

25 June 2025

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Dear Eliza

Subject: 124 – 126 Bull Street, Newcastle West (MA2024/00381)

I am writing to the City of Newcastle (CN) regarding modification application MA2024/00381 at 124-136 Bull Street, Newcastle West and the Request for Additional Information (RFI) received 29 May 2025 and 19 June 2025. The following information is provided in response to the requests.

Background

MA2024/00381 was considered by the Hunter and Central Coast Regional Planning Panel (Panel) on the 21 May 2025.

On the 28 May 2025, the Panel deferred their decision on MA2024/00381, requiring the following additional information

- i) A comprehensive analysis and comparison of the accurate solar access achieved by the original approval, first modification, and current modification.
- ii) Demonstrate that the calculation of solar access percentage is based on a “minimum of 1sqm of direct sunlight, measures at 1m above the floor level, achieved for at least 15 minutes”
- iii) Clarifies the discrepancies between Council calculations and the applicants
- iv) Document how the mistakes came to be, the chronology and actions taken.

City of Newcastle Request for Further Information 1 – 29 May 2025

To address the information sought by the Panel, CN wrote to the Applicant on 29 May 2025 seeking additional information on the following matters.

A. Solar access diagrams - Floor plan analysis for each level and each apartment (apartment numbers indicated) and calculation summary for the original DA, first modification and current modification application.

- Drawings no. DA516, DA517 and DA518 Revision 13 are to be amended to demonstrate the following periods: >2hrs, 1hour 45mins, 1hour 30mins and 0hours.
- To address Objectives 4A-1 provide:
 - Set of floor plan diagrams and calculation summary (i.e. drawings DA516, DA517, DA518) specific to balconies. A separate set of these plans is required for the original DA, modification 1 and current modification each
 - Set of floor plan diagrams and calculation summary (i.e. drawings DA516, DA517, DA518) specific to living areas. A separate set of these plans is required for the original DA, modification 1 and current modification each

In response to A. *Solar access diagrams*, the following plans have been provided as part of Appendix 1:

- Page 9 onwards: Original DA updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to living rooms.
- Page 13 onwards: First modification updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to living rooms.
- Page 17 onwards: Current modification updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to living rooms.
- Page 21 onwards: Original DA updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to balconies.
- Page 25 onwards: First modification updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to balconies.
- Page 29 onwards: Current modification updated plans DA516, DA517 and DA518 showing >2hrs, 1hour 45mins, 1hour 30mins and 0hours to balconies.

In summary, the plans above demonstrate the following compliance:

Table 1 Solar Compliance taken from the diagrams (Updated 24 June 2025)

Application	>2 hours	1h 45m	1h 30m	< 1h 30m	0 hours
Original DA: Living Rooms	36%	39%	3%	7%	14%
First modification: Living Rooms	46%	4%	32%	5%	13%
Current modification: Living Rooms	40%	20%	18%	9%	12%
Original DA: Balconies	77%	1%	2%	6%	13%
First modification: Balconies	85%	4%	1%	3%	7%
Current modification: Balconies	77%	4%	1%	3%	15%

In terms of numerical compliance, Table 1 illustrates that this current modification application achieves better solar access than the development as originally approved DA. Whereas 36% of apartments received sunlight to their living rooms and 14% of apartments received no sunlight in the original DA, a greater proportion of apartments receive at least 2 hours of direct sunlight to their living rooms (40%) and fewer apartments (12%) receive no sunlight in mid-winter in the current modification application.

In terms of performance, it is worth observing that the current modification maintains the proportion of balconies that enjoy direct sunlight (77%) and also increases the average balcony size and hence the overall area of direct sunlight enjoyed by each apartment.

We note that a previous modification application (referred to as the First Modification) appeared to achieve better numerical compliance than the current application; however, it is important to appreciate that this application retained a seniors housing component which skewed the numerical compliance due to the small size of the independent living units. The design of the building still represents a high quality design because it appropriately responds to the constraints and opportunities of the site

B. Sun eye view diagrams - 3D solar access 'point of view' drawings for the hours between 9am and 3pm at mid-winter for the original DA, first modification and current modification application.

