Government of **Western Australia**
Development Assessment Panels

Metro Outer Joint Development Assessment Panel Agenda

Meeting Date and Time: Tuesday, 9 February 2021; 9:30am
Meeting Number: MOJDAP/66
Meeting Venue: Via Zoom

The Department of Planning, Lands and Heritage is monitoring the COVID-19 situation closely and following Government advice to ensure the safety of our DAP members, local governments, applicants, officers, presenters and members of the public as we continue our operations and legislative requirements.

Attendance arrangements via virtual meetings will now commence to ensure continuity of our business practices. DAP meetings will remain open to the public for meetings hosted by Department via Zoom.

Zoom details for the MOJDAP/66 *meeting are as follows:*

To connect to the meeting via your computer - https://zoom.us/j/96074536243

To connect to the meeting via teleconference dial the following phone number - 08 7150 1149

Insert Meeting ID followed by the hash (#) key when prompted - 960 7453 6243

This DAP meeting will be conducted by electronic means open to the public rather than requiring attendance in person.

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Attendance

DAP Members

Mr Ian Birch (Presiding Member)
Ms Sheryl Chaffer (Deputy Presiding Member)
Mr Jason Hick (Third Specialist Member)

Item 8.1
Cr Deb Hamblin (Local Government Member, City of Rockingham)
Cr Mark Jones (Local Government Member, City of Rockingham)

Item 8.2
Cr Carol Adams (Local Government Member, City of Kwinana)
Cr Matthew Rowse (Local Government Member, City of Kwinana)

Officers in attendance

Item 8.1
Mr Mike Ross (City of Rockingham)

Item 8.2
Ms Chloe Johnston (City of Kwinana)
Mr Jared Veenendaal (City of Kwinana)

Minute Secretary

Ms Megan Ventris (DAP Secretariat)

Applicants and Submitters

Item 8.1
Mr Oliver Basson (Planning Solutions)
Mr Josh Watson (Planning Solutions)
Mr Cameron Leckey (Rise Urban)
Mr Martti Warpenius (Reverberate Consulting)
Mr Benham Bordbar (Transcore)
Mr Lance Meyer (Accord Property)
Mr Michael Harvey (Accord Property)

Item 8.2
Mr Giles Harden Jones (HJ Architects)

Members of the Public / Media

Nil

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.

In response to the COVID-19 situation, this meeting is being conducted by electronic means open to the public. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Nil

3. Members on Leave of Absence

Nil

4. Noting of Minutes

Signed minutes of previous meetings are available on the DAP website.

5. 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.

6. Disclosure of Interests

Member	Item	Nature of Interest
Mr Jason Hick	8.1	Impartiality Interest – Mr Hick is a shareholder, Director and employee of Emerge Environmental Services Pty Ltd. (Emerge). Emerge has previously undertaken work for entities related to the landowner (Peet Golden Bay Pty Ltd.) and the Housing Authority, but neither Emerge nor Mr Hick has had any involvement with the application being considered at Item 8.1 or the broader landholding.

7. Deputations and Presentations

7.1 Mr Cameron Leckey (Rise Urban) presenting against the recommendation for the application at Item 8.1. The presentation will address the failure of the application to address key aspects of the City's Local Planning Policy 5.3.3 – Childcare Premises and the WAPC's Planning Bulletin 72/2009.

7.2 Mr Martti Warpenius (Reverberate Consulting) presenting in support of the recommendation for the application at Item 8.1. The presentation will speak in support of the proposed child care centre, subject to modifications to Condition 16.

7.3 Mr Josh Watson (Planning Solutions) presenting in support of the recommendation for the application at Item 8.1. The presentation will speak in support of the proposed child care centre, subject to modifications to Conditions 15, 16 and 21.

7.4 Mr Giles Harden Jones (HJ Architects) presenting in support of the recommendation for the application at Item 8.2. The presentation will address the RAR Recommending approval and to briefly discuss the comments raised by the Councillor's at the City of Kwinana on the 27/01/2021 and these points are contained on the Council Minutes. Points raised as follows:

• Parking, including the number of visitor bays allocated
• Potential traffic issues
• Johnson Road is a single carriage road and not suitable for such a development
• There only being a single entry/exit
• Overshadowing
• Visual privacy
• Site lines
To Thank the City of Kwinana Planners for their work with this application
To answer any questions from the DAP Panel.

The City of Rockingham and the City of Kwinana may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1 Lot 263 (15) Aurea Blvd, Golden Bay

Development Description:	Proposed Child Care Premises
Applicant:	Planning Solutions
Owner:	Housing Authority / Peet Golden Bay Pty Ltd
Responsible Authority:	City of Rockingham
DAP File No:	DAP/20/01873

8.2 Lot 3 (101) Johnson Road, Bertram

Development Description:	34 multiple dwellings
Applicant:	Harden Jones Architects
Owner:	Renel Pty Ltd
Responsible Authority:	City of Kwinana
DAP File No:	DAP/20/01881

9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil

10 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/19/01708 DR 138/2020	City of Kwinana	Lot 108 Kwinana Beach Road, Kwinana	Proposed Bulk Liquid Storage for GrainCorp Liquid Terminals	01/07/2020
DAP/01729 DR 176/2020	City of Kalamunda	Lot 130 (74) Warlingham Drive, Lesmurdie	Aged Residential Care Facility	28/8/2020
DAP/20/01764 DR 204/2020	City of Swan	Lot 780 (46) Gaston Road, Bullsbrook	Proposed Stock Feed Grain Mill	8/09/2020

11 General Business

In accordance with Section 7.3 of the DAP Standing Orders 2020 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

12 Meeting Closure

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

Presentation Request Guidelines

Persons interested in presenting to a DAP must first consider whether their concern has been adequately addressed in the responsible authority report or other submissions. Your request will be determined by the Presiding Member based on individual merit and likely contribution to assist the DAP's consideration and determination of the application.

Presentations are not to exceed **5 minutes**. It is important to note that the presentation content will be **published on the DAP website** as part of the meeting agenda.

Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Cameron Leckey
Company (if applicable)	Rise Urban
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Outer JDAP
Meeting Date	Tuesday 9th February 2021
DAP Application Number	DAP/20/01873
Property Location	Lot 263 Aurea Blvd, Golden Bay
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☐ **AGAINST** ☒
Is the presentation in support of or against the proposed development?	**SUPPORT** ☐ **AGAINST** ☒
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* The failure of the application to address key aspects of the City's *Local Planning Policy 5.3.3 – Childcare Premises* and the WAPC's Planning Bulletin 72/2009

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Please refer attached correspondence (our ref Ltr2-0322020)

Rise Urban.

Our reference: Ltr02-0322020
Enquiries: Cameron Leckey

4 February 2021

The Presiding Member – Mr Ian Birch
Metro Outer Joint Development Assessment Panel
C/o Western Australian Planning Commission
140 William Street
PERTH WA 6000

By email: daps@dplh.wa.gov.au

Dear Mr Birch

DEPUTATION REQUEST - METRO OUTER JOINT DEVELOPMENT ASSESSMENT PANEL - DEVELOPMENT APPLICATION – PROPOSED CHILD CARE PREMISES – LOT 263 AUREA BOULEVARD, GOLDEN BAY

We are writing to seek the presiding member's approval to make a formal deputation on the development application (DA) for a proposed Child Care Centre at Lot 263 Aurea Boulevard, Golden Bay ("the subject site"), to be determined by the Metro Outer Joint Development Assessment Panel at its 9 February 2021 meeting.

Our client, Grassroots Childcare has a current development approval for a 92-place child care centre located immediately north of the subject site at Lot 716 Thundelarra Drive, Golden Bay (City of Rockingham ref: 20.2019.113.1 – AD19/53298), and has spent more than $200,000 to date in designing and preparing this project for construction. Construction is currently underway, with a planned opening expected in October 2021.

Our deputation will discuss three key areas of concern that have not been adequately addressed by the applicant, and have not been correctly assessed by the City of Rockingham. These are:

1. The distribution of existing and approved childcare services available to the local community;
2. Compliance with the endorsed planning framework; and
3. Traffic and parking.

Each of these matters is discussed further in the following sections.

Distribution of child care centres and benefit to the community

The City's Local Planning Policy 3.3.5 – Child Care Premises (LPP 3.3.5) requires that child care centres:

a) Are distributed evenly to provide maximum benefit to the community it serves; and

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b) Will not have a demonstrable adverse impact on the existing or planned level of Child Care Premises enjoyed by the local community.

The application and the City's assessment fail to ensure that childcare centres *provide the maximum amount of benefit to the community through their distribution*, as required by both the City's LPP 3.3.5 and the WAPC's Planning Bulletin 72/2009 (Child Care Centres). To be clear, this is not a question of 'oversupply' or economic viability as suggested in the RAR, but rather an established planning principle at both a State and local level, to ensure that the level of service to the community by similar existing or approved facilities is not compromised by a new development proposal.

If properly considered, it is evident that the proposal does not *maximise* the community benefit (as required by the policy) and the existing and approved centres are at risk of being adversely impacted by the proposal due to an oversupply in the area, resulting in unoccupied places within these centres.

The applicant states (as reported in the RAR) that:

> "*The suburbs of Secret Harbour, Golden Bay and Singleton form a catchment in which there are currently 1,769 persons aged 0-4 years. In this same catchment area there are currently only 4 childcare centres. These are the Goodstart Early Learning Secret Harbour (97 places), Great Beginnings Secret Harbour (92 places), Tiny Timms Singleton (63 places) and Small Friends Playschool Singleton (45 places). Therefore, there is only a total of 297 licensed childcare places within this catchment*."

Despite us bringing our client's approved child care centre to the attention of the City and applicant during the advertising period, the applicant's analysis excludes our client's child care centre (approved and with a planned opening in October 2021), as well as the Nido Early School in Secret Harbour, which is constructed and opening in March 2021.

The additional capacity created by these two approved child care centres (a total of six within the catchment) has a significant bearing on the level of service that is currently, or soon will be available to the local community, and even without the proposed development falls comfortably within the 'acceptable ratio range' of 3–4 0-4 year olds for every licensed child care place as identified by the applicants in their submission. When the proposed child care centre is added, the demand ratio drops to 3.0 – the very bottom of the 'acceptable range' identified by the applicants in their submission.

The origins or validity of the applicant's 'acceptable ratio range' of 3-4 is unknown, and it is not qualified in any way in the application's submission. This ratio has no basis in planning policy and should not be used as the yardstick to determine whether the community benefit is maximised – as required by the City's policy. It is however useful to determine the availability of childcare services in the locality. When considering the four existing centres along with the two that are soon to open, it is clear that the community is already well served by childcare facilities, and an additional centre will not serve to maximise the community benefit as required by LPP 3.3.5.

The RAR states:

> "*The applicant's demand analysis is noted. It is also accepted that due diligence, with regard to the commercial viability of a CCP, would have been undertaken, in the knowledge of existing and approved*

CCPs in the vicinity…It is therefore accepted that the proposed development will not have an undue impact on the level of service to the community by similar existing or approved facilities"

The City's acceptance of, and reliance on the applicant's own due diligence to confirm that there is adequate demand for this proposal is inappropriate for two reasons:

1. Commercial due diligence is based solely on the projected commercial performance of a business against the cost of developing and operating the business and should not form the basis for making planning decisions. Due diligence is site and project specific, and does not consider the impact on other existing services. There may well be a strong commercial case for an additional childcare centre in this location, however this is not a valid planning justification and should not form the basis for supporting this proposal.

2. The applicant's own submissions demonstrate that their due diligence did not take into account two of the six childcare facilities within the catchment, and the rigor of the due diligence is therefore questionable and should not be relied upon.

For these reasons it is clear that the application fails to satisfy LPP 3.3.5, and the application should be refused on this basis. At the very least, the applicant should be required to produce a proper and independent economic analysis by a suitably qualified expert prior to this application being determined.

Compliance with planning framework

In addition to the failure of the application to satisfy LPP 3.3.5 and Planning Bulletin 72/2009, there are other significant inconsistencies with the City's own planning framework. In particular, the endorsed Golden Bay Detailed Area Plan (or Local Development Plan / LDP), which is a 'due regard' instrument pursuant to the Deemed Provisions. Key to these is the LDP's identification of the subject site as 'Residential R60' with a two storey minimum height requirement, along with the stated objective of the LDP to *provide a context for higher density residential development that capitalises on proximity to local services.* This proposal completely undermines this objective, and will prevent further residential density in close proximity to the centre. A copy of the approved Golden Bay Detailed Area Plan is appended to this submission.

Although the land is zoned Commercial under TPS2, this does not mean that a childcare centre, as a 'D' use, should be approved without first considering the planning context, and in particular the objectives of the Commercial zone as stated in TPS2.

The objective of the Commercial zone is to provide for the development of District, Neighbourhood and Local shopping facilities to cater for the present and future residents of the Local Government consistent with the Local Government's Local Commercial Strategy and supported by any other Plan or Policy that the Local Government from time to time may adopt as a guide for the future development within the zone"

The LDP is precisely the type of *Plan or Policy* that this objective is referring to. The land uses set out by the LDP demonstrate a fine-grain level of planning which is more compatible with existing land uses (particularly

the adjacent residential areas) and the medium density residential use provides for a more consolidated, distinct and logical Neighbourhood Activity Centre than simply having two childcare centres side by side.

The use class of Childcare Premises is a discretionary use in this zone, and the City and JDAP should have regard to the approved LDP and its fine-grained planning context as part of assessing the suitability of this land use.

The applicant's response to the above matters in the City's RAR states that the proposal was found to be "*largely consistent*" with the provisions of the DAP. Further, that "*the Detailed Area Plan, although designating the subject site for future medium density housing, is able to be departed from. The City are supportive of a child care centre on the subject site (subject to appropriate design) and there is a clear demand for child care services in the locality….* (and therefore) *strong merits for a minor departure from the Detailed Area Plan*."

The City's commentary on this states:

"Under TPS2, a CCP is a discretionary land use that can be approved within either the Commercial or the Residential zone. Therefore, this departure from the DAP is considered to be acceptable, as the development responds to the commercial zoning of the site whilst respecting the residential amenity of the surrounding area.

The logic that because a child care centre is capable of approval (as a 'D' use) it should be supported in lieu of the planned use as set out in the endorsed LDP for this site is flawed. Taverns, warehouses and service stations are also all 'D' uses in the commercial zone, however it is hard to imagine the City being supportive of any of these uses in lieu of the residential use shown on the LDP. Disregard of the LDP in the manner proposed by the City does not follow an orderly and proper approach to planning assessment.

Traffic and parking

With regard to traffic and parking matters, it must be reiterated that the access arrangements and lack of consideration of pedestrian safety are considered inappropriate.

The approved LDP identifies two specific access / egress points onto Nallan Lane – one to the north of the site and one to the south. It is understood that the intent of this access arrangement was to consolidate and control access to a future residential site in order to avoid *ad hoc* access to the laneway. The proposal is inconsistent with this access arrangement – instead proposing continuous parking at 90 degrees to the laneway for its full length (approximately 60m). This will result in a parking arrangement that is clearly contrary to the intent of the LDP.

Nallan Lane is a publicly owned gazetted road. Element 2 of Liveable Neighbourhoods notes that the purpose of a laneway is to provide access to residential garages – particularly where there is no alternative vehicle access to a lot. The addition of 27 commercial parking bays, all of which are reversing into the laneway, will undoubtedly result in congestion and confusion during peak periods due to the high turnover of these bays, and will impact on the ease of access for the local residents.

The width of the laneway (6m) and the lack of a consolidated access point reduces the safety for pedestrians as they are forced to walk along the laneway rather than a footpath as they exit their vehicles on either side of Nallan Lane. This issue is exacerbated by the fact that this use will attract up to 105 children under the age of

5 per day – most of whom will be dropped off and picked up within a 60 minute period – plus staff members. The safety of these children is paramount, and the configuration of the proposed access and parking is inadequate to ensure this safety. The fact that the traffic report claims that there are no safety issues is considered highly irregular, and should be investigated further before a decision is made.

The subject site is large enough to accommodate the required parking bays within the site boundary, and accessed via a consolidated access / egress point – just like every other child care centre in the City of Rockingham. The proposal forsakes this preferred access arrangement in order to maximise the yield of the site – potentially at the expense of child safety, and the amenity of nearby residents.

It is unknown whether there are any precedents in Western Australia where a tandem parking arrangement serving a commercial premises has been permitted directly off a public road in this manner. This is particularly unusual for a new development on a vacant site, as opposed to a retro-fitted land use into an existing building or site. Tandem parking will increase the level of vehicle manoeuvring over and above individual 90° parking bays however this does not appear to have been considered in the Traffic Impact Statement, nor the likelihood that this will increase congestion as vehicles are shuffled.

In conclusion, we're of the view that the traffic and traffic-related safety considerations deserve additional scrutiny given the less than optimal parking and reversing arrangements, the lack of a footpath or safe refuge for pedestrians, and the issues associated with tandem parking. The application should not be supported until these matters are completely resolved.

Conclusion

As demonstrated through this submission, there are a number of planning issues that have not been adequately addressed, assessed or responded to as part of this application. Central to this are the dual themes of community benefit, and non-compliance with the planning framework.

We look forward to presenting to you on these key issues at next week's MOJDAP meeting.

Should you require any further information, please contact the undersigned on 0427 058 484, or via email at Cameron@riseurban.com.au

Yours sincerely



Cameron Leckey
Director
Rise Urban Pty Ltd

Detailed Area Plan

This DAP has been approved under delegated authority by the City pursuant to Clause 4.23.1(c)(i) of Town Planning Scheme No. 2

Manager Statutory Planning
City of Rockingham

Date: 24/3/2015

Lot 621 2/R60 Refer Note 3
Lot 622 P/2
Lot 636 P/2
Lot 8005 2/R40
Lot 8006 2/R40
Lot 265 2/R60
Lot 263 2/R60
2/R60

Main Street
Warnbro Sound Avenue
S
RC
Varies

Legend

- DAP boundary
- Indicative maximum building envelope
- #m — Minimum setback (see note 1)
- Mandatory active street frontage/ 0m setback
- Mandatory active street frontage/ 0-2.5m setback
- Pedestrian footpath network
- Parallel parking required (subject to MRWA and/or City of Rockingham engineering approval)
- S — Preferred service zone
- Vehicle connection required internal to site
- Preferred vehicle access point
- Architectural response to corner required
- Special vegetation screens
- Community piazza space
- Residential envelope (see note 2)
- Commercial envelope with R60 residential permitted.
- 2/R## — Minimum building height in storeys/density
- P — Minimum parapet height of 5.5m
- Retail core
- Habitable frontage

Note 1: For setbacks: RC = as per R Codes. Where a range is provided, the setbacks shall be a minimum and a maximum.

Note 2: Some of the residential envelopes are coded 'Commercial' under the structure plan and, as such, single residential development is not permitted.

Note 3: A portion of the main commercial lot has been identified as residential. The common boundary may need to be adjusted once the ultimate land requirement for the commercial site has been confirmed.

DISCLAIMER
Information shown herein is generated from data obtained from various sources. The City of Rockingham cannot guarantee the currency, accuracy or completeness of any data and will not accept any responsibility for any errors or losses incurred as result of the use of this information.

Users are advised to verify the currency, accuracy and completeness of the data with the source organisation or the relevant data custodian before making any decision.

CLE TOWN PLANNING + DESIGN

PROVISIONS

The provisions of the City of Rockingham Town Planning Scheme TPS No. 2 (TPS2) and the Residential Codes of Western Australia (R-Codes) are varied as detailed in this Detailed Area Plan (DAP). All other requirements of TPS2 and the R-Codes shall be satisfied in all other matters.

1. Objectives

The objective of this DAP are to:

a) Establish a 'Main Street' based Neighbourhood Activity Centre of a scale that is appropriate to its role as a focal point of a residential community and its role in the retail hierarchy of the region.

b) Provide a context for higher-density residential development that capitalises on proximity to local services.

2. Standards

All development in the DAP area must be consistent with the DAP and the following standards:

a) Structure

i. The road annotated as 'Main Street' must be the main street for the neighbourhood centre.

b) Street interface

i. All buildings must provide passive surveillance of adjacent street reserves by means of active or habitable frontage.

ii. Where active frontage is required and/or a 0m street setback has been provided, the frontage must incorporate a canopy(s) with continuous coverage to a minimum depth of 2.5m or to within 600mm of the back of the adjacent kerb where the verge is too narrow to accommodate a 2.5m deep canopy, and must extend across the entire street frontage of the building.

iii. The street setback for multiple dwellings may be reduced to 0m in the case of mixed-use development, and also for residential building elements that provide architectural interest and where a reduction in the minimum setback (stated in the DAP) does not compromise the amenity of residents (for example, for vertical circulation elements, lobbies, and upper levels).

iv. Delivery, loading and storage areas must be located and screened to minimise the visual impact on the public domain.

v. Street elevations must be designed to create visual interest through building form, articulation of walls and openings, architectural features, texture and colour, with particular emphasis given to the ground floor level.

vi. Non-active portions of walls must be articulated by means of form, colour and texture to provide visual interest.

vii. Garage doors and supporting structures for residential development must not exceed 50% of the frontage at the front setback line from the Primary Street. This can be increased to 60% for two-storey dwellings in accordance with clause 5.2.2 of the R-Codes.

c) Landscape

i. The landscape material used for the footpath must be continued across driveways and the entrances to Rights of Way to maintain visual continuity of the pedestrian network and aid pedestrian legibility.

ii. Street trees must be provided at a minimum rate of 1 tree per 14m on both sides of the streets within the DAP area.

iii. Shade trees must be provided to all publically accessible and open car parks not otherwise provided with shade structures at a minimum rate of 1 tree per 8 car bays.

iv. The special vegetation screens' identified on the DAP must consist of trees and an under-storey of low-level shrubs, rather than mid-level shrubs, to maintain sightlines for pedestrians, and must be of a minimum of 3m in width.

d) Robustness

i) The ground floor of all buildings in the Commercial area must be designed with a minimum floor-to-floor height of 3.2m to enable commercial uses even if used for interim residential use.

ii) The ground level of all buildings in the Commercial area must be designed for disabled access regardless of the initial use.

e) Fencing

i. Any fencing to the primary or secondary street(s) frontage must be restricted to residential uses only.

ii. Where street frontage fencing is employed, it must be no more than 1.8m high and must be at least 50% visually permeable from 0.9m above the ground level of the adjacent street with solid portions of fencing consisting of masonry construction.

iii. Colorbond fencing is not permitted within any street setback area.

f) On-street Parking

i. For the purpose of calculating parking provision, any on-street parking bays adjacent to a lot on the same side of the road may be included in the calculation of visitor parking provision for that lot.

g) Open space

i. Single and grouped dwellings must have a minimum open space requirement of 30% of the lot.

ii. Single and grouped dwellings coded R60 must have a minimum uncovered outdoor living area of at least 16sqm with a minimum dimension of 4m, and 30% of the lot, and single and grouped dwellings coded R40 must have a minimum uncovered outdoor living area of at least 20sqm with a minimum dimension of 4m.

3. **Design principles for the retail core**
In addition to the above standards, the design of the retail core must observe the following design principles:

a) Tenancies must present their main entrance to the main street or the community piazza space if frontage to either is provided.
b) Tenancies must present active and visually permeable frontages to the main street or the community piazza space and any connecting mall between the main car park and the street.
c) Pedestrian movement from the main car park to the supermarket must be directed past the supporting tenancies to provide them with exposure and economic support.
d) Any public door between the supermarket and the main car park must be an exit only, to enable convenient trolley access and avoid trolleys in the main street.
e) Bin storage and other service areas must be discretely located to enable direct access (or via a service corridor) to a vehicle collection point.
f) The community piazza area must be designed to provide for greenery, shade, and casual seating.

4. ***Minimum building heights:***
Commercial zoning: Sites developed exclusively for residential uses must be a minimum of two storeys in height to achieve a village scale, and must comply with the minimum ground floor floor-to-floor heights pursuant to Provision 2(d).

Sites developed exclusively for commercial uses are permitted as single storey but with a minimum parapet height of 5.5m or a minimum eaves height of 4.5m where a pitched roof is utilised.

Residential zoning: Single-storey development is permitted subject to the building having a minimum parapet height of 5.5m or a minimum eaves height of 3m for 'permitted' or 'discretionary' commercial land uses (e.g.; child care or community facilities) pursuant to Table 1 (zoning table) of TPS 2.

5. **Definitions**
For the purpose of this DAP, the following definitions shall apply:

Active frontage: An active frontage must incorporate shopfronts (to retail, office or other commercial uses) with a minimum of 66% of the ground floor street frontage as transparent glazing that allows visual connectivity between the inside of the building and the adjacent public domain. Additionally, any tenancy with an active frontage to a street must address the primary pedestrian entrance to that street.

Habitable frontage: A habitable frontage must present at least one major opening to habitable rooms of residential development to the adjacent public domain that allows passive surveillance from inside of the building and the adjacent public domain.

Architectural response to a corner: An architectural response to a corner must consist of a prominent feature that provides visual emphasis. Examples include: a raised or projecting building element, a significant roof element, a differentiation of materials, a significant opening(s) or a balcony/veranda structure.

Retail core*:* The portion of the development that contains the majority of the retail tenancies, the community piazza space and, if provided, the supermarket. The DAP anticipates the retail core to be on the eastern side of the main street.

Indicative Development Plan



Indicative uses

- Retail
- Non-retail commercial
- Mixed-use
- Residential

Note: The Indicative Development Plan provides an indication of the built form and possible land uses that could arise from the Detailed Area Plan. The Indicative Development Plan should not be considered as a template for built form or land use as the Detailed Area Plan enables the flexibility for a range of development outcomes.

The annotation of specific land uses is to illustrate a potential outcome and does not constitute a requirement for those uses in those locations.

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Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

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Presentation Request Guidelines

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Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Martti Warpenius
Company (if applicable)	Reverberate Consulting
Please identify if you have any special requirements:	**YES ☐** **NO ☒** If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Outer JDAP
Meeting Date	9 February 2021
DAP Application Number	DAP/20/01873
Property Location	Lot 263 (15) Aurea Boulevard, Golden Bay
Agenda Item Number	8.1

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES ☒**
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT ☒** **AGAINST ☐**
Is the presentation in support of or against the proposed development?	**SUPPORT ☒** **AGAINST ☐**
Will the presentation require power-point facilities?	**YES ☒** **NO ☒** **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

These details may be circulated to the local government and applicant if deemed necessary by the Presiding Member. Handouts or power points will not be accepted on the day.

Brief sentence summary for inclusion on the Agenda	*The presentation will address:* Speak in support of the proposed child care centre, subject to modifications to Condition 16.

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Refer enclosed presentation summary.

REVERBERATE
CONSULTING

Friday, 5 February 2021

Reference: P191040LT2 REV1.docm

Secretariate
Metro Outer Joint Development Assessment Panel

Dear Sir/Madam,

Submission for JDAP Meeting – 9 February, 2021
DAP/20/01873 - Lot 263 (15) Aurea Boulevard, Golden Bay –
Proposed Child Care Premises

This deputation has been prepared to provide the necessary technical evidence to confirm operations of the Childcare Centre, and carpark from 6.30 am onwards are satisfactory.

The RAR has demonstrated that Council considers the noise emissions from the site are, or can be made to be acceptable. The only exception relates to concerns raised by Council that insufficient car parking bays are available for staff and parents attending the facility prior to 7am. The use of carparking bays not flagged as appropriate could cause excessive noise emissions.

This deputation lays out the information related to these carparking bays

Figure 1 below outlines the carparking bays which can be used prior to 7am for staff and parent drop-off. The scenario presented is that for the current situation in Golden Bay, ie prior to a house being constructed at a neighbouring lot, 17 Aurea Blvd.



Limit Car parking bays
pre 7am
- 18 Car bays available

27 car parking bays
available 7am – 7pm

Figure 1 – Car park Pre-7am availability – no house at 17 Aurea Blvd

This shows that 18 carparking bays are available prior to 7am which is considered sufficient for the Childcare operations.

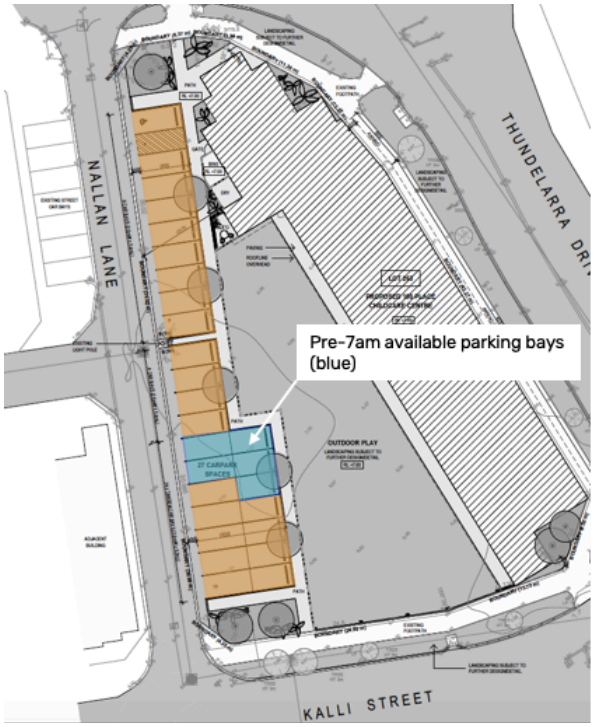
Were a dwelling to be constructed at 17 Aurea Blvd, and it be surrounded by a 1.8m high Colorbond fence similar to that for the other houses nearby, eg at 10 Kalli St, Figure 2 shows the acceptable pre-7am carparking bays



Figure 2 – Car park Pre-7am availability –house at 17 Aurea Blvd, incl 1.8m Colorbond fence

In this instance there is no change to the number of available carparking bays, compared to what is currently available.

We understand that Council is concerned about the construction of a house at 17 Aurea Blvd, without a surrounding fence. In this scenario the number of available parking bays reduces as shown in Figure 3 overleaf.



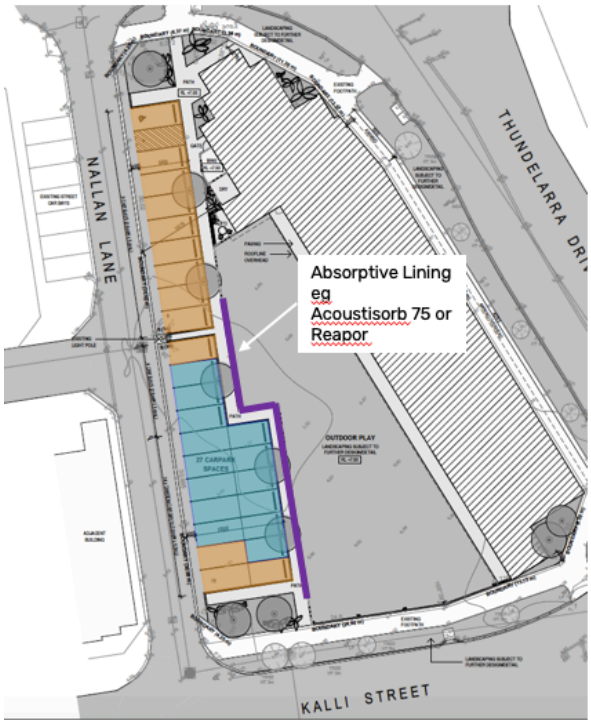
Limit Car parking bays pre 7am
- 5 Car bays available

27 car parking bays available 7am – 7pm

Figure 3 – Car park Pre-7am availability – Worst Case Scenario– Dwelling at 17 Aurea Blvd, no fence at Aurea Blvd

This is an extreme scenario and unlikely to occur on site. Under this scenario only 5 bays would be available pre-7am.

Were this scenario to eventuate, ie 17 Aurea Blvd is built without a suitable fence facing the childcare centre, noise control treatments in the form of acoustic linings (ie Pyrotek Reapor, Acousticsorb 75 or equivalent) can be used by the childcare centre to control carpark noise. The 14 acceptable carparking bays are available in this instance, Figure 4



Limit Car parking bays pre 7am
- 14 Car bays available

27 car parking bays available 7am – 7pm

Figure 4 – Car park Pre-7am availability – Worst Case Scenario with Treatment applied to Childcare barrier

The childcare centre does not need 14 carparking bays pre-7am.

Therefore, once the type of dwelling at 17 Aurea Blvd is known, and the type of fence proposed, the childcare centre can respond appropriately to maintain suitable numbers of pre-7am carparking bays. Afterall, during their operations they need to comply with the Noise Regulations, regardless of the type of residences constructed around them, and the time of day.

The variation in number of bays is not dependent on any other dwelling and we have shown that treatments are available to control the childcare centre noise emissions even under the worst-case scenario

We also note that the other noises from the childcare centre can be controlled to meet the noise regulations, these noises have previously been discussed in our reporting. Council has accepted the following sources can be controlled:

- Carpark noise post 7am
- Outdoor play area noise (again only operating after 7am)
- Mechanical services
- Staff outside
- Garbage collection

I believe the only residual concern the Council may have could relate to the usage of acceptable pre-7am parking bays. In this instance we recommend that a management plan be developed, to the satisfaction of Council, to control pre 7am parking.

In conclusion, the acoustic lining treatment outlined above can be used to increase the number of available pre-7am parking bays so that early morning drop offs can occur, without exceeding the Noise Regulation requirements. Given the other noise emissions are accepted as being able to be controlled, we recommend approval of Childcare Centre operations from 6.30 am onwards.

