BOARD REPORT

DevelopmentWA

Date: **29 April 2026**
Item 3.5: **Lot 108 (No. 18-28) Telethon Avenue, Perth**
Strategic Plan: **A Culture of Delivery**
Submitted by: **Matt Ryan**

Board approval is sought for a proposed 33 storey Specific Purpose (Student) Accommodation development at Lot 108 Telethon Avenue, Perth, within the Perth City Link Area of the Central Perth Redevelopment Area.

Background
On 5 January 2026, a development application was lodged seeking approval for a 33 storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant development which includes 854 beds in various configurations. The proposal seeks only to develop the western half of the site, with development concepts prepared for the eastern half of the site submitted as part of the proposal which will be the subject of a separate development application.

As detailed in the Planning Assessment Report (Attachment 1), the proposal is generally consistent with the planning framework for the subject site. The proposal seeks discretion for alternative built form outcomes, including increased building height of 33 storeys and reduced setbacks to Telethon Avenue and Wardang Gardens, which have been assessed as appropriately responsive to the surrounding context and maintain the amenity outcomes sought by the relevant Design Guidelines. The interface with the public realm to Telethon Avenue and Wardang Gardens provides for strong activation and legible access for users.

The proposal represents a high-quality design outcome, supported by the Design Review Panel, that will deliver a significant injection of student accommodation in a highly appropriate and accessible location close to the recently opened Edith Cowan University City campus, supporting the achievement of a critical mass of people within the inner-city.

Land Redevelopment Committee (LRC) Consideration
At its 13 April 2026 meeting, the Central Perth LRC considered the application and received a presentation from the applicant in support of the recommendation.

The LRC recommended that the Board approve the application subject to minor amendments to the advice notes to provide further clarification and direction regarding the proposed public art outcome and encourage investigation of additional acoustic attenuation measures.

Refer Attachment 2 – Recommended Conditions and Advice Notes for further information.

Recommendation

That the MRA Board approves the development application for a 33 storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant development at Lot 108 (No. 18-28) Telethon Avenue, Perth, subject to the recommended conditions and advice notes.

LAND REDEVELOPMENT COMMITTEE

DevelopmentWA

Date: 13 April 2026
Item 2.1: Lot 108 (No. 18-28) Telethon Avenue, Perth - 33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development
Submitted by: Matt Ryan

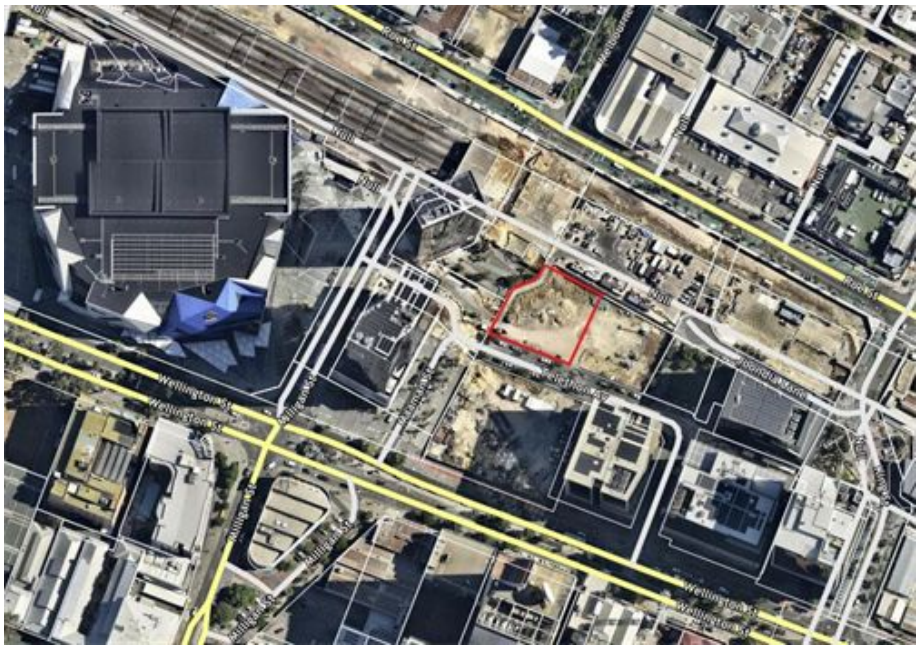
Information

Project Area:	Perth City Link
Location:	Lot 108 (No. 18-28) Telethon Avenue, Perth
Owner:	Seven Entertainment Pty Ltd (under contract to Sirona Urban)
Applicant:	SLR Consulting
Proposal:	33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development

Purpose

For the Central Perth Land Redevelopment Committee to consider an application for a 33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development at Lot 108 (No. 18-28) Telethon Avenue, Perth.

Location Plan



Recommendation

That the Central Perth Land Redevelopment Committee resolves to recommend to the DevelopmentWA Board that it approves the 33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development proposed at Lot 108 (No. 18-28) Telethon Avenue, Perth subject to the recommended conditions and advice notes.

Attachment 1

PLANNING ASSESSMENT

Proposal

On 5 January 2026, a development application was lodged for a 33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development proposed at Lot 108 (No. 18-28) Telethon Avenue, Perth. The subject site is located in the King-Lake Street Precinct of the Perth City Link Project Area, within the Central Perth Redevelopment Area.

The development application proposes a 33 Storey development comprising of:

- student accommodation across Levels 2 to 32 comprising 854 beds in single, twin and shared living arrangements;
- reception, pastoral care and communal amenity spaces including laundry, kitchen, gym, study and outdoor terraces across the Ground Level and Level 1;
- two tenancies for Shop and Café/Restaurant land uses at the Lower Ground Level; and
- four (4) car parking bays and 120 bicycle bays sleeved behind the ground floor commercial tenancies.

This proposal seeks only to develop the western half of the lot. It is expected that Sirona Urban will seek to develop the eastern half of the lot in the near future which may include Build-to-Rent Multiple Dwellings, and will be the subject of a separate development application. There is no requirement under the planning framework for the site to be developed in its entirety as part of this proposal.

Refer to Appendix 2 – Development Plans

Previous Approvals

The site has previously received development approval in August 2015 from the then Metropolitan Redevelopment Authority for a 43 to 49 storey development comprising 563 dwellings, 506 residential car bays and café/restaurant and retail land uses on the ground floor and podium levels. This approval lapsed on 14 August 2022 following extensions to the approval validity period.

Previous Central Perth Land Redevelopment Committee Consideration

The current application was presented to the Land Redevelopment Committee at a briefing session on 16 March 2026, where the following matters were queried:

- the different apartment typologies and additional information requested in relation to the provision and design of shared amenities;
- how universal access would be achieved from Wardang Gardens, noting the significant level changes;
- how the proposed deep soil landscaping areas would be maintained;
- whether a cultural narrative was being developed and integrated into the design;
- how the potential Stage 2 development has been considered and integrated into the design of the proposal, including impacts of the future built form outcome;
- whether the adaptive reuse of the proposed student accommodation apartments has been considered in the design of the proposal; and
- how the Design Review Panel feedback has been addressed by the proposal.

In response to the above matters, the applicant has provided further information and updated plans. A summary addressing the applicant's response to the matters raised by the LRC is provided below. The Design Review Panel's feedback responses are addressed separately later on in this report.

Refer to Appendix 3 – Supplementary Information following LRC Consideration.

Apartment Typologies
The applicant provided further information regarding the apartment typologies and distribution which have been informed by extensive market research in response to user needs and price points. 'Incidental bump-in spaces' are provided on Levels 9 to 32 to enhance resident amenity and provide opportunities for incidental interaction between residents. Given the proximity of lower-level rooms to the primary communal facilities, and to provide additional space for universally accessible rooms, incidental spaces have not been included on lower levels.

Universal Access
The applicant proposes minor alterations to the existing Wardang Garden public realm to ensure that a DDA-compliant access can be provided to the secondary entry and improve overall accessibility. The applicant team is in discussions with the DevelopmentWA Operations Team responsible for delivery of Wardang Gardens on the detailed design to address this matter. Conditions are recommended to ensure that the final design is prepared to the satisfaction of DevelopmentWA and will deliver universal access.

Landscape Maintenance
The applicant team demonstrated that direct access is provided via Level 2 to the podium deck to allow for maintenance. A small section on the western façade will require access from the roof. Landscaping in this location has been carefully considered to ensure that maintenance requirements are minimised. Landscaped areas have also been consolidated to increase deep soil area provision. These matters will also be addressed via the recommended conditions and advice notes.

Cultural Narrative
The applicant notes the site's history is grounded in the Boorloo Whadjuk Noongar cultural context, having once formed part of the Great Lakes wetlands, rich in native flora and fauna and serving as important hunting and gathering areas for the Noongar community. The applicant advises that cultural narratives are further being explored through public art, material treatments at lower levels, digital storytelling, and integrated lighting with this to be determined at the detailed design stage.

Staging
In relation to the development of 'Stage 2', the revised submission includes concept plans which identify site layout and massing in relation to the current proposal with a shared vehicle access point. It is anticipated that the future development will operate independently from the current proposal, with the exception of a shared access point.

Adaptive Re-Use
The applicant provided evidence demonstrating that the development has been designed to accommodate a range of future uses on upper levels including hotel, co-living and residential dwellings. Structural columns and service risers have been strategically located adjacent to corridors and are sufficiently numerous to accommodate amalgamation of units to create larger floor spaces to support other land uses.

Assessment
The proposed development is generally consistent with the applicable Central Perth Redevelopment Scheme (the Scheme), Central Perth Redevelopment Area Development Policies and the Perth City Link Design Guidelines (the Design Guidelines).

The proposed development is strongly aligned with the Perth City Link Vision of the Scheme and the Design Guidelines which seek to create a multi-functional, vibrant and active urban environment, connecting Northbridge to the City.

The proposal will deliver 854 student accommodation beds, increasing the population living within the inner city and contributing to the vibrancy of the surrounding commercial, retail, dining and entertainment land uses. The proposed development is of high-quality design and will utilise a vacant piece of land assisting in achieving build out of the City Link project area.

The following matters are further discussed as the proposed development seeks alternative design solutions to the acceptable development criteria of the applicable planning framework:

Element	Design Guidelines/ Policy Requirement	Proposed	Outcome
Building Height (Maximum)	*Maximum 27 storeys*	*33 storeys*	*+6 storeys*
Street Setbacks	*6m minimum setback to Telethon Avenue*	*2.75m to 8.5m*	*-3.25m*
Boundary Setbacks	*6m minimum setback to Wardang Gardens*	*2m to 8m*	*-4m*
Bicycle Parking	*285 bays (based on the requirement of 1 bay per 3 units of short-stay accommodation and serviced apartment)*	*120 bays*	*-165 bays*

Land use specific considerations regarding the proposed residential use in relation to noise and vibration and are also discussed below, noting the site's location within the frame area of the Northbridge Special Entertainment Precinct and proximity to the rail corridor.

Under Section 1.6 Discretionary Clause of the Design Guidelines, DevelopmentWA may approve a development application where it has departed from the acceptable development criteria, and when the alternative solution is:

- consistent with the Scheme Vision and Precinct Statement of Intent; and
- meets the Design Intent and Objective of the Design Guidelines.

DevelopmentWA's consideration of the proposal is further provided below.

Central Perth Redevelopment Scheme

Northbridge Entertainment Precinct

On 6 February 2026 the Minister for Planning approved Amendment 41 to the City of Perth City Planning Scheme No. 2 to establish the Northbridge Special Entertainment Precinct Special Control Area. The intent of the Special Control Area (SCA) is to protect the vibrancy and economic viability of the Northbridge entertainment precinct, while supporting the growth of Perth as a liveable city. Amendment 41 both increases noise limits for venues within the SCA and specifies new acoustic attenuation standards for impacted residential development, differentiated across Core, Transition and Frame areas. The subject site sits within the Frame area.

While the provisions of Amendment 41 do not strictly apply to the Project Area (which is outside of the City's scheme jurisdiction), the proposed development has been designed to consider the abovementioned provisions as well as Clause 4.17 of the Central Perth Redevelopment Scheme and Development Policy 3 – Sound and Vibration Attenuation, consistent with best practice.

An Acoustic Report has been submitted with the application that considers the noise impacts from the Northbridge Special Entertainment Precinct SCA, with recommendations for increased glazing thickness to the northwest building facades resulting in 89% of rooms on this façade achieving the internal noise level requirements.

The Acoustic Report concludes that whilst not all rooms will satisfy the internal noise requirements in the lower frequency octave, the 3-4dB discretion sought would be just perceptible to the average observer and will be unlikely to have an impact on the amenity of occupants. The impact of noise to the building will likely be further mitigated through the construction of buildings to the north of the subject site which will provide for further amelioration.

Conditions and Advice Notes are recommended to require regarding acoustic attenuation at the detailed design stage and completion of the project to ensure the specific noise attenuation outcomes are achieved, and to inform prospective landowners and residents of the likelihood of higher noise levels with the subject site being within a mixed use environment.

Perth City Link Design Guidelines

Building Height

The proposed building height of 33 Storeys is considered to be well suited to the inner city context and is consistent with the Design Intent and Objectives of the Design Guidelines as follows:

- the development proposes a slender tower form which responds to the smaller floorplates needed for student accommodation;
- the tower orientation maximises views along the north-south axis, with the massing and design consistent with the overshadowing provisions of the Design Guidelines and comparable with a 'Guideline Scheme' ensuring the proposal does not have an adverse impact to surrounding properties and the public realm. The proposal also results in an improved outcome in relation to overshadowing in contrast to the previous development approval for the 43-49 storey mixed development;
- the design which incorporates two smaller distinct tower forms breaks up the overall massing and building bulk and maintains view corridors;
- the podium height and design maintains an appropriate human scale at the ground floor and when viewed from Wardang Gardens;
- the height is consistent with approved developments in the vicinity which are up to 32 storeys; and
- the proposal is a high quality architecturally designed outcome, which has been supported by the Design Review Panel (further discussed below).

It is also noted that a development approval for a 43-49 storey mixed use development was approved on the site in 2015 which did not proceed. As the framework applicable to this site has not changed since this approval, and the design results in an improved built form outcome the proposed height is supported.

Setbacks

The proposal seeks an alternative design approach to the envisioned 6 metre setback to Telethon Avenue and Wardang Gardens. The proposed setbacks are considered to be consistent with Design Intent and Objectives of the Design Guidelines, and are supported as:

- the overall shape of the tower and orientation to the north-south, provides improved access to sunlight for all accommodation units as the majority of openings are oriented either east or west;
- the slim tower form and design mitigates the impact of bulk and scale with no adverse impacts in relation to overshadowing or overlooking;
- the two (2) storey podium height includes active land uses and facades to mitigate the appearance of bulk and results in an improved interface when compared with the previously approved six (6) storey podium; and
- the reduced setback of the tower element to Wardang Gardens will provide for increased separation between the proposed development and the future stage two development to the east, protecting visual privacy for resident and ensuring view lines between towers are maintained from the north or south.

Bicycle Parking
The proposed 120 resident bicycle bays are consistent with the Objectives of the Design Guidelines and with previous approvals for student accommodation developments within Perth City Link, and is supported as:

- bicycle demand for student accommodation is lower than that for multiple dwellings as:
    - students are potentially residing for one or two semesters and therefore are unlikely to purchase a bicycle; and
    - universities are generally close to student accommodation and well serviced by public transport.
- evidence provided by the applicant from other student accommodation developments demonstrates that the proposed one bay per seven beds is more than sufficient to meet the demands for students, noting that DevelopmentWA recently approved a student accommodation development at Lot 19 Perth City Link with one bay per 10 beds;
- all bicycle bays are contained within a fire rated room to allow for the safe storage of electronic bikes and scooters; and
- daily needs are easily accessed via walking or public transport due to the site's location within the inner city.

Development Policies
The proposal has been assessed against the applicable Central Perth Area Development Policies, with key considerations outlined below:

Development Policy 1 – Green Buildings
The subject site is a Tier 2 site under the Design Guidelines and is to demonstrate a minimum 5 Star Green Star rating. The building has been designed to achieve a Green Star Certified Rating of 5 Stars, meeting the requirements of Development Policy 1. Conditions 22 and 23 are recommended to ensure the commitment to a 5 Star Green Star is achieved in the final design.

Development Policy 3 – Sound and Vibration Attenuation
An Acoustic Report that considered noise sound and vibration was submitted addressing noise impacts from the nearby rail line and surrounding roads, surrounding entertainment venues, emissions from mechanical plant servicing the development and impacts on tactile vibration from rail movements. The Acoustic Report, incorporates specific recommendations for noise attenuation measures to be applied to the development to satisfy Development Policy 3. Condition 17 and 18 are recommended to ensure that the recommendations of the Acoustic Report are implemented into the building, with Conditions 19 and 20 recommended to inform prospective landowners and residents of the likelihood of higher noise levels from transport and entertainment land uses.

Development Policy 4 - Providing Public Art
The estimated cost of development exceeds $2 million and requires the provision of public art in accordance with Development Policy 4. Various approaches are being considered including sculptural interventions, façade lighting, façade treatments, text based artworks, and soffit lighting or digital installations. The applicant is encouraged to explore opportunities

for meaningful cultural references in the public art strategy, including the engagement of local Indigenous artists, to contribute to the sense of place. Condition 12 is recommended to ensure that public art is incorporated into the final design in accordance with Development Policy 4.

Development Policy 9 – Affordable and Diverse Housing
The requirements of Development Policy 9 do not apply to this development as it does not propose any residential dwellings. Notwithstanding, the objectives of the policy are considered to be addressed through provision of a diverse housing type (student housing) and providing a range of housing typologies including single, twin and cluster rooms.

Development Policy 10 – Adaptable Housing
The requirements of Development Policy 10 do not apply to this development as it does not propose any residential dwellings. Notwithstanding, the development has been designed with accessibility in mind, including provision of 30 accessible units and legible access throughout common amenity areas. Further improvements to accessibility have been provided through the design review process with disability access provided from Wardang Gardens and Telethon Avenue.

Design Review Panel
The proposal has undergone a collaborative design review process with the pre-lodgement plans presented to the Design Review Panel on 26 November 2025. The Panel was highly supportive of the proposal, advising that the design approach reflected an appropriate site response that will deliver much needed student accommodation to the area. The slender tower expression and generous communal amenity spaces have been carefully thought out and appropriately designed having regard to the site context.

The Panel encouraged further design development to refine aspects of the proposal including further context analysis on pedestrian connectivity links, addition of ‘breakout spaces’ on each floor near lift lobbies, improved cross ventilation for corner units and integration of deep soil planting.

Following formal lodgement of the development application, on 29 February 2026 the proposal was presented back to the Design Review Panel for further consideration. The Panel resolved that the proposal responded well to previous DRP feedback, achieving good design and was supported. The Panel noted the following minor matters should be given consideration to further improve the design:

- landscaping provision, particularly on the podium level, could be significantly improved through increasing the dimensions of existing landscaping areas and taking advantage of space below and under proposed paved areas; and
- review of solar controls to the western elevation taking into account overshadowing effects of surrounding built form, with performance outcomes clearly demonstrated and justified.

The minor matters raised by the Design Review Panel have been addressed through a revised submission received on 20 March 2026. Conditions and advice notes are recommended to ensure that the high quality of design is maintained and that the recommended improvements are considered during detailed design.

Refer Appendix 4 – DRP Advice Note

Consultation

Stakeholder Consultation

In accordance with Section 64 of the *Metropolitan Redevelopment Authority Act 2011*, the application was referred to the City of Perth (City), Perth Airport, Department of Water and Environmental Regulation (DWER), Department of Transport and Major Infrastructure (DTMI), Public Transport Authority of Western Australia (PTA), Water Corporation and ATCO.

City of Perth

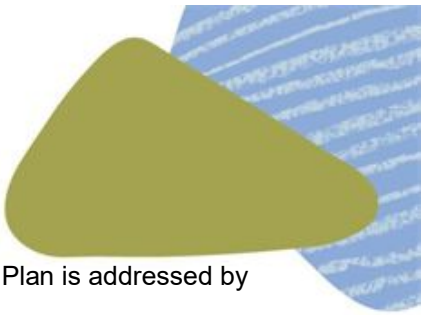
The City's referral response advised that it does not support the proposed development due to the original Acoustic Report which did not adequately address compliance with the requirements Northbridge Special Entertainment Precinct SCA.

Following the City's comments, a revised Acoustic Report was submitted which includes updated noise modelling and recommends the inclusion of improved façade treatments on the northwest facade. DevelopmentWA considers this matter has been addressed, subject to conditions.

The City advised that should DevelopmentWA support the proposal, conditions are recommended requiring a construction management plan be prepared, waste management plan being updated, protection of City assets including stormwater and street trees, and detailed design of the interface with the public realm. These matters have been addressed by Conditions 3, 7, 9 and 10.

Other Agencies

- DWER (Contaminated Sites Branch) advised that site has not yet been investigated and the condition of the soil and groundwater beneath the site is unknown. DWER recommended that conditions be imposed requiring investigation for soil and groundwater contamination be carried out and any required remediation works completed prior to occupancy. These matters have been addressed by Conditions 5 and 6.
- Perth Airport raised no objections to the proposal recommending conditions be imposed to ensure necessary approvals from Perth Airport and Airservices Australia are issued prior to construction. These matters have been addressed by Condition 31.
- DTMI provided in principle support for the proposal subject to conditions requiring a Parking Management Plan be prepared, increased provision of resident and staff bicycle parking, and the preparation of a Travel Plan. As discussed in the report the proposed number of bicycle bays is considered to address the requirements of the



Design Guidelines. The requirement for a Parking Management Plan is addressed by Condition 9.

- PTA had no objections to the proposal and recommended that conditions be included on the determination requiring implementation of the recommendation of the Acoustic Report and compliance with guidelines relating to development adjacent to PTA infrastructure. These matters have been addressed by Conditions 17, 18 and 30.
- Main Roads had no objections to the proposal subject to conditions requiring minor amendments to noise model inputs within the Acoustic Report, implementation of the recommendation of the Acoustic Report, and notification on title advising of potential impact from transport noise. These matters have been addressed by Conditions 17-20
- ATCO and Water Corporation provided general advice relating to the site. Comments from these agencies have been included as Advice Notes.
- Western Power provided no response.

A detailed response to the comments raised by referral agencies have been addressed through recommended conditions and advice notes, as considered appropriate in *Appendix 5 – Summary of Stakeholder Comments.*

Public Consultation
In accordance with Clause 5.16 of the Scheme the application was advertised for public comment from 27 January to 17 February 2026.

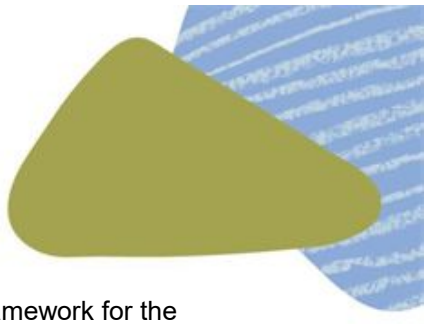
Twelve submissions were received, three in support and nine in objection. The key issues raised by those opposed to the development related to insufficient parking bays, loss of views and natural light, and oversupply of student accommodation within the City.

In relation to parking provision, the proposed development provides for four car parking bays which is consistent with the Design Guidelines and Perth Parking Policy which do not include minimum requirements and aim to encourage alternative transport modes and reduce private car usage within the City. The car parking and access arrangements are considered appropriate and are supported by a Transport Impact Assessment.

The proposed development is considered to be of an appropriate scale for the site having regard to the context and the vision for the project area. Major sight lines identified in the Design guidelines have been maintained through reorientation of the building in a north-south direction, resulting in a minimisation of shadow impacts on public realm.

A detailed response to the matters raised is provided in *Appendix 6 – Summary of Public Comments.*

Delegation
Under DevelopmentWA's Delegation Schedule, the DevelopmentWA Board is delegated to determine development applications with a development value over $100 million within the Central Perth Redevelopment Area. The project has an estimated value of $170 million.



Conclusion

The proposed development is generally consistent with the planning framework for the subject site. The alternative design outcomes proposed are considered consistent with the Scheme Vision and Objectives, Perth City Link Vision and Character Statement.

The proposal has undergone a comprehensive assessment and design review process, with the most recent advice demonstrating a high quality design outcome will be achieved. Careful consideration has been given to internal design to ensure high quality living and amenity spaces are provided that are appropriate for students including increased levels of safety and pastoral care. The interface with the public realm at Wardang Gardens and Telethon Avenue will provide strong activation with safe and legible access for all users. The proposal is the second high-quality architectural design from MJA Studios within the precinct, delivering much needed student accommodation to support the recently opened Edith Cowan University City and to achieve critical mass within Central Perth.

It is recommended the Central Perth Land Redevelopment Committee recommend to the DevelopmentWA Board approves the development application for the 33 Storey Specific Purpose (Student) Accommodation, Shop and Café/Restaurant Development proposed at Lot 108 (No. 18-28) Telethon Ave, Perth, subject to the recommended conditions and advice notes in *Appendix 7.*

Appendices

Appendix 1 – Regulatory Assessment
Appendix 2 – Development Plans
Appendix 3 – Supplementary Information following LRC Consideration
Appendix 4 – DRP Advice Note
Appendix 5 – Summary of Stakeholder Comments
Appendix 6 – Summary of Public Comments
Appendix 7 – Recommended Conditions and Advice Notes

Appendix 1

REGULATORY ASSESSMENT

Redevelopment Area Objectives

The proposal is considered to satisfy the Redevelopment Area Objectives as it:

Sense of Place	The proposal is a high-quality development with an architectural design informed by a strong context and character analysis drawing upon diverse past and present buildings as well as contributing to the development of Perth City Link as a 24-hour precinct.
Economic Wellbeing	The proposal represents a $170 million investment in the Project Area and provides 854 new student accommodation beds in the locality which will contribute to the vibrancy of commercial land uses within the locality.
Urban Efficiency	The proposal develops existing underutilised and vacant land and will help facilitate a critical mass of people with Central Perth
Social Inclusion	The proposal includes 854 student accommodation beds in a variety of typologies which are serviced by high frequency public transport, commercial land uses and support services.
Connectivity	The proposal offers residential land uses in close proximity to high frequency public transport, cycling networks and with high-quality pedestrian access and internal amenity spaces which promote reduced reliance on car travel.
Environmental Integrity	The proposal commits to achieving a 5 Star Green Star Certification incorporating sustainability infrastructure in the design and substantial landscaping at the ground and podium level helping to green the project area.

Appendix 2

18-28 TELETHON AVENUE, PERTH CITY LINK, WA 6000

DA DRAWING REGISTER

DRAWING NUMBER	DRAWING NAME	REV
DA0.00	COVER PAGE	C
DA0.01	DEVELOPMENT SUMMARY	B
DA1.00	PLANS - SITE PLAN	B
DA1.01	SITE SURVEY	A
DA1.02	PLANS - LOWER GROUND	C
DA1.03	PLANS - GROUND FLOOR	C
DA1.04	PLANS - LEVEL 01	B
DA1.05	PLANS - LEVEL 02	C
DA1.06	PLANS - LEVEL 03 - 08*	B
DA1.07	PLANS - LEVEL 03 - 08*	B
DA1.08	PLANS - LEVEL 09 - 32*	B
DA1.09	PLANS - LEVEL 09 - 32*	B
DA1.10	PLANS - ROOF - SERVICE PLANT	B
DA1.11	PLANS - ROOF	B
DA2.00	SECTIONS - NORTH A	C
DA2.01	SECTIONS - WEST B	C
DA3.00	ELEVATIONS - SOUTH + WEST	C
DA3.01	ELEVATIONS - NORTH + EAST	C

MJA STUDIO

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REV.	DATE	AMENDMENT
A	16.12.2025	DEVELOPMENT APPLICATION
B	12.02.2026	DEVELOPMENT APPLICATION
C	10.03.2026	DEVELOPMENT APPLICATION

PLANNING:	ELEMENT ADVISORY (SLR)
WIND:	WINDTECH GLOBAL
STRUCTURAL:	BG&E
LANDSCAPE:	PLACE LABORATORY
WASTE:	ENCLYCE
ENERGY:	SUMMATION
ACOUSTIC:	E-LAB
TRAFFIC:	STANTEC
FIRE:	STANTEC

CLIENT: SIRONA URBAN

PROJECT: TELETHON AVENUE PBSA_WEST

PROJECT ADDRESS: 18-28 TELETHON AVENUE PERTH CITY LINK

PROJECT STATUS: DEVELOPMENT APPLICATION

PROJECT NUMBER: 25038

NORTH

SCALE

DRAWING: COVER PAGE

DRAWING NO.	DRAFTER	CHECKED	REV.
DA0.00	SD	WB	C

	854 PBSA: 18-28 Telethon Ave, Perth City Link (West)													
	Shared Living Standard	Shared Living Deluxe	Studio	Studio	Studio	Studio	Studio DDA	Twin	Twin	Total PBSA beds	Indoor Amenity	Outdoor Amenity	Commercial	Parking
Bed Strata	13.3	16.3	15.5	16	16.7	17.2	19.4	13.9	14.2					
Room Strata								27.8	28.4					
LG													194	
G											760	100		2
L01											980	165		
L02	2	6	4	4	1		1	8		26				
L03	2	6	4	4	1		1	8		26				
L04	2	6	4	4	1		1	8		26				
L05	2	6	4	4	1		1	8		26				
L06	2	6	4	4	1		1	8		26				
L07	2	6	4	4	1		1	8		26				
L08	2	6	4	4	1		1	8		26				
L09			4	10	1	1		8	4	28				
L10			4	10	1	1		8	4	28				
L11			4	10	1	1		8	4	28				
L12			4	10	1	1		8	4	28				
L13			4	10	1	1		8	4	28				
L14			4	10	1	1		8	4	28				
L15			4	10	1	1		8	4	28				
L16			4	10	1	1		8	4	28				
L17			4	10	1	1		8	4	28				
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L19			4	10	1	1		8	4	28				
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L27			4	10	1	1		8	4	28				
L28			4	10	1	1		8	4	28				
L29			4	10	1	1		8	4	28				
L30			4	10	1	1		8	4	28				
L31			4	10	1	1		8	4	28				
L32			4	10	1	1		8	4	28				
ROOF														
Total PBSA	14	42	124	268	31	24	7	248	96	854	1740	265	194	2
PBSA BED Strata Area	186.2	684.6	1922	4288	517.7	412.8	135.8	3447.2	1363.2	12958	2005			
PBSA Mix	1.6%	4.9%	14.5%	31.4%	3.6%	2.8%	0.8%	29.0%	11.2%	100.0%				
Overall Mix	6.6%		52.3%				0.8%	40.3%		100.0%				
Total Beds	14	42	124	268	31	24	7	248	96	854				

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METROPOLITAN REDEVELOPMENT AUTHORITY ACT 2011
RECEIVED
20 March 2026

REV.	DATE	AMENDMENT
A	16.12.2025	DEVELOPMENT APPLICATION
B	12.02.2026	DEVELOPMENT APPLICATION

PLANNING:	ELEMENT ADVISORY (SLR)
WIND:	WINDTECH GLOBAL
STRUCTURAL:	BG&E
LANDSCAPE:	PLACE LABORATORY
WASTE:	ENCLYCE
ENERGY:	SUMMATION
ACOUSTIC:	E-LAB
TRAFFIC:	STANTEC
FIRE:	STANTEC

CLIENT: SIRONA URBAN

PROJECT: TELETHON AVENUE PBSA_WEST

PROJECT ADDRESS: 18-28 TELETHON AVENUE PERTH CITY LINK

PROJECT STATUS: DEVELOPMENT APPLICATION

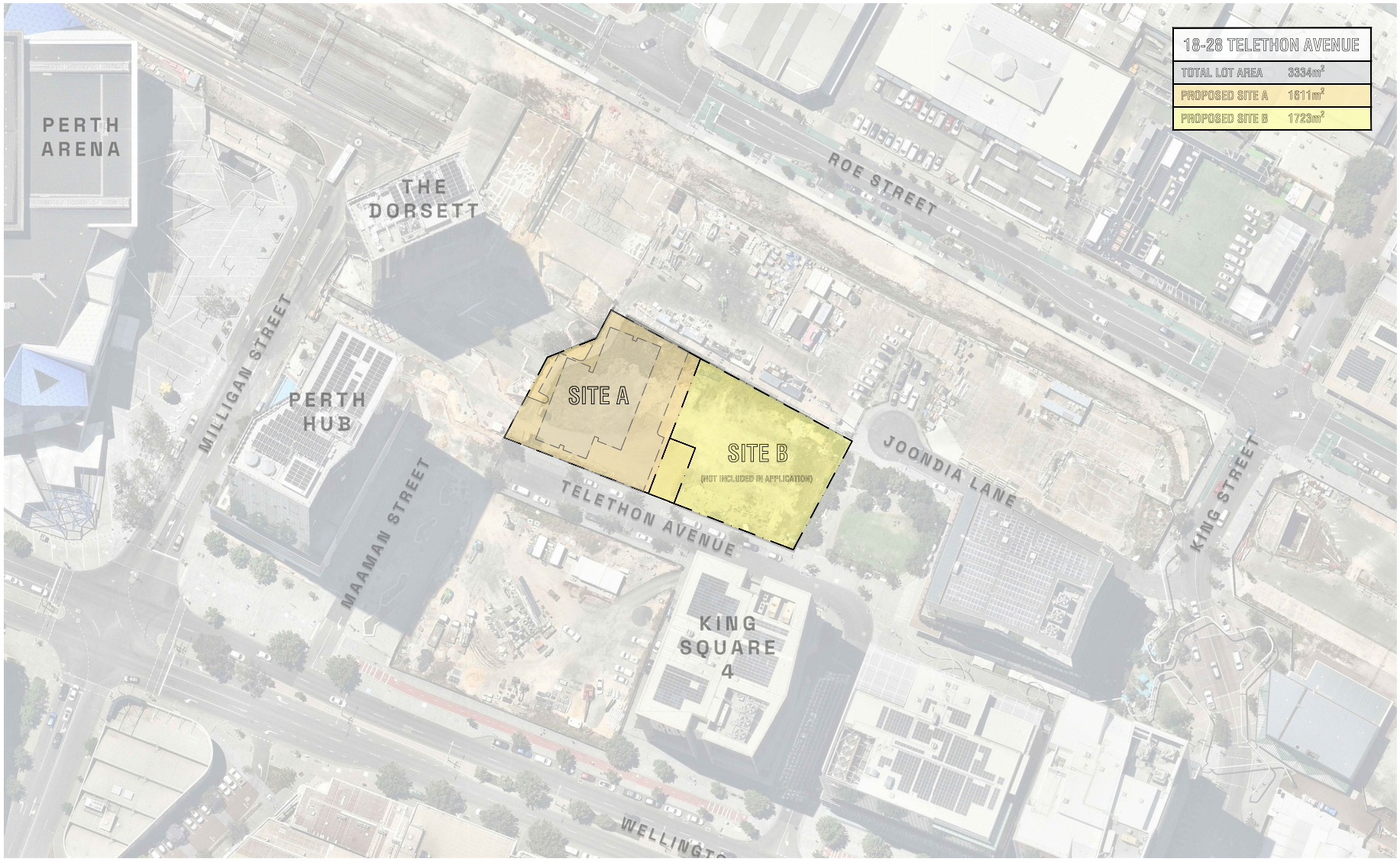
PROJECT NUMBER: 25038

NORTH

SCALE

DRAWING: DEVELOPMENT SUMMARY

DRAWING NO.	DRAFTER	CHECKED	REV.
DA0.01	SD	WB	B



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CLIENT
SIRONA URBAN

PROJECT
TELETHON AVENUE
PBSA_WEST

PROJECT ADDRESS
18-28 TELETHON AVENUE
PERTH CITY LINK

PROJECT STATUS
DEVELOPMENT APPLICATION

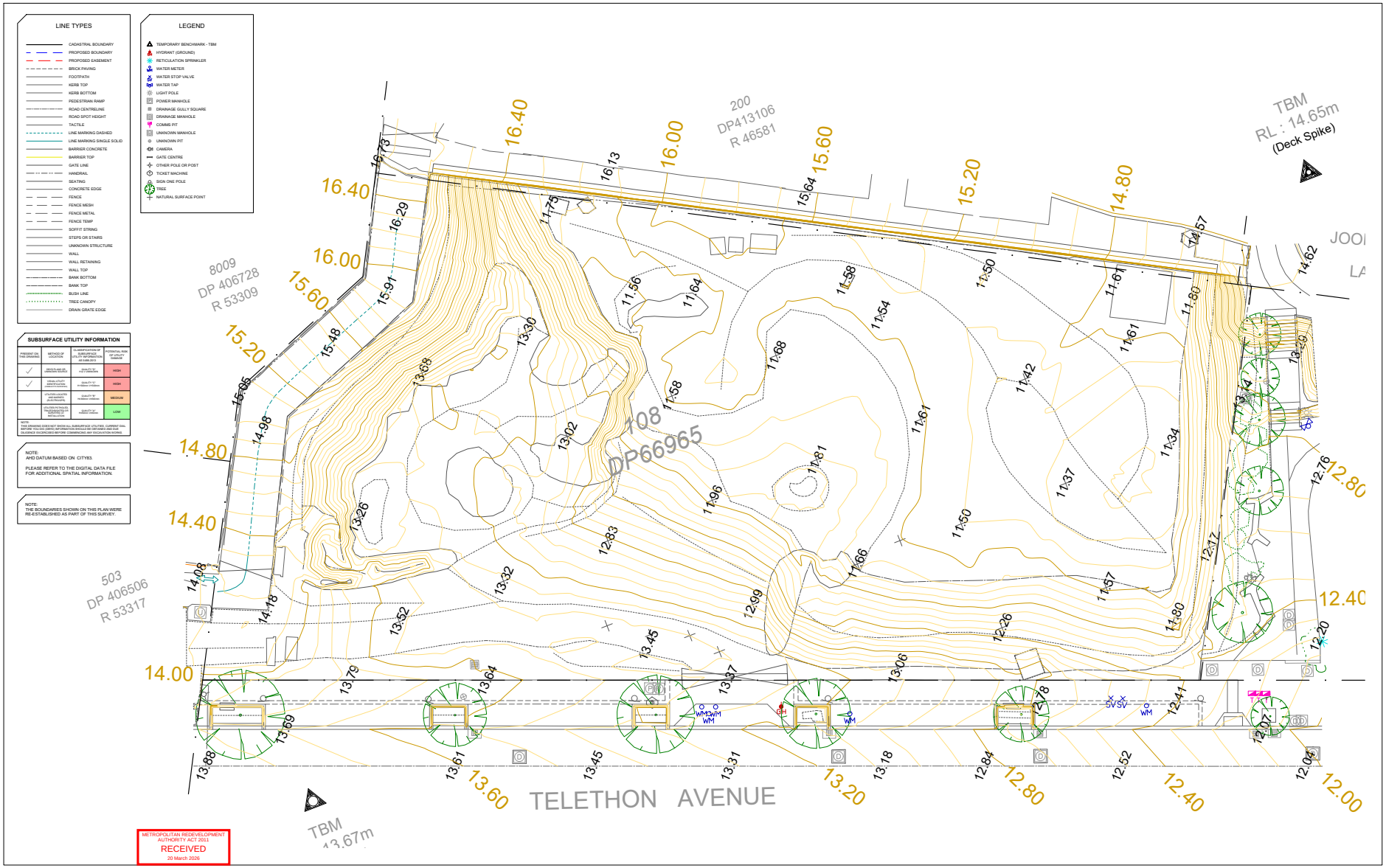
PROJECT NUMBER
25038

NORTH

SCALE
1:500 @ A1

DRAWING
SITE PLAN

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.00	SD	WB	B



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RM SURVEYS

PHONE: 08 9457 7900 EMAIL: INFO@RMSURVEYS.COM.AU WEBSITE: RMSURVEYS.COM.AU

REV.	DATE	AMENDMENT
A	16.12.2025	DEVELOPMENT APPLICATION

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CLIENT
SIRONA URBAN

PROJECT
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NORTH

SCALE
1:150 @ A1

DRAWING
SITE SURVEY

DRAWING NO.	DRAFTER	CHECKED	REV.
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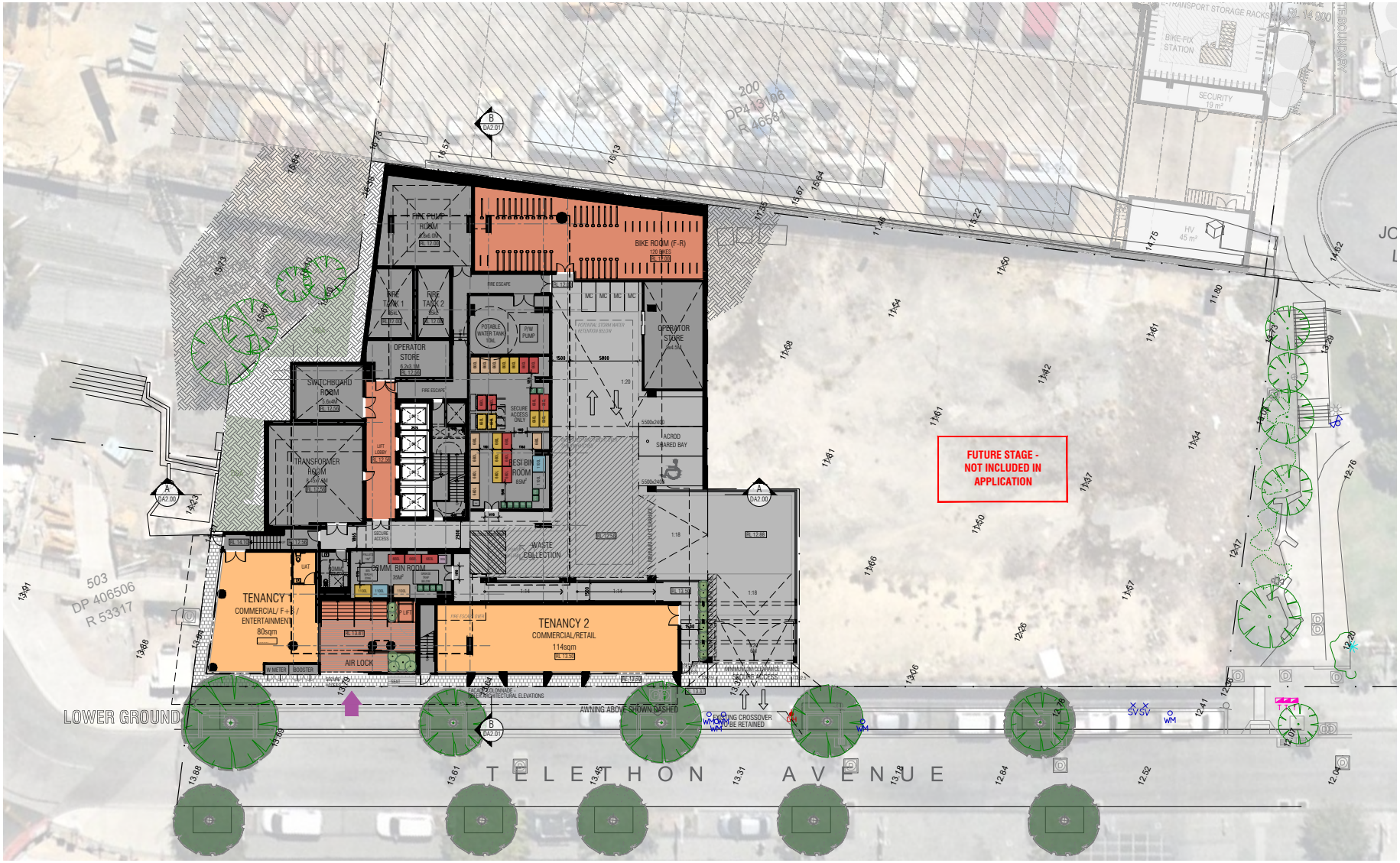

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NORTH

SCALE
1:150 @ A1

DRAWING
PLANS
LOWER GROUND

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.02	SD	WB	C

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NORTH

SCALE
1:150 @ A1

DRAWING
PLANS
GROUND

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.03	SD	WB	C

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NORTH

SCALE
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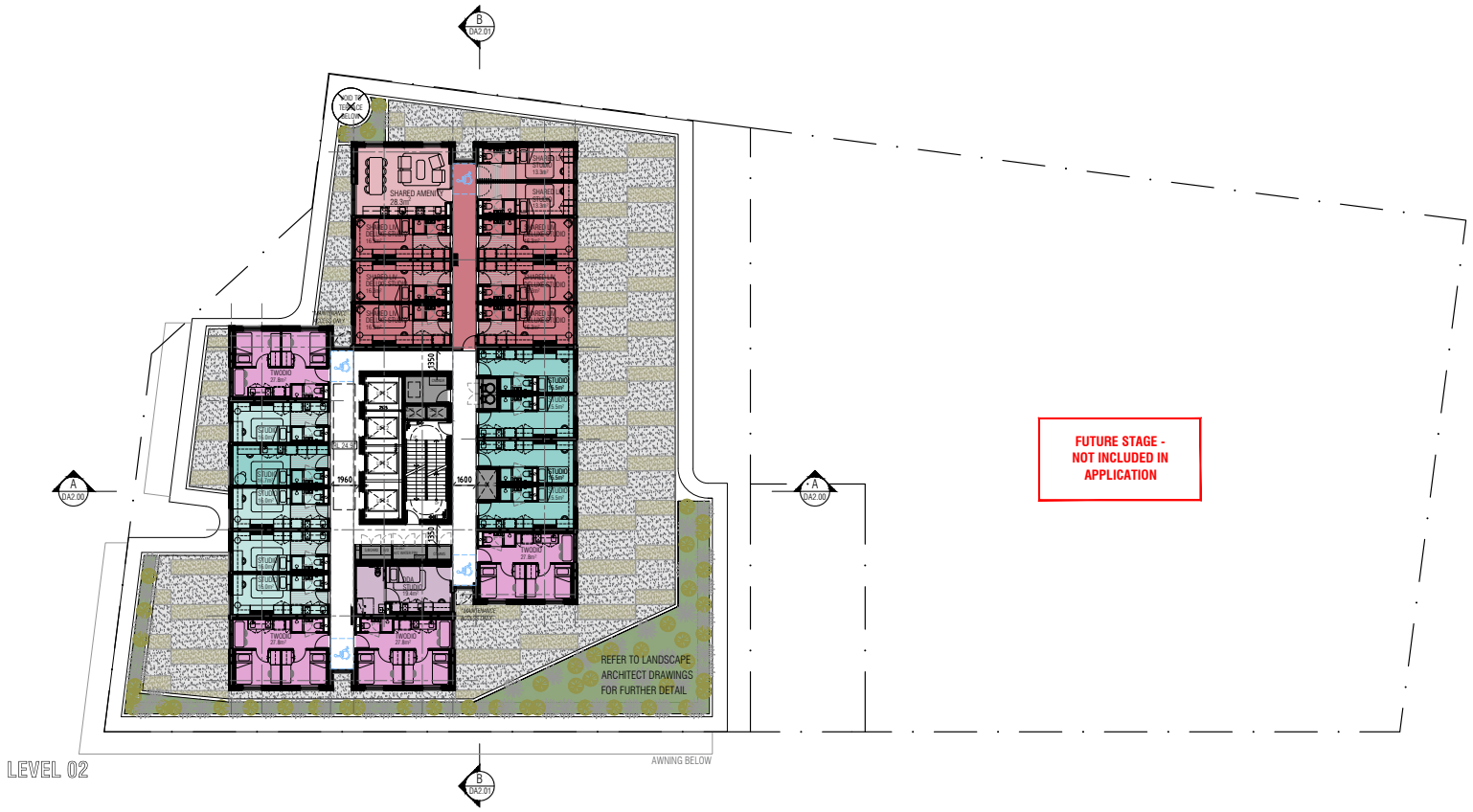
DRAWING
PLANS
LEVEL 01

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.04	SD	WB	B



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25038

NORTH

SCALE
1:150 @ A1

DRAWING
PLANS
LEVEL 02

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.05	SD	WB	C

LEVELS 03-08*

ALTERNATING FACADE - TYPE 1 SHOWN
REFER ARCHITECTURAL ELEVATIONS FOR DETAIL

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DRAWING
PLANS
LEVELS 03-08*

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.06	SD	WB	B

LEVELS 03-08*

ALTERNATING FACADE - TYPE 2 SHOWN
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SCALE
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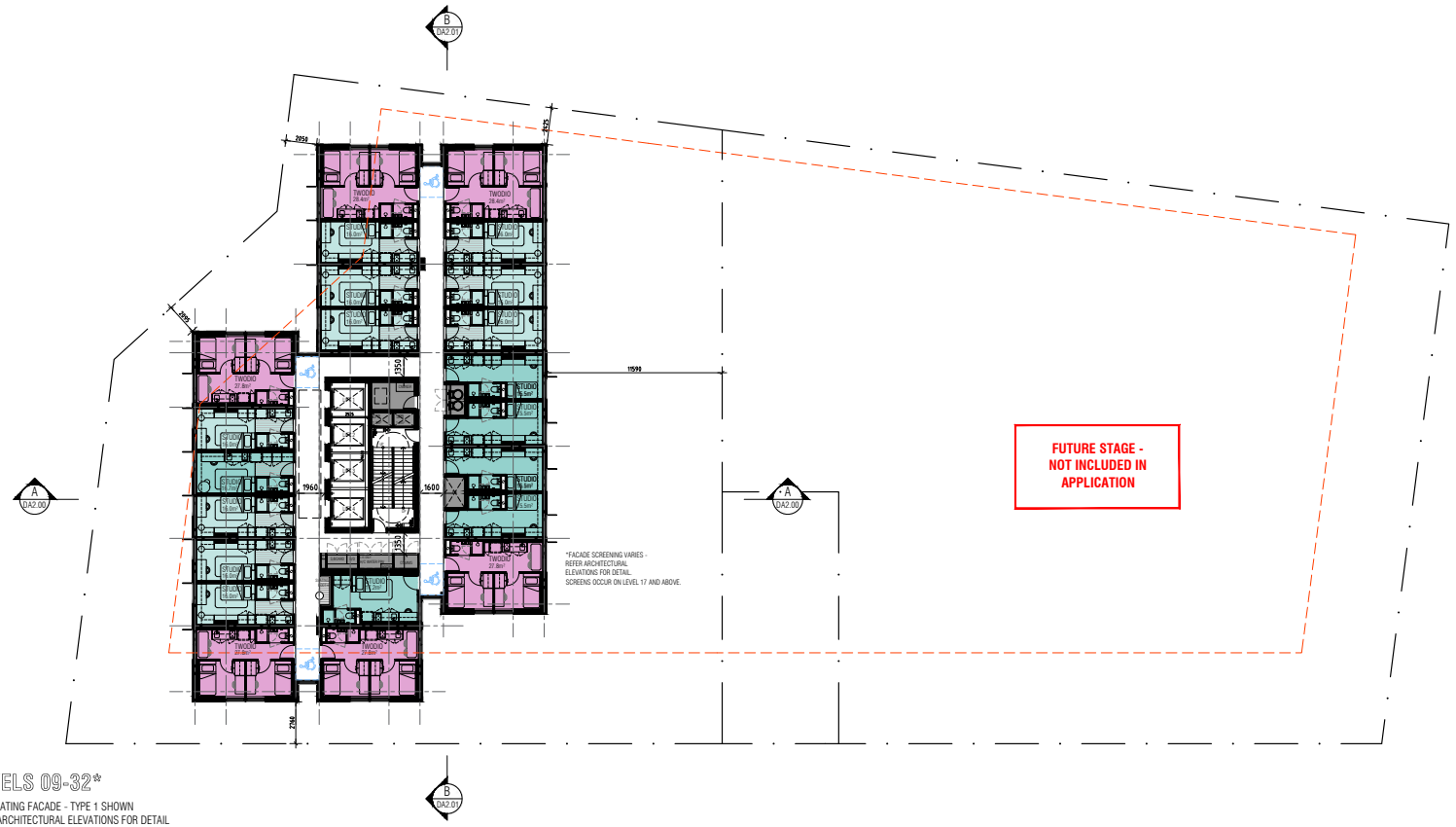
DRAWING
PLANS
LEVELS 03-08*

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.07	SD	WB	B



LEVELS 09-32*

ALTERNATING FACADE - TYPE 1 SHOWN
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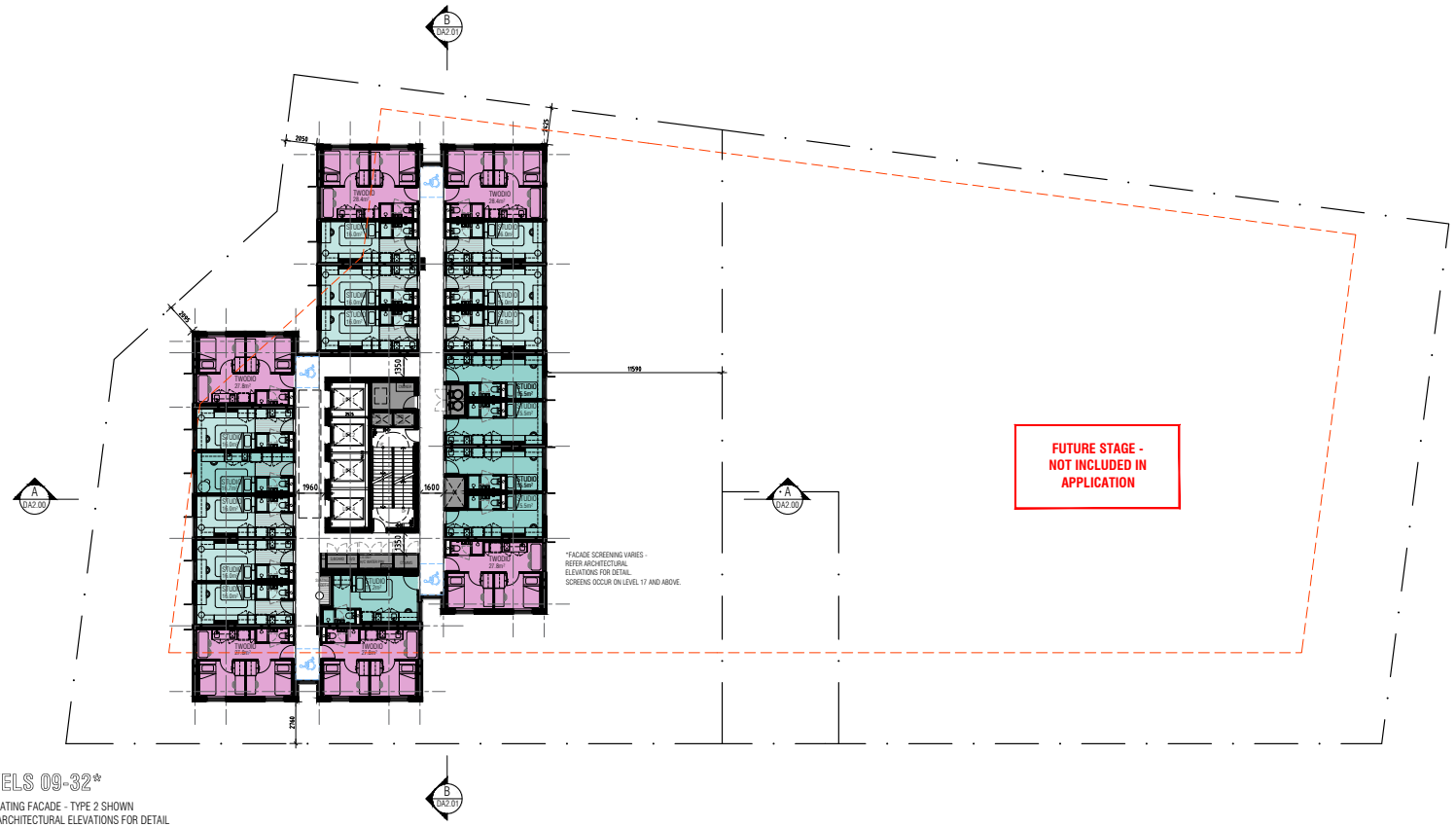
NORTH

SCALE
1:150 @ A1

DRAWING
PLANS
LEVELS 09-32*

DRAWING NO.	DRAFTER	CHECKED	REV.
DA1.08	SD	WB	B



LEVELS 09-32*

ALTERNATING FACADE - TYPE 2 SHOWN
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SCALE
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DRAWING
PLANS
LEVELS 09-32*

DRAWING NO.	DRAFTER	CHECKED	REV.
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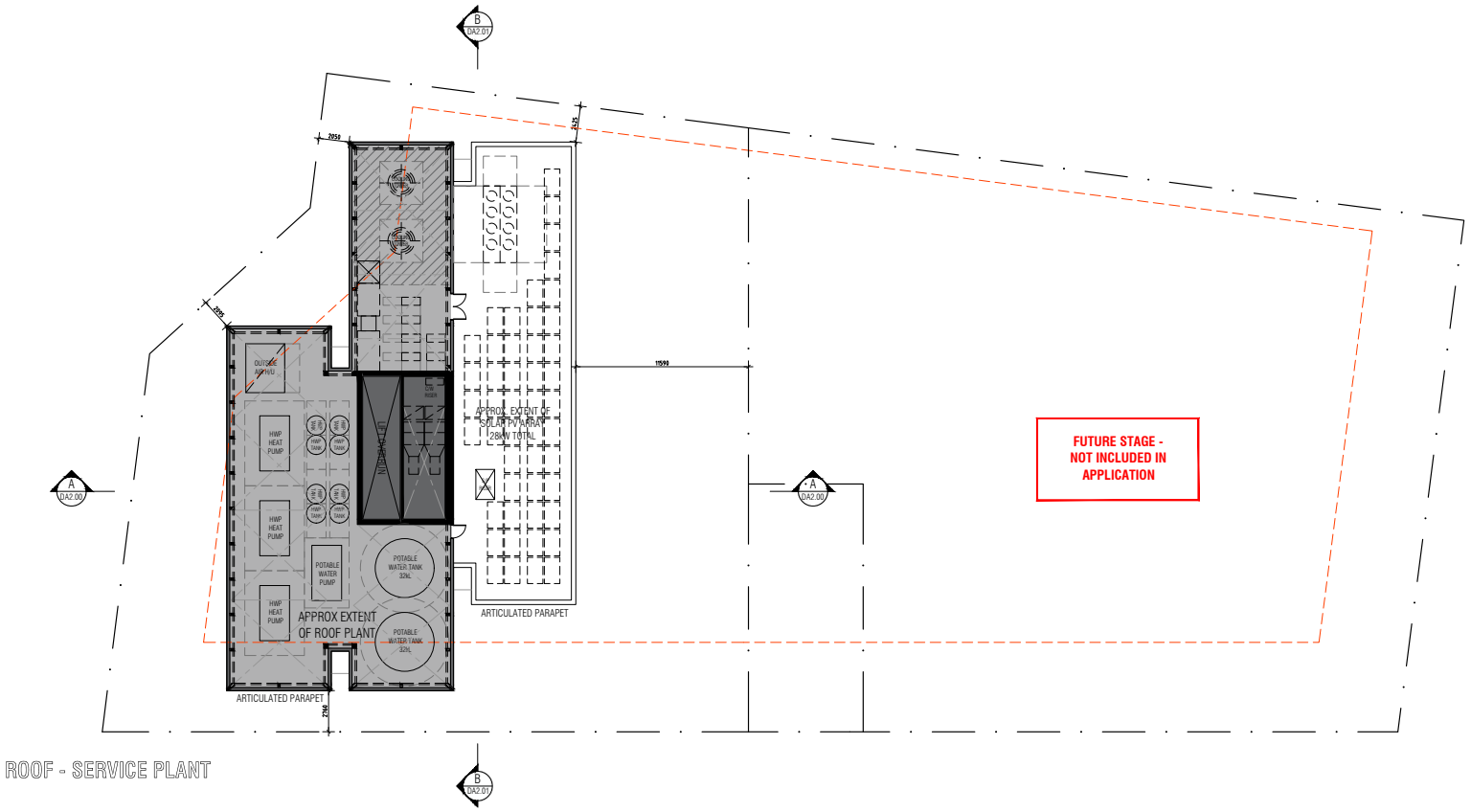