- *The views should be provided at appropriate intervals (hourly, half hourly or quarter hourly), as needed to demonstrate compliance with the ADG solar access criteria*
 - *a minimum of 1sqm of direct sunlight, measured at 1m above the floor level, achieved for at least 15minutes.*
- *As discussed above, see attached markups of CNs assessment indicating where CN calculations differ from FK's in relation to the current modification application.*
- *More detailed sun eye views of specific apartments may be required to address these inconsistencies and demonstrate the accuracy of FK's calculation. Alternatively, FK's documentation needs to be amended to reflect CNs calculations which are attached.*
- *FK should then adopt the same approach when preparing the sun eye view diagrams for the original DA and previous modification application. Specifically, FK should provide more detailed sun eye views for specific apartments where it is otherwise not obvious an apartment is achieving the ADG solar access criteria.*

Sun eye diagrams have been prepared for the original DA, first modification and current modification application (see Appendix 2). The sun eye diagrams have been prepared for 15-minute intervals.

FK (the Architect) noted that the sun eye diagrams can often misrepresent the volume of sunlight being received by apartment. FK discusses the robustness of using solar projections over sun eye diagrams on page 5 of Appendix 1.

Appendix 3 responds to each of CN's markups and identifies the actual volume of sunlight being received by each of the apartments. Appendix 3 identifies a detailed shadow analysis of several of the queried units to demonstrate to CN the accuracy of the response.

The Applicant met with Council on the 6 June 2025 to explain Appendix 3 and how the calculations have been undertaken.

C. Options analysis

- *The HCCRPP has stated the site is unconstrained and has limited development scale proximate to it. This comment is to be addressed.*
- *Details of the original site arrangement analysis and how the proposal came to be the optimal scheme for the site is required.*

Consideration of alternative design approaches

Figure 1 below represents that the original site massing was responsive to the parameters of the site presented at the pre-DA meeting held in 2018. This diagram illustrates how architectural massing at concept design stage considered orientation to local streets, the relationship of the towers to street level experience, enhancement of amenity, protection from winds and solar access.

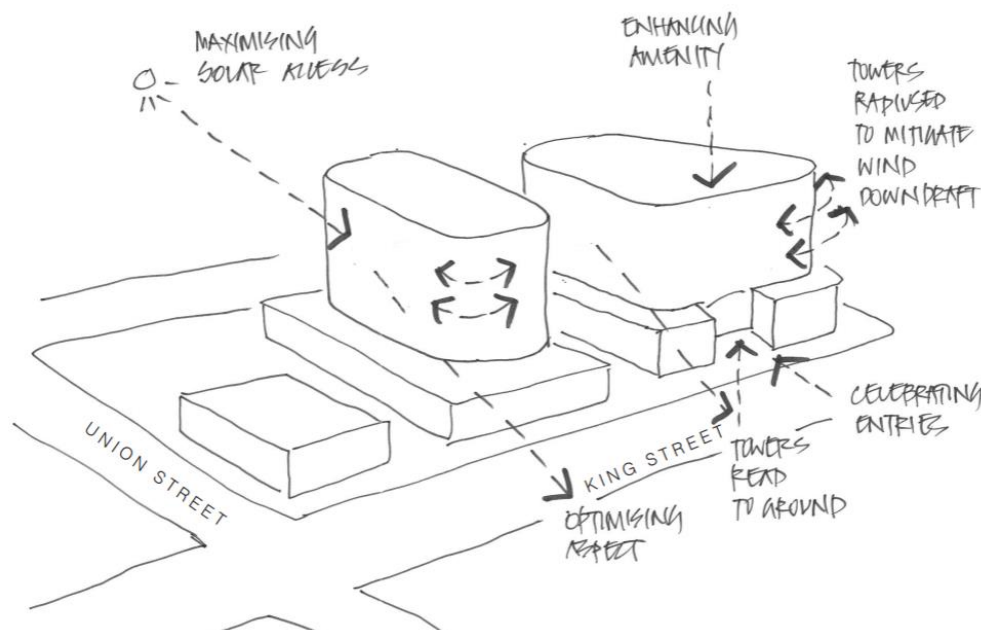


Figure 1 2018 Site Massing recognising that the design responded to the parameters of the site (Source: 2018 Pre-DA meeting)

