



Metro Inner Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 10 April 2024; 9.30am
Meeting Number: MIDAP/6
Meeting Venue: 140 William Street, Perth
Public Observing: Online

A live stream will be available at the time of the meeting, via the following link:
[MIDAP/6 - 10 April 2024 - City of South Perth](#)

This DAP meeting will be live streamed open to the public rather than requiring attendance in person.

PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement
2. Apologies
3. Members on Leave of Absence
4. Noting of Minutes

PART B – CITY OF SOUTH PERTH

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 2 DAP Applications
 - 4.1 No. 202 (Lot 5), 203 (Lot 6) and 204 (Lot 15) Melville Parade, Como - Amendments to Visitor Parking Condition of Approved Multiple Dwelling Development – DAP/23/02405
4. Form 1 DAP Applications
 - 3.1 Lots 88 and 89 (Nos. 5-7) Birdwood Avenue, Como - Proposed Child Care Premises – DAP/23/02562
5. Form 2 DAP Applications
6. Section 31 SAT Reconsiderations

PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals
2. General Business
3. Meeting Closure

Please note, presentations for each item will be invited prior to the items noted on the agenda and the presentation details will be contained within the additional information documentation



ATTENDANCE

DAP Members

Clayton Higham (Presiding Member)
Lee O'Donohue (Deputy Presiding Member)
Peter Lee (Specialist Member)

Part B – City of South Perth

Cr Bronwyn Waugh (Local Government Member, City of South Perth)

Minute Secretary

Tenielle Brownfield (DAP Secretariat)

Officers in Attendance

Ashlee Kelly (DAP Secretariat)



PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

This meeting is being recorded and livestreamed on the DAP website in accordance with regulation 40(2A) of the *Planning and Development (Development Assessment Panels) Regulations 2011*. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Cr Glenn Cridland (Local Government Member, City of South Perth)

3. Members on Leave of Absence

Nil.

4. Noting of Minutes

Signed minutes of previous meetings are available on the [DAP website](#).



PART B – CITY OF SOUTH PERTH

1. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

2. Disclosure of Interests

Nil.

3. Form 2 DAP Applications

- 4.1 No. 202 (Lot 5), 203 (Lot 6) and 204 (Lot 15) Melville Parade, Como - Amendments to Visitor Parking Condition of Approved Multiple Dwelling Development – DAP/23/02405

4. Form 1 DAP Applications

- 3.1 Lots 88 and 89 (Nos. 5-7) Birdwood Avenue, Como - Proposed Child Care Premises – DAP/23/02562

5. Form 2 DAP Applications

Nil.

6. Section 31 SAT Reconsiderations

Nil.

MELVILLE PARADE, NO. 202 (LOT 5), 203 (LOT 6) AND 204 (LOT 15) COMO – AMENDMENTS TO VISITOR PARKING CONDITION OF APPROVED MULTIPLE DWELLING DEVELOPMENT

Form 2 – Responsible Authority Report (Regulation 17)

DAP Name:	Metro Inner DAP
Local Government Area:	City of South Perth
Proposed Amendments:	Amendments to visitor parking condition of approved multiple dwelling development
Applicant:	Element
Owner:	PRD Developments WA Pty Ltd
Value of Amendment:	N/A
Responsible Authority:	City of South Perth
Authorising Officer:	Fiona Mullen – Manager Development Services Kevin Tang – Senior Urban Planner
LG Reference:	PDDAAMEND-2023/1951
DAP File No:	DAP/23/02405
Date of Original DAP decision:	18 April 2023
Application Received Date:	17 January 2024
Application Statutory Process Timeframe:	90 Days
Attachment(s):	1. Development Plans 2. Applicant Planning Report 3. Previous Determination Notice 4. Applicant Responses to Schedule of Submissions

Responsible Authority Recommendation

That the Metro Inner DAP resolves to:

- Accept** that the DAP Application reference DAP/23/02405 as detailed on the DAP Form 2 dated 10 January 2024 is appropriate for consideration in accordance with regulation 17 of the *Planning and Development (Development Assessment Panels) Regulations 2011*.
- Refuse** Form 2 DAP Application reference DAP/23/02405 and accompanying plans at Attachment 1 in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of Local Planning Scheme No. 7, for the following reasons:

Reasons

- The proposal is not considered to satisfy the Objective and Desired Outcome Element 18 of the Canning Bridge Activity Centre Plan by virtue of an oversupply of resident car parking bays and shortfall of visitor car parking bays on-site.

2. The proposed development is inconsistent with Clause 67(2)(m)(i) of the *Planning and Development (Local Planning Schemes) Regulations 2015* in that the use of the verge area for constructed visitor bays is inconsistent with the existing and desired future character of the locality.

Details: Outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme Zone/Reserve	Urban
Local Planning Scheme	City of South Perth Local Planning Scheme No. 7
Local Planning Scheme Zone/Reserve	Centre
Structure Plan/Precinct Plan	Canning Bridge Activity Centre Plan
Structure Plan/Precinct Plan Land Use Designation	N/A
Use Class (proposed) and permissibility:	Multiple Dwellings – Preferred Land Use
Lot Size:	2,977m ² (if amalgamated)
Net Lettable Area (NLA):	N/A
Number of Dwellings:	121
Existing Land Use:	Grouped Dwellings
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

The proposal involves amending Condition No.9 of the development approval by:

- Deleting the requirement to provide sixteen (16) visitor car parking bays on-site;
- Requiring a minimum of five (5) visitor car parking bays on-site;
- Constructing four (4) car parking bays in the Melville Parade road reserve;
- Providing that 11 car parking bays on the ground floor, including six within proximity to the entrance to the development, will not be allocated to a specific strata unit.

Development plans showing the location of visitor parking are included in **Attachment 1**. The applicant's planning report is included in **Attachment 2**.

Background:

Previous Decision

On 18 April 2023, the Metro Inner-South Joint Development Assessment Panel (JDAP) approved an application for 121 Multiple Dwellings at the subject site. A copy of the determination notice is contained as **Attachment 3**.

Site Context

The subject site has a total area of 2,977m² and comprises:

- Lot 5 (No. 202) Melville Parade (1,065m²);
- Lot 6 (No. 203) Melville Parade (989m²); and
- Lot 15 (No. 204) Melville Parade (923m²)

The site is zoned 'Centre' under the City's Local Planning Scheme No. 7 (LPS 7) and is located in the Q3 Cassey Quarter of the Canning Bridge Activity Centre Plan (CBACP), in an H8 precinct. The existing grouped dwelling units on the site are proposed to be demolished to cater for the proposed development.

The subject site is located on the eastern side of Melville Parade within the CBACP area and situated approximately 350 metres north of the Canning Bridge Railway Station and 200 metres south of Olives Reserve. Kwinana Freeway is located in close proximity to the west of the subject site.

Legislation and Policy:

Legislation

Planning and Development Act 2005

Land Administration Act 1997

Metropolitan Region Scheme

Planning and Development (Development Assessment Panel) Regulations 2011

Planning and Development (Local Planning Schemes) Regulations 2015

City of South Perth Local Planning Scheme No. 7

State Government Policies

State Planning Policy 7.0 - Design of the Built Environment

Structure Plans/Activity Centre Plans

Canning Bridge Activity Centre Plan

Local Policies

Local Planning Policy – Advertising of Planning Proposals

Council Policy P210 – Street Verges

Consultation:

Public Consultation

The application was advertised to 26 nearby and adjacent landowners and occupiers for a period of 14 days. At the close of the advertising period, three objections were received, with the key issues detailed below. The Applicant's responses to the submissions are provided at **Attachment 4**.

Matter	Comment
Concerns regarding of availability of visitor car parking bays.	There are currently no constructed bays within the verge area adjacent the development site. Given the shortfall of 10 visitor bays on site as outlined in this report, the construction of four on-street bays will not offset the proposed shortfall generated by the development.
Existing on-street bays at capacity.	There are currently no constructed bays within the verge area adjacent the development site. Existing bays on Henley Street (approximately 150m from the subject site) are at capacity given they service the development at No.8 Henley Street.
Traffic and safety hazards to road users and pedestrians.	Should the application be supported, the City would ensure constructed bays in the verge area meet required Australian and Engineering Standards. Notwithstanding, it is noted that there is limited capacity within the road reserve to accommodate constructed verge bays and the existing footpath.
Loss of privacy	Noted, however, the verge area is public land and therefore privacy is not considered a relevant consideration.

Referrals/consultation with Government/Service Agencies

Referrals to Government and Service Agencies were not required.

Planning Assessment:

Car Parking Requirements

LPS 7 does not prescribe minimum car parking standards, rather, Element 18 of the CBACP provides minimum car parking requirements in the CBACP area. An assessment of the proposed on-site parking is outlined in the table below.

Provision	CBACP Requirement	Bays Required	Bays Proposed	Assessment
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Resident Parking	0.75 bays per studio or single bedroom dwelling	67 x studio or single bedroom dwellings = 50.25 (51) bays	67 bays	16 bay surplus
	1 bay per 2 or 3 bedroom dwelling	39 x 2 bedroom dwellings = 39 bays 15 x 3 bedroom = 15 bays required Total - 54 bays	67 bays	13 bay surplus
Visitor Parking	1 bay per 8 dwellings	15.12 (16) bays	5 bays	11 bay shortfall
Unallocated Bays	N/A	N/A	11 bays	11 bay surplus
Total Bays Required				121 bays
Total Bays Provided				150 bays
Visitor Bay Shortfall				11 bays
Overall Surplus				29 bays

As outlined above, the application proposes a surplus of 29 residents car parking bays and a shortfall of 11 visitor car parking bays on-site.

The CBACP does not provide for unallocated bays. The applicant has advised that the 11 unallocated bays on site are 'flexible' bays and will be within common property for the use of residents or visitors.

Given these bays are not proposed to be marked as visitor car parking bays, they have not been included for the purposes of contributing towards visitor car parking bays.

Canning Bridge Activity Centre Plan

The following objective and desired outcome are contained within the CBACP with respect to car parking:

“Objective – To ensure that adequate vehicle parking and access is provided for multi-storey development, to ensure that off-street parking is linked to pedestrian routes and to ensure car parking and servicing activities do not dominate the street.”

“Desired Outcome 18 - Parking is an important element to consider for development, and considerable analysis has been undertaken to respond to this need. Parking should be provided to ensure that the CBACP area can provide for its residents and guests but should balance this need with a need to discourage private vehicle travel generally.

Alternative transport is encouraged by way of providing for bicycle parking and storage, and motorcycle and scooter parking. Basement and multi storey car parks can present long blank walls to the street, or a gap with undesirable views into the basement car park, which should be avoided.”

The proposal is not considered to meet the above objective and outcome for the following reasons:

- The appropriate ratio of resident and guest parking has not been provided. There is a surplus of 29 resident car parking bays on site and a shortfall of 11 visitor bays. An oversupply of on-site resident car parking bays in lieu of the appropriate provision of visitor car parking bays is not supported.
- Provision of an oversupply of resident car parking is inconsistent with the desired outcome to discourage private vehicle travel.
- Constructed verge car parking bays will contribute towards car parking bays dominating the streetscape.

Planning and Development (Local Planning Schemes) Regulations 2015

In considering an application for development approval, the local government is to have due regard to the matters listed in clause 67(2) of the Deemed Provisions to the extent that, in the opinion of the local government, those matters are relevant to the development the subject of the application.

The matters most relevant to this proposal and the City’s response to each consideration are outlined in the table below:

Matters	Comment
(h) <i>any structure plan or local development plan that relates to the development;</i>	The proposal is inconsistent with the objective and desired outcome of the CBACP for the reasons outlined in this report.
(m) <i>the compatibility of the development with its setting, including —</i> (i) <i>the compatibility of the development with the desired future character of its setting;</i>	The surrounding streetscape is characterised by vegetated verge areas. The northeastern portion of the Melville Parade road reserve has no existing constructed verge parking bays, only grassed areas, crossovers and a pedestrian footpath. Construction of on-street car parking bays in this location limits the ability for street tree planting within the verge, and has the ability to impact pedestrian safety given the width available for both constructed bays and the existing footpath.

	Construction of on-street bays in this location is inconsistent with the existing and intended future streetscape.
(y) <i>any submissions received on the application.</i>	Responses to the submission have been provided in the Consultation section of this report.

Verge Parking

At the time of drafting this report, Council had considered an Elected Member Notice of Motion to amend Council Policy P210 Street Verges (P210) to include the following requirement:

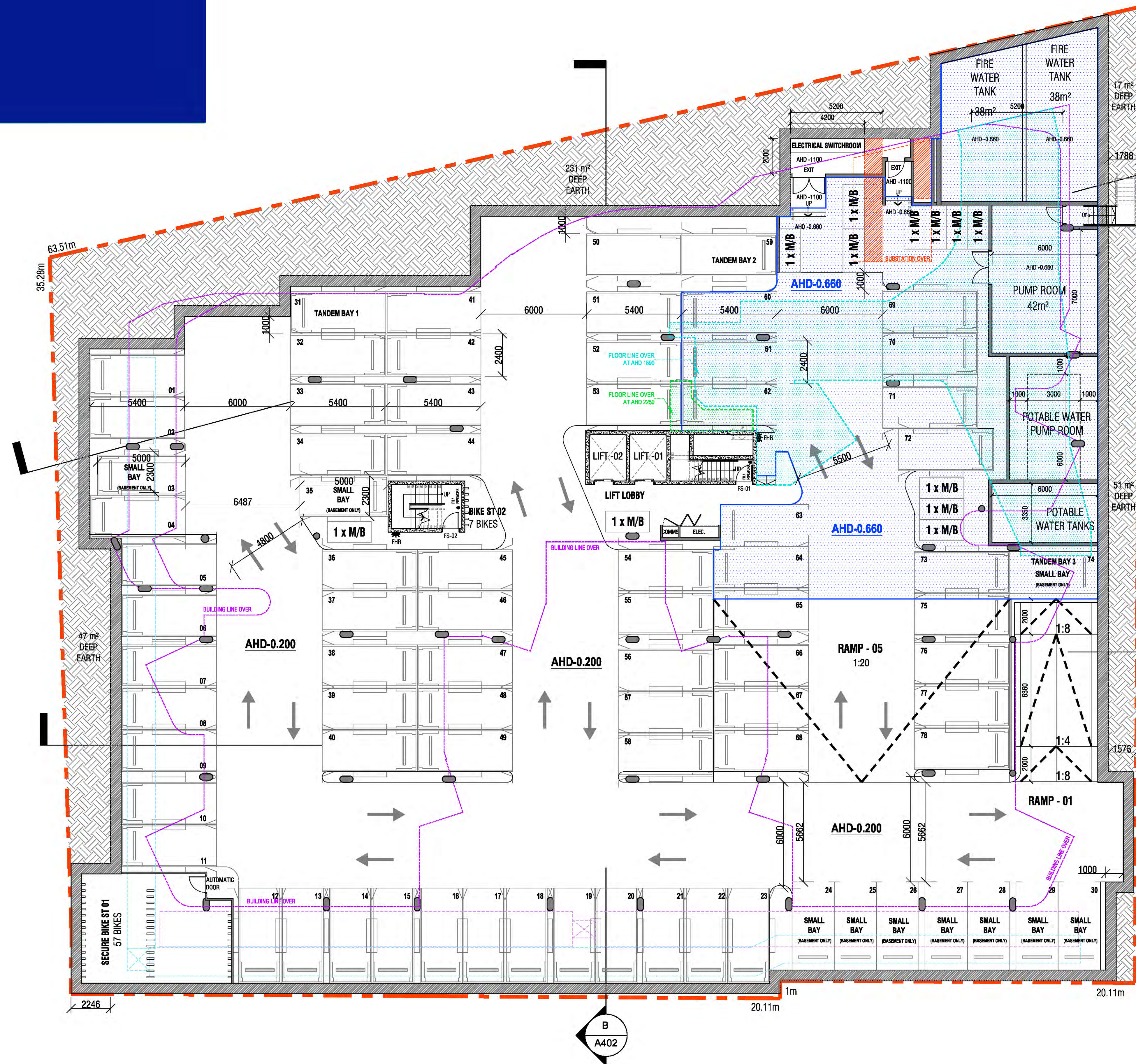
“The use of the verge for constructed or residential and visitor car parking bays associated with development applications within the Canning Bridge Activity Centre Plan area is not supported.”

The above amendment will be presented to the 26 March 2024 Ordinary Council Meeting and if supported, would result in the proposed amendments the subject of this report being inconsistent with P210.

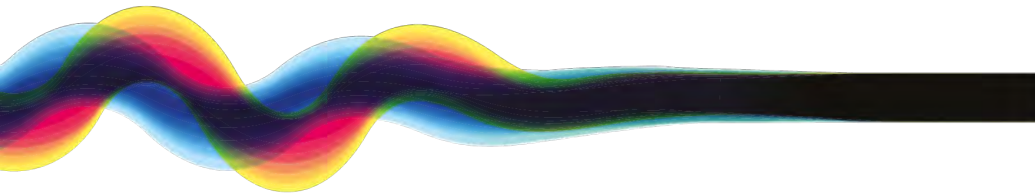
Whilst the local government is not the owner of the local road reserve, it has a statutory responsibility for the car, control and management and that in turn means local governments are entitled to determine whether bays can be constructed within the road reserve. An application to construct car parking bays within the road reserve may require Council determination given the departure from the proposed requirements of P210 if adopted.

Conclusion:

The proposal to reduce the required amount of visitor car parking bays on-site and instead provide for the construction of visitor car parking bays within the verge is not supported, given the ability to wholly contain all car parking on-site. The proposal is considered inconsistent with the CBACP and will adversely impact on the desired future streetscape character. The application is therefore recommended for refusal.



BASEMENT - 78 CARBAYS IN TOTAL
66 STANDARD BAYS - 5400mm x 2400mm
7 SMALL CAR BAYS - 5000mm x 2400mm
2 SMALL CAR BAYS - 5000mm x 2300mm
3 TANDEM BAYS (INCL. 1 SMALL TANDEM BAY) - 5400mm x 2400mm
GROUND FLOOR - 56 CARBAYS IN TOTAL (EXCL. 5 VISITOR BAYS)
52 STANDARD BAYS - 5400mm x 2400mm
2 SMALL CAR BAYS - 5000mm x 2400mm
1 SMALL CAR BAYS - 5000mm x 2300mm
1 TANDEM BAY - 5400mm x 2400mm
TOTAL CARBAYS- 134 (EXCL. 5 VISITOR BAYS)
B1- 12 x MOTORBIKE BAYS
GF- 2 x MOTORBIKE BAYS
TOTAL M/B BAYS- 14
B1- 64 x BIKE BAYS
GF- 57 x BIKE BAYS
PUBLIC - 15 x BIKE BAYS
TOTAL BIKE BAYS- 136
TOTAL SITE AREA: 2977 m²
REQUIRED DEEP EARTH: 10% OF SITE AREA = 297m²
TOTAL DEEP EARTH PROVIDED- 346 m² (11.60% OF SITE AREA)



Our Ref: 21-511
DPLH Ref: DAP/23/02405

8 December 2023

Chief Executive Officer
City of South Perth
Cnr Sandgate St & South Tce
SOUTH PERTH WA 6151

Via e-mail transmission to: kevint@southperth.wa.gov.au & daps@dplh.wa.gov.au

Attention: Mr Kevin Tang - A/Urban Planning Coordinator

Dear Kevin,

AMENDED DEVELOPMENT APPLICATION REQUEST (DAP FORM 2) – CONDITION 9 – VISITOR PARKING - NO. 202 (LOT 5), 203 (LOT 6) AND 204 (LOT 15) MELVILLE PARADE, COMO – APPROVED NINE-STOREY MULTIPLE DWELLING DEVELOPMENT

On behalf of PRD Development WA Pty Ltd as the landowners of No's 202 – 204 Melville Parade Como (the subject site), **element** is seeking approval of the Metro-Inner South Joint Development Assessment Panel (JDAP) determination granted on the 19th of April, 2023 to amend Condition 9 of the approval to only require the provision of 5 visitor parking bays on the site, in lieu of the required 16 onsite visitor bays.

The development approval granted approval for the construction of a 9-storey multiple dwelling development comprising of:

- 121 multiple dwellings;
- 139 on-site car parking bays; and
- 136 on-site bicycle parking bays.

Regulation 17(1b) of the *Planning and Development (Development Assessment Panel) Regulations 2011*, provides the ability to apply to amend the DAP application to amend or delete any condition to which the approval is subject.

Whilst the applicant can elect for an amendment application (Form 2) to be determined by either the JDAP or the responsible authority, given the City's refusal position on the application, we hereby request this Form 2 application be determined by the Panel.

In accordance with the requirements of the City of South Perth and Regulation 17 of the DAP Regulations 2011, the following is enclosed:

- Completed Planning Application Forms, signed by the current owners, including –
 - MRS Form 1; and
 - DAP Form 2;
- A copy of the relevant Certificate of Titles (refer to *Appendix A*)
- A copy of the current Development Approval (refer to *Appendix B*)

Background

element sought approval from the JDAP for construction of the aforementioned development with the car parking arrangement and allocation proposed as follows:

Car Parking Allocation	Bays Required	Bays Provided
Resident Parking based on:	Total 105	Total 134
0.75 bays per studio or single bedroom dwellings	67 x 1 bed/studios = 50.25 bays (51 bays)	67 bays proposed based on 1 per dwelling
1 bay per 2 or 3 bedroom dwelling	39 x 2 bed and 15 x 3 bed = 54 bays required	67 bays (1 per 2 bed dwelling [39 bays] 1 bay each for 2 three bed dwellings [2 bays] 2 for 13 x three beds [26 bays] – 4 in tandem)
Visitor 1 bay per 8 dwellings Parking	16	5 on-site 11 on street (4 embayed on eastern verge & 7 on-street)
TOTAL	121	139 (excluding 11 on-street and embayed parking bays)

Approval granted was subject to a total of 43 conditions. All conditions are accepted with the exception of Condition 9, which references car parking allocations as below:

9. A minimum of 16 visitor car bays for visitors to the development are to be provided on site and marked accordingly, prior to occupation of the development.

This Form 2 application seeks to amend Condition 9, requesting that the originally proposed five (5) visitor bay car parking arrangement be accepted.

Compliance with this condition requiring 16 bays would mean that either 11 or 13 of the 1 bed/studios need to be sold without any parking bay, if each 3 bedroom dwelling is provided with 2 bays.

Discussion

Whilst there is a technical surplus of 29 bays, this is based on **minimum standards** established by the Canning Bridge Activity Centre Plan (CBACP), and in reality, especially in WA, the market demands one bay per dwelling and ideally 2 bays for each three bedroom dwelling. If it were possible to sell some small studios without a bay, then the preference would be to firstly ensure that at least each 3 bedroom dwelling had 2 bays each.

We believe that given the availability of off-site parking nearby, proximity to public transport and cycle facilities that the provision of 5 on site visitor bays is more than reasonable based on the following:

Existing Public Parking Provision

- The proposed development intends to remove 4 existing crossovers from the street and replace these with four (4) embayed parking bays. These bays have no impact on traffic movement (especially noting it's a cul-de-sac) and still represent a significant streetscape enhancement. Whilst it is understood that such bays would be available to the public, its 4 additional bays currently not available to anyone.



- There is also the ability for seven (7) vehicles to park in the existing on street bays on the western side of Melville Parade, in front of the development. Whilst some of these bays are currently used during the weekday presumably for train commuters, these bays are typically available in the evening when residential visitor demand would be at its highest.
- The subject site is also conveniently located within 200m of Olives Reserve, which includes an underutilised public car park with 54 car spaces that is mostly empty as determined through numerous site visits and in the Traffic Impact Statement accompanying the approved development application.
- Visitors to the development are expected to prefer using the more conveniently located on street bays or the public car park at Olives Reserve to avoid relying on residents for access via basement entrances. Such parking solutions will also allow visitors to easily enter the building through the front doors, enhancing convenience and accessibility.
- Even in the future when this area is at full development, each development site in the street is provided with the same opportunity for on street parking relying on the street availability in front of their respective buildings. In this unique situation, there will never be any buildings opposite, obviously reducing demand for on street parking.
- The worst case scenario is that the City impose a time restriction on street parking to ensure greater turn over and increased public transport, ride share or cyclist/pedestrian use.



Existing Transport Infrastructure

- The subject site is within 420m of the Canning Bridge train station and bus interchange. This connects the subject site to the Perth CBD and south-eastern corridor by train and to Fremantle and eastern and north-eastern corridors by high-frequency bus routes.
- The subject site is also connected to the Perth CBD and Fremantle and southern suburbs via active transport infrastructure with recently upgraded bike paths and footpaths located within 300m of the subject site.
- The utilisation of active transport to access the proposed development is further encouraged through the generous provision of 136 bicycle parking bays on-site, reducing the demand for additional private vehicle parking bays.
- Encouraging the use of public transport and active modes of transport is a significant objective of the CBACP. It is anticipated that the demand for public transport generated from the proposed development will increase visitors arriving to the subject site via public transport and active transport modes. This will reduce the demand for private vehicle visitor parking at the subject site and mitigate adverse amenity concerns related to on-street parking and accessibility.
- The target market for the residential occupants is largely based on the accessibility to public transport, especially for work commuter travel. However, such residents are still likely to want a car parking space for weekend travel, but also for resale purposes. Of the 41 apartments 'pre-sold' to date, all the ones taken have required at least one car bay. Some key workers may also be rostered on evening shift work (particularly nurses) where car use is required,



Visitors on the other hand, should be encouraged to use public transport, or ride share platforms.

Canning Bridge ACP

- The Development Objective for Parking in the CBACP is:

“Parking is an important element to consider for development, and considerable analysis has been undertaken to respond to this need. Parking should be provided to ensure that the CBACP area can provide for its residents and guests, but should balance this need with a need to discourage private vehicle travel generally. Alternative transport is encouraged by way of providing for bicycle parking and storage, and motorcycle and scooter parking.”

The proposal with 5 on site visitor bays is considered consistent with this objective as it provides for a reasonable amount of resident and guest parking provision without an oversupply, still encouraging alternative transport use. The development is also fully compliant with bicycle parking and can easily be with scooter parking, being only one scooter bay short, with the ability to add a bay.

- The CBACP was based on the premise that residential parking would be a minimum parking, recognising that additional parking is likely to be provided.
- Clause 18.5 of the CBACP states:

“Where an applicant proposes a development which is required to provide car parking bays in accordance with Clause 18.3 or 18.4, that person may, if so agreed by the determining authority, make a cash payment to the relevant Council in lieu of the provision of all or any of the required number of car parking spaces. The cash payment shall be in accordance with the relevant clause relating to cash-in-lieu in relevant operative local planning scheme in each City. For the purposes of this Clause, the relevant Planning Scheme is considered to be the current or any future planning scheme gazetted for the relevant Local Authority.”

It was clearly intended for cash in lieu to able to be provided where there was a shortfall of parking. Whilst the City of South Perth Scheme only allows for cash-in-lieu to be provided for non-residential development, we believe it is clearly open to the Panel to consider an alternative arrangement to be approved, including the reduction of on-site visitor parking for streetscape enhancements, such as the provision of embayed on street parking, or even the re-sealing of the Olive Reserve parking area. Such arrangements would be consistent with that contemplated by the CBACP.

- The CBACP encourages housing diversity, which is clearly embraced by the development. Allowing for 2 parking bays for the three bedroom dwellings (or even a 2 bedroom dwelling) allows for the dwellings to be tenanted by unrelated occupants further increasing diversity options.

Public Realm

- The proposed verge treatment is highly landscaped and a considerable improvement on what is currently there. Even replacing 4 crossovers with 4 embayed parking bays still increases the amount of landscaped area improving the streetscape.
- Providing visitor parking on the street frontage will allow for a more active streetscape and passive surveillance, especially given active commercial uses on the ground floor are not permitted.
- The proposed on-street parking bays provide more convenient access to the front doors of the proposed development and prevent the need for visitors who are unfamiliar with the building to find basement parking.

Other points

- Should each dwelling be provided with a bay and some residents not have a car, then these unallocated bays allow for flexibility with parking arrangements, effectively allowing their visitors to access off street parking.
- The recently approved six-storey residential building at Lot 417 Clydesdale Street, Como was

approved on the 9th of November, 2022 (DAP/22/02273) with no on site visitor parking.

- If 16 visitor bays are required on site, and there are units without parking bays, it is highly likely that at least some of these 'visitor' bays will be permanently occupied by resident vehicles ('long term visitors of residents').
- The amount of visitor parking required is 15.125 bays, this could be rounded to 15 which is considered more than sufficient to cater for the development given its locational advantages further reducing demand for street parking.

SPP 7.3 Residential Design Codes – Volume 2 – Apartments

The Volume 2 Apartment guide provides very clear design guidance when considering the provision and need of visitor bays.

Firstly, it is clearly acknowledged that parking requirements should take into account the availability of public parking **or** high frequency public transport. The proposed development has ample public parking and proximity to high frequency public transport.

Secondly, DG3.9.3 specifically encourages consideration to be given to reducing visitor parking where there is adequate on street parking **or** public parking in the near vicinity of the development. Again, the development enjoys clear availability of on street parking **and** is very close to available public parking.

It is clear that the proposal meets the criteria for the provision of reduced on site visitor parking to be provided,

DG 3.9.2 Parking requirements should be determined considering the proximity of the **development** to a centre(s) and the availability of public parking or **high-frequency** public transport services. Reducing car parking requirements may reduce car dependency and encourage walking, cycling and the use of public transport.

DG 3.9.3 Visitor parking may be reduced where there is adequate on-street parking or public parking in the near vicinity of the **development**.

Proposed Solutions

We believe there are 4 options available to the Panel.

1. Refuse the Form 2, requiring 16 visitor bays to be provided on site;
2. Amend the condition to allowing for 5 visitor bays on site instead of 16;
3. Amend the condition to require the proponent to construct 4 embayed bays on street (potentially also include satisfactory arrangements being made with the City for the resealing and line marking of the 54 bay car park in the Olive Reserve); and/or
4. Impose a condition where 11 bays are not to be strata titled in addition to the requirement for 5 dedicated on site visitor bays. This would allow for 11 bays to either be set aside for visitors, or 'traded/licensed' amongst residents by agreement for either the use of a studio (first offer) or a second bay for a 2 or 3 bedroom dwelling depending on demand.

Option 1 is clearly not the preferred option and places implementation of the approval at risk.

Whilst our preference is for Option 2, Option 3 is considered entirely reasonable and consistent with the intent of the CBACP that obviously contemplated a cash in lieu arrangement. Providing specifics to the conditions relating to directly relevant public domain enhancements ensures there is a nexus and relevance to the condition(s) ensuring cash in lieu funds are spent on parking related enhancements relevant to the development. Option 4, also provides additional ongoing flexibility to cater for changing parking demands as occupants change.

Suggested conditions to achieve these outcomes are:

1. *A minimum of 5 visitor car bays for visitors to the development are to be provided on site and marked accordingly, prior to occupation of the development.*
2. *Prior to occupation of the development satisfactory arrangements being made with the City of South Perth for the construction of 4 embayed verge bays and resurfacing and line marking of the Olive Reserve car park.*

3. *Excluding the visitor parking bays required by Condition 9(?), a minimum of 11 parking bays on the ground floor, including the 6 nearest the entrance, shall not be strata titled and appended to a specific unit.*

Advice note:

With regard to condition 3(?) the 11 bays may be licensed and traded between occupants based on need and demand, including for purchase/allocation by the body corporate for additional visitor parking, in which case such bays should be appropriately signposted and marked.

Conclusion

Based on the above, there is clearly sufficient availability for visitor parking without it being on site, and amending the condition can be done in a way where it satisfies the requirements and objectives of the CBACP without setting an undesirable precedent. The recommended conditions clearly address the issue and enhance the public domain and visitor parking quality and quantity for all users of the precinct, including future residents of the development.

We therefore request the Panel support these amendments, proposed. Should you have any queries or require clarification on the above matter, please do not hesitate to contact the undersigned on 0411 555 078.

Yours sincerely
element



David Read
Director

Appendix A – Certificate of Title

Appendix B – Current DAP Development Approval



LG Ref: 11.2022.341.1
DAP Ref: DAP/23/02405
Enquiries: (08) 6551 9919

Mr David Read
element
Level 18/191 St Georges Terrace, Perth WA 6000

Dear Mr Read

**METRO INNER-SOUTH JDAP - CITY OF SOUTH PERTH - DAP APPLICATION -
11.2022.341.1 - DETERMINATION**

Property Location:	No. 202 (Lot 5), 203 (Lot 6) and 204 (Lot 15) Melville Parade, Como
Application Details:	Proposed multiple dwellings in a 9-storey building plus basement level

Thank you for your Form 1 Development Assessment Panel (DAP) application and plans submitted to the City of South Perth on 12 January 2023 for the above-mentioned development.

This application was considered by the Metro Inner-South JDAP at its meeting held on 18 April 2023, where in accordance with the provisions of the City of South Perth Local Planning No.6, it was resolved to **approve** the application as per the attached notice of determination.

Should the applicant not be satisfied by this decision, an application may be made to amend or cancel this planning approval in accordance with regulation 17 and 17A of the *Planning and Development (Development Assessment Panels) Regulations 2011*.

Please also be advised that there is a right of review by the State Administrative Tribunal in accordance with Part 14 of the *Planning and Development Act 2005*. Such an application must be made within 28 days of the determination, in accordance with the *State Administrative Tribunal Act 2004*.

Should you have any queries with respect to the conditions of approval, please contact Ms Laura Kelliher on behalf of the City of South Perth on 08 9474 0777.

Yours sincerely,

DAP Secretariat

19 April 2023

Encl. DAP Determination Notice
Approved Plans

Cc: Ms Laura Kelliher
City of South Perth



Planning and Development Act 2005

City of South Perth Local Planning No.6

Metro Inner-South Joint Development Assessment Panel

**Determination on Development Assessment Panel
Application for Planning Approval**

Property Location: No. 202 (Lot 5), 203 (Lot 6) and 204 (Lot 15) Melville Parade, Como

Application Details: Proposed multiple dwellings in a 9-storey building plus basement level

In accordance with regulation 8 of the *Planning and Development (Development Assessment Panels) Regulations 2011*, the above application for planning approval was **granted** on 18 April 2023, subject to the following:

Approve DAP Application reference DAP/23/02405 and accompanying plans (**Attachment 1**) in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the City of South Perth Town Planning Scheme No. 6, for the proposed multiple dwellings development in a 9-storey building plus basement level at No. 202 (Lot 5), 203 (Lot 6) and 204 (Lot 15) Melville Parade, Como, subject to the following conditions:

Conditions

General

1. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.
2. This decision constitutes planning approval only and is valid for a period of four years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. The development shall be in accordance with the approved plans unless otherwise authorised by the City of South Perth or where relevant, the Metro Inner-South JDAP.
4. This approval does not pertain to the erection, placement and display of any advertisements other than what has been included in the approved drawings. A separate application is to be submitted and development approval is to be obtained for any proposed advertisements that are not exempt from requiring development approval of the local government.
5. The property shall not be used for the approval hereby granted until an inspection has been carried out by the City of South Perth and the City of South Perth being satisfied that the conditions of development approval have been complied with.



Construction Management

6. Prior to the submission of the relevant building permit application or demolition permit application, whichever is earlier, a Construction Management Plan must be submitted to, and approved by, the City of South Perth. The Construction Management Plan must address the following issues, where applicable:

- (i) public safety and amenity;
- (ii) site plan and security;
- (iii) contact details of essential site personnel, construction period and operating hours;
- (iv) community information, consultation and complaints management plan;
- (v) noise, vibration, air and dust management;
- (vi) traffic, access and parking management;
- (vii) waste management and materials re-use;
- (viii) earthworks, excavation, land retention/piling methods and associated matters;
- (ix) stormwater and sediment control;
- (x) street tree management and protection;
- (xi) asbestos removal management Plan; and/or
- (xii) any other matter deemed relevant by the City of South Perth.

The Construction Management Plan must be complied with at all times during development, to the satisfaction of the City of South Perth.

7. Prior to the submission of the relevant building permit application, the applicant shall submit a geotechnical engineering report certifying that the land is physically capable of accommodating the development to the satisfaction of the City of South Perth.
8. Prior to the commencement of development, a dilapidation report prepared by a suitably qualified professional shall be submitted to, and approved by the City of South Perth, detailing the current condition and status of all buildings, surrounding paved areas and ancillary structures located on, but not limited to, the following properties:
- a. Lot 16 (No. 205) Melville Parade, Como;
 - b. Lot 13 (No.1 and 1A) Henley Street and No. 201 Melville Parade, Como;
 - c. Lot 43 (No. 3A) Henley Street, Como;
 - d. Lot 42 (No. 3B) Henley Street, Como;
 - e. Lot 1 (No. 55) Leonora Street, Como
 - f. Lot 10 (No. 49) Leonora Street, Como; and
 - g. Lot 11(No. 51) Leonora Street, Como

In the event that access for undertaking the dilapidation survey is denied by an adjoining owner, the applicant must demonstrate in writing to the satisfaction of the City of South Perth that all reasonable steps have been taken to obtain access and advise the affected property owner of the reason for the survey and that these steps have failed. Dilapidation reports shall be prepared to the satisfaction of the City of South Perth.



Parking and Traffic Safety

9. A minimum of 16 visitor car bays for visitors to the development are to be provided on site and marked accordingly, prior to occupation of the development.
10. Visitor parking bays shall be permanently marked, maintained and accessible at all times for use exclusively by visitors to the property, be clearly visible or suitably sign posted from the street or internal driveway, to the satisfaction of the City of South Perth.
11. Prior to the submission of the relevant building permit application, the applicant must be in receipt of an approved "Crossing Application" that confirms the design is to the satisfaction of the City of South Perth. The existing verge levels at the front property boundary and verge assets shall not be altered without prior approval of the City of South Perth.
12. Prior to the submission of an occupancy permit application, all redundant crossovers shall be removed, and the verge and kerbing reinstated, to the satisfaction of the City of South Perth.
13. Prior to the submission of an occupancy permit application, the car parking bays shall be marked on site as indicated on the approved plans, in order to comply with the requirements of clause 6.3 (10) (c) of Town Planning Scheme No. 6 and such marking shall be subsequently maintained so that the delineation of parking bays remains clearly visible at all times.
14. Hard standing areas approved for the purpose of car parking or vehicle access shall be accessible at all times, maintained in good condition, free of potholes and dust and shall be adequately drained, to the satisfaction of the City of South Perth.
15. Prior to the submission of the relevant building permit application, a Parking and Access Management Plan for residents, staff and visitors of the building, must be submitted to, and approved in writing by, the City of South Perth. The approved Parking and Access Management Plan shall be implemented and adhered to at all times, unless otherwise approved by the City of South Perth.
16. Prior to the submission of an occupancy permit application, the applicant shall supply certification confirming the constructed design of all car parks, vehicle access-ways and bicycle bays are compliant with Australian Standards AS2890.1 and AS2890.3 and the approved plans, to the satisfaction of the City of South Perth.
17. Prior to the submission of the relevant building permit application, the applicant shall submit details to confirm the provisioning of an electrical supply system to a minimum of 20 per cent of all car parking bays to allow for future capacity to supply electric vehicle charging points in the form of general power outlets (GPOs), to the satisfaction of the City of South Perth.
18. Prior to the submission of an occupancy permit application, an electronic communication system linked to each residential unit in building shall be located at the security barrier to the satisfaction of the City of South Perth.



19. The height of any wall, fence or other structure shall be no higher than 0.75 metres within 1.5 metres of where any driveway meets any public street and solid no higher than 1.2m when forward of the building line, to the satisfaction of the City of South Perth.
20. Prior to any works on the Council verge (Civil &/or Stormwater), approval of the proposed design to be obtained from the City of South Perth.

Waste Management

21. Prior to the submission of the relevant building permit application, an amended Waste Management Plan shall be submitted to and approved by the City of South Perth. Waste management shall thereafter occur in accordance with the approved Waste Management Plan as amended.

Landscaping

22. Prior to the submission of the relevant building permit application, an updated landscape plan, including hard and soft landscape specifications and reticulation details, is to be submitted to and approved by the City of South Perth.
23. Prior to submission of an occupancy permit application, landscaping areas shall be installed in accordance with the approved landscaping plan. All landscaping areas shall be maintained thereafter to the satisfaction of the City of South Perth.
24. Prior to submission of an occupancy permit application, all vegetation, structures, ground coverings and treatments within the Council verge area, aside from the crossover, are to be modified or reinstated to meet the provisions of the City's Verge Street Landscape Guidelines, to the satisfaction of the City of South Perth.

Visual Privacy

25. Prior to the submission of an occupancy permit application, all visual privacy protection devices to Major Openings and/or Outdoor Active Habitable Spaces shown on the approved plans, shall be installed to prevent overlooking in accordance with the visual privacy requirements of the *Residential Design Codes of WA*. The structures shall be installed and remain in place permanently, to the satisfaction of the City of South Perth.

Public Art

26. Prior to the submission of an occupancy permit application, a public art concept for the subject development or alternatively a contribution to public art within the vicinity of the development, to the value of 1.0% of the total construction value of development (maximum \$500,000 contribution) shall be submitted and approved in writing by the City of South Perth. The approved public art concept shall be to the satisfaction of the City of South Perth.
27. Prior to the submission of an occupancy permit application, the approved public art works shall be implemented and maintained thereafter, to the satisfaction of the City of South Perth.



Sustainability

28. Prior to the submission of the relevant building permit application, the applicant is to submit an updated sustainability report confirming the final green star strategy that will guide the construction stage and further demonstrate a 5-star Green Star equivalent sustainable design rating is to be achieved. All recommendations contained within the Sustainable Design Strategy dated 28 August 2022, prepared for this development by Full Circle Design Services are to be implemented in full.

Where relevant, elements of the sustainability report and strategy should clearly be reflected in documentation and plans submitted with the building permit application. All sustainable design features proposed in the development shall be implemented and thereafter maintained by the owners of the development to the satisfaction of the City of South Perth.

29. Prior to the occupation of the development, the final plans shall be verified by a qualified consultant confirming the development incorporates the measures and recommendations outlined in the approved green star strategy (or equivalent) have been implemented and documents the approach to the satisfaction of the City of South Perth.

Noise Management

30. Prior to the submission of the relevant building permit application, an amended Noise Management Plan shall be prepared in accordance with the State Planning Policy 5.4 Implementation Guidelines, submitted to and approved by the City of South Perth on the advice from the Main Roads Western Australia. The approved Noise Management Plan shall be implemented in full.
31. Prior to the submission of an occupancy permit application, the final plans shall be certified by a qualified acoustic consultant confirming the development incorporates the recommendations outlined in the approved Noise Management Plan.
32. Prior to the submission of the relevant building permit application, a notification, pursuant to section 70A of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the lot(s) at the expense of the applicant/owner. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

“The lot is situated in the vicinity of a transport corridor and is currently affected or may in the future be affected by transport noise. Transportation noise controls and Quiet House Design strategies at potential cost to the owner may be required to achieve an acceptable level of noise reduction. Further information is available on request from the relevant local government offices.”



Liveable Housing

33. Prior to the submission of the relevant building permit application, certification completed by a Liveable Housing Australia assessor confirming that a minimum 20% of the dwellings are compliant with the 'Silver Level' of the 'Liveable Housing Design Guidelines' produced by Liveable Housing Australia, must be submitted to, and approved in writing by, the City of South Perth. Prior to the submission of an occupancy permit application, all required design features shall be installed and operational.

Lighting

34. Prior to the submission of the relevant building permit application, details of the proposed lighting to pathways, communal areas and car parking areas shall be provided, to the satisfaction of the City of South Perth.
35. Prior to the submission of an occupancy permit application, the approved lighting plan shall be installed and maintained thereafter, to the satisfaction of the City of South Perth.

Utilities and facilities

36. External fixtures such as air-conditioning infrastructure shall be integrated into the design of the building so as to not be visually obtrusive when viewed from the street and to protect the visual amenity of residents in neighbouring properties, to the satisfaction of the City of South Perth.
37. All fencing and blank walls at ground level are to be treated with a non-sacrificial anti-graffiti coating to discourage potential graffiti and/or be decorated in such a way to reduce the effect of blank facades, in accordance with Requirements 15.1 and 16.1 of the Canning Bridge Activity Centre Plan.

Water Management

38. Prior to the submission of the relevant building permit application (relevant to the construction of the basement), the applicant/owner shall prepare and have approved a Water Management Plan to the satisfaction of the City of South Perth to the specifications of the Department of Biodiversity, Conservation and Attractions.
39. Prior to the submission of the relevant building permit application (relevant to the construction of the basement), the owner/applicant shall prepare and submit documentation, to the satisfaction of the City of South Perth, which shows all measures undertaken in the development to address requirements in relation to subsoil water seepage, adequate water proofing and 100 year flood levels, in accordance with Clause 6.9 (3) of Town Planning Scheme No. 6. The approved measures shall be implemented unless otherwise approved by the City of South Perth.
40. Prior to the submission of the relevant building permit application, the applicant must be in receipt of an approved "Stormwater Drainage Application" that confirms the design is to the satisfaction of the City of South Perth.