Yours sincerely,



Martti Warpenius
Director

p+61 8 9468 7888
m+61 414 394 220
martti@reverberate.consulting

REVERBERATE
CONSULTING

Environmental Noise Impact

Golden Bay Childcare
Aurea Boulevard,
Golden Bay

by Martti Warpenius
February 2021

www.reverberate.consulting

Outline

Our Role

Peer Review Findings

Council's Concern

Modelling

Results

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Our Role

Undertake a Peer Review of earlier reporting

Establish Noise Impact

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Peer Review Findings

Noise Sources considered in the original work

- Children playing outdoors
- Carpark car door closing noise emission
- Mechanical plant noise emission

Noise Sources not considered, but added by our analysis

- Carpark – general noise (incl engines)
- Staff Noise - outdoors
- Waste collection noise

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Peer Review Findings

Suitable and practical noise controls are available

to limit noise emissions to acceptable levels between the hours of:

6.30 am and 7.00 pm Monday to Saturday

Council's Concern

Only Concern - Carpark Noise Emissions – pre 7am

Noise Source of Concern -
Car Door closing

Modelling

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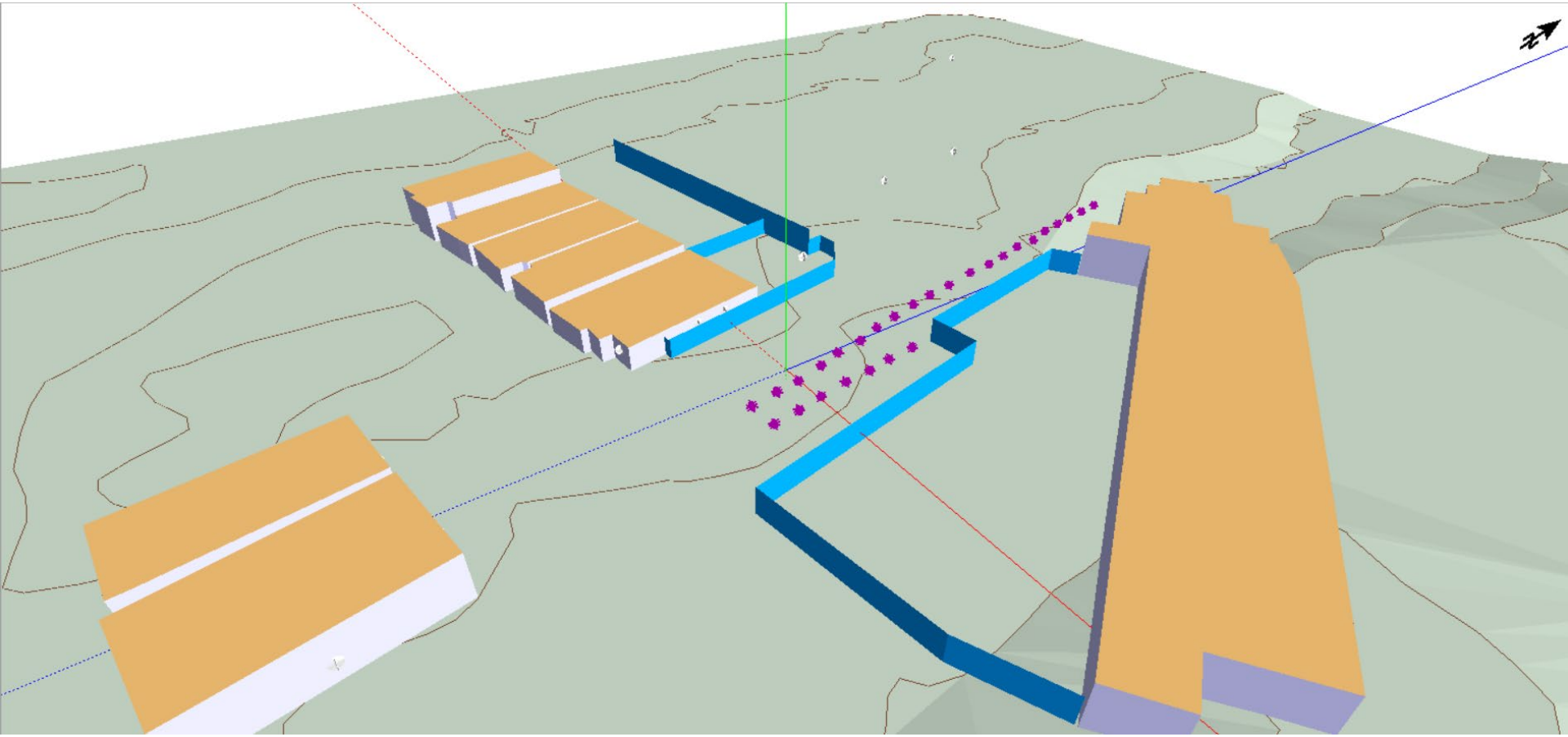
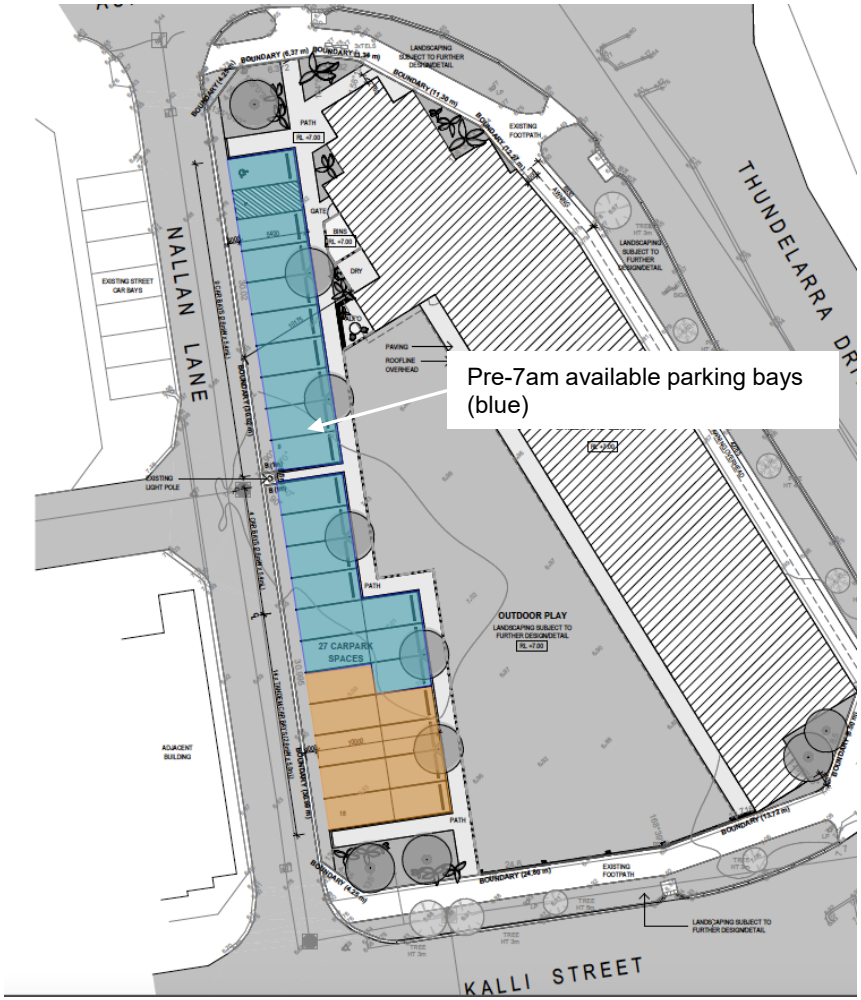


Results

REVERBERATE CONSULTING

Current Situation - No Dwelling at 17 Aurea Blvd



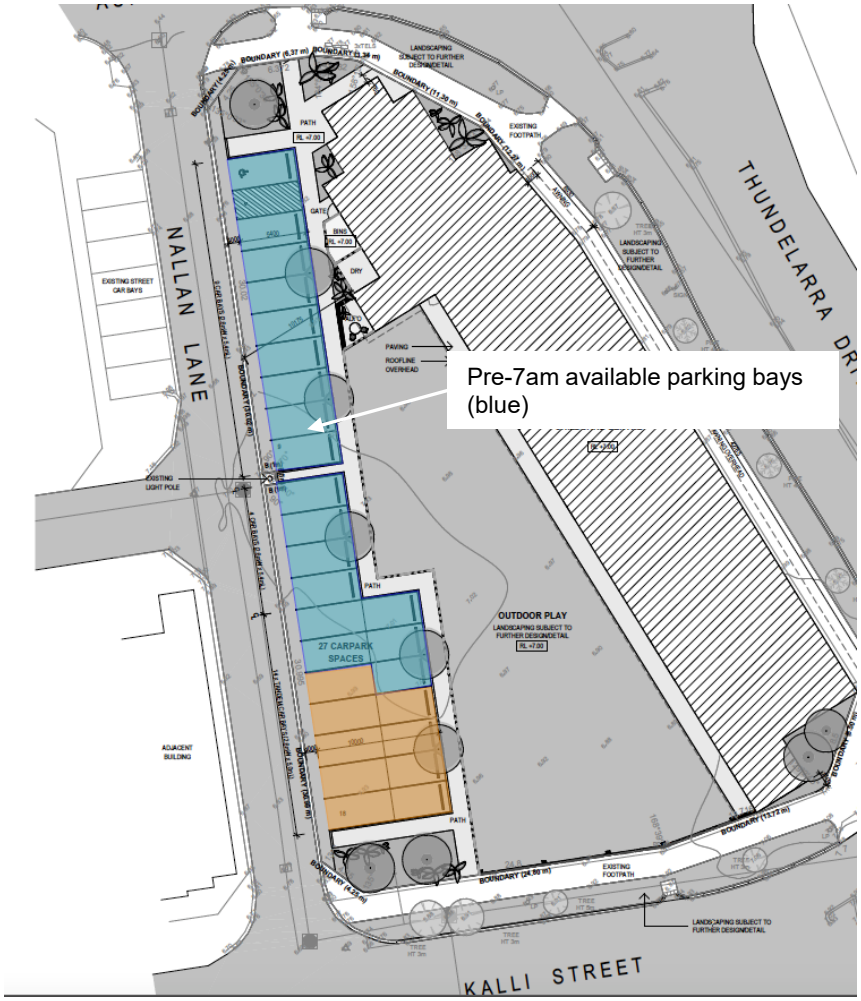
Limit Car parking bays pre 7am
- 18 Car bays available

27 car parking bays available 7am – 7pm

Results

REVERBERATE CONSULTING

Dwelling at 17 Aurea Blvd, with 1.8m Colorbond fence



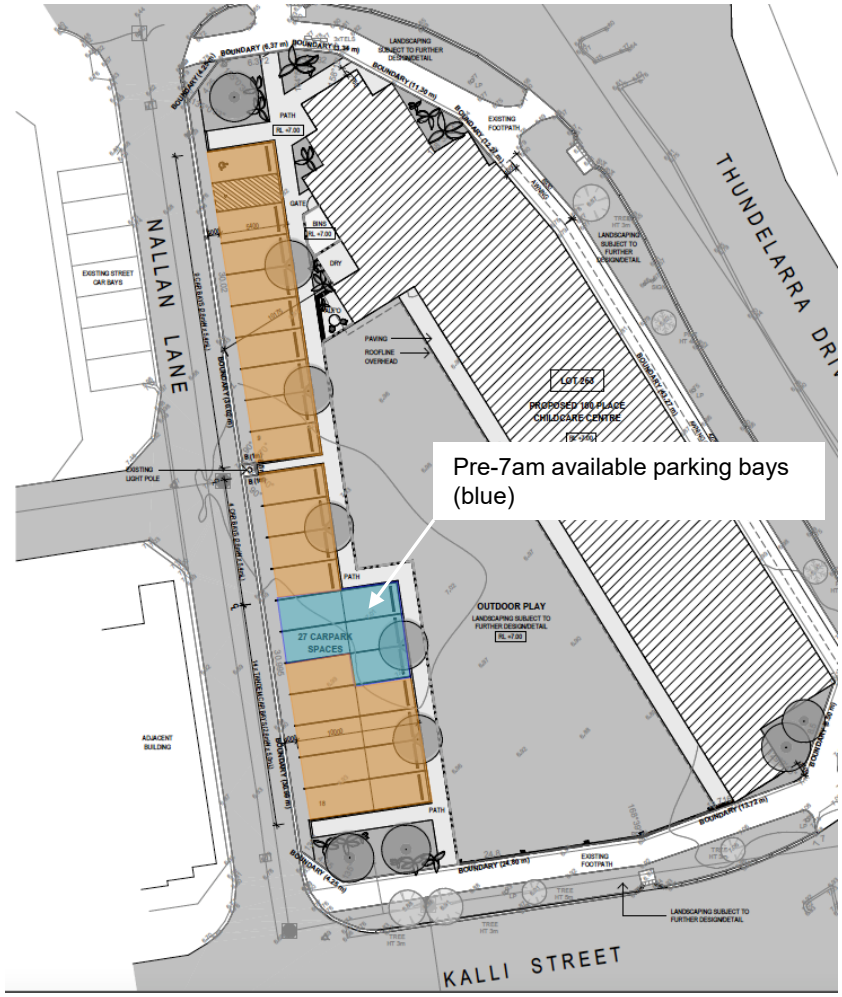
Limit Car parking bays pre 7am
- 18 Car bays available

27 car parking bays available 7am – 7pm

Results

REVERBERATE CONSULTING

Worst Case - Dwelling at 17 Aurea Blvd, no fence



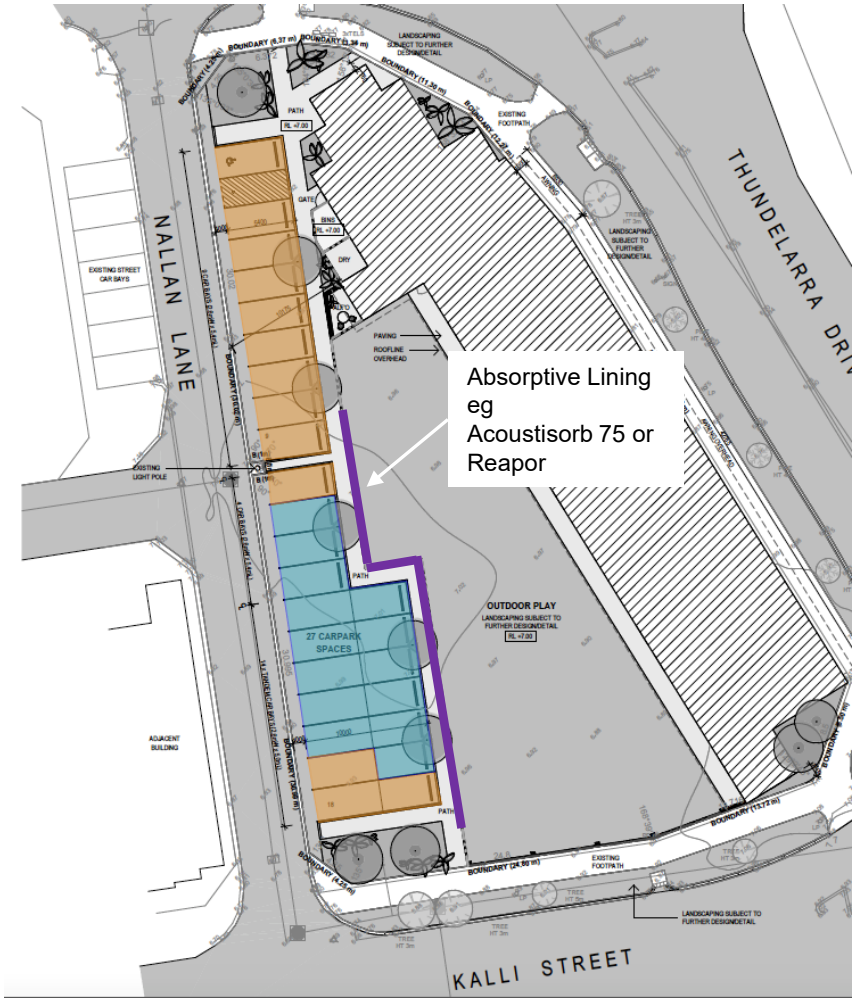
Limit Car parking bays pre 7am
- 5 Car bays available

27 car parking bays available 7am – 7pm

Results

REVERBERATE CONSULTING

Childcare Centre Treatment for Worst Case



Limit Car parking bays pre 7am
- 14 Car bays available

27 car parking bays available 7am – 7pm

REVERBERATE
CONSULTING

Questions?

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Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2020 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

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Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	Josh Watson
Company (if applicable)	Planning Solutions
Please identify if you have any special requirements:	**YES** ☐ **NO** ☒ If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Metro Outer JDAP
Meeting Date	9 February 2021
DAP Application Number	DAP/20/01873
Property Location	Lot 263 (15) Aurea Boulevard, Golden Bay
Agenda Item Number	8.1

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I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES** ☒
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT** ☒ **AGAINST** ☐
Is the presentation in support of or against the proposed development?	**SUPPORT** ☒ **AGAINST** ☐
Will the presentation require power-point facilities?	**YES** ☐ **NO** ☒ **If yes, please attach**

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Development Assessment Panels

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Please attach detailed content of presentation or provide below:

Refer enclosed presentation summary.

Presentation Summary

To:	Metro Outer JDAP	**From:**	Josh Watson
Attention:	Presiding Member	**Job No:**	6605
Copy to:	DAP Secretariat	**Date:**	5 February 2021
Subject:	DAP Meeting Number: MOJDAP/66 – Item 8.1 Lot 263 (15) Aurea Boulevard, Golden Bay Proposed Child Care Premises		

Planning Solutions acts on behalf of Accord Property in support of the proposed 100-place Child Care Premises at Lot 263 Aurea Boulevard, Golden Bay (**subject site**). We are pleased to receive the City of Rockingham (**City**) Responsible Authority Report (**RAR**) and note its recommendation for **approval**, subject to conditions. We wish to thank the City's officers for their diligent and comprehensive assessment of this application and recommendation for approval.

We do, however, request the following modifications to the proposed conditions of development approval, as detailed later in this presentation note and in the **attached schedule**.

- **Modification of Condition 15 –** Staff numbers.
- **Modification of Condition 16 –** Operating hours.
- **Deletion of Condition 21 –** Ceiling heights.

Refer to **Attachment 1** for a detailed breakdown of requested modifications to conditions.

MERITS OF THE PROPOSED DEVELOPMENT

The proposed development has been architecturally designed by Brown Falconer, incorporating design feedback from the City. The facility will provide an essential community service to the emerging Golden Bay locality, which currently has a significant undersupply of child care centres.

The site-specific design ensures the development responds to its residential context to the west and south, commercial context to the north and east and four street frontages. The design meets the necessary child care licencing requirements to ensure this facility can operate in accordance with the Education and Care Services National Regulations and expected child care standards.

The proposed child care centre is largely consistent with the planning framework and expert technical reporting has confirmed it is satisfactory from an acoustic and traffic engineering perspective.

MODIFICATION TO CONDITION 15 (STAFF NUMBERS)

We do not disagree with the intent of Condition 15 and acknowledge the purpose of this condition. We do consider there are unintended consequences with the current wording of the condition which we request be rectified. We respectfully request alternate wording of the condition to facilitate occupancy of the child care facility with a further 3 staff to account for staff changeovers and ancillary staff. Our requested modification is shown below in red:

> *15. No more than 18 staff are permitted at the Child Care Premises, at any time, for the duration of the development. During the hours of 10am to 3pm the staff may be increased to 21 to allow for staff change over.*

The strict requirement for a maximum of 18 staff on site at any one time will have unintended consequences for the operation of the child care centre for the following reasons:

- As a baseline, the child care centre will be administered by 18 permanent staff (i.e. the number of staff required to provide care services for 100 children in accordance with the National Child Care Regulations 'educator to child' ratios).
- While up to 100 children will be enrolled for child care services at the facility, the attendance routines of the children may vary. Accordingly, the 18 permanent 'educator to child' ratio of staff are rostered based on the attendance routines of children.

PLANNING SOLUTIONS
URBAN & REGIONAL PLANNING
PS
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(08) 9227 7970
GPO Box 2709
Cloisters Square PO 6850
admin@planningsolutions.com.au
www.planningsolutions.com.au
ACN 143 573 184 ABN 23 143 573 184
Planning Solutions (Aust) Pty Ltd

- In order to deliver child care services in an uninterrupted and effective manner, there are instances where more than 18 staff may need to be present on the site at any one time. Such instances include:
    - Changeover of staff and shift changes, where the educator to child ratio needs to be maintained. This will include catering for staff whilst they are on their lunch breaks.
    - Staff attending the site casually/intermittently for interviews, training purposes, inductions, open days and the like.
- In addition to the 18 permanent staff, an additional 3 staff would attend the facility to ensure an efficient shift changeover or intermittently on a casual/periodic basis for the reasons outlined above.
- During the hours between 10am and 3pm there is a satisfactory amount of car parking of site for the 3 additional staff members, given it is outside the peak pick up / drop off hours of the facility.

For the reasons above, we respectfully request Condition 15 be **modified**.

MODIFICATION TO CONDITION 16 (OPERATING HOURS)

The 6:30am opening time is a **fundamental component** to the operation of this facility and activation of the development approval. We therefore respectfully request Condition 16 be **modified** as shown below in red:

> *16. The Child Care Premises must only operate between the hours of 6:30am ~~7:00am~~ to 6:30pm, Monday to Friday. No outdoor play is permitted prior to 7:00am.*

Acoustic considerations

The City has proposed a 7am opening time because of their concerns for potential noise impacts on the vacant Lot 262 (No.17) Aurea Boulevard (**affected property**) to the north west of the subject site. The potential noise is generated by cars parking at the child care centre prior to 7am. It has been proven that successful operation of the facility prior to 7am can occur in accordance with the Noise Regulations and should be supported for the following reasons:

- The necessary acoustic modelling and reporting has been undertaken by a qualified acoustic engineer, demonstrating the proposal can address any potential noise impacts.
- In the current situation, the child care centre would provide compliant levels of noise emissions. This is because the affected property is currently vacant. Until such a time that a dwelling is constructed, all car parking bays are able to be used prior to 7am, as the noise levels will not adversely impact a vacant lot.
- The proposed condition is therefore to safeguard against a worst-case scenario, being if a house is constructed on the affected property, with no effective eastern boundary fence. This is extremely unlikely to occur.
- Consistent with the other established dwellings in the locality, it can be reasonably expected that a solid fence (i.e. a noise barrier) will be constructed on the eastern boundary of the affected property, when the dwelling is built. The likelihood of a solid fence being provided is increased by the location of the 7 public car parking bays adjacent to the boundary of that property. It is expected the owner of the affected property would seek a level of privacy from these bays.
- Even in the unlikely event that a noise wall was not constructed, seven car parking locations are available on site which comply with the night-time Assigned Levels (i.e. can be used prior to 7am). If a noise wall was constructed, up to 19 bays would be compliant.

To enforce the above considerations, there are necessary conditional requirements to control noise and operations. Firstly Condition 13 requires the development to comply with the acoustic reporting prepared for the site, which ensures compliance with the Noise Regulations. Secondly, Condition 12 requires a final Acoustic Assessment to be prepared prior to the occupation of the development, demonstrating the completed development complies with the *Environmental Protection (Noise) Regulations 1997*, to the satisfaction of the City. Any further concerns regarding compliance with the Noise Regulations can be addressed in this reporting if necessary.

Martti Warpenius from Reverberate Consulting will provide additional information in relation to the noise considerations in response to the requested modification to Condition 16.

Demographic and operational considerations

It is becoming increasingly common for children to be dropped at child care centres prior to 7am, due to the work commitments of parents or guardians. A 6:30am opening time allows sufficient time for children to be dropped off and for their carers to commute to work.

To put things into perspective, the closest train station to the subject site by car is Warnbro Station (approximately 15 minutes away). The commute to the Perth CBD by train is then approximately 38 minutes from Warnbro Station. When the child drop-off, parking and other potential delays are also factored in, the total commute time from the subject site to an office in the Perth CBD could be up to 1 hour and 30 mins (end to end). From a drop off between 6.30am and 7am, the time would be just after 8am. The opening of the child care centre at 7am would jeopardise the ability for some parents to make it to their place of employment comfortably by 8.30am.

This is why it is imperative for the operation of the facility to have operation from 6.30am to ensure the facility can provide the necessary service to the community. For the reasons above, we respectfully request Condition 16 be **modified**.

DELETION OF CONDITION 21 (CEILING HEIGHTS)

We respectfully request Condition 21 be **deleted** as shown below in red:

> ~~*21. In accordance with the requirements of the Golden Bay Neighbourhood Centre Detailed Area Plan, the building must be designed with a minimum floor-to-ceiling height of 3.2m prior to applying for a Building Permit.*~~

The strict requirement for a minimum 3.2m ceiling height is inappropriate for the following reasons:

- A child care centre is a 'fit for purpose' development, with the proposed ceiling heights specifically designed for the land use.
- A child care centre is not similar to other commercial uses and built form intended for those uses, such as shops, cafes or restaurants which can change tenants frequently throughout the lifecycle of the building.
- Nonetheless, the proposed design actually provides for an increase in ceiling height, should it be required by a different land use in the future. The ceiling cavity provides enough space up to the roof, that if removed, would provide a height of approximately 3.2m.
- This, however, is unlikely, given a 20 year lease (with the option of extending to 30 years) is available to the child care centre operator.
- Under clause 67(h) of the deemed provisions, a Local Development Plan is a planning instrument which the decision-maker must give "due regard". To give something "due regard" is to give it proper, genuine and realistic consideration and does not require slavish compliance. Just because a provision of the LDP requires ceiling heights of 3.2, doesn't mean it can reasonably be applied to all developments. Minor variations to the requirements of the LDP can therefore be approved by the City of Rockingham.

For the reasons above, we respectfully request Condition 21 be **deleted**.

CONCLUSION

We respectfully request the Metro Outer JDAP grants **APPROVAL** for the proposed child care premises, in accordance with the RAR recommendation, subject to modifications to Conditions 15, 16, and 21 as per the **attached** schedule. Thank you for your time and consideration. I would be pleased to answer any questions from the JDAP members at the meeting on 9 February 2021.

Yours faithfully



JOSH WATSON
ASSOCIATE

Attachment 1 - Schedule of proposed modified conditions

Condition	Proposed modified to condition	Justification
15	*No more than 18 staff are permitted at the Child Care Premises, at any time, for the duration of the development. During the hours of 10am to 3pm the staff may be increased to 21 to allow for staff change over.*	• We request Condition 15 be **modified**. • The strict requirement for a maximum of 18 staff on site at any one time is inappropriate and will have unintended consequences for the operation of the child care centre. • The child care centre will be administered by 18 permanent staff in accordance with the National Child Care Regulations 'educator to child' ratios. • While up to 100 children will be enrolled for child care services at the facility, the attendance routines of the children may vary. • There are instances where more than 18 staff may need to be present on the site at any one time. Such instances include changeover of staff and shift changes, staff attending the site casually/intermittently for interviews, training purposes, inductions, open days etc. • In addition to the 18 permanent staff, an additional 3 staff would attend the facility to ensure an efficient shift changeover or intermittently on a casual/periodic basis for the reasons outlined above. • During the hours between 10am and 3pm there is a satisfactory amount of car parking of site for the 3 additional staff members, given it is outside the peak pick up / drop off hours of the facility.
16	*The Child Care Premises must only operate between the hours of 6:30am ~~7:00am~~ to 6:30pm, Monday to Friday. No outdoor play is permitted prior to 7:00am.*	• We request Condition 16 be **modified**. • As discussed in our summary above, the 6:30am opening time is a fundamental component to the operation of this facility. • Acoustic modelling and reporting has been undertaken by a qualified acoustic engineer, demonstrating the proposal can address any potential noise impacts. • In the current situation, the child care centre would provide compliant levels of noise emissions. Until such a time that a dwelling is constructed on 17 Aurea Boulevard, all car parking bays are able to be used prior to 7am. • The proposed condition safeguards against a worst-case scenario, being <u>if a house is constructed on the affected property, with no effective eastern boundary fence</u>. This is extremely unlikely to occur. • It can be reasonably expected that a solid fence will be constructed on the eastern boundary of the affected property, when the dwelling is built. • There are necessary conditional requirements to control noise and ensure the completed development complies with the *Environmental Protection (Noise) Regulations 1997*.
21	~~*In accordance with the requirements of the Golden Bay Neighbourhood Centre Detailed Area Plan, the building must be designed with a minimum floor to ceiling height of 3.2m prior to applying for a Building Permit.*~~	• We request Condition 16 be **deleted**. • A child care centre is a 'fit for purpose' development, with the proposed ceiling heights specifically designed for the land use. • A child care centre is not similar to other commercial uses and built form intended for those uses, such as shops, cafes or restaurants which can change tenants frequently throughout the lifecycle of the building. • Nonetheless, the proposed design actually provides for an increase in ceiling height, should it be required by a different land use in the future. The ceiling cavity provides enough space up to the roof, that if removed, would provide a height of approximately 3.2m. • Under clause 67(h) of the deemed provisions, a Local Development Plan is a planning instrument which the decision-maker must give "due regard". To give something "due regard" is to give it proper, genuine and realistic consideration and does not require slavish compliance. • Just because a provision of the LDP requires ceiling heights of 3.2, doesn't mean it can reasonably be applied to all developments. • Minor variations to the requirements of the LDP can therefore be approved by the City of Rockingham.

Government of **Western Australia**
Development Assessment Panels

Presentation Request Form

Regulation 40(3) and DAP Standing Orders 2017 cl. 3.5

Must be submitted at least 72 hours (3 ordinary days) before the meeting

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Please complete a separate form for each presenter and submit to daps@dplh.wa.gov.au

Presenter Details

Name	GILES HARDEN JONES
Company (if applicable)	HJ ARCHITECT
Please identify if you have any special requirements:	**YES ☐** **NO ☒** If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	METRO OUTER
Meeting Date	09/02/2021
DAP Application Number	DAP/20/01881
Property Location	Lot 101 JOHNSON ROAD BERTRAM
Agenda Item Number	8.2

Presentation Details

I have read the contents of the report contained in the Agenda and note that my presentation content will be published as part of the Agenda:	**YES ☒**
Is the presentation in support of or against the report recommendation)? *(contained within the Agenda)*	**SUPPORT ☒** **AGAINST ☐**
Is the presentation in support of or against the proposed development?	**SUPPORT ☒** **AGAINST ☐**
Will the presentation require power-point facilities?	**YES ☐** **NO ☒** **If yes, please attach**

Government of **Western Australia**
Development Assessment Panels

Presentation Content*

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Brief sentence summary for inclusion on the Agenda	*The presentation will address:* The RAR Recommends approval. Presentation is to briefly discuss the comments raised by the Councillor's at the City of Kwinana on the 27/01/2021 and these points are contained on the Council Minutes. Points raised as follows: • Parking, including the number of visitor bays allocated • Potential traffic issues • Johnson Road is a single carriage road and not suitable for such a development • There only being a single entry/exit • Overshadowing • Visual privacy • Site lines To Thank the City of Kwinana Planners for their work with this application To answer any questions from the DAP Panel. GHJ

In accordance with Clause 3.5.2 of the *DAP Standing Orders*, your presentation request must also be accompanied with a written document detailing the content of your presentation.

Please attach detailed content of presentation or provide below:

Items as above.

LOT 263 (15) AUREA BOULEVARD, GOLDEN BAY – PROPOSED CHILD CARE PREMISES

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer JDAP	
Local Government Area:	City of Rockingham	
Applicant:	Planning Solutions	
Owner:	Peet Golden Bay and the Housing Authority	
Value of Development:	$2.2 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	City of Rockingham	
Authorising Officer:	Mr Bob Jeans, Director Planning & Development Services	
LG Reference:	20.2020.291.1	
DAP File No:	DAP/20/01873	
Application Received Date:	12/10/20	
Report Due Date:	28/1/20	
Application Statutory Process Timeframe:	90 Days (with an additional 30 agreed)	
Attachment(s):	1. Revised Development Plans 2. DA Report (Original Development Plans and Traffic Report Removed) 3. Applicant Response to Request for Further Information (Including revised Traffic Report and Applicant Response to Submissions) 4. Reverberate Acoustic Report Peer Review 5. Schedule of Submissions	
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 Outer Joint Development Assessment Panel resolves to:

Approve DAP Application reference DA/20/01873 and accompanying plans:

- Survey Plan, Drawing No. 3354 02, Rev C, dated 3 December 2020;
- Site Plan, Drawing No. 3354 03, Rev E, dated 7 December 2020;
- Floor Plan, Drawing No. 3354 04, Rev F, dated 7 December 2020;
- Roof Plan, Drawing No. 3354 05, Rev D, dated 3 December 2020;
- Elevation Plan, Drawing No. 3354 06, Rev E, dated 3 December 2020;

- Sections Plan, Drawing No. 3354 07, Rev C, dated 3 December 2020;
- 3D Views, Drawing No. 3354 08, Rev D, dated 3 December 2020;
- Reference Plan, Drawing No. 3354 09, Rev D, dated 3 December 2020;

in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of Clause 68(2)(b) of the City of Rockingham Town Planning Scheme No. 2, subject to the following conditions:

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 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. Prior to the commencement of site works, the landowner/applicant is to provide a pre-works geotechnical report certifying that the land is physically capable of development or advising how the land is to be remediated and compacted to ensure it is capable of development.

   In the event that remediation works are required, the landowner/applicant is to provide a post geotechnical report certifying that all works have been carried out in accordance with the pre-works geotechnical report.

4. Earthworks over the site associated with the development must be stabilised to prevent sand or dust blowing off the site, and appropriate measures shall be implemented within the time and in the manner directed by the City of Rockingham in the event that sand or dust is blown from the site.

5. Prior to commencement of development, a Stormwater Management Plan must be prepared by a suitably qualified engineer showing how stormwater will be contained on-site and those plans must be submitted to the City of Rockingham for its approval.

   All stormwater generated by the development must be managed in accordance with Planning Policy 3.4.3 - Urban Water Management to the satisfaction of the City of Rockingham. The approved plans must be implemented and all works must be maintained for the duration of the development.

6. Prior to applying for a Building Permit, a Landscaping Plan to the satisfaction of the City of Rockingham must be prepared and must include the following:

   (i) the location, number and type of existing and proposed trees and shrubs, including calculations for the landscaping area;
   (ii) any lawns to be established and areas to be mulched;
   (iii) any natural landscape areas to be retained, including retention of all existing street trees adjoining the site;
   (iv) those areas to be reticulated or irrigated;

(v) proposed upgrading to landscaping, paving and reticulation of all verge areas;
(vi) all existing street trees to be retained unless otherwise required to allow for vehicle access;
(vii) three (3) additional street trees, with a 100 litre pot size, in the verge along Kalli Street; and
(viii) 100 litre pot sizes for trees proposed to be located within the carpark.

The landscaping, paving and reticulation must be completed prior to the occupation of the development, and the approved Landscaping Plan must be maintained at all times to the satisfaction of the City of Rockingham for the duration of the development.

7. Existing street trees adjacent to the development site must be protected throughout construction in accordance with *Australian Standard AS 4970-2009 Protection of Trees on Development Sites*.

8. The applicant/landowner is responsible for protecting any existing City of Rockingham streetscape assets along Aurea Boulevard, Thundelarra Drive and Kalli Street during construction. This includes any existing streetscape lighting, grated gully pits, side entry pits, kerbing, footpaths, grated gully pits, side entry pits, trees, turf etc. Any damage caused to the existing assets (identified to be retained), must be rectified to the satisfaction of the City of Rockingham.

9. All works must be carried out in accordance with the "Accord Property Golden Bay Child Care Centre Waste Management Plan", prepared by rawtec dated 9 October 2020, for the duration of development and maintained at all times.

10. A bin storage area must be designed with a size suitable to service the development and be screened from view of the street to the satisfaction of the City of Rockingham.

The bin storage area must be constructed prior to the occupation of the development and must be retained and maintained in good condition for the duration of the Development.

11. Waste collection must only take place between the hours of 10.00am and 2.00pm Monday to Friday.

12. Prior to the occupation of the development, a Final Acoustic Assessment must be prepared and provided to the City of Rockingham which demonstrates to the City's satisfaction, that the completed development complies with the *Environmental Protection (Noise) Regulations 1997*.

The Final Acoustic Assessment must include the following information:
(i) noise sources compared with the assigned noise levels as stated in the *Environmental Protection (Noise) Regulations 1997*, when the noise is received at the nearest "noise sensitive premises" and surrounding residential area;
(ii) tonality, modulation and impulsiveness of noise sources; and
(iii) confirmation of the implementation of noise attenuation measures.
Any further works must be carried out in accordance with the Acoustic Report and implemented as such for the duration of the development.

13. Prior to occupation of the development, the applicant/landowner shall implement the recommendations detailed in the acoustic reports prepared by Lloyd George Acoustics, dated 25 September 2020 and Reverberate dated 4 December 2020.

    The recommendations of the reports must be implemented for the duration of the development.

14. No more than 100 children are to be accommodated by the Child Care Premises at any time, for the duration of the development.

15. No more than 18 staff are permitted at the Child Care Premises, at any time, for the duration of the development.

16. The Child Care Premises must only operate between the hours of 7:00am to 6:30pm, Monday to Friday.

17. The on-site car park area shall:
    (i) be provided with a minimum of 27 parking spaces;
    (ii) be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.1:2004, *Parking facilities, Part 1: Off-street car parking* unless otherwise specified by this approval, prior to applying for a Building Permit;
    (iii) include one car parking space dedicated to people with disability designed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, *Parking facilities, Part 6: Off-street parking for people with disabilities*, linked to the main entrance of the development by a continuous accessible path of travel designed in accordance with Australian Standard AS 1428.1—2009, *Design for access and mobility, Part 1: General Requirements for access—New building work*;
    (iv) be constructed, sealed, kerbed, drained and marked prior to the development being occupied and maintained thereafter; and
    (v) have lighting installed, prior to the occupation of the development, with all illumination confined to the land in accordance with the requirements of *Australian Standard AS 4282—1997 - Control of the obtrusive effects of outdoor lighting,* at all times, for the duration of the development.

    The car parking area must comply with the above requirements for the duration of the development.

18. Eighteen staff parking bays and nine visitor car parking bays shall be provided and must be clearly marked on-site for the duration of the development. The tandem car parking bays must not form part of the visitor parking allocation.

19. In accordance with City of Rockingham Planning Policy 3.3.14 - Bicycle parking and End of Trip Facilities, two short-term bicycle parking spaces and two long-term bicycle parking spaces must be provided for the development. The bicycle parking spaces must be designed in accordance with AS2890.3—1993, Parking facilities, Part 3: Bicycle parking facilities and must be approved by the City of Rockingham prior to applying for a Building Permit and constructed prior to occupancy of the development.

    The bicycle parking spaces must be retained and maintained in good and safe condition for the duration of the development.

20. Prior to applying for a Building Permit, a Sign Strategy must be prepared (which must include the information required by *Planning Policy 3.3.1, Control of Advertisements*) to the satisfaction of the City of Rockingham and it must thereafter be implemented for the duration of the development.

21. In accordance with the requirements of the Golden Bay Neighbourhood Centre Detailed Area Plan, the building must be designed with a minimum floor-to-ceiling height of 3.2m prior to applying for a Building Permit.

22. In accordance with the requirements of the Golden Bay Neighbourhood Centre Detailed Area Plan, street awnings must be provided to Thundelarra Drive across the full width of the proposed building at a minimum width of 2.5m, with lighting being provided under the street awnings.

23. Public or customer access must be from Thundelarra Drive, for the duration of the development.

24. Prior to applying for a Building Permit, the applicant must demonstrate to the satisfaction of the City of Rockingham that ground floor glazing fronting Thundelarra Drive has a minimum visible light transmission rate of at least 79% and a maximum visible reflectivity rate of 9% in order ensure that a commercial, interactive frontage is available to the development from Thundelarra Drive. The glazing must be thereafter be installed and maintained to the satisfaction of the City of Rockingham for the duration of the development.

25. In accordance with the requirements of the Golden Bay Neighbourhood Centre Detailed Area Plan entries and window frontages facing the street of ground floor tenancies must not be covered, closed or screened off (including by means of dark tinting, shutters, curtains, blinds, roller doors or similar), to ensure that a commercial, interactive frontage is available to the development from Thundelarra Drive, for the duration of the development

26. Prior to applying for a Building Permit, all service areas and service related hardware, including antennae, satellite dishes and air-conditioning units, must be designed to be located away from public view and/or screened, and this design must be provided to, and approved by, the City of Rockingham.

27. Materials, sea containers, goods or bins must not be stored within the carpark at any time.

<u>Advice Notes</u>

1. This Approval relates to the details provided in the application; to undertake the development in a different manner to that stated in the application, a new application for Development Approval must be submitted to the City of Rockingham.

2. A Certified Building Permit must be obtained prior to construction and thereafter an Occupancy Permit must be obtained; the applicant and owner should liaise with the City's Building Services in this regard.

3. The development must comply with the *Environmental Protection (Noise) Regulations 1997*; contact the City's Health Services for information on confirming requirements.

4. The development must comply with the *Food Act 2008*, the *Food Safety Standards* and Chapter 3 of the *Australian New Zealand Food Standards Code (Australia Only)*; the applicant and owner should liaise with the City's Health Services in this regard.

5. A Sign Permit must be obtained for any advertising associated with the development, including signage painted on the building; the applicant should liaise with the City's Building Services in this regard.

6. With respect to the landscaping plan, the applicant and owner should liaise with the City of Rockingham's Land Development and Infrastructure Services to confirm requirements for the landscaping plan, including the requirements for developing and maintaining of the street verges abutting the development site.

   It is advised that although there is existing City operated irrigation located within the verge areas of Kalli Street, Thundelarra Drive and Aurea Boulevard, the verge area is to be disconnected from the City's system and irrigated and maintained by the proposed development. The applicant/landowner is advised to contact the City's Irrigation Supervisor prior to undertaking any works within these verge areas.

7. It is advised that the species *Casuarina obesa*, which has been proposed within the car parking area, is not considered to be appropriate due to their size, and tendency to drop nuts and leaf litter onto cars. It is recommended that an alternative specie is considered. Possible recommendations include: *Corymbia citriodora 'Scentuous'* or *Eucalyptus victrix*.

8. All works in the road reserve, including construction of a crossover or footpath and any works to the road carriageway must be to the specifications of the City of Rockingham. The applicant should liaise with the City of Rockingham's Engineering Services in this regard.

9. The applicant is to seek approval for a Form 2 - Maximum Accommodation Certificate from the City in addition to the Development Approval.

10. Proposed playground installations are to be installed and maintained in accordance with all relevant Australian Standards AS 4685:2014 1-6, 11 and all relevant amendments.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	Town Planning Scheme No.2
Local Planning Scheme - Zone/Reserve	Commercial
Structure Plan/Precinct Plan	Golden Bay Local Structure Plan
Structure Plan/Precinct Plan - Land Use Designation	Commercial

Use Class and permissibility:	Child Care Premises / “D” - Discretionary
Lot Size:	2,251m²
Existing Land Use:	Vacant Land
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 proposes the development of a Child Care Premises (CCP) on the subject land. Details of the proposal are as follows:

- A single storey building (780m²) is proposed on the eastern portion of the site, designed to address Thundelarra Drive.
- An outdoor play area for children (717m²) and 27 on-site car parking bays are proposed on the western portion of the site, accessed from Nallan Lane;
- 18 staff and 100 children are proposed between the following age groups:
  - 0-2 years (20 places);
  - 2-3 years (30 places);
  - 3-5 years (50 places);
- Operating hours are proposed from 6:30am to 6:30pm Mondays to Fridays. No outdoor activities are proposed between 6:30am and 7:00am.
- A variable height parapet wall is proposed (up to 7m high) to provide the building with a two storey appearance when viewed from Thundelarra Drive.
- The building elevation to Thundelarra Drive includes a series of large clear glazed windows which are intended to activate the street frontage.
- To mitigate noise from the outdoor play area, the following fencing is proposed:
  - along the western perimeter of the outdoor play area, a 1.8m high Colorbond fence with 600mm transparent acrylic above (2.4m high in total); and
  - along the southern perimeter of the outdoor play area, a 2.572m high masonry wall with acrylic sheet openings.

Background:

Located within the Golden Bay neighbourhood activity centre, the subject site comprises of flat vacant land adjoining the "main street" of Thundelarra Drive to the east; Aurea Boulevard to the north, Nallan Lane to the west, and Kalli Street to the south.

The surrounding land to the north-west through to east is zoned Commercial and comprises of generally vacant land with the exception of Lot 622 Thundelarra Drive, which is the site of a future supermarket based "main street" shopping centre. Construction of the shopping centre has stopped following the erection of some structural steelwork on the land due to the anchor tenant withdrawing from the project.

The surrounding land generally west, through to south and south-east of the site is zoned for medium density (R40) residential development, and predominantly comprises of single storey dwellings on those lots which have been developed.