The concept for the site was informed by the existing surrounding parameters. The relationship between King St and the long eastern site boundary to the Wests Club is perpendicular. This sets up a logical orthogonal master plan response of two towers with orthogonal relationships to King St and east boundary. These were proposed in the original DA, first Modification and current modification and are consistent with the existing streetscape and context of built form. A through site link aligns with the eastern boundary and includes an important memorial walk honouring the victims of the 1989 earthquake. East and west facing living spaces have been located hard up to the façade line to optimise sunlight penetration. Their balconies have been over sized and hinged open to better capture northern views and sunlight and are a design feature of the proposal.

If the correct solar angle had been known at the time the approved DA was designed, the approach could have been different. The towers may have been taken off the orthogonal and rotated the eastern facades up to 10 to 15% anti clockwise off alignment with the eastern boundary to optimise solar penetration into apartments. However, the clear orthogonal relationship between street, podium and tower would be compromised. It could also lead to an awkward alignment of structure between offset towers and podium levels, which would remain orthogonal.

Another scenario could have been to step the east tower façades in towards King St to further expose apartments to sunlight. This would produce a ziggurat plan form and a complex building volume. In both cases the balconies may have been drawn in flush to the east and west facades to optimise solar penetration. The amenity of harbour views and additional daylight on these balconies would be lost in this case.

The concept, which informed the Original DA and subsequent First and Current Modifications, represented a logical response to the site parameters.

Chronology of the matter

In May 2025 when converting sun-eye view diagrams to REVIT in response to a CN Request for Additional Information dated 6th March 2025, it was discovered that the previously issued sun-eye view diagrams, created in ArchiCAD were not matching the new REVIT diagrams. A forensic review of the ArchiCAD files dating back to 2018, and the original DA Approval, revealed that the previously documented sun-eye view

was set up incorrectly. The resultant error is a 15 degree shift in the angle of the sun, rotating anti-clockwise around the site, therefore reducing the available morning sun by approximately 1 hour (see Figure 2 below).

