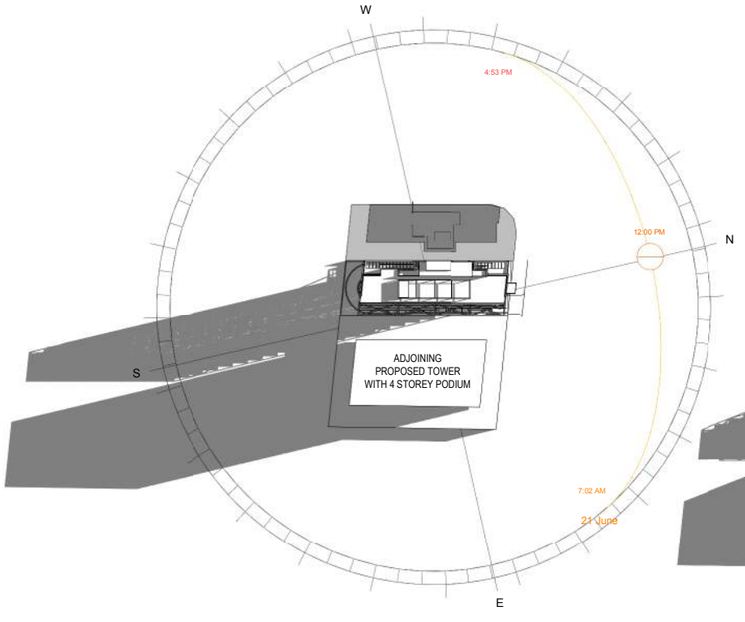
6 Shadow_June21_10.30 AM



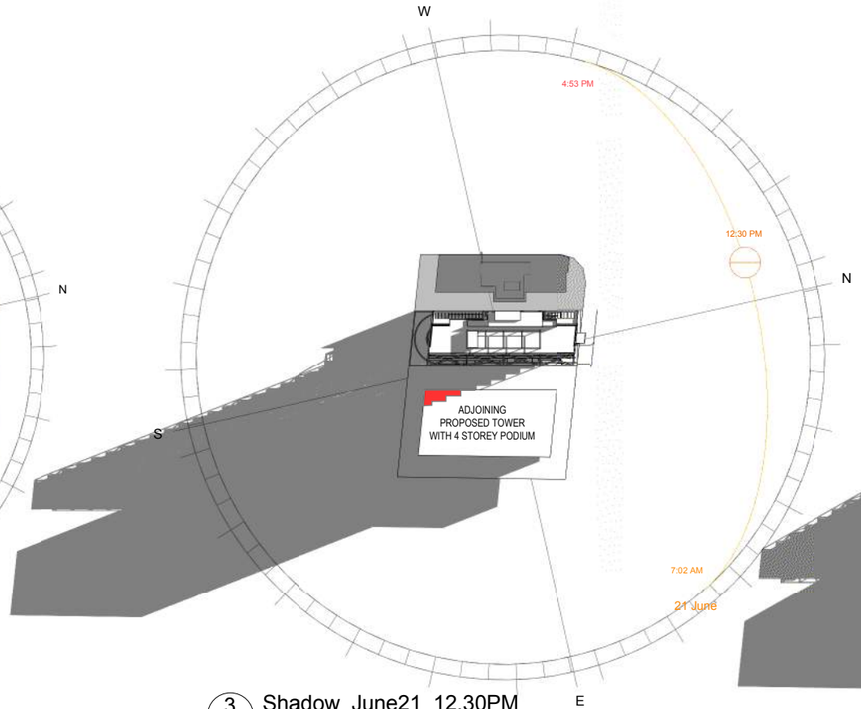
5 Shadow_June21_11.00 AM



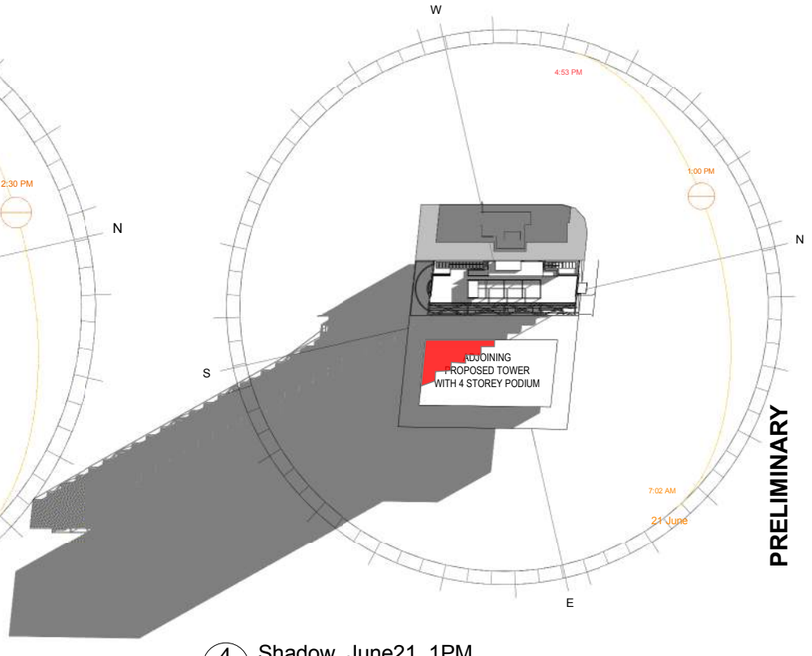
1 Shadow_June21_11.30 AM



2 Shadow_June21_12PM



3 Shadow_June21_12.30PM