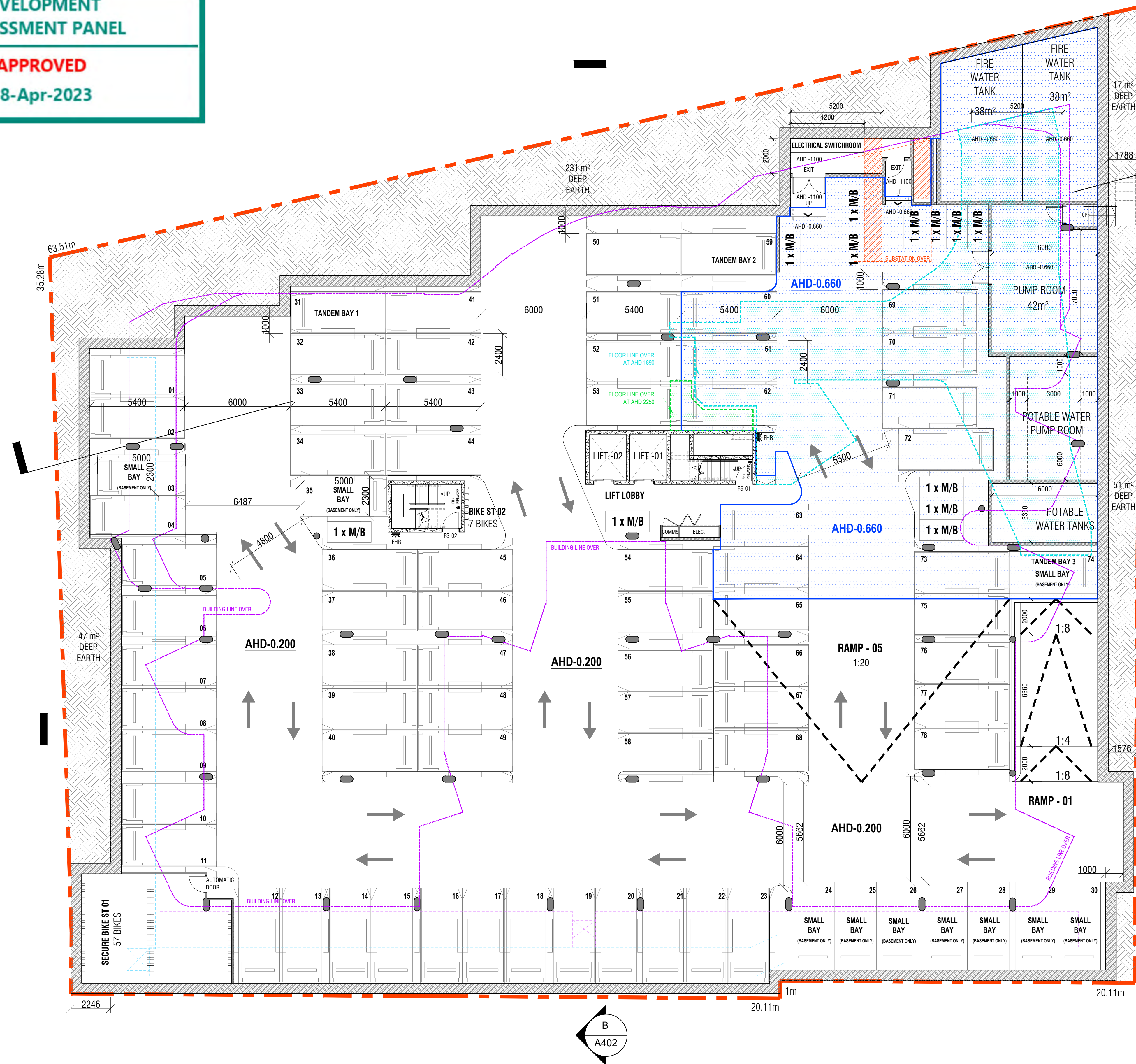
Department of Biodiversity, Conservation and Attractions

41. No dewatering effluent is to enter the River, either directly or indirectly (via the stormwater system), unless approved by the City of South Perth on the advice of the Department of Biodiversity, Conservation and Attractions.
42. Works are to be undertaken in accordance with a Sediment and Erosion Control Plan as approved by the City of South Perth on the advice of the Department of Biodiversity, Conservation and Attractions.
43. Stormwater run-off from constructed impervious surfaces generated by small rainfall events (that is, the first 15 mm of rainfall) must be retained and/or detained and treated (if required) at-source as much as practical and will not be permitted to enter the river untreated to the satisfaction of the City of South Perth on the advice of the Department of Biodiversity, Conservation and Attractions.

Where an approval has so lapsed, no development shall be carried out without further approval having first been sought and obtained, unless the applicant has applied and obtained Development Assessment Panel approval to extend the approval term under regulation 17(1)(a) or local government approval under regulation 17A of the *Planning and Development (Development Assessment Panels) Regulations 2011*.

DEVELOPMENT
ASSESSMENT PANEL

APPROVED
18-Apr-2023



BASEMENT - 78 CARBAYS IN TOTAL

- 66 STANDARD BAYS - 5400mm x 2400mm
- 7 SMALL CAR BAYS - 5000mm x 2400mm
- 2 SMALL CAR BAYS - 5000mm x 2300mm
- 3 TANDEM BAYS (INCL. 1 SMALL TANDEM BAY) - 5400mm x 2400mm

GROUND FLOOR - 56 CARBAYS IN TOTAL
(EXCL. 5 VISITOR BAYS)

- 52 STANDARD BAYS - 5400mm x 2400mm
- 2 SMALL CAR BAYS - 5000mm x 2400mm
- 1 SMALL CAR BAYS - 5000mm x 2300mm
- 1 TANDEM BAY - 5400mm x 2400mm

TOTAL CARBAYS- 134
(EXCL. 5 VISITOR BAYS)

B1- 12 x MOTORBIKE BAYS
GF- 2 x MOTORBIKE BAYS

TOTAL M/B BAYS- 14

B1- 64 x BIKE BAYS
GF- 57 x BIKE BAYS
PUBLIC - 15 x BIKE BAYS

TOTAL BIKE BAYS- 136

TOTAL SITE AREA: 2977 m²

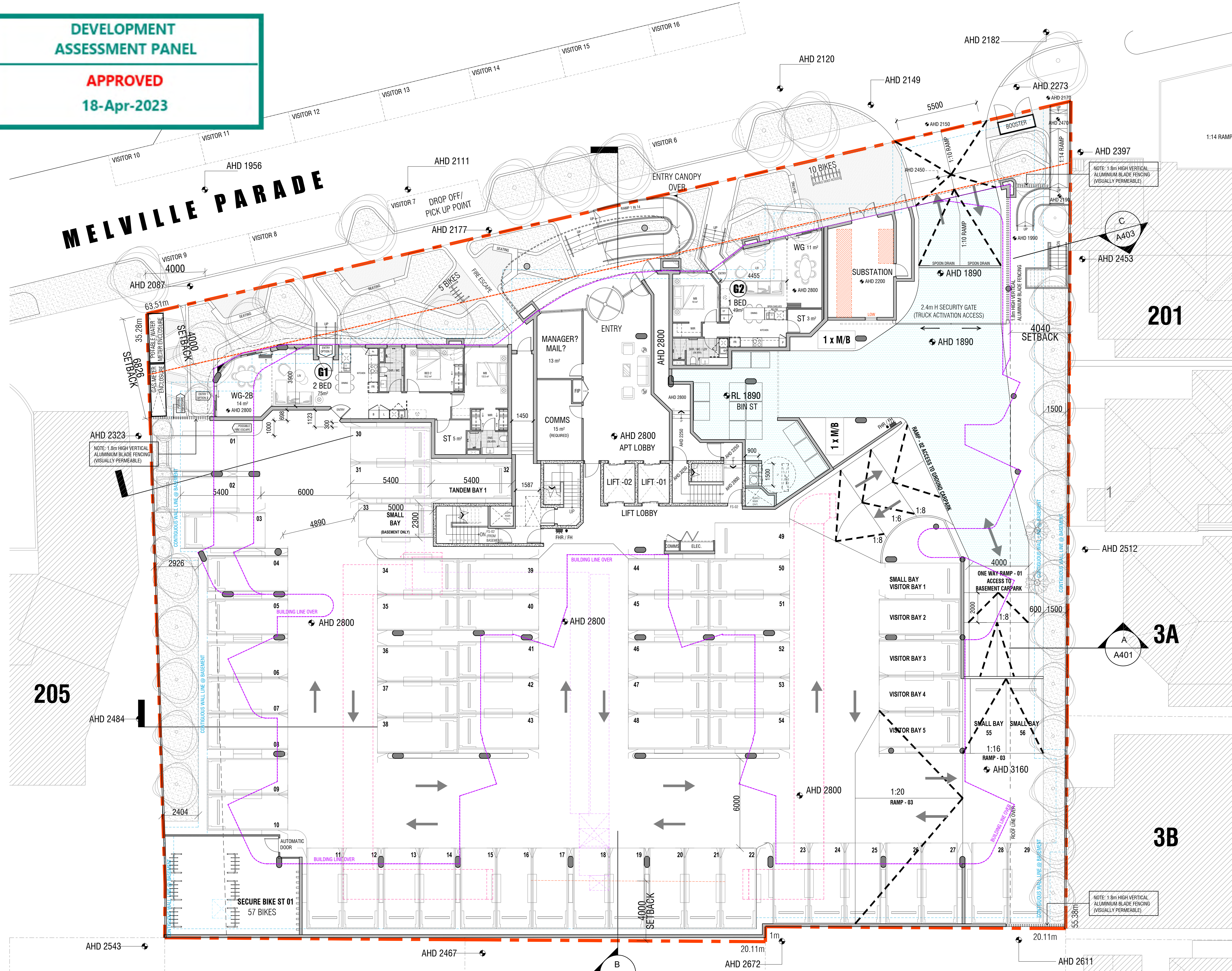
REQUIRED DEEP EARTH:
10% OF SITE AREA = 297m²

TOTAL DEEP EARTH PROVIDED-
346 m² (11.60% OF SITE AREA)

DEVELOPMENT ASSESSMENT PANEL

APPROVED
18-Apr-2023

MELVILLE PARADE



SILVER LEVEL LIVEABLE HOUSING DESIGN

FLOOR PLATE	UNIT NO.	TOTAL UNITS
GROUND	G1, G2	2
FIRST / PODIUM	01, 02, 04	3
SECOND	01, 02, 04	3
THIRD	01, 02, 04	3
FOURTH	01, 02, 04, 8A	4
FIFTH	01, 02, 04, 8A	4
SIXTH	01, 02, 04, 8A	4
SEVENTH	01, 02, 04, 8A	4
EIGHTH	01, 02, 03, 04	4
		31

SILVER LEVEL LIVEABLE HOUSING DESIGN

(31 UNITS / 121 UNITS x 100% = 25.6%)

ARCHITECTURE
MASTER PLANNING
URBAN DESIGN
INTERIORS

A 32/88 BROADWAY, NEDLANDS WA 6009
T (08) 9385 2858
E admin@colliere.com.au

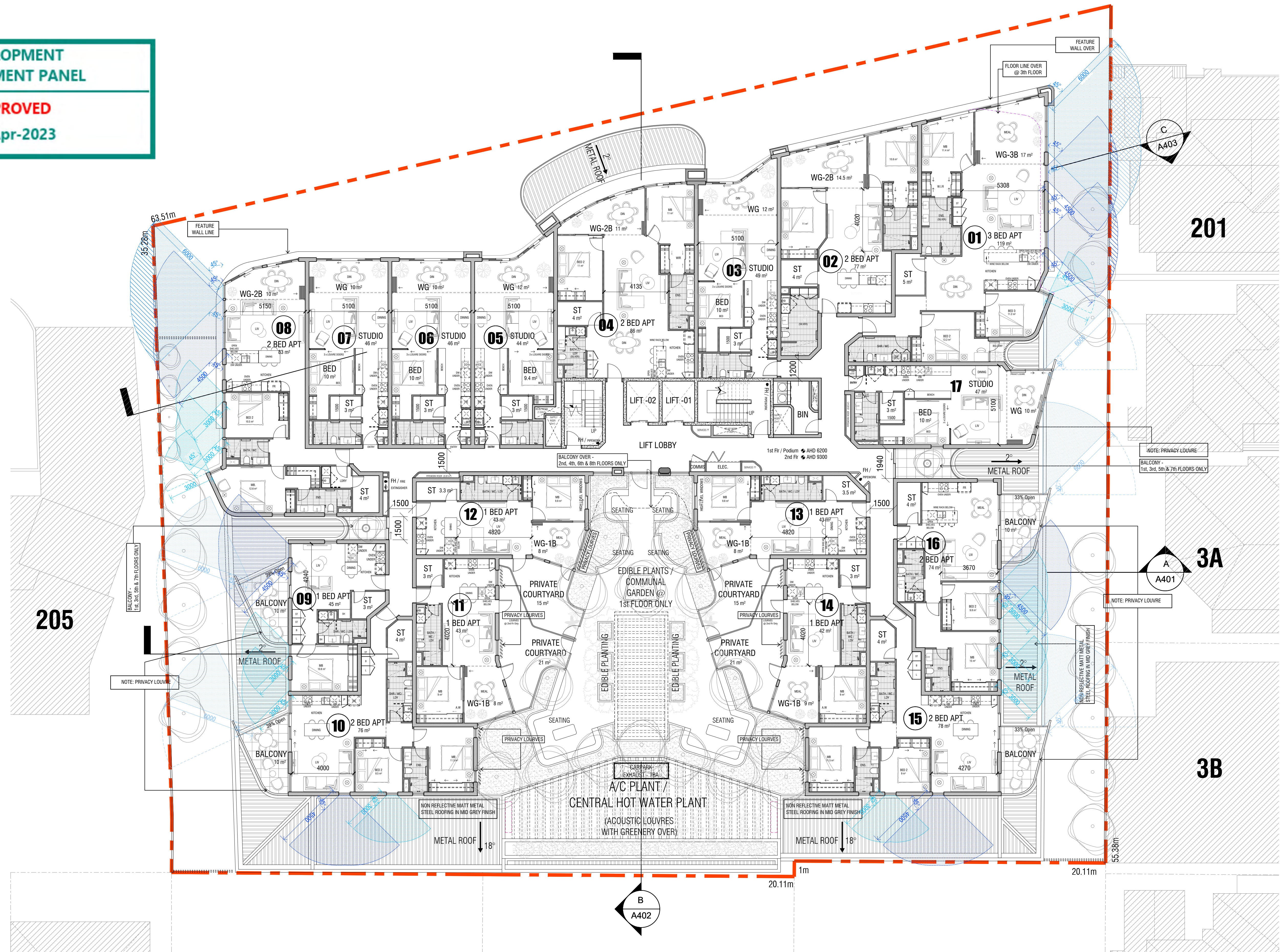
DWG No. A202 - GROUND FLOOR PLAN (1 : 250 @ A3)
202-204 Melville Parade Como
Project No. 2016- Como Redevelopment
01/03/23 DA ISSUE - REV B



DEVELOPMENT
ASSESSMENT PANEL

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18-Apr-2023

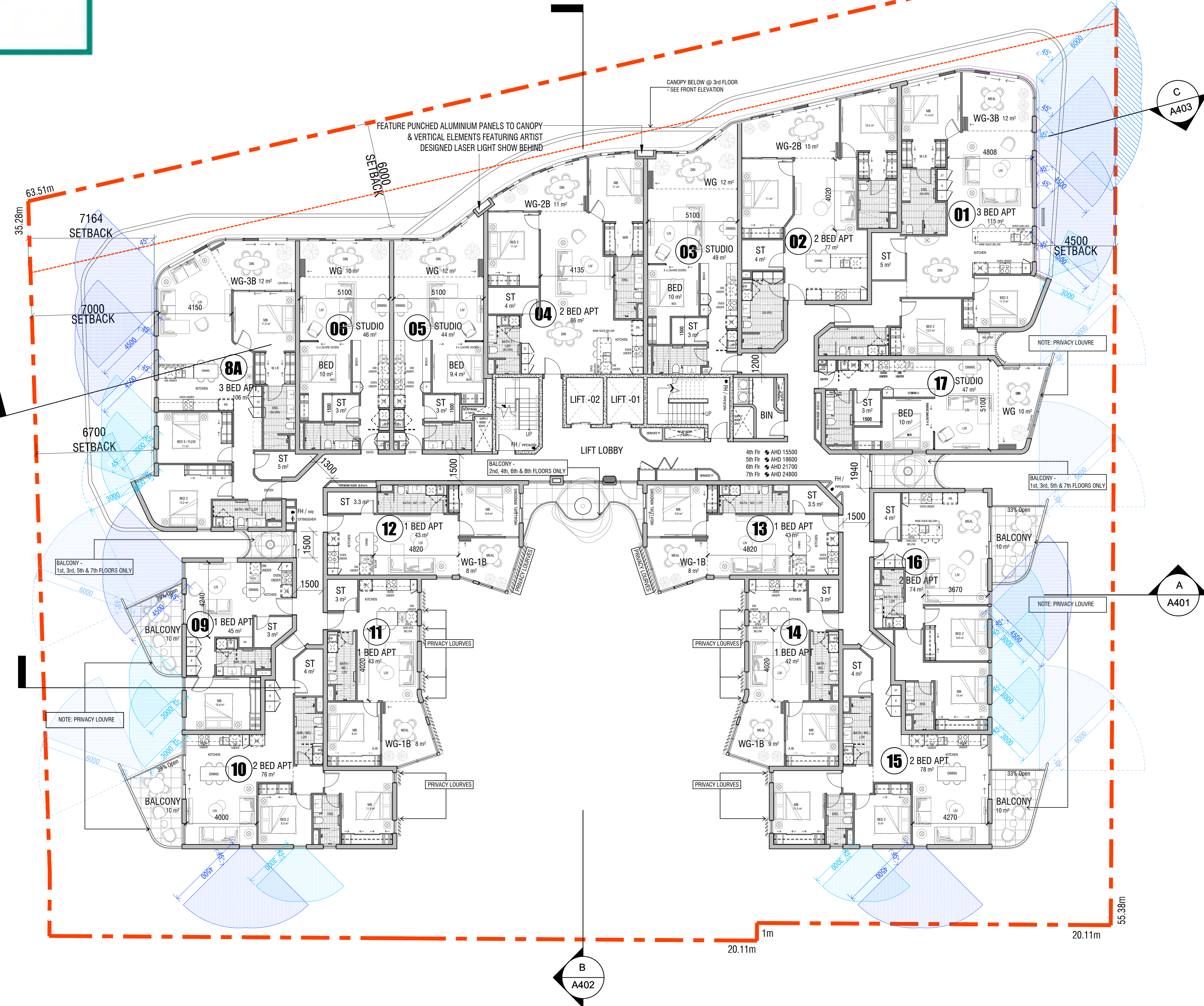


APPROVED
18-Apr-2023



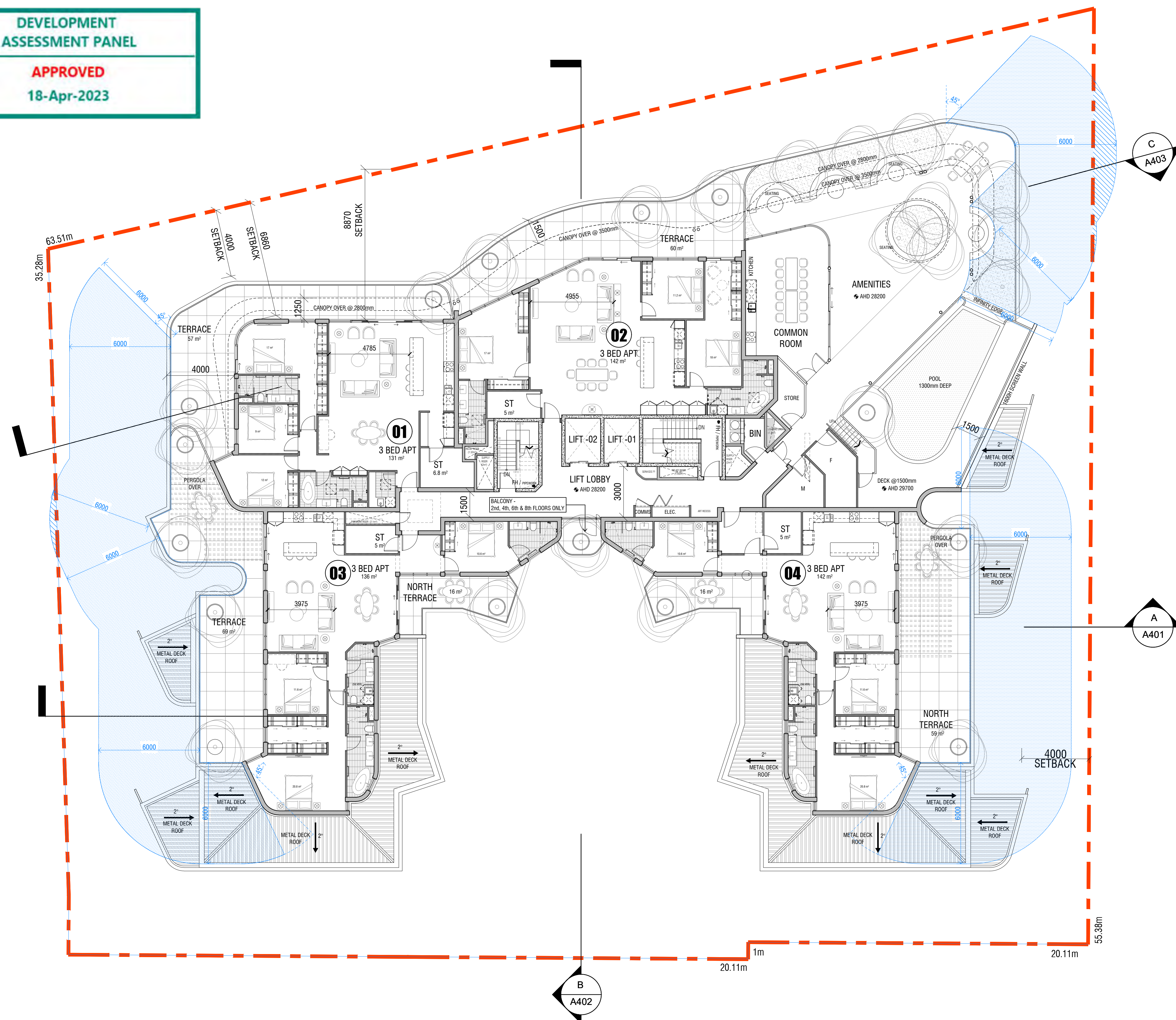
DEVELOPMENT
ASSESSMENT PANEL

APPROVED
18-Apr-2023



DEVELOPMENT
ASSESSMENT PANEL

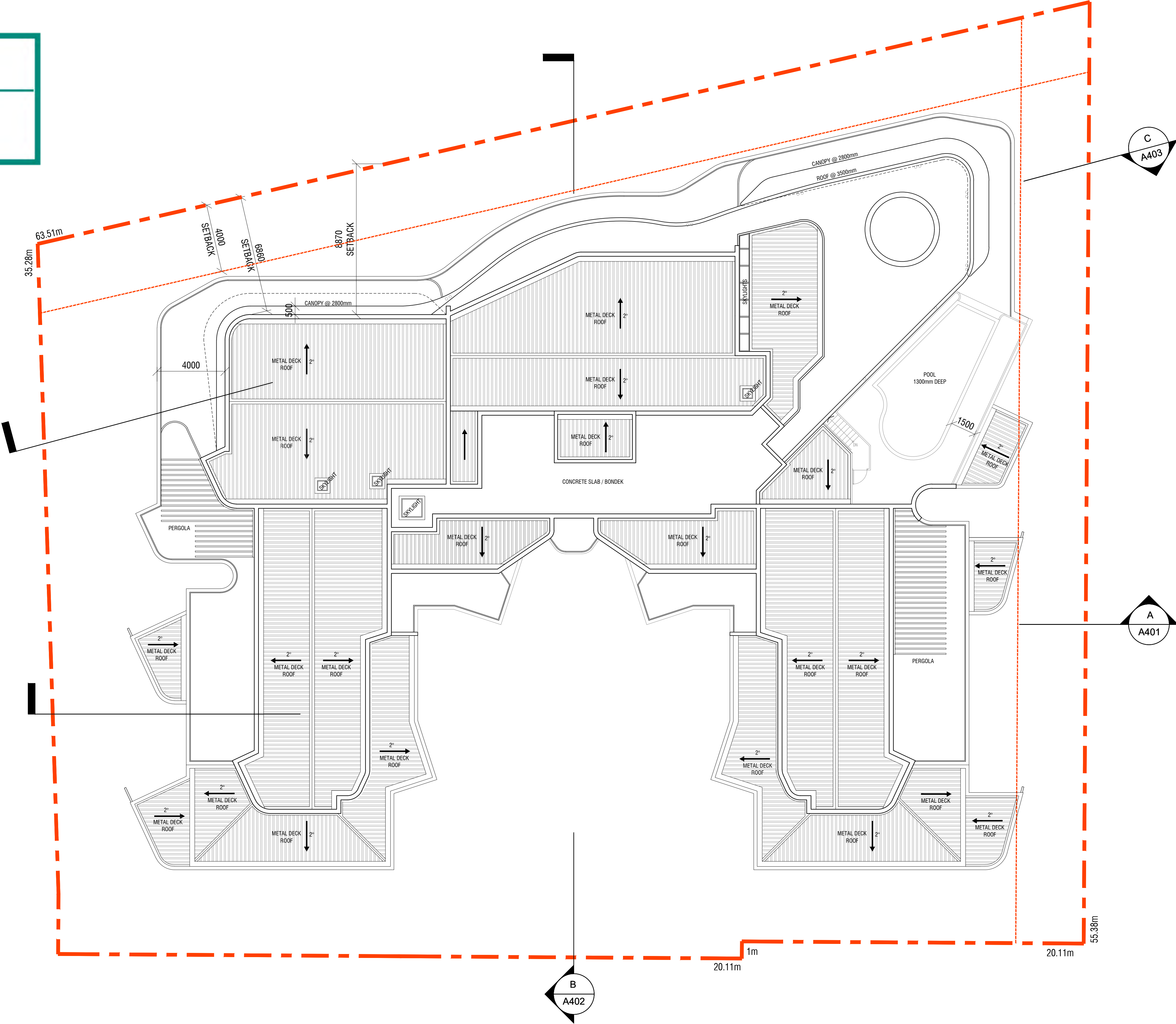
APPROVED
18-Apr-2023



DEVELOPMENT
ASSESSMENT PANEL

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18-Apr-2023



ARCHITECTURE
MASTER PLANNING
URBAN DESIGN
INTERIORS

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DWG No. A207 - Roof Plan (1 : 250 @ A3)
202-204 Melville Parade Como
Project No. 2016- Como Redevelopment
21/03/23 DA ISSUE - REV B

DEVELOPMENT
ASSESSMENT PANEL

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18-Apr-2023



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INTERIORS

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DWG No. A301 - WEST ELEVATION (1 : 200 @ A3)
202-204 Melville Parade Como
Project No. 2016- Como Redevelopment
29/09/22 DA ISSUE - REV A

PRD. COLLIÈRE
ARCHITECTURE

DEVELOPMENT
ASSESSMENT PANEL

APPROVED

18-Apr-2023

BOUNDARY LINE

BOUNDARY LINE

MELVILLE PARADE

Roof Level	31700
8th Flr / Amenities	28200
7th Flr	24800
6th Flr	21700
5th Flr	18600
4th Flr	15500
3rd Flr	12400
2nd Flr	9300
1st Flr / Podium	6200
Grd Flr	2880
Basement	-200

NOTE:
- REFER TO A701 - EXTERNAL FINISHES SCHEDULE FOR NUMBERS IN RED
- REFER TO FLOOR PLANS FOR SETBACK DIMENSIONS

ARCHITECTURE
MASTER PLANNING
URBAN DESIGN
INTERIORS

A 32/88 BROADWAY, NEDLANDS WA 6009
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DWG No. A302 - NORTH ELEVATION (1 : 200 @ A3)
202-204 Melville Parade Como
Project No. 2016- Como Redevelopment
17/03/23 DA ISSUE - REV B

PRD. COLLIÈRE
ARCHITECTURE

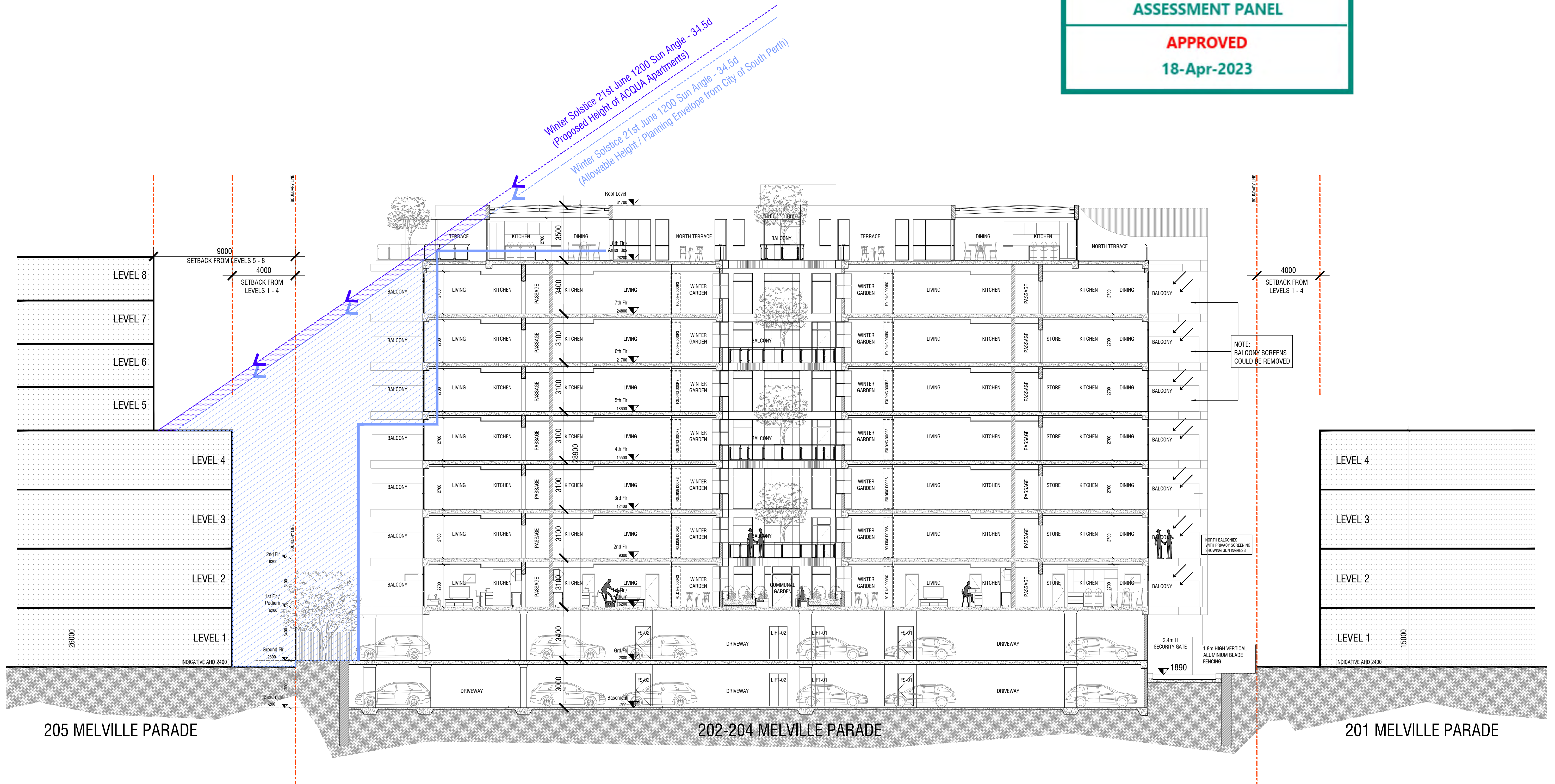




DEVELOPMENT
ASSESSMENT PANEL

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18-Apr-2023



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URBAN DESIGN
INTERIORS

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DWG No. A401 - SECTION A-A (1 : 250 @ A3)
202-204 Melville Parade Como
Project No. 2016- Como Redevelopment
01/03/23 DA ISSUE - REV B

PRD. COLLIÈRE
ARCHITECTURE

DEVELOPMENT
ASSESSMENT PANEL

APPROVED

18-Apr-2023



FLOOR PLATE / ITEMS	MATERIAL	COLOUR	FINISH	LOCATION / COMMENTS
WEST ELEVATION				
GROUND FLOOR				
1	FEATURE WALLS / BANDS	Precast Concrete Panels	White	Stainless Steel Trim on bands / Dulux ACRASHIELD ADVANCE
2	ENTRY CANOPY (LOBBY)	Polished Stainless-Steel Fascia	Polished Stainless Steel	Polished Stainless Steel
3	ENTRY DOOR (REVOLVING DOOR)	Aluminium	Polished Aluminium	Powdercoated
4	ENTRY GATE (CARPARK)	Aluminium Open Slat (Vertical) Sliding Gate	Dark Bronze	Powdercoated
5	WALL	Precast Concrete Panels	Sandstone	Porcelain Tile Cladding
6	DOOR	Timber Veneer Metal Frame Fire Door	Grey	Painted
7	WINDOW	Aluminium	Grey	Powdercoated
8	GLAZING PANELS	Veridian Glazing	Light Reflective Bronze	Glass
				Energy & Acoustic Efficient Performance Rating
9	FENCE	Vertical Aluminium Slats	Dark Bronze	Painted
1ST TO 7TH FLOOR				
10	WALL	Precast Concrete Panels	White / Grey (Refer to Elevations)	Dulux ACRASHIELD ADVANCE
6	DOOR	Timber Veneer Metal Frame Fire Door	Grey	Painted
7	WINDOW	Aluminium	Grey	Powdercoated
8	GLAZING PANELS	Veridian Glazing	Light Reflective Bronze	Glass
				Energy & Acoustic Efficient Performance Rating
11	VERTICAL ELEMENTS / LIGHTING	Perforated Aluminium Sheet	Grey	Powdercoated
12	CANOPY (3 RD FLOOR ONLY)	Compressed Fibre Cement	White	Painted
				Stainless Steel Trim on Fascia
8TH / AMENITIES FLOOR				
10	WALL	Precast Concrete Panels	White / Grey (Refer to Elevations)	Dulux ACRASHIELD ADVANCE
6	DOOR	Timber Veneer Metal Frame Fire Door	Grey	Painted
7	WINDOW	Aluminium	Grey	Powdercoated
8	GLAZING PANELS	Veridian Glazing	Light Reflective Bronze	Glass
				Energy & Acoustic Efficient Performance Rating
13	BALUSTRADE	Glass	Clear	Glass
				Stainless Steel Capping
14	ROOF / CANOPY	Compressed Fibre Cement	White	Painted
15	LIFT OVERRUN	Precast Concrete Panels	White (Refer to Elevations)	Dulux ACRASHIELD ADVANCE

NORTH & SOUTH ELEVATIONS					
GROUND FLOOR					
1	FEATURE WALLS / BANDS	Refer to West Elevation items (GROUND FLOOR)			
16	BOUNDARY FENCE	Cement Fibre Sheets	Grey	Fibre Cement	
1ST TO 7TH FLOOR					
	WALL, DOOR, WINDOW, GLAZING PANELS, BALUSTRADE & CANOPY	Refer to West Elevation items (1 ST -7 TH FLOOR)			
17	ROOF SHEETING (1 ST FLOOR ONLY ABOVE CARPARK)	Non-Reflective Matt Metal Steel Roof	Mid Grey	Metal	
18	PRIVACY SCREEN / LOUVRES	Horizontal Louvres	5 Shades of Sky Blue (Refer to Elevation)	Powdercoated	
8TH / AMENITIES FLOOR					
	WALL, DOOR, WINDOW, GLAZING PANELS, BALUSTRADE	Refer to West Elevation items (8 TH FLOOR)			
14	ROOF / CANOPY	Refer to West Elevation items (8 TH FLOOR)			
19	FENCE @ POOL	Vertical Aluminium Slats	Dark Bronze	Painted	
EAST ELEVATION					
GROUND FLOOR					
16	BOUNDARY FENCE	Cement Fibre Sheets	Grey	Fibre Cement	
9	FENCE	Vertical Aluminium Slats	Grey	Painted	
1ST TO 7TH FLOOR					
	FENCE / PERGOLA (PRIVATE COURTYARD FIRST FLOOR / PODIUM ONLY)	TBA by Plan E			
	WALL, DOOR, WINDOW, GLAZING PANELS, BALUSTRADE	Refer to West Elevation items (1 ST -7 TH FLOOR)			
20	SERVICES / PLANT DECK	Horizontal Louvres	5 Shades of Sky Blue (Refer to Elevation)	Powdercoated	
8TH / AMENITIES FLOOR					
	WALL, DOOR, WINDOW, GLAZING PANELS, BALUSTRADE	Refer to West Elevation items (8 TH FLOOR)			

**DEVELOPMENT
ASSESSMENT PANEL**

APPROVED
18-Apr-2023

DEVELOPMENT
ASSESSMENT PANEL

APPROVED

18-Apr-2023



acqua apartments, como

landscape concept | august 2022 [G]

DEVELOPMENT ASSESSMENT PANEL
APPROVED 18-Apr-2023

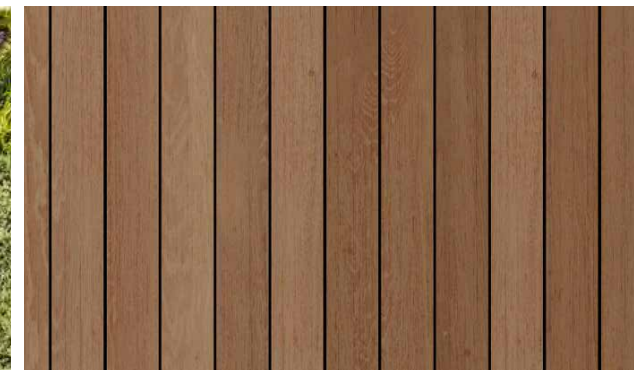


imagery & theming

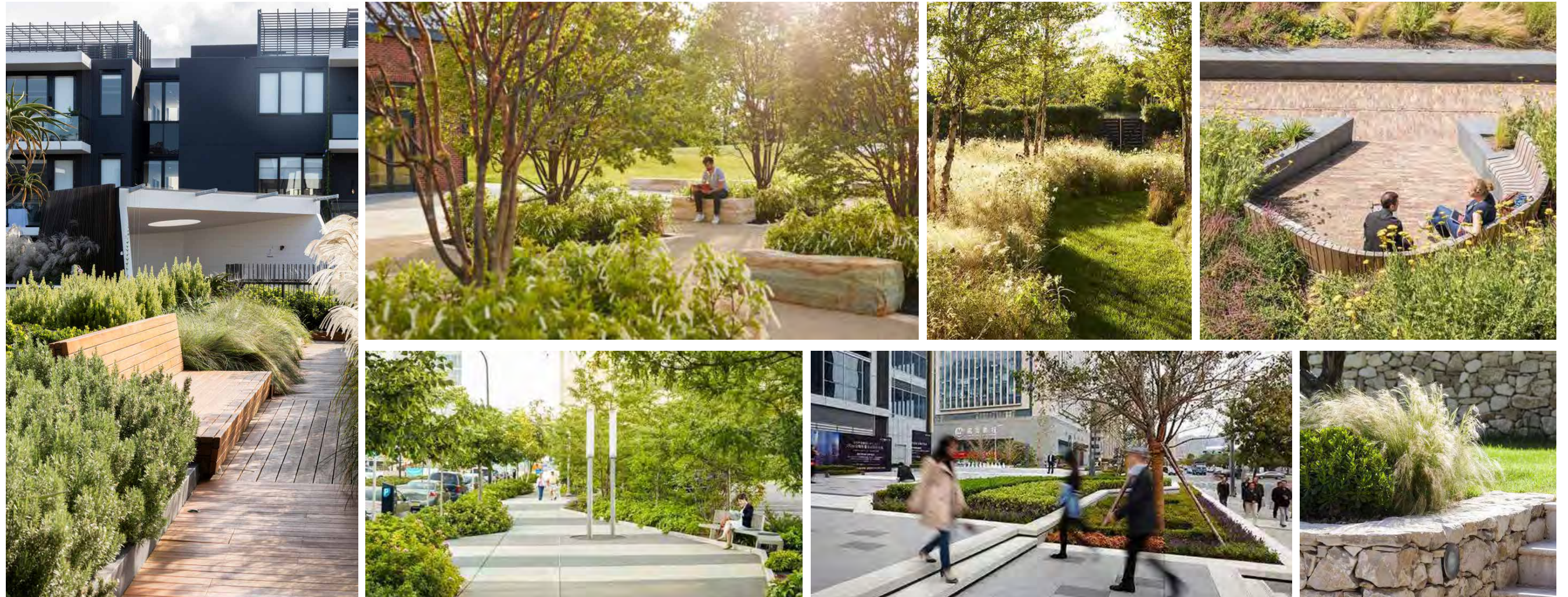


LANDSCAPE ARCHITECTS
414 ROKEBY RD SUBIACO WA 6008
T: (08) 9388 9566 E: mail@plane.com.au





Natural materials in a variety of textures are proposed to achieve a welcoming and cosy atmosphere through varied texture and colours reminiscent of the coastal plain.







