

9.1 NOS. 107 - 109 (LOTS: 1 - 2; S/P: 1896) SUMMERS STREET, PERTH - PROPOSED SIX GROUPED DWELLINGS

Ward: South

- Attachments:**
1. Consultation and Location Map
 2. Final Development Plans
 3. Environmentally Sustainable Design Report
 4. Urban Design Study
 5. Superseded Development Plans
 6. Summary of Submissions - Administration's Response
 7. Summary of Submissions - Applicant's Response
 8. Determination Advice Notes

RECOMMENDATION:

That Council, in accordance with the provisions of the City of Vincent Local Planning Scheme No. 2 and the Metropolitan Region Scheme, **APPROVES** the development application for Six Grouped Dwellings at Nos. 107 – 109 (Lots: 1 - 2; S/P: 1896) Summers Street, Perth in accordance with the plans in Attachment 2, subject to the following conditions, with the associated determination advice notes in Attachment 8:

1. Development Plans

This approval is for Six Grouped Dwellings as shown on the approved plans dated 20 July 2022. No other development forms part of this approval;

2. Boundary Walls

The surface finish of boundary walls facing an adjoining property shall be of a good and clean condition, prior to the occupation or use of the development, and thereafter maintained, to the satisfaction of the City. The finish of boundary walls is to be fully rendered or face brick, or material as otherwise approved, to the satisfaction of the City;

3. External Fixtures

All external fixtures, such as television antennas (of a non-standard type), radio and other antennae, satellite dishes, solar panels, external hot water heaters, air conditioners, and the like, shall not be visible from the street(s), are designed integrally with the building, and be located so as not to be visually obtrusive to the satisfaction of the City;

4. Visual Privacy

4.1 Prior to occupancy or use of the development, all privacy screening shown on the approved plans shall be installed and shall be visually impermeable and is to comply in all respects with the requirements of Clause 5.4.1 of the Residential Design Codes (Visual Privacy) deemed-to-comply provisions, to the satisfaction of the City; and

4.2 Prior to occupancy or use of the development, permanent fixed cabinetry no less than 600 millimetres in width shall be provided against the western wall of the 'Kitchen' of Unit 6, to the satisfaction of the City;

5. Colours and Materials

5.1 Prior to first occupation or use of the development, the colours, materials and finishes of the development shall be in accordance with the details and annotations as indicated on the approved plans which forms part of this approval, and thereafter maintained, to the satisfaction of the City; and

5.2 The metre boxes are to be painted the same colour as the wall they are attached so as to not be visually obtrusive, to the satisfaction of the City;

6. Landscaping

6.1 All landscaping works shall be undertaken in accordance with the approved plans dated 20 July 2022, prior to the occupancy or use of the development and maintained thereafter to the satisfaction of the City; and

6.2 Prior to the first occupation of the development, the redundant or “blind” crossovers shall be removed, the verge area landscaped and the kerb made good to the City’s specifications and to the satisfaction of the City, at the applicant/owner’s full expense;

7. Stormwater

Stormwater from all roofed and paved areas shall be collected and contained on site. Stormwater must not affect or be allowed to flow onto or into any other property or road reserve;

8. Sight Lines

No walls, letterboxes or fences above 0.75 metres in height to be constructed within 1.5 metres of where:

- Walls, letterboxes or fences adjoin vehicle access points to the site; or
- A driveway meets a public street; or
- Two streets intersect;

Unless otherwise approved by the City of Vincent;

9. Car Parking and Access

9.1 The layout and dimensions of all driveways and parking areas shall be in accordance with AS2890.1;

9.2 All driveways, car parking and manoeuvring areas which form part of this approval shall be sealed, drained, paved and line marked in accordance with the approved plans prior to the first occupation of the development and maintained thereafter by the owner/occupier to the satisfaction of the City;

9.3 Prior to the occupation or use of the development, one visitor parking bay shall be permanently marked, maintained and legally accessible at all times for use exclusively by visitors to the property, be clearly visible or suitably sign posted from the street or communal driveway and be located, together with the reversing area, in front of any security gates or barrier for the development unless otherwise approved by the City; and

9.4 No goods or materials being stored, either temporarily or permanently, in the parking or landscape areas or within the access driveways. All goods and materials are to be stored within the buildings or storage yards, where provided;

10. Construction Management Plan

A Construction Management Plan shall be lodged with and approved by the City prior to issue of a building permit. This plan is to detail how construction will be managed to minimise disruption in the area and shall include:

- Storage of materials and equipment on site;
- Parking arrangements for contractors and sub-contractors;
- The impact on traffic movement;
- Notification to affected land owners; and
- Construction times.

The approved Construction Management Plan shall be complied with for the duration of the construction of the development; and

11. Noise Attenuation Requirements

11.1 Prior to the issue of a building permit a detailed Noise Management Plan must be submitted to and approved by the City which demonstrates that the development has been designed to meet the relevant requirements of State Planning Policy 5.4 'Road and Rail Transport Noise and Freight Considerations in Land Use Planning' (SPP5.4). The report must be prepared by a suitably qualified and competent person in accordance with the SPP5.4; and

11.2 Prior to occupation or use of the development, the development shall incorporate all noise mitigation measures as outlined in the noise management plan or quiet house design package, to the satisfaction of the City.

PURPOSE OF REPORT:

To consider an application for development approval for six grouped dwellings at Nos. 107 – 109 Summers Street, Perth (the subject site).

PROPOSAL:

The application proposes the construction of six grouped dwellings. Each dwelling is four-storeys in height and contain three-bedrooms and two-bathrooms. Unit 1 would address Summers Street, while Units 2 to 6 would face the internal communal street.

Each dwelling is proposed to have a double garage accessed from the communal street. One visitor car parking bay and four visitor bicycle parking bays are provided to the front of the subject site in common property.

The subject site currently contains two existing grouped dwellings fronting Summers Street, which would be demolished.

The proposed development plans have been included as **Attachment 2**. The applicant's supporting documentation including an Environmentally Sustainable Design Report and Urban Design Study are included in **Attachment 3** and **Attachment 4**, respectively.

BACKGROUND:

Landowner:	Tho Quang Lam
Applicant:	Urbanista Town Planning
Date of Application:	29 November 2021
Zoning:	MRS: Urban LPS2: Residential R Code: R80
Built Form Area:	Residential
Existing Land Use:	Grouped Dwellings
Proposed Use Class:	Grouped Dwellings
Lot Area:	1014m ²
Right of Way (ROW):	No
Heritage List:	No

Site Context and Zoning

The subject site is bound by Summers Street to the north, a three storey grouped dwelling development to the west and commercial development (Child Care Premises) to the east. Commercial development which primarily include warehouse developments and vacant land are located to the south along Cheriton Street. A copy of the location plan is provided as **Attachment 1**.

The subject site and adjoining properties to the north, east and west are zoned Residential R80 under the City's Local Planning Scheme No.2 (LPS2). They are also within the Residential Built Form Area with a

building height standard of four storeys under the City's Policy No. 7.1.1 – Built Form (Built Form Policy). Adjoining properties to the south are zoned Mixed Use R100 under LPS2 and are located within the Mixed Use Built Form Area with a building height standard of 12 storeys under the Built Form Policy.

The surrounding development context is undergoing transition, consisting of a mix of residential and commercial developments with differing intensities. A summary of the surrounding context is provided below:

- Lord Street is located to the western end of Summers Street where there are several commercial and mixed-use developments with building heights up to six storeys;
- East of Claisebrook Road, Summers Street largely contains single-storey single houses and multiple-storey grouped dwelling developments, with some commercial premises;
- The East Perth Train Station is located to the eastern end of Summers Street, including the station itself, railway infrastructure, car parking and the Public Transport Centre;
- The development context to the south and south-west along Claisebrook Road and Cheriton Street include a mix of single and multiple storey warehouse and office developments; and
- Proposed new footbridge connecting to the East Perth Power Station Redevelopment.

Subdivision

At the time of assessment, a subdivision application has not been lodged with or approved by the Western Australian Planning Commission (WAPC) to accommodate the proposed six grouped dwellings. The applicant has confirmed that a subdivision application would be lodged with the WAPC following development approval.

DETAILS:

Summary Assessment

The table below summarises the planning assessment of the proposal against the provisions of the City of Vincent LPS2, the City's Built Form Policy and the State Government's Residential Design Codes – Volume 1 (R Codes). In each instance where the proposal requires the discretion of Council, the relevant planning element is discussed in the Detailed Assessment section following from this table.

Planning Element	Deemed-to-Comply	Requires the Discretion of Council
Street Setback		✓
Front Fence	✓	
Building Setbacks/Boundary Wall		✓
Building Height/Storeys	✓	
Open Space	✓	
Outdoor Living Areas		✓
Landscaping (R Codes)		✓
Privacy		✓
Parking & Access		✓
Solar Access	✓	
Site Works/Retaining Walls		✓
Essential Facilities	✓	
External Fixtures	✓	
Surveillance	✓	
Outbuildings	✓	

Detailed Assessment

The Built Form Policy and R Codes have two pathways for assessing and determining a development application. These are through design principles and local housing objectives, or through deemed-to-comply standards.

Design principles and local housing objectives are qualitative measures which describe the outcome that is sought rather than the way that it can be achieved.

The deemed-to-comply standards are one way of satisfactorily meeting the design principles or local housing objectives and are often quantitative measures.

If a planning element of an application meets the applicable deemed-to-comply standard/s then it is satisfactory and not subject to Council's discretion for the purposes of assessment against the Built Form Policy and R Codes.

If a planning element of an application does not meet the applicable deemed-to-comply standard/s then Council's discretion is required to decide whether this element meets the design principles and local housing objectives.

The planning elements of the application that do not meet the applicable deemed-to-comply standards and require the discretion of Council are as follows:

Street Setback	
Deemed-to-Comply Standard	Proposal
<p>Built Form Policy Volume 1 Clause 5.1</p> <p><u>Street Setback</u> 5.3 metre street setback required</p> <p><u>Upper Floors</u> Walls on upper floors setback a minimum of 2 metres behind the ground floor predominant building line (GF guest/home office)</p> <p><u>Balconies</u> Balconies on upper floors setback a minimum of 1 metre behind the ground floor predominant building line (GF guest / home office)</p>	<p><u>Street Setback</u> 4.7 metre minimum street setback provided</p> <p><u>Upper Floors</u> Unit 1 Lift Shaft (all floors) is setback 0.4 metres behind the GF guest / home office</p> <p>Unit 1 second, third and fourth floor walls are setback a minimum of 1.4 metres behind the GF guest/home office</p> <p><u>Balconies</u> Unit 1 second floor balcony is setback 0.2 metres behind the GF guest/home office</p> <p>Unit 1 third floor balcony projects 0.1 metres forward of the GF guest/home office</p>
Lot Boundary Walls & Lot Boundary Setbacks	
Deemed-to-Comply Standard	Proposal
<p>Built Form Policy Volume 1 Clause 5.2</p> <p><u>Lot boundary walls</u></p> <ul style="list-style-type: none"> • Located behind the street setback area • 3.5 metre maximum height <p>R Codes Clause 5.1.3</p> <p><u>Lot boundary setbacks</u></p> <p><i>East</i></p> <ul style="list-style-type: none"> • 3F Unit 2 – Unit 5 Balcony: 7.3 metres <p><i>West</i></p> <ul style="list-style-type: none"> • GF Unit 2 - Unit 3 Home Office: 1.5 metres • GF Unit 4 – Unit 5 Home Office: 1.5 metres • 3F Unit 6 Powder to Study: 4.6 metres • 3F Unit 1 Lift to Unit 6 Kitchen: 4.3 metres <p><i>South</i></p> <ul style="list-style-type: none"> • 3F Unit 6 Balcony – Kitchen 2.1 metres • 3F Unit 6 Sitting – Bed 3: 1.7 metres 	<p><u>Lot boundary walls</u></p> <p><i>West</i></p> <ul style="list-style-type: none"> • GF Unit 1 guest/home office to ensuite wall is proposed within the street setback area • GF Unit 6 store to ensuite boundary wall proposes a height of 3.6 metres <p>R Codes Clause 5.1.3</p> <p><u>Lot boundary setbacks</u></p> <p><i>East</i></p> <ul style="list-style-type: none"> • 3F Unit 2 – Unit 5 Balcony: 5 metres <p><i>West</i></p> <ul style="list-style-type: none"> • GF Unit 2 – Unit 3 Home Office: 1.2 metres • GF Unit 4 – Unit 5 Home Office: 1.2 metres • 3F Unit 6 Powder to Study: 3.4 metres • 3F Unit 1 Lift to Unit 6 Kitchen: 4.1 metres <p><i>South</i></p> <ul style="list-style-type: none"> • 3F Unit 6 Balcony – Kitchen: 1.6 metres • 3F Unit 6 Sitting – Bed 3: 1.6 metres

<p><i>Fourth Floor</i> There are no deemed-to-comply setbacks for residential development with wall heights greater than 10 metres under the R Codes, which would apply to the fourth floor of each unit.</p> <p>A design principle assessment is required for these setbacks.</p>	<p><i>Fourth Floor</i> <i>West</i> 4F Unit 1 – Unit 6 Foyers: 4.1 metre minimum</p> <p><i>East</i> 4F Unit 1 – Unit 6 Bed 1: 6.6 metre minimum</p> <p><i>South</i> 4F Unit 6: 1.6 metre minimum</p>
Outdoor Living Areas	
Deemed-to-Comply Standard	Proposal
<p>R Codes Clause 5.3.1</p> <p><u>Minimum Dimension</u> Primary outdoor living areas to have a minimum dimension of 4 metres</p> <p><u>Uncovered Area</u> Two-thirds (10.66 square metres) of each outdoor living area to be uncovered</p>	<p><u>Minimum Dimension</u> Unit 1 balcony - 2.1 metres Unit 2 balcony - 2.7 metres Unit 3 balcony - 2.7 metres Unit 4 balcony - 2.7 metres Unit 5 balcony - 2.7 metres Unit 6 balcony - 1.6 metres</p> <p><u>Uncovered Area</u> Unit 2 - 5.6 square metres Unit 3 - 5.6 square metres Unit 4 - 5.6 square metres Unit 5 - 6.2 square metres</p>
Landscaping	
Deemed-to-Comply Standard	Proposal
<p>R Codes Clause 5.3.2</p> <p><u>Hardstand Areas</u> 50 percent (53.3 square metres) hardstand areas permitted in the front setback</p> <p><u>Tree Planting</u> 2m by 2m tree planting area shall be provided to each dwelling</p>	<p><u>Hardstand Areas</u> 56.1 percent (66.03 square metres) hardstand surfaces in front setback</p> <p><u>Tree Planting</u> 1.5m by 2m tree planting area provided for Unit 2 – Unit 5</p>
Parking	
Deemed-to-Comply Standard	Proposal
<p>R Codes Clause 5.3.3</p> <p>2 on-site visitor bays required</p>	<p>1 on-site visitor bay provided</p>
Site Works and Retaining	
Deemed-to-Comply Standard	Proposal
<p>R Codes Clause 5.3.7</p> <p>Where retaining walls and fill exceed 0.5 metres, they should be setback 1 metre from the lot boundary</p>	<p><u>Site works</u> <i>South</i> 0.55 metres maximum fill with a nil setback to the lot boundary</p> <p><i>East</i> 0.66 metres maximum fill with a nil setback to the lot boundary</p> <p><u>Retaining Walls</u> <i>East</i> 0.6-metre-high retaining wall with a nil setback to the lot boundary</p>

Visual Privacy	
Deemed-to-Comply Standard	Proposal
R Codes Clause 5.4.1	
4.5 metre cone of vision required for kitchen, living and dining rooms	<i>West</i> Unit 6 – Third Floor – Kitchen: 4.0 metres

The above elements of the proposal do not meet the specified deemed-to-comply standards. These planning elements have been assessed against the design principles and local housing objectives in the comments section below.

CONSULTATION/ADVERTISING:

Community consultation was undertaken for the plans as originally lodged and included as **Attachment 5** in accordance with the *Planning and Development (Local Planning Schemes) Regulations 2015* for a period of 14 days from 15 March 2022 to 28 March 2022. Community consultation was undertaken by way of written notification with 70 letters being sent to surrounding landowners and occupiers, as shown in **Attachment 1** and a notice on the City's website in accordance with the City's Community and Stakeholder Engagement Policy.

The advertising radius was extended to include all properties accessed from Summers Street between Claisebrook Road and West Parade because a visitor parking bay shortfall is proposed which may affect a greater area than just the immediately adjoining properties.

Five submissions were received at the end of first consultation period, including four in objection and one in support.

Amended plans were prepared by the applicant which resulted in the following changes:

- Increase to storeroom dimensions to meet compliance;
- Screening of Unit 1 balcony to the west for compliant visual privacy;
- Balconies to Units 2 - 5 increased by 0.6 metres in size and setbacks to the eastern boundary reduced;
- Additional grey cladding and face brick materiality to eastern elevation (internal driveway);
- Grey cladding introduced to western elevation; and
- Updated landscaping plan with additional deep soil planting.

As a number of changes to the development outcome were made through amended plans, in accordance with the City's Community and Stakeholder Engagement Policy the proposal was re-advertised for a 14 day period from 10 June 2022 to 24 June 2022. Notification letters were sent to the extended consultation radius between Claisebrook Road and West Parade and all previous submitters.

Three submissions were received at the end of the second consultation period, two in objection and one in support.

A summary of the comments provided across both consultation periods are summarised below.

Comments in support of the proposal:

- The introduction of high-quality, well-maintained housing in this street and the local area would be welcomed; and
- Support the introduction of increased density.

Comments in objection of the proposal:

- Setbacks proposed do not meet the standards and would have an adverse impact on neighbouring development;
- The height of the building is not in keeping with the neighbouring buildings and should be three storeys;
- Four storey height of the building would result in additional shadow and loss of adequate ventilation to neighbouring properties;

- Acoustics from the location and orientation of the balconies would affect the living and amenity of the neighbouring properties;
- One visitor parking bay is not sufficient for six, four-bedrooms units and this would put pressure on the existing street parking in the area;
- Concerns relating to overlooking and subsequent loss of visual privacy to adjoining residential properties; and
- Concerns with the proposals interaction with the neighbouring child care centre and that it would adversely impact the visual privacy of the centre.

Amended plans were submitted to the City on 20 July 2022, which made alterations to the application of colour and materials, increased balcony sizes and revised dimensions of the planter boxes and storerooms. The plans were not re-advertised for a third time as they did not propose new or greater departures to the deemed-to-comply standards or make significant amendments to the development outcome. The final development plans are provided as **Attachment 2**.

A summary of submissions received across the two consultation periods along with Administration's responses to each comment is provided in **Attachment 6**. The Applicant's response to the submissions received are provided as **Attachment 7**.

Design Review Panel (DRP):

Referred to DRP: Yes

The proposal was referred to the City's DRP on four occasions, including two presentations at a full DRP meeting and two referrals to the DRP Chair.

The final development plans and lodged plans are included as **Attachment 2** and **Attachment 5** respectively, which demonstrate the design quality evolution of the proposal from lodgement to Council consideration.

A summary of the applications progress through the DRP and referral to the DRP Chair are summarised in the table below.

Design Review Progress Report				
Design quality evaluation				
	<i>Supported</i>			
	<i>Pending further attention</i>			
	<i>Not supported</i>			
	<i>Insufficient information for design quality evaluation traffic signal colours to be attributed</i>			
	DRP 1 22 Dec 2021	DRP 2 23 Mar 2022	DRP 3 Chair 14 Jun 2022	DRP 4 Chair 1 Aug 2022
Principle 1 - Context and character				
Principle 2 - Landscape quality				
Principle 3 - Built form and scale				
Principle 4 - Functionality and build quality				
Principle 5 – Sustainability				
Principle 6 – Amenity				
Principle 7 – Legibility				
Principle 8 – Safety				
Principle 9 – Community				
Principle 10 – Aesthetics				

The DRP was not supportive of the lodged proposal and raised the following concerns and recommendations:

- Inadequate level of streetscape engagement and interaction of the development to Summers Street;
- Minimal landscaping incorporated on site;
- Monotonous and repetitive facades with minimal articulation;
- Lack of pedestrian consideration to the internal driveway;
- Recommend increases to the level of streetscape activation with openings and shared spaces;
- Remove visitor parking bays from the front setback;
- Increase the size of the outdoor private spaces and ability to increase landscaping opportunities; and
- Increase the legibility of the rear dwelling entrances.

The applicant submitted amended plans incorporating the DRP feedback and recommendations. A summary of the key changes are included below:

- One visitor bay removed to accommodate additional landscaping in the front setback;
- Deep soil areas increased by 0.7 percent across the site and three additional trees in the front setback;
- Increasing size of openings to the Summers Street frontage and the common property driveway;
- Garage doors materiality revised from a solid material to an open permeable style;
- Bicycle parking added to front setback area; and
- Planter boxes to the third floor balconies increased to an 800 millimetre depth.

Upon review of the plans, the DRP member identified additional opportunities to refine the built form outcomes of the proposal. The revised plans addressed recommendations to the landscaping, pedestrian experience and privacy concerns raised by the DRP and departures to the planning framework. The final development plans, as per **Attachment 2**, made the following changes:

- Store room dimensions increased to 1 metre to meet compliance;
- Unit 1 balcony screened to the west for compliant visual privacy;
- Balconies to Units 2 – 5 increased by 0.6 metres in size;
- Additional grey cladding and face brick materiality to eastern elevation (internal driveway);
- Grey cladding introduced to western elevation; and
- Updated landscaping plan with additional deep soil planting.

The DRP member's review of the final plans are captured in the colour shifts to the design evaluations of the DRP table, noting support of the changes made and the proposal due to the:

- Massing and modulation of bulk and scale impacts are improved by the change in setbacks and articulation of the balcony and upper floor projections and increased dimensions of the upper floor planters;
- The location and extent of landscaping opportunities at both ground level and in planters on the upper floor support increased greening of the site; and
- Selection and application of colours and materials have reduced the visual impact of the dwellings and their interaction to the street, common property and neighbouring dwellings.

The DRP Chairperson advised that whilst the applicant has responded to concerns raised relating to streetscape engagement, landscaping concerns and monotonous facades, there remains greater opportunities to the ground floor. To increase legibility and sense of community within the common property access, further refinement of the garage doors could be facilitated by treating these as individualised 'shop fronts' with varying materiality, scale and design to create variety of dwelling facades to the common access way. Administrations comments on the response to DRP comments are addressed in the comments section below.

LEGAL/POLICY:

- *Planning and Development Act 2005*;
- *Planning and Development (Local Planning Schemes) Regulations 2015*;
- City of Vincent Local Planning Scheme No. 2;
- State Planning Policy 7.3: Residential Design Codes - Volume 1;
- State Planning Policy No.5.4: Road and Rail Noise;
- Community and Stakeholder Engagement Policy; and
- Policy No. 7.1.1 – Built Form Policy.

Planning and Development Act 2005

In accordance with Schedule 2, Clause 76(2) of the *Planning and Development (Local Planning Scheme) Regulations 2015*, and Part 14 of the *Planning and Development Act 2005*, the applicant would have the right to apply to the State Administrative Tribunal for a review of Council's determination.

Local Planning Scheme No. 2

The objectives of the Residential Zone under LPS2 are a relevant consideration for the application. These objectives are:

- *To provide for a range of housing and a choice of residential densities to meet the needs of the community;*
- *To facilitate and encourage high quality design, built form and streetscapes throughout residential areas;*
- *To provide for a range of non-residential uses, which are compatible with and complementary to residential development;*
- *To promote and encourage design that incorporates sustainability principles, including but not limited to solar passive design, energy efficiency, water conservation, waste management and recycling;*
- *To enhance the amenity and character of the residential neighbourhood by encouraging the retention of existing housing stock and ensuring new development is compatible within these established areas;*
- *To manage residential development in a way that recognises the needs of innovative design and contemporary lifestyles; and*
- *To ensure the provision of a wide range of different types of residential accommodation, including affordable, social and special needs, to meet the diverse needs of the community.*

Delegation to Determine Applications:

This matter is being referred to Council for determination in accordance with the City's Register of Delegations, Authorisations and Appointments.

This is because the delegation does not extend to proposals for more than three grouped dwellings that do not meet the deemed-to-comply standards in relation to car parking in the R Codes.

The application proposes six grouped dwellings and does not meet the deemed-to-comply visitor car parking standards of the R Codes with a one bay shortfall proposed.

RISK MANAGEMENT IMPLICATIONS:

Low: There are minimal risks to Council and the City's business function when Council exercises its discretionary power to determine a planning application.

STRATEGIC IMPLICATIONS:

This is in keeping with the City's Strategic Community Plan 2018-2028:

Innovative and Accountable

We are open and accountable to an engaged community.

SUSTAINABILITY IMPLICATIONS:

The City has assessed the application against the environmentally sustainable design provisions of the City's Policy No. 7.1.1 – Built Form. These provisions are informed by the key sustainability outcomes of the City's Sustainable Environment Strategy 2019-2024, which requires new developments to demonstrate best practice in respect to reductions in energy, water and waste and improving urban greening.

PUBLIC HEALTH IMPLICATIONS:

This report has no implication on the priority health outcomes of the City's *Public Health Plan 2020 – 2025*.

FINANCIAL/BUDGET IMPLICATIONS:

There are no financial or budget implications from this report.

COMMENTS:

An assessment against the discretionary aspects of the application is set out below. These relate to consideration against the State Government's R Codes and City's Built Form Policy.

Street Setback

The Built Form Policy deemed-to-comply standard requires a 5.3 metre street setback to Summers Street, based on the average of the five properties either side of the site. The deemed-to-comply standards also require upper floor walls to be setback a minimum of 2 metres behind the ground floor predominant building line, and balconies to be setback 1 metre behind the ground floor predominant building line.

The application proposes the following departures to the deemed-to-comply standards:

- The guest/home office on the ground floor of Unit 1 would be setback 4.7 metres from Summers Street;
- The lift shaft of Unit 1 to all floor would be stepped 0.4 metres behind the ground floor predominate building line (guest/home office), with the remainder of the upper floor walls on the second, third and fourth floors setback 1.4 metres behind the guest/home office; and
- The second-floor balcony of Unit 1 is setback 0.2 metres behind the guest/home office. The third-floor balcony projects 0.1 metres forward of the guest/home office.

The proposed street setback satisfies the design principles of the R Codes and local housing objectives of the Built Form Policy for the following reasons:

- Established Streetscape:
 - The Summers Street streetscape between Lord Street and the East Perth Train Station is inconsistent in terms of development scale, land use, styles, and form. As a result, it does not read as a cohesive and coordinated streetscape. This is largely given it is undergoing transition where there is a mix of older and newer development. It also contains Residential R80, Mixed Use R100 and Commercial zonings under LPS2 as well as three separate built form areas and building height standards from three to eight storeys under the Built Form Policy;
 - The site is immediately adjacent to Nos. 111-113 Summers Street, which is of a comparable development layout, scale and design (six, three-storey grouped dwellings). Nos. 1/111-113 Summers Street provides a 4.2 metre minimum setback to the street and includes upper floors that project over the ground floor. There are also other two storey developments within the immediate streetscape where upper floors do not sit behind their respective ground floor building lines. The proposed street setback and design of upper floor is consistent with the established varied streetscape and would not appear out of character;
 - Ancillary structures such as carports, porches and solid walls which contribute to massing closer to the street are not proposed as part of the development. The open nature of the front setback, provision of large areas of glazing and permeable balustrading on balconies maintains an open and interactive frontage, consistent with the street;
- Mitigating Building Bulk:
 - The wall to the ground floor guest/home office accounts for a 4.8 metre or 23 percent portion of the total lot frontage facing Summers Street. The remainder of the ground floor building line to the lift shaft and garage provide greater street setbacks of 5.1 metres and 5.9 metres;
 - The upper floors of the development are clearly distinguished from the ground floor through articulation on each floor. This is due to the projection of the lift shaft walls and through the balcony overhang of the ground floor building below;
 - The ground and fourth floors are proposed to be finished with face brick while the second and third floors would be of a grey and white render. The projection of the white rendered lift shaft which carries from the ground through to fourth floor acts a built form feature to break up the horizontal façade of the dwelling. The use of varying colours and materials and the inclusion of major openings to each level ensure that Unit 1 would not present unarticulated to Summers Street;
 - The front setback area provides 51 square metres of deep soil area as well as five additional trees in addition to the retention of two existing verge trees. This landscaping provision would assist in reducing building bulk impacts to the street;

- Definable Entry Point: The upper floor walls and balcony projections do not affect legibility of the entry to the dwelling. The entry point to Unit 1 would be clearly visible and accessible from Summers Street;
- Internal Setbacks: Setbacks to the common property allow for unimpeded on-ground and on-structure landscaping opportunities, covered and uncovered balcony spaces as well as differences in colour and materials to delineate between the dwellings;
- Surveillance and Interaction: The balconies and major openings from the bedrooms and offices provide visual connectivity and surveillance with Summers Street and the communal driveway; and
- Design Review Panel: The City's DRP Chair noted upper floor and balcony projections were established in the streetscape. The revisions to the proposal to introduce additional openings and landscaping in the front setback assists in tying the development back to the surrounding context.

Lot Boundary Walls

The Built Form Policy deemed to comply standards permit boundary walls behind the street setback area (5.3 metres) and to a maximum height of 3.5 metres.

The Unit 1 guest bedroom to the western boundary is located within the street setback area. The Unit 6 store to ensuite wall has a height of 3.6 metres on the western boundary.