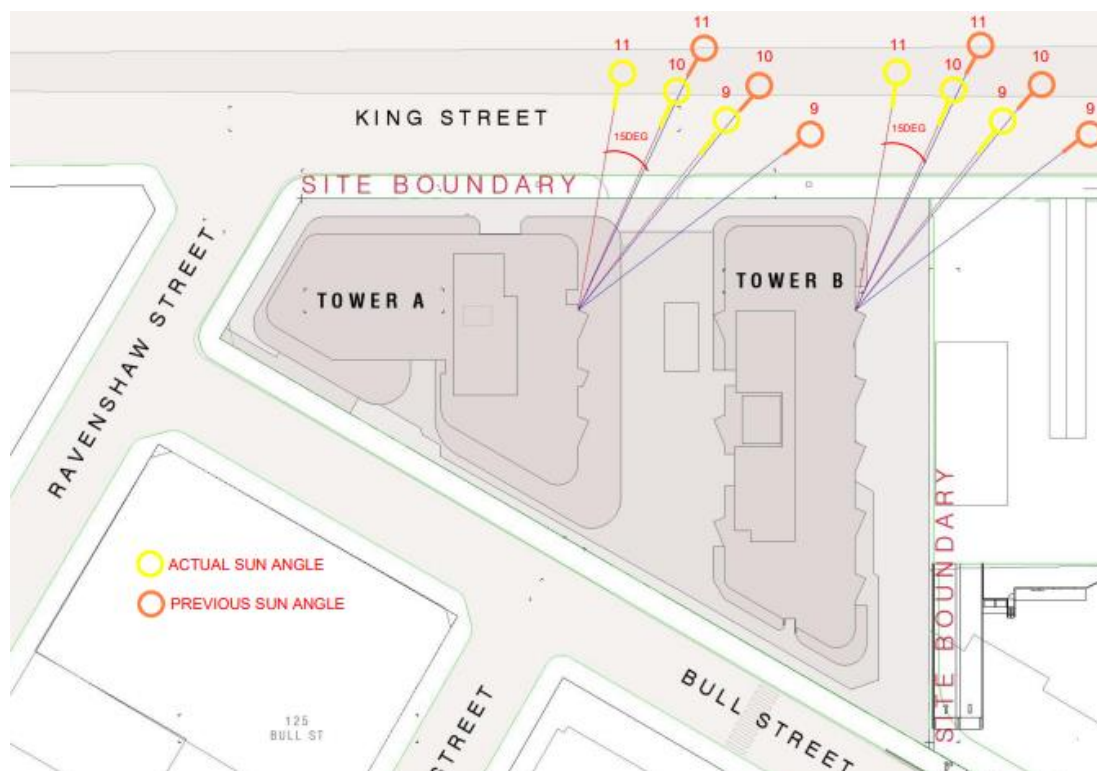


Figure 2 Sun angle analysis identifying the previously documented sun-eye view and actual sun-eye view (Source: Fender Katsalidis)

It was discovered that the error existed within the original modelling impacted on both the approved development and approved modification. The approved modification modelled 70% of apartments receiving no less than 2 hours of direct sunlight to their primary living area and private open space in mid-winter. Application of the correct solar coordinates identified only 36% of the currently approved apartments receive at least 2 hours of sunlight.

Upon discovering the issue within the modelling, the applicant immediately communicated the issue with CN, with a meeting held on the 9 May 2025 to discuss the issue.

Additional information documenting the issue was provided to Council on the 12 May 2025 to inform CN's briefing package to the Hunter Central Coast Regional Planning Panel (HCCRPP).