DEVELOPMENT
ASSESSMENT PANEL

APPROVED

18-Apr-2023

DEVELOPMENT
ASSESSMENT PANEL

APPROVED
18-Apr-2023



landscape concept



LANDSCAPE ARCHITECTS
414 ROKEBY RD SUBIACO WA 6008
T: (08) 9388 9566 E: mail@plane.com.au



LEVEL 1 - LEGEND

- 01 CREEPER, VERTICAL PLANTING
- 02 ARTWORK / FEATURE SCULPTURE ON CENTRAL AXIS
- 03 GATE ACCESS FROM PRIVATE COURTYARDS
- 04 EDIBLE PLANTING & SCENTED PLANT SPECIES ADJACENT CENTRAL GATHERING AREA & COOKING SPACES
- 05 SMALL & INTIMATE SETTING FOR SEATING & GATHERING
- 06 LARGE SHADE CANOPY STRUCTURE & LONG TABLE FOR COMMUNITY GATHERING / SHARED USE SPACE
- 07 PRIVATE COURTYARDS
- 08 GREEN BUFFER TO RESIDENT SPACES. ACCESS & VISUAL CONNECTIONS TO GREEN SPACES. PLANTING PROVIDES RESIDENT PRIVACY
- 09 TILE PAVING TO SHARED USE SPACE
- 10 FEATURE TILE PAVING TO MAIN GATHERING AREA
- 11 FEATURE POT WITH CASCADING PLANTING
- 12 PROPOSED ORNAMENTAL & FRUIT TREES
- 13 BBQ AMENITIES

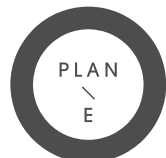


LEVEL 1

1m

20.11m

55.38m



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203-204 MELVILLE PARADE, COMO / LANDSCAPE CONCEPT

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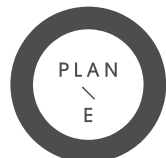
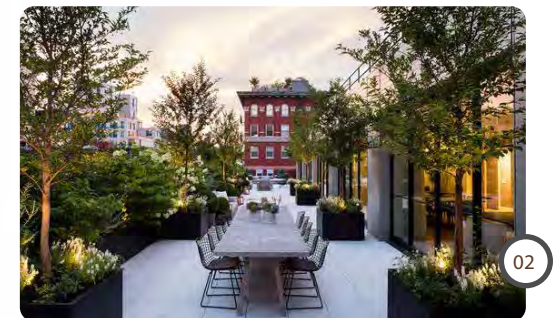
DEVELOPMENT
ASSESSMENT PANELAPPROVED
18-Apr-2023

AMENITIES LEVEL

MELVILLE WATER / CITY VIEWS

AMENITIES LEVEL - LEGEND

- 01 TILE PAVING TO SHARED USE SPACE / RESIDENT BALCONY
- 02 TIMBER DECKING
- 03 ART DECO INSPIRED POOL AREA
- 04 EDIBLE PLANTING & SCENTED PLANT SPECIES ADJACENT CENTRAL GATHERING AREA & COOKING SPACES
- 05 SMALL & INTIMATE SETTING FOR SEATING & GATHERING
- 06 LARGE SHADE CANOPY STRUCTURE & LONG TABLE FOR COMMUNITY GATHERING / SHARED USE SPACE
- 07 PRIVATE COURTYARDS
- 08 VIEWING DECK WITH FLEXIBLE USE FURNITURE
- 09 SHADE CANOPY STRUCTURE
- 10 RAISED PLANTER WITH GARDEN BED PLANTING & INTEGRATED TIMBER BENCH SEATING
- 11 PROPOSED ORNAMENTAL & FRUIT TREES



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planting palette



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SMALL TREES 1-6M



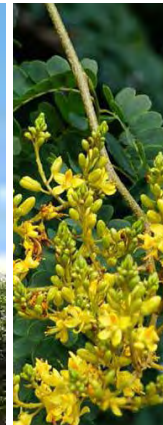
Waterhousea floribunda
WEeping LILLY PILLY
MATURE SIZE: 6 X 3 M



Hakea laurina
PIN-CUSHION HAKEA
MATURE SIZE: 4 X 3 M



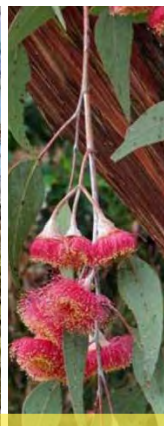
Caesalpinia ferrea
BRAZILIAN IRONWOOD
MATURE SIZE: 6 X 2 M



Magnolia 'Kay Parris'
EVERGREEN MAGNOLIA
MATURE SIZE: 4 X 3 M



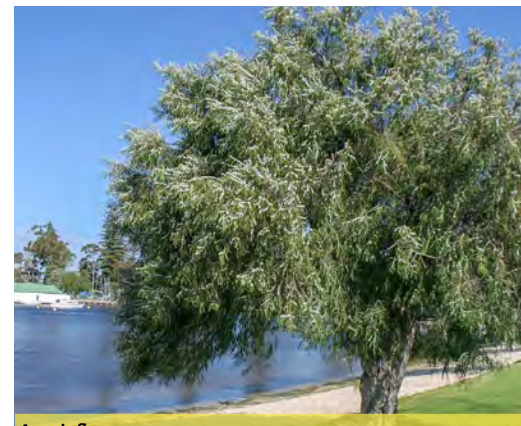
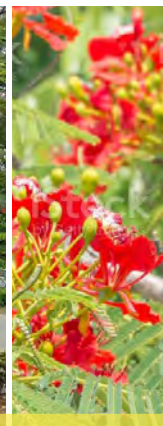
Eucalyptus caesia 'Silver Princess'
GUNGURRU / SILVER PRINCESS
MATURE SIZE: 6 X 7 M



Casuarina equisetifolia
COAST SHE-OAK
MATURE SIZE: 8 X 8M



Delonix regia
POINCIANA
MATURE SIZE: 12 X 10 M



Agonis flexuosa
WESTERN AUSTRALIAN PEPPERMINT
MATURE SIZE: 10 X 10 M



MEDIUM & LARGE TREES 6-12M



Magnolia grandiflora 'Alta'
MAGNOLIA
MATURE SIZE: 9 X 4 M



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Myoporum insulare
BOOBIALLA
MATURE SIZE: 5 X 2 M



Grevillea crithmifolia 'Little crith'
LITTLE CRITH
MATURE SIZE: 1 X 1 M



Metrosideros 'Crimson Glory'
NZ CHRISTMAS BUSH
MATURE SIZE: 3 X 2 M



Conostylis candicans
GREY COTTONHEADS
MATURE SIZE: 0.3 X 0.5 M



Ligularia reniformis
TRACTOR SEAT PLANT
MATURE SIZE: 1 X 1 M



Pittosporum 'Miss muffet'
DWARF PITTOSPORUM
MATURE SIZE: 1 X 1.5 M



Zamia furfuracea
CARDBOARD PALM
MATURE SIZE: 1 X 1 M



Philodendron Xanadu
XANADU
MATURE SIZE: 1.5 X 1.5 M



Dianella 'Tasred'
FLAX LILY
MATURE SIZE: 0.45 X 0.5 M



Liriope 'Just right'
LILY TURF
MATURE SIZE: 0.45 X 0.5 M



Blechnum 'Silver Lady'
SILVER LADY FERN
MATURE SIZE: 0.8 X 0.4 M



Nephrolepis 'Teddy junior'
BOSTON FERN
MATURE SIZE: 0.8 X 1 M



Doryanthes excelsa
GIANT SPEAR LILY
MATURE SIZE: 4 X 1.5 M



Aloe spp.
ALOE VERA
MATURE SIZE: 1 X 0.8 M



Eremophila glabra 'Kalbarri carpet'
EMU BUSH
MATURE SIZE: 0.2 X 2 M



Senecio serpens
BLUE CHALKSTICKS
MATURE SIZE: 0.25 X 0.75 M



Casuarina 'Cousin it'
COUSIN IT CASUARINA
MATURE SIZE: 0.15 X 1 M



Acacia cognata 'Limelight'
RIVER WATTLE
MATURE SIZE: 0.7 X 1.2 M



Dichondra 'Silver falls'
KIDNEY WEED
MATURE SIZE: 0.1 X 2 M



Hibbertia scandens
SNAKE VINE
MATURE SIZE: 0.8 X 3 M



Mint
MATURE SIZE: 0.5 X 0.5 M



Sage
MATURE SIZE: 0.7 X 0.6 M

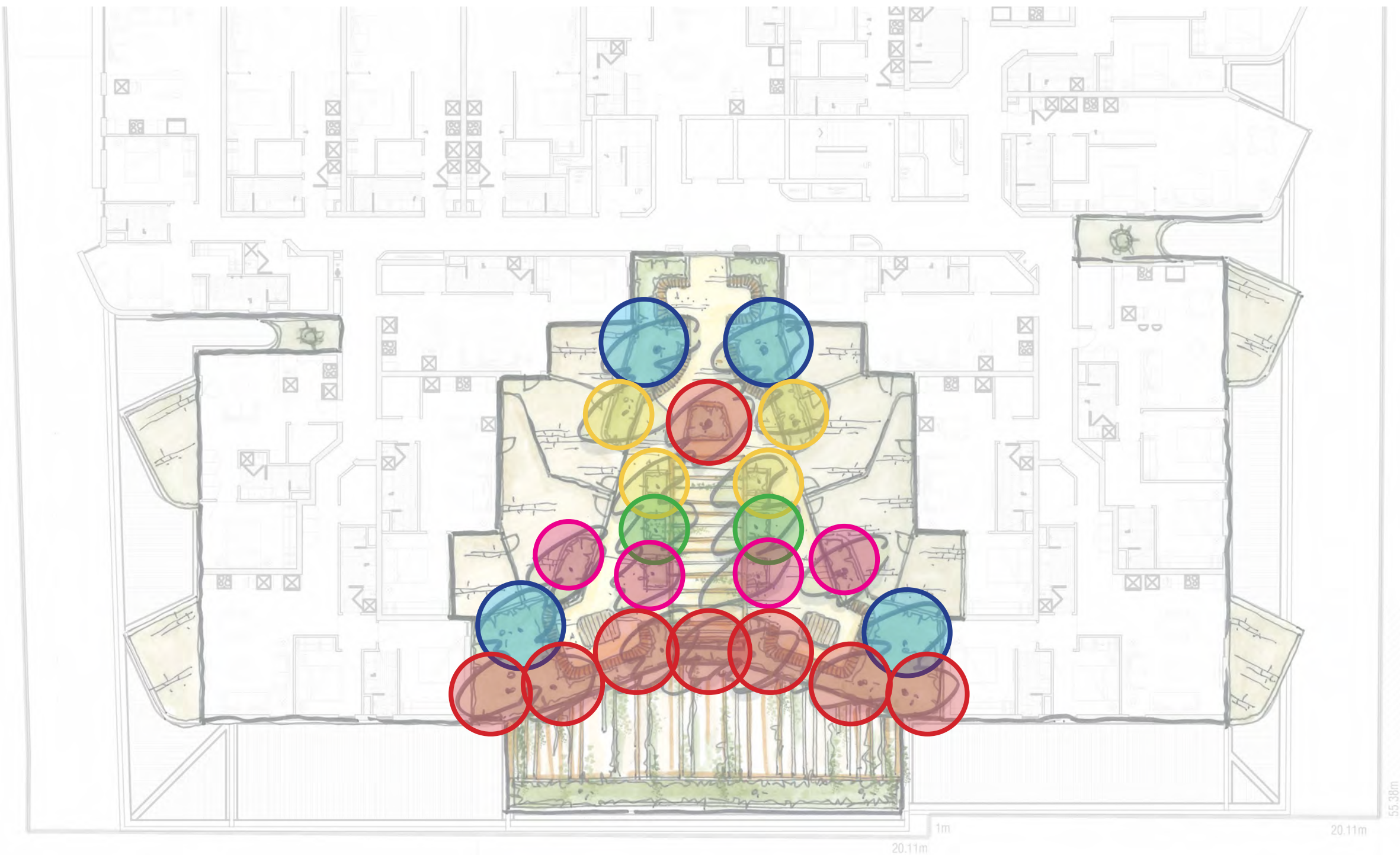


Coriander
MATURE SIZE: 0.5 X 0.45 M



Oregano
MATURE SIZE: 0.3 X 0.5 M





MAGNOLIA 'KAY PARRIS'



WATERHOUSEA FLORIBUNDA



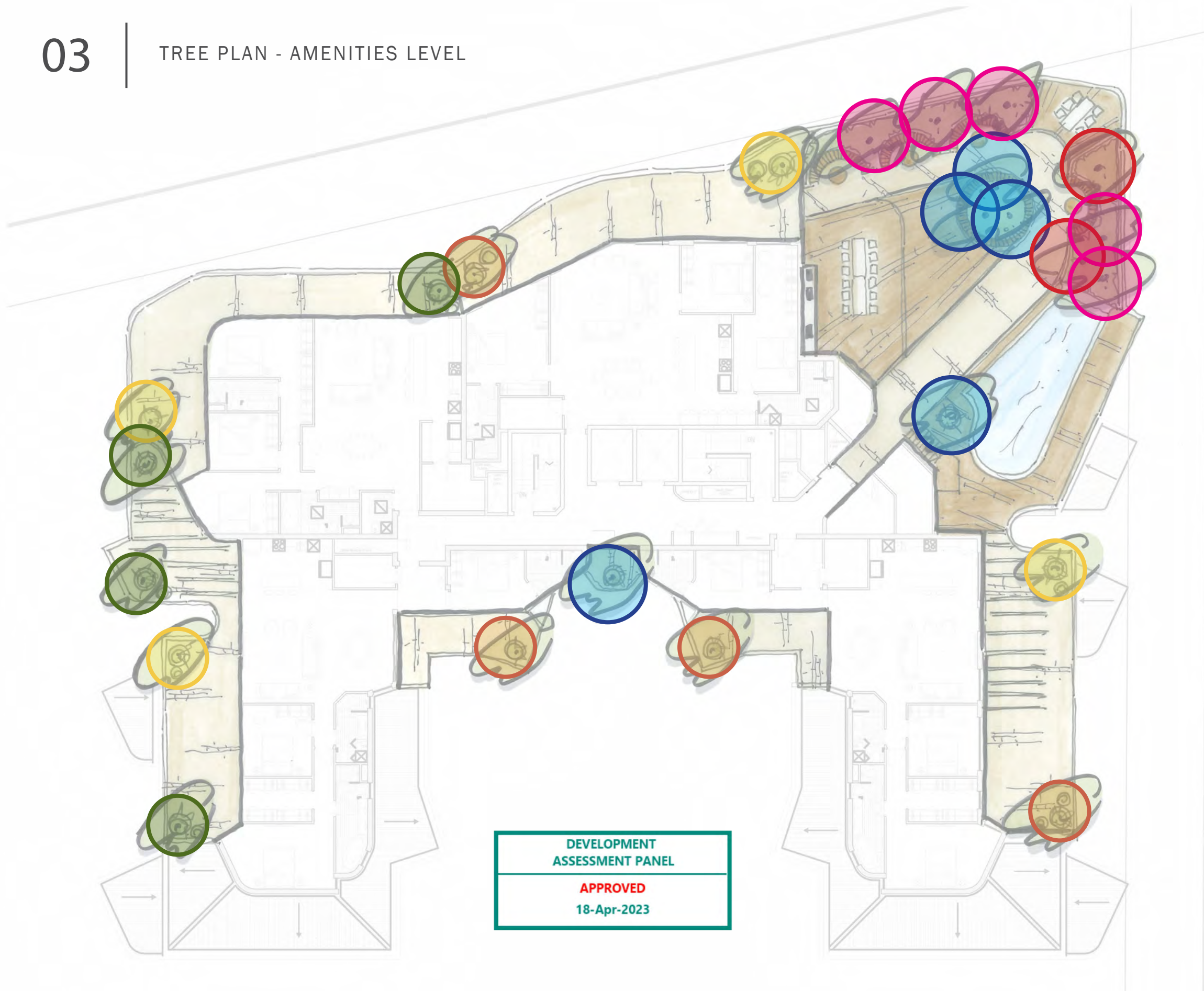
CITRUS LIMON



CITRUS LIME



CITRUS SINENSIS



CAESALPINIA FERREA



MAGNOLIA 'KAY PARRIS'



WATERHOUSEA FLORIBUNDA



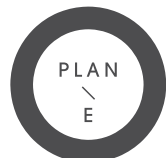
CITRUS LIMON



CITRUS X SINENSIS



CITRUS LIME



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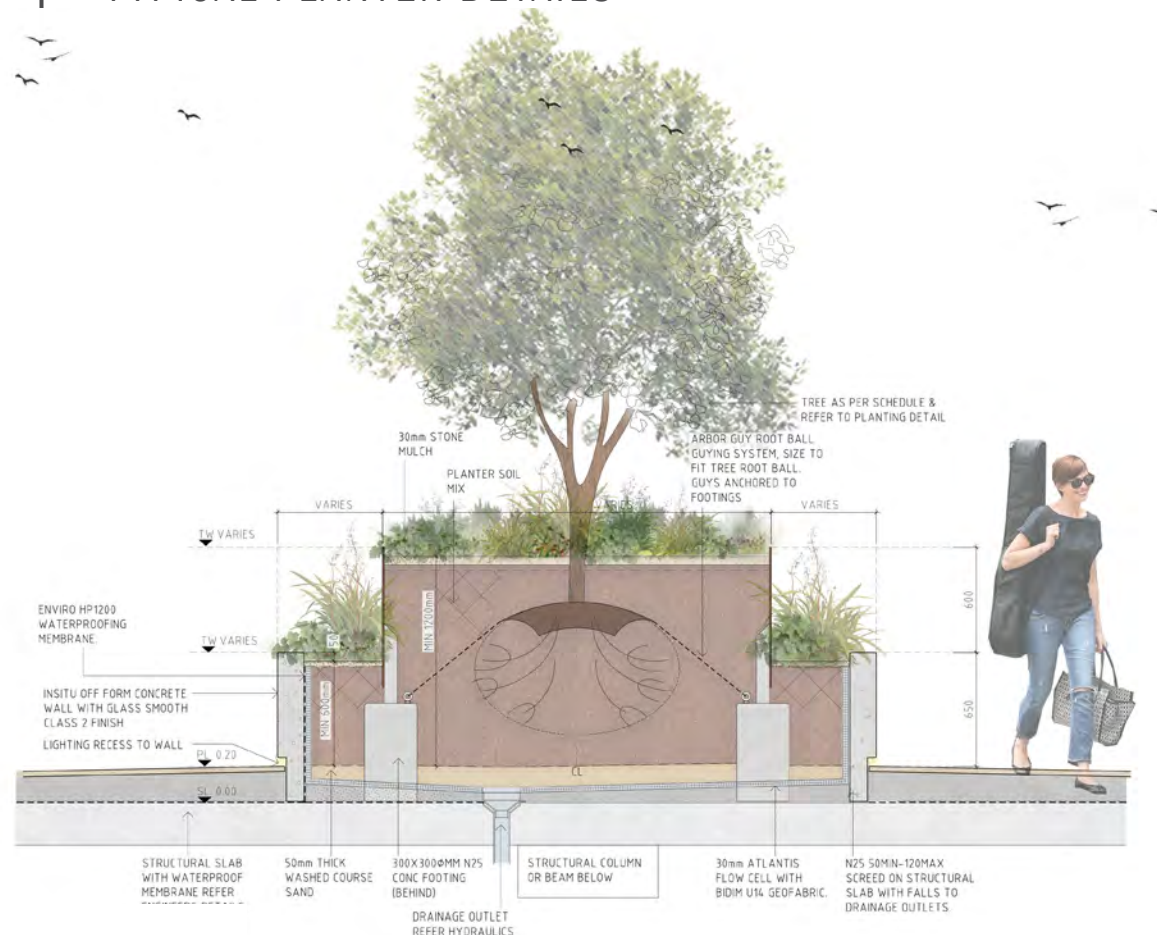


typical planter details



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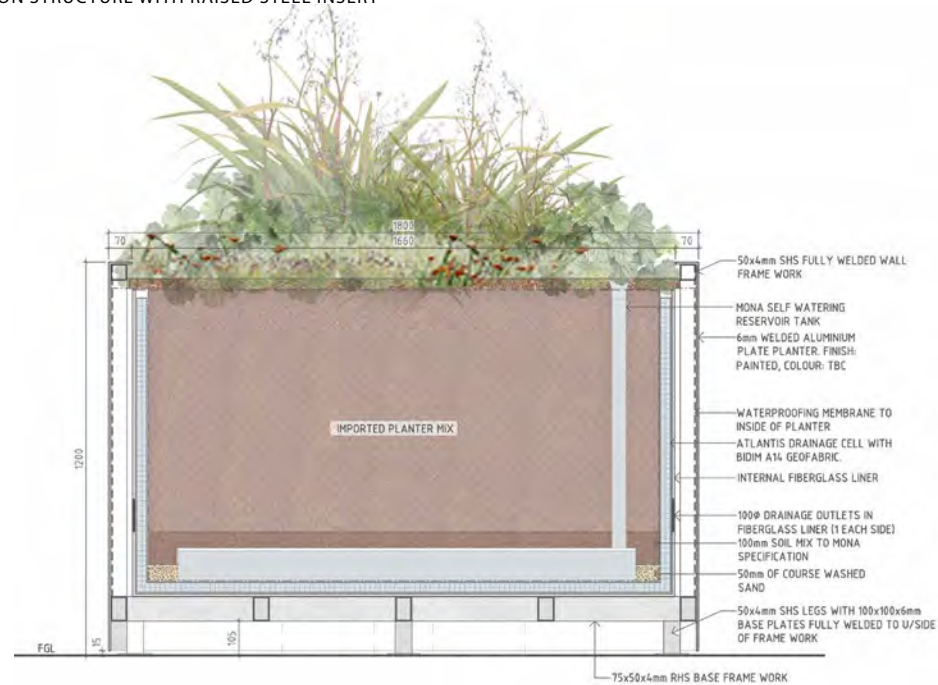
05 | TYPICAL PLANTER DETAILS



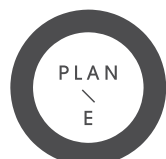
01 PLANTER ON STRUCTURE WITH RAISED STEEL INSERT



02 PLANTER ON STRUCTURE WITH SEATING AND STEEL EDGE



03 PLANTER BOX TYPICAL SECTION



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01 PLANTER ON STRUCTURE WITH SLAB SET(DOWN AND SEATING



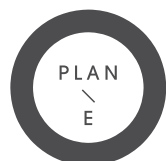
02 PLANTER ON STRUCTURE



03 MASONRY WALL WITH HDPE PLANTER INSERTS

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design wa compliance items



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05

DESIGN WA COMPLIANCE ITEMS

ITEM 3.3A - TREE CANOPY & DEEP SOIL AREA

REQUIRED DEEP SOIL AREA: **298 SQ.M** - BASED ON A SITE AREA OF **2980 SQ.M**

REQUIRED TREE CANOPY AREA: **150 SQ.M** - BASED ON A SITE AREA OF **2980 SQ.M**

DEEP SOIL AREA & TREE CANOPY REQUIREMENTS - TABLE 01

THE DEVELOPMENT SEEKS TO RETAIN EXISTING TREES WITHIN THE ADJACENT STREETScape, AND PROVIDE SIGNIFICANT TREE CANOPY THROUGH ALL LEVELS OF LANDSCAPE, INCLUDING EXTERNAL LANDSCAPE SPACES.

THE TABLE BELOW OUTLINES MINIMUM REQUIREMENTS FOR DEEP SOIL AREAS AS DEFINED IN DESIGNWA.

TABLE 01: DEEP SOIL ZONE REQUIREMENTS			
	LOT AREA: 2980 SQ.M	MINIMUM REQUIREMENTS	PROJECT REQUIREMENT FOR PROVISION
WAPC DEEP SOIL AREA REQUIREMENTS	>1000 SQ.M	10% OF DEEP SOIL AREA ON SITE (298 SQ.M) A3.3.7 APPLIES- ADDITIONAL PLANTING ON STRUCTURE WITH AN AREA OF 2 X SHORTFALL OF 87.2 SQ.M= 174.4 SQ.M IS REQUIRED.	PROVIDED DEEP SOIL AREA OF 210.8 SQ.M PROVIDED ADDITIONAL PLANTING ON STRUCTURE AS DEEP SOIL AREA OF 215 SQ.M

LANDSCAPE AREA REQUIREMENTS - TABLE 02

THE DEVELOPMENT SEEKS TO EXCEED THE REQUIRED LANDSCAPE PROVISION FOR DEEP SOIL AREA AS DEFINED IN DESIGNWA THROUGH GENEROUSLY SCALED LANDSCAPE AREAS; ALLOWING SIGNIFICANT ROOTABLE DEEP SOIL AREAS ON STRUCTURE.

SOIL VOLUMES ARE CONSIDERED IN TREE PLACEMENT AND SELECTION OF TREE SPECIES.

THE TABLE BELOW SUMMARISES THE EXTENT OF LANDSCAPE AREAS, AND DEEP SOIL AREA OVER THE VARIOUS LANDSCAPE LEVELS.

TABLE 02: LANDSCAPE AREAS / DEEP SOIL AREAS				
	DEEP SOIL AREA (IN GROUND)	PLANTING ON STRUCTURE (1M DEPTH) AS DEEP SOIL AREA	PLANTING ON STRUCTURE (LESS THAN 1 M DEPTH)	SOFT LANDSCAPE GARDEN AREA
GROUND FLOOR	210.8 SQ.M	47 SQ.M	-	257.8 SQ.M
LEVEL 01	-	105 SQ.M	-	105 SQ.M
AMENITIES LEVEL	-	63 SQ.M	-	63 SQ.M
TOTAL	210.8 SQ.M	215 SQ.M	-	425.8 SQ.M

DEEP SOIL ZONE & TREE CANOPY REQUIREMENTS - TABLES 03-05

THE DEVELOPMENT SEEKS TO RETAIN EXISTING TREES WITHIN THE ADJACENT STREETScape / ROAD RESERVE AND PROVIDE SIGNIFICANT DEEP SOIL AREA, ROOTABLE SPACE, AND SOFT LANDSCAPE AREA THROUGH ALL LEVELS OF LANDSCAPE, INCLUDING EXTERNAL LANDSCAPE SPACES.

THE TABLE BELOW OUTLINES MINIMUM REQUIREMENTS FOR TREE CANOPY COVER AS DEFINED IN DESIGNWA.

TABLE 04: TREE CANOPY REQUIREMENTS			
	LOT AREA: 2980 SQ.M	MINIMUM REQUIREMENTS	PROJECT REQUIREMENT FOR PROVISION
WAPC TREE CANOPY REQUIREMENTS	>1000 SQ.M	3 LARGE TREES (AND SMALL TREES TO SUIT AREA)	MINIMUM OF 150 SQ.M OF TREE CANOPY COVER WHICH EQUATES TO APPROX. 5 % CANOPY COVER OF THE DEVELOPMENT SITE AREA

TABLE 05: TREE CANOPY COVER				
	SMALL TREES: 2M DIAMETER	MEDIUM TREES: 5M DIAMETER	LARGE TREES: 8M DIAMETER	TOTAL CANOPY COVER (NOT INCLUDING EXISTING TREES)
	3.2 SQ.M CANOPY COVER AT MATURITY	19.6 SQ.M CANOPY COVER AT MATURITY	50 SQ.M CANOPY COVER AT MATURITY	
GROUND FLOOR	5	15	5	560 SQ.M
LEVEL 01	22	-	-	70.4 SQ.M
AMENITIES LEVEL	19	5	-	158.8 SQ.M
TOTAL	147.2 SQ.M CANOPY COVER AT MATURITY	392 SQ.M CANOPY COVER AT MATURITY	250 SQ.M CANOPY COVER AT MATURITY	789.2 SQ.M PROPOSED TREE CANOPY COVER

IRRIGATION REQUIREMENTS

A FULLY AUTOMATIC IRRIGATION SYSTEM WILL BE INSTALLED FOR THE 203-204 MELVILLE PARADE, COMO PROJECT. THE SCOPE WILL INCLUDE:

- IRRIGATION TO ALL LANDSCAPE AREAS
- MOISTURE SENSORS THROUGHOUT, TO ENSURE WATER USE IS MINIMISED
- USE OF LOW WATER USE EMITTERS TO ENSURE ONLY SUFFICIENT WATER IS PROVIDED TO IRRIGATE PLANTING AREAS
- IN-LINE FERTILISATION UNIT TO ENSURE FERTILISING AND MOISTURE RETENTION IS CONTROLLED
- USE OF POP - UP FLOOD BUBBLERS TO SUIT SIZE OF GARDEN BEDS TO ENSURE ANY OVER-SPRAY AND WASTAGE IS MITIGATED, AND;
- A DETAILED DESIGN AND SPECIFICATION WILL BE PROVIDED AT BUILDING LICENSE APPLICATION STAGE.



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C1.1024

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Schedule of Submissions		
Submission number	Submission content	Applicants Response
1.	While the applicant poses a nice argument, they totally ignore the reality of what will actually happen. The parking in Melville Parade is currently used by Como residents/ratepayers who are catching the train and visitors to the existing properties. 150+ apartments will attract a lot more visitors. Olives Reserve car park is much further than the 5 or 6 parking spaces that exist in Henley Street between Leonora St and Melville Parade. So the Henley Street residents will suffer a loss of parking for their visitors due to human nature. The apartment on the corner of Robert St and Henley St have bays as suggested for this development and they are almost always fully occupied each and every day of the week around the clock. This will only get worse when the development on the corner of Leonora St and Henley Street goes ahead. So stick with the 16 bays required.	The requirement is for 16 visitor spaces, 5 of which are being provided on site. 4 additional spaces are proposed to be constructed on the eastern side of Melville Parade, which are new spaces that can be constructed due to removal of crossovers. So nearly 70% of the parking requirement is satisfied at all times by additional parking being provided. The vast majority of visitors will attend the premises after business hours when there will be very limited use of on street parking by train commuters, thus freeing up the on street parking of 7 bays on the western side of Melville Parade. Reviewing historical aerial photography, the majority of the street is empty with there only ever being one or two vehicles parked during the day in front of the subject development and these are likely to be train commuters who can be managed if ever needed by a 4 hour time restriction.  Human nature dictates that people will naturally park in areas that are most convenient (subject to any parking restrictions imposed by the City). Even if 16 bays are provided on site throughout the two levels of parking, the most convenient parking is in the street nearest the front

		door. Providing additional parking on site will not play a major role in alleviating on street parking as visitors will still want to park nearest the door. Whilst the majority of actual visitors will still park in their respective driveways for the adjoining dwellings until the land is redeveloped, if everyone satisfied their parking requirement by only being allowed to get credit for their respective road frontage, then there will be adequate parking in the closest proximity to each development entrance.
2.	I am not in favour of the amended development application for 202-204 Melville Parade to change the visitor parking bays from 16 to 5. Fewer visitor park bays in the building would result traffic hazards to local residents, pedestrians, dog park users and commuters/walkers to the train and bus station. Loss of personal privacy is also a consideration.	All car parking bays will need to comply with the Australian Standards, including the embayed parking. The bays on the western side of Melville Parade are existing and their use by visitors of the subject development would have no greater safety implications, in fact greater use would result in a safer environment due to more passive surveillance. There is no loss of personal privacy as all the parking is in the public domain anyway.
3.	I am against the proposal to change the amount of allocated visitor parking bays on proposed development 202-204 Melville Parade from 16 to 5. The extra street parking would be dangerous to pedestrians, park users and hazardous to people walking to the nearby public transport hubs. The outside parking would be an invasion of residential privacy and could cause traffic management problems on this street.	As above. Melville Parade is a cul-de-sac with very low traffic volumes and is a low speed traffic environment. If anything, greater vehicle parking is likely to slow traffic down and make it safer. There is no reason for visitor parking to cause traffic management issues.

BIRDWOOD AVENUE, LOTS 88 AND 89 (NO. 5-7), COMO - PROPOSED CHILD CARE PREMISES

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Inner Joint Development Assessment Panel (JDAP)	
Local Government Area:	City of South Perth	
Applicant:	Dynamic Planning and Developments	
Owner:	Birdwood Residential Pty Ltd, Byblos Building Co Pty Ltd	
Value of Development:	\$2.0 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	City of South Perth	
Authorising Officer:	Fiona Mullen, Manager Development Services Scott van Ierland, Senior Urban Planner	
LG Reference:	PDDA-2023/0971	
DAP File No:	DAP/23/02562	
Application Received Date:	02 October 2023	
Report Due Date:	28 March 2024	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Development Plans 2. Aerial Image and Zoning Map 3. Schedule of Submissions 4. Design Review Panel Minutes 5. Traffic Impact Statement 6. Waste Management Plan 7. Acoustic Report 8. Environmentally Sustainable Development (ESD) Report	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	☒ Yes ☐ N/A	Complete Responsible Authority Recommendation section
	☐ No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Metro Inner-South Joint Development Assessment Panel resolves to:

Approve DAP Application reference DAP/23/02562 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of City of South Perth Local Planning Scheme No. 7, for the proposed Child Care Premises at Lot 88 and Lot 89 (No.5 and No.7) Birdwood Avenue, Como subject to the following conditions:

1. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.
2. This decision constitutes development approval only and is valid for a period of four (4) years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. The development shall be in accordance with the approved plans save that, in the event of any inconsistency between the approved plans and a requirement of the conditions set out below, the requirement of the conditions shall prevail.
4. Prior to occupation of the development, Lots 88 and 89 (No. 5 and No. 7) Birdwood Avenue, Como are to be amalgamated, to the satisfaction of the City of South Perth.
5. Prior to or in conjunction with the submission of a building permit application, the applicant/owner is to comply with the City of South Perth Local Planning Policy - Developer Contributions for Public Art and Public Art Spaces through the contribution of a sum of 1% of the estimated cost of the development towards public art, being either:
 - (i) Payment to the City of South Perth the value of 1.0% of the construction value (with the contribution capped at \$500,000); or
 - (ii) The provision of public art on site to the minimum value of 1.0% of the construction value to the satisfaction of the City of South Perth. The approved public art concept shall be implemented prior to occupation of the development and maintained for the lifetime of the development to the satisfaction of the City of South Perth.

Child Care Operation

6. A maximum of thirteen (13) employees are permitted to operate from the premises at any one time.
7. The opening hours of the Child Care Premises is limited to Monday to Friday - 7:00am to 6:30pm.
8. The number of children on-site at any one time shall not exceed eighty-six (86).
9. Outdoor play is not permitted before 7:30am and after 6:00pm.
10. Service and/or delivery vehicles shall only service the premises between 7:00am to 7:00pm Monday to Saturday, and/or between 9:00am to 7:00pm on Sundays and Public Holidays unless otherwise approved by the City of South Perth.

Construction Management

11. Prior to the submission of a building permit application or the commencement of development, whichever is earlier, a Construction Management Plan must

be submitted to, and approved by, the City of South Perth. The Construction Management Plan must address the following issues, where applicable:

- (i) public safety and amenity;
- (ii) site plan and security;
- (iii) contact details of essential site personnel, construction period and operating hours;
- (iv) community information, consultation and complaints management plan;
- (v) noise, vibration, air and dust management;
- (vi) dilapidation reports of nearby properties;
- (vii) traffic, access and parking management;
- (viii) waste management and materials re-use;
- (ix) earthworks, excavation, land retention/piling methods and associated matters;
- (x) stormwater and sediment control;
- (xi) street tree management and protection;
- (xii) removal of onsite effluent disposal system and stormwater management system; and
- (xiii) asbestos removal.

The approved Construction Management Plan must be complied with at all times during development, to the satisfaction of the City of South Perth.

Waste and Stormwater Management

- 12. Waste management shall occur in accordance with the Waste Management Plan prepared by i3 Consultants dated 8 December 2023, and shall be implemented and adhered to at all times to the satisfaction of the City of South Perth.
- 13. Prior to the submission of a building permit application, amended plans are to be submitted modifying the bin store to a fully enclosed structure (including a roof) to the satisfaction of the City of South Perth.
- 14. Prior to the submission of a building permit application, the applicant must be in receipt of an approved Stormwater Drainage Application that confirms the design is to the satisfaction of the City of South Perth.

Landscaping

- 15. Prior to the submission of an occupancy permit application, the landscaping areas shall be installed in accordance with the approved landscape plans prepared by Kelsie Davies Landscape Architecture dated 19 January 2024. All

landscaping areas shall be maintained thereafter to the satisfaction of the City of South Perth.

16. Landscaping proposed within the verge is to be installed in accordance with the approved landscaping plan prior to occupation of the development. Verge landscaping is to be reticulated and maintained for the life of the development to the satisfaction of the City of South Perth.

Parking and Traffic

17. Prior to the submission of an occupancy permit application, all car parking bays shall be marked on-site as staff bays, visitor bays, time limited bays and ACROD bays as indicated on the approved plans and maintained thereafter to the satisfaction of the City of South Perth.
18. Hard standing areas approved for the purpose of car parking or vehicle access shall be accessible at all times, maintained in good condition, free of potholes and dust and shall be adequately paved and drained, to the satisfaction of the City of South Perth.

Crossover and Verge

19. Prior to the submission of a building permit application, the applicant must be in receipt of an approved 'Crossings Application' that confirms the design is to the satisfaction of the City of South Perth. The existing verge levels at the Gillion Street lot boundary and verge assets (inclusive of street trees) shall not be altered without prior approval of the City of South Perth.
20. Prior to the submission of an occupancy permit application, all redundant crossovers shall be removed, and the verge and kerbing reinstated to the satisfaction of the City of South Perth.
21. The street trees in the verges adjacent to the development site are required to be retained and protected by a tree protection zone (TPZ) to Australian Standard AS4970-2009 for the duration of the works.

Sustainability

22. Prior to occupancy of the development, certification shall be provided by a suitably qualified consultant confirming the development incorporates the measures and recommendations outlined in the approved sustainability report prepared by Emergen dated 15 November 2023, to the satisfaction of the City of South Perth.

External Fixtures

23. External fixtures shall be integrated into the design of the building so as to not be visually obtrusive when viewed from the street and to protect the visual amenity of residents in neighbouring properties, to the satisfaction of the City of South Perth.

Safety and Lighting

24. Prior to the submission of a building permit application, a Lighting Plan detailing the proposed lighting to pathways, external play areas and car parking areas shall be submitted to and approved by, the City of South Perth. All illumination must be confined to within the boundaries of the subject site in accordance with the requirements of Australian Standard AS4282-1997 - Control of the obtrusive effects of outdoor lighting, at all times, for the duration of the development.
25. Prior to the submission of an occupancy permit application, the approved lighting shall be installed and maintained thereafter, to the satisfaction of the City of South Perth.

Noise Management

26. Prior to the submission of an occupancy permit application, the recommendations of the acoustic report prepared by Herring Storer Acoustics dated November 2023 shall be implemented to the satisfaction of the City of South Perth.
27. Prior to the submission of a building permit application, a Noise Management Plan shall be submitted to and approved by the City of South Perth, to the specifications and satisfaction of the City of South Perth. The Noise Management Plan is to be implemented for the life of the development, to the satisfaction of the City of South Perth.

Advice Notes

1. If an applicant or owner is aggrieved by this determination, there is a right of review by the State Administration Tribunal in accordance with the *Planning and Development Act 2005* Part 14. An application must be made within 28 days of the determination.
2. This is a notice of determination on application for development approval issued in accordance with the *Planning and Development Act 2005*, the *Planning and Development (Local Planning Schemes) Regulations 2015*, the City of South Perth Local Planning Scheme No. 7, and related policies. It is not a building permit or an approval to carry out development under any other law. It is the responsibility of the applicant/owner to obtain any other necessary approvals, consents and licences required under any other law, and to commence and carry out development in accordance with all relevant laws.
3. Where an approval has so lapsed, no development must be carried out without the further approval of the local government having first been sought and obtained.
4. The applicant is advised to liaise with the adjoining landowner(s) regarding the possible retention or replacement of the existing dividing fence along the common lot boundary. Please refer to the *Dividing Fences Act 1961* for the rights and responsibilities of landowners regarding dividing fences.
5. In respect to the Construction Management Plan, the Dilapidation Report shall be prepared in consultation with the landowner(s) of the following adjoining properties:

- (i) Lot 10 (No. 3) Throssell Street, Como
- (ii) Lot 3 (No. 16) Hobbs Avenue, Como
- (iii) Lot 87 (No. 3) Birdwood Avenue, Como

The Dilapidation Report shall detail the current condition and status of all buildings (both internal and external together with surrounding paved areas and access ways), including ancillary structures.

In the event that access to undertake the dilapidation report is denied by an adjoining owner, the applicant must demonstrate in writing to the satisfaction of the City of South Perth that all reasonable steps have been taken to obtain access and that the affected property owner has been advised of the reason for the Dilapidation Report.

6. The applicant is advised that the amended plans modifying the bin store are to demonstrate the bin storage area is to be:

- (i) surrounded by a 1.8-metre-high minimum wall with a self-closing gate;
- (ii) provided with 75mm minimum thickness concrete floors grading to a 100mm industrial floor waste, with a hose cock to enable both bins and bin storage area to be washed out;
- (iii) provided with internal walls that are cement rendered (solid and impervious) to enable easy cleaning; and
- (iv) provided with a permanent roof covering connected to an appropriate stormwater discharge system.

7. The Australian Standards specify the following measures are required to protect trees:

- (i) A minimum 2.0m radius tree protection zone (TPZ) shall be provided through 1.8m high fencing around the verge trees (chain mesh panels or other suitable material) during construction of the subject development.
- (ii) The above fencing is not to be moved or removed at any period during construction, and this zone is not to be entered for any reason; signage notifying people of the TPZ and the associated requirements is to be placed on each side of the fencing.
- (iii) All activities and works related to construction of the subject development, including parking of vehicles, storage of materials, and washing of concreting tools and equipment is prohibited within the designated TPZ unless prior approval is sought from the City of South Perth.
- (iv) Any roots identified to be pruned shall be pruned with a final cut to undamaged wood outside of the TPZ. Pruning cuts shall be made with sharp tools such as secateurs, pruners, handsaws or chainsaws. Pruning wounds shall not be treated with dressings or paints. It is not

acceptable for roots to be 'pruned' with machinery such as backhoes or excavators.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of South Perth Local Planning Scheme No. 7 (LPS 7)
Local Planning Scheme - Zone/Reserve	Residential (R20)
Structure Plan/Precinct Plan	Nil
Use Class and permissibility:	Child Care Premises ('D' Use Class)
Lot Size:	2,002m ²
Existing Land Use:	Single House
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☐ N/A ☒ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

The application seeks development approval for a Child Care Premises at Lot 88 and Lot 89 (No.5 and No.7) Birdwood Avenue, Como (the subject site). The application involves the following:

- The Child Care Premises is a single storey building consisting of a skillion roof and rendered walls.
- The Child Care Premises will accommodate up to 86 children and 13 staff.
- Proposed hours of operation are between 7:00am to 6:30pm Monday to Friday.
- Pedestrian and vehicle access is proposed to be obtained from Throssell Street to the east of the subject site.
- Waste is to be managed on site, with on-site private collection proposed.

Proposed Land Use	Child Care Premises
Proposed Net Lettable Area	N/A
Proposed No. Storeys	One (1)
Proposed No. Dwellings	Nil

Background:

Application History

The City refused an application for a Child Care Premises on the subject site under delegated authority in 2022. The application was refused for the following reasons:

- “1. The development proposal does not satisfy the objectives of Town Planning Scheme No. 6 (TPS6), Clause 3.3 (5) and Scheme Objectives Clause 1.6 (a), (f) & (g) for the following reasons:*
 - (i) The development proposal is not compatible with the site’s R15 density code and development context. The intensity of the proposed development will have a negative impact on the site’s development context, residential amenity, and character of the area in terms of traffic, parking, noise, and overall intensity of the land use proposed.*
 - (ii) The development proposal is not harmonic with the existing character and scale of surrounding residential development, which in the immediate development context is characterised by single residential houses. The development will create vehicle movements and noise at an intensity incompatible with the surrounding development context, having a negative amenity impact on adjoining lots and the locality.*
- 2. The development proposal does not satisfy the requirements of Table 4 ‘Development Requirements for Non-Residential Uses in the Residential Zone’, for a Child Day Care Centre as outlined in TPS6, which relates to the following:*
 - (i) The intensity of the proposed land use would result in an adverse amenity impact to neighbouring lots and the residential context. The proposed development is out of character with the expectations of an R15 density code in terms of the traffic movements, parking demand, noise generation and hours of activity.*
- 3. The development proposal does not satisfy clause 67(m) of Schedule 2 (Deemed Provisions) in the Planning and Development (Local Planning Schemes) Regulations 2015, as the development is not compatible with its setting in terms of the proposed intensity of the land use. The development is not compatible with the surrounding residential lots in terms of traffic generated, noise and overall disruption to the amenity of surrounding lots.*
- 4. The development proposal does not satisfy clause 67(n) and (t) of Schedule 2 (Deemed Provisions) in the Planning and Development (Local Planning Schemes) Regulations 2015, as the development will result in a negative amenity impact on adjoining residential lots, the character of the locality and surrounding urban environment and will create adverse noise impacts on adjoining residential lots above the expectations for an R15 residential area.*

The intensity of the proposed land use is incompatible with the residential setting and local street network, as the development will result in traffic congestion and, parking and vehicle movement issues during the hours of drop off and pick up which are incompatible with the residential context.

5. *The development does not meet the objective of the City Policy P307 'Family Day Care and Child Day Care Centres', as the proposed intensity of the child day care centre would have adverse impacts on neighbouring lots and amenity due to noise generation and traffic.*
6. *The development does not satisfy the objectives of the Draft Local Planning Scheme No. 7 (LPS7) for the 'Residential' Zone, as the proposed development is not complimentary or compatible with the immediate residential context in terms of the intensity of the proposed land use and impact to surrounding lots and development context."*

A JDAP application for development approval was subsequently submitted to the City in October 2023. During the assessment process, amended plans and specialist reports were received from the applicant, with the most recent set of the development plans dated 19 January 2024 contained within **Attachment 1**.

Site Context

The combined site area is 2,002m² and zoned Residential with a density coding of R20. The subject site is a corner lot, with direct frontage to Birdwood Avenue to the north and Throssell Street to the east.

The site currently contains single houses which are proposed to be demolished to accommodate the development. The site abuts three residential lots occupied by both single and two storey single houses to the south and west of the subject site. The adjoining lots are zoned Residential with a density coding of R20.

To the south-east of the subject site is Collier Primary School and Early Learning Centre. To the west of the subject site is land zoned mixed use incorporating a variety of shops, food and beverage businesses and retail outlets.

The Aerial Plan provided at **Attachment 2**, provides a visual context of the site location and its surrounds.

Legislation and Policy:

Legislation

Planning and Development Act 2005

Planning and Development (Local Planning Schemes) Regulations 2015

Planning and Development (Development Assessment Panels) Regulations 2011 (as amended)

Metropolitan Region Scheme (MRS)

City of South Perth Local Planning Scheme No. 7 (LPS 7)

State Government Policies

State Planning Policy 5.4 - Road and Rail Noise (SPP 5.4)

State Planning Policy 7.0 – Design of the Built Environment (SPP 7.0)

State Planning Policy 7.3 – Residential Design Codes - Volume 1 (R-Codes)

Department of Planning, Lands and Heritage - Draft Position Statement: Child Care Premises (November 2022)

Structure Plans/Activity Centre Plans

Nil.

Local Policies

Local Planning Policy – Advertising of Planning Proposals

Local Planning Policy – Design Review Policy

Local Planning Policy – Child Care Premises

(Draft) Local Planning Policy – Non-Residential Parking

Consultation:

Public Consultation

Consultation has been undertaken to the extent and in the manner required by the Deemed Provisions and Local Planning Policy – Advertising of Planning Proposals. A total of 221 letters were sent to landowners and occupiers within a 200m radius of the development. At the close of the advertising period, 51 submissions were received (49 opposed and two in support) as detailed in the schedule of submissions contained as **Attachment 3**.

Planning Assessment:

The proposal has been assessed against all relevant legislative requirements of the Scheme, State and Local Planning Policies. The following aspects of the development proposal do not meet the provisions of relevant Policies and LPS 7 and therefore require the application of discretion:

- Land Use (Discretionary (D))
- Side Setbacks

These matters are outlined and discussed in further detail below.

Referrals/consultation with Government/Service and Agencies

No external referrals were required in the assessment of this application, however, due to the proximity of the site to Collier Primary School, the City sought comments from the Department of Education.

The Department of Education provided no objection to the development subject to the provision of a Construction Management Plan and Traffic Management Plan.

Design Review Panel Advice

The proposal was reviewed by the Design Review Panel (DRP) on three separate occasions with the most recent DRP meeting being held in December 2023.

At the December meeting, the DRP made a series of comments and recommendations as contained as **Attachment 4**. The proposal was subsequently modified to respond to these comments in the following manner:

- Addition of three new trees within the outdoor play area to the north of the site; and

- Internal layout changes via relocation of the laundry and staff room to provide passive surveillance of the car park from the staff room.

The development is considered to have satisfactorily responded to the comments and recommendations raised by the DRP.

Traffic and Parking

The submitted Traffic Impact Statement (TIS) at **Attachment 5** indicates the proposed development is predicted to have a total trip generation of 137 vehicle movements per day, being 69 vehicles in the peak morning period (6:30am to 7:30am) and 68 vehicles in the peak afternoon period (5:00pm to 6:00pm).

The adjoining road network has a projected capacity of 3,000 vehicles per day in accordance with Liveable Neighbourhoods, local street characteristics, with the vehicle movements anticipating being within the carrying capacity of the existing road network.

As outlined within the Western Australian Planning Commission Transport Impact Assessment Guidelines, an increase of between 10 to 100 peak hour vehicle trips is considered to have a low to moderate impact on the road network and is generally deemed acceptable. Overall, the development is considered to have no material impact on the surrounding road network.

The development proposes to provide a total of 24 on-site parking bays (15 employee bays and nine visitor bays). The visitor bays are also allocated as 'drop-off bays' and are time limited to 15 minutes during the peak morning drop off period to facilitate maximum turnover and parking availability on site.

Whilst LPS 7 does not prescribe minimum car parking standards, draft Local Planning Policy – Non-Residential Parking, requires a minimum of 1 bay per 4 children and 1 bay per 10 staff members (24 bays). The development proposes 24 bays, however, the ratio of bays allocated to staff members and students is inconsistent with the draft Policy. Notwithstanding, the ratios have been considered in the TIS, which has provided a specific analysis based on the demand for the operation of the proposed centre. As such, the car parking ratios are supported.

Waste Management

The development proposes a weekly private collection of waste on-site on Saturdays by a private contractor, which is supported by the City. The Waste Management Plan (WMP) is supported.

The City has recommended a condition that the bin store be fitted with a roof, as the bins are proposed to be collected weekly and contain nappies; as such, odour has the potential to result in adverse amenity impacts to neighbouring properties.

The City has reviewed the WMP at **Attachment 6** and has recommended appropriate conditions to ensure ongoing compliance.

Noise

The Acoustic Report at **Attachment 7** has been reviewed by the City and is supported.

A condition has been recommended to ensure the recommendations of the Acoustic Report are implemented.

The submitted Acoustic Report does not include recommendations for the day-to-day operation of the centre. As such, to manage noise factors on-site, a condition has been recommended requiring a Noise Management Plan be submitted and approved, and measures thereafter implemented to manage noise that arises from the development.

Land Use

The proposed land use of 'Child Care Premises' is a 'D' (Discretionary) land use in the Residential Zone under LPS 7. It is considered that the proposed land use meets the Residential Zone Objectives as:

- The development is of a scale which is compatible with a predominantly single storey residential context.
- The development has been reviewed by the City's DRP which concluded the development sits comfortably within its context and positively contributes to the character of the area.
- The proposed land use is complimentary to a residential context, providing childcare facilities for adjoining residential lots and an adjoining commercial centre on Canning Highway.
- The site is within close proximity of Collier Primary School and Early Learning Centre, which is a complimentary land uses for the proposed Child Care Premises.