ROOF - SERVICE PLANT

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NORTH

SCALE
1:150 @ A1

DRAWING
PLANS
ROOF - SERVICE PLANT

DRAWING NO.	DRAFTER	CHECKED	REV.
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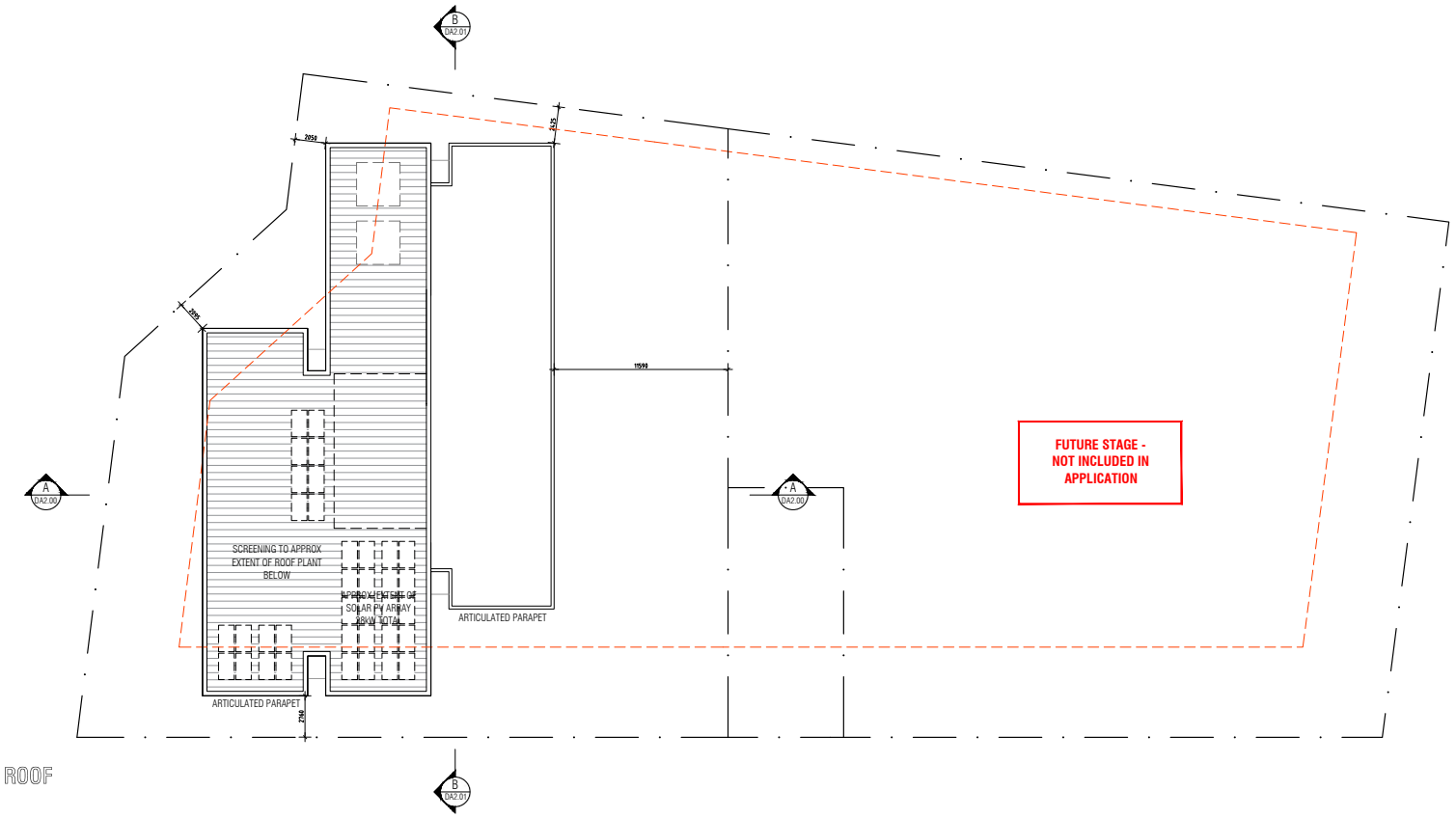

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SCALE
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DRAWING
PLANS
ROOF

DRAWING NO.	DRAFTER	CHECKED	REV.
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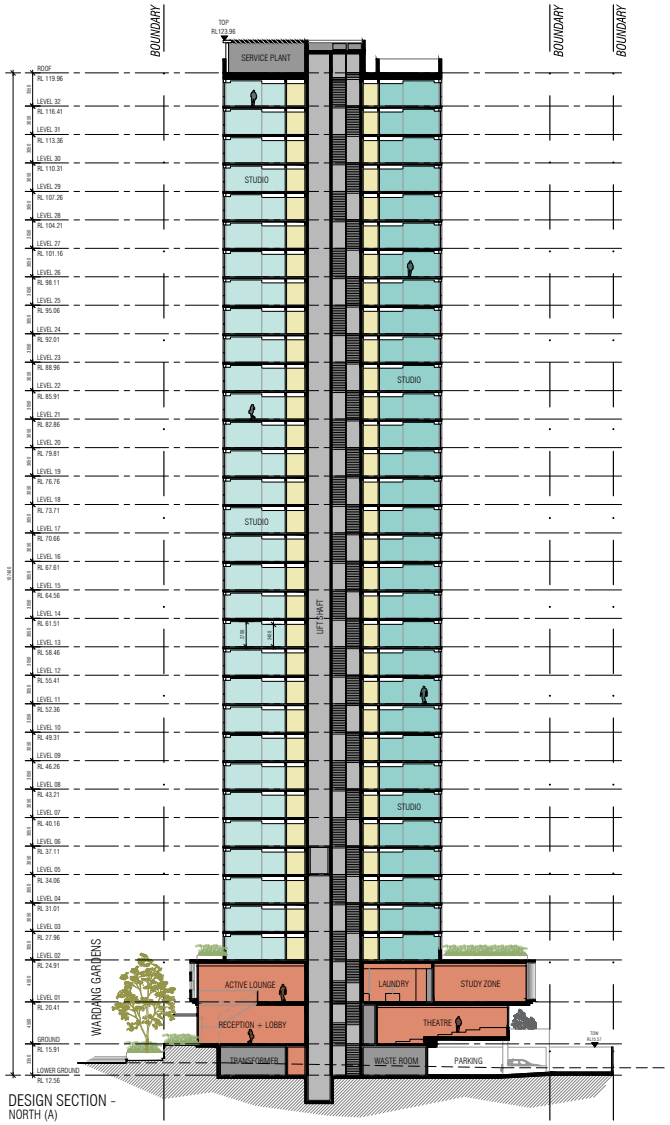

DESIGN SECTION - NORTH (A)

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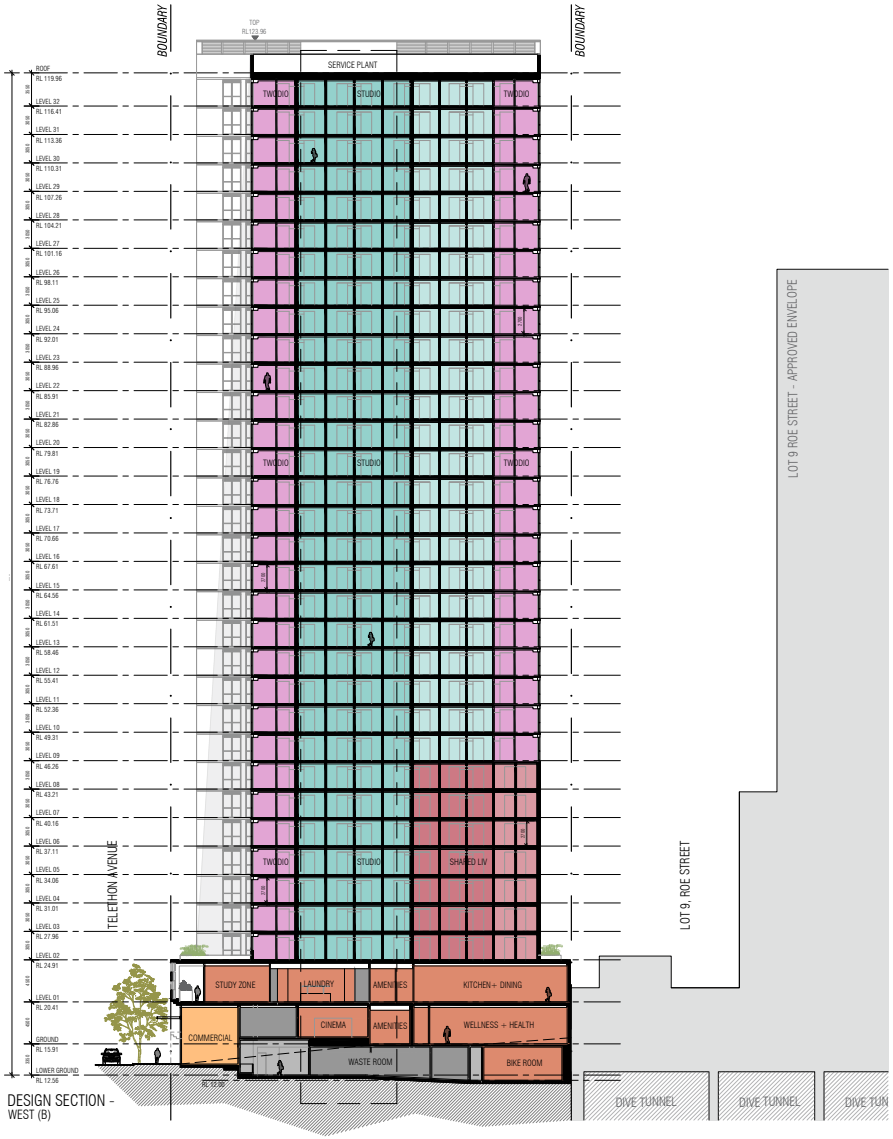
NORTH

SCALE
1:250 @ A1

DRAWING
SECTIONS
DESIGN SECTION A - NORTH

DRAWING NO.	DRAFTER	CHECKED	REV.
DA2.00	SD	WB	C



DESIGN SECTION - WEST (B)

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NORTH

SCALE
1:250 @ A1

DRAWING
SECTIONS
DESIGN SECTION B - WEST

DRAWING NO.	DRAFTER	CHECKED	REV.
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SCALE
1:250 @ A1

DRAWING
ELEVATIONS
AS SHOWN

DRAWING NO.	DRAFTER	CHECKED	REV.
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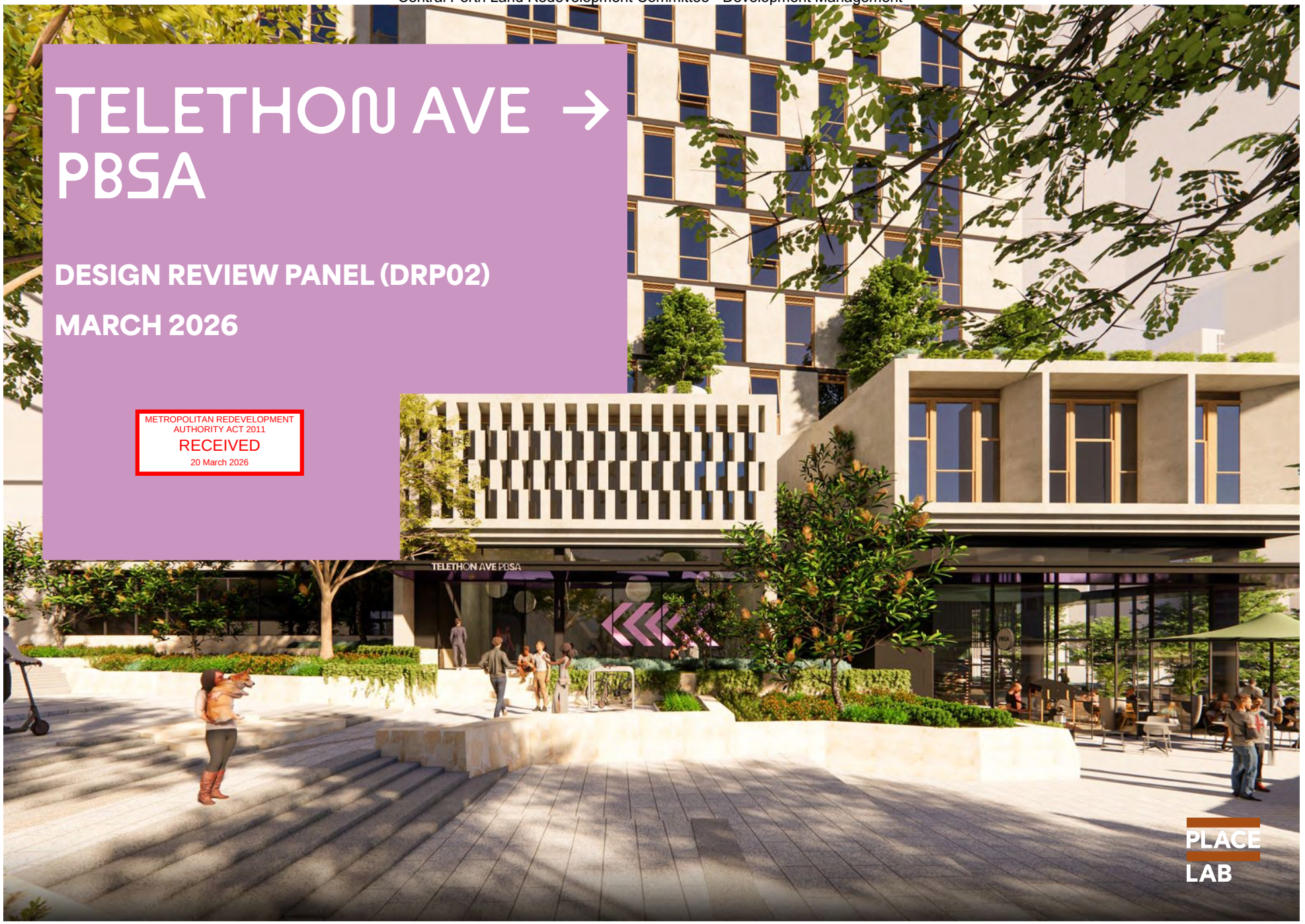
TELETHON AVE →
PBSA
DESIGN REVIEW PANEL (DRP02)
MARCH 2026
METROPOLITAN REDEVELOPMENT AUTHORITY ACT 2011
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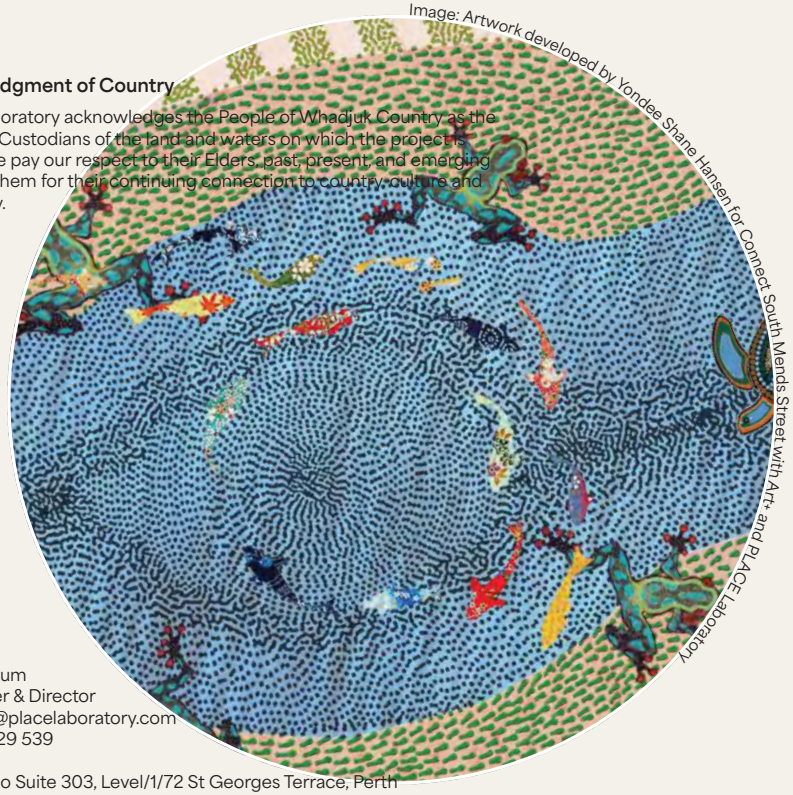
20 March 2026
TELETHON AVE PBSA
PLACE
LAB



Acknowledgment of Country

PLACE Laboratory acknowledges the People of Whadjuk Country as the Traditional Custodians of the land and waters on which the project is located. We pay our respect to their Elders, past, present, and emerging and thank them for their continuing connection to country, culture and community.

Contact
Shlomit Strum
Co-Founder & Director
E. shlomit@placelaboratory.com
M. 0407 829 539

Perth Studio Suite 303, Level/1/72 St Georges Terrace, Perth WA 6000
Place Laboratory Pty Ltd (as trustee for The Lab Unit Trust)
ABN 24 169 889 699

Project Name	Telethon Ave PBSA
Project Number	25080
Project Team	GT, JV, SS,GVM

Revision	Status	Checked	Date issued
A	Issue for DA - Draft	SS	05.12.2025
B	Development Application	SS	16.12.2025
C	Design Review Panel 02	SS	09.02.2026
D	Design Review Panel Response	SS	12.03.2026

Contents

Landscape Vision

Design Drivers

Urban Living

Celebrate the buzz and access to 24 hour activity.

Retreat

Provide quiet, comfortable and safe spaces to calm the mind and enrich the soul.

Exchange

Support connections between people to allow relationships and ideas to flourish.

Immersive Landscape

Create a range of environments where the building and landscape can interact to create diverse experiences.

Broader Precinct Landscape

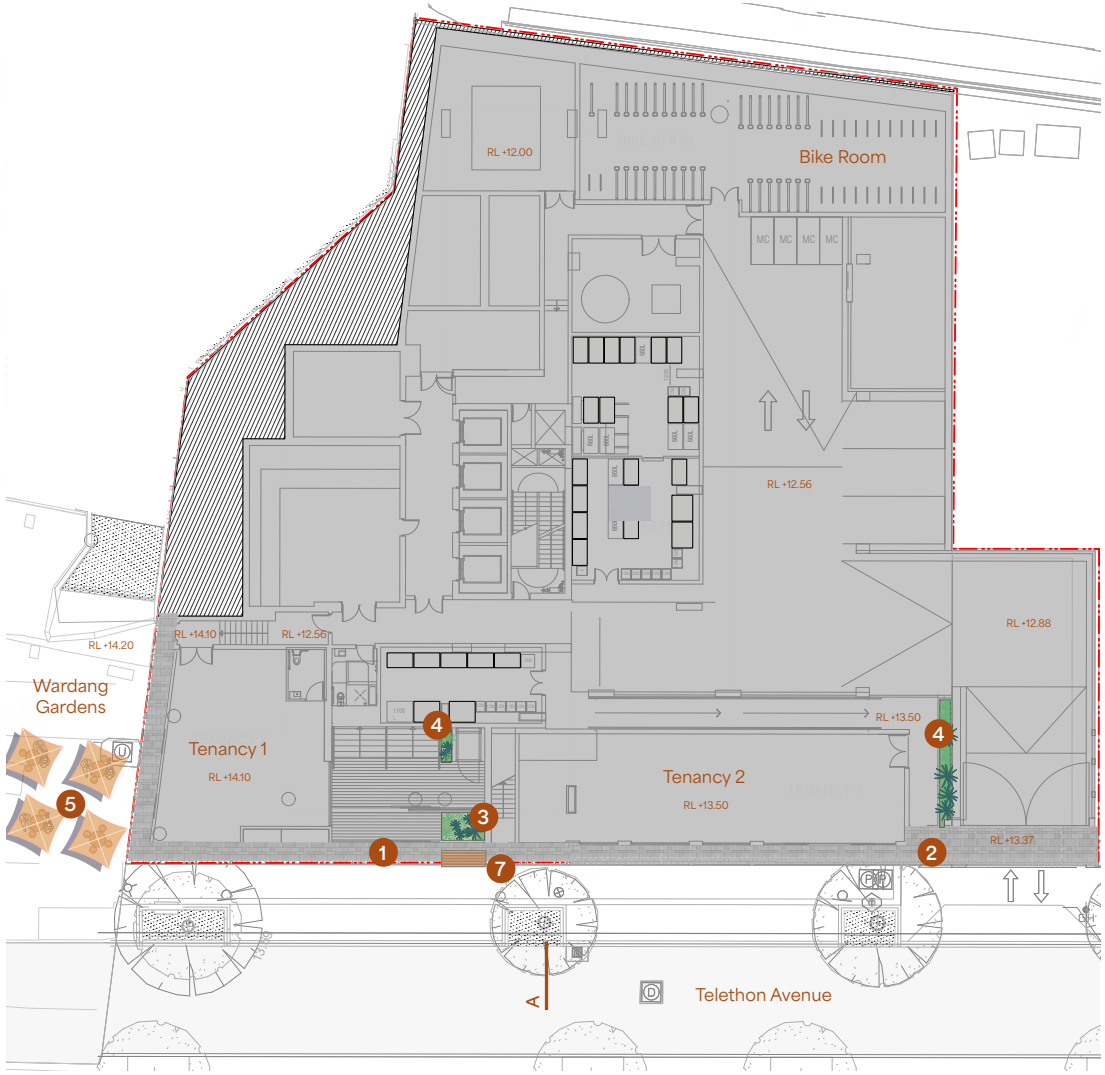


Inner City Green Space




Celebrating Culture and Community

Lower Ground



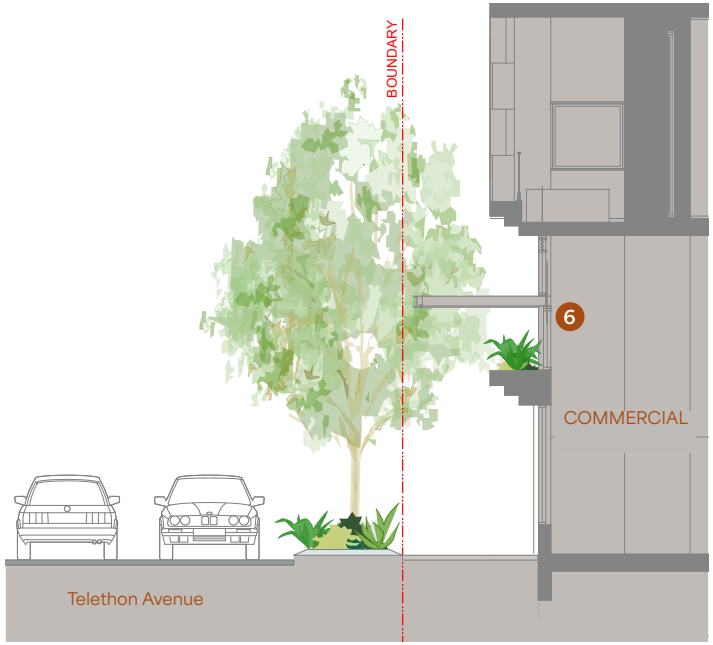
Plan

0 2 4 6m

Scale 1:200

Legend

1. Pedestrian entry
2. Vehicular, Bike and pedestrian entry
3. Deep soil garden bed within air lock
4. On slab raised garden bed
5. Alfresco plaza activation
6. Raised Planter with cascading plants above commercial tennancy
7. Seating Element

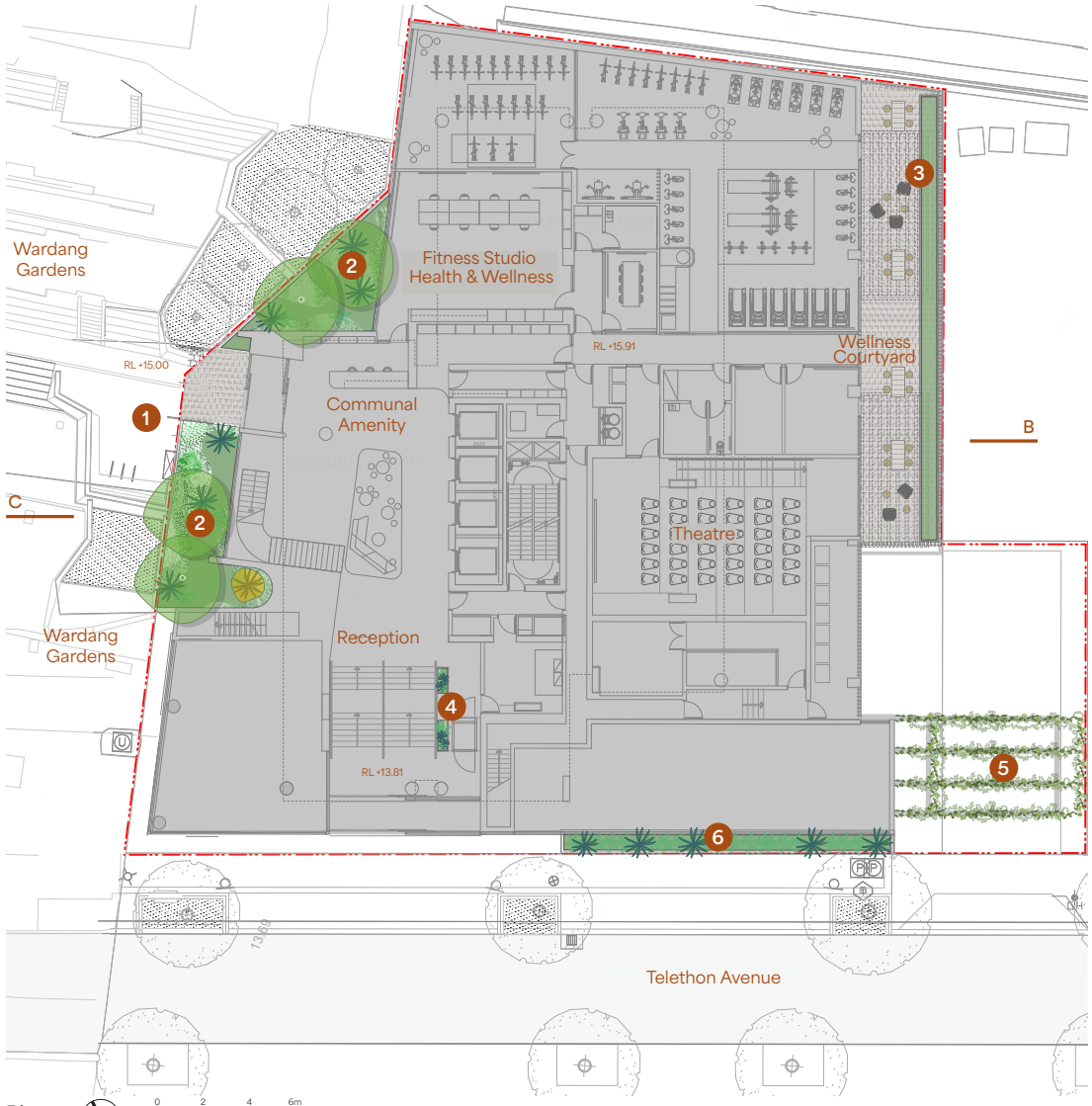


Section A

0 1 2 3m

Scale 1:50

Ground Floor

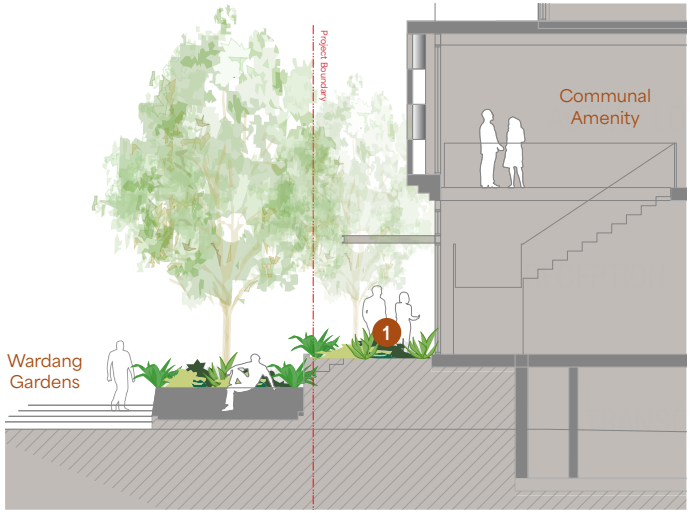


Plan

Legend

1. Secondary pedestrian entrance
2. Deep soil garden bed to tie in with existing within Wardang Gardens
3. Wellness courtyard with raised garden beds and climbing plants
4. On slab raised garden bed
5. Planting on trellis above driveway
6. Raised Planter with cascading plants above commercial tennancy

Section B - Wellness Courtyard



Section C - Secondary Entrance

Level 1

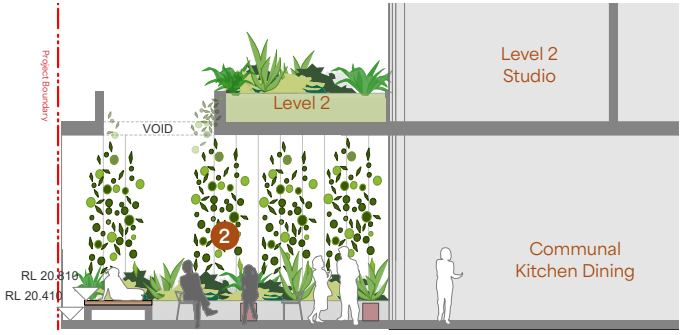
Plan

Scale 1:200

Legend

1. Outdoor communal amenity
2. Trellis greenery
3. Outdoor study terrace
4. Pergola with climber planting
5. Outdoor Dining area with BBQ
6. Internal Planters

Section D - Study Terrace



Section E - Outdoor Communal Area

Scale 1:50

Level 2

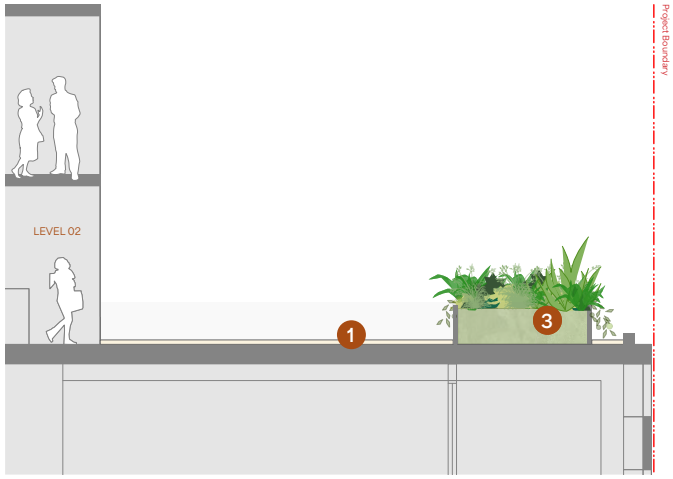
Plan

0 2 4 6m

Scale 1:200

Legend

1. Stabilised pattern gravel
2. Oculus skylight to level 1 communal area
3. Edge raised planter



Section F - Level 2 Podium

0 1 2 3m

Scale 1:50

9 TELETHON AVE PBSA

Precedent Images


Communal outdoor area


Ground floor alfresco area


Shared outdoor space


Bicycle entry


Green pergola structure


Planting in existing garden bed

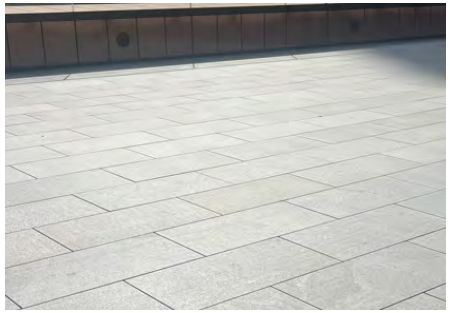

Vertical trellis planting


Filtered light through building

Material Palette

Surface Treatments

Paving to tie in with City of Perth existing treatment



Pedestal paver on podium

Gravel on podium

Garden bed on natural ground

Vertical Treatments

Pergola

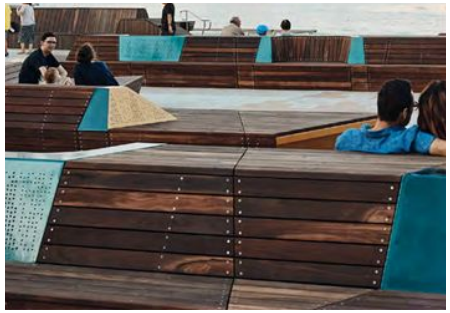
Trellis

Raised garden bed planter

Free standing pots

Other Elements

Loose furniture



Integrated timber seating

BBQ

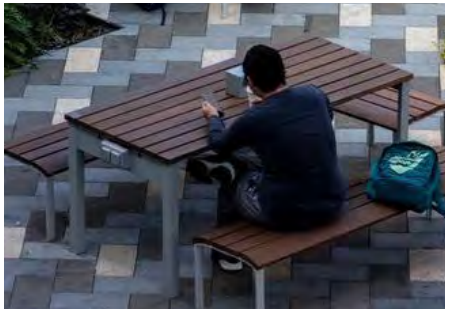


Table and bench setting

Indicative Planting Palette

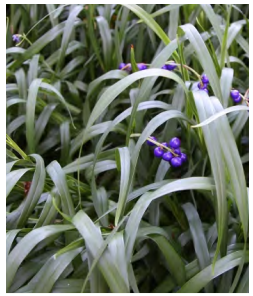
Trees

Chinese Elm
Ulmus parvifolia

Agonis flexuosa
WA Weeping Peppermint

Water Gum
Tristaniopsis laurina

Medium Shrubs



Flax Lily
Dianella 'Weeping Kate'

Native Flax
Dianella 'Little Rev'

Aloe Sunset
Aloe Hybrid Mighty Sunset

Tall Shrubs

Cardboard Palm
Zamia furfuracea

Mother in Laws Tongue
Dracaena trifasciata

Dwarf cardomom
Alpinia nutans

Groundcovers

Blue Rock Bindweed
Convolvulus sabatius

Silver Falls
Dichondra argentea

Cousin It
Casuarina 'Cousin It'

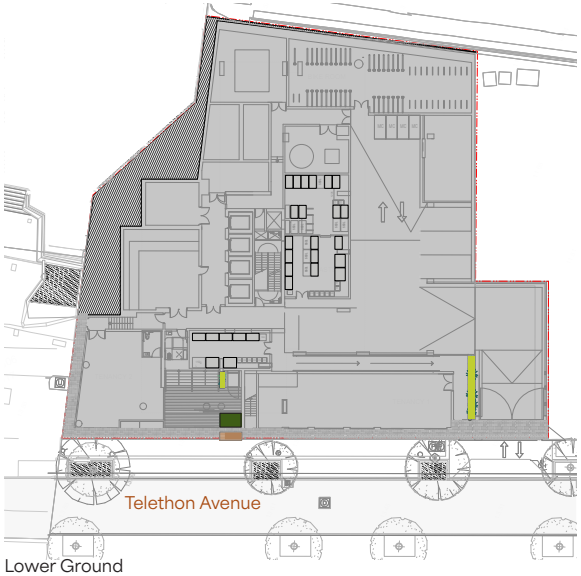
Dwarf Native Myrtle
Myoporum parvifolium Ýareena'

Climbers

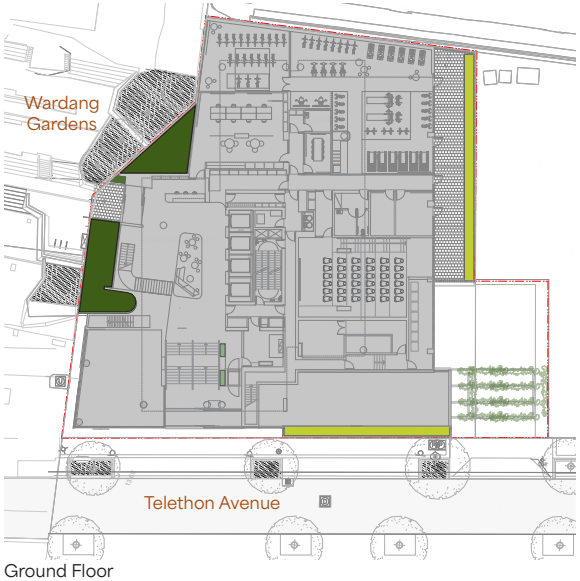
Native Wisteria
Hardenbergia mini meema

Snake Vine
Hibbertia scandens

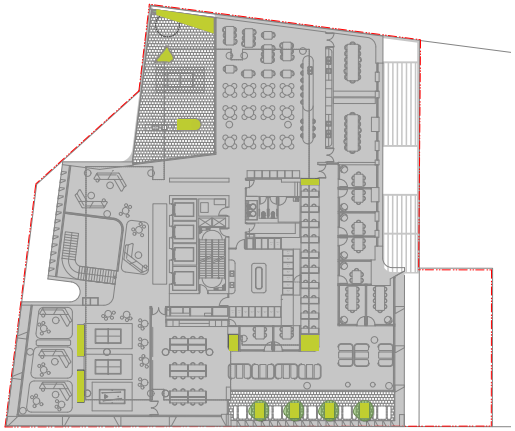
Deep Soil Planting



Lower Ground



Ground Floor



Level 1

Level 2

Legend

- Deep Soil Area
- Supplementary Planting on Structure > 1 m

Deep Soil Area Calculation:

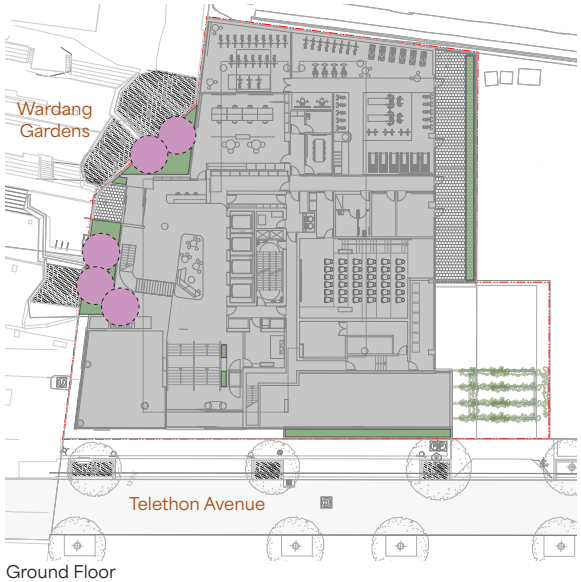
Total Site Area
1611 m²

DEEP SOIL AREA ACHIEVED
61 m2

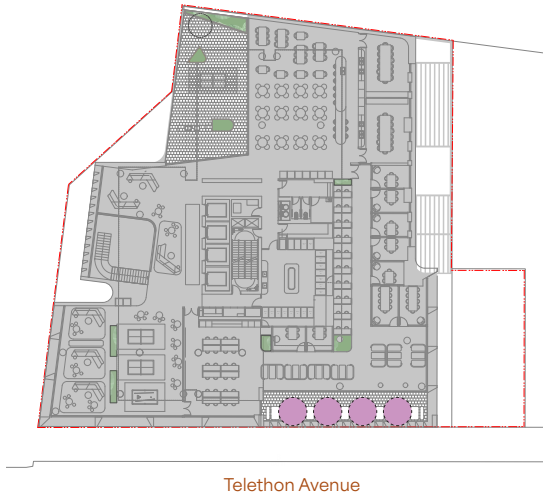
SUPPLEMENTARY DSA ACHIEVED
144 m2

Supplementary Planting on Structure < 1 m
107 m2

Tree Provision Requirements



Ground Floor



Level 1

Legend

Medium Tree

Tree Provision Requirements

Proposed:

Medium Trees (200 LT) 9 qty

Medium Tree Approx Canopy 92 m2
(Assumed Diameter 4 m)

Tree Canopy Table

Tree size	Indicative canopy diameter at maturity	Nominal height at maturity	Required DSA per tree	Recommended minimum DSA width	Minimum DSA width where additional rootable soil zone (RSZ) width provided[1] (min 1m depth)	Indicative pot size at planting
Small	4-6m	4-8m	9m²	2m	1m (DSA) + 1m (RSZ)	100L
Medium	6-9m	8-12m	36m²	3m	2m (DSA) + 1m (RSZ)	200L
Large	›9m	›12m	64m²	6m	4.5m (DSA) + 1.5m (RSZ)	500L

[1] Rootable areas are for the purposes of determining minimum width only and do not have the effect of reducing the required DSA.

Deisgn Intent - Irrigation Strategy

Design Intent – Irrigation Strategy

+ The irrigation system for the green roof and elevated landscape areas is designed to support long-term plant health while minimising potable water use and maintenance requirements. The strategy responds to Perth's Mediterranean climate by providing efficient irrigation during extended dry summer periods while allowing seasonal adjustment during winter rainfall. Subsurface irrigation and smart controls are utilised to reduce evaporation, overspray, and wind drift in elevated conditions. The system prioritises water efficiency, integrates monitoring and leak detection, and supports Water Sensitive Urban Design (WSUD) objectives while ensuring reliable operation within the multi-storey building environment.

+ **Subsurface Irrigation:** Predominantly pressure-compensating dripline installed within planting media to minimise evaporation, wind drift, and overspray.

+ **Hydrozoning:** Irrigation zones grouped based on plant water demand, solar exposure, wind exposure, and soil depth.

+ **Climate Responsive Controls:** Central controller with seasonal adjustments supported by soil moisture sensors and rain shut-off devices.

+ **Water Source Hierarchy:** Priority given to non-potable sources such as harvested rainwater where feasible, with scheme water supply as backup via compliant RPZ / backflow protection.

+ **Water Efficiency Measures:** Pressure regulation, matched precipitation rates, weather station connection for rain & wind shutoff, and zoning to reduce water wastage and ensure uniform distribution.

+ **Monitoring and Leak Detection:** Flow sensors and master valve to detect abnormal flow and isolate the system if required.

+ **Maintenance Accessibility:** Irrigation infrastructure arranged to allow safe access for inspection, flushing, and maintenance within the green roof system.

+ **Establishment Irrigation:** Increased irrigation frequency during initial plant establishment, transitioning to long-term maintenance scheduling once plants are established.

SUMMATION

Telethon Avenue

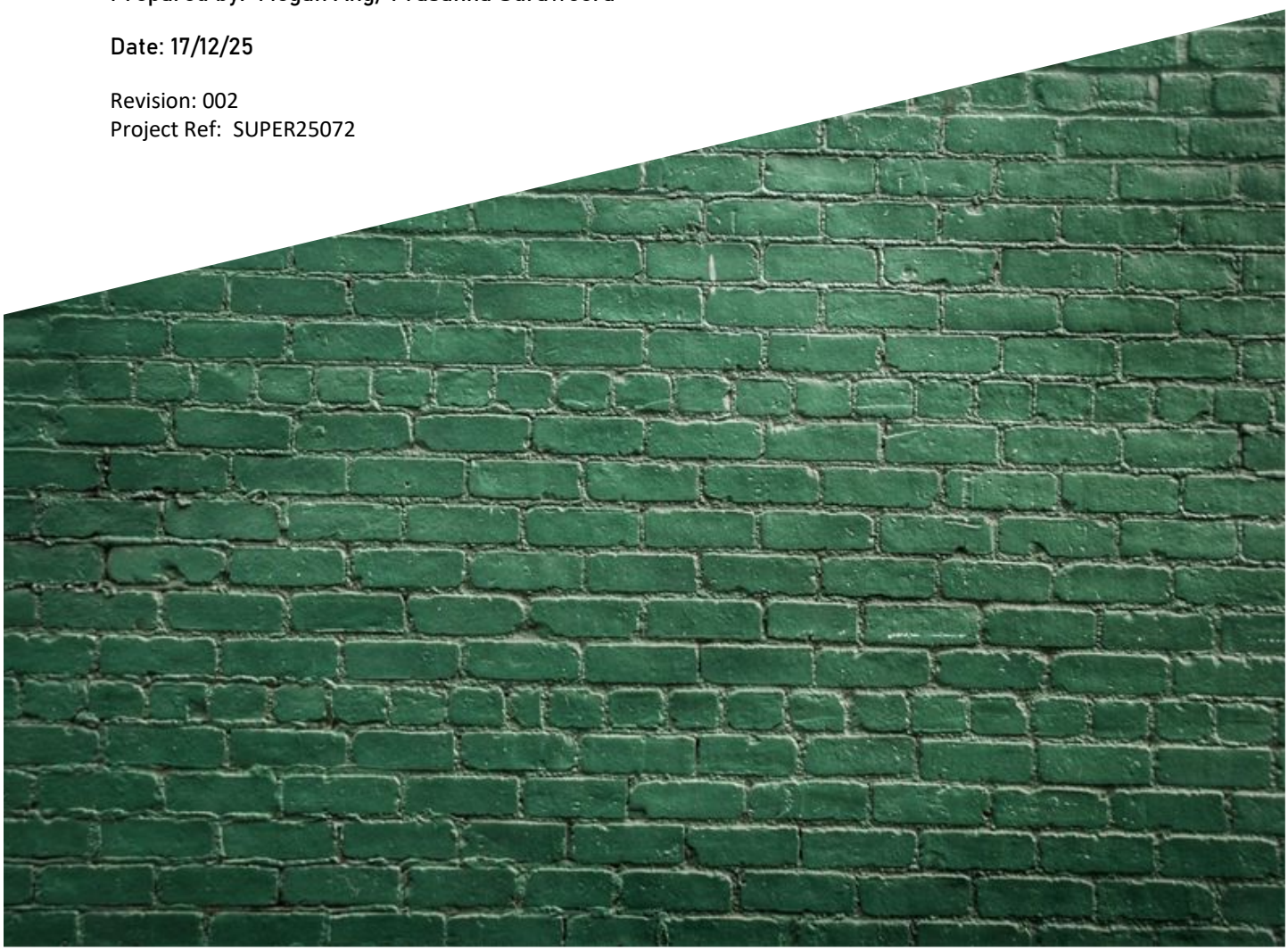
Environmentally Sustainable Design Strategy

Prepared for: Sirona Urban Pty Ltd

Prepared by: Megan Ang/ Prasanna Suraweera

Date: 17/12/25

Revision: 002
Project Ref: SUPER25072



Executive Summary

This document has been prepared for Sirona Urban Pty Ltd to outline the sustainability initiatives that are being considered for inclusion in 18 - 28 Telethon Avenue (Lot 108) Telethon Avenue, Perth City.

The proposed sustainability commitment for the project is to target a 5-Star Green Star Certified outcome against the new Green Star Buildings Version 1 tool. This level of performance is recognized as “Australian Excellence” Standard of performance.

The following guideline is acknowledged as applicable to the site and this strategy incorporates the sustainability requirements outlined therein:

- City of Perth - City Planning Schemes No.2 Planning Policy Manual
- Development WA - Perth City Link Design Guidelines
- Green Building Council of Australia – Green Building Policy

Summation Pty Ltd has been engaged as the sustainability consultants for the project and will be responsible for the delivery of the sustainability objectives. The sustainability team for this project will be led by Prasanna Suraweera, who is a Director with Summation and a Green Star Accredited Professional with over 19 years of experience in delivery of sustainable developments. It is confirmed that Summation has been engaged prior to concept planning stage and will be involved in and contribute until project completion.

A preliminary assessment of the project’s potential to achieve a 5-star Green Star rating has been undertaken. Preliminary findings indicate that ~44 points are achievable for the project, which exceeds the minimum 35 points required to meet the minimum 5-Star standard. This includes compliance for the mandatory compliance requirements within Green Star.

Summary of the key sustainability initiatives are targeted for the project are outlined below:

- ESD Professional engaged to lead delivery – Confirmed - Prasanna Suraweera (GSAP) from Summation.
- 20% reduction of upfront carbon emissions through good design (design efficiency) and material selection.
- Minimum 20% improvement in energy efficiency compared to standard practice.
- Electrification of building services including space heating, domestic hot water.
- High efficiency façade including double glazing.
- Centralised Heat Pump for Hot Water.
- No gas cooking for residential, communal or tenancies.
- Design to and testing of Building air tightness.
- 100% of all grid supplied electricity to come from renewable sources.
- At least 90% of construction and demolition waste is diverted from landfill.
- Extensive metering and monitoring to facilitate performance tracking and assist in fault finding.
- Healthy building with focus on Air Quality, Light Quality and Acoustic Comfort with reduced VOC to maximise staff and student’s comfort and wellbeing.
- Climate Resilience Assessment to future proof the building and reduce Heat Island Effect through light coloured roof and landscaping selections.
- Sustainable Transport Plan including car share scheme and transition to EVs through appropriate enabling infrastructure.

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Abbreviations/Glossary

Abbreviation	Description
ESD	Environmentally Sustainable Design
GBCA	Green Building Council of Australia
GSAP	Green Star Accredited Professional

Revision History

Revision	Date	Notes	Prepared By	Approved By
001	12/12/2025	Concept Report	MA	PDS
002	17/12/2025	Report for DA Submission	MA	PDS

Checked and approved by:

Name: **Prasanna Suraweera**

Signature: 

1 Introduction

1.1 Project Background

The proposed Purpose-Built Student Accommodation located in 18-28 (Lot 108) Telethon Avenue, Perth City.

Figure 1: Site Location and Context

It consists of a student accommodation development with residential, communal areas and 2 small tenancy use. Summary of the expected project yields are as follows:

- ~854 beds – Class 3 NCC Classification
- Communal and tenancy spaces
- Lower ground car park (5 bays) including 1 car share and 1 ACROD space

1.2 Disclaimer

This report provides high level guidance regarding the sustainability commitments targeted for this project and the preliminary strategies and initiatives to be adopted therein.

The purpose of this assessment is to provide confidence that the sustainability commitments targeted are achievable. Due care has been taken to ensure the initiatives are coordinated and achievable for the project, however, note that the specific strategies mentioned in this report are indicative and may evolve throughout the futures stages of design. It is noted that the commitment to the overall project target shall be maintained.

1.3 Deliverables

The specific deliverables/commitments for each milestone are confirmed below:

- **Performance Requirement:**
  - Target a Certified 5-star Green Star Buildings V1 rating performance (i.e. minimum 35 points).
- **Development Application Deliverables:**
  - Preliminary 'Statement of Intent' to be provided by a practicing Green Star Accredited Professional (GSAP).
  - Green Star Scorecard. Refer Appendix A.
- **Design Phase Deliverables:**
  - Green Star Design Report to be provided by a practicing Green Star Accredited Professional (GSAP) confirming compliance with above performance requirement.
- **Post Practical Completion Phase Deliverables:**
  - Confirmation by the builder of final performance achieved as at practical completion.
  - Green Star As-Built Report to be provided by a practicing Green Star Accredited Professional (GSAP) confirming compliance with above performance requirement.
  - Green Star As-Built certification to be achieved within 2 years of Practical Completion.

2 Green Star Strategy

This project is a standalone development and will target formal certification against 5-Star Green Star performance utilising the Green Star Buildings Version 1 tool.

2.1 Green Star Overview

Green Star is a holistic tool that extends beyond the environment to address the issues that will define the next decade of the built environment. The tool's 8 categories enable owners and developers to act on the areas of sustainability that matter most, future proofing a building for the long-term.

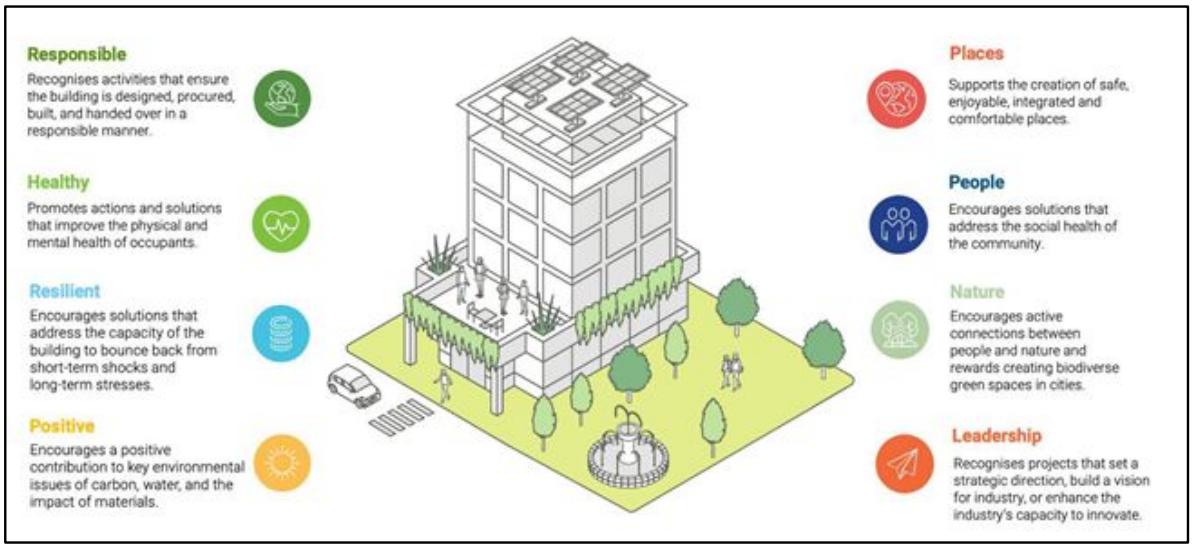

Figure 2: Overview of Green Star Categories[1]

Administered by the Green Building Council of Australia (GBCA) to assess the level of environmentally sustainable design that may be incorporated into a building.

Under the tool, the following ratings can be achieved:

- 15-34 points = 4 Star rating ("Australian Best Practice")
- 35-69 points = 5 Star rating ("Australian Excellence")
- Above 70 points = 6 Star rating ("World Leader")

[1] https://new.gbca.org.au/green-star/rating-system/buildings/

2.2 Green Star Performance

A Green Star feasibility study was undertaken for the project. This is an indicative pathway and pending further design detail and evolution.

The expected performance against each category in the Green Star tool is outlined below:

Table 1 - Green Star Category Points and Summary

Category	Total Points Available	Total points targeted
Responsible	17	11
Healthy	14	6
Resilient	8	2
Positive	30	19
Places	8	5
People	9	1
Nature	14	0
Leadership	10	0
Total	100 plus 10 innovations	44

Refer to Appendix A - Green Star Score Card for further details.

2.3 Summary of Initiatives

A summary of the key strategies to target this level of performance is illustrated below. These align with a compliant 5-Star Green Star pathway, however the initiatives selected are preliminary in nature and subject to change.

All targets are as outlined and calculated within the Green Star tool methodology.

2.3.1 Passive Design & Efficiency

The project is targeting a minimum 30% reduction in Energy Use compared to the Green Star reference case. The following fundamental concepts will contribute to this:

- Passive design elements to be considered including window to wall ratio, shading and massing.
- High performance envelope including high-performance double-glazed systems.
- LED lighting throughout for light quality and efficiency. Targeting a 20% reduction in light fitting power compared to NCC.
- Electric heat pump hot water systems
- Lifts with Standby Mode

2.3.2 Water Efficiency

Water efficiency will be targeted through the selection of suitable fittings and fixtures. The following initiatives will be targeted:

- 6 Star WELS - Taps
- 5 Star WELS - Urinals and Dishwashers (if applicable)
- 4 Star WELS - Toilets
- 3 Star WELS - Showers (Flowrate < 7.5 L/min)

2.3.3 Provision for Solar PV

Provision of renewables is critical to the sustainability performance of buildings. It is a key initiative for reducing carbon emissions and will also provide operating cost benefits.

This project has nominated an approximate total of 176m² of roof area which has been allocated for solar PV. The commitment is to install a grid integrated solar PV array with a capacity of ~25kW, with an expected yield of ~32,000kWh/annum. The expected scope 2 carbon savings are ~16,000 kgCO2-e/annum.

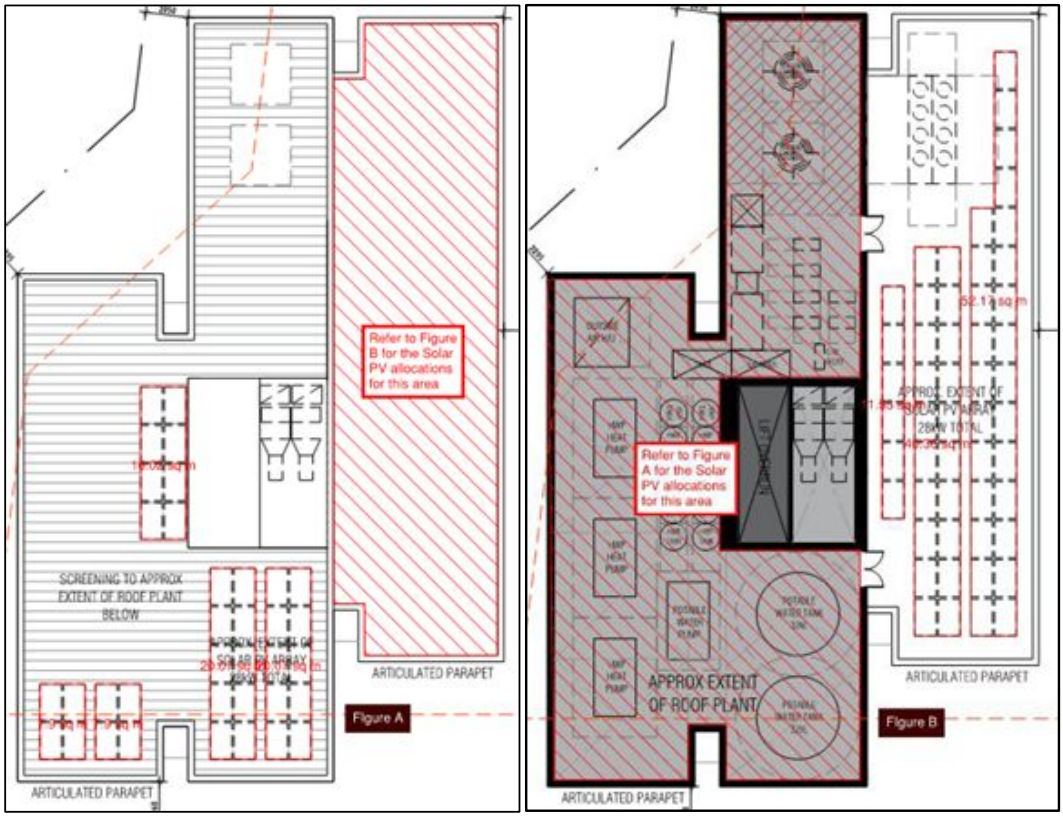

Figure 3: Preliminary Solar PV allocations

2.3.4 Electrification – Hot Water, Space Heating and Cooking

Electrification is a key strategy for ongoing emissions improvement as the electricity grid continues to improve its carbon intensity. This is due to the ongoing 'greening' of the grid as the additional renewable's capacity is realised. As an example, over the past 15 years, the grid emissions have improved by approximately 40% to 50% on the South-West Interconnected System (SWIS). This trend is expected to continue with further investment into renewable projects planned for the SWIS.