East of the site across Thundelarra Drive is Lot 625 Warnbro Sound Avenue, which has a split zoning of Commercial/Residential R60.

The Golden Bay Primary School is situated 100m to the south.

Legislation and Policy:

Legislation

- Planning and Development Act 2005
- Metropolitan Region Scheme (MRS)
- Planning and Development (Local Planning Schemes) Regulations 2015 (Regulations).
- City of Rockingham Town Planning Scheme No. 2 (TPS2).

State Government Policies

- State Planning Policy 7.0 - Design of the Built Environment (SPP7.0)
- Planning Bulletin No.72 – Child Care Premises (PPB72)

Structure Plans/Activity Centre Plans

- Golden Bay Local Structure Plan (LSP)
- Golden Bay Neighbourhood Centre Detailed Area Plan (DAP)

Local Policies

- Planning Policy 3.3.5 -Child Care Premises Local Planning Policy (PP3.3.5)
- Planning Policy 3.3.1 Control of Advertisements (PP3.3.1)
- Planning Policy 3.3.14 Bicycle Parking and End of Trips Facilities (PP3.3.14)

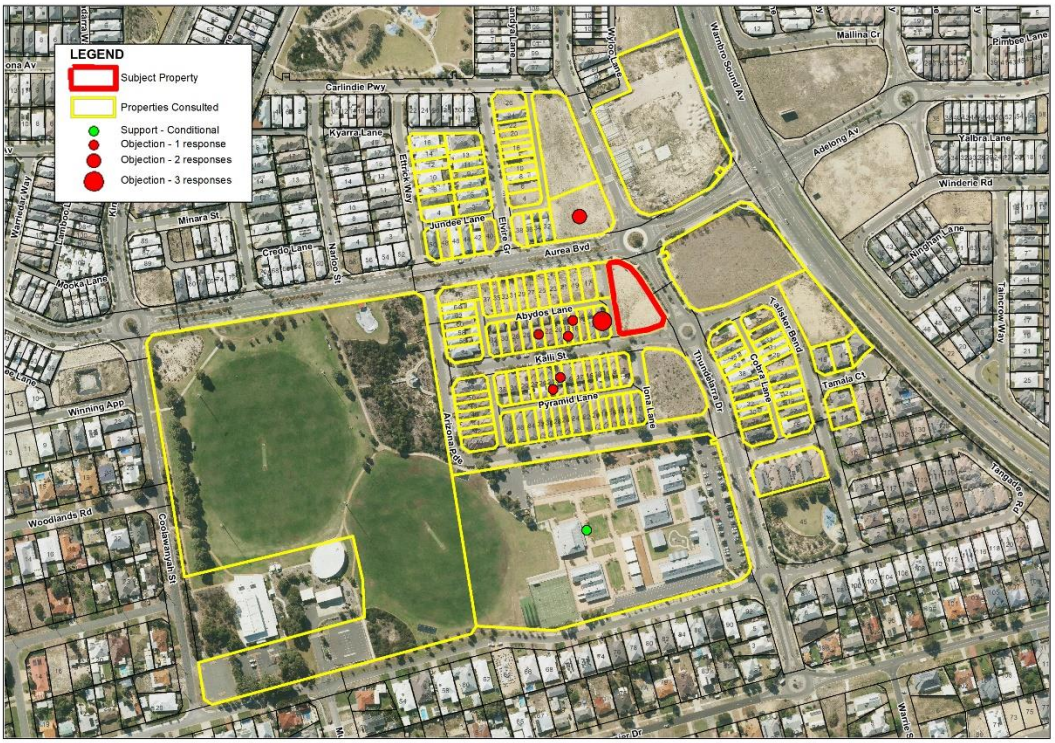
Consultation:

Public Consultation

The application was advertised for public comment over a period of 14 days, commencing on 26 October 2020 and concluding on 9 November 2020.

Advertising was carried out in the following manner:

- The landowners and occupiers identified on the Consultation Map in Figure 1 were notified in writing of the proposed development;
- The application documents and plans of the proposal were made available for public inspection at the City's Administration Offices and placed on the City's website; and
- A sign was erected on the subject land outlining the proposal.



1. Consultation Plan

At the close of the submission period, a total of 13 submissions were received, comprised of:

- 11 submissions objecting the proposal; and
- Two (2) submissions in support.

The locations from where the submissions originated are shown on the Consultation Map above. The locations of the two supporting submissions are not shown as they were received from locations beyond the frame. One submission objecting did not include an address and as such, is not indicated on the map. The submissions in objection are summarised as follows:

Issue Raised	Officer comments
<u>Noise</u> Concern that noise from the proposed CCP (i.e. noise from children playing, vehicle noise and mechanical plant noise) will adversely impact on surrounding residential amenity	The applicant submitted an initial acoustic report that purported compliance with the Environmental Protection (Noise) Regulations 1997 (Noise Regs) subject to recommended measures. The City, however, identified issues with this report. Consequently, the applicant commissioned a peer review of this report prepared by a separate consultant. The City has assessed both acoustic reports and considers that operations should not occur prior to 7am. This, along with the acoustic treatments proposed for the outdoor play area will ensure that the development complies with the Noise Regs and that the residential amenity of the location is maintained. Noise is discussed in detail in the planning assessment below.

Traffic Traffic generated by the CCP causing congestion and traffic safety issues in Nallan Lane	The applicant has submitted a revised traffic report that demonstrates that the proposed development will not have an undue impact on the local road network. The City has assessed this report and is satisfied.
Insufficient on-site parking	The City has assessed the parking demand analysis submitted by the applicant and considers that, notwithstanding the technical four bay shortfall, there is sufficient parking on site to meet the demand generated by a development of this scale. Parking is discussed further in the planning assessment below.
Level of Service – Community Benefit Approval of this application will result in an over-supply of this service in the vicinity of Golden Bay	It has been demonstrated that there is enough demand in the local area for this CCP without impacting the viability of existing or approved CCPs. This is discussed further in the planning assessment below.
Non-Compliance with the DAP The development does not comply with the landuse, access and parking arrangements and active frontage requirements of the DAP.	The development is largely consistent with the requirements of the DAP. Those areas where discretion is sought have been discussed in the planning assessment below.
Property Values	This is not a relevant planning consideration.

The applicant's response to the summary of the submissions is contained within appendix 3.

Referrals/consultation with Government/Service Agencies

Department of Education
The Department has no Objection to the proposal subject to the following conditions being imposed: • A Car Parking and Access Management Plan (CPAMP) to be submitted to and approved in writing by the City of Rockingham, in consultation with the Department. The CPAMP shall demonstrate that all drop-offs and pick-ups associated with the proposal does not impinge upon the availability of on-street parking bays, which are directly adjacent to the Primary School, during the school's peak operating times. In addition, the CPAMP shall encourage the use of alternative transportation measures to staff and users Of the proposed facility; and • Service delivery and waste collection the CCP operation arranged at hours that do not conflict with peak school drop off/ pick up times.
Comment

The planning assessment below demonstrates that there are sufficient car bays on-site to deal with the parking demand generated by the development.
In the applicant's revised statement it has been clarified that waste collection will take place off-peak hours of the CCP (i.e. between 10am and 2pm). A condition has been recommended to this effect.

Planning Assessment:

The proposal has been assessed against all the relevant legislative requirements of the Scheme, State and Local Planning Policies, the LSP and the DAP outlined in the Legislation and Policy section of this report. The following matters have been identified as key considerations for the determination of this application:

- Land use;
- Noise;
- Car Parking / Bicycle Parking;
- Level of Service Community Benefit;
- Design; and
- Landscaping.

These matters are outlined and discussed below.

Land Use

Provision	Requirement	Proposal	Assessment
Land Use DAP – Plan	Residential	Commercial	Although the DAP identifies the subject lot for residential development, it is zoned as Commercial under TPS2. Under TPS2, a CCP is a discretionary land use that can be approved within either the Commercial or the Residential zone. Therefore, this departure from the DAP is considered to be acceptable, as the development responds to the commercial zoning of the site whilst respecting the residential amenity of the surrounding area.

Noise

The initial acoustic assessment submitted in support of the application flagged some concerns with the City and the submissioners. Consequently, the applicant engaged a separate consultant to undertake a peer review of the initial assessment.

The main area of concern is related to the noise generated by traffic arriving at the development before 7am and the impact that this may have on existing and proposed residential development in the vicinity. The main receiver at risk is No. 17 Aurea Boulevard, which is currently vacant. Post 7am, all car parking bays are compliant with the assigned levels.



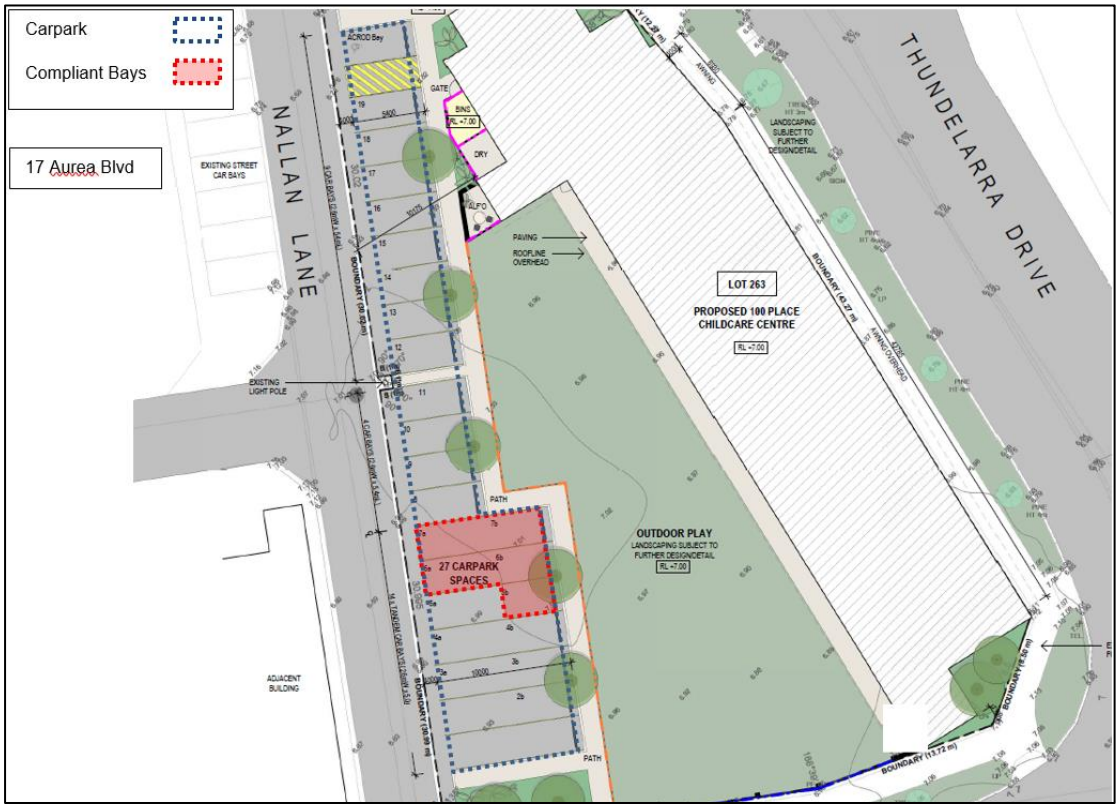
Proximity of the site to 17 Aurea Blvd

The revised acoustic assessment modelled three scenarios:

Scenario	No. of compliant bays
1. No dwelling or noise barrier at 17 Aurea Boulevard	All bays compliant
2. Dwelling and no noise barrier around 17 Aurea Boulevard	Five car bays available which comply with the Assigned Levels prior to 7am
3. Dwelling and noise barrier around 17 Aurea Boulevard	Nineteen bays available which comply with the Assigned Levels prior to 7am

Note: In scenario 2 above the applicant's assessment determined that there was seven bays available. The City's assessment, however, determined an error in the modelling. This reduced the available car parking bays by two.

Given that it is outside the purview of this application to impose any mitigation measures upon a future dwelling at 17 Aurea Boulevard, it is considered that scenario 2, being the worst case scenario, must be contemplated for the purpose of the assessment.



Scenario 2 - Compliant Bays prior to 7am

The applicant has advised that two or three car bays will be required for staff prior to 6.30am, leaving two or three bays for parent drop off. There has been no information provided on how many children are likely to use the facility prior to 7am. The supporting traffic report assumes that an average length of stay for a parent dropping off a child/children is 10 minutes. Using this logic, it is anticipated that nine drop offs could occur prior between 6.30am and 7am. This, however, assumes that vehicles will arrive and depart at regular intervals. In all practicality, this is not considered to be likely. Given the limited number of compliant bays available for drop off and the unknown number of children likely to utilise the CCP in the early morning, it is recommended that operation of the CPP be prohibited before 7am. Potential noise impacts are a key concern for the community, it is therefore considered prudent to safeguard the residential amenity of the area by limiting the opportunity for breaches of the Nosie Regs, especially when there is little information available as to the patronage of the facility prior to 7am.

A CPAMP could be requested as a condition of approval, identifying car bays not to be used prior to 7am and providing measures to implement this. It is, however, difficult to see how this scenario can be managed in a logical, practical manner. Should the compliant bays be occupied, it is likely that cars will park in the available non-compliant bays.

In the future, should a dwelling with a noise barrier be constructed on 17 Aurea Boulevard, the CCP operator could apply to amend its development approval to allow for parking and access prior to 7am, provided that compliance with the Noise Regs is demonstrated.

Car Parking / Bicycle Parking

Provision	Requirement	Proposal	Assessment
Carparking TPS2 – 4.15	The parking requirements for a CCP include one (1) parking bay per employee and one (1) parking bay per eight children. Based on this rate, the proposed development requires 31 parking bays.	27 bays are provided.	A technical shortfall of four bays. See comments below.
Bicycle Parking PP3.3.14 – Table 1	Short-Term Parking 0.05 spaces per visitor = Two (2) Long-Term Parking 0.1 spaces per staff = Two (2)	Nil	A condition is recommended that two short term and two long term bicycle parking bays are provided.

Although there is a technical shortfall of four car parking bays, the supporting traffic report has provided a parking analysis that considers the anticipated peak hour traffic generation of the proposed CCP. Based upon the RTA NSW "Guide to Traffic Generating Developments", it is established that during peak hour periods there is an actual parking demand of 25 bays (7 bays for drop off/pick up + 18 bays for staff). Consequently, the technical shortfall is supported.

Level of Service - Community Benefit

Provision	Requirement	Proposal	Assessment
Location PP3.3.5 - 4(i)	CCPs generally would not be suitable where the service provided by the Centre will have a demonstrable adverse impact on the existing or planned level of CCPs enjoyed by the local community.	The demographic analysis provided by the applicant indicates that, inclusive of the proposed development, existing and approved CCPs, there is a ratio of 3.58 0-4 year olds per licensed place within the Secret Harbour, Golden Bay and Singleton	The applicant's demand analysis is noted. It is also accepted that due diligence, with regard to the commercial viability of a CCP, would have been undertaken, in the knowledge of existing and approved CCPs in the vicinity. It is noted that there are limited areas to locate CCPs in Golden Bay. For a CCP to be located
Need for CCP PP3.3.5 – 4.9	The applicant is required to demonstrate that the CCP will not		

	have an adverse impact on the level of service to the community by similar existing or approved facilities.	catchment. The applicant indicates that the average demand ratio typically sits in the 3-4 range.	within a residential area, PP3.3.5 requires a minimum lot area of 1,000m². Given the lot typology in the suburb, lots of this size are limited to the commercial centre. It is therefore accepted that the proposed development is unlikely to have an undue impact on the level of service to the community by similar existing or approved facilities.

Design

Provision	**Requirement**	**Proposal**	**Assessment**
Habitable Frontage DAP – Plan	Habitable frontage to Kalli Street. *Habitable frontage: at least one major opening to habitable rooms to the adjacent public domain that allowing passive surveillance*	No habitable frontage provide to Kalli Street	In terms of priorities for delivering active or habitable frontage, Kalli Street is considered to be lesser than Thundelarra Drive, which serves as the 'main street', and Aurea Boulevard, which is the gateway to the suburb. It is noted that the Kalli Street elevation has been designed to create visual interest through the inclusion of transparent elements that reflect the fenestration along the Thundelarra Drive elevation. It also incorporates elements of the vertical colour patterns. As such, this is considered to be an

			acceptable streetscape outcome.
Street Interface DAP – (b) ii	A canopy with continuous coverage to a minimum depth of 2.5m or to within 600mm of the back of the adjacent kerb to be provided	A 1m deep canopy is proposed	It is considered that a 1m deep awning will not provide sufficient or practical weather protection to pedestrians using the Thunderlara Drive 'main street' environment. Awnings of sufficient depth enhance the public domain, by providing an environment that encourages pedestrian movement in all weather conditions. Therefore a standard 2.5m awning depth is required in all commercial centres throughout the City. Consequently, it is recommended that a condition be applied, requiring a minimum awning depth of 2.5m as per the requirements of the DAP.
Robustness DAP – (d) i	The ground floor of all buildings in the Commercial area must be designed with a minimum floor-to-floor height of 3.2m to enable commercial uses	A ceiling height of 2.7m is proposed for the development	A 2.7m ceiling height is reflective of a residential development. Given the location of this site, within a commercial centre, it is important to integrate the ability for the building to transition to other commercial uses over time. As indicated in SPP7.0: "*Good design provides flexible and adaptable spaces to maximise their utilisation and accommodate*

			appropriate future requirements without the need for major modifications." It is therefore recommended that a condition be applied, requiring a minimum ceiling height of 3.2m as per the requirements of the DAP.
Fencing DAP – (e) i & ii	Fencing to the primary or secondary street(s) frontage must be restricted to residential uses only.	Fencing proposed to Kalli Street	It is noted that the fencing fronting Kalli Street has been designed to carry the built form around the corner from Thunderlarra Drive. It is designed to create visual interest through the inclusion of transparent elements that reflect the fenestration along the Thundelarra Drive elevation. It also incorporates elements of the vertical colour patterns. As such, this integrated form of fencing is considered to be an acceptable streetscape outcome. It is, however, recommended that some street trees be planted within the Kalli Street verge, this will further enhance this elevation.

	Street frontage fencing must be no more than 1.8m high and must be at least 50% visually permeable from 0.9m above the ground with solid portions of fencing consisting of masonry construction.	Southern edge of outdoor play: A 2.572m high masonry wall with acrylic sheet openings for the portion of the outdoor play area fronting Kalli Street.	As discussed in the previous comment, the fencing along Kalli Street is considered to be acceptable.
		Western edge of outdoor play: A 2.4m high fence consisting of a 1.8m high Colorbond fence (double thickness) with 0.6m of acrylic sheeting above.	The fencing fronting Nallan Lane is well set back from the street to provide for car parking. It has also been softened with the inclusion of tree wells. It is therefore not considered to be street front fencing and is considered to be an acceptable outcome.

Landscaping

Provision	Requirement	Proposal	Assessment
Landscaping TPS2 – 4.6.5	Any development within the Commercial Zone is required to provide a minimum of ten percent (10%) of the total site area as landscaping. Where this is not practicable, the Council may consider an equivalent contribution towards streetscape works in the public streets adjoining the property.	The development provides approximately 125m² (5.5%) of landscaping.	It is noted that the existing verge vegetation is of a poor quality. As the minimum 10% has not been provided on site it is recommended that the applicant/owner landscape and maintain the adjoining verge. This is recommended to be captured in a landscape plans that incorporates these verge areas.

Conclusion:

The development provides a built form and a land use that are appropriate for its location within an approved neighbourhood centre. Given that noise was a key concern highlighted by the submissioners, however, it is considered appropriate to safeguard the residential amenity of the locality, by restricting the hours of operation to 7am in the morning.

The development is consistent with the planning framework and, subject to compliance with the conditions proposed, it is considered to be an appropriate fit for the site. It is therefore recommended for approval.

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	ISSUED FOR DA	08/10/20
B	ISSUED FOR DA AMENDMENT	03/12/20
C	CARBAYS CLARIFIED	07/12/20





GOLDEN BAY CHILDCARE CENTRE

ACCORD PROPERTY

LOT 263 AUREA BOULEVARD, GOLDEN BAY

Issued for Development Approval Amendment

07 December 2020

02	SURVEY	C
03	SITE PLAN	E
04	FLOOR PLAN	F
05	ROOF PLAN	D
06	ELEVATIONS	E
07	SECTIONS	C
08	3D VIEWS	D
09	REFERENCE	D

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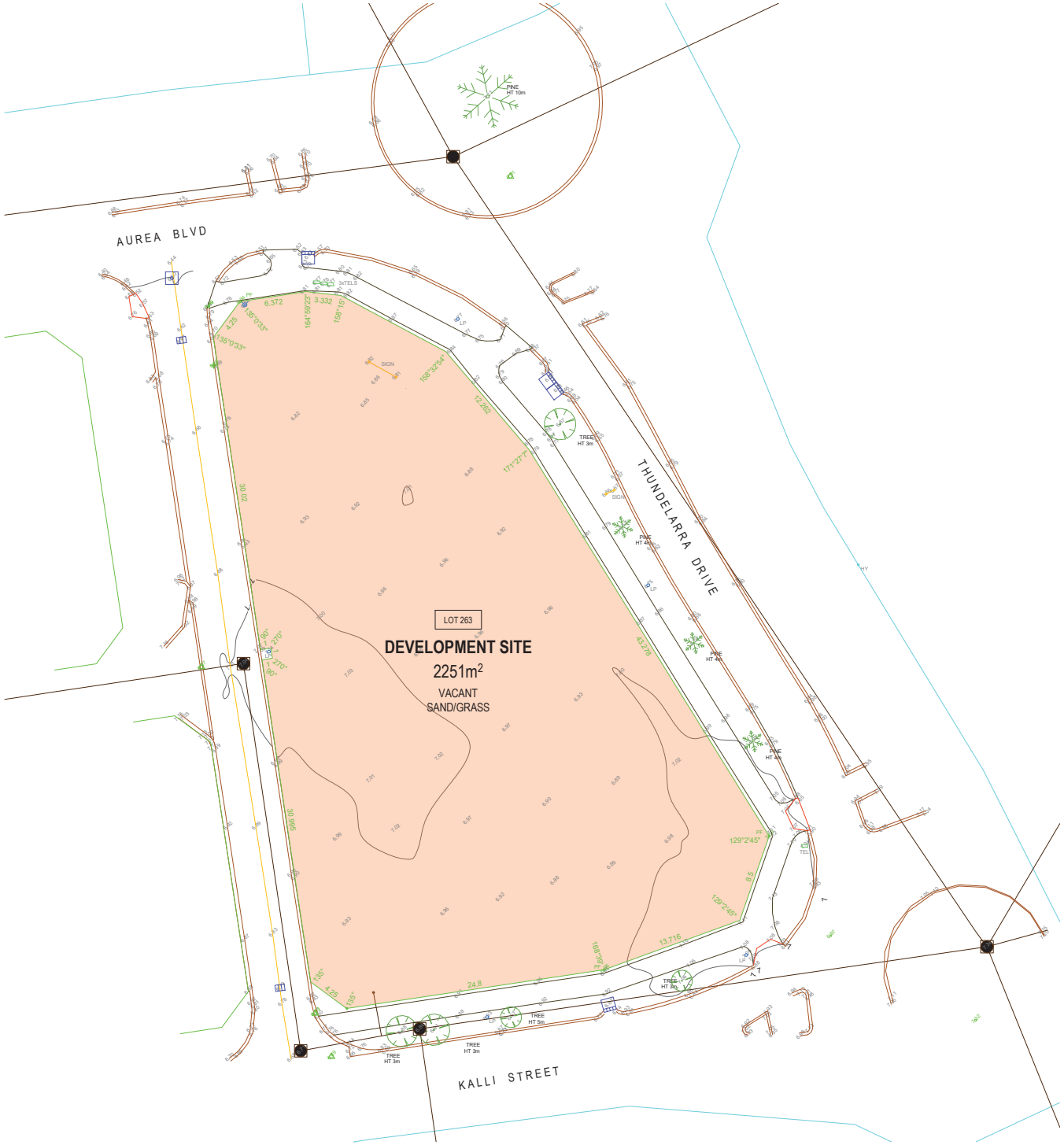
LOT 263 AUREA BOULEVARD
GOLDEN BAY

COVER SHEET

Scale	As indicated		
Drawn	DF	Checked	MJ
Date	07/12/20		
Job No.	2020052		
Dwg No.	**3354 01**	Rev:	**C**

A1 SHEET



SURVEY
1 : 200

SERVICE LEGEND

DRAINAGE
- COMBO PIT
- GRATE
- SIDE ENTRY PIT
- STORM WATER MANHOLE

ELECTRICITY
- CABLE MANHOLE
- CABLE PIT / BOX — ECP, ECB
- CABLE DOME
- CONSUMER POLE — CP
- LIGHT POLE — LP
- POWER POLE — PP
- STAY POLE — SP
- STAY WIRE ANCHOR — SWA
- O/H POWER LINE — OHP

GAS
- GAS MANHOLE
- GAS MARKER — G
- GAS METER — GM
- GAS VALVE — GV

SEWERAGE
- SEWER MANHOLE
- PROPERTY CONNECTION — PC
- SEWER LINE

TELECOMMUNICATION
- TEL / COMMS MANHOLE
- TEL / COMMS MARKER — T, C
- TEL / COMMS PIT — TEL, COM

WATER
- FLUSH POINT — FP
- HYDRANT — HY
- STOP VALVE — SV
- TAP — TAP
- WATER MARKER — W
- WATER METER — M
- WATER LINE

SURVEY
- DATUM
- PEG FOUND — PF

OTHER
- AWNING / EAVES — OHP
- ROOF RIDGE — OHP
- FLOOR RL
- WINDOW / DOOR — 1ST
- BANK - BOTTOM
- BANK - TOP

SERVICE RECORD

SERVICE \ STATUS	LOCATED	AVAILABLE	NO SERVICE	CONFIRM
WATER				
SEWERAGE				
GAS				
TEL / COMM				
POWER U/G				
POWER O/H				

SERVICES MARKED CONFIRM REQUIRE BUILDER / CLIENT TO CONFIRM POSITION AND / OR AVAILABILITY ON SITE.

SURVEY PROVIDED BY
LAND SURVEYS

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	ISSUED FOR DA AMENDMENT	03/12/20

SURVEY DRAWING PROVIDED BY LAND SURVEYS

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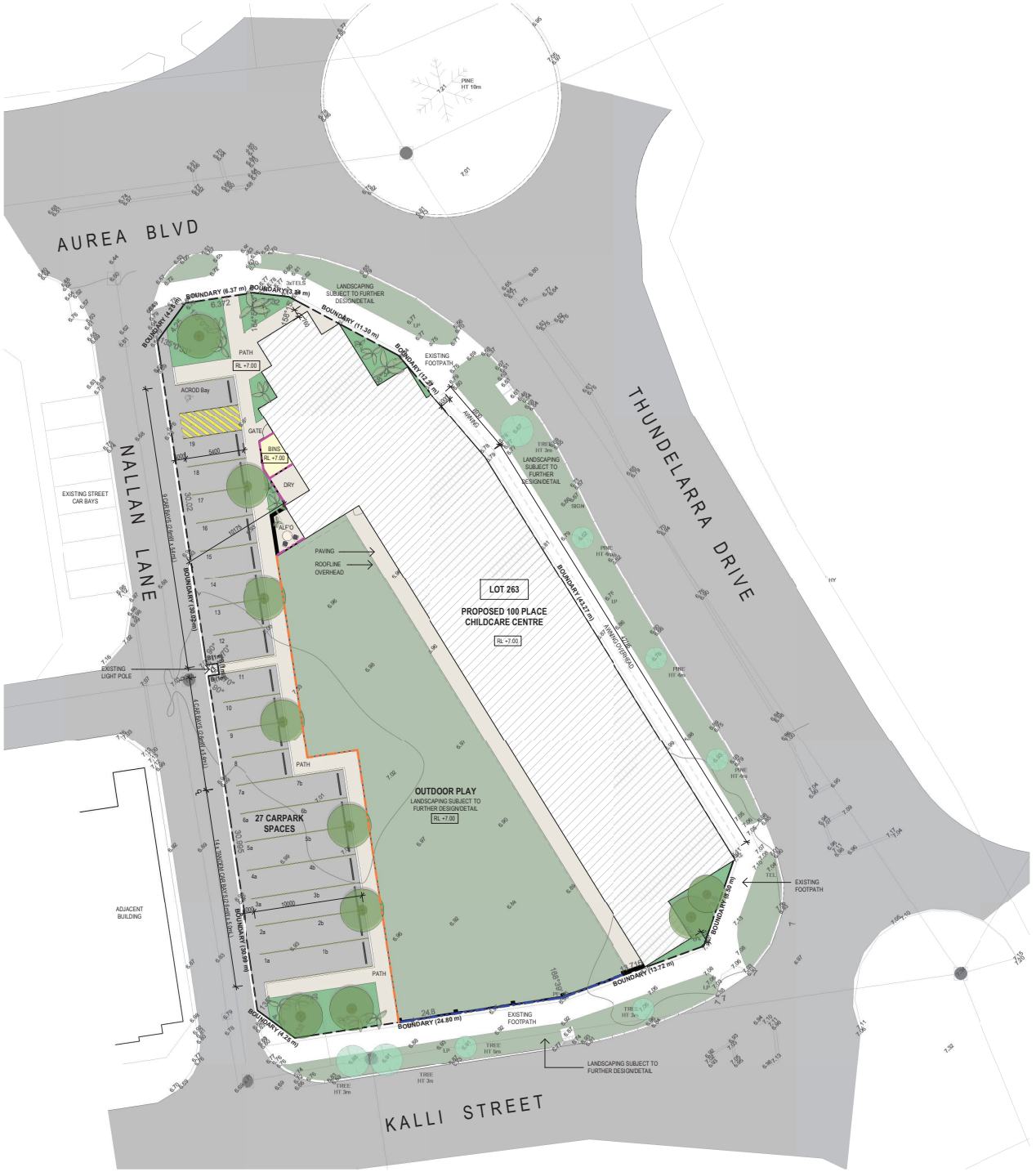
GOLDEN BAY

SURVEY

Scale	As indicated
Drawn	DF Checked MJ
Date	03/12/20
Job No.	2020052
Dwg No.	3354 02 Rev: C A1 SHEET



SITE PLAN

1 : 200

LEGEND

- OVERALL SITE BOUNDARY
- EXISTING REDUCED LEVEL
- RL + 7.00 — PROPOSED REDUCED LEVEL SHOWN INDICATIVE
- EXISTING TREES TO REMAIN
- PROPOSED TREE TYPE: CASUARINA OBESA SWAMP SHEOAK / TO MATCH STREET TREES IN AREA



- 2572mm HIGH MASONARY WALL WITH ACRYLIC SHEET OPENINGS
- 2400mm HIGH FENCE. x2 LAYERS OF COLORBOND UP TO 1800mm HIGH AND ACRYLIC ABOVE (600mm HIGH).
- 2100mm HIGH COLORBOND FENCE.

SUMMARY

SITE AREA:	2251m²
BUILDING AREA:	780m²
NUMBER OF PLACES:	100
OUTDOOR PLAY AREA:	REQUIRED: 700m² PROVIDED: 721m²
CAR BAYS:	REGULAR BAYS 26 DISABLED BAY 1 TOTAL 27

ROOM BREAKDOWN:

ROOM	AGE	PLACES	RATIO	STAFF
ACTIVITY 1	0-2	8 PLACES	1:4	2 STAFF
ACTIVITY 2	0-2	12 PLACES	1:4	3 STAFF
ACTIVITY 3	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 4	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 5	3-4	20 PLACES	1:10	2 STAFF
ACTIVITY 6	3-4	30 PLACES	1:10	3 STAFF
KITCHEN / ADMIN				2 STAFF
		100 PLACES		**18 STAFF**

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CONSULTANT ISSUE FOR INFO	07/10/20
C	ISSUED FOR DA	08/10/20
D	ISSUED FOR DA AMENDMENT	03/12/20
E	CARBAYS CLARIFIED	07/12/20

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LOT 263 AUREA BOULEVARD
GOLDEN BAY

SITE PLAN

Scale As indicated
Drawn DF Checked MJ
Date 07/12/20
Job No. 2020052
Dwg No. **3354 03** Rev: **E** A1 SHEET



LEGEND

OVERALL SITE BOUNDARY

RL + 7.00 — PROPOSED REDUCED LEVEL SHOWN INDICATIVE

PROPOSED TREE
TYPE: CASUARINA OBESA
SWAMP SHEOAK / TO MATCH
STREET TREES IN AREA

SUMMARY

SITE AREA:	2251m²	
BUILDING AREA:	780m²	
NUMBER OF PLACES:	100	
OUTDOOR PLAY AREA:	REQUIRED: 700m² PROVIDED: 721m²	
CAR BAYS:	REGULAR BAYS	26
	DISABLED BAY	1
	TOTAL	27

ROOM BREAKDOWN:

ROOM	AGE	PLACES	RATIO	STAFF
ACTIVITY 1	0-2	8 PLACES	1:4	2 STAFF
ACTIVITY 2	0-2	12 PLACES	1:4	3 STAFF
ACTIVITY 3	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 4	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 5	3-4	20 PLACES	1:10	2 STAFF
ACTIVITY 6	3-4	30 PLACES	1:10	3 STAFF
KITCHEN / ADMIN				2 STAFF
		100 PLACES		**18 STAFF**

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	CONSULTANT ISSUE FOR INFO	07/10/20
D	ISSUED FOR DA	08/10/20
E	ISSUED FOR DA AMENDMENT	03/12/20
F	CARBAYS CLARIFIED	07/12/20

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FLOOR PLAN

Scale	As indicated
Drawn	DF Checked MJ
Date	07/12/20
Job No.	2020052
Dwg No.	3354 04 Rev: F A1 SHEET

FLOOR PLAN
1 : 100

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

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A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
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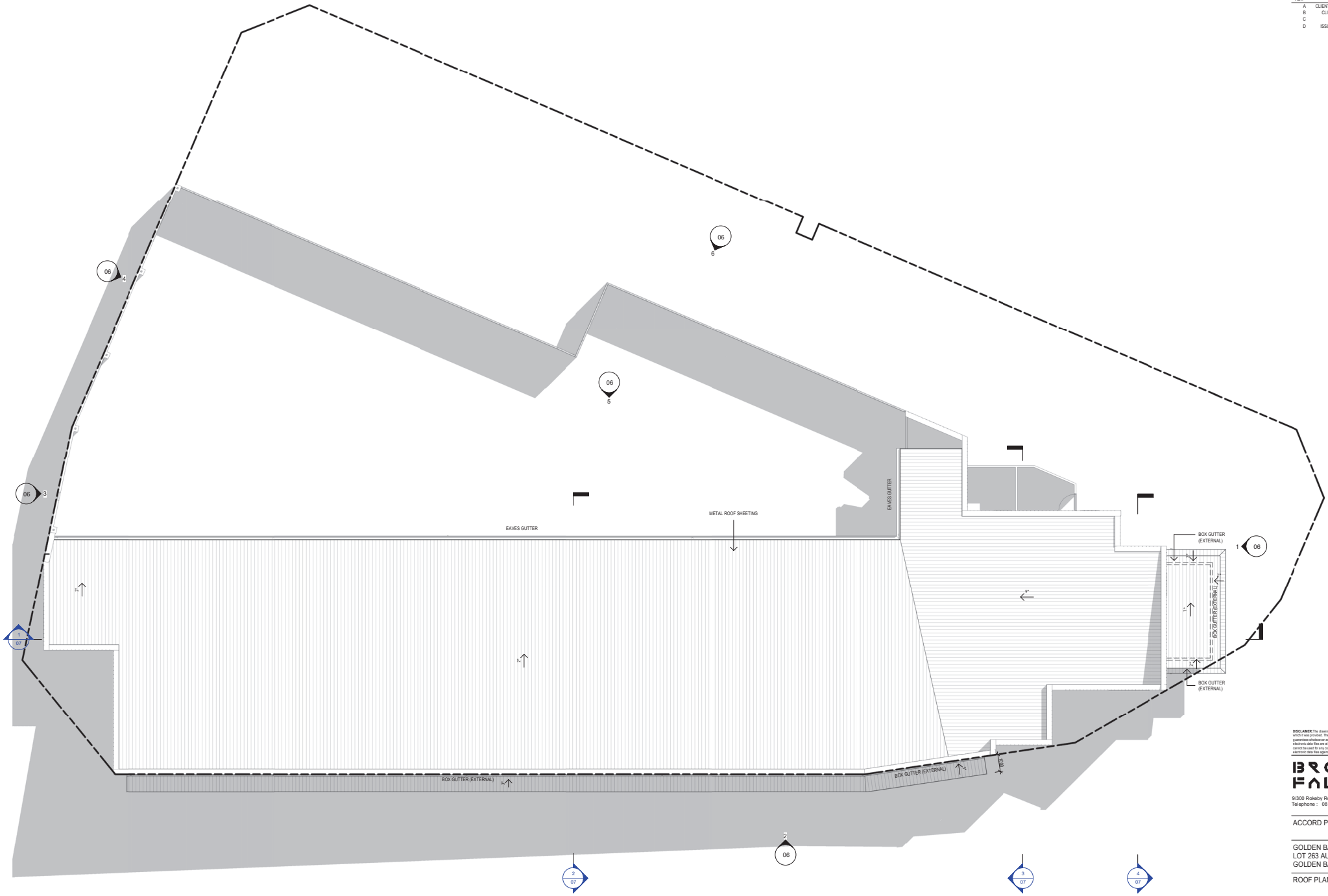
C	ISSUED FOR DA	08/10/20
D	ISSUED FOR DA AMENDMENT	03/12/20



ROOF

1 : 100

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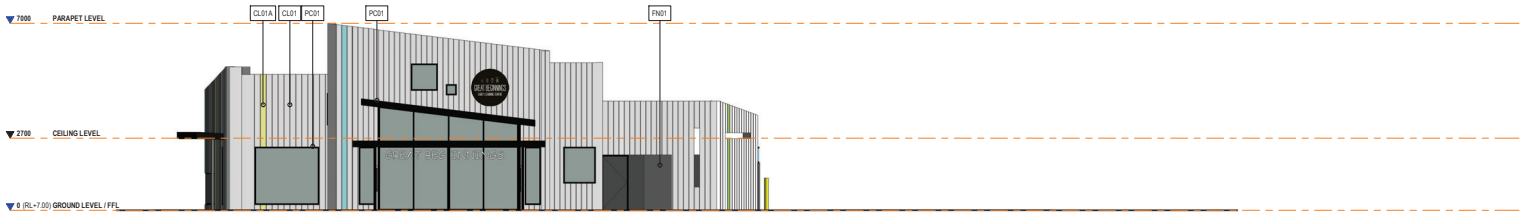
ROOF PLAN

Scale	1 : 100
Drawn	DF Checked MJ
Date	03/12/20
Job No.	2020052
Dwg No.	**3354 05** Rev: **D** A1 SHEET

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	CONSULTANT ISSUE FOR INFO	07/10/20
D	ISSUED FOR DA	08/10/20
E	ISSUED FOR DA AMENDMENT	03/12/20