Western Australian Planning Commission – Draft Position Statement Child Care Premises

The Western Australian Planning Commission's Draft Position Statement: Child Care Premises provide guidance for the matters to be considered with proposed Child Care facilities. It is considered that the proposal addresses the suitable requirements and characteristics of Child Care Premises and does not adversely affect the amenity of adjoining and nearby properties as a result of noise, traffic, parking and pedestrian safety.

Local Planning Policy - Child Care Premises

Policy Provision	Requirement	Proposal
Clause 5.2 – Building Design	5.2.5 Child care premises shall achieve the building height, plot ratio and minimum setbacks from lot boundaries in accordance with local planning scheme requirements. R-Codes Volume 1. Deemed to comply 1.7m western side setback.	1.5m northern side setback.

Clause 5.2.5 of Local Planning Policy - Child Care Premises requires buildings and structures to be setback to side boundaries in accordance with the R-Codes.

A 1.5m setback in lieu of the required 1.7m setback has been provided to the western boundary. Accordingly, an assessment against the design principles of the R-Codes is required. The design principles require buildings to be setback in order to:

- Reduce the impacts of building bulk on adjoining properties;
- Provide adequate direct solar access and ventilation; and
- Minimise the extent of overlooking and loss of privacy.

The proposed setback is considered to meet the design principles and is supported for the following reasons:

- The western floor wall has a height of 3.9m and is located behind a 2.0m high dividing fence. The presence of a dividing fence and interface with an adjoining pedestrian service corridor on the adjoining lot reduces perceived building bulk as viewed from the neighbouring property.
- The development proposes a mixture of colours and materiality along the western lot boundary, consisting of roof form, rendered brick and external cladding. The varied materials and mixture of colours addressing the western boundary serves to break up the perceived building bulk of the proposal.
- Due to the site orientation, shadow cast by the development falls wholly within the subject site. Solar access is maintained to the adjoining residential lots.
- The development satisfies the deemed-to-comply provisions for visual privacy, with no overlooking to adjoining properties.

Planning and Development (Local Planning Schemes) Regulations 2015

In considering an application for development approval the local government is to have due regard to the matters listed in Clause 67(2) of the Deemed Provisions to the extent that, in the opinion of the local government, those matters are relevant to the development the subject of the application. Specific to the assessment of this proposal, 67(2)(p) is relevant:

“whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved”

At the time the development application was received by the City, the subject site contained four significant trees on the western portion of the site. Prior to acceptance of the development application, as well as during the assessment process once submitted, the City requested modifications to the design to facilitate the retention of these trees and required the applicant to provide an Arborist Report. The submitted Arborist Report identified four trees on site with heights ranging between 13.0m to 19.0m and useful life expectancy of greater than 30 years.

The arborist report states:

“There are four notable trees over both properties, that could be considered significant, significant due to their age, and canopy spread... it would be beneficial to the local environment to save as many as possible.”

The applicant did not modify the proposal in respect to the recommendations of the Arborist Report or the comments received by the DRP to incorporate the retention of

the significant on-site vegetation. The four identified trees of significance were removed from the site by the applicant in February 2024.

The City did not support the removal of significant and established vegetation. Whilst the loss of existing tree canopy is not supported where alternate design solutions are possible, without the relevant statutory protections for vegetation on private property, the City had no enforcement provisions available to ensure retention.

The development proposes to retain two trees to the south east of the site and one tree to the north of the site. The development proposes the planting of an additional 14 trees throughout the site.

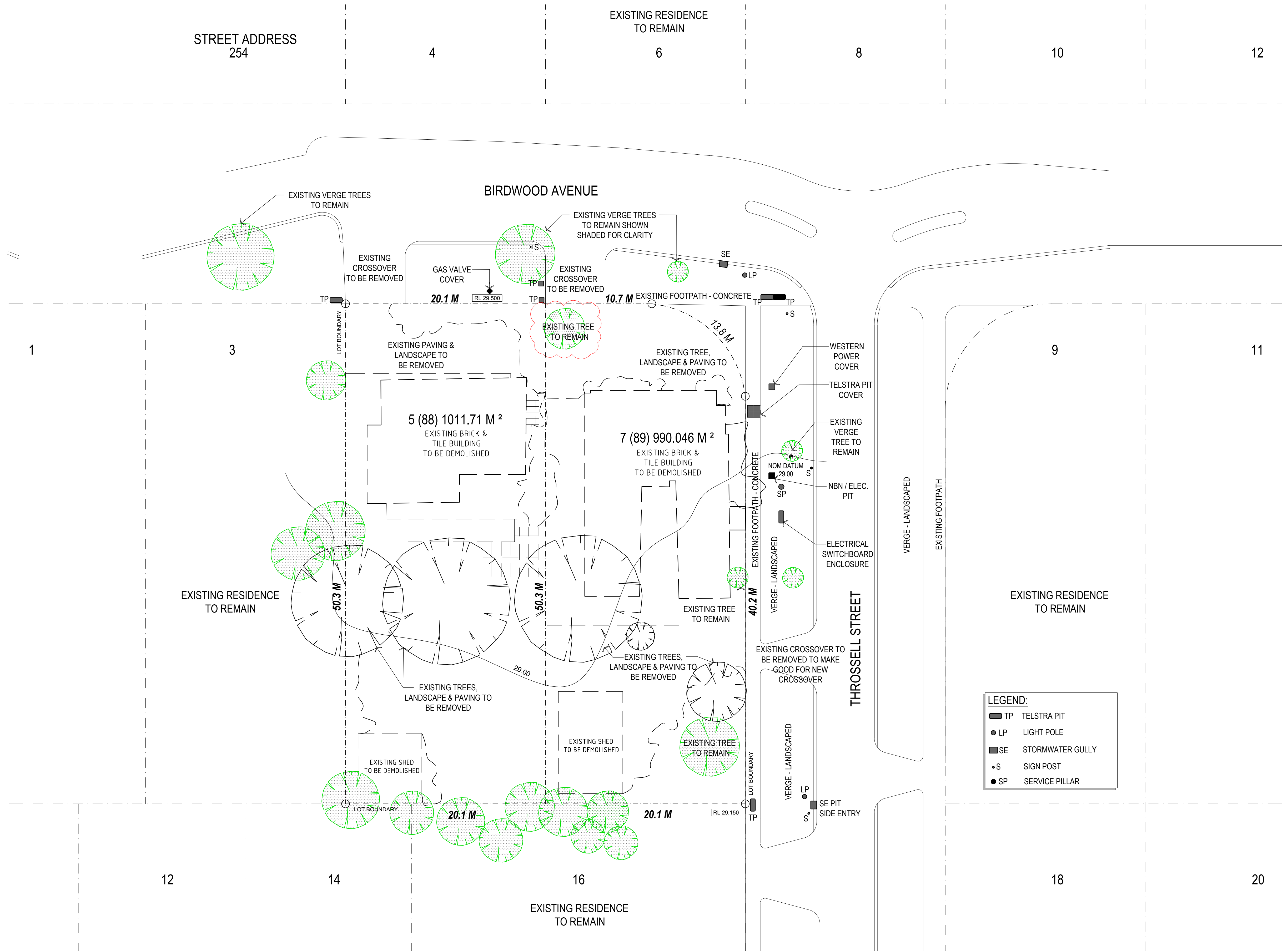
A Landscaping Plan is contained within **Attachment 1** in support of the development. The Landscaping Plan also proposes to upgrade the adjoining verges to the north and east of the site through the removal of crossovers, tree planting and native ground covers. The submitted Landscaping Plan has been reviewed by the City and is supported. A condition has been recommended in this respect.

Conclusion:

On consideration of the matters outlined in this report, the proposed development is considered to appropriately respond to the local planning framework.

Matters that have the potential to adversely impact the amenity of adjoining residential properties are appropriately addressed via recommended conditions of development approval.

Accordingly, subject to the imposition of appropriate conditions and advice notes, the application is recommended for approval.



LEGEND:

- TP TELSTRA PIT
- LP LIGHT POLE
- SE STORMWATER GULLY
- S SIGN POST
- SP SERVICE PILLAR

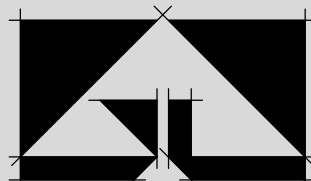
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DATE	REV	NOTE	BY
16.01.24	C	DRAWING UPDATED	PK
12.01.23	B	DRAWING UPDATED	PK
10.11.22	A	DRAWING INITIATED	PK

NOTE:
TO ESTABLISH BOUNDARIES A RE-PEG SURVEY WILL BE REQUIRED PRIOR TO CONSTRUCTION.

BIRDWOOD CHILDCARE
5(88) & 7(89) BIRDWOOD AVENUE
COMO, WA 6152



**GREG DAVIES
ARCHITECTS**

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**EXISTING SITE PLAN &
DEMOLITION PLAN**

REVISION DATE 16.01.2024	SCALE 1:200 @ A1
JOB NO. 2205 / 218	REVISION NO. C
	DWG NO. SK 001



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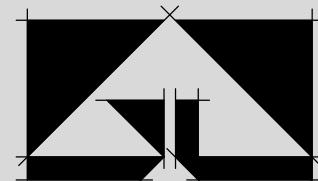
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16.01.24	D	DRAWING UPDATED	PK
01.11.23	C	DRAWING UPDATED	PK
18.01.23	B	DRAWING UPDATED	PK
13.01.23	A	DRAWING INITIATED	PK

NOTE:

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COMO, WA 6152



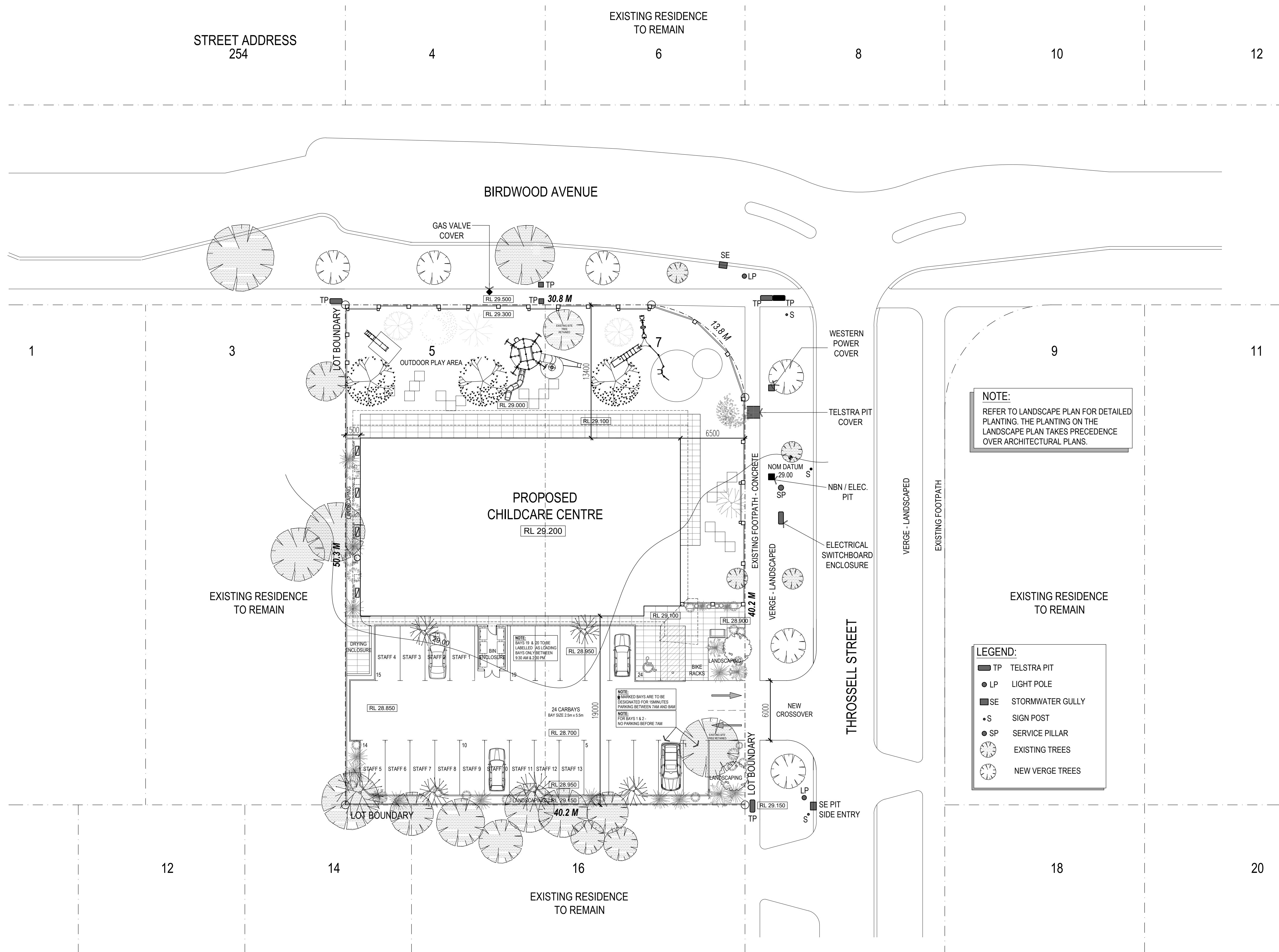
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SITE PLAN

REVISION DATE 19.01.2024	SCALE 1:200 @ A1
JOB NO. 2205 / 218	REVISION NO. E
	DWG NO. SK 020



NOTE:
REFER TO LANDSCAPE PLAN FOR DETAILED
PLANTING. THE PLANTING ON THE
LANDSCAPE PLAN TAKES PRECEDENCE
OVER ARCHITECTURAL PLANS.

- LEGEND:
- TP TELSTRA PIT
 - LP LIGHT POLE
 - SE STORMWATER GULLY
 - S SIGN POST
 - SP SERVICE PILLAR
 - EXISTING TREES
 - NEW VERGE TREES

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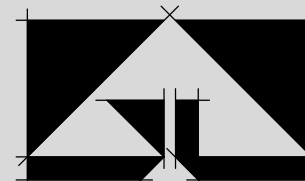


16.01.24	H	DWG UPDATE - TREES ADDED	PK
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17.01.23	F	DRAWING UPDATED	PK
12.01.23	E	DRAWING UPDATED	PK
10.11.22	D	DRAWING UPDATED	PK
04.11.22	C	DRAWING UPDATED: LVLS ADDED	PK
18.07.22	B	DRAWING UPDATED	SK
10.06.22	A	DRAWING INITIATED	KH
DATE	REV	NOTE	BY

19.01.24	I	DWG UPDATE	PK
DATE	REV	NOTE	BY

NOTE:
TO ESTABLISH BOUNDARIES A
RE-PEG SURVEY WILL BE REQUIRED
PRIOR TO CONSTRUCTION.

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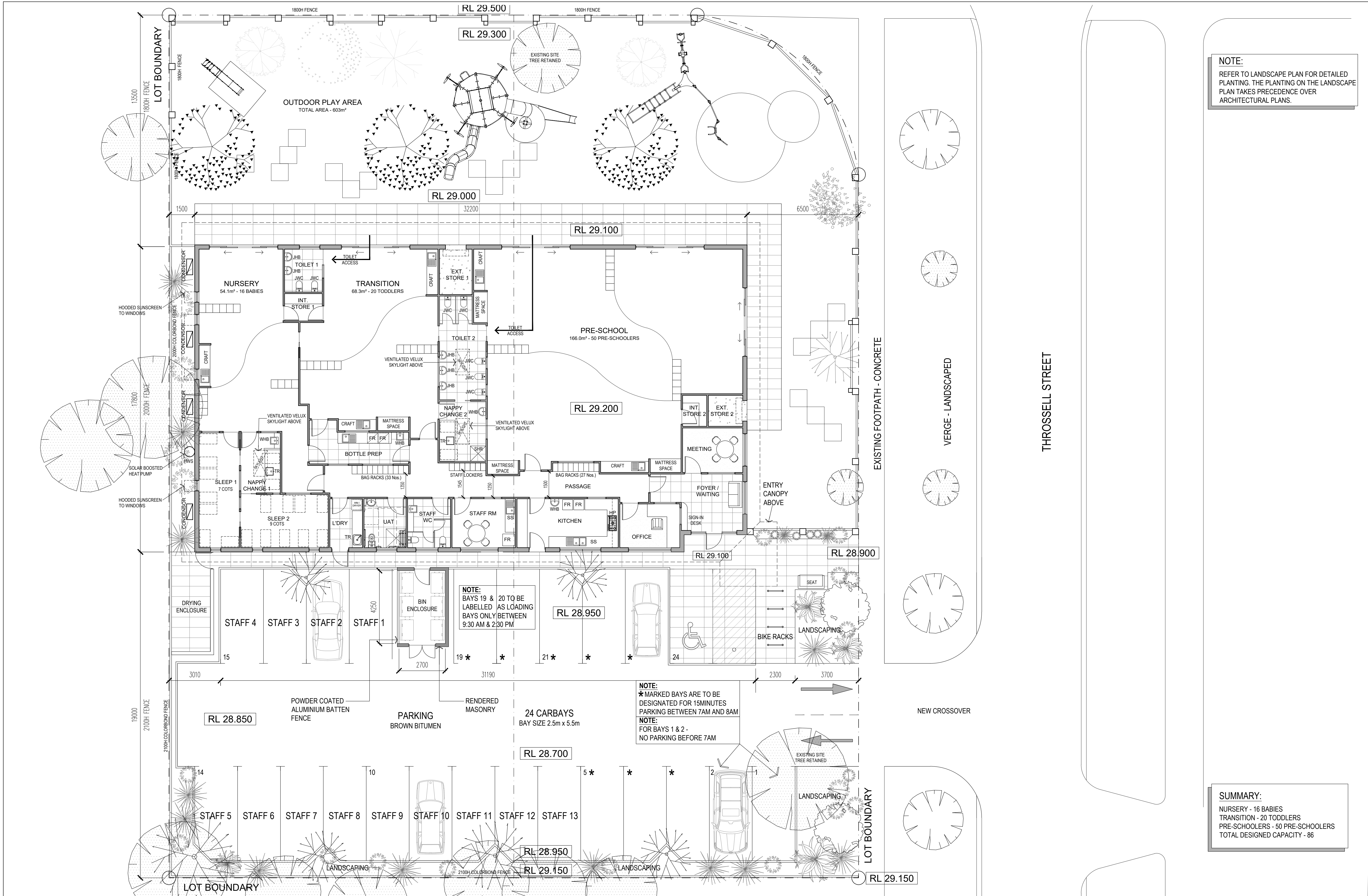


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SITE PLAN

REVISION DATE 19.01.2024	SCALE 1:200 @ A1
JOB NO. 2205 / 218	REVISION NO. I
DWG NO. SK 010	



NOTE:
REFER TO LANDSCAPE PLAN FOR DETAILED PLANTING. THE PLANTING ON THE LANDSCAPE PLAN TAKES PRECEDENCE OVER ARCHITECTURAL PLANS.

SUMMARY:
NURSERY - 16 BABIES
TRANSITION - 20 TODDLERS
PRE-SCHOOLERS - 50 PRE-SCHOOLERS
TOTAL DESIGNED CAPACITY - 86

NOTES:
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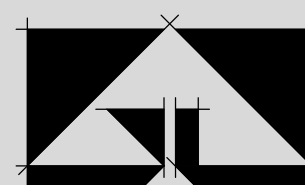
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04.11.22	C	DRAWING UPDATED. LVLS ADDED	PK
18.07.22	B	DRAWING UPDATED	SK
10.06.22	A	DRAWING INITIATED	KH
DATE	REV	NOTE	BY

19.01.24	J	DRAWING UPDATED	PK
16.01.24	I	DWG UPDATE - TREES ADDED STAFF RM, STAFF WC & UAT REPOSITIONED.	PK
DATE	REV	NOTE	BY

NOTE:
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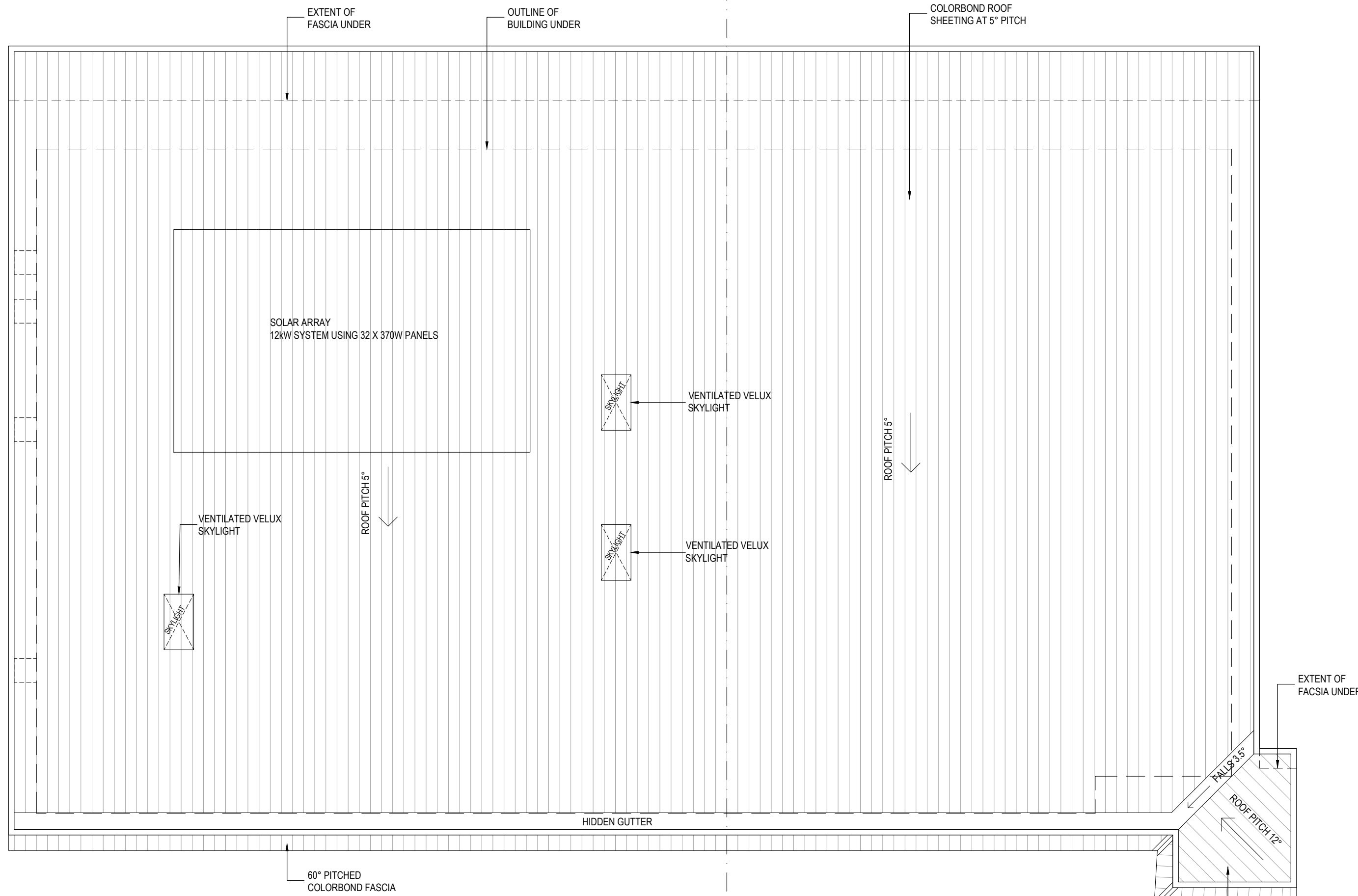
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GROUND FLOOR PLAN

REVISION DATE: 19.01.2024
SCALE: 1:100 @ A1
JOB NO: 2205 / 218
REVISION NO: J
DWG NO: SK 100

LOT BOUNDARY



EXISTING FOOTPATH - CONCRETE

VERGE - LANDSCAPED

THROSSELL STREET

LOT BOUNDARY

LOT BOUNDARY

NOTES:

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13.01.23	B	DRAWING UPDATED	PK	
10.06.22	A	DRAWING INITIATED	KH	
DATE	REV	NOTE	BY	

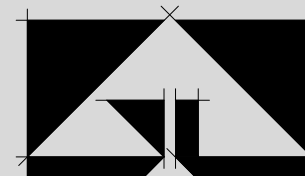
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5(88) & 7(89) BIRDWOOD AVENUE
COMO, WA 6152



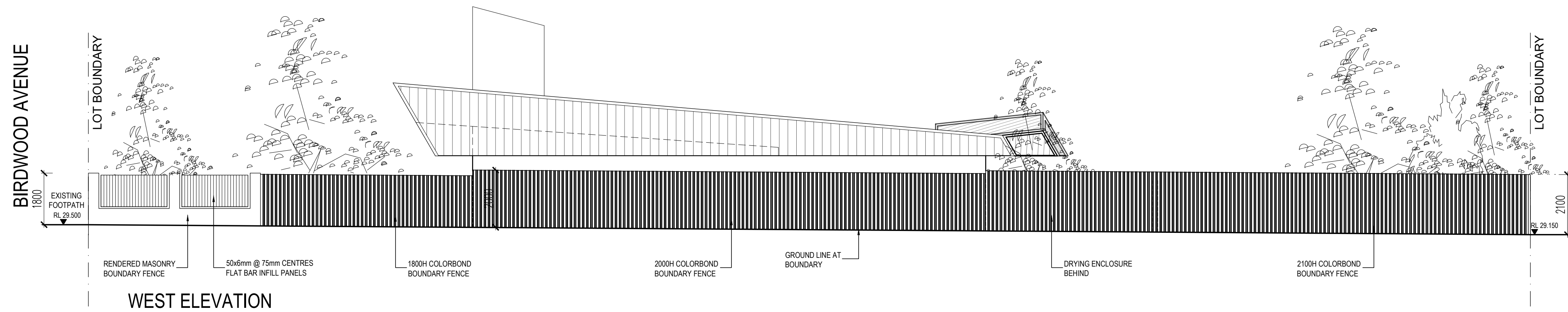
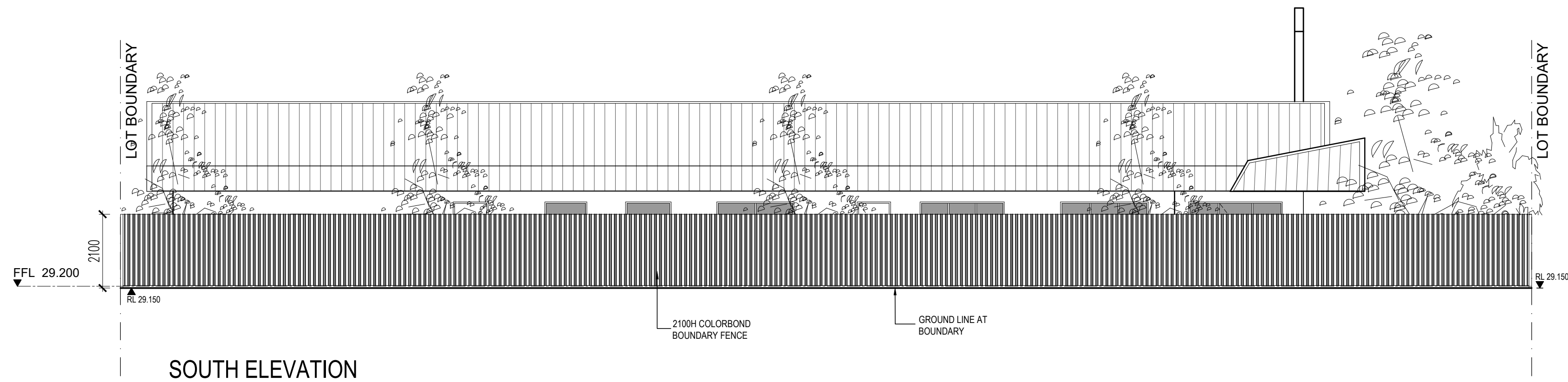
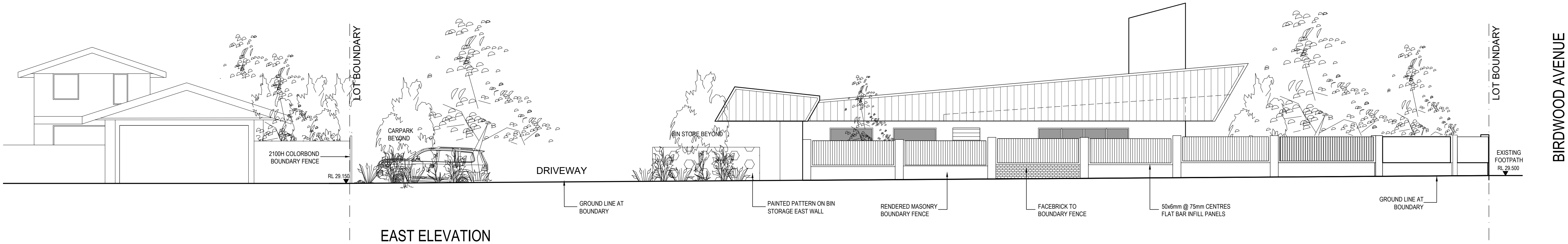
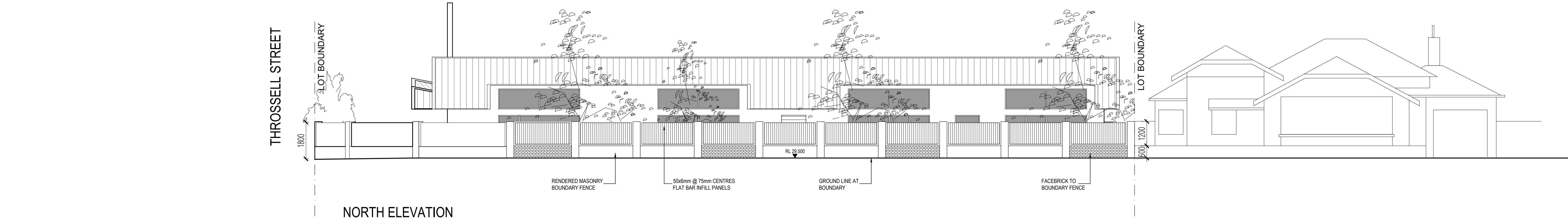
GREG DAVIES
ARCHITECTS

24 lacey street perth wa 6000

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ROOF PLAN

REVISION DATE	13.01.2023	SCALE	1:100 @ A1
JOB NO.	2205 / 218	REVISION NO.	B
DWG NO.	SK 110		



NOTES:
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16.01.24	H	DRAWING UPDATED	PK
24.02.23	G	DRAWING UPDATED	PK
18.01.23	F	DRAWING UPDATED	PK
16.01.23	E	DRAWING UPDATED	PK
12.01.23	D	DRAWING UPDATED	PK
10.11.22	C	DRAWING UPDATED	PK
04.11.22	B	DRAWING UPDATED	PK
10.06.22	A	DRAWING INITIATED	KH
DATE	REV	NOTE	BY

NOTE:
TO ESTABLISH BOUNDARIES A RE-PEG SURVEY WILL BE REQUIRED PRIOR TO CONSTRUCTION.

BIRDWOOD CHILDCARE
5(88) & 7(89) BIRDWOOD AVENUE
COMO, WA 6152



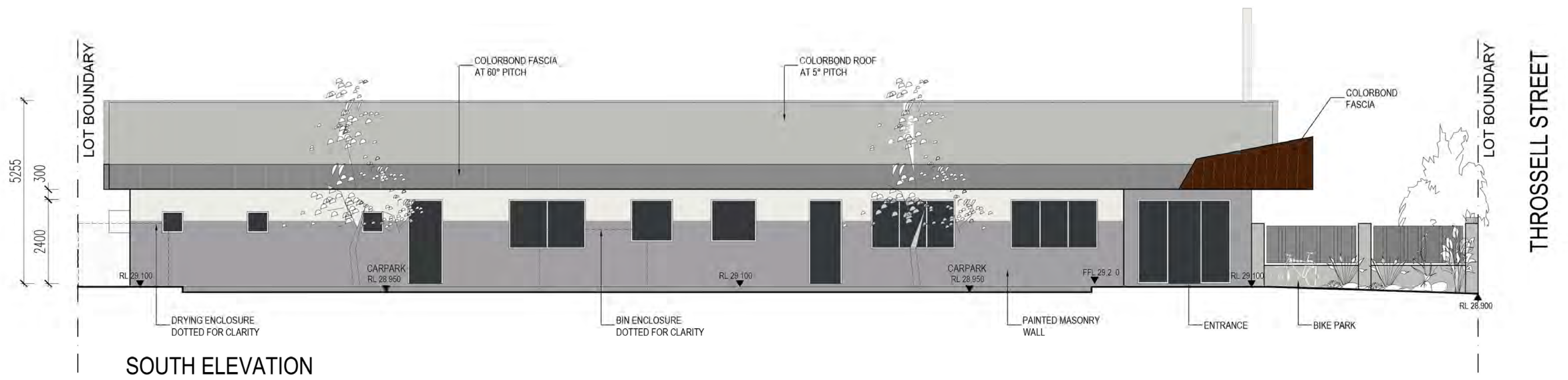
GREG DAVIES ARCHITECTS
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ELEVATIONS
(WITH BOUNDARY FENCE)

REVISION DATE	16.01.2024	SCALE	1:100 @ A1
JOB NO.	2205 / 218	REVISION NO.	H
DWG NO.			SK 210



- LEGEND :
- COLORBOND SHALE GREY (Roof & Fence Brickwork)
 - COLORBOND WINDSPRAY (Roof Fasia & Fence Ironwork)
 - COLORBOND ARIES
 - WATTYL ICING WHITE
 - WATTYL MOURNE GREY
 - MIDLAND FACEBRICK SUBIACO RED COACH



NOTES:

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DATE	REV	NOTE	BY
13.01.23	E	DRAWING UPDATED	PK
12.01.23	D	DRAWING UPDATED	PK
10.11.22	C	DRAWING UPDATED	PK
04.11.22	B	DRAWING UPDATED	PK
10.06.22	A	DRAWING INITIATED	KH

NOTE:

TO ESTABLISH BOUNDARIES A RE-PEG SURVEY WILL BE REQUIRED PRIOR TO CONSTRUCTION.

BIRDWOOD CHILDCARE

5(88) & 7(89) BIRDWOOD AVENUE
COMO, WA 6152



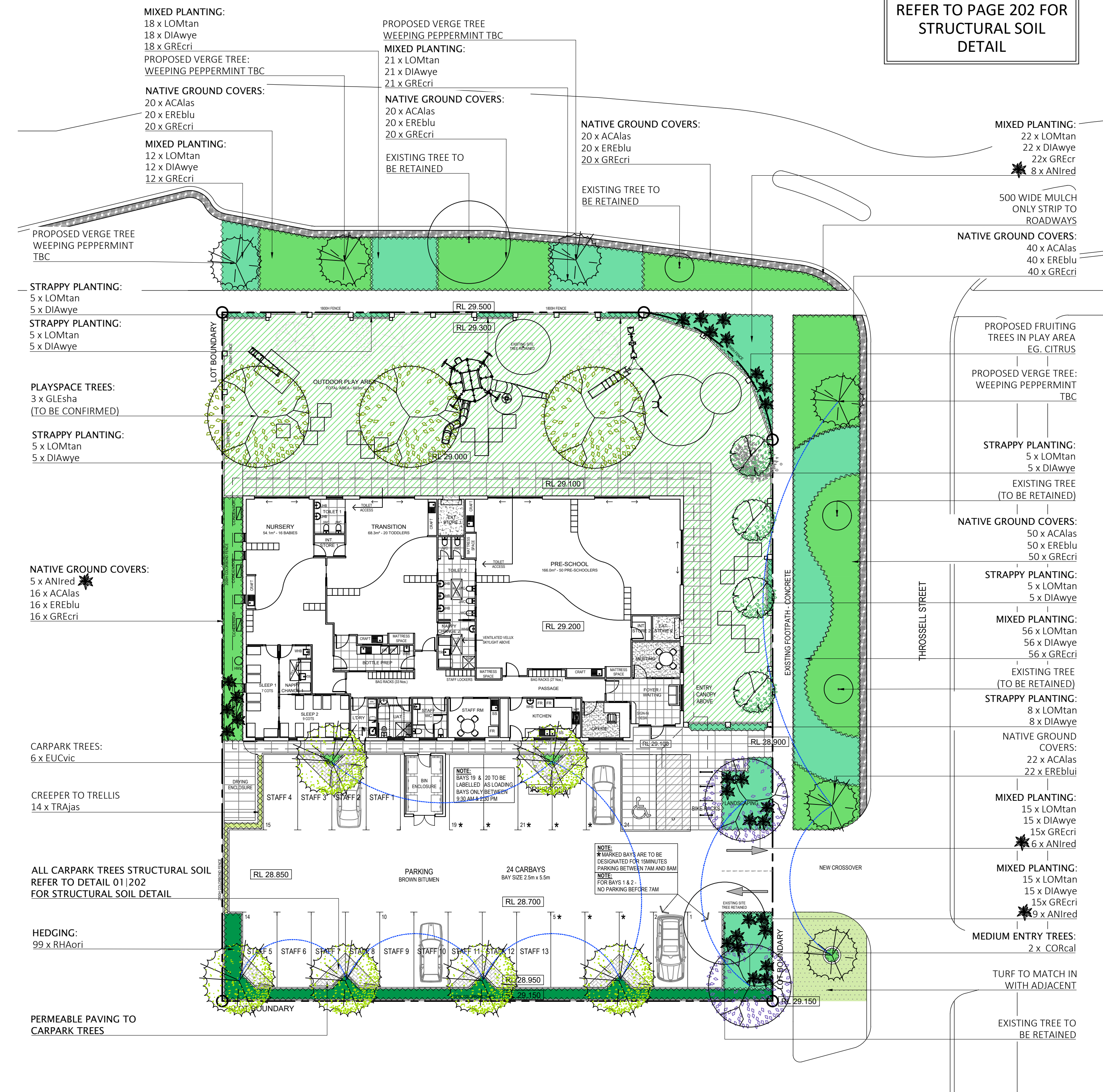
GREG DAVIES
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ELEVATIONS

REVISION DATE	SCALE
13.01.2023	1:100 @ A1
JOB NO. 2205 / 218	REVISION NO. E
DWG NO. SK 210	

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.



REV	DATE	DWN	APP	DESCRIPTION
B	07.07.22	KD	KD	UPDATED PLANTING PLAN
C	23.01.23	AC	KD	UPDATED PLANTING PLAN
D	27.02.23	KD	KD	UPDATED PLANTING PLAN
E	28.02.23	KD	KD	UPDATED TREE SIZING
F	17.01.24	AC	KD	UPDATED PLANTING PLAN

LEGEND

TREES

- EXISTING TREE TO BE RETAINED
- PROPOSED VERGE TREES
WEeping PEPPERmINT
- CARPARK TREES
LITTLE GHOST GUM
CANOPY 5m
- MEDIUM ENTRY TREE
PINK MARRI
CANOPY 6m
- PLAYSPACE TREE
EG. CITRUS
CANOPY 3m
- PLAYSPACE TREE
EG. GLEDITSIA SHADEMASTER
CANOPY 7m

FEATURE PLANTS

- SELECTED FEATURE PLANTING
EG. KANGAROO PAWS

PLANTING

- PLAYSPACE
TO FUTURE DETAIL
- PLANTING TYPE 01
GROUNDCOVERS
- PLANTING TYPE 02
SHRUBS
- PLANTING TYPE 03
MIXED/STRAPPY
- PLANTING TYPE 03
CREEPER/TRELLIS
- ORGANIC MULCH
WOODCHIP
- SELECTED TURF SPECIES
SOFT LEAF BUFFALO

HARDSCAPE

- PERMEABLE PAVING
TYPE TBC

NOTES

1. GENERAL

- 1.1 DRAINAGE FROM THE RAISED PLANTER AREAS AND POTS TO BE PROVIDED BY BUILDER
- 1.2 ALL SCALES ARE AS NOTED AND TO SUIT A1 PAPER SIZE
- 1.3 THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS REVISED 'O' ISSUED FOR CONSTRUCTION AND SIGNED AND APPROVED BY PROJECT MANAGER/SUPERINTENDENT.
- 1.4 PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.

2. SOIL PREPARATION

- 2.1 ALL AREAS ARE TO BE FINE GRADED EVENLY TO CONFORM TO KERB LEVELS AND SURROUNDING FINISHES.
- 2.2 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.
- 2.3 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.
- 2.4 ALL SITE AND IMPORTED SOILS, POTTING MIX, SOIL CONDITIONERS AND MULCHES TO BE IN ACCORDANCE TO RELEVANT AUSTRALIAN STANDARDS.

3. PLANTING

- 3.1 PLANTED AREAS SHALL BE MULCHED WITH AN ORGANIC (WOODCHIP) MULCH UNLESS OTHERWISE STATED TO A MINIMUM DEPTH OF 75mm.
- 3.2 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.
- 3.5 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.
- 3.6 FINAL PLANTING WITHIN CHILDCARE PLAY SPACE TO BE DESIGNED AND INSTALLED BY PROVIDER.
- 3.7 PLANTS TO BE SET OUT IN EVEN SPACING TO FILL THE DESIGNATED AREAS.
- 3.8 IN AREAS OF MIXED PLANTING, SPECIES TO BE SPREAD OUT AT RANDOM, IN GROUPINGS OF 2 OR 3.
- 3.9 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.
- 3.10 ALL VERGE TREE LOCATIONS AND SPECIES TO BE CONFIRMED BY COUNCIL PRIOR TO INSTALLATION.

4. IRRIGATION

- 4.1 PLANTING TO GROUND LEVEL TO BE IRRIGATED VIA A FULLY AUTOMATIC SYSTEM FROM MAINS.
- 4.2 WATER PRESSURE TO HAVE A MINIMUM FLOW RATE OF 30L/pm AT 300kPa FROM THE WATER CONNECTION POINT (OR AS STIPULATED).
- 4.3 CONTROLLER TO BE LOCATED IN SERVICE ROOM (OR AS DIRECTED BY PROVIDER).
- 4.4 SLEEVES BENEATH PAVED SURFACES AND TO RAISED PLANTING AREAS TO BE PROVIDED BY OTHERS.
- 4.5 IRRIGATION TO GARDEN BEDS TO BE NETASIM TECHLINE, SUB SURFACE IRRIGATION, INSTALLED TO MANUFACTURERS SPECIFICATION. IRRIGATION TO TURF TO BE POP UP SPRINKLERS; MP ROTATORS OR SIMILAR. IRRIGATION TO TREES TO BE BE BUBBLERS; TORO FLOOD BUBBLERS OR SIMILAR.
- 4.6 ASCON DRAWINGS, MANUALS AND 12 MONTH WARRANTY SHALL BE SUPPLIED BY THE IRRIGATION CONTRACTOR TO THE CLIENT UPON PRACTICAL COMPLETION.
- 4.7 PLEASE REFER TO IRRIGATION DRAWING SET FOR FINAL LAYOUT AND SCHEDULE (TO FUTURE DETAIL).