By having all services and energy demands electrified, this project is well placed to achieve ongoing savings in carbon emissions alongside the grid.

2.3.5 100% Renewable Electricity Supply – All Electricity

The project (tenant and base build) is to be supplied by 100% Renewable Electricity for the first 3 years of operation, reducing the operational carbon emissions of the project. All non-electricity energy provided must be sourced from renewables. Appropriate cost allowance has been made for the additional costs expected for this.

2.3.6 Reducing Refrigerant Impacts

Fugitive carbon emissions from refrigerants of HVAC are another key operational carbon impact in buildings.

The projects carbon impact for refrigerants will be reduced through:

- Prioritising systems with lower Global Warming Potential where possible.
- Offsetting the remaining carbon emissions.

2.3.7 Upfront Carbon and Lifecycle Impacts

Upfront carbon emissions are defined as the embodied carbon for the material creating and construction of the building falling under modules A1 to A5 as outlined by EN15978. This project will target a minimum 20% reduction of upfront carbon emissions this will be achieved through a combination of:

- Structural design efficiency and responsible material selection
- Low carbon concrete products will play an important role in this target and will be considered for all concrete mixes on the project
- Carbon Neutral Concrete

Additionally, the project will target a 30% reduction in life cycle impacts when compared to standard practice. This will be demonstrated through a whole-of-building, whole-of-life (cradle to grave) comparative Life Cycle Assessment (LCA), as defined by EN 15978 – see modules A to D below.

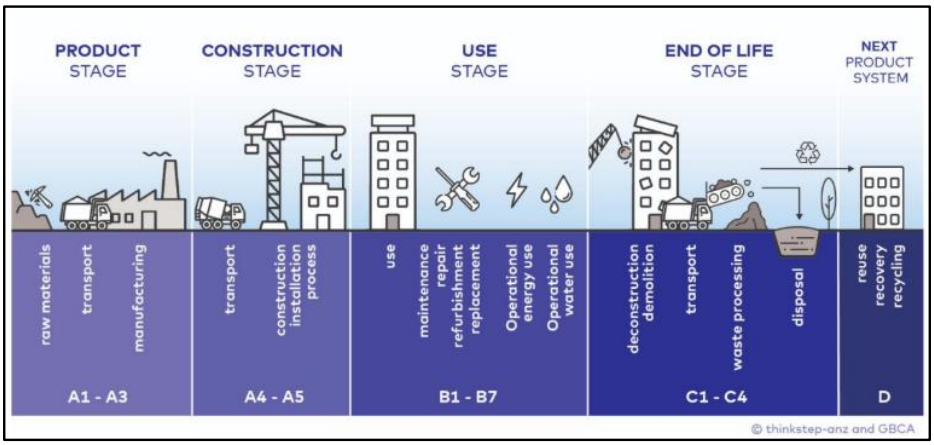

Figure 4: Life Cycle Impact Categories – EN15978

2.3.8 Responsible Product Selections

Responsible product selections will be procured for the structure and internal finishes. These credits reward selections of materials that have sustainability certifications for:

- Structural elements such as Concrete and Reinforcing Steel.
- Internal finishes such as paints, floor finishes, plasterboards and joinery.

2.3.9 Improved Indoor Environmental Quality

Improved Indoor Environment Quality has significant benefits in the student's wellbeing and comfort. The following initiatives have been targeted to provide a healthy environment for the students:

- Increased levels of filtered outside air via the HVAC systems;
- Lighting selections with consideration for visual comfort;
- High levels of access to daylight through a glazing visual light transmittance (VLT) > 0.5;
- Reduction of glare from windows through the installation of blinds with a maximum VLT of 10% (or blackout blinds).
- Acoustic comfort strategy including consideration for maximum internal noise levels, acoustic separation, and minimisation of impact noise transfer;
- Better air quality through material selections with credible sustainability certifications and limits on toxins;
- On-site testing for volatile organic compounds and formaldehyde.

2.3.10 Climate Resilient

A Climate Change Assessment will be undertaken over two timelines to identify risks and work through design responses with the design team. All High and Very High-Risk items will have specific responses in alignment with the Green Star requirements.

2.3.11 Responsible Construction & Waste Recycling

A minimum 90% of all construction waste will be diverted from landfill including ongoing monthly reporting. This will be specified in the Head Contractor obligations and in line with current industry best practice. The Head Contractor will also be required to have a Environmental Management Plan and System in place throughout the construction of the building.

2.3.12 Waste Management Plan

An Operational Waste Management Plan will be developed with intention to maximise operational waste recycling. Appropriate waste sorting area will be determined based on the expected throughput of each waste streams. Specific waste streams targeted include the following:

- General
- Comingled Recycling
- One additional stream such as Food Organics and Garden Organics (FOGO) and/or e-waste, etc.

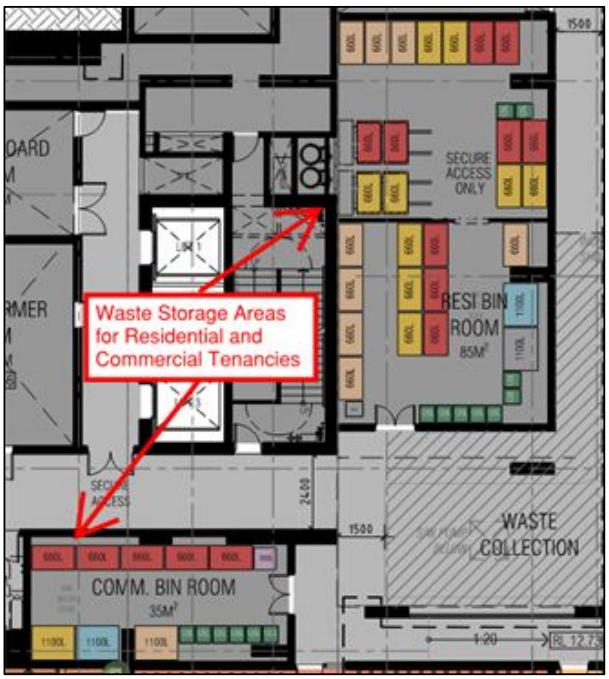

Figure 5: Lower Ground Waste Storage Area Allocations

2.3.13 Energy and Water Metering and Monitoring

Effective metering and monitoring are essential criteria to ensure the facility performance is optimised during the operations phase. To enable this, extensive metering and monitoring systems will be provided for all major end uses of energy and water consumption. This data collected from the metering system will be made available to staff and students as a learning opportunity. The metering and monitoring will also facilitate tracking of performance, identification of anomalies as well as assist in fault finding and tuning.

This is in keeping with the requirements of the NCC Section J requirements.

2.3.14 Building Commissioning & Verification

The building will be commissioned to a higher standard under the guidance of an Independent Commissioning Agent (ICA) to ensure the systems operate efficiently. The ICA will oversee the following activities:

- A services and maintainability review to ensure the services design considers: Commissionability, Controllability, Maintainability, ease of operation and safety.
- Commissioning beyond typical NCC requirements
- A 12-month tuning process with quarterly checks and adjustments.

The project will target a higher level of airtightness to ensure a more comfortable environment for the staff and students. An airtightness test will be completed at practical completion which will provide the student accommodation with reassurance of build quality.

2.3.15 Promoting EV Transition – Future EV charging infrastructure

The Electric Vehicle transition is key strategy for reducing global emissions. Facilitating the EV transition for this project involve provision of nominated charging bays to ensure residents have easy access to charging infrastructure should they wish to adopt EV.

The project commitment includes for the following:

- Provision for 5% of bays to include EV chargers (total of 1 car parking bay).
- Future Provision for an additional 20% charging bays, namely switchboard spatial, capacity and conduits.
- Chargers to be installed based on occupant demand, including loan management software.

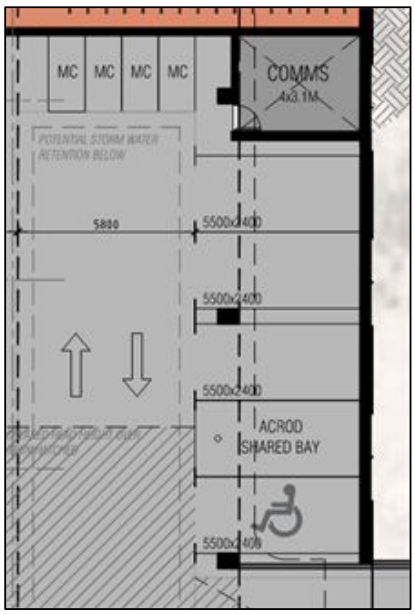

Figure 6: Lower Ground Parking Allocation

Environmentally Sustainable Design Strategy

1. ESD Professional engaged to lead delivery
    - Confirmed: Prasana Suraweera (GSAP) from Summation
2. 20% reduction of upfront carbon emissions through good design (design efficiency) and material selection, including:
    - Structural and Reinforcing Steel is sources from a responsible steel maker
    - Maximising green concrete (eg: ENVISIA)
    - Use of Responsible Finishes
3. Electrification of building services including space hearing, domestic hot water and cooking
4. High efficiency façade and services including:
    - High efficiency design, including high performance glazing, double glazing.
    - High efficiency HWS systems, heat pumps
    - Zero Carbon Cation Plan – no fossil fuel (gas) on site
    - Extensive metering and monitoring systems including building performance targets
    - Commissioning and tuning and building systems
    - Design to and testing of Building Air Tightness
    - 100% of all grid supplied electricity to come from renewable sources
5. At least 90% of construction and demolition waste is diverted from landfill
6. An integrated Waste Management Plan to prioritise the separation and recycling including General Waste, Co-mingles Recycling and a third waste stream
7. Involvement of an Independent Comissiong Agent
8. The building's paint adhesives, sealants, carpets and engineered wood products are low in TVOC or non-toxic, including on-site testing.
9. Occupants are not exposed to banned or highly toxic materials in the building
10. At least 75% of the whole site area comprises strategies that reduce heat island effect
11. Provision of enhanced Clean Air and Light Quality
12. Enhanced Acoustic Comfort performance for occupants
13. Sustainable Transport Plan including transition to EVs through appropriate enabling infrastructure

SUMMATION

Figure 7: Summary of Key Sustainability Strategies

Appendices

Appendix A Green Star Score Card


SUMMATION

Telethon Ave
PBSA West

Acoustic Report - Development Application

Project No.	P03071
Revision	1
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Document QA and Revisions

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2				

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Acoustics & Vibration

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EXECUTIVE SUMMARY

E-Lab Consulting has been commissioned by Siron Urban Pty Ltd to undertake an acoustic assessment for the proposed Purpose-Built Student Accommodation (PBSA) located at 18-28 Telethon Avenue, Perth City Link, Perth WA 6000.

This Acoustic report has been prepared as part of Development Application for the proposed development. The following acoustic assessments were undertaken, and recommendations are made to maintain compliance:

- Noise Intrusion to the project from external noise sources (noise from rail & roads) in accordance with State Planning Policy 5.4 – Road and Rail Noise
- Vibration impacts from the Perth city link rail line.
- Noise emissions from the development impacting noise sensitive receivers in accordance with WA Environmental Protection (Noise) Regulations 1997

The following key standards, regulations and guidelines have been used to establish the project specific acoustic design requirements for the development.

- Development WA – Policy 3 Sound and Vibration Attenuation
- Western Australian Environmental Protection (Noise) Regulations 1997 (WA EPNR)
- WAPC/DPLH, State Planning Policy 5.4 – Road and Rail Noise, Sep 2019 (SPP 5.4)
- National Construction Code 2022 Volume 1, Building Code of Australia (NCC 2022)
- Architectural drawings by MJA Studio, dated 16 December 2025

Site Survey

On-site noise and vibration surveys were conducted to measure the ambient noise levels to assist in the design of the façade of the building. Vibration surveys to measure the vibration impacts from the adjoining underground rail line were also carried out.

Noise Intrusion – SPP5.4

An evaluation of external noise impacts (road and rail traffic) on the project site was conducted in line with SPP 5.4. The methodology and assessment criteria are outlined in the SPP 5.4 Guidelines (hereafter referred to as the Guidelines). Sound PLAN v9.0, a 3D noise modelling software, was used to simulate noise emissions from rail and roads to assess the resulting noise levels at the building façades of the development.

Noise intrusion calculations were conducted to establish the performance requirement of the façade. A summary of façade treatments is detailed below:

FAÇADE TYPE	LOCATION	TYPICAL CONFIGURATION	ACOUSTIC RATING (R_w / R_W+C_{tr})
Glazed Façade	Bedrooms & Common areas	6mm glass /12mm air space /6mm laminated glass[1]	35/30
Solid Facade	All Facades	Concrete or masonry construction	Min. Rw 45

Vibration Impacts

Measured vibration velocity levels were assessed against the nominated criteria for residential buildings in accordance with *Australian Standard AS 2670.2-1990 "Evaluation of human exposure to whole-body vibration — Part 2: Continuous and shock induced vibration in buildings" and NSW Government Department of Planning guideline, the Development Near Rail Corridors and Busy Roads – Interim Guideline (NSW DOP).*

Current vibration measurements were carried out at grade. Measured tactile vibration levels were below the residential criteria curve factor for night time (1.4).

Regenerated noise impacts have not been predicted due to limited information available at DA stage of the project. During design stages a detailed assessment by the project team (Acoustic engineer, Structural engineer, Specialist vibration isolation supplier) shall be carried out to ascertain regenerated noise impacts and any acoustic treatments required for building isolation shall be specified.

Noise Emissions – WA EPNR

Mechanical services must comply with the Western Australian Environmental Protection (Noise) Regulations (WA EPNR) criteria at the nearest noise-sensitive receivers during all periods of the day. At this stage, detailed mechanical equipment selections have not been provided, as this information is typically unavailable during the development application phase.

A detailed review of mechanical equipment noise emissions will be undertaken during the design phase, prior to the issuance of the Building Permit.

1 INTRODUCTION

1.1 DOCUMENT PURPOSE

E-Lab Consulting has been commissioned by Sirona Urban Pty Ltd to undertake an acoustic assessment for the proposed Purpose-Built Student Accommodation (PBSA) located at t 18-28 Telethon Avenue, Perth City Link, Perth WA 6000.

The proposed development will consist of the following key architectural components:

- Lower Ground Floor – Commercial tenancies, Bike room, Bin room, Parking and Building services
- Ground Floor: Reception, Fitness Studio, Health & Wellness, Theatre Cinema, Prayer room, Admin offices & Meeting Rooms.
- Level 2-32 – Student accommodation
- Roof – Mechanical Plant areas

This Acoustic report has been prepared as part of Development Application for the proposed development. The following acoustic assessments were undertaken, and recommendations are made to maintain compliance:

- Noise Intrusion to the project from external noise sources (noise from Fremantle freight rail) in accordance with State Planning Policy 5.4 – Road and Rail Noise
- Noise emissions from the development impacting noise sensitive receivers in accordance with WA Environmental Protection (Noise) Regulations 1997

1.2 RELEVANT DOCUMENTS

The following standards, regulations and guidelines have been used to establish the project specific acoustic design requirements for the development.

- Development WA – Policy 3 Sound and Vibration Attenuation
- Western Australian Environmental Protection (Noise) Regulations 1997 (WA EPNR)
- WAPC/DPLH, State Planning Policy 5.4 – Road and Rail Noise, Sep 2019 (SPP 5.4)
- Australian and New Zealand Standard AS/NZS 2107:2016 - Acoustics – Recommended design sound levels and reverberation times for building interiors (AS2107
- National Construction Code 2022 Volume 1, Building Code of Australia (NCC 2022)
- Australian Standard AS 2670.2-1990 “Evaluation of human exposure to whole-body vibration — Part 2: Continuous and shock induced vibration in buildings”
- British Standard BS6472-1:2008. “Guide to Evaluation of Human Exposure to Vibration in Buildings. Part 1: Vibration sources other than blasting (BS6472-1:2008)”
- NSW Government Department of Planning guideline, the Development Near Rail Corridors and Busy Roads – Interim Guideline (NSW DOP)
- Architectural Drawings by MJA Architects dated 16 December 2025.

2 PROJECT SITE

2.1 SITE DESCRIPTION

The project site is located at 18–28 Telethon Avenue, Perth City Link, WA 6000. The site is bounded by the Transperth rail tunnel and Roe Street to the north, and Telethon Avenue to the south. The eastern boundary adjoins a small recreation park beyond Joondia Lane, while the western boundary interfaces with a future development site.

To the west of the site, across Milligan Street, is RAC Arena. To the east are the Perth Busport and the ECU City Campus, with the Perth Central Business District located to the south. The current scope of works is limited to construction within the western half of the lot, with the eastern portion reserved for future development.

The project site is located within the trigger distance of State Planning Policy 5.4 - Road and Rail Noise, due to its proximity to the Yanchep, Fremantle, and Airport train lines. In addition, the site boundary is located at the edge of the road noise trigger distance associated with Mitchell Freeway. The Project location and nearest noise sensitive receivers are shown in Figure 1.

Figure 1: Project Location and nearest noise sensitive receivers

Source: Google Maps

3 PROJECT CRITERIA

This section outlines the regulatory requirements and acoustic design criteria applicable to the proposed development.

3.1 DEVELOPMENT WA – POLICY 3 SOUND AND VIBRATION ATTENUATION

The Development WA (Metropolitan Redevelopment Authority) Policy 3 – Sound and Vibration Attenuation has been referenced in determining the applicable criteria for the project. The Development WA Policy outlines the standards and requirements for sound and vibration attenuation in relation to the following types of development, as detailed above. The four development categories are as follows:

- Noise sensitive development
- Noise emitting development
- Ventilation and mechanical equipment
- Vibration sensitive development

Telethon Ave PBSA is considered a noise sensitive, noise emitting and vibration sensitive development. Acoustic criteria and the design of the project consider the requirements of this policy, to maintain compliance to the criteria.

3.2 INTERNAL NOISE LEVELS

AS2107:2016 provides recommended internal noise levels (defined as the equivalent continuous A-weighted sound pressure level - $L_{Aeq,t}$) for optimising the acoustic amenity in occupied spaces. The level of noise in an enclosed space typically consists of noise from building services and/or noise intrusion due to external sources (e.g. traffic).

Table 1 outlines the allowable internal noise levels measured for steady-state mechanical services noise such as the air-conditioning and outside air supply and external noise break-in, together with the metric to be used when measuring the steady state noise. For any spaces not listed in *Table 1*, refer to AS2107:2016 for the maximum allowable internal noise levels.

Table 1: Maximum allowable internal noise levels

SPACE	MEASUREMENT PERIOD	METRIC	INTERNAL NOISE LIMIT, dB(A)
Bedrooms	Night	$L_{Aeq,15min}$	35-40
Living Areas	Day	$L_{Aeq,15min}$	35-45
Work Areas	Anytime	$L_{Aeq,15min}$	35-45
Common Areas	Anytime	$L_{Aeq,15min}$	45-50
Games Hub	Anytime	$L_{Aeq,15min}$	45-50
Gym	Anytime	$L_{Aeq,15min}$	45-50
Reception	Anytime	$L_{Aeq,15min}$	40-45
Cinema	Anytime	$L_{Aeq,15min}$	30-35
Corridors and lobbies	Anytime	$L_{Aeq,15min}$	45-50

Rain Noise

There is no mandatory guidance in relation to internal noise limits due to rain noise. However, it is recommended that the internal noise levels are designed not to exceed the Internal ambient noise levels in Table 1 by 5dBA, for a rainfall of 15mm/hr.

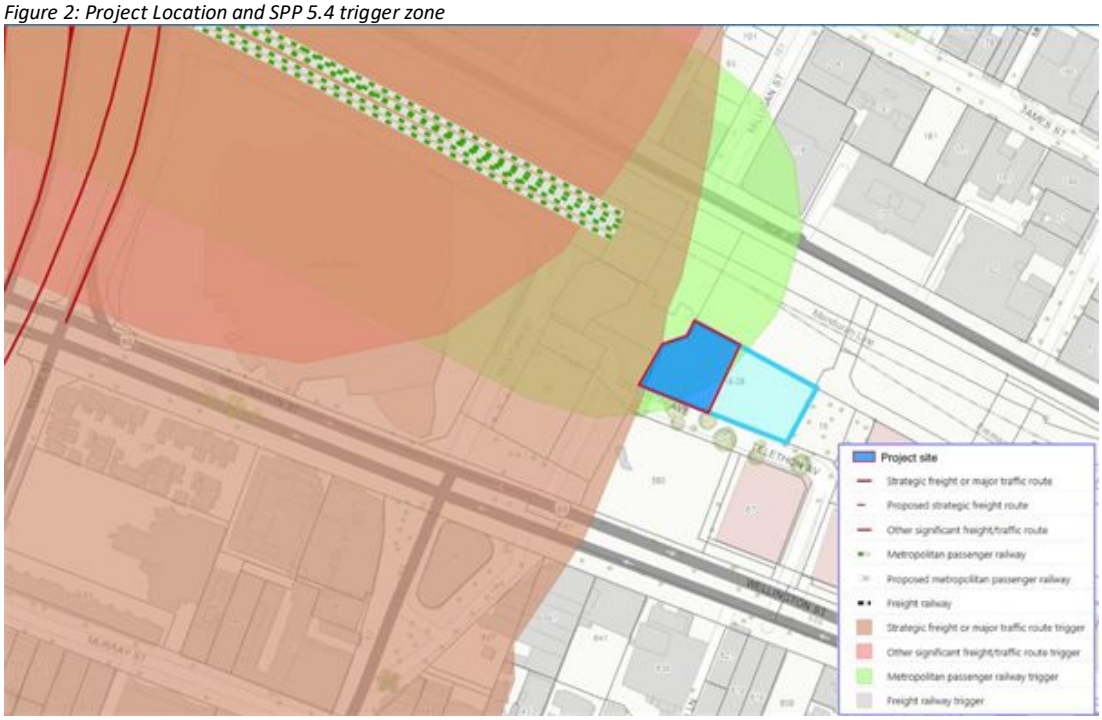
3.3 STATE PLANNING POLICY 5.4

The project site is situated near the Perth City link railway corridor and is partially affected by the State Planning Policy 5.4 (SPP 5.4) rail noise trigger area, as shown in Figure 2.

Similarly, the noise trigger at the Southwestern tip of the lot boundary. Only a very small portion of the site (western edge) falls within this trigger zone; however, adopting a conservative approach, the potential noise impacts from rail operations and road noise have been assessed in accordance with SPP 5.4 guidelines.

SPP 5.4 outlines indoor and outdoor noise criteria applicable to noise-sensitive land uses, specifically in relation to noise emissions from major road and rail transport corridors.

Figure 2: Project Location and SPP 5.4 trigger zone



Source: Department of Planning, Lands and Heritage

Applicable noise level criteria are presented in Table 2 in accordance with SPP5.4.

Table 2: State Planning Policy 5.4 Criteria

PROPOSAL	NEW / UPGRADE	NOISE TRAGET -OUTDOOR		NOISE TARGET - INDOOR
		DAY 6AM – 10PM L_{Aeq},(Day) dB	NIGHT 6AM – 10PM L_{Aeq},(Night) dB	
Noise-Sensitive land-use and/or development	New noise-sensitive land-use and/or development within the trigger distance of an existing/proposed transport corridor	55	50	DAY – L_{Aeq} 40 (Living & Work Areas) NIGHT - L_{Aeq} 35 (Bedrooms)

3.4 VIBRATION CRITERIA

As outlined in Section 3.3, the project site falls within the State Planning Policy 5.4 (SPP 5.4) trigger zone for rail vibration due to its proximity to the Perth City link underground train line. Vibration criteria applicable residential developments have been established based on Australian and International Standards.

3.4.1 Regenerated Noise

In the absence of a regenerated rail noise guidelines, the 'Development Near Rail Corridors and Busy Roads – Interim Guideline produced by the NSW Government' Department of Planning guideline will be referred to for assessing the impact of regenerated noise. The regenerated noise trigger levels contained within the guideline are provided below in Table 3

Table 3: Ground borne(internal) noise trigger levels

TYPE OF OCCUPANCY	NOISE CRITERIA, $L_{Amax\ slow}$ dB(A)
Residential – Day (7am-10pm)	40
Residential – Night (10pm – 7am)	35

3.4.2 Tactile Vibration

Human response to vibration is generally recognized as a complex phenomenon. Vibration tolerance among individuals varies greatly, making it difficult to define and measure acceptable comfort levels. The acceptable levels of vibration exposure are mainly influenced by the type of activity occurring in the space (such as a workshop, office, or home) and the nature of the vibration (whether continuous or intermittent). Moreover, specific thresholds are shaped by social and cultural factors, psychological attitudes, concerns about privacy interference, and, ultimately, the individual's personal perception.

The concept of base-curves has traditionally been used to evaluate human comfort. A base-curve (or line) represents the threshold of human perception. The base-curves for both horizontal and vertical directions are illustrated in Figure 3. These curves are defined within one-third octave bands, ranging from 1 Hz to 80 Hz, with vibrations below the base-curves being imperceptible to most individuals.

Base-curves can be plotted either in terms of velocity or acceleration. The velocity domain has been selected for this project.

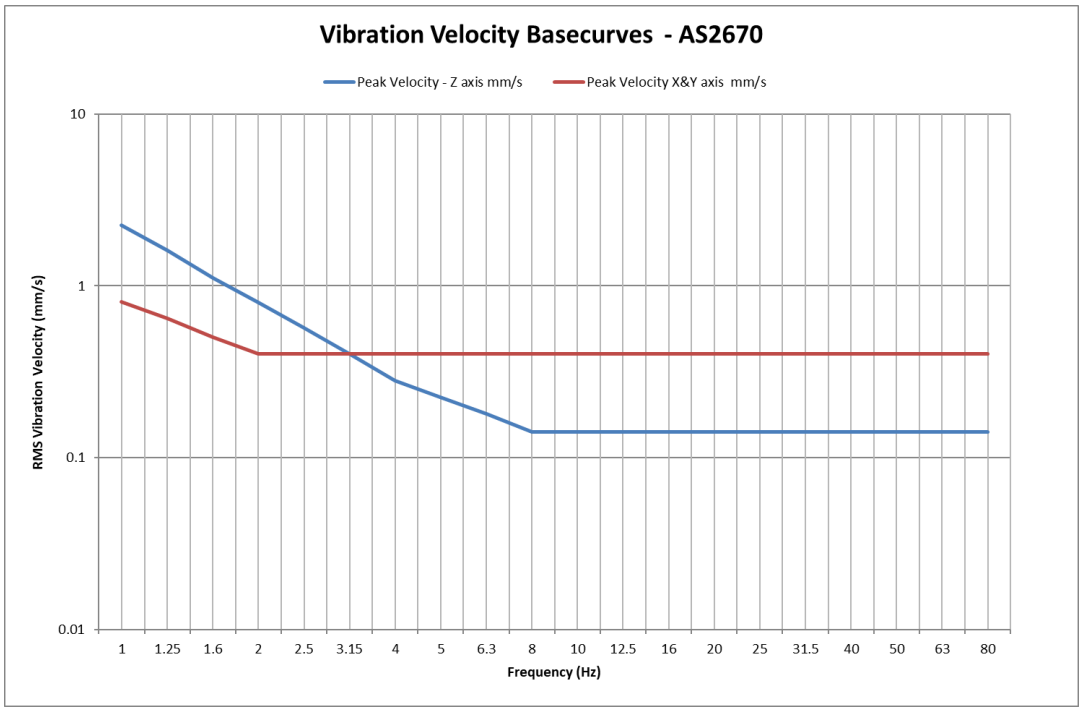
Vibration criteria for various occupancy types are determined by multiplying the base curve by a factor. These multiplying factors differentiate between continuous and transient vibration events. The focus here is on continuous vibration, while transient and intermittent vibrations are more appropriately evaluated using vibration dose values (VDVs).

For the purposes of this assessment the vibration due to train passbys has been considered as continuous, which would be a worst-case scenario.

Table 4: Ranges of multiplying factors used in several countries to specify satisfactory magnitudes of continuous building vibration with respect to human response.

TYPE OF OCCUPANCY	MULTIPLICATION FACTOR- BS6472 /AS2670
Residential – Day (7am-10pm)	2-4
Residential – Night (10pm – 7am)	1.4

Figure 3: Vibration velocity base curves



3.5 ACOUSTIC SEPARATION & INTERNAL SOUND INSULATION

3.5.1 NCC Criteria – Residential Spaces (Class 3 Building)

Inter-Tenancy and Common Walls and Floors Noise Requirements

Inter-tenancy walls and common walls and floors must be installed to meet the requirements of the National Construction Code (NCC) 2022.

The internal wall and floor airborne sound insulation matrix provided in Table 5 presents the sound transmission and insulation requirements of the deemed-to-satisfy provisions for inter-tenancy and common walls.

Table 5: Internal wall and floor sound insulation matrix - deemed-to-satisfy provisions

	INTERNAL WALL AIRBORNE SOUND INSULATION – DEEMED TO SATISFY PROVISIONS				
SOLE-OCCUPANCY UNIT SPACE 1	SOLE-OCCUPANCY UNIT/COMMON SPACE 2				
		Habitable Room	Wet Area	Public Corridor or Stairs	Plant Room or Lift Shaft
	Habitable Room	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$ Discontinuous Construction	$R_w \geq 50$	$R_w \geq 50$ Discontinuous Construction
	Wet Area	$R_w + C_{tr} \geq 50$ Discontinuous Construction	$R_w + C_{tr} \geq 50$	$R_w \geq 50$	$R_w \geq 50$ Discontinuous Construction
	INTERNAL FLOOR AIRBORNE SOUND INSULATION – DEEMED TO SATISFY PROVISIONS				

	Habitable Room	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$
	Wet Area	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$
	Public Corridor or Stairs	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	-	-
	Plant Room or Lift Shaft	$R_w + C_{tr} \geq 50$	$R_w + C_{tr} \geq 50$	-	-

The internal wall and floor airborne sound insulation matrix provided in Table 6 presents the verification requirements for the performance solution pathway.

Table 6: Internal wall sound insulation matrix – performance solution verification requirements

INTERNAL WALL AIRBORNE SOUND INSULATION – PERFORMANCE SOLUTION VERIFICATION REQUIREMENTS					
SOLE-OCCUPANCY UNIT SPACE 1	SOLE-OCCUPANCY UNIT/COMMON SPACE 2				
		Habitable Room	Wet Area	Public Corridor or Stairs	Plant Room or Lift Shaft
	Habitable Room	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$ Discontinuous Construction	$D_{nT,w} \geq 45$	$D_{nT,w} \geq 45$ Discontinuous Construction
	Wet Area	$D_{nT,w} + C_{tr} \geq 45$ Discontinuous Construction	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} \geq 45$	$D_{nT,w} \geq 45$ Discontinuous Construction
	INTERNAL FLOOR AIRBORNE SOUND INSULATION – PERFORMANCE SOLUTION VERIFICATION REQUIREMENTS				
	Habitable Room	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$
	Wet Area	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$
	Public Corridor or Stairs	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	-	-
	Plant Room or Lift Shaft	$D_{nT,w} + C_{tr} \geq 45$	$D_{nT,w} + C_{tr} \geq 45$	-	-

For the purposes of understanding the classification of particular spaces under the NCC 2022, definitions are provided below:

- Habitable room – means a room used for normal domestic activities, and –
  - includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room, home theatre and sunroom; but

  - excludes a bathroom, laundry, water closet, pantry, walk-in wardrobe, corridor, hallway, lobby, photographic darkroom, clothes-drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods.

- Wet area – means an area within a building supplied with water from a water supply system, which includes bathrooms, showers, laundries and sanitary compartments and excludes kitchens, bar areas, kitchenettes or domestic food and beverage preparation areas.

Intra-Tenancy Walls

It should be noted that intra-tenancy walls do not have any specific acoustic performance requirements within the NCC, other than service riser. The following is noted:

- Where walls are not full height it will require the wastewater pipe work within the non-habitable spaces treated to meet R_W+C_{tr} 40 requirement.

  Where there are open bulk heads from non-habitable spaces to habitable spaces it will require the bulk head closed with a single layer plasterboard (min. 10mm thick, min weight 7.2kg/m^2)

Internal Riser Walls

If a duct, soil, storm water, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_{tr}$ (airborne not less than):

- 40 if the adjacent room is a habitable room (other than a kitchen); or
- 25 if the adjacent room is a kitchen or non-habitable room / wet area

Studio/Cluster Entry Doors

Entry doors to apartments shall be designed and installed to achieve R_w 30 or above.

Inter-Tenancy and Common Floor / Ceilings Impact Requirements

Inter-tenancy and common floors/ceilings must be installed to meet the requirements of the National Construction Code (NCC) 2019, together with an additional uplift for impact noise.

The internal floor/ceiling sound insulation matrix provided in Table 7 presents the sound transmission and insulation requirements of the deemed-to-satisfy provisions for inter-tenancy and common walls.

Table 7: Internal floor/ceiling impact sound insulation matrix - deemed-to-satisfy provisions

INTERNAL FLOOR/CEILING IMPACT SOUND INSULATION – DEEMED TO SATISFY PROVISIONS					
SOLE-OCCUPANCY UNIT/COMMON SPACE BELOW	SOLE-OCCUPANCY UNIT/COMMON SPACE ABOVE				
		Habitable Room	Wet Area	Public Corridor or Stairs	Plant Room or Lift Shaft
	Habitable Room	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$
	Wet Area	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$	$L_{n,w} \leq 62$

The internal floor/ceiling sound insulation matrix provided in Table 8 presents the verification requirements for the performance solution pathway.

Table 8: Internal floor/ceiling sound insulation matrix – performance solution verification requirements

INTERNAL FLOOR/CEILING SOUND INSULATION – PERFORMANCE SOLUTION VERIFICATION REQUIREMENTS					
SOLE-OCCUPANCY UNIT/COMMON SPACE BELOW	SOLE-OCCUPANCY UNIT/COMMON SPACE ABOVE				
		Habitable Room	Wet Area	Public Corridor or Stair	Plant Room or Lift Shaft
	Habitable Room	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$
	Wet Area	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$	$L_{nT,w} \leq 62$

3.6 NOISE EMISSIONS – WA ENVIRONMENTAL PROTECTION (NOISE) REGULATIONS 1997

Environmental noise impacts resulting from the development are addressed through the *Environmental Protection Act 1986* with the prescribed standards detailed in the *Environmental Protection (Noise) Regulations 1997* (WAEPNR). The regulations are based on maximum allowable noise levels termed the 'assigned noise level".

According to the EPNR, noise emissions from any premises are deemed not to significantly impact the receiver if the emissions are 5 dB or less below the assigned levels.

In summary, assigned noise levels are set by evaluating the presence of commercial and industrial zones, major transport routes, and sporting venues around noise-sensitive premises.

The assigned levels apply at premises receiving the noise (noise sensitive receiver) and not to areas within the project site or lot. In addition, the Environmental Protection (Noise) Regulations 1997 identify the following in Schedule 3, clause 2A.

- *"If the land within either of the circles is categorised on the land use map as land in respect of which mixed uses are permitted, the use of that land that results in the highest influencing factor is to be used in the determination of the influencing factor."*

City of Perth's online mapping system was used to determine the influencing factor at the nearest noise sensitive receivers. The nearest noise sensitive receivers have been identified as listed below and shown in Figures 4,5 & 6:

- 100 James St, Northbridge WA 6003
- 621 Wellington St, Perth WA 6000
- 707 Wellington St, Perth WA 6000

City of Perth Town Planning Scheme No.2 (City Planning Scheme) was used to estimate the land use

3.6.1 Influencing Factor

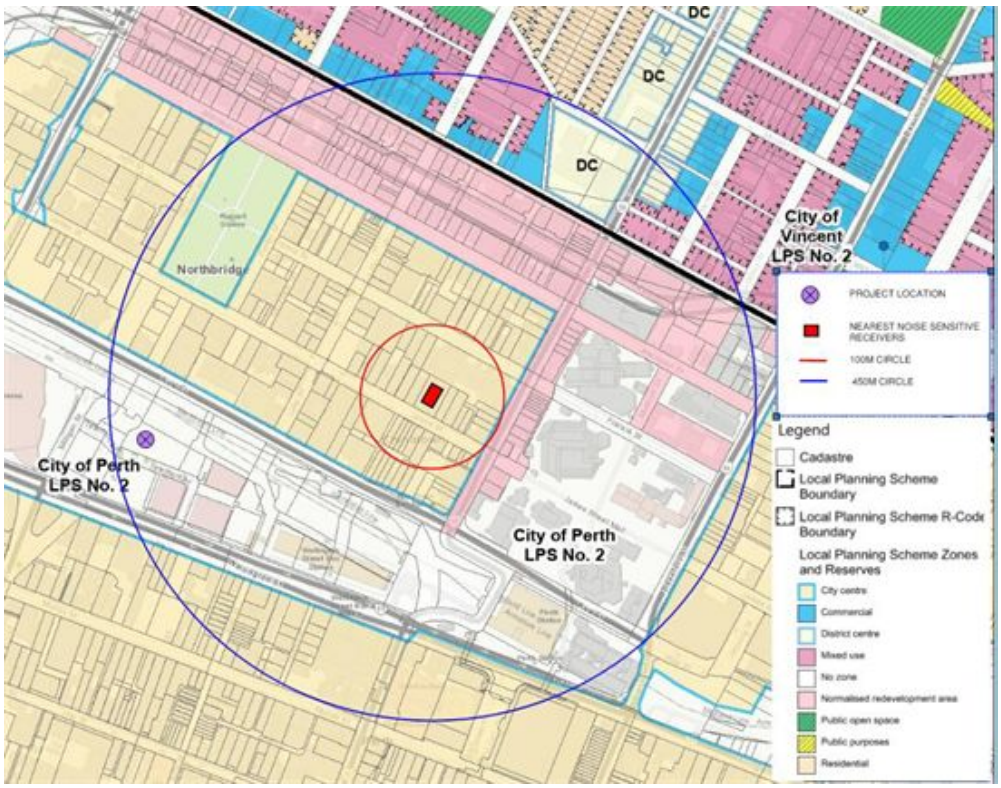
The influencing factor for results from identifying major and secondary roads, and commercial areas for the nearest noise sensitive receivers is detailed in Table 10. The zoning maps used for the calculation of influencing factor showing the land use types has been presented in Figures 4,5 & 6.

Traffic data for roads surrounding the nearest noise sensitive receiver were obtained from Main Roads Western Australia (MRWA). Table 9 presents the traffic data of the nearby roads.

Table 9: Traffic Data (Main Roads WA)

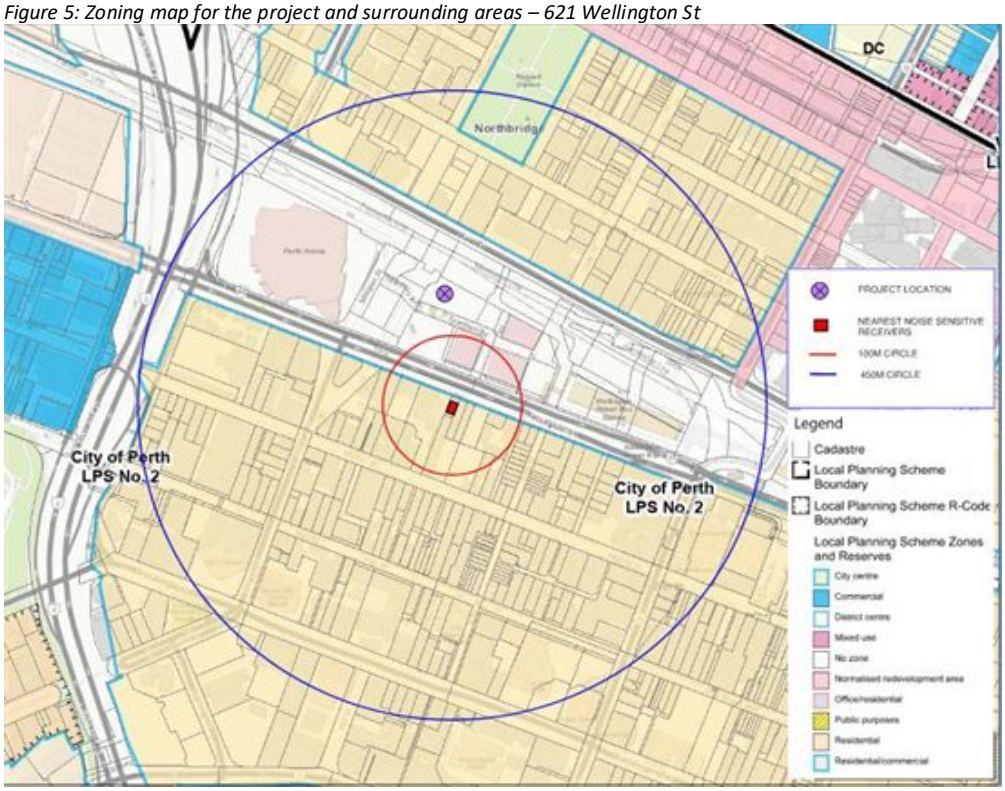
NOISE SENSITIVE RECIEVERS	Road	WA EPNR classification	Annual average daily traffic volumes / YEAR
100 James St, Northbridge 621 Wellington St, Perth 707 Wellington St, Perth	Wellington Street	Major Road	20,579 (2021 - 22)
621 Wellington St, Perth 707 Wellington St, Perth	St Georges Terrace	Major Road	17,274 (2021-22)
707 Wellington St, Perth	Mitchell Freeway	Major Road	41,500 (2021-22)

Figure 4: Zoning map for the project and surrounding areas – 100 James Street



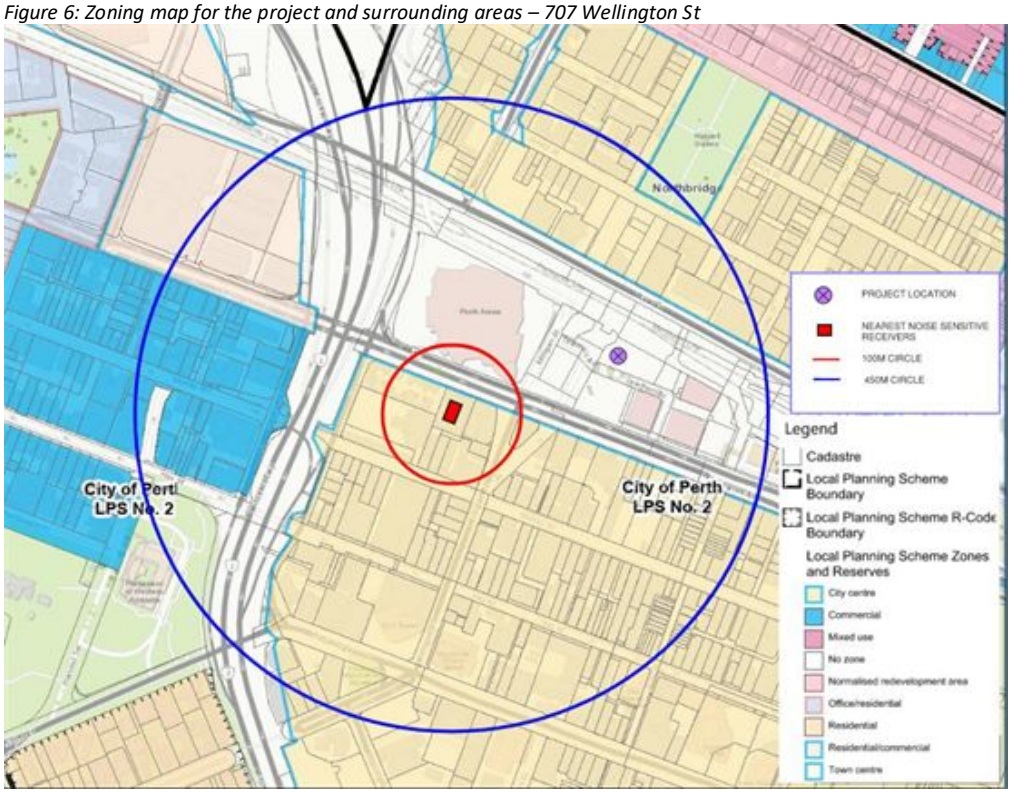
Source: City of Perth Intramaps

Figure 5: Zoning map for the project and surrounding areas – 621 Wellington St



Source: City of Perth Intramaps

Figure 6: Zoning map for the project and surrounding areas – 707 Wellington St



Source: City of Perth Intramaps

Table 10: Influencing factor (IF) noise sensitive receiver

NOISE SENSITIVE RECIEVERS	COMMERCIAL	INDUSTRIAL	Road	Influencing Factor
100 James St, Northbridge	81 % within a 100 m radius 50 % within a 450 m radius	0 % within a 100 m radius 0 % within a 450 m radius	Wellington Street within 450m radius	9 dB
621 Wellington St, Perth	68 % within a 100 m radius 53 % within a 450 m radius	0 % within a 100 m radius 0 % within a 450 m radius	Wellington Street within 100m radius, St Georges Tce within 450m radius	12 dB
707 Wellington St, Perth	69 % within a 100 m radius 50 % within a 450 m radius	0 % within a 100 m radius 0 % within a 450 m radius	Wellington Street within 100m radius, St Georges Tce and Mitchell Fwy within 450m radius	12 dB

3.6.2 Assigned Noise Levels – Noise Sensitive Receivers

Table 11 & 12 summarises the assigned levels at the nearest noise sensitive receivers. All noise emissions from the development are below the assigned level criteria for all defined periods of the day and at the lot boundary of the receiver or 15m from any associated building.

Table 11: Assigned levels – 100 James St, Northbridge

TYPE OF PREMISES RECEIVING NOISE	TIME OF DAY	ASSIGNED LEVEL (DB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: Highly sensitive area	0700 to 1900 hours Monday to Saturday	54	64	74
	0900 to 1900 hours Sunday & public holidays	49	59	74
	1900 to 2200 hours all days	49	59	64
	2200 hours on any day to 0700 hours Monday to Saturday, and 0900 hours Sunday & public holidays	44	54	64
Noise sensitive premises: any area other than highly sensitive areas	All Hours	60	75	80
Commercial premises	All Hours	60	75	80
Industrial and utility premises	All Hours	65	80	90

Table 12: Assigned levels – 621 Wellington St, Perth & 707 Wellington St, Perth

TYPE OF PREMISES RECEIVING NOISE	TIME OF DAY	ASSIGNED LEVEL (DB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: Highly sensitive area	0700 to 1900 hours Monday to Saturday	57	67	77
	0900 to 1900 hours Sunday & public holidays	52	62	77
	1900 to 2200 hours all days	52	62	67
	2200 hours on any day to 0700 hours Monday to Saturday, and 0900 hours Sunday & public holidays	47	57	67
Noise sensitive premises: any area other than highly sensitive areas	All Hours	60	75	80
Commercial premises	All Hours	60	75	80
Industrial and utility premises	All Hours	65	80	90
Commercial premises	All Hours	60	75	80
Industrial and utility premises	All Hours	65	80	90

3.6.3 Noise Character Adjustments

Regulation 7 of WA EPNR 1997, states that the noise character must be "free" of annoying characteristics, namely —

- Tonality, e.g. whining, droning;
- Modulation, e.g. like a siren; and
- Impulsiveness, e.g. banging, thumping.

Regulation 9 (1) establishes the methodology for determining noise characteristics. If these characteristics cannot be reasonably and practicably removed, a series of adjustments to the measured levels are required, indicated in Table 13.

Table 13: Noise character adjustment

ADJUSTMENT WHERE NOISE EMISSION IS NOT MUSIC THESE ADJUSTMENTS ARE CUMULATIVE TO A MAXIMUM OF 15 DB			ADJUSTMENT WHERE NOISE EMISSION IS MUSIC	
Where tonality is present	Where modulation is present	Where impulsiveness is present	Where impulsiveness is not present	Where impulsiveness is present
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

Should music noise from the project become audible at the receiving locations, a +10/15 dB adjustment will be required, likely resulting in non-compliance to the EPNR.

3.6.4 Mechanical Services Noise Emissions

Mechanical equipment serving the project is required to meet the assigned levels of the EPNR at the nearest sensitive receivers. It is important that noise emissions from the site do not present any form of tonality, modulation or impulsiveness (as defined by the EPNR).

4 SITE SURVEY

4.1 VIBRATION SURVEY & ASSESSMENT

Attended vibration survey was carried out on 2nd December 2025 to measure the vibration levels at the project site. Figure 7 presents the marked-up aerial imagery indicating the noise and vibration measurement location.

Figure 7: Noise and Vibration measurement location

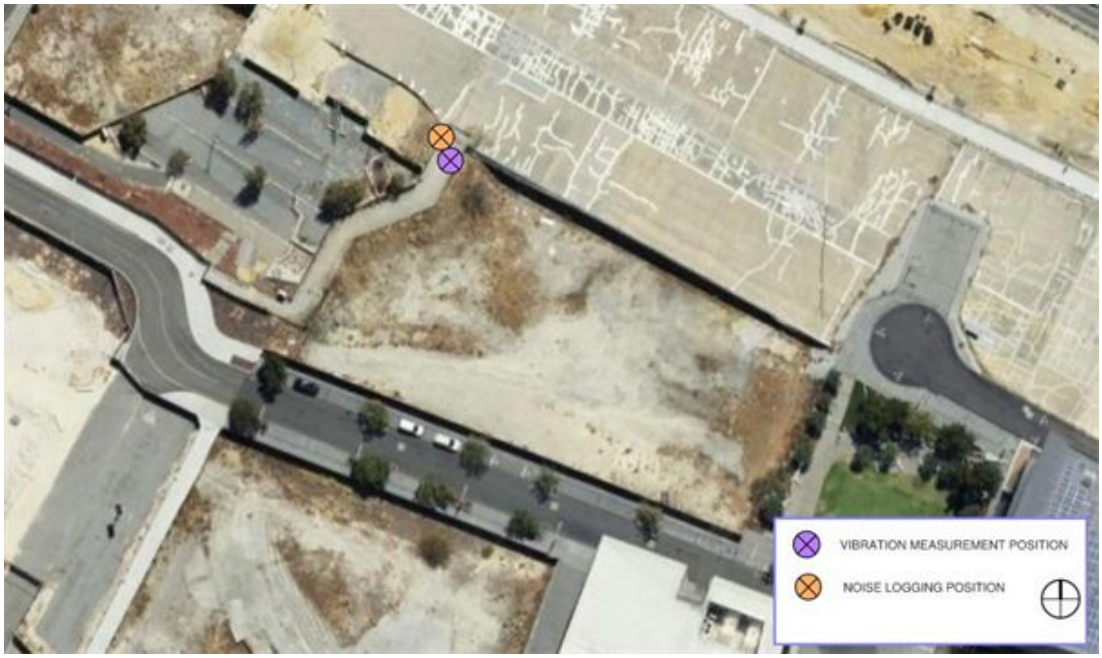


Figure 8: Vibration monitoring – Onsite images

4.1.1 Instrumentation

The equipment used for the noise survey is detailed below:

- 4-channel SVAN 958A Vibration Meter
- SV 207B Building Vibration Kit

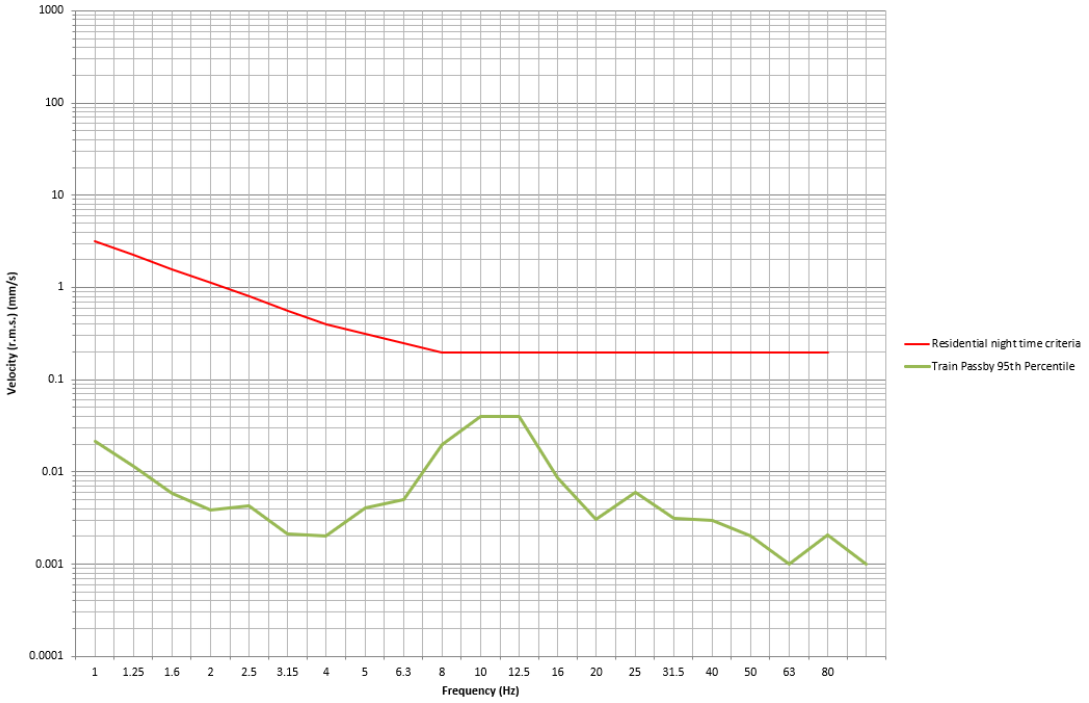
4.1.2 Measured Vibration Levels

Twenty (20) train rail passbys measurements were recorded at the project site. Accelerometer was attached to ground using metal spikes, in accordance with BS7385-1:1990 *"Evaluation and measurement for vibration in buildings – Part 1: Guide for measurement of vibration and evaluation of their effects on buildings"*.

Vibration levels along the Z-axis (worst-case direction) were recorded for all 20 train pass-bys. The 95th percentile of the measured rail pass-by vibration levels has been calculated and presented in Figure 9.

The 95th percentile represents the worst-case scenario; this has been compared to the baseline curve with multiplication factor 1.4 for residential night-time criteria. Assessment of results shows that measured vibration levels from train passbys are well below the residential criteria for night-time as per AS2670.

Figure 9: 95th Percentile rail pass by velocity spectrum



4.1.3 Regenerated Noise

Regenerated noise impacts have not been predicted due to limited information available at DA stage of the project.

During design stages detailed assessment by the project team (Acoustic engineer, Structural engineer, Specialist vibration isolation suppliers) shall be carried to ascertain regenerated noise impacts and any acoustic treatments for building isolation shall be specified.

4.1.4 Limitations of Survey

Following limitations apply to the vibration survey and will need to be further investigated during the design stages of the project.

- Structural design of the project is unavailable as it is DA stage. Current vibration measurements were carried out at grade. Additional measurements at the foundation depth(sub-soil) may be needed to ascertain the vibration impacts on the structure.

Notwithstanding the structural engineer should design the building foundations and structure to ensure that RMS vibration levels during rail passes remain compliant with the AS 2670.2-1990 criteria curve for residential buildings (1.4 factor curve).

4.2 NOISE SURVEY

Un-attended noise logging was carried out on site to ascertain the noise levels at project site and to determine the noise levels from Mitchell Freeway to assist with the SPP5.4 acoustic model calibration on the project. Noise logging was carried out between 2nd December and 10th December 2025. The Location of the deployed noise logger is shown in Figure 1.

4.2.1 Equipment

The following instrumentation has been used to conduct the noise survey shown in the subsequent sections:

- NSRT mk3 Sentry Noise Logger
- Larson Davis Sound Calibrator, S/N: 22031

Logger was calibrated before and after the measurements and no significant drift was found. All equipment carry current traceable calibration certificates that can be provided upon request.

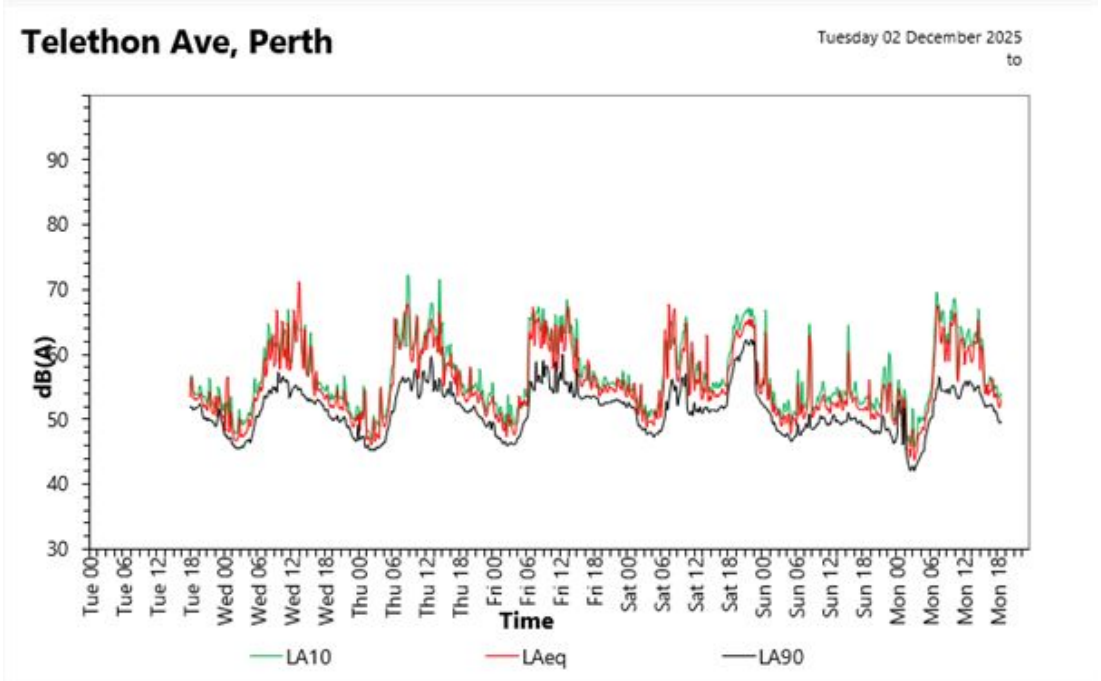
4.2.2 Measurement Summary

Noise data from the logger is presented in a graph shown in

Figure . Average L_{Aeq} noise levels for weekdays during the measurement period are detailed below.