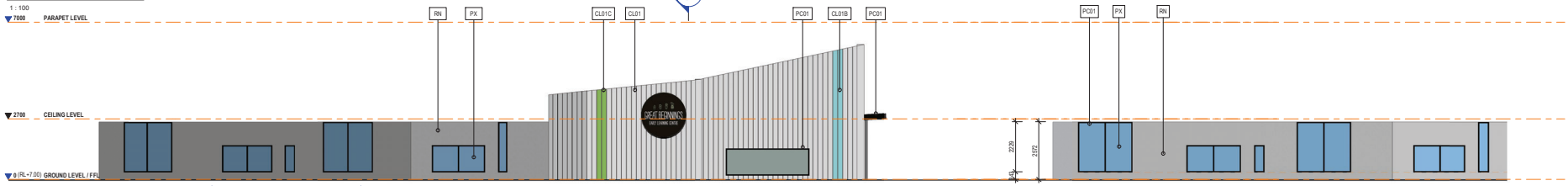
1 - NORTH WEST ELEVATION

1 : 100



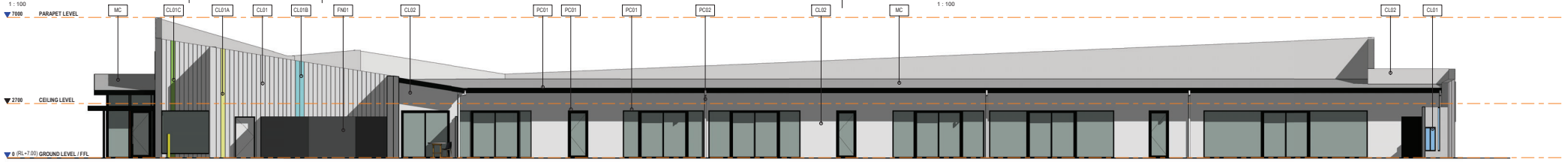
2 - NORTH EAST ELEVATION

1 : 100



3 - SOUTH EAST ELEVATION

1 : 100

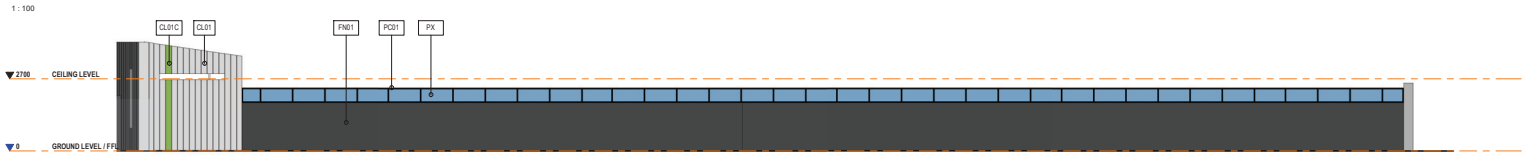


4 - SOUTH (FENCE) ELEVATION

1 : 100

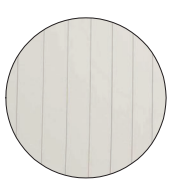
5 - SOUTH WEST ELEVATION

1 : 100



6 - WEST FENCE ELEVATION

1 : 100



CL01 - PAINTED LIGHT WEIGHT CLADDING WITH VERTICAL GROOVES - REFER TO SUB CATEGORY ADJACENT FOR PAINT COLOUR



A - PAINTED COLOUR 1



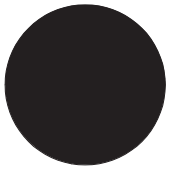
C - PAINTED COLOUR 3



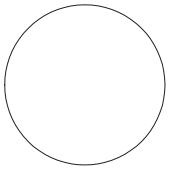
B - PAINTED COLOUR 2



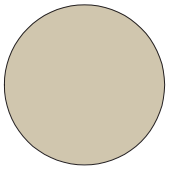
CL02 - LIGHT WEIGHT CLADDING



PC01 - POWDERCOAT COLOUR 1



PC02 - POWDERCOAT COLOUR 2



PC03 - POWDERCOAT COLOUR 3



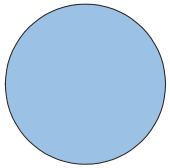
FN01 - COLORBOND FENCE



RN - MASONRY RENDERED WHITE



MC - METAL CLADDING



PX - PERSPEX CLEAR

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GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

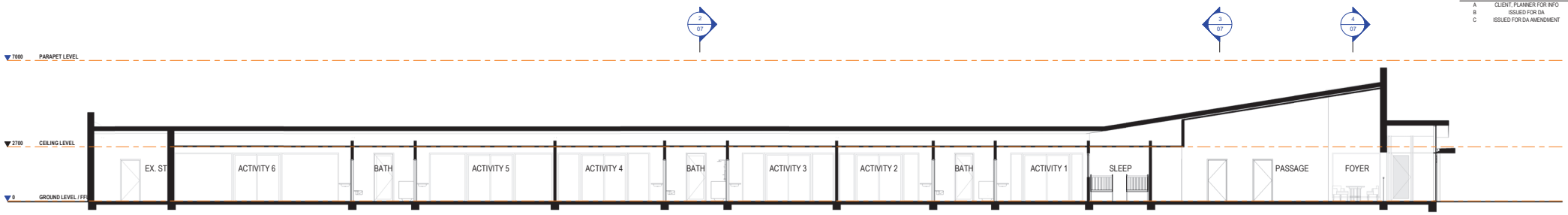
ELEVATIONS

Scale	As indicated
Drawn	DF Checked MJ
Date	03/12/20
Job No.	2020052
Dwg No.	**3354 06** Rev: **E** A1 SHEET

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, PLANNER FOR INFO	01/10/20
B	ISSUED FOR DA	08/10/20
C	ISSUED FOR DA AMENDMENT	03/12/20



1 - SECTION 1

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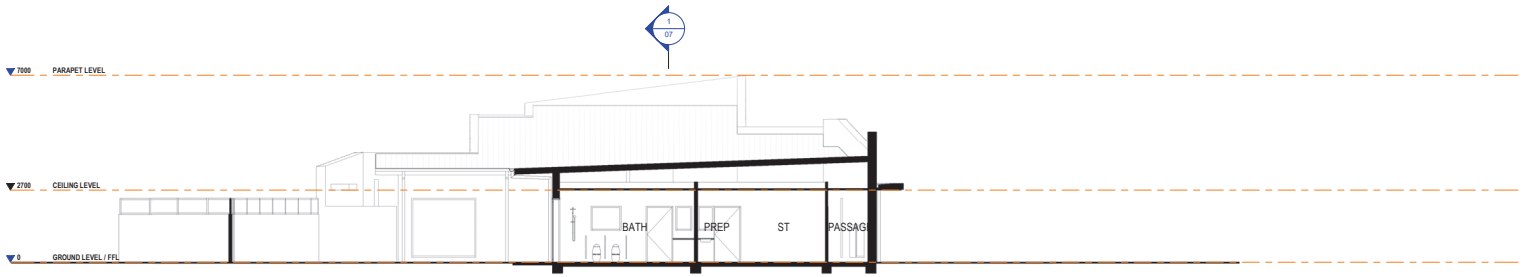
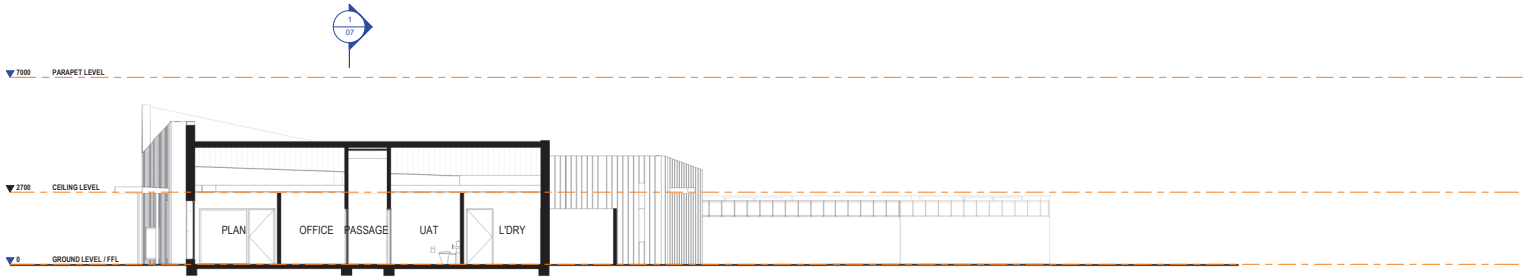


2 - SECTION 2

1 : 100



3 - SECTION 3

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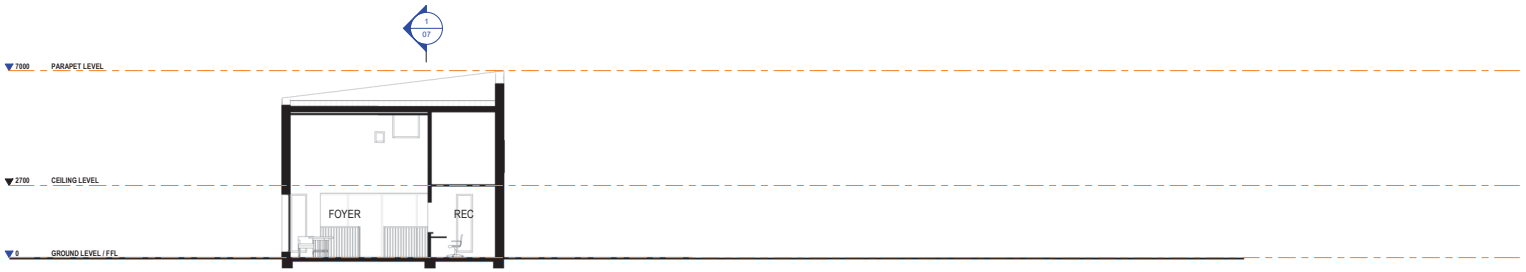

4 - SECTION 4

1 : 100

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LOT 263 AUREA BOULEVARD
GOLDEN BAY

SECTIONS

Scale 1 : 100
Drawn DF Checked Checker
Date 03/12/20
Job No. 2020052
Dwg No. **3354 07** Rev: **C** A1 SHEET



VIEW FROM NORTH EAST



VIEW FROM NORTH



VIEW FROM NORTH WEST ELEVATION



VIEW OF EAST ELEVATION



VIEW OF WEST ELEVATION



VIEW OF SOUTH ELEVATION

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	ISSUED FOR DA	08/10/20
D	ISSUED FOR DA AMENDMENT	03/12/20

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GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

3D VIEWS

Scale 1 : 1
Drawn DF Checked MJ
Date 03/12/20
Job No. 2020052
Dwg No. **3354 08** Rev: **D** A1 SHEET



CITY OF ROCKINGHAM COUNCIL CHAMBERS



KWINANA GRAIN TERMINAL



ROCKINGHAM HOTEL



LOADING TIMBER AT ROCKINGHAM JETTY



ROCKINGHAM APARTMENTS - MAARCH ARCHITECTS



ROCKINGHAM QUEST APARTMENTS - MJA STUDIO



ALFRED HINES SEASIDE CAMP FOR CHILDREN



KINDERGARTEN BY TOPOS ARCHITECTURE



KINDERGARTEN BY TOPOS ARCHITECTURE



KINDERGARTEN BY TOPOS ARCHITECTURE



KINDERGARTEN BY RRA ARCHITECTS

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
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ACCORD PROPERTY

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LOT 263 AUREA BOULEVARD
GOLDEN BAY

REFERENCE

Scale	1 : 1		
Drawn	DF	Checked	MJ
Date	03/12/20		
Job No.	2020052		
Dwg No.	**3354 09**	Rev:	**D**

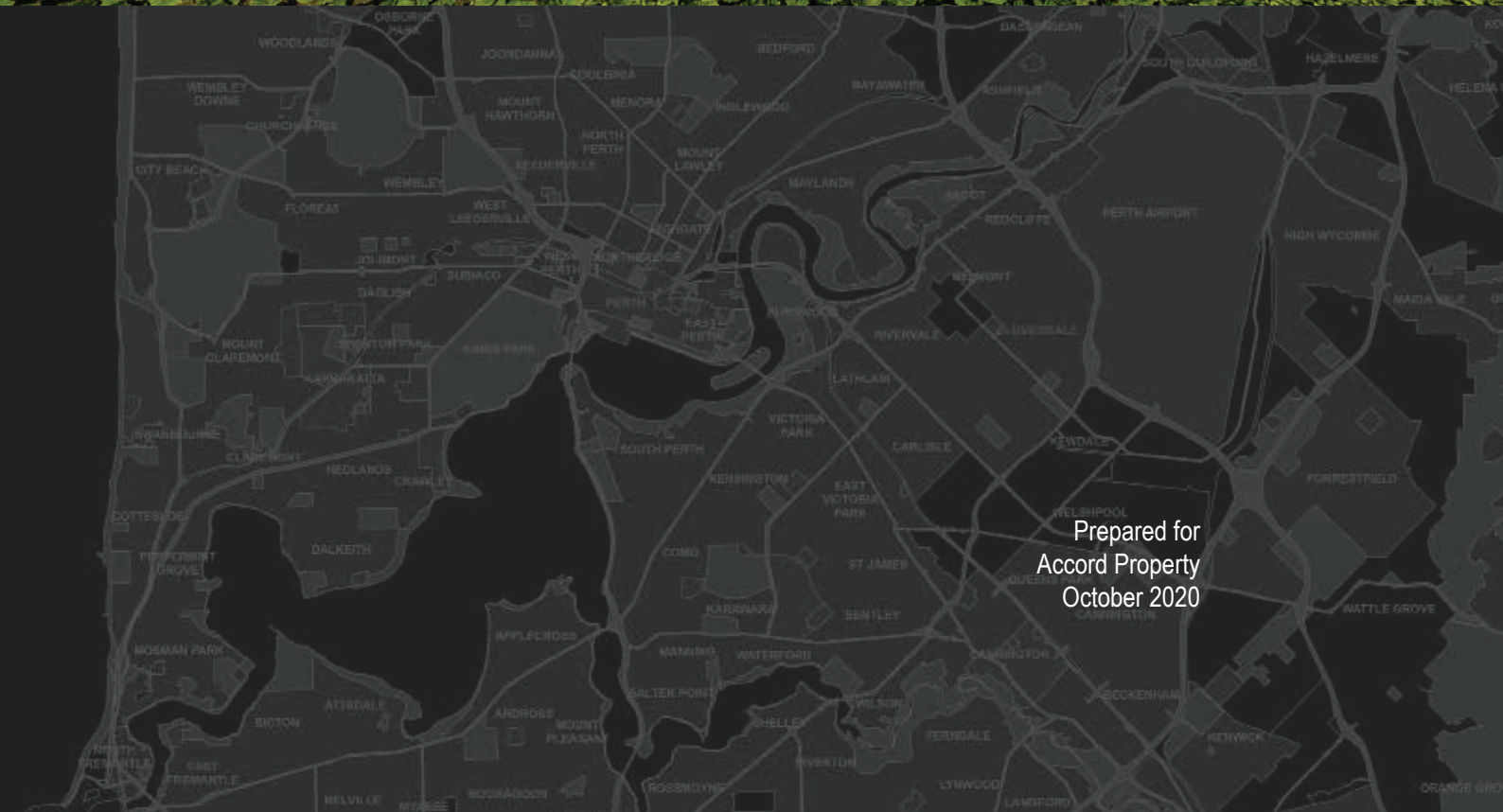
A1 SHEET

Golden Bay Child Care Centre
Development Application Report

Lot 263 Aurea Boulevard
Golden Bay, WA

PLANNING SOLUTIONS
URBAN & REGIONAL PLANNING
PS





Prepared for
Accord Property
October 2020

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2. use of, or reliance upon, this report in relation to any land other than the subject site; or
3. the Client's implementation, or application, of the strategies recommended in this report.

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Project details

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Client	Accord Property Group	
Prepared by	Planning Solutions	
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Appendix 4: Environmental Noise Assessment.
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1 Preliminary

1.1 Introduction

Planning Solutions acts on behalf of Accord Property, the proponent of the proposed development at Lot 263 Aurea Boulevard, Golden Bay (**subject site**). Planning Solutions has prepared the following report in support of an Application for Development Application for a 100 place childcare premises and associated carparking, access, signage and landscaping on the subject site.

This report will discuss various issues pertinent to the proposal, including:

- Background.
- Site details.
- Proposed development.
- Town planning considerations.

This application seeks approval for the use and development of a childcare premises catering for 100 children and 18 staff on the subject site. The proposed development is appropriately situated within the emerging Golden Bay local centre and has been designed in a manner which responds to the intended character of the precinct. The proposed centre is located within a designated commercial centre and provides additional community services and employment opportunities to the growing locality.

Accordingly, Planning Solutions respectfully requests the Metro Outer Joint Development Assessment Panel (**JDAP**) grant approval to the application.

1.2 Background

Ongoing engagement and consultation has occurred with the City of Rockingham (**City**) since project inception, including a meeting with the City on 12 August 2020.

The outcomes of the preliminary engagement were as follows:

- The City's officers have no in-principle objection to the suitability of the proposed development, and consider the proposed land use entirely appropriate within the town centre area.
- The site-specific design approach taken by the proponent which takes into consideration the desired built form of the Golden Bay Neighbourhood Centre Detailed Area Plan (**DAP**) was welcomed by the City.
- The location of the car parking area and the use of tandem bays was generally supported by the City provided that necessary justification from a suitably qualified traffic engineer is provided, and that the parking is consistent with the requirements of Austroads, Liveable Neighbourhoods and the relevant Australian Standards for parking.
- The proposal would not be required to present to the City's Design Review Panel for comment, given the site specific design led planning framework.
- The City would require traffic reporting in the form of a Transport Impact Statement as well as an Environmental Noise Assessment and Waste Management Plan to be submitted with the application.

The City also provided feedback on the initial concept plans on 24 September 2020. As a result of this feedback, a number of modifications were made to the final set of development plans, including the following:

- Revision of building materials to include painted lightweight cladding in coastal colours to better harmonise with the urban centre context.
- Inclusion of larger windows to the eastern elevation to provide better interaction with the street and break up the built form.
- Additional trees provided in tree wells to shade tandem car bays.

The comments received during pre-lodgement engagement have informed the overall design and configuration of the proposal and the content of this report.

2 Site Details

2.1 Land Description

Refer to **Table 1** below for a description of the land subject to this development application.

Table 1 – Lot details

Lot	Deposited Plan	Volume	Folio	Area (m^2)
263	401256	2884	468	2,251

Refer to **Appendix 1** for copies of the Certificate of Title and Deposited Plan.

2.2 Location

2.2.1 Regional Context

The subject site is located in the City of Rockingham (**City**) and is situated in the northern portion of Golden Bay, which is currently undergoing the final stages of subdivision and development. The subject site is located approximately 52 kilometres southwest of the Perth city centre and approximately 15 kilometres south of the Rockingham city centre.

The subject site is in close proximity to Warnbro Sound Avenue, connecting the subject site to coastal suburbs to the north within the City of Rockingham. The subject site is also in close proximity to Mandurah Road, connecting the subject site to the wider metropolitan region to the north and Mandurah to the south.

The subject site is bounded by Aurea Boulevard to the north, Thundelarra Drive to the east, Kalli Street to the south and Nallan Lane to the west.

Bus services are provided along Warnbro Sound Avenue, approximately 150 metres east of the subject site.

2.2.2 Local Context, Land Use and Topography

The subject site is located in the northern portion of Golden Bay, within Golden Bay estate. Residential development adjoins the subject site to the south and west, with commercial development underway to the north and east.

The subject site is widely surrounded by medium density residential development in the newly developed Golden Bay estate. The locality is in the final stages of development with surrounding roads, public open space and residential development largely complete, and adjoining commercial development underway.

The subject site is in close proximity to existing community facilities in Golden Bay including the following:

- Golden Bay Primary School, approximately 200m south of the subject site
- Rhonda Scarrott Oval, approximately 300m southwest of the subject site
- Golden Bay Baptist Church approximately 400m southwest of the subject site.

There are currently no childcare centres within Golden Bay, with the nearest centres located in adjoining suburbs to the north and south, greater than 1km from the subject site.

The subject site is currently cleared and vacant. The subject site is generally flat with a slight rise from north to south. The lowest point of the site is approximately 6.64AHD in the north western corner of the subject site, with the highest point of the site approximately 7.12AHD in the south eastern corner of the subject site.

Refer to **Photos 1-8** and **Figure 1**, aerial photograph depicting the subject site and surrounds.



Photograph 1: Nallan Lane facing south from Aurea Boulevard, subject site on the left.



Photograph 2: Roundabout at intersection of Aurea Boulevard and Thundelarra Drive, facing south towards the site.



Photograph 3: Commercial development under construction on Thundelarra Drive north of the subject site.



Photograph 4: Thundelarra Drive looking south. Existing verge landscaping and pedestrian pathway.



Photograph 5: Subject site from southeast across Thundelarra Drive.



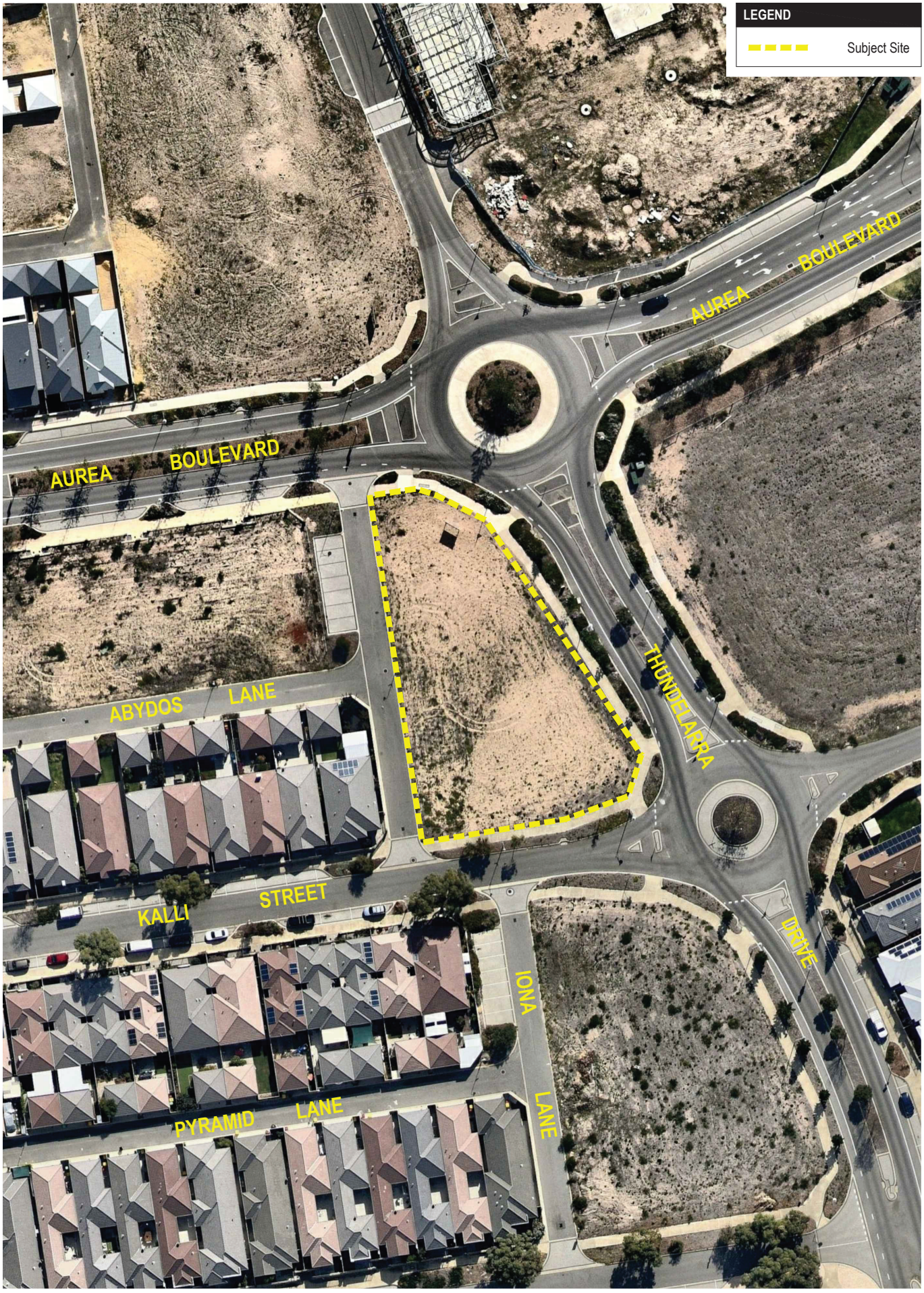
Photograph 6: View east across subject site from eastern lot boundary.



Photograph 7: View across entrance to Nallan Lane towards Kalli Street looking west.



Photograph 8: Abydos Lane west of subject site off Nallan Lane.



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URBAN & REGIONAL PLANNING

SCALE	1: 1,000 @ A4
DATE	03 September 2020
FILE	200903 6605 Aerial Photograph.dwg
REVISION	1/AL/First Draft/03.09.2020

Scale Bar (m)
0 10 20 30

AERIAL PHOTOGRAPH

LOT 263 AUREA BLVD
GOLDEN BAY, WESTERN AUSTRALIA

FIGURE 01

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3 Proposed Development

The proposal involves the development of a single storey child care centre on the subject site, including associated parking, access and landscaping. The design of the facility is intended to create a distinct/recognisable entrance to the Golden Bay local centre, and provide an essential service which is easily accessible to the local community.

The proposed development will contribute to the establishment of the Golden Bay local centre and provide for essential early learning services to meet the current and growing demand within the community. The facility has been designed with suitable architectural, acoustic and traffic input to minimise any undue impacts on the amenity of the locality, including adjoining residential properties.

The centre is efficiently designed to maximise use of the subject site's 2,251m^2 lot area through a single storey facility which provides ample outdoor space and amenities for up to 100 children.

The proposed centre will cater for the care of up to 100 children, of the following age demographics:

- 20 places for children aged 0-2 years.
- 30 places for children aged 2-3 years.
- 50 places for children aged 3-5 years.

The centre is proposed to operate from 6.30am to 6.30pm, Monday to Friday and will accommodate up to 18 staff. No outdoor activities will occur between 6.30am and 7.00am.

3.1 Development summary

Specifically, the proposed development comprises:

- A single-storey child care centre building along the eastern edge of the subject site, oriented towards the intersection of Thundelarra Drive and Aurea Boulevard.
- Setbacks to lot boundaries are as follows:
    - Nil setback to the north eastern lot boundary (Thundelarra Drive).
    - Nil setback to eastern lot boundary (Thundelarra Drive).
    - Nil setback to southern lot boundary (Kalli Street).
    - 5.4 metre setback to the western lot boundary (Nallan Lane).
- The building façade is comprised of painted lightweight cladding in coastal colours to give a contemporary appearance and respond to the site's context.
- Cross-ventilation is encouraged through the provision of openings along the building façades.
- A 714m^2 outdoor play space including a range of recreational features for children's play and learning activities. The outdoor play area is adequately screened to ensure privacy and adequate amenity to surrounding residential development.
- A total of 27 onsite car parking bays (including one universal access bay), comprising 13 bays in regular formation and 14 tandem bays. The car parking area is accessed from Nallan Lane.
- The internal floor layout comprises:
    - Entry foyer area with reception desk.
    - Administration rooms including staff office, planning and meeting rooms.
    - Kitchen, laundry and drying rooms.
    - Staff room and alfresco area.

- Six internal group activity rooms and associated children's toilets, prep rooms and cot rooms.
- External store accessible from the outdoor play area.

- An existing pedestrian footpath connecting Aurea Boulevard with Kalli Street through the subject site provides pedestrian access from the surrounding streets and from the car parking area to the child care centre building. Pedestrian awnings form part of the design response.
- Fencing throughout the facility as follows:
  - Timber and Perspex lapped fencing at 2.1m in height along the western portion of the southern boundary, with a 1.5m Perpex overhang.
  - Timber lapped fencing at 2.1m in height along the western boundary, with a 1m Perpex overhang.

  The proposed fencing provides a suitable level of enclosure while ensuring surveillance and transparency to the public realm. The fencing is also consistent with the acoustic recommendations for the purpose of mitigating potential noise impacts.
- Vehicle access to the site is via Nallan Lane. The access has been configured to optimise the functionality and safety of the site for visitors, staff and users of the surrounding road network.
- A 7m^2 bin storage area adjacent to the north western edge of the building and the car parking area. The area is fully enclosed by lightweight cladding.

Refer to **Appendix 2** for a copy of the development plans and perspective drawings of the proposed development.

3.2 Landscaping

The proposed development provides approximately 839m^2 of landscaped areas, including approximately 125m^2 soft landscaping and 714m^2 outdoor play. The landscaping provision compliments the existing verge plantings surrounding the subject site. A nature scape outdoor play concept is currently being developed for the child care centre, and will be submitted at a later stage.

The landscaping areas have been identified on the site plan with the proposed trees. The proposal seeks to retain the existing verge landscaping surrounding the proposed development. Further detail on landscaping to be provided with the nature scape outdoor play plans can be provided as a condition of development approval.

3.3 Traffic and access

The proposed child care centre has been subject to a detailed traffic analysis, in the form of a Transport Impact Statement (**TIS**) conducted by Transcore (refer **Appendix 3**).

Based on this analysis, the proposed child care centre was found to generate approximately 75 and 49 vehicles during the weekday AM and PM peak hours, respectively. This level of traffic generation is relatively minimal and falls within the threshold of a Transport Impact Statement as set out by the WAPC guidelines.

The findings of the TIS are summarised as follows:

- Traffic generation associated with the proposed facility will have an insignificant impact on the surrounding road network.
- The provision of 27 car parking bays is sufficient to cater for the parking demand generated by the proposed development.

3.4 Acoustic considerations

As the subject site is in close proximity to residential properties to the west across Nallan Lane and to the south across Kalli Street, an acoustic assessment has been conducted by a suitably qualified acoustic consultant in the form of an Environmental Noise Assessment.

The assessment considers the noise impacts associated with outdoor child play, AC plant, car doors and indoor child play with respect to the adjoining 'noise sensitive' residences to the west and south. The assessment demonstrates that the proposal will comply with the *Environmental Protection (Noise) Regulations 1997* during the assessment period, subject to a number of built form and centre management measures.

The proposed fencing is consistent with the acoustic recommendations for the purpose of mitigating potential noise impacts.The remainder of recommendations outlined within the Environmental Noise Assessment pertaining to plant equipment will also be incorporated within the final construction drawings which would be lodged as part of a building permit application to the City.

Accordingly, the above mitigation measures are acceptable to the proponent. The measures can be incorporated into the development as part of a condition of development approval. Refer to **Appendix 4** for a copy of the Environmental Noise Assessment.

3.5 Waste Management

As outlined in section 1.2 of this report, the City confirmed in preliminary discussions that a detailed Waste Management Plan confirming the full details of waste management for the centre would be required.

The proposed development provides a screened bin area at the north western side of the childcare building, adjacent to the northern car bays. The bin area measuring 7m^2 is of adequate size to accommodate the three waste bins (two general waste and one recycling) required for the 100-place centre. Waste collection will occur via Nallan Lane, with private waste contractors accessing the site and transporting bins from the bin area onto trucks. Waste collection is anticipated to occur five times per week.

Refer to **Appendix 5** for a copy of the Waste Management Plan prepared by Rawtec.

3.6 Signage

Nominal signage zones have been indicated on the proposed development plans for 3 wall signs, as follows:

- One 1.4m in diameter circular wall sign on the north western elevation, fronting Aurea Boulevard, above the building entrance.
- One 2.4m long x 1.2m high rectangular wall sign on the north eastern aspect of the eastern elevation, fronting Thundelarra Drive.
- One 2m in diameter circular wall sign on the south western elevation, fronting Kalli Street.

An assessment of the proposed signage against the City's signage policy is discussed in section 4.5.2 below.

4 Statutory Planning Framework

4.1 Metropolitan Region Scheme

The subject site and adjoining roads are zoned Urban under the provisions of the Metropolitan Region Scheme (**MRS**). The proposed development is consistent with the MRS and may be approved accordingly.

4.2 City of Rockingham Town Planning Scheme No. 2

4.2.1 Zoning

The subject site is zoned 'Commercial' under the City of Rockingham Town Planning Scheme No. 2 (**TPS2**). Pursuant to Clause 4.6.1 of TPS2, the objective of the Commercial zone is as follows:

> *to provide for the development of District, Neighbourhood and Local shopping facilities to cater for the present and future residents of the City consistent with the Local Government's Local Commercial Strategy and supported by any other Plan or Policy that the Local Government from time to time may adopt as a guide for the future development within the Zone.*

The proposal involves the development of a child care centre to meet demand for child care services in the growing Golden Bay community. The development of a child care centre at this location within the Golden Bay neighbourhood centre is entirely consistent with the intent of the Local Commercial Strategy and with the City's suite of local planning policies, as outlined throughout this report.

The centre is appropriately located within the commercial centre and within an easy walk of Golden Bay Primary School, providing convenience to parents and caregivers. The building has been architecturally designed to ensure the built form of the development is appropriate to its location at the interface between residential and commercial land uses, and ensure safety and amenity of the area.

The proposed development is entirely consistent with the objective of the Commercial zone and warrants approval accordingly.

Refer to **Figure 2**, zoning map.

4.2.2 Land Use and Permissibility

Pursuant to the provisions of Schedule 1 - Interpretations, the proposed development is best classified as a 'Child Care Premises', defined under TPS2 as:

> ***Child Care Premises****: means premises used to provide a child care service within the meaning of the Child Care Services Act 2007, but does not include a Family Day Care Centre.*

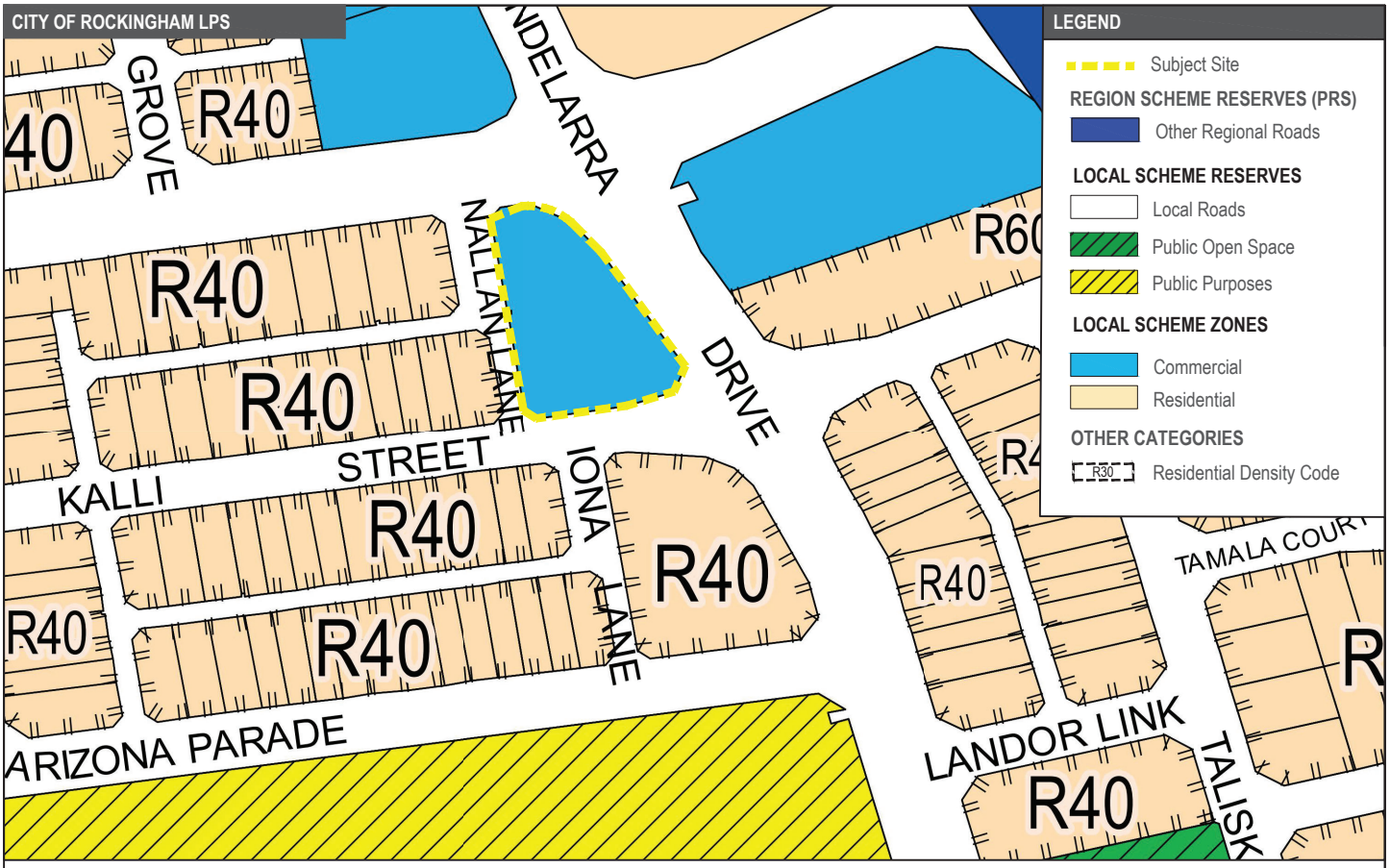
Pursuant to Table No. 1 – Zoning Table of TPS2, the Child Care Premises land use is a 'D' (Discretionary) use within the Commercial zone. The use is therefore capable of being approved, subject to the exercise of discretion by the decision maker.

The proposed child care centre use is entirely appropriate and suitable for establishment on the subject site for the following reasons:

- The proposed child care centre will provide essential child care and early learning services to the established and growing Golden Bay community within an existing community/commercial precinct.
- The proposed child care centre is ideally located at the intersection of Thundelarra Drive and Aurea Boulevard to provide good connectivity from the surrounding Golden Bay locality, and is located in close proximity to other services in the area including Golden Bay Primary School and the emerging commercial centre.
- The design of the development is sympathetic to the surrounding planned commercial context and ensures an active interface with the street. Building bulk has been concentrated at the northern portion of the subject site to present an attractive entrance statement to the commercial centre at the intersection of Thundelarra Drive and Aurea Boulevard.
- The proposed development has been deliberately designed and configured to minimise any intrusive impact on the amenity of surrounding residential properties. In this regard, an acoustic report demonstrates compliance with the relevant Environmental Noise Regulations.
- The proposal is supported by a Traffic Impact Statement which demonstrates it is entirely acceptable from a traffic and access point of view.

For the reasons outlined above, the proposed child care premises is entirely compatible with the Commercial zone and warrants approval accordingly.