The lot boundary walls satisfy the design principles of the R Codes and local housing objectives of the Built Form Policy for the following reasons:

- Adjoining Properties: The boundary walls are adjacent to a grouped dwelling development at No. 111 – 113 Summers Street. The impacts of the boundary walls to these properties are acceptable as:
 - The majority of the Unit 1 guest bedroom wall would directly abut an existing 4.2 metre high garage boundary wall located on the adjoining property. A 0.1 metre portion of wall would project forward into the street setback. The 0.1 metre project would be adjacent to the neighbouring driveway and would not be visually obtrusive to sensitive areas of the adjoining property;
 - The Unit 6 store boundary wall would abut the 1.2 metre side setback area of Unit 6. The abutting area contains three highlight windows to a living room at ground level. Only a small portion of the wall would be adjacent to the primary outdoor living area (courtyard) of the western property. The small length adjacent to this area as well as landscaping located adjacent to the wall would assist in reducing any adverse visual impacts resulting from the boundary wall;
 - The favourable orientation and location of the boundary walls would result in no overshadowing and subsequent loss of direct sunlight to the adjoining western property;
 - The walls are bricked up and would not result in any overlooking to the adjoining properties;
- Total Wall Length: The cumulative 10.6 metre length of boundary walls remain less than the 30.1 metres permitted, to ensure the walls do not dominate the western elevation; and
- Streetscape Impacts: As the Unit 1 guest bedroom wall largely abuts another boundary wall and proposes a height lower than the permitted 3.5 metres, there would not be adverse visual impacts to the streetscape. The Unit 6 store to ensuite wall is located to the rear of the site and cannot be viewed from the street.

Lot Boundary Setbacks

The application proposes lot boundary setbacks to the southern, western and eastern lot boundaries that do not satisfy the deemed-to-comply standards of the R Codes.

Lot boundary setbacks of the development are to be assessed in accordance with Table 2A / 2B of the R Codes. The dwellings propose lot boundary setback departures of 0.3 metres to 2.3 metres across the site.

The R Codes do not provide deemed-to-comply lot boundary setback standards where walls are greater than 10 metres in height, which would apply to the fourth floor. A design principle assessment is required for the setbacks provided on the fourth floor.

A design principle assessment is required for the following setback departures to the deemed-to-comply standards of the R Codes:

East

- Third Floor of Unit 2 – Unit 5 Balcony would be setback 5 metres in lieu of 7.3 metres; and
- Fourth Floor: Unit 1 – Unit 6 Bed 1 would have a minimum setback of 6.6 metres.

West

- Ground Floor Unit 2 – Unit 3 Home Office would be setback 1.2 metres in lieu of 1.5 metres;
- Ground Floor Unit 4 – Unit 5 Home Office would be setback 1.2 metres in lieu of 1.5 metres;
- Third Floor Unit 6 Powder to Study would be setback 3.4 metres in lieu of 4.6 metres;
- Third Floor Unit 1 Lift to Unit 6 Kitchen would be setback 4.1 metres in lieu of 4.3 metres; and
- Fourth Floor Unit 1 – Unit 6 Foyers would have a minimum setback of 4.1 metres.

South

- Third Floor Unit 6 Balcony – Kitchen would be setback 1.6 metres in lieu of 2.1 metres;
- Third Floor Unit 6 Sitting – Bed 3 would be setback 1.6 metres in lieu of 1.7 metres; and
- Fourth Floor Unit 6 would have a minimum setback of 1.6 metres.

The lot boundary setbacks satisfy the design principles of the R Codes and local housing objectives of the Built Form Policy for the following reasons:

- **Bulk and Scale Massing:** The development is designed to provide distinction between each dwelling and each floor to mitigate actual and perceived bulk through the following:
 - Contrasting colours and materials such as recycled face brick, white and grey render and cladding provide breaks in the walls for actual and perceived articulation;
 - Major openings, highlight windows and landscaped balconies reduce the extent of blank solid walls visible to adjacent properties;
- **Neighbouring Development:** The lot boundary setbacks do not fall to sensitive spaces of neighbouring development, which would ensure the comfortable living and amenity of the occupants is maintained:
 - **East** – Walls proposing setback departures largely abut a 3.5-metre-high boundary wall of the child care at Nos. 103 – 105 Summers Street. This boundary wall extends to a 23 metre length on the boundary. The remaining portions of the boundary include the front setback and pedestrian entry, and baby play area which is covered by a shade sail. The design of the adjoining eastern property ensures sensitive areas of the development would not be adversely impacted from the proposed development;
 - **West** – Walls would abut the highlight windows of the activity and living rooms on the eastern elevation of Nos. 111 – 113 Summers Street. Compliant ground floor setbacks are provided to the east-facing courtyards of the dwellings, reducing impacts to sensitive areas;
 - **South** – Walls would be adjacent to the rear of No. 40 Cheriton Street which currently accommodates a single storey commercial building and associated parking bays;
- **Landscaping:** Two medium trees are proposed along the eastern boundary adjacent to the driveway, in addition to dedicated tree planting and landscaping areas for each of the dwellings along the western and southern boundaries. Landscaping would assist with the screening and greening of the lot to the neighbouring developments;
- **Privacy:** A windows and openings along the eastern and western façades of the development have been appropriately setback from boundaries or otherwise designed to satisfy the deemed-to-comply visual privacy standards of the R Codes. A variation to the visual privacy deemed-to-comply standards from the third floor kitchen of Unit 6 would affect the western boundary but is acceptable for the reasons outlined in the Visual Privacy section below;
- **Solar Access and Ventilation:** The shadow cast from the dwellings falling to the south would comply with R Codes Clause 5.4.2 – Solar Access for adjoining site. The favourable orientation of the site means that shadowing would not adversely impact the eastern and western properties. The setbacks provided to the dwellings, in conjunction with the setback of the adjoining properties would provide a genuine separation between the dwellings which would allow sufficient space for air flow to allow for cross-ventilation of both the subject site and adjoining properties; and
- **DRP Referral:** The DRP Chair supports the proposal, stating that the final development proposal incorporates acceptable setbacks, landscaping and modulation of colours and materials between the dwellings. Although the DRP Chair saw further opportunities to address the internal elevation of the ground floor to the garages these elements are considered acceptable as they provide sufficient setbacks to facilitate building separation and vehicle manoeuvring, as well as landscaping opportunities along the boundary. The Built Form Policy does not have specific standards to common property or internal driveways for grouped dwellings.

Parking

The R Codes deemed-to-comply standard for visitor car parking requires one visitor car bay for every four dwellings. As six dwellings are proposed, the R Codes requires two on-site visitor parking bays as the deemed-to-comply standard. The development provides for one visitor parking bay, located in the front setback area of the site.

The visitor parking bays satisfy the design principles of the R Codes for the following reasons:

- On Street Parking: The Design Principles of the R Codes set out that visitor car parking may be reduced where there is adequate on-street parking in the near vicinity of the development. One visitor parking bay would be adequate to cater for the demands generated by the six dwellings proposed having regard for the availability of on-street car parking options in close proximity to the subject site. There are 51 on-street parking bays along Summers Street within a 250-metre distance of the site between West Parade and Lord Street. Consideration of these bays are as follows:
 - Review of the City's parking data undertaken in November and December 2018 indicates that the maximum occupancy of the on-street bays occurred on Saturday at 43 percent maximum occupancy. Occupancy of the bays on Wednesday and Friday was 39 percent and 38 percent respectively. The average usage of these on-street parking bays during the survey indicates that there is capacity in on-street parking available in close proximity to the subject site;
 - Parking bays to Summers Street are limited to two-hour parking, from 8:00am to 5:00pm. Given the two-hour time limitation and availability of bays to Summers Street bays as detailed above, visitors would have adequate access to on street parking; and
 - 99 additional bays are available to West Parade and Cheriton Street within a 400-metre walkable distance from the site, which are unlimited timing bays and 1 hour maximum respectively. Bays to Cheriton Street operate between 29 and 73.2 percent maximum occupancy, while bays to West Parade operate between 30.7 and 47.2 percent occupancy. This would provide additional bays for visitors if required within a walkable distance from the development.
- Additional Street Parking Capacity: The proposal sees the removal of the 3.4-metre-wide redundant crossover to the western boundary of the site, which would reduce vehicle access points to the streetscape. The width of the crossover would not be of a sufficient dimension to introduce another parking bay to Summers Street, but would see the verge area re-instated;
- Bicycle Parking: The development provides four bicycle racks in the front setback area of the site for the use of occupants and their visitors;
- Alternative Transport: Clause 5.3.3 of the R Codes details that a reduction to car parking standards can be provided for when developments are near convenient public transport inclusive of train, bicycle and bus networks. The subject site is located 120 metres from the East Perth Train Station and associated car park as well as 230 metres from high frequency bus routes along Lord Street. The nearby train and bus routes provide a practical alternate means of transport for both residents and visitors to limit private vehicle reliance;
- Parking Permits: As it is demonstrated adequate vehicle parking for visitors could be accommodated on-street within the immediate area, Administration has recommended an advice note confirming that the City would not issue parking permits for the development;
- Residential Parking: The R Codes deemed-to-comply standard requires the provision of six on site resident bays for the development, being one bay per dwelling. The development would provide for 12 bays located within double garages for each of the dwellings, which exceeds the deemed to comply standards. The six surplus resident car parking bays would effectively offset the reliance of the development on existing on-street car parking bays. This is because where resident car parking demand is two bays per dwelling and in excess of the deemed-to-comply standard of the R Codes, the surplus resident car parking bays would ensure this could be accommodated by the on-site parking for the development rather than the use of on-street car parking bays along Summers Street;
- Vehicle Ownership Rates: The R Codes visitor parking deemed-to-comply standard applies to the entirety of Western Australia. The City's Accessible City Strategy (ACS) identified vehicle ownership in the City of Vincent (1.48 cars per household) is lower than the Greater Perth Average (1.78 cars per household), with fewer than 50 percent of households owning more than two vehicles. This indicates that households may be moving away from multi-car ownership and would reduce the resident car parking demand on site. Where some of the dwellings proposed are single car ownership, these surplus resident car parking bays would provide an opportunity for residents to allow visitors to access their resident car parking bays; and
- Accessibility of bays: The visitor bay is visible and readily accessible in the front setback area for use of visitors attending the site. There are no proposed fencing or vehicle gates to obstruct use of the bay.

Landscaping

The R Codes permit require a maximum of 50 percent hardstand areas within the street setback area. Each dwelling is also required to provide a dedicated 2 metre by 2 metre tree planting space.

The application proposes 56.1 percent of the street setback area as hardstand/impervious services. Units 2 to 5 provide tree planting areas with a 1.5 metre by 2 metre dimension.

The City's Built Form Policy deemed-to-comply provisions require:

- 12 percent deep soil zones to be provided to each dwelling. Units 2 to 4 propose 7.2 percent deep soil;
- 30 percent canopy coverage to be provided to each dwelling. The Units propose between 11.04 – 26.08 percent canopy coverage; and
- 60 percent canopy coverage is to be provided to open air carparks. 38 percent of the open-air visitor parking space located in the in the street setback area is proposed as canopy cover at maturity.

These deemed-to-comply landscaping standards in the Built Form Policy have not yet been approved by the WAPC and are given regard only in the assessment of the application.

The landscaping satisfies the relevant design principles and local housing objectives of the R Codes and Built Form Policy for the following reasons:

- Front Setback: Clause 5.3.4 of the R Codes states that visitor parking should be clearly visible from the point of entry of the development and not located behind security gates. The application proposes a visitor parking bay, pedestrian access ways, driveways and bicycle bays in the primary street setback area that impacts the extent of landscaping that could be accommodated in the front setback. To address the impact of the hardstand, the proposal would provide 51 square metres of landscaping and five trees which would contribute to the softening of the built form of the development and greening of the streetscape;
- Streetscape Planting: The landscaping provided to the dwelling would soften the appearance of the proposed development and assist with reducing the overall impact of building bulk and scale when viewed from Summers Street and neighbouring properties. The landscaping would provide canopy which extends outside of the lot boundaries and would contribute to greater urban greening in the locality;
- Species selection: The landscaping plan proposes small and medium evergreen, deciduous and native varieties tree within the lot boundaries:
 - Narrow trees which provide light filtration, such as Frangipani's are proposed along the southern elevation to reduce shadow;
 - Medium deciduous and native trees, Coral Gum and Chinese Tallows, are proposed along the western and eastern boundaries for landscape greening to the side boundaries which would provide both shade and sunlight;
 - Three medium trees (Coral Gum, Tuckeroo and Little Ghost) are proposed in the front setback, supported by the planting of two small trees (Flowering Almond). The evergreen species would provide established year-round canopy in the front setback area which would enhance the streetscape;

The City's Parks team has confirmed the size and spacing of the planting areas would allow trees to grow to maturity, and would provide canopy and landscaping buffers for the occupants while also offering access to sunlight;

- Planting dimensions: While not meeting the R Codes tree planting areas, the minimum dimension tree planting areas for Units 2- 5 meet the minimum dimension standard prescribed for planting and deep soil areas under the Built Form Policy and would be adequate to support the growth of small and medium canopy trees. The City's Parks team have confirmed the reduced dimension would not impede the ability for the trees to reach their maximum canopy spread;
- Shade and amenity: The proposed landscaping would contribute to the reduction of the urban heat island effect, increase urban air quality, provide a greater landscape amenity for the locality and create a sense of open space between the proposed dwelling and neighbouring properties; and
- On Structure Landscaping: On structure landscaping is provided within planter boxes on the third floor balconies of the dwellings. The planters introduce small shrubs along the vertical portions of the dwellings which would be visible from the street, adjoining properties and internally. This would soften the building façade and be a visually pleasing outcome for the dwellings. The planters would be accessible for the occupants to ensure the on-structure landscaping outcomes to be maintained to a sufficient standard.

Visual Privacy

The deemed-to-comply standard for habitable rooms on upper floors is 4.5 metres. The Unit 6 third floor kitchen provides a 4.0 metre cone of vision setback to the western adjoining property.

The visual privacy proposed satisfies the design principles of the R Codes for the following reasons:

- Impact to Adjoining Property – Ground Floor: The direct line of sight from the Unit 6 third floor kitchen would not adversely impact the visual privacy of the courtyard of the adjoining western property at No. 6/111 Summers Street, Perth. While the cone of vision from the Unit 6 third floor kitchen falls to the courtyard area of Nos. 6/111-113 Summers Street, Perth, the bench of the kitchen would mean that all users of this space would be separated a further 0.9 metres from the western boundary line, exceeding the 4.5 metre cone of vision deemed-to-comply standard. The City has recommended a condition of development approval requiring the kitchen bench to be provided at a minimum width of 0.6 metres to ensure a deemed-to-comply cone of vision; and
- Impact to Adjoining Property – Upper Floors: The direct line of sight from the Unit 6 third floor kitchen would not adversely impact the visual privacy of the upper floors of the adjoining western property at No. 6/111 Summers Street, Perth. This is because the cone of vision falls to a side setback area and does not extend over or towards unscreened balconies or major openings to habitable rooms. The adjoining properties balcony is screened to the side and all openings on all levels of the adjoining property do not contain major openings to habitable rooms.

Site Works and Retaining Walls

The deemed-to-comply standards for site works and retaining walls greater than 0.5 metres above natural ground to be setback from the lot boundary.

The southern setback area of the Unit 6 proposes 0.55 metres maximum fill, while 0.7 metres maximum fill is proposed to the eastern corner of the lot, adjacent to the bin store area. A retaining wall at a maximum height of 0.6 metres is proposed along the eastern boundary, adjacent to the driveway. No setbacks are provided to the lot boundary.

The proposed site works and retaining walls proposed satisfy the design principles of the R Codes for the following reasons:

- Natural Topography: The development considers and responds to the natural features of the site. The subject site slopes 0.46 metres from Summers Street to the rear of the site, and 0.6 metres along the rear (southern) boundary. The 17.00 floor levels of the dwellings would facilitate an even and developable site which respects the topography of the land, and would require minimal fill across the site;
- Neighbouring Development: No. 111-113 Summers Street to the west has a level of 17.8 and Nos. 103 - 105 Summers Street to the east has a level of 16.36. The level of 16.91 along the southern boundary of the site presents a middle ground level between the adjacent properties which shows the development responds to the established levels of the adjoining properties. The areas of increased fill at the rear of the site would fall to non-habitable spaces of neighbouring properties and would be located next to uncovered car parking and areas of extensive open space. This would mean that the proposal would not adversely impact the adjoining properties solar access and privacy, and would preserve their current and future amenity; and
- Functionality & Accessibility: Site levels and associated retaining has been designed to provide a single connected level from the parking areas through to the ground floor living areas and the courtyards at the rear, maximising the accessibility of the dwellings for future occupants.

Outdoor Living Areas

The deemed-to-comply standards for outdoor living areas require a minimum dimension of 4 metres, and maximum 10.6 square metres without permanent roof cover.

The third floor balconies have been identified as the primary outdoor living area for each dwelling. This is because they are accessed from the primary living spaces of each dwelling (kitchen, living and meals).

The dwellings seek the following departures to the deemed-to-comply standards:

- Unit 1: 2.1 metre minimum dimension;
- Unit 2: 5.6 square metre uncovered area and 2.7 metre minimum dimension;
- Unit 3: 5.6 square metre uncovered area and 2.7 metre minimum dimension;
- Unit 4: 5.6 square metre uncovered area and 2.7 metre minimum dimension;
- Unit 5: 6.2 square metre uncovered area and 2.7sqm minimum dimension; and
- Unit 6: 1.6 square metre minimum dimension.

The proposed outdoor living areas satisfy the design principles of the R Codes for the following reasons:

- Location: The outdoor living areas are directly accessible from and capable of use in conjunction with the primary living spaces of each dwelling, including living, dining, and bedrooms;
- Functionality & Size: While the balconies for Units 2-5 provide minimum dimensions of 2.7 metres, this increases to 3.4 metres adjacent to the opening to each dwelling. The length of each balcony also exceeds 4 metres and each balcony exceeds the minimum total outdoor living area standard of the R Codes of 16 square metres. The size and dimension of balconies ensure that they can each accommodate a dining table and lounge space for use in conjunction with the primary living space of each unit;
- Secondary Outdoor Living Areas: Each unit is also provided with a ground floor courtyard located along the western boundary of the site. These courtyards are all provided with a 4.0 metre minimum dimension, are unroofed, provide landscaping opportunities and would be open to northern light and ventilation. These secondary outdoor living areas are of a size and location to accommodate active and passive use. Although not directly accessible from habitable rooms of each unit, the areas provide additional usable space for the occupant's external amenity. Clothes drying areas are also de-coupled from these areas, ensuring servicing would not impede on areas for outdoor living;
- Weather Protection: The extent of covered outdoor living areas would support the usability of the space all year round to enable extended use of the spaces, while also allowing sunlight and ventilation into the spaces; and
- Privacy and Orientation: The balconies would provide an external private open space for the occupants that would be open to sunlight given the sides of each balcony are unenclosed with low balustrades.

Environmentally Sustainable Design

Clause 5.11 of the Built Form Policy relating to environmentally sustainable design sets out local housing objectives to be achieved and does not prescribe deemed-to-comply standards.

The applicant has submitted an Energy Efficiency report which is included in **Attachment 3**. The report and development plans identify the following built form and site planning measures that would be implemented to satisfy the local housing objectives of the Built Form Policy:

- The dwellings each provide a 6.1 – 6.3 star NatHERS rating through the sustainable design measures;
- Deciduous trees to be provided for natural shading during summer months, and to allow for low winter sun to penetrate and heat internal spaces in the winter months;
- Openable windows on opposing walls to facilitate cross ventilation;
- Roof overhangs and eave details to minimise excess solar gains in summer; and
- North facing habitable rooms and outdoor spaces for access to natural sunlight.

Administration has reviewed the proposal against the Built Form Policy local housing objectives and are satisfied that the development has incorporated environmentally sustainable design features to meet the intended built form outcomes of development within the City.

State Planning Policy No. 5.4: Road and Rail Noise (SPP5.4)

The purpose of SPP5.4 is to ensure that adverse impacts on the amenity of residential development within proximity of major transport routes is minimised. The subject site is located within 250 metres of West Parade and Lord Street, and is subject to SPP5.4.

SPP5.4 requires noise attenuation measures to be put in place prior to construction of the development to address noise implications.

Administration has recommended a condition of approval that requires the submission of a Noise Management Plan which is to detail all noise mitigation measures to address SPP5.4 and the mitigation of road noise.

Verge Trees

Two verge trees (*Tipuana Tipu*/Pride of Bolivia) currently exist in the Summers Street verge are to be retained as part of this application.

Administration has engaged with the City's Parks team who have confirmed additional verge trees cannot be provided as:

- *Tipuana Tipu* trees have a maximum canopy width of 20 metres. The current location and spacing of the existing verge trees would already see limitation of their growth;
- Five trees are proposed within the front setback area of the lot which would result in canopy which extends outside of the lot boundary and to the verge area. The location and size of these trees would limit additional verge tree introductions;
- The 5 metre separation between the existing western verge tree and the adjoining western property is insufficient for an additional tree without compromising the growth of proposed trees in the front setback, and that of the existing verge trees to both Nos. 107 – 109 Summers Street and Nos. 111-113 Summers Street; and
- Additional tree planting, even of a different species with a smaller canopy, would not allow the existing verge trees or new trees to grow to maturity.

Parks are satisfied the two existing trees in the verge provide ample canopy coverage for the street.

**CITY OF VINCENT
LOCAL PLANNING SCHEME NO. 2
SCHEME MAP 1 - LEEDERVILLE**

LEGEND

METROPOLITAN REGION SCHEME RESERVES

Note: The Western Australian Planning Commission acts on behalf of the Department of Planning and Infrastructure. The Department of Planning should be consulted for full information on the actual land requirements for all Metropolitan Region Scheme Reserves.

- PARKS AND RECREATION**
- R Restricted Public Access
- PRIMARY REGIONAL ROADS RESERVATION**
- OTHER REGIONAL ROADS RESERVATION**
- RAILWAYS**
- PUBLIC PURPOSES**
Particular use denoted as follows:
- H Hospital
- HS High School
- TS Technical School
- CP Car Park
- U University
- CG Commonwealth Government
- SU Special Use
- WSD Water Authority of Western Australia
- P Prison

CITY OF VINCENT LOCAL SCHEME RESERVES

- PUBLIC OPEN SPACE**
- R Restricted
- PUBLIC PURPOSES**
Particular use denoted as follows:
- PS Primary School
- CP Car Park
- CU Civic Uses
- HS High School
- I Institute for the Deaf
- W Water Supply Sewerage and Drainage
- TS Technical School

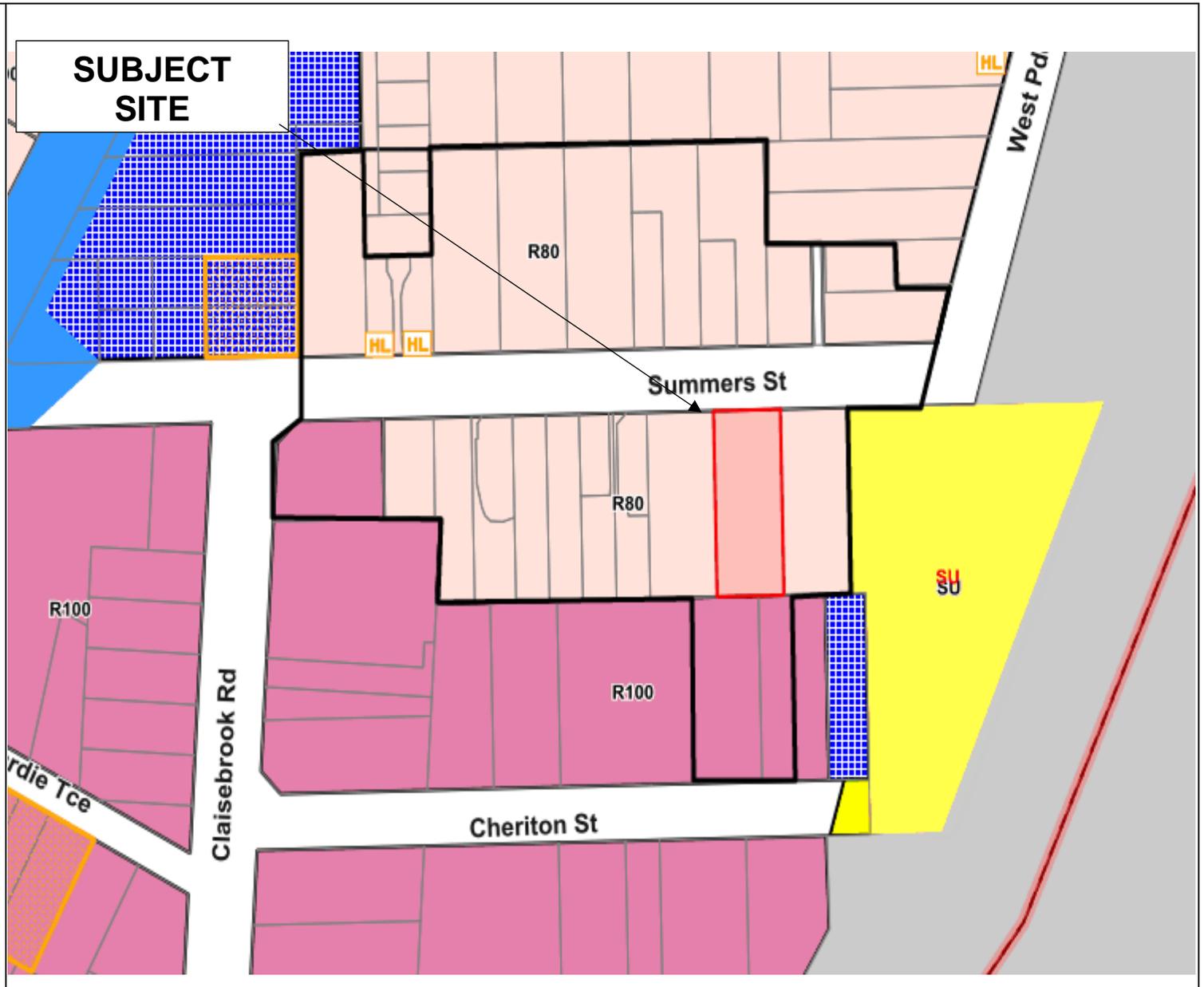
CITY OF VINCENT SCHEME ZONES

- RESIDENTIAL**
- MIXED USE**
- COMMERCIAL**
- LOCAL CENTRE**
- DISTRICT CENTRE**
- REGIONAL CENTRE**
- SPECIAL USE**
Particular use denoted as follows:
- CP Car Park
- CU Community Use
- FC Function Centre
- HC Hall and Non Residential Club
- H Hotel
- PW Place of Worship
- S Service Station

ADDITIONAL USE

ADDITIONAL INFORMATION & RESIDENTIAL PLANNING CODES

- CODE AREA BOUNDARY**
- SCHEME AREA BOUNDARY**
- DENSITY CODE**



CITY OF VINCENT

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Consultation and Location Map

Nos. 107 – 109 Summers Street, Perth

Extent of Consultation





SUBJECT SITE



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Nos. 107 – 109 Summers Street,
Perth



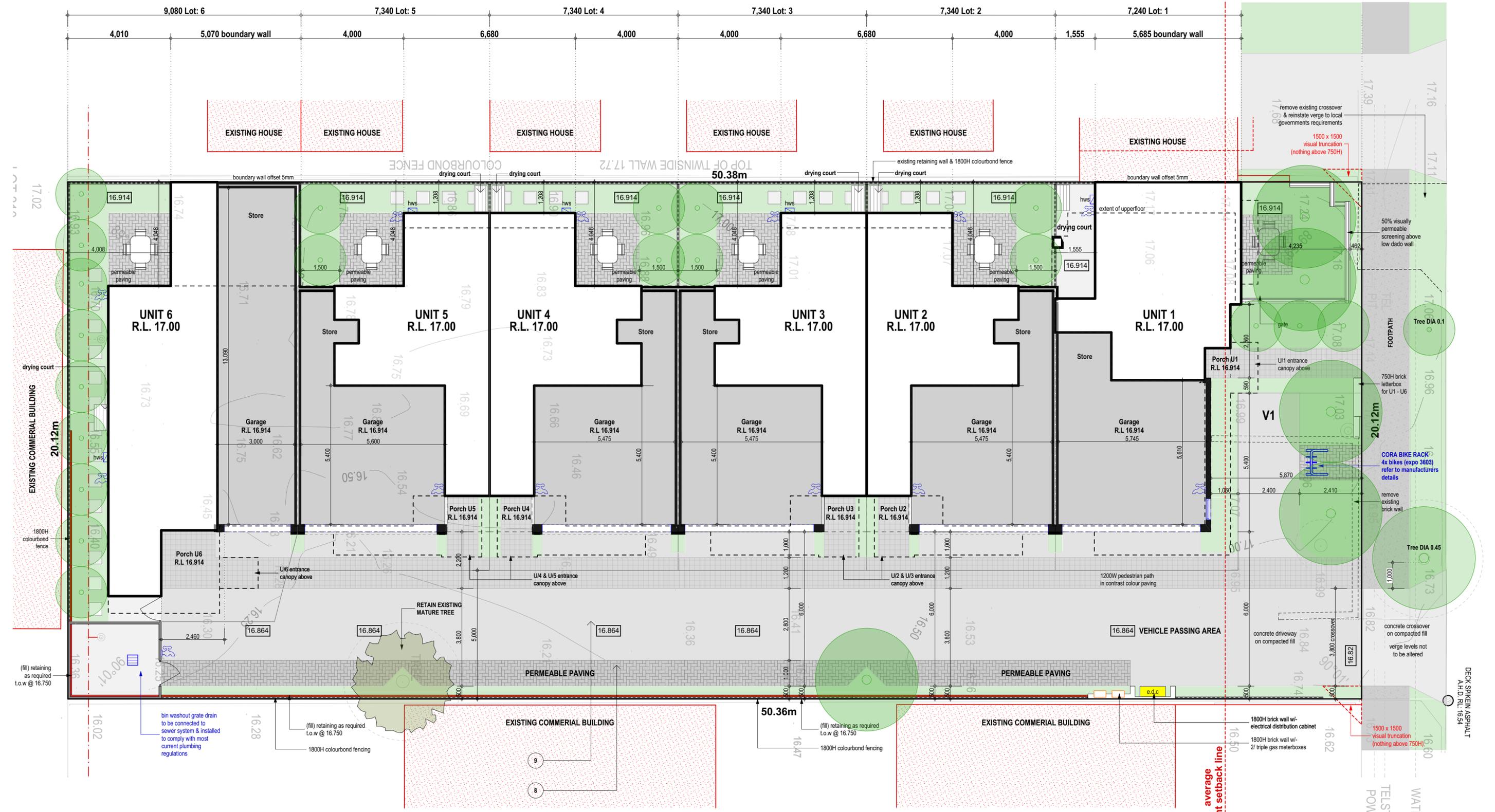
Amended Plan



Tho Lam Trust

Proposed 6 Grouped Dwellings at 107 & 109 Summer Street, Perth

Amended Plan



Site Plan
scale 1:100

Client: **Tho Lam Trust**
Site Address: **Proposed 6 Grouped Dwellings, 107 & 109 Summer Street, Perth**