PLANTING SCHEDULE

Symbol	Species	Common Name	Quantities	Size
Trees:				
AGOfle	Agonis flexuosa	Weeping Peppermint	6	100L
CITlim	Citrus limon	Eureka Lemon	2	100L
CITret	Citrus reticulata	Mandarin Tree	2	100L
CORecl	Corymbia calophylla	Pink marri	2	100L
EUCvic	Eucalyptus victrix	Little Ghost Gum	6	100L
GLEsha	Gleditsia triacanthos 'Shademaster'	Honey Locust	3	100L
Shrubs and Groundcovers:				
ACAlas	Acacia lasiocarpa prostrate	Glow Wattle	188	140mm
DIAwye	Dianella tasmanica 'Wyeena'	Blaze	192	140mm
EREblu	Eremophila 'Blue Horizon'	Blue horizon	188	140mm
GREgin	Grevillea 'Gin Gin Gem'	Gin Gin Gem	108	140mm
GREcri	Grevillea crith mifolia prostrate	Ground Cover Grevillea	347	140mm
RHAori	Rhaphiolepis Oriental Pearl	Oriental Pearl	99	140mm
LOMTan	Lomandra 'Tanika'	Tanika	192	200mm
TRAjas	Trachelospermum jasminoides	Star Jasmine	14	140mm
Feature Plants:				
ANIRub	Anigozanthos Ruby Velvet	Ruby Velvet	28	12L

PLANTING IMAGES



CORcal



EUCvic



EUCsha



CITlim



AGOfle



GREcri



LOMTan



ANIred



RHAori



EREblu



kelsie davies
landscape architecture

DEVELOPMENT APPROVAL

Innaloo WA 6018
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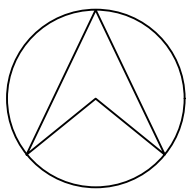
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REV F

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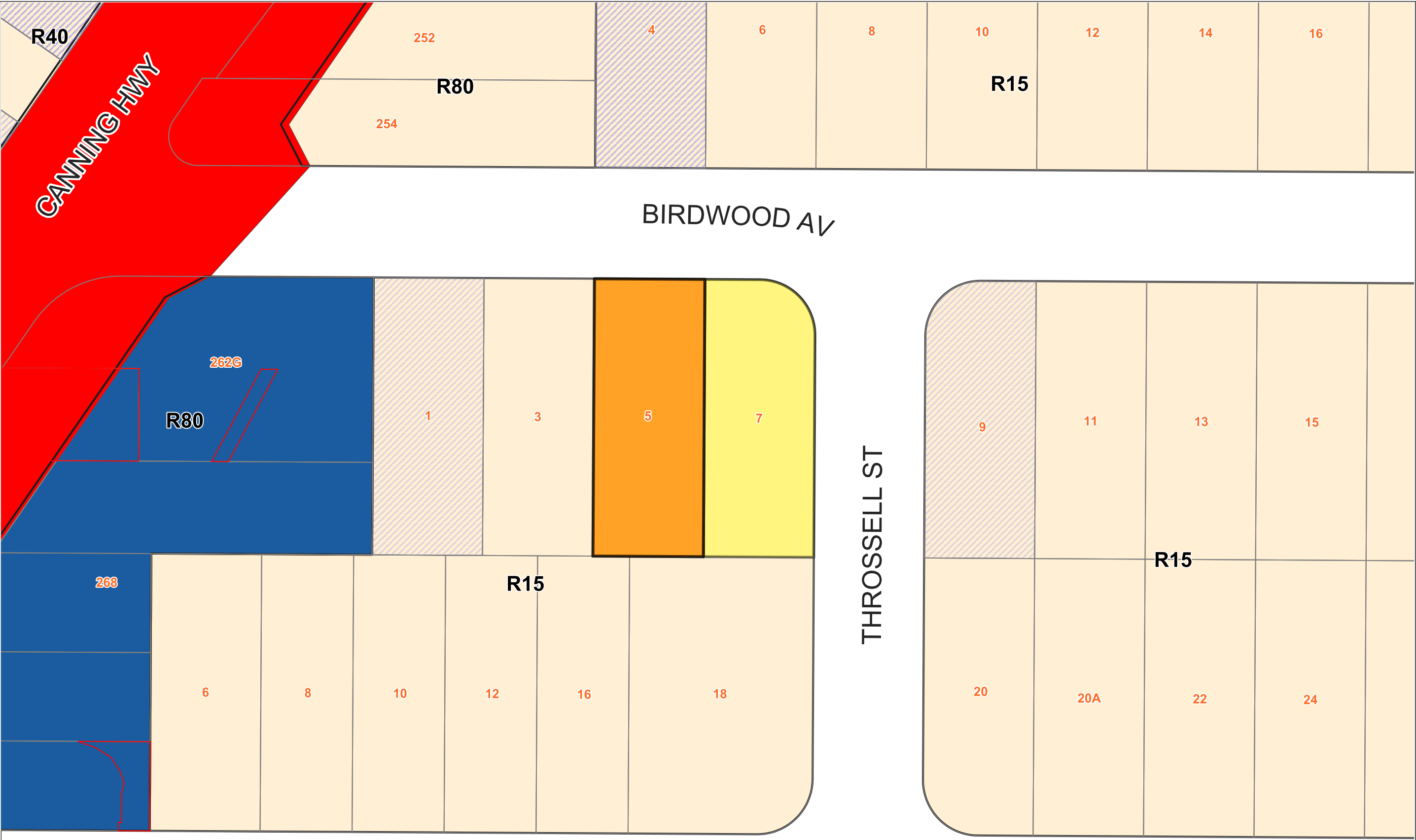
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BIRDWOOD CHILDCARE CENTRE
LANDSCAPE PLANTING PLAN

GREG DAVIES ARCHITECTS
5 & 7 BIRDWOOD AVENUE, COMO





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20/03/2024

1:800



Summary of Submissions

Issue Raised	Times Raised	Administration Response
The proposed land use 'Child Care Premises' is not compatible with the residential suburb.	44	The proposed land use of 'Child Care Premises' is a 'D' (Discretionary) land use in the Residential Zone under LPS7. It is considered that the proposed land use meets the Residential Zone Objectives as: • The development is of a scale which is compatible with a predominantly single storey residential context. • The development has been reviewed by the City's Design Review Panel which concluded the development sits comfortably within its context and positively contributes to the character of the area. • The proposed land use is complimentary to a residential context, providing childcare facilities for adjoining residential lots and an adjoining commercial centre on Canning Highway. • The site is co-located with a school to the south-east (Collier Primary School and early Learning Centre) and a highway commercial centre to the west which are complimentary land uses for the proposed child care premises. • The development is supported by relevant specialist reports which conclude that the proposal is compatible with the residential context in terms of amenity impact and the intensity of the land use proposed.
Significant trees will be removed from the site	42	At the time the development application was received by the City, the subject site contained four significant trees towards the west of the subject site. As part of the assessment of the development application the City requested modifications to the design to facilitate the retention of these trees and required the applicant to provide an arborist report. The City does not support the unnecessary removal of significant and established vegetation. The proponent did not accept the opportunity or recommendations of the submitted arborist report and the design review panel to redesign the development proposal to incorporate the retention of

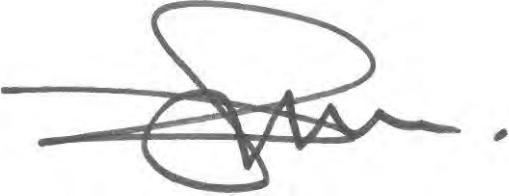
		the significant on-site vegetation. The four identified trees of significance have subsequently been removed from the site in February 2024. The development proposes to retain two trees to the south east of the site and one tree to the north of the site. The development proposes the planting of an addition 14 trees throughout the site. A landscaping plan has been provided in support of the development. Whilst and the proposed landscaping plan does not compensate for the loss of mature and established vegetation on site there are no statutory protections for vegetation on private property. The landscaping plan also proposes to upgrade the adjoining verges to the north and east of the site through the removal of crossovers, tree planting and native ground covers. The submitted landscaping plan has been reviewed by the City and is supported. The landscaping plan, including ongoing maintenance, is supported and conditions have been recommended in this respect.
The development will result in an increase to traffic volumes and parking. On-site parking is insufficient.	45	The application has been submitted with a Traffic Impact Statement (TIS). The adjoining road network has a projected capacity of 3000 vehicles per day in accordance with Liveable Neighbourhoods, local street characteristics. The vehicle movements created by the development are within the carrying capacity of the existing road network. According to the Western Australian Planning Commission Transport Impact Assessment Guidelines, an increase of between 10 to 100 peak hour vehicle trips is considered to have a low to moderate impact on the road network and is generally deemed acceptable. Overall, the development is considered to have no material impact on the surrounding road network and adjoining residential amenity. The development proposes to provide a total of 24 on site parking bays (15 employee bays and nine visitor bays). The development includes eight drop-off

		bays for visitors. These bays are time limited to 15 minutes during the peak morning drop off period to maximum turnover and parking availability on site. The car parking ratio is supported by the TIS, with parking demand contained wholly on site. The TIS has been reviewed by the City and is supported.
Request for a Traffic Impact Assessment	1	According to the Western Australian Planning Commission Transport Impact Assessment Guidelines, an increase of between 10 to 100 peak hour vehicle trips is considered to have a low to moderate impact on the road network and is generally deemed acceptable. A Traffic Impact Statement is sufficient for a development of this scale and a Traffic Impact Assessment is not deemed necessary in accordance with WAPC guidelines.
The hours of operation are inappropriate for a residential context	44	The proposed hours of operation are consistent with the Environmental Protection (Noise) Regulations 1997 and are recommended to be conditioned as part of the development approval.
The development will result in excessive noise	6	The development application has provided an acoustic report which demonstrates the development is capable to meeting compliance with Environmental Protection (Noise) Regulations 1997. The acoustic report has been reviewed by the City and is supported. The City recommends a condition to ensure the recommendations of the Acoustic Report are implemented, including development and implementation of a noise management plan.
Request for a construction management plan condition	1	The City has recommended inclusion of a condition requiring preparation and approval and implementation of a construction management plan prior to the commencement of works.
Submission of support	2	Noted

Design Review Report

5 & 7 Birdwood Avenue Como

December 2022

Design Review Report		
Subject	5 & 7 Birdwood Avenue Como – Design Review 01	
Date	2022-12-06	
Time		
Location	City of South Perth	
Design Reviewers	Name Dominic Snellgrove Damien Pericles Chris Maher Malcolm MacKay	Chair Panel member Panel Member Panel Member
Proponent	Greg Davis Architects	
Project Team		
Planning Authority	City of South Perth	
Stakeholders		
Declarations	None	
Briefings		
Relevant Authorities Project Team		
Design Review Report endorsement		
Reviewer's signature	 (Name) Dominic Snellgrove	

Introductory Comments	
Design quality evaluation	
	Supported
	Pending further attention
	Not yet supported
	Yet to be addressed
Strengths of the Proposal	• A proposed childcare centre offering an important community focused civic asset. • The appointment of a landscape professional and associated concept. • The allocation of a footpath against the southern flank of the built form to allow for pedestrian access outside of the car park road. • Adequate entry dimensional characteristics including the footpath and entry foyer. • Outdoor and indoor play areas well arranged to capitalise on north solar access. • Outdoor play areas located in a way that engages with and activates the streetscape. • The car park is carefully located as a buffer to residential buildings to the south. • A north and east facing boundary fence design that provides a mix of masonry and palisade fencing providing a varied presentation to the street. • A simple, single pitch and visually cohesive roof structure combined with an elemental built form that sits comfortably within its context. • Landscape buffer to the southern boundary along with the inclusion of generous tree canopy including two trees at the car park entry. • An appropriate built form and scale.
Principle 1 Context and character	<i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>
	a) Whilst the boundary fence includes a mix of masonry piers and palisade fencing it remains basic in its presentation to the public realm. b) Because a childcare fence is of some height and scale it is important to design the fence with a varied mix of masonry and palisade with a varied mixture of solid and transparent elements that present in a less ridged and monotonous manner.
Recommendations	1. Develop the boundary fence detail design to include a more balanced mix of solid masonry with palisade fencing and one that presents in a more varied way to the public domain. This might include greater variation in the masonry piers and masonry upstand configuration. 2. Consider a dwarf wall and a gate at the car park entry. 3. Illustrate the site plan within its context including the adjoining built form foot prints. 4. Illustrate the elevations within their streetscape context with adjoining properties illustrated.
Principle 2 Landscape quality	<i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>

	a) The appointment of a landscape professional and landscape design concept is welcome.
Recommendations	1. Consider amplifying the landscape provision at the entry sequence to provide a more welcoming arrival experience. 2. Consider landscape opportunities to integrate permeable paving and structural soils in the car park. 3. Consider further verge landscape design opportunities including large trees and informal seating around the entry.
Principle 3 Built form and scale	<i>Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i>
	a) The built form and scale of the proposal are considered appropriate.
Recommendations	1. None
Principle 4 Functionality and build quality	<i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.</i>
	a. The allocation and location of AC condensers and other plant equipment has not been addressed.
Recommendations	1. Illustrate the location of AC condensers and ensure that they are fully screened from the public and private domain.
Principle 5 Sustainability	<i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>
	- An ESD professional has not yet been appointed or consulted. - The importance of on-going operational costs should be addressed in the early stages of the design process. The operational costs of a facility over its lifespan dwarf the capital costs.
Recommendations	1. The Proponent is encouraged to appoint an ESD professional to assist with the development of a comprehensive ESD strategy that will address code compliance and provide for reduced operational energy requirements. 2. ESD professional' engaged early, has the capacity to introduce and coordinate a comprehensive set of passive and active systems that will deliver significant benefits over the life cycle of the facility.
Principle 6 Amenity	<i>Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.</i>
	- There are several serious concerns associated with occupant amenity including: - Habitable rooms, including cot rooms, which have no access to natural light or ventilation. The Panel do not support habitable rooms without access to light and ventilation. Cot rooms are places where children sleep. The inability to ventilate these spaces before and after sleep is critical. The ability for children to wake up to natural light is also a fundamental requirement. - Whilst the management of low-level west light is important the absence of windows in the west elevation is a missed opportunity to allow for cross ventilation. - The nappy room does not have access to natural ventilation.
Recommendations	1. Ensure that all habitable rooms have access to natural light and ventilation. 2. Consider an operable roof light to the nappy room to facilitate natural ventilation. 3. Consider shaded clearstory operable windows to the west elevation to facilitate cross ventilation.

	4. Consider locating the wc against the external wall to allow for access to natural light and ventilation and to allow direct access from the play area. 5. Consider relocating the bin store to the west end of the car park.
Principle 7 Legibility	<i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>
	a. The introduction of an entry path on the north section of the car park in relation to safety is welcome. b. However, the entry door to the childcare facility is oriented towards the car park and not the street.
Recommendations	1. Consider forming the ACROD bay in a paving pattern that matches the entry forecourt and raised to match the level of the entry forecourt. In this way the entry threshold will be significantly enhanced. 2. Consider how the front door might orientate itself to face or address the street.
Principle 8 Safety	<i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>
	a. The introduction of an entry path on the west section of the car park in relation to safety is welcome.
Recommendations	1. Create a safe entry pathway to the west of the car park.
Principle 9 Community	<i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>
	a) A proposed childcare centre offering an important community focused civic asset. b) A childcare centre is often the first public building a child will experience for any length of time and is therefore represents an important and vital design typology. c) In a project of this scale and use the greatest contribution to the community is in the way that a proposal engages with its streetscape to provide active and occupied frontages that bring life, vitality and passive surveillance to the public domain.
Recommendations	1. None
Principle 10 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>
	a) The initial architectural expression is domestic and coherent in nature and considered appropriate within the context of the site. b) The use of quality materials, including face brick, is encouraged and supported.
Recommendations	1. None

Concluding Remarks

The Panel are generally supportive of the design approach. However, issue associated with amenity, sustainability, landscape, context and character and functionality and build quality need to be address before full support can be provided.

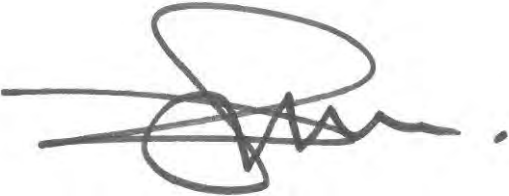
Design Review progress

	<i>Supported</i>		
	<i>Pending further attention</i>		
	<i>Not yet supported</i>		
	<i>Yet to be addressed</i>		
	<i>DR1</i>	<i>DR2</i>	<i>DR3</i>
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			

Design Review Report

5 & 7 Birdwood Avenue Como DR02

February 2023

Design Review Report		
Subject	5 & 7 Birdwood Avenue Como – Design Review 02	
Date	2023-02-06	
Time		
Location	City of South Perth	
Design Reviewers	Name Dominic Snellgrove Damien Pericles Malcolm MacKay	Chair Panel member Panel Member
Proponent	Greg Davis Architects	
Project Team		
Planning Authority	City of South Perth	
Stakeholders		
Declarations	None	
Briefings		
Relevant Authorities Project Team		
Design Review Report endorsement		
Reviewer's signature	 (Name) Dominic Snellgrove	

Introductory Comments	
Design quality evaluation	
	Supported
	Pending further attention
	Not yet supported
	Yet to be addressed
Strengths of the Proposal	- The Panel commend the Proponent for engagement with the DRP and responding to previous commentary. - The entry forecourt has been improved with additional planting, seating and generosity. - Windows and natural light and ventilation have been generously provided to all primary habitable rooms including cot rooms. - Roof lights have been introduced to facilitate additional access to natural light and ventilation. - Modest but effective footpath refuge included between the car park and the building allowing for safe pedestrian access from the car park to the entry. - Landscape design professional appointed with concept design submitted. - Throssell St boundary wall includes a mix of solid masonry risers, piers and palisade fencing with additional areas of face brick. The result is a boundary wall that delivers a balanced mix of privacy and outlook within a varied form that contributes to the context and character of the area. - Enhanced cross ventilation through the deployment of high-level clearstory openings. - A proposed childcare centre offering an important community focused civic asset. - The appointment of a landscape professional and associated concept. - The allocation of a footpath against the southern flank of the built form to allow for pedestrian access outside of the car park road. - Adequate entry dimensional characteristics including the footpath and entry foyer. - Outdoor and indoor play areas well arranged to capitalise on north solar access. - Outdoor play areas located in a way that engages with and activates the streetscape. - The car park is carefully located as a buffer to residential buildings to the south. - A north and east facing boundary fence design that provides a mix of masonry and palisade fencing providing a varied presentation to the street. - A simple, single pitch and visually cohesive roof structure combined with an elemental-built form that sits comfortably within its context. - Landscape buffer to the southern boundary along with the inclusion of generous tree canopy including two trees at the car park entry. - An appropriate built form and scale.
Principle 1 Context and character	<i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>

	a) Whilst the Throssell Street boundary wall is of a high quality, the Birdwood Avenue boundary wall does not present in a way which supports visual permeability and does not achieve the same quality presentation as the Throssell Street boundary wall being built at a height that does not allow for the same level of visual permeability.
Recommendations	1. Implement the same design and aesthetic approach to Birdwood Avenue boundary wall as Throssell Street including the height of the proposed wall to allow for enhanced visual permeability and streetscape interaction.
Principle 2 Landscape quality	<i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>
	a) The appointment of a landscape professional and landscape design concept is welcome. b) The proposed tree sizes and canopy remain unambitious.
Recommendations	1. Consider amplifying the landscape provision at the entry sequence to provide a more welcoming arrival experience including a large-scale tree. 2. Consider introducing the landscape professional to the DRP process with attendance at review. 3. Consider a landscape strip at the west termination of the car park road to create a high-quality visual back drop. 4. Investigate proposed retained tree to the southeast for viability in relation to the proximity of the car bay.
Principle 3 Built form and scale	<i>Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i>
	a) The built form and scale of the proposal are considered appropriate.
Recommendations	1. None
Principle 4 Functionality and build quality	<i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.</i>
	a. AC condenser location has been well addressed.
Recommendations	1. Consider access to the west boundary strip for maintenance.
Principle 5 Sustainability	<i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>
	a) An ESD professional has not yet been appointed or consulted. b) The importance of on-going operational costs should be addressed in the early stages of the design process. The operational costs of a facility over its lifespan dwarf the capital costs.
Recommendations	1. The Proponent is encouraged to appoint an ESD professional to assist with the development of a comprehensive ESD strategy that will address code compliance and provide for reduced operational energy requirements. 2. ESD professional' engaged early, has the capacity to introduce and coordinate a comprehensive set of passive and active systems that will deliver significant benefits over the life cycle of the facility.
Principle 6 Amenity	<i>Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.</i>
	a) Issues associated with amenity have been addressed.

Recommendations	1. Consider switching the staff room with WC amenity to alleviate outlook issues with the bin store. This will also provide better surveillance over the car park area from the staff room.
Principle 7 Legibility	<i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>
	a) The entry forecourt has been improved with additional planting, seating and generosity.
Recommendations	1. None
Principle 8 Safety	<i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>
	a. The introduction of an entry path on the west section of the car park in relation to safety is welcome. b. However, at 1M it remains narrow in width.
Recommendations	1. Consider adding 200mm to the width of the entry path adjacent to the car bays. 2. Include wheel stops at the car bays adjacent to the internal foot path.
Principle 9 Community	<i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>
	a) A proposed childcare centre offering an important community focused civic asset. b) A childcare centre is often the first public building a child will experience for any length of time and is therefore represents an important and vital design typology. c) In a project of this scale and use the greatest contribution to the community is in the way that a proposal engages with its streetscape to provide active and occupied frontages that bring life, vitality and passive surveillance to the public domain.
Recommendations	1. None
Principle 10 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>
	a) The initial architectural expression is domestic and coherent in nature and considered appropriate within the context of the site. b) The use of quality materials, including face brick, is encouraged and supported. c) However, the elevations do not do justice to the built form presentation.
Recommendations	1. Consider including a 3D visualisation of the project in its context. 2. Consider incorporating a brick dado band in lieu of painted render. Face brick will respond well to the character of the area and provide a durable and low maintenance finish.

Concluding Remarks

The Panel are generally supportive of the design subject to:

- Improvement to the Birdwood Avenue boundary wall with a reduction in its height.
- Further consideration of the landscape proposal.
- The appointment of an ESD professional and the creation of a concept report.

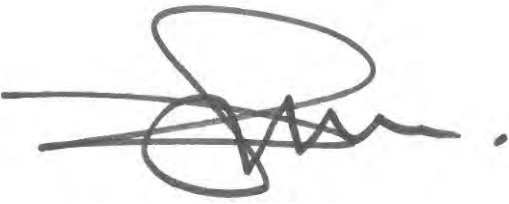
Design Review progress

	<i>Supported</i>		
	<i>Pending further attention</i>		
	<i>Not yet supported</i>		
	<i>Yet to be addressed</i>		
	<i>DR1</i>	<i>DR2</i>	<i>DR3</i>
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			

Design Review Report

5 & 7 Birdwood Avenue Como DR01/03

December 2023

Design Review Report		
Subject	5 & 7 Birdwood Avenue Como – Design Review 01/03	
Date	2023-12-12	
Time	9:30am	
Location	City of South Perth	
Design Reviewers	Name Dominic Snellgrove Damien Pericles Malcolm MacKay	Chair Panel member Panel Member
Proponent	Dynamic Planning	Reegan Cake (Apology)
Project Team	Greg Davis Architects Kelsie Davies Landscape Architecture	Greg Davies Kelsie Davies
Planning Authority	City of South Perth	Donna Shaw – Director Development and Community Services Fiona Mullen – Manager Development Services Courtney Wynn – Coordinator Urban Planning Scott van Ierland – Senior Urban Planner
Stakeholders	N/A	
Declarations	None	
Briefings		
Relevant Authorities Project Team	Greg Davis Architects Kelsie Davies Landscape Architecture	Greg Davies Kelsie Davies
Design Review Report endorsement		
Reviewer's signature	 (Name) Dominic Snellgrove	

Introductory Comments	
Design quality evaluation	
	Supported
	Pending further attention
	Not yet supported
	Yet to be addressed
Strengths of the Proposal	• The Panel commends the Proponent for engagement with the DRP and responding to previous commentary. • The entry forecourt has been improved with additional planting, seating and generosity. • Windows and natural light and ventilation have been generously provided to all primary habitable rooms including cot rooms. • Roof lights have been introduced to facilitate additional access to natural light and ventilation. • A modest but effective footpath refuge included between the car park and the building allowing for safe pedestrian access from the car park to the entry. • Landscape design professional appointed with concept design submitted. • Throssell St boundary wall includes a mix of solid masonry risers, piers and palisade fencing with additional areas of face brick. The result is a boundary wall that delivers a balanced mix of privacy and outlook within a varied form that contributes to the context and character of the area. • Enhanced cross ventilation through the deployment of high-level clearstory openings. • A proposed childcare centre offering an important community focused civic asset. • The appointment of a landscape professional and associated concept. Design produced along with attendance at the panel meeting. • Tree retention in the southeast part of the site along with proposed structural soils and permeable paving. • Arborist report commissioned. • The allocation of a footpath against the southern flank of the built form to allow for pedestrian access outside of the car park road. • Adequate entry dimensional characteristics including the footpath and entry foyer. • Outdoor and indoor play areas well arranged to capitalise on north solar access. • Outdoor play areas located in a way that engages with and activates the streetscape. • The car park is carefully located as a buffer to residential buildings to the south. • A north and east facing boundary fence design that provides a mix of masonry and palisade fencing providing a varied presentation to the street. • A simple, single pitch and visually cohesive roof structure combined with an elemental-built form that sits comfortably within its context. • Landscape buffer to the southern boundary along with the inclusion of generous tree canopy including two trees at the car park entry. • An appropriate built form and scale.

	• ESD professional appointed and a preliminary ESD report submitted. • Birdwood Avenue boundary wall design updated to match the quality of the Throssell Street boundary wall.
Principle 1 Context and character	<i>Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.</i>
	a) With the appointment of a landscape professional and the commissioning of an arborist report it is evident that the proposal includes the removal of 3 existing and mature trees because of the arrangement of built form on the site. b) Both the City and the Panel are reluctant to support the removal of these significant trees without exploring further the potential for retention. c) Whilst the Panel understand the requirement for a minimum outdoor play area it is evident that the built form does not align with the existing streetscape setbacks. d) The predominant use of painted and rendered façades represents a missed opportunity to incorporate face brickwork that might better respond to the overall character of the street and provide for a more durable and maintenance free finish.
Recommendations	1. Explore shifting the built form further north or creating indentations in the south side of the built form to enable the retention of 1, 2 or 3 of the existing trees. 2. Shifting the built form north may better align built form with the existing streetscape. Alternatively consider illustrating how the north roof overhang provides for streetscape alignment. 3. Consider incorporating face brick in lieu of the painted and rendered dado.
Principle 2 Landscape quality	<i>Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.</i>
	a) With the appointment of a landscape professional and the commissioning of an arborist report it is evident that the proposal includes the removal of 3 existing and mature trees because of the arrangement of built form on the site. b) Both the City and the Panel are reluctant to support the removal of these significant trees without exploring further the potential for retention. c) The landscape design proposal for the outdoor play area is limited in scope.
Recommendations	1. Explore shifting the built form further north or creating indentations in the south side of the built form to enable the retention of 1, 2 or 3 of the existing trees. 2. Whilst the Panel understand that an operator has not yet been secured for the project there is an expectation that certain landscape principles relating to the outdoor play area be embedded in the application. This should include the extent and number of trees, soft fall, soft landscape and shade. 3. If 1 or more of the trees cannot be retained, consider a 2 for 1 replacement.
Principle 3 Built form and scale	<i>Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.</i>
	a) The built form and scale of the proposal are considered appropriate.
Recommendations	1. None
Principle 4 Functionality and build quality	<i>Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.</i>

	a. AC condenser location has been well addressed.
Recommendations	1. None
Principle 5 Sustainability	<i>Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.</i>
	a) The Proponent is commended for engaging an ESD professional and commissioning a preliminary report and including a roof plan that indicates solar PV's.
Recommendations	1. None
Principle 6 Amenity	<i>Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.</i>
	a) The staff room has a poor outlook in relation to the bin store.
Recommendations	1. Consider switching the staff room with WC amenity to alleviate outlook issues with the bin store. This will also provide better surveillance over the car park area from the staff room.
Principle 7 Legibility	<i>Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.</i>
	a) The entry forecourt has been improved with additional planting, seating and generosity.
Recommendations	1. None
Principle 8 Safety	<i>Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.</i>
	a. The introduction of an entry path on the west section of the car park in relation to safety is welcome. b. However, at 1M it remains narrow in width.
Recommendations	1. Consider adding 200mm to the width of the entry path adjacent to the car bays. 2. Include wheel stops at the car bays adjacent to the internal foot path.
Principle 9 Community	<i>Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.</i>
	a) A proposed childcare centre offering an important community focused civic asset. b) A childcare centre is often the first public building a child will experience for any length of time and therefore represents an important and vital design typology. c) In a project of this scale and use the greatest contribution to the community is in the way that a proposal engages with its streetscape to provide active and occupied frontages that bring life, vitality and passive surveillance to the public domain.
Recommendations	1. None
Principle 10 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>
	a) The initial architectural expression is domestic and coherent in nature and considered appropriate within the context of the site. b) The use of quality materials, including face brick in the boundary wall, is encouraged and supported. c) However, the elevations do not do justice to the built form presentation and the

		Panel are disappointed that face brick has not been considered as a dado within the main built form.
Recommendations		1. Consider including a 3D visualisation of the project in its context. 2. Consider incorporating a brick dado band in lieu of painted render. Face brick will respond well to the character of the area and provide a durable and low maintenance finish.

Concluding Remarks

The Panel are generally supportive of the design subject to:

- Whilst this is the third design review for the project it is the first review of the revised approvals pathway to JDAP.
- Further consideration in relation to retaining either 1, 2 or 3 of the existing mature trees located to the south of the built form.
- Further landscape detail and commitment associated with the outdoor play area.
- Consideration of other comments under Principles 1, 2, 6 and 10

Design Review progress

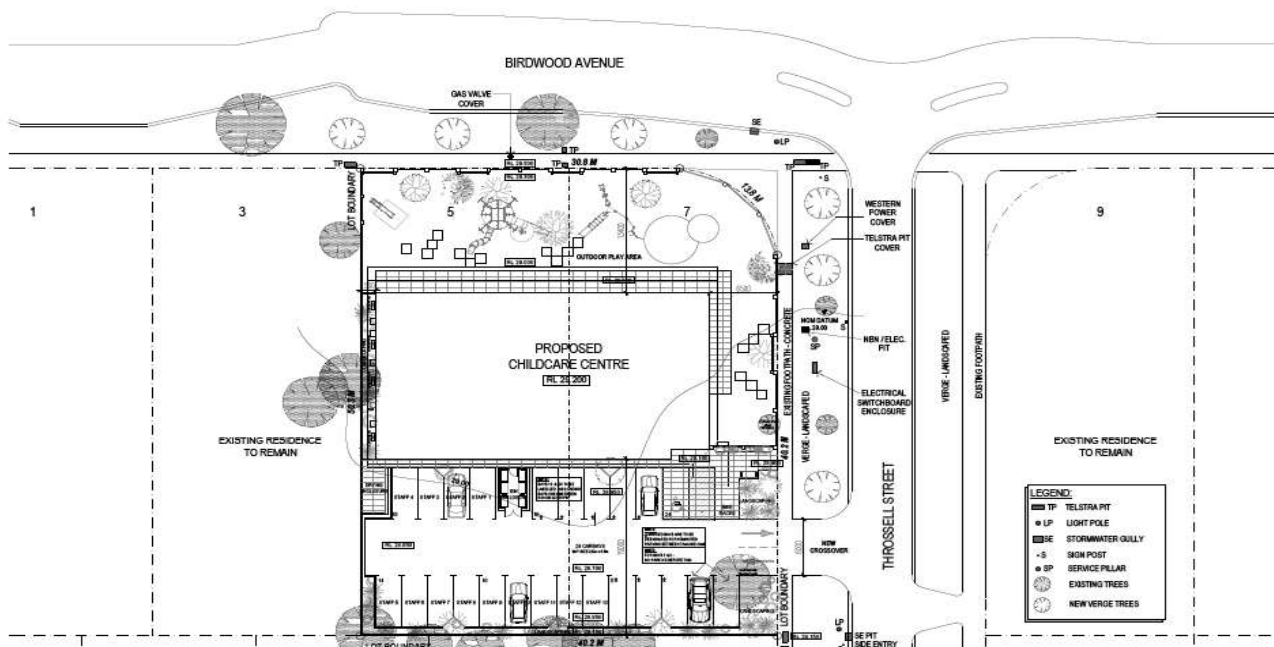
	<i>Supported</i>		
	<i>Pending further attention</i>		
	<i>Not yet supported</i>		
	<i>Yet to be addressed</i>		
	<i>DR1</i>	<i>DR2</i>	<i>DR1/3</i>
Principle 1 - Context and character			
Principle 2 - Landscape quality			
Principle 3 - Built form and scale			
Principle 4 - Functionality and build quality			
Principle 5 - Sustainability			
Principle 6 - Amenity			
Principle 7 - Legibility			
Principle 8 - Safety			
Principle 9 - Community			
Principle 10 - Aesthetics			



PROPOSED CHILD CARE CENTRE (86 PLACES)

LOTS 88 & 89 (#5 & 7) BIRDWOOD AVE, COMO

TRANSPORT IMPACT STATEMENT



Final 2.1

Prepared by i3 consultants WA for

Greg Davies Architects & Byblos Constructions

Proposed Child Care Centre (86 Places) | Lots 88 & 89 (#5 & 7) Birdwood Ave, Como | Transport Impact Statement

Prepared by

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Description

A Transport Impact Statement for a proposed Child Care Centre for 86 children (Babies to Kindy) on Lots 88 & 89 (Street Nos 5 & 7) Birdwood Ave on the southwest corner of Throssell St in the City of South Perth suburb of Como prepared in accordance with the WAPC 2016 Transport Impact Assessment Guidelines.

Client

Greg Davies Architects & Byblos Constructions

Project ID 48101

Version Final 2.1

Publication Date 8 December 2023

Pages 38

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This is not an approved document unless certified below.

Digitally signed by David Wilkins
Date: 2023.12.08 11:06:21 +08'00'

About the Author

David Wilkins is an RTA NSW Certified Level 3 Lead Auditor (RSA-08-0178), Main Roads Western Australia (MRWA) accredited Senior Road Safety Auditor (SRSA 0101) and Qld DMR Road Safety Auditor. In addition to this, David is an MRWA accredited Crash Investigation Team Leader and Roadworks Traffic Manager (MRWA-RTM-10-RTM20). David has undertaken over 550 road safety audits in Australia since 2001 across the full range of stages from feasibility through to pre-opening, including roadworks, existing roads, schools, and mine sites.

David specialises in undertaking and preparing traffic impact assessments in accordance with either the WAPC *Transport Impact Assessment Guidelines* or Austroads *Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments*. He has authored over 220 of these since 2001.

David is a member of Engineers Australia and committee member of Transport Australia society and is guided by its Charter and Code of Ethics which states that its members act in the interest of the community, ahead of sectional or personal interests towards a sustainable future. Engineers are members of the community and share the community's aspirations for Australia's future prosperity.

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1 INTRODUCTION

1.1 ASSESSMENT LEVEL

This Transport Impact Assessment report has been prepared in accordance with the WAPC publication *Transport Impact Assessment Guidelines* (1). These guidelines indicate that a Transport Impact Statement (TIS) *“is required for those developments that would be likely to generate moderate volumes of traffic and therefore would have a moderate overall impact on the surrounding land uses and transport networks, (in accordance with Table 1.)”*

LAND USE	MODERATE IMPACT	HIGH IMPACT
	Transport Impact Statement required	Transport Impact Assessment required
	10 – 100 vehicle trips in the peak hour	> 100 vehicle trips in the peak hour
Residential	10–100 dwellings	>100 dwellings
Schools	10–100 students	>100 students
Entertainment venues, restaurants, etc.	100–1000 persons (seats) OR 200–2000 m ² gross floor area	>1000 persons (seats) OR >2000 m ² gross floor area
Fast food restaurants	50–500 m ² gross floor area	>500 m ² gross floor area
Food retail /Shopping centres with a significant food retail content	100–1000 m ² gross floor area	>1000 m ² gross floor area
Non-food retail	250–2500 m ² gross floor area	>2500 m ² gross floor area
Offices	500–5000 m ² gross floor area	>5000 m ² gross floor area
Service Station	1–7 refueling positions	>7 refueling positions
Industrial/Warehouse	1000–10,000 m ² gross floor	>10,000 m ² gross floor area
Other Uses	Discuss with approving authority	Discuss with approving authority

Table 1 - Level of TIA required by land use and size

Table 1 above does not identify a Child Care Centre Land Use. In accordance with ‘Other Uses’ the level of TIA required has been discussed with the City of South Perth (the approving authority for the development). The City has indicated that a Transport Statement is to be submitted for centres that generate less than 100 trips in the peak hour and a Transport Impact Assessment for centres that generate more than 100 trips in the peak hour. The forecast peak hour traffic volumes are 69 (AM) and 34 (PM), as indicated in **Section 1.2**. These forecast volumes are described as a Moderate Impact that warrants a Transport Impact Statement, as indicated in Table 1 above and Figure 1 on the following page.

The preparation of a TIS in accordance with the WAPC Guidelines is consistent with, and ensures compliance with, Clause 67(t) of the *Planning and Development (Local Planning Schemes) Regulations 2015* (3) which state *“due regard should be given the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety”*.

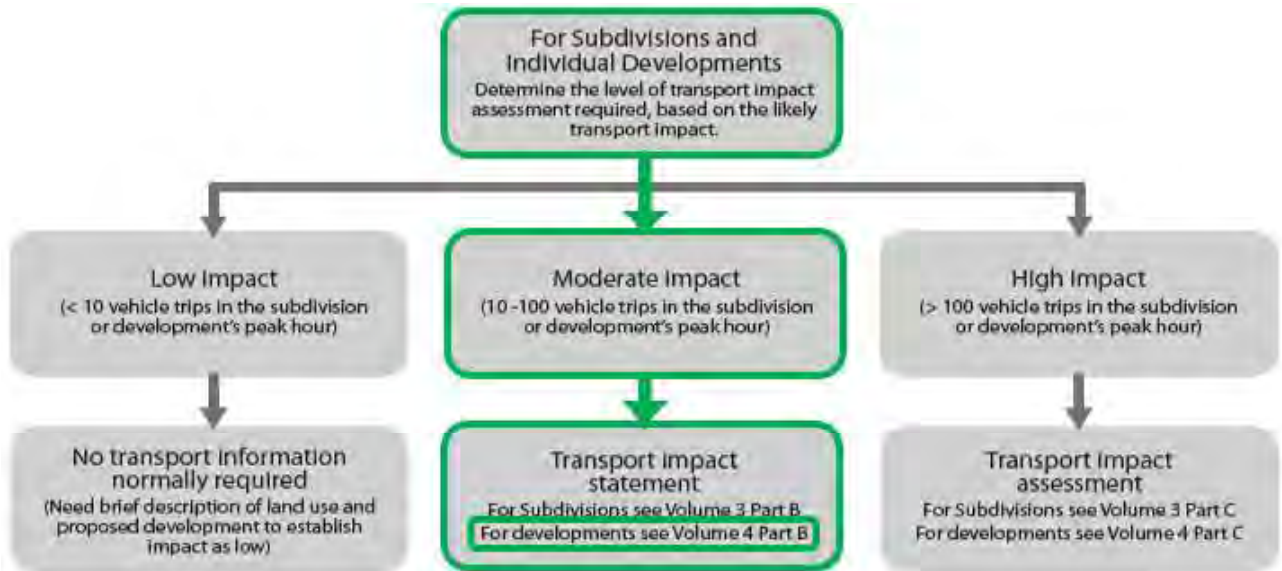


Figure 1 – Level of assessment required (Source Figure 2 WAPC Guidelines Vol 4)

Part B (Transport impact statement) of Volume 4 of the WAPC Guidelines states:

“A transport impact statement is a brief statement outlining the transport aspects of the proposed development. The intent of the statement is to provide the approving authority with sufficient transport information to confirm that the proponent has adequately considered the transport aspects of the development and that it would not have an adverse transport impact on the surrounding area.

It is envisaged that the transport impact statement will generally be from two to three pages up to several pages in length, but this will depend upon the number and nature of any specific issues that need to be addressed.

It is expected that most, if not all, of the information to be provided will be of a nontechnical nature, that is, will not require input from a specialist in transportation planning or traffic engineering. This will, however, depend upon the nature of the specific issues to be addressed and specialist technical input may be required on occasions.”

The City of South Perth’s *Policy P307 Family Day Care and Child Day Care Centres* ⁽³⁾ requires that the TIS “demonstrate that there are adequate vehicle access areas on site for parents dropping off and picking up children” and that “The drawings submitted in support of an application for planning approval of a Child Day Care Centre must demonstrate that all car parking bays are screened to the satisfaction of the City. The screening is to ensure that the bays are not visually dominant when viewed from the street and do not detract from the harmony of the streetscape. This screening is to be in the form of landscaping and may also include a screen wall.”

1.2 CHILD CARE CENTRE TRIP GENERATION

Local Authorities regularly request that trip generation for child care centres is based on the RTA NSW 'Guide to Traffic Generating Developments (RTA NSW)', as shown in Table 2 below.

Centre Type	Peak Vehicle Trips / Child		
	7.00-9.00am	2.30-4.00pm	4.00-6.00pm
Pre-school	1.4	0.8	-
Long-day care	0.8	0.3	0.7
Before/after care	0.5	0.2	0.7

Table 2 – RTA NSW child care centre Trip Generation Rates

The above rates are based on surveys undertaken in Sydney in 1992, i.e., over twenty years ago.

Section 7.10 (Development generation and distribution) of the Volume 4 of the WAPC Guidelines states "*The trip generating potential of the development is to be determined for the assessment years and time periods. The trips rates used should be based on surveys of comparable developments or extracted from recognised land use traffic generation databases.*"

In order to add value to the decision-making process regarding the selection of an appropriate trip generation rate for this proposed child care centre, the author surveyed child care centres in Kingsley (45 children), Bentley (62 children), Osborne Park (37 children) and Attadale (100 children) to determine staff and parent arrival and departure trips during the AM and PM peak hours. The results of these surveys are summarised in Table 3 below. The term 'Early Afternoon' refers to the child care centre afternoon peak time (i.e., 2.30 – 4.30 PM) which is generally earlier than the road network peak hour (i.e., 4.30-5.30 PM).

Surveyed Child Care Centre	Trips IN	Trips OUT	Trips IN/ Child	Trips OUT/ Child	Trips/ Child	Average
Attadale Morning	32	25	0.32	0.25	0.57	0.7
Bentley Morning	25	21	0.40	0.34	0.74	
Osborne Park Morning	18	15	0.50	0.42	0.92	
Attadale Early Afternoon	18	21	0.18	0.21	0.39	0.4
Bentley Early Afternoon	12	11	0.19	0.18	0.37	
Osborne Park Early Afternoon	11	10	0.30	0.28	0.58	

Table 3 – Surveyed Trips – various child care centres in Western Australia

The data in Table 3 suggests that using RTA NSW trip generation rates may result in an under-estimation of forecast trips during the early afternoon peak hour, i.e., 0.3. The local survey data indicates that a more appropriate early afternoon traffic generation rate would be 0.4. On this basis, **the adopted trip generation rates for this TIS are 0.8 for the morning peak hour and 0.4 for the early afternoon and afternoon peak hour.**

An estimation of peak hour traffic generation based on a maximum of 86 children attending the child care centre using the adopted traffic generation rates discussed on the previous page is shown in Table 4 below.

	Rate per child	No. Children	Total	Trips	
				IN	OUT
Morning Peak Hour	0.80	86	69	38	31
Early Afternoon Peak Hour	0.40	86	34	19	15
Afternoon Peak Hour	0.40	86	34	19	15

Table 4 – Estimation of Trip Generation

Analysis of the redacted sign-in and sign-out records for a child care centre in Osborne Park has been undertaken to obtain a better understanding of the peak drop-off and pick-up times at Child Care Centres in Western Australia, as has been done in Queensland. This data is provided as Figure 2 below.

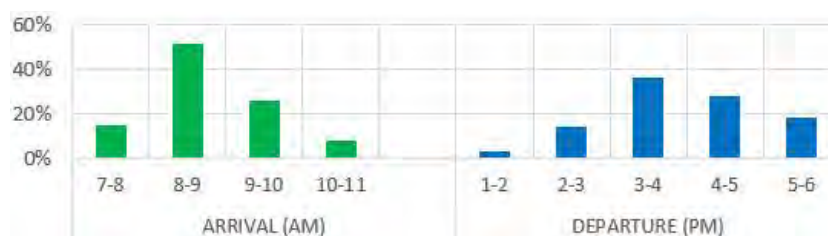


Figure 2 – Analysis of recorded sign-in and sign-out times for a child care centre in WA

The current site contains a single residential building on each of the 2 lots. Standard trip generation rates indicate that each of these are expected to currently generate a trip in each peak hour. Whilst this would normally be deducted from the forecast trips, this has not been done as the traffic surveys carried out at the Canning Hwy intersection with Birdwood Ave would not have included these trips if the origin/ destination points were south or east of the site.

Based on the above, the proposed development is forecast to result in an increase of up to 69 trips during the morning peak hour and up to 34 trips during the early afternoon and afternoon peak hours. The early afternoon peak hour has been included due to the proximity of the Collier Primary School and its generated traffic trips.

In accordance with the *WAPC Guidelines* (1) and the assessed level of impact, the extent of this assessment includes, as a minimum:

- The proposed development site.
- All roads fronting the site, for the extent of the site frontage plus 100 metres beyond the site.
- Pedestrian routes to the nearest bus stops (for all bus routes passing within 400 metres of the site).
- Pedestrian routes to nearest train station(s) (if within 800 metres).
- Pedestrian/ cycle routes to any major attractors within 400 metres, (five-minutes' walk) of the site.
- The area(s) likely to be affected by any site-specific issue(s).

The location of the development site in the context of the road, public transport, cycling and pedestrian network and 400 and 800 metre radii, is shown in Figure 3 on the following page. The Subject Site is currently zoned "Residential" in the *City of South Perth Town Planning Scheme 6* (4) and "Up to R20" in the [LPS](#).

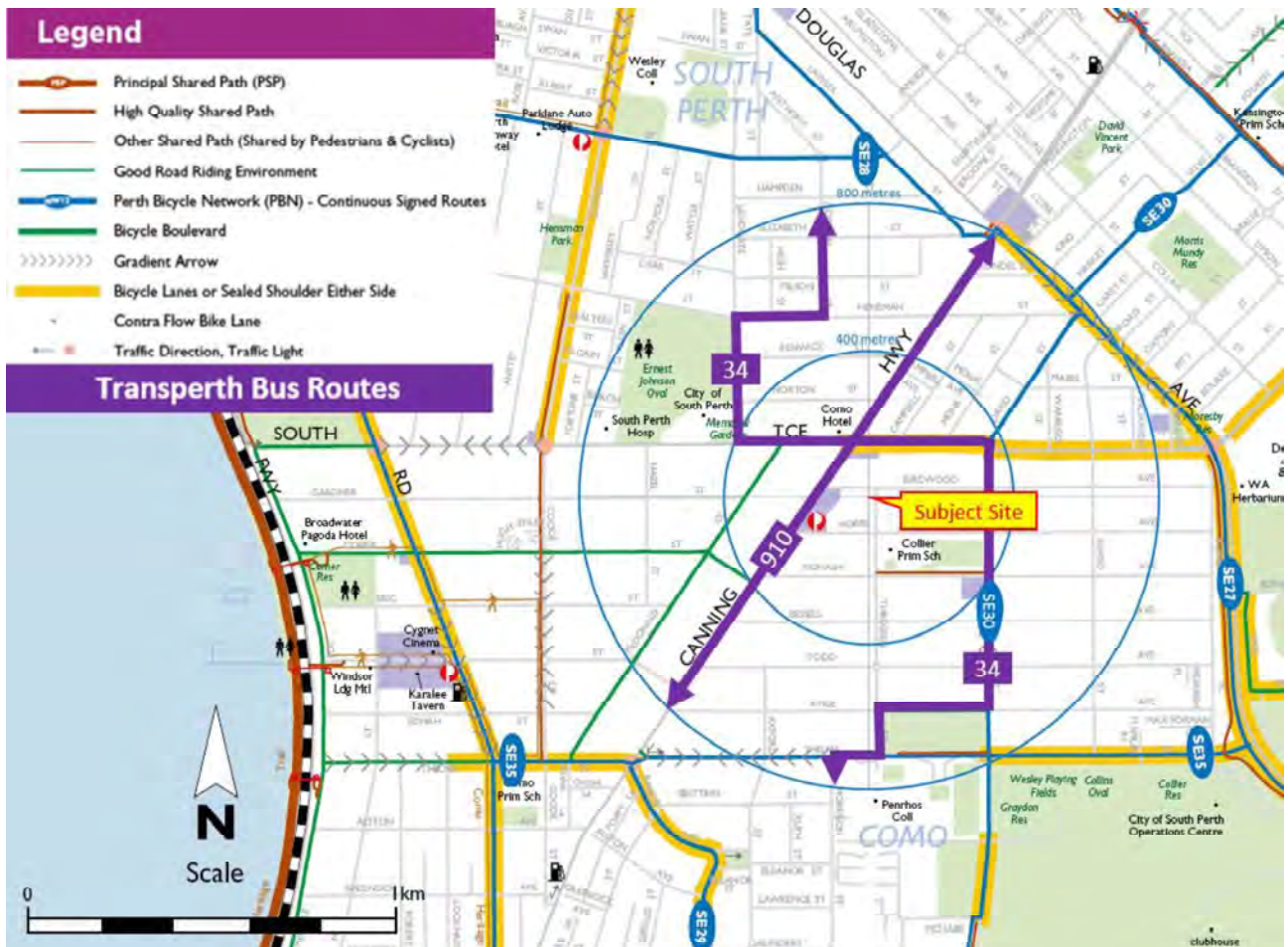


Figure 3 – Subject Site location, road, public transport and cycling network within 400 m and 800 m radius

2 PROPOSED DEVELOPMENT

It is proposed to demolish the existing single residential dwellings on each lot and construct a compliant Child Care Centre for 86 children with parking for 24 vehicles, as shown in the Development Drawings included in **Appendix A**, Aerial Photograph 1 and Figure 4 below.