CITY OF ROCKINGHAM LPS



LEGEND

- Subject Site

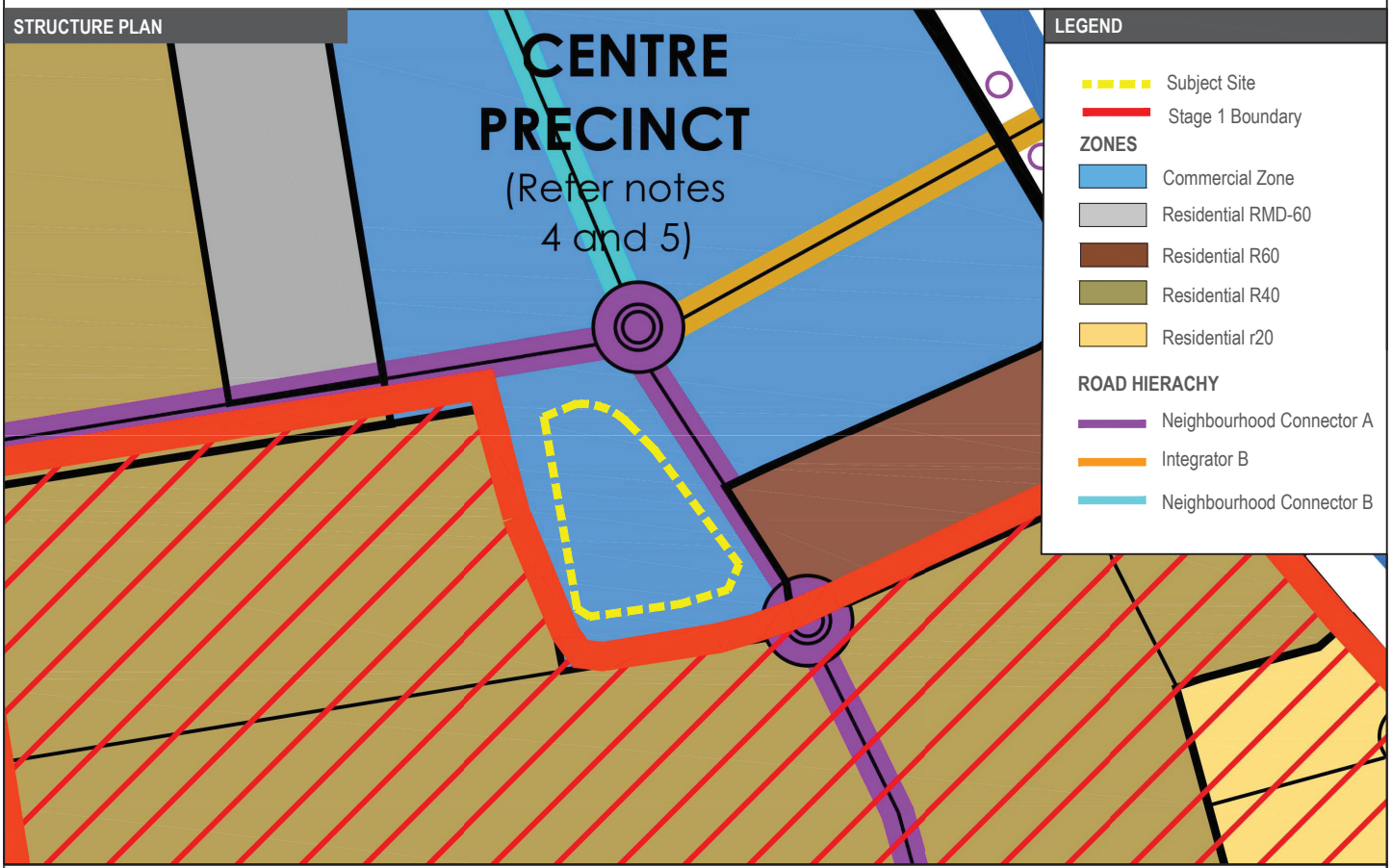
REGION SCHEME RESERVES (PRS)
- Other Regional Roads

LOCAL SCHEME RESERVES
- Local Roads
- Public Open Space
- Public Purposes

LOCAL SCHEME ZONES
- Commercial
- Residential

OTHER CATEGORIES
- R30 Residential Density Code

STRUCTURE PLAN



LEGEND

- Subject Site
- Stage 1 Boundary

ZONES
- Commercial Zone
- Residential RMD-60
- Residential R60
- Residential R40
- Residential r20

ROAD HIERACHY
- Neighbourhood Connector A
- Integrator B
- Neighbourhood Connector B

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URBAN & REGIONAL PLANNING

SCALE	1: 2,000 @ A4
DATE	03 September 2020
FILE	200903 6605 Zoning Map.dwg
REVISION	1/AL/First Draft/03.09.2020

Scale Bar (m) 0 50

ZONING MAP

LOT 263 AUREA BOULEVARD
GOLDEN BAY, WESTERN AUSTRALIA

FIGURE 02

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4.2.3 Development Standards

Part 4 of TPS2 outlines the general development standards and requirements for Commercial zoned land. With the exception of landscaping and parking, the majority of provisions are not applicable to the proposed development. The relevant development requirements for the proposed childcare centre are contained in the City's suite of Local Planning Policies which are addressed in section 4.5 of this report.

In accordance with Clause 4.6.5 of TPS2, the following landscaping requirements apply to the proposal:

> *A minimum of ten percent (10%) of the total site area shall be provided as landscaping in the form approved by the Local Government. The area of the site required to be provided under this sub-clause shall not include areas which would normally be set aside for pedestrian movement.*

The proposed development provides approximately 125m^2 of dedicated soft landscaping areas, located between the building envelope and the northern and southern lot boundaries. The development also includes provision for tree planting within the car parking area at a rate of 1 tree per 4 bays. With a total lot area of 2,251m^2, this equates to 5.5% landscaping provision. The soft landscaping provision will be complimented by a 'nature scape' outdoor play area which will incorporate additional soft landscaping within children's play spaces.

The landscaping provision of the proposed development is entirely appropriate for the child care centre premises and ensures children have access to nature play, in addition to providing external landscaping which enhances the aesthetic and sustainability of the centre through a number of trees. The inclusion of the nature play area would result in a landscaping percentage for the site of 37%. Therefore, if is considered the proposed landscaping provided as part of this development is satisfactory and should be supported accordingly.

4.2.4 Parking

The parking requirement for a Child Care Premises under Table No. 2 – Carparking Table of TPS2 is as follows:

> *1 bay per employee and 1 bay per eight children.*

Based on 100 children and 18 staff, a total of 31 parking bays are required (of which 18 must be dedicated to staff). The proposed development provides 18 staff bays and 9 visitor bays onsite, with one accessible bay provided. Accordingly, a 4 bay 'on paper' car parking shortfall is proposed.

As outlined within the TIS in **Appendix 3**, Transcore undertook a parking analysis based on the anticipated peak hour traffic generation of the proposed child care centre, to estimate the actual peak parking demand of the child care centre.

The estimated morning peak hour trip generation of the child care centre is 39 vehicles in and 36 vehicles out of the car park. This represents a potential 39 vehicles using the child care centre car park during the peak hour. This is the assessed 'worst case' usage of the car park during the peak hour.

The RTA NSW "Guide to Traffic Generating Developments" indicates an average recorded length of stay of 6.8 minutes for all surveyed child care centres. Conservatively assuming that the length of stay for pick-up/drop-off parking for the proposed child care centre is 10 minutes, it is calculated that each parking bay can accommodate a turnover of up to 6 vehicles per hour.

It can therefore be concluded that a minimum of 7 visitor parking bays (39 vehicles / 6 vehicles = 6.5 bays) should be reserved for drop-off and pick-up activities peak hour periods. This results in an actual parking demand of 25 bays (7 visitor +18 staff bays = 25 bays). The proposed development provides 6 designated visitor parking bays to meet the actual visitor parking demand and 17 bays to accommodate the maximum of 17 staff on site at any one time. The reduced visitor bay demand of 7 bays, means the provision of 27 bays could adequately accommodate parking needs of staff and visitors at capacity. Efficient use of space is maximised through the inclusion of 14 tandem bays, for staff use.

In addition to the above, 7 existing bays are located within Nallan Lane which can be used directly adjacent to the child care premises. It should also be noted that many patrons of the child care centre will be also local residents, some of which will walk their children to and from the child care centre. Given the proximity of the centre to Golden Bay Primary School and its location within the Golden Bay local centre, it is reasonable to expect that parents/caregivers may park at any one of these locations and choose to walk between each, thereby reducing parking demand for the child care centre.

The subject site is located in close proximity to public transport options, which provides an opportunity for alternative modes of travel by parents, guardians or staff, reducing the need for additional parking bays.

Furthermore, pick up and drop off times of child care centres are typically staggered over a 3 hour period. The times are dependent on the employment / movements of parents or carers. For example, a child may be dropped off at 0700 and picked up at 1400 depending on the time their guardian is ready to collect them. This differs from a primary school where there is only one start and finish time.

The proposed 4 bay car parking variation is justified and warrants the City's discretion accordingly.

4.2.5 Matters to be considered

Clause 67 of the Deemed Provisions sets out the matters for which due regard shall be given when considering an application for development approval. The relevant considerations are addressed in **Table 2** below.

Table 2 - Matters to be considered

Matter to be considered	Provided
(a) the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;	The aims and provisions of LPS2 are considered and addressed throughout this report.
(g) any local planning policy for the Scheme area;	Refer to section 4.5 of this report.
(h) any structure plan, activity centre plan or local development plan that relates to the development;	Refer to sections 4.3 and 4.4 of this report.
(m) the compatibility of the development with its setting including the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;	The design of the building ensures the built form responds appropriately to the site's context within an emerging commercial centre. The development features an attractive built form and is of a scale which gives prominence to the Thundelarra Drive / Aurea Boulevard intersection and creates an entrance statement to the Golden Bay local centre. The choice of materials, colours and finishes is appropriate for commercial development at this location and references the site's coastal context.
(n) the amenity of the locality including the following — *(i) environmental impacts of the development;* *(ii) the character of the locality;* *(iii) social impacts of the development;*	As outlined above, the proposed development responds to the character of the area through the use of various colours, materials and textures to activate the street frontage and provide visual interest to the site. It has been demonstrated by the Environmental Noise Assessment provided in **Appendix 4** that the proposal will not affect the amenity of residential properties to the west and south, subject to appropriate noise mitigation measures being implemented with the development. In this regard, noise generated by the proposed development will comply at all times with the *Environmental Protection (Noise) Regulations 1997.*

Matter to be considered	Provided
	The proposed development will have positive social impacts for the locality and its surrounds, through the provisions of an essential community service within a local centre and in close proximity to the local primary school, providing convenience to parents and creating the opportunity for enhanced walkability of the centre.
(p) 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;	Landscaping of the proposed development includes planting of ten shade trees as well as soft landscaping at the northern and southern boundaries of the site. The outdoor play area of the centre will include a 'nature scape' concept, further enhancing landscaping provision.
(s) the adequacy of — *(i) the proposed means of access to and egress from the site; and* *(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles;*	A Traffic Impact Statement has been prepared which demonstrates the proposed development is sound from a traffic and access perspective – refer **Appendix 3**. Access to the site from Nallan Lane is entirely appropriate. The bin storage area is appropriately located to allow for waste collection vehicles and contractors to easily access the site after hours for waste collection.
(t) 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;	A Traffic Impact Statement has been prepared which demonstrates the proposed development is sound from a traffic and access perspective – refer **Appendix 3**. Any additional traffic generated by the development is minimal and will not impact on the surrounding road network.
(u) the availability and adequacy for the development of the following — *(i) public transport services;* *(ii) public utility services;* *(iii) storage, management and collection of waste;* *(iv) access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities);* *(v) access by older people and people with disability;*	The availability of alternative transport options near the subject site is considered in the Traffic Impact Statement included at **Appendix 3**. The details of the storage and collection of waste are addressed in this report. A footpath (accessible path of travel) is provided between the building entry and Kalli Street to the south of the subject site, parallel to Nallan Lane. One ACROD bay is provided for the development in accordance with Australian Standards.
(v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;	The proposed development will not result in the loss of a community service. Rather, the proposed development will contribute to the delivery of a critically important community service for the Golden Bay community.
(x) the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;	It is noted the proposed development will provide full-time employment for up to 18 people, and provide care and early learning services for up to 100 children, increasing employment opportunities for residents in the locality and providing a critical service to young families in the area. In this respect, there is a positive social outcome resulting from th development.
(y) any submissions received on the application;	Submissions will be considered during the assessment of the application.

Having regard to **Table 2** above, it is considered that the proposed development meets the relevant due regards of the Regulations and warrants approval accordingly.

4.3 Golden Bay Structure Plan

The Golden Bay Structure Plan (**Structure Plan**) provides a framework for subdivision and development within the northern portion of Golden Bay. The subject site is zoned 'Commercial – Neighbourhood Centre Precinct' under the Structure Plan. As above, the proposed development is entirely consistent with the objectives of the Commercial zone under TPS2.

Note 4 of the Structure Plan designates the Neighbourhood Centre Precinct subject to the preparation of a Detailed Area Plan. The Detailed Area Plan is addressed in the following section of this report.

4.4 Golden Bay Neighbourhood Centre Detailed Area Plan

The Golden Bay Neighbourhood Centre Detailed Area Plan (**NCDAP**) has been prepared in accordance with the provisions of the Golden Bay Structure Plan. The objectives of the NCDAP are as follows:

a) *Establish a 'Main Street' based Neighbourhood Activity Centre of a scale that is appropriate to its role as a focal point of a residential community and its role in the retail hierarchy of the region.*

b) *Provide a context for higher-density residential development that capitalises on proximity to local services.*

The proposed development of a child care centre within the activity centre will complement additional commercial uses and further enhance service provision within the centre.

An extract from the NCDAP is included below at **Figure 3**.

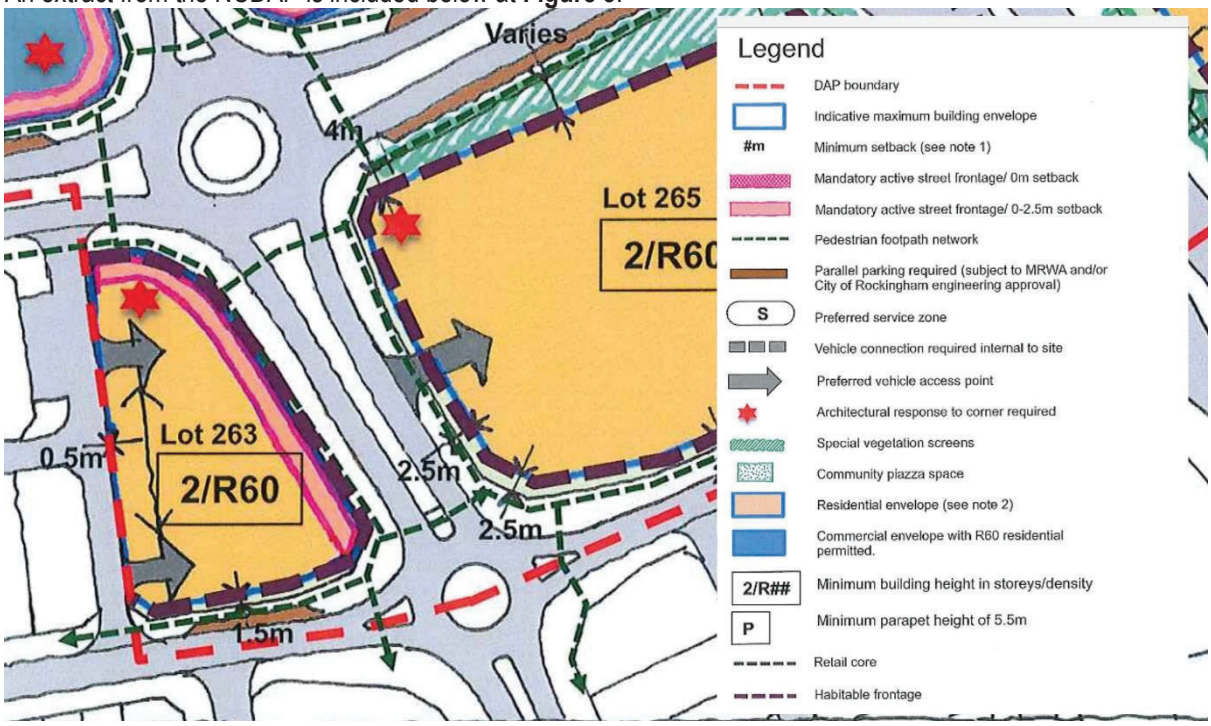

Figure 3 – Extract from Golden Bay Neighbourhood Centre Detailed Area Plan

An assessment of the proposed development against the above extracted NCDAP and other development standards of the NCDAP is provided below in **Table 3**.

Table 3 – Assessment of the proposed development against relevant standards of the Golden Bay Neighbourhood Centre Detailed Area Plan.

Required	Provided	Complies
Detailed Area Plan		
Mandatory active street frontage / 0-2.5m setback.	Active frontage with 0m setback provided to Thundelarra Drive with use of glazing and northern entry statement.	✓
Preferred vehicle access from Nallan Lane.	Vehicle access from Nallan Lane provided.	✓
Architectural response required to Thundelarra Drive / Aurea Boulevard intersection.	Increased building height, use of contrasting materials and additional glazing to create entrance statement at Thundelarra Drive / Aurea Boulevard intersection. The proposed development has an active and accessible frontage to this corner with the main entrance to the child care premises provided in this location. The use of additional height ad form in the roof ensures this corner has an increased level of visual interest and impact on the prominent corner.	✓
Habitable frontage to Thundelarra Drive, Aurea Boulevard and Kalli Lane.	A habitable frontage with glazing is provided to Thundelarra Drive and Aurea Boulevard. Preliminary engagement with the City (refer section 1.2 of this report) confirmed two habitable frontages would be acceptable. The two habitable frontages are further considered acceptable for the following reasons: • Thundelarra Drive and Aurea Boulevard are considered to be the 'primary' street frontages, with the highest level of pedestrian and vehicle activity. • Kalli Street provides access to a limited number of residential dwellings. • The outdoor play area with permeable fencing provides interaction with the Kalli Street streetscape to the south. In addition to the above, car parking is provided directly from Nallan Lane which will promote movement and presence in the laneway for staff and parents dropping off and picking up children.	**Discretion required**
Minimum two storey building height.	Preliminary engagement with the City (refer section 1.2 of this report) confirmed single storey height would be acceptable for a commercial only development, noting increased building height should be achieved at prominent locations. The proposed height is considered acceptable for the following reasons: • The building achieves a parapet height of 7m at the northern corner, which is equivalent to two storeys. • The single storey building height is compatible with the predominantly single storey building heights of the residential dwellings to the west and the wider locality. In accordance with clause 4 of the NCDAP single storey is considered acceptable for commercial developments. The proposed development varies in height between 7m and 4.2m, which corresponds with the priced roof parapet design of the building.	**Discretion required**

Required	Provided	Complies
Street interface		
i. All buildings must provide passive surveillance of adjacent street reserves by means of active or habitable frontage.	Active frontages to the northern and eastern street frontages ensure passive surveillance through the incorporation of sections of glazing.	✓
ii. Where active frontage is required and/or a 0m setback has been provided, the frontage must incorporate a canopy(s) with continuous coverage to a minimum depth of 2.5m or to within 600mm of the back of the adjacent kerb where the verge is too narrow to accommodate a 2.5m deep canopy, and must extend across the entire street frontage of the building.	Awnings for pedestrian cover with a depth of 1m are provided to the majority of the Thundelarra Drive frontage. This is appropriate to ensure comfortable pedestrian movement along the Thundelarra Drive footpath, with the awning naturally discontinuing to allow for a landscaped area at the corner of Aurea Boulevard and Thundelarra Drive. This awning will provide the necessary relief from the weather whilst supporting the architectural design of the proposed development.	**Discretion required**
iv. Delivery, loading and storage areas must be located and screened to minimise the visual impact on the public domain.	The bin storage area located at the north western edge of the building is adequately screened with light weight cladding to minimise the visual impact from the car park and adjoining Nallan Lane.	✓
v. Street elevations must be designed to create visual interest through building form, articulation of walls and openings, architectural features, texture and colour, with particular emphasis given to the ground floor level.	Alternating panels of coastal colours and large openings create visual interest along the eastern elevation to Thundelarra Drive. The concentration of building bulk and scale towards the northern corner of the subject site creates a focal point for the development and a statement entrance to the local centre.	✓
vi. Non-active portions of walls must be articulated by means of form, colour and texture	Visual interest and articulation is created at the south east elevation through varied building height which tapers towards the building entrance, as well as alternating panels in coastal colours.	✓
Landscape		
i. The landscape material used for the footpath must be continued across driveways and the entrances to Rights of Way to maintain visual continuity of the pedestrian network and aid pedestrian legibility.	Not applicable. No rights of way are provided within the subject site, with the development making use of the existing Rights of Way from Nallan Lane.	**N/A**
iii. Shade trees must be provided to all publicly accessible and open car parks not otherwise provided with shade structures at a minimum rate of 1 tree per 8 car bays.	Shade trees are provided to the car parking area at a rate of 1 tree per 4 bays, with additional shade trees at the southern perimeter of the car parking area and throughout the development.	✓
Robustness		

Required	Provided	Complies
i. The ground floor of all buildings in the Commercial area must be designed with a minimum floor-to-floor height of 3.2m to enable commercial uses even if used for interim residential use.	A ceiling height of 2.7m is achieved for the development. The ceiling height achieved is adequate to accommodate the intended use of a child care centre. The proposed additional ceiling height would provide additional unnecessary costs in the construction of the proposed development which his design for an intended purpose. The tenant for the child care premises has a long lease which will ultimately mean they will be in this site for 20+ years. The purpose for additional ceiling height to provide flexibility in commercial operators. The long lease and specific built form for this operator mean the additional ceiling height is unnecessary for this development and discretion to vary the requirement should be applied.	**Discretion required**
ii. The ground level of all buildings in the Commercial area must be designed for disabled access regardless of the initial use.	The building is appropriately designed to accommodate disabled access.	✓
Fencing		
i. Any fencing to the primary or secondary street(s) frontage must be restricted to residential uses only.	Fencing to Kalli Street is visually permeable. Fencing to Nallan Lane is not visually permeable as this is not a primary or secondary street.	✓
ii. Where street frontage fencing is employed, it must be no more than 1.8m high and must be at least 50% visually permeable from 0.9m above the ground level of the adjacent street with solid portions of fencing consisting of masonry construction.	Fencing is required as follows: <u>Southern edge of outdoor play:</u> 2.1 metre high vertical lapped timber and Perspex fence with 1.5 metre long angled overhang along the western edge of the outdoor play area (top edge 2.5 metres above outdoor play area). <u>Western edge of outdoor play:</u> 2.1 metre high vertical lapped timber fence with 1.0 metre long angled overhang along the southern boundary. This fencing is to Nallan Lane which is not considered a street in the context of this development. The acoustic mitigation measures outlined in **Appendix 4** demonstrate the need for acoustic fencing to the western and southern boundaries which exceed the 1.8m requirement.	**Discretion required**
iii. Colourbond fencing is not permitted within any street setback area.	No Colourbond fencing is proposed.	✓
Minimum building heights		
Sites developed exclusively for commercial uses are permitted as single storey but with a minimum parapet height of 5.5m or a minimum eaves height of 4.5m where a pitched roof is utilised.	As outlined in section 1.2 of this report, preliminary engagement with the City confirmed single storey development of the subject site is permitted. The building achieves a parapet height of 7m at the northern corner, which is equivalent to two storeys. The pitched roof ranges in height between 4.2m to 6m and supports the architectural expression proposed as part of this development.	**Discretion required**

As outlined above, the proposed development is generally consistent with the relevant standards of the NCDAP.

The NCDAP includes an indicative development plan for the neighbourhood centre – see **Figure 4** below. The indicative development plan designates the subject site for higher-density residential development, with Lot 716 Aurea Boulevard to the north of the subject site designated for child care.



Figure 4 – Indicative Development Plan for Golden Bay Neighbourhood Activity Centre Detailed Area Plan.

It is noted in the indicative development plan that the annotation of specific uses in the plan is to illustrate potential outcomes and does not constitute a requirement for specific land uses in specific locations. Further, preliminary engagement with the City indicated their support for the development of a child care centre on the subject site (refer section 1.2 of this report).

4.5 Local Planning Policies

4.5.1 Local Planning Policy 3.3.5 – Child Care Premises

The City's Local Planning Policy 3.3.5 - Child Care Premises (**LPP3.3.5**) sets out the objectives and policy provisions to which the City will have due regard when assessing planning applications seeking approval for child care centres.

Importantly, the policy acknowledges there is growing demand for childcare facilities in all parts of the City, and this demand is expected to continue given the current and expected urban development being experienced. Noting Golden Bay is currently undergoing substantial residential subdivision and development, the proposed development is entirely consistent with this policy position.

Refer to **Table 4** for an assessment against the relevant policy provisions of LPP3.3.5.

Table 4 – Assessment against the Child Care Premises Policy.

Policy provision	Provided	Complies
4.1 Location of childcare premises		
(a) *Distributed strategically to provide the maximum benefit to the community it serves*	The proposed child care facility is sufficiently separated from other centres, with the closest centre being Great Beginnings Secret Harbour, located approximately 1.2km from the site. We note that Kalli Kids Family day care service on Kalli Street is inherently different to a child care centre. It is noted that the proposed development is located 100m from Warnbro Sound Avenue, which is a key arterial road, ensuring the site is highly accessible from the local catchment area.	✓
(b) *Within easy walking distance or part of appropriate commercial, recreation or community nodes and education facilities*	The proposed development is located 100m north of the Golden Bay Primary School. There are benefits/synergies associated with the co-location of community services, with the subject site in proximity to existing schools and other community uses such as the Golden Bay Baptist Church and the Secret Harbour Dockers Sporting Association. Shopping/retail facilities are located 800m south west of the site.	✓
(c) *Located in areas where adjoining uses are compatible with a Child Care Premises (includes considering all permissible uses under the zoning of adjoining properties)*	Residential dwellings are located west of the subject site, across Nallan Lane. Child care centres are commonly developed within or adjacent to residential areas. The Commercial zoned lot across Aurea Boulevard to the north is considered acceptable in the context of the site. The proposed fencing will ensure any potential impacts are avoided.	✓
(d) *Serviced by public transport (where available)*	The nearest bus stop is located on Warnbro Sound Avenue, which is approximately 230m north east of the subject site by foot.	✓
(e) *Considered suitable from a traffic engineering/safety point of view*	The Transport Impact Statement contained in **Appendix 3** confirms the proposal is suitable from a traffic engineering / safety point of view.	✓
(f) *Of sufficient size and dimension to accommodate the development without affecting the amenity of the area*	The subject site totals 2,251m^2, and the DA drawings demonstrate that the proposed child care facility comfortably fits within this area.	✓
4.2 Site characteristics		
As a general rule, sites in a residential area should be of regular shape and greater than 1,000m^2 in size. A maximum site coverage of 50% will apply to any proposal to prevent the over-development of any lot.	The subject site is 2,251m^2 in size, and the proposed site cover of the child care building is 774m^2, equating to approximately 34% of the site area.	✓
The topography of the site should be considered, as steep slopes may affect access to the facility, noise transfer and methods of noise mitigation.	The development site is flat.	✓

Policy provision	Provided	Complies
Sites selected for child care premises should also be assessed to determine their potential for soil and groundwater contamination. Section 6 of the Department of Environment and Conservations 'Contaminated Sites and the Land Use Planning Process' (April 2006) guideline sets out a useful methodology to assist local governments in carrying out such assessments.	The subject site is not identified as a contaminated site on the Department of Water and Environmental Regulation Contaminated Sites database.	✓
4.3 Car parking		
Parking is to be provided in accordance with LPS2 requirements.	A total of 27 car parking bays are provided on site (comprising 18 staff bays and 9 visitor bays) in lieu of the required 31 bays. Refer to the justification provided in section 4.2.4 above. The 4-bay 'on paper' shortfall is considered acceptable and will not adversely impact upon the functionality or operation of the proposed development or negative impacts on the amenity of surrounding properties.	**Discretion required**
Parking areas should be provided in front of the building. If this is not possible, parking areas should be clearly visible and easily accessible from the entry to the site.	Parking has been located at the rear of the building with access from Nallan Lane to ensure the development requirements of the Golden Bay Neighbourhood Activity Centre Detailed Area Plan are met by the development. The parking area is clearly visible and accessible off Nallan Lane.	✓
In addition, landscaping may be required on-site to screen car parking areas from the street and the child care premises from adjoining residences in order to maintain the amenity of the locality.	A total landscaping area of 837m^2 is provided, comprising: • 120m^2 of general landscaping; and • 717m^2 of external play space. This equates to 37% of the subject site as landscaping. Ten 'Casuarina Obesa' (Swamp Sheoak) trees are proposed adjacent to the car parking bays and within landscaped areas in the south eastern and north western aspects of the site. These trees are suitable for the coastal context of the site and existing trees in the locality. The outdoor play area and general landscaped areas will be subject to further detailed design as an appropriately worded condition of development approval.	✓
4.4 Traffic impacts		
A traffic impact statement/assessment will be required where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises has the potential to impact on the functionality and amenity of an area and may create or exacerbate unsafe conditions for children and families using the premises, or for pedestrians or road users	A Transport Impact Statement has been prepared in support of the proposal and is included at **Appendix 3.**	✓

Policy provision	Provided	Complies
4.5 Noise impacts		
A noise impact assessment may be required for the development of a Child Care Premises. The objectives should be to limit the noise impact of the Child Care Premises on adjacent properties, and also limit any noise impact from external sources on the Child Care Premises. This may be achieved either by physical separation, design and layout of the premises or by implementing noise mitigation measures, such as acoustic treatments to buildings.	An Environmental Noise Assessment has been prepared demonstrating the proposal will company with the *Environmental Protection (Noise) Regulations 1997*, contained in **Appendix 4**. The proposed child care centre has been designed to ensure minimal impact on the surrounding residential properties and compliance with the Noise Regulations. The proposed fencing is also consistent with the acoustic recommendations for the purpose of mitigating potential noise impacts.	✓
4.6 Design considerations		
The appearance of a Child Care Premises must be consistent with the scale and character of the locality. In this regard, where the development is located in a residential area, the built-form should lend itself to domestic (residential) architecture. *Setbacks to side and rear boundaries and the orientation of openings to indoor play areas should minimise any impact on adjoining properties.*	The proposed development has been designed to orient towards the Golden Bay neighbourhood centre and presents active frontages to Aurea Boulevard and Thundelarra Drive. The scale and character of the development is appropriate for its future commercial context. The building's external appearance incorporates a range of architectural design features sympathetic to the established and intended character of the locality. Setbacks are compliant with the requirements of the NCDAP.	✓
Outdoor play areas are to be located so as to limit their impact on the amenity of adjoining properties, whilst taking advantage of a passive solar orientation wherever possible. Measures should be taken to ensure that play areas are large enough and of such dimensions to be useful as play areas, and side setback and leftover building areas are not desirable for the purpose. *Where a play area is located in the front setback area, fencing of the area should be of predominantly open construction to provide a safe playing area without closing the site in, casting shadows on the play area, or adversely affecting the residential streetscape.*	The outdoor play area is suitably located to the western side of the child care building, where access to ventilation (south-westerly breezes) is provided for a high level of amenity. Access to northern sun during winter months is facilitated by the general north-south orientation. The child care centre does not adjoin any residential properties. The outdoor play area is of an appropriate size and will be landscaped to maximum the use and function for children. The fence to the outdoor play space along the western portion of the southern boundary is permeable, providing an optimal outcome for the users of the outdoor area and to the Kalli Street streetscape.	✓
Landscaping will be required along the frontage of the development to a standard equal to that required or provided for on adjacent properties. Landscaping should not include potentially hazardous heights and potentially toxic plants.	Suitable landscaping provision is provided as part of this development, including along street frontages, as described in section 3.2 of this report.	✓
4.7 Hours of operation		
For Child Care Premises in Residential areas, hours of operation will be restricted to 7.00am to 7.00pm, unless otherwise agreed to by the Council.	The centre is proposed to operate from 0630 – 1830. An acoustic assessment has been prepared demonstrating compliance with the Noise Regulations on this basis (subject to measures).	**Discretion required**

Having regard to **Table 4**, the proposed development is largely consistent with the LPP3.3.5 and warrants approval accordingly.

4.5.2 Local Planning Policy 3.3.1 Control of Advertisements

The City's Local Planning Policy – Control of Advertisements (**LPP3.3.1**) sets out the standards for signage proposed within the scheme area. The proposed childcare centre includes three wall signs on the building facades fronting Aurea Boulevard, Thundelarra Drive and Kalli Street. Refer to **Table 5** for an assessment against the relevant policy provisions of LPP3.3.1.

Table 5 – Assessment against LPP3.3.1

Signage Policy provision	Provided	Complies
4.3.1 Signs on Buildings		
Unless otherwise determined by the Manager, Statutory Planning, the advertiser shall submit a Sign Strategy demonstrating compliance with the objectives of this Planning Policy, prior to the placement of any advertisement on a building or structure.	The objectives of LPP3.3.1 are addresses below.	**N/A**
3. Policy Objectives		
(a) Ensure that advertisements are appropriate for their location;	The proposed signs are appropriately located on the development to ensure a satisfactory level of commercial exposure.	✓
(b) Minimise the proliferation of advertisements;	The 3 wall signs do not result in any proliferation of signage, with the signs located on separate façades. The signs are required for the appropriate exposure, identification of the site and service offered on site.	✓
(c) Ensure that advertisements do not adversely impact on traffic circulation and management, or pedestrian safety;	The proposed signs will not result in any adverse impacts to motorists or pedestrians.	✓
(d) Protect the amenity of residential areas, townscape areas and areas of environmental significance;	Signage is an important aspect of any commercial business or institution. The proposed signs are of an appropriate scale and will not adversely impact the residential context of the locality. No signs are proposed on the western façade facing towards the residential dwellings.	✓
(e) Protect the significance of heritage places or buildings;	Not Applicable – the subject site is not of heritage significance.	**N/A**
(f) Ensure that advertisements are constructed with quality materials;	Signage will be constructed to a high standard, of appropriate materials and in accordance with Australian Standards.	✓
(g) Encourage advertisements located within the Rural or Special Rural Zone or in areas of environmental significance to be sympathetic with the natural environment in terms of materials and colours;	Not applicable – the proposed development is not within the Rural or Special Rural zone, or an area of environmental significance.	**N/A**
(h) Ensure advertisements are generally erected on land where the advertised business, sale of goods or service is being carried out; and	All signage relates to the child care centre, its identification and services provided therein only.	✓
(i) Ensure that advertisements are maintained to a high standard.	Signage will be maintained to ensure a high level of amenity and presentation to the locality.	✓

Having regard to **Table 5** above, the proposed signage meets the objectives of the signs policy and is warrants approval accordingly.

5 Conclusion

This application seeks approval for the development of a single storey childcare premises as well as associated parking, access, landscaping and signage. The development is suitably located within the Golden Bay neighbourhood centre and will provide an essential service to the community.

The development has been designed in a manner that responds appropriately to the surrounding residential and commercial context of the area, with an overall bulk, scale and material palette integrating the development into its setting.

The development appropriately responds to all relevant aspects of the planning framework and has been demonstrated to be satisfactory from a traffic and acoustic perspective. Having regard to the above, the proposal clearly demonstrates the suitability of the proposed childcare premises on the subject site.

We respectfully request the Application for Development Approval is approved by the Metro Outer Joint Development Assessment Panel (**JDAP**) accordingly.

Appendix 1
Certificate of Title and Deposited Plan

WESTERN AUSTRALIA

REGISTER NUMBER	
263/DP401256	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

VOLUME 2884 FOLIO 468

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 263 ON DEPOSITED PLAN 401256

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

HOUSING AUTHORITY OF 99 PLAIN STREET, EAST PERTH
IN 1/2 SHARE
PEET GOLDEN BAY PTY LTD OF LEVEL 7, 200 ST GEORGES TERRACE, PERTH
IN 1/2 SHARE
AS TENANTS IN COMMON

(AF N029948) REGISTERED 10/9/2015

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP401256
PREVIOUS TITLE:	2884-467
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF ROCKINGHAM
RESPONSIBLE AGENCY:	DEPARTMENT OF COMMUNITIES (SSHC) AS TO SHARE ONLY

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING M834524

LANDGATE COPY OF ORIGINAL NOT TO SCALE 21/08/2020 10:27 AM Request number: 60921085

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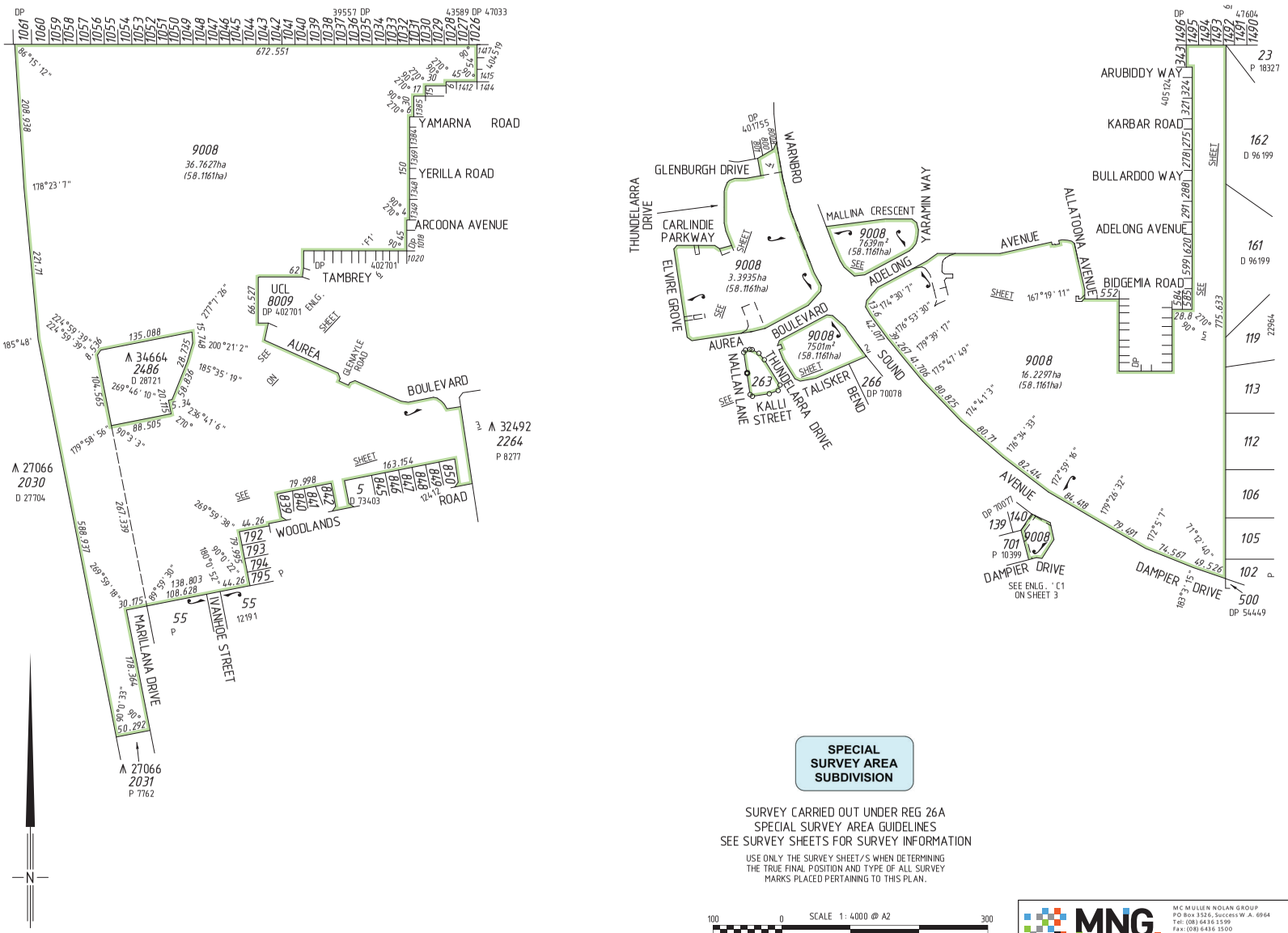
LANDGATE COPY OF ORIGINAL NOT TO SCALE 21/08/2020 10:27 AM Request number: 60921085
www.landgate.wa.gov.au

VERSION	AMENDMENT	AUTHORISED BY	DATE

HELD BY LANDGATE IN DIGITAL FORMAT ONLY

FOR INTERESTS AND NOTIFICATIONS
SEE SHEET 2



SPECIAL SURVEY AREA SUBDIVISION

SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDELINES
SEE SURVEY SHEETS FOR SURVEY INFORMATION

USE ONLY THE SURVEY SHEET/S WHEN DETERMINING THE TRUE FINAL POSITION AND TYPE OF ALL SURVEY MARKS PLACED PERTAINING TO THIS PLAN.