MEMBER BDAWA

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scale 1:100 (A2) date 12.07.2022
issued for Planning Approval

JOB No. **2465**
SHEET No. **01 of 12**

REV No.
Rev - A 09.02.2022
Rev - B 16.05.2022
Rev - C 12.07.2022

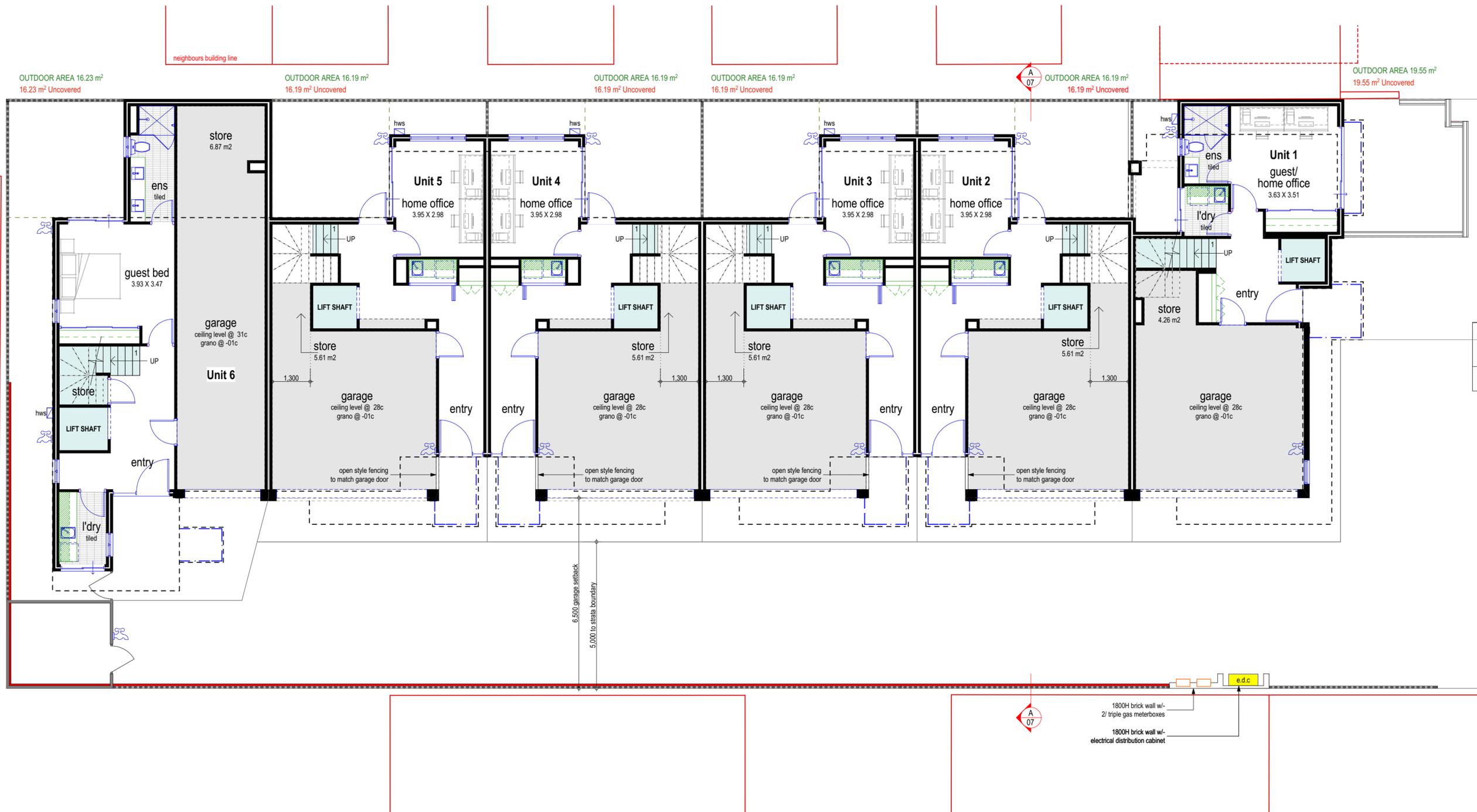
LOT 38

Lot 6 152.16m ²	Lot 5 112.64m ²	Lot 4 110.96m ²	Lot 3 110.96m ²	Lot 2 110.45m ²	Lot 1 147.70m ²
Common 268.44m ²		Lot 37 1013m ²			

Strata Plan
scale 1:500

<p>Lot 1 Open Space Calc.</p> <p>Lot Area: 147.70m² Share of Common Area: 44.74m² Total usable Lot Area: 192.44m² Allowable Site Coverage 70%: 134.70m² Actual Site Coverage: 99.02m² (55.73%)</p>	<p>Lot 2 Open Space Calc.</p> <p>Lot Area: 110.45m² Share of Common Area: 44.74m² Total usable Lot Area: 155.19m² Allowable Site Coverage 70%: 108.63m² Actual Site Coverage: 86.49m² (55.53%)</p>	<p>Lot 3,4 Open Space Calc.</p> <p>Lot Area: 110.96m² Share of Common Area: 44.74m² Total usable Lot Area: 155.70m² Allowable Site Coverage 70%: 108.99m² Actual Site Coverage: 86.50m² (55.55%)</p>
<p>Lot 5 Open Space Calc.</p> <p>Lot Area: 112.64m² Share of Common Area: 44.74m² Total usable Lot Area: 157.38m² Allowable Site Coverage 70%: 110.16m² Actual Site Coverage: 87.52m² (55.61%)</p>	<p>Lot 6 Open Space Calc.</p> <p>Lot Area: 152.16m² Share of Common Area: 44.74m² Total usable Lot Area: 196.90m² Allowable Site Coverage 70%: 137.83m² Actual Site Coverage: 107.63m² (54.66%)</p>	<p>Overall Open Space Calc.</p> <p>Lot Area: 1013m² Allowable Site Coverage 70%: 709.10m² Actual Site Coverage: 553.66m² (54.65%)</p>

Amended Plan



Ground Floor Plan

scale 1:100

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Client
Tho Lam Trust
Site Address
Proposed 6 Grouped Dwellings
107 & 109 Summer Street, Perth



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date 12.07.2022

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Rev - A 09.02.2022
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Rev - C 12.07.2022

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Planning Approval

SHEET No.
02 of 12

CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK. TAKE WRITTEN DIMENSIONS IN PREFERENCE TO SCALES. SHOULD ANY DISCREPANCIES OCCUR, NOTIFY THE DESIGNER IMMEDIATELY. REFER TO ENGINEERS DRAWINGS FOR ALL STRUCTURAL REQUIREMENTS.

Building Area U1

Ground Floor:	42.24m ²
Garage:	39.84m ²
Porch:	1.15m ²
2nd Floor:	70.72m ²
Balc:	5.97m ²
3rd Floor:	62.98m ²
Balcony:	21.39m ²
4th Floor:	54.61m ²
Total Area:	298.63m ²

Building Area U2

Ground Floor:	40.98m ²
Garage:	36.49m ²
Porch:	2.31m ²
2nd Floor:	73.63m ²
3rd Floor:	60.73m ²
Balcony:	20.03m ²
4th Floor:	50.09m ²
Total Area:	284.26m ²

Building Area U3,4

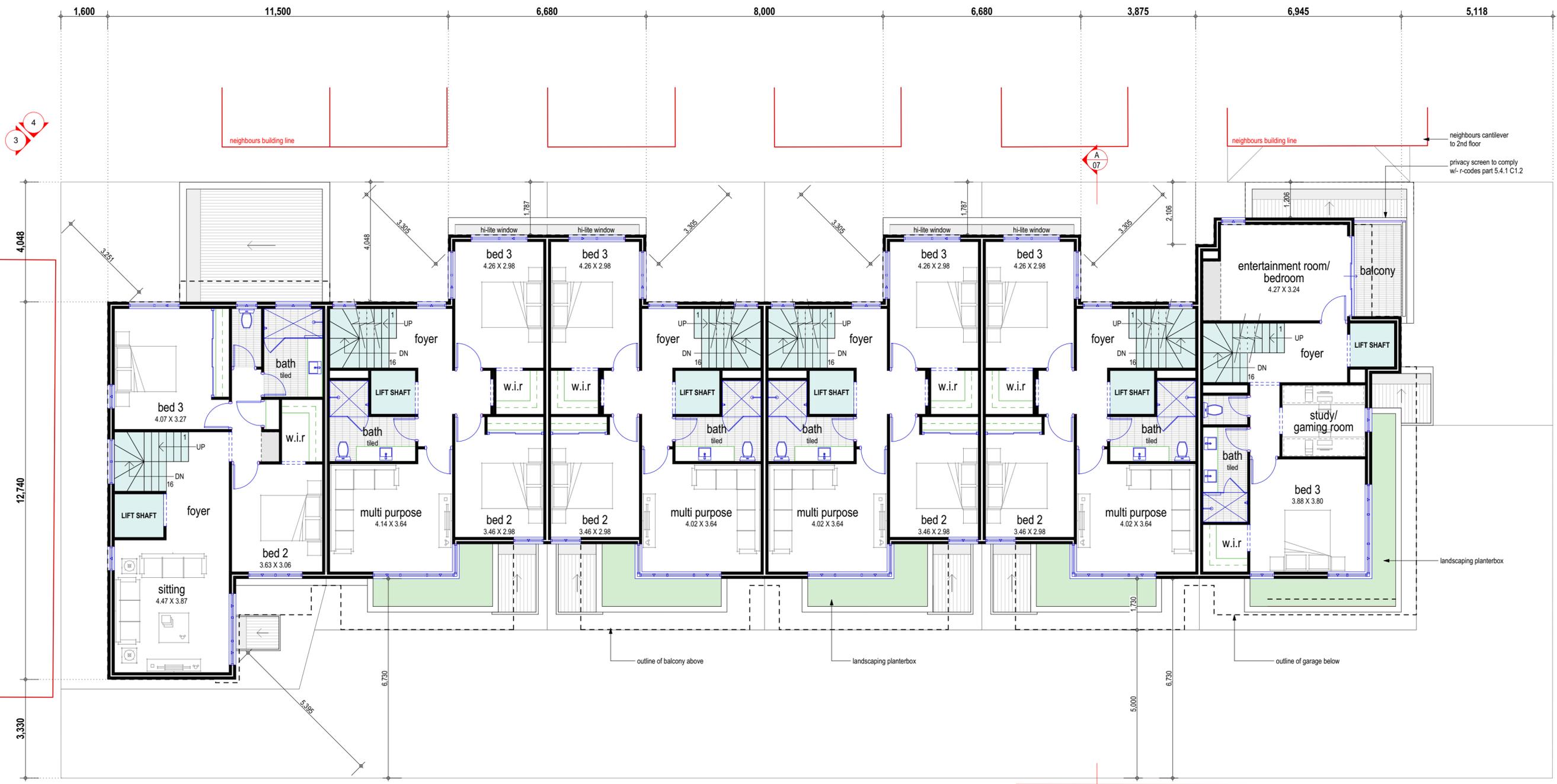
Ground Floor:	41.40m ²
Garage:	37.20m ²
Porch:	2.31m ²
2nd Floor:	72.63m ²
3rd Floor:	60.73m ²
Balcony:	20.03m ²
4th Floor:	50.08m ²
Total Area:	284.38m ²

Building Area U5

Ground Floor:	41.40m ²
Garage:	37.20m ²
Porch:	2.31m ²
2nd Floor:	74.12m ²
3rd Floor:	60.73m ²
Balcony:	20.03m ²
4th Floor:	50.03m ²
Total Area:	285.82m ²

Building Area U6

Ground Floor:	53.05m ²
Garage:	43.04m ²
2nd Floor:	83.61m ²
3rd Floor:	63.88m ²
Balcony:	22.39m ²
4th Floor:	52.53m ²
Total Area:	318.50m ²



2nd Floor Plan
scale 1:100

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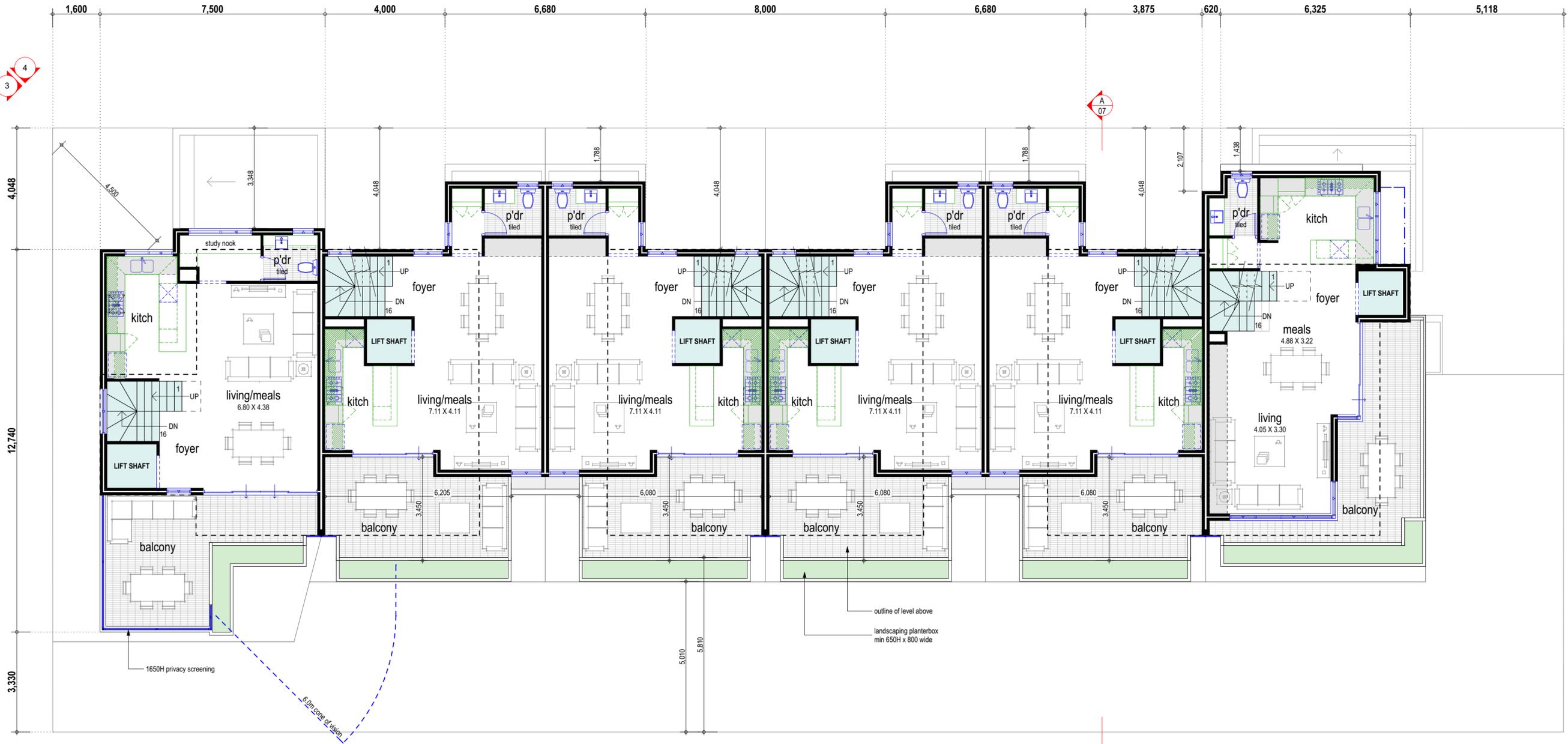
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Amended Plan



3rd Floor Plan
scale 1:100

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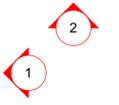
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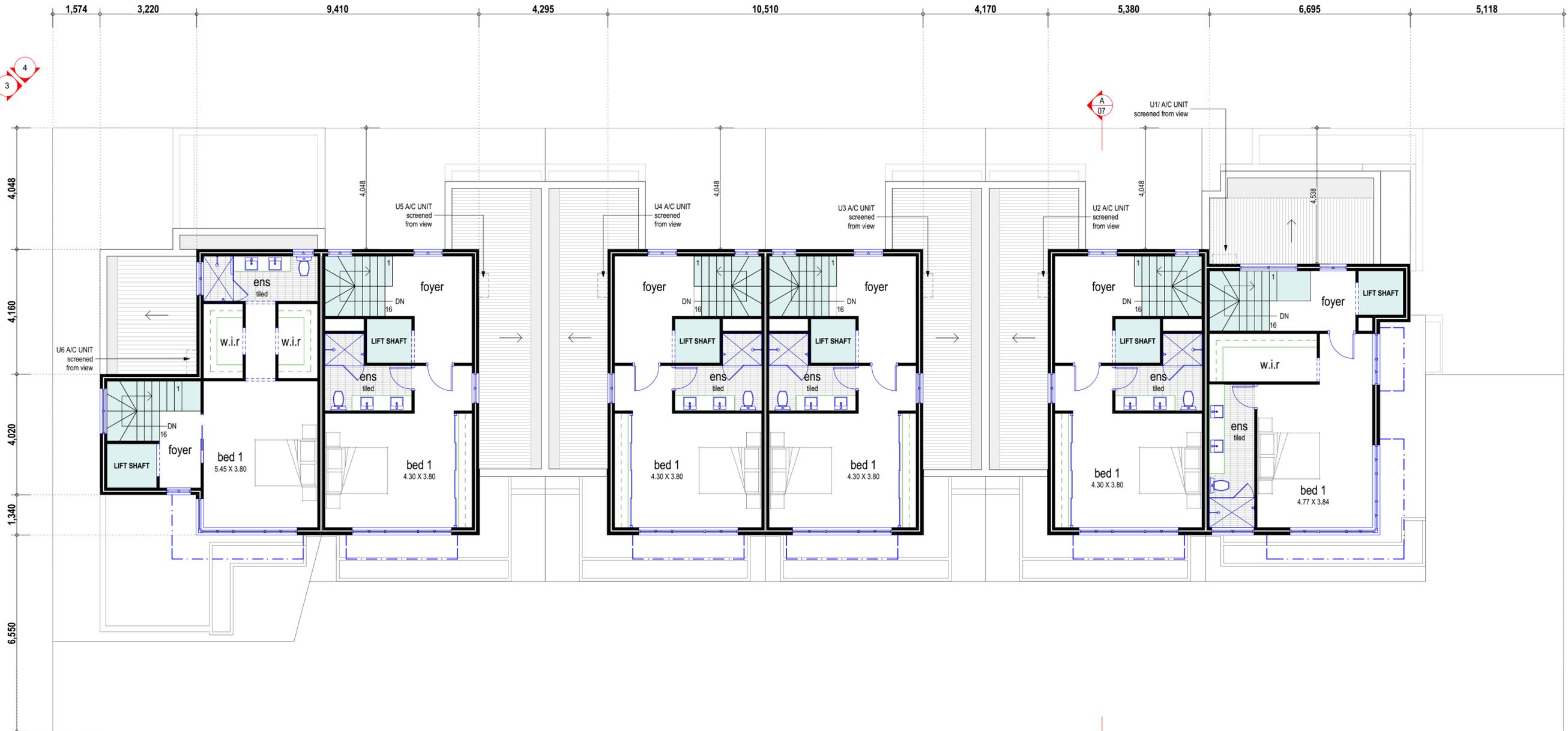
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4th Floor Plan
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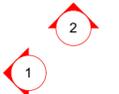
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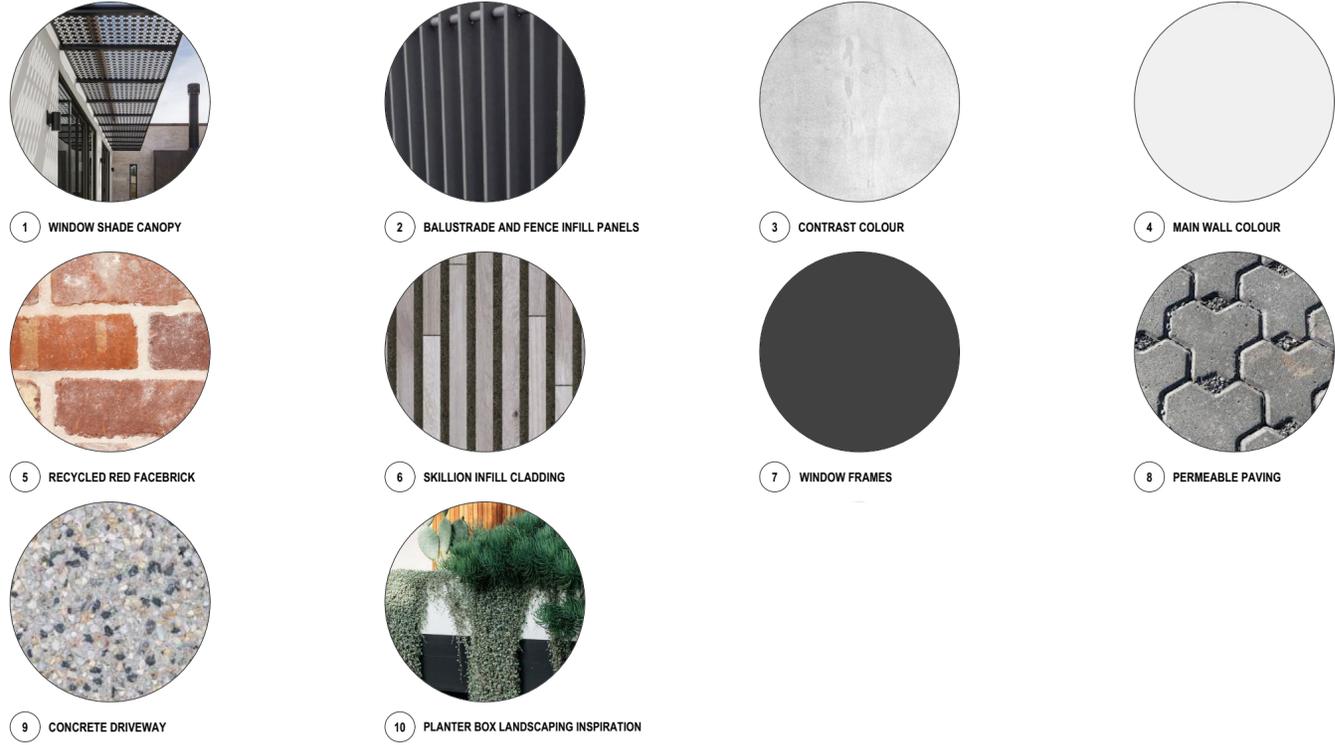
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Amended Plan



Elevation 1
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Elevation 2
scale 1:100

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Elevation 3
scale 1:100



Section A-A
scale 1:100



Elevation 4
scale 1:100

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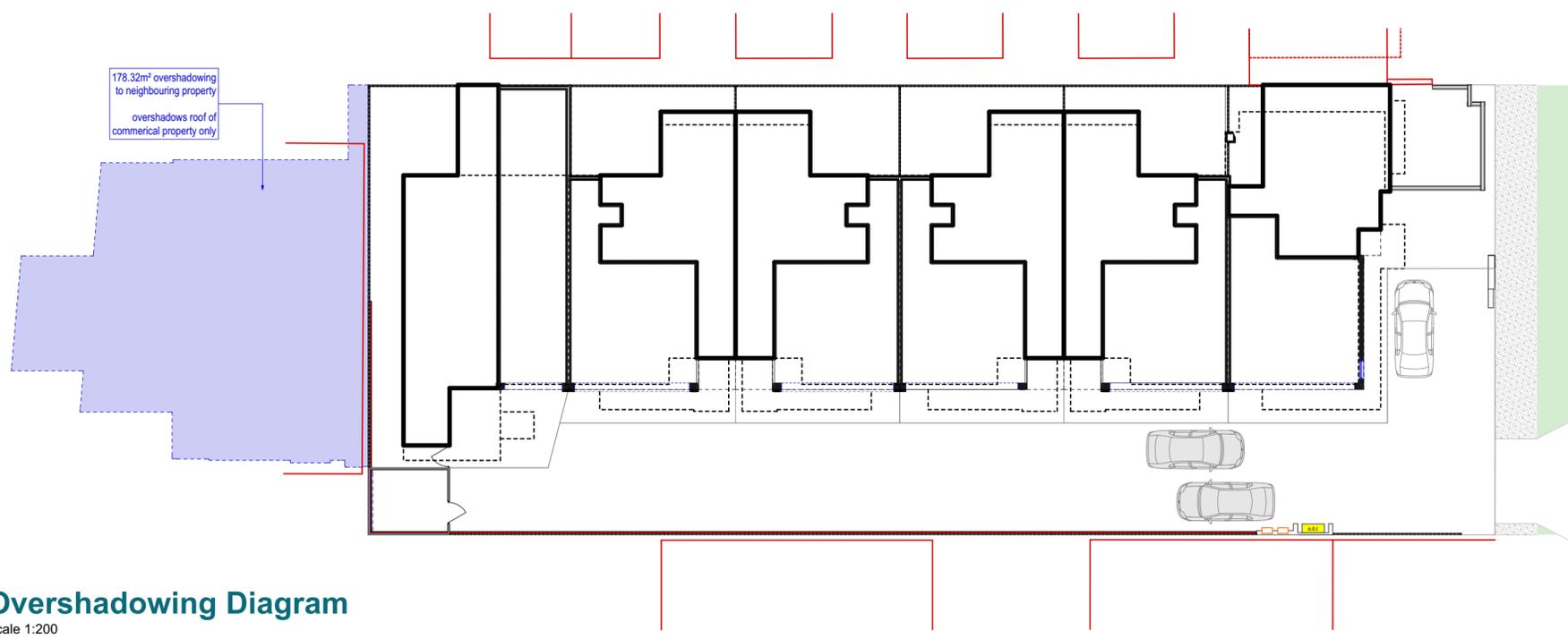
107 & 109 Summer Street

111 & 113 Summer Street

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Streetscape Elevation
NOT TO SCALE



Overshadowing Diagram
Scale 1:200

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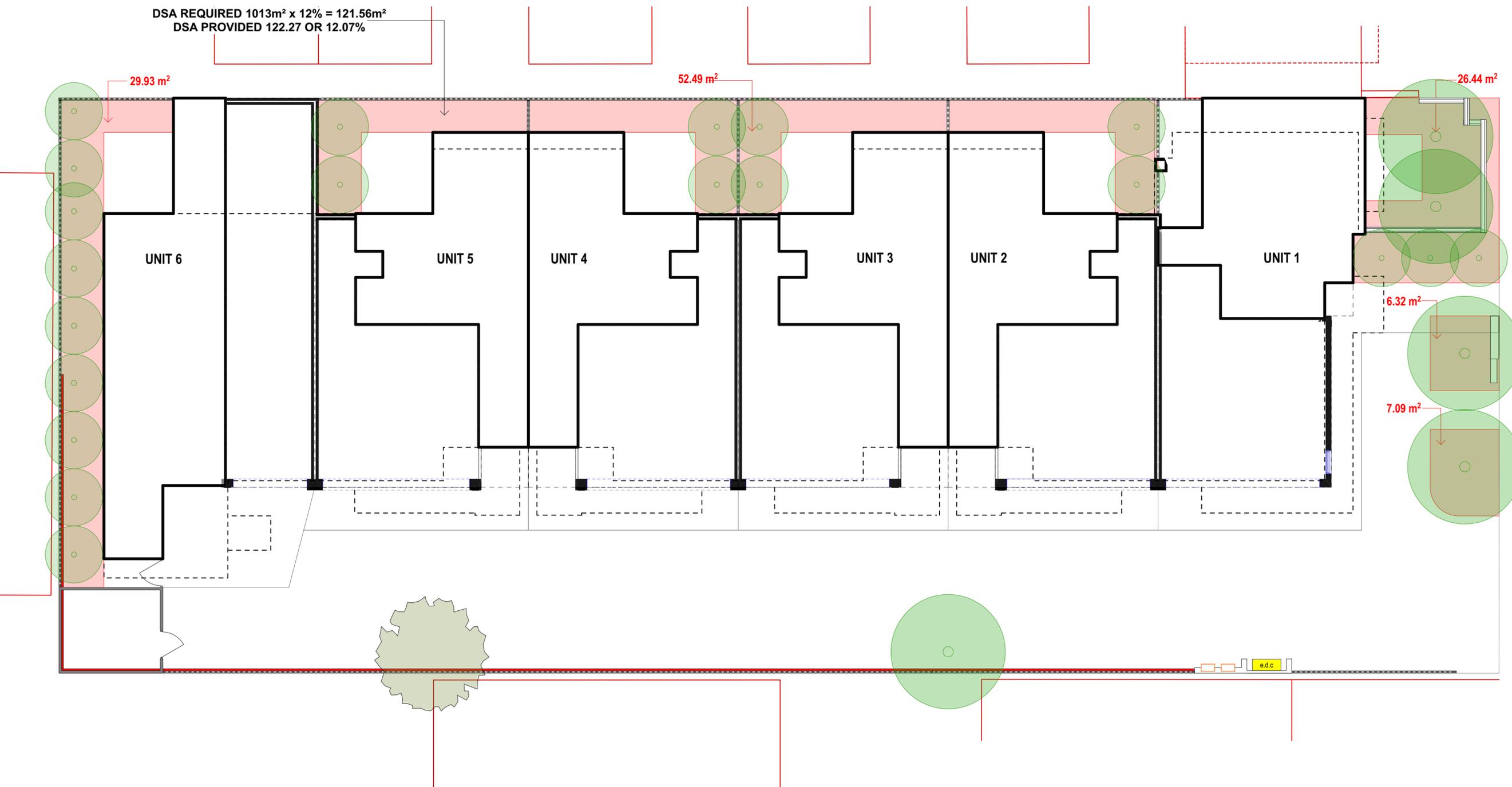
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DSA REQUIRED $1013\text{m}^2 \times 12\% = 121.56\text{m}^2$
DSA PROVIDED 122.27 OR 12.07%