4 Shadow_June21_1PM .

10 0 10 20 30 40 50
SCALE 1 @ A1. mm

CONRAD GARGETT
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT

PRELIMINARY

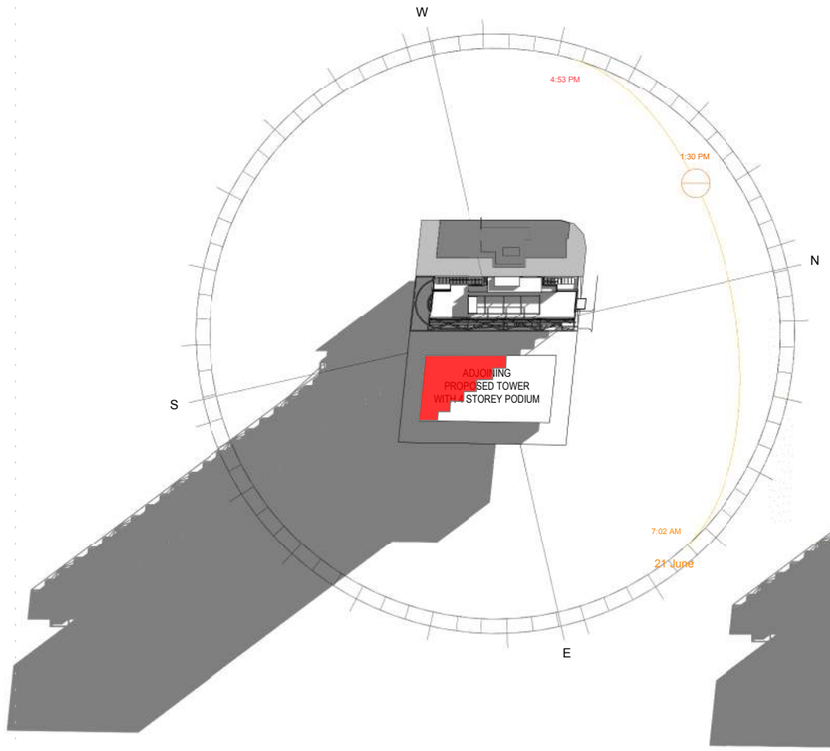
PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