100 0 SCALE 1:4000 @ A2 300
ALL DISTANCES ARE IN METRES

MNG
MC MULLEN NOLAN GROUP
PO Box 3526, Success W.A. 6964
Tel: (08) 6436 1599
Fax: (08) 6436 1500
Email: info@mngsurvey.com.au
MNG Ref: 94134dp-112j - Lot 263 - DP401256.CSD

TYPE	FREEHOLD	S.S.A. YES
PURPOSE	SUBDIVISION	
PLAN OF	LOTS 263 AND 9008	
FORMER TENURE	LOT 9014 ON DP 405124 C.T.	
LOCAL AUTHORITY	CITY OF ROCKINGHAM	
LOCALITY	GOLDEN BAY	
D.O.L. FILE		
FIELD RECORD	113072, 114645, 116956, 120380	

SURVEYOR'S CERTIFICATE - REG 54

I, Daniel T. GROGAN
hereby certify that this plan is accurate and is a correct representation of the -
(a) *survey, and/or
(b) *calculations from measurements recorded in the field records,
[* delete if inapplicable]
undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

dtgrogan — Daniel T Grogan — 2015.06.15 13:58:11 +08'00'
LICENSED SURVEYOR — DATE

LODGED

16/06/2015 — $400.00 — 17525596
DATE — FEE PAID — ASSESS No.

I.S.C.

EXAMINED
G.FONG — 18-Jun-15
DATE

WESTERN AUSTRALIAN PLANNING COMMISSION
FILE 145977
09-Jul-2015
Delegated under S.16 P&D Act 2005 — DATE

IN ORDER FOR DEALINGS
SUBJECT TO Dealing on Deposited Plan 405124

D H Robertson — 31-Jul-2015
FOR INSPECTOR OF PLANS AND SURVEYS — DATE

APPROVED REG26A (4)

10/9/2015
INSPECTOR OF PLANS AND SURVEYS (S. 18 Licensed Surveyors Act 1909) — DATE

GOVERNMENT OF WESTERN AUSTRALIA
Landgate

DEPOSITED PLAN
401256
SHEET 01 OF 06 SHEETS
(PLUS SURVEY SHEET(S))
VERSION 1

LANDGATE COPY OF ORIGINAL NOT TO SCALE 21/08/2020 10:27 AM Request number: 60921085
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INTERESTS AND NOTIFICATIONS

SUBJECT	PURPOSE	STATUTORY REFERENCE	ORIGIN	LAND BURDENED	BENEFIT TO	COMMENTS
A	EASEMENT		DOC F848983	LOT 9008	SEE DOC	AS REDEFINED ON DP72062
B, D, E, F	EASEMENT		DOC F714364	LOT 9008	SEE DOC	AS REDEFINED ON DP72062
33b	EASEMENT (Sewerage)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 70077	LOT 9008	WATER CORPORATION	
33b 4	EASEMENT (Sewerage)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 72062	LOT 9008	WATER CORPORATION	
33b 8	EASEMENT (Water Supply)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 72062	LOT 9008	WATER CORPORATION	
33c 4	EASEMENT (Electricity Supply)	SEC 167 OF THE P.& D. ACT REG 33 (c)	DP 72062	LOT 9008	ELECTRICITY NETWORKS CORPORATION	
S	EASEMENT	SEC 195 & 196 OF THE L.A.A.	DOC L871451	LOT 9008	CITY OF ROCKINGHAM AND THE PUBLIC AT LARGE	
33a 6, 33a 7	EASEMENT (Drainage)	SEC 167 OF THE P.& D. ACT REG 33 (a)	DP 76167	LOT 9008	CITY OF ROCKINGHAM	
33b 13, 33b 15	EASEMENT (Sewerage)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 76167	LOT 9008	WATER CORPORATION	
33b 14	EASEMENT (Water Supply)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 76167	LOT 9008	WATER CORPORATION	
33c 7	EASEMENT (Electricity Supply)	SEC 167 OF THE P.& D. ACT REG 33 (c)	DP 76167	LOT 9008	ELECTRICITY NETWORKS CORPORATION	
33d 5	EASEMENT (Gas Supply)	SEC 167 OF THE P.& D. ACT REG 33 (d)	DP 76167	LOT 9008	W.A. GAS NETWORKS PTY LTD	
33a 8	EASEMENT (Drainage)	SEC 167 OF THE P.& D. ACT REG 33 (a)	DP 77745	LOT 9008	CITY OF ROCKINGHAM	
33b 16	EASEMENT (Sewerage)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 77745	LOT 9008	WATER CORPORATION	
33b 17	EASEMENT (Water Supply)	SEC 167 OF THE P.& D. ACT REG 33 (b)	DP 77745	LOT 9008	WATER CORPORATION	
33c 9	EASEMENT (Electricity Supply)	SEC 167 OF THE P.& D. ACT REG 33 (c)	DP 77745	LOT 9008	ELECTRICITY NETWORKS CORPORATION	
33d 9	EASEMENT (Gas Supply)	SEC 167 OF THE P.& D. ACT REG 33 (d)	DP 77745	LOT 9008	W.A. GAS NETWORKS PTY LTD	
33c 1	EASEMENT (Electricity Supply)	SEC 167 OF THE P.& D. ACT REG 33 (c)	DP 401248	LOT 9008	ELECTRICITY NETWORKS CORPORATION	
33d 1	EASEMENT (Gas Supply)	SEC 167 OF THE P.& D. ACT REG 33 (d)	DP 401248	LOT 9008	W.A. GAS NETWORKS PTY LTD	
33c 8	EASEMENT (Electricity Supply)	SEC 167 OF THE P.& D. ACT REG 33 (c)	DP 405124	LOT 9008	ELECTRICITY NETWORKS CORPORATION	





ENLARGEMENT 'B1'
Not to Scale

SCALE 1 : 600 @ A2

10 0 50

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dgrogan
LICENSED SURVEYOR

Daniel T Grogan
2015.06.15 13:58:35 +08'00'
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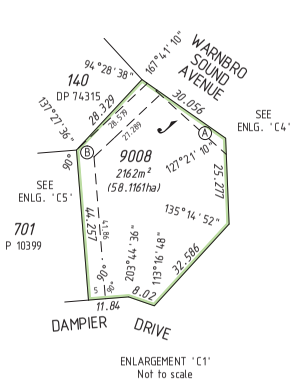

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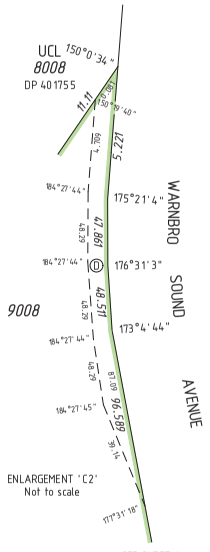

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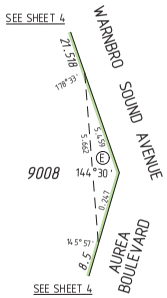

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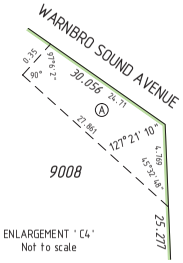

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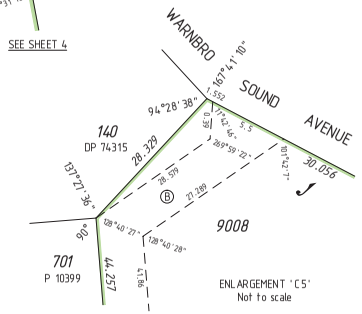

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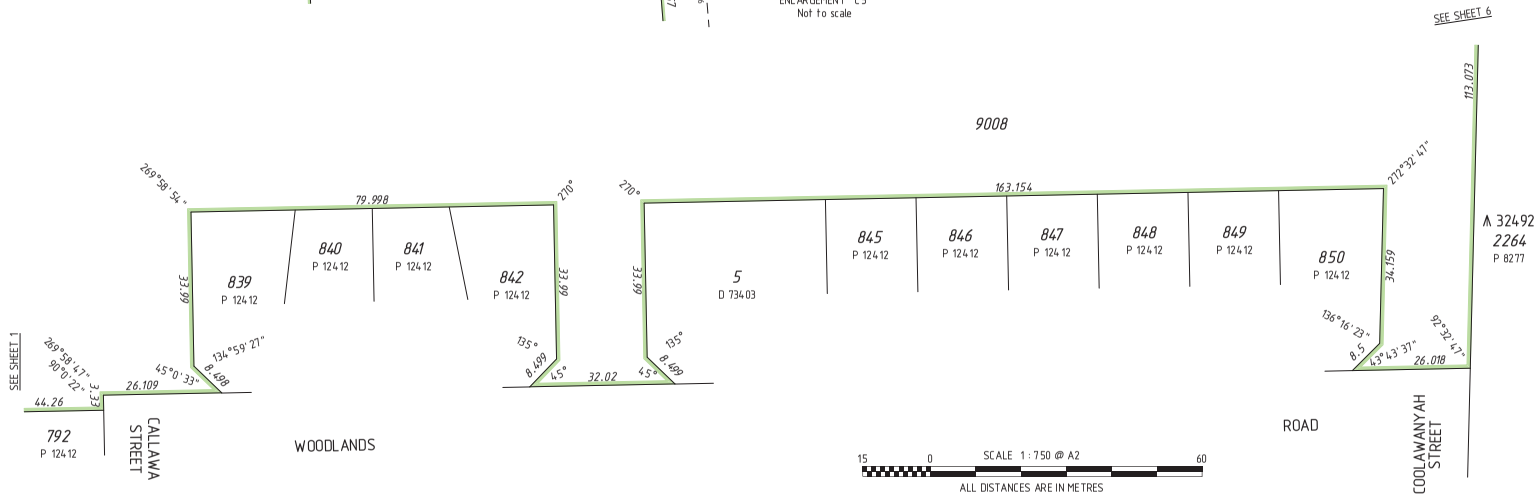

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dgrogan
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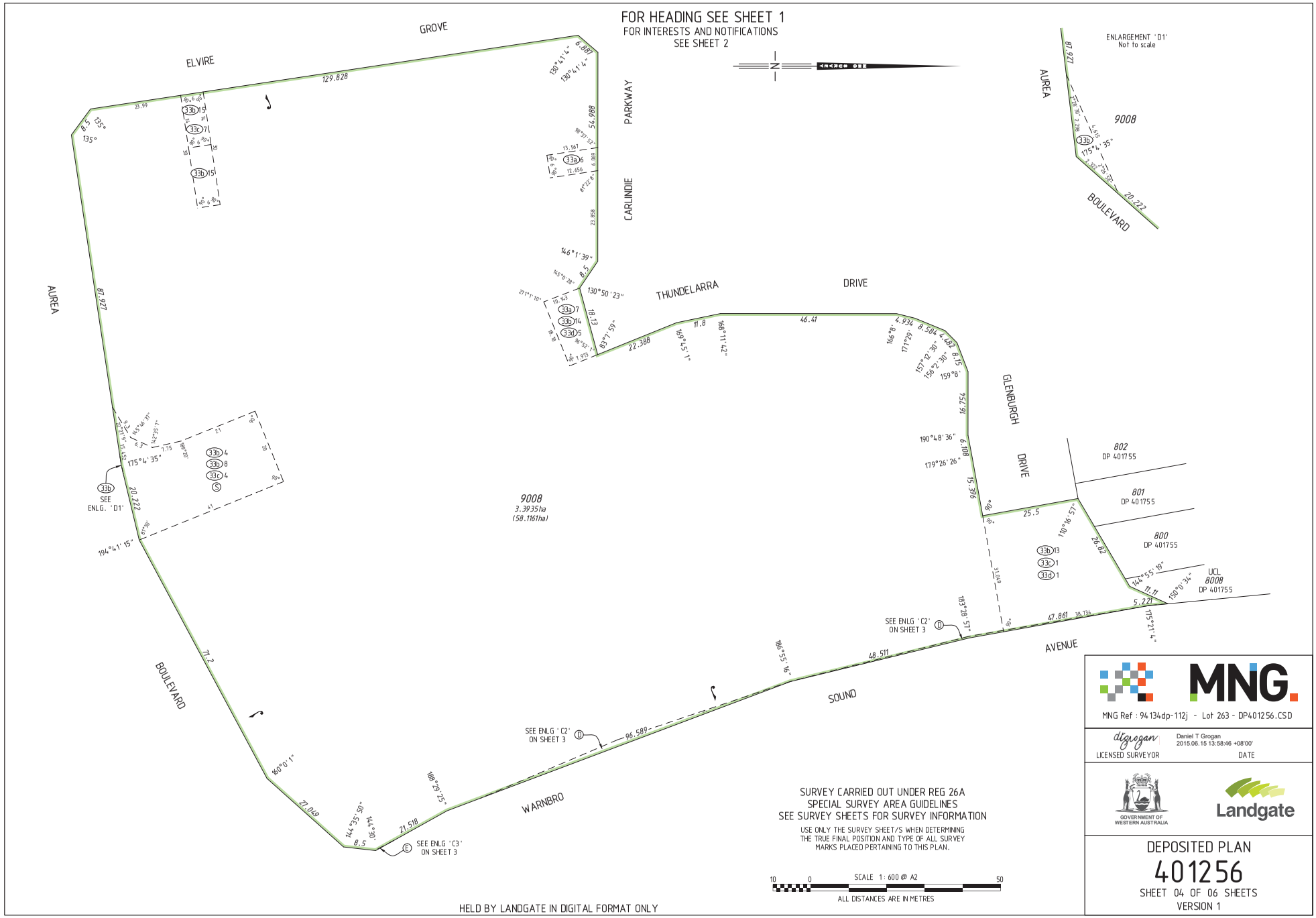

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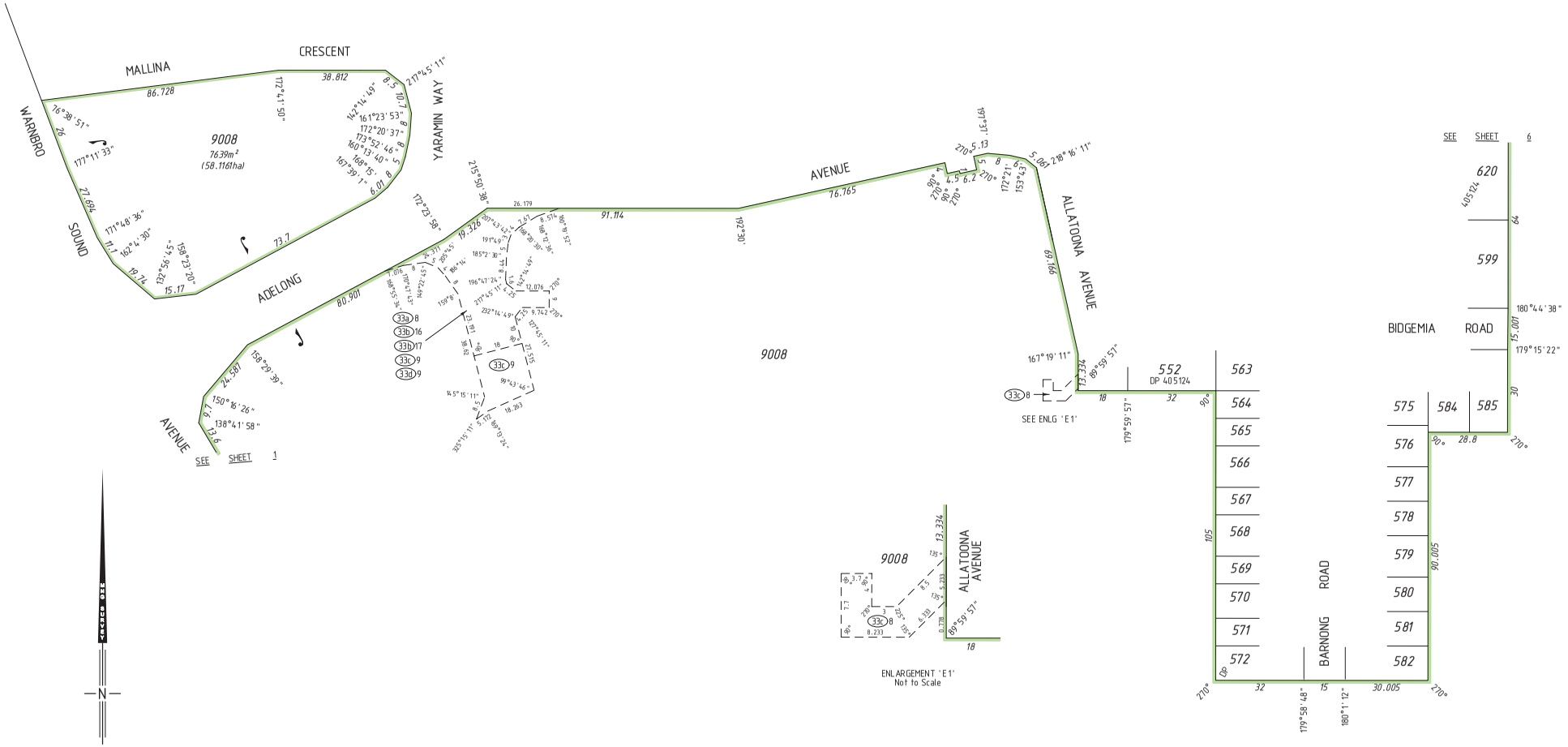

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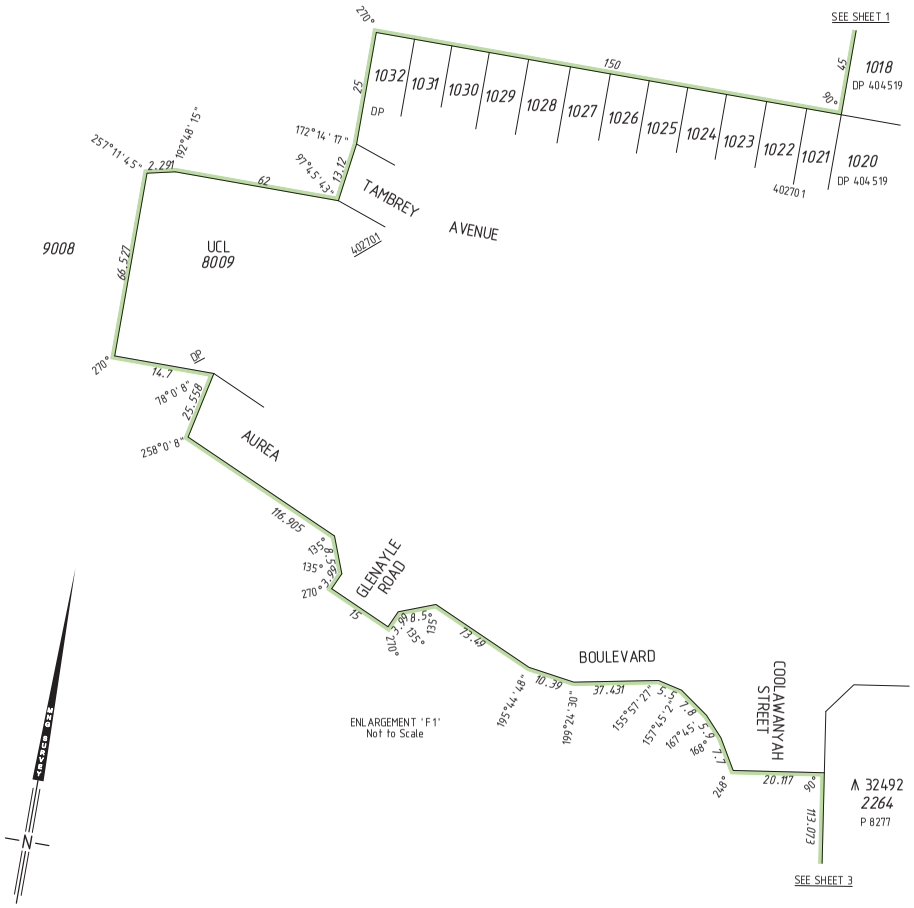

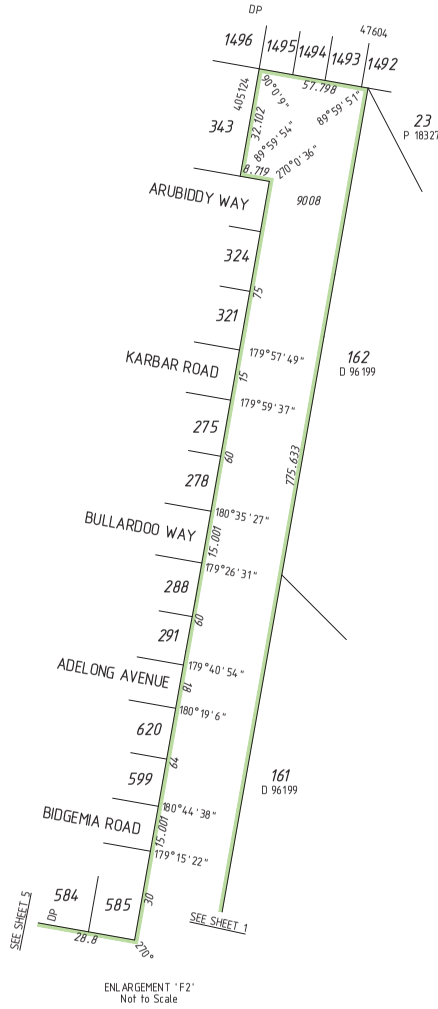

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dtgrogan
LICENSED SURVEYOR

Daniel T Grogan
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AMENDMENTS TABLE (SURVEY SHEETS ONLY)

VER.	AMENDMENT	AUTHORISED BY	DATE

FOR SURVEY INFORMATION ONLY

SURVEY INFORMATION COMPRISES
SURVEY SHEETS ..... A .....

SURVEY CARRIED OUT UNDER REG 26A
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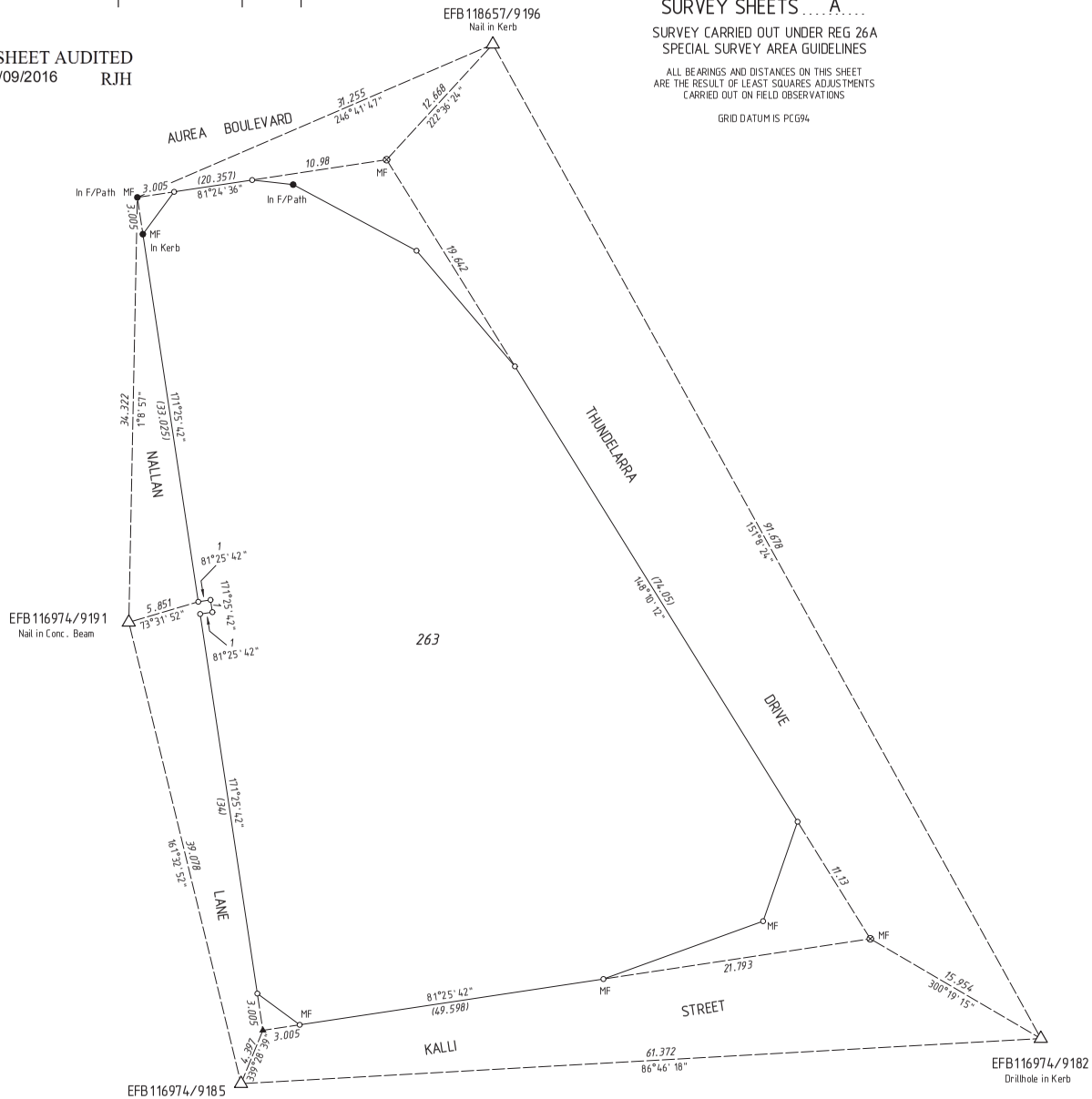
ALL BEARINGS AND DISTANCES ON THIS SHEET ARE THE RESULT OF LEAST SQUARES ADJUSTMENTS CARRIED OUT ON FIELD OBSERVATIONS

GRID DATUM IS PCG94

SURVEY SHEET AUDITED
DATE: 28/09/2016 RJH



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SURVEYOR'S CERTIFICATE - REG 54

I, Stephen PINKER
hereby certify that this plan is accurate and is a correct representation of the -
(a) *survey, and/or
(b) *calculations from measurements recorded in the field records,
[* delete if inapplicable]
undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

SURVEYOR'S CERTIFICATE - REG 55E(d)

The marks shown on these plans of survey were in place on 23/07/2015

Stephen Pinker
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LICENSED SURVEYOR DATE



5 0 SCALE 1 : 250 @ A2 20
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- Standard Survey Mark (SSM)
- Permanent Survey Mark (PSM)
- Permanent Control Mark (PCM)
- Temporary Control Mark (TCM)
- Peg unless stated otherwise
- Nail
- Nail and Plate
- Spike
- Drill Hole
- Deck Spike
- Deck Spike and Plate

MNG

MNG Ref: 94 134ss-200b

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SURVEY SHEET A
VERSION 1

Appendix 4
Environmental Noise Assessment

Lloyd George Acoustics
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Childcare Noise Assessment

Lot 263 Thundelarra Drive, Golden Bay

Reference: 20085677-01.docx

Prepared for:
Accord Property

Association of Australasian Acoustical Consultants

Report: 20085677-01.docx

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Date:	Rev	Description	Prepared By	Verified
25-Sept-20	0	Issued to Client	Olivier Mallié	Terry George

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A Development Plans
B Terminology

1 INTRODUCTION

It is proposed to develop the land located at Lot 263 Thundelarra Drive in Golden Bay (refer *Figure 1-1*) into a childcare centre. The proposed childcare centre will consist of the following:

- One childcare building capable of accommodating up to 100 children, grouped as follows:
  - Activity 1 and 2, 0-24 months, 12 and 8 children in each group respectively,
  - Activity 3 and 4, 2 to 3 years old, 15 children in each group,
  - Activity 5 and 6, 3 years or over, 20 and 30 children in each group respectively, and
- One main outdoor play area located to the west of the childcare building,
- Amenities and associated mechanical plant such as:
  - kitchen with range-hood and exhaust fan assumed to be located on the roof above,
  - Various exhaust fans (toilets, laundry, nappy room) assumed to be located on the roof above, and
  - AC plant assumed to be located on the roof.
- Car parking with 27 bays on the west side of the building with access from Nallan Lane.

This report presents the assessment of the noise emissions from child play, car doors closing in the car park and mechanical plant associated with the childcare centre against the *Environmental Protection (Noise) Regulations 1997* (the Regulations) based on the development drawings shown in *Appendix A*.

The proposed hours of operation are 6.30am to 6.30pm Monday to Friday. Therefore, it is expected for staff and parents to arrive and park before 7.00am, which is during the night-time period of the Regulations. However, it is noted that outdoor child play would not occur prior to 7.00am.

Appendix B contains a description of some of the terminology used throughout this report.

1.1 Surrounding Land Uses

The site is located in an urban development area with some surrounding land yet to be developed.

The site of the proposed childcare centre is zoned commercial.

To the west and south of the site, the land is mostly zoned residential with most lots already developed into single storey housing.

To the east and north of the site, land is zoned either residential or commercial, with half of the lot directly across from Thundelarra Drive zoned R60 and a commercial centre development being built on Lot 622 (#2) Aurea Boulevard.



Figure 1-1 Project Locality

2 CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

Regulation 7 defines the prescribed standard for noise emissions as follows:

"7. (1) Noise emitted from any premises or public place when received at other premises –

(a) Must not cause or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and

(b) Must be free of –

i. tonality;

ii. impulsiveness; and

iii. modulation,

when assessed under regulation 9"

A "…noise emission is taken to significantly contribute to a level of noise if the noise emission … exceeds a value which is 5 dB below the assigned level…"

Tonality, impulsiveness and modulation are defined in Regulation 9. Noise is to be taken to be free of these characteristics if:

(a) The characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and

(b) The noise emission complies with the standard prescribed under regulation 7 after the adjustments of *Table 2-1* are made to the noise emission as measured at the point of reception.

Table 2-1 Adjustments Where Characteristics Cannot Be Removed

Where Noise Emission is Not Music			Where Noise Emission is Music	
Tonality	Modulation	Impulsiveness	No Impulsiveness	Impulsiveness
+ 5 dB	+ 5 dB	+ 10 dB	+ 10 dB	+ 15 dB

Note: The above are cumulative to a maximum of 15dB.

The baseline assigned levels (prescribed standards) are specified in Regulation 8 and are shown in *Table 2-2*.

Table 2-2 Baseline Assigned Noise Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	45 + influencing factor	55 + influencing factor	65 + influencing factor
	0900 to 1900 hours Sunday and public holidays (Sunday)	40 + influencing factor	50 + influencing factor	65 + influencing factor
	1900 to 2200 hours all days (Evening)	40 + influencing factor	50 + influencing factor	55 + influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	35 + influencing factor	45 + influencing factor	55 + influencing factor
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial	All hours	60	75	80

1. ***highly sensitive area*** means that area (if any) of noise sensitive premises comprising —
   (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
   (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor, applicable at the noise sensitive premises has been calculated as 1 dB, as shown in *Table 2-3* and based on the land uses from the City of Rockingham LPS No. 2, as shown on *Figure 2-1*. Based on Mainroads WA traffic count at the intersection of Aurea Boulevard and Warnbro Sound Avenue (LM01072, February 2020), Warnbro Sound Avenue carries less than 15,000 vehicles per day and Aurea Boulevard carries less than 6,000 vehicles. Therefore, the transport factor has been calculated as 0 dB.

Table 2-3 Influencing Factor Calculation

Description	Within 100 metre Radius	Within 450 metre Radius	Total
Industrial Land	0 %	0 %	0 dB
Commercial Land	15 %	3 %	0.9 dB
Transport Factor			**0 dB**
Total			**1 dB**

Table 2-4 shows the assigned noise levels including the influencing factor and transport factor at the receiving locations.

Table 2-4 Assigned Noise Levels

Premises Receiving Noise	Time Of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area[1]	0700 to 1900 hours Monday to Saturday (Day)	46	56	66
	0900 to 1900 hours Sunday and public holidays (Sunday)	41	51	66
	1900 to 2200 hours all days (Evening)	41	51	56
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night)	36	46	56

1. ***highly sensitive area*** means that area (if any) of noise sensitive premises comprising —
   (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
   (b) any other part of the premises within 15 metres of that building or that part of the building.

It must be noted the assigned noise levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces. Where this was not possible to be achieved due to the close proximity of existing buildings and/or fences, the noise emissions were assessed at a point within 1 metre from building facades and a -2 dB adjustment was made to the predicted noise levels to account for reflected noise.

It is noted the assigned noise levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as *a period of time of not less than 15 minutes, and not exceeding 4 hours*, which is determined by an *inspector* or *authorised person* to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission. An *inspector* or *authorised person* is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Environment Regulation. Acoustic consultants or other environmental consultants are not appointed as an *inspector* or *authorised person*. Therefore, whilst this assessment is based on a 4 hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

Proposed Childcare Centre - Land Use Map
Lot 263 Thundelarra Drive, Golden Bay

Figure 2-1



Signs and symbols

- IF Circles
- Commercial Land Use

23-September-2020

Length Scale 1:4600

0 25 50 100 150 m

Lloyd George Acoustics
by Olivier Mallié
olivier@lgacoustics.com.au
0439 987 455

3 METHODOLOGY

Computer modelling has been used to predict noise levels at each nearby receiver. The software used was *SoundPLAN 8.2* with the ISO 9613 (ISO 17534-3 improved method) algorithms selected. These algorithms have been selected as they include the influence of wind. Input data required in the model are:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

3.1 Meteorological Information

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

Table 3-1 Modelling Meteorological Conditions

Parameter	Night (1900-0700)	Day (0700-1900)
Temperature (^{o}C)	15	20
Humidity (%)	50	50
Wind Speed (m/s)	Up to 5	Up to 5
Wind Direction*	All	All

* Note that the modelling package used allows for all wind directions to be modelled simultaneously.

It is generally considered that compliance with the assigned noise levels needs to be demonstrated for 98% of the time, during the day and night periods, for the month of the year in which the worst-case weather conditions prevail. In most cases, the above conditions occur for more than 2% of the time and therefore must be satisfied.

3.2 Buildings, Fences and Receivers

Surrounding existing buildings were included in the noise model, as these can provide noise shielding as well as reflection paths.

The childcare centre building was modelled at 4 metres high. Existing houses in the vicinity are single storey and were modelled at 3.5 metre high, with a receiver at 1.5 metres above ground level. Future houses at #17 to #21 Aurea Boulevard were also assumed to be single storey.

Across Thundelarra Drive, land is zoned R60, therefore was assumed to be developed into multi-storey residential apartments up to 2-storey high for the purpose of this assessment.

A timber palling fence 1.8 metres high is proposed around the outdoor play area. Sheet metal (e.g. *Colorbond*) fencing 1.8 metres high, installed on top of a small retaining wall is noted along the east boundary of #10 Kalli Street. This was modelled as 1.6 metres to account for noise leakage through the fence. It is noted that no fencing is providing along the east boundary of #17 Aurea Boulevard.

Other fencing includes of tubular metal fencing on the street frontage of Kalli Street, therefore was taken to have no acoustic benefits.

3.3 Topographical Data

Topographical information was based on data publicly available (e.g. *Google*) in the form of spot heights.

It is noted the topography is generally flat, with no significant differences in elevation between the childcare development and surrounding premises.

3.4 Ground Absorption

Ground absorption varies from a value of 0 to 1, with 0 being for an acoustically reflective ground (e.g. asphalt, concrete) and 1 for acoustically absorbent ground (e.g. grass/sand). In this instance, a value of 1 has been used for the outdoor play areas and any grassed areas, and 0 for the surroundings including roads, pavement, driveways, etc.

3.5 Source Sound Levels

The sound power levels used in the modelling are provided in *Table 3-2*.

Table 3-2 Source Sound Power Levels, dB

Description	Octave Band Centre Frequency (Hz)								Overall dB(A)
	63	125	250	500	1k	2k	4k	8k	
Child Play, babies (20 kids), L_{10}	46	55	65	72	78	77	70	62	**82**
Child Play 2-3 years old (15 kids), L_{10}	49	58	68	75	81	80	73	65	**85**
Child Play 3 years old or over (20 kids), L_{10}	54	63	73	80	86	85	78	70	**90**
Child Play 3 years old or over (30 kids), L_{10}	56	65	75	82	88	87	80	72	**92**
AC plant, each, L_{10}	88	85	80	76	71	68	61	56	**78**
Toilet / Laundry / Change Exhaust Fan, L_{10}	60	65	62	63	60	61	56	53	**67**
Kitchen exhaust fan, L_{10}	50	64	62	70	69	66	62	50	**73**
Closing Car Door, L_{max}	71	74	77	81	80	78	72	61	**84**

The following is noted in relation to the source levels in *Table 3-2*:

- Child Play source levels represent the group of children playing outside at the same time. It is noted that based on observations and measurements, the noise levels tend to increase with the children's age and therefore Kindy children (3 years and above) were considered noisier than Pre-Kindy children (2-3 years). Outdoor child play was modelled as area sources at various heights to account for the slight difference in height between age groups as follows:
  - 3 years and above - 1.0 metre above ground plane;
  - 2-3 years old - 0.9 metre above ground plane; and
  - Babies - 0.8 metres above ground plane.
- Based on similar projects, three AC units were assumed to be required for the various spaces. Each was modelled as a point source located 1.5 metre above roof level.
- Other mechanical plant was assumed of including six exhaust fans (toilet, laundry, change room) and one kitchen exhaust fan/rangehood fan. All were modelled as point sources 0.5 metre above roof level, and above the area serviced.
- Car doors closing were modelled as a point source 1.0 metre above ground level and in the middle of the car bay. Since noise from a car door closing is a short term event, only the L_{Amax} level is applicable but can occur prior to 7.00am.

Combining all of the above results in the 3-dimentsional noise model shown in *Figure 3-1*.