The matter was raised within the HCCRPP Panel Determination meeting on the 21 May 2025. It is noted that Council's revised calculations contradicting the additional information provided on the 12 May 2025 were not considered and able to be addressed prior to the Panel Determination meeting.

Additional Matter

The additional information documentation package on the 12 May 2025 identified adjustments that could be made to the balcony AC plant enclosures (see Figure 2 below). The proposed adjustments were reflected within the draft conditions of consent proposed by CN.

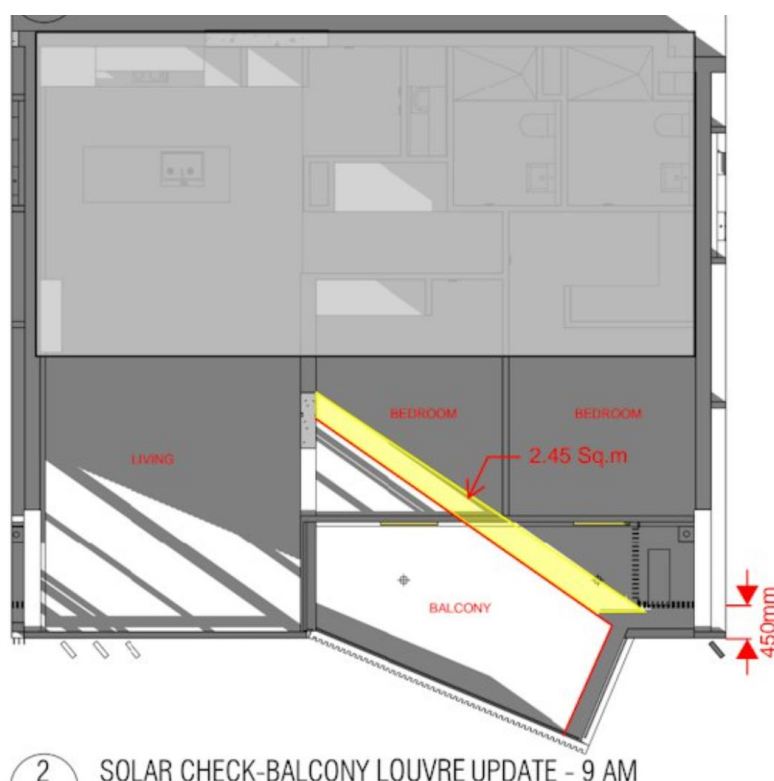


Figure 3 Proposed design adjustments to the AC plant to improve sunlight access to the balcony and habitable rooms

Details of these adjustments have been further detailed on Page 17 of Appendix 3. Further analysis has been undertaken of the adjustment to the balcony AC plant enclosures demonstrating how solar access to balconies and bedrooms will be improved. This adjustment has not been reflected within the Table 1 statistics above and is not anticipated to change any of the proposed statistics.