Deep Soil & Tree Canopy Calculations

scale 1:100

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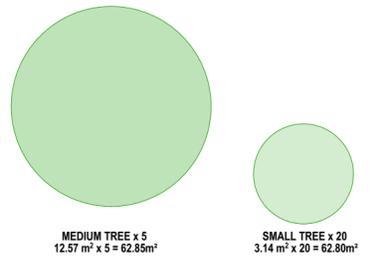
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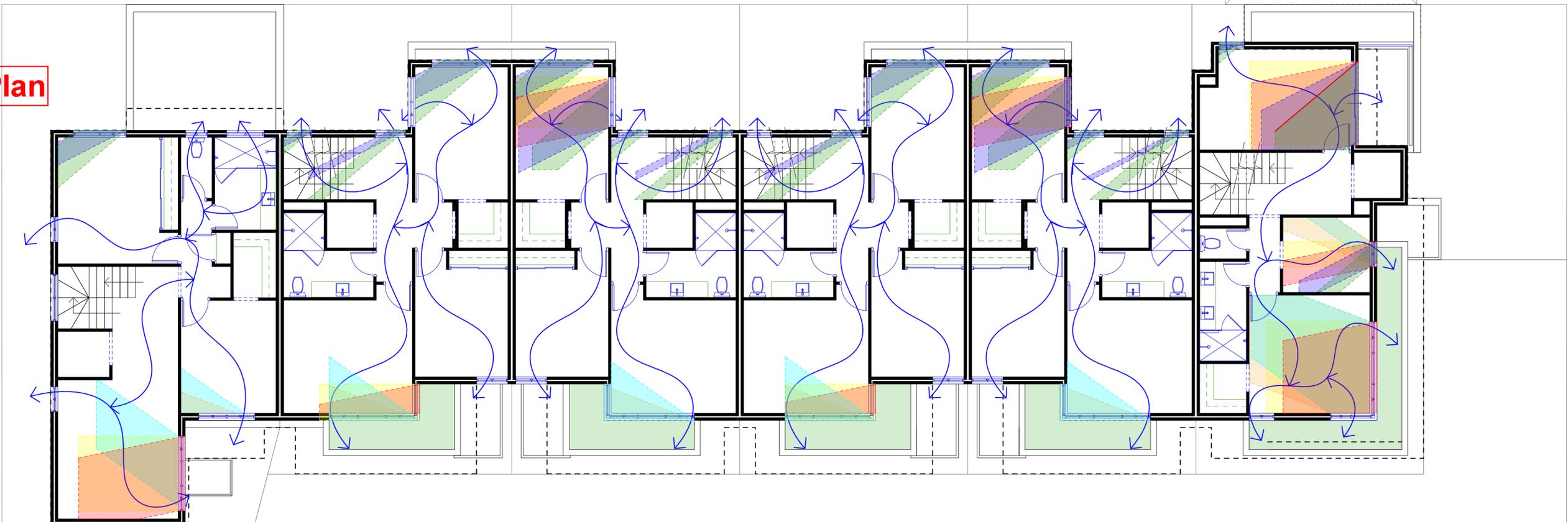
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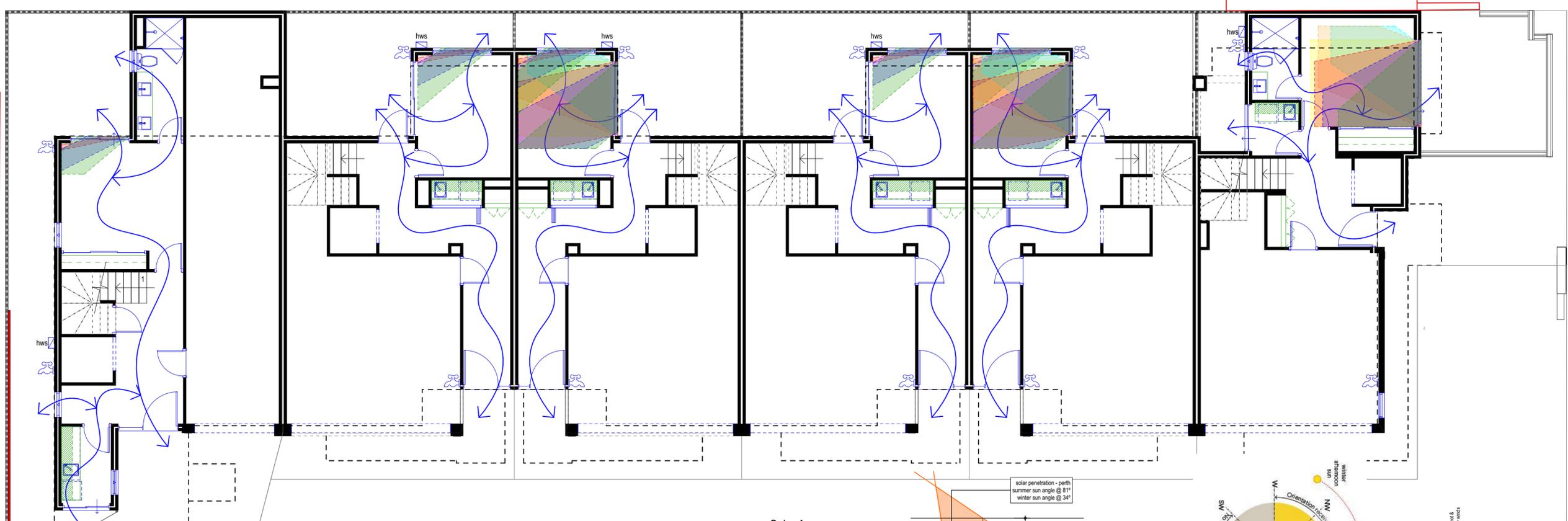
TREE CANOPY COVER REQUIRED $1013\text{m}^2 \times 30\% = 303.90\text{m}^2$
TREE CANOPY COVER PROVIDED 138.22m^2 or 13.64%

Amended Plan



Sunlight Access & Breeze Path (2nd Floor)

scale 1:100



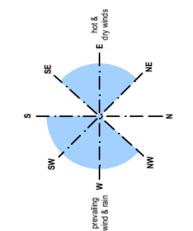
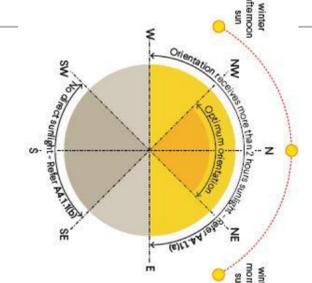
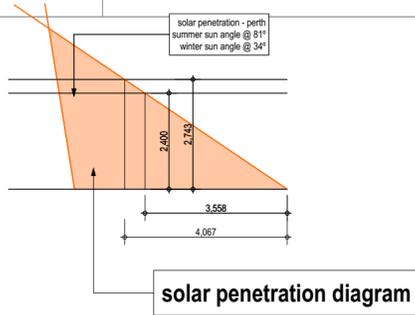
Sunlight Access & Breeze Path (1st Floor)

scale 1:100



Solar Access
Winter Solstice (21 June)

10:00
11:00
12:00 NOON
13:00
14:00
15:00



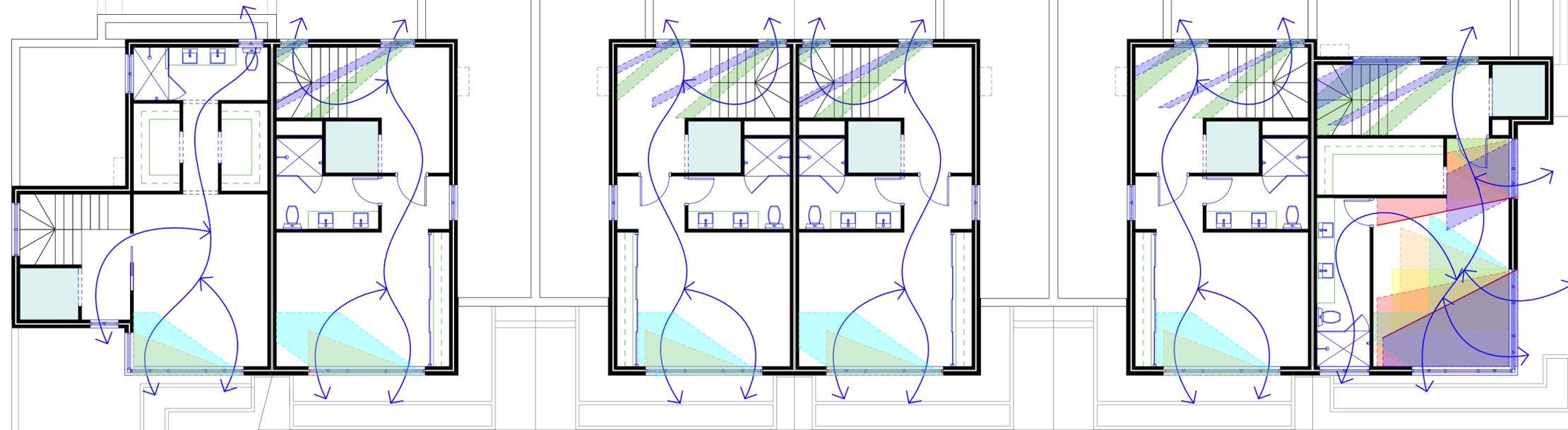
Prevailing Wind Direction

Sunlight Diagram
as per Figure 4.1b

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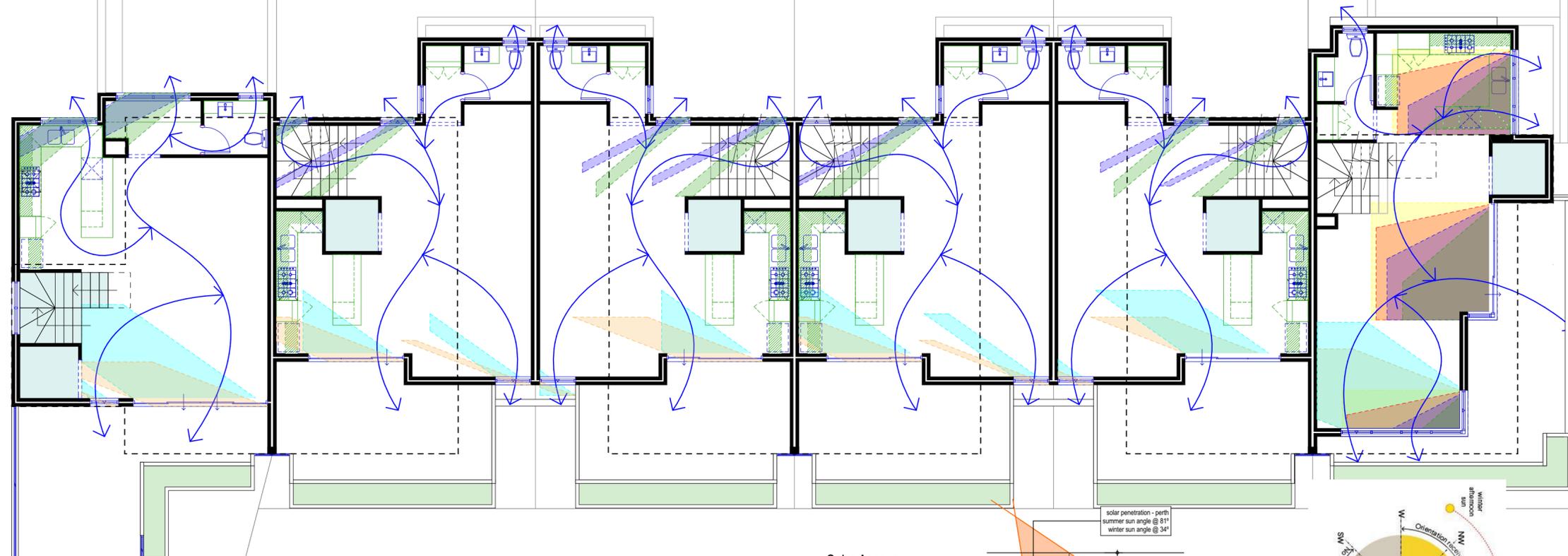
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Sunlight Access & Breeze Path (4th Floor)

scale 1:100



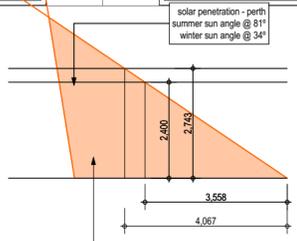
Sunlight Access & Breeze Path (3rd Floor)

scale 1:100

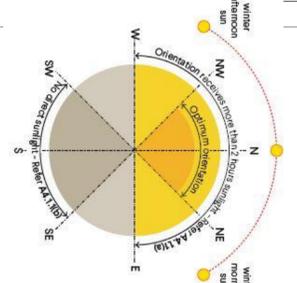


Solar Access
Winter Solstice (21 June)

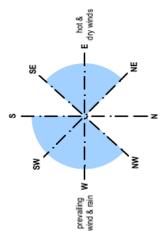
10:00
11:00
12:00 NOON
13:00
14:00
15:00



solar penetration diagram



Sunlight Diagram
as per Figure 4.1b



Prevailing Wind Direction

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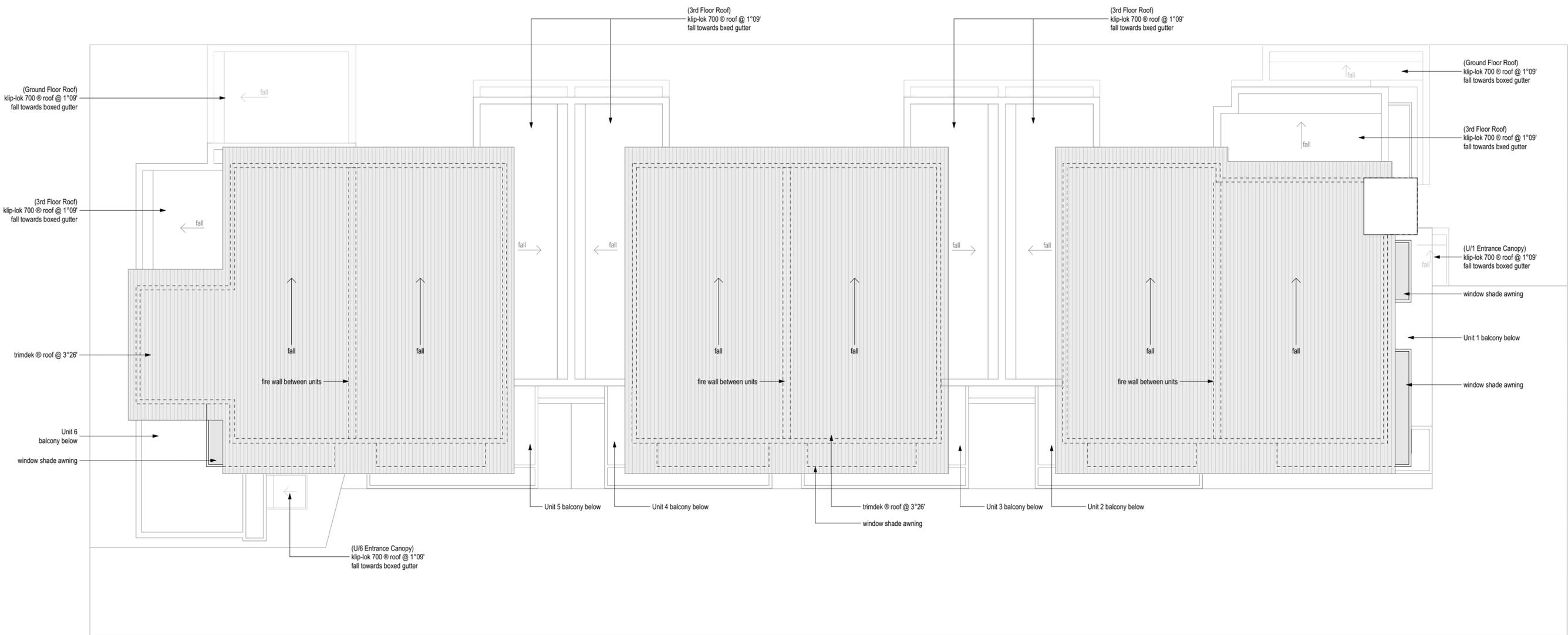
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Roof Plan
scale 1:100

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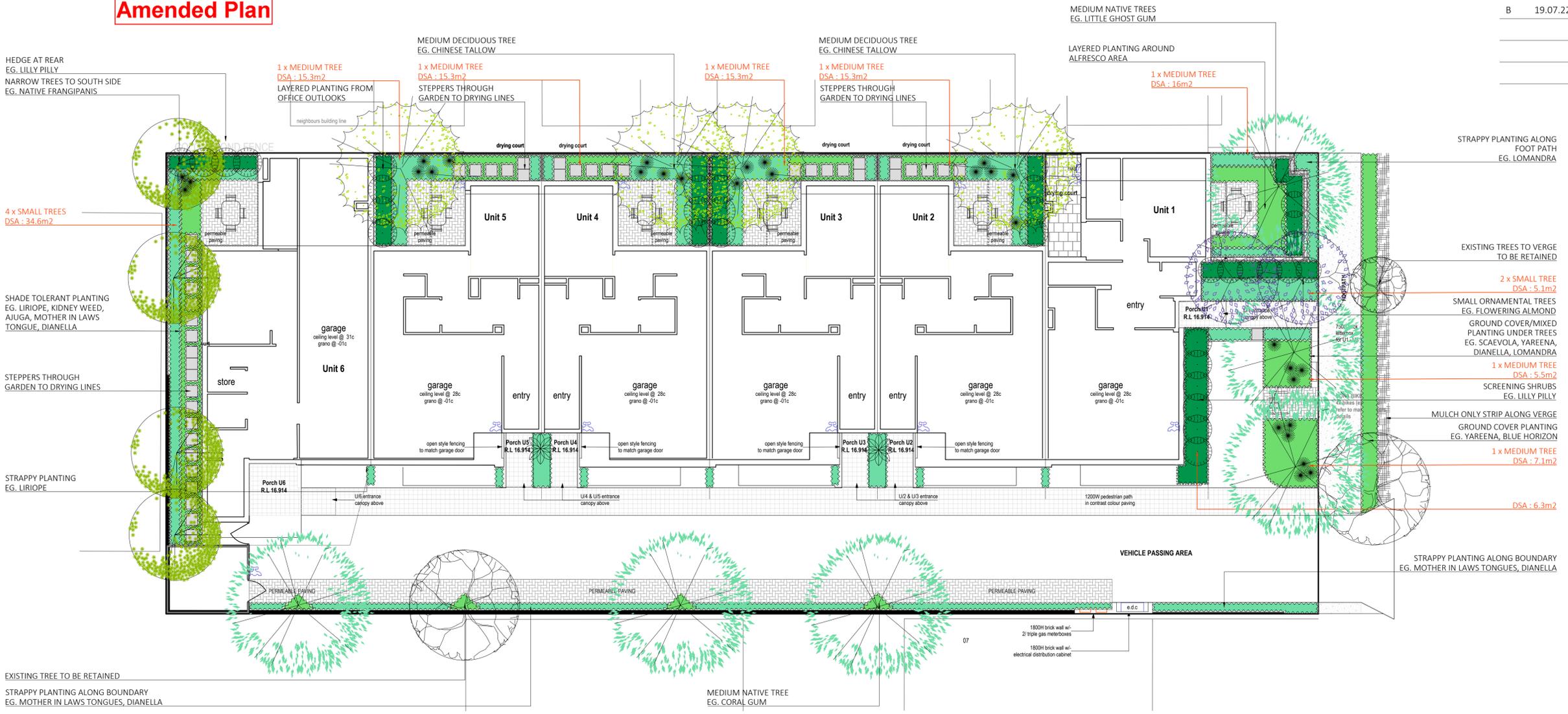
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A	20.05.22	KD	KD	LANDSCAPE CONCEPT PLAN - GROUND FLOOR
B	19.07.22	AC	KD	LANDSCAPE CONCEPT PLAN - GROUND FLOOR



LEGEND

TREES

- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO VERGE TO BE RETAINED
- SELECTED MEDIUM TREES EG. CORAL GUM, LITTLE GHOST GUM, TUCKEROO
- SELECTED NARROW TREES EG. NATIVE FRANGIPANI
- SELECTED SMALL TREES EG. FLOWERING ALMOND, CREPE MYRTLE
- SELECTED MEDIUM TREES EG. CHINESE TALLOW

FEATURE PLANTS

- SELECTED FEATURE PLANTING

PLANTING

- PLANTING TYPE 01 GROUNDCOVERS
- PLANTING TYPE 02 SHRUBS
- PLANTING TYPE 03 STRAPPY/MIXED PLANTING
- PLANTING TYPE 04 CASCADING PLANTING

OTHER

- DEEP SOIL AREAS (DSA)
- PERMEABLE PAVING
- 500x500mm STEPPERS



REFER PAGE 102 FOR PLANTING PALETTE AND PLANTING NOTES

LANDSCAPE AREA CALCULATIONS

LANDSCAPE AREAS

Total Landscape areas:
 Ground floor = 142.7m²
 Level 01 = 29.6m²
 Level 03 = 20.9m²

Additional Permeable Paving Areas: 76.5m² (7.5%)
 Total Permeable/Landscape Areas: 269.7m² (26.6%)

DEEP SOIL AREAS (DSA)

With an existing mature tree being retained, this site requires 7% DSA
 Ground Floor DSA areas (includes up to 20% permeable paving per courtyard)
 Total: 140m² (13.8%)

CANOPY COVER

Existing Mature Tree (approx 5m canopy) x 1 = 19.6m²
 Proposed Medium Trees (5m + canopy) x 10 = 283m²
 Proposed Small Trees (4m canopy) x 6 = 75.6m²
 Total Canopy Cover = 378.2m² (37% of site)



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A	19.07.22	AC	KD	LANDSCAPE CONCEPT PLAN - LEVEL 01

PLANTING PALETTE

Symbol	Species	Common Name	Spacing	Size
Trees:				
COORic	Corymbia ficifolia (grafted)	WA Red Flowering Gum	As Shown	100L
OU Pana	Cupaniopsis anacardioides	Tuckeroo	As Shown	100L
EUQOr	Eucalyptus forrestiana	Fushia Gum	As Shown	100L
EUQOr	Eucalyptus torquata	Coral Gum	As Shown	100L
EUQvic	Eucalyptus vitrix	Little Ghost Gum	As Shown	100L
HYMfla	Hymenosporum flavum	Native Frangipani	As Shown	100L
LAGind	Lagerstroemia indica	White Crepe Myrtle	As Shown	100L
LAGus	Lagerstroemia tuscaraora	Crepe Myrtle	As Shown	100L
PRUdul	Prunus dulcis	Flowering Almond	As Shown	100L
SAPseb	Sapium sebifera	Chinese Tallow	As Shown	100L
Shrubs and Groundcovers:				
ADEcun	Adenanthos cuneatus	Coral Carpet	3/m2	140mm
ALJrep	Ajuga reptans	Bungle weed	3/m2	140mm
ANIGol	Anigozanthos 'Gold Velvet'	Gold Kangaroo Paw	3/m2	140mm
CAScou	Casuarina glauca 'Cousin It'	Cousin It	3/m2	140mm
DI Aeme	Dianella tasmanica 'Emerald Arch'	Emerald Arch	3/m2	140mm
DI Abla	Dianella tasmanica 'Blaze'	Blaze	3/m2	140mm
DI Awye	Dianella tasmanica 'Wyeena'	Wyeena	3/m2	140mm
DI Crep	Dichondra repens	Kidney Weed	3/m2	140mm
DICsil	Dichondra 'Silver Falls'	Silver Falls	3/m2	140mm
ECHimb	Echeveria imbricata	Blue Rose	3/m2	140mm
EREBlu	Eremophila 'Blue Horizon'	Blue Horizon	3/m2	140mm
GREgin	Grevillea 'Gin Gin Gem'	Gin Gin Gem	3/m2	140mm
HARwhi	Hardenbergia violacea 'White Out'	White Native Wisteria	3/m2	140mm
LELbro	Leucophyta brownii	Silver Cushion Bush	3/m2	140mm
LOMmya	Lomandra 'Nyalia'	Nyalia	3/m2	140mm
LOMTan	Lomandra 'Tanika'	Tanika	3/m2	140mm
PHIXan	Philodendron xanadu	Xanadu	3/m2	140mm
PIMfer	Pimelea ferruginea	Rice Flower	2/lin.m	200mm
PITmis	Pittosporum tobira 'Miss Muffet'	Miss Muffet	2/lin.m	140mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	3/m2	140mm
RHIAcri	Rhapiolepis 'Oriental Pearl'	Dwarf Indian Hawthorn	2/lin.m	200mm
ROSPro	Rosemarinus officinalis prostratus	Creeping Rosemary	3/m2	140mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	3/m2	200mm
SCAhum	Scaevola humilis 'Purple Fusion'	Fan Flower	3/m2	140mm
SYZora	Syzygium 'Orange Twist'	Orange Twist Lilly Pilly	2/lin.m	200mm
SYZbus	Syzygium Bush Cherry	Bush Cherry Lilly Pilly	2/lin.m	200mm
VIBodo	Viburnum odoratissimum	Dense Fence	2/lin.m	200mm
VIBtin	Viburnum tinus	Laurustinus	2/lin.m	200mm
WESgre	Westringia 'Grey Box'	Compact Coastal Rosemary	3/m2	140mm
Feature Plants:				
AGAatt	Agave attenuata	Foxtail	As shown	12L
CYCrev	Cycad revoluta	Cycad	As shown	12L
STRreg	Strelitzia reginaea	Bird of Paradise	As shown	12L
ZAMfur	Zamia furcata	Cardboard Palm	As shown	12L

NOTES

- GENERAL**
 - DRAINAGE FROM THE RAISED PLANTER AREAS AND POTS TO BE PROVIDED BY BUILDER
 - ALL SCALES ARE AS NOTED AND TO SUIT A1 PAPER SIZE
 - THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS REVISED 'O' ISSUED FOR CONSTRUCTION AND SIGNED AND APPROVED BY PROJECT MANAGER/SUPERINTENDENT
 - PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.
- SOIL PREPARATION**
 - ALL AREAS ARE TO BE FINE GRADED EVENLY TO CONFORM TO KERB LEVELS AND SURROUNDING FINISHES.
 - SURFACES SHALL BE FREE FROM DEPRESSIONS, IRREGULARITIES AND NOTICEABLE CHANGES IN GRADE. GENERALLY, GRADES SHALL DEVIATE IN LEVEL NO GREATER THAN 20mm IN ONE LINEAR METRE.
 - PLANTED AREAS SHALL BE SPREAD WITH MIN. 50mm OF APPROVED STANDARD SOIL CONDITIONER THAT SHALL BE RIPPED INTO EXISTING SOIL TO A MIN. DEPTH OF 200mm.
 - RAISED PLANTER AREAS AND POTS SHALL BE INSTALLED WITH APPROPRIATE DRAINAGE CELL, AGGREGATE AND GEOTEXTILE MEMBRANE BELOW SOIL.
 - FILL SOIL TO RAISED PLANTER AREAS AND POTS TO BE APPROVED LIGHTWEIGHT LANDSCAPE MIX.
 - ALL SITE AND IMPORTED SOILS, POTTING MIX, SOIL CONDITIONERS AND MULCHES TO BE IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS.
- PLANTING**
 - PLANTED AREAS SHALL BE MULCHED WITH AN ORGANIC (WOODCHIP) MULCH UNLESS OTHERWISE STATED TO A MINIMUM DEPTH OF 75mm.
 - ADVANCED TREES SHALL BE STAKED W/ 50x50mm DIA HARDWOOD POSTS. POSTS SHALL BE PAINTED BLACK AND INSTALLED TO A MIN DEPTH OF 500mm. TREES SHALL BE SECURED TO POLES W/ RUBBER TIES IN FIGURE 8.
 - TREES PLANTED WITH IN 1000mm OF BOUNDARY WALLS AND/OR PARKING AREAS SHALL BE INSTALLED WITHIN 600mm DEPTH NYLEX ROOT BARRIER MEMBRANE. MEMBRANE SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
 - FINAL PLANTING SHALL BE SELECTED FROM PLANTING PALETTE SCHEDULE.
 - PLANTS TO BE SET OUT IN EVEN SPACING TO FILL THE DESIGNATED AREAS.
 - IN AREAS OF MIXED PLANTING, SPECIES TO BE SPREAD OUT AT RANDOM, IN GROUPINGS OF 2 OR 3.
 - PLANTS SHALL BE SUPPLIED FROM AN INDUSTRY ACCREDITED WHOLESALE NURSERY. PLANTS SHALL BE IN APPROPRIATE SIZE FOR THE LISTED POT SIZE AND IN GOOD HEALTH.
- IRRIGATION**
 - PLANTING TO GROUND LEVEL TO BE IRRIGATED VIA A FULLY AUTOMATIC SYSTEM FROM MAINS.
 - WATER PRESSURE TO HAVE A MINIMUM FLOW RATE OF 30L/PM AT 300KPA FROM THE WATER CONNECTION POINT (OR AS STIPULATED).
 - PLANTING TO COURTYARDS TO BE IRRIGATED VIA DIGITAL TAP TIMER (INDIVIDUAL CONNECTION POINTS TO BE PROVIDED).
 - PLANTING ON ALL UPPER LEVELS TO BE IRRIGATED VIA BATTERY OPERATED VALVE (CONNECTION POINTS TO BE PROVIDED TO EACH LEVEL).
 - CONTROLLER TO BE LOCATED IN SERVICE ROOM (OR AS SHOWN ON IRRIGATION DETAILS).
 - SLEEVES BENEATH PAVED SURFACES AND TO RAISED PLANTING AREAS TO BE PROVIDED BY OTHERS.
 - IRRIGATION TO GARDEN BEDS TO BE NETAFIM TECHLINE, SUB SURFACE IRRIGATION. INSTALLED TO MANUFACTURERS SPECIFICATION. IRRIGATION TO TREES TO BE BUBBLERS, TORO FLOOD BUBBLERS OR SIMILAR.
 - ASCON DRAWINGS, MANUALS AND 12 MONTH WARRANTY SHALL BE SUPPLIED BY THE IRRIGATION CONTRACTOR TO THE CLIENT UPON PRACTICAL COMPLETION.
 - PLEASE REFER TO IRRIGATION DRAWING SET FOR FINAL LAYOUT AND SCHEDULE (TO FUTURE DETAIL).