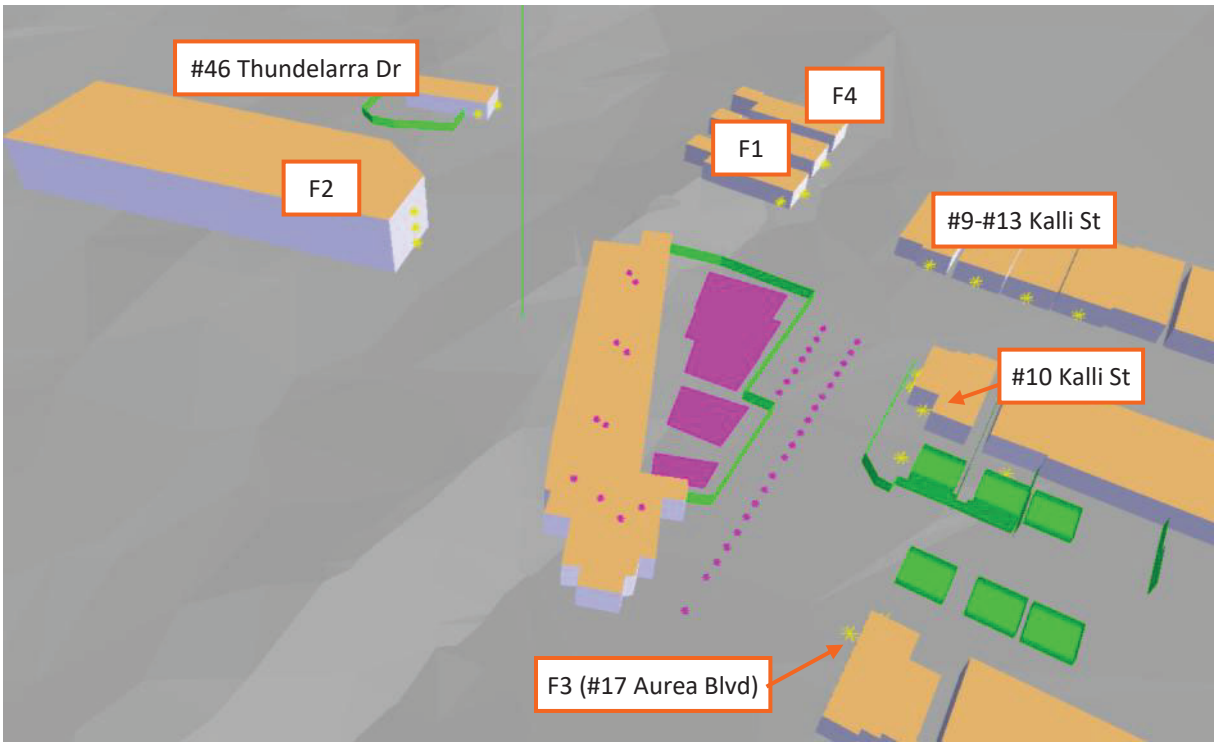


Figure 3-1 Noise Model 3D View (north west elevation)

4 RESULTS

4.1 Outdoor Child Play

The childcare development will host up to 100 children and as a worst case scenario, all 100 children were assumed to be playing outside for extended periods of time, as follows:

- 20 children aged 0-24 months (Activity 1 and 2),
- 30 children aged 2-3 years (Activity 3 and 4), and
- 50 children aged 3 years or over (Activity 5 and 6).

The predicted noise levels are summarised in *Table 4-1* and are from child play only i.e. mechanical plant noise is not included (refer *Section 4-3* for details).

Figure 4-1 also shows the predicted noise levels as a noise contour map at ground level.

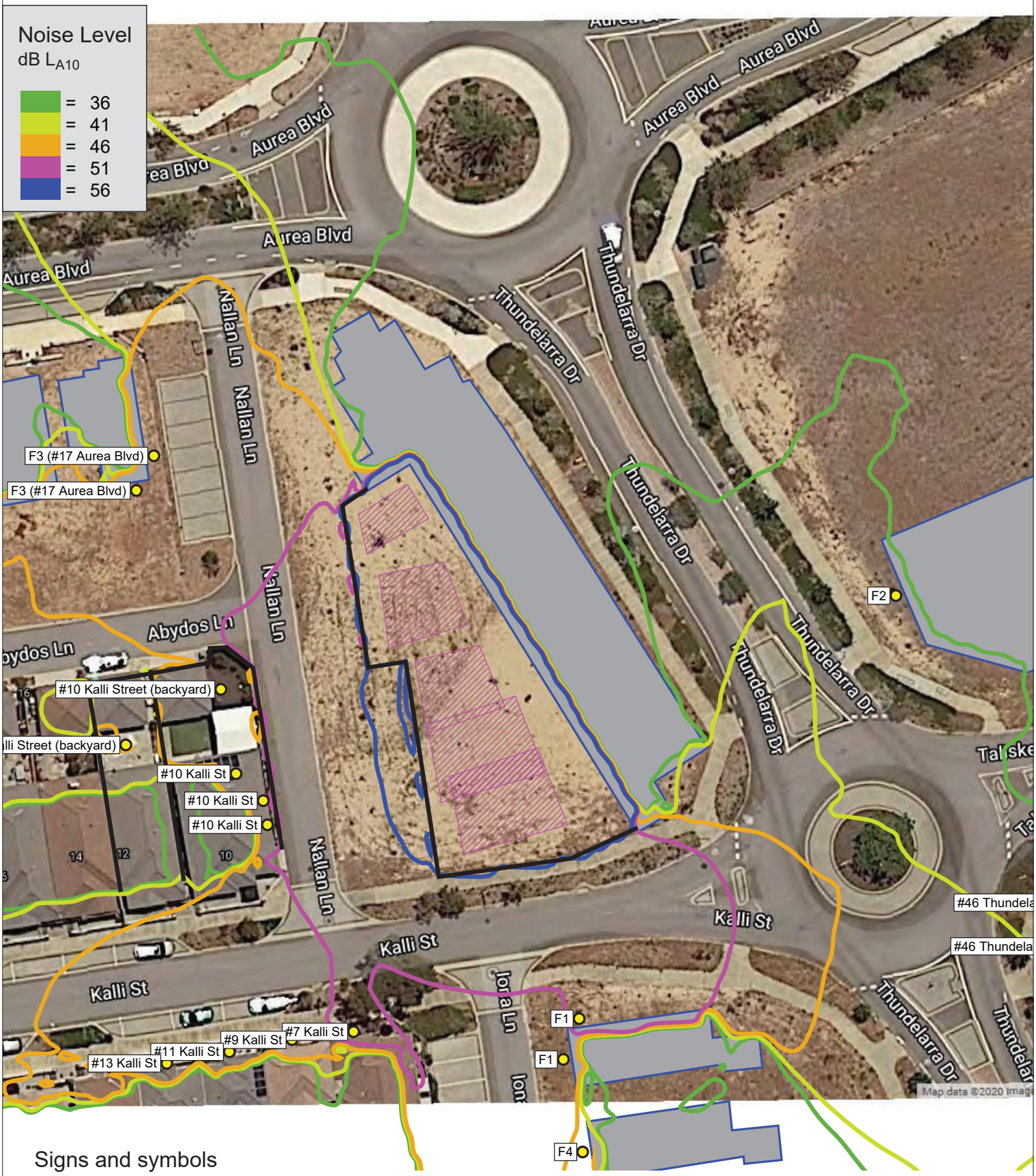
Table 4-1 Predicted Noise Levels of Child Play, dB L_{A10}

Receiver	Floor	Façade	Predicted Noise Level	Receiver	Floor	Facade	Predicted Noise Level
#7 Kalli St	GF	N	49	F1	GF	W	48
#9 Kalli St	GF	N	48	F1	GF	N	52
#10 Kalli St	GF	E	48	F2	GF	SW	37
#10 Kalli St	GF	E	48	F2	FL 1	SW	41
#10 Kalli St	GF	E	48	F3 (#17 Aurea Blvd)	GF	E	47
#10 Kalli Street (backyard)	GF	-	49	F3 (#17 Aurea Blvd)	GF	S	47
#11 Kalli St	GF	N	47	F4	GF	W	44
#12 Kalli Street (backyard)	GF	-	45				
#13 Kalli St	GF	N	46				
#46 Thundelarra Dr	GF	SW	40				
#46 Thundelarra Dr	GF	NW	40				

From the results it can be seen that #7 and #10 Kalli Street are the most affected existing receivers, while F1 is the most affected future receiver. Given the location and layout of the houses, different age group will affect the receivers.

Proposed Childcare Centre - Childplay Noise Levels
Lot 262 Thundelarra Drive, Golden Bay - Facade correction NOT included

Figure 4-1



Signs and symbols

- Receiver
- Child Play
- Wall / Fence
- Building

23-September-2020

Length Scale 1:600

0 3 6 12 18 m

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4.2 Car Doors Closing

The model includes noise from car doors closing in various parking bays.

Table 4-2 presents the highest predicted noise levels from a car door closing in any bay. *Figure 4-2* also shows the predicted noise levels as a noise contour map at ground level (1.5 metres AGL) as well as the bay numbers.

Table 4-2 Predicted Car Doors Closing Noise Levels, dB L_{Amax}

Receiver	Floor	Façade	Predicted Noise Level
#7 Kalli St	GF	N	49
#9 Kalli St	GF	N	49
#10 Kalli St	GF	E	49
#10 Kalli St	GF	E	51
#10 Kalli St	GF	E	51
#10 Kalli Street (backyard)	GF	-	48
#11 Kalli St	GF	N	48
#12 Kalli Street (backyard)	GF	-	42
#13 Kalli St	GF	N	46
#46 Thundelarra Dr	GF	SW	33
#46 Thundelarra Dr	GF	NW	32
F1	GF	W	46
F1	GF	N	46
F2	GF	SW	32
F2	FL 1	SW	37
F3 (#17 Aurea Blvd)	GF	E	53
F3 (#17 Aurea Blvd)	GF	S	51
F4	GF	W	43

From the results it can be seen that #10 Kalli Street is the most affected existing receiver, noting that given the location and layout of the house, not all parking bays will affect this receiver in a similar way i.e. parking Bay 1a, 2a and 3a affects the east facade of the house more than the backyard, while Bay 12 affects the backyard more than the east facade of the house.

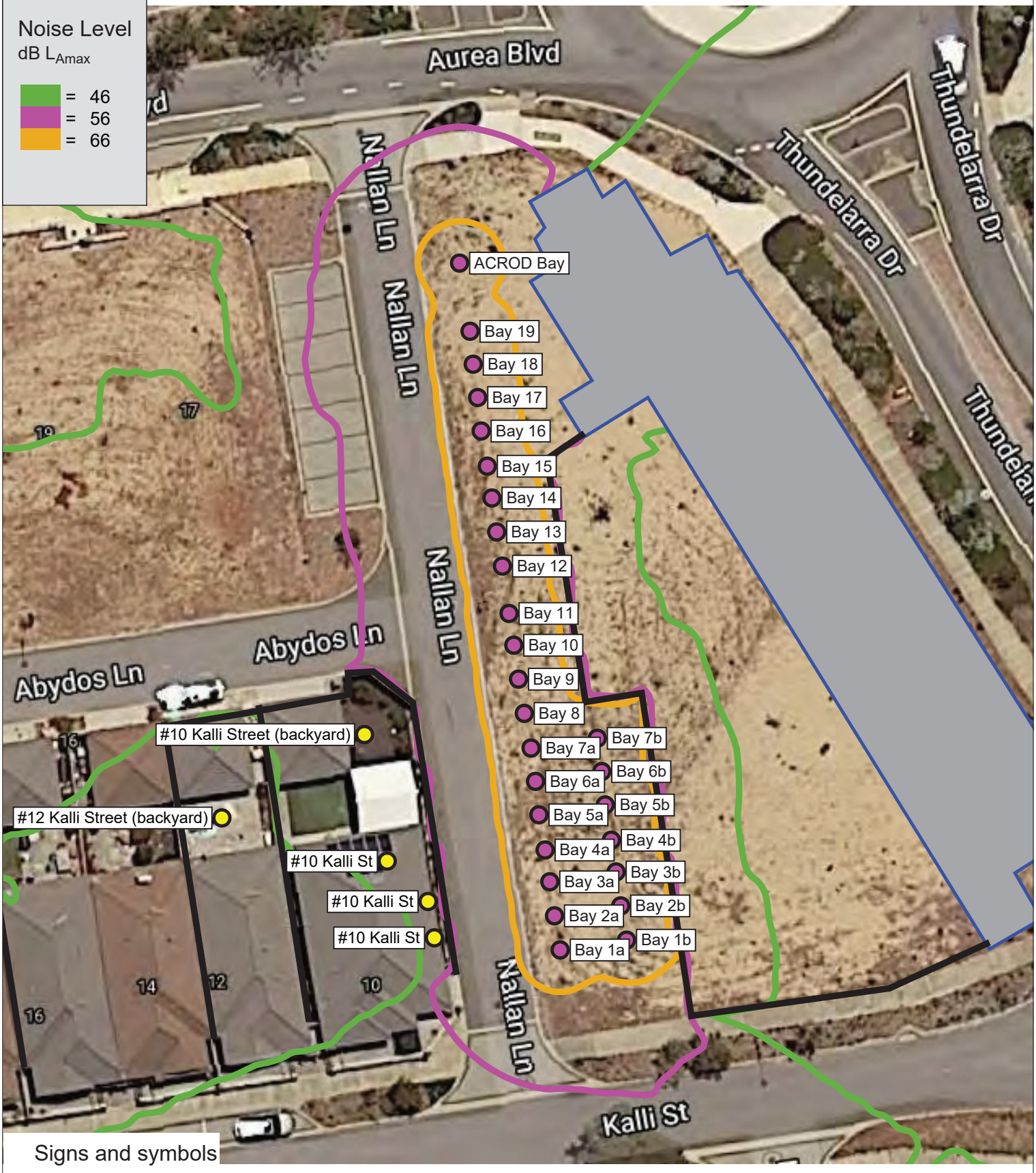
Therefore, in addition to the overall results, *Table 4-3* presents the noise levels from each parking bay at the various receivers at #10 Kalli Street, to better understand the overall impact from car doors closing to this receiver. It can be seen that, as is expected, the car bays furthest to the north (e.g. ACROD bay or Bay 18-19) result in the lowest noise levels.

Table 4-3 Parking Bay Noise Contribution At #10 Kalli St, dB L_{Amax}

Car Bay	Predicted Noise Level at #10 Kali Street			
	East wall, North	East wall, Mid	East wall	Backyard
ACROD Bay	37	40	40	39
Bay 1a	46	51	50	45
Bay 1b	45	48	48	45
Bay 2a	47	51	51	45
Bay 2b	47	48	48	45
Bay 3a	48	50	51	46
Bay 3b	47	48	48	46
Bay 4a	48	50	50	47
Bay 4b	47	48	48	46
Bay 5a	48	49	50	47
Bay 5b	47	48	48	46
Bay 6a	48	48	49	47
Bay 6b	46	47	47	47
Bay 7a	49	47	47	48
Bay 7b	47	47	47	47
Bay 8	48	46	47	48
Bay 9	48	45	46	49
Bay 10	47	45	45	48
Bay 11	47	43	44	47
Bay 12	46	42	43	46
Bay 13	45	42	42	46
Bay 14	43	41	42	45
Bay 15	42	41	41	43
Bay 16	42	40	41	44
Bay 17	42	40	41	41
Bay 18	40	39	40	42
Bay 19	41	38	39	42

Proposed Childcare Centre - Car Doors Closing Noise Levels
Lot 262 Thundelarra Drive, Golden Bay

Figure 4-



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4.3 Mechanical Plant

Mechanical plant consists of AC plant and extraction fans for the kitchen, laundry and toilets. However, at this stage, mechanical plant has not been designed in detail so that the assessment uses typical plant located on the roof of the building. If architectural louvres are provided around the AC plant, these are not considered to provide significant noise attenuation benefits.

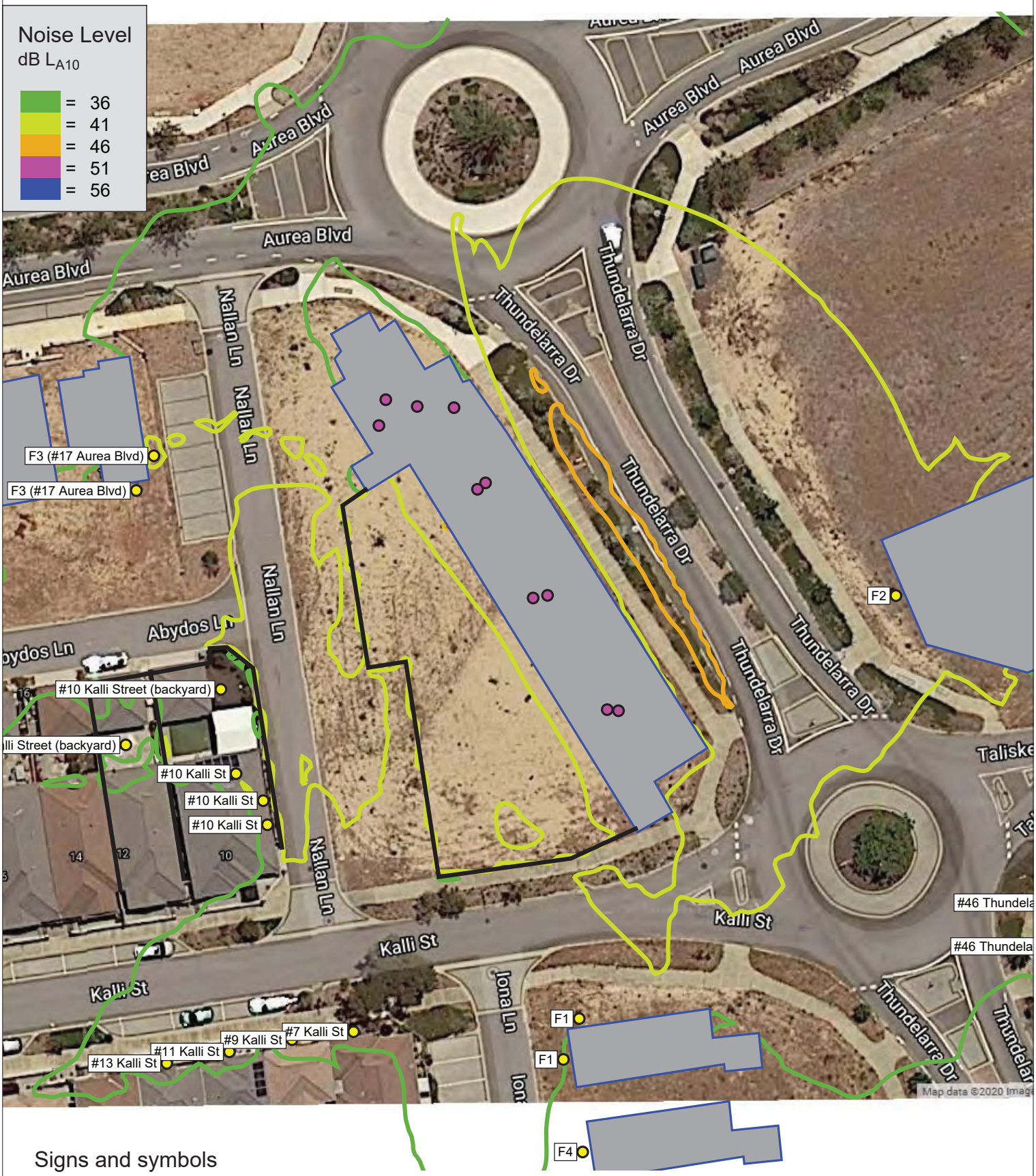
Table 4-4 presents the overall noise levels assuming all plant is operating simultaneously and at full capacity e.g. cold winter day, with the noise contribution from the AC plant alone also provided for reference. *Figure 4-3* also shows the predicted overall noise levels at ground level.

Table 4-4 Predicted Noise Levels of Mechanical Plant, dB L_{A10}

Receiver	Floor	Facade	Overall Noise Level	AC Only
#7 Kalli St	GF	N	38	37
#9 Kalli St	GF	N	37	37
#10 Kalli St	GF	E	38	37
#10 Kalli St	GF	E	37	36
#10 Kalli St	GF	E	38	37
#10 Kalli Street (backyard)	GF	-	38	36
#11 Kalli St	GF	N	37	37
#12 Kalli Street (backyard)	GF	-	35	33
#13 Kalli St	GF	N	37	36
#46 Thundelarra Dr	GF	SW	37	36
#46 Thundelarra Dr	GF	NW	37	37
F1	GF	W	34	34
F1	GF	N	39	39
F2	GF	SW	43	42
F2	FL 1	SW	43	43
F3 (#17 Aurea Blvd)	GF	E	39	37
F3 (#17 Aurea Blvd)	GF	S	37	35
F4	GF	W	31	30

Proposed Childcare Centre - Mechanical Plant Noise Levels
Lot 262 Thundelarra Drive, Golden Bay - Facade correction NOT included

Figure 4-



Signs and symbols

- Receiver
- Point Source
- Wall / Fence
- Building

23-September-2020

Length Scale 1:600
0 3 6 12 18 m

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4.4 Indoor Child Play

An assessment of noise levels from indoor child play was carried out and the resulting noise levels at all locations were predicted to be well below that of outdoor child play considered in *Section 4.1*. This assessment was carried out based on the following considerations:

- Internal noise levels within activity rooms would not exceed those from outdoor play for each age group;
- Any music played within the internal activity areas would be 'light' music with no significant bass content and played at a relatively low level.

5 ASSESSMENT

5.1 Outdoor Child Play

Outdoor child play is considered to only occur during the daytime, that is from 7.00am only when the highest assigned noise level of 46 dB L_{A10} is applicable. Noise from child play is not considered to contain annoying characteristics within the definition of the Regulations, therefore no adjustments are made to the predicted noise levels.

If considering the worst-case scenario where all children are allowed to play outside simultaneously for extended periods of time, the L_{A10} assigned noise level is applicable. *Table 5-1* presents the assessment of child play noise against the daytime assigned noise level.

Table 5-1 Assessment of Predicted Child Play Noise, dB L_{A10}

Receiver	Floor	Façade	Childplay	Assigned Noise Level	Exceedence
Existing Residences					
#7 Kalli St	GF	N	49	**46**	3
#9 Kalli St	GF	N	48	**46**	2
#10 Kalli St	GF	E	48	**46**	2
#10 Kalli St	GF	E	48	**46**	2
#10 Kalli St	GF	E	48	**46**	1
#10 Kalli Street (backyard)	GF	-	49	**46**	3
#11 Kalli St	GF	N	47	**46**	1
#12 Kalli Street (backyard)	GF	-	45	**46**	*Complies*
#13 Kalli St	GF	N	46	**46**	*Complies*
#46 Thundelarra Dr	GF	SW	40	**46**	*Complies*
#46 Thundelarra Dr	GF	NW	40	**46**	*Complies*

Receiver	Floor	Façade	Childplay	Assigned Noise Level	Exceedence
Future Residences					
F1	GF	W	48	**46**	2
F1	GF	N	52	**46**	6
F2	GF	SW	37	**46**	*Complies*
F2	FL 1	SW	41	**46**	*Complies*
F3 (#17 Aurea Blvd)	GF	E	47	**46**	1
F3 (#17 Aurea Blvd)	GF	S	47	**46**	1
F4	GF	W	44	**46**	*Complies*

From *Table 5-1*, it can be seen that exceedences up to 3 dB are predicted at the closest existing residences along Kalli Street, while at future residences exceedences up to 6 dB are predicted. Given the level of exceedences, it is noted that restricting the number of children playing outside for extended periods of time by staggering play times may not be practicable, in particular at the future receivers, but is presented nonetheless for reference. A combination of acoustic fencing and staggered play is also provided.

Based on the modelling assumptions and results, either of the following mitigation option could be implemented to achieve compliance at all surrounding receivers:

Option 1. Stagger child play such that no more than 45 children overall are outside for extended periods of time, with the following breakdown by age group:

- Up to 10 children above the age of 3,
- Up to 15 children aged 2-3 years, and
- Up to 20 babies. Or,

Option 2. Provide a 2.1 metre high vertical wall with a 1.0 metre long overhang on top, angled 65 degrees from vertical along the western edge of the outdoor play area, resulting in the top edge of the overhang to be 2.5 metres above the outdoor play area. Along the south boundary, the overhang is to be 1.5 metres long and angled 60 degrees from vertical, resulting in the top edge of the overhang to be 2.85 metres above the outdoor play area. With this option no child play restrictions are required.

Option 3. Provide the following combination of acoustic fencing and child play management:

- 2.1 metre high vertical wall along the western edge of the outdoor play area, and
- 2.4 metres high vertical wall along the southern edge of the outdoor play area, and
- Stagger play such that no more than 60 children overall are outside for extended periods of time, with the following breakdown by age group:
  - Up to 25 children above the age of 3,
  - Up to 15 children aged 2-3 years, and
  - Up to 20 babies.

All acoustic fencing, and overhang if used, is to be of solid construction, free of gaps and be built from material at least 8 kg/m^2 e.g. masonry, 6 mm thick fibre cement sheeting or 8 mm thick *Perspex* sheeting.

Where timber paling fencing is preferred, the individual panels are to overlap by a minimum of 30 mm to ensure the fence is free of gaps. The palings may need to be secured by twice the normal fixings to ensure the fence does not warp over time.

Options 2 and 3 are illustrated in *Figure 5-1*.



Figure 5-1 Option 2 and Option 3 Acoustic Fencing Requirements

5.2 Car Doors

Car doors closing noise are short duration events and were therefore assessed against the L_{Amax} assigned noise level. Given the proposed hours of operation, staff members and parents can arrive before 7.00am when the night-time assigned noise level at the most exposed receivers of 56 dB L_{Amax} is applicable.

Given the relative short source to receiver distances, car doors closing noise may be impulsive within the definition of the Regulations. Therefore, an adjustment of +10 dB (refer *Table 2-1*) was applied to the predicted noise levels.

Table 5-2 presents the assessment of the adjusted noise levels from car doors closing in any parking bay.

Table 5-2 Assessment of Predicted Car Door Noise, dB L_{Amax}

Receiver	Floor	Façade	Car Door	Assigned Noise Level	Exceedence
Existing Residences					
#7 Kalli St	GF	N	59	**56**	3
#9 Kalli St	GF	N	59	**56**	3
#10 Kalli St	GF	E	59	**56**	3
#10 Kalli St	GF	E	61	**56**	5
#10 Kalli St	GF	E	61	**56**	5
#10 Kalli Street (backyard)	GF	-	58	**56**	2
#11 Kalli St	GF	N	58	**56**	2
#12 Kalli Street (backyard)	GF	-	52	**56**	*Complies*
#13 Kalli St	GF	N	56	**56**	*Complies*
#46 Thundelarra Dr	GF	SW	43	**56**	*Complies*
#46 Thundelarra Dr	GF	NW	42	**56**	*Complies*
Future Residences					
F1	GF	W	56	**56**	*Complies*
F1	GF	N	56	**56**	*Complies*
F2	GF	SW	42	**56**	*Complies*
F2	FL 1	SW	47	**56**	*Complies*
F3 (#17 Aurea Blvd)	GF	E	63	**56**	7
F3 (#17 Aurea Blvd)	GF	S	61	**56**	5
F4	GF	W	53	**56**	*Complies*

From the assessment in *Table 5-2*, exceedences up to 5 dB and 7 dB are predicted at existing and future receivers respectively.

To comply with the Regulations at night-time at the existing receivers, all bays resulting in predicted noise levels over 46 dB L_{Amax} should not be used before 7.00am, which based on *Table 4-3*, are parking bays 1a to 7a, 1b to 7b and 8 to 11.

However, at the future receiver at #17 Aurea Boulevard, it must be noted that exceedences up to 7 dB are predicted at night-time as a result of using parking bays 12 to 19 before 7.00am. Therefore, since parking restrictions already apply to achieve compliance at #10 Kalli Street, acoustic fencing along the east boundary of #17 Aurea Boulevard would be required to comply at night-time. It is understood that seven street parking bays are already provided opposite #17 Aurea Boulevard, which are not technically associated with the childcare development. However, if #17 Aurea Boulevard is developed as residential, using these bays will result in a higher noise impact at the residence since the street bays are located closer. Therefore, some form of acoustic fencing should be provided to mitigate car door noise closing, whether in the childcare car park or in the street parking bays. From an acoustic point of view, any fencing along the east boundary of #17 Aurea Boulevard is to be a minimum 2.4 metres high and constructed so as to achieve a surface mass of at least 8 kg/m^2. The final height and extent of the acoustic fence should be reviewed post-DA, when details of the development at #17 Aurea Boulevard are available.

5.3 Mechanical Plant

At this stage, mechanical plant has not been designed in detail, but rather the assessment uses typical plant distributed on the roof. Given the proposed hours of operations, the AC plant and all extractions fans were assumed to be operating simultaneously before 7.00am as a worst-case scenario.

Table 5-3 presents the assessment of the noise emissions from mechanical plant against the night-time assigned noise level. It is noted that before 7.00am noise was considered to be tonal, therefore the predicted noise levels were adjusted by +5 dB.

Table 5-3 Assessment of Mechanical Plant Noise, dB L_{A10}

Receiver	Floor	Façade	Overall Level	Assigned Noise Level	Exceedence
Existing Residences					
#7 Kalli St	GF	N	43	**36**	7
#9 Kalli St	GF	N	42	**36**	6
#10 Kalli St	GF	E	43	**36**	7
#10 Kalli St	GF	E	42	**36**	6
#10 Kalli St	GF	E	43	**36**	7
#10 Kalli Street (backyard)	GF	-	43	**36**	7
#11 Kalli St	GF	N	42	**36**	6

Receiver	Floor	Façade	Overall Level	Assigned Noise Level	Exceedence
#12 Kalli Street (backyard)	GF	-	40	**36**	4
#13 Kalli St	GF	N	42	**36**	6
#46 Thundelarra Dr	GF	SW	42	**36**	6
#46 Thundelarra Dr	GF	NW	42	**36**	6
Future Residences					
F1	GF	W	39	**36**	3
F1	GF	N	44	**36**	8
F2	GF	SW	48	**36**	12
F2	FL 1	SW	48	**36**	12
F3 (#17 Aurea Blvd)	GF	E	44	**36**	8
F3 (#17 Aurea Blvd)	GF	S	42	**36**	6
F4	GF	W	36	**36**	*Complies*

Based on the assessment in *Table 5-3*, it can be seen exceedences up to 7 dB and 12 dB are predicted at the existing and future receivers respectively (assuming the noise emissions are tonal).

To achieve compliance at all times, an overall noise reduction up to 12 dB is required. This level of reduction could be achieved with either, or a combination of, the following noise controls:

- All plant to be the quietest available, and
- Select AC units which can operate on a 'low noise mode' prior to 7am, or potentially not operate before 7am. Data obtained from manufacturers such as Daikin (RXYQ range) or Fujitsu (AJY range) indicate that overall 4-7 dB reduction maybe be achieved by setting the unit on 'Level 2' quiet mode. When on such mode, it is also assumed that tonality would no longer be present in the noise emissions, and
- Consider providing acoustic louvres or solid barriers around the AC plant e.g. 6 mm solid fibre sheeting behind architectural louvres. The height and extent of the louvers/barriers will need to be determined based on final plant selection and location, and
- Kitchen exhaust fan could be located within the ceiling space and ducted to the roof, with the roof cowl then to be located furthest away from sensitive receivers, and
- Allow for silencers or acoustic flexible ducts on the outside air side of all exhaust fans, and
- All plant to be mounted on suitable anti-vibration mounts.

The above is to be reviewed during detailed design/building permit stage when mechanical plant selection and layout is known.

6 RECOMMENDATIONS

The noise impacts from the proposed childcare centre to be located at Lot 263 Thundelarra Drive, Golden Bay, have been assessed against the relevant criteria of the *Environmental Protection (Noise) Regulations 1997*.

Based on the modelling and assessments in relation to the noise emissions from child play and car doors closing, it is concluded that compliance can be achieved provided the recommendations in *Section 5.1* and *Section 5.2*.

In addition, the following best practices in relation to child play should be implemented:

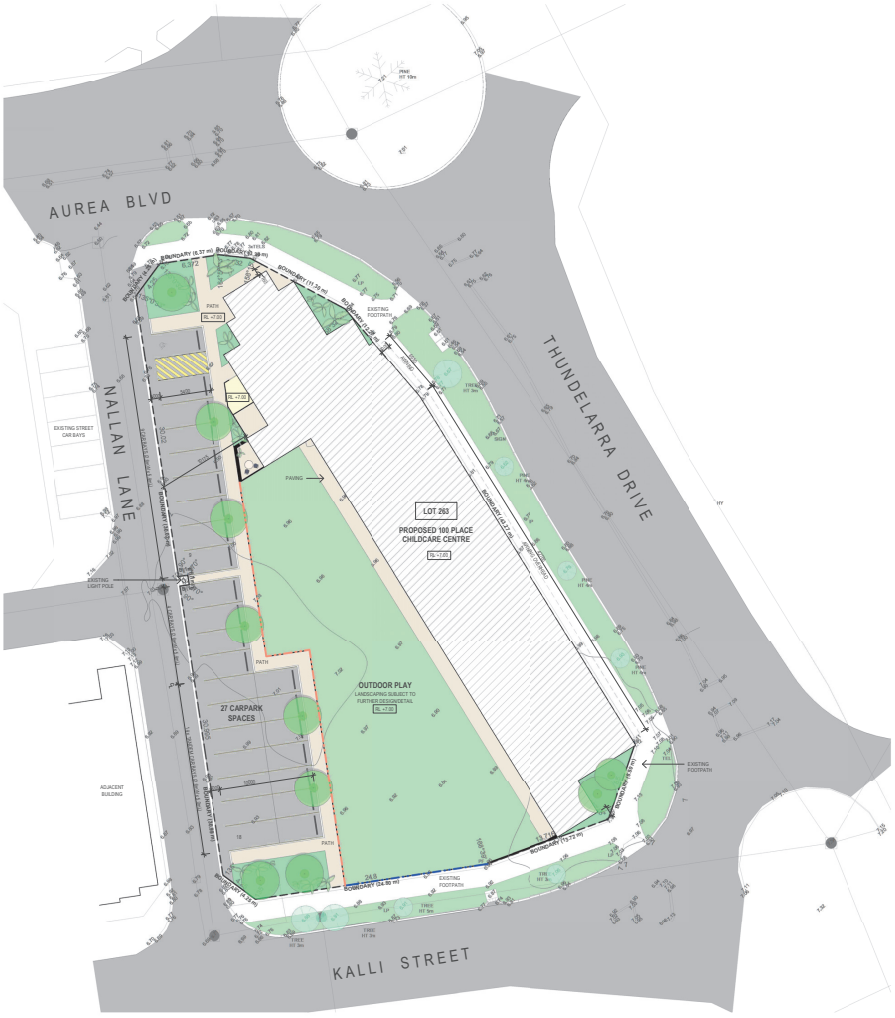
- The behaviour and 'style of play' of children should be monitored to prevent particularly loud activity e.g. loud banging/crashing of objects, 'group' shouts/yelling,
- Favour soft finishes in the outdoor play area to minimise impact noise (e.g. soft grass, sand pit(s), rubber mats) over timber or plastic,
- Favour soft balls and rubber wheeled toys,
- Crying children should be taken inside to be comforted,
- No amplified music to be played outside,
- External doors and windows to be closed during indoor activity / play, and
- Any music played within the internal activity areas to be 'light' music with no significant bass content and played at a relatively low level.

With regard to mechanical plant noise, potential exceedences were identified however, mechanical plant has not been designed in detail and therefore the following is to be considered, and reviewed, during detailed design:

- All plant to be the quietest available, and
- Select AC units which can operate on a ‘low noise mode’ prior to 7am, or potentially not operate before 7am. Data obtained from manufacturers such as Daikin (RXYQ range) or Fujitsu (AJY range) indicate that overall 4-7 dB reduction maybe be achieved by setting the unit on ‘Level 2’ quiet mode. When on such mode, it is also assumed that tonality would no longer be present in the noise emissions, and
- Consider providing acoustic louvres or solid barriers around the AC plant e.g. 6 mm solid fibre sheeting behind architectural louvres. The height and extent of the louvers/barriers will need to be determined based on final plant selection and location, and
- Kitchen exhaust fan could be located within the ceiling space and ducted to the roof, with the roof cowl then to be located furthest away from sensitive receivers, and
- Allow for silencers or acoustic flexible ducts on the outside air side of all exhaust fans, and
- All plant to be mounted on suitable anti-vibration mounts.

Appendix A

Development Plans


AUREA BLVD
THUNDELARRA DRIVE
NALLAN LANE
KALLI STREET
LOT 263
PROPOSED 100 PLACE
CHILDCARE CENTRE
RL +7.00
OUTDOOR PLAY
LANDSCAPING SUBJECT TO
FURTHER RESIDENTIAL
DESIGN
RL +7.00
27 CARPARK
SPACES
PAVING
PATH
EXISTING
FOOTPATH
EXISTING STREET
CAR BAYS
EXISTING
LIGHT POLE
ADJACENT
BUILDING
BOUNDARY (6.37 m)
BOUNDARY (11.74 m)
BOUNDARY (64.72 m)
BOUNDARY (24.90 m)
BOUNDARY (13.72 m)
BOUNDARY (3.43 m)
BOUNDARY (3.43 m)
BOUNDARY (3.43 m)
PINE
HT 10m
PINE
HT 9m
TREE
HT 3m
TREE
HT 3m
TREE
HT 3



LEGEND

OVERALL SITE BOUNDARY

RL + 7.00 PROPOSED REDUCED LEVEL SHOWN INDICATIVE

PROPOSED TREE
TYPE: AGUARINA OBESA SWAMP SHEOAK. TO MATCH STREET TREES IN AREA

SUMMARY

SITE AREA:	2507m²
BUILDING AREA:	774m²
NUMBER OF PLACES:	100
OUTDOOR PLAY AREA:	REQUIRED: 700m² PROVIDED: 721m²
CAR BAYS:	REGULAR BAYS 26 DISABLED BAY 1 TOTAL 27

ROOM BREAKDOWN:

ROOM	AGE	PLACES	RATIO	STAFF
ACTIVITY 1	0-2	8 PLACES	1:4	2 STAFF
ACTIVITY 2	0-2	12 PLACES	1:4	3 STAFF
ACTIVITY 3	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 4	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 5	3-4	20 PLACES	1:10	2 STAFF
ACTIVITY 6	3-4	30 PLACES	1:10	3 STAFF
KITCHEN / ADMIN				2 STAFF
		100 PLACES		18 STAFF

PRELIMINARY
WORK IN PROGRESS ISSUE

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CLIENT, PLANNER FOR INFO	07/10/20
C	CONSULTANT ISSUE FOR INFO	07/10/20

FLOOR PLAN
1 : 100

DISCLAIMER: The drawing(s) provided herewith shall be used for the purpose for which it was provided. The electronic data files for all or part of the drawings carry no guarantees whatsoever as to their accuracy, content or lack of same. The use of electronic data files is entirely at the user's own risk and Brolla Falconer shall not be held responsible for any consequences arising therefrom. The user of these files must verify the electronic data files against the hard copy or .pdf file provided.