City of Newcastle Request for Further Information 2 – 19 June 2025

Additional information was sought from CN on the 19 June 2025 on the following matters:

1. *The Sun Eye View (SK-250608a.8) needs to be updated to match the resolution of other diagrams. There are currently areas that are blocked out and unclear.*

Appendix 2 was updated to ensure the resolution of the sun eye view diagrams were a consistent resolution.

2. *The 'VIEW FROM SUN DIAGRAM' drawings provided for Mod 1 and the current modification application omit the built form of the uppermost level of the neighbouring development to the east (no. 309 King Street, Wests Club). As a result, Levels 1 and 2 of the apartments on the eastern façade of Tower B cannot be properly assessed and it is considered that some of these apartments would not receive solar in the early morning period.*

The original DA contained detailed modelling of the adjoining Wests building. The First Modification and Current Modification models were based on current survey information that provided a very simplistic massing of the building. The raised roof element on the West building was not included within this simplistic modelling. The raised roof elemental would have had a very limited impact on the assessment of the First Modification and the Current Modification. However, it should be noted that apartments on the lower levels of the Tower B east facade have never been assessed as having 2 hours sunlight on June 21. Therefore, there is no impact on the compliance percentage as a result of this issue. An amended outline for the Wests roof line has been added to the First Modification and Current Modification sun eye view diagrams so that the area of impact can be identified. The sun eye diagrams within Appendix 2 to reflect the correct modelling of the Wests building and are demonstrated within the figures below.

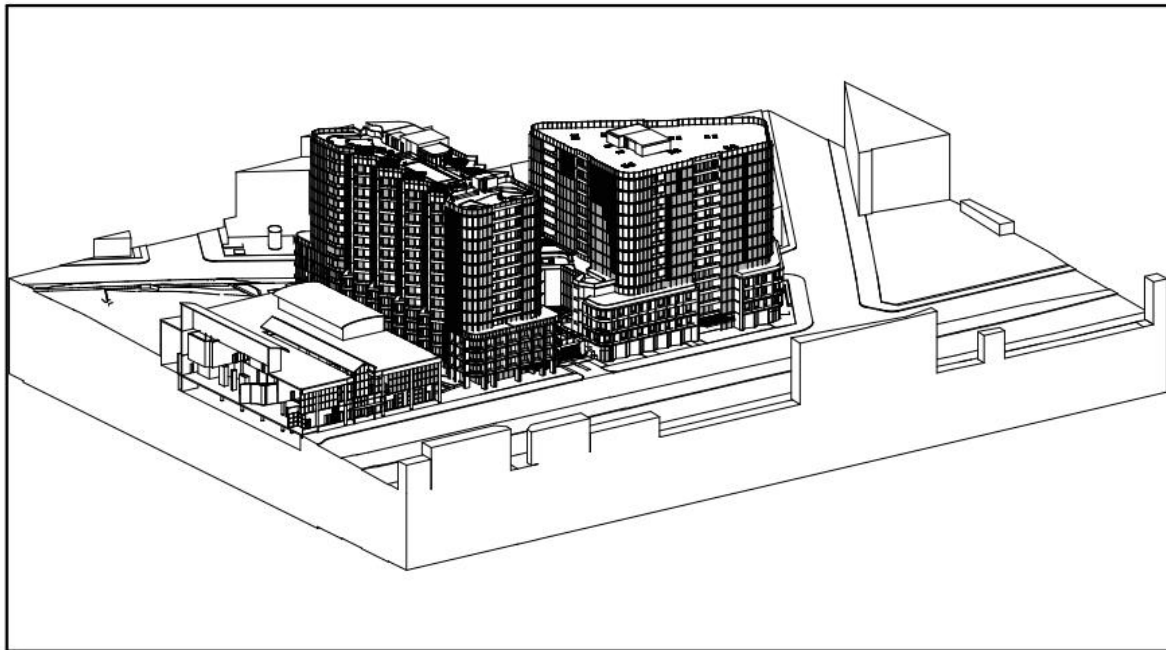
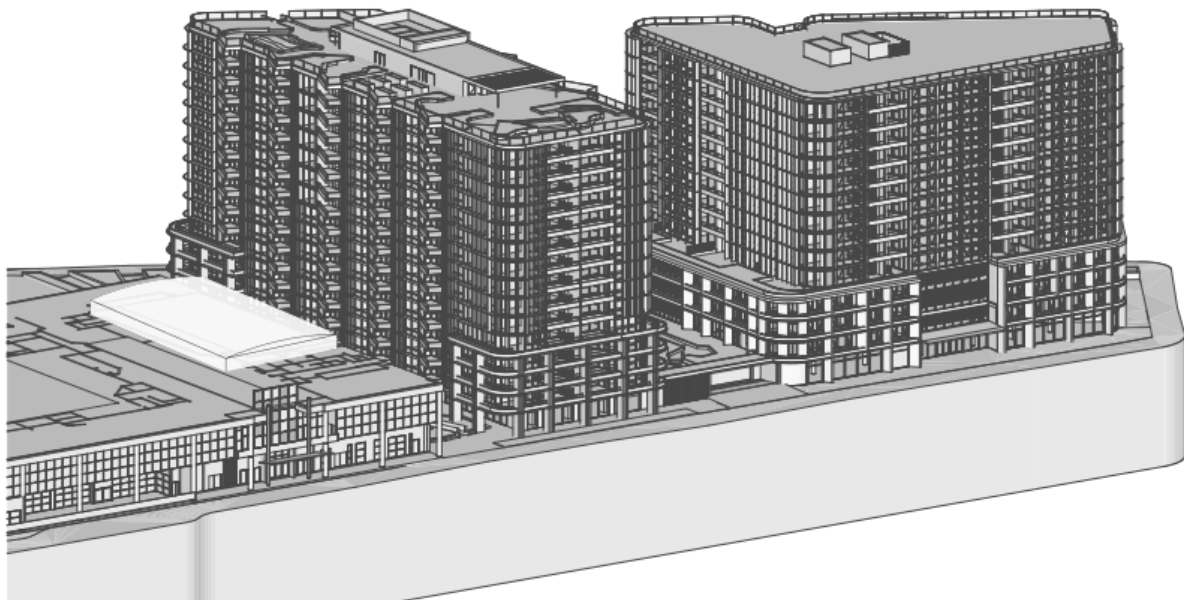