- Day time (6 Am – 10Pm) 60 dB(A)
- Nighttime (10Pm – 6Am) 54 dB(A)

Figure 8: Unattended noise logging



5 NOISE INTRUSION ASSESSMENT

An evaluation of road and rail traffic noise impacts on the site was conducted in line with SPP 5.4. The methodology and assessment criteria are outlined in the SPP 5.4 Guidelines (hereafter referred to as the Guidelines). Sound PLAN v9.0, a 3D noise modelling software, was used to simulate noise emissions from major roads and to assess the resulting noise levels at the building façades of the development.

The noise assessment accounts for both current and future traffic volumes that will impact the proposed development. The findings from this assessment were used to evaluate the level of noise intrusion into the apartments.

Noise levels were modelled 1 meter from the building façade. The predicted receiver noise levels at the façade also include a +2.5 dB façade correction, in accordance with SPP 5.4 requirements. Compliance with the relevant sections of the SPP 5.4 Noise Modelling Checklist is documented in Appendix A.

5.1 MODELLING INPUTS

5.1.1 Topography & Ground Absorption

Topographical data for areas surrounding the site (1m elevation contours) were sourced from Geoscience Australia Digital Elevation Model (DEM) 5 Metre Grid of Australia derived from LiDAR. A reflection order of 3 has been considered in all assessments.

5.1.2 Road Traffic

The road traffic noise assessment has been conducted based on the methodology described by the Calculation of Road Traffic Noise algorithm (CoRTN, UK Transport Agency).

The CoRTN algorithm has been developed to calculate $L_{A10,18hr}$ noise levels. However, SPP 5.4 requires road noise assessments to be based upon the energy averaged $L_{Aeq,16hr}$ and $L_{Aeq,8hr}$ noise descriptors for the daytime and night-time respectively. Conversions are applied using the method outlined in the DEFRA publication, *"Method for Converting the UK Road Traffic Noise Index $L_{A10,18hour}$ to the EU Noise Indices for Road Noise Mapping."*

This algorithm considers the following parameters:

- Noise levels measured on site for calibration of the model
- Traffic volume during each period of the day, and for current and future scenarios
- Traffic speeds
- Percentage of heavy vehicles; and
- Gradient and surface of road

The noise model included the heights of road traffic noise sources as specified by the Guidelines. Below are the modelled heights of the vehicle "strings":

- Passenger vehicles: + 0.5 m
- Heavy vehicles — Engine noise: + 1.5 m
- Heavy vehicles — Exhaust: + 3.6 m

The modelled and observed average daily traffic volumes for 2025 and 2045 were sourced from Main Roads Western Australia (MRWA), Reference No. 43586. This data pertains to traffic on Mitchell Freeway.

SPP 5.4 requires that all noise assessments account for changes in traffic volumes anticipated over the next 20 years. The traffic volume projections provided by MRWA were utilized for this purpose. *Table 14* summarises the current and projected future traffic volumes used in the assessment.

Table 14: Traffic Volumes – Current & Future

Road	year	daily vehicle count	daytime vehicle volume / hr	nighttime vehicle volume / hr	percentage of heavy vehicle	speed
Mitchell Freeway	Current 2025	83,168	4280	813	Day – 8% Night – 9%	100 km/hr
Mitchell Freeway	Future 2045	194,886	11,233	1894	Day – 8% Night – 9%	100 km/hr

5.1.3 Rail Traffic

The rail noise assessment has been undertaken for Yanchep Line, Fremantle Line and Airport Line using the methodology described in the Nordic Noise Prediction Method (NORD2000:2006). This algorithm incorporates the following key parameters:

- Rail traffic volumes for the 16-hour day and 8-hour night periods, consistent with SPP 5.4 requirements
- Train length and operating speed
- Height of individual noise sources, including wheels, rail, and exhaust
- Meteorological conditions, with 3 m/s downwind propagation adopted to represent a worst-case scenario

Trains movement (for all the three rail lines) data are acquired from the Public Transport Authority (PTA) of WA timetable for passenger trains.

Table 15 provides the train numbers over a 24-hour period that were used in the model. Future train volume information was not available from PTA therefore similar rail traffic numbers were used as it would typically take double of train volumes to increase the noise levels by 3dB.

Table 15: Rail traffic volume used in the modelling.

TRAIN TYPE	NO. OF TRAINS (24-HR PERIOD)	
	Current	**2045**
Yanchep Line	254	254
Fremantle Line	169	169
Airport Line	160	160

5.2 NOISE MODELLING RESULTS

Road traffic noise impact for the future year (2045) predicted the highest external noise levels for the day and night-time periods:

- Day-time scenario 64 dB(A)
- Night-time scenario 57 dB(A)

Predicted noise levels on the facades (façade noise maps) are provided in Appendix B.

5.3 EXTERNAL FACADE

5.3.1 External Glazing and Solid Façade

Noise intrusion calculations were conducted using the approach outlined in British Standard BS EN 12354:2000. On-site measured noise levels were used to carryout noise intrusion assessment of the façade.

The calculations were based on the on-site highest predicted noise levels to select appropriate glazing for achieving the desired internal noise levels. Adjustments were made to the linear spectral noise levels to account for potential losses from flanking paths and façade corrections.

The noise intrusion has been calculated for all façade elements, which is relative to their surface area. Performance and typical configurations of the façade have been provided in *Table 16*.

Table 16: Acoustic Facade Categories & Glazing Arrangements

Location	ACOUSTIC FAÇADE TYPE	REQUIRED ACOUSTIC RATING (R_W)	TYPICAL EQUIVALENT GLASS
All Facades	Glazing	Double Glazing – R_W 35	▪ 6mm glass /12mm air space /6mm glass
All Facades	Solid Facade	R_W 45 -50	▪ Masonry construction ▪ Where light weight walls are used these shall achieve a minimum acoustic performance of Rw 45-50

It should be noted that the façade performance and selection of glazing and external wall treatments will likely be refined during design development stage based on the selection of façade materials.

6 CONCLUSION

E-Lab Consulting has been commissioned by Siron Urban Pty Ltd to undertake an acoustic assessment for the proposed Purpose-Built Student Accommodation (PBSA) located at 18-28 Telethon Avenue, Perth City Link, Perth WA 6000.

This Acoustic report has been prepared as part of Development Application for the proposed development. The following acoustic assessments were undertaken, and recommendations are made to maintain compliance:

- Noise Intrusion to the project from external noise sources (noise from rail & roads) in accordance with State Planning Policy 5.4 – Road and Rail Noise
- Vibration impacts from the Perth city link rail line.
- Noise emissions from the development impacting noise sensitive receivers in accordance with WA Environmental Protection (Noise) Regulations 1997

The following key standards, regulations and guidelines have been used to establish the project specific acoustic design requirements for the development.

- Development WA – Policy 3 Sound and Vibration Attenuation
- Western Australian Environmental Protection (Noise) Regulations 1997 (WA EPNR)
- WAPC/DPLH, State Planning Policy 5.4 – Road and Rail Noise, Sep 2019 (SPP 5.4)
- National Construction Code 2022 Volume 1, Building Code of Australia (NCC 2022)
- Architectural drawings by MJA Studio, dated 16 December 2025

Road and rail traffic noise assessment has been conducted, and the minimum recommended external façade construction has been specified to comply with internal noise level criteria. Predicted noise levels at the building façades were calculated using the 3D noise modelling software package SoundPLAN v9.0.

With regards to noise emissions, once the full mechanical equipment schedule is provided, a detailed noise assessment shall be conducted before the issuance of the Building Permit. Specific acoustic treatments shall be implemented to ensure compliance with the relevant assigned noise levels at the nearest noise-sensitive receivers.

Having given regard to the analysis conducted within this report, it is the finding of this assessment that the proposed redevelopment is compliant with the relevant criteria for this type of development, and it is expected to comply with the applicable regulations with regards to noise and vibration, particularly those listed above.

APPENDIX A NOISE MODELLING CHECKLIST

Road Traffic Checklist

CHECKLIST ITEM		ACTION
Road traffic input data - Current		
Road name	Mitchell Freeway 2025	
	16-hr daytime road traffic volume	70272
	Percentage of heavy vehicles (daytime)	8
	8-hr night-time road traffic volume	13345
	Percentage of heavy vehicles (night-time)	9
Road pavement	Open Graded Asphalt	
Road traffic heights	Have the road emissions sources been modelled at the following heights?	
	Light and heavy vehicle tyre-road height at +0.5 m	Y
	Heavy vehicle engine height at +1.5 m	Y
	Heavy vehicle exhaust height at +3.6 m	Y
Traffic speed	What is the modelled road posted (signal) traffic speed?	100 km/h

CHECKLIST ITEM		ACTION
Road traffic input data - Future		
Road name	Mitchell Freeway 2045	
	16-hr daytime road traffic volume	163782
	Percentage of heavy vehicles (daytime)	8
	8-hr night-time road traffic volume	31104
	Percentage of heavy vehicles (night-time)	9
Road pavement	Open Graded Asphalt	
Road traffic heights	Have the road emissions sources been modelled at the following heights?	
	Light and heavy vehicle tyre-road height at +0.5 m	Y
	Heavy vehicle engine height at +1.5 m	Y
	Heavy vehicle exhaust height at +3.6 m	Y
Traffic speed	What is the modelled road posted (signal) traffic speed?	100 km/h

NOISE PREDICTION CORRECTIONS			
Traffic emission	If using the Calculation of Road Traffic Noise algorithms, have the following corrections been applied?		
	-0.8 dB correction to heavy vehicle engine emission?		Y
	-8.0 dB correction to the heavy vehicle exhaust emission?		Y
Road pavement	Has one of the following corrections been applied to the tyre/road emission?		Y
	14 mm chip seal	+3.5 dB	
	10 mm chip seal	+2.5 dB	
	5 mm chip seal	+1.5 dB	
	Dense graded asphalt	0.0 dB	
	Novachip	-0.2 dB	
	Stone mastic asphalt	-1.5 dB	
	Open graded asphalt	-2.5 dB	Y
Australian traffic	Has a -1.7 dB Australian Road Research correction or reasonable equivalent applied?		Y
Receptor façade	Has a +2.5 dB building façade correction been applied?		Y

Rail Traffic Checklist

CHECKLIST ITEM		ACTION
Rail traffic input data		
Rail Name	Yanchep Line	
	16-hr daytime passenger rail movements	234
	16-hr daytime freight rail movements	N/A
	8-hr daytime passenger rail movements	20
	8-hr daytime freight rail movements	N/A
Rail traffic heights	Have the rail noise sources been modelled at the appropriate heights?	Y
Rail line speed	What is the modelled rail traffic speed?	50 km/h
Accuracy / Calibration	How does the proposal account for variation in actual noise levels from that predicted?	Noise model has been benchmarked against E-LAB's freight rail measurements

Rail traffic input data		
Rail Name	Fremantle Line	
	16-hr daytime passenger rail movements	142
	16-hr daytime freight rail movements	N/A
	8-hr daytime passenger rail movements	27
	8-hr daytime freight rail movements	N/A
Rail traffic heights	Have the rail noise sources been modelled at the appropriate heights?	Y
Rail line speed	What is the modelled rail traffic speed?	50 km/h
Accuracy / Calibration	How does the proposal account for variation in actual noise levels from that predicted?	Noise model has been benchmarked against E-LAB's freight rail measurements

Rail traffic input data		
Rail Name	Airport Line	
	16-hr daytime passenger rail movements	139
	16-hr daytime freight rail movements	N/A
	8-hr daytime passenger rail movements	21
	8-hr daytime freight rail movements	N/A
Rail traffic heights	Have the rail noise sources been modelled at the appropriate heights?	Y
Rail line speed	What is the modelled rail traffic speed?	50 km/h
Accuracy / Calibration	How does the proposal account for variation in actual noise levels from that predicted?	Noise model has been benchmarked against E-LAB's freight rail measurements

Noise Prediction Corrections		
Train noise emissions	Has the assessment described how the following have been calibrated in the rail noise calculations?	
	The various train classes in use on the rail line	Passenger
	Train speed	50 km/h
	Train length	700-900 m

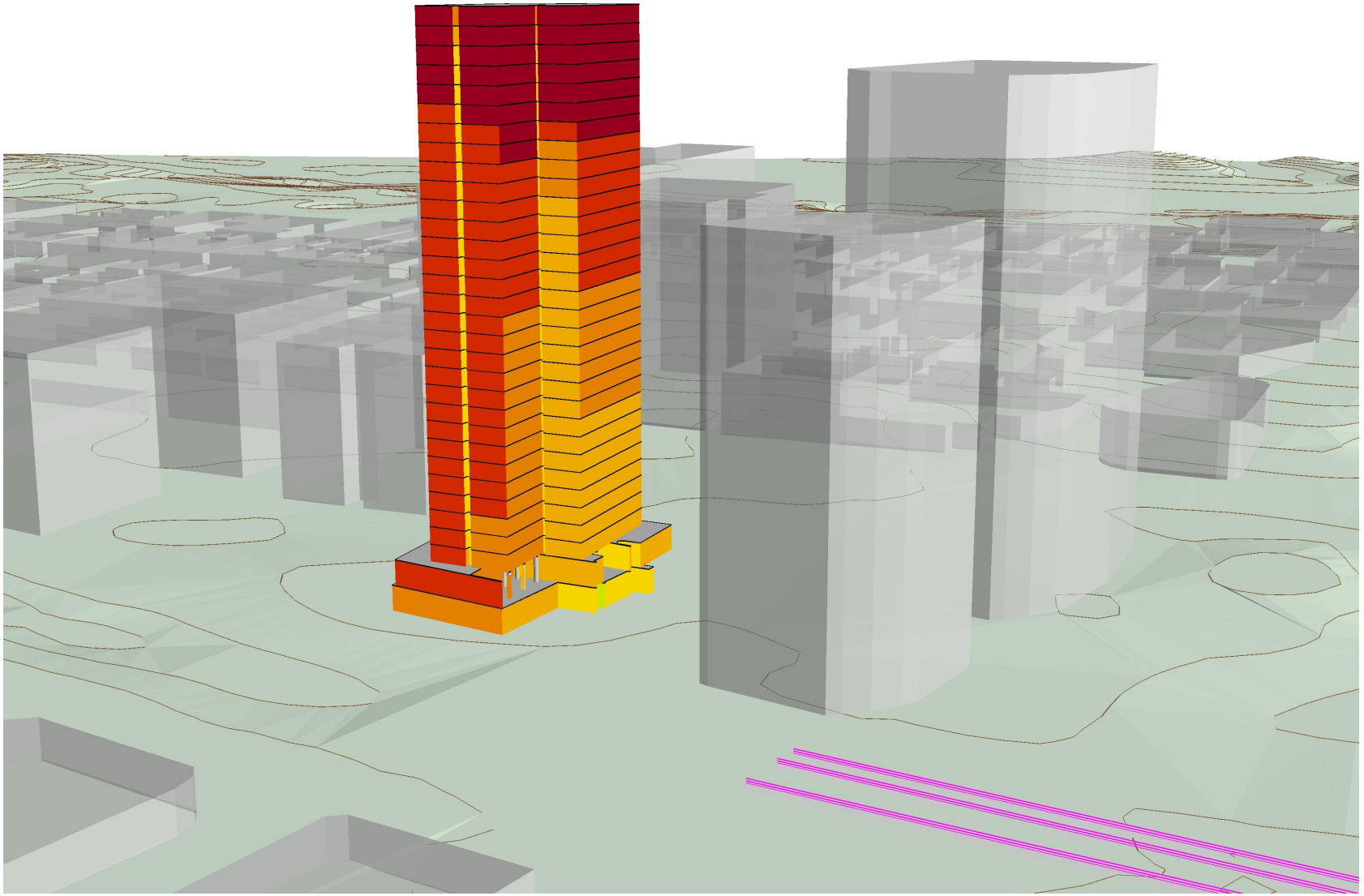
Track features	Based on the localised track features have the following noise emission corrections been appropriately considered?		
	Mechanical/uneven joints	+3 dB	N/A
	Curve radius less than 600 m	+3 dB	N/A
	Turnout	+6 dB	N/A
	Curve radius less than 300 m	+8 dB	N/A
	Diamond crossing	+10 dB	N/A
	If appropriate has the assessment described how other noise sources such as bridges, brake noise, car bunching, blowers and air compressors have been accounted for?		N/A
Receptor façade	Has a +2.5 dB building façade correction been applied?		Y

Rail noise barriers		
Noise barriers	Have noise barriers been modelled as being fully reflective?	N/A
	Have the noise predictions considered the 20-year planning horizon?	N/A

Environmental inputs		
Receivers	Were receiver heights modelled at 1.4 m above floor level?	Y
	Have noise levels been predicted at the most affected façade/s?	Y

Rail noise predictions		
Predicted noise levels	Have noise levels been predicted at all floors of the development?	Y
	Have the noise predictions considered the 20-year planning horizon?	Y

APPENDIX B FAÇADE NOISE MAPS



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	16/12/2025	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{A10,18hr}$ dB(A)

- ++ 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 - 60
- 61 - 65
- + 65

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

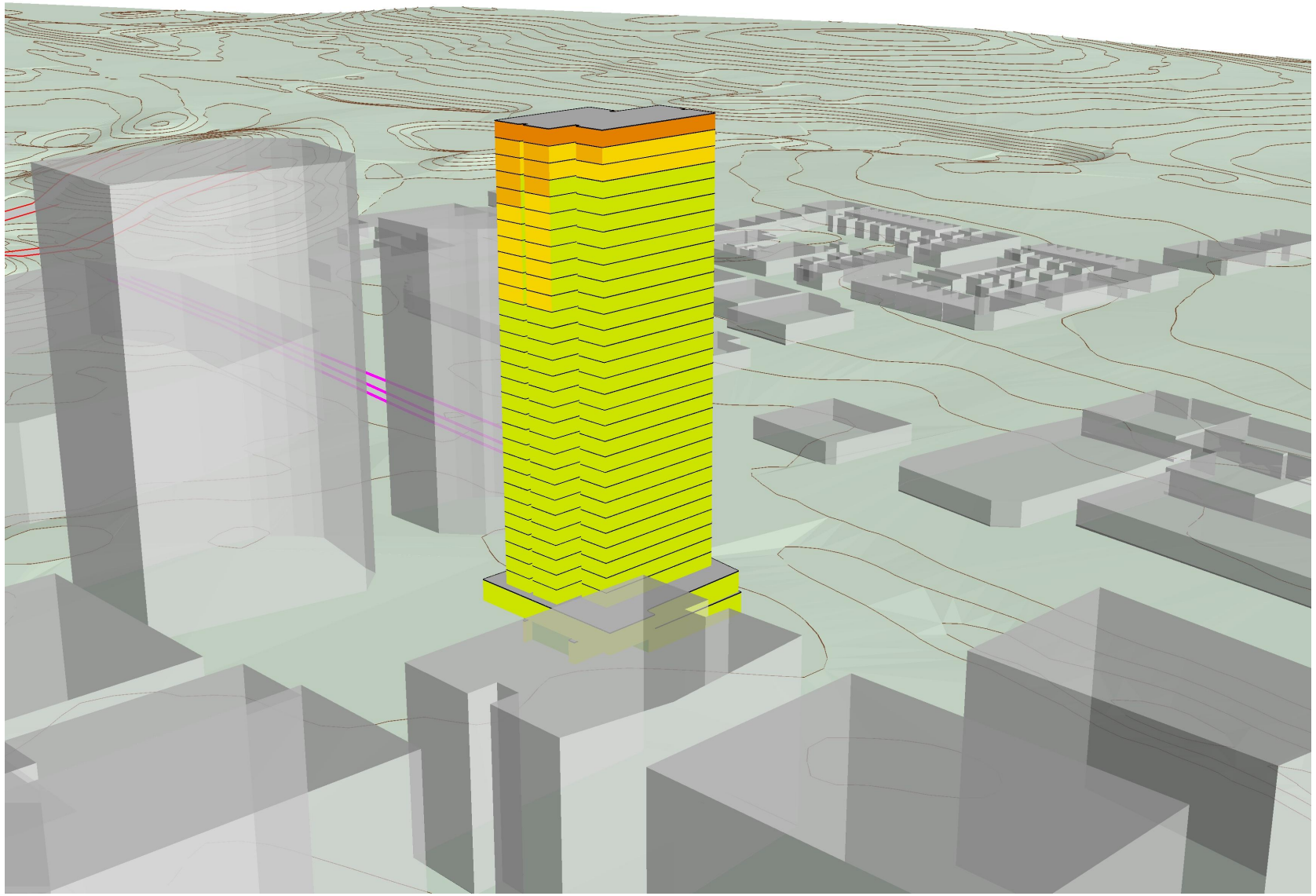
STATUS
ISSUE FOR DA

DRAWING
2045 FACADE NOISE LEVELS - DAYTIME

VIEW 1 (NORTH / ROE STREET)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER	REVISION
AC-DWG-100-01-01	001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	16/12/2025	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{A10,1hr}$ dB(A)

- ++ 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 - 60
- 61 - 65
- + 65

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

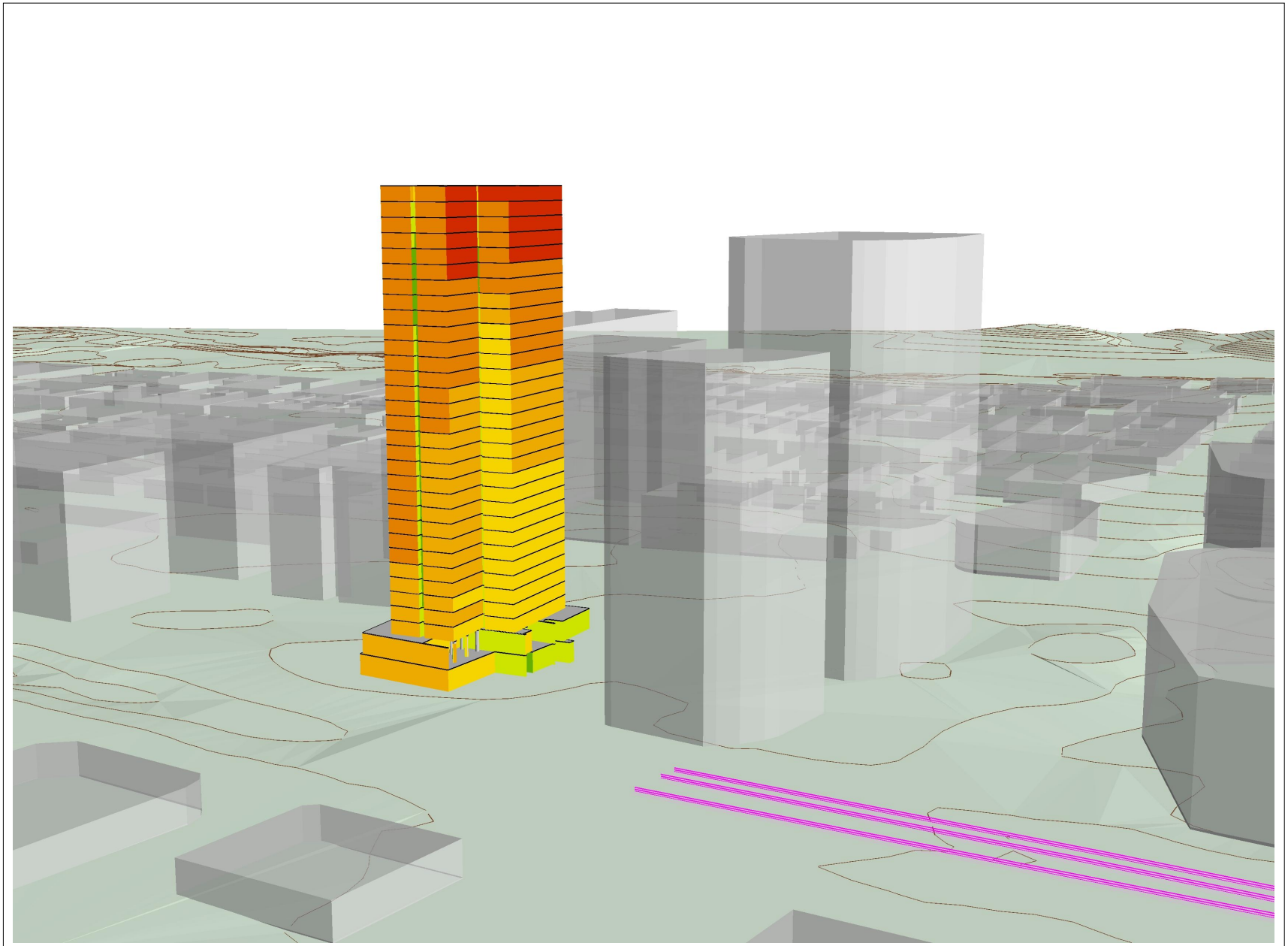
STATUS
ISSUE FOR DA

DRAWING
2045 FACADE NOISE LEVELS - DAYTIME

VIEW 2 (SOUTH/ TELETHON AVE)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER	REVISION
AC-DWG-100-01-01	001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	16/12/2025	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{eq,night}$ dB(A)

- <= 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 - 60
- 61 - 65
- > 65

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

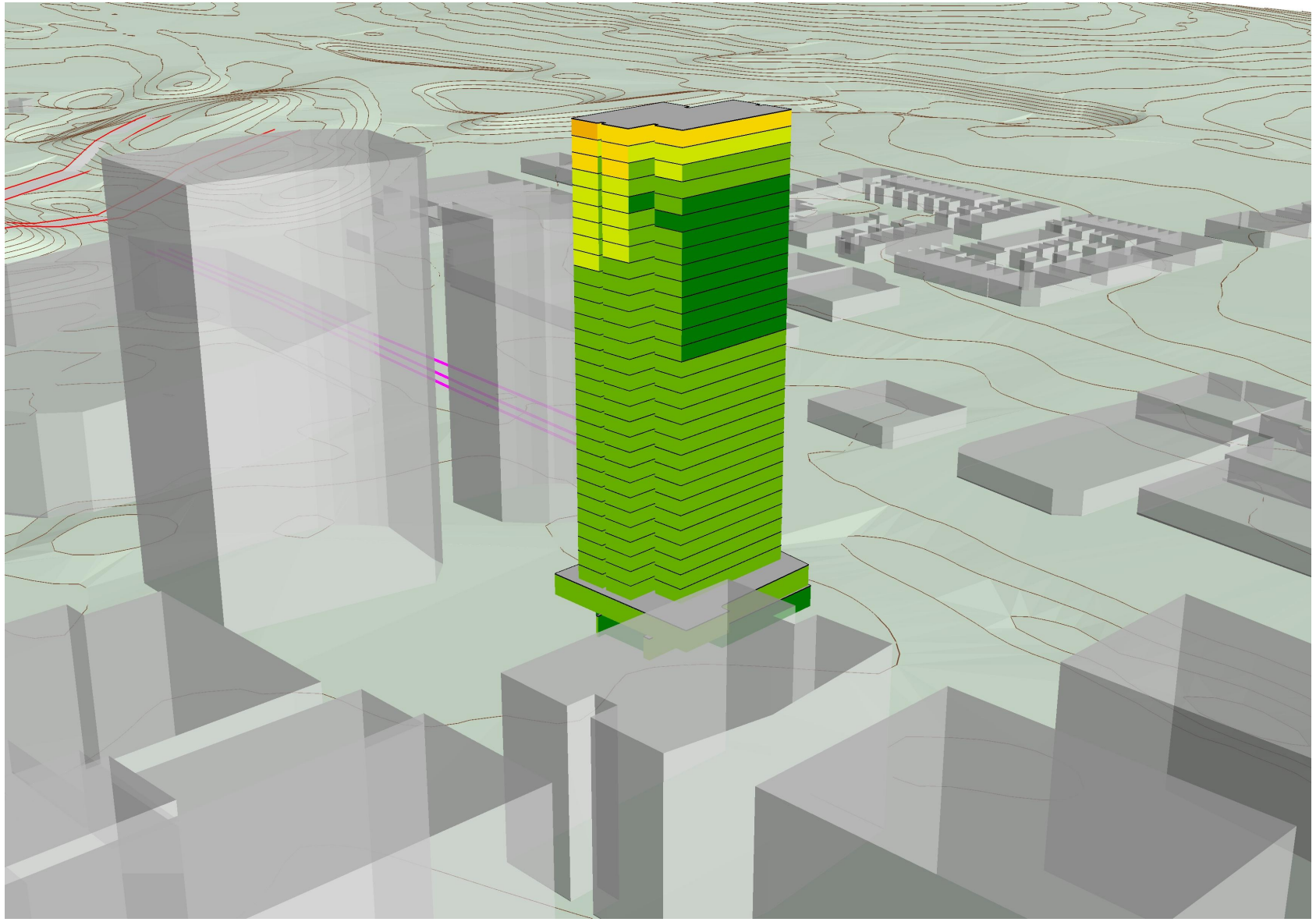
STATUS
ISSUE FOR DA

DRAWING
2045 FACADE NOISE LEVELS - NIGHT TIME

VIEW 1 (NORTH / ROE STREET)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER	REVISION
AC-DWG-100-01-01	001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	16/12/2025	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{eq,night}$ dB(A)

- ++ 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55
- 56 - 60
- 61 - 65
- + 65

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

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P03371

ARCHITECT
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CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

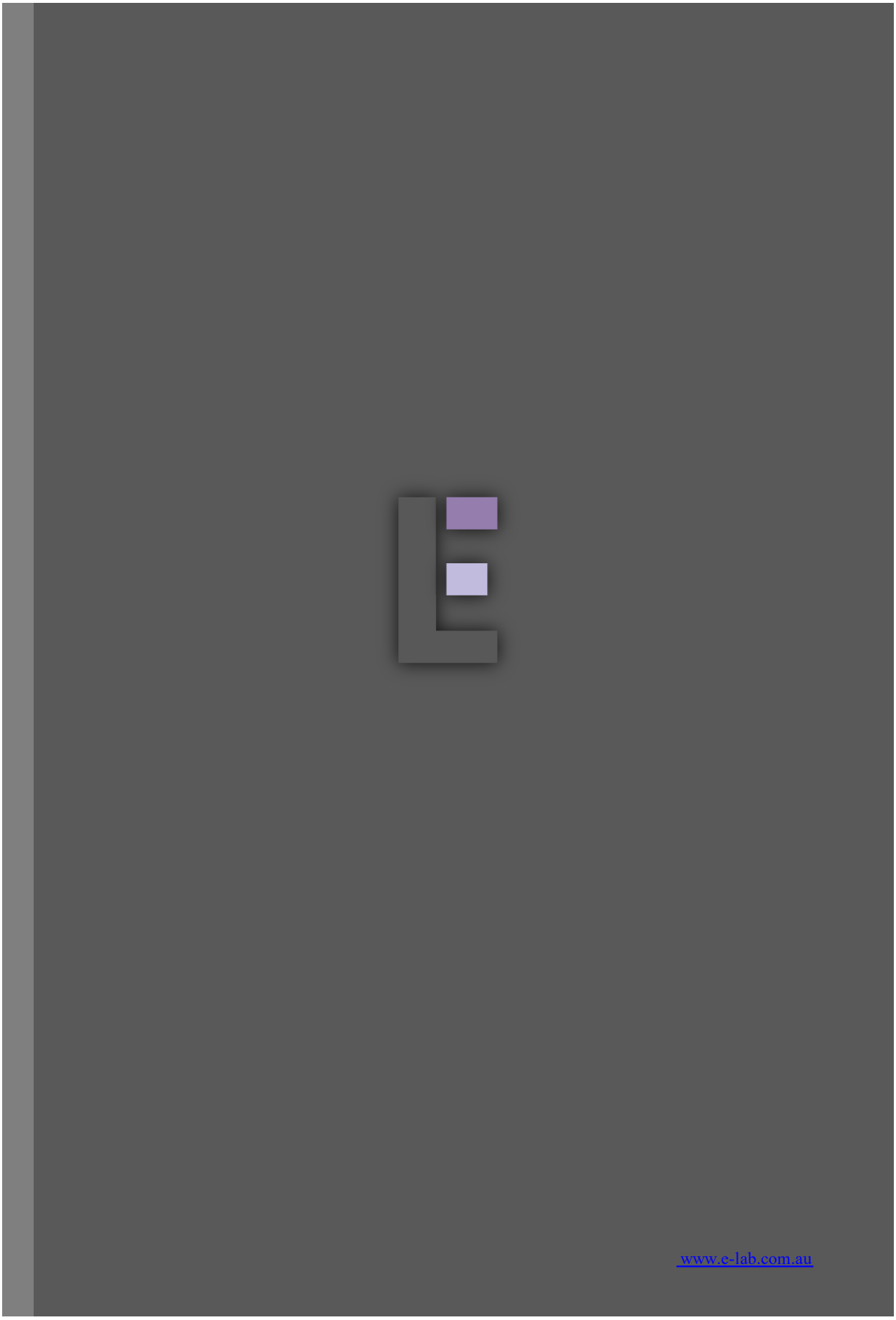
STATUS
ISSUE FOR DA

DRAWING
2045 FACADE NOISE LEVELS - NIGHT TIME

VIEW 2 (SOUTH/ TELETHON AVE)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER	REVISION
AC-DWG-100-01-01	001


www.e-lab.com.au

Project	Telethon Ave PBSA West		
Project No.	P03071		
Prepared by	Imran Khan	Date	20.03.2026
Prepared for	Siron urban Pty Ltd	Revision	1
Subject	City Planning Scheme No. 2 Amendment No. 41 – Acoustic design update		

INTRODUCTION

Acoustic report for the project Telethon Avenue PBSA West was prepared by E-Lab consulting, report reference *P03071- ELAB-AC-RE-DA_001* dated 16 December 2025. Further to issuing the report Development WA has requested an updated assessment to the City Planning Scheme No. 2 Amendment No. 41.

This technical memo is an addendum that addresses the noise impacts due to the recently released City Planning Scheme No. 2 Amendment No. 41. As part of this assessment revised façade performance requirements have been nominated to meet compliance to the requirements of the new amendment.

NORTHBRIDGE SPECIAL ENTERTAINMENT PRECINT - SPECIAL CONTROL AREA (SCA)

The purpose of the SCA is to preserve the vibrancy and economic sustainability of the Northbridge entertainment precinct while supporting Perth's growth. Amendment 41 increases permissible noise levels for venues within the SCA and introduces new acoustic attenuation requirements for affected residential developments, with provisions varying across the Core, Frame, and Transition areas.

The Department of Water and Environmental Regulation (DWER) is progressing draft amendments to the Environmental Protection (Noise) Regulations 1997 to reflect the establishment of the Special Entertainment Precinct.

In addition, the WAPC, Position Statement: Special Entertainment Precincts referred on the WA Government website regarding the SCA nominates internal noise levels of 47dB(Z)Leq at 63Hz, and 41dB(Z)Leq at 125Hz within residential development within the Frame areas of the SCA.

Although Amendment 41 does not strictly apply to the Project (as it lies outside the City's scheme jurisdiction), this addendum targets upgrade of the façade to consider the above provisions, as well as the draft amendments to the Environmental Protection (Noise) Regulations 1997, Clause 4.17 of the Central Perth Redevelopment Scheme, and Development Policy 3 – Sound and Vibration Attenuation, in line with best practice.

PROJECT LOCATION AND VENUES

The venues in proximity to the project location have been identified to be included in the acoustic assessment for the project. Details of the noise levels used in the assessment in accordance with Amendment 41 are detailed below:

- Premises within core area – 90dB(C)
- Premises within transition, frame area – 79dB(C)

Table 1 & Figure 1 identify the venues and its location with the nominated Core, Transition or Frame Area. It is noted that premises further away are expected to have lower noise levels therefore have less impact on the project due to the distance attenuation.

Table 1: Nearest Venues to the project location

ITEM	BUILDING	ZONE
A	Metro City	Core Area
B	Rosie O'Grady's Pub	Core Area
C	Lynott's Lounge	Core Area
D	Paramount Night Club	Core Area
E	Coconut Grove	Core Area
F	Kara Karaoke	Core Area
G	The Royale Theatre at Planet Royal	Core Area

Figure 1 : Project location and the nearest venues to the project

NOISE MODELLING

3D noise model in modelling software Sound PLAN v9.0 has been used to undertake the acoustic assessment of the noise emissions from the venues impacting the façade of the project. Modelling parameters are the same that have been detailed in the DA acoustic report for the project.

Source sound levels have considered low frequency noise that were taken from generic spectra provided by Department of Water and Environmental Regulation (DWER, Llyod George Acoustics Report), which represent Leq sound pressure levels at 1 metre from the venue building for each venue to represent 90dB(C) at 1m from the façade. All un-obstructed facades of the identified venues were modelled as noise emitting sources even if they were masonry walls or solid roofs as a worst-case scenario.

GLAZING RECOMMENDATIONS & PREDICTED NOISE LEVELS

Detailed façade noise mapping was undertaken to accurately predict the noise impact on the façade of the project. Façade noise maps are appended to this technical memo in Appendix A.

Glazing

The DA acoustic report originally nominated glazing to be a double-glazed system with the below performance and configuration

- 6mm glass -12mm air space – 6mm glass – **Acoustic Rating Rw 35**

Upgraded Glazing & Solid facade

The noise emissions from the venue impacting the façade required to be upgraded to the below configuration:

- 11.14 clear heat strengthened PVB laminated glass – 12mm argon gap - 6mm clear heat strengthened glass– **Acoustic Rating Rw 42**
- 170mm precast solid façade panels – **Acoustic Rating >Rw55**

Predicted Levels

Table 2 presents the predicted internal noise levels and the percentage achieving the internal noise criteria, based on the assessment framework and external noise level of 90dB(C) at the identified venues stipulated in Amendment 41.

The results presented are for most exposed façade – Northwest. All other facades have significantly lower noise impact and will comfortably comply with the criteria with the above proposed upgraded façade.

Table 2: Internal noise levels based on recommended upgraded glazing & facade

OCTAVE BAND FREQUENCY	PREDICTED NOISE LEVELS – NORTHWEST dB(Z)	DPLH POSITION STATEMENT – INTERNAL NOISE LEVEL REQUIREMENT	PERCENTAGE OF COMPLIANT ROOMS
63Hz	42- 51	<47	89% of rooms complaint with north-west facing façade Remaining facades – all compliant
125Hz	33- 41	<41	All of project compliant

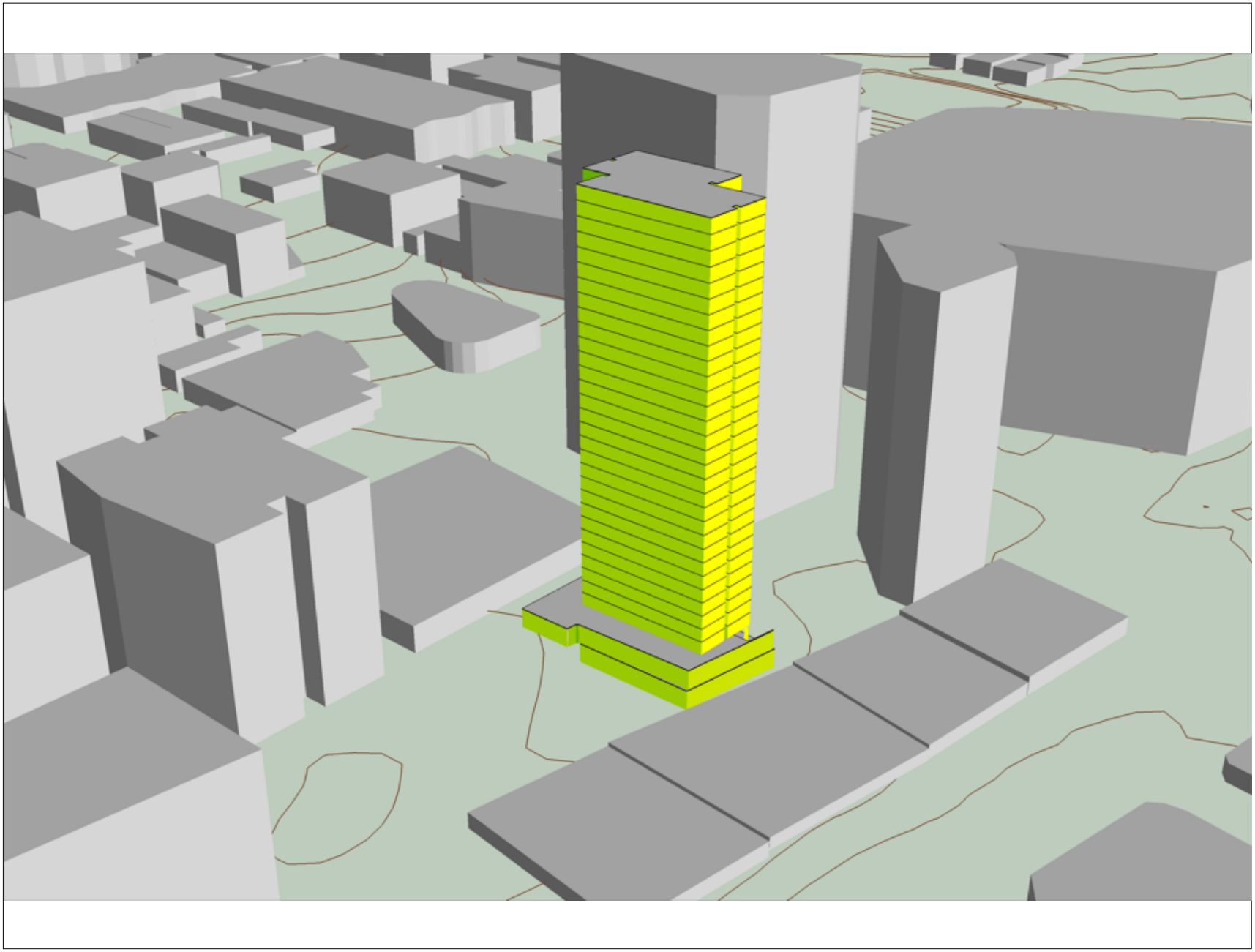
DISCUSSION & CONCLUSION

Marginal exceedance of 3-4 dB has been noted in the 63Hz octave band frequency. Human sensitivity to changes in sound pressure level is detected by the ear as pressure changes. Brain interprets these changes as loudness making hearing highly individualised, dependant on the frequency content of the sound and the background noise levels in the receiving room. Typically, a variation of sound level 1-2 is 'imperceptible' and 3-4dB is 'just perceptible'. Therefore, the marginal exceedances are unlikely to impact the amenity of the occupants.

It is noted that the above predicted levels use the low frequency spectrum provided by DWER (Llyod George Acoustics Report). On-site measurements undertaken by E-Lab indicate much lower noise levels therefore the actual on-site performance of the internal noise levels is expected to meet the performance.

E-Lab considers the proposed upgrade to the façade is adequate in meeting the requirements of Perth Planning Scheme 2 Amendment 41 and Northbridge special entertainment precinct – special control area requirements.

APPENDIX A FAÇADE NOISE MAPS



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	19/03/2026	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{A10,18hr}$ dB(A)

40 <	<= 40
44 <	<= 44
48 <	<= 48
52 <	<= 52
56 <	<= 56
60 <	<= 60
64 <	<= 64
68 <	<= 68
72 <	<= 72
76 <	<= 76
80 <	<= 80

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

STATUS
ISSUE FOR DA

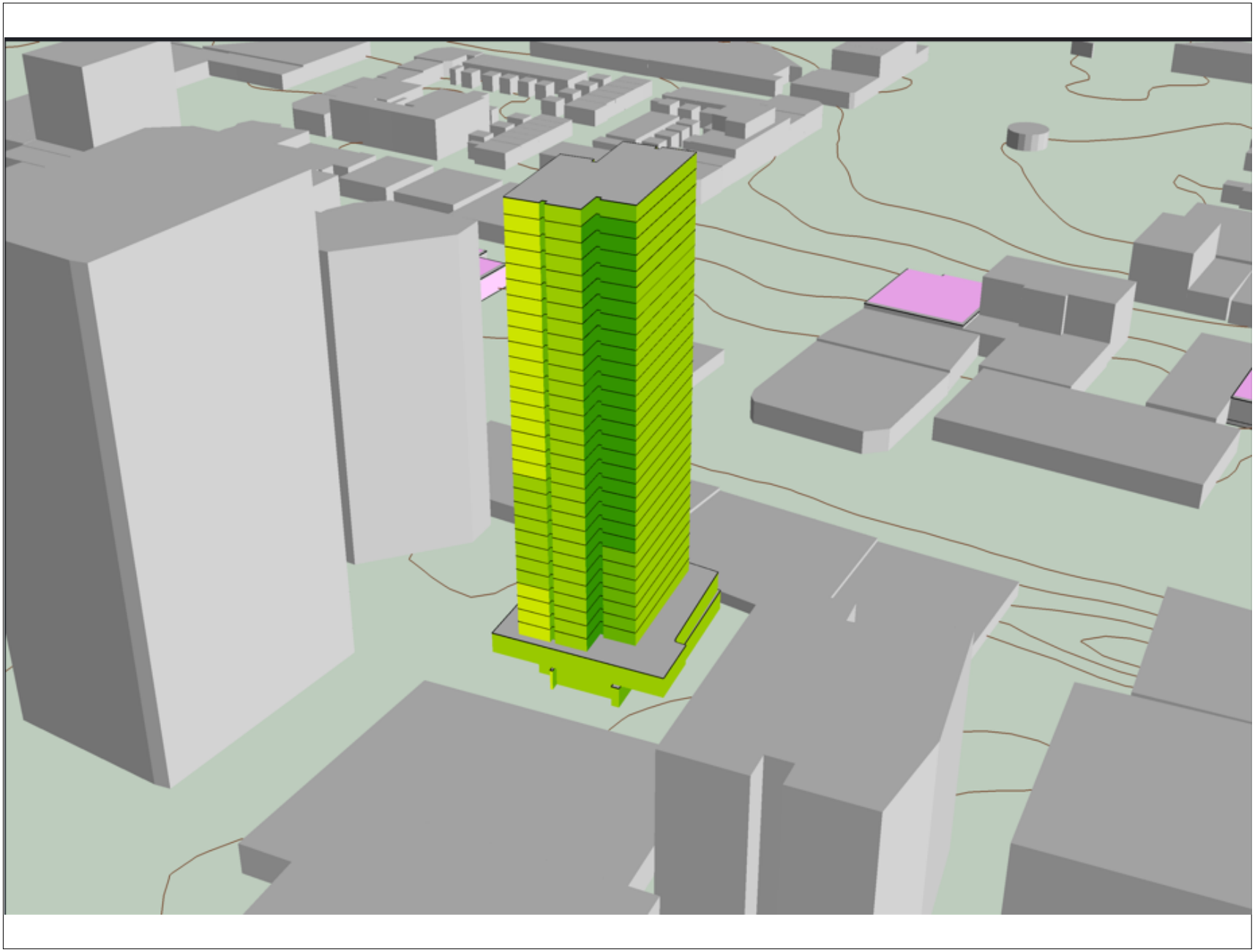
DRAWING
2045 FACADE NOISE LEVELS

VIEW 1 (NORTH / ROE STREET)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER
AC-DWG-100-02-01

REVISION
001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	19/03/2026	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{eq,night}$ dB(A)

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60 <	<= 60
64 <	<= 64
68 <	<= 68
72 <	<= 72
76 <	<= 76
80 <	<= 80

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

STATUS
ISSUE FOR DA

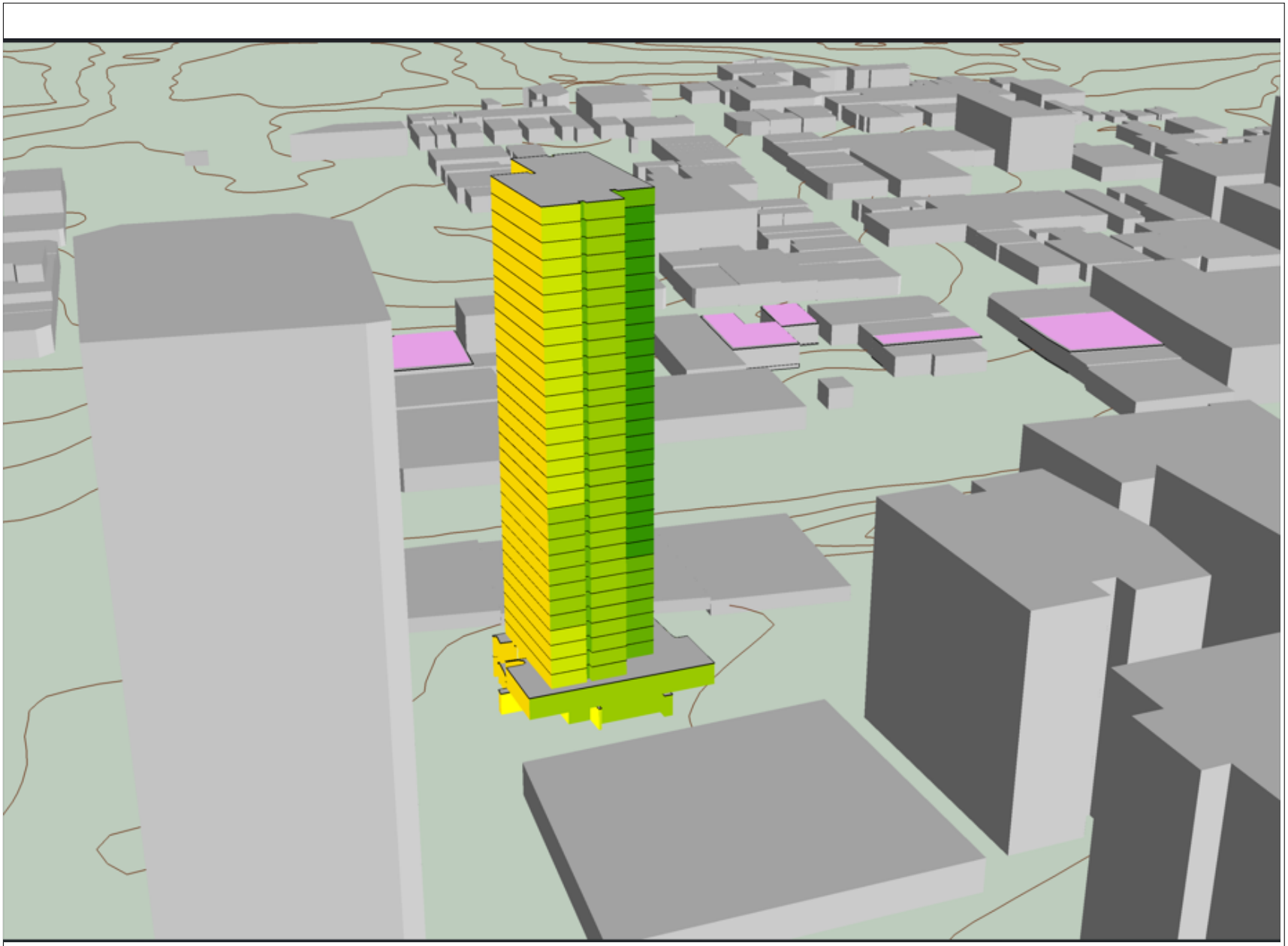
DRAWING
2045 FACADE NOISE LEVELS

VIEW 3 (South East)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER
AC-DWG-100-02-03

REVISION
001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	19/02/2026	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{eq,night}$ dB(A)

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48 <	<= 48
52 <	<= 52
56 <	<= 56
60 <	<= 60
64 <	<= 64
68 <	<= 68
72 <	<= 72
76 <	<= 76
80 <	<= 80

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

STATUS
ISSUE FOR DA

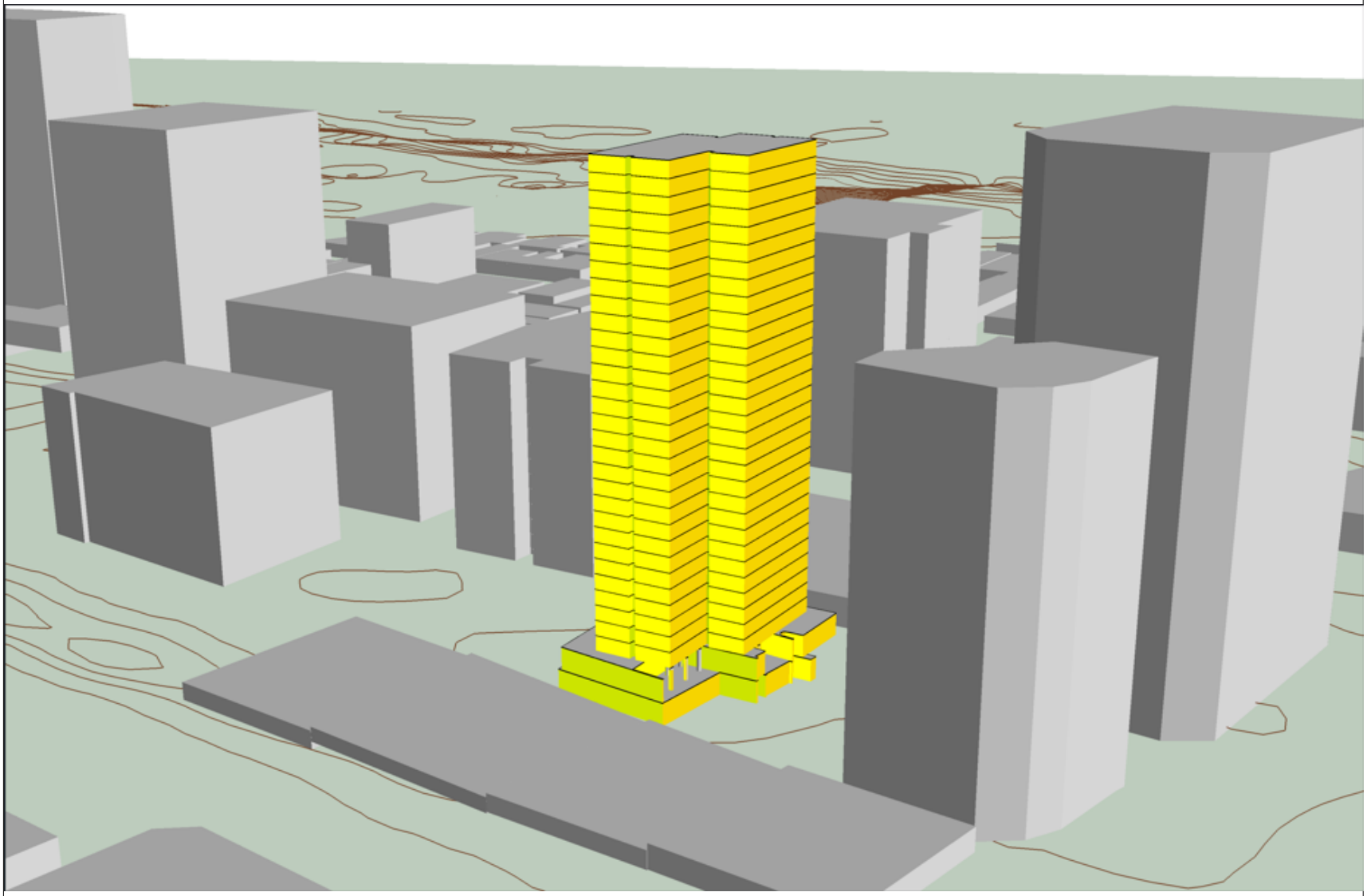
DRAWING
2045 FACADE NOISE LEVELS

VIEW 4 (SOUTH WEST)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER
AC-DWG-100-02-04

REVISION
001



E-LAB CONSULTING

ISSUE	DATE	STATUS
1	19/03/2026	ISSUE FOR INFORMATION

LEGEND

Facade Noise Level - $L_{A10,18hr}$ dB(A)

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72 <	<= 72
76 <	<= 76
80 <	<= 80

NOTES

PROJECT
TELETHON AVENUE - PBSA WEST

PROJECT NO.
P03371

ARCHITECT
MJA STUDIO

CLIENT
SIRONA URBAN PTY LTD

SCALE
NTS

STATUS
ISSUE FOR DA

DRAWING
2045 FACADE NOISE LEVELS

VIEW 2 (North West)

DISCIPLINE
ACOUSTICS

DRAWING NUMBER	REVISION
AC-DWG-100-02-02	001

Telethon Avenue Purpose Built Student Accommodation

Transport Impact Statement

Stantec

Prepared for:
Sirona Urban

17 December 2025

Prepared by:
Stantec Australia Pty Ltd

Project/File:
301252524

Stantec Australia Pty Ltd

Telethon Avenue Traffic Impact Statement

Revision	Description	Author	Date	Quality Check	Date	Independent Review	Date

Telethon Avenue Traffic Impact Statement

The conclusions in the Report titled Telethon Avenue are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

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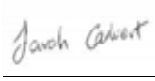
Prepared by



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Sarah Calvert

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Telethon Avenue Traffic Impact Statement
1 Introduction

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Telethon Avenue Traffic Impact Statement
1 Introduction

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1 Introduction

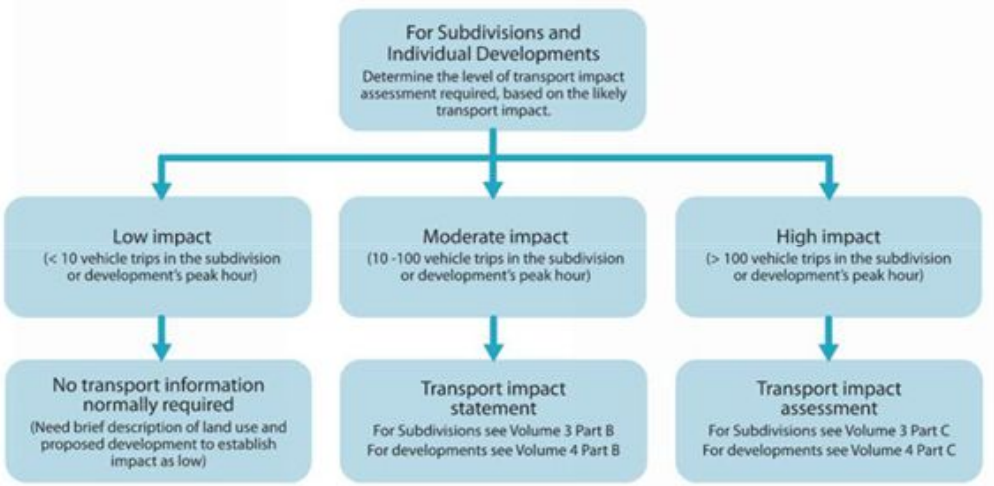
1.1 Background

Stantec has been commissioned by Sirona Urban ("the client") to prepare a Transport Impact Statement (TIS) in support for the proposed changes in land uses and modification of the Development Approval for Proposed Purpose-Built Student Accommodation (PBSA), 18-28 Telethon Avenue, Perth as part of Perth City Link (the "Site").