REFER PAGE 101 FOR PLANTING LEGEND

LANDSCAPE AREA CALCULATIONS

LANDSCAPE AREAS
 Total Landscape Areas:
 Ground floor = 142.7m²
 Level 01 = 29.6m²
 Level 03 = 20.9m²
 Additional Permeable Paving Areas: 76.5m² (7.5%)
 Total Permeable/Landscape Areas: 269.7m² (26.6%)

DEEP SOIL AREAS (DSA)
 With an existing mature tree being retained, this site requires 7% DSA
 Ground Floor DSA areas (includes up to 20% permeable paving per courtyard)
 Total: 140m² (13.8%)

CANOPY COVER
 Existing Mature Tree (approx 5m canopy) x 1 = 19.6m²
 Proposed Medium Trees (6m + canopy) x 10 = 283m²
 Proposed Small Trees (4m canopy) x 6 = 75.6m²
 Total Canopy Cover = 378.2m² (37% of site)



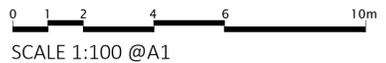
DEVELOPMENT APPROVAL

Innaloo WA 6018
 mob: 0450 965 569
 email: kelsie@kdla.com.au

JOB No. 0213

PAGE 102

REV A



SCALE 1:100 @A1



**SUMMER STREET TOWNHOUSES
 LANDSCAPE CONCEPT PLAN - LEVEL 01**

**THO LAM TRUST
 107-109 SUMMER STREET, PERTH**

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 G:\Shared drives\KDLA Design\0213 Summer Street_Urbanista\01. CAD Design\0213-SUM-LR_C.dwg

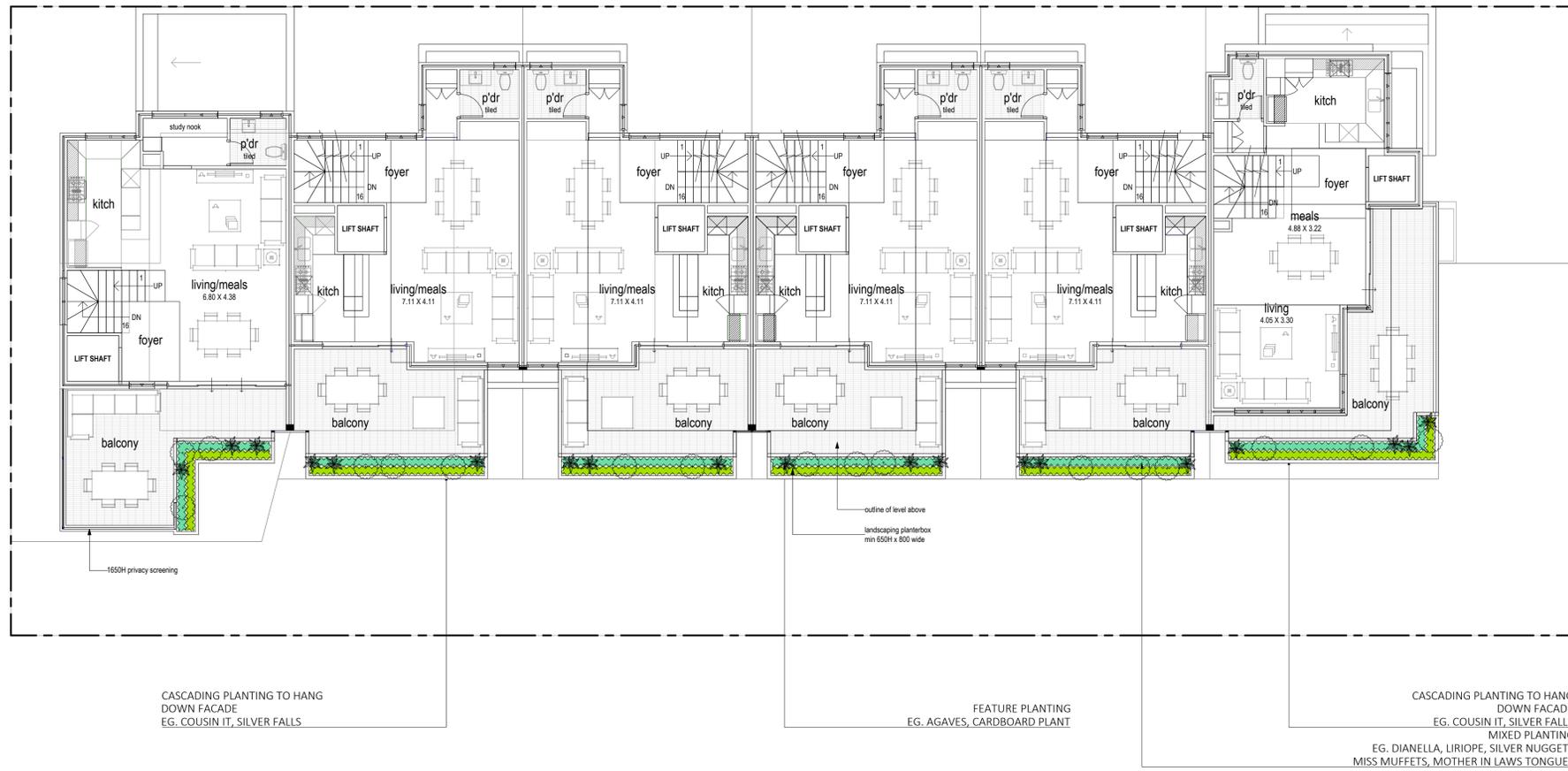
GENERAL NOTES:
 1. THIS IS A CONCEPT PLAN ONLY.
 2. ALL STRUCTURES SUBJECT TO ENGINEERING AND COUNCIL APPROVAL.
 3. ALL MEASUREMENTS TO BE CHECKED PRIOR TO CONSTRUCTION.

CITY OF VINCENT
 RECEIVED
 20 July 2022

Amended Plan

REV	DATE	DWN	APP	DESCRIPTION
A	20.05.22	KD	KD	LANDSCAPE CONCEPT PLAN - LEVEL 03
B	19.07.22	AC	KD	LANDSCAPE CONCEPT PLAN - LEVEL 03

REFER PAGE 101 FOR PLANTING LEGEND
 REFER PAGE 102 FOR PLANTING PALETTE
 AND PLANTING NOTES



LANDSCAPE AREA CALCULATIONS

LANDSCAPE AREAS
 Total Landscape areas:
 Ground floor = 142.7m²
 Level 01 = 29.6m²
 Level 03 = 20.9m²
 Additional Permeable Paving Areas: 76.5m² (7.5%)
 Total Permeable/Landscape Areas: 269.7m² (26.6%)

DEEP SOIL AREAS (DSA)
 With an existing mature tree being retained, this site requires 7% DSA
 Ground Floor DSA areas (includes up to 20% permeable paving per courtyard)
 Total: 140m² (13.8%)

CANOPY COVER
 Existing Mature Tree (approx 5m canopy) x 1 = 19.6m²
 Proposed Medium Trees (6m + canopy) x 10 = 283m²
 Proposed Small Trees (4m canopy) x 6 = 75.6m²
 Total Canopy Cover = 378.2m² (37% of site)



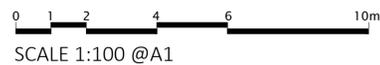
DEVELOPMENT APPROVAL

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 mob: 0450 965 569
 email: kelsie@kdla.com.au

JOB No. 0213

PAGE 103

REV B



SUMMER STREET TOWNHOUSES
 LANDSCAPE CONCEPT PLAN - LEVEL 03

THO LAM TRUST
 107-109 SUMMER STREET, PERTH

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 1 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 1 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.1



Thermal Performance Specifications							
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights	
Heating		Cooling		Total			
20.9	Mj/m2	39.1	Mj/m2	60.0	Mj/m2	6.1	No

57.0	Mj/m2	39.0	Mj/m2	70.0	Mj/m2	Climate Zone Load Limits 3.12.0.1	
------	-------	------	-------	------	-------	-----------------------------------	--

Areas	
Net Conditioned Floor Area	170.9 m2
Unconditioned Floor Area	41.0 m2
Garage Area	35.9 m2

Climate Zone	13 Perth Airport
--------------	------------------

<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 1 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>60.0</i>
<i>Heating</i>	<i>20.9</i>
<i>Cooling</i>	<i>39.1</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>170.9</i>
<i>Unconditioned Room Area</i>	<i>41.0</i>
<i>Garage Area</i>	<i>35.9</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Guest/Office</i>	<i>14.5</i>	<i>Bedroom</i>	<i>Y</i>
<i>Ensuite</i>	<i>3.9</i>	<i>Night Time</i>	<i>Y</i>
<i>Ldy</i>	<i>2.5</i>	<i>Unconditioned</i>	<i>N</i>
<i>Entry</i>	<i>14.3</i>	<i>Day Time</i>	<i>Y</i>
<i>Garage</i>	<i>35.9</i>	<i>Garage</i>	<i>N</i>
<i>Entertainment</i>	<i>15.4</i>	<i>Living</i>	<i>Y</i>
<i>Foyer</i>	<i>15.2</i>	<i>Day Time</i>	<i>Y</i>
<i>Bath</i>	<i>6.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Study/Gaming</i>	<i>6.7</i>	<i>Living</i>	<i>Y</i>
<i>Bedroom 3</i>	<i>14.7</i>	<i>Bedroom</i>	<i>Y</i>
<i>Wir</i>	<i>2.3</i>	<i>Night Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.6</i>	<i>Unconditioned</i>	<i>N</i>
<i>Kitchen/Living</i>	<i>52.8</i>	<i>Kitchen</i>	<i>Y</i>
<i>Upper Foyer</i>	<i>12.4</i>	<i>Night Time</i>	<i>Y</i>
<i>B1 Wir</i>	<i>5.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Ensuite</i>	<i>7.1</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>21.1</i>	<i>Bedroom</i>	<i>Y</i>

Walls

Type	Bulk Insulation (R)	Num Reflective Airgaps	Area (m ²)
Brick cavity	0.0	0	342.0
Single brick	0.0	0	157.2
Double Brick	0.0	0	30.1

Floors

Type	Bulk Insulation (R)	Slab edge insulation (R)	Ventilation	Area (m ²)
CSOG	0.0	0.0	enclosed	70.4
Suspended Concrete	0.0	0.0	enclosed	150.8
Suspended Concrete	0.0	0.0	open	10.1

Roofs/Ceilings

Type	Bulk Ceiling Insulation (R)	Bulk Roof Insulation (R)	Area (m ²)
SlabExt:Slab - Suspended Slab - External Insul	0.0	0.0	143.3
Cont:Attic-Continuous	4.0	0.0	88.0

Windows

Type	U-Value	SHGC	Area(m ²)
JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr	6.12	0.70	24.42
JAS-003-01 A Aluminium Premium Awning Window SG 4Clr	6.57	0.63	40.07
JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr	6.05	0.75	3.28

Window Directions

Direction	Area (m ²)
N	40.0
S	4.0
W	6.0
E	17.8

Air leakage

Item	Sealed	Unsealed
Generic Vent	-	0
Unflued Gas Heater	-	0
Exhaust Fan	5	0
Downlight	0	0
Chimney	0	0
Heater Flue	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Guest/Office</i>	4.7	67.8	21.3	308.9
<i>Bath</i>	14.7	90.1	3.2	19.5
<i>Foyer</i>	11.6	176.7	1.7	25.9
<i>Ensuite</i>	0.2	1.3	8.2	57.9
<i>Bedroom 3</i>	0.5	7.8	21.3	312.7
<i>B1 Wir</i>	1.1	6.0	10.5	59.7
<i>Ensuite</i>	42.6	164.5	13.5	52.1
<i>Wir</i>	0.2	0.5	11.9	27.0
<i>Kitchen/Living</i>	8.9	468.0	70.5	3717.1
<i>Entertainment</i>	30.3	465.3	55.0	844.6
<i>Bedroom 1</i>	4.0	84.6	33.3	702.9
<i>Study/Gaming</i>	6.0	39.7	9.6	63.9
<i>Upper Foyer</i>	16.2	200.6	51.9	642.0
<i>Entry</i>	133.3	1900.6	2.7	38.7

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 1 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	230.5	1153	1140	5	Yes
Verandah balcony or the like	25.9	104	100	4	Yes
Class 10a buildings	39.8	119	100	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm =	Exhaust Fan/Range-hood % =	light sqm =	light % =	
	0.02		0.005		
	5	0.1	0	0	
Max. permitted Ceiling Penetration	0.5%				Total = 0.04%
Proposed Ceiling Penetration	0.04%		0.00%		

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 2 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 2 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.3



Thermal Performance Specifications						
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights
Heating	Cooling	Total				
38.7 Mj/m2	26.2 Mj/m2	64.9 Mj/m2		6.3	No	

57.0 Mj/m2	39.0 Mj/m2	70.0 Mj/m2		Climate Zone Load Limits 3.12.0.1	
------------	------------	------------	--	-----------------------------------	--

Areas	
Net Conditioned Floor Area	177.4 m2
Unconditioned Floor Area	36.5 m2
Garage Area	33.6 m2

Climate Zone	13 Perth Airport
--------------	------------------

<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 2 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>64.9</i>
<i>Heating</i>	<i>38.7</i>
<i>Cooling</i>	<i>26.2</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>177.4</i>
<i>Unconditioned Room Area</i>	<i>36.5</i>
<i>Garage Area</i>	<i>33.6</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Office</i>	<i>11.6</i>	<i>Day Time</i>	<i>Y</i>
<i>Entry/Passage</i>	<i>23.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Garage</i>	<i>33.6</i>	<i>Garage</i>	<i>N</i>
<i>Bedroom 3</i>	<i>12.4</i>	<i>Bedroom</i>	<i>Y</i>
<i>B3 Wir</i>	<i>2.2</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 2</i>	<i>12.1</i>	<i>Bedroom</i>	<i>Y</i>
<i>Multi Purpose</i>	<i>15.0</i>	<i>Living</i>	<i>Y</i>
<i>Bath</i>	<i>6.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Foyer</i>	<i>15.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.9</i>	<i>Unconditioned</i>	<i>N</i>
<i>Passage</i>	<i>2.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Kitchen/Living</i>	<i>51.2</i>	<i>Kitchen</i>	<i>Y</i>
<i>Upper Foyer</i>	<i>15.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>21.6</i>	<i>Bedroom</i>	<i>Y</i>
<i>Ensuite</i>	<i>5.6</i>	<i>Night Time</i>	<i>Y</i>

Walls

Type	Bulk Insulation (R)	Num Reflective Airgaps	Area (m ²)
Brick cavity	0.0	0	341.7
Single brick	0.0	0	144.8
Double Brick	0.0	0	14.5

Floors

Type	Bulk Insulation (R)	Slab edge insulation (R)	Ventilation	Area (m ²)
CSOG	0.0	0.0	enclosed	68.1
Suspended Concrete	0.0	0.0	enclosed	152.2
Suspended Concrete	0.0	0.0	open	8.9

Roofs/Ceilings

Type	Bulk Ceiling Insulation (R)	Bulk Roof Insulation (R)	Area (m ²)
SlabExt:Slab - Suspended Slab - External Insul	0.0	0.0	157.0
Cont:Attic-Continuous	4.0	0.0	72.2

Windows

Type	U-Value	SHGC	Area(m ²)
JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr	6.12	0.70	12.98
JAS-001-01 A Aluminium Premium Sliding Window SG 4Clr	6.60	0.74	6.00
JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr	6.05	0.75	2.08
JAS-003-01 A Aluminium Premium Awning Window SG 4Clr	6.57	0.63	22.48

Window Directions

Direction	Area (m ²)
N	9.0
W	12.1
E	21.2
S	1.2

Air leakage

Item	Sealed	Unsealed
Generic Vent	-	0
Unflued Gas Heater	-	0
Exhaust Fan	4	0
Downlight	0	0
Chimney	0	0
Heater Flue	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Bedroom 3</i>	<i>0.0</i>	<i>0.3</i>	<i>5.8</i>	<i>72.3</i>
<i>Bedroom 2</i>	<i>0.0</i>	<i>0.2</i>	<i>4.7</i>	<i>56.3</i>
<i>Bedroom 1</i>	<i>18.7</i>	<i>402.3</i>	<i>20.6</i>	<i>443.6</i>
<i>Bath</i>	<i>39.8</i>	<i>242.4</i>	<i>1.7</i>	<i>10.2</i>
<i>Entry/Passage</i>	<i>122.9</i>	<i>2828.3</i>	<i>1.7</i>	<i>39.6</i>
<i>Ensuite</i>	<i>4.5</i>	<i>24.9</i>	<i>3.7</i>	<i>20.8</i>
<i>Foyer</i>	<i>47.1</i>	<i>710.8</i>	<i>5.3</i>	<i>80.0</i>
<i>Multi Purpose</i>	<i>40.2</i>	<i>602.1</i>	<i>31.6</i>	<i>473.7</i>
<i>Kitchen/Living</i>	<i>13.5</i>	<i>693.5</i>	<i>30.4</i>	<i>1556.3</i>
<i>B3 Wir</i>	<i>0.0</i>	<i>0.0</i>	<i>1.0</i>	<i>2.2</i>
<i>Office</i>	<i>69.5</i>	<i>807.5</i>	<i>139.1</i>	<i>1616.2</i>
<i>Passage</i>	<i>128.2</i>	<i>262.7</i>	<i>38.1</i>	<i>78.1</i>
<i>Upper Foyer</i>	<i>23.7</i>	<i>372.9</i>	<i>16.5</i>	<i>258.9</i>

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 2 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	228.4	1142	1140	5	Yes
Verandah balcony or the like	19.9	80	80	4	Yes
Class 10a buildings	39.8	119	100	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm =	Exhaust Fan/Range-hood % =	light sqm =	light % =	
	0.02		0.005		
	4	0.08	0	0	
Max. permitted Ceiling Penetration	0.5%				Total = 0.04%
Proposed Ceiling Penetration	0.04%		0.00%		

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 3 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 3 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.3



Thermal Performance Specifications						
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights
Heating	Cooling	Total				
38.8 Mj/m2	25.5 Mj/m2	64.3 Mj/m2		6.3	No	

57.0 Mj/m2	39.0 Mj/m2	70.0 Mj/m2	Climate Zone Load Limits 3.12.0.1			
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Areas	
Net Conditioned Floor Area	177.4 m2
Unconditioned Floor Area	36.5 m2
Garage Area	33.6 m2

Climate Zone	13 Perth Airport
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<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 3 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>64.3</i>
<i>Heating</i>	<i>38.8</i>
<i>Cooling</i>	<i>25.5</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>177.2</i>
<i>Unconditioned Room Area</i>	<i>36.5</i>
<i>Garage Area</i>	<i>33.6</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Office</i>	<i>11.6</i>	<i>Day Time</i>	<i>Y</i>
<i>Entry/Passage</i>	<i>23.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Garage</i>	<i>33.6</i>	<i>Garage</i>	<i>N</i>
<i>Bedroom 3</i>	<i>12.4</i>	<i>Bedroom</i>	<i>Y</i>
<i>B3 Wir</i>	<i>2.2</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 2</i>	<i>12.1</i>	<i>Bedroom</i>	<i>Y</i>
<i>Multi Purpose</i>	<i>15.0</i>	<i>Living</i>	<i>Y</i>
<i>Bath</i>	<i>6.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Foyer</i>	<i>15.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.9</i>	<i>Unconditioned</i>	<i>N</i>
<i>Passage</i>	<i>2.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Kitchen/Living</i>	<i>51.2</i>	<i>Kitchen</i>	<i>Y</i>
<i>Upper Foyer</i>	<i>15.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>21.6</i>	<i>Bedroom</i>	<i>Y</i>
<i>Ensuite</i>	<i>5.6</i>	<i>Night Time</i>	<i>Y</i>

Walls

Type	Bulk Insulation (R)	Num Reflective Airgaps	Area (m ²)
Brick cavity	0.0	0	341.7
Single brick	0.0	0	144.8
Double Brick	0.0	0	14.5

Floors

Type	Bulk Insulation (R)	Slab edge insulation (R)	Ventilation	Area (m ²)
CSOG	0.0	0.0	enclosed	68.1
Suspended Concrete	0.0	0.0	enclosed	152.2
Suspended Concrete	0.0	0.0	open	8.9

Roofs/Ceilings

Type	Bulk Ceiling Insulation (R)	Bulk Roof Insulation (R)	Area (m ²)
SlabExt:Slab - Suspended Slab - External Insul	0.0	0.0	157.0
Cont:Attic-Continuous	4.0	0.0	72.2

Windows

Type	U-Value	SHGC	Area(m ²)
JAS-001-01 A Aluminium Premium Sliding Window SG 4Clr	6.60	0.74	6.00
JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr	6.12	0.70	12.98
JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr	6.05	0.75	2.08
JAS-003-01 A Aluminium Premium Awning Window SG 4Clr	6.57	0.63	22.48

Window Directions

Direction	Area (m ²)
W	12.1
S	9.0
E	21.2
N	1.2

Air leakage

Item	Sealed	Unsealed
Generic Vent	-	0
Unflued Gas Heater	-	0
Exhaust Fan	4	0
Downlight	0	0
Chimney	0	0
Heater Flue	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Bedroom 3</i>	<i>0.7</i>	<i>8.4</i>	<i>5.2</i>	<i>65.0</i>
<i>Bedroom 2</i>	<i>0.0</i>	<i>0.1</i>	<i>5.4</i>	<i>65.7</i>
<i>Bedroom 1</i>	<i>8.9</i>	<i>190.9</i>	<i>23.3</i>	<i>501.5</i>
<i>Bath</i>	<i>29.3</i>	<i>178.8</i>	<i>1.7</i>	<i>10.6</i>
<i>Entry/Passage</i>	<i>128.2</i>	<i>2951.0</i>	<i>1.7</i>	<i>40.1</i>
<i>Ensuite</i>	<i>2.1</i>	<i>11.9</i>	<i>3.5</i>	<i>19.5</i>
<i>Foyer</i>	<i>40.8</i>	<i>615.5</i>	<i>6.4</i>	<i>96.8</i>
<i>Multi Purpose</i>	<i>28.5</i>	<i>426.8</i>	<i>34.6</i>	<i>518.3</i>
<i>Kitchen/Living</i>	<i>10.4</i>	<i>531.6</i>	<i>34.3</i>	<i>1756.5</i>
<i>B3 Wir</i>	<i>0.0</i>	<i>0.0</i>	<i>0.8</i>	<i>1.9</i>
<i>Office</i>	<i>124.2</i>	<i>1443.5</i>	<i>101.6</i>	<i>1180.7</i>
<i>Passage</i>	<i>189.7</i>	<i>388.5</i>	<i>30.6</i>	<i>62.7</i>
<i>Upper Foyer</i>	<i>14.0</i>	<i>220.0</i>	<i>16.2</i>	<i>254.6</i>

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 3 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	228.4	1142	1140	5	Yes
Verandah balcony or the like	19.9	80	80	4	Yes
Class 10a buildings	39.8	119	100	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm = 0.02 4	Exhaust Fan/Range-hood % = 0.08	light sqm = 0.005 0	light % = 0	
Max. permitted Ceiling Penetration	0.5%				
Proposed Ceiling Penetration	0.04%		0.00%		Total = 0.04%

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 4 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 4 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.3



Thermal Performance Specifications						
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights
Heating	Cooling	Total				
38.7 Mj/m2	26.2 Mj/m2	64.9 Mj/m2		6.3	No	

57.0 Mj/m2	39.0 Mj/m2	70.0 Mj/m2		Climate Zone Load Limits 3.12.0.1	
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Areas	
Net Conditioned Floor Area	177.4 m2
Unconditioned Floor Area	36.5 m2
Garage Area	33.6 m2

Climate Zone	13 Perth Airport
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<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 4 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>64.9</i>
<i>Heating</i>	<i>38.7</i>
<i>Cooling</i>	<i>26.2</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>177.4</i>
<i>Unconditioned Room Area</i>	<i>36.5</i>
<i>Garage Area</i>	<i>33.6</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Office</i>	<i>11.6</i>	<i>Day Time</i>	<i>Y</i>
<i>Entry/Passage</i>	<i>23.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Garage</i>	<i>33.6</i>	<i>Garage</i>	<i>N</i>
<i>Bedroom 3</i>	<i>12.4</i>	<i>Bedroom</i>	<i>Y</i>
<i>B3 Wir</i>	<i>2.2</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 2</i>	<i>12.1</i>	<i>Bedroom</i>	<i>Y</i>
<i>Multi Purpose</i>	<i>15.0</i>	<i>Living</i>	<i>Y</i>
<i>Bath</i>	<i>6.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Foyer</i>	<i>15.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.9</i>	<i>Unconditioned</i>	<i>N</i>
<i>Passage</i>	<i>2.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Kitchen/Living</i>	<i>51.2</i>	<i>Kitchen</i>	<i>Y</i>
<i>Upper Foyer</i>	<i>15.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>21.6</i>	<i>Bedroom</i>	<i>Y</i>
<i>Ensuite</i>	<i>5.6</i>	<i>Night Time</i>	<i>Y</i>

Walls

Type	Bulk Insulation (R)	Num Reflective Airgaps	Area (m ²)
Brick cavity	0.0	0	341.7
Single brick	0.0	0	144.8
Double Brick	0.0	0	14.5

Floors

Type	Bulk Insulation (R)	Slab edge insulation (R)	Ventilation	Area (m ²)
CSOG	0.0	0.0	enclosed	68.1
Suspended Concrete	0.0	0.0	enclosed	152.2
Suspended Concrete	0.0	0.0	open	8.9

Roofs/Ceilings

Type	Bulk Ceiling Insulation (R)	Bulk Roof Insulation (R)	Area (m ²)
SlabExt:Slab - Suspended Slab - External Insul	0.0	0.0	157.0
Cont:Attic-Continuous	4.0	0.0	72.2

Windows

Type	U-Value	SHGC	Area(m ²)
JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr	6.12	0.70	12.98
JAS-001-01 A Aluminium Premium Sliding Window SG 4Clr	6.60	0.74	6.00
JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr	6.05	0.75	2.08
JAS-003-01 A Aluminium Premium Awning Window SG 4Clr	6.57	0.63	22.48

Window Directions

Direction	Area (m ²)
N	9.0
W	12.1
E	21.2
S	1.2

Air leakage

Item	Sealed	Unsealed
Generic Vent	-	0
Unflued Gas Heater	-	0
Exhaust Fan	4	0
Downlight	0	0
Chimney	0	0
Heater Flue	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Bedroom 3</i>	<i>0.0</i>	<i>0.3</i>	<i>5.8</i>	<i>72.3</i>
<i>Bedroom 2</i>	<i>0.0</i>	<i>0.2</i>	<i>4.7</i>	<i>56.3</i>
<i>Bedroom 1</i>	<i>18.7</i>	<i>402.3</i>	<i>20.6</i>	<i>443.6</i>
<i>Bath</i>	<i>39.8</i>	<i>242.4</i>	<i>1.7</i>	<i>10.2</i>
<i>Entry/Passage</i>	<i>122.9</i>	<i>2828.3</i>	<i>1.7</i>	<i>39.6</i>
<i>Ensuite</i>	<i>4.5</i>	<i>24.9</i>	<i>3.7</i>	<i>20.8</i>
<i>Foyer</i>	<i>47.1</i>	<i>710.8</i>	<i>5.3</i>	<i>80.0</i>
<i>Multi Purpose</i>	<i>40.2</i>	<i>602.1</i>	<i>31.6</i>	<i>473.7</i>
<i>Kitchen/Living</i>	<i>13.5</i>	<i>693.5</i>	<i>30.4</i>	<i>1556.3</i>
<i>B3 Wir</i>	<i>0.0</i>	<i>0.0</i>	<i>1.0</i>	<i>2.2</i>
<i>Office</i>	<i>69.5</i>	<i>807.5</i>	<i>139.1</i>	<i>1616.2</i>
<i>Passage</i>	<i>128.2</i>	<i>262.7</i>	<i>38.1</i>	<i>78.1</i>
<i>Upper Foyer</i>	<i>23.7</i>	<i>372.9</i>	<i>16.5</i>	<i>258.9</i>

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 4 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	228.4	1142	1140	5	Yes
Verandah balcony or the like	19.9	80	80	4	Yes
Class 10a buildings	39.8	119	100	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm =	Exhaust Fan/Range-hood % =	light sqm =	light % =	
	0.02		0.005		
	4	0.08	0	0	
Max. permitted Ceiling Penetration	0.5%				Total = 0.04%
Proposed Ceiling Penetration	0.04%		0.00%		

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 5 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 5 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.3



Thermal Performance Specifications							
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights	
Heating		Cooling		Total			
38.8	Mj/m2	25.5	Mj/m2	64.3	Mj/m2	6.3	No

57.0	Mj/m2	39.0	Mj/m2	70.0	Mj/m2	Climate Zone Load Limits 3.12.0.1	
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Areas	
Net Conditioned Floor Area	177.4 m2
Unconditioned Floor Area	36.5 m2
Garage Area	33.6 m2