Aerial Photograph 1 – Existing site (14 October 2023)



Figure 4 – Proposed Site showing Building, Car Park, and Access off Throssell St

3 VEHICLE ACCESS AND PARKING

The Development Drawings (**Appendix A**) show that all vehicular access (including bicycle and pedestrian) is proposed off Throssell St, a Local Road. This results in arrival and departure routes as shown in Figure 5 below. The indicated distribution of origin/ destination routes of 20% to each of the five roads shown in Figure 5 is based on a combination of the following:

- Observed movements during the road network AM and PM peak hours (0745-0845 & 1615-1715) on Monday 27 November 2023,
- Potential for shared trips to Collier Primary School and the Commercial Precinct,
- Reluctance to turn right out of Birdwood Ave and Hobbs Ave into Canning Hwy,
- The likely catchment areas – i.e., residential areas in all directions (north, south, east, and west).

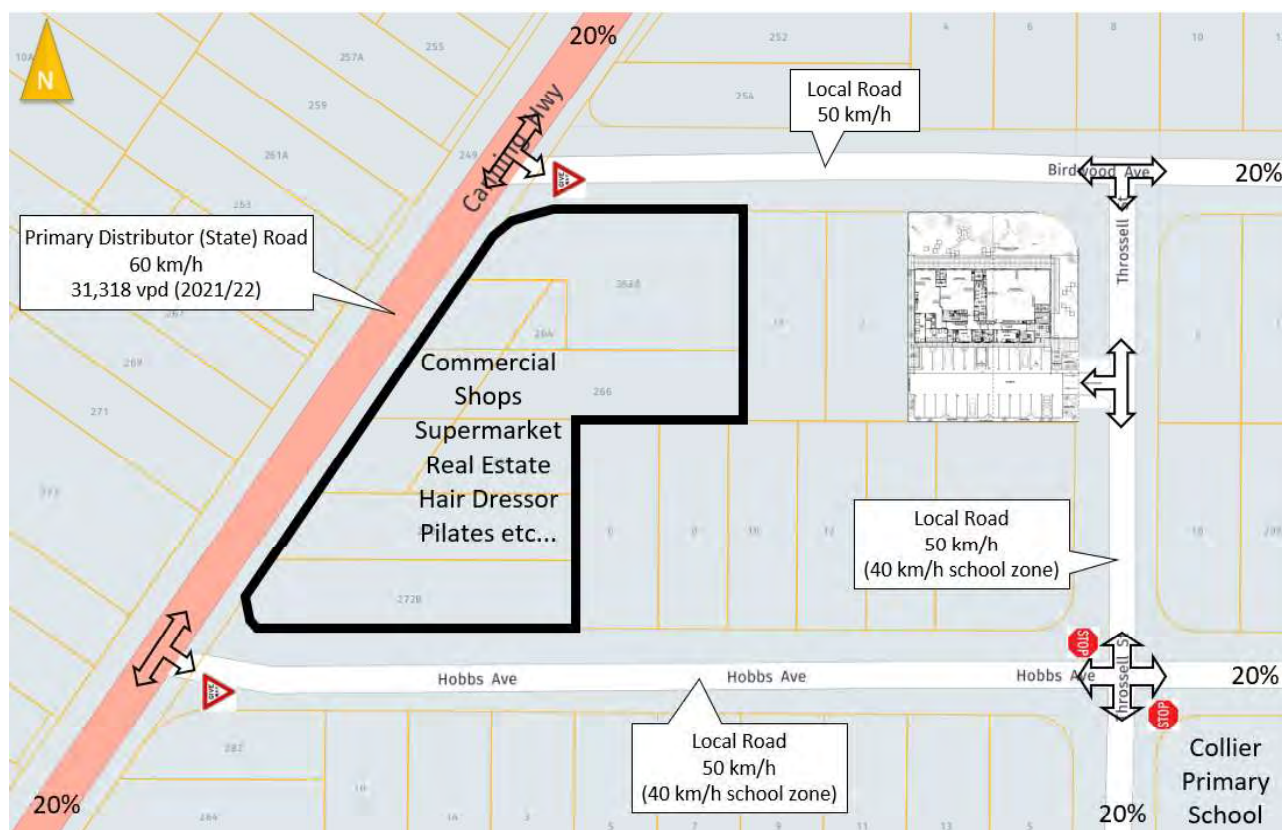


Figure 5 – Proposed vehicular access and parking (including expected origin/ destination route percentages)

Figure 5 on the previous page, and the Development Drawings (**Appendix A**) show it is proposed to provide 24 on-site parking bays (2.5 m x 5.5 m) including 1 bay designated for use by people with a disability (2.5 m x 5.5 m plus adjacent shared space 2.3 m x 5.5m).

Table 6 (Car and Bicycle Parking) of City of South Perth's *TPS6* requires a **minimum** provision of 1 car parking bay per required employee plus 1 car parking bay per 10 children for use by parents/ carers, as shown in the extract provided as Figure 6 below.

Uses	Minimum Required Parking Bays	
	Cars	Bicycles
Child Day Care Centre	1 per required employee; plus 1 per 10 children permitted to receive care	Not applicable

Figure 6 – Extract from City of South Perth's *TPS6*

An assessment of the required on-site parking bays and the number of on-site parking bays proposed indicates compliance, as shown in Table 5 below.

Parking Bay Designation	Required	Provided
Employee	13	15
Visitor/ parent/ carer	9	8
Person with a disability		1
Total	22	24

Table 5 – Required and provided parking bays

The layout of the parking area has been assessed against the dimensions in *AS/ NZS 2890.1* ⁽⁵⁾ and is compliant in this respect (refer **Appendix B**).

Sight lines to and from the Proposed Access Driveway have been checked on-site and exceed the 45 m specified in Figure 3.2 of *AS 2890.1* ⁽⁵⁾, based on the frontage road speed of 50 km/h and Minimum *SSD*, as shown in Figure 7 below and Photograph 1 and Photograph 2 on the following page.



Figure 7 – Clear 45 m sight distance to and from access driveway



Photograph 1 – Looking north from proposed Access Driveway off Throssell St



Photograph 2 – Looking south from proposed Access Driveway off Throssell St

Table 6 of *TPS6* indicates that there is no statutory requirement for bicycle parking facilities to be provided at Child Care Centres. Experience elsewhere is that some staff may cycle to and from the centre. Local residents using the child care centre may also chose to cycle to and from the centre. There is also a trend towards the use of eRideable devices (refer **Section 9**) and users of these devices would benefit from secure parking facilities. The development drawings show it is proposed to provide four bike racks near the entrance.

4 PROVISION FOR SERVICE VEHICLES

The Design Vehicle in the Australian Standards is the Small Rigid Vehicle (SRV) as shown below. It has a clearance height of 3.5 m and a design turning radius of 7.1 m.

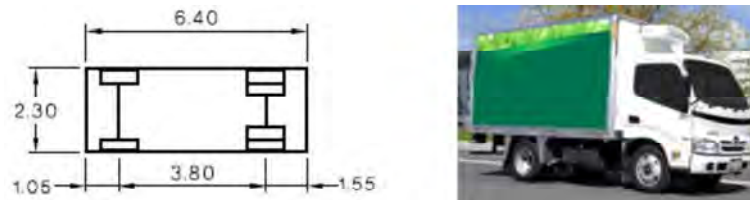


Figure 8 – SRV Dimensions and example

The Development Drawings do not provide a specific area for servicing. This is common practice at Child Care Centres, particularly in the City of South Perth (e.g., Jellybeans Child Care @ 219 Labouchere Rd, Little Bright Explorers @ 10 Barker Ave Como and Canning Bridge Early Learning Centre @ 113 Robert St, Como).

The reason for not providing a specific loading bay at Child Care Centres is that carer/ visitor bays within the parking area are generally empty outside the morning drop-off and afternoon pick up times and can be used for servicing at these times. The parking area must however allow for the SRV (Service Vehicle) to enter in a forward direction, reverse into empty bays on the building side, and leave the site in a forward direction. An example of the required space for this manoeuvre is provided as Figure 9 below.

Refer separate Waste Management Plan (WMP) for details regarding on-site waste collection.

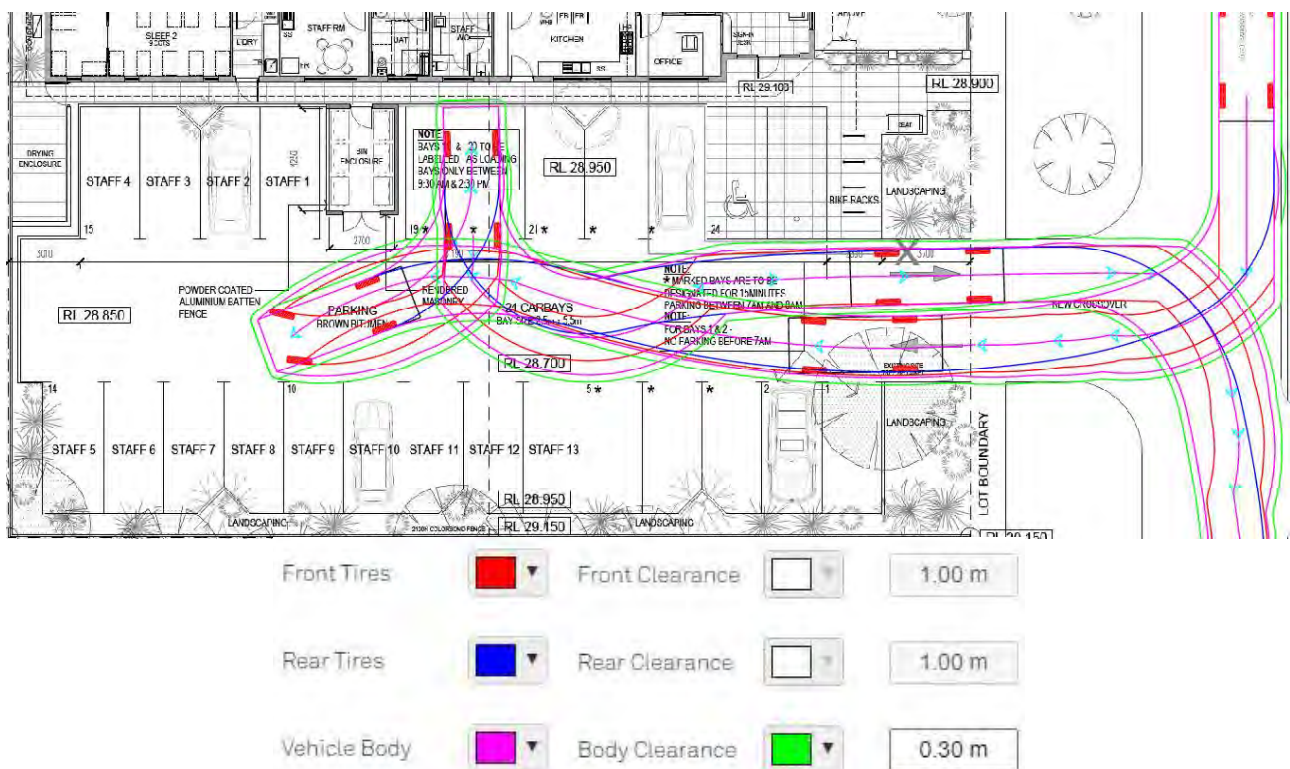


Figure 9 – SRV Manoeuvre: Forward IN and Forward OUT Swept Paths and Settings



5 HOURS OF OPERATION

The proposed hours of operation are 7.00 AM to 6.30 PM weekdays. It is normal practice for some staff to arrive just prior to and depart just after the operating hours to prepare for opening and to ensure all children and staff have left prior to locking up the centre for the night.



6 TRAFFIC VOLUMES AND VEHICLE TYPES

As indicated in **Section 1.2**, the total forecast trips for the proposed development during the road network AM and PM peak hours are 57 and 28 respectively, as shown in Table 6 below. Vehicle types are predominantly light vehicles (i.e., cars & 4WDs).

	Rate per child	No. Children	Total	Trips	
				IN	OUT
Morning Peak Hour	0.80	86	69	38	31
Early Afternoon Peak Hour	0.40	86	34	19	15
Afternoon Peak Hour	0.40	86	34	19	15

Table 6 – Forecast trips

There is no known traffic data for the local roads, i.e., Birdwood Ave, Throssell St or Hobbs Ave. Main Roads WA data for Canning Hwy south of South Tce indicates it carries 31,118 vehicles per weekday with 6.1% heavy vehicles. It also indicates that the morning peak hour is between 7.45 and 8.45 AM with a two-way volume of 2,524 vehicles and that the afternoon peak hour is between 4.15 and 5.15 PM with a two-way volume of 2,764 vehicles. The weekly data from the Traffic Signals at Canning Hwy/ South Tce between 19th and 25th June 2023 (i.e., after the opening of the Farmer Jack's Supermarket in July 2022) indicates that Monday peak hour volumes are indicative of the average weekday volumes.

In the absence of any data for Birdwood Ave and Hobbs Ave, the author undertook video surveys of traffic at the Canning Hwy/ Birdwood Ave and Canning Hwy/ Hobbs Ave intersections between 6.30 AM and 7.00 PM on Monday 27 November 2023. The AM and PM peak hour data from the video surveys is provided in Figure 10 to Figure 13 on the following pages.

Transport Impact Statement

Proposed Child Care Centre (86 Places), Lots 88 & 89 (#5 & 7) Birdwood Ave, Como
Prepared for Greg Davies Architects & Byblos Constructions



Job No. 48101
Client Greg Davies Architects
Suburb Como
Location Birdwood Ave/ Canning Hwy
Control Give-way 'T'
Day/Date Monday, 27 November 2023
Weather Fine - scattered clouds
Description Classified Intersection Count
Increments 15 minutes



Intersection Data
i3 consultants WA video survey

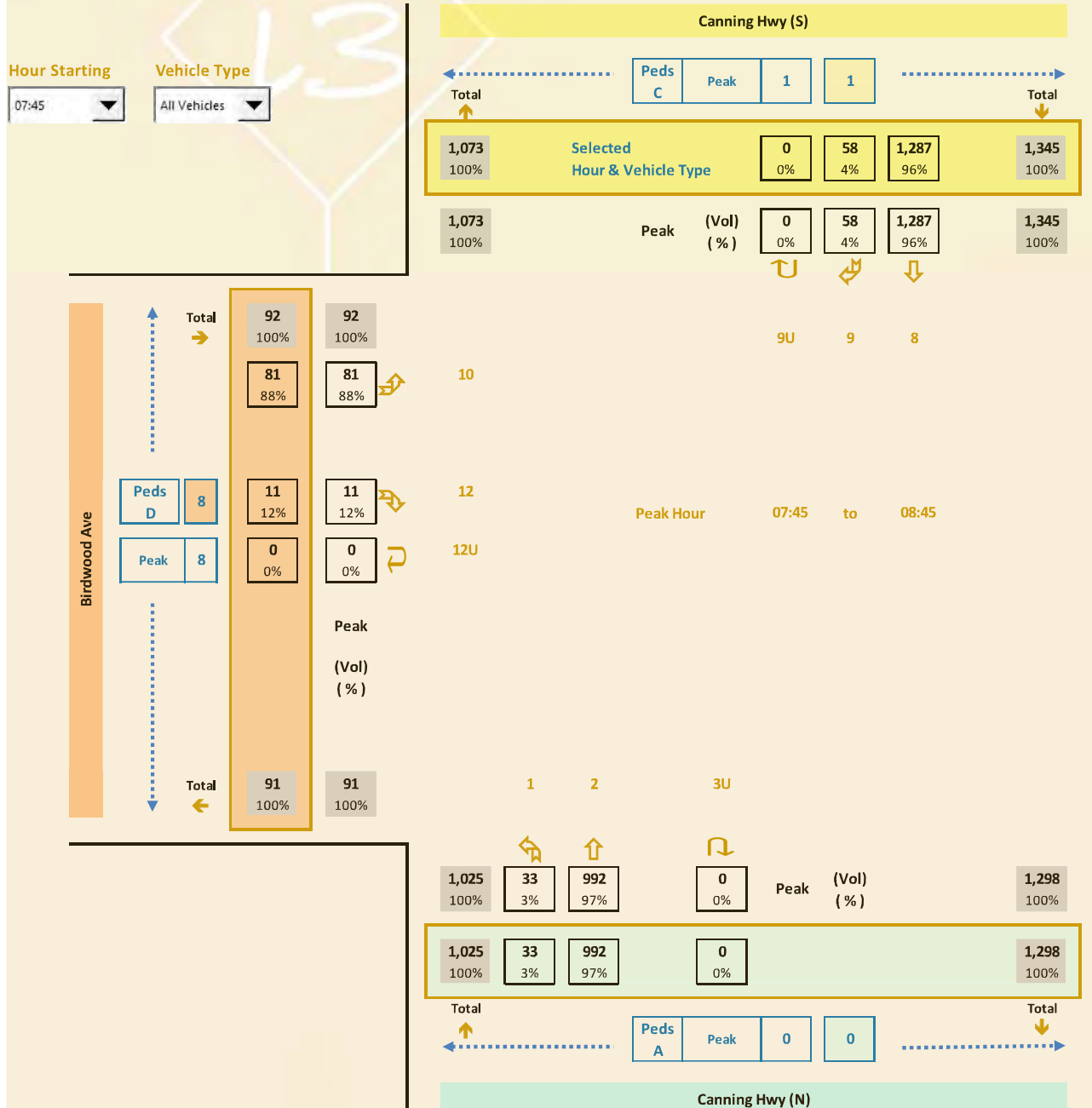


Figure 10 – Existing (27 Nov 2023) Birdwood Ave/ Canning Hwy Weekday AM Peak Hour Volumes

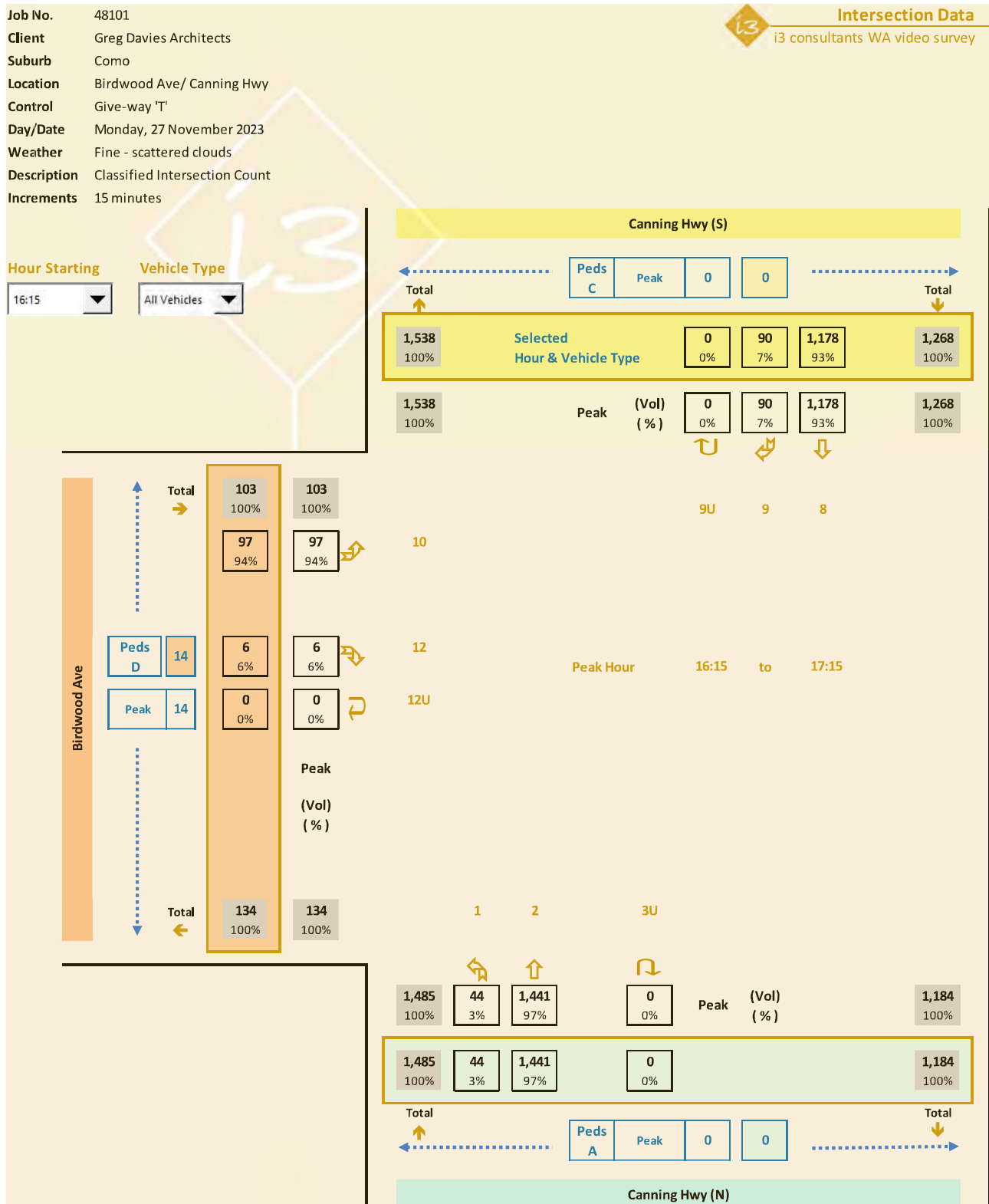


Figure 11 – Existing (27 Nov 2023) Birdwood Ave/ Canning Hwy Weekday PM Peak Hour Volumes

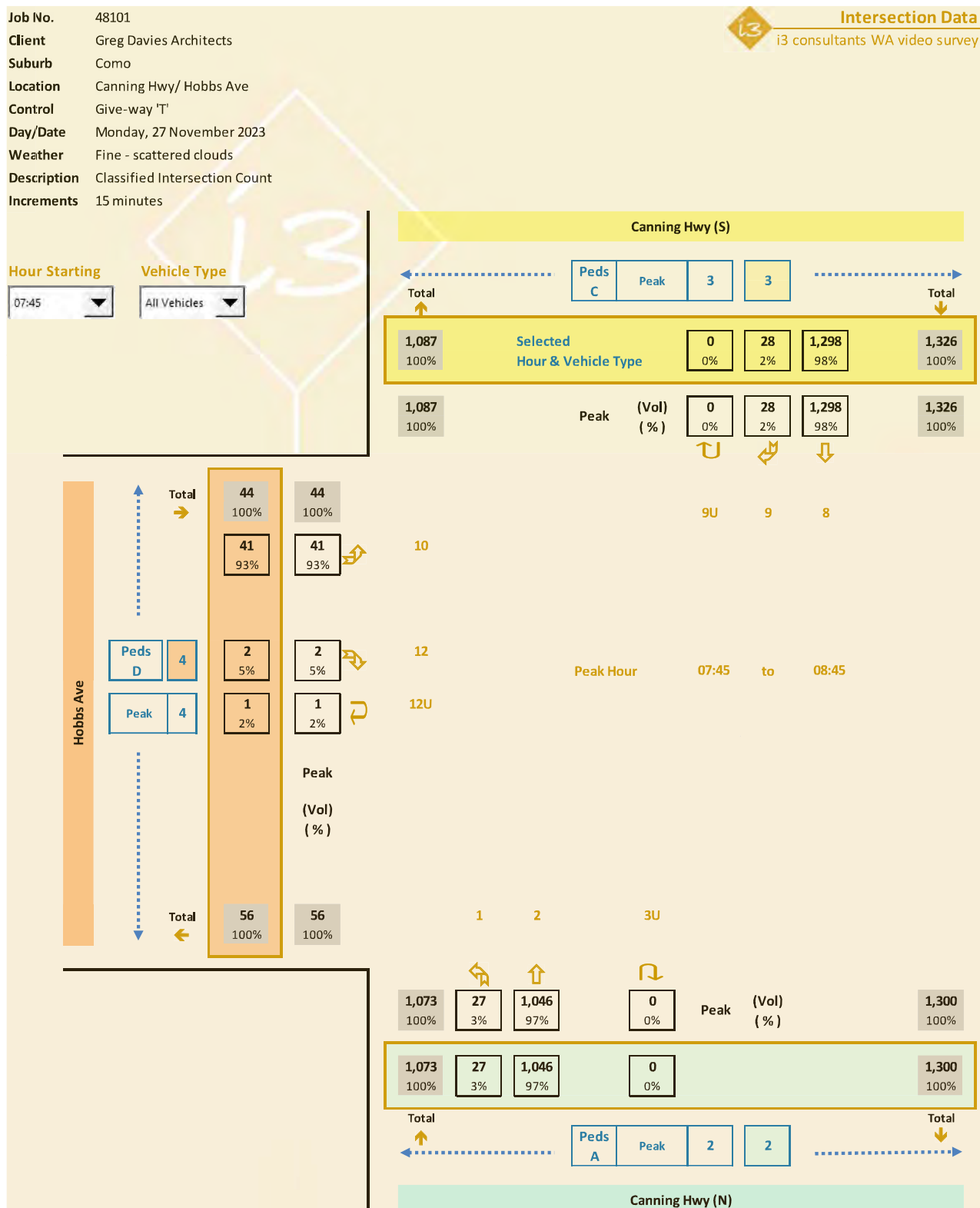


Figure 12 – Existing (27 Nov 2023) Canning Hwy/ Hobbs Ave Weekday AM Peak Hour Volumes

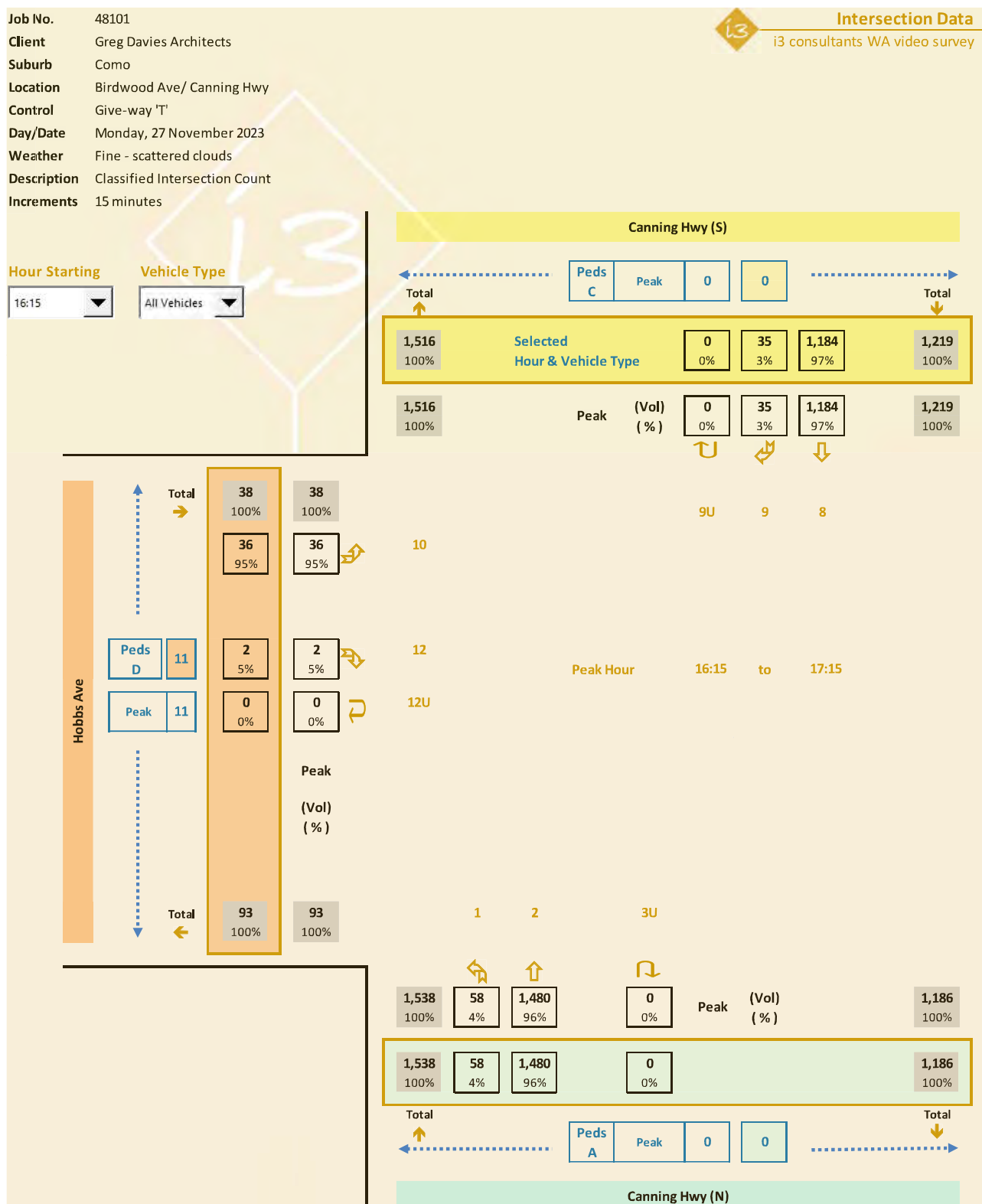


Figure 13 – Existing (27 Nov 2023) Canning Hwy/ Hobbs Ave Weekday PM Peak Hour Volumes

The forecast peak hour trips to and from the proposed Child Care Centre during the morning peak hour and the afternoon school peak hour have been assigned to the road network as described in **Section 3**. This results in the forecast trip assignment and trip distribution diagrams provided as Figure 14 and Figure 15 on the following pages. Small discrepancies in volume totals are due to rounding up in the spreadsheet.

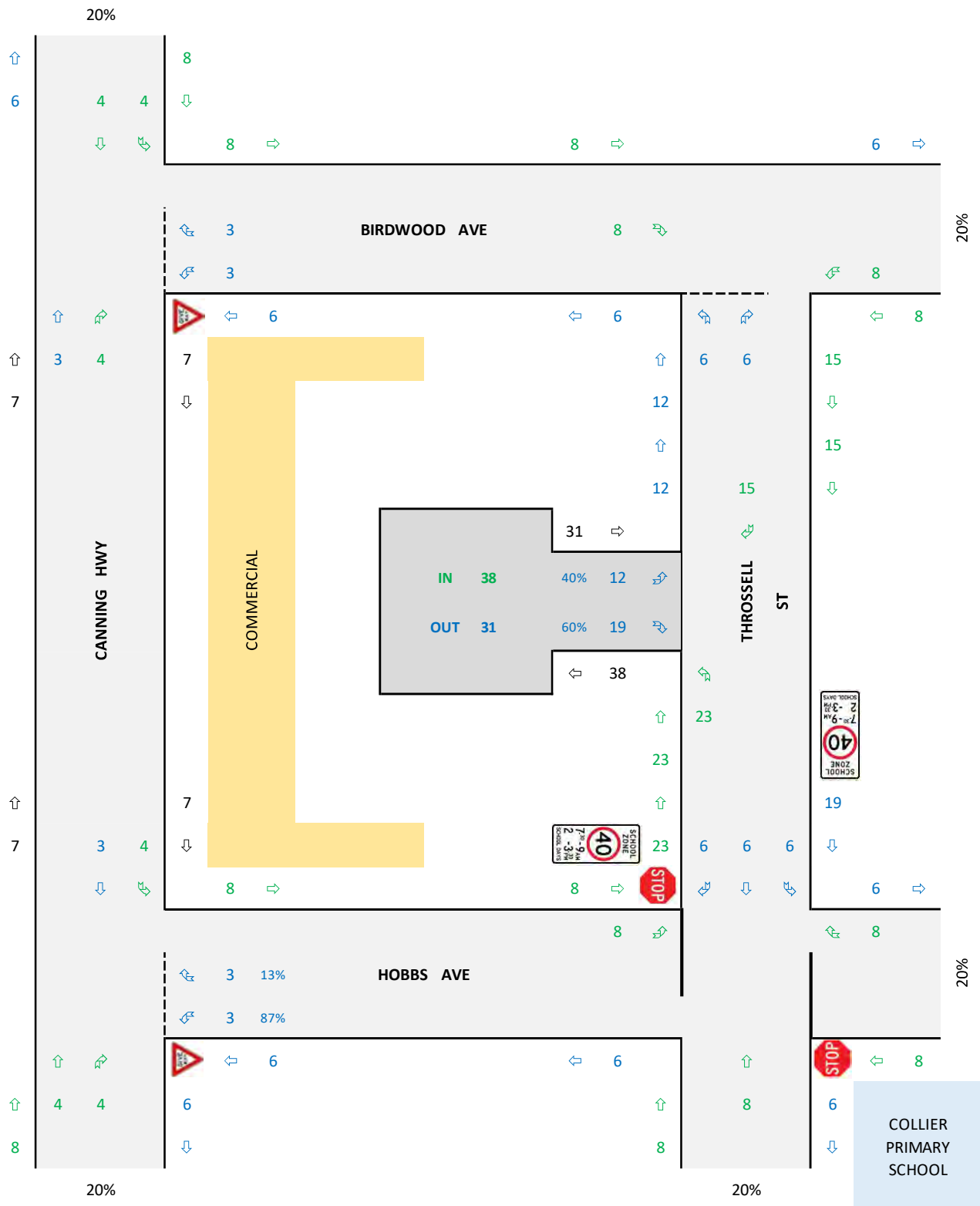


Figure 14 – Forecast Child Care Centre trip assignment for the morning peak hour

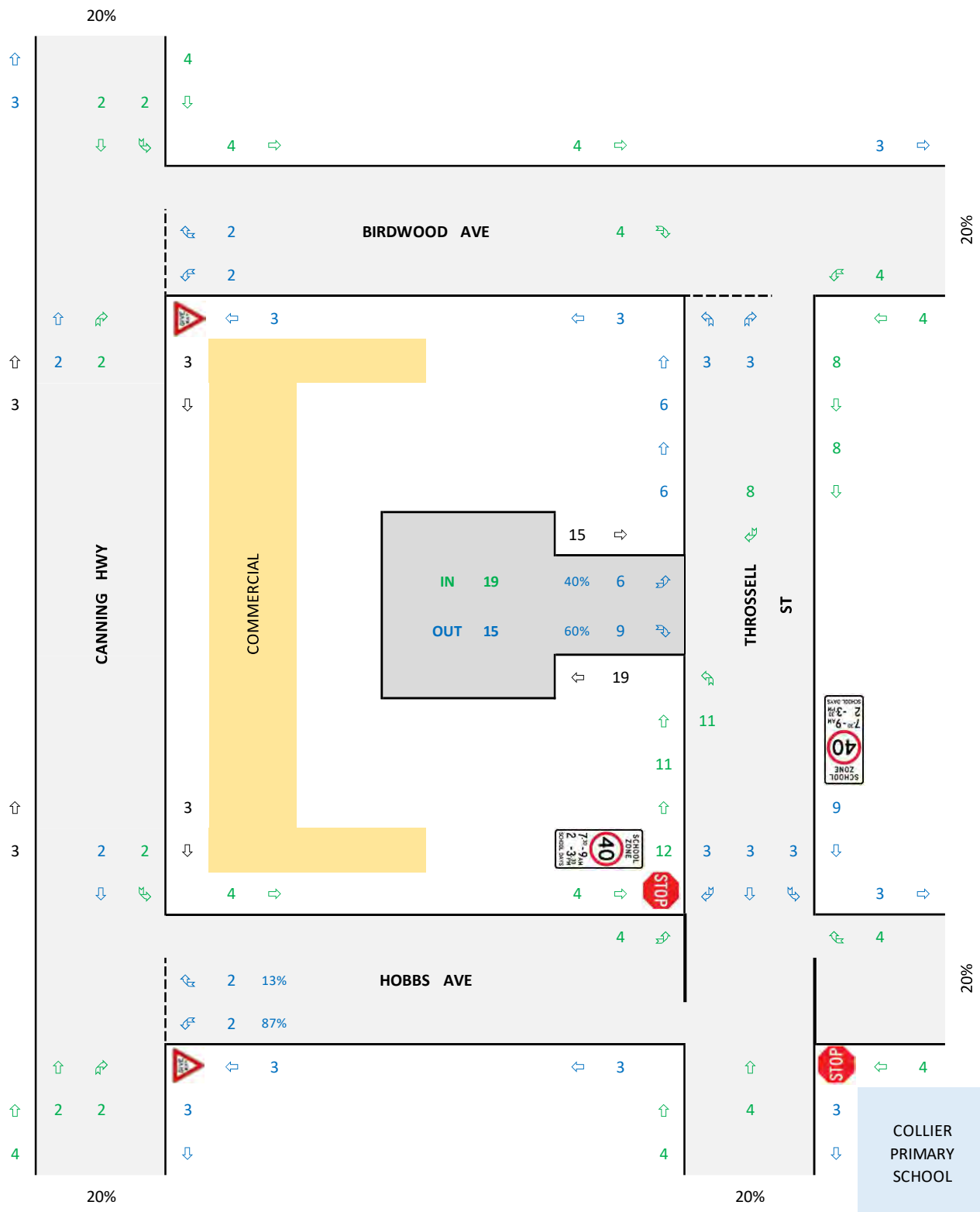


Figure 15 – Forecast Child Care Centre trip assignment for the early afternoon and afternoon peak hours

Figure 14 and Figure 15 indicate that the maximum turning movement volume into or out of Birdwood Ave or Hobbs Ave at Canning Hwy is 3. This represents 1 additional turning movement every 20 minutes and is considered negligible.

The City of South Perth has indicated that Main Roads WA may restrict turning movements at the Birdwood Ave/ Canning Hwy intersection to left-in/ left-out at some time in the future. In the event that this occurs, the likely trip assignment for the Child Care Centre is as shown in

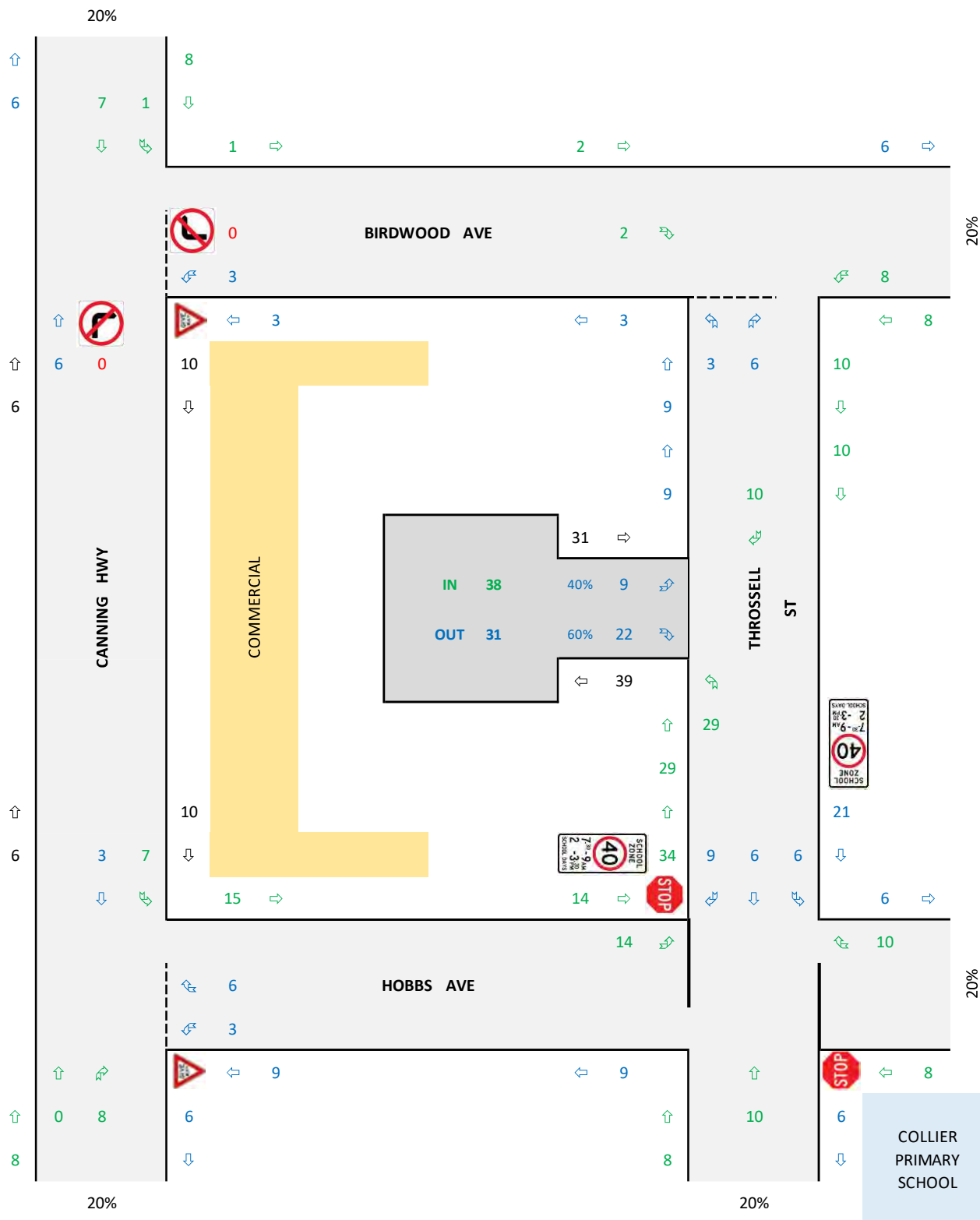


Figure 16 – Forecast Child Care Centre trip assignment: AM Peak Hour with Birdwood Restrictions



Figure 17 – Forecast Child Care Centre trip assignment: PM Peak Hour with Birdwood Restrictions

As indicated in the Trip Assignment diagrams with the right turn prohibited IN and OUT of Birdwood Ave at Canning Hwy, the forecast hourly volumes at the Canning Hwy/ Hobbs Ave and Birdwood Ave/ Canning Hwy intersection remain low (i.e. less than 10 in an hour) and are therefore considered minimal in this respect.

7 TRAFFIC MANAGEMENT ON FRONTAGE STREETS

The layout of the frontage roads in the vicinity of the subject site is best described through the aerial photograph provided as Figure 5 on page 10 and the annotated Photograph 3 and Photograph 4 below.



Photograph 3 – Looking north on Throssell St frontage to proposed Child Care Centre and access (on left)



Photograph 4 – Looking west on Birdwood Ave from Throssell St with proposed Child Care Centre on left

8 PUBLIC TRANSPORT ACCESS

The nearest bus stops to the subject site are located on Canning Hwy north of Birdwood Ave and on South Tce west of Canning Hwy, as shown in Figure 18 below. These bus stops are served by Transperth routes 910 and 34 which travel between Perth Bus station and either Fremantle Stn (910) or Curtin University (34) with frequent services throughout the day, i.e., the operating hours of the child care centre.



Figure 18 - Nearest bus stops and routes

9 CAR, PEDESTRIAN, CYCLE, PUBLIC TRANSPORT AND eRIDEABLE NETWORK AND ACCESS

There are paths on both sides of Birdwood Ave, Throssell St and Canning Hwy with informal pedestrian crossing facilities on Throssell St at Birdwood Ave, on Birdwood Ave at Canning Hwy and on Canning Hwy at South Tce.



Photograph 5 – Pedestrian refuge island crossing on Birdwood Ave east of Canning Hwy (screenshot from traffic survey video)

Technology is changing rapidly, and more people are using eScooters and other electric rideable devices for commuting and recreational purposes. New rules have been introduced in WA accommodate these road users on the existing road and path network. It is possible that some staff and parents or carers will use these devices.

eRideables include:

- A small electric rideable device with at least one wheel
- Is less than 125cm long, 70cm wide and 135cm high
- Is 25kg or less and not capable of travelling faster than 25km/h on level ground

The new road rules allow for eRideables to be ridden on footpaths, bicycle paths, shared paths and local roads without centre lines and a speed limit of 50km/h or less. They are not allowed to be ridden on a carriageway with a dividing line, a carriageway with a speed limit exceeding 50km/h or a one-way carriageway with more than one marked lane. A map showing where eRideables can be ridden on the roads in the vicinity of the proposed child care centre is provided as Figure 19 on the following page.