Figure 4 Rooftop form of Wests building in Original DA (Source: Appendix 2)



9AM - WINTER SOLSTICE

Figure 5 Rooftop form of Wests building in First Modification and Current Modification (Source: Appendix 2)

3. FK identifies the Tower B east facing apartments as receiving 1hr 30mins solar access to the living rooms (see pages 14-16 of Appendix 2) under Mod 1. However, these same apartments are identified as receiving 1hr 45mins solar access to the living rooms under the current modification. It is noted the additional solar analysis provided on pages 11 and 12 of Appendix 3 to demonstrate that the Tower B east facing apartments generally receive 1hr 45mins solar access to the living rooms (the expecting being the 1-bedroom apartments at Level 8 and above) in accordance with the '1sqm

@ 1 meter above FFL' criteria, is accepted by CN. As such, it is unclear why the calculations for the Mod 1 have identified these apartments as receiving only 1hr 30mins solar access, rather than the 1hr 45mins.

This discrepancy is due to a change in the angle and spacing of privacy louvres to these apartments. In the Current Modification, privacy louvres were changed from being perpendicular to the façade, to being angled towards the sun. Additionally, spacing between the louvres was increased. Both these design changes allowed more sunlight to access apartments between the louvres.

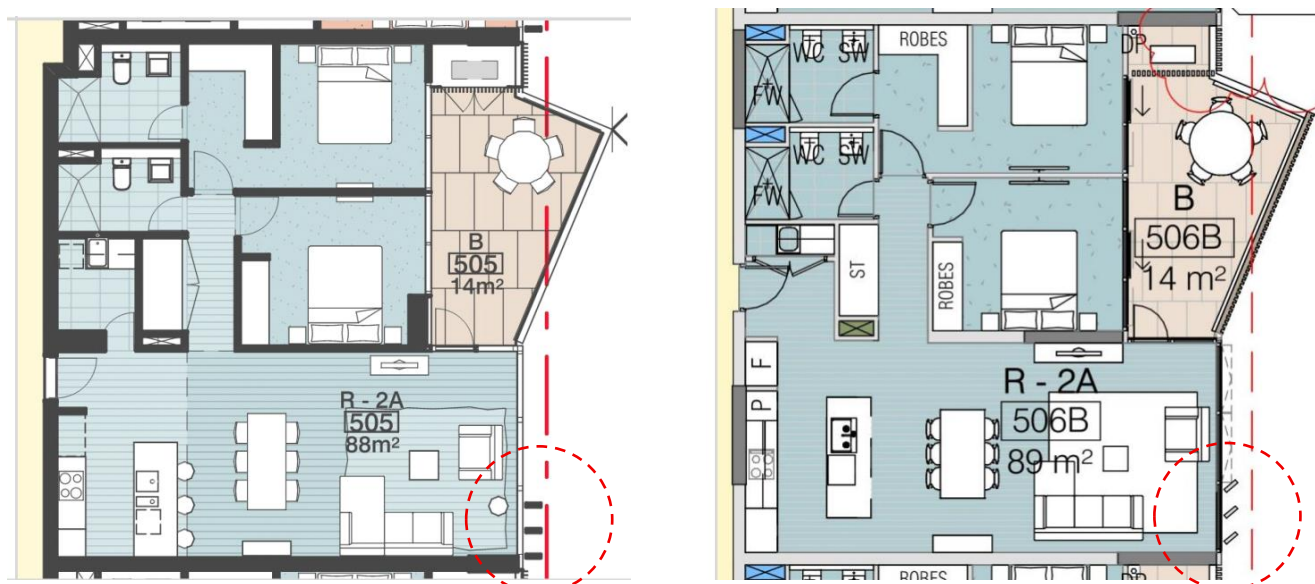


Figure 6 First modification (left) showing perpendicular louvre design. Current modification (right) showing updated louvre design.

4. The apartment numbers have been omitted from all the updated 'PROPOSED SOLAR ACCESS DIAGRAMS' drawings. All floor plans need to be updated to label the apartment numbers.

Appendix 3 was updated to identify apartment numbers on the 'Proposed solar access diagrams'.

Assessment of apartments

CN's RFI identified a list of apartments where CN's visual analysis of the sun eye diagrams did not produce a solar access value consistent with Appendix 1. A table has been included as part of Appendix 3 identifying FK's response, comparing each of CN's queries to the 3D model. While all units listed have been reviewed for compliance, internal 3D modelling imagery has only been provided for a representative selection.

Given the limited timeframe, FK's analysis prioritised units where CN identified a reduction in solar access compared to our earlier assessment. Due to time constraints, it was not possible to fully investigate the units where CN indicated an increase in solar access. It is important to note that, in a worst-case scenario where CN's assessment is correct, a greater number of units would benefit from solar access. Furthermore, none of the units identified by CN as having increased solar access fall below the critical two-hour ADG compliance threshold.

Skylights to living rooms of all Level 14 apartments

CN raised a query regarding the inclusion of a skylight annotation on Appendix 3. The history of the skylights is as follows:

- Original DA: In the original DA skylights were proposed for a number of Tower A apartments. The skylights were shown on the roof plan submitted for approval. There was 16 skylights.
- First Modification: Because the modification was believed to be so close to 70% solar compliance, skylights were removed from the design. Skylights were removed from the roof plans submitted for approval.

- Current Modification: Due to issues discovered with solar compliance, the analysis considered the introduction of skylights to improve the compliance percentage. The current proposal is to use a combination of skylights (2) and voids within the existing profile of the parapets (7) to improve solar compliance.

An updated rooftop floor plan has been prepared showing the location of the skylights (Appendix 3). The location of the skylights does not reduce the total volume of communal open space on the rooftop (due to reductions made to the plant room). Furthermore, the location of the skylights will not alter the visual appearance of the building and will not impact on the privacy of future residents on the top floor.

If you seek any additional information regarding this matter, please contact the undersigned.

Yours sincerely

A handwritten signature in black ink, appearing to be 'RB' with a stylized flourish.

Robert Bisley
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