This Traffic Impact Statement (TIS) was prepared in accordance with the *Western Australia Planning Commission (WAPC) Transport Impact Assessment Guidelines Volume 4 – Individual Developments (2016)*. This report aims to focus on traffic access, circulation, and safety of the proposed development. Discussions regarding pedestrian, cycle and public transport considerations has also been included.

The proposed site will likely generate less than 10 vehicle trips in the peak hour (refer Section 5.4), therefore the Site would be considered "Low impact" as illustrated by Figure 1-1. However, noting the Site's inner-city location and high overall trip generation (i.e. active and public transport trip generation), a TIS has been considered appropriate.

Figure 1-1 Level of assessment required



Source: WAPC Transport Impact Assessment Guidelines Volume 4 – Individual Developments (2016)

2 Existing Situation

2.1 Site Location and Context

The subject Site is located in the City of Perth at 18-28 Telethon Avenue, as shown in **Figure 2-2**.

Figure 2-1 Subject Site Location

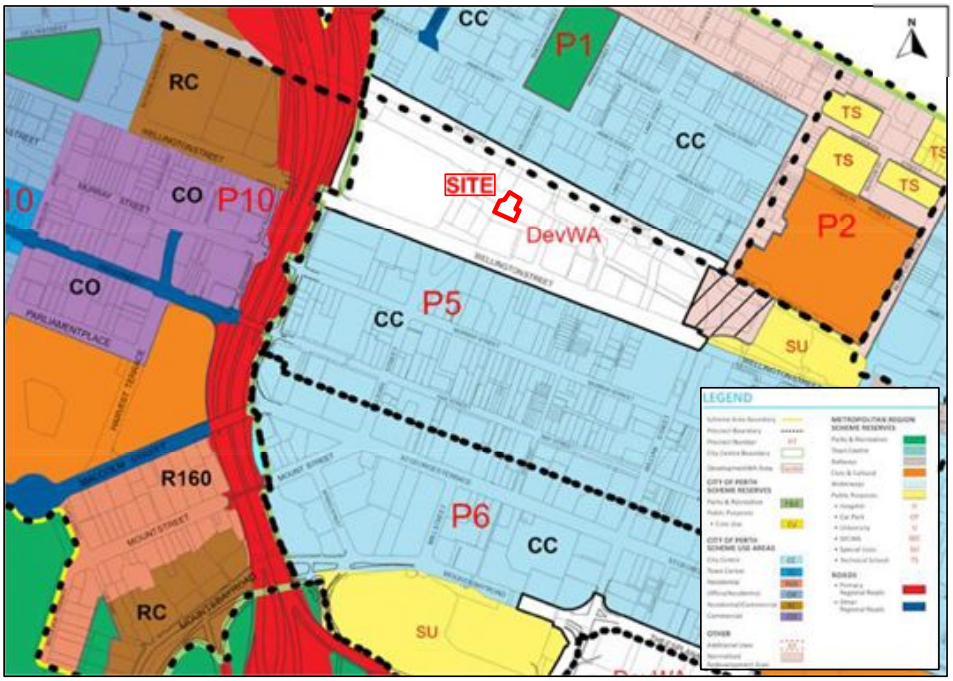
Source: Satellites Pro

The subject site at 28 Telethon Avenue, Perth CBD, occupies approximately 1,611 m² and accommodates a Purpose-Built Student Accommodation (PBSA) facility with around 854 beds. No resident car parking is provided, with service and loading access located on the Telethon Avenue frontage. The site is surrounded by mixed-use developments, including hospitality, retail, and commercial premises, and benefits from its proximity to major public transport hubs within the Perth City Link precinct.

2.2 Existing Land Use

Figure 2-2 illustrates the location of the Site relative to the local scheme zones as prescribed within the *City of Perth Local Planning Scheme No. 2 (CPS2)*.

Figure 2-2 Existing Local Scheme Zone



Source: City of Perth Local Planning Strategy No. 2 Map 1.

As shown in **Figure 2-2**, the Site is currently zoned for 'Development WA Area' and is predominantly surrounded by similar land uses. To the north and south, the adjoining zones are designated as 'City Centre', while the eastern boundary adjoins a 'Normalised Redevelopment Area' and the western boundary interfaces with 'Primary Regional Roads'.

2.3 Existing Road Network

Road classifications are defined in the Main Roads WA Functional Road Hierarchy are as follows:

- **Primary Distributors (light blue):** Form the regional and inter-regional grid of Main Roads WA traffic routes and carry large volumes of fast-moving traffic. Some are strategic freight routes, and all are National or State Roads WA.
- **Regional Distributors (red):** Roads that are not Primary Distributors, but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas. They are managed by Local Government.
- **District Distributor A (green):** These carry traffic between industrial, commercial and residential areas and connect to Primary Distributors. These are likely to be truck routes and provide only limited access to adjoining properties. They are managed by Local Government.
- **Distributor B (dark blue):** Perform a similar function to District Distributor A but with reduced capacity due to flow restrictions from access to and roadside parking alongside adjoining

property. These are often older roads with traffic demand in excess of that originally intended. District Distributor A and B roads run between land-use cells and not through them, forming a grid that would ideally be around 1.5 kilometres apart. They are managed by Local Government.

- **Local Distributors (orange):** Carry traffic within a cell and link District Distributors at the boundary to access roads. The route of the Local Distributor discourages through traffic so that the cell formed by the grid of District Distributors only carries traffic belonging to or serving the area. These roads should accommodate buses but discourage trucks. They are managed by Local Government.
- **Access Roads (grey):** Provide access to abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function. These roads are bicycle and pedestrian friendly. They are managed by Local Government.

The surrounding road network is further characterised in , while **Figure 2-3** shows a map of the road hierarchy as per the Main Roads WA Road Information Mapping System.

Table 2-1 Road Network Classification

Road Name	Road Hierarchy	Jurisdiction	No. of Lanes	No. of Footpaths	Posted Speed Limit (km/h)
Wellington Street	Distributor A	Local Government	4	2	50*
Milligan Street	Distributor B / Miscellaneous Road	Local Government	3	1	50*
King Street	Miscellaneous Road	Local Government	2	2	50*
Roe Street	Distributor B	Local Government	2	1	50*
Telethon Avenue	Access Road**	Local Government	2	2	50*

**Default (unsigned) speed limit*
***No official hierarchy, presumed Access Road*

Telethon Avenue Traffic Impact Statement
2 Existing Situation

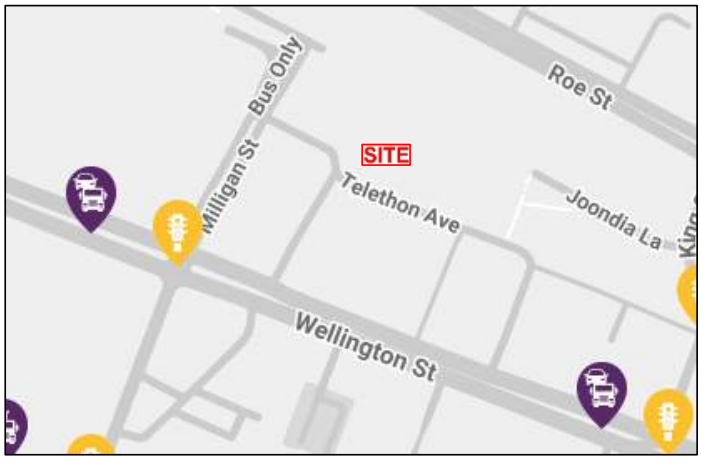
Figure 2-3 Existing Road Hierarchy Map

Source: MRWA Road Information Mapping System

2.4 Existing Traffic Volumes

The most recent traffic volumes for the roads in the vicinity of the Site were obtained from the Main Roads WA's Traffic Map as shown in **Figure 2-4** and are summarised in **Table 2-2**.

Figure 2-4 Available Traffic Volumes from Traffic Map



Source: MRWA Traffic Map

Table 2-2 Existing Traffic Volumes

Road Name	Year	Source	AM Peak Hour Volume (Weekday)	PM Peak Hour Volume (Weekday)	Daily Volume (Weekday)
Wellington Street (West of Milligan St)	2021/22	MRWA Traffic Map	1,709	1,761	20,579
Wellington Street (West of King St)	2023/24	MRWA Traffic Map	1,572	1,596	19,858
Milligan Street (southbound approaching Wellington St)	2023	SCATS	66	193	1,096

2.5 Crash Assessment

A crash assessment for the existing road network surrounding the Site was conducted using the Main Roads WA Crash Reporting Centre. The assessment covers all the recorded crashes for the 5-year period between 01 January 2020 to 31 December 2024. **Table 2-3** to **Table 2-5** shows the crashes recorded at the abovementioned intersections and midblock road sections. **Figure 2-5** shows the location and severity of these crashes.

Table 2-3 Total Crashes

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Right Angle	-	1	2	1	2	6
Hit Pedestrian	-	2	3	-	1	6
Rear End	-	1	7	6	9	23

Sideswipe Same Direction	-	1	-	8	8	17
Right Turn Thru	-	-	1	4	1	6
Unspecified	-	-	1	6	8	15
Total	-	5	14	25	29	**73**

Table 2-4 Intersection Crashes

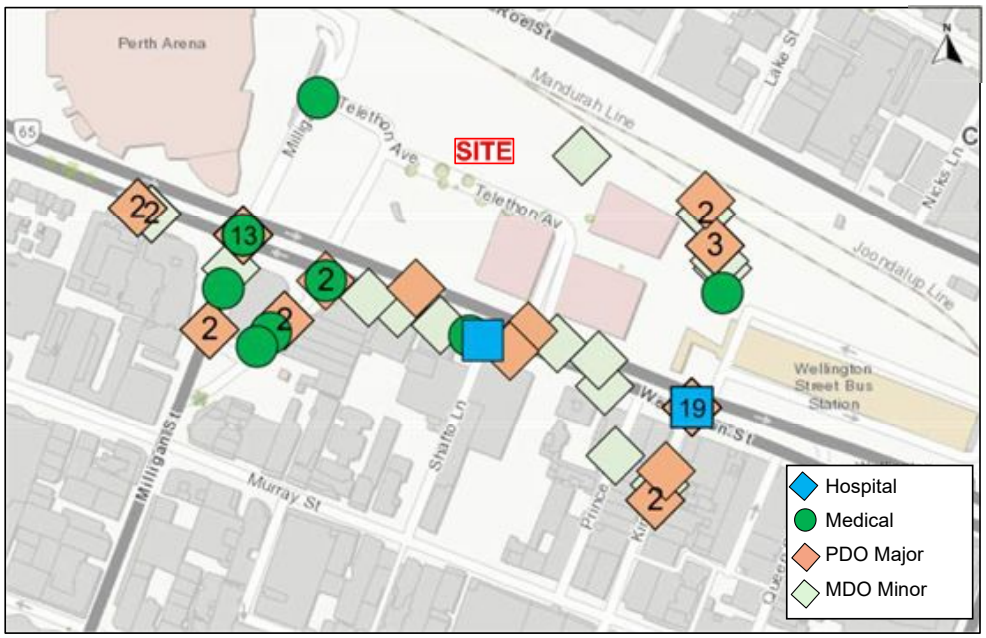
Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Wellington St	-	5	8	13	9	35
Milligan St	-	-	1	-	-	1
Total	-	5	9	13	9	**36**

Table 2-5 Midblock Crashes

Type of Crash (RUM Code)	Fatal	Hospital	Medical	Major Property Damage	Minor Property Damage	Total Crashes
Joonidia Ln	-	-	-	-	1	1
King St	-	-	1	5	7	13
Milligan St	-	-	4	2	2	8
Prince Ln	-	-	-	-	1	1
Wellington St	-	-	1	4	9	14
Total	-	-	6	11	20	37

Telethon Avenue Traffic Impact Statement
2 Existing Situation

Figure 2-5 Crash Severity Map



Source: Crash Map Main Roads WA

Results of the crash assessment is summarised as follows:

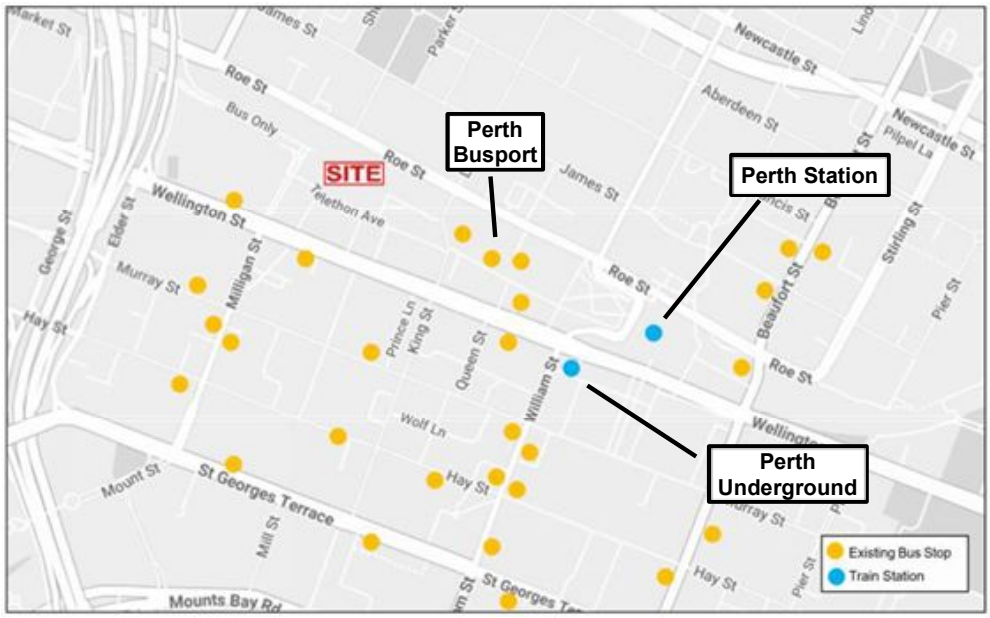
- A total of seventy-three (73) crashes were recorded within the study area with no fatal crashes reported. However, at least (14) incident's required medical attention, (5) of which ended up in the hospital.
- Majority of the reported incidents (at least 74%) resulted in major or minor property damages.
- The intersections identified in **Table 2-4** contributed to thirty-six (36) of the total reported crashes, accounting for approximately 49.3% of all incidents. Of these, at least five (5) resulted in hospital visits and nine (9) required medical attention.
- Midblock crashes accounted for thirty-seven (37) incidents, with six (6) requiring medical attention and eleven (11) resulting in major property damage.
- There were no recorded incident's recorded near the site access point on Telethon Avenue.

Overall, the proposed development is not anticipated to significantly impact the safety or operational performance of the surrounding road network, as crash data indicates no fatal incidents and no recorded crashes near the proposed site access on Telethon Avenue.

3 Public Transport Network

The nearest railway stations and bus stops to the Site are illustrated in **Figure 3-1**. The site benefits from convenient access to public transport services, providing students with reliable and efficient travel options.

Figure 3-1 Existing Bus Stops



Source: MRWA Traffic Map

The site is well-connected to Perth's public transport network, offering convenient access to both bus and train services with Perth's Freet Transit Zone.

- The nearest train station is Perth / Perth Underground Station, located approximately 500m walk from the site via Karak Walk, which provides access to all major Transperth rail lines.
- Perth Busport is located approximately 220m walk from the site via Karak Walk, which provides access to 31 different bus routes.
- Multiple other bus routes operate along streets proximate to the site, including the Yellow CAT along Wellington Street, and 7 routes along William Street.

Karak Walk is a dedicated pedestrian thoroughfare separated from vehicular traffic providing a direct and safe walking environment to/from public transport stops. Due to the proximity to major stops, cycling to/from public transport is unlikely for this Site.

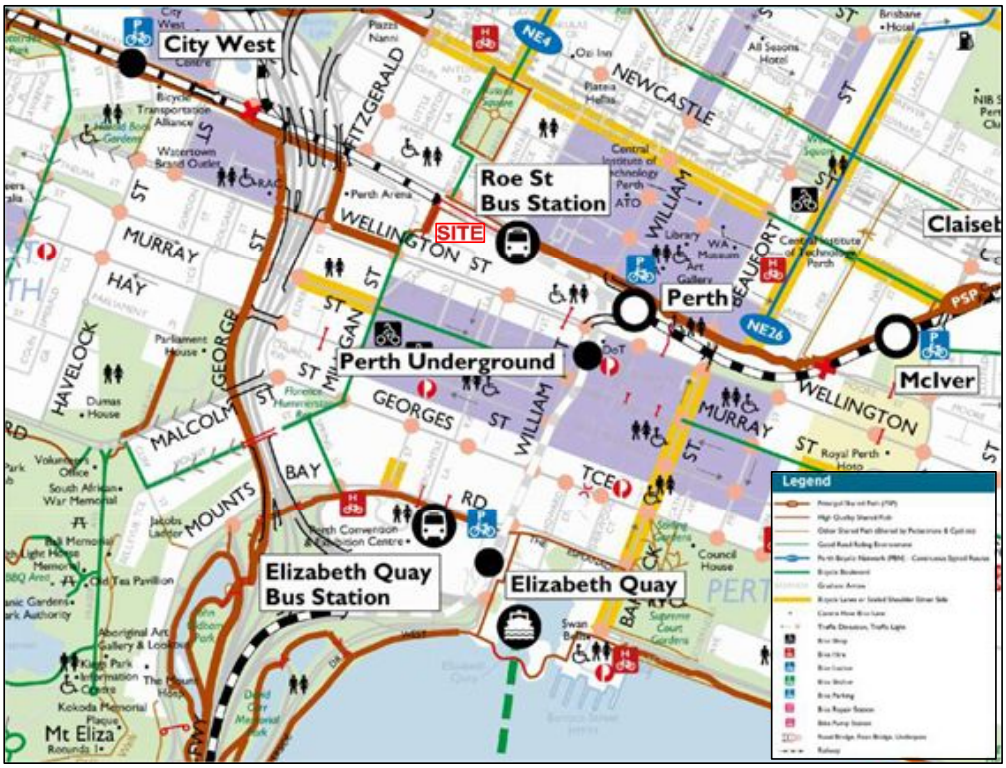
4 Pedestrian and Cycling Facilities

4.1 Existing Pedestrian and Cycling Facilities

As summarised in , the road network immediately surrounding the Site is provided with at least one (1) footpath which enables a continuous pedestrian path from/to the Site and points of interest within the Perth CBD. The area around Telethon Avenue provides continuous, well-maintained footpaths, kerb ramps, audible pedestrian signals, and tactile indicators consistent with universal design principles. These features, outlined in the City of Perth's Disability Access and Inclusion Plan, facilitate seamless pedestrian movement between public transport, retail, and recreational nodes.

For cycling facilities, the Department of Transport WA, bike map is presented in **Figure 4-1**. The diagram shows that the existing cycling network surrounding the site development.

Figure 4-1 Perth/Fremantle Bike Map



Source: Department of Transport WA Gov

4.2 Future Pedestrian and Cycling Facilities

The Long-Term Cycle Network (LTCN) for Perth & Peel, developed by Transport WA in partnership with 33 local governments, provides an aspirational blueprint for cycling infrastructure across the region. It adopts a hierarchical approach to cycling routes categorised as primary, secondary, and local:

- Primary routes are high-demand corridors connecting key destinations at regional scale, such as city centres, universities, hospitals, and transport hubs. These are envisioned as safe, all-ages-and-abilities paths adjacent to major roads, railway lines, river foreshore areas, and coastal precincts.
- Secondary routes link primary routes to significant activity centres, such as retail districts, education facilities, and civic institutions. These medium-demand connections support commuting, recreational travel, and provide access to primary network nodes.
- Local routes ensure neighbourhood connectivity by providing lower-demand links from residential areas to larger cycling corridors, supporting access to community amenities and recreational spaces.

These planned cycling infrastructure improvements are designed to enhance connectivity between key origins and destinations, including higher education, local employment centres, and transport interchanges, supporting active transport access to the proposed PBSA development on Telethon Avenue. Refer to **Figure 4-2** for interactive map of proposed routes.

Figure 4-2 Long-Term Cycle Network (LTCN) for Perth & Peel

Telethon Avenue Traffic Impact Statement
4 Pedestrian and Cycling Facilities

Source: Department of Transport and Major Infrastructure Long Term Cycle Network

5 Development Proposal

5.1 Proposed Development

The proposed PBSA development is located at 18–28 Telethon Avenue, Perth CBD, within the Perth City Link precinct. The site benefits from excellent access to public transport, being within walking distance of Perth Busport and Perth / Perth Underground train station. 4 car parking spaces are proposed in the Lower Ground level along with a service / waste collection bay. This supports sustainable travel options for residents and minimises reliance on private vehicles.

The development includes a secure bicycle storage facility with capacity for approximately 170 bicycles, promoting active transport and aligning with the City of Perth's cycling strategy. Pedestrian access is prioritised through direct connections to surrounding footpaths and shared paths, ensuring safe and convenient movement to nearby public transport hubs and city amenities.

No private vehicle parking is proposed for residents, consistent with the development's central location and strong public transport accessibility. Loading and waste collection will be managed internally via a designated loading zone, reducing potential impacts on Telethon Avenue and the surrounding road network.

Figure 5-1 illustrates the ground level of the proposed site plan indicating the scope and extent of the proposed works within the Site.

Telethon Avenue Traffic Impact Statement
5 Development Proposal

Figure 5-1 Proposed Site – Lower Ground

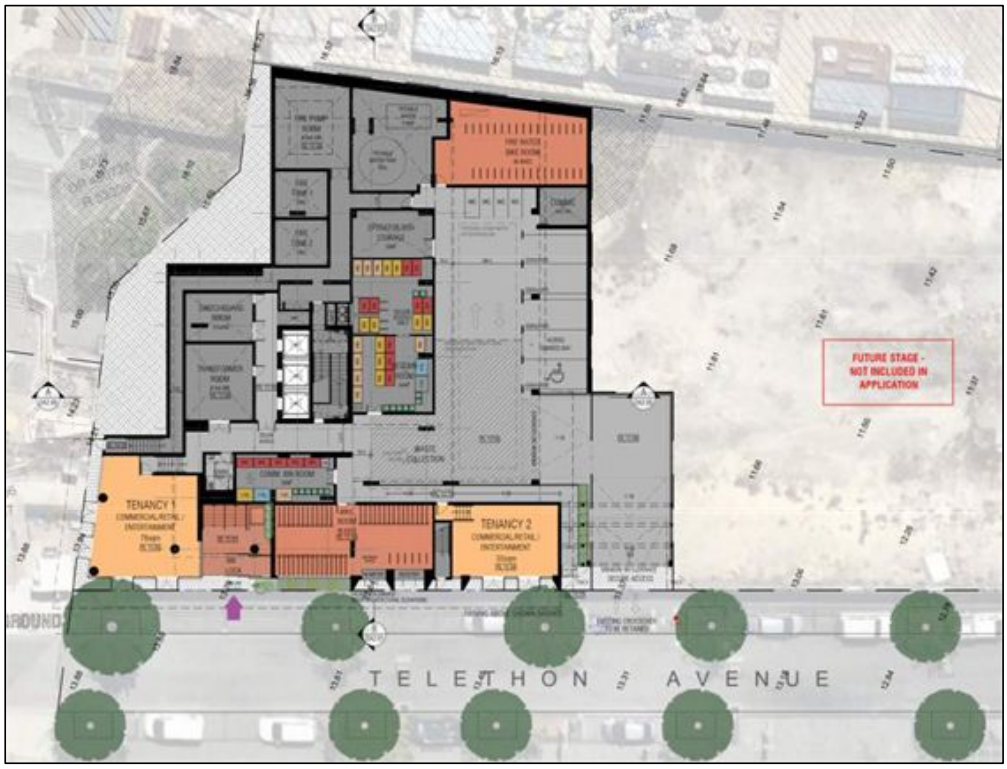


Table 5-1 Development Plan Details

Site Detail	Number / Area
Total Rooms / Dwellings	496 rooms (studios + twodios + DDA studios)
Total Beds	854 beds
Administrative Area	95 m²
Commercial / Retail Area	133 m² (Tenancy 1: 78m² + Tenancy 2: 55m²)
Bike Parking	162 spaces (96 in bike room + 66 in fire-rated bike room + 6 visitor bays)
Vehicle Parking	5 spaces (including ACROD shared bay and accessibility parking)
Motorcycle Parking	4 spaces

5.2 Site Access Arrangements

Figure 5-2 and **Figure 5-3** illustrates the primary access points to the Site, and the waste collection location. Sight distance along Telethon Avenue may be restricted below the minimum of 35m for cars and 55m for trucks in accordance with AS2890 due to the potential presence of parked vehicles. However, given the low-speed-low-volume environment of Telethon Avenue, there safety risk is anticipated to be low noting this condition is common among urban property accesses. A truncation has been provided for sightlines to crossing pedestrians along Telethon Avenue.

Figure 5-2 Site Access Arrangements – Lower Ground Floor

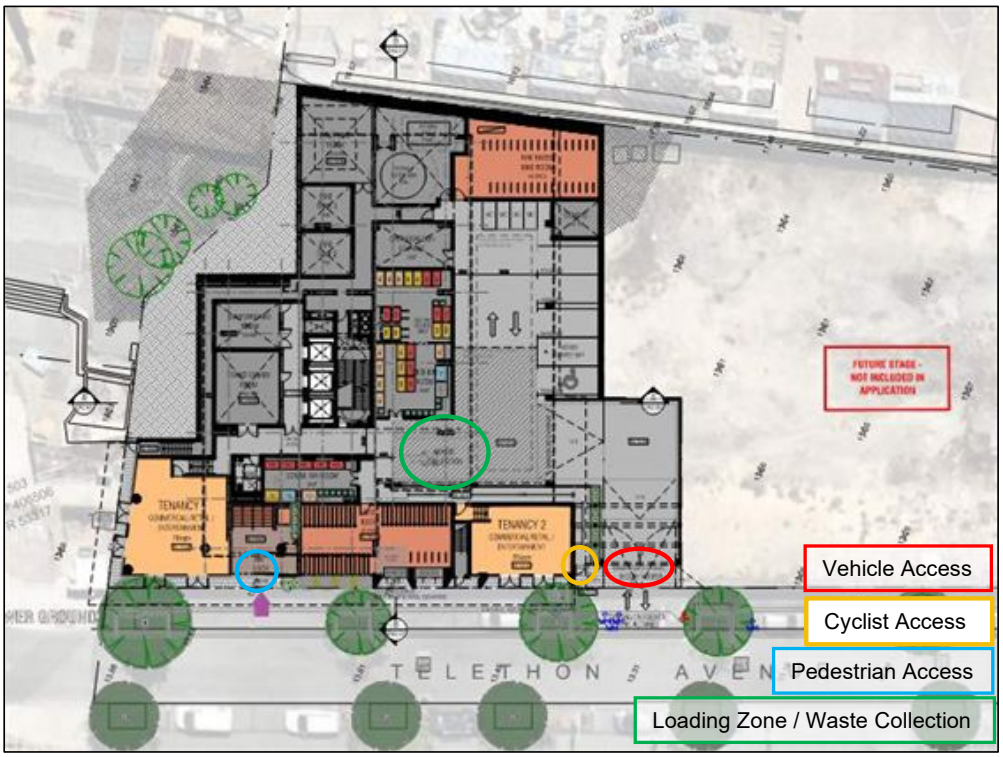
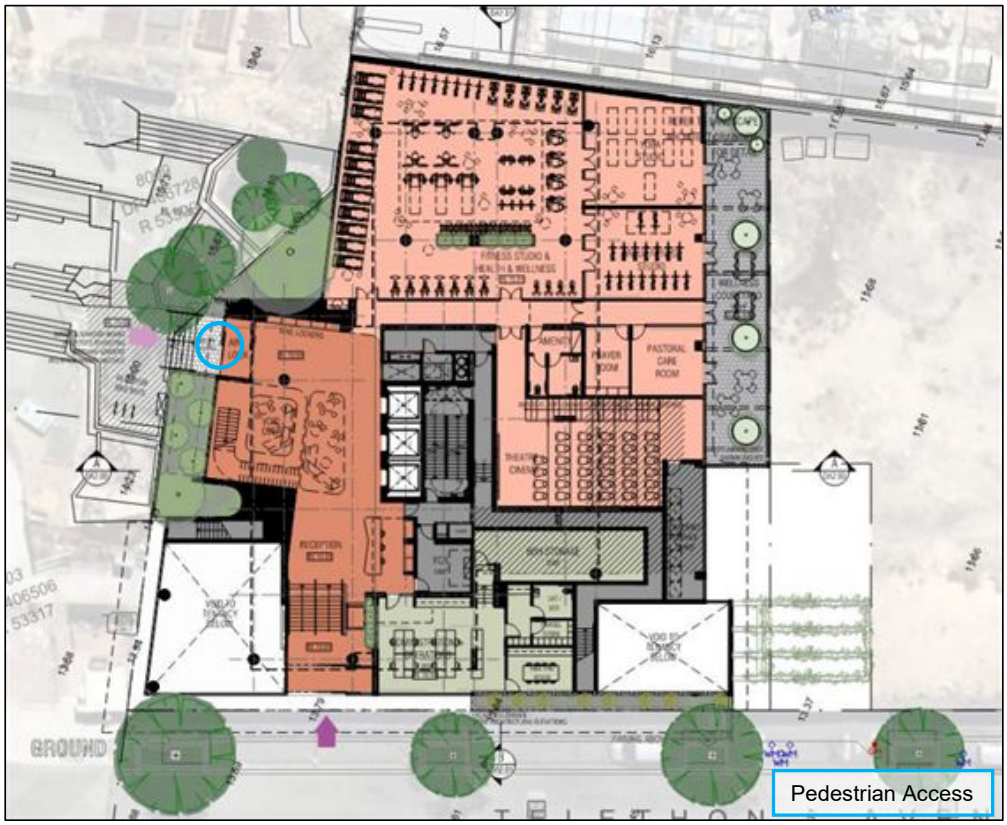


Figure 5-3 Site Access Arrangements Second Floor



5.3 Provision for Service Vehicles

Waste collection is anticipated to be collected on-site where the loading zone / waste collection line markings are seen in **Figure 5-2**.

The development accommodates essential service and waste collection vehicles within the basement level, in accordance with AS 2890.2 and the City of Perth Waste Guidelines.

Clearance for waste collection vehicles meets City of Perth requirements, with a minimum of 3.0 m vertical clearance which has been provided throughout the basement level. Additionally, a raised void of minimum 3.5 m vertical clearance has been provided as indicated in **Figure 5-4** which accommodates lifting operations and Small Rigid Vehicles (SRV). No trucks larger than an SRV (with the exception of the City of Perth 8m Rear Lift truck) are anticipated within the basement. Figure 5-4 and Figure 5-5 illustrate the ability of these vehicles to manoeuvre within the Lower Ground level into the waste collection / service bay.

Telethon Avenue Traffic Impact Statement
5 Development Proposal

Ramp grades are a maximum of 1:18; while they do not have grade transitions for waste collection trucks, vertical simulations have been conducted with the ramp profile confirming that they maintain a 50mm clearance at all times.

Figure 5-4 SRV Swept Path

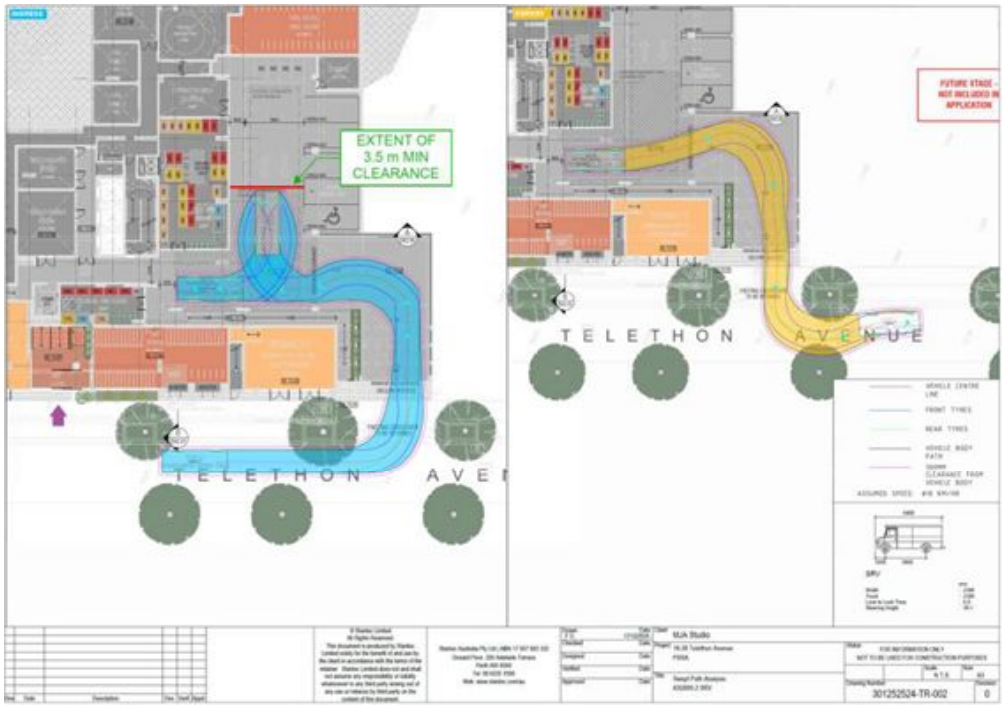
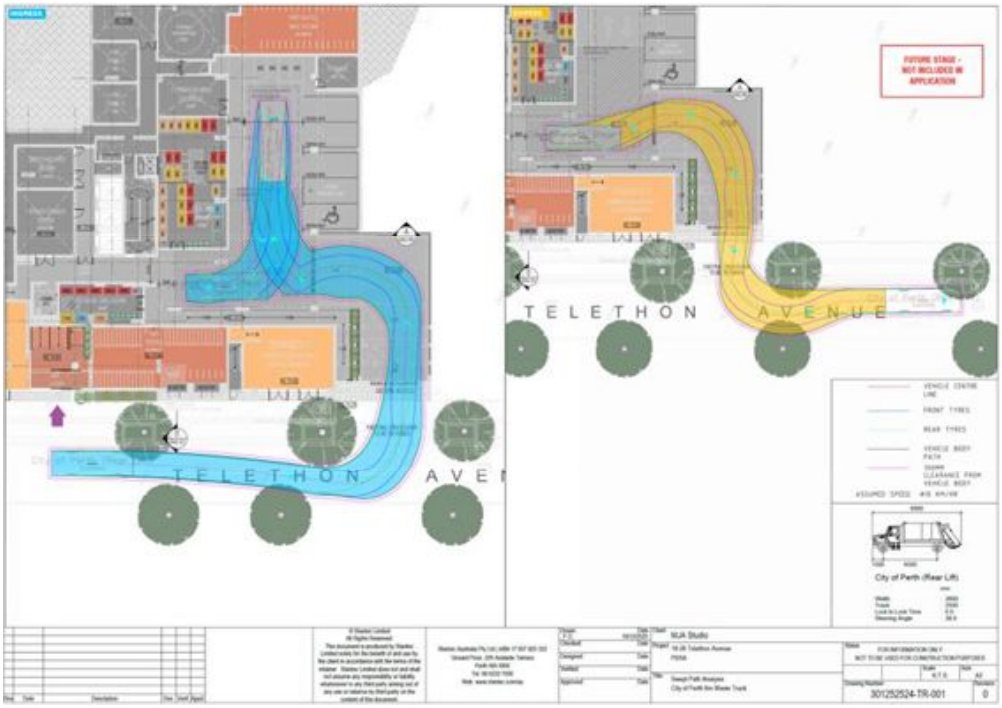


Figure 5-5 Waste Collection Swept Path



The basement parking layout has been designed to comply with City of Perth requirements for vehicle manoeuvring and access. A minimum horizontal clearance of 3.0 m is maintained throughout the circulation aisles and turning areas, ensuring adequate space for Small Rigid Vehicles (SRV) and waste collection vehicles. Swept path analysis, as shown in **Figure 5-4** and **Figure 5-5** confirm that vehicles can enter, turn, and exit without encroaching on fixed structures. The access is designed for one waste truck / service vehicle at a time which is appropriate given the low volumes expected and the constrained site. Supporting ITS treatments such as lights or alarms may be beneficial to indicate when the waste collection bay is occupied (as it won't be visible from street level), and to alert all users when a vehicle is manoeuvring.

5.4 Trip Generation

The estimated vehicular trip generation of the Site was calculated based on trip generation rates (for the off campus student accommodation component) from the *Institute of Transportation Engineers (ITE) "Trip Generation" 10th Edition* as it is more specific to high-rise student accommodation than the WAPC Residential rates. Trip generation for other uses is derived from WAPC trip generation rates. The proposed development comprises student accommodation development with approximately 854 beds at 18–28 Telethon Avenue, Perth CBD.

Table 5-2 shows the adopted trip generation rates, **Table 5-3** shows the directional distribution, and **Table 5-4** summarises the estimated trips to be generated by the proposed development on the subject site, including the net additional vehicular trips. The following assumptions have been made:

- Development yields are based on the latest Site plan and Client-provided information
- The Administration area provided on the Site plans is assumed to be Commercial in nature
- Retail and Commercial daily trip generation is assumed to be 10 times the daily peak

Table 5-2 Adopted Trip Generation Rates

Land Use	Source	Units	AM Peak	PM Peak	Daily
Off-Campus Student Apartment	ITE TGM 225	per bedroom	0.20	0.32	3.97
Retail (food)	WAPC	per 100m^2 GFA	2.5 per 100m^2 GFA	10.0 per 100m^2 GFA	62.5
Commercial	WAPC	per 100m^2 GFA	2.0	2.0	20

Table 5-3 Directional Distribution

Land Use	Source	AM Peak		PM Peak		Daily	
		In	Out	In	Out	In	Out
Off-Campus Student Apartment	ITE TGM 225	40%	60%	52%	44%	50%	50%
Retail (food)	WPAC	80%	20%	50%	50%	50%	50%
Commercial	WPAC	80%	20%	20%	80%	50%	50%

Table 5-4 Estimated Trip Generation

Land Use	Yield	AM Peak		PM Peak		Daily	
		In	Out	In	Out	In	Out
Off-Campus Student Apartment	854 bedrooms	68	102	142	131	1700	1700
Retail (food)	133m^2 GFA	3	1	7	7	42	42
Commercial	95m^2 GFA	2	1	2	1	10	10
		177		**290**		**3504**	

Based on the above table, the Site is estimated to currently generate approximately 177 and 290 vehicular trips during the AM and PM peak hour periods, respectively, and a total of around 3500 trips daily.

Given the absence of resident car parking, combined with excellent public transport connectivity and active transport infrastructure, will result in less than 10 peak hour trips to be made by private vehicle. This approach aligns with the intent of the WAPC Transport Impact Assessment Guidelines Vol. 4, which recognise that developments in high-accessibility locations can accommodate higher trip volumes without adverse effects on the surrounding network. Accordingly, the additional trips are not expected to result in unacceptable operational or safety impacts.

5.5 Bike Parking and Facilities

In accordance with the City of Perth Planning Policy Manual (Section 5.3), bicycle parking for residential developments must be provided at a rate of one space per three dwellings. This is consistent with the DevelopmentWA Perth City Link Design Guidelines. Based on the site plans, the proposed development comprises approximately 684 dwellings (510 singles, 172 doubles). Applying the CPS2 rate, the requirement is 228 spaces.

The development provides:

- 162 secure long-stay bicycle spaces across two dedicated bike rooms (Lower Ground).
- Visitor bicycle bays at Ground level.
- End-of-Trip (EOT) facilities for staff and visitors, exceeding minimum expectations for the small non-residential tenancies.

Table 5-5 Bike Parking Compliance

Item	Required (CPS2)	Provided	Shortfall
Long-stay bicycle parking	228	162	66
Visitor bicycle parking	N/A	6	
EOT facilities	N/A	Provided	N/A

This shortfall is considered acceptable given the constrained Site and the Site's central CBD location, excellent access to high-frequency public transport (Perth Station, Perth Busport, and free CAT services within the Free Transit Zone), and proximity to major destinations such as the ECU campus. The development caters to a student population with lower car and bike ownership rates compared to conventional apartments, as most rooms are single-bed studios, reducing multi-occupancy demand. Walking and public transport are expected to be the primary modes of travel, supported by high-quality pedestrian infrastructure and secure bicycle facilities on-site. The proposed provision is also significantly greater than similar recent developments such as Lot 19 (1 per 10 beds) and 609 Wellington Street (1 per 13).

6 Parking Assessment

6.1 Parking Requirements and Provision

The proposed development does not provide on-site car parking for residents, consistent with its location within the Perth CBD and the objectives of the Perth Parking Management Area (PPMA) and City of Perth Parking Policy, which aim to reduce private vehicle dependency and encourage sustainable transport modes. This approach is supported by the site's excellent access to high-frequency public transport services, free CAT buses, and extensive pedestrian and cycling infrastructure.

Parking provision is limited to service and accessible bays, and four motorcycle parking spaces, with no resident parking. This strategy aligns with contemporary planning principles for inner-city student accommodation and complies with the intent of CPS2.

6.2 Swept Path Assessment

Swept path assessments for the visitor parking has been conducted using a B85 design vehicle as illustrated in **Figure 6-1**. A larger version of this drawing is provided in **Appendix B**. The upper ramp can be used concurrently by passing B85 vehicles, while the lower ramp will need to be used by one vehicle at a time which is considered appropriate considering the constrained site and low vehicular volumes expected. A convex mirror may be beneficial in the landing to assist with navigating the ramps.

The remainder of the car park is in accordance with AS2890.1.

Telethon Avenue Traffic Impact Statement
6 Parking Assessment

Figure 6-1 B85 Swept Paths

Appendix A

WAPC Checklist

TRANSPORT IMPACT ASSESSMENT GUIDELINES

Checklist for a transport impact assessment for individual development

- Tick the provided column for items for which information is provided.
- Enter N/A in the provided column if the item is not appropriate and enter reason in comment column.
- Provide brief comments on any relevant issues.
- Provide brief description of any proposed transport improvements, for example, new bus routes or signalisation of an existing intersection.

ITEM	PROVIDED	COMMENTS/PROPOSALS
Proposed development		
existing land uses	✓	
proposed land use	✓	
context with surrounds	✓	
Vehicular access and parking		
access arrangements	✓	
public, private, disabled parking set down/pick up	✓	
Service vehicles (non-residential)		
access arrangements		
on/off-site loading facilities		
Service vehicles (residential)		
rubbish collection and emergency vehicle access	✓	
Hours of operation (non-residential only)		
Traffic volumes		
daily or peak traffic volumes	✓	
type of vehicles (for example, cars, trucks)	✓	
Traffic management on frontage streets	✓	
Public transport access		
nearest bus/train routes	✓	
nearest bus stops/train stations	✓	
pedestrian/cycle links to bus stops/ train station	✓	

TRANSPORT IMPACT ASSESSMENT GUIDELINES

ITEM	PROVIDED	COMMENTS/PROPOSALS
Pedestrian access/facilities		
existing pedestrian facilities within the development (if any)	✓	
proposed pedestrian facilities within development	✓	
existing pedestrian facilities on surrounding roads	✓	
proposals to improve pedestrian access	✓	
Cycle access/facilities		
existing cycle facilities within the development (if any)	✓	
proposed cycle facilities within development	✓	
existing cycle facilities on surrounding roads	✓	
proposals to improve cycle access	✓	
Site specific issues		
Safety issues		
identify issues		
remedial measures		

Proponent's name .....

Company ..... **Date** .....

Transport assessor's name .....

Company ..... **Date** .....

Appendix B

Swept Paths

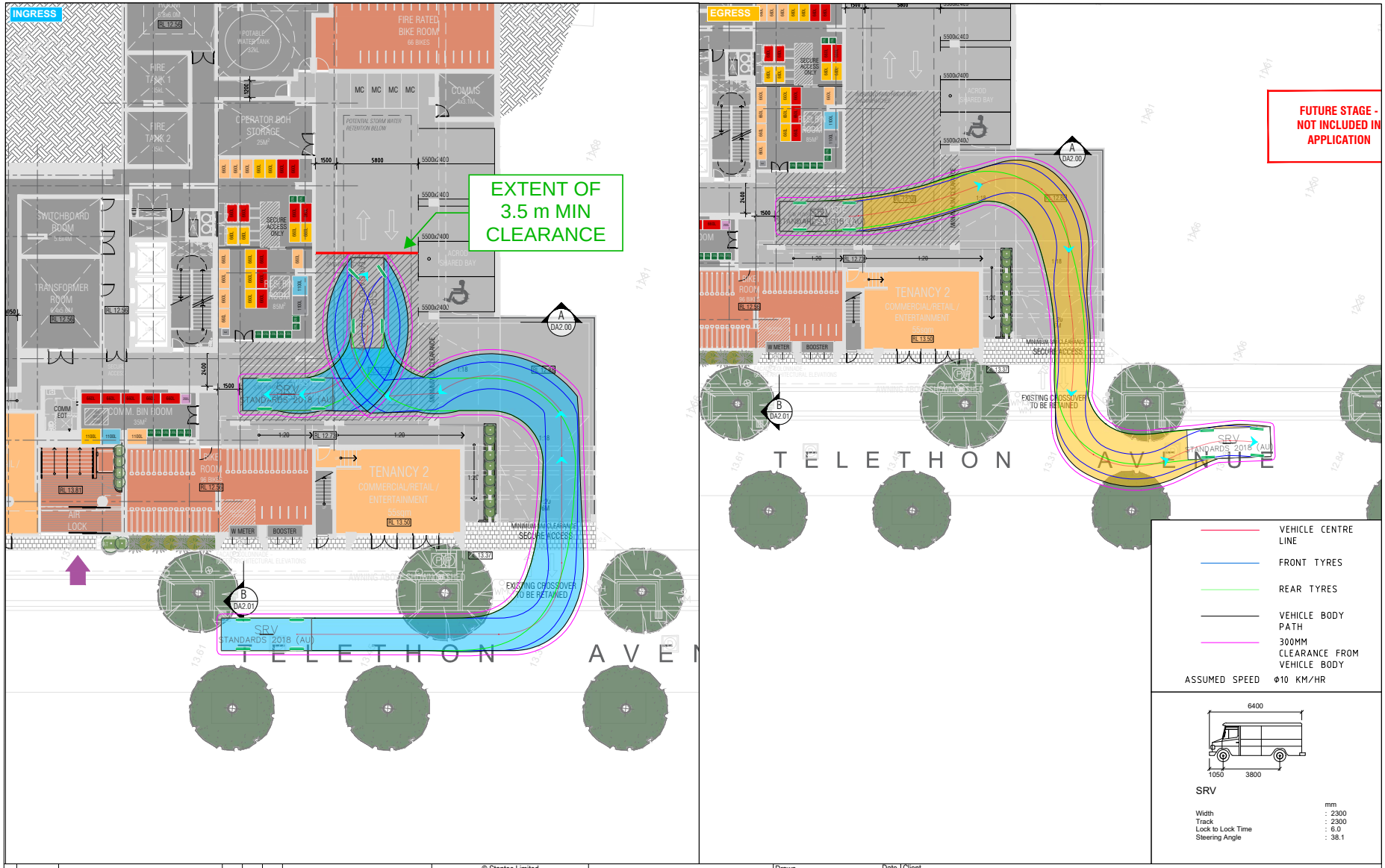
Rev	Date	Description	Des.	Verif.	Appd.

Stantec Australia Pty Ltd | ABN 17 007 820 322
Ground Floor, 226 Adelaide Terrace
Perth WA 6000
Tel: 08 6222 7000
Web: www.stantec.com/au

Drawn	F.O.	Date 16/12/2025
Checked		Date
Designed		Date
Verified		Date
Approved		Date

Client: MJA Studio
Project: 18-28 Telethon Avenue PBSA
Title: Swept Path Analysis City of Perth 8m Waste Truck

Status: FOR INFORMATION ONLY NOT TO BE USED FOR CONSTRUCTION PURPOSES
Scale: N.T.S.
Size: A3
Drawing Number: 301252524-TR-001
Revision: 0



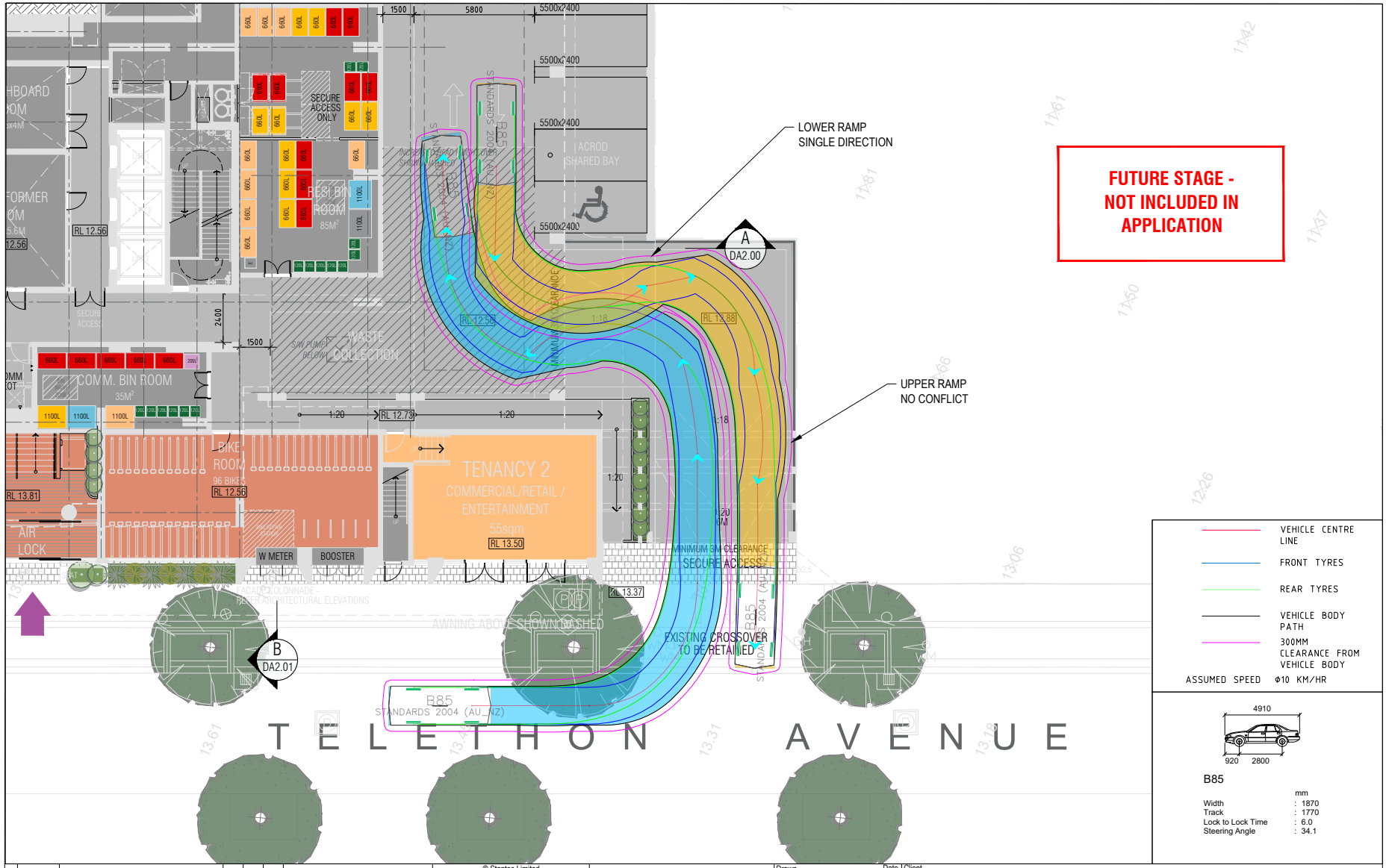
Rev	Date	Description	Des.	Verif.	Appd.

Stantec Australia Pty Ltd | ABN 17 007 820 322
Ground Floor, 226 Adelaide Terrace
Perth WA 6000
Tel: 08 6222 7000
Web: www.stantec.com/au

Drawn	F.O.	Date 17/12/2025
Checked		Date
Designed		Date
Verified		Date
Approved		Date

Client: MJA Studio
Project: 18-28 Telethon Avenue PBSA
Title: Swept Path Analysis AS2890.2 SRV

Status: FOR INFORMATION ONLY NOT TO BE USED FOR CONSTRUCTION PURPOSES
Scale: N.T.S.
Size: A3
Drawing Number: 301252524-TR-002
Revision: 0



Rev	Date	Description	Des.	Verif.	Appd.

Stantec Australia Pty Ltd | ABN 17 007 820 322
Ground Floor, 226 Adelaide Terrace
Perth WA 6000
Tel: 08 6222 7000
Web: www.stantec.com/au

Drawn	F.O.	Date 17/12/2025
Checked		Date
Designed		Date
Verified		Date
Approved		Date

Client: MJA Studio
Project: 18-28 Telethon Avenue PBSA
Title: Swept Path Analysis AS2890.1 B85

Status: FOR INFORMATION ONLY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Scale: N.T.S.
Size: A3
Drawing Number: 301252524-TR-003
Revision: 0

Waste Management Plan

Telethon Ave PBSA, Perth

Rev_1

Project No. 25-1760

Tadco 1 Pty Ltd c/- Sirona Urban

16 December 2025

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KOliver@encycle.com.au

Revision	Drafted by	Reviewed by	Date issued
Rev_0	K Oliver	J Campbell	16 December 2025
Rev_1	K Oliver	J Campbell	16 December 2025

Table of contents

1 Development details

This Waste Management Plan (WMP) has been prepared for the following project:

Project name / address	**Telethon Avenue Purpose Built Student Accommodation, Perth Citylink**
Client	Tadco 1 Pty Ltd ATF Tadco 1 Unit Trust ACN 692483319 c/-Sirona Urban
Architect	MJA Studio
Project manager	Total Project Management (TPM)
Main point of contact	Matt Whitwell - TPM
Planning status	DA to be submitted December 2025
Overview of development	Student accommodation with 854 student beds, including communal space, and two commercial tenancies on the ground floor
Sustainability objectives and targets	5 Star Green Star certified rating
Architectural plans / area schedule / development information	Architectural plans and accommodation schedule, received from MJA on 16 December 2025
Local Government Authority	City of Perth

1.1 Context

For efficient and effective waste management, the collection and centralisation of waste, recyclables and organics has been carefully considered at the building design phase. Key factors considered at the design phase include:

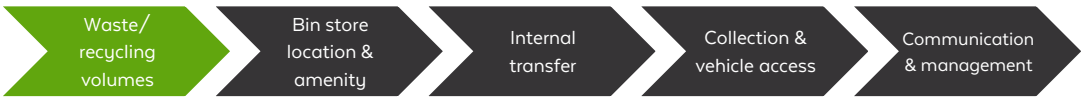
- Local government requirements for determining waste generation rates
- Waste, recycling and organics volumes likely to be generated during building operation
- Number and types of bins required
- Bin store size, location and amenity (odours and noise)
- Internal transfer and access to bins and storage areas from within the building
- Access for vehicles for waste collection
- Safety for all operatives involved in waste management

- Communication and ongoing management of waste, recycling and organics services

1.2 Key components of the Waste Management Plan

This Waste Management Plan (WMP) consists of five core components. It presents detailed information on each of the following components.

2 Estimated waste and recycling volumes



2.1 Project parameters

The development when operational will include the following areas:

- Student accommodation – 854 beds
- Two restaurant tenancies – 78 & 55 m^2
- Communal areas including shared kitchens, games, lounge – 1,730 m^2

2.2 Local Government Guidelines

The following documents have been used in the development of this report:

- City of Perth Waste Guidelines for all Developments (2019)
- City of Perth local Law (2000)
- Green Star Buildings v1 – Credit 4 Operational Waste

2.3 Waste generation rates

The student accommodation and commercial waste from the restaurants use City of Perth generation rates to calculate the estimated generation of waste, recycling and organics.

Specifically, the generation rates applied are presented in Table 1. The City of Perth rates do not include rates for food organics or Containers for Change (C4C). Therefore, Encycle have provided a rate for these streams based on our experience of other student accommodation projects in Perth.

Table 1: Commercial waste generation rates

Premises type/ building use	Waste generation rate	Food organics rate	Commingled recycling generation rate	Containers for Change (C4C)
Student accommodation (854 beds)	38L/student/ week	2L/student/ week	20L/student/ week	20 L/student/ week
Restaurants (133 m^2)	6.7 L /1m^2/day	20% of general waste stream	1.3 L /1m^2/day	100% of the commingled stream (in addition)

2.4 Number of bin stores required

The building will have two bin stores to service the student accommodation and commercial café tenancy of the building separately:

i. Student accommodation waste, recycling, food organics and C4C

ii. Restaurant waste, recycling, food organics and C4C

2.5 Number of bins required – student accommodation

The number of bins required for the student accommodation are set out in Table 2. Note the general waste will be compacted at base of chutes.

Table 2: Number of bins to be stored in the student accommodation bin store

Waste stream	Bin size (L)	Number of bins	Collection frequency	Colour code*
General waste (compacted)	660	8 + 1 spare	4 x weekly	W
Commingled recycling	660	8 plus + 1 spare	4 x weekly	CM
Food organics	120	9	2 x weekly	FO
Cardboard recycling	660	1	Weekly	CB
CDS recycling	660	8	4 x weekly	CDS
Bulky general waste (not suitable for chutes)	1100	1	As required	B
Electronic waste (e-waste)	1 m^2	1	As required	E

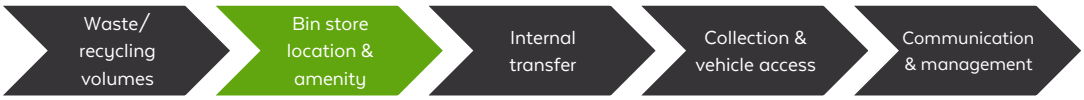
2.6 Number of bins required – restaurants

The number of bins required for the restaurant waste are set out in Table 3.