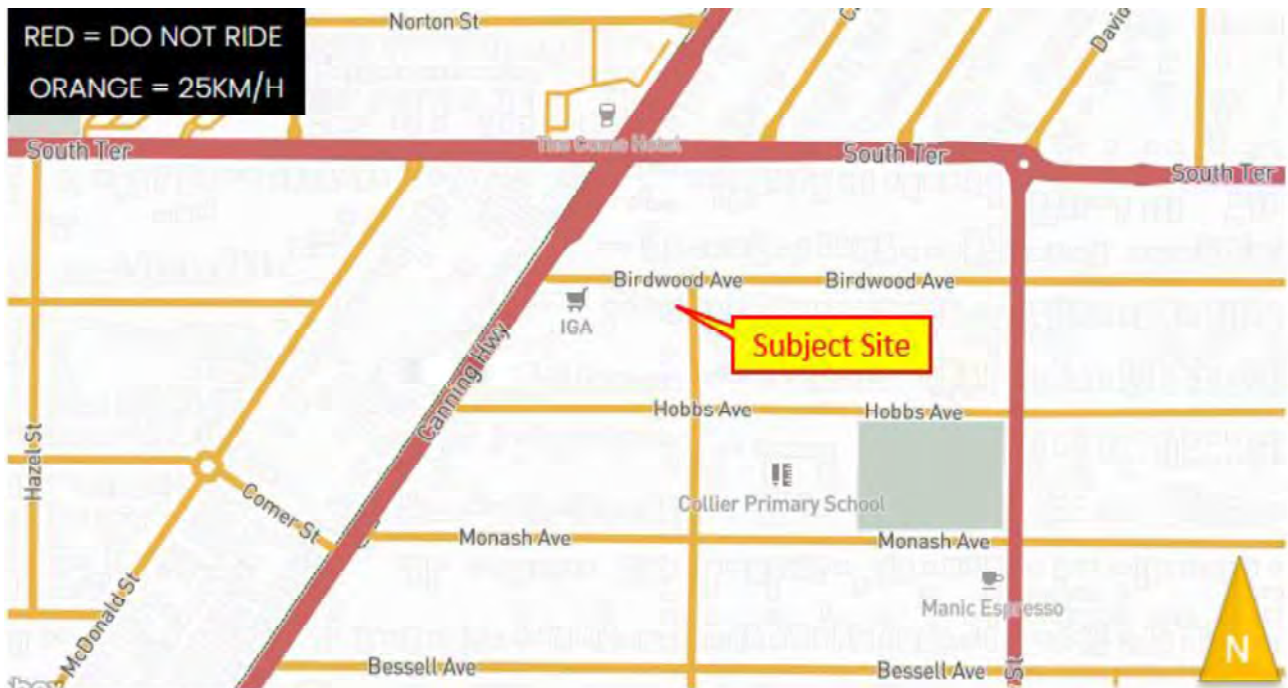


Figure 19 – eRideable permissible road use (all paths can be used)

Staff and parents/ carers arriving by car will park in the car park and walk to the front entrance via a dedicated path, as shown in the Development Drawings in **Appendix A**.

Parents and staff arriving by bicycle or eRideables are expected to use orange roads shown in Figure 19 above and the paths on the red roads, crossing where necessary via the pedestrian crossing facilities described on the previous page.

Facilities for the secure parking of 8 bicycles or eRideables are provided onsite between the pedestrian entrance and the car park entrance off Throssell St.

Parents and staff arriving by public transport, i.e., bus, will arrive at either of the bus stops located close to the site shown in Figure 18 on page 25 and travel to the site via the paths and pedestrian crossing facilities described.



10 SITE SPECIFIC ISSUES

This version of the *TIS* (F2) takes into account the opening of 'Farmer Jacks' supermarket on the east side of Canning Hwy between Birdwood Ave and Hobbs Ave in June 2022 that the previous version did not as it was under construction at this time. It was stated in the previous version that this development was not expected to have any impact on the assessed traffic and parking for the proposed Child Care Centre and this has been confirmed in the updated data and assessment.

11 SAFETY ISSUES

Analysis of the five-year crash record ending 31 December 2022 for Birdwood Ave between Canning Hwy and Throssell St, Throssell St between Birdwood Ave and Hobbs Ave and Hobbs Ave between Throssell St and Canning Hwy has indicated that:

- ▶ There have been no reported crashes on Throssell St except two property damage only crashes at the Birdwood intersection,
- ▶ There have been 4 reported crashes on Birdwood Ave, excluding the two crashes at the Throssell St intersection. All these crashes occurred at the Commercial Precinct end and involved either cars manoeuvring into or out of parking bays or rear end crashes. There were no reported mid-block crashes outside the proposed child care centre,
- ▶ There have been 4 reported crashes on Hobbs Ave. All these crashes occurred at the Commercial Precinct end and involved either cars manoeuvring into or out of parking bays or rear end crashes.
- ▶ There were 11 reported crashes at the Birdwood Ave/ Canning Hwy intersection, five of which were injury crashes. All of these involved vehicles waiting to turn right into Birdwood Ave, i.e. none were associated with turning right out of Birdwood Ave.
- ▶ There were no injury crashes reported at the Hobbs Ave/ Canning Hwy intersection. The 3 Property Damage Only crashes were all different, i.e., 1 rear-end, 1 sideswipe and 1 right angle.

The crash record, as well as observations of sight lines and driver behaviour on-site, does not raise any road safety concerns with respect to the proposed child care centre.



Figure 20 – Reported Crashes around proposed development block (5 years to 30 Dec 2022)



12 RECOMMENDATION

This Transport Impact Statement has determined that the amount of traffic likely to be generated by the proposed child care centre will have a minimal impact on the capacity of the road system in the locality with minimal effect on traffic flow and safety.

On the basis of the above, it is recommended that the proposed child care centre is approved as designed.

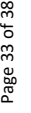


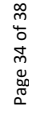
References

1. **Western Australian Planning Commission.** *Transport Impact Assessment Guidelines*. Department of Planning, Government of Western Australia. Perth, Western Australia : Western Australian Planning Commission, August 2016. p. 182, Revised August 2016. The current version of the TIA guidelines (August 2016) has been endorsed by the WAPC.
2. **Government of Western Australia.** *Planning and Development (Local Planning Schemes) Regulations 2015*. Perth : Government of Western Australia, As at 01 Jul 2016. p. 205. Version 00-d0-02.
3. **City of South Perth.** *Policy P307 Family Day Care and Child Day Care Centres*. Development Services, City of South Perth. South Perth : City of South Perth, March 2016. p. 3, Strategic Direction Policy | Environment (Built and Natural). The objective of this Planning Policy is to ensure that Family Day Care and Child Day Care Centres on zoned land do not adversely impact on neighbouring properties due to noise penetration or adverse visual impact on the streetscape.
4. —. *City of South Perth Town Planning Scheme No. 6 | Scheme Text*. City of South Perth. South Perth : City of South Perth, Updated 24 December 2021. p. 207, Town Planning Scheme. Last updated on 24 December 2021 to include Scheme Amendment No. 61.
5. **Standards Australia.** *AS/NZS 2890.1 - 2004 Parking facilities Part 1: Off-street car parking*. Sydney : Standards Australia/ Standards New Zealand, 2004. p. 77. (Incorporating Amendment No 1). ISBN 0 7337 5742 1.
6. —. *AS 2890.2-2002 Parking facilities Part 2: Off-street commercial vehicle facilities*. Second. Sydney : Standards Australia International, 2002. p. 49. Vol. 2. ISBN 0 7337 4870 8.

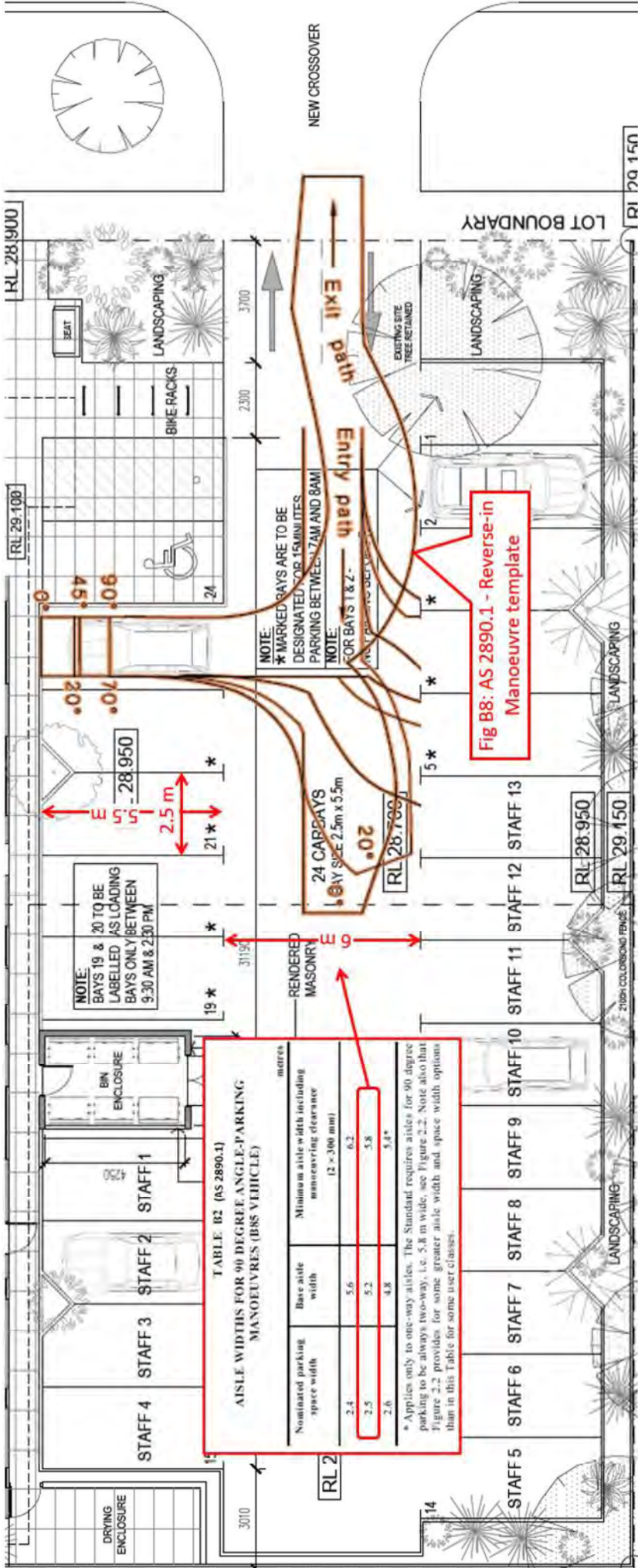


APPENDIX A DEVELOPMENT DRAWINGS





APPENDIX BCAR PARK ASSESSMENT AGAINST AS 2890.1



APPENDIX CWAPC TRANSPORT IMPACT STATEMENT CHECKLIST (INDIVIDUAL DEVELOPMENT)

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

ITEM	PROVIDED	COMMENTS/PROPOSALS
Proposed development		
existing land uses	✓	Section 1, Page 7
proposed land use	✓	Section 2, Page 9
context with surrounds	✓	Figure 3, page 8
Vehicular access and parking		
access arrangements	✓	Figure 5, page 10
public, private, disabled parking set down/pick up	✓	Appendix A & B
Service vehicles (non-residential)		
access arrangements	✓	Section 4, page 13
on/off-site loading facilities	✓	Figure 9, page 13
Service vehicles (residential)		
rubbish collection and emergency vehicle access		
Hours of operation (non-residential only)	✓	Section 5, page 14
Traffic volumes		
daily or peak traffic volumes	✓	Section 6, pages 15-19
Type of vehicles (for example, cars, trucks)	✓	Section 6, page 15
Traffic management on frontage streets	✓	Section 7, page 20
Public transport access		
nearest bus/train routes	✓	Section 8, page 21
nearest bus stops/train stations	✓	Section 8, page 21
pedestrian/cycle links to bus stops/ train station	✓	Figure 18, page 25



ITEM	PROVIDED	COMMENTS/PROPOSALS
Pedestrian access/ facilities		
existing pedestrian facilities within the development (if any)	NA	
proposed pedestrian facilities within development	✓	Appendix A
existing pedestrian facilities on surrounding roads	✓	Section 9, Pages 22 & 23
proposals to improve pedestrian access	NA	
Cycle access/facilities		
existing cycle facilities within the development (if any)	NA	
proposed cycle facilities within development	✓	Appendix A
existing cycle facilities on surrounding roads	✓	Section 9, Pages 22 & 23
proposals to improve cycle access	NA	
Site specific issues	✓	Section 10, page 24
Safety issues	✓	Section 11, page 25
identify issues	NA	
remedial measures	NA	

Proponent's name**Company**

Greg Davies Architects & Byblos Constructions

Date**Transport assessor's name**

David Wilkins

Company

i3 consultants WA

Date 7 December 2023

PROPOSED CHILD CARE CENTRE (86 PLACES)

LOTS 88 & 89 (#5 & 7) BIRDWOOD AVE, COMO

WASTE MANAGEMENT PLAN



Prepared by i3 consultants WA
PO Box 1638 Subiaco WA 6904
08 9467 7478
dwilkins@i3consultants.com

1 WASTE GENERATION

In the absence of specific waste generation data for Child Care Centres in the WALGA *Commercial and Industrial Waste Management Plan Guidelines* ⁽¹⁾, waste generation has been determined using the *City of Melbourne's 2015 Waste Generation Rates* data ⁽²⁾ as this includes Child Care Centres and appears to be the most up-to-date data available in Australia. The rates and assessed waste generation for both general waste and co-mingled recyclable waste is shown in Table 1 below.

City of Melbourne Garbage Generation				
Land Use	Rate	Unit	litres/ week	
Child Care Centre	350 l per 100 m ² floor area/ week	547	1,914	

City of Melbourne Recycling Generation				
Land Use	Rate	Unit	litres/ week	
Child Care Centre	350 l per 100 m ² floor area/ week	547	1,914	

Table 1 – General and Recyclable waste generation

Child Care Centres can vary the mix between general and co-mingled recyclables through management and operational practices (e.g., use cloth nappies instead of disposable and encourage parents to provide food and snacks without packaging). The typical waste profile for a Child Care Centre is shown in Figure 1 below.

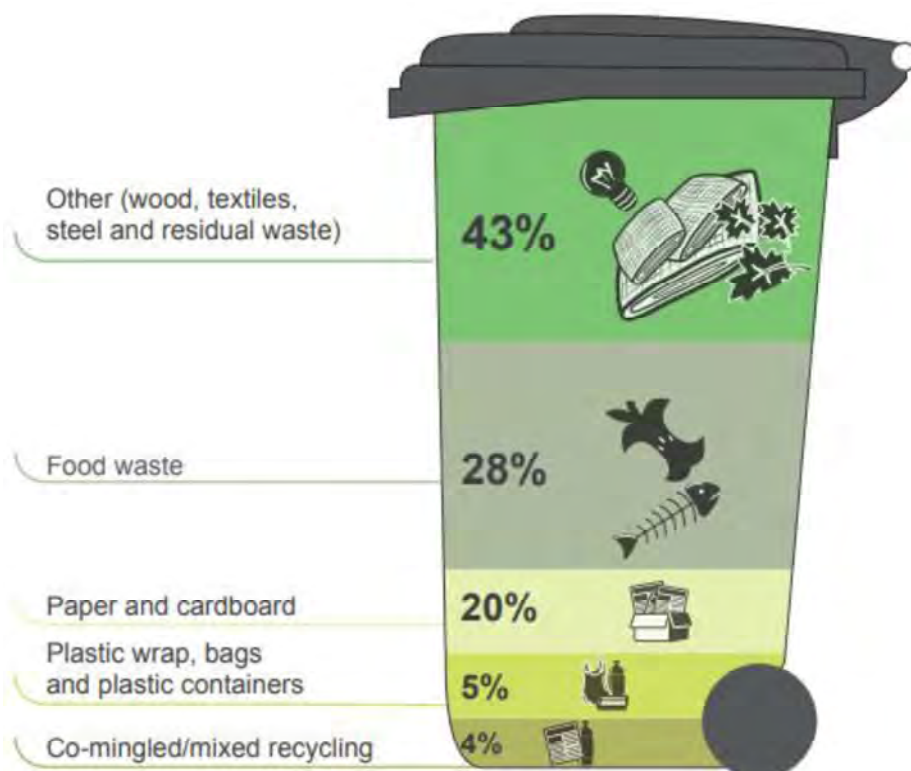


Figure 1 – Typical waste profile of a Child Care Centre (% weight of waste generated) NSW EPA ⁽³⁾

2 GENERAL

It is proposed to demolish the existing single residential dwellings on each lot and construct a compliant Child Care Centre for 86 children with parking for 24 vehicles, as shown in Error! Reference source not found. and Figure 2 below.



Aerial Photograph 1 – Existing site (14 October 2023)



Figure 2 – Proposed Site showing Building, Car Park, and Access off Throssell St

The assessed waste collection vehicle arrival and departure routes and swept paths to and within the proposed development, the location of the access driveway and bin store area is shown in Figure 3 on the following page. The waste collection vehicle enters the site in a forward direction and drives toward the rear of the car park to perform a three-point turn to return to the bin store and leave the site in a forward direction. This requires the site to be serviced outside the operating hours (i.e., 7 AM – 6.30 PM weekdays) to ensure the car park is empty. It is therefore proposed that waste collection occurs weekly on Saturdays.



3 NUMBER AND TYPE OF BINS AND FREQUENCY OF COLLECTION

An assessment of the required number of MGBs for the quantity of waste assessed in Section 1, i.e., 1,914 litres per week general and 1,914 litres per week recyclable, has indicated that this will result in a requirement for 6 MGBs if 660 litre MGBS are used and collected weekly on Saturdays, as proposed and as shown in Table 2 below.

BIN SIZES AND NUMBERS REQUIRED (SATURDAY COLLECTIONS)											
Waste Type	Lt/ week	Freq/ wk	120	140	240	360	660	1100	1500	3000	4500
General	1,914	1	16	14	8	6	3	2	2	1	1
Recyclable	1,914	1	16	14	8	6	3	2	2	1	1

Table 2 – Determination of number of MGBs based on frequency of once per week (i.e., Saturdays)

The dimensions of the 660L MGB are shown in Figure 4 below. The required storage and presentation areas for six 660L MGBs are assessed in **Sections 5** and **6**.

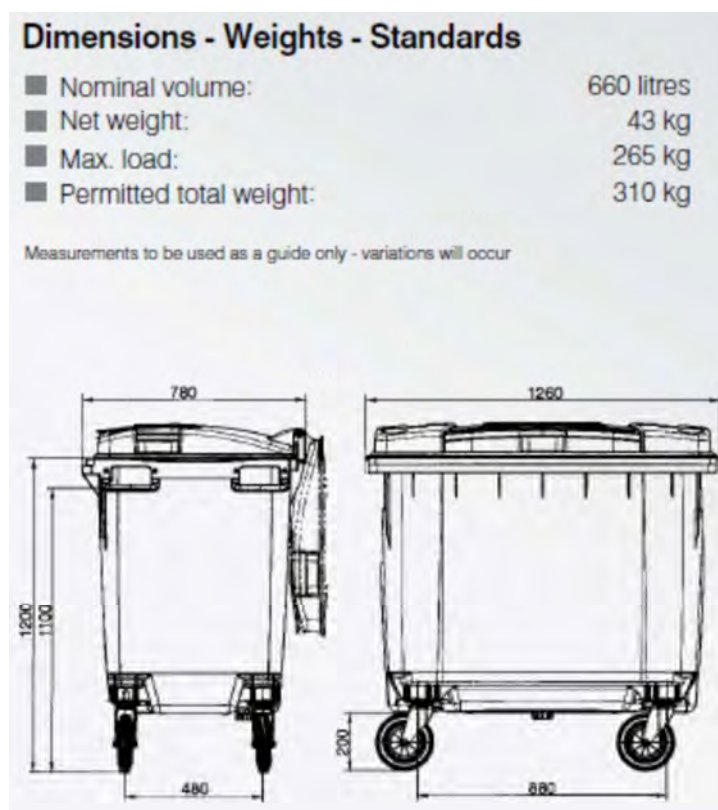


Figure 4 – Typical dimensions of a 660L MGB

4 FOOD WASTE

Due to the proposed kitchen and associated food preparation, it may be necessary to on very hot days to provide a freezer of sufficient size to allow food waste to be frozen between collection days.

The amount of food waste can be reduced using worm farms and/ or composting, a common feature of Child Care Centres as part of the reduce-reuse-recycle education initiative.

The City of Joondalup provides guidance for the disposal of different types of waste on its [website](#).

Consideration should also be given to food waste collection consistent with FOGO services in the [Waste Avoidance and Resource Recovery Strategy 2030](#).

5 SPACE FOR STORAGE AND PRESENTATION (SERVICING) OF BINS

The City of South Perth does not appear to have any specific requirements in relation to bin stores for commercial developments. It does however have a such requirements in its 'Guidelines for Waste Management Plans – New Multi-residential Developments' as well as a 'Waste Management Checklist for Proposed Developments' that identifies bin store requirements.

As indicated in Figure 4 in **Section 3**, the 660 L MGBs are approximately 1.26 m wide, 0.78 m deep and 1.3 m high.

The Development Drawing shows the provision of a Bin Store capable of accommodating up to six (6) x 660 L MGBs, as shown in the extract provided as Figure 5 below.

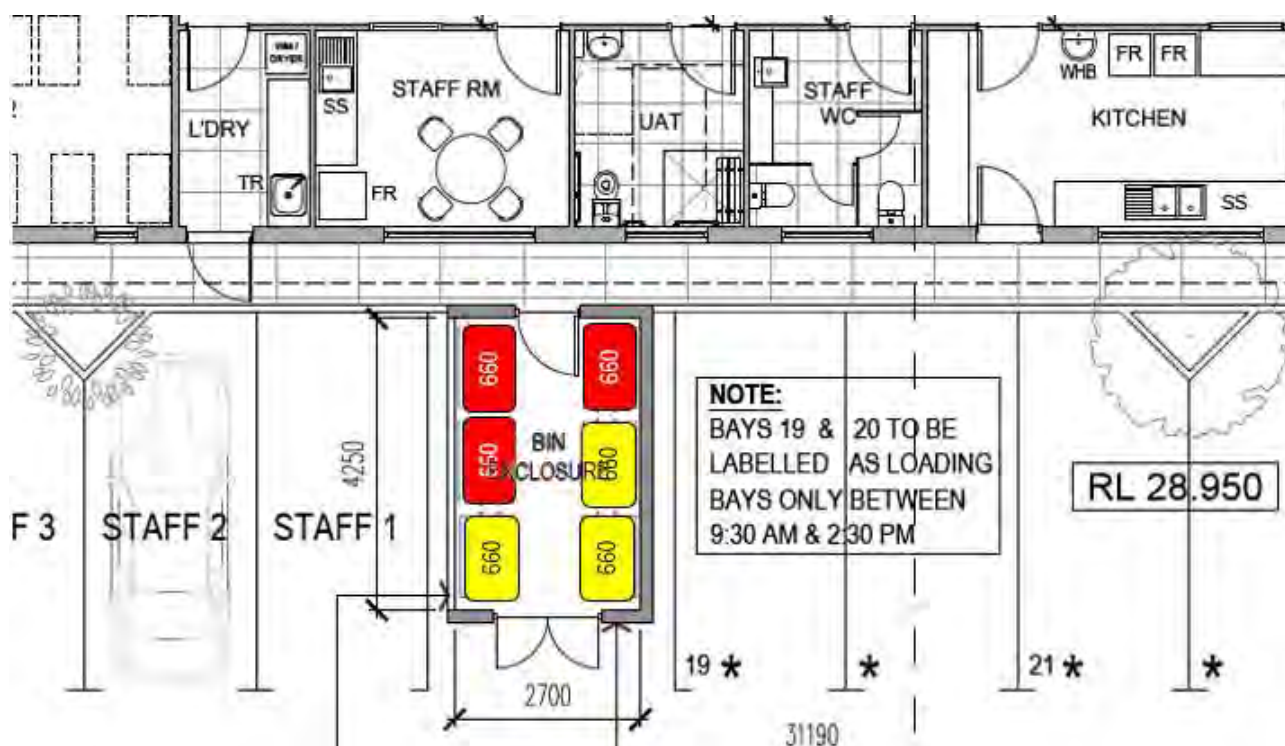


Figure 5 – Bin store showing space for up to six (6) 660 litre MGBs and bin store dimensions

The 'Guidelines for Waste Management Plans – New Multi-residential Developments' require:

- ▶ Bin storerooms and/or compounds must have a smooth impervious floor sloped to a drain connected to the sewer system of not less than 75 millimetres in think-ness subject to the City's approval
- ▶ The bin storeroom and/or compound must have enough space to facilitate the cleaning of receptacles inside the bin storage area, and the walls and floors of bin storage areas must be constructed of a material which facilitates the cleaning of the bin storage area
- ▶ An enclosed bin storeroom and/or compound must be vermin proof, fitted with a self-closing door or gate, and mechanical ventilation where the outlet for vented air must not adversely impact residents
- ▶ Bin storerooms and/or compounds shall be provided with artificial lighting, to comply with AS 4282-1997 ⁽⁴⁾, and include safety signing clearly identifying prohibited standing areas.

The applicant has indicated that waste and recyclable collection will be contracted to use a small Waste Collection Vehicle, similar to that approved by the City of Nedlands, as shown in an extract from its *Local Planning Policy - Waste Management* ⁽⁵⁾, provided as Figure 6 below.

(a) Standard Truck Dimensions

Parameter	Vehicle Dimension (m)
Overall length	8.5
Overall width	3.0
Overall height (travel)	3.5
Height when lifting bins	3.8

(b) Smaller Truck Dimensions

Parameter	Vehicle Dimension (m)
Overall length	7.5
Overall width	3.0
Overall height (travel)	2.8
Height when lifting bins	2.8

*Note: Small waste truck specifications are based on approximately 3 tonne truck.
WMP requires to demonstrate all waste streams (Waste and Recycling) collection can service the development in one single collection.
This vehicle can service bins only ranging from 120L -660L.*

Figure 6 – Typical dimensions of rear loading waste collection vehicles

The 660 L MGBs will be manoeuvred between the bin store and the waste collection vehicle by the driver on collection days. The waste collection vehicle will enter the empty car park from Throssell St in a forward direction, drive to the rear of the car park to perform a three-point reverse turn, drive forward towards the bin area to service the bins and then exit the car park in a forward direction, as shown in Figure 3 on page 4.

7 WASTE FACILITIES, MANAGEMENT & OPERATION

MANOEUVERING MGBs

The development has been designed to ensure that MGBs are not required to be moved up or down steep ramps (i.e., > 1 in 14) and avoid steps and other hazards.

WASHING BINS AND WASTE STORAGE AREA

Impermeable concrete floors (min 75 mm thick 20 MPa) graded at 1% to an industrial floor waste (including a charged 'water-trap' connected to sewer or an approved septic system), with a hose cock to enable bins and the enclosure to be washed out. 100 mm floor waste gully to waste outlet. Both hot and cold water will be available.

BIN STORE WALLS AND CEILINGS

All internal walls in bin stores will be cement rendered (solid and impervious) to enable easy cleaning.

VENTILATION AND ODOUR

The design of bin stores will provide for adequate separate ventilation with a system that complies with Australian Standard *AS/ NZS 1668*. The ventilation outlet is not near windows or intake vents associated with other ventilation systems.

DOORS

All doors and corridors on the transfer route are designed for the largest, i.e., 660 L, MGBs and will be self-closing to eliminate access by vermin.

LIGHTING

Bin stores will be provided with artificial lighting, sensor or switch controlled both internal/ external.

NOISE

Noise is to be minimised to prevent disruption to occupants or neighbours.

FULLY ENCLOSED

The bin stores will be fully enclosed and only be accessible by staff and the waste service provider.

AESTHETICS

The bin store will be consistent with the overall aesthetics of the development.

SIGNS

Signs complying with the WALGA Guidelines will be installed to the bin store area.

8 BIN MANAGEMENT

Facility Management staff or other nominated personnel/ contractors will manage waste throughout the facility and as such, will be aware of the expectations regarding use of the bins and store.

Those staff will be responsible for ensuring the correct use of the bins and also that the bins are accessible (or presented) for collection on Saturdays.

9 BIN PRESENTATION AND COLLECTION

Collection of bins will be as per the following arrangements:

- Onsite waste collection will be undertaken by a private contractor using a maximum 7.5 m long truck.
- The waste collection vehicle will enter the empty car park from Throssell St in a forward direction on a Saturday when the car park is empty, drive to the rear of the car park to perform a three-point reverse turn, drive forward towards and slightly past the bin area to service the bins and then exit the car park in a forward direction, as shown in Figure 3 on page 4.
- A swept path assessment has been conducted for a larger 8.0 m Waste Collection vehicle (Figure 3 on page 4.). The analysis indicates that the vehicle would be able to perform the required manoeuvre adequately.
- Unless otherwise negotiated, the bins will be retrieved from the bin store by the collection vehicle operators, emptied and then returned to the store.

10 FINDINGS AND RECOMMENDATIONS

This Waste Management Plan has determined there is a need for six (6) x 660L MGB's to be provided (3 x general waste and 3 x recyclables) and that these require servicing once per week, i.e. every Saturday.

It is recommended that a freezer of sufficient size is included in the kitchen to allow for food waste to be frozen between collection days during hot periods. Consideration should also be given to food waste collection consistent with FOGO services in the *Waste Avoidance and Resource Recovery Strategy 2030*.

This waste management plan is based on 50% general waste/ 50% recyclable waste generation. It is recommended that opportunities to reduce the amount of general waste are considered using the resources described in **Section 4**.



Digitally signed by David
Wilkins
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REFERENCES

1. **The Western Australian Local Government Association.** *Commercial and Industrial Waste Management Plan Guidelines*. Perth : The Western Australian Local Government Association, 2015. p. 57. A resource for Western Australian Local Government, developers, building managers and business owners..
2. **City of Melbourne.** Waste Generation Rates. *City of Melbourne*. [Online] January 2015. <https://www.melbourne.vic.gov.au/SiteCollectionDocuments/waste-generation-rates-jan-2015.pdf>.
3. **NSW Environment Protection Authority.** Reducing business waste - Preschools and childcare centres. *Waste Warriors*. [Online] March 2017. <http://www.wastewarriors.com.au/assets/bintrim-preschools-childcare-centres-factsheet-160774.pdf>.
4. **Standard Australia.** *AS 4282-1997 Control of obstructive effects of outdoor lighting*. Homebush NSW : Standards Australia, 1997. p. 55, Australian Standard. ISBN 0 7337 1675 X.
5. **City of Nedlands.** *Local Planning Policy - Waste Management*. City of Nedlands. Nedlands : City of Nedlands, 17 Apr 2020. p. 16, Local Planning Policy.
6. **City of South Perth.** Waste and Recycling Guide 2018. South Perth, WA, Australia : City of South Perth, 2018. p. 12.
7. —. *Waste Management Checklist for Porpoised Developments*. City of South Perth. South Perth : City of South Perth, Nov 2021. p. 2, WMP Checklist.
8. —. *Waste Local Law*. City of South Perth. South Perth : City of South Perth, 2017. p. 15, Local Law. Waste Avoidance and Resource Recovery Act 2007 | Local Government Act 1995.
9. **Standards Australia.** *AS 2890.2-2002 Parking facilities Part 2: Off-street commercial vehicle facilities*. Second. Sydney : Standards Australia International, 2002. p. 49. Vol. 2. ISBN 0 7337 4870 8.
10. **City of South Perth.** *Guidelines for Waste Management Plans - New Multi-residential Developments*. South Perth : City of South Perth, Nov 2021. p. 19. Version 11/2021.

**PROPOSED CHILD CARE CENTRE
5 & 7 BIRDWOOD AVENUE
COMO**

ENVIRONMENTAL ACOUSTIC ASSESSMENT

NOVEMBER 2022

OUR REFERENCE: 30337-3-22363

DOCUMENT CONTROL PAGE

ENVIRONMENTAL ACOUSTIC ASSESSMENT
PROPOSED CHILD CARE CENTRE
BIRDWOOD AVENUE, COMO

Job No: 22363

Document Reference: 30337-3-22363

FOR

GREG DAVIES ARCHITECTS

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This report has been prepared in accordance with the scope of services and on the basis of information and documents provided to Herring Storer Acoustics by the client. To the extent that this report relies on data and measurements taken at or under the times and conditions specified within the report and any findings, conclusions or recommendations only apply to those circumstances and no greater reliance should be assumed. The client acknowledges and agrees that the reports or presentations are provided by Herring Storer Acoustics to assist the client to conduct its own independent assessment.

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APPENDICIES

A	PLANS
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1. INTRODUCTION

Herring Storer Acoustics were commissioned to undertake an acoustic assessment of noise emissions associated with the proposed day care centre to be located at 5 and 7 Birdwood Avenue, Como.

The report considers noise received at the neighbouring premises from the proposed development for compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997*. This report considers noise emissions from:

- Children playing within the outside play areas of the centre; and
- Mechanical services.

We note that from information received from DWER, the bitumised area would be considered as a road, thus noise relating to motor vehicles is exempt from the *Environmental Protection (Noise) Regulations 1997*. We note that these noise sources are rarely critical in the determination of compliance. However, as requested by council and for completeness, they have been included in the assessment, for information purposes only.

For information, a plan of the proposed development is attached in Appendix A.

2. SUMMARY

Noise received at the neighbouring premises from the outdoor play areas would comply with the requirements of the *Environmental Protection (Noise) Regulations 1997*, with the inclusion of the boundary fencing as shown on the attached drawings.

Noise from the mechanical services has also been assessed to comply with the relevant criteria, with the condensing units located along the western boundary, provided noise mitigation, as outlined below is included in the design and installation of the air conditioning condensing units.

It is noted that noise associated with cars movements and cars starting are exempt from complying with the Regulations. However, noise emissions from car doors is not strictly exempt from the Regulations. Noise received at the existing neighbouring residences from these noise sources would also comply with the Regulatory criteria at all times.

Thus, noise emissions from the proposed development, would be deemed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* for the proposed hours of operation, with the inclusion of the following:

- 1 Fencing to the development to be as on the drawings attached in Appendix A. It is noted that for a child care centre, colourbond is an acceptable fencing material.
- 2 The following noise mitigation is to be included in the mechanical services design and installation:
 - the condensing units are not to be grouped but spread out evenly along the western façade.
 - be located at ground level; and
 - be installed with Level 2 Low Noise Night Modes.
- 3 Additionally, to the above it is recommended that an assessment of the mechanical services design be undertaken to ensure compliance with the regulations.

3. CRITERIA

The allowable noise level at the surrounding locales is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 & 8 stipulate maximum allowable external noise levels. For highly sensitive area of a noise sensitive premises this is determined by the calculation of an influencing factor, which is then added to the base levels shown below in Table 3.1. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. For other areas within a noise sensitive premises, the assigned noise levels are fixed throughout the day, as listed in Table 3.1.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.
IF is the influencing factor.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

“impulsiveness” means a variation in the emission of a noise where the difference between L_{Apeak} and L_{Amax(Slow)} is more than 15 dB when determined for a single representative event;

“modulation” means a variation in the emission of noise that –

- (a) is more than 3 dB L_{AFast} or is more than 3 dB L_{AFast} in any one-third octave band;
- (b) is present for more at least 10% of the representative assessment period; and
- (c) is regular, cyclic and audible;

“tonality” means the presence in the noise emission of tonal characteristics where the difference between –

- (a) the A-weighted sound pressure level in any one-third octave band; and
- (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as L_{Aeq,T} levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as L_{ASlow} levels.

Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS		
Where tonality is present	Where modulation is present	Where impulsiveness is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

For this development, the neighbouring noise sensitive premises are as shown on Figure 3.1.



FIGURE 3.1 – NEIGHBOURING LOTS

There are a number of Influencing Factors for the surrounding residences. Thus, the Influencing Factors for the neighbouring residences shown in Figure 3.1 have been determined to be as outlined below:

Residences to North and West within 100m of Canning Highway

Commercial Premises within Inner Circle	+1.5 dB
Commercial Premises within Outer Circle	+0.4 dB
Major Road within Inner Circle (Canning Hwy)	+6 dB
TOTAL	+ 7.9 dB (rounded up to 8 dB)

Residence to North Greater Than 100m of Canning Highway

Commercial Premises within Inner Circle	+0.4 dB
Commercial Premises within Outer Circle	+0.3 dB
Secondary Road Within Inner Circle (South Tce)	+2 dB
Major Road within Outer Circle (Canning Hwy)	+2 dB
TOTAL	+ 4.7 dB (rounded up to 5 dB)

Residence to East and South

Commercial Premises within Inner Circle	+0.5 dB
Commercial Premises within Outer Circle	+0.3 dB
Major Road within Outer Circle (Canning Hwy)	+2 dB
TOTAL	+ 2.8 dB (rounded up to 3 dB)

Based on the above calculations, the assigned noise levels would be as listed in Tables 3.3 to 3.5.

TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL
RESIDENCE TO NORTH AND WEST, WITHIN 100M OF CANNING HIGHWAY

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	53	63	73
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	48	58	73
	1900 - 2200 hours all days (Evening)	48	58	63
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	43	53	63

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

TABLE 3.4 - ASSIGNED OUTDOOR NOISE LEVEL
RESIDENCES TO NORTH, GREATER THAN 100M FROM CANNING HIGHWAY

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	50	60	70
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	45	55	70
	1900 - 2200 hours all days (Evening)	45	55	60
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	40	50	60

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

**TABLE 3.5 - ASSIGNED OUTDOOR NOISE LEVEL
RESIDENCE TO EAST AND SOUTH**

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _{A10}	L _{A1}	L _{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	48	58	68
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	43	53	68
	1900 - 2200 hours all days (Evening)	43	53	58
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	38	48	58

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.

4. PROPOSAL

From information supplied, we understand that the child care centre normal hours of operations would be between 0700 and 1830 hours, Monday to Friday (closed on public holidays). It is understood that the proposed childcare centre will cater for a maximum of 86 children: with the following breakdown:

Nursery	16 Babies
Transition	20 Toddlers
Pre-School	50 Pre-schoolers

It is noted that although the proposed child care centre would open before 7 am (ie during the night period), the outdoor play area would not be used until after 7am.

5. MODELLING

To assess the noise received at the neighbouring premises from the proposed development, noise modelling was undertaken using the noise modelling program SoundPlan.

Calculations were carried out using the DWER's weather conditions, which relate to worst case noise propagation, as stated in the Department of Environment Regulation "*Draft Guidance on Environmental Noise for Prescribed Premises*". These conditions include winds blowing from sources to the receiver(s).

Calculations were based on the sound power levels used in the calculations are listed in Table 5.1.

TABLE 5.1 – SOUND POWER LEVELS

Item	Sound Power Level, dB(A)
Children Playing	83 (per 10 children)
Car Moving in Car Park	79
Car Starting	85
Door Closing	87
Air conditioning condensing Unit	4 @ 73

Notes:

- 1 Given the number and breakdown of children, noting that the noise emissions from children under the age of 2 years is significantly reduced, acoustic modelling of outdoor play noise was made, based on 90 children playing, being 9 groups of 10 children, within the outdoor play areas at the one time, distributed as plane sources.
- 2 Within the noise model, the children (ie noise source) were placed at 1 metre above ground level.
- 3 The noise level for the air conditioning has been based on the sound power levels used for previous assessment of child care centres. From other studies, we understand that the noise associated with the condensing units would be conservative.
- 4 For this development, the air conditioning condensing units be located along the western boundary. However, they are:
 - not to be grouped but spread out evenly along the façade.
 - be located at ground level.
 - be installed with Level 2 Low Noise Night Modes; and
 - the fence to be 2m high.
- 5 The noise modelling has been based on the fencing, as shown on the attached drawings.
- 6 It is noted that the residences to the east have 1.8m high boundary fences to Throssell Street.
- 7 Noise modelling was undertaken to a number of different receiver locations for each of the neighbouring residences. However, to simplify the assessment, only the noise level in the worst case location (ie highest noise level), have been listed.

6. ASSESSMENT

The resultant noise levels at the neighbouring residence from children playing outdoors and the mechanical services are tabulated in Table 6.1.

From previous measurements, noise emissions from children playing does not contain any annoying characteristics. Noise emissions from the mechanical services could be tonal and a +5 dB(A) penalty would be applicable, as shown in Table 6.1. Noise emissions from both outdoor play and the mechanical services needs to comply with the assigned L_{A10} noise levels.

**TABLE 6.1 - ACOUSTIC MODELLING RESULTS FOR L_{A10} CRITERIA
OUTDOOR PLAY AREAS AND MECHANICAL PLANT**

Neighbouring Premises	Calculated Noise Level (dB(A))		
	Children Playing	Air Conditioning	
		Day Period	Night Period
North (within 100m of Canning Hwy)	50	30 (35)	22 (27)
North (Greater than 100m from Canning Hwy)	47	22 (27)	14 (19)
East	47	16 (21)	8 (13)
South	38	21 (26)	13 (18)
West	47	45 (50)	37 (43)

() Includes +5 dB(A) penalty for tonality

With regards to noise associated with cars within the parking area, resultant noise levels are tabulated in Tables 6.2 and 6.3. It is noted that noise emissions from a moving car being an L_{A1} noise level, with noise emissions from cars starting and doors closing being an L_{Amax} noise level.

Based on the definitions of tonality, noise emissions from car movements and car starts, being an L_{A1} and L_{Amax} respectively, being present for less than 10% of the time, would not be considered tonal. Thus, no penalties would be applicable, and the assessment would be as listed in Table 6.2 (Car Moving) and Table 6.3 (Car Starting). However, noise emissions from car doors closing could be impulsive, hence the +10dB penalty has been included in the assessment.

**TABLE 6.2 - ACOUSTIC MODELLING RESULTS L_{A1} CRITERIA
CAR MOVING**

Neighbouring Premises	Calculated Noise Level (dB(A))
North (within 100m of Canning Hwy)	29
North (Greater than 100m from Canning Hwy)	35
East	43
South	42
West	41

**TABLE 6.3 - ACOUSTIC MODELLING RESULTS L_{Amax} CRITERIA
CAR STARTING / DOOR CLOSING**

Neighbouring Premises	Calculated Noise Level (dB(A))	
	Car Starting	Door Closing
North (within 100m of Canning Hwy)	33	34 [44]
North (Greater than 100m from Canning Hwy)	38	40 [50]
East	41	42 [52]
South	46	48 [58]
West	42	43 [53]

[] Includes +10 dB(A) penalty for impulsiveness.

Tables 6.4 to 6.9 summarise the applicable Assigned Noise Levels, and assessable noise level emissions for each identified noise.

**TABLE 6.4 – ASSESSMENT OF L_{A10} NOISE LEVEL EMISSIONS
OUTDOOR PLAY (DAY PERIOD)**

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	50	53	Complies
North (Greater than 100m from Canning Hwy)	47	50	Complies
East	47	48	Complies
South	38	48	Complies
West	47	53	Complies

TABLE 6.5 – ASSESSMENT OF L_{A10} DAY PERIOD NOISE LEVEL EMISSIONS

AIR CONDITIONING

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	35	53	Complies
North (Greater than 100m from Canning Hwy)	27	50	Complies
East	21	48	Complies
South	26	48	Complies
West	50	53	Complies

TABLE 6.6 – ASSESSMENT OF L_{A10} NIGHT PERIOD NOISE LEVEL EMISSIONS

AIR CONDITIONING

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	27	43	Complies
North (Greater than 100m from Canning Hwy)	19	40	Complies
East	13	38	Complies
South	18	38	Complies
West	43	43	Complies

TABLE 6.7 – ASSESSMENT OF L_{A1} NIGHT PERIOD NOISE LEVEL EMISSIONS

CAR MOVEMENTS

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	29	53	Complies
North (Greater than 100m from Canning Hwy)	35	50	Complies
East	43	48	Complies
South	42	48	Complies
West	41	53	Complies

TABLE 6.8 – ASSESSMENT OF L_{Amax} NIGHT PERIOD NOISE LEVEL EMISSIONS

CAR STARTING

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	33	63	Complies
North (Greater than 100m from Canning Hwy)	38	60	Complies
East	41	58	Complies
South	46	58	Complies
West	42	63	Complies

TABLE 6.9 – ASSESSMENT OF L_{Amax} NIGHT PERIOD NOISE LEVEL EMISSIONS

CAR DOOR

Location	Assessable Noise Level dB(A)	Applicable Assigned Noise Level (dB(A))	Exceedance to Assigned Noise Level
North (within 100m of Canning Hwy)	44	63	Complies
North (Greater than 100m from Canning Hwy)	50	60	Complies
East	52	58	Complies
South	58	58	Complies
West	53	63	Complies

7. CONCLUSION

Noise received at the neighbouring residences from the outdoor play area would comply with day period assigned noise level.

The air conditioning condensing units have also been assessed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* at all times, provided the fencing is as shown on the drawings attached in Appendix A; and noise mitigation, as outlined below, are incorporated into the design and installation.

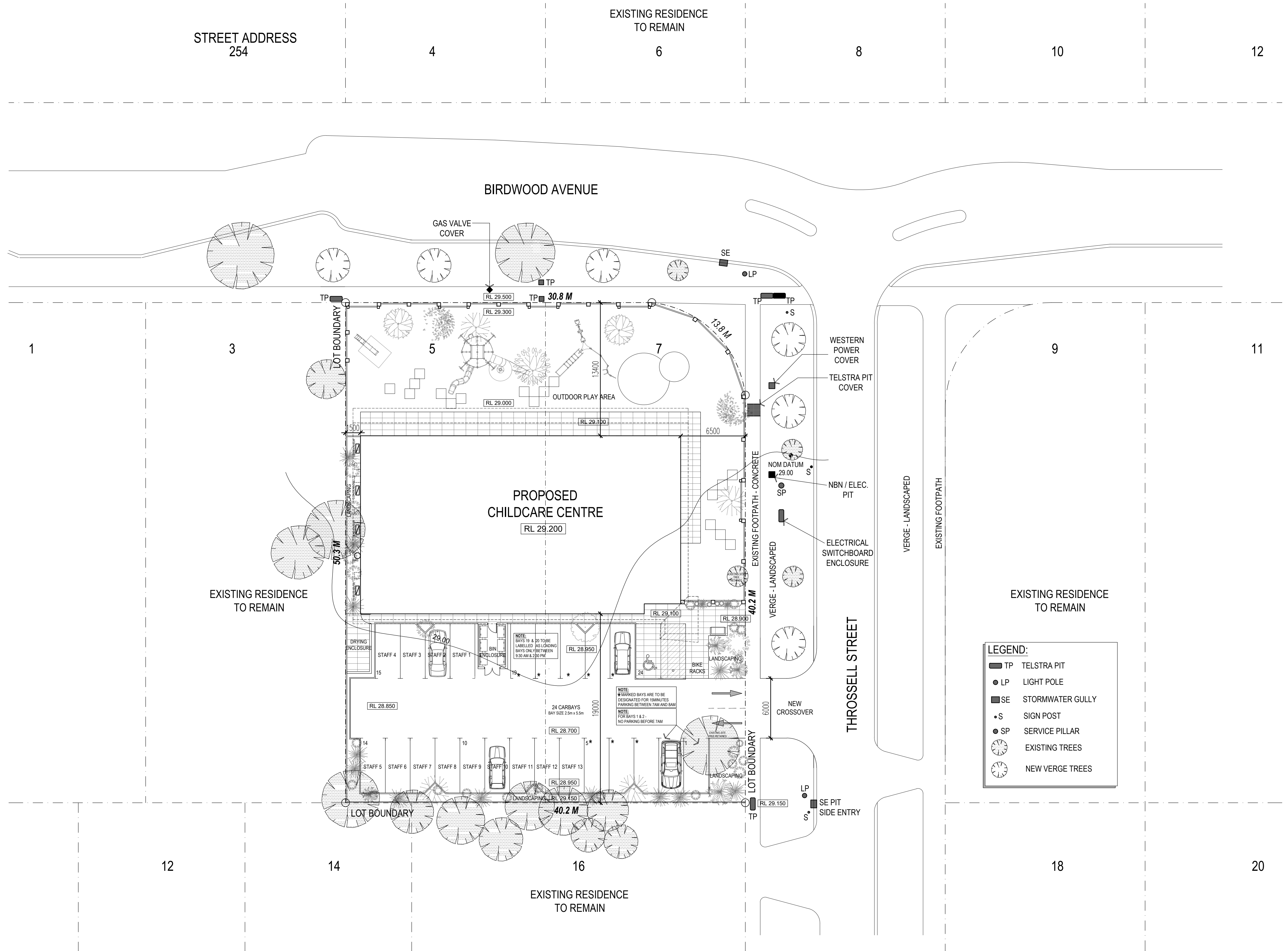
It is noted that noise associated with cars movements and cars starting are exempt from complying with the Regulations. However, noise emissions from car doors are not strictly exempt from the Regulations. Noise received at the neighbouring premises from these noise sources would with the fencing, as shown on the drawings attached in Appendix A, would, also comply with the Regulatory requirements, at all times.