Climate Zone	13 Perth Airport
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<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 5 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>64.3</i>
<i>Heating</i>	<i>38.8</i>
<i>Cooling</i>	<i>25.5</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>177.2</i>
<i>Unconditioned Room Area</i>	<i>36.5</i>
<i>Garage Area</i>	<i>33.6</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Office</i>	<i>11.6</i>	<i>Day Time</i>	<i>Y</i>
<i>Entry/Passage</i>	<i>23.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Garage</i>	<i>33.6</i>	<i>Garage</i>	<i>N</i>
<i>Bedroom 3</i>	<i>12.4</i>	<i>Bedroom</i>	<i>Y</i>
<i>B3 Wir</i>	<i>2.2</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 2</i>	<i>12.1</i>	<i>Bedroom</i>	<i>Y</i>
<i>Multi Purpose</i>	<i>15.0</i>	<i>Living</i>	<i>Y</i>
<i>Bath</i>	<i>6.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Foyer</i>	<i>15.1</i>	<i>Day Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.9</i>	<i>Unconditioned</i>	<i>N</i>
<i>Passage</i>	<i>2.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Kitchen/Living</i>	<i>51.2</i>	<i>Kitchen</i>	<i>Y</i>
<i>Upper Foyer</i>	<i>15.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>21.6</i>	<i>Bedroom</i>	<i>Y</i>
<i>Ensuite</i>	<i>5.6</i>	<i>Night Time</i>	<i>Y</i>

Walls

Type	Bulk Insulation (R)	Num Reflective Airgaps	Area (m ²)
Brick cavity	0.0	0	341.7
Single brick	0.0	0	144.8
Double Brick	0.0	0	14.5

Floors

Type	Bulk Insulation (R)	Slab edge insulation (R)	Ventilation	Area (m ²)
CSOG	0.0	0.0	enclosed	68.1
Suspended Concrete	0.0	0.0	enclosed	152.2
Suspended Concrete	0.0	0.0	open	8.9

Roofs/Ceilings

Type	Bulk Ceiling Insulation (R)	Bulk Roof Insulation (R)	Area (m ²)
SlabExt:Slab - Suspended Slab - External Insul	0.0	0.0	157.0
Cont:Attic-Continuous	4.0	0.0	72.2

Windows

Type	U-Value	SHGC	Area(m ²)
JAS-001-01 A Aluminium Premium Sliding Window SG 4Clr	6.60	0.74	6.00
JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr	6.12	0.70	12.98
JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr	6.05	0.75	2.08
JAS-003-01 A Aluminium Premium Awning Window SG 4Clr	6.57	0.63	22.48

Window Directions

Direction	Area (m ²)
W	12.1
S	9.0
E	21.2
N	1.2

Air leakage

Item	Sealed	Unsealed
Generic Vent	-	0
Unflued Gas Heater	-	0
Exhaust Fan	4	0
Downlight	0	0
Chimney	0	0
Heater Flue	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Bedroom 3</i>	<i>0.7</i>	<i>8.4</i>	<i>5.2</i>	<i>65.0</i>
<i>Bedroom 2</i>	<i>0.0</i>	<i>0.1</i>	<i>5.4</i>	<i>65.7</i>
<i>Bedroom 1</i>	<i>8.9</i>	<i>190.9</i>	<i>23.3</i>	<i>501.5</i>
<i>Bath</i>	<i>29.3</i>	<i>178.8</i>	<i>1.7</i>	<i>10.6</i>
<i>Entry/Passage</i>	<i>128.2</i>	<i>2951.0</i>	<i>1.7</i>	<i>40.1</i>
<i>Ensuite</i>	<i>2.1</i>	<i>11.9</i>	<i>3.5</i>	<i>19.5</i>
<i>Foyer</i>	<i>40.8</i>	<i>615.5</i>	<i>6.4</i>	<i>96.8</i>
<i>Multi Purpose</i>	<i>28.5</i>	<i>426.8</i>	<i>34.6</i>	<i>518.3</i>
<i>Kitchen/Living</i>	<i>10.4</i>	<i>531.6</i>	<i>34.3</i>	<i>1756.5</i>
<i>B3 Wir</i>	<i>0.0</i>	<i>0.0</i>	<i>0.8</i>	<i>1.9</i>
<i>Office</i>	<i>124.2</i>	<i>1443.5</i>	<i>101.6</i>	<i>1180.7</i>
<i>Passage</i>	<i>189.7</i>	<i>388.5</i>	<i>30.6</i>	<i>62.7</i>
<i>Upper Foyer</i>	<i>14.0</i>	<i>220.0</i>	<i>16.2</i>	<i>254.6</i>

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 5 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	228.4	1142	1140	5	Yes
Verandah balcony or the like	19.9	80	80	4	Yes
Class 10a buildings	39.8	119	100	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm =	Exhaust Fan/Range-hood % =	light sqm =	light % =	
	0.02		0.005		
	4	0.08	0	0	
Max. permitted Ceiling Penetration	0.5%				Total = 0.04%
Proposed Ceiling Penetration	0.04%		0.00%		

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

ENERGY EFFICIENCY REPORT

THERMAL SIMULATION STAR RATING COMPLIANCE ASSESSMENT



Resirate

SITE ADDRESS

Unit 6 #107 & #109 Summer Street, Perth WA 6000

OWNER

Tho Lam Trust

BUILDER

JOB NUMBER

1263322

BUILDING CLASS

Class 1

DESCRIPTION

New Dwelling

COMPLIANCE STATUS

NCC 2019 Amendment 1 Compliance Achieved

CERTIFICATION DATE

15/05/22



Class 1 Building

Assessment Declaration

Assessment	1263322
Date	15/05/2022
Assessor	J.Fleming
Assessor Company	Resirate
Signature	

Mode	New Home
Project Address	Unit 6 #107 & #109 Summer Street, Perth WA 6000
Site Exposure	Suburban
Client Name	Tho Lam Trust

Star Rating 6.1



Thermal Performance Specifications							
Simulated Loads		Area adjusted			Star Rating	Rated with Downlights	
Heating		Cooling		Total			
46.0	Mj/m2	21.5	Mj/m2	67.5	Mj/m2	6.1	No

57.0	Mj/m2	39.0	Mj/m2	70.0	Mj/m2	Climate Zone Load Limits 3.12.0.1	
------	-------	------	-------	------	-------	-----------------------------------	--

Areas	
Net Conditioned Floor Area	184.1 m2
Unconditioned Floor Area	52.5 m2
Garage Area	38.3 m2

Climate Zone	13 Perth Airport
--------------	------------------

<i>Mode</i>	<i>New Home</i>
<i>Climate</i>	<i>13 Perth Airport</i>
<i>Site Exposure</i>	<i>suburban</i>
<i>Client Name</i>	<i>Tho Lam Trust</i>
<i>Rated Address</i>	<i>Unit 6 #107 & #109 Summer Street, Perth WA 6000</i>
<i>Assessor</i>	<i>J.Fleming</i>
<i>Date</i>	<i>14/05/22</i>
<i>Reference</i>	<i>1263322</i>

Energy Usage

<i>Type</i>	<i>Energy MJ/m²</i>
<i>Total</i>	<i>67.5</i>
<i>Heating</i>	<i>46.0</i>
<i>Cooling</i>	<i>21.5</i>

Areas

<i>Area</i>	<i>Size (m²)</i>
<i>Net Conditioned Floor Area (NCFA)</i>	<i>184.1</i>
<i>Unconditioned Room Area</i>	<i>52.5</i>
<i>Garage Area</i>	<i>38.3</i>

Zones

<i>Zone</i>	<i>Area (m²)</i>	<i>Conditioning Type</i>	<i>Conditioned</i>
<i>Guest Ensuite</i>	<i>5.8</i>	<i>Night Time</i>	<i>Y</i>
<i>Guest</i>	<i>15.7</i>	<i>Bedroom</i>	<i>Y</i>
<i>Entry</i>	<i>19.2</i>	<i>Day Time</i>	<i>Y</i>
<i>Ldy</i>	<i>4.0</i>	<i>Unconditioned</i>	<i>N</i>
<i>Garage</i>	<i>38.3</i>	<i>Garage</i>	<i>N</i>
<i>Bedroom 3</i>	<i>15.5</i>	<i>Bedroom</i>	<i>Y</i>
<i>WC</i>	<i>1.9</i>	<i>Unconditioned</i>	<i>N</i>
<i>Bath</i>	<i>5.6</i>	<i>Unconditioned</i>	<i>N</i>
<i>B2 Wir</i>	<i>2.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Passage</i>	<i>4.2</i>	<i>Day Time</i>	<i>Y</i>
<i>Bedroom 2</i>	<i>10.9</i>	<i>Bedroom</i>	<i>Y</i>
<i>Sitting</i>	<i>31.3</i>	<i>Living</i>	<i>Y</i>
<i>Study</i>	<i>4.0</i>	<i>Day Time</i>	<i>Y</i>
<i>Pdr</i>	<i>2.7</i>	<i>Unconditioned</i>	<i>N</i>
<i>Kitchen/Living</i>	<i>50.1</i>	<i>Kitchen</i>	<i>Y</i>
<i>Ensuite</i>	<i>5.7</i>	<i>Night Time</i>	<i>Y</i>
<i>Wir 2</i>	<i>3.0</i>	<i>Night Time</i>	<i>Y</i>

<i>Wir 1</i>	<i>3.1</i>	<i>Night Time</i>	<i>Y</i>
<i>Bedroom 1</i>	<i>20.8</i>	<i>Bedroom</i>	<i>Y</i>
<i>Foyer</i>	<i>11.1</i>	<i>Night Time</i>	<i>Y</i>

Walls

<i>Type</i>	<i>Bulk Insulation (R)</i>	<i>Num Reflective Airgaps</i>	<i>Area (m²)</i>
<i>Brick cavity</i>	<i>0.0</i>	<i>0</i>	<i>212.4</i>
<i>Brick cavity insulated</i>	<i>0.1</i>	<i>2</i>	<i>163.2</i>
<i>Single brick</i>	<i>0.0</i>	<i>0</i>	<i>169.5</i>
<i>Double Brick</i>	<i>0.0</i>	<i>0</i>	<i>7.8</i>

Floors

<i>Type</i>	<i>Bulk Insulation (R)</i>	<i>Slab edge insulation (R)</i>	<i>Ventilation</i>	<i>Area (m²)</i>
<i>CSOG</i>	<i>0.0</i>	<i>0.0</i>	<i>enclosed</i>	<i>82.7</i>
<i>Suspended Concrete</i>	<i>0.0</i>	<i>0.0</i>	<i>enclosed</i>	<i>158.6</i>
<i>Suspended Concrete</i>	<i>0.0</i>	<i>0.0</i>	<i>open</i>	<i>12.9</i>

Roofs/Ceilings

<i>Type</i>	<i>Bulk Ceiling Insulation (R)</i>	<i>Bulk Roof Insulation (R)</i>	<i>Area (m²)</i>
<i>Cont:Attic-Continuous</i>	<i>4.0</i>	<i>0.0</i>	<i>74.3</i>
<i>SlabExt:Slab - Suspended Slab - External Insul</i>	<i>0.0</i>	<i>0.0</i>	<i>180.0</i>

Windows

<i>Type</i>	<i>U-Value</i>	<i>SHGC</i>	<i>Area(m²)</i>
<i>JAS-003-01 A Aluminium Premium Awning Window SG 4Clr</i>	<i>6.57</i>	<i>0.63</i>	<i>22.45</i>
<i>JAS-009-01 A Aluminium Premium Sliding Door SG 5Clr</i>	<i>6.12</i>	<i>0.70</i>	<i>18.33</i>
<i>JAS-005-01 A Aluminium Benchmark Fixed Window SG 4Clr</i>	<i>6.05</i>	<i>0.75</i>	<i>10.21</i>
<i>JAS-001-01 A Aluminium Premium Sliding Window SG 4Clr</i>	<i>6.60</i>	<i>0.74</i>	<i>5.77</i>

Window Directions

<i>Direction</i>	<i>Area (m²)</i>
<i>S</i>	<i>13.9</i>
<i>W</i>	<i>12.7</i>
<i>E</i>	<i>25.7</i>
<i>N</i>	<i>4.4</i>

Air leakage

<i>Item</i>	<i>Sealed</i>	<i>Unsealed</i>
<i>Generic Vent</i>	-	0
<i>Unflued Gas Heater</i>	-	0
<i>Exhaust Fan</i>	6	0
<i>Downlight</i>	0	0
<i>Chimney</i>	0	0
<i>Heater Flue</i>	-	0

Zone Energy Loads

<i>Zone</i>	<i>Heating (MJ/m2)</i>	<i>Total Heating (MJ)</i>	<i>Cooling (MJ/m2)</i>	<i>Total Cooling (MJ)</i>
<i>Bedroom 2</i>	0.3	2.9	5.8	63.8
<i>Foyer</i>	55.7	620.5	28.0	311.7
<i>Bedroom 3</i>	0.3	4.7	9.2	142.5
<i>Sitting</i>	51.7	1617.5	19.2	599.3
<i>Ensuite</i>	39.2	221.8	22.0	124.2
<i>B2 Wir</i>	0.0	0.0	1.0	2.6
<i>Kitchen/Living</i>	25.2	1262.6	35.2	1763.5
<i>Wir 1</i>	4.2	13.1	4.5	14.1
<i>Guest</i>	5.0	79.4	18.9	297.6
<i>Wir 2</i>	30.8	93.7	7.5	22.8
<i>Guest Ensuite</i>	98.7	567.9	7.5	43.4
<i>Study</i>	78.1	309.6	74.7	296.2
<i>Bedroom 1</i>	7.5	155.9	11.8	245.0
<i>Passage</i>	81.9	340.7	1.8	7.6
<i>Entry</i>	170.0	3257.8	2.9	55.5

Artificial Lighting, Ceiling Penetration & NCC checklist

Unit 6 #107 & #109 Summer Street, Perth WA 6000

Artificial Lighting Calculations 3.12.5.5

Building Type	Area (m2)	Allowance	Actual (W)	W/m2	Pass
Class 1 building	253	1265	1260	5	Yes
Verandah balcony or the like	23.7	95	90	4	Yes
Class 10a buildings	43	129	120	3	Yes

Ceiling Penetration Calculations 3.12.1.1 & 3.12.1.3

Plans comply with Section 3.12.1.1 of the NCC	Exhaust Fan/Range-hood sqm =	Exhaust Fan/Range-hood % =	light sqm =	light % =	
	0.02		0.005		
	6	0.12	0	0	
Max. permitted Ceiling Penetration	0.5%				
Proposed Ceiling Penetration	0.05%		0.00%		Total = 0.05%

Construction

Building Work will comply with the following provisions:

- 3.12.0(a)(i)(B) ■ Insulation will be supplied and installed as *required* by 3.12.1.1
- 3.12.0(a)(i)(C) ■ Thermal breaks will be installed as *required* by 3.12.1.2(c) and 3.12.1.4(b)
- 3.12.0(a)(i)(E) ■ Floor edge insulation will be installed as *required* by 3.12.1.5(c) and 3.12.1.5(d)
- 3.12.0(a)(i)(F) ■ Building sealing will be undertaken as *required* by Part 3.12.3
- 3.12.0(b) ■ Services will be installed as *required* by Part 3.12.5

WA Additions All required by WA Provisions 2.3.2

- Plumbing fixtures and fittings will be as *required* by WA 2.3.1
- All Tap fittings other than Bath and Garden Taps will be minimum 4-star WELS rated.
- All Showerheads will be a minimum 3-star WELS rated
- All sanitary flushing systems will be a minimum dual-flush, 4-stars WELS rated
- Hot water system installation will be as *required* by WA 2.3.3
- Hot water system installed and insulated in accordance with AS/NZS 3500:
- Plumbing and Drainage, Part 4 Heated Water Services
- The pipe from the hot water system or re-circulating hot water system to the furthest hot water outlet will be less than either 20 m in length or 2 litres of internal volume.

Urban Design Study:

Please outline how each of the following elements have been addressed and attach any relevant or supporting photos, images, diagrams or drawings where applicable.

Description	Applicant comment
<p>Context & Character <i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i></p>	
<p>Demonstrate how you have reviewed the natural environment including topography, local flora and fauna.</p>	
<p>Demonstrate consideration of the site's streetscape character.</p>	
<p>Demonstrate review of the built and natural environment of the local context to a radius of 400m – 1000m.</p>	
<p>Demonstrate how the site's context and character influenced the development.</p> <p>Consider the following:</p> <ul style="list-style-type: none"> • History of the local area; • Heritage listed buildings in the area; • High quality contemporary buildings in the area; • Materials, textures, patterns from high quality heritage / character as well as contemporary buildings in the area; and • Movement patterns / laneways. 	
<p>Landscape quality <i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i></p>	
<p>Demonstrate review of the existing landscaping of the site and the street including mature trees, species and natural features</p>	
<p>Demonstrate how the landscape quality of the streetscape and surrounding context has been incorporated into the building and landscape design.</p>	

Description	Applicant comment
<p>Built Form & Scale <i>Good design provides development with massing and height that is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i></p>	
<p>What is the building massing and height of the streetscape? How has this been incorporated into the design?</p>	
<p>How does the development respond and contribute to the built form and scale of the streetscape?</p>	
<p>Demonstrate how the development encourages an activated and vibrant streetscape environment.</p>	
<p>Functionality & Build Quality <i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to deliver optimum benefit and performing well over the full life-cycle.</i></p>	
<p>Demonstrate how the proposed design complements the use of the building.</p>	
<p>Sustainability <i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i></p>	
<p>Demonstrate how the building performance has been optimised using suitable orientation and layout of internal spaces.</p>	
<p>Amenity <i>Good design optimises internal and external amenity for occupants, visitors and neighbours, contributing to living and working environments that are comfortable and productive.</i></p>	
<p>Demonstrate how the development optimises amenity for occupants, adjoining neighbours and onlookers</p>	
<p>Legibility <i>Good design results in buildings and places that are legible, with clear connections and memorable elements to help people find their way around.</i></p>	
<p>Demonstrate how the design allow users and visitors to navigate through the development.</p>	
<p>Safety <i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i></p>	
<p>Demonstrate how the layout of buildings on site provides safe and high level of amenity for residents.</p>	

Description	Applicant comment
<p>Community <i>Good design responds to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction.</i></p> <p>Demonstrate how the development contributes to a sense of community, encouraging social engagement and enabling stronger communities.</p>	
<p>Aesthetics <i>Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.</i></p> <p>Demonstrate how the surrounding context and character has been incorporated into the design of the development.</p>	

Please complete all sections of this application and send to mail@vincent.wa.gov.au along with all relevant attachments. Alternatively, you can submit your application in person at our **Administration Centre (244 Vincent Street, Leederville)** or post to **PO Box 82, Leederville, 6902**.

SUPERSEDED



Tho Lam Trust

ORIGINALLY LODGED PLANS

Proposed 6 Grouped Dwellings at 107 & 109 Summer Street, Perth

CITY OF VINCENT
RECEIVED
1 March 2022

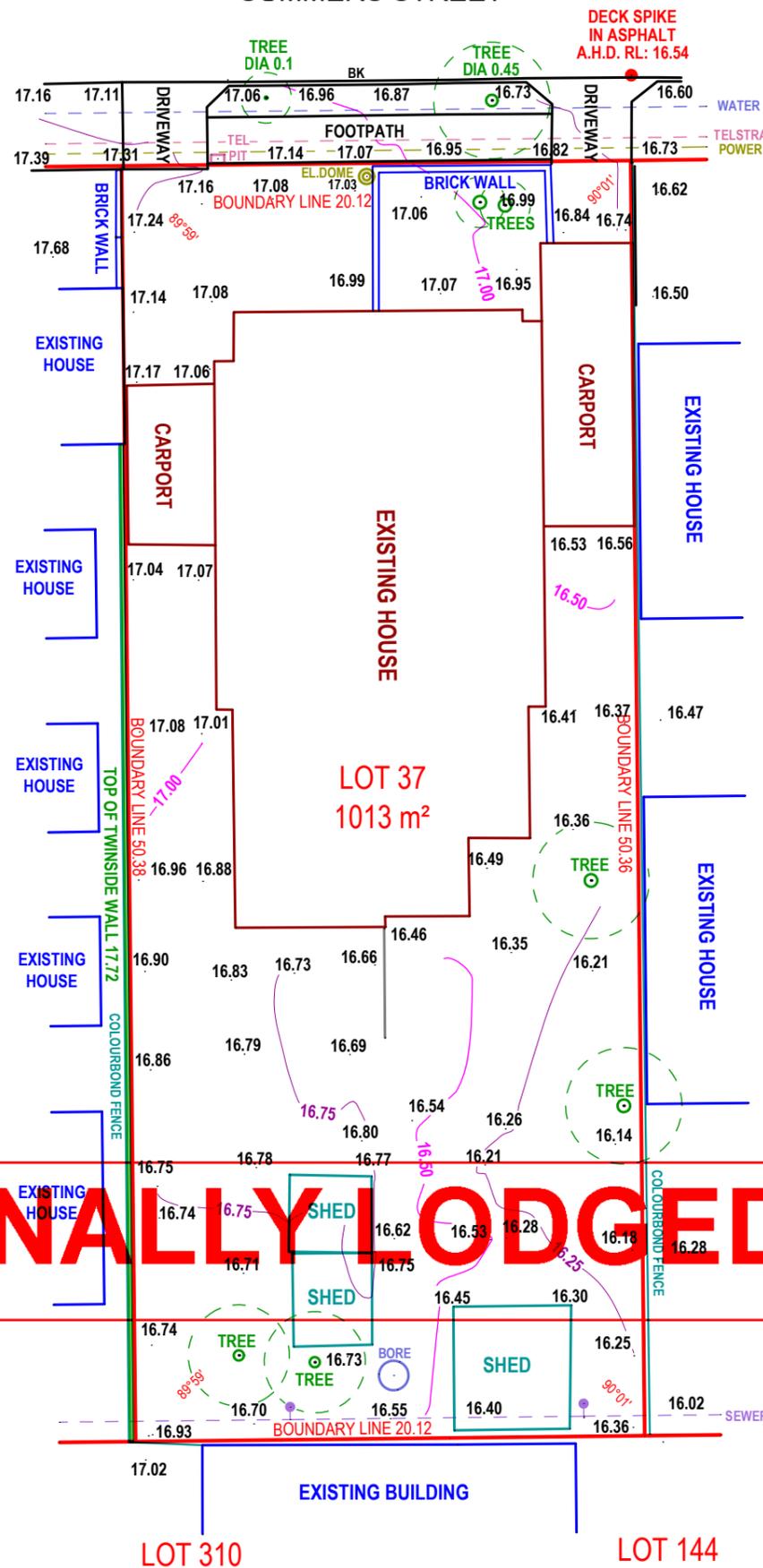
SUPERSEDED



SUMMERS STREET

SITE PLAN

BUILDER : _____
RESIDENCE



SITE LOCATION

Lot No 37
Street 107 SUMMERS STREET
Suburb PERTH
Loc. Auth CITY OF VINCENT

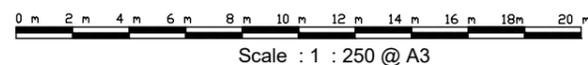
TITLE PARTICULARS

Dia/Plan -
Location -
Volume -
Folio -

SERVICES AND DETAIL

Electricity Yes
Water Yes
Sewerage Yes
Gas -
Telecom Yes
Road Asphalt
Footpath Brick paving
Kerb Barrier (BK)
View -
Objectional Features -
Access -
Improvements -
Fencing Colourbond
Adjoining Homes -
Drainage -
Re Peg Required Yes

ORIGINALLY LODGED PLANS



BUILDERS

Services to be confirmed with AUTHORITIES. For easements etc. Check Certificate of Title. Site Survey only location of boundary pegs or fences in relation to the boundary is not guaranteed. The information shown on this drawing is current as at the date of the survey. Earthworks/ set out dimension may vary on site at the builders discretion. Sewer / Drainage may vary from schematic presentation check minimum clearance. Retaining not included / in addition to contract remains owners responsibility.



Mob: 0412 078 872 Ph: (08) 9409 7682
Email : pmsurvey@inet.net.au
16 Ivory Ct, Kingsley 6026, Perth WA

Surveyor : Dragan Siljanovski

Drawn : Dragan Siljanovski

Date : 31 - 08 - 2021
SP_107 Summers St Perth

Check Title For easements etc
This survey does not
guarantee correct location of
boundary pegs or fences



Site Plan
scale 1:100

© copyright

Client
Tho Lam Trust
Site Address
Proposed 6 Grouped Dwellings
107 & 109 Summer Street, Perth



P: 9328 7577 M: 0411 105 009
E: info@markanthonydesign.com.au
A: 9/18 Brisbane Street (cnr Bulwer) Perth WA 6000
www.markanthonydesign.com.au

checked MA	drawn m.stav	JOB No.	REV No.
scale 1:100 (A2)	date 09.02.2022	2465	Rev - A 09.02.2022
issued for	Planning Approval	SHEET No.	01 of 12

Lot 6 173.72m ²	Lot 5 108.61m ²	Lot 4 107.29m ²	Lot 3 107.29m ²	Lot 2 106.78m ²	Lot 1 142.22m ²
Common 269.05m ²		Lot 37 1013m ²			

Strata Plan
scale 1:500

Lot 1 Open Space Calc.

Lot Area:	142.22m ²
Share of Common Area:	44.56m ²
Total usable Lot Area:	186.78m ²
Allowable Site Coverage 70%:	130.74m ²
Actual Site Coverage:	99.02m ² (57.14%)

Lot 2 Open Space Calc.

Lot Area:	106.78m ²
Share of Common Area:	44.56m ²
Total usable Lot Area:	151.34m ²
Allowable Site Coverage 70%:	105.93m ²
Actual Site Coverage:	86.49m ² (57.14%)

Lot 3,4 Open Space Calc.

Lot Area:	107.29m ²
Share of Common Area:	44.56m ²
Total usable Lot Area:	151.85m ²
Allowable Site Coverage 70%:	106.29m ²
Actual Site Coverage:	86.50m ² (56.96%)

Lot 5 Open Space Calc.

Lot Area:	108.61m ²
Share of Common Area:	44.56m ²
Total usable Lot Area:	153.17m ²
Allowable Site Coverage 70%:	107.21m ²
Actual Site Coverage:	87.52m ² (57.13%)

Lot 6 Open Space Calc.

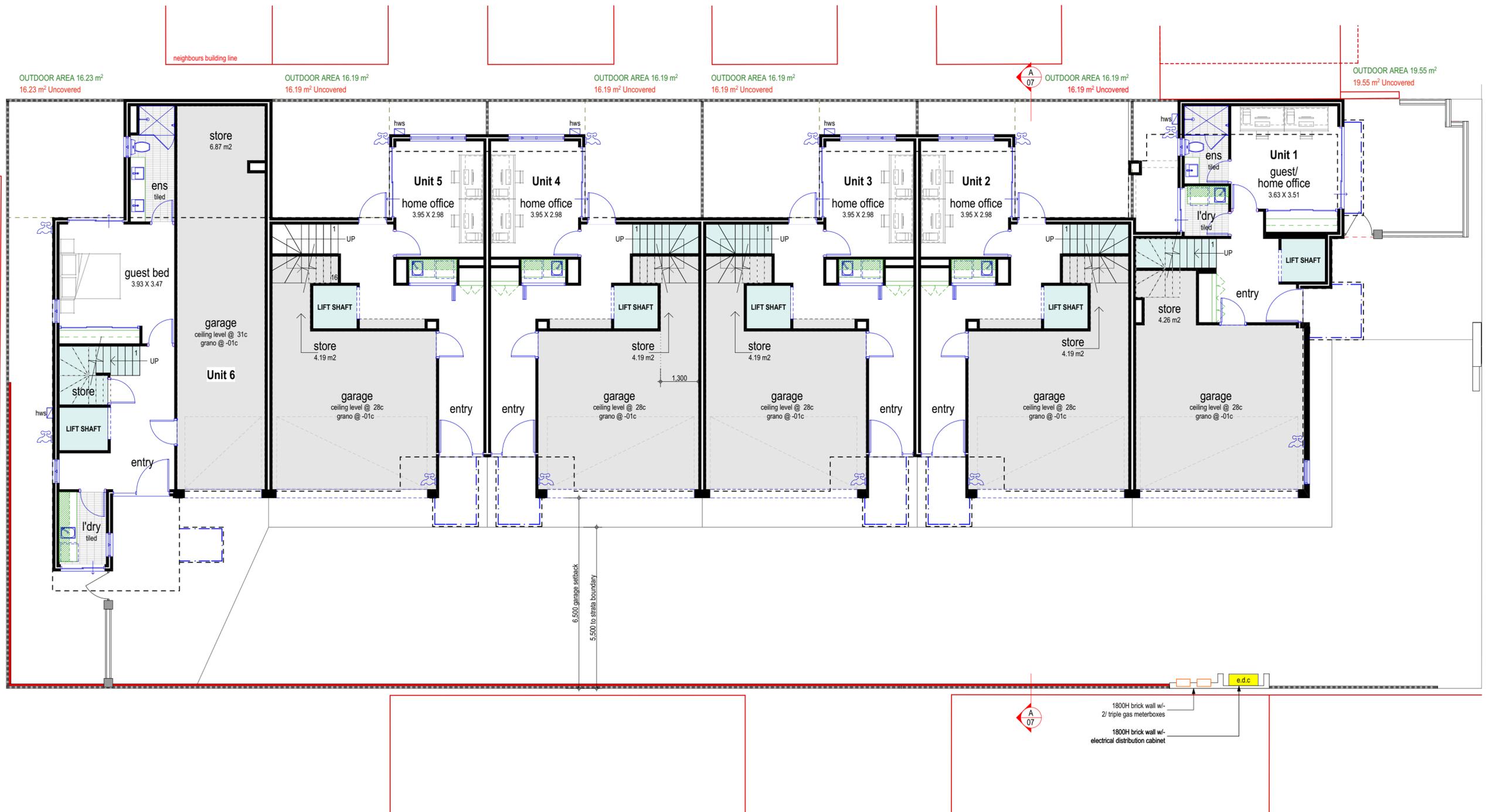
Lot Area:	173.92m ²
Share of Common Area:	44.56m ²
Total usable Lot Area:	218.48m ²
Allowable Site Coverage 70%:	152.93m ²
Actual Site Coverage:	107.63m ² (49.26%)

Overall Open Space Calc.