Table 3: Number of bins to be stored in the restaurant bin store

Waste stream	Bin size (L)	Number of bins	Collection frequency	Colour code*
General waste	660	5	2 x weekly	W
Commingled recycling	1100	1	2 x weekly	CM
Food organics	120	6	2 x weekly	FO
Cardboard recycling	1100	1	Weekly	CB
CDS recycling	1100	1	2 x weekly	CDS
Used cooking oil	200	1	As required	CO
Pallets	1 m^2	1	As required	P

3 Bin store locations and amenity



3.1 Bin store location

Both bin stores will be located on the basement level 1 (refer Figure 1). The bin store layouts are shown in Figures 2 & 3.

Figure 1: Ground floor plan showing the location of bin stores

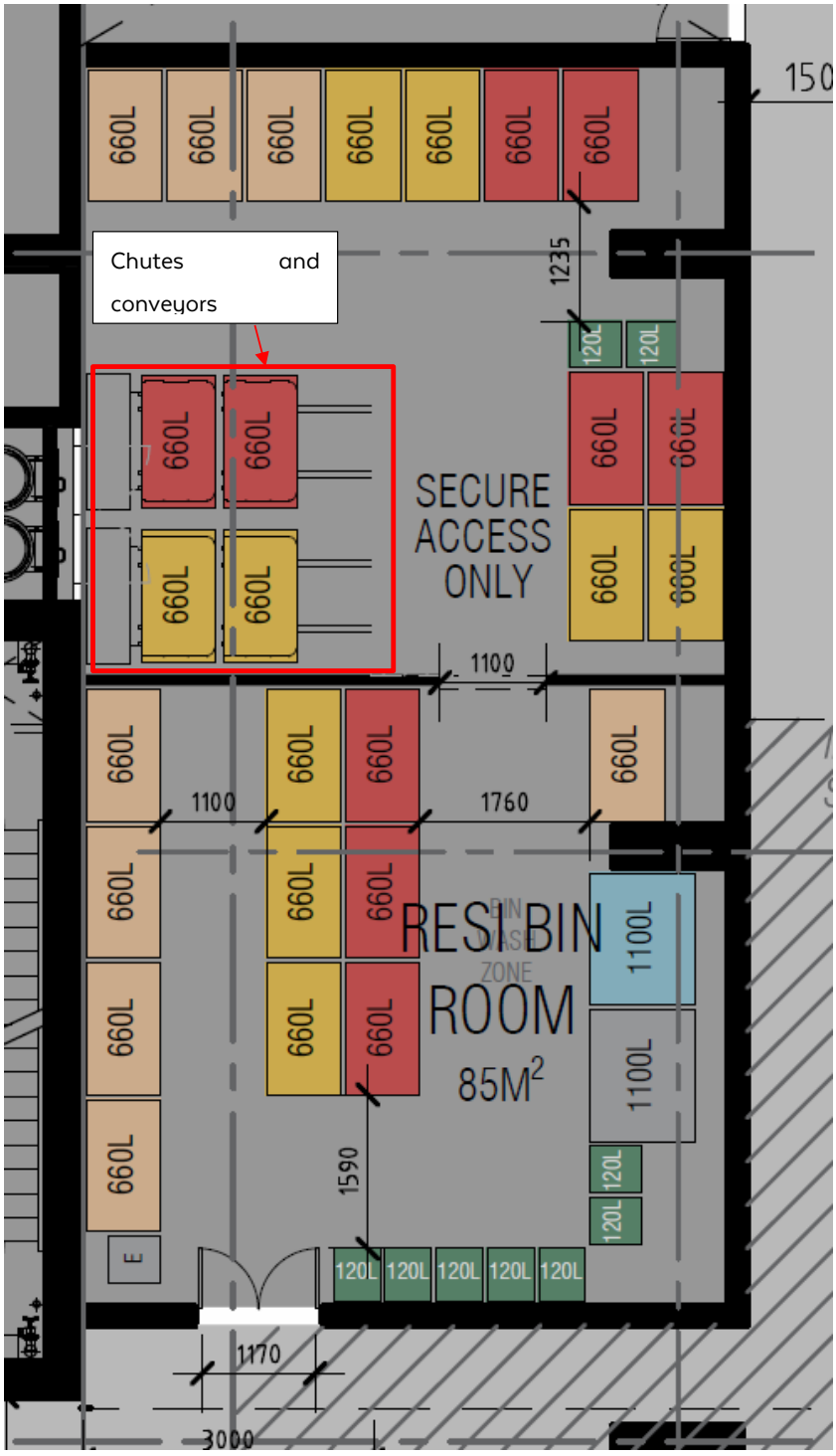


Figure 2: Student accommodation bin store layout

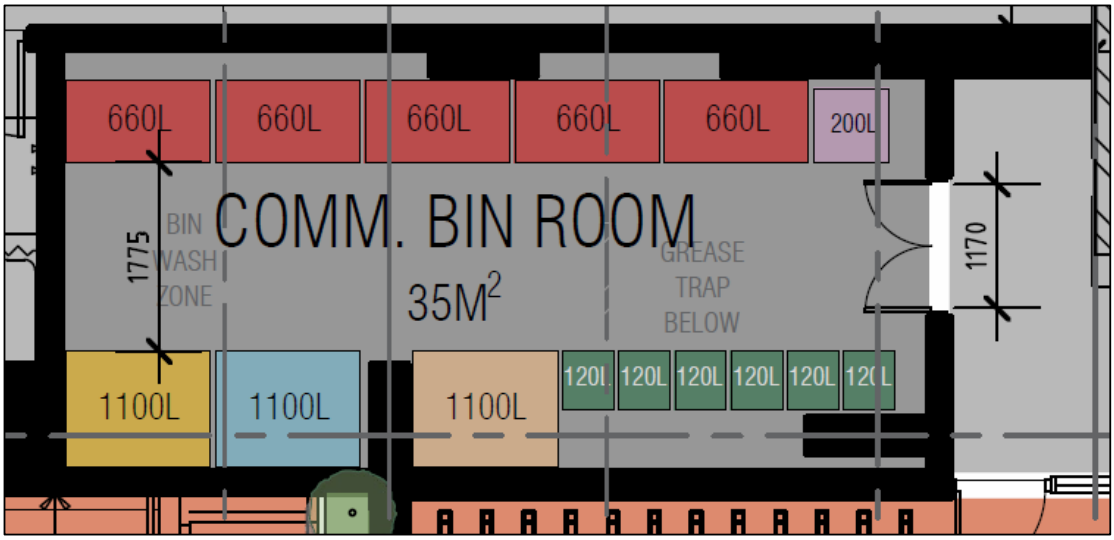


Figure 3: Restaurant bin store layout

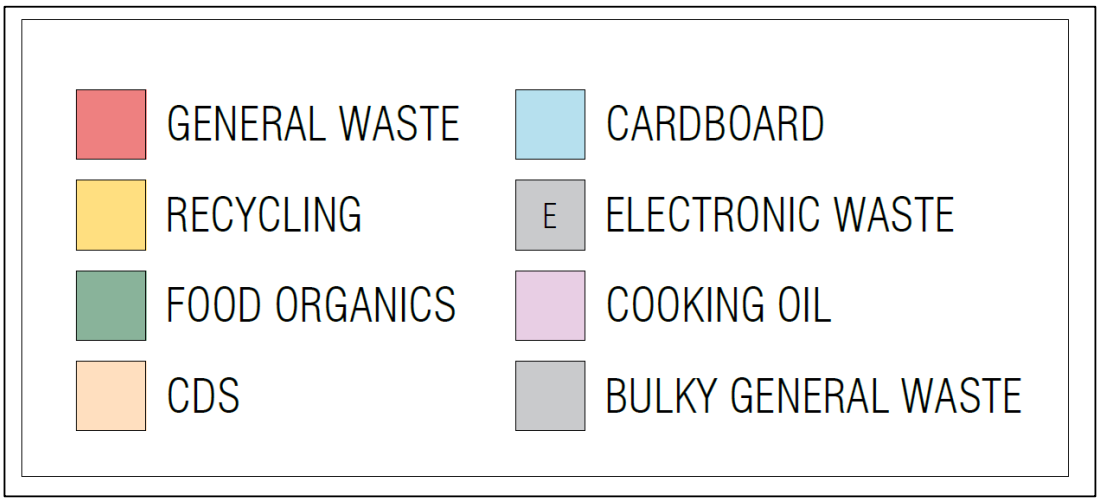


Figure 4: Colour code: Bins

3.2 Bin store amenity

The bin stores have been designed to include the following requirements in Table 4.

Table 4: Bin store amenity requirements

Aesthetics	The bin stores are consistent with the overall aesthetics of the development.
Fully enclosed	The bin stores are fully enclosed and weatherproof, and only accessible by building management, cleaners, and waste service provider. Students will have restricted access to the bulk and organics bins only.
Spatial requirements	The bin stores allow sufficient space to accommodate, manoeuvre and wash the bins and equipment specified. Bins are stored in single rows (maximum of two rows if there is a full-time caretaker for the building, bins will not be double stacked against the wall). Space for personnel access way between rows of bins is included of 800mm.
Bin wash	The bin stores have impermeable walls and floors grading to an industrial floor waste (including a charged 'water-trap' connected to sewer/an approved septic system), with a hose cock to enable bins and/or the enclosure to be washed out. A 100 mm floor waste gully to waste outlet is included. Both hot and cold water is available.
Contingency	An area is identified to accommodate additional bins resulting from missed collections (e.g. on some public holidays) within the designated loading dock for waste collection.
Doors	Doors are ventilated both internally and externally for each bin stores. Self-closing doors are installed to the bin stores to eliminate access to vermin. Doors from the bin stores to the servicing/collection area can be locked open. Doors are designed to fit the largest bin, to enable bins to be easily wheeled into and out of the bin stores.
Security	Security measures are designed to limit access to the bin stores, e.g. PIN code that can be easily changed and reduces loss of key cards etc.
Walls and ceilings	Internal bin stores walls are cement rendered (solid and impervious) to enable easy cleaning. Ceilings are finished with a smooth faced, non-absorbent material that can be easily cleaned. Walls and ceilings are finished or painted in a light colour.

Floors	Floors are constructed in concrete in accordance with AS 2870. Floors are evenly graded to an approved liquid refuse disposal system. Slab thickness is a minimum of 100 mm, impervious and with a brush finish treatment.
Ventilation and odour	The design of the bin stores provides for adequate separate ventilation with a system that complies with Australian Standard 1668 (AS1668). The ventilation outlet is not in the vicinity of windows or intake vents associated with other ventilation systems.
Lighting	Bin stores are provided with artificial lighting, with sensor or switch controls both internal/external to the bin stores. Artificial lighting in loading bays and access walkways to bin stores will ensure staff safety and decrease antisocial behaviour.
Noise	Noise is minimised through considering the location of the bin stores and collection point and the timing of collections to prevent disruption to occupants or neighbours.
Signage	Visual aids and signage will be provided when the bin stores are operational to ensure that the area works as intended.
Cooking oils	Used cooking oil storage will be bunded.

4 Internal transfer

4.1 Chute system

A dual chute system will be installed in the student accommodation, including one chute for general waste and one chute for commingled recyclables. The chutes will terminate at the student accommodation bin store on the ground floor and will discharge waste (compacted) and recycling (uncompacted) into 660 L bins on two linear conveyors. General waste will be compacted prior to being deposited into the bins at a ratio of 2:1.

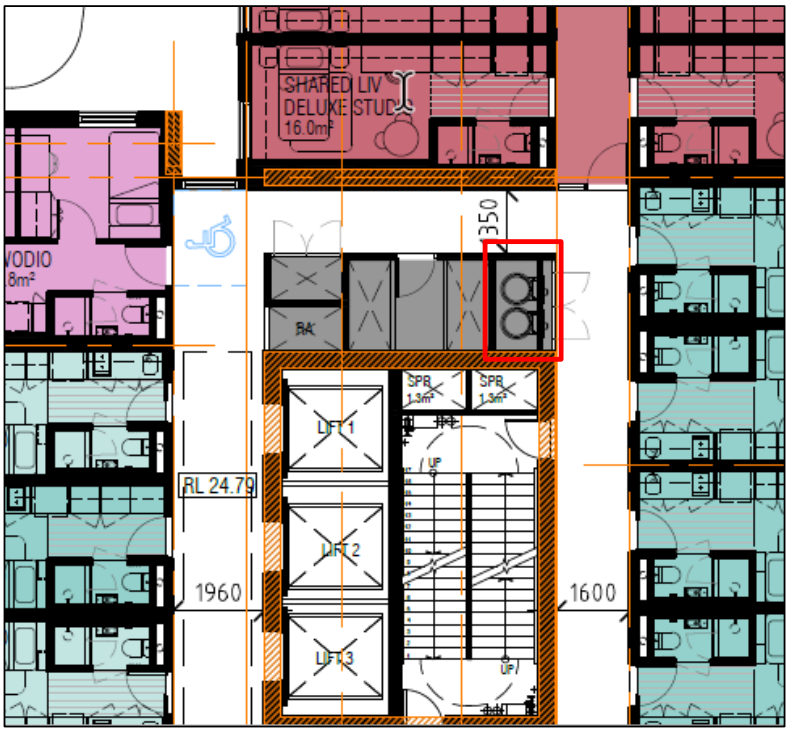


Figure 5: Typical student accommodation floor showing general waste and commingled recycling chutes

4.2 Transfer of waste from student rooms

Students will be responsible for storing waste, recyclables and food organics separately within their room, and within the bins provided within shared communal spaces throughout the building.

Students will be responsible for disposing of waste and recycling from their own rooms down the correct chute by using the chute hatches in the chute room (see Figure 4). Items not suitable for disposing down the chutes, such as food, CDS items, cardboard boxes, bulky waste items and textiles are to be taken down the lifts to the student accommodation bin store and placed in the correct bin (refer Figure 2).

A bulk bin is provided for cardboard boxes that are generated from deliveries and students who are moving in.

A bulk general waste bin is provided for bulky general waste such as umbrellas, textiles and other bulk items not suitable for disposing down the chute.

CDS bins are provided for glass bottles that cannot go down the chutes, and also other eligible containers from the student accommodation.

Food organics bins are provided for food organics that cannot go down the chutes.

The communication of the chute system and other bins will be incorporated into the ongoing communication methods to students as part of the education for the successful performance of a chute system for the student accommodation.

4.3 Transfer of waste from restaurants to bin store

Staff from the restaurant tenancies will manually transfer waste, recyclables, food organics and CDS via the BOH corridors to the bin store (refer figure x).

4.4 Bin transfer requirements

All bin transfer routes have been designed to include the following requirements in Table 5.

Table 5: Bin transfer requirements

Bin transfer requirements	
User access route	Waste transfer routes avoid stairs/steps and steep ramps (grade of slope <1:20) and other potential hazards between points of waste generation, storage and collection. Waste transfer routes are designed to ensure that bins (particularly when full) are not moved over any significant distances.
Manual handling	Manual handling of waste in garbage bags is excluded from the waste management systems wherever possible.
Transfer route width	All doors, corridors and lifts on the transfer route are designed to fit the largest bin.

Access for waste collection vehicles	Waste collection vehicles will safely enter, operate and exit the development with minimal reversing or manoeuvring.
Walkways	Safe access to waste collection vehicles have been provided to reduce the risk of accidents.

5 Collection and vehicle access

Waste/ recycling volumes | Bin store location & amenity | Internal transfer | Collection & vehicle access | Communication & management

The City of Perth or a private service provider will undertake the general waste, recycling, and food organics collections for both the student accommodation and restaurants. Private service providers will undertake collections of CDS, cooking oil and e-waste.

On collection days', rear-lift vehicles for general waste, commingled recycling, cardboard and food organics will enter the building and service bins. Flat-bed trucks will be used to collect the CDS bins and e-waste and a tanker vehicle will service the cooking oil tanks.

Access to the grease trap located from the commercial bin store.

The vehicles will drive in a forwards direction from Telethon Avenue, enter the building and reverse into the dedicated loading bay. The operatives will enter the bin stores to retrieve and service the bins. The operatives will return the empty bins to the bin stores (refer Figure 6).

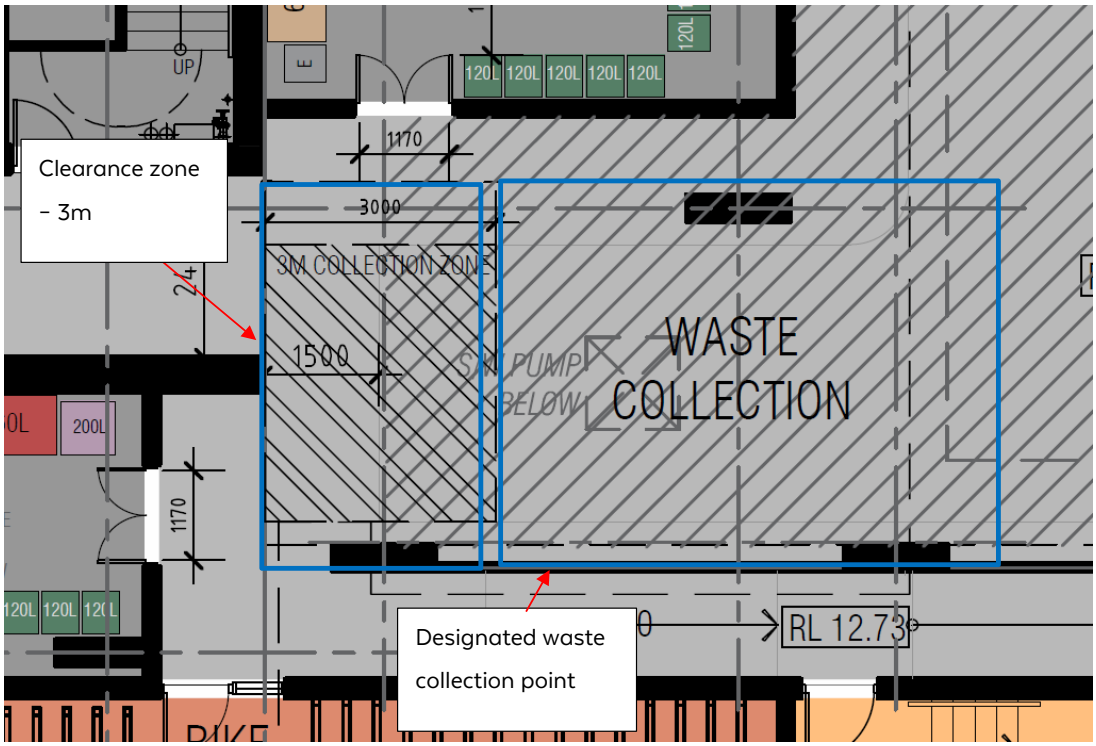


Figure 6: Collection point

Swept path analysis for vehicle access has been completed by Stantec taking into consideration the specifications of the City of Perth vehicle (see Figure 7 & 8).

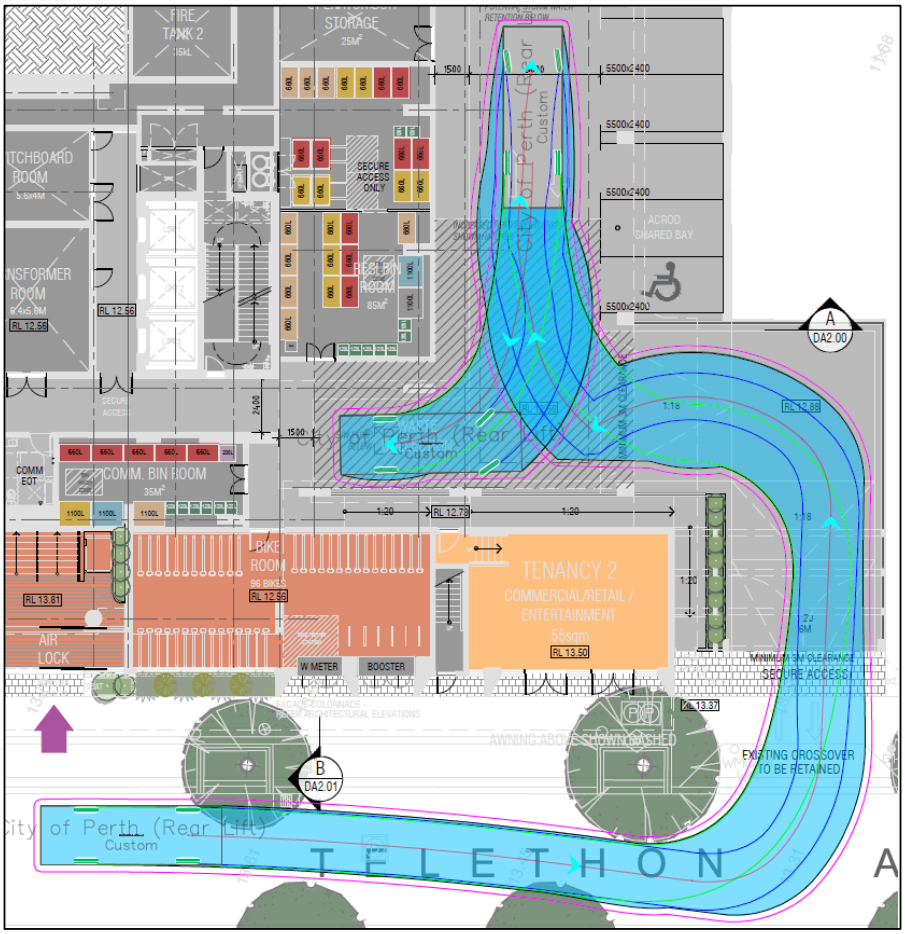


Figure 7: Swept path analysis showing ingress for waste collection vehicles

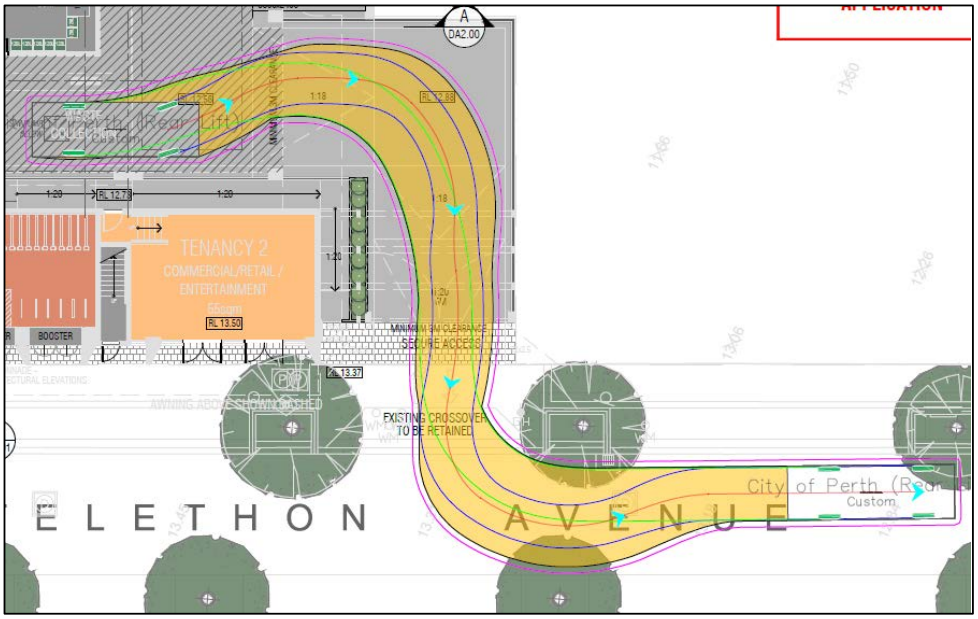
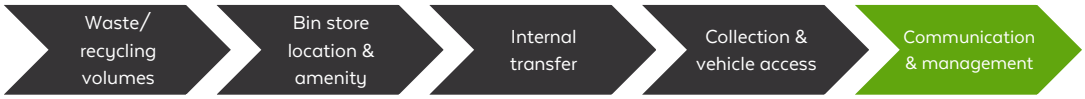


Figure 8: Swept path analysis showing egress for waste collection vehicles

6 Ongoing communication and management



6.1 Management

The Building Management team will be responsible for overseeing the waste management systems. Relevant staff will be trained and informed about their responsibility to work closely with the waste service provider regarding the schedule for collection of bins. Building Management will be responsible for maintaining the bin stores in a clean and tidy condition at all times and ensuring bins are washed regularly. Relevant building management staff will be responsible for rotating full bins at the base of each chute with empty bins.

6.2 Communication

All students and the restaurant tenants will be made aware through a building users guide of the waste, recycling and food organics systems and how they should be used. An Operational Waste Management Plan suitable for presenting to building users, including how the plan should be communicated will be developed and implemented during both the initial occupation and ongoing management of the building.

Building Management will be responsible for the continuing education of students on correct segregation of waste, recyclables, food organics and C4C and usage of the chutes to ensure successful performance of the dual chute system within the building.

Communication to students about correct use of the chute system will be ongoing, using formats such as good signage at the chute hatches, newsletters, noticeboards, social media, etc.

Appendix A: Glossary of terms and acronyms

Bulk waste	Bulk waste includes old and broken furniture, white goods and large electronic items. Commercial developments/tenancies are generally responsible for removing bulk waste via skip bins or organising transport to a waste transfer facility or landfill. Bulk waste collection is included in the Waste Management Plan where specified by the Local Government as part of the planning requirements.
Chute	In multi-storey buildings, a 'chute' is literally a shaft built into the construction that allows waste and/or recyclable material to be easily transported to the ground floor level from upper levels.
Collection point	The permitted area on a footpath, roadway or private property (where applicable) that waste, recyclables and bulky waste are loaded into collection vehicles.
Commingled recycling	Common recyclables, mostly packaging; such as glass, plastics, aluminium, steel, liquid paper board (milk cartons). Commingled recycling may include paper but often, and particularly in offices, paper and cardboard are collected separately.
Container Deposit Scheme (CDS)	Also known as Containers for Change (C4C): In Western Australia 'eligible containers' (usually for soft and alcoholic drinks) have a 10 cent deposit which can be refunded when the container is redeemed at a refund facility.
Compactor	In commercial buildings, industrial compactors are used to literally 'compact' or compress the waste material into a smaller volume to allow for optimal use of space.
E-waste	Discarded electronic appliances such as mobile phones, computers, and televisions.
Food organics	Waste food in commercial kitchen/food service settings, generated from preparation (peelings etc.), storage (out of date) or service (leftovers) that can be separated from the general waste stream for a more beneficial use.
General waste	Material that is intended for disposal to landfill (or in some States, incineration), normally what remains after the recyclables have been collected separately.
Organic waste	Waste derived from material that was once living (excluding petroleum-based materials).
Recyclable	Material that can be collected separately from the general waste and sent for recycling. The precise definition will vary, depending upon location (i.e. systems exist for the recycling of some materials in some areas and not in others).
Recycling	Where a material or product undergoes a form of processing to produce a feedstock suitable for the manufacture of new products.

WINDTECH

PEDESTRIAN WIND ENVIRONMENT STATEMENT

18-28 TELETHON AVENUE, PERTH

WK603-01F02(REV0)- WS REPORT

DECEMBER 17, 2025

Prepared for:

Total Project Management C/- Sirona Urban Pty Ltd

L10, 216 Saint Georges Terrace, Perth 6000

AT THE LEADING EDGE

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DOCUMENT CONTROL

Date	Revision History	Issued Revision	Prepared By (initials)	Instructed By (initials)	Reviewed & Authorised by (initials)
December 17, 2025	Initial.	0	ADG	AD	KA

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EXECUTIVE SUMMARY

This report presents an opinion on the likely impact of the proposed development located 18-28 Telethon Avenue, Perth, on the local wind environment at the critical outdoor areas within and around the subject site. The effect of wind activity has been examined for the two predominant wind directions for the region, namely the easterly and south-westerly winds. The analysis of the wind effects relating to the proposed development have been carried out in the context of the local wind climate, building morphology and land topography.

The conclusions of this report are drawn from our extensive experience in this field and are based on an examination of the latest architectural drawings. No wind tunnel testing has been undertaken for the subject development, and hence this report addresses only the general wind effects and any localised effects that are identifiable by visual inspection of the architectural drawings provided (received 16 December 2025). Any recommendations in this report are made only in-principle and are based on our extensive experience in the study of wind environment effects.

The results of this assessment indicate that the development has incorporated several design features and wind mitigating strategies and is expected to be suitable for the intended use for the majority of the outdoor trafficable areas. However, there are some areas that are likely to be exposed to stronger winds. It is expected that the wind effects identified in the report can be ameliorated with the consideration of the following treatment strategies into the design of the development:

- Ground level trafficable areas:
    - Retention of building setback above the podium.
    - Retention of impermeable awning along Telethon Avenue leading into the Wellington to Roe Street Thoroughfare.
    - Retention of existing trees along Telethon Avenue.
    - Retention of proposed canopy above the north-eastern Wellness Courtyard.
    - Retention of proposed trees in the north-western corner of the site. It is recommended that these trees consist of densely foliating evergreen trees capable of growing to a minimum height of 3-5m.
- Level 1 Communal Open Spaces
    - Retention of full height screens.
    - Retention of standard height impermeable balustrades.
    - Retention of porous screening on the southern study space.

With the inclusion of the abovementioned recommendations in the final design, it is expected that wind conditions for the various trafficable outdoor areas within and around the development will be suitable for their intended uses, and that the wind speeds will satisfy the applicable criteria for pedestrian comfort and safety.

Nonetheless, wind tunnel testing is recommended to be undertaken at a more detailed design to quantitatively assess the wind conditions and to optimise the size and extent of the treatments required.

CONTENTS

1 INTRODUCTION

An opinion on the likely impact of the proposed design on the local wind environment affecting pedestrians within the critical outdoor areas within and around the subject development is presented in this report. The analysis of wind effects relating to the proposed development has been carried out in the context of the predominant wind directions for the region, building morphology of the development and nearby buildings, and local land topography. The conclusions of this report are drawn from our extensive experience in the field of wind engineering and studies of wind environment effects.

No wind tunnel testing has been undertaken for this assessment. Hence this report addresses only the general wind effects and any localised effects that are identifiable by visual inspection, and any recommendations in this report are made only in-principle.

2 DESCRIPTION OF DEVELOPMENT AND SURROUNDINGS

The site is located at 18-28 Telethon Avenue, Perth, and is bounded by Telethon Avenue to the south and DA approved 21 storey development at 69 Roe Street to the north. Bounding the site to the west is the proposed walkway upgrade connecting Wellington and Roe Street whilst to the east is an empty lot.

The surrounding areas consists of several DA approved and under construction developments including the 14 storey development at 59 Roe Street, 27-storey development at 580 Wellington to the south and to the west is the under construction 21 storey Dorsett Hotel as well as the completed Perth Arena.

A survey of the land topography indicates there are no major elevation changes in the area immediately surrounding the site however there is a gradual slope up from Telethon Avenue to the rail line.

An aerial image of the subject site and the local surroundings is shown in Figure 1, with the frequency and magnitude of the prevailing winds is superimposed for each wind direction.

The existing site consists of an empty construction site. The proposed development is 34 storeys high.

The critical outdoor trafficable areas associated with the proposed development, which are the focus of this assessment with regards to wind effects, are listed as follows:

- Ground Level areas and pedestrian footpath.
- Level 01 Communal Open Space

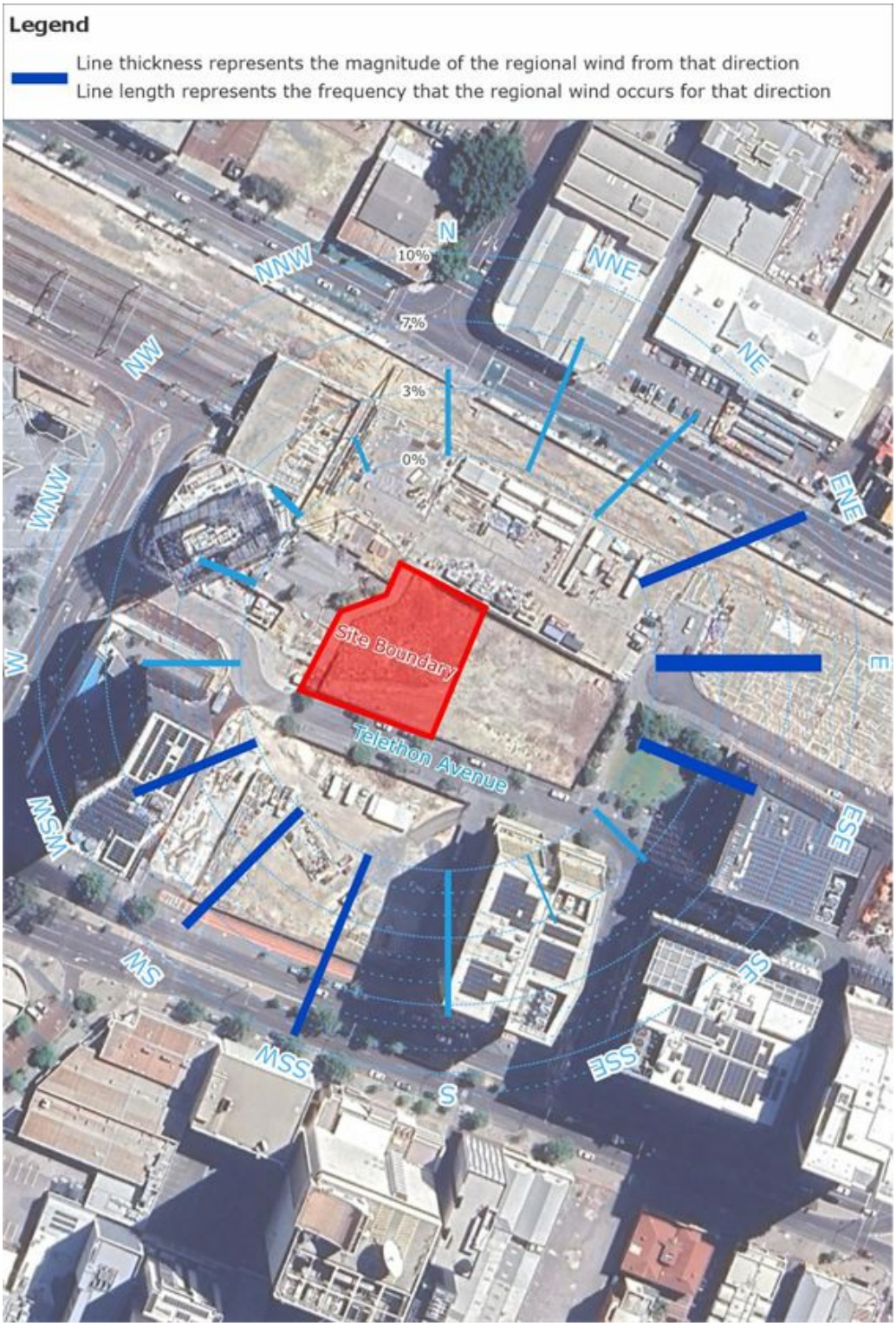


Figure 1: Aerial Image of the Site Location and Prevailing Wind Directions

3 REGIONAL WIND

The Perth region is governed by two principal wind directions that can potentially affect the subject development. These winds prevail from the east and south-west. These wind directions were determined from an analysis undertaken by Windtech Consultants of recorded directional wind speeds obtained from the meteorological station located at the Perth Airport by the Bureau of Meteorology (recorded from 1985 to 2016). The data has been corrected to represent winds over standard open terrain at a height of 10m above ground level. The results of this analysis are presented in Figure 2 in the form of a directional plot of the annual and 5% exceedance mean winds for the region. The frequency of occurrence of these winds is also shown in Figure 2.

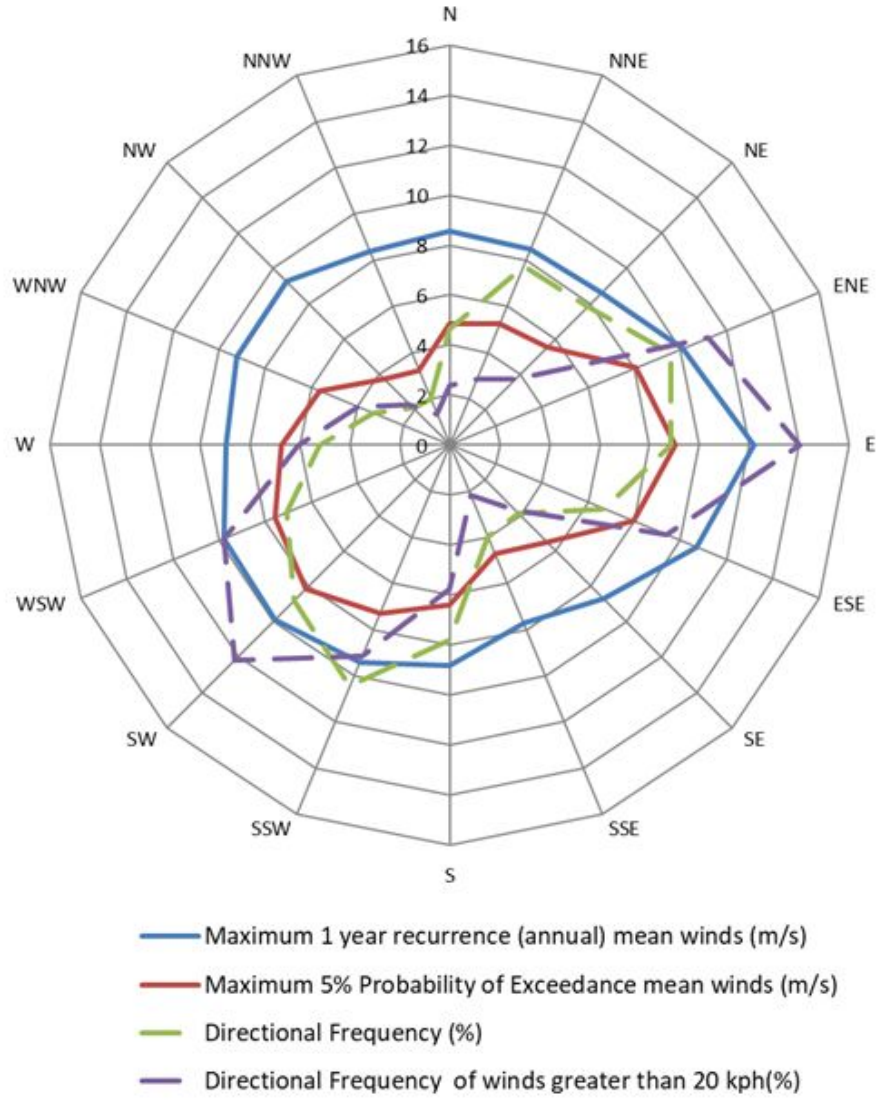


Figure 2: Directional Annual and 5% Exceedance Hourly Mean Wind Speeds (referenced to 10m height in standard open terrain), and Frequencies of Occurrence, for the Perth Region

4 WIND EFFECTS ON PEOPLE

The acceptability of wind in any area is dependent upon its use. For example, people walking, or window-shopping will tolerate higher wind speeds than those seated at an outdoor restaurant. Various other researchers, such as A.G. Davenport, T.V. Lawson, W.H. Melbourne, and A.D. Penwarden, have published criteria for pedestrian comfort for pedestrians in outdoor spaces for various types of activities. Some Councils and Local Government Authorities have adopted elements of some of these into their planning control requirements.

For example, A.D. Penwarden (1973) developed a modified version of the Beaufort scale which describes the effects of various wind intensities on people. Table 1 presents the modified Beaufort scale. Note that the effects listed in this table refers to wind conditions occurring frequently over the averaging time (a probability of occurrence exceeding 5%). Higher ranges of wind speeds can be tolerated for rarer events.

Table 1: Summary of Wind Effects on People (A.D. Penwarden, 1973)

Type of Winds	Beaufort Number	Mean Wind Speed (m/s)	Effects
Calm	0	Less than 0.3	Negligible.
Calm, light air	1	0.3 – 1.6	No noticeable wind.
Light breeze	2	1.6 – 3.4	Wind felt on face.
Gentle breeze	3	3.4 – 5.5	Hair is disturbed, clothing flaps, newspapers difficult to read.
Moderate breeze	4	5.5 – 8.0	Raises dust, dry soil and loose paper, hair disarranged.
Fresh breeze	5	8.0 – 10.8	Force of wind felt on body, danger of stumbling
Strong breeze	6	10.8 – 13.9	Umbrellas used with difficulty, hair blown straight, difficult to walk steadily, wind noise on ears unpleasant.
Near gale	7	13.9 – 17.2	Inconvenience felt when walking.
Gale	8	17.2 – 20.8	Generally impedes progress, difficulty balancing in gusts.
Strong gale	9	Greater than 20.8	People blown over.

It should be noted that wind speeds affecting this particular development can only be accurately quantified with a wind tunnel study. This assessment addresses only the general wind effects and any localised effects that are identifiable by visual inspection and the acceptability of the conditions for outdoor areas are determined based on their intended use. Any recommendations in this report are made only in-principle and are based on our extensive experience in the study of wind environment effects.

5 RESULTS AND DISCUSSION

The expected wind conditions affecting the development are discussed in the following sub-sections of this report for the various outdoor areas within and around the subject development. The interaction between the wind and the building morphology in the area is considered and important features taken into account including the distances between the surrounding buildings and the proposed building form, as well as the surrounding landform. Note that only the potentially critical wind effects are discussed in this report. A glossary of the different wind effects described in this report included in Appendix A.

For this assessment, the wind speed criteria for pedestrian comfort that are considered are listed as follows:

- Walking Criterion (8m/s with a 5% probability of exceedance)
  for general circulation and pedestrian thoroughfares, e.g. footpaths, private balconies/terraces, through-site links etc.

- Standing (Short Exposure) Criterion (6m/s with a 5% probability of exceedance)
  for stationary activities generally less than an hour, e.g. waiting areas, communal terraces, main entries, café seating etc.

- Sitting (Long Exposure) (4m/s with a 5% probability of exceedance)
  for stationary activities longer than an hour, e.g. outdoor cinemas, outdoor fine dining etc.

Note that the above wind comfort levels are derived from the Lawson (1975) criteria. Although this assessment is qualitative in nature, the abovementioned criteria for pedestrian comfort are considered when assessing the wind environment impacts. However, all areas are also assessed with consideration to a pedestrian safety criterion of 23m/s for the annual maximum gust.

5.1 Ground Level Areas

The pedestrian footpath along Telethon Ave is primarily exposed to the prevailing easterly and south-westerly winds. The easterly winds have the potential downwash from the north-eastern and south-eastern façades as well as accelerate around the south-eastern and northern corners of the development. The corner acceleration at the south-eastern corner has the potential to sidestream along Telethon Avenue which may lead to potentially adverse wind conditions for pedestrians. It is recommended that the existing trees along the Telethon Ave frontage be retained to mitigate potentially adverse wind conditions along the street. Additionally, the potential corner acceleration of the easterly winds around the northern corner may cause accelerated wind speeds through the thoroughfare to the west of the site. It is recommended that the proposed trees at the north-western corner and the proposed trees and planters within the thoroughfare be retained to ensure wind conditions are suitable for its intended use. It is recommended that these trees consist of densely foliating evergreen trees capable of growing to a minimum height of 3-5m. With the inclusion of DA approved developments to the north and north-east of the site at 59 and 69 Roe Street will provide significant shielding from the easterly prevailing winds.

The south-westerly winds have the potential to cause adverse wind conditions due to sidestreaming impact the south-western façade and downwash onto the pedestrian footpath as well as sidestream and funnel through the Wellington to Roe Street thoroughfare. However, due to the setback of the tower form, the overall setback of the building from Telethon Ave, and the proposed canopy over the pedestrian walkway, it is expected that the wind conditions at this footpath will be within the recommended walking comfort criteria. Furthermore, the existing trees located along Telethon Avenue will also assist in mitigating south-westerly winds that may sidestream along the pedestrian footpath. Additionally, potential adverse wind conditions are expected to be improved with the inclusion of the proposed 27 storey development at 580 Wellington Avenue.

The outdoor Wellness Courtyard located at the north-east of the site is shielded from the prevailing south-westerly winds by the proposed development itself, however, remains exposed to direct impact and downwash effects from the easterly winds impacting the eastern façade. The setback of the tower form above the podium is beneficial in ameliorating the potential downwash effects. Additionally, the proposed canopy over the communal amenity area be retained to create a well shielded space for enhanced wind comfort conditions.

To summarise. the following treatments, which are shown in Figure 3 are expected to be effective in wind mitigation and enhancing the local wind conditions:

- Retention of building setback above the podium.
- Retention of impermeable awning along Telethon Avenue leading into the Wellington to Roe Street Thoroughfare.
- Retention of existing trees along Telethon Avenue.
- Retention of proposed canopy above the north-eastern Wellness Courtyard.
- Retention of proposed trees in the north-western corner of the site. It is recommended that these trees consist of densely foliating evergreen trees capable of growing to a minimum height of 3-5m.

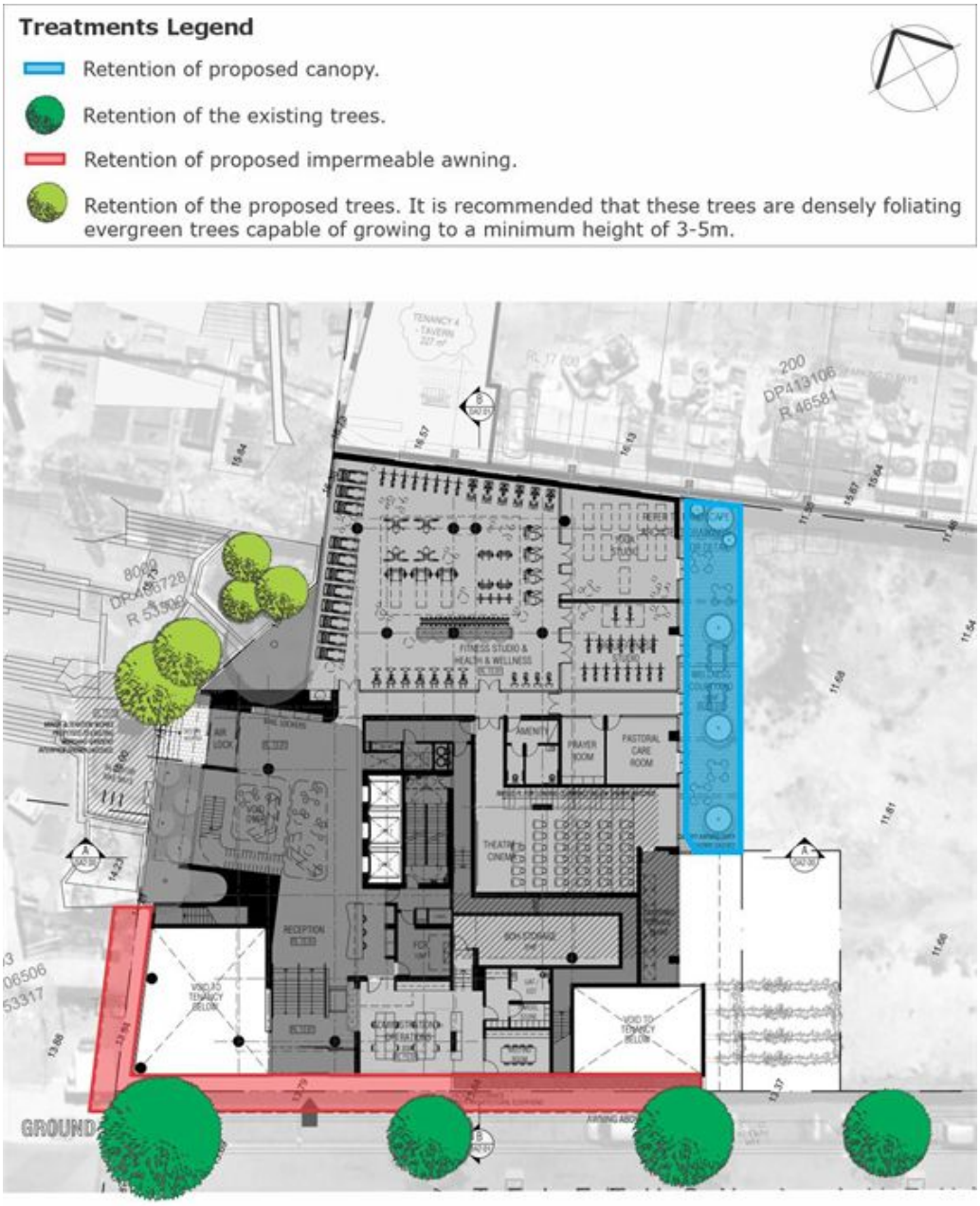


Figure 3: Recommended Treatment for the Ground Level

5.2 Level 01 Communal Open Spaces

The Level 1 outdoor communal amenity space located to the north of the site is well shielded from the prevailing winds by surrounding developments and the development itself.

Additionally, it is single aspect and recessed into the building form which provides the space with natural shielding from the wind and reduces exposure to higher wind speeds. With the retention of the full height screens along the north eastern façade, standard height balustrades, and the recessed design, it is expected that the wind conditions throughout the communal amenity space will be suitable for its intended use.

The terrace study space located to the south of the site is primarily exposed to direct impact from the south-westerly prevailing winds. It features porous screening elements along the south-western aspect which are beneficial in shielding the space from the south-westerly winds. Additionally, with the inclusion of the proposed development to the south, the terrace study space will benefit from further shielding form the south-westerly winds. It also features a recessed design and porous screening elements which are beneficial in breaking up any potential sidestreaming effects of the easterly prevailing winds along the southern aspect form. These features are recommended to be retained.

With the inclusion of the abovementioned recommendations in the final design, it is expected that wind conditions for the communal open spaces within the development will achieve the relevant safety and comfort criteria and be suitable for their intended uses. The abovementioned treatments are shown in Figure 4.

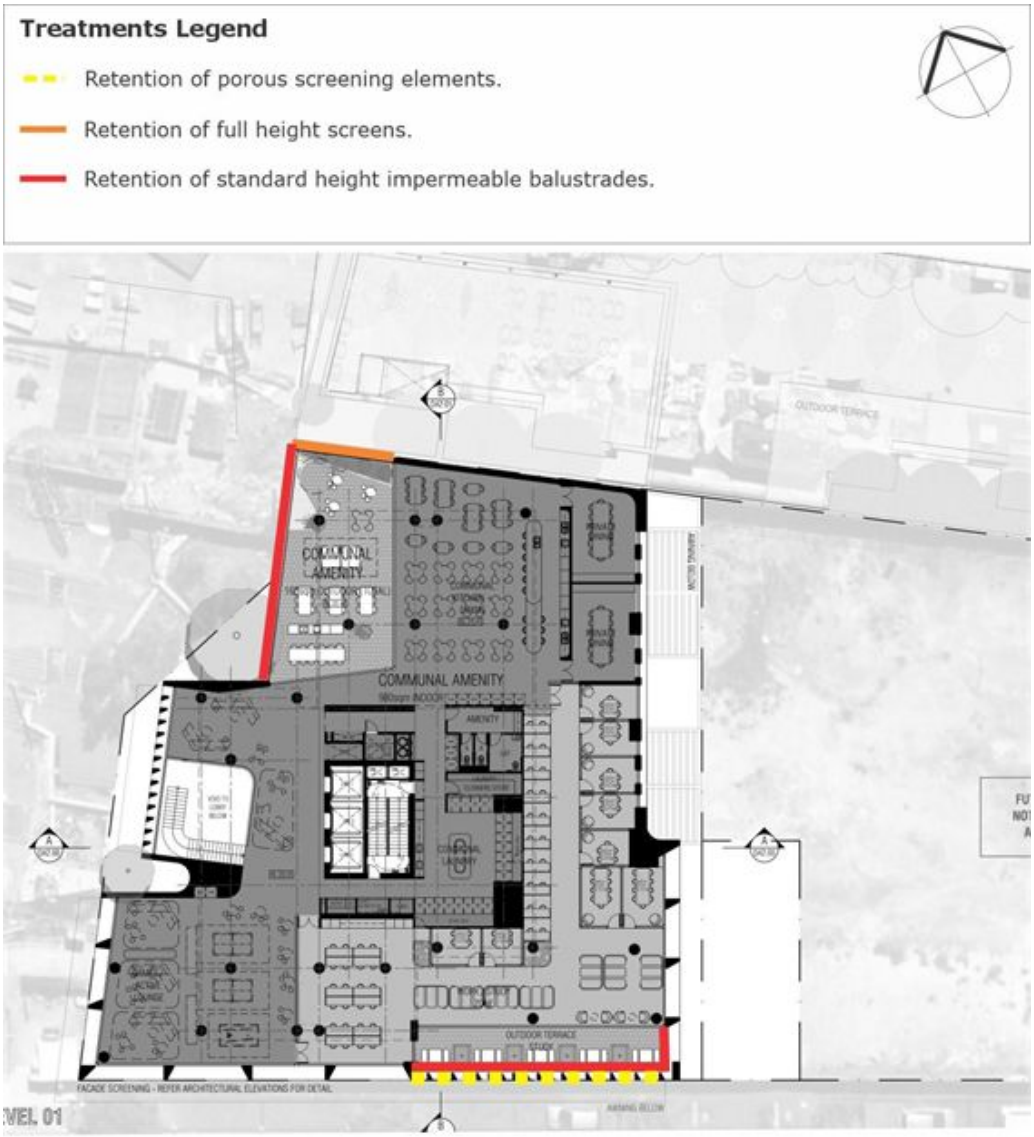


Figure 4: Recommended Treatment for Level 01.

6 REFERENCES

Davenport, A.G., 1972, "An approach to human comfort criteria for environmental conditions". Colloquium on Building Climatology, Stockholm.

Lawson, T.V., 1973, "The wind environment of buildings: a logical approach to the establishment of criteria". Bristol University, Department of Aeronautical Engineering.

Lawson, T.V., 1975, "The determination of the wind environment of a building complex before construction". Bristol University, Department of Aeronautical Engineering.

Lawson, T.V., 1980, "Wind Effects on Buildings - Volume 1, Design Applications". Applied Science Publishers Ltd, Ripple Road, Barking, Essex, England.

Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions". *Journal of Wind Engineering and Industrial Aerodynamics*, vol. 3, pp241-249.

Penwarden, A.D. (1973). "Acceptable Wind Speeds in Towns", Building Science, vol. 8: pp259–267.

Penwarden, A.D., Wise A.F.E., 1975, "Wind Environment Around Buildings". Building Research Establishment Report, London.

APPENDIX A WIND EFFECTS GLOSSARY

A.1 Downwash and Upwash Effects

The downwash wind effect occurs when wind is deflected down the windward face of a building, causing accelerated winds at pedestrian level. This can lead to other adverse effects as corner acceleration as the wind attempts to flow around the building, as seen in Figure A.1.

This can also lead to recirculating flow in the presence of a shorter upstream building, causing local ground level winds to move back into the prevailing wind.

The upwash effect occurs near upper level edge of a building form as the wind flows over the top of the building. This has the potential to cause acceleration of winds near the leading edge, as well as potentially reattaching onto the roof area. This effect causes wind issues particularly near the leading edges of tall building and on the rooftop areas if there is sufficient depth along the wind direction. Upwash is more apparent in taller towers and podia.

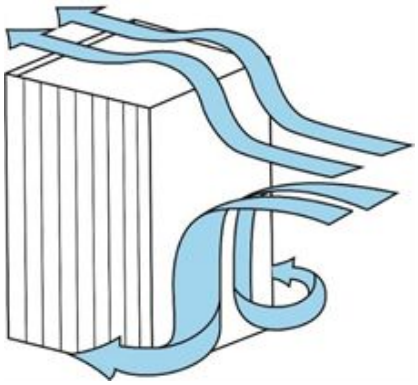


Figure A.1: Downwash Leading to Corner Wind Effect, and Upwash Effects

A.2 Funnelling/Venturi Effect

Funnelling occurs when the wind interacts with two or more buildings which are located adjacent to each other, which results in a bottleneck, as shown in Figure A.2. This causes the wind to be accelerated through the gap between the buildings, resulting in adverse wind conditions and pedestrian discomfort within the constricted space. Funnelling effects are common along pedestrian links and thoroughfares generally located between neighbouring buildings that have moderate gaps between them.

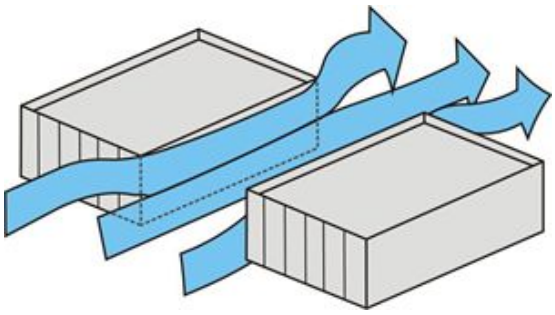


Figure A.2: Funnelling/Venturi Wind Effect

A.3 Gap Effect

The gap effect occurs in small openings in the façade that are open to wind on opposite faces, as seen in Figure A.3. This can involve a combination of funnelling and downwash effects. Presenting a small gap in the façade on the windward aspect as the easiest means through which the wind can flow through can result in wind acceleration through this gap. The pressure difference between the windward façade and the leeward façade also tends to exacerbate the wind flow through this gap.

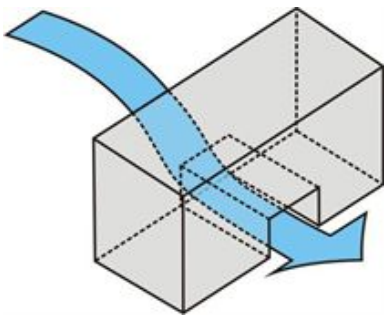


Figure A.3: Gap Wind Effect

A.4 Sidestream and Corner Effects

The sidestream effect is due to a gradual accumulation of wind shearing along the building façade that eventuates in an acceleration corner effect. The flow is parallel to the façade and can be exacerbated by downwash effects as well, or due to corner effect winds reattaching on the façade.

This is shown in Figure A.4. The corner refers to the acceleration of wind at the exterior vertical edge of a building, caused by the interaction of a large building massing with the incident wind, with the flow at the corner being accelerated due to high pressure differentials sets up between the windward façade and the orthogonal aspects. It can be further exacerbated by downwash effects that build up as the flow shears down the façade.

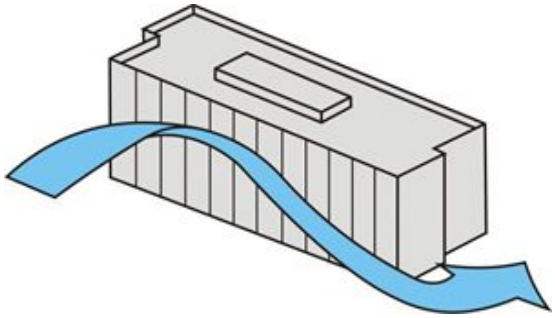


Figure A.4: Sidestream and Corner Wind Effect

A.5 Stagnation

Stagnation in a region refers to an area where the wind velocity is significantly reduced due to the effect of the flow being impeded by the bluff body. For a particular prevailing wind direction, this is typically located near the middle of the windward face of the building form or over a short distance in front of the windward face of a screen or fence. Concave building shapes tend to create an area of stagnation within the cavity, and wind speeds are generally low in these areas.