Thus, noise emissions from the proposed development, would be deemed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997* for the proposed hours of operation, with the inclusion of the following:

- 1 Fencing to the development to be as shown n the drawings attached in Appendix A. It is noted that for a child care centre, colourbond is an acceptable fencing material.
- 2 The following noise mitigation is to be included in the mechanical services design and installation :
 - the condensing units are not to be grouped, but spread out evenly along the western façade;
 - be located at ground level; and
 - be installed with Level 2 Low Noise Night Modes.
- 3 Additionally, to the above it is recommended that an assessment of the mechanical services design be undertaken to ensure compliance with the regulations.

APPENDIX A

PLANS



NOTES:
ALL DISCREPANCIES ARE TO BE REPORTED TO GREG DAVIES ARCHITECTS PRIOR TO THE COMMENCEMENT OF ANY WORK ON SITE.
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10.11.22	D	DRAWING UPDATED	PK
04.11.22	C	DRAWING UPDATED: LVLS ADDED	PK
18.07.22	B	DRAWING UPDATED	SK
10.06.22	A	DRAWING INITIATED	KH
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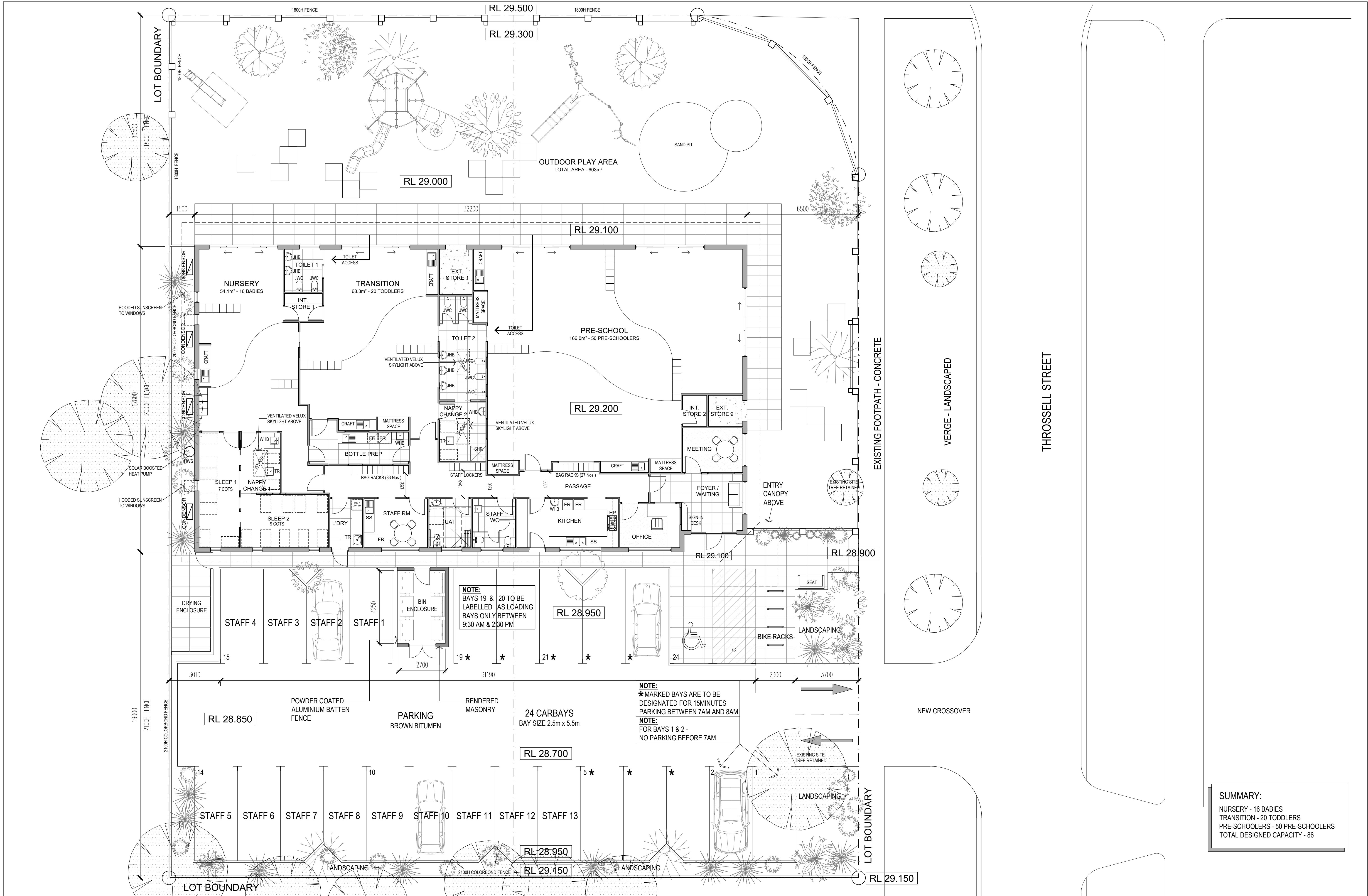
NOTE:
TO ESTABLISH BOUNDARIES A RE-PEG SURVEY WILL BE REQUIRED PRIOR TO CONSTRUCTION.

BIRDWOOD CHILDCARE
5(88) & 7(89) BIRDWOOD AVENUE
COMO, WA 6152



SITE PLAN

REVISION DATE	01.11.2023	SCALE	1:200 @ A1
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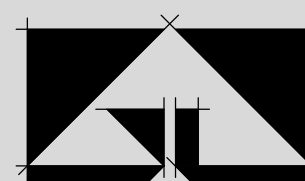
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04.11.22	C	DRAWING UPDATED: LVLS ADDED	PK
18.07.22	B	DRAWING UPDATED	SK
10.06.22	A	DRAWING INITIATED	KH
DATE	REV	NOTE	BY

NOTE:
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GROUND FLOOR PLAN

REVISION DATE	31.10.2023	SCALE	1:100 @ A1
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DWG NO			SK 100



EMERGEN

SUSTAINABILITY DESIGN REPORT

BIRDWOOD CHILDCARE

5(88) & 7(89) BIRDWOOD AVENUE COMO, WA 6152

PREPARED BY

NYONIKA OBERAI

Project: 129267

Published date.

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SK001-SK210	Architectural Drawings	Design Approval

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CONFIDENTIALITY STATEMENT

This report contains confidential information and is intended solely for the recipient. The purpose of this report is to present the sustainability commitments for the project. All information and documentation included in this report shall remain the exclusive property of EMERGEN/CADDS Group and may not be reproduced in any form without prior written consent from EMERGEN/CADDS Group.

DISCLAIMER

The contents of this report are based on the documentation and plans provided by the Client to EMERGEN/CADDS Group. The outcomes presented are representative of schematic systems, schedules, and project design. These results should not be considered as actual energy usage.





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1 STATE PLANNING POLICY SUMMARY

EMERGEN (a division of CADDIS GROUP), in collaboration with the design team (Greg Davies Architects), has developed a sustainable design strategy for the proposed Wildflowers Childcare Centre, aligning with *State Planning Policy 7.0*, which focuses on the Design of the Built Environment - specifically, Principle 5: Sustainability.

This report serves the vital purpose of bolstering the development application by articulating the sustainability principles and commitments for the project site. We acknowledge the significance of State Planning Policy 7.0 in promoting sustainability within the built environment. Good design, as outlined in the policy, is not only about aesthetics but also optimises the sustainability of our built surroundings, yielding positive outcomes on environmental, social, and economic fronts.

Our approach to sustainable landscape and urban design adheres closely to the established water-sensitive urban design principles, ensuring minimal adverse impacts on existing natural features and ecological processes while promoting green infrastructure at all scales of the project. Furthermore, our strategy for sustainable built environments embraces passive environmental design measures tailored to local climate and site conditions. This includes careful consideration of optimal orientation, shading, building envelope, and natural ventilation, ultimately reducing reliance on energy-intensive heating and cooling technologies. This, in turn, results in reduced energy consumption, decreased resource usage, and lowered operating costs throughout the project's lifecycle.

1.1 DESIGN AND CONSTRUCT TO AUSTRALIAN BEST PRACTICE

EMERGEN will Utilise the Green Star Buildings framework to create structured approach to a sustainable outcome for the design and construction of the development.

Figure 1 Green Star Buildings Framework





1.2 DESIGN AND CONSTRUCT TO AUSTRALIAN BEST PRACTICE

The design team will utilise a structured approach to a sustainable outcome for the design and construction of the development including the following Sustainable Targets.

Table 1 – Sustainability Targets

DESCRIPTION	GOAL	SUSTAINABILITY COMMITMENTS
CLEAR AIR	Improve indoor environment quality and health and wellbeing of occupants.	Outdoor air provided to primary areas at a rate at least 50% greater than minimum in AS 1668.2:2012. <i>(TBC based on mechanical consultant).</i>
LIGHT QUALITY		Above 40% of the regularly occupied areas have high level of daylight (above 160 Lux).
EXPOSURE TO TOXINS		The building's paints adhesives, sealants, and carpets are low in TVOC or non-toxic. The building's engineered wood products are low in TVOC or non-toxic. Occupants are not exposed to banned or highly toxic materials in the building.
HEAT RESILIENCE	Reduce impacts of long-term performance.	Light Roof Colour (SRI below 0.50)
ENERGY USE	Reduce emissions and water use.	A minimum of 30% offset in operational energy usage
WATER USE		High WELS Ratings (these equal to above 30% reduction in potable water).
LIGHTING USE		20% reduction in lighting power when compared to NCC DTS.
MOVEMENT AND PLACE	Low carbon options.	Provision for 2 x EV Charging Bays
DESIGN FOR INCLUSION	Social health.	Disability Access and inclusive design
BIODIVERSITY ENHANCEMENT	Improved Nature outcomes.	Plant additional local native trees on the site to further shade the outdoor areas and structures. Climate Resilience, drought tolerant planting.



2 PROJECT INFORMATION

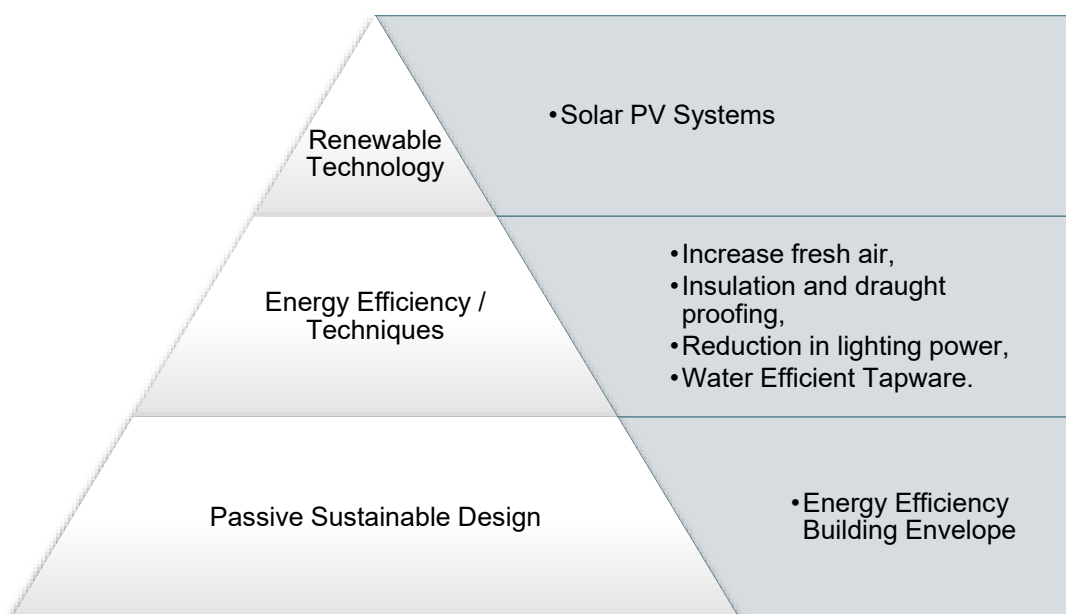
The proposed project is located on previously developed land. The site is to be redeveloped for a childcare project.

Image 1 Existing Site Images



3 ENERGY REDUCTION STRATEGY

Table 2 Energy Reduction Strategy





4 COMPLIANCE SPECIFICATION

The assessment process adheres to the JV protocol outlined in the NCC 2022 Requirements. The project has incorporated the following specifications:

Table 1: Construction Specification

CONSTRUCTION		DESCRIPTION	MINIMUM REQUIREMENT
EXTERNAL WALLS	External Cavity Brick	230mm Cavity Brick Wall. External finishes as per elevations.	R1.3 Cavity Insulation.
INTERNAL WALLS	Single Brick Wall	90mm Single Brick Wall with PB linings on both sides	No Insulation Required.
FLOORS	Slab on Ground	Concrete slab with ground contact. Floor coverings as per plans.	No Insulation Required.
ROOFS	Roof Type 1	Metal deck roof sheeting. Not Specified (SA: 0.45).	60mm Anticon with R3.0 Insulation Batts to dropped plasterboard ceilings.

Table 2: Glazing Specification

WINDOW SPECIFICATION		MAX. U-VALUE	SHGC
TYPE 1	Single Low E glazing in aluminium frame. (i.e., 6.38mm Viridian Comfort Plus Clear , or equal)	4.39	0.64
SKYLIGHTS	Generic Fixed Velux Skylight (Pitched roof).	2.60	0.24





4.1 RESULTS

The figures shown below demonstrate the difference in performance between the Proposed Building and the Reference Building, allowing for a quantifiable comparison on the performance of each building.

Table 3: Estimated Energy Use

With solar PV							
MODEL	HEATING	COOLING	FANS	LIGHTS	EQUIP	PV	TOTAL
Reference (kWh/m ²)	1.8	11.8	9.5	13.2	11.5	-	47.8
Proposed (kWh/m ²)	1.3	14.6	10.0	13.2	11.5	-24.6	27.5
Energy Reduction							42.3%

It's important to note that **15kW** solar photovoltaic (PV) system has been integrated into the proposed building's design to assist in offsetting the overall energy consumption.

Table 4: Predicted Mean Vote (PMV) Summary

PREDICTED MEAN VOTE - % HOURS IN RANGE FOR	<= -1.00	>-1.00 TO <=1.00	>1.00
Class 9b	0.00	100.00	0.00

5 HEALTH AND WELLBEING

5.1 PROVISIONS FOR INCREASED OUTDOOR AIR

Pollutants entering the building are minimised, and a high level of fresh air is provided to ensure levels of indoor pollutants are maintained at acceptable levels. It is proposed that outdoor air provided to primary areas will be at a rate at least 50% greater than minimum in AS 1668.2:2012, this will need to be confirmed by the mechanical engineer.

6 LIGHTING COMFORT

Lighting within the building must meet the following criteria:

- All lighting must be flicker-free.
- Light sources must have a minimum Colour Rendering Index (CRI) average R1 to R8 of 85 or higher and have a CRI R9 of 50 or higher.





- Light sources must meet best practice illuminance levels for each task within each space type with a maintained illuminance that meets the levels recommended in AS/NZS 1680.1:2006 series applicable to the project type and including maintenance.
- The maintained Illuminance values must achieve a uniformity of no less than that specified in Table 3.2 of AS/NZS 1680.1:2006, with a maintenance factor method as defined in AS/NZS 1680.4.; and
- All light sources must have a minimum of 3 MacAdam Ellipses.
- The walls within the field of view of occupants in regularly occupied spaces must have an average surface reflectance value of 0.70 and an average surface illuminance of at least 50% of the horizontal illuminance levels required for task.
- Vertical illuminance in workspaces: ensure that 50% of the horizontal task illuminance reaches the average eye height for 90% of primary spaces using vertical illuminance calculation grid.
- The illuminance values must be calculated in accordance with AS/NZS 1680 series for the relevant task.

6.1 EFFICIENT LIGHTING AND CONTROL

The installed aggregate illumination power has been designed to be **20%** below the maximum illumination power based on maximum allowable lighting power densities defined in Table J6.2a of the NCC 2019. Motion Detectors and daylight sensors are provided to reduce demand.

Table 5: Lighting Characteristics

PARAMETER	PROPOSED BUILDING	REFERENCE BUILDING
LIGHTING TYPE	LED light fittings	LED light fittings
DESIGN ILLUMINANCE (LUX)	Various lux	Various lux
NOMINAL LIGHTING POWER DENSITY (W/M ²)	20% less compared to NCC max requirements.	As per NCC max requirements.
OCCUPANT SENSOR CONTROLS	Motion sensors	N/A
DAYLIGHT CONTROLS	Yes	N/A
OTHER LIGHTING CONTROLS	Timer switches	N/A
ADJUSTMENT FACTOR APPLIED	0.9 – Motion sensor 1 0.7 – Motion sensor 2 0.55 – Motion sensor 3	Room Aspect Ratio

6.2 DAYLIGHTING

Emergen have completed preliminary daylight modelling. The analysis has been undertaken using IES software at finished floor level based on CIE standard overcast sky. The study boundary includes Primary Spaces only.





Table 6: Calculations Conditions - Daylight

CALCULATION CONDITIONS	
TEST FACTOR	Daylight Factor
SKY FACTOR	CIE Overcast Sky
DATE	March 21 st 12:00pm

Table 7: Daylighting

BUILDING	PROPOSE USAGE	NOMINATED AREA (M ²)	COMPLIANT AREA (M ²)	COMPLIANT AREA (%)
TYPICAL FLOOR	Primary	403.736	372.708	92.3

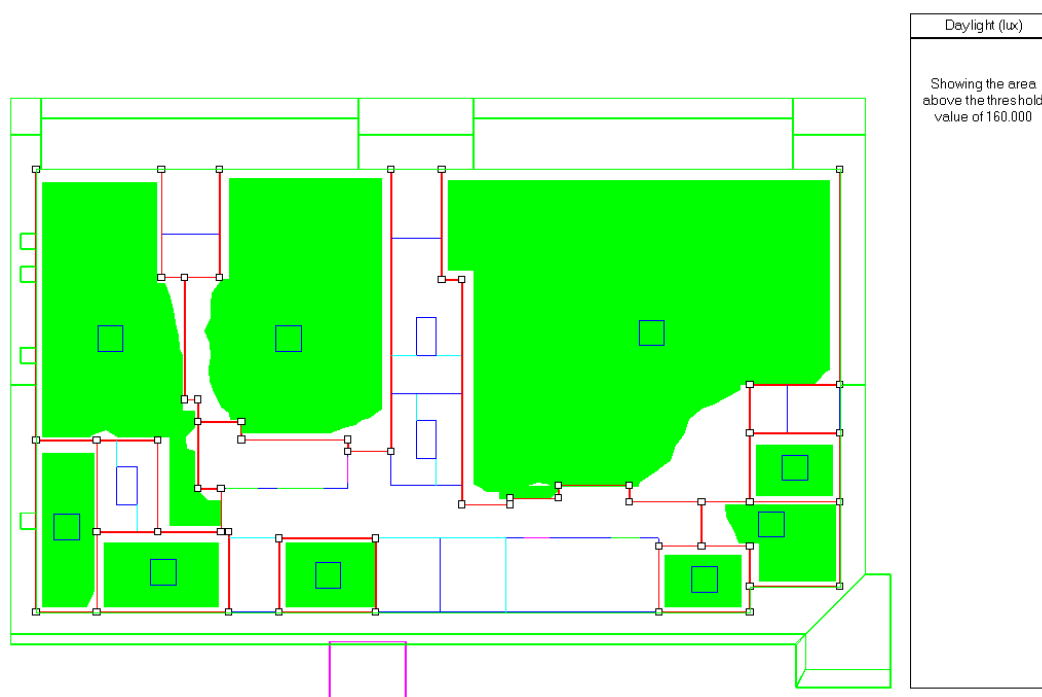


Figure 1: Daylighting for Primary areas





6.3 SOLAR ANALYSIS

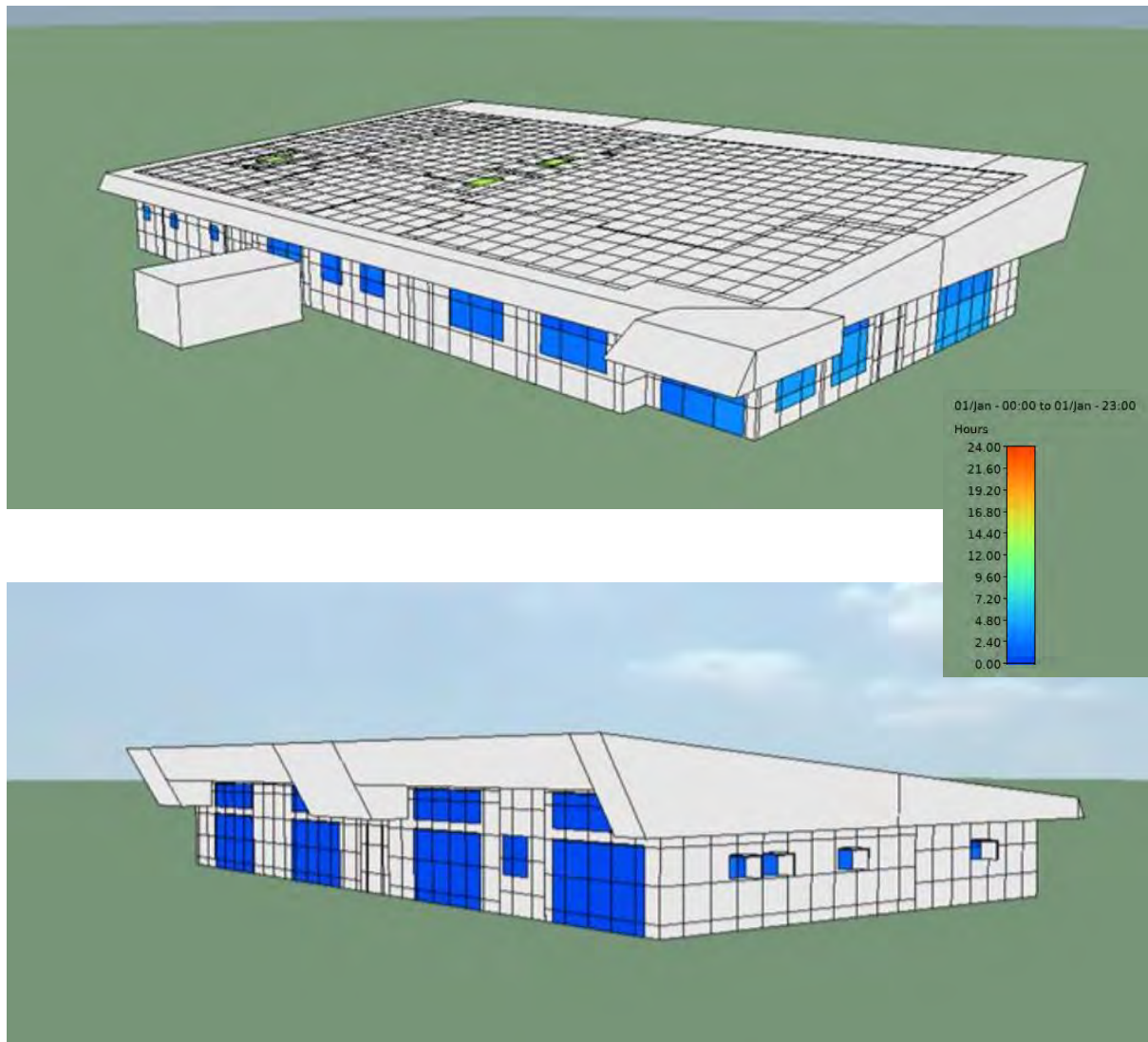


Figure 2: solar analysis

The shading elements have been strategically designed to minimize extended solar exposure. Each window, as a result, receives approximately 1 to 5 hours of daylight over the course of the day, striking a balance between harnessing natural light and mitigating excessive sunlight exposure.





7 WATER EFFICIENCY

7.1 SUSTAINABLE WATER INITIATIVES

All new water fixtures are to ensure that high WELS rating fixtures and fitting are to be specified in line with minimum benchmarks below.

Table 8: WELS Ratings

FIXTURE / EQUIPMENT TYPE	WELS RATING
TAPS	5 Star
TOILETS	5 Star
DISHWASHERS	5 Star

Table 9: Estimated Water Use

FITTINGS	PROPOSED BUILDING WATER DEMAND (KL/YEAR)	STANDARD PRACTICE BUILDING WATER DEMAND (KL/YEAR)
TOILETS	98.0	196.0
INDOOR TAPS	32.0	59.9
DISHWASHERS	305.2	448.5
REDUCTION	81.0%	

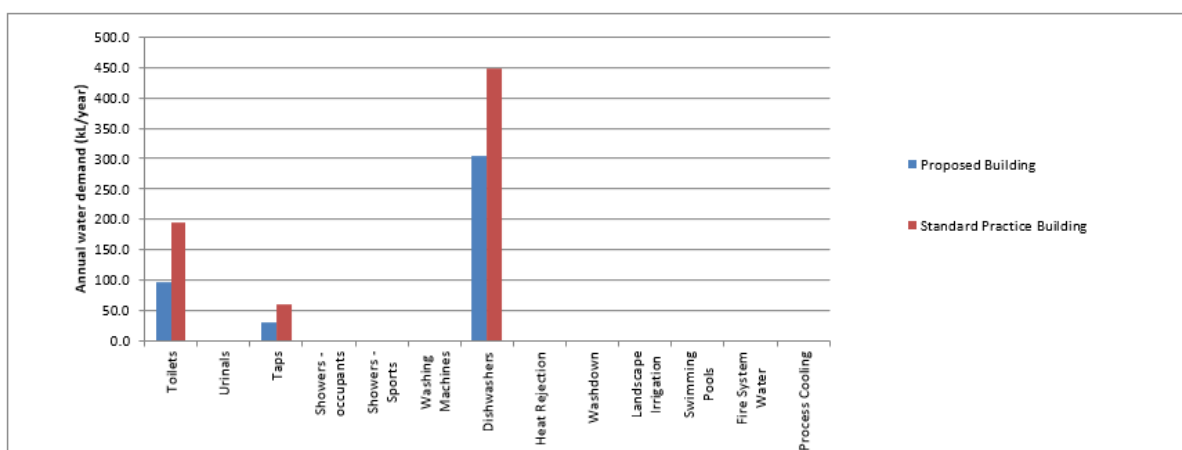


Figure 3: Graph for Estimated Water Use





8 MOVEMENT AND PLACE

8.1 BICYCLE PARKING FACILITIES & SUSTAINABLE TRANSPORT FACILITIES

It is the intention of this category to reduce occupant's dependency on carbon intensive vehicles. The development will install infrastructure to allow for future installation of EV charging stations.

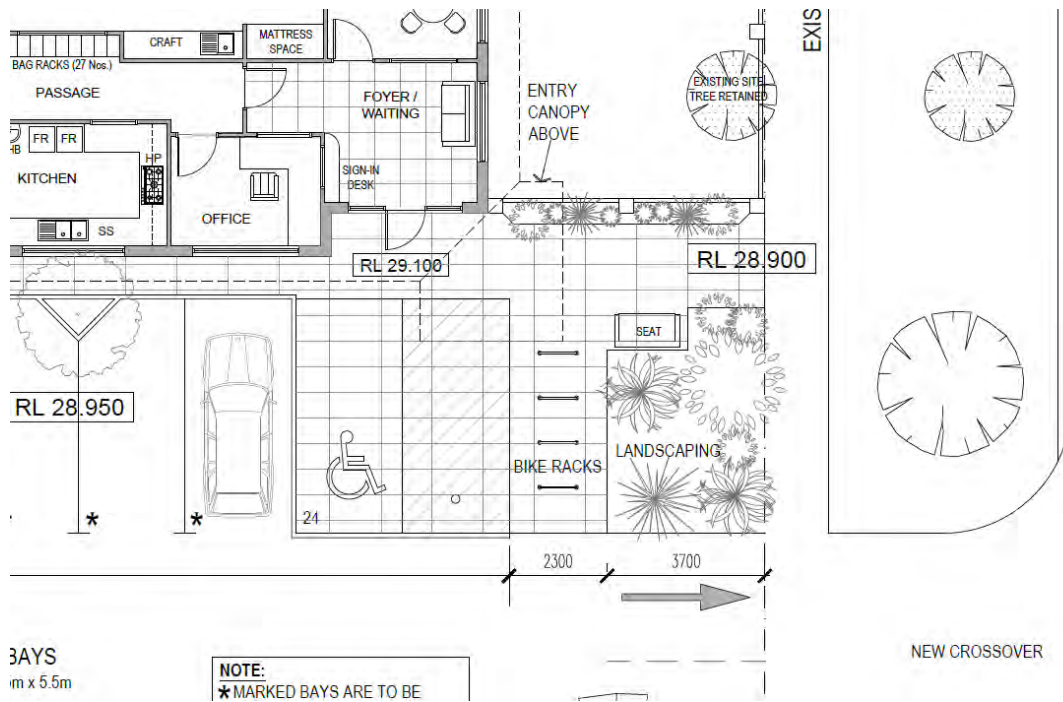


Figure 4: Bike Racks





8.2 ENCOURAGING WALKABILITY

The building's design and location encourages walking to and from a number of amenities. This means designing roads within the building boundary to prioritise pedestrians, and either providing within, or being located close to, a number of amenities.

89 Birdwood Avenue

[Add scores to your site](#)

Como, Perth, 6152

Commute to **Downtown Perth**

12 min 31 min 28 min 60+ min [View Routes](#)

Favorite

Map

Nearby Apartments



Somewhat Walkable

Some errands can be accomplished on foot.



Good Transit

Many nearby public transportation options.

[About your score](#)

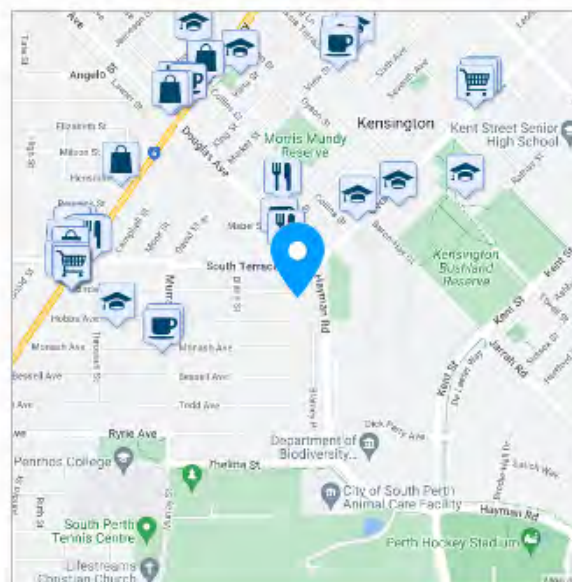


Figure 5: Walkability score of the site

9 LAND USE AND ECOLOGY

9.1 HEAT ISLAND EFFECT

The project will dedicate more than **50%** of the entire site area to include one or a combination of the following:

- Vegetation.
- Roofing materials, including shading structures, having the following:
 - o For roof pitched $<15^\circ$ – a three-year SRI of minimum 64; or
 - o For roof pitched $>15^\circ$ – a three-year SRI of minimum 34.
- Only where the three-year Solar Reflectance Index (SRI) for products is not available, use the following:
 - o For roof pitched $<15^\circ$ – an initial SRI of minimum 82; or
 - o For roof pitched $>15^\circ$ – an initial SRI of minimum 39.
- Unshaded hard-scaping elements with a three-year SRI of minimum 34 or an initial SRI of minimum 39.





- Hardscaping elements shaded by overhanging vegetation or roof structures, including solar hot water panels and photovoltaic panels.

9.2 BIODIVERSITY ENHANCEMENT

Landscaping should consist of native vegetation with crop coefficient of 0.5 or below. All landscaping irrigation to include drip irrigation and include moisture sensor override or alternatively the use of Xeriscape Garden. Where Xeriscape Garden is implemented, there will be a provision for the removal of irrigation within three months of landscaping installation reducing the need for watering after. Water for landscaping will be from non-portable sources (where available).

9.3 WASTE EFFICIENCY

A waste planning expert will produce a Waste Management Plan (OWMP) that addresses best practice in waste management, including:

- Identifying the objectives of the plan, by setting diversion from landfill targets and / or target for reducing total materials generation (general waste materials + recyclable / reusable materials);
- Clearly identify waste streams including general waste, paper and cardboard, glass and plastic;
- Clearly identify applicable bins for various waste streams, that allow for separation of recyclable streams – or use of comingled systems where appropriate.
- Clearly identify at least one other waste stream that can be recycled, and for which recycling facilities are provided.
- Clearly identify storage areas for all waste streams identified in the OWMP.
 - o Area to be sized sufficiently for all streams nominated above, based on waste generated by the project and the collection frequency for each stream; and
 - o Calculations shall be based on third-party best practice guidelines.
- Outline best practice access requirements for the collection of all waste streams identified in the OWMP.
- Outline individual roles responsible for delivering and reviewing the OWMP

10 EXPOSURE TO TOXINS

10.1 PAINTS, ADHESIVES, SEALANTS AND CARPETS

To meet the requirements, at least 95% of internally applied paints, adhesives, sealants (by volume), and carpets (by area) must meet TVOC (Total Volatile Organic Compounds) limits. Compliance with these limits can be achieved through one of the following methods:

1. Product Certification Scheme: The contractor can use products that are certified under a recognized and current Product Certification Scheme at the time of purchase. These schemes assess and verify the TVOC content of the materials, ensuring they meet the specified limits.
2. Laboratory Product Testing: If there are no certified products available, the contractor can conduct laboratory testing on the paints, adhesives, sealants, and carpets to determine their





TVOC content. The testing should be carried out using the whole paint, including water and tinters, to obtain accurate results.

3. Absence of Non-compliant Materials: Alternatively, if none of the materials mentioned (paints, adhesives, sealants, and carpets) are present at the time of practical completion (PC), and thus no TVOC emissions are expected, compliance can be achieved.

All paints used for internal application on the job are to have a low TVOC content as outlined below. TVOC content must be based on whole paint (water and tinters included):

Table 10: Paint VOC limits

PRODUCT TYPE / SUBCATEGORY	MAX TVOC CONTENT (G/L OF READY TO USE PRODUCT)
Walls and ceilings – Any gloss level	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65

Maximum TVOC Content Limits for Paints, Varnishes and Protective Coatings

*EU Directive

The TVOC content of the 'ready-to-use' paint shall be theoretically calculated as the sum total of the VOCs of each of the raw material component comprising the paint.

Where the TVOC content of individual components is not known, it must be determined experimentally by one of the following testing methods as appropriate:

- ISO Method 17895 (2005), for a material with a presumed VOC content <1%;
- ISO Method 11890-2 (2006), for a material with a presumed VOC <15%;
- ISO Method 11890-1 (2007), for a material with a presumed VOC content >15%;
- ASTM D3960, which is comprised of four individual testing procedures that measures TVOC (D2369) as well as density (D1475) and water content (D4017). Exempt compounds (D4457) must not be subtracted in the calculation of VOC content.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fit out items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.

At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

All sealants used in an internal application on the job are to have a low TVOC content as outlined below.

Table 11: Adhesives/Sealants VOC limits

PRODUCT	MAXIMUM TVOC CONTENT (G/LITRE)
General purpose adhesives and sealants	50
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100





Primers, sealers and prep coats

65

One and two pack performance coatings for floors

140

Maximum TVOC limits for Adhesives & Sealants

*Sealants used to enhance the fire- and water-proofing properties are included.

The testing method applicable to adhesive and sealants is only ASTM D3960 as detailed above for paints. For more information on ASTM D3960 refer to South Coast Air Quality Management District Rule 1168.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fitout items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.

At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

All carpets and/or other flooring used on the project are to have low TVOC emission rates as outlined below.

Table 12: Carpet VOC limits

ALL CARPET/FLOORING PRODUCTS MUST COMPLY WITH TVOC EMISSION LEVELS	
Total VOC limit	0.5 mg/m ² per hour

4-pc (4-Phenolcyclohexene) limit

0.05 mg/m² per hour

Compliance Testing: Refer to Carpet and Rug Institute Green Label (US) OR American Society for Testing and Materials (ASTM) D5116 Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products OR

For carpets and laminate floor coverings, an option for demonstrating compliance with TVOC levels is as follows: ISO 10580 (also known as ISO/TC 219) – Document N238 – Resilient,

Textile and Laminate Floor Coverings Evaluation of Volatile Organic Compounds Emissions, with a limit of 500µg/m²/hr at 24 hours. OR

For floor coverings (other than carpet), an option for demonstrating compliance with TVOC levels is as follows:

ISO16000 parts 9, 10 and 11 (also known as the EN 13419), with a TVOC limit at three days of 5mg/m²/h and 0.5mg/m²/h at 28 days.

Carpet or other flooring installed as part of the base building works prior to fit out works, can be deemed re-used for the purpose of this credit.

The contractor must obtain written approval from the design team before using any sealant, adhesive, paint, flooring or fit out items. This approval will be contingent on the provision of proof that the product has a VOC content below that noted above.





At the end of construction, the contractor is required to undertake a final audit to ensure that the correct products have been used.

There are two options for demonstrating compliance for carpets, as follows:

Option A - Product Certification:

Carpets certified under a relevant Product Certification Scheme standard recognised by the GBCA under the GBCA assessment Framework for Product Certification Schemes are deemed to satisfy the requirements of this criterion. Relevant GBCA recognized standards are listed on the GBCA web site. The certificate must be current at the time of project registration or submission and list the relevant product name and model.

A UL GREENGUARD Children & Schools® certification current at the time of project registration or submission is another acceptable evidence for demonstrating compliant TVOC levels for carpets.

Option B - Experimental Testing

All carpets comply with the Total VOC (TVOC) limits within Table below. The emission levels detailed in this table must be established by a NATA or another ISO/IEC17025 accreditation laboratory.

Table 13: Flooring VOC limits

ALL CARPET/FLOORING PRODUCTS MUST COMPLY WITH TVOC EMISSION LEVELS – TO ASTM D5116 TEST PROTOCOL

Carpets using ASTM D5116 Test Protocol:

Total VOC limit	0.5 mg/m ² per hour
-----------------	--------------------------------

4-pc (4-Phenolcyclohexene) limit	0.05 mg/m ² per hour
----------------------------------	---------------------------------

Carpet using ISO 16000 test protocol (also known as EN 13419)

TVOC at three days-	0.5 mg/sqm per hour
---------------------	---------------------

Flooring using ISO 10580 (also known as ISO/TC 219) – Document

TVOC at 24 hours - 0	0.5mg/sqm per hour
----------------------	--------------------

10.2 FORMALDEHYDE MINIMISATION

All engineered wood products used internally, including exposed and concealed applications, must have low formaldehyde emissions as defined in the table below, or contain no formaldehyde. Engineered wood products are defined as particleboard, plywood, veneer, MDF, Laminated Veneer Lumber (LVL), High-Pressure Laminate (HPL), Compact Laminate and decorative overlaid wood panels and include both finished and unfinished products.

These requirements are not applicable to exterior applications, formwork, internal car park applications, reused engineered wood products or raw timber.

The contractor must obtain approval from the design team before substituting any product.





The limits listed here are defined according to the test method. The levels listed are equivalent results for different test procedures.

Table 14: Formaldehyde emission limits

TEST PROTOCOL	EMISSION LIMIT/ UNIT OF MEASUREMENTS
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	< 1.0 mg/L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	< 1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	< 1.0 mg/L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	< 1.0 mg/L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	< 1.0 mg/L
JIS A1901 (not applicable to Plywood)	< 1.0 mg/L
ASTM D5116	<0.1 (+/- 0.0005) mg/m ² hr (may also be represented as mg/m ² /hr)
ISO 16000 part 9, 10 and 11 (also known as EN 13419)	<0.1 (+/- 0.0005) mg/m ² hr (may also be represented as mg/m ² /hr)
ASTM D6007	0.12mg/m ³ *
ASTM E1333	0.12mg/m ³ **
EN 717-1 (also known as DIN EN 717-1)	0.12 mg/m ³
EN 717-2 (also known as DIN EN 717-2)	3.5 mg/m ² hr (may also be represented as mg/m ² /hr).
*The test report must confirm that the conditions of Table 1 comply for the particular wood product type, the final results must be presented in EN 717-1 equivalent (as presented in the table) using the correlation ratio of 0.98.	
** The final results must be presented in EN 717-1 equivalent (as presented in the table), using the correlation ratio of 0.98.	





11 CONCLUSION

In conclusion, the presented report provides a comprehensive overview of sustainability commitments that harmonize seamlessly with the core principles of the sustainability philosophy. These initiatives centre around the critical areas of energy conservation, water conservation, and waste reduction, showcasing a concerted effort to create a more environmentally responsible and resource-efficient approach. By prioritising these fundamental aspects, the report underscores a commitment to fostering a greener and more sustainable future.

Table 12 – Sustainability Commitments

DESCRIPTION	GOAL	SUSTAINABILITY COMMITMENTS
CLEAR AIR	Improve indoor environment quality and health and wellbeing of occupants.	Outdoor air provided to primary areas at a rate at least 50% greater than minimum in AS 1668.2:2012. <i>(TBC based on mechanical consultant).</i>
LIGHT QUALITY		Above 40% of the regularly occupied areas have high level of daylight (above 160 Lux).
EXPOSURE TO TOXINS		The building's paints adhesives, sealants, and carpets are low in TVOC or non-toxic. The building's engineered wood products are low in TVOC or non-toxic. Occupants are not exposed to banned or highly toxic materials in the building.
HEAT RESILIENCE	Reduce impacts of long-term performance.	Light Roof Colour (SRI below 0.50)
ENERGY USE	Reduce emissions and water use.	A minimum of 30% offset in operational energy usage
WATER USE		High WELS Ratings (these equal to above 30% reduction in potable water).
LIGHTING USE		20% reduction in lighting power when compared to NCC DTS.
MOVEMENT AND PLACE	Low carbon options.	Provision for 2x EV Charging Bays
DESIGN FOR INCLUSION	Social health.	Disability Access and inclusive design
BIODIVERSITY ENHANCEMENT	Improved Nature outcomes.	Plant additional local native trees on the site to further shade the outdoor areas and structures. Climate Resilience, drought tolerant planting.





PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals

The DAP notes the status of the following State Administrative Tribunal Applications and Supreme Court Appeals:

Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/22/02219 DR154/2022	City of Bayswater	589-591 (Lot 160-161) Morley Drive, Morley	Proposed Childcare Centre	14/09/2022
DAP/22/02366 DR74/2023	City of Stirling	House Numbers 432, 438 And 440 (Lots 23, 15 And 351) Scarborough Beach Road and House Number 57 (Lot 31) Howe Street, Osborne Park	Additions - Motor Vehicle, Boat or Caravan Sales and Motor Vehicle Repair to existing Automotive Sales	22/05/2023
DAP/22/02364 DR75/2023	City of Bayswater	504A & 504-508 (Lot 30,4) Guildford Road, Bayswater	Proposed service station, fast food outlet and showroom development	23/05/2023
DAP/22/02317 DR81/2023	City of Vincent	41-43 and 45 Angove Street, North Perth	Proposed Service Station	31/05/2023
DAP/23/02480 DR184/2023	City of Vincent	Lot 3 (37-43) Stuart Street, Perth	Proposed Unlisted Use (Community Purpose) & Alterations & Additions	
DAP/22/02259 DR166/2023	City of South Perth	Lots 253 & 50 (4-8) Charles Street, South Perth	Mixed use development	03/11/2023
DAP/23/02550 DR196/2023	City of Belmont	Lots 2, 606, 608 and 609 (No. 97-107) Great Eastern Hwy and Lots 302, 304, 305 (No.2) Acton Ave, Rivervale	Warehouse (Self Storage Facility)	21/12/2023



Finalised SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/18/01521 DR15/2023	City of Belmont	225 (Lot 500), Great Eastern Highway, Belmont	Use Not Listed: Third Party Signage	31/01/2023
DAP/22/02248 DR76/2023	City of Vincent	No. 129 (Lot: 62; D/P: 956) Loftus Street, Leederville	Proposed Child Care Premises	24/05/2023
DAP/20/01770 DR140/2022	City of Nedlands	97 (Lots 1-4) and 105 (Lot 500) Stirling Highway, Nedlands	Mixed use development comprising of basement car parking, restaurants, offices, motor vehicle sales and multiple dwellings.	23/08/2022

*Matters finalised during the last meeting cycle.

2. General Business

3. Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2024 a DAP member must not publicly comment on any action or determination of a DAP.