Lot Area:	1013m ²
Allowable Site Coverage 70%:	709.10m ²
Actual Site Coverage:	553.66m ² (54.65%)

ORIGINALLY LODGED PLANS

SUPERSEDED



Ground Floor Plan

scale 1:100

© copyright

Client
Tho Lam Trust
Site Address
Proposed 6 Grouped Dwellings
107 & 109 Summer Street, Perth



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checked MA drawn m.stav
scale 1:100 (A2) date 09.02.2022
issued for

JOB No.
2465
SHEET No.
02 of 12

REV No.
Rev - A 09.02.2022
Planning Approval

CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK. TAKE WRITTEN DIMENSIONS IN PREFERENCE TO SCALES. SHOULD ANY DISCREPANCIES OCCUR, NOTIFY THE DESIGNER IMMEDIATELY. REFER TO ENGINEERS DRAWINGS FOR ALL STRUCTURAL REQUIREMENTS.

Building Area U1

Ground Floor:	42.24m ²
Garage:	39.84m ²
Porch:	1.15m ²
2nd Floor:	70.72m ²
Balc:	5.97m ²
3rd Floor:	62.98m ²
Balcony:	18.87m ²
4th Floor:	54.61m ²
Total Area:	296.39m ²

Building Area U2

Ground Floor:	40.98m ²
Garage:	36.49m ²
Porch:	2.31m ²
2nd Floor:	73.63m ²
3rd Floor:	62.93m ²
Balcony:	17.64m ²
4th Floor:	50.09m ²
Total Area:	283.07m ²

Building Area U3,4

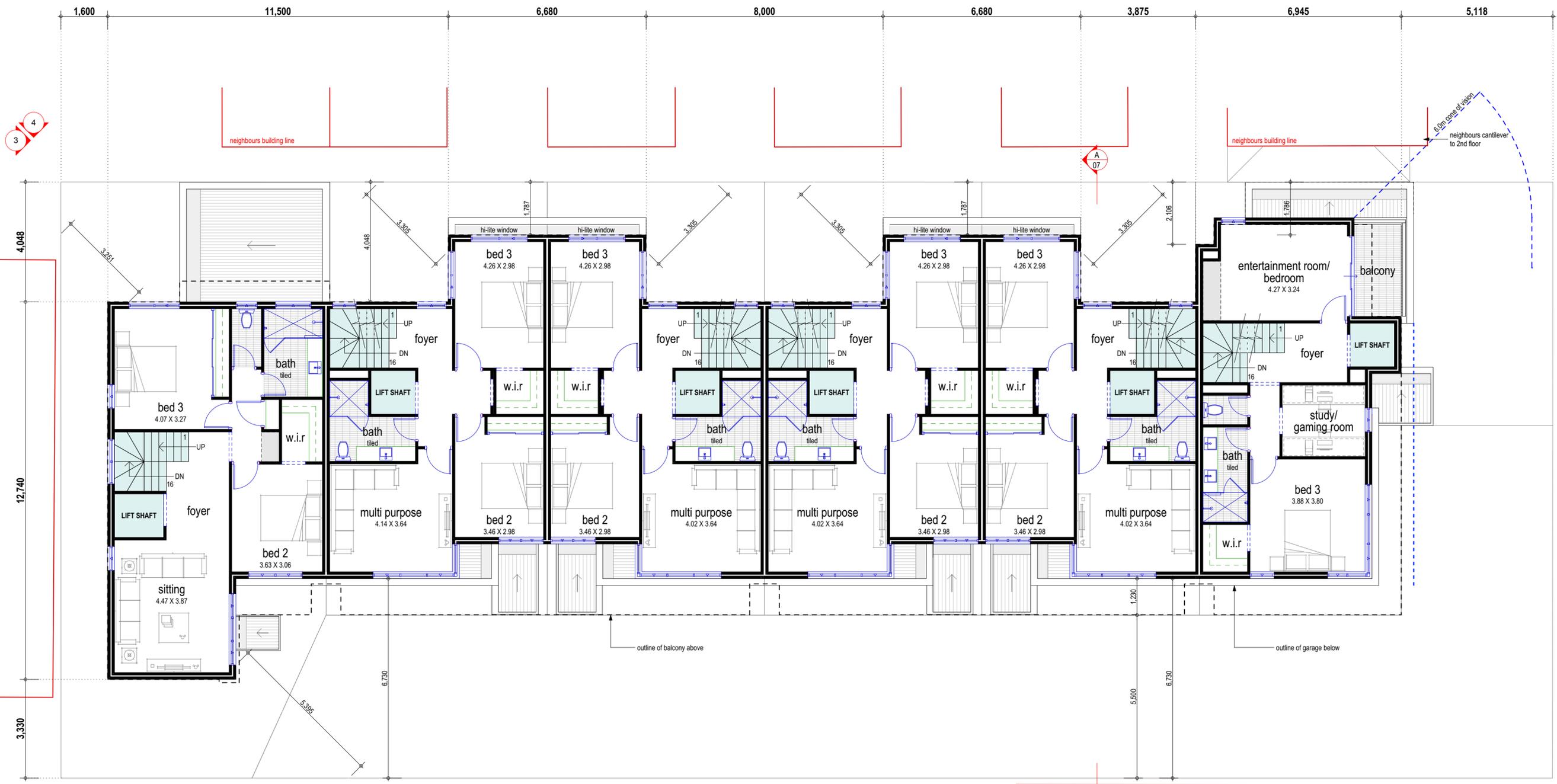
Ground Floor:	41.40m ²
Garage:	37.20m ²
Porch:	2.31m ²
2nd Floor:	72.63m ²
3rd Floor:	62.93m ²
Balcony:	18.59m ²
4th Floor:	50.08m ²
Total Area:	284.49m ²

Building Area U5

Ground Floor:	41.40m ²
Garage:	37.20m ²
Porch:	2.31m ²
2nd Floor:	74.12m ²
3rd Floor:	63.83m ²
Balcony:	18.59m ²
4th Floor:	50.03m ²
Total Area:	287.48m ²

Building Area U6

Ground Floor:	53.05m ²
Garage:	43.04m ²
2nd Floor:	83.61m ²
3rd Floor:	63.88m ²
Balcony:	23.70m ²
4th Floor:	52.53m ²
Total Area:	319.81m ²



2nd Floor Plan
scale 1:100

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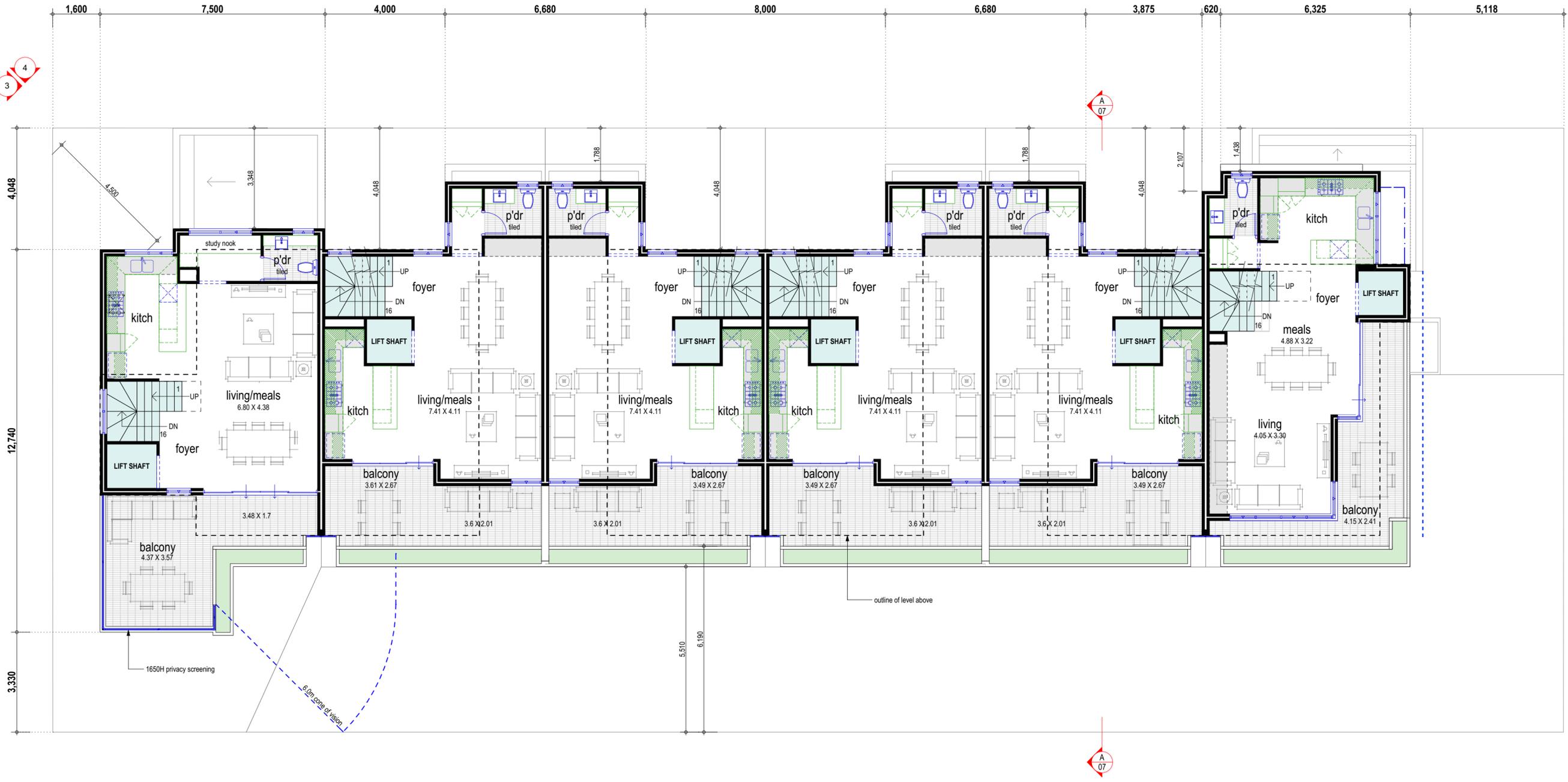
drawn m.stav
date 09.02.2022
JOB No. **2465**
SHEET No. **03 of 12**

REV No.
Rev - A 09.02.2022

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ORIGINALLY LODGED PLANS

SUPERSEDED



3rd Floor Plan
scale 1:100

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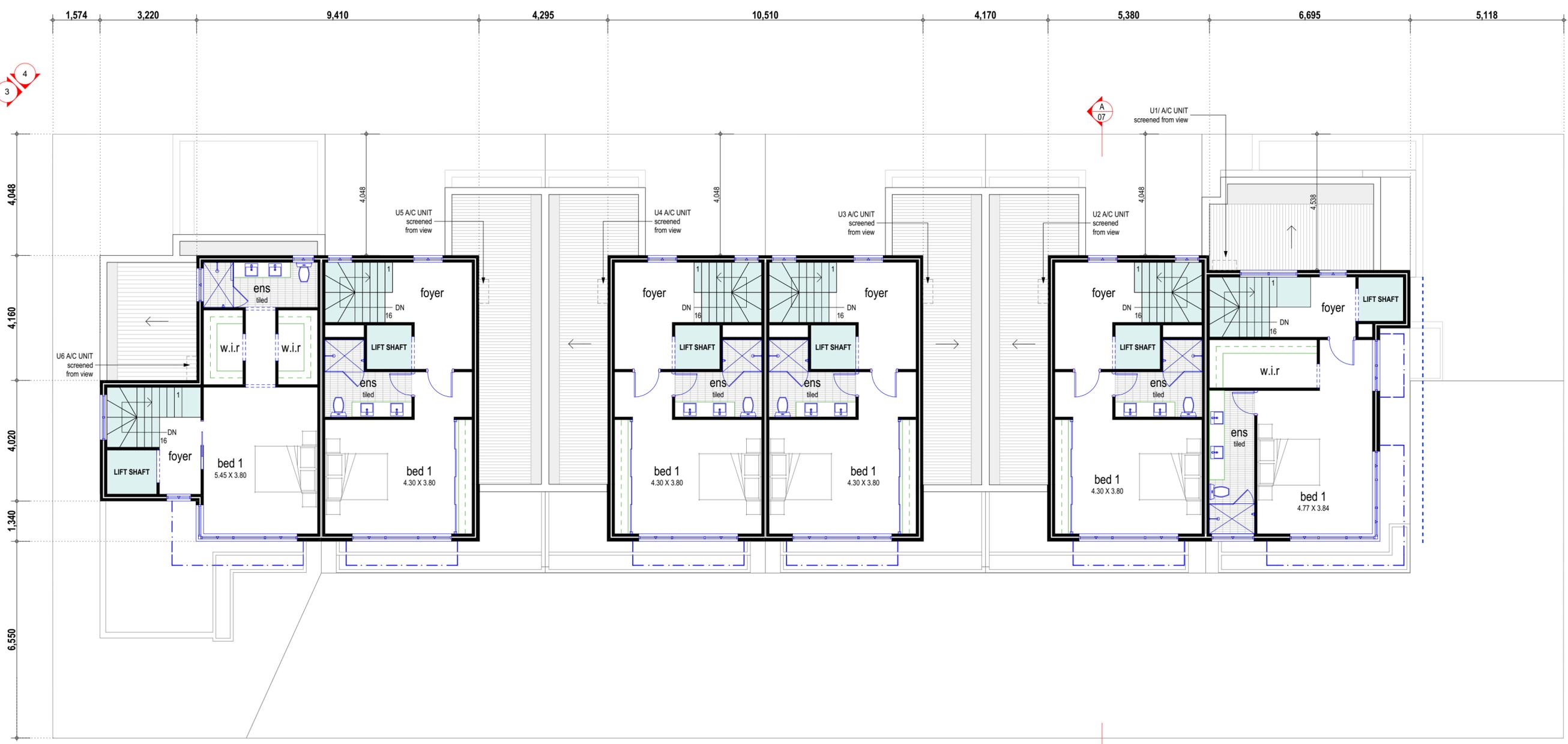
JOB No. 2465
SHEET No. 04 of 12

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ORIGINALLY LODGED PLANS

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4th Floor Plan
scale 1:100

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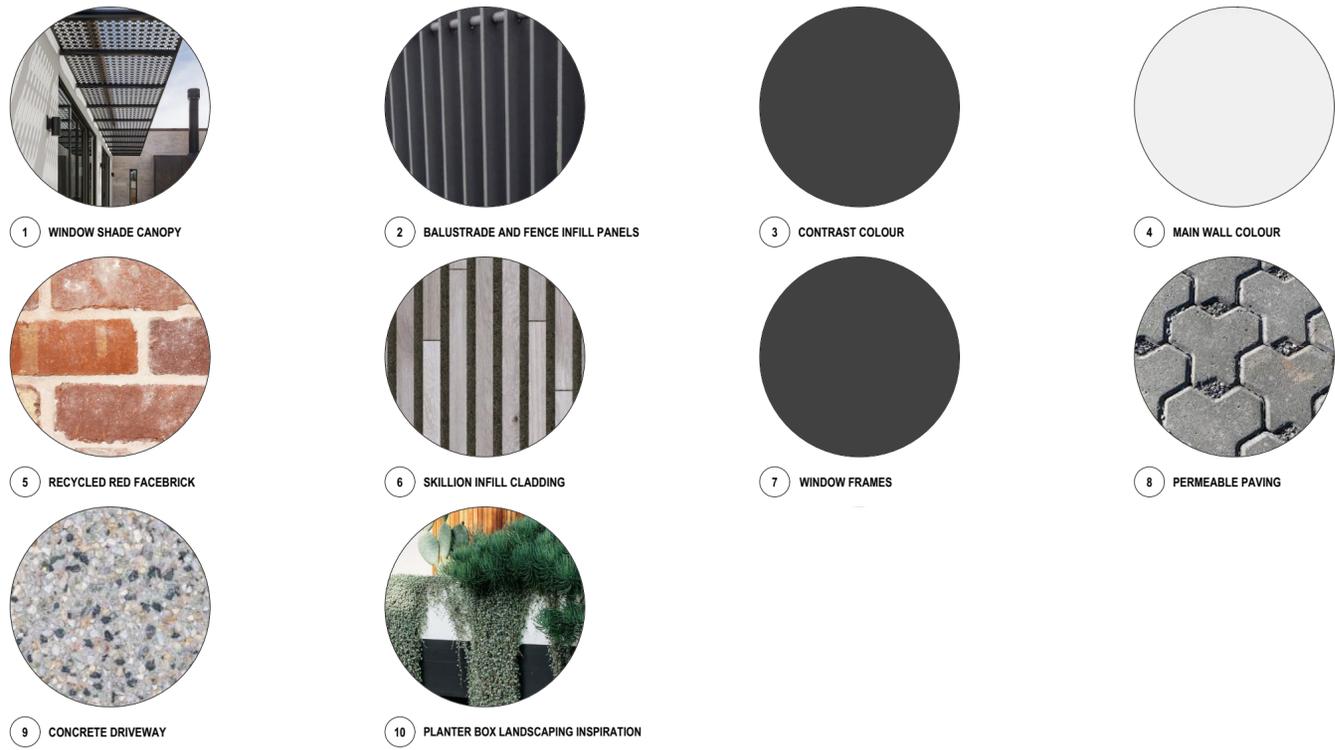


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ORIGINALLY LODGED PLANS



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SUPERSEDED



Elevation 3
scale 1:100



Section A-A
scale 1:100

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Elevation 4
scale 1:100

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103 & 105 Summer Street

107 & 109 Summer Street

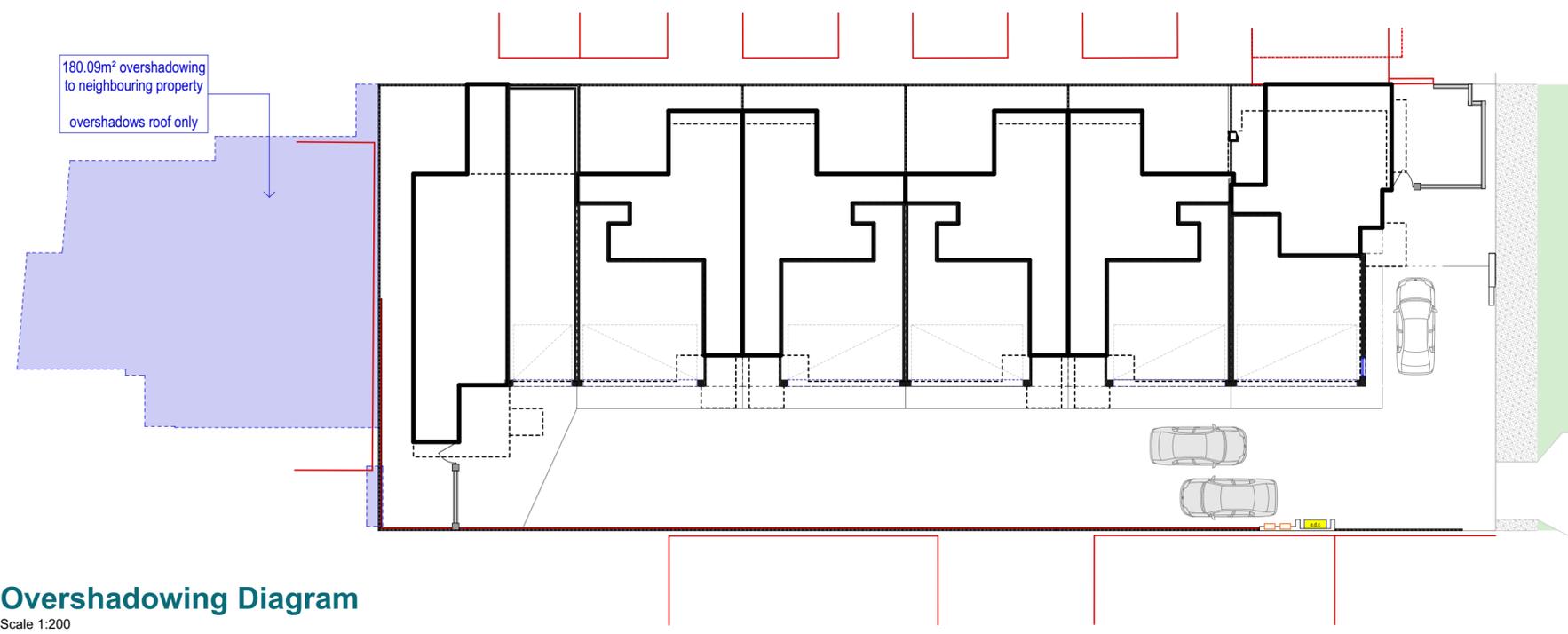
111 & 113 Summer Street



Streetscape Elevation
NOT TO SCALE

ORIGINALLY LODGED PLANS

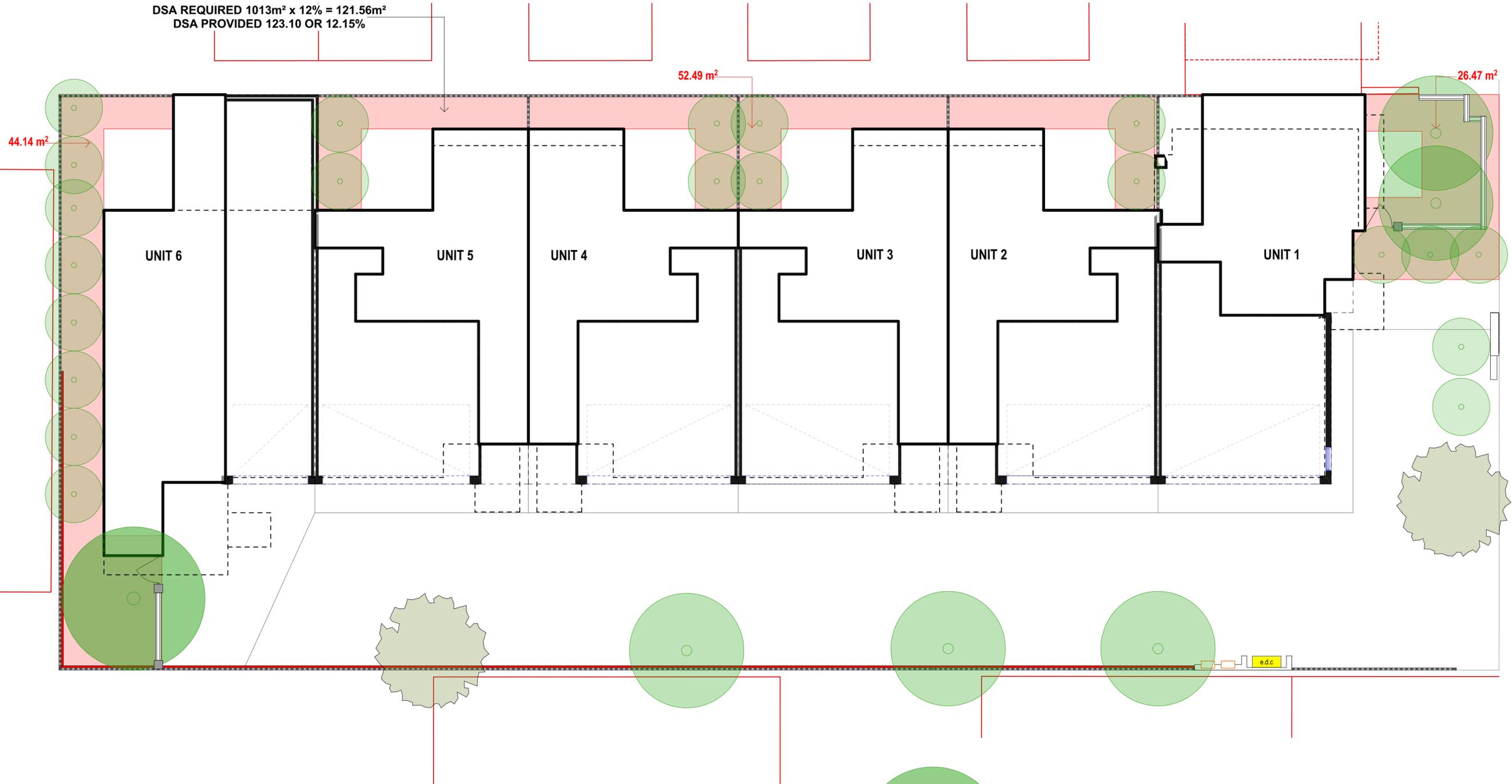
180.09m² overshadowing
to neighbouring property
overshadows roof only



Overshadowing Diagram
Scale 1:200

ORIGINALLY LODGED PLANS

DSA REQUIRED $1013\text{m}^2 \times 12\% = 121.56\text{m}^2$
DSA PROVIDED 123.10 OR 12.15%



Deep Soil & Tree Canopy Calculations

scale 1:100

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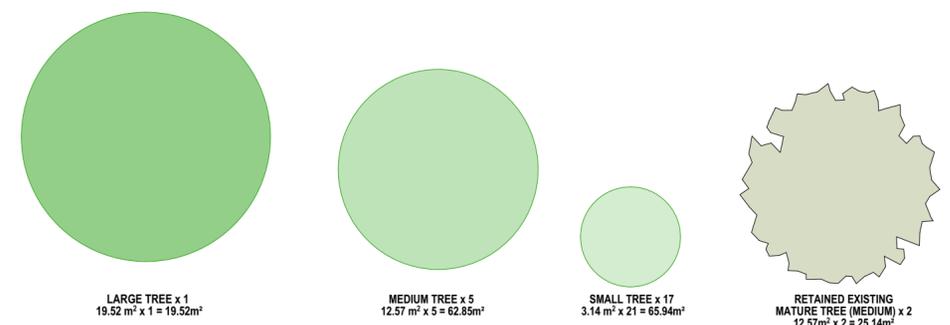
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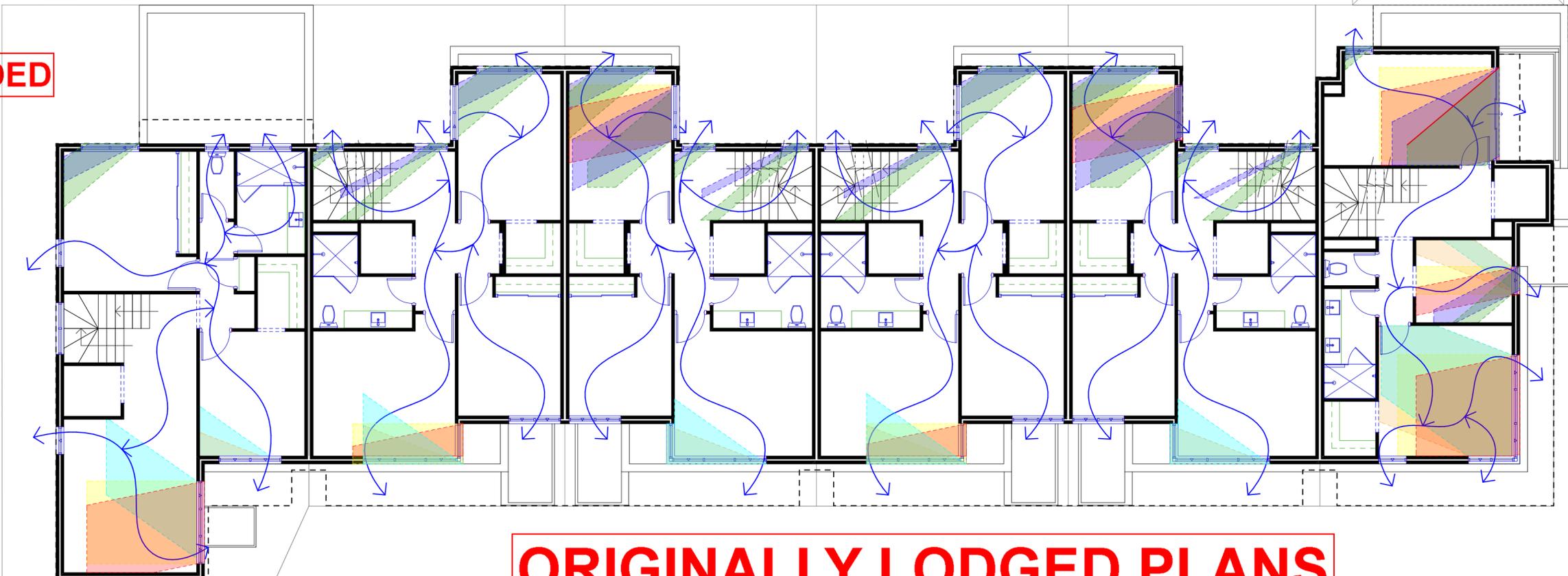
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TREE CANOPY COVER REQUIRED $1013\text{m}^2 \times 30\% = 303.90\text{m}^2$
TREE CANOPY COVER PROVIDED 173.45 OR 17.12%