18-28 Telethon Avenue PBSA
Perth City Link

March 2026

Design Review 2 Feedback Integration Package +
LRC Additional Information

prepared by_

MJA

SIRONA URBAN

DRP2 Responses

The following slides demonstrate further design refinements resulting from the incorporation of design review feedback.

DRP 2 Summary

The previous Design Review 2 demonstrated continued support for the project, with the panel providing highly supportive feedback.

There were a number of minor recommendations from the design review panel, which we have now addressed in the following supporting information and latest drawing pack.

- ✓ "The Panel was broadly supportive of the proposal and acknowledged that the design had significantly improved since DRP1."
- ✓ "The Panel considered the development to be well-resolved in principle, with a strong response to context, streetscape activation, internal amenity and sustainability objectives."
- ✓ "This proposal will contribute positively to the student housing supply and broader precinct vitality through increased residential land uses and associated activation.

Landscape Quality_

Design Review Panel Advice

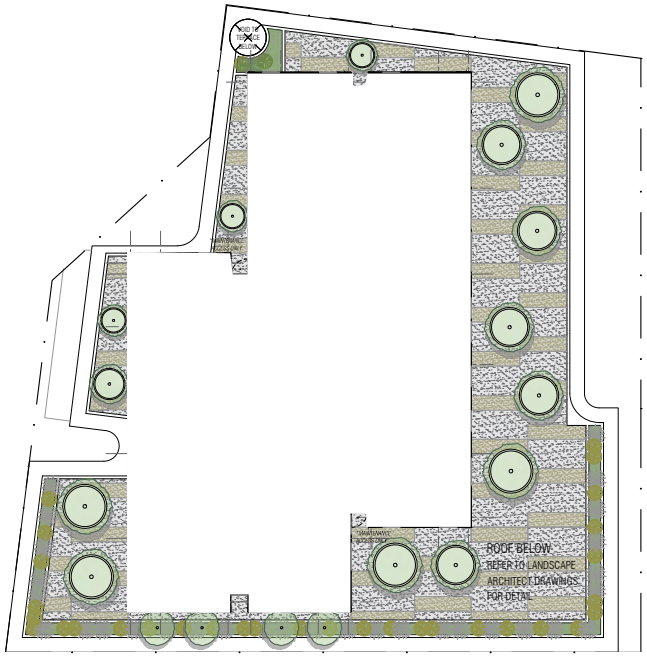
- Landscape design should **prioritise fewer, larger, functional planting zones** over dispersed undersized planters.
- As Deep soil provision remains low, landscaping could be improved through **increased dimensions for edge planters on the podium level** to achieve minimum sizes provided in the R-Codes.
- **Individual planter** sizes, particularly **on podium levels, should be reviewed** to ensure long-term tree viability.
- **Plant species** with a **high risk of shothole borer** to be carefully considered and avoided.
- **Maintenance access** and **irrigation requirements** need clearer resolution.

Design Response

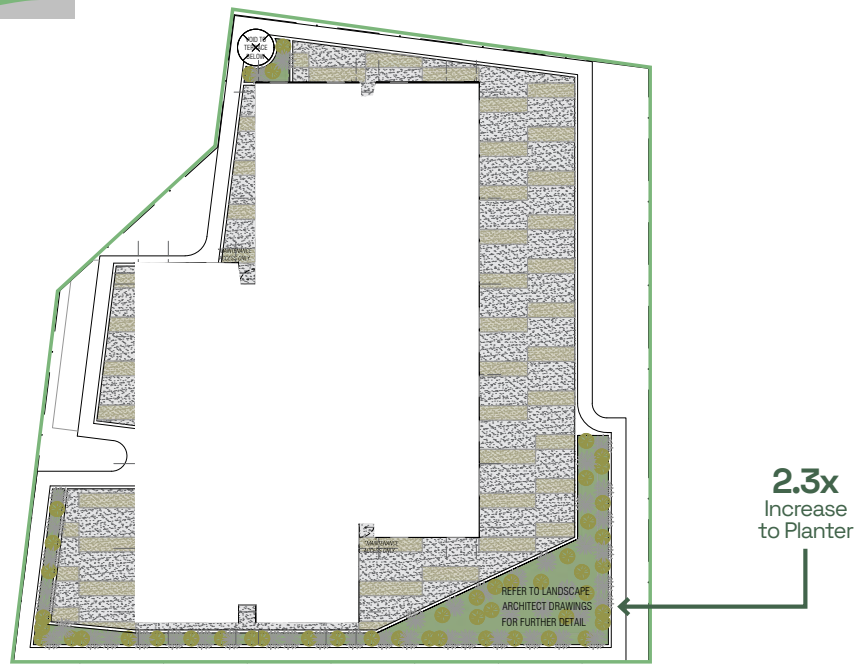
- ✓ Landscape planter provisions reviewed throughout, including revised Level 02 general arrangement.
- ✓ The proposed species selection has been revised to remove varieties susceptible to shothole borer.
- ✓ Further information provided regarding maintenance and irrigation strategies for landscaping areas.

Landscape Quality_

Increased planting zones
now provided on podium levels



DRP 2 - LEVEL 02



Post-DRP 2 - LEVEL 02

Prioritised, functional planting zones ✓
now prioritised

The Landscape concept has been **revised to prioritise larger, functional planting zones** with **increased dimensions** particularly on podium levels. These have also been reviewed to ensure long-term viability inline with the proposed planting species.

Landscape Quality_

Maintenance Considerations.

Integrated secure access maintenance doors provide direct access to the primary extents of the podium deck.

Where direct maintenance access from L02 is not achievable, access will be provided via the roof. Landscape provisions within this isolated zone have been carefully considered to ensure maintenance requirements are minimised.

Refer to the Landscape Architect Report for further information regarding proposed irrigation strategies.

Post-DRP 2 - LEVEL 02

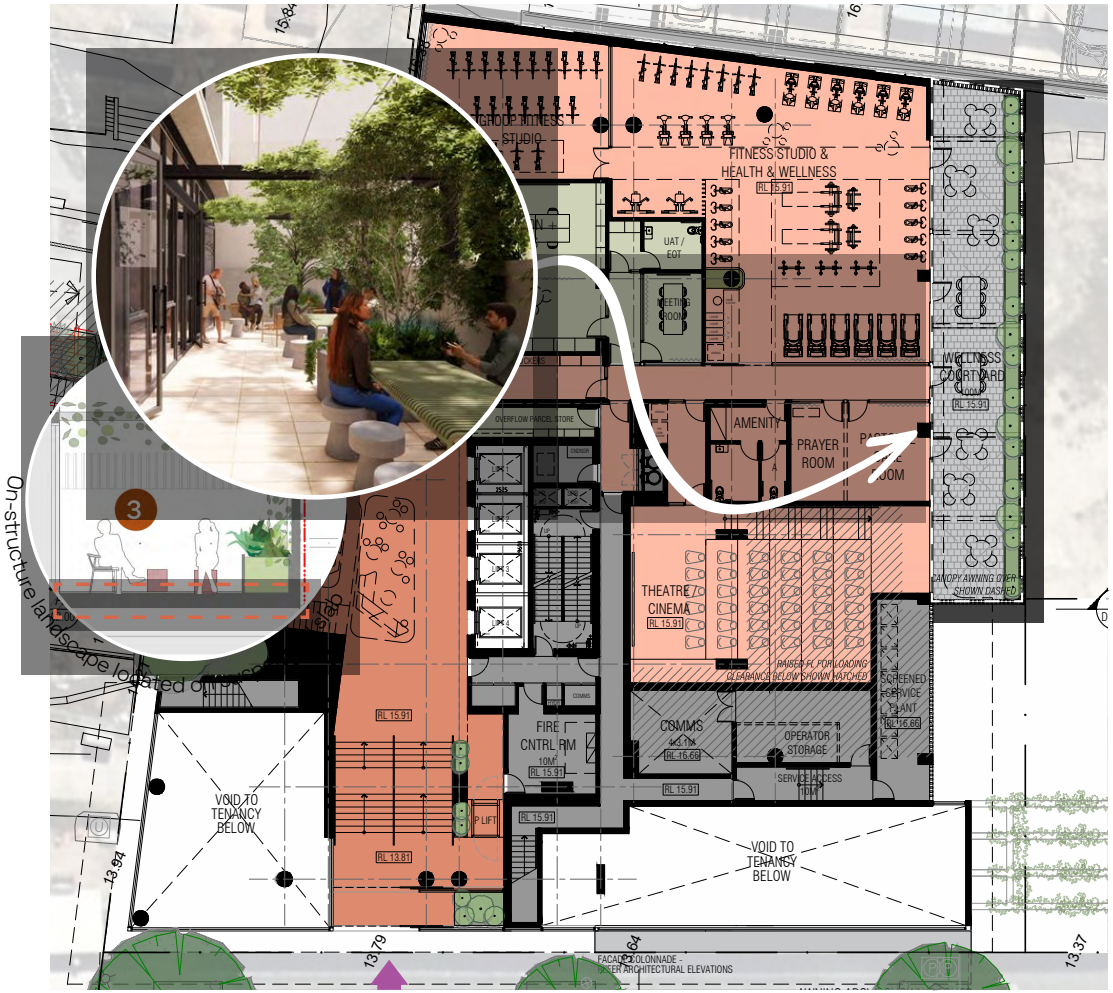
- Direct access from L02
- Access via roof

Landscape Quality_

East-Orientated Communal Terrace Landscaping

All landscaping on podium levels is on-structure, located above suspended slab with parking below, including the East-orientated outdoor terrace.

We understand there may have been some confusion around this in the last presentation, and would like to clarify that further landscaping below paved areas is not achievable.



Post-DRP 2 - GROUND FLOOR

Sustainability_

Design Review Panel Advice

- Western and northern solar heat gain requires careful consideration to balance efficiency and amenity. **Shadow diagrams from the western developments on to the proposed building** would be useful in understanding the solar mitigation strategy on the western façade.

Design Response

✓ Additional shadow diagrams provided regarding solar shading to the Western facade.

Sustainability_

Shadow Cast from Adjacent Development

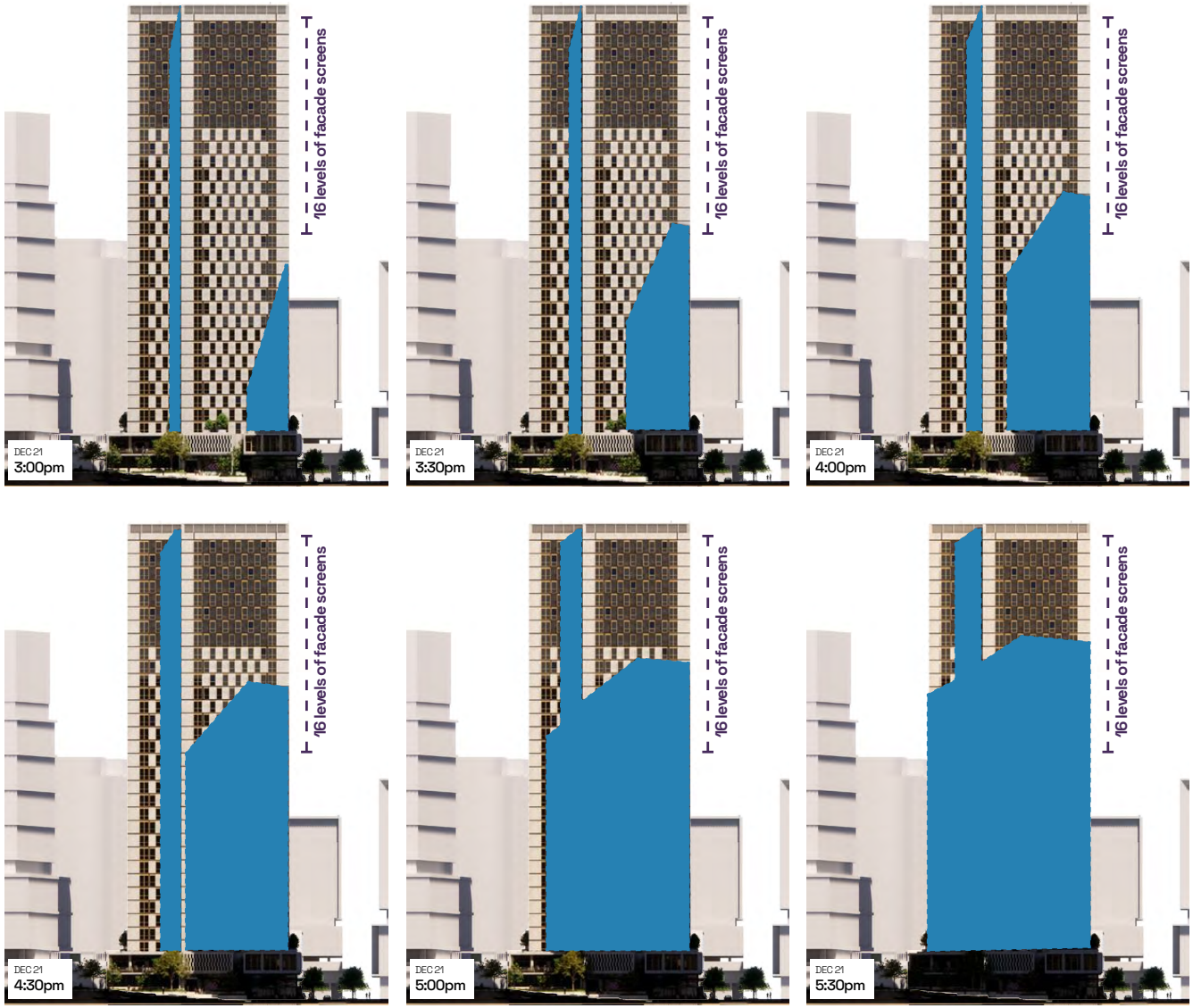
Careful consideration has been given to balancing solar heat gain efficiency and amenity of West orientated SOU's.

The West elevation receives sun from approximately **12:15pm** onwards on Dec 21, with the lower levels receiving shading from adjacent development by **2:45pm.**

Additional solar shading devices are provided on the upper tower levels to further assist in managing solar heat gain.

All facades have been assessed by our trusted ESD Consultant **and are capable of achieving Section J Compliance.**

SUMMATION



Legibility_ + Safety_

Design Review Panel Advice

- The **western entry** from **Wardang Gardens requires improved clarity and accessibility. DDA access is a necessary** requirement to deliver an equitable, legible and permeable design
- The Panel **query whether there is an opportunity to improve the line of sight** from the reception area down the eastern corridor **towards the gym entrance**.

Design Response

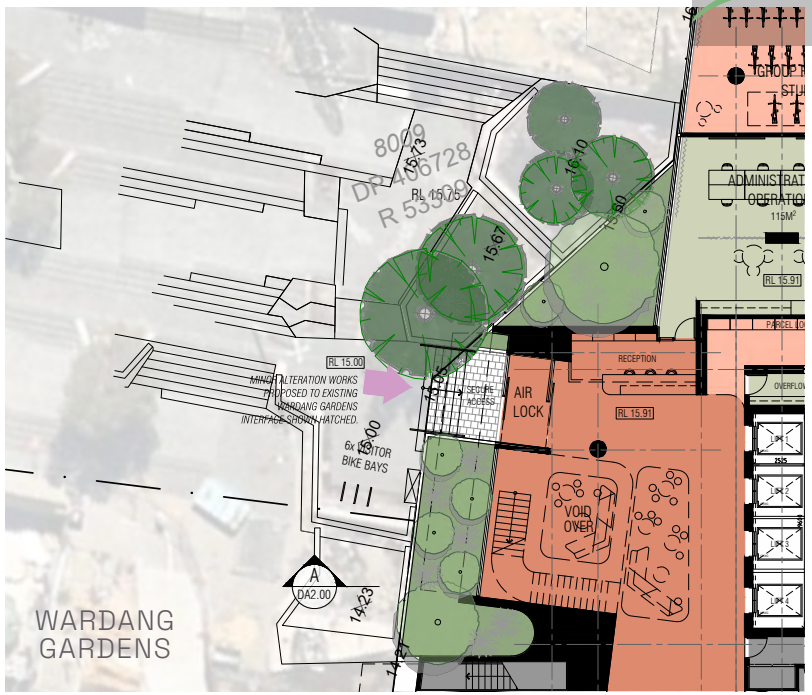
✓ Wardang Gardens interface has been redesigned to achieve DDA compliant access, noting the proposed outcome is subject to further liaison with the land owner.

✓ A (tower) structural column prevents the ability to introduce further glazing adjoining the corridor. Additional design solutions have been proposed to further increase passive surveillance and these will continue to evolve as the design develops.

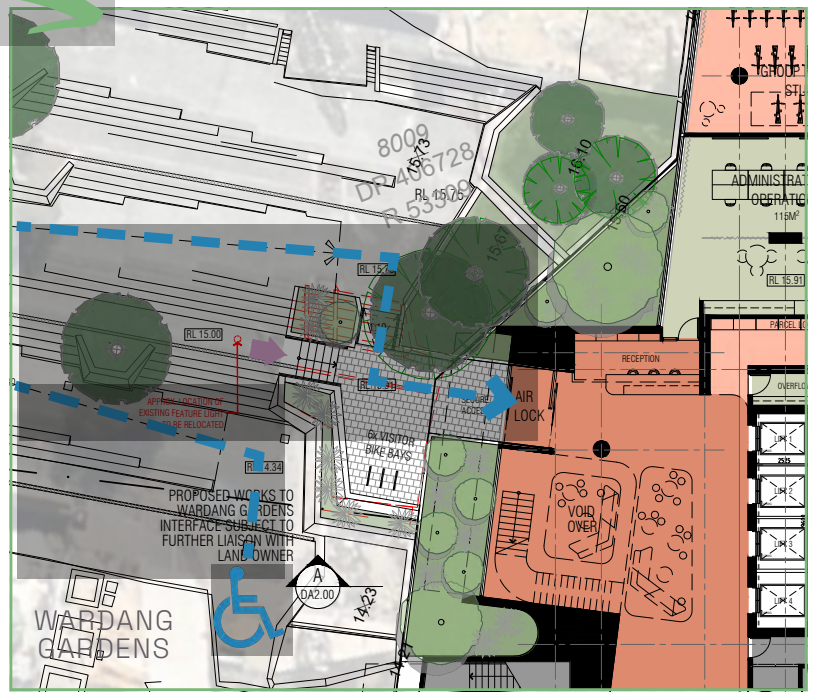
Legibility,
Safety,
Community_

Revised Entry Interface

with DDA Access now provided



DRP 2 - GROUND FLOOR



Post-DRP 2 - GROUND FLOOR

Improved entry interface ✓
Adjoining Wardang Gardens

The proposed access strategy and interface with Wardang Gardens have been reconfigured to provide **DDA-compliant access to the secondary entry.**

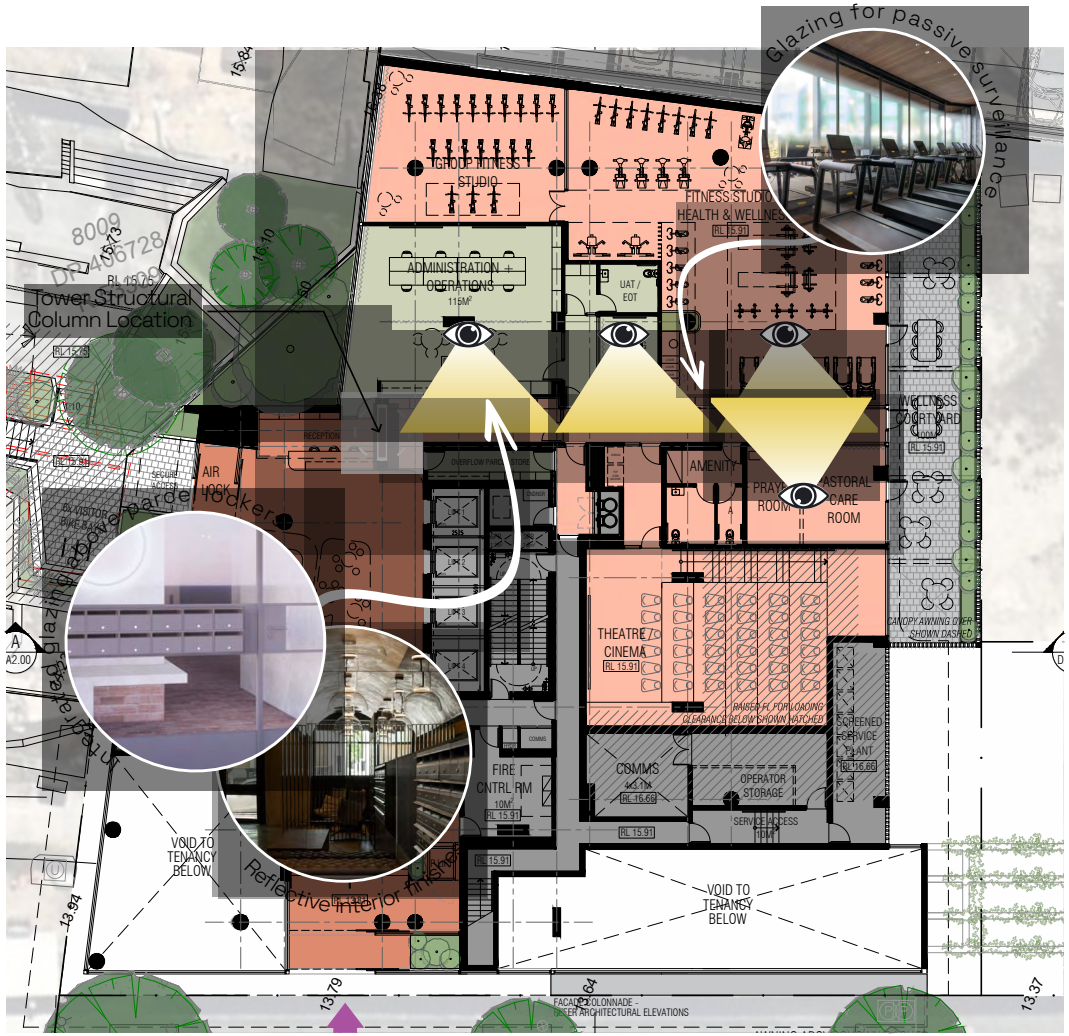
Landscape Quality_

Passive Surveillance + Circulation

Whilst a tower column prevents the ability to provide further line of sight down the adjacent corridor, we have carefully considered additional opportunities for passive surveillance when designing the interiors.

Early opportunities identified include reflective interior finishes, glazing above parcel lockers adjoining administration areas, and increased glazing adjoining communal rooms.

We look forward to continuing to develop these areas as the design progresses.



Post-DRP 2 - GROUND FLOOR

LRC Additional Information

The following slides provide further information a
requested by the LR

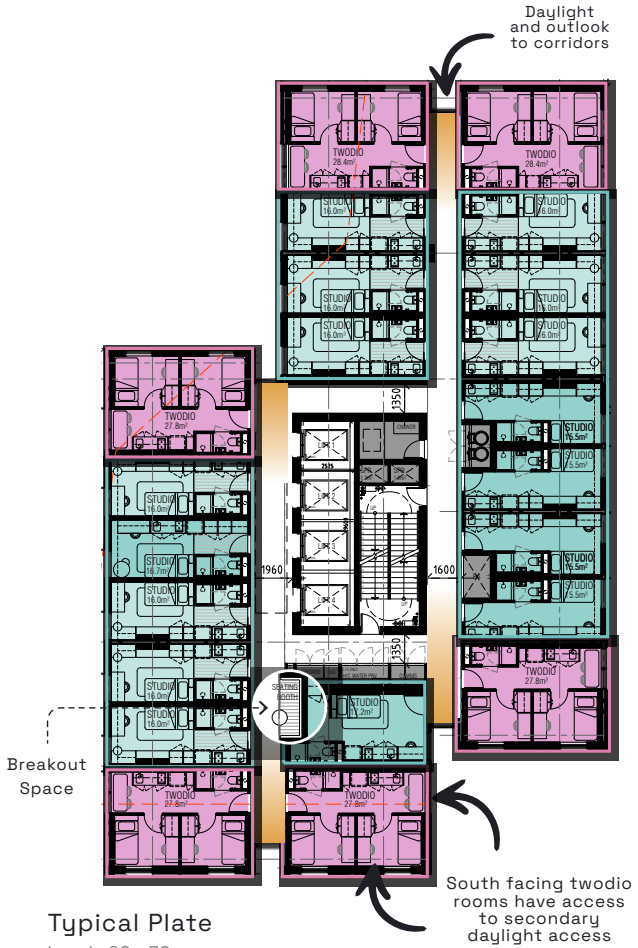
Amenity_

Dwelling Diversity Offering

Client and Operator have largely guided mix and distribution of room typologies, informed by extensive market research into evolving end-user needs and the provision of a diverse range of living options in response to market demand.

Providing diversity in room typologies is fundamental to offering a range of price points for students, while also supporting varied living experiences.

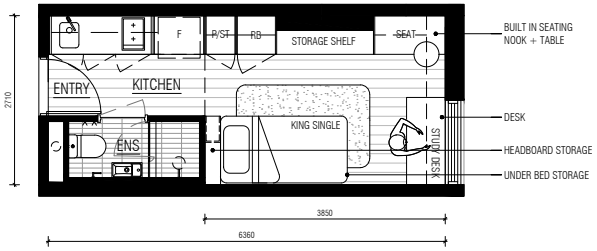
Shared Living Plate
Levels 02 - 08

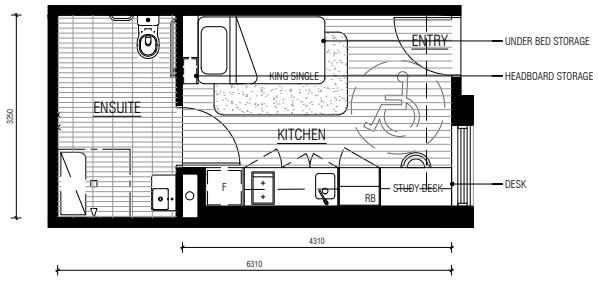


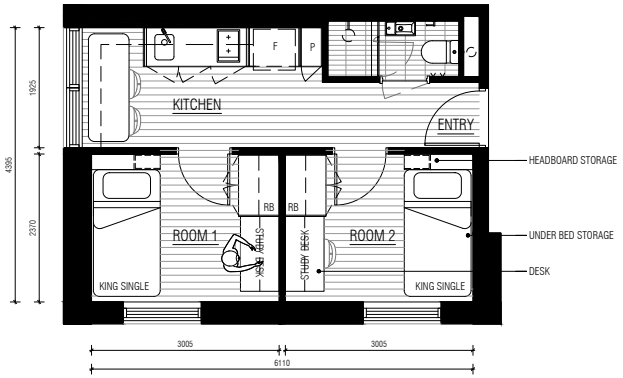
Typical Plate
Levels 09 - 32

UniLodge

Amenity_







Typical PBSA room types

Studio
Strata - 15.5m² - 17m²

King single bed, kitchen facilities, ensuite bathroom, study desk and robe in each studio.

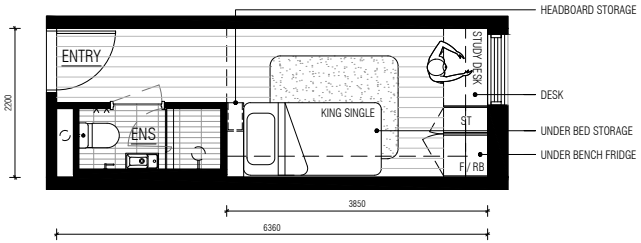
Studio - DDA
Strata - 19.4m²

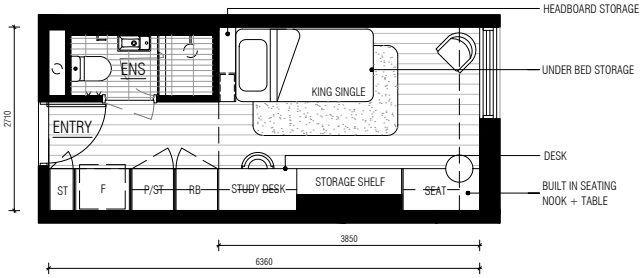
King single bed, kitchen facilities, DDA ensuite bathroom, study desk and robe in each studio.

Twodio
Strata - 27.8m² - 28.4m²

King single bed, study desk and robe in each room. Shared kitchen facilities, dining area and bathroom within.

Amenity_





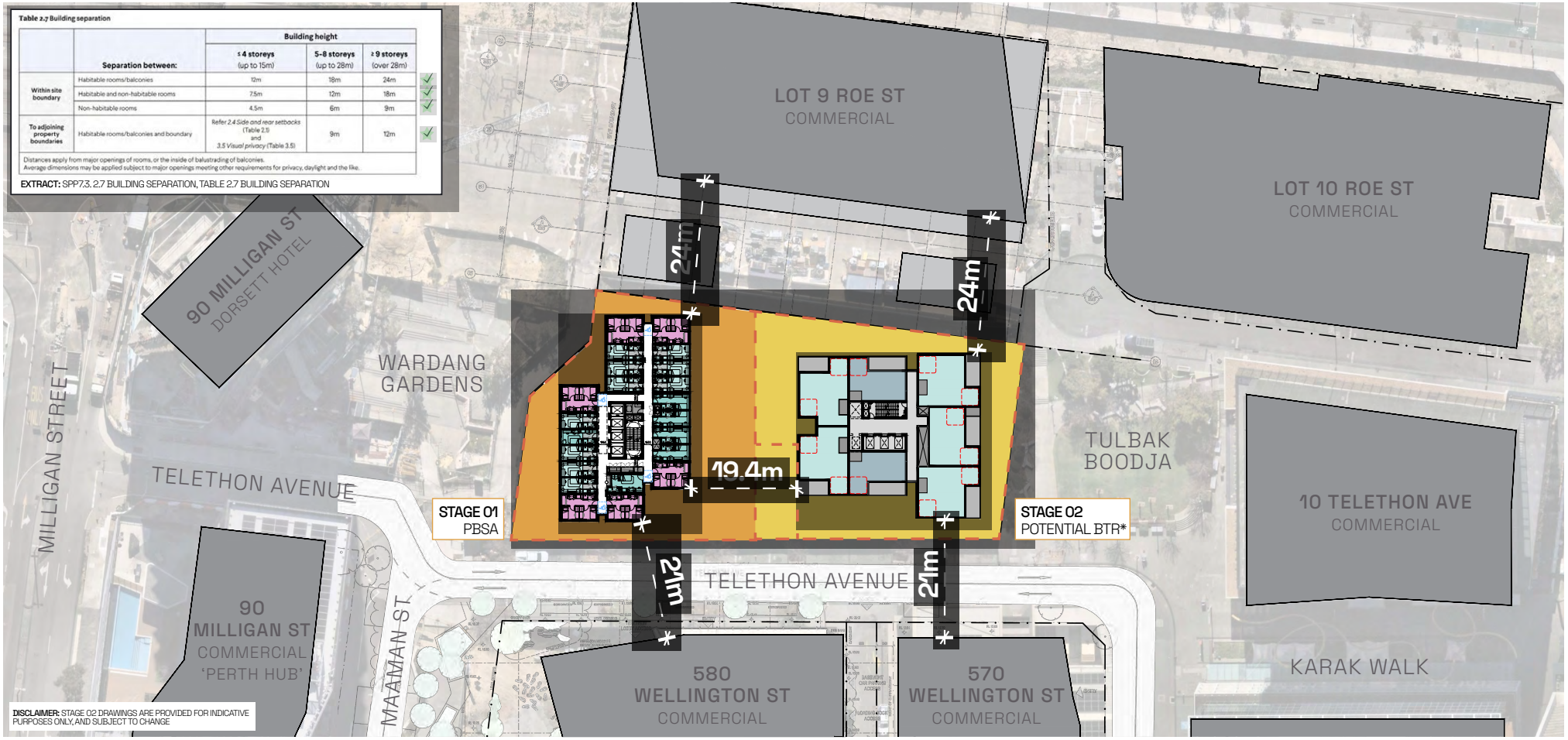
Typical Shared-Living room types

Shared Living - Studio
Strata - 13.3m²

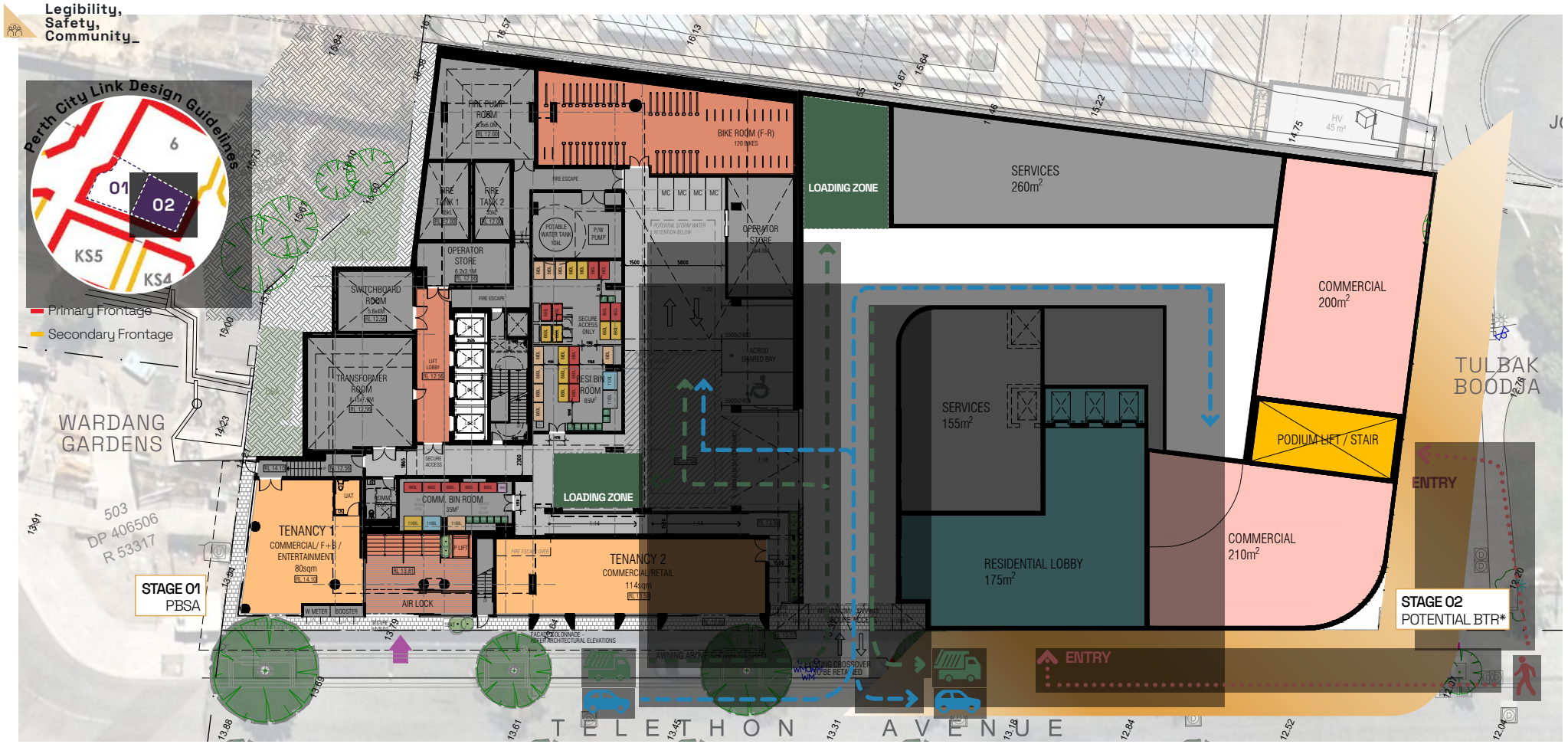
King single bed, ensuite bathroom, study desk, under bench fridge and robe in each studio.

Shared Living - Deluxe Studio
Strata - 16.3m²

King single bed, ensuite bathroom, study desk, full height fridge and robe in each studio.



This proposal considers both existing and anticipated future adjacent development to ensure appropriate setbacks and building separation are provided, exceeding the requirements of SPP 7.3.



This proposal considers anticipated future development of Stage 2. Maximised active frontages to both sites are achieved with sleeved services accessed via a single shared crossover point off Telethon Avenue.


Stage 02 -
Indicative Massing
previously provided in DR
View looking South East from Wardang Gardens


Stage 02 -
Indicative Massing
previously provided in DR 2
View looking North East from Maaman Street


Stage 02 -
Indicative Massing
View looking North from Telethon Avenue

Amenity_

Sustainability_

Future Adaptive Reuse

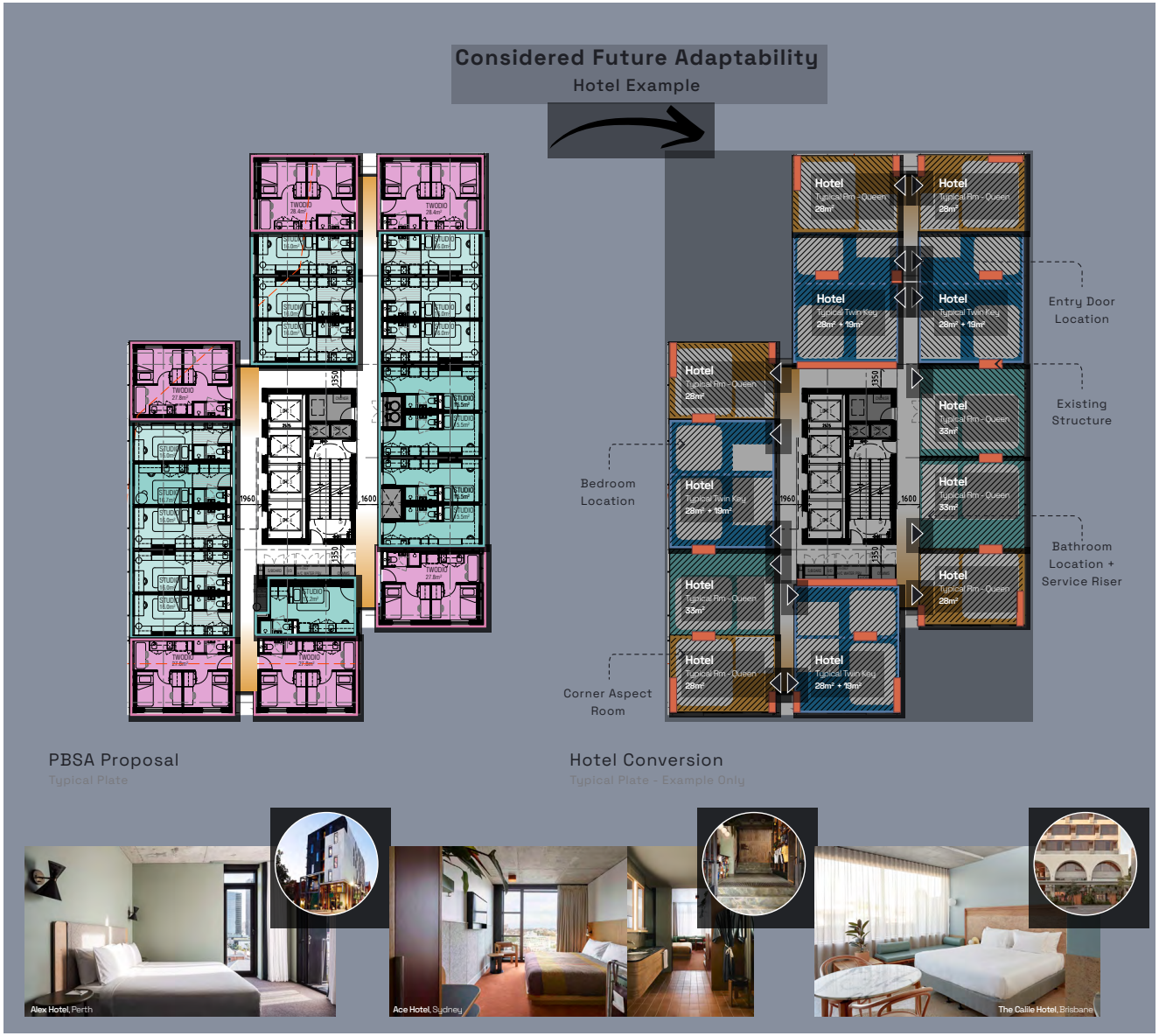
The proposal has been developed with careful consideration for future adaptive reuse of the building;

Structural columns have been intentionally positioned inboard to facilitate potential future reconfiguration of the façades if required. The proposal is supported by an appropriately spaced **structural grid**, enabling spacious internal arrangements that can accommodate a wide range of uses.

Service risers have been strategically located adjacent to corridors and are sufficiently numerous to accommodate expanded wet areas, such as those required for a hotel.

Durable, high-quality external finishes are proposed to maximise longevity and minimise maintenance, enabling future refurbishment to be largely limited to internal works.

The proposal has been designed to accommodate a broad spectrum of future adaptive uses, including **hotel, co-living, build-to-rent, and build-to-sell** outcomes.




THANK YOU.
MJA acknowledges the traditional custodians of the land, the Whadjuk people. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of this city and region.

Appendix 4

DESIGN REVIEW PANEL ADVICE NOTE (DR 2)

Review Attendance		
Subject	Review of Development Application Plans for a 33 Storey Student Accommodation Development at Lot 108 Telethon Ave, Perth (Kings Square 6)	
Date	Thursday 29 February 2026	
Time	9.30am – 11.30am	
Location	DevelopmentWA Office – Mia Yellagonga Tower 2, Level 7/5 Spring St, Perth	
Panel Members	Chris Maher (Chair) Dominic Snellgrove Tony Blackwell	Hames Sharley Cameron Chisholm Nicol Blackwell & associates
Proponent Team	Leon Stojmenov	Sirona Urban
	Jimmy Thompson	MJA Studio
	Sam Vaugh	MJA Studio
	Gian Tonossi	Place Lab
	Dan Lees	Element Advisory
Observers from DevelopmentWA	Emily Grindrod	Head of Planning
	Cheyenne Ellis	Manager Planning
	Matthew Andrews	Senior Planner
Declarations		
None		
Briefings		
Design presentation from the project architects, MJA Studio.		
Design Review Report endorsement		
Chair Signature		
	Chris Maher	
Executive Summary		
Overall	The Panel thanks the project team for their continued engagement with the Design Review process. The Panel was broadly supportive of the proposal and acknowledged that the design had significantly improved since DRP1. The Panel considered the development to be well-resolved in principle, with a strong response to context, streetscape activation, internal amenity and sustainability objectives. Good design is considered to be achieved for the proposal with resolution of the minor issues as raised in this report. Further review by the Panel prior to determination is not required subject to these matters being effectively resolved.	
Summary	This proposal will contribute positively to the student housing supply and broader precinct vitality through increased residential land uses and associated activation. Universal access to the building from Wardang Gardens is considered to be a critical matter requiring resolution to ensure fair and equitable access from all entrances, along with improved legibility for the site. Discussion with DevelopmentWA regarding the transition from the public to the private realm is recommended to facilitate DDA access to this entry.	

	The Panel identified an additional small number of matters that are recommended to improve the design: • Landscaping provision, particularly on the podium level, could be significantly improved through increasing the dimensions of existing landscaping areas and taking advantage of space below and under proposed paved areas. • Review solar controls to the western elevation and take into account overshadowing effects of surrounding built form. Performance outcomes should be clearly demonstrated and justified.

Design Quality Evaluation

Principle 1: Context and character *Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*

1. The tower form responds appropriately to its urban context, with slender proportions and appropriate tower separation distances from existing and expected future development
2. Façade articulation has improved significantly since the previous review, creating a more coherent and ordered built form.
3. The proposal balances visual prominence with restraint, avoiding unnecessary bulk or visual clutter.
4. The Panel commended the applicant for undertaking a whole of site master planning exercise for early consideration of how the proposal may relate to the eastern portion of the site, including safeguarding shared access arrangements and adequate tower separation.

Principle 2: Landscape quality *Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*

1. The strengthening of landscape along Wardang Gardens is strongly supported, enhancing public amenity.
2. Landscape design should prioritise fewer, larger, functional planting zones over dispersed undersized planters.
3. As Deep soil provision remains low, landscaping could be improved through increased dimensions for edge planters on the podium level to achieve minimum sizes provided in the R-Codes.
4. Individual planter sizes, particularly on podium levels, should be reviewed to ensure long-term tree viability.
5. Maintenance access and irrigation requirements need clearer resolution.
6. Plant species with a high risk of shothole borer to be carefully considered and avoided.

Principle 3: Built form and scale *Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*

1. The building demonstrates appropriate modulation and massing.
2. The podium-tower relationship is well handled, with a clear hierarchy of elements.
3. Framing and structural expression enhance legibility and slenderness.
4. Rooftop services are appropriately screened and integrated into the overall form.

Principle 4: Functionality and build quality *Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*

1. Floor plates are efficient, rational and well suited to the end user.
2. The inclusion of incidental breakout spaces on typical floors is strongly supported.
3. The provision of an additional lift and vertical circulation improvements significantly enhances user experience.
4. Construction methodology has been carefully considered, increasing confidence in deliverability.
5. Some internal layouts such as glazing adjacent to the end of beds should continue to be reviewed, and where necessary, amended, for privacy and comfort of the resident.

Principle 5: Sustainability *Good design optimises the sustainability of the built environment, delivering positive, environmental, social and economic outcomes.*

1. The commitment to a minimum 5-Star Green Star certification is strongly endorsed.
2. Façade glazing levels are generous and support daylight and amenity outcomes.
3. Western and northern solar heat gain requires careful consideration to balance efficiency and amenity. Shadow diagrams from the western developments on to the proposed building would be useful in understanding the solar mitigation strategy on the western façade.
4. Landscape and tree canopy contribute positively to microclimate, heat reduction and wind mitigation.
5. The relocation of the bicycle storeroom enables all bicycle bays to be within a fully fire rated store which promotes the use of e-mobility devices and is supported.
6. Sustainability objectives should continue to be clearly integrated into façade and material decisions.

Principle 6: Amenity *Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable productive and healthy.*

1. High levels of natural light, outlook and ventilation are achieved in rooms across most levels.
2. Communal terraces and internal shared spaces provide meaningful amenity for residents.
3. The design supports social interaction at multiple scales, from individual floor-levels to a whole-building experience.
4. The north-west corner studio configurations should further optimise cross-ventilation and dual aspect where not constrained by structural elements.
5. Privacy impacts associated with full-height glazing should continue to be carefully managed.
6. The addition of the ground floor tenancy has a good opportunity to support daily needs of the end user.

Principle 7: Legibility *Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*

1. Entries are generally clear and well located, particularly along Telethon Avenue.
2. The western entry from Wardan Gardens requires improved clarity and accessibility. DDA access is a necessary requirement to deliver an equitable, legible and permeable design.
3. Relocation of the reception area enhances wayfinding and passive surveillance. The Panel query whether there is an opportunity to improve the line of sight from the reception area down the eastern corridor towards the gym entrance.
4. Continue to ensure that signage and lighting strategies reinforce intuitive navigation for residents and visitors.
5. The overall movement networks are logical and well resolved.

Principle 8: Safety *Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*

1. CPTED principles are well embedded throughout the design, however, should be supported through a CPTED report prepared by a suitably qualified expert.
2. Passive surveillance of streets, entries and communal areas is strong.
3. Activation of ground-floor frontages significantly improves perceived safety and general activation for the area throughout all times of the day and night.
4. The inclusion of DDA access from Wardang Gardens is critical to equitable and safe use of the building.
5. Night-time lighting and glazing strategies should continue to support safety objectives as they evolve.

Principle 9: Community *Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*

1. The proposal contributes positively to the student housing supply and broader precinct vitality though increased residential land uses.
2. Active tenancies and public-facing uses enhance local convenience and street life.
3. Opportunities exist to strengthen the cultural narrative and interpretation through public art and place-based storytelling. The Panel strongly recommends that this be undertaken early in the design process to ensure that it is embedded into the development's overall design and aesthetic.

Principle 10: Aesthetics *Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*

1. The façade composition has evolved into a cohesive and legible architectural statement.
2. The interplay of solid and void, glazing and screening is well considered, and the defining checkerboard pattern is supported.
3. Further refinement of the material palette through detailed design will strengthen overall architectural quality.

Appendix 5

Summary of Stakeholder Comments

Stakeholder	Comments	Consideration
City of Perth (City)	The City does not support the proposed development until such a time a revised acoustic report is provided to the satisfaction of the City. The submitted Acoustic Report (Ref: P03071) contains errors and omissions preventing proper assessment of potential noise impacts. The Acoustic Report also does not adequately assess compliance with the requirements of the Northbridge Special Entertainment Precinct Special Control Area, including design solutions and recommendations to mitigate noise emissions. On 6 February 2026, the Minister for Planning approved Amendment 41 to City Planning Scheme No. 2 to create the Northbridge Special Entertainment Precinct Special Control to ensure that Northbridge remains the State's premier entertainment area with a variety of entertainment venues, reduce potential land use conflicts between accommodation uses and entertainment venues and ensure accommodation uses are located, designed and constructed to provide an acceptable level of amenity to future occupants. The City acknowledges that City Planning Scheme No. 2 is not applicable to the subject site, however the map for the Northbridge Special Entertainment Precinct Special Control Area, as approved by the Minister for Planning, clearly identifies the subject site to be located within the 'frame' area. The Special Control Area will apply when planning authority for the land is transferred to the City of Perth and as such, DevelopmentWA must have due regard to the requirements of the Special Control Area. Noting the above, the City requests a revised Acoustic Report addressing: a. acoustic attenuation design requirements prescribed by Amendment 41 to the City Planning Scheme No. 2; b. correct identification of all nearest noise-sensitive premises; c. recalculation of influencing factors from the nearest noise-sensitive premises;	The comments from the City in relation to Amendment 41 are noted. In repose, a revised Acoustic Report has been submitted which includes updated noise modelling considering the impact from the Northbridge Special Entertainment Precinct Special Control Area. The revised Acoustic Report includes recommended modifications to the northwestern façade to provide for greater noise attenuation which generally satisfies the provisions of Amendment 41 with 89% of rooms achieving compliance. Rooms which do not achieve compliance with Amendment 41 seek discretion between 3-4db which is not considered to have an adverse impact on the amenity of occupants. As such, DevelopmentWA considers this matter has been addressed.

Stakeholder	Comments	Consideration
	d. clear assessment of whether noise characteristics (tonality, modulation, impulsiveness) would be present under worst-case scenarios; and e. consolidated recommendations including noise-emitting equipment, building materials, critical installation methods, ongoing maintenance, and any other site specific considerations; be submitted for approval by DevelopmentWA, in consultation with the City, prior to determination of the application.	
	Should the above be resolved to the satisfaction of the City, the City supports the following aspects of the proposed development: a. The proposal aligns with DevelopmentWA's Central Perth Redevelopment Scheme, contributing to dwelling targets for the area and supporting the Perth City Link Project. It also complements the recent opening of the Edith Cowan University campus. b. The proposal aims to deliver purpose-built student accommodation, acknowledging the growing demand. c. Overall podium and tower design responds appropriately to the context, including slender massing and articulated design. d. The activation of Telethon Avenue and Wardang Gardens through ground floor commercial tenancies and communal uses. e. The quality and extent of communal amenity spaces. f. The proposed building height, noting the design response, limited amenity impacts and provision of additional accommodation.	Comments noted.
	The City requests that DevelopmentWA require the applicant/proponent to review the following: a. Waste management arrangements to demonstrate that the development complies with the City of Perth Waste Guidelines for Developments. b. cycle access arrangements and provision to improve safety, sightlines and functionality and in consideration of the number of residents and close proximity to the City's cycle network;	a. The standard DevelopmentWA condition is recommended to ensure waste management is meet the City of Perth requirements b. Cycle access has been considered through the Design Review process and is has been confirmed as being appropriate for the developments.

Stakeholder	Comments	Consideration
	c. internal dimensions and floor areas of student rooms to ensure adequate liveability, accessibility, functionality, and solar access, noting that communal spaces are acceptable; d. public realm interface to ensure integration with Wardang Gardens. Applicant should consult with the relevant DevelopmentWA project team to coordinate construction timing, access, site management and temporary works requirements; e. the design extent of the awning/s within the Telethon Avenue road reserve to ensure no conflicts arise with the existing street trees; and f. landscape and soft planting areas to ensure sufficient deep soil and greenery in communal and public realm spaces, including Telethon Avenue streetscape and Level 1 podium communal areas.	c. Room dimensions are consistent with those from previously approved Student Accommodation developments and supported by the Design Review Panel d. Interface with Wardang Gardens will be further considered through detailed design and a condition is recommended to ensure that universal access is provided e. Comment noted. A condition is recommended to ensure protection of street trees. f. Landscaped areas have been modified to improve deep soil provision and improve canopy cover.
	Should DevelopmentWA resolve to approve the proposed development, the City recommends any approval be conditioned to comply with standard conditions of approval but specifically 'without prejudice' conditions relating to: 1. a construction management plan for the proposal drawn up in accordance with the City of Perth's pro-forma and requirements being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a demolition permit and/or a building permit, with the associated traffic management plan addressing: i. coordination with the Wardang Gardens project to manage site interfaces and construction staging; and ii. management of impacts to pedestrian routes along Telethon Avenue, ensuring safe and accessible movement for all users during construction.	1. Standard DevelopmentWA condition recommended. 2. Standard DevelopmentWA condition recommended. 3. Standard DevelopmentWA condition recommended. 4. Standard DevelopmentWA condition recommended. 5. Recommended to be addressed through an advice note.

Stakeholder	Comments	Consideration
	2. submission of a final acoustic report demonstrating the proposed development will be designed and constructed in such a manner that existing and future noise levels occurring between units/rooms, and from external noise sources and mechanical plant and equipment that could potentially affect future occupiers, can be successfully attenuated in accordance with the relevant noise legislation and planning framework; 3. submission of a final waste management plan, addressing the following matters: i. swept path analysis for waste vehicles, including an accurate scale, entry/exit arrangements and 3 metre clearance at servicing points. ii. location, dimensions and capacities of waste storage areas, with the furthest bin no more than 10m from the collection vehicle. iii. locations of taps and servicing infrastructure clearly shown on drawings. iv. waste generation rates aligned with the Waste Guidelines for Development 2019 – Accommodation (per 100m²). v. calculations supporting all waste volumes, including compactor use, with bin estimates. vi. procedures for compacted waste collection ensuring compliance with weight limits and bin safety. being submitted for approval by DevelopmentWA, in consultation with the City prior to applying for a building permit; 4. the water meter and fire booster being suitably integrated with the development's frontage, with final details being submitted for approval by DevelopmentWA, in consultation with the City prior to applying for a building permit; 5. any development and works outside of the lot boundaries not forming part of the approval and being the subject of separate application/s for approval by DevelopmentWA and/or City; 6. the dimensions of all car parking bays, vehicle entrance, aisle widths and circulation areas complying with the Australian Standard	6. Standard DevelopmentWA condition recommended. 7. Standard DevelopmentWA condition recommended. 8. Standard DevelopmentWA advice note recommended. 9. Standard DevelopmentWA condition recommended. 10. Standard DevelopmentWA condition recommended. 11. Standard DevelopmentWA condition recommended.

Stakeholder	Comments	Consideration
	AS2890.1, ensuring that vehicles can enter and exit the building in forward gear with a certificate of compliance by an architect or engineer being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a building permit; 7. on-site stormwater disposal/management being to the City's specifications with details being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a building permit; 8. existing street trees located in the Telethon Avenue road reserve being retained and protected from damage throughout any demolition and/or construction works with tree protection zones being established and maintained during the demolition and/or construction periods in accordance with the Australian Standard S4970-2009 - Protection of Trees on Development Sites; 9. any proposed external building plant and services being located so as to minimise any visual and noise impact on the adjacent developments and being screened from any location external to the site (including from above), including any such plant or services located within the vehicle entrance of the development, with details of the location and screening of such plant and services being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a building permit; 10. working drawings for the public realm interface detailing: i. materials, levels, drainage falls and paving; ii. lighting and CPTED considerations; iii. planting, retaining walls and deep soil areas; and iv. interface with Wardang Gardens; being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a building permit; and 11. The proposed levels of the development being designed to match the current levels of the immediately adjacent public realm levels, with final details being submitted for approval by DevelopmentWA, in consultation with the City, prior to applying for a building permit	

Stakeholder	Comments	Consideration
Department of Transport and Major Infrastructure	DTMI confirms that the proposed development falls within the maximum tenant parking allowance that applies to the site under the Perth Parking Policy, but we do raise concerns about the insufficient provision of bicycle parking and end-of-trip facilities proposed for both the student accommodation and the commercial tenancies. DTMI would be able to support the application in principle if these concerns are addressed, as outlined below and referenced in our recommended conditions and advice notes.	Comments noted.
	Conditions 1. Parking approved to be provided on site: a. four (4) tenant (non-residential) parking bays; b. four (4) motorcycle bays; c. one (1) ACROD bay; d. one (1) loading bay. 2. A Parking Management Plan (required by Clause 13 of the Perth Parking Policy) shall be provided by the developer to the absolute satisfaction of DevelopmentWA, in consultation with DTMI. This must explain how parking will be managed to ensure compliance with the Perth Parking Policy and licensing requirements. The approved Parking Management Plan is to be implemented and always adhered to, to the satisfaction of the relevant authority 3. Provision of 341 bicycle parking spaces for the student residents in line with the Residential Design Codes Volume 2 – Apartments bicycle parking ratio of 0.5 space per dwelling. These parking spaces being provided in a secure location separate from the staff bicycle parking and end-of-trip facilities. 4. Provision of bicycle parking and end-of-trip facilities for staff, including: a. a minimum of four (4) long-stay bicycle parking spaces; b. a minimum of eight (8) lockers for use by staff; c. At least one individual and accessible shower and dressing cubicle for use by staff; and	1. Condition supported with specific details addressed via an advice note. 2. Condition supported. 3. Bicycle parking within the development is considered appropriate having regard to other similar developments and evidence provided by the operator on actual usage levels within existing student accommodation in Perth and elsewhere in Australia. Condition is not supported. 4. Bicycle parking for staff is contained with the proposed storage facility. End of trip facilities including shower and lockers are provided within the basement level adjacent to the commercial tenancies, and on Level 1 for reception staff. Additional end-of-trip facilities are not considered necessary in this instance.