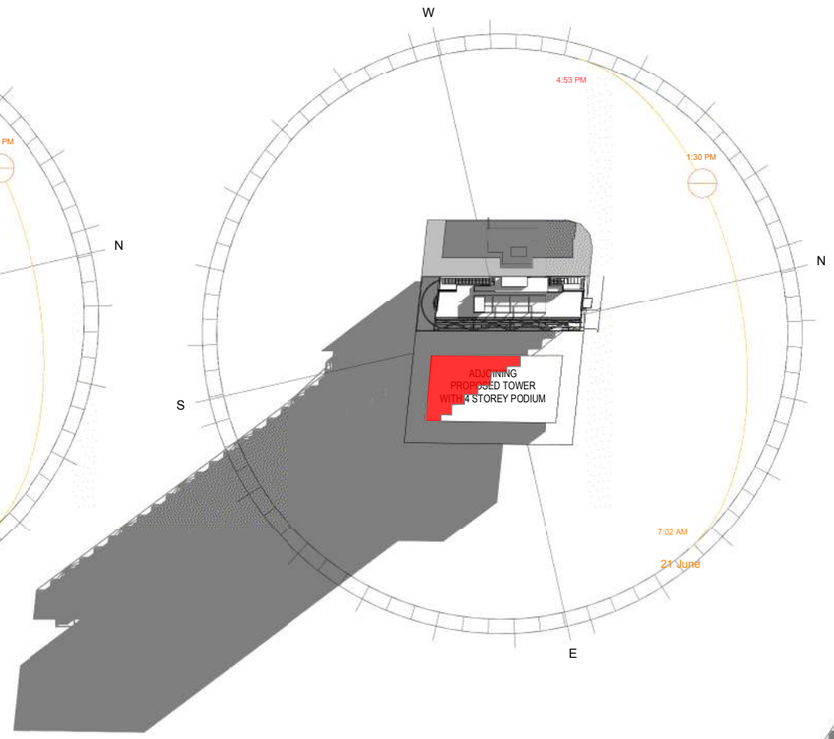
DRAWING
Tower Shadow Study

NORTH

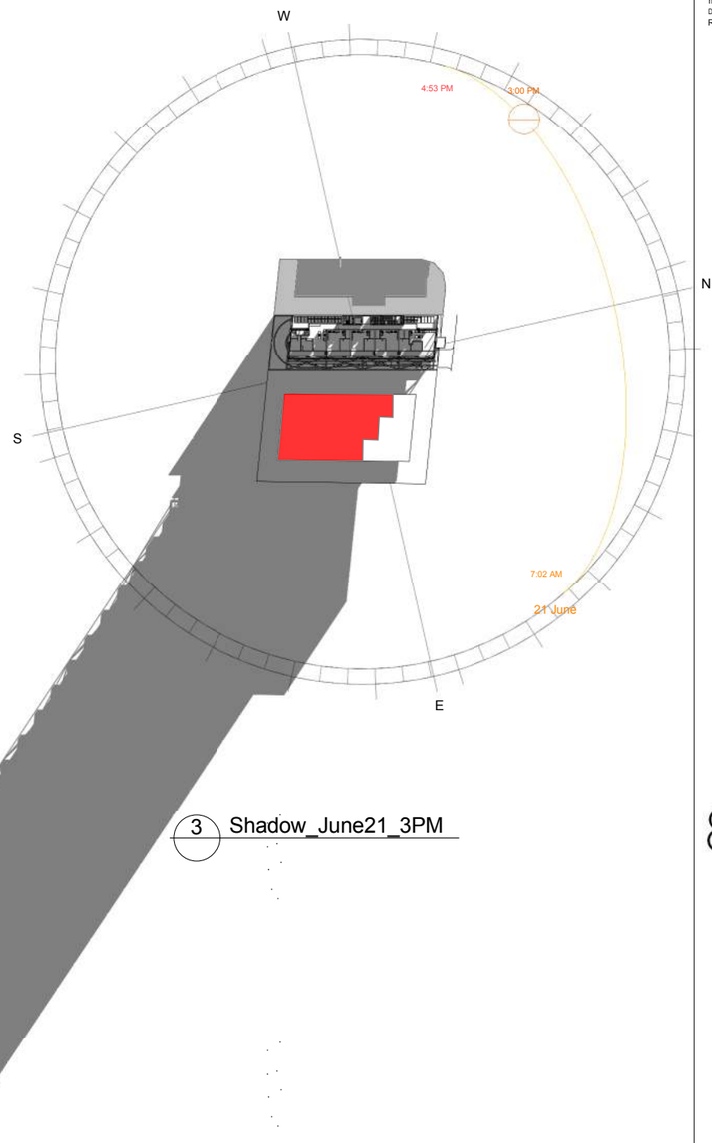
PROJECT No: 15 323
STATUS SD
DRAWING No: A9908
REV:
A1 SCALE



1 Shadow_June21_1.30PM



2 Shadow_June21_2PM



3 Shadow_June21_3PM

10 0 10 20 30 40 50
SCALE 1 @ A1. mm

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APPD

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PRELIMINARY

PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Tower Shadow Study

NORTH

PROJECT No: 15 323
DRAWING No: A9909
STATUS SD
REV:
A1 SCALE

2 0 2 4 6 8 10

SCALE 200 @ A1 m

CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350

DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

REV	DESCRIPTION	DATE	APP'D
1	For Information	06/10/16	
2	Development Application	26/10/16	
3	Development Application	31/10/16	
4	DA Update	24/03/17	

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

PROJECT
26 Second Avenue, Blacktown

CLIENT
Merhis Blacktown Pty Ltd

DRAWING
Site Plan

PRELIMINARY

NORTH

PROJECT No: 15 323
DRAWING No: A1000
STATUS SD
REV: 4
A1 SCALE 1 : 200