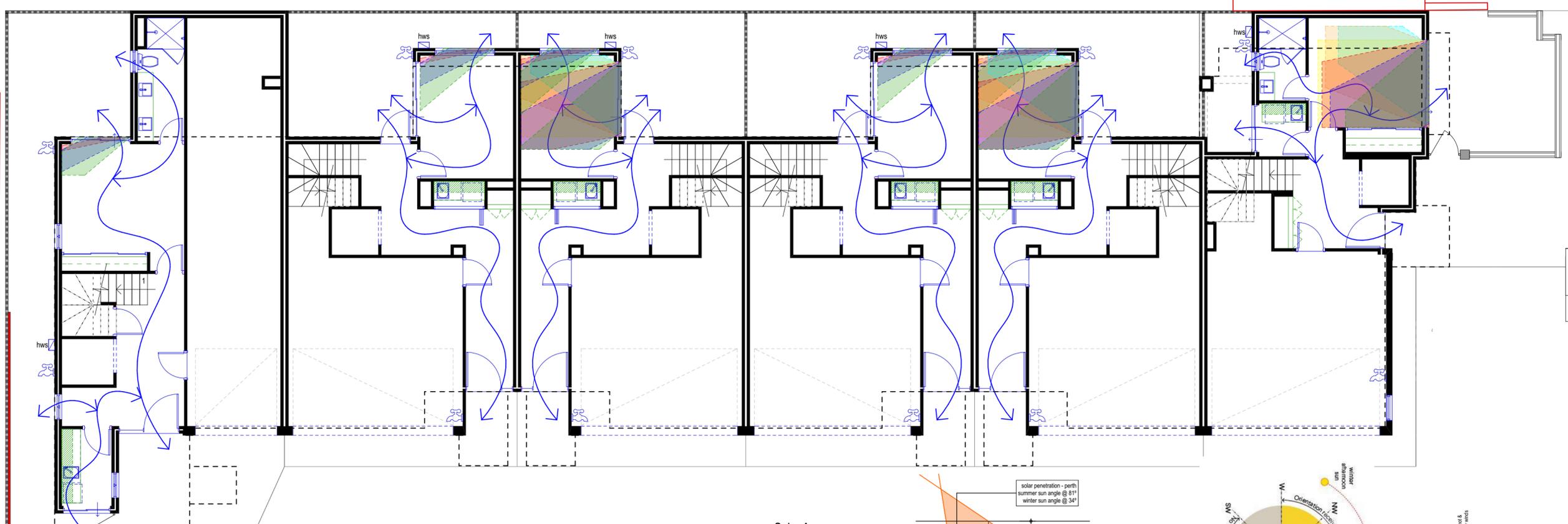
SUPERSEDED



Sunlight Access & Breeze Path (2nd Floor)

scale 1:100

ORIGINALLY LODGED PLANS



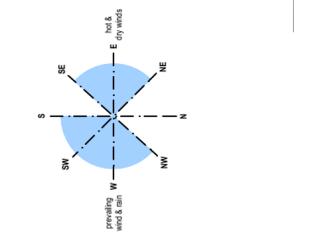
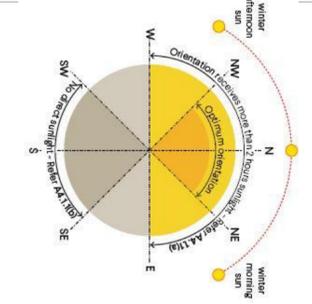
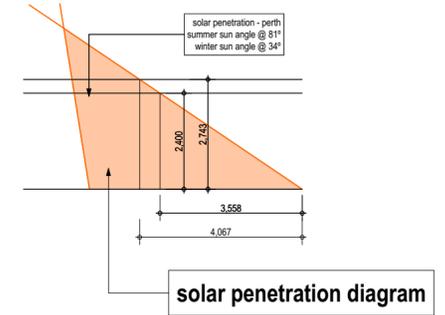
Sunlight Access & Breeze Path (1st Floor)

scale 1:100



Solar Access
Winter Solstice (21 June)

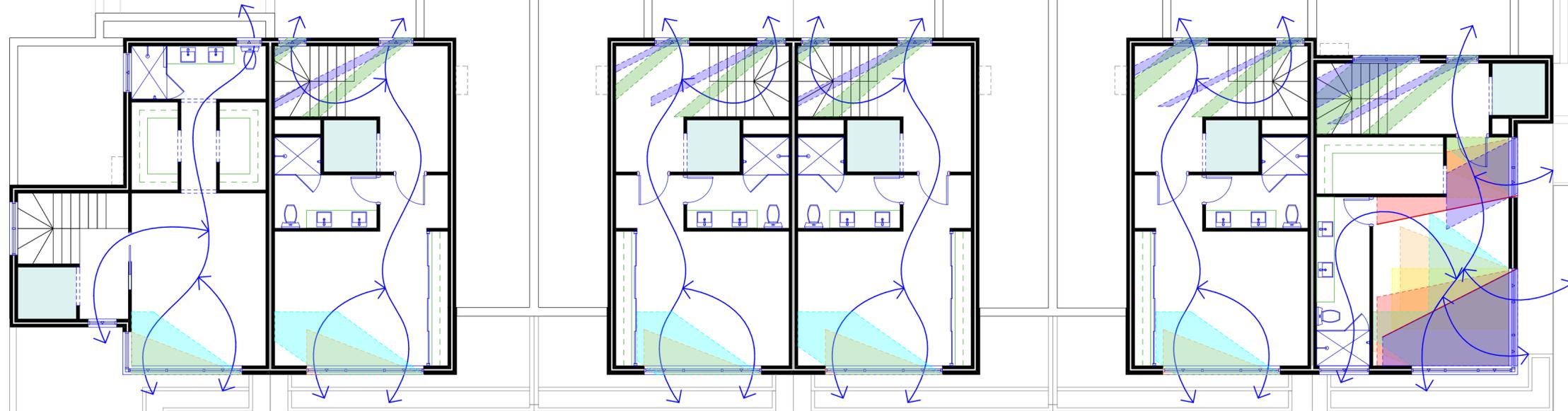
10:00
11:00
12:00 NOON
13:00
14:00
15:00



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			<small>CONFIRM ALL DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK. TAKE WRITTEN DIMENSIONS IN PREFERENCE TO SCALES. SHOULD ANY DISCREPANCIES OCCUR, NOTIFY THE DESIGNER IMMEDIATELY. REFER TO ENGINEER'S DRAWINGS FOR ALL STRUCTURAL REQUIREMENTS.</small>				

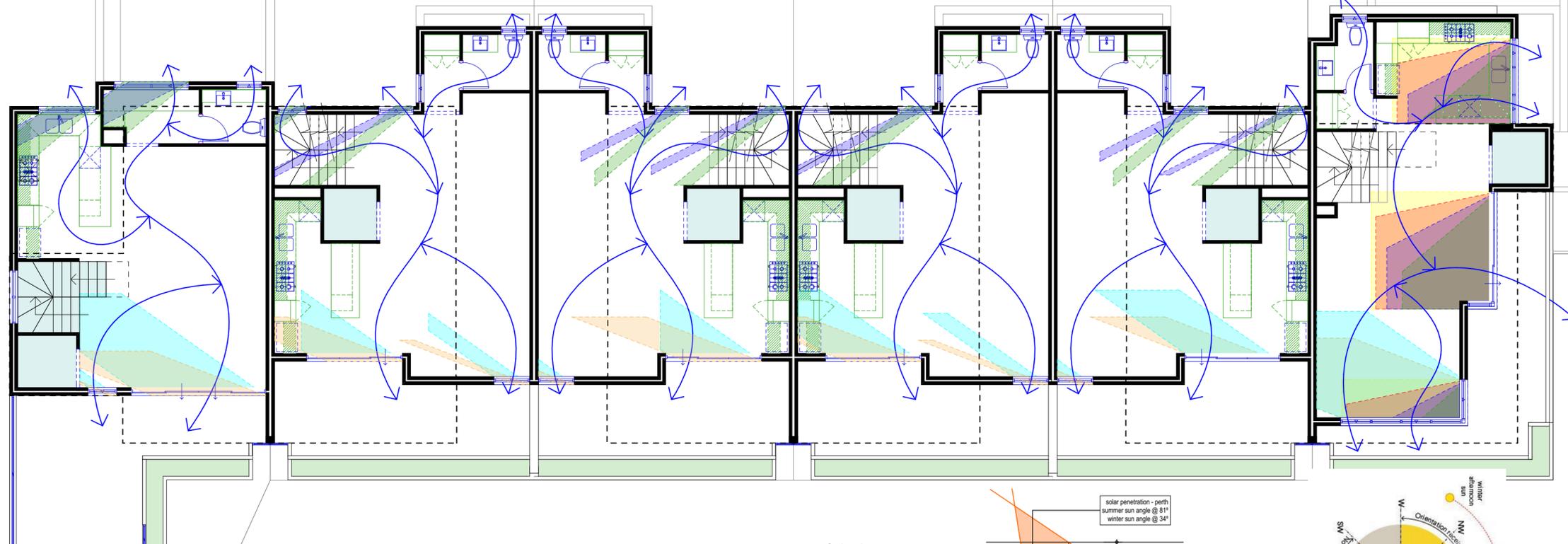
SUPERSEDED



Sunlight Access & Breeze Path (4th Floor)

scale 1:100

ORIGINALLY LODGED PLANS



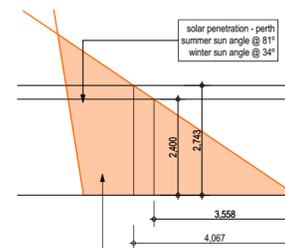
Sunlight Access & Breeze Path (3rd Floor)

scale 1:100

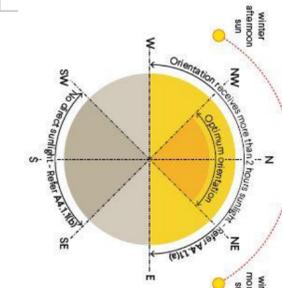


Solar Access
Winter Solstice (21 June)

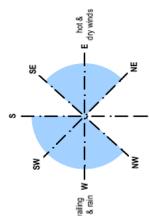
10:00
11:00
12:00 NOON
13:00
14:00
15:00



solar penetration diagram



Sunlight Diagram
as per Figure 4.1b



Prevailing Wind Direction

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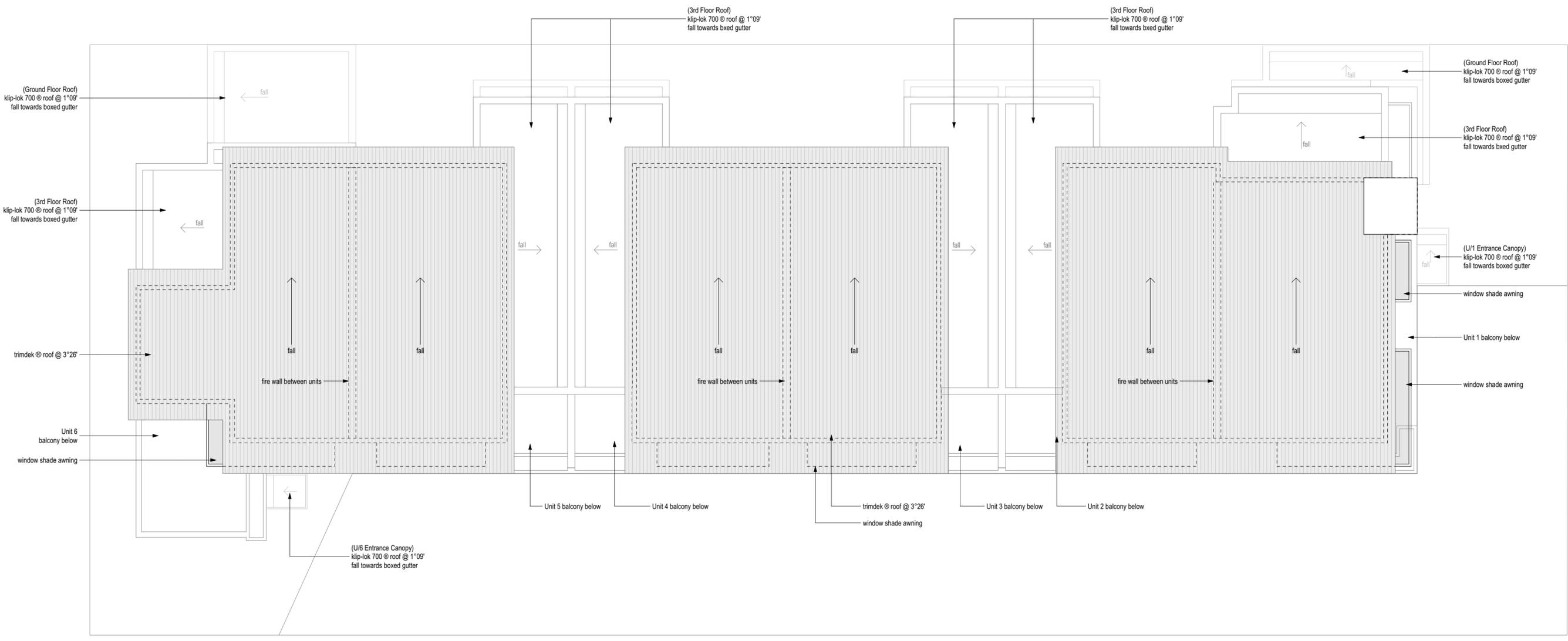
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JOB No. 2465
SHEET No. 11 of 12

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ORIGINALLY LODGED PLANS

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Roof Plan
scale 1:100

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Summary of Submissions:

The tables below summarise the comments received during both advertising periods of the proposal, together with the Administration's response to each comment.

Comments Received in Support:	Administration Comment:
<ul style="list-style-type: none"> High quality, well maintained housing in this street and the local area would be welcome. This will assist to remove poor maintained vacant buildings which attract anti-social behaviour. Support scale of the development and adding density in this location to the City. 	<p>Comments of support are noted by Administration.</p>
Comments Received in Objection:	Administration Comment:
<p><u>Lot Boundary Setback</u></p> <ul style="list-style-type: none"> The reduced setbacks would reduce the amenity of neighbouring properties and their privacy. Development should not that the development does not compromise the wellbeing of the occupants of adjoining properties. The lot boundary setbacks provided would allow for adequate separation to maintain ventilation, privacy and shadow between neighbouring dwellings. 	<ul style="list-style-type: none"> The setbacks would provide physical articulation from adjoining properties, which is aided by changes in materials, colours and glazing. These measures assist in reducing massing and the appearance of solid, blank walls. Landscaping along the boundaries would also provide a landscaping buffer to neighbouring properties to reduce perceived bulk and scale. The lot boundary setbacks provided maintain visual privacy setbacks which meet the design principles of the R Codes. Where required, fixed and obscure screening mechanisms are implemented. The reduced setbacks would not affect privacy to abutting habitable rooms or outdoor spaces. The lot boundary setbacks provided would allow for adequate separation to maintain ventilation, privacy and shadow between neighbouring dwellings. The residential amenity and comfortable living of dwellings would be maintained.
<p><u>Building Height</u></p> <p>The height of the proposed building is not in tune with the neighbouring buildings and it should be three storeys.</p>	<p>The dwellings meet the four storey deemed-to-comply building height standards of the Built Form Policy, with a building height of 13 metres.</p>
<p><u>Privacy</u></p> <ul style="list-style-type: none"> Windows will look directly over the courtyards and habitable rooms of 111-113 Summers Street and will impact privacy. Frosted windows or increased sill heights should be required. The first floor balcony of Unit 1 has a westerly outlook directly on to a bedroom window of Unit 1 at 111-113 Summers Street. Concerns that the balconies and windows of the development will directly overlook 36 Cheriton Street and the adjoining childcare centre at 103-105 Summers Street. Overlooking will occur beyond the 6 metre cone of vision. 	<ul style="list-style-type: none"> The applicant has provided amended plans which introduce fixed screening to balconies and obscure glazing to upper floor windows on the western elevation. The dwellings meet the design principles of the visual privacy standards. Fixed screening is now proposed to the western elevation of the balcony to Unit 1. The R Codes deemed-to-comply visual privacy standards do not apply to overlooking of commercial properties. Balconies and major openings to the east, facing the child care, have been to address perceived overlooking.

Summary of Submissions:

Comments Received in Objection:	Administration Comment:
<ul style="list-style-type: none"> Mature trees must be planted along the eastern boundary and driveway so residents can't look into the child care premises 	<ul style="list-style-type: none"> The application proposes one new tree and retains the existing mature tree along the eastern boundary. The canopy of the trees would provide a perceived landscaping buffer between the properties.
<p><u>Overshadowing and Ventilation</u></p> <ul style="list-style-type: none"> Ventilation and shading impacts access to direct sunlight available to the main living areas, balconies and courtyards of the adjoining grouped dwellings which face the development. As a much larger building the proposal will reduce ventilation to neighbouring properties. The size and height of the proposed building will cause significant shadow over the courtyard of the adjoining properties on Summers Street. The plans don't demonstrate the shadow cast on the eastern side of the development, only the southern side. Would be significant overshadowing cast on the adjoining childcare centre reducing important sunlight access. 	<ul style="list-style-type: none"> The dwellings are articulated from the lot boundaries to mitigate the location and extent of shadow to neighbouring development, and ensure adequate access to sunlight and ventilation for both the subject dwellings as well as neighbouring commercial and residential development. The four storey building height is consistent with the building height standards permitted by the Built Form Policy. The deemed-to-comply standards of the R Codes requires assessment of shadow to the southern elevation. Overshadowing to the south meets the 50 percent deemed-to-comply standard of the R Codes Clause 5.4.1 (Visual Privacy).
<p><u>Visitor Parking</u></p> <ul style="list-style-type: none"> One visitor car parking bay is insufficient for a six four-bedroom unit development. Is the visitor car parking bay the one shown on the plans or are they providing one on-street by taking out the existing crossover. Street already has congestion issues with cars parked day and night. 	<ul style="list-style-type: none"> The one visitor bay is visible and accessible in the front setback area. There are no proposed fencing or vehicle gates to obstruct use of the bay. The application removes the redundant crossover to the western boundary of the site. There are no additional on-street parking bays proposed with the development. There are 51 on-street parking bays along Summers Street within a 250 metre distance of the site between West Parade and Lord Street. Review of the City's Parking data notes the availability and two hour time limitation on these bays would provide adequate availability and provision of bays for visitor parking within the immediate context.
<p><u>Density</u></p> <p>Six units is too many on a small amount of land. This is not consistent with the street and would result in adverse impacts on the adjoining properties.</p>	<p>The R Codes require a minimum lot size of 100 square metres and average lot size of 120 square metres for Residential R80 development. The proposal meets the lots sizes required and is capable of accommodating the intended grouped dwelling development.</p>
<p><u>Urban Design Study</u></p> <ul style="list-style-type: none"> The proposal is described in the Urban Design Study as being consistent with nearby developments by providing a three storey built form outcome when it's actually four storeys. The Urban Design Study doesn't mention that 103-105 Summers Street is a childcare centre and is part of the immediate streetscape. 	<p>Noted. The applicants urban design study recognises the local context which includes both commercial and residential buildings.</p>

Summary of Submissions:

Comments Received in Objection:	Administration Comment:
<p><u>Construction Management</u></p> <ul style="list-style-type: none"> • There is no mention in the proposal regarding damage to surrounding buildings in particular to 111-113 Summers Street. Will an independent survey be carried out prior to the commencement of construction? • A traffic management plan should be developed to ensure construction doesn't impact the safety of children, families and staff of the adjoining childcare centre. • Parking on the street should not be reduced due to contractors and builders utilising street parking. • The developer/builder should work closely with the City and the adjoining childcare centre to develop a practical management plan during the construction phase. 	<ul style="list-style-type: none"> • Works are to be contained within the lot boundaries unless the required permissions are granted through the building permit process. All works are to also ensure there are no adverse impacts on neighbouring properties. • Administration has required submission of a construction management plan (CMP) as a condition of approval. The CMP is to be submitted by the applicant at the building permit stage and is required to address matters such as traffic and parking management during construction, notifications to affected landowners and storage of materials. • The CMP would set out the parking locations for contractors during construction of the development. Visitors to the site during construction would also be required to adhere to public parking locations and timings set out on street signage. Non-compliance would be enforced by the City's Rangers team. • Noted.
<p><u>Sightlines</u></p> <ul style="list-style-type: none"> • Concerns with traffic interaction from the development to the neighbouring childcare centre and families exiting. A mirror should be installed to increase visibility with the development driveway and school entrance. 	<ul style="list-style-type: none"> • The application proposes a clear sight line for vehicle access to and from the site. The vehicle access provided would ensure adequate safety is provided for vehicles and pedestrians.
<p><u>Retaining Walls and Dividing Fences</u></p> <ul style="list-style-type: none"> • Will the proposed retaining wall along the eastern boundary affect the existing colorbond fencing along this boundary? Concerns about the safety of the adjoining childcare centre if this retaining wall is not strong enough. • A double brick wall should be installed along the boundary to the adjoining childcare centre to ensure vehicles can't drive through the boundary fence. • A brick wall to the eastern boundary would reduce noise impacts of vehicles coming and going and ensure privacy for the children and childcare centre play areas. 	<ul style="list-style-type: none"> • A 1.8 metre Colorbond fence is provided along the eastern boundary. The retaining walls along the eastern boundary would be contained within the boundaries of No. 107 – 109 Summers Street. • It is understood that the developer is not seeking to modify the existing boundary fence. Dividing fences are not dealt with by the planning framework and not within the scope of this application. Dividing fences are to be in accordance with the <i>Dividing Fences Act 1961</i>. • Owners and occupiers of residential properties are responsible for ensuring that noise generated from dwellings is to comply with the <i>Environmental Protection (Noise) Regulations 1997</i> at all times. The dividing fence and landscaping would also assist in providing a buffer to the child care.

Note: Submissions are considered and assessed by issue rather than by individual submitter.

Summary of Submissions:

The tables below summarise the comments received during the advertising period of the proposal, together with the applicant's response to each comment.

Comments Received in Support:	Applicant Comment:
<ul style="list-style-type: none"> High quality, well maintained housing in this street and the local area would be welcome. This will assist to remove poor maintained vacant buildings which attract anti-social behaviour. Support scale of the development and adding density in this location to the City. 	<ul style="list-style-type: none"> Agree and that the development achieves a high quality outcome Noted.
Comments Received in Objection:	Applicant Comment:
<p><u>Lot Boundary Setback</u></p> <ul style="list-style-type: none"> The boundary setbacks do not meet the standard and should be adhered to, to ensure that the development does not compromise the wellbeing of the occupants of adjoining properties. The reduced setbacks would reduce the amenity of neighbouring properties and their privacy. The building should adhere to the setbacks to the eastern boundary, as the development would have an adverse effect on the neighbouring childcare centre 	<ul style="list-style-type: none"> The lot boundary setback variations have been addressed in part by converting major opening windows to minor openings to reduce the required setback distance and through the separation of the building of the upper floors and incorporation of design features. The extent of variations have been reduced, providing an improved outcome for adjoining properties with respect to bulk and scale impact. Noted.
<p><u>Building Height</u></p> <ul style="list-style-type: none"> The height of the proposed building is not in tune with the neighbouring buildings and it should be three storeys. 	<ul style="list-style-type: none"> Building height is compliant.
<p><u>Privacy</u></p> <ul style="list-style-type: none"> Windows will look directly over the courtyards and habitable rooms of 111-113 Summers Street and will impact privacy. Frosted windows or increased sill heights should be required. The first floor balcony of Unit 1 has a westerly outlook directly on to a bedroom window of Unit 1 at 111-113 Summers Street. Concerns that the balconies and windows of the development will directly overlook 36 Cheriton Street and the adjoining childcare centre at 103-105 Summers Street. Overlooking will occur beyond the 6 metre cone of vision. Mature trees must be planted along the eastern boundary and driveway so residents can't look into the child care premises Sounding beeper should be installed to the driveway to alert parents and children of incoming vehicles 	<ul style="list-style-type: none"> The building will comply with the BCA in respect to acoustic requirements. The first floor unit 1 balcony is screened on the western elevation, it will not because any overlooking concerns. The long windows have been modified and reduced in size on the amended plans. Visual privacy is compliant. The child care centre is a commercial use and therefore visual privacy requirements as specified in the R-Codes do not apply. Mature trees are proposed to be planted along the eastern boundary Noted. This is a good idea and one that I will recommend that our client look to implement to improve safety.
<p><u>Overshadowing and Ventilation</u></p>	

Summary of Submissions:

Comments Received in Objection:	Applicant Comment:
<ul style="list-style-type: none"> • Ventilation and shading impacts access to direct sunlight available to the main living areas, balconies and courtyards of the adjoining grouped dwellings which face the development. These dwellings will also have reduced ventilation as they will be next to a much larger building. • The plans don't demonstrate the shadow cast on the eastern side of the development, only the southern side. Would be significant overshadowing cast on the adjoining childcare centre reducing important sunlight access. • The size and height of the proposed building will cause significant shadow over the courtyard of the adjoining properties on Summers Street. 	<ul style="list-style-type: none"> • See above
<p><u>Visitor Parking</u></p> <ul style="list-style-type: none"> • One visitor car parking bay is insufficient for a six four-bedroom unit development. • Is the visitor car parking bay the one shown on the plans or are they providing one on-street by taking out the existing crossover • Street already has congestion issues with cars parked day and night 	<ul style="list-style-type: none"> • The one visitor parking bay shortfall is addressed in detail in our planning submission. There will be one visitor bay provided within the development. • Observations of the street, which include several site visits in the day and night and on weekdays and weekends, indicate that on-street parking is readily available. Parking was available during events at HBF Stadium, and parking was restricted to permit holders from 2pm along sections of the street. Parking on the street is therefore very controlled and limited to people who are not residents for a significant part of the day.
<p><u>Density</u></p> <ul style="list-style-type: none"> • Six units is too many on a small amount of land. This is not consistent with the street and would result in adverse impacts on the adjoining properties. 	<ul style="list-style-type: none"> • The number of units proposed is acceptable with a R60 density code.
<p><u>Urban Design Study</u></p> <ul style="list-style-type: none"> • The proposal is described in the Urban Design Study as being consistent with nearby developments by providing a three storey built form outcome when it's actually four storeys. • The Urban Design Study doesn't mention that the adjoining property at 103-105 Summers Street is a childcare centre which is a new building and is part of the immediate streetscape. 	<ul style="list-style-type: none"> • Noted. The child care centre is referred in the report
<p><u>Construction Management</u></p> <ul style="list-style-type: none"> • There is no mention in the proposal regarding damage to surrounding buildings in particular to 111-113 Summers Street. Will an independent survey be carried out prior to the commencement of construction? • A traffic management plan should be developed to ensure construction doesn't impact the safety of children, families and staff of the adjoining 	<ul style="list-style-type: none"> • A construction management plan will be submitted at BP stage. • Traffic report is not required for this scale of development. • Parking for construction workers is not an issue relevant to the planning approval process. • Noted.

Summary of Submissions:

Comments Received in Objection:	Applicant Comment:
<p>childcare centre.</p> <ul style="list-style-type: none"> • Parking on the street should not be reduced due to contractors and builders utilising street parking. • The developer/builder should work closely with the City and the adjoining childcare centre to develop a practical management plan during the construction phase. 	
<p><u>Sightlines</u></p> <ul style="list-style-type: none"> • Concerns with traffic interaction from the development to the neighbouring childcare centre and families exiting. A mirror should be installed to increase visibility with the development driveway and school entrance. 	<ul style="list-style-type: none"> • Noted
<p><u>Retaining Walls and Dividing Fences</u></p> <ul style="list-style-type: none"> • Will the proposed retaining wall along the eastern boundary affect the existing colorbond fencing along this boundary? Concerns about the safety of the adjoining childcare centre if this retaining wall is not strong enough. • A double brick wall should be installed along the boundary to the adjoining childcare centre to ensure vehicles can't drive through the boundary fence. This would also reduce noise impacts of vehicles coming and going and ensure privacy for the children and childcare centre play areas. 	<ul style="list-style-type: none"> • Dividing fences are a civil matter and it is recommended that you contact the owner to discuss the matter • Noted.

Note: Submissions are considered and assessed by issue rather than by individual submitter.

Determination Advice Notes:

1. This is a development approval issued under the City of Vincent Local Planning Scheme No. 2 and the Metropolitan Region Scheme only. It is not a building permit or an approval to commence or carry out development under any other law. It is the responsibility of the applicant/owner to obtain any other necessary approvals and to commence and carry out development in accordance with all other laws.
2. With reference to Condition 2, the owners of the subject land shall obtain the consent of the owners of relevant adjoining properties before entering those properties in order to make good the boundary walls.
3. With reference to Condition 4, the visual privacy requirements of Clause 5.4.1 C1.2 of the R Codes Volume 1 states that *“screening devices such as obscure glazing, timber screens, external blinds, window hoods and shutters are to be at least 1.6m in height, at least 75 percent obscure, permanently fixed, made of durable material and restrict view in the direction of the overlooking into any adjoining property”*.
4. With reference to Condition 6, the City encourages landscaping methods and species selection which do not rely on reticulation.
5. With reference to Condition 7, no further consideration shall be given to the disposal of stormwater ‘offsite’ without the submission of a geotechnical report from a qualified consultant. Should approval to dispose of stormwater ‘offsite’ be subsequently provided, detailed design drainage plans and associated calculations for the proposed stormwater disposal shall be lodged together with the building permit application working drawings.
6. The proposed crossover levels shall match into the existing footpath levels. Should the footpath not be deemed to be in satisfactory condition, it must be replaced with in-situ concrete panels in accordance with the City’s specification for reinstatement of concrete paths.
7. With reference to Condition 9, all new crossovers to the development site are subject to a separate application to be approved by the City.
8. A Road and Verge security bond for the sum of \$2,000 shall be lodged with the City by the applicant, prior to the issue of a building permit, and will be held until all building/development works have been completed and any disturbance of, or damage to the City’s infrastructure, including verge trees, has been repaired/reinstated to the satisfaction of the City. An application for the refund of the security bond shall be made in writing. The bond is non-transferable.
9. The movement of all path users, with or without disabilities, within the road reserve, shall not be impeded in any way during the course of the building works. This area shall be maintained in a safe and trafficable condition and a continuous path of travel (minimum width 1.5 metres) shall be maintained for all users at all times during construction works. If the safety of the path is compromised resulting from either construction damage or as a result of a temporary obstruction appropriate warning signs (in accordance with AS1742.3) shall be erected. Should a continuous path not be able to be maintained, an ‘approved’ temporary pedestrian facility suitable for all path users shall be put in place. If there is a request to erect scaffolding, site fencing etc. or if building materials are required to be stored within the road reserve, once a formal request has been received, the matter will be assessed by the City and if considered appropriate a permit shall be issued by the City. No permit will be issued if the proposed encroachment into the road reserve is deemed to be inappropriate.
10. Any additional property numbering to the abovementioned address which results from this application will be allocated by the City of Vincent. The applicant is requested to liaise with the City in this regard during the building permit process.
11. A Demolition Permit shall be obtained from the City prior to commencement of any demolition works on the site.
12. The applicant and owner are advised that sufficient parking can be provided on the subject site and as such the City of Vincent will not issue a residential or visitor car parking permit to any owner or occupier of the residential dwellings. This information should be provided to all prospective purchasers and it is recommended that a notice be placed on Sales Contracts to advise purchasers of this restriction.