Stakeholder	Comments	Consideration
	d. At least one accessible toilet for use by staff. 5. Provision of a minimum of 10 short-stay bicycle parking spaces for visitors and deliveries. 5. A Travel Plan be prepared prior to the occupation of the development to support and encourage access to and from the site by non-car modes to the absolute satisfaction of DevelopmentWA, in consultation with DTMI.	5. Preparation of a Travel Plan is recommended as an Advice Note.
	Advice Notes 1. The motorcycle bays, ACROD bay and loading bay being 'special purpose bays' would be licensed by DTMI on the basis they are clearly marked and reserved exclusively for their respective purposes. 2. Maximum parking time limits (for example 15 minutes) to apply to any vehicle parking in the loading bay. 3. The Applicant, in meeting proposed Condition 2, should refer to DTMI's Parking Management Plans for major developments: Indicative content guide for guidance on preparation of their Parking Management Plan. The Parking Management Plan should include arrangements for ensuring that: a. the loading bays are used only for loading purposes and the turning area associated with the loading bay is kept clear; b. loading bay parking time limits and compliance with time limits; c. the ACROD bay is used by permit holders only; d. use of the four (4) tenant parking bays is adequately managed; and e. any other conditions of planning approval continue to be met, notably the provision, maintenance and management of the bike parking and end of trip facilities. 4. The Applicant, in meeting proposed Conditions 3 to 5, should refer to DTMI's 'Providing Bicycle Parking and End-of-Trip Facilities in Central Perth: A Guiding Framework' (available on DTMI's website) to support the planning and provision of the bike spaces and end-of-trip facilities in the building. 5. DTMI recommends consideration be given to the appropriate storage and charging facilities for electric bikes and eRideables. Reference is made to Section 3.5 "Fire safety for	The recommended advice notes are to be applied to related conditions as required.

Stakeholder	Comments	Consideration
	eRideables' of DTMI's 'Providing Bicycle Parking and End-of-Trip Facilities in Central Perth: A Guiding Framework'.	
Main Roads	Main Roads has no objections to the proposal and provides the following conditions for the DevelopmentWA's consideration: **Conditions** 1. Prior to the submission of a building permit application, this noise sensitive development adjacent to a major transport corridor must implement measures to ameliorate the impact of transport noise. The development is to comply and implement the Acoustic Report prepared by E-LAB Consulting, Ref P03071, revision 1 and dated 16 December 2025 with the following amendments: a. Noise model inputs must be corrected, with noise predictions and treatment recommendations amended accordingly: • The correct vehicle speed of 80km/hr for Mitchell Freeway must be used and referenced in the report as a noise modelling input. • Mitchell Freeway traffic is stated to be 83,168 vehicles per day (vpd) in Table 14, but 83,617 vpd in Appendix A. This discrepancy must be corrected. b. The source of the train speeds and train lengths used in the noise modelling must be stated in the report. The acoustic report shall be to the satisfaction of the City of Perth and must be implemented at all times. 2. Prior to occupation of the development, certification from a qualified acoustic consultant being submitted, confirming that the recommendations of the approved acoustic report prepared by E-LAB Consulting have been implemented is to be provided to the satisfaction of the City of Perth. 3. A notification, pursuant to Section 70A of the Transfer of Land Act 1893 is to be placed on the Certificate(s) of Title of the proposed development. The notification is to state: *"The lots are situated in the vicinity of a transport corridor and are currently affected, or may in the future be affected by transport noise."*	Comments noted. 1. Standard DevelopmentWA condition recommended to be applied with the amendments required by Main Roads to be included in the relevant Advice Note. 2. Standard DevelopmentWA condition recommended. 3. Standard DevelopmentWA condition recommended.

Stakeholder	Comments	Consideration
Public Transport Authority (PTA)	The Public Transport Authority (PTA) does not object to the proposal subject to the following conditions and advice being included on any decision letter. **Conditions** 1. Prior to the application of a Building Permit the acoustic report titled: Acoustic Report, Project Ref:PO3071, Revision 1, Dated 16 December 2025 and prepared by E Lab Consulting, must be amended to reflect the development's proximity to the railway and any noise mitigation measures including but not limited to Quiet house design treatment is to be reflected on the development plans shown on each apartment and each floor to the satisfaction of the Public Transport Authority and thereafter implemented in full at the cost of the applicant/owner. 2. Prior to the application of a building permit, the applicant/owner must obtain approval from the Public Transport Authority (PTA) for works in and around an operating rail corridor in accordance with the PTA Document 8810-450-003 – *Working in and Around the PTA Rail Corridor, Assets and Infrastructure*, to the satisfaction of the PTA and thereafter implemented in full at the expense of the applicant/owner. 3. Prior to the application of a building permit, the applicant/owner must ensure that any structural element (including but not limited to rafts, slabs, plinths, and columns) located within 1.0 m of a Public Transport Authority (PTA) asset is designed to achieve a minimum 100-year durability design life. A design life memorandum confirming compliance must be submitted to the PTA prior to works commencing on each relevant structural element, to the satisfaction of the PTA and thereafter implemented in full. 4. Prior to the application of a building permit, the applicant/owner must demonstrate that where rafts, piles, cores or any other structural elements transfer wind, earthquake or soil pressure loads to an existing Public Transport Authority (PTA) asset, the design must	Comments noted. 1. The revised Acoustic Report is considered to adequately address the proximity to the railway and any potential noise impacts. Standard DevelopmentWA conditions and advices notes have been recommended. 2. Recommended to be included as an Advice Note. 3. Recommended to be included as an Advice Note. 4. Recommended to be included as an Advice Note. 5. Recommended to be included as an Advice Note. 6. Condition supported.

Stakeholder	Comments	Consideration
	demonstrate that the asset remains within allowable stress, movement, and settlement limits under IL4 level loads and 100-year design life limits. Documentation confirming compliance must be submitted prior to commencement of the affected works, to the satisfaction of the PTA and thereafter implemented in full at the cost of the applicant/owner. 5. Prior to the application of a building permit, a landscaping plan and a letter or statement from a suitably qualified landscaping professional (e.g, a landscape architect or arborist) must be submitted to the Public Transport Authority (PTA) confirming that the proposed landscaping poses no risk of root intrusion, causing impact to tunnel waterproofing, concrete durability or other structural damage. 6. Prior to the application of a Building Permit, an Electrical Design Report prepared by a suitably qualified professional to the satisfaction of DevelopmentWA in consultation with the Public Transport Authority and thereafter implemented in full at the expense of the applicant/owner.	
	Advice Notes a. With regards to condition 4, the site is within 50 metres of the PTA railway reserve and therefore lies within the PTA protection Zone. To manage safety, operational continuity, and risk to critical infrastructure, works within this zone require PTA assessment and approval under the established WIAA procedure. Furthermore, works near underground rail infrastructure pose risks including ground movement, water ingress, and excessive structural loading. Addressing these matters during design and providing supporting documentation ensures the safety, integrity, and long-term viability of existing and future Public Transport Authority assets. The applicant/owner is required to submit an application to undertake works within the PTA Protection Zone prior to any works commencing. Information about the procedure and required	Advice Notes are recommended to be included as requested by PTA on the relevant conditions above.

Stakeholder	Comments	Consideration
	documentation can be found in the PTA's Procedure 8810-450-003 – Working in and Around the PTA Rail Corridor, Assets and Infrastructure. The application must be submitted a minimum of six months prior to the commencement of development. This shall include, but is not limited to the following: i. A comprehensive structural loading documentation package of permanent and construction loading. ii. A Geotechnical Factual Report and Interpretive Report. iii. A Geotechnical Ground Movement Impact Assessment which considers the impact to PTA assets (Excavation, Vibration and Settlement). iv. Safe Work Method Statements, Inspection and Test Plans, and an Instrumentation and Monitoring Plan for all works on, above or beneath the existing ground surface or the concrete extrados of PTA assets. v. A Construction Management Plan. vi. A Site Management Plan and Temporary Works Plan. vii. Conditional Survey / Dilapidation Survey of Tunnels 5, 6 and 7. b. With regards to Condition 4 [and advice note (a)] it is advised that: i. All engineering reports should be prepared and signed off by suitably qualified and experienced professionals, with reference to relevant Australian Standards and PTA specifications. ii. The applicant/owner is responsible for ensuring that all construction activities are staged and managed in a way that does not impact PTA operations. Construction methodology, sequencing, and temporary works (e.g., ground anchors or shoring systems) may require separate review and acceptance by the PTA. iii. Submit applications and supporting documentation to: PTAThirdPartyAccess@pta.wa.gov.au	

Stakeholder	Comments	Consideration
	c. With regards to Condition 6, PTA infrastructure includes systems that may produce electromagnetic field (EMF) interference and stray electrical currents. The Electrical Design Report shall demonstrate how the development will address electromagnetic field (EMF) shielding and electrical separation in accordance with Public Transport Authority standards.	
Water Corporation	**Water** Water Reticulated water is currently available to the subject area. The applicant will be responsible for funding any costs of a water connection (meter) and make payment of the appropriate fees and charges and/or applicable Standard Infrastructure Contributions attributed to the nominated size and flow rate of the connection/s required. The requirement for a new and/or additional fire service connection (meter) will incur additional costs, attributed to the nominated size of the connection/s required. These connections will also be subject to an agreement at the time of application. A water connection may result in the installation of a backflow protection device. The applicant must consult a suitably qualified licensed plumbing contractor or hydraulic consultant to assess the developments requirements. The cost of the installation and ongoing testing and maintenance is the responsibility of the lot owner. **Wastewater** Reticulated sewerage is available to the subject lot. Any portion of the proposed building which is within the zone of influence to sewer main may require suitable footings in accordance with our technical guidelines. Please refer to our website: www.watercorporation.com.au/Developing-and-building/Working-near-assets.	Comments from the Water Corporation are noted and will be provided to the applicant for their consideration.

Stakeholder	Comments	Consideration
	Approval for works Any works carried out in proximity to our Assets must receive prior approval by applying for an Asset Protection Risk Assessment (APRA). To assess whether the proposed development will require an APRA, details of the Prescribed Proximities are available on our website: www.watercorporation.com.au/Developing-and-building/Working-near assets/Approval-for-works. **Building Approval Application** The applicant is required to submit a Commercial/Multi Residential Application (Mixed Use) by using our online portal	
DWER (Contaminated Sites Branch)	**Condition** 1. Prior to commencement of development works, investigation for soil and groundwater contamination is to be carried out at Lot 108 to determine if remediation is required. 2. If required, remediation, including validation of remediation, of any contamination identified shall be completed prior to completion of construction works at Lot 108 to the satisfaction of DevelopmentWA on advice from the Department of Water and Environmental Regulation, to ensure that the site is suitable for the proposed use. Investigations and remediation are to be carried out in compliance with the Contaminated Sites Act 2003 and current Department of Water and Environmental Regulation contaminated sites guidelines. (Department of Water and Environmental Regulation) **Advice Notes** a. In relation to Condition 1 and in accordance with regulation 31(1)(c) of the Contaminated Sites Regulations 2006, a mandatory auditor's report, prepared by an accredited contaminated sites auditor, will need to be submitted to the Department of Water and Environmental Regulation as evidence of compliance with Condition 1. A current list of accredited auditors is available from www.dwer.wa.gov.au.	Conditions and advice notes recommended by DWER are supported.

Stakeholder	Comments	Consideration
	Acid sulfate soils (ASS) risk mapping indicates that the site is located within an area identified as representing a high to moderate risk of ASS occurring within 3 metres of the natural soil surface. Please refer to Department of Water and Environmental Regulation's acid sulfate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works. https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69 acidsulfatesoils-guidelines	
ATCO Gas	ATCO Gas Australia (ATCO) has **no objection** to the proposed application, based on the information and plan provided, subject to the following advice notes being included: 1 ATCO Gas Australia (ATCO) has critical high pressure natural gas pipeline located within the road reserve adjacent to application/development boundary. 2 The proposed facility/development is classified as a sensitive/high density land use and is within the notification trigger distance outlined in the WAPC Draft Development Control Policy DC4.3 for ATCO High-Pressure Gas Pipelines. Please consider the WAPC's draft DC4.3 Planning for High Pressure Gas Pipelines and site PlanWA. 3 Prior to commencing any construction, access roads, road upgrades or excavation works, the proponent shall contact 'Before You Dig Australia' (www.byda.com.au) to locate any buried gas infrastructure. For detailed procedural guidance and safety protocols refer to the ATCO publication titled *atco-additional-Information-for-working-gas-infrastructure.pdf*, accessible online. 4 All works within this location require an **ATCO Critical Asset notification** to be submitted via the ATCO Australia online web portal and an Engineering Assessment to identify if additional safety, risk migration, or asset protection measures may be required, pending the complexity of the work and proximity to the gas infrastructure.	Comments from ATCO are noted and will be provided to the applicant for their consideration.

Stakeholder	Comments	Consideration
Perth Airport	Perth Airport has conducted an assessment in relation to the impacts of the proposal on the operations and future planning of Perth Airport and provides the following response. <u>Terminal Approach Radar</u> An initial assessment by Perth Airport identified the proposed development could pose a risk to the operation of the Terminal Approach Radar (TAR), which is a Communication, Surveillance and Navigation (CNS) facility used by Air Traffic Control to facilitate safe aircraft operations. Details of the development have been referred to Airservices Australia, who are the technical authority with regard to air navigation in accordance with the Airports (Protection of Airspace) Regulations 1996 (C'th). Perth Airport is unable to support any application that could potentially interfere with radio navigation aids or aircraft operations, until it has been successfully assessed and deemed acceptable by the relevant technical authority. The assessment timeframe for this technical assessment will be beyond the due dates requested by DevelopmentWA. Even in the case of a successful State and/or Local approval, the development may not lawfully proceed under the Regulations until this assessment is complete. Therefore, before any development can proceed, the proponent must seek formal confirmation from Perth Airport that a successful and compliant assessment has been undertaken by Airservices Australia. <u>Building Heights</u> Perth Airport has assessed the proposal against the Perth Airport airspace protected under the Airports (Protection of Airspace) Regulations 1996 (C'th). The provided plans indicate that the proposed development will not exceed 124m AHD (based on a finished ground floor level of 15.9m AHD and building elevation up to 108m AGL). At this elevation the proposed development will not infringe Perth Airport's current of future airspace or windshear surfaces other than the TAR surface discussed above. Perth Airport will seek	Comments from Perth Airport are noted. Airservices Australia will need to undertake a successful and compliant assessment prior to the commencement of works Building height is supported by Perth Airport subject to the outcomes of the assessment by Air Services Australia.

Stakeholder	Comments	Consideration
	allowance for an elevation of up to 128m AHD, which includes a small allowance for ancillary structures such as antennae, mechanical plant or access ladders located on the roof. Should Airservices confirm the building will have no impact on the TAR, Perth Airport will have no objection to this application. This position of no objection is on the basis that Perth Airport considers the maximum elevation of the structure to be the absolute highest point (top of monopole, antennae, facade etc.) and not just the highest point of the roof. Part 139 of the Civil Aviation Safety Regulations 1998 (CASR) requires any object that extends to a height of 100m or more above ground level to be notified to CASA by the proponent or owner. The proponent or owner of the building must submit these details via the Vertical Obstruction Data (VOD) Form, available on the Airservices Australia website, copying in Perth Airport. For more information please refer to CASA Advisory Circular 139.E-01 v1.0 and the Vertical Obstacle Database page on the Airservices website . <u>Crane Use</u> Cranes used in the construction are also a height consideration. Cranes are assessed separately, closer to construction, when accurate information regarding crane operating heights and locations is available. A separate assessment of cranes involved in cons truction will likely be required from a number of authorities, including Perth Airport, Airservices Australia, CASA and potentially the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts. Information regarding the Perth Airport crane assessment and permit process is available on our website perthairport.com.au.	
	Conditions 1. The development, including any ancillary structures such as roof-based plant or antennae, shall not exceed a maximum elevation of 128m AHD.	1. DevelopmentWA's standard conditions of approval require compliance with the approved plans which would address comments regarding building height. However,

Stakeholder	Comments	Consideration
	2. Prior to commencement of construction , the applicant/proponent must receive confirmation from Perth Airport that the Airservices Australia assessment of the proposed development did not identify any impacts to Communication, Surveillance and Navigation (CNS) facilities. 3. The applicant or responsible contractor shall lodge an online application to Perth Airport's Protected Airspace Assessment Tool (PAAT) prior to the erection of a crane on the subject site during both construction and operation of the subject site in accordance with their obligations under the Airports (Protection of Airspace) Regulations 1996 (C'th). 4. The proponent or owner of the building must submit these details via the Vertical Obstruction Data (VOD) Form , available on the Airservices Australia website, copying in Perth Airport.	due to implications to Perth Airport it is considered appropriate to address this via an advice note. 2. Condition supported. 3. Recommended to be included as an advice note. 4. Recommended to be included as an advice note.
	Advice Notes a. In relation to Condition 2, once a successful assessment by Airservices Australia is received and complied with, Perth Airport will have no objection to the proposed development. b. In relation to Condition 2, this required action is in accordance with obligations outlined in the Airports (Protection of Airspace) Regulations 1996 (C'th). c. In relation to Condition 4 Safety Regulations 1998 Page 3 , these required actions are in relation to the Civil Aviation . For more information please refer to CASA Advisory Circular 139.E 01 v1.0 and the Vertical Obstacle Database page on the Airservices website. d. In relation to Condition 3 , applications are to be made online at https://portal.perthairport.com.au/ . Queries can be directed to Perth Airport's airspace line or inbox at 6278 8122 or airspace@perthairport.com.au.	The recommended advice notes will be applied where required to ensure that applicant is aware of requirements to apply for clearance from Perth Airport.

Appendix 6

Summary of Public Comments

Table 1: Key themes and responses

No.	Theme	Response
1	Traffic The proposal will result in further congestion of Telethon Avenue will lead to unsustainable congestion for both residents and commuters. The proposed 10 vehicle movements in peak hour based on 800 people residing in the building is likely inaccurate.	The proposal has been designed to minimise car parking through promoting of other transport modes including cycling and public transport. Pedestrian access is prioritised through direct connections to surrounding footpaths and shared paths, ensuring safe and convenient movement to nearby public transport hubs and city amenities. A Transport Impact Assessment (TIA) has been submitted in support of the proposed development which concludes traffic generated by the proposed development can be accommodated by the surrounding road network. The peak hour trip generation is linked to the provision of car parking which has been intentionally reduced to promote alternative transport modes.
2	Parking supply The proposal needs to be amended to significantly increase the numbers of car bays provided. The provision of four (4) motorcycles bays is insufficient. No provision for charging vehicles or bicycles.	The provision of parking within the development is considered to be sufficient having regard to the proposed future residents, the location of the site and the availability of alternative transport modes. Furthermore, the limited parking supply and share car scheme meets the objectives of the Design Guidelines which seek to encourage the use of alternative transport methods and reduce the use of private vehicles within Perth, whilst still allowing opportunities for private vehicle ownership and to access a vehicle for occasional trips. A Transport Impact Assessment has been submitted in support of the proposed development which concludes the provision of parking is adequate based on the nature of the proposal. The potential inclusion of EV charging facilities for vehicles is being reviewed and will be confirmed at planning clearance (working drawings) stage. EV charging facilities will be provided for bicycles within the fire rated bicycle store.

No.	Theme	Response
3	Safety (public) Northbridge precinct is increasingly becoming a hotspot for disorderly conduct and anti-social behaviour among young people.	The proposal is to be managed onsite by a Student Housing provider which will address potential issues with safety and antisocial behaviour within and around the building. Passive surveillance is being delivered through community amenity areas and transparent openings from rooms to public areas including the future Wardang Gardens. Further activation is provided with full height windows at ground level to maintain visibility to the street. A recommended condition of approval requires a Crime Prevention Through Environmental Design (CPTED) Report to be provided which confirms that opportunities for crime are minimised through the final detailed design of the development.
4	Location/Over-supply of Student Accommodation *Objecting:* The highly crowded city centre is no longer the most appropriate environment for such large-scale projects. High-density student living is better suited for quieter, more integrated areas or dedicated educational precincts where the impact on traffic and public policing is more manageable. *Supporting:* Support the proposal to bring additional student housing to the site due to it being conveniently located near ECU.	One of the key objectives for the Perth City Link is to assist in the delivery of achieving critical mass of population within Central Perth. The delivery of 854 student accommodation beds within the inner City will help achieve this objective. The site is also within close proximity to Edith Cowan University City and key public transport routes allowing for easy access to tertiary education facilities making it a suitable location for student accommodation.
5	Building height *Objecting:*	The Perth City Link Design Guidelines (Design Guidelines) provide for performance-based outcomes to achieve alternative design solutions consistent with the Central Perth Redevelopment Scheme Vision and Principles, and the Objectives and Design

No.	Theme	Response
	The proposed 33-storey development would completely obstruct views and significantly reduce access to natural light for apartments from Perth Hub The reduction in building height would mitigate impacts on light, outlook, and privacy, with the building height at 33 storeys, the cumulative loss of amenity is unacceptable. *Supporting:* The proposed building height could be increased.	Intent of the Design Guidelines. This criterion has been satisfied by the proposal and is supported. The massing of the development has been carefully considered to minimise shadowing impacts to the public realm and surrounding properties consistent with the Design Guidelines. The slender tower expression and height variation between vertical elements break downs and minimise the perceived the size and scale of the proposal. A thorough design review process of the proposal has been undertaken and is supported by the Design Review Panel. The proposal represents a high-quality outcome and will provide for the enhancement of the built form within the area. It is noted that the proposal also results in an improved outcome in relation to overshadowing in contrast to the previous development approval for the 43-49 storey mixed development on the site.
6	<u>Impacts during construction</u> Noise and heavy dust from construction, which reduces the use of our balconies to surrounding properties. The construction of the proposal will create further noise for nearby residents which has been ongoing in relation to surrounding properties..	The Perth City Link is in a stage of growth with a number of construction activities occurring within the area. The delivery of new developments including new dwellings, retail stores, café/restaurants and office space is a key objective for this precinct. It is acknowledged that construction can cause impacts on the surrounding property through construction noise and vehicle movements however it is considered necessary to deliver development. In order to address concerns regarding construction activities, a recommended condition of approval requires a Construction Management Plan to be provided which outline how impacts from construction will be mitigated and minimise disruption to nearby residents and members of the public.
7	<u>Visual privacy</u> The height and proximity of the building would introduce substantial overlooking, resulting in a serious loss of privacy for existing residents.	Adequate separate is provided to adjoining properties with a minimum separation of over 50m to the closest existing residential buildings which significantly exceeds visual privacy provisions of the Design Guidelines and is supported. Separation from future development on the same lot has also been considered as part of the

No.	Theme	Response
		submitted concept design to ensure future development is provided with adequate visual privacy protection.
8	Internal amenities Levels 9-32 require the provision of shared amenities for psychosocial wellbeing. Communal laundry does not appear adequate for proposed number of students and with no provision for air drying or clothes lines.	Following further design review, additional shared spaces have been provided on Levels 9-32 adjacent to lift areas. These small breakout spaces within each floorplate promote day-to-day micro-interactions and will act as a space for casual conversation or to meet others within the same floor. The applicant team has worked closely with a Student Housing Provider to ensure that the amenities provided are fit for purpose and will meet the needs of the end users of the development. Improvements to the layout and delivery have been provided for in updated plans based on the advice of the appointed Design Review Panel and will be addressed as part of the detailed design.

Table 2: Public Comments Received

No.	Address	Comment
1	Edward Street, Osborne Park	Support the proposal to bring additional student housing to the site due to it being conveniently located near ECU.
2	Murray Street, Perth	As a resident in the neighbourhood, I disapprove this plan. City doesn't need another student accommodation or apartment. We need more parking slots or a park right at the heart of the city/northbridge. Stop being greedy, and taking their money from ECU as they will not have students there.
3	Unknown	I am writing to formally lodge my objection to the proposed development at Lot 108 (No. 18-28) Telethon Ave, Perth (KS6), involving a 33-storey student accommodation building. As a nearby resident/landowner, I have serious concerns regarding the potential negative impacts this project will have on our community. My objections are based on the following grounds: • Urban Density and Traffic Congestion: The Perth CBD is already highly saturated with high-rise developments. Adding a massive 33-storey complex with 854 beds will further strain our existing infrastructure. Telethon Ave and the surrounding city streets are already struggling with heavy traffic; increasing the population density at this scale will lead to unsustainable congestion for both residents and commuters. • Public Order and Safety Concerns (Northbridge Proximity): I have observed that the Northbridge precinct is increasingly becoming a hotspot for disorderly conduct and anti-social behavior among young people. This has already placed an immense burden on Western Australia Police resources. Placing a large-scale student hub in such close proximity to Northbridge will likely exacerbate these issues, making it even more difficult for authorities to manage public order and safety in the area. • Suitability of Location: While I support the need for student housing, the highly crowded city center is no longer the most appropriate environment for such large-scale projects. High-density student living is better suited for quieter, more integrated areas or dedicated educational precincts where the impact on traffic and public policing is more manageable. Perth should strive for a balanced urban environment rather than continuing to overcrowd the CBD at the expense of residents' quality of life and public safety. I request that DevelopmentWA carefully considers these points and rejects the current proposal in its current form and location. I look forward to your response regarding how these community concerns will be addressed.
4	Milligan Street, Perth	I am a resident of Perth Hub, currently living in an apartment on the eastern side of the building at a higher level. We deliberately chose this apartment for its morning light, privacy, and uninterrupted city views, and we believed that being at this height would protect us from future overshadowing, overlooking, and visual obstruction.

No.	Address	Comment
		The proposed 33-storey development would completely block these views and significantly reduce access to natural light for apartments on this side of Perth Hub. In addition, the height and proximity of the building would introduce substantial overlooking, resulting in a serious loss of privacy for existing residents. This would have a direct and negative impact on our day-to-day residential amenity and enjoyment of our home. While we understand the need for student accommodation in the city, the scale and height of this proposal are of serious concern. A development of this height is excessive for the site and out of proportion with surrounding buildings. If the building were substantially lower, its impacts on light, outlook, and privacy could be mitigated; however, at 33 storeys, the cumulative loss of amenity is unacceptable. If this development proceeds in its current form, we would seriously consider moving out of the area due to the loss of the key qualities that led us to choose to live in Perth Hub. We strongly urge DevelopmentWA to reduce the height of the proposed building to below that of Perth Hub and to reconsider the scale of the development to better respect existing residents, surrounding built form, and residential amenity.
5	Murray Street, Perth	• no provision for charging vehicles or bicycles • are 4 vehicle bays for commercial lot use only • lack of suitable access for tenancy 2 to toilet facility • levels 9-32 require shared amenities for psychosocial wellbeing • severe lack of waste/recycle disposal bin store area likely results in a combined 2 daily heavy vehicle disposals to the building. Huge load on surrounding road infrastructure, disturbance and pedestrian safety concerns
6	Murray Street, Perth	Mixed residential (student and non student) would be more appropriate given that there is already a 30+ story student accommodation already in development on Wellington st as well as The Switch. The city of Perth needs more high rise residential accommodations, similarly to Nv Apartments that allow for a mix of young professionals, middle aged couples and retirees, not just students. There is also a lot of construction already happening on and off Wellington st in the next 12-24 months that will also create more noise for nearby residents.
7	Mill Point Road, South Perth	Let me state that, in my opinion, this is the most stupid development that has ever been proposed in WA. Now I have commented previously that planners are a waste of space (other than for high level planning) and this type of development just confirms that planners are largely incompetent and useless.

No.	Address	Comment
		854 beds and just 4 carbays - what stupidity. Whether we agree or not Perth is a car city. No possible way will 4 carbays even be remotely enough for the staff, service/maintenance people who will work on the site. Even during construction - where will workers park? Where will all the people living there park their cars? Clearly other residents and businesses in the area will complain and then some politician will say we need to build a car park using taxpayers funds. Even at a conservative $200 per week per bed that is a revenue of $170800 per week - I am sure that this revenue will allow for the provision of atleast 100 carbays. From the report .5 Parking, Access and Servicing As the proposed development is predominantly comprised of purpose built student accommodation, there will be no on-site parking bays provided to service the student accommodation. This conscious design choice reflects the likely travel habits of the intended user group. Likely travel habits - so just a random claim with nothing to support it. People use cars in Perth - even taxis, friends or DIDI dropping off people would cause significant issues if there is nowhere to Park. Where will the delivery trucks park? 5.3 Transport Impact Statement A Transport Impact Statement (TIS) has been prepared by Stantec to accompany this development application. They key findings of the TIS are summarised as follows:– The proposed site will likely generate less than 10 vehicle trips in the peak hour, therefore being considered ‘low impact’. However, the site is still subject to a high overall trip generation (active transport and public transport trips) due to its inner-city location. Over 800 people living in a building and the claim of less than 10 vehicle movements in peak hour is just unbelievable and in my opinion just completely false. They can just say or we made a mistake in our analysis - with no consequences. Clearly there is nothing wrong with this type of building if there is a sensible amount of car bays, loading bays, drop off bays, service bays, disabled bays etc etc.

No.	Address	Comment
		The proposal needs to be amended to significantly increase the numbers of carbays. It is great that the site/building will accommodate so many people - high density living will stop urban expansion.
8	Nautical Court, Yanchep	Completely support. I actually think it should be taller but Perth is crying out for more residential (and student) housing so build this baby and get on with it. Lots of public transport close by and of course very close to the new Edith Cowan Uni. Build it.
9	Murray Street, Perth	Was there any survey like this before start this building project with plan like how many stories building. Why now asking resident what we can do. It is too late we can't change anything , I think
10	Murray Street, Perth	I support Perth growing and further accommodation etc. however it feels like residents haven't been considered well over the past couple of years. I have been at this location for 7+ years. The last couple have been tough, we have had constant noise and heavy dust from construction around us, which reduce the use of our balconies, and less sanity. Whilst I understand heavy machines need reverse sirens can we have the reversing noises looked in to, maybe make them more directional to the ground, maybe turn them down a little, surely, I don't need to know its reversing at the crack of dawn / all day. They start 4.30am until 6pm, 6 days a week, sometimes 7. I find it comical that 4.30am is an ok time for these sites to start making loud or annoying noises. Also, better dust management or offer for someone to come clean our balcony's / glass a few times a year. Finally, the ECU light is massive light pollution, does it need to run all night, please consider impact to neighbors right to peaceful enjoyment of their home with this build. I hope this development will take this feedback into consideration, otherwise am very supportive of the new building.
11	Milligan Street, Perth	Thank you for providing MJA Studio drawings for a proposed 33 storey building for students at Lot 108 Telethon Ave. This helpful summary shows that the plan would house 854 people on a 1611 metre square site. I am a part owner/occupier in Perth Hub One (PHO), Milligan St. My one bed apartment faces RAC Arena. The Site Survey drawing shows a pedestrian walkway between Telethon Ave and Roe St but on the Ground Floor level this seems to have disappeared. Please clarify how the proposed development will improve access to Northbridge. The Communal laundry looks fine for a couple of hundred students but there is no provision for air drying shown. Eg wall mounted folding clothes lines.

No.	Address	Comment
		My main concern however is that although the tower is well oriented, it is too high to allow morning light through between the Dorsett Hotel and PHO. Sixteen floors would be the maximum height to preserve amenity for us. Sound reverberations off hard surfaces are also a common issue in this area. I note there is space to fit more than 1 tower on the Lot so please consider duplicating the accommodation to a level no higher than 16 floors. Try to focus on the longer term gains rather than money to be made in the short term.
12	Marloo Road, Greenmount	Love the idea and I support this however only having 4 motorcycles bays is an absolute joke. Similar developments in SE Asia accommodate scooters and motorcycles and lots of students would likely have a motorbike/ scooter over over having bicycles so please tell the developer to triple (at the very minimum double) the amount of motorbike parking bays available for use. It would put the amenity and convenience for this development through the roof. Motorbikes take up very little space. You could literally fit 4 to 6 scooters in a 'car park' size bay. Motorbikes are an extremely economical mode of transportation so they should be encouraged and you can easily move them around to make space.

Appendix 7

Recommended Conditions and Advice Notes

RECOMMENDED CONDITIONS:

1. The development is to be undertaken in accordance with the approved plans and documents attached to this approval, details of which are to be provided at planning conditions clearance (working drawings) to the satisfaction of DevelopmentWA. The approved plans and documents of development are listed as follows:

Plan / Document Name	Ref.	Date Received
Cover Page	DA0.00	20 March 2026
Development Summary	DA0.01	20 March 2026
Site Plan	DA1.00	20 March 2026
Site Survey	DA1.01	20 March 2026
Lower Ground	DA1.02	20 March 2026
Ground	DA1.03	20 March 2026
Level 01	DA1.04	20 March 2026
Level 02	DA1.05	20 March 2026
Level 03-08 Façade Type 1	DA1.06	20 March 2026
Level 03-08 Façade Type 2	DA1.07	20 March 2026
Level 09-32 Façade Type 1	DA1.08	20 March 2026
Level 09-32 Façade Type 2	DA1.09	20 March 2026
Roof Service Plant	DA1.10	20 March 2026
Roof	DA1.11	20 March 2026
Section A North	DA2.00	20 March 2026
Section B West	DA2.01	20 March 2026
Elevations (South and West)	DA3.00	20 March 2026
Elevations (North and East)	DA3.01	20 March 2026
Landscape Plans	-	20 March 2026
Environmentally Sustainable Design Strategy	-	22 December 2025
Acoustic Report	-	20 March 2026
Transport Impact Statement	-	22 December 2025
Waste Management Plan	-	22 December 2025
Pedestrian Wind Environment Statement	-	22 December 2025

2. Elevations and specification detailing high quality materials, finishes and colours for the development, including “colour swatches” or material samples, are to be provided prior to planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA and the Design Review Panel. (Refer to Advice Note b)

3. The final design outcome is to demonstrate direct universal access from Wardang Gardens to the western reception entry point, with entrance levels being consistent with the adjacent constructed paving levels, details of which are to be provided at planning condition clearance (working drawings) stage, to the satisfaction of DevelopmentWA. (Refer to Advice Note c)

4. All building and tenancy entrance levels are to be consistent with the constructed paving levels of the adjoining public realm, details of which are to be provided at planning conditions clearance (working drawings) stage to the satisfaction of DevelopmentWA.

5. A report detailing the findings and recommendations of on-site investigation for soil and groundwater contamination is to be provided at planning condition clearance (working drawings) stage, to the satisfaction of DevelopmentWA, in consultation with the Department of Water and Environmental Regulation. (Refer Advice Note d)

6. Remediation, including validation of remediation, of any contamination identified through investigations, is to be completed prior to undertaking site works, to the satisfaction of DevelopmentWA in consultation with the Department of Water and Environmental Regulation. (Refer Advice Note e)

7. A Construction Management Plan is to be provided at planning condition clearance (working drawings) stage and adhered to for the duration of construction to the satisfaction of DevelopmentWA, in consultation with the City of Perth, Public Transport Authority and Perth Airport. (Refer Advice Note f)

8. A Car Parking Management Plan demonstrating management and allocation of car parking in accordance with the approved plans, is to be provided at planning conditions clearance (working drawings) stage and implemented thereafter to the satisfaction of DevelopmentWA. (Refer Advice Note g)

9. A Stormwater Management Plan is to be submitted at planning conditions clearance (working drawings) stage to the satisfaction of DevelopmentWA, in consultation with the City of Perth. (Refer Advice Note h)

10. A final Waste Management Plan is to be provided at planning condition clearance (working drawings) stage and implemented thereafter to the satisfaction of DevelopmentWA, in consultation with the City of Perth. (Refer Advice Note i)

11. A final Wind Assessment Report is to be provided prior to planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note j)

12. Public art is to be provided in accordance with Development Policy 4 - Providing Public Art, details of which are to be provided at planning condition clearance (working drawings) stage, and installed prior to occupancy to the satisfaction of DevelopmentWA. (Refer Advice Note k)

13. A Signage Strategy prepared in accordance with Development Policy 6 – Signage is to be provided at planning condition clearance (working drawings) stage and implemented thereafter, to the satisfaction of DevelopmentWA. (Refer Advice Note l)

14. A Crime Prevention Through Environmental Design (CPTED) Report, prepared by a suitably qualified person, confirming the design of the development is in accordance with CPTED principles, is to be submitted at planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note m)

15. A Universal Access Statement, prepared by a suitably qualified professional, is to be provided at planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note n)

16. A final Landscape Plan detailing both ‘soft’ and ‘hard’ landscaping elements for the development, is to be provided at planning condition clearance (working drawings) stage, with all landscaping to be installed and maintained in accordance with the

Landscape Plan thereafter to the satisfaction of DevelopmentWA, in consultation with DevelopmentWA's Design Review Panel and the City of Perth. (Refer Advice Note o)

17. A final Acoustic and Vibration Attenuation Report and certificate from a qualified acoustic consultant, confirming that the design and construction of the building will achieve an appropriate level of sound and vibration attenuation in accordance with Development Policy 3 – Sound and Vibration Attenuation is to be provided at planning conditions clearance (working drawings) stage, to the satisfaction of DevelopmentWA. (Refer Advice Note p)

18. A report and certification from a qualified acoustic consultant are to be submitted at practical completion stage and prior to occupation of the building, confirming that all recommendations of the Acoustic and Vibration Report integral to achieving compliance with Development Policy 3 – Sound and Vibration Attenuation, have been implemented, to the satisfaction of DevelopmentWA in consultation with the City of Perth (Refer to Advice Note q)

19. The landowner is to provide consent to a section 70A notification pursuant to the Transfer of Land Act 1893 being lodged with the Registrar of Titles for endorsement on the Certificate of Title for the subject lot at planning condition clearance (working drawings) stage, to the satisfaction of DevelopmentWA, alerting prospective purchasers that the land is situated in the vicinity of a transport corridor. (Refer Advice Note r)

20. The landowner is to provide consent to a section 70A notification pursuant to the Transfer of Land Act 1893 being lodged with the Registrar of Titles for endorsement on the Certificate of Title for the subject lot at the planning condition clearance (working drawings) stage, to the satisfaction of DevelopmentWA, alerting prospective purchasers that the land is located within an urban mixed use precinct and may be affected by higher levels of activity, noise, light, traffic and late hours of operation within public and private areas than that normally associated with a typical residential area. (Refer Advice Note s)

21. A Lighting Strategy, detailing how the lighting of the building exterior and ground floor public areas enhances building features, amenity and security, is to be submitted at planning condition clearance (working drawings) stage, and implemented thereafter to the satisfaction of DevelopmentWA in consultation with the City of Perth. (Refer Advice Note t)

22. A final Sustainable Design Assessment Report demonstrating the proposal has been designed to achieve a minimum 5 Star Green Star rating in accordance with Development Policy 1 – Green Building is to be submitted at planning conditions clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note u)

23. A report detailing certification or evidence that the building has achieved the required 5 Star Green Star rating, is to be submitted following practical completion, to the satisfaction of DevelopmentWA.

24. Windows and glazed areas are not to be provided with dark or reflective tinting, visually obtrusive signage, obscured glazing or roller shutters, details of which are to be provided at planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note v)

25. All service areas, service related hardware and piped or wired services (such as car park gates, plant areas, fire booster cabinets, service meters, exhaust systems and air-conditioning units) are to be designed as an integral component of the development or screened from public view, to minimise any detrimental impact on the architectural quality of the building and the public realm, details of which are to be provided at planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA. (Refer Advice Note w)

26. A Dilapidation Survey of the footpaths, kerbs, roads, buildings and open space areas within the immediate locality surrounding the site is to be provided at planning condition clearance (working drawings) stage to the satisfaction of DevelopmentWA in consultation with the City of Perth. Any damage caused to the footpaths, kerbs, roads, drainage infrastructure and open space areas adjacent to the site is to be made good at the applicant's expense prior to occupation of the development, to the satisfaction of DevelopmentWA, in consultation with the City of Perth.

27. Crossovers, driveways, car parking, vehicle manoeuvring spaces, circulation areas and loading/unloading areas are to be constructed, sealed, kerbed, marked, drained and maintained in accordance with the approved plans, prior to occupation, to the satisfaction of DevelopmentWA in consultation with the City of Perth. (Refer Advice Note x)

28. All exposed parapet walls and walls adjacent to existing or proposed boundaries are to be finished to the same standard as the remainder of the development, to the satisfaction of DevelopmentWA. (Refer Advice Note y)

29. An Operational Management Plan is to be submitted prior to occupation and implemented thereafter to the satisfaction of DevelopmentWA, in consultation with the City of Perth (Refer to Advice Note z)

30. An Electrical Design Report prepared by a suitably qualified professional is to be provided prior to the commencement of construction and implemented for the duration of the development, to the satisfaction of DevelopmentWA in consultation with the Public Transport Authority**.** (Refer to Advice Note aa)

31. Confirmation that the proposed development does not unduly impact on Perth Airport’s Communication, Surveillance and Navigation Facilities, is to be provided at planning condition clearance (working drawings) stage, to the Satisfaction of DevelopmentWA, in consultation with Air Services Australia. (Refer Advice Note bb)

32. The Specific Purpose Accommodation land use is limited to student accommodation.

33. The development must be substantially commenced within four (4) years from the date of this approval, to the satisfaction of DevelopmentWA. Where an approval has so lapsed, no development shall be carried out without the further approval of DevelopmentWA having first been sought and obtained. (Refer to Advice Note cc)

RECOMMENDED ADVICE NOTES:

a. With regard to Condition 1, a covering letter, final working drawings (digital) and a material samples board are to be submitted to DevelopmentWA prior to an application being made to the City of Perth for a building permit and must be cleared prior to the commencement of any works on site. Working drawings are to comply with all of the above conditions and any variations from the approved drawings and documentation are required to be clearly identified.

   In accordance with section 62(3) of the *Metropolitan Redevelopment Authority Act 2011* no works are to be undertaken prior to obtaining development approval or in contravention of any condition to which the approval is subject.

   Following satisfactory assessment of the working drawings, DevelopmentWA will provide a clearance letter and a digital copy of the plans to the City of Perth to enable building permit assessment.

b. With regard to Condition 2, information of external colours and finishes, including specifications and samples, are to be provided for all external elevations, demonstrating a well resolved high-quality materials palette for the whole project, which has been further detailed and/or enhanced from the development application stage through to the final constructed outcome.

c. With regards to Condition 3, all development and works shown outside of the lot boundaries do not form part of the approval and are subject to separate application/s for approval by the DevelopmentWA and/or City of Perth, with detailed design plans being submitted for any civil and landscape modifications fronting the site, with these works being constructed by the applicant at their cost.

d. With regard to Condition 5, should the applicant confirm that resident access to the underlying soil will not be available, no further investigations or remediation of the site is required. In the event that resident access to the underlying soil will be available, investigations are to be in accordance with regulation 31(1)(c) of the *Contaminated Sites Regulations 2006*. A mandatory auditor's report, prepared by an accredited contaminated sites auditor is to be provided. A current list of accredited auditors is available from www.dwer.wa.gov.au.

e. With regard to Condition 6, remediation is to be carried out in compliance with the *Contaminated Sites Act 2003* and current Department of Water and Environmental Regulation contaminated sites guidelines.

f. With regard to Condition 7, the Construction Management Plan should detail how construction works will be managed to minimise impacts on the public realm and nearby commercial and residential areas by addressing the following matters, which are to address all phases of development including demolition and construction:
   i. a staging plan detailing the delivery timing coordinated with any public realm works by DevelopmentWA or the City of Perth in the surrounding public realm;
   ii. site huts and staff amenities;
   iii. high quality fencing/hoarding used to secure the site and associated signage;
   iv. work hours;
   v. truck routes, layover areas and site access plan;
   vi. parking arrangements for contractors and subcontractors;
   vii. noise and vibration management;

viii. control of sand, dust and erosion;
ix. dewatering and storm water management;
x. materials delivery, storage and collection and waste management;
xi. protection of all street trees during the construction process;
xii. any road, footpath or cycle path closures, associated impacts on traffic, pedestrian and cyclist movement and alternate paths of travel;
xiii. a Consultation Plan, which identifies how stakeholders and affected landowners will be notified of any construction impacts including details of complaint resolution procedures;
xiv. procedure for addressing unexpected finds (contamination, unexploded ordinances, etc.);
xv. Details of proposed crane operations, including exclusion zones, control measures, and engineering documentation, including demonstrating that tower cranes are not to be permitted to sail over the Public Transport Authority rail reserve, including as a result of free-slewing during periods of non-use;
xvi. Confirmation that approval has been obtained from the Public Transport Authority for works in and around and operating railway corridor in accordance with the Public Transport Authority's Procedure *8810-450-003 – Working In and Around the PTA Rail Corridor, Assets and Infrastructure;* and
xvii. Confirmation that approval has been obtained from Perth Airport via an application made to Perth Airport's Protected Airspace Assessment Tool (PAAT) for the erection of a crane on the subject site during both construction and operation of the subject site in accordance with the *Airports (Protection of Airspace) Regulations 1996 (C'th)*.

g. With regard to Condition 8, the Car Parking and Traffic Management Plan should include details on the following, and be reflected in the working drawings and be informed and supported by the final Transport Impact Assessment:
   i. provision of adequate sightlines at the crossover to ensure safe movement of pedestrians and vehicles;
   ii. vehicle access is to comply with AS2890.1;
   iii. bicycle parking and end of trip facilities are designed in accordance with Section 4.1.2 of the Perth City Link Design Guidelines;
   iv. identification and management of ACROD bays in accordance with AS 2890.6;
   v. the dimensions and numbering of all car parking bays, loading bays, vehicle entrances, crossovers, aisle widths and circulation areas complying with Australian Standard (AS) 2890.1, AS2890.2, AS2890.3 and AS/NZS2890.6;
   vi. identification of clear, safe and accessible pedestrian paths through car parking and delivery areas; and
   vii. Identification and management of loading bays to ensure they are used for loading purposes.

   The maximum number of parking spaces approved on the site is:
   - four (4) tenant (non-residential) parking bays;
   - four (4) motorcycle bays;
   - one (1) ACROD bay;
   - one (1) loading bay.

h. With regard to Condition 9, the applicant is advised to liaise with the City of Perth regarding on-site stormwater disposal and management.

i. With regard to Condition 10, the Waste Management Plan is to comply with the City of Perth standards in regard to waste, and local Government Waste Management Plan Guidelines, The City of Perth has requested the Waste Management Plan be updated to address the following matters:
    i. swept path analysis for waste vehicles, including an accurate scale, entry/exit arrangements and 3 metre clearance at servicing points.
    ii. location, dimensions and capacities of waste storage areas, with the furthest bin no more than 10m from the collection vehicle.
    iii. locations of taps and servicing infrastructure clearly shown on drawings.
    iv. waste generation rates aligned with the Waste Guidelines for Development 2019 – Accommodation (per 100m²).
    v. calculations supporting all waste volumes, including compactor use, with bin estimates.
    vi. procedures for compacted waste collection ensuring compliance with weight limits and bin safety.

j. With regard to Condition 11, the wind assessment should include a detailed wind tunnelling analysis. The wind amelioration strategies are to be integrated into the final building design, detailing and function. The use of wind break 'add-ons' such as screens and physical barriers are typically not supported as these are considered to obstruct visual and physical permeability of the public realm and limit the integration and activation of the ground floor land uses.

k. With regard to Condition 12, Development Policy 4 – Providing Public Art requires the provision of public art with a minimum value of $1.1million based on the estimated the construction cost of $170million. Contributions may be either provided as public art or cash-in-lieu paid into the Central Perth public art fund.

    In accordance with the Providing Public Art Policy, a Public Art Report is to be submitted and approved by DevelopmentWA and is to include design documentation, detailed plans of the artwork, cost calculations, public liability insurance (as applicable) and maintenance details. The artwork(s) are to be consistent with DevelopmentWA's public art strategy for the relevant Project Area or Precinct, where applicable. The applicant is encouraged to discuss the approach to public art with DevelopmentWA's Urban Design Directorate.

l. With regard to Condition 13, the Signage Strategy should provide a plan of all proposed external signage, including location and dimensions, demonstrating that such signage will be complementary to the architectural design of the building and not obscure architectural detail and materiality in accordance with DevelopmentWA's Development Policy 6 – Signage, and the Perth City Link Design Guidelines.

m. With regard to Condition 14, the CPTED Report should address the safety of publicly accessible and communal areas of the development including the pedestrian links and vehicle laneways, as well as CCTV locations and management. The CPTED Statement should inform the final Landscape Plan and Lighting Strategy.

n. With regard to Condition 15, the development should comply with the requirements of Part D3 of the Building Code of Australia (Access for People with Disabilities), Australian Standard 1428.1 and the *Disability Discrimination Act 1992*.

o. With regard to Condition 16, the Landscape Plan should provide details of the following:
    i. planting and tree selections, including suitability to Perth's climate and proposed locations, including planing on strucutre;

ii. specified plant numbers, species, location, size and time of planting, including provision of mature trees;
iii. paving selections;
iv. irrigation/reticulation details and watering regime;
v. maintenance schedule and responsibilities;
vi. layout, function and integration of communal open spaces within the development to ensure they are useable;
vii. management strategy for communal spaces;
viii. street furniture;
ix. details of any shade structures; and
x. clarification if there will be resident access to underlying soils.

The applicant is advised to liaise with the City of Perth to ensure the integration of paving materials and landscaping between the public and private realm and the consideration of ongoing maintenance requirements.

p. With regard to Condition 17, the Acoustic and Vibration Report should identify the location and extent of impact of all noise and vibration sources and confirm that the design of the building will achieve an appropriate level of attenuation, in accordance with Development Policy 3 – Sound and Vibration Attenuation. In particular, the Acoustic and/or Vibration Report should address:
   i. potential noise impacts from adjacent uses including traffic, entertainment and recreational activity in the vicinity and events associated with the Northbridge Entertainment Precinct, Rail Corridor and Mitchell Freewayt; and
   ii. confirmation of the mitigation strategies and treatments to be implemented into the design and operation of the building; and
   iii. mechanical service systems (such as exhaust systems and air-conditioning) are to be selected, designed and located to prevent emitted noise levels from exceeding the relevant decibel levels as provided by the Environmental Protection (Noise) Regulations 1997.

q. With regard to Condition 18, the certification submitted at practical completion stage should include results of on-site testing to confirm appropriate levels of sound/vibration attenuation/mitigation have been achieved.

r. With regard to Condition 19, the recommended wording for the notification on the title is:

   "The land is in close proximity/within a transport corridor and is currently affected, or may in the future be affected by transport noise, vibration and/or future development and construction restrictions."

s. With regard to Condition 20, the recommended wording for the notification on the title is:

   "Factor Affecting Use or Enjoyment
   The land is located within a mixed use precinct that features a non-uniform and dynamic mix of residential, office, commercial, hospitality and entertainment land use and development of various size; scale; intensity; operating hours; height above ground level; vehicular and pedestrian traffic generation; noise, light and odour generation. The singular or cumulative effect of this land use and development generally results in an amenity that differs from a typical suburban residential environment. Proprietors and prospective proprietors should expect, within legal limits, high levels of activity, light, noise, traffic and late hours of operation within public and private areas."

t. With regard to Condition 21, the Lighting Strategy should address:
   i. include a plan which illustrates how the building will be illuminated to highlight architectural elements, to provide an attractive building at night;
   ii. demonstrate how lighting and safe access will be provided between the development and the public realm and within loading areas and pedestrian pathways; and
   iii. be designed to comply with Australian Standard 1158 (Public Lighting Code) and Australian Standard 4282 (Control of the Effects of Outdoor Lighting) in order to ensure that any nuisance light to adjoining properties and to passing vehicular traffic are controlled to an acceptable level.

u. With regard to Condition 22, Development Policy 1 – Green Building requires new buildings on a Tier 2 site to be designed and built to achieve a minimum 5 Star Green Star rating from the Green Building Council of Australia (GBCA). Where an alternative rating system to Green Star is proposed, the applicant should demonstrate that the rating system and the design of the development is equivalent to or better than the GBCA 5 Star Green Star rating.

   The final Sustainable Design Assessment Report is required to confirm that the proposal demonstrates a “whole of building” approach to sustainable design, embedding all initiatives detailed in the preliminary report into the design. Any revisions to the targets of the preliminay assessment is required to address, as a minimum, water efficiency and water reduction strategies, energy efficiency and energy efficient fixtures and appliances, and a naturally comfortable indoor environment including natural ventilation and thermal comfort levels.

v. With regard to Condition 24, protection of windows from the sun or privacy screening, should be achieved through architectural devices, passive solar design and appropriate glazing specifications, rather than through reflective glazing or coatings. Glazing on all lower levels should be transparent, ensuring a high level of visible indoor activity and passive surveillance of the public realm is maintained in accordance with the Perth City Link Design Guidelines.

w. With regard to Condition 25, services and service related infrastructure includes but is not limited to all piped and wired services, car parking areas and associated ventilation, roof plant / plant areas, bin storage areas, service meters and related infrastructure, fire booster cabinets, exhaust systems, air-conditioning units, antennae and satellite dishes.

   Fire booster hydrants and service meter boxes should be designed, located, oriented and finished to minimise any visual impact on the adjacent streetscape and maximise visual interaction between the development and the street. The applicant is advised to liaise with service authorities to rationalise and consolidate service infrastructure, where possible.

x. With regard to Condition 27, all internal and external car bay dimensions, ramps, crossovers, driveways and circulation aisles should be constructed in accordance with Australian Standard AS 2890.1 and the City of Perth parking design and access requirements. Disabled bays are to comply with Australian Standard AS 2890.6. Bicycle parking is to comply with AS 2890.3.

   The applicant/owner is advised that the removal of public realm landscaping, including street trees, on Telethon Avenue does not form part of this approval. Approval for street tree removal to facilitate vehicle access must be obtained from the City of Perth in accordance with the City of Perth Tree Protection Policy Management

Guidelines and provided to DevelopmentWA prior to the submission of working drawings.

A separate crossover approval from the City of Perth is required. Please contact the City of Perth'sTechnical Services to ensure the appropriate crossover application is made.

y. With regard to Condition 28, boundary walls are to be finished to the same standard as the remainder of the development to ensure an appropriate outlook from the public realm and the adjoining lots. The pattern and finish on the precast parapet wall panels is to be of a high quality commensurate with the level of design quality required for the whole project.

z. With regard to Condition 29, the Operational Management Plan should include details of the following:
   - Student Accommodation Provider Roles & Responsibilities;
   - Number of staff, operating hours and contact details;
   - Management of vehcile access, including for service and delivery vehicles;
   - Resident move-in and move-out logistics;
   - Management and operation of communal open spaces and communal facilities;
   - protocols for addressing building issues, including after-hours, security measures and incident response procedures (security incidents and evacuation plans); and
   - Information packs for staff, residents and visitors to encourage and support access to/from the site by non-car modes including identification of major public transport routes and identification of major pedestrian and bicycle routes and how to access these routes from the site.

aa. With regard to Condition 30, PTA infrastructure includes systems that may produce electromagnetic field (EMF) interference and stray electrical currents. The Electrical Design Report shall demonstrate how the development will address electromagnetic field (EMF) shielding and electrical separation in accordance with Public Transport Authority standards.

bb. With regard to Condition 31, Airservices Australia is required to undertake an assessment of the proposal in accordance with the *Airports (Protection of Airspace) Regulations 1996 (C'th*). The applicant is also advised:
   i. The development, including any ancillary structures such as roof-based plant or antennae, shall not exceed a maximum elevation of 128m AHD.
   ii. The owner/applicant is to notify the Civil Aviation Safety Authority (CASA) of the building/obstacle via the Vertical Obstruction Data (VOD) Form, with Perth Airport copied in to the correspondence.

cc. With regard to Condition 33, should the development not be substantially commenced within the period specified, the approval shall no longer be valid and no development shall be undertaken without further approval of DevelopmentWA having first been sought.

dd. The Department of Water and Environmental Regulation advises the following:
   i. Acid sulfate soils (ASS) risk mapping indicates that the site is located within an area identified as representing a high to moderate risk of ASS occurring within 3 metres of the natural soil surface. Please refer to Department of Water and Environmental Regulation's acid sulfate soil guidelines for

information to assist with the management of ground and/or groundwater disturbing works. https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines

ee. Water Corporation advises the following:

i. Any works carried out in proximity to Water Corporation Assets must receive prior approval by applying for an Asset Protection Risk Assessment (APRA). To assess whether the proposed development will require and APRA details of the Prescribed Proximities and relevant legislation are available in our guidelines.

ii. The applicant is required to submit a Commercial/Multi Residential Application (Mixed Use) by using Water Corporations online portal BuilderNet.

iii. Wastewater Reticulated sewerage is available to the subject lot. Any portion of the proposed building which is within the zone of influence to sewer main may require suitable footings in accordance with our technical guidelines. Please refer to our website: www.watercorporation.com.au/Developing-and-building/Working-near-assets.

ff. ATCO advises the following:

i. ATCO Gas Australia (ATCO) has critical high pressure natural gas pipeline located within the road reserve adjacent to application/development boundary.

ii. The proposed facility/development is classified as a sensitive/high density land use and is within the notification trigger distance outlined in the WAPC Draft Development Control Policy DC4.3 for ATCO High-Pressure Gas Pipelines. Please consider the WAPC's draft DC4.3 Planning for High Pressure Gas Pipelines and site PlanWA.

iii. Prior to commencing any construction, access roads, road upgrades or excavation works, the proponent should contact 'Before You Dig Australia' (www.byda.com.au) to locate any buried gas infrastructure. For detailed procedural guidance and safety protocols refer to the ATCO publication titled atco-additional-Information-for-working-gas-infrastructure.pdf, accessible online.

iv. All works within this location require an ATCO Critical Asset notification to be submitted via the ATCO Australia online web portal and an Engineering Assessment to identify if additional safety, risk migration, or asset protection measures may be required, pending the complexity of the work and proximity to the gas infrastructure.

gg. The Public Transport Authority advises the following:

i. Prior to the application of a building permit, the applicant/owner must obtain approval from the Public Transport Authority (PTA) for works in and around an operating rail corridor in accordance with the PTA Document 8810-450-003 – Working in and Around the PTA Rail Corridor, Assets and Infrastructure, to the satisfaction of the PTA and thereafter implemented in full at the expense of the applicant/owner

ii. Prior to the application of a building permit, the applicant/owner must ensure that any structural element (including but not limited to rafts, slabs, plinths, and columns) located within 1.0 m of a Public Transport Authority (PTA) asset is designed to achieve a minimum 100-year durability design life. A design life memorandum confirming compliance must be submitted to the PTA prior to works commencing on each relevant structural element, to the satisfaction of the PTA and thereafter implemented in full.

iii. Prior to the application of a building permit, the applicant/owner must demonstrate that where rafts, piles, cores or any other structural elements

transfer wind, earthquake or soil pressure loads to an existing Public Transport Authority (PTA) asset, the design must demonstrate that the asset remains within allowable stress, movement, and settlement limits under IL4 level loads and 100-year design life limits. Documentation confirming compliance must be submitted prior to commencement of the affected works, to the satisfaction of the PTA and thereafter implemented in full at the cost of the applicant/owner.

iv. Prior to the application of a building permit, a landscaping plan and a letter or statement from a suitably qualified landscaping professional (e.g, a landscape architect or arborist) must be submitted to the Public Transport Authority (PTA) confirming that the proposed landscaping poses no risk of root intrusion, causing impact to tunnel waterproofing, concrete durability or other structural damage.