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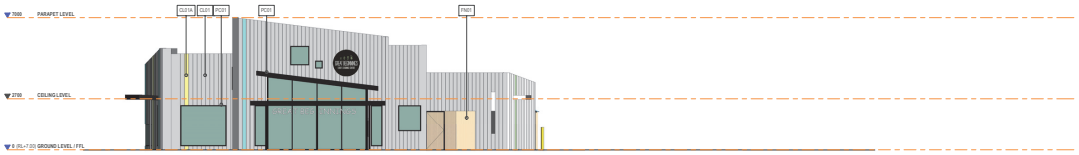
ACCORD PROPERTY

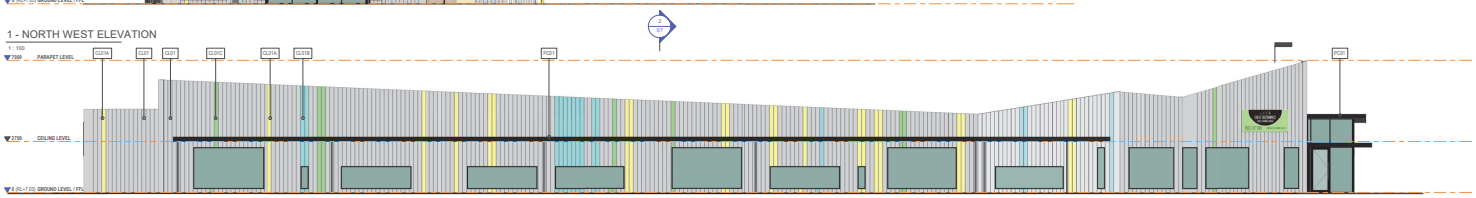
GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

FLOOR PLAN

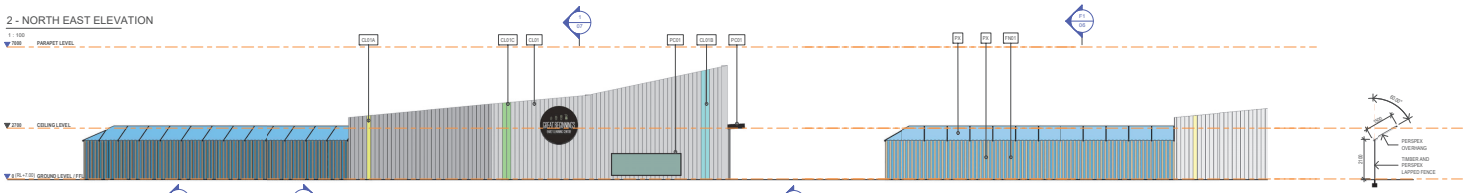
Scale As indicated
Drawn DF Checked MJ
Date 07/10/20
Job No. 2020052
Dwg No. 3354 04 Rev. C A1 SHEET



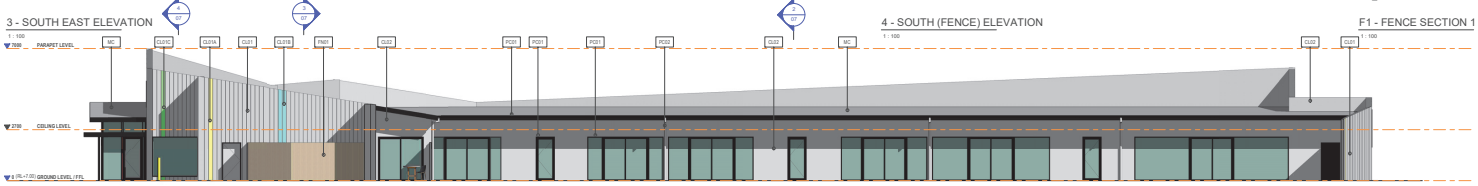
1 - NORTH WEST ELEVATION
1 : 100



2 - NORTH EAST ELEVATION
1 : 100



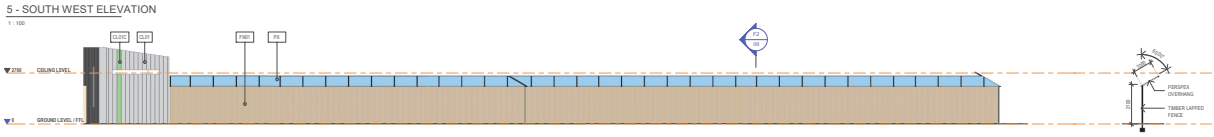
3 - SOUTH EAST ELEVATION
1 : 100



4 - SOUTH (FENCE) ELEVATION
1 : 100

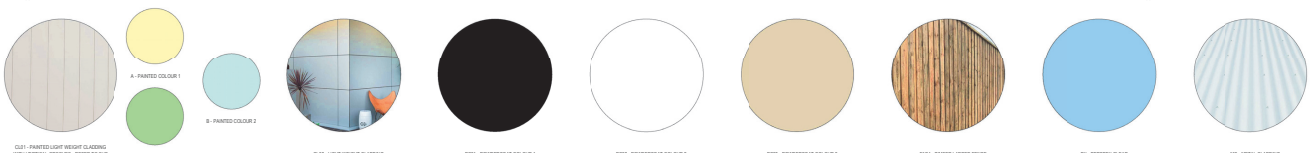
F1 - FENCE SECTION 1
1 : 100

5 - SOUTH WEST ELEVATION
1 : 100



6 - WEST FENCE ELEVATION
1 : 100

F2 - FENCE SECTION 2
1 : 100



PRELIMINARY

NOT FOR IN-PROCESS ISSUE

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	11/03/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	CONSULTANT ISSUE FOR INFO	07/10/20

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ACCORD PROPERTY

GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

ELEVATIONS

Scale As indicated
Drawn DF Checked MJ
Date 07/10/20
Job No. 2020052
Dwg No. 3354 06 Rev. C A1 SHEET

Appendix B

Terminology

The following is an explanation of the terminology used throughout this report.

Decibel (dB)
The decibel is the unit that describes the sound pressure and sound power levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

A-Weighting
An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A dB.

Sound Power Level (L_w)
Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure levels at known distances. Noise modelling incorporates source sound power levels as part of the input data.

Sound Pressure Level (L_p)
The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

L_{ASlow}
This is the noise level in decibels, obtained using the A frequency weighting and the S (Slow) time weighting as specified in IEC 61672-1:2002. Unless assessing modulation, all measurements use the slow time weighting characteristic.

L_{AFast}
This is the noise level in decibels, obtained using the A frequency weighting and the F (Fast) time weighting as specified in IEC 61672-1:2002. This is used when assessing the presence of modulation only.

L_{APeak}
This is the greatest absolute instantaneous sound pressure in decibels using the A frequency weighting as specified in IEC 61672-1:2002.

L_{Amax}
An L_{Amax} level is the maximum A-weighted noise level during a particular measurement.

L_{A1}
An L_{A1} level is the A-weighted noise level which is exceeded for one percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

L_{A10}
An L_{A10} level is the A-weighted noise level which is exceeded for 10 percent of the measurement period and is considered to represent the "*intrusive*" noise level.

L_{Aeq}
The equivalent steady state A-weighted sound level ("equal energy") in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the "average" noise level.

L_{A90}
An L_{A90} level is the A-weighted noise level which is exceeded for 90 percent of the measurement period and is considered to represent the "*background*" noise level.

One-Third-Octave Band
Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20 000 Hz inclusive.

L_{Amax} assigned level
Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded at any time.

L_{A1} assigned level
Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded for more than 1% of the representative assessment period.

L_{A10} assigned level
Means an assigned level which, measured as a $L_{A\ Slow}$ value, is not to be exceeded for more than 10% of the representative assessment period.

Tonal Noise
A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

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 $L_{A\ Slow}$ levels.

This is relatively common in most noise sources.

Modulating Noise
A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

a variation in the emission of noise that —

(a) is more than 3 dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band;

(b) is present for at least 10% of the representative.

Impulsive Noise
An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness is:

a variation in the emission of a noise where the difference between $L_{A\ peak}$ and $L_{A\ Max\ slow}$ is more than 15 dB when determined for a single representative event;

Major Road
Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

Secondary / Minor Road
Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

Influencing Factor (IF)

$$= \frac{1}{10}(\%\ \text{Type}\ A_{100} + \%\ \text{Type}\ A_{450}) + \frac{1}{20}(\%\ \text{Type}\ B_{100} + \%\ \text{Type}\ B_{450})$$

where:

$\%\ \text{Type}\ A_{100}$ = the percentage of industrial land within a 100m radius of the premises receiving the noise

$\%\ \text{Type}\ A_{450}$ = the percentage of industrial land within a 450m radius of the premises receiving the noise

$\%\ \text{Type}\ B_{100}$ = the percentage of commercial land within a 100m radius of the premises receiving the noise

$\%\ \text{Type}\ B_{450}$ = the percentage of commercial land within a 450m radius of the premises receiving the noise

+ Traffic Factor (maximum of 6 dB)

= 2 for each secondary road within 100m

= 2 for each major road within 450m

= 6 for each major road within 100m

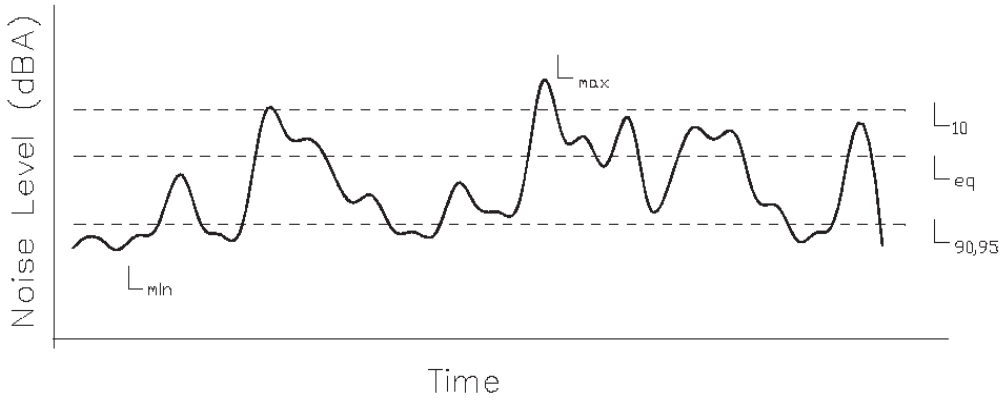
Representative Assessment Period
Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

Background Noise
Background noise or residual noise is the noise level from sources other than the source of concern. When measuring environmental noise, residual sound is often a problem. One reason is that regulations often require that the noise from different types of sources be dealt with separately. This separation, e.g. of traffic noise from industrial noise, is often difficult to accomplish in practice. Another reason is that the measurements are normally carried out outdoors. Wind-induced noise, directly on the microphone and indirectly on trees, buildings, etc., may also affect the result. The character of these noise sources can make it difficult or even impossible to carry out any corrections.

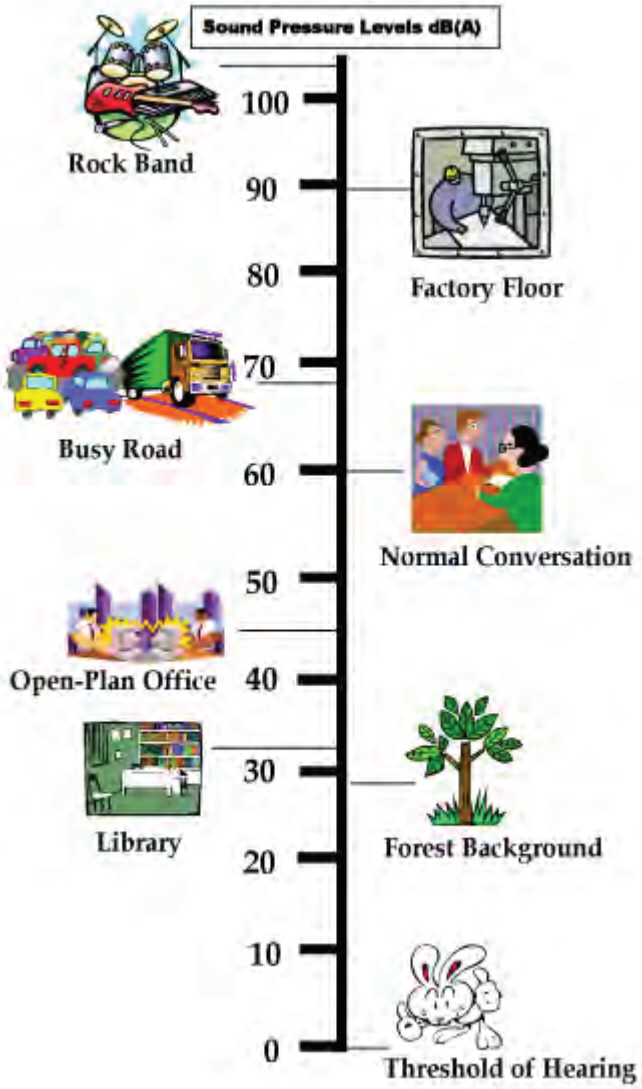
Ambient Noise
Means the level of noise from all sources, including background noise from near and far and the source of interest.

Specific Noise
Relates to the component of the ambient noise that is of interest. This can be referred to as the noise of concern or the noise of interest.

Chart of Noise Level Descriptors



Typical Noise Levels



Appendix 5
Waste Management Plan

Accord Property Golden Bay Child Care Centre

Waste Management Plan

Document verification

Date	Version	Title	Prepared by	Approved by
02/10/20	V1	Golden Bay Child Care Centre Waste Management Plan - DRAFT	K. Le Gallou	J. Webb
09/10/20	V1.1	Golden Bay Child Care Centre Waste Management Plan	K. Le Gallou	J. Webb

Important notes

This document has been prepared by Rawtec Pty Ltd (Rawtec) for a specific purpose and client (as named in this document) and is intended to be used solely for that purpose by that client.

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Document summary

Rawtec prepared this waste management plan (WMP) to support the planning application of the development. We consulted the client, project manager, project architect and traffic consultant and considered all relevant policy requirements (see Appendix 1).

This WMP includes a high-level proposal for a waste management system, with a preliminary design to show how waste can be managed at the site. If land uses and waste management arrangements for the development change during detailed design, this WMP will need to be updated.

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1.2. Waste management considerations 3

1.3. Recommended services 3

2. Waste management analysis **4**

2.1. Estimated waste and recycling volumes 4

2.2. Waste storage area 5

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Transfer pathways 7

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4.1. Vehicle movements per week 8

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6. Appendix 1 - Policies **10**

1. Development summary

Project	Golden Bay Child Care Centre, Lot 263 Aurea Boulevard, Golden Bay WA
Client	Accord Property
Architect	Brown Falconer

1.1. Land use and occupancy

Table 1 lists the tenancy/land uses that will generate waste and recycling at the development, based on the latest architectural plans.

Table 1: Land use and occupancy overview

Level	Tenancy	Waste resource generation category	Estimated size m^2
Ground	Child Care Centre (100 spaces)	Child Care Centre	Building total ~725 m^2 (waste generating area 430 m^2)

1.2. Waste management considerations

The client and project architect identified design choices and other elements that could affect waste management at the site (Table 2). We included these when designing the waste management system.

Table 2: Development waste management considerations

Consideration	Description
Commercial collection	The operator of the childcare centre generally uses commercial contractors to manage waste and recycling. If commercial collection is unavailable the City of Rockingham's commercial bin collection service may be suitable for the development.

1.3. Recommended services

To manage waste and recycling effectively, the development needs to include the services listed in Table 3.

Table 3: Recommended waste management services

Required/recommended waste and recycling collection services		
	Land use	**Commercial**
	Development land uses	**Childcare Centre**
Routine collection (rear lift)	General waste	**X**
	Comingled recycling	**X**
On-call or external drop-off	Hard waste	**X**
	E-waste	**X**
	CFL/Lighting	**X**
	Printer Cartridges	**X**
	Batteries	**X**

2. Waste management analysis

2.1. Estimated waste and recycling volumes

The development will generate about 3,000 litres of waste and recycling per week (Table 4).[1] Based on the estimated volumes of waste and recycling the development needs 3 bins and 5 collections per week.

Organics recycling has not been included in the analysis, as it is not a requirement. However, an estimated 300 litres of organics per week may be generated, and a commercial organics recycling service would be beneficial to reduce general waste volumes and cost.

Table 4: Estimated waste volumes, bin requirements and collections per week for the development

	Bin Area			
	Total volumes (L per week)*	**Bin size (L)**	**Number of bins required**	**Collections per week**
General waste	1,500	660	2	2
Comingled recycling	1,500	660	1	3
Total	3,000		3	5

*Totals have been rounded and may not equate

The following irregular waste streams will be managed as they occur onsite:

- **Electronic waste** (E-waste such as batteries, printer cartridges, lighting) will be stored at the development. E-waste will be collected by a certified collection contractor or taken to a licensed facility (e.g. recycling depot or participating retailer).
- **Hard waste** (during tenancy fit-out or in residential developments) will be stored at the development and managed via a pull-in/pull-out collection service. This must be arranged by tenants and the building manager, so hard waste can be collected from the loading area at a suitable time.

Other advice

- **Bins and signage** must meet the Australian Standard for Mobile Waste Containers (AS 4123.7-2006 Mobile Waste Containers).
- **E-waste/hard waste collection:** Provide a central and accessible storage point for E-waste and hard waste. If hard waste is collected from individual locations, the building manager and tenant may need to be present for collection and costs may increase.

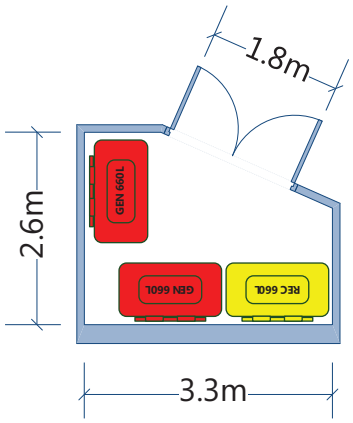
[1] Estimates are based on the proposed land-use data provided by the client/architect and metrics from the *Sustainability Victoria Waste Management and Recycling in Multi-Unit Developments* and *South Australian Better Guide Practice Guide - Waste Management for Residential and Mixed Use Developments*. Some metrics have been further developed by Rawtec based on industry knowledge and experience.

2.2. Waste storage area

The waste storage area houses the bulk bins. Figure 1 shows how this area could be designed. Additional comments.

When planning the waste storage area, consider the additional waste management design advice listed in Section 5.

Figure 1: Waste storage area design



LEGEND

GEN = General waste
REC = Comingled recycling
ORG = Organics recycling

Note: These bin sizes are for **illustration purpose only** and are based on the standard MASTEC Australia bin sizes (http://www.mastec.com.au). Bin sizes and shapes may differ depending on manufacturer, collection contractor or local waste authority. Please allow extra room (e.g. >10%) for differences in bin sizes, bin access, opening and closing and manoeuvring etc.

Detailed design

- Detailed design and construction advice may be needed in later stages. Equipment specifications (such as chutes and compactors) must be confirmed by the provider before construction.

3. Waste management system

The waste management system (WMS) explains how to manage the waste and recycling generated at the development (Table 5). It covers each land use and considers the relevant waste management policies (see Appendix 1).

When planning the WMS, consider the waste management design advice in Section 5.

If land uses and waste management arrangements for the development change during detailed design, this WMP will need to be updated.

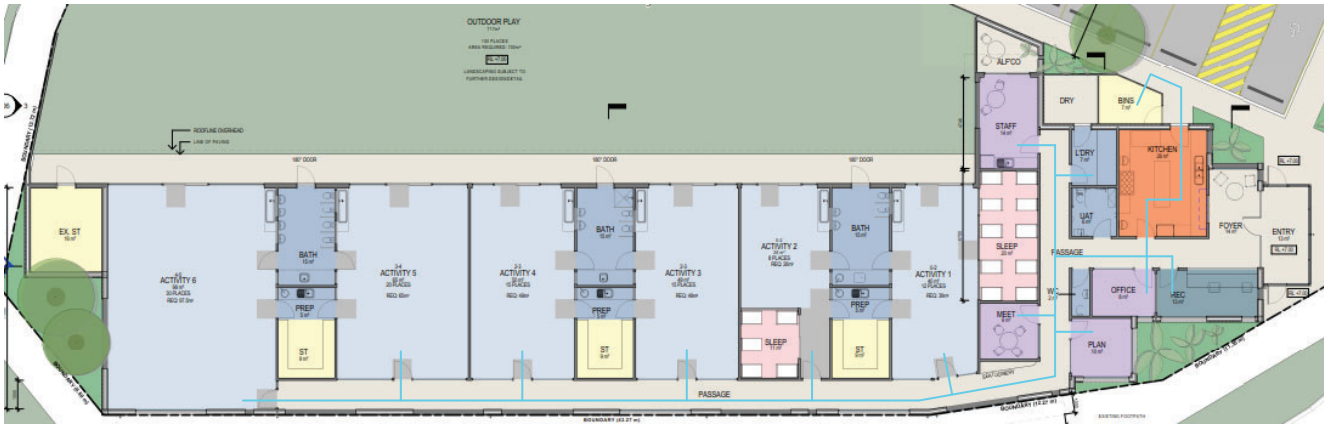
Table 5: Proposed waste management system for the development

Proposed waste management system	
Waste/recycling services	• General waste • Comingle recycling • Organics recycling (optional)
WMS step	**WMS notes**
1. User storage	• Staff will collect waste and recycling in small individual bins (40-80 litres): – General waste will be collected using black bin liners – Comingled recycling will be collected loose – If included, organics will be collected small bins (e.g. kitchen caddy) using compostable bin liners.
2. Transfer pathways	• Waste and recycling will be transferred to the external waste storage area via the corridors and pathways. • Transfer routes must be at least 1.25m wide, free of obstructions and steps and a slope of no more than 1:10.
3. Aggregation & storage	• Waste and recycling will be stored in the bulk bins in the waste storage area.
4. Bin collection	• Waste and recycling will be collected either by a private waste collection contractor. • The collection vehicle will stop briefly in Nallan Lane to collect bins. • The waste collection operator will collect the bins from the waste storage area, wheel them to the collection vehicle to empty and then return to their original position.

Transfer pathways

Figure 2 outlines the waste transfer pathways for the development. It is anticipated that staff will use small bins (40-80 litres) to collect waste and recycling and use these or a trolley to transfer waste and recycling at the end of the day.

Figure 2 Transfer pathways for the development



4. Collection requirements

4.1. Vehicle movements per week

The development will need about 5 regular collections per week. This is based on the waste and recycling volumes and collection service frequency in **Error! Reference source not found.**.

Other advice

- **Collection times:** Schedule waste collection timing and frequency to reduce the impact of noise and traffic on residents, neighbours and the public.
- **Peak periods:** More waste is usually generated during holiday periods like Easter, Christmas and public holidays. Extra collections may be needed at these times.

4.2. Collection vehicle

Table 6 lists approximate truck dimensions to help the traffic consultant's analysis. Please note:

- Vehicle dimensions and operating conditions can differ between waste collection contractors.
- Rawtec does not guarantee that the collection area can accommodate waste collection vehicles. The traffic consultant must confirm that collection vehicles can enter and exit the development and operate safely.
- The client must confirm with the preferred waste collection contractor that it can service the development before collection can begin.

Table 6: Approximate collection vehicle dimensions

Collection vehicle dimensions		
Vehicle type	Rear lift	Pan-tech/Flat bed
Collection type	Collection of bins up to 1,100 L	At call waste streams
Dimensions	3.4m minimum to 4m (h) × 2.5m (w) × 8.8m minimum to 11m (l)	Up to 4.5m (h) × 2.5m (w) × 8.8m (l)
Rear loading space required	2 m	-
Operational vehicle height	Up to 4 m	Up to 4.5 m
Vehicle turning circle	18-25 m	10 m

Note: Vehicle width dimensions are based on Australian MRV standard specifications - AS 2890.2-2002. Vehicle length and heights are based on common collection vehicles operating in the South Australian market. Waste and recycling collection vehicles are custom designed and may differ from these specifications.

5. Other waste management and design advice

Table 7 lists advice on designing developments to encourage good waste management practices.

Table 7: Other waste management and design advice

Area	To consider
Bin transfer routes	• Transfer routes should be at least 1.25 m wide, free of obstructions and steps, and with a slope of no more than 1:10. • Transfer routes should not pass through living areas or dwellings.
Education and training	• The building manager should educate and train residents/tenants to use the waste management system correctly. • Consider including better practice waste management requirements in strata or commercial lease agreements.
Health and amenity	• Effective WMS design should: – reduce and stop odour and noise – consider and preserve visual amenity for residents/tenants, neighbours and the public – prevent waste spreading beyond the defined location – specify washable services enabling periodic cleaning – provide adequate ventilation.
Lid within a lid bin	• A 'lid within a lid' system can make it easier to dispose of waste and recycling into bulk bins (e.g. 1,100 litre bins): – The smaller, lighter lid reduces the weight and risk for people disposing of materials. – The large lid can be locked, stopping oversize items being put into the bin.
Waste storage area	• Secure the storage area to stop people interfering with bins and equipment.
Waste streams	• Locate the disposal point for all three streams together (general waste, comingled recycling and food organics).

6. Appendix 1 - Policies

This WMP has been prepared in consideration of the following policies, design and operational requirements:

- Multiple Dwelling Waste Management Plan Guidelines - A resource for Western Australian Local Government and Developers, The Western Australian Local Government Association.
- Sustainability Victoria Waste Management and Recycling in Multi-Unit Developments.
- South Australian Better Practice Guide – Waste Management in Residential or Mixed-Use Developments Green Industries SA, 2014.
- Consideration has also been given to Rawtec's previous experience developing waste management plans from similar developments.

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PS ref: 6605
City ref: 020.2020.291.1
DAP Ref: DAP /20/01873

7 December 2020

City of Rockingham
PO Box 2142
Rockingham DC WA 6967

Attention: Chris Parlane, Senior Planning Officer

Dear Sir,

LOT 263 AUREA BOULEVARD, GOLDEN BAY
DEVELOPMENT APPLICATION – PROPOSED CHILD CARE CENTRE
RESPONSE TO REQUESTS FOR FURTHER INFORMATION

Planning Solutions acts on behalf of Accord Property, the proponent of the proposed child care centre development at Lot 263 Aurea Boulevard, Golden Bay (**subject site**).

We refer to various correspondence received from the City of Rockingham (**City**) during assessment of the development application. Specifically, the following:

- City's Request for Further Information (**RFI**), received via email on 4 November 2020.
- Summary of submissions received during advertising of the proposed development via email on 11 November 2020.
- Meeting with planning and health officers at the City of Rockingham on 23 November 2020.

This letter, accompanying development plans and technical reports respond to each of the above-mentioned requests for further information or comments on the proposed development. The following documentation is attached to this submission in response to the above matters:

- **Attachment 1** – Updated development plans prepared by Brown Falconer architects.
- **Attachment 2** – Acoustic technical note / peer review prepared by Reverberate Consulting responding to the acoustic matters.
- **Attachment 3** – Revised Transport Impact Statement prepared by Transcore.
- **Attachment 4** – Response to summary of consultation submissions received by the City.

The abovementioned documents are considered to appropriately address the City's comments and responses to submissions, in addition to the further information contained within this submission.

1 Updated Development Plans / Acoustic Peer Review

Please refer to the acoustic peer review undertaken by Reverberate Consulting, contained within **Attachment 2**. The peer review was undertaken to provide an additional level of robustness in the reporting, ensuring the proposed fencing treatments provide sufficient acoustic attenuation and no adverse amenity impacts to nearby residences by way of noise.

Following the outcomes of the acoustic peer review, the subsequent modifications have been made to the proposed development plans, provided at **Attachment 1**:

- Fencing surrounding the outdoor play area has been revised. The development now proposes:
    - A 2.57m high masonry wall with acrylic sheet openings for the portion of the outdoor play area fronting Kalli Street.
    - A 1.8m high Colorbond fence (double thickness) with 0.6m of acrylic sheeting above (total height of 2.4m) for the portion of the outdoor play area fronting Nallan Lane.

  The acoustic peer review confirms the proposed fencing provides the necessary acoustic attenuation to comply with the *Environmental Protection (Noise) Regulations 1997* (**Noise Regulations**). The acrylic sheet openings along the Kalli Street fencing provides for passive surveillance, while maintaining suitable privacy for the children.

2 Response to City's Request for Further Information

Refer to **Table 1** below for our detailed response to the City's request for further information. This should be read in conjunction with the remaining information that is included within this correspondence.

Table 1 – Response to City's RFI (via email on 4 November 2020)

City's comment	Applicant response
Noise	
Regarding vehicle noise – sound from closing car doors. The acoustic report indicates that compliance with the Noise Regulations can only be achieved if no cars use car bays numbered 1 through 11 before 7am. However, the City understand that car bays 1 through 11 (including the tandem parking bays) are intended for staff use and the centre proposes to operate from 6:30am, when night time noise limits apply. Please clarify how the parking of staff vehicles can be effectively managed in order to ensure noise levels from closing car doors will comply with the Noise Regulations. *Also, suggest numbering the car bays on the site plan, as numbered in the acoustic report.*	Please refer to the acoustic peer review contained in **Attachment 2** (specifically section 2.4). The acoustic peer review has confirmed the management required to ensure compliance (with the Noise Regulations) of cars using the car park prior to 7am. Three scenarios were modelled as part of the peer review: 1. No dwelling or noise barrier at 17 Aurea Boulevard 2. Dwelling and no noise barrier around 17 Aurea Boulevard. 3. Dwelling and noise barrier around 17 Aurea Boulevard. Until a dwelling is built on 17 Aurea Boulevard, Scenario 1 is not applicable, as the noise levels will not adversely impact a vacant lot.
The report indicates that the use of car bay numbers 12-19 will result in exceedance of the assigned noise levels when a dwelling is built on 17 Aurea Blvd, unless acoustic fencing is erected along the boundary of 17 Aurea Blvd in order for the noise from car doors of patrons attending the child care centre is to comply. It is noted that 17 Aurea Blvd is outside the application area and that no written agreement has been provided from the owner of 17 Aurea Blvd to enable this measure to be legally implemented. The City considers it would be ultra vires for the JDAP to impose such a planning requirement in these circumstances. Please clarify on what planning basis this measure has been proposed, and if necessary, revise this aspect of the application. This may be a potential fatal flaw.	For Scenario 2, seven car parking locations are available on site which comply with the night-time Assigned Levels (i.e. are able to be used prior to 7am). These are car parking bays 5b, 6a & b, 7a & b, 8 and 9 (refer to **Attachment 1** – revised development plans). Consistent with the other established dwellings in the locality, it can be reasonably expected that a solid fence (i.e. a noise barrier) will be constructed on the eastern boundary of 17 Aurea Boulevard, when the dwelling is built. The likelihood of a solid fence being provided is increased by the location of the 7 on street public car parking bays. It is expected the owner of 17 Aurea Boulevard would seek a level of privacy from these bays,

City's comment	Applicant response
	as is seen at the nearby Iona Lane to the south of the subject site. If a noise barrier fence (of unknown type and effectiveness) was constructed at 17 Aurea Boulevard, up to nineteen bays would be available which comply with the night-time Assigned Levels. These are bays 5b, 6a & b, 7a & b, 8 and 9, and bays 10 to 21. Car parking bays can be appropriately managed to ensure select bays are not used prior to 7am. The car parking bays have been numbered to correspond with the acoustic peer review. We understand that 2 staff members are required open the child care centre at 6:30am, meaning only 2-3 staff bays would be required for staff prior to 7am. The number of children arriving prior to 7am is generally low, as the peak start time is generally between 7:30am and 8:30am (i.e. not in the night time period). Children arriving prior to 7am are located together in one room under staff supervision, with no outside play permitted until after 7am. The 6.30am start time allows flexibility for select families who are required to drop their kids off earlier. We note that all parking bays are compliant for operation between 7am and 7pm.
The Transport Impact Statement (TIS) suggests that during peak hours, 39 vehicles will be attending the site (cars entering / exiting and doors opening and closing). This vehicle noise has not been considered in the acoustic report. Please provide information demonstrating how noise from this source complies with the Nose Regulations.	The acoustic peer review contained within **Attachment 2** (specifically section 2.5) has considered the noise generated by vehicles attending the site (i.e. cars entering / exiting and doors opening and closing). The proposed development can only assess the noise from vehicle within the site and not on public roads. All vehicle movements and car parking can comply with the Noise Regulations subject to the outlined management measures mentioned above (restriction of car parking).
Noise from service vehicles was not included in the acoustic report and needs to be included. The Waste Management Plan (WMP) indicates collection times need to be scheduled to reduce the impact of noise and traffic on residents. Further, the WMP indicates waste collections will need to occur 5 times per week. For traffic reasons, the TIA recommends waste collection occurs after operating hours, which are the quietest times for noise emissions. Please indicate how the collection of waste after hours will comply with the Noise Regulations.	We note the discrepancy with the original TIS, which has been modified to correctly reference waste collection to be undertaken during off-peak hours of the child care centre (i.e. between 10am and 2pm). Noise generated by waste collection / service vehicles is not specifically controlled by compliance with the Assigned Levels in the Noise Regulations. To achieve compliance with the Noise Regulations, the following measures are to be implemented by the waste collection contractor and/or service vehicles: • Refuse collection is to be carried out in the quietest reasonable and practicable manner; • Equipment used for refuse collection is the quietest reasonably available • Collection to occur between 7am and 7pm Monday-Saturday. In addition to this, the child care centre should move waste bins to and from the pickup point only between the hours of 7am and 7pm. This is commonly implemented through child care centres across the metropolitan area and part of best practice child care centre management.
Noise from the staff alfresco area has not been included in the acoustic report. Please update the report to include.	Please refer to the acoustic peer review in **Attachment 2**, where the noise from staff in the outdoor alfresco area has been assessed.

City's comment	Applicant response
	Forecasts of noise emissions from two staff members engaged in discussions in the Alfresco area were modelled, with no specific noise control measures implemented at this location. Two staff members was considered to be an accurate representation, as no more than two staff members would be on break at the same time. The forecast noise from staff members in the alfresco area was found to be significantly lower than the assigned level.
The acoustic report indicates significant exceedance of the Noise Regulations could occur from mechanical services at the site and a range of recommendations have been included, however no specific information in regards to compliance requirements has been given – eg sound power levels of equipment, recommended locations etc. While this may be addressed through planning conditions, please confirm it is practical to do so in order to comply with the Noise Regulations.	It is not uncommon for mechanical services and plant to be selected at detailed design stage. There are a range of recommendations and best practice noise mitigation measures to ensure compliance with the noise regulations. Including (but not limited to): • Silencers & attenuators. • Shielding & barriers. • Acoustic louvres. • Acoustic absorption. • Lined ductwork. • Night-time quiet mode operation. • Revised unit placements. • Revised selection of low-noise equipment. The proponent is accepting of a condition of development approval requiring a further acoustic assessment to be undertaken prior to occupation of the development to ensure compliance of mechanical plant with the noise regulations.
Traffic	
The use of tandem car bays for a child care premises can be problematic as they can be difficult to manage: where the vehicle parked in the rear bay has to move to allow the vehicle parked in front bay to leave. Please clarify how the child care operator will manage (in a practical sense) the use of the tandem bays so as to maximise convenience for staff and to minimise traffic disruption using the laneway.	Tandem parking bays are commonly provided and generally accepted where the two bays are provided for the use of a single tenancy and where the use would allow for this practice. The proposed tandem bays will be allocated for use by staff of the child care centre only and will be managed internally by the staff to avoid any potential issues. The operator is able to manage staff shifts and allocate the appropriate bays to staff who are scheduled to arrive or depart at different times.
AS2890.5 requires a minimum on-street car parking bay length of 5.4m. The site plan notes that the tandem bays are 5.0m in length (although they are measured at 5.4m and 4.6m long on the site plan) therefore does not comply with AS2890.5. It should also be noted that a B99 standard design vehicle has a length of 5.2m therefore would not fit into the tandem bays as designed. Please amend the site plan to provide compliant bay dimensions.	Tandem bays are commonly used in developments throughout the metropolitan area. While the bays do not meet the required 'on-paper' length, the bays as provided allow for the sufficient storage of two B85 design cars in tandem. Generally, a minimum of 10m total is permitted and is suitable for two B85 design vehicles. B85 is a more suitable vehicle template to be used for staff parking for a child care centre, compared to B99. There are very few B99 size vehicles (5.2m long) on the market, such a Rolls Royce. B85 is still considered a big car (i.e. a Holden Commodore, Ford Falcon, etc). It is expected the majority of staff will drive a B85 vehicle (i.e. a regular sedan or hatchback), which is still a conservative analysis.
The Waste Management Plan prepared by Rawtec (dated 9th October 2020) suggests a potential collection vehicle of up to 11m in length for a rear lift. The City has completed a preliminary swept path analysis which suggests that a Heavy Rigid Vehicle (i.e. commercial vehicles up to a length of 12.5m but larger than 8.8m)	It is acknowledged that a 12.5m long service vehicle would encroach upon existing road infrastructure. Please refer to the revised TIS in **Attachment 3**, which contains swept paths for an 8.8m service vehicle servicing the child care centre.

City's comment	Applicant response
would encroach into the existing road infrastructure, and therefore is not supported. As mentioned in the WMP "The client must confirm with the preferred waste collection contractor that it can service the development before collection can begin". Please provide a swept path demonstrating how a 12.5m rubbish truck can access the laneway within the road carriageway (not impacting on road infrastructure).	Turn path analysis undertaken in Appendix B of the TIS confirms satisfactory movements of an 8.8m waste collection truck. The service vehicle is able to access Nallan Lane (from Aurea Boulevard), traverse along Nallan Lane in a forward gear, and egress onto Kalli Street without encroaching into the existing road infrastructure. A private waste collection operator will be engaged to collect waste from the proposed development, of which an 8.8m vehicle is commonly used within their vehicle fleet. The proposed waste collection arrangement by an 8.8m service vehicle is entirely acceptable, and is supported by the swept paths in **Attachment 3**.
Please provide information regarding the commercial vehicles servicing the child care centre (eg. deliveries). The City understands that typically smaller vehicles (i.e. vans) may be used for deliveries however please ensure that the dimension of the nominated van shall be less than the dimension for a B99 vehicle (i.e. 1.94m wide and 5.2m in length). Note that if a larger design vehicle (see extract below for a Toyota Hi-Ace example) is expected then a service bay shall be provided and designed accordingly to AS2890.5 (eg. 6.4m in length for a Small Rigid Vehicle).	The child care centre operator will ensure that B99 vehicles (i.e. smaller vans) are used for deliveries. This is also part of best practice child care centre management, with smaller vehicles able to park in visitor bays for deliveries during non-peak drop off and pick up times, rather than having to provide designated delivery / service bays.
WAPC's Local Government Guidelines for Subdivisional Development suggests that a laneway has a maximum daily traffic volume capacity of 300 vehicles per day. The TIS suggests that the proposed child care centre would generate 350 vehicle trips daily (LDI's calculation suggests that the child care would generate 438 vehicle trips). This suggests that the road capacity of Nallan Lane would be exceeded by this proposed development only (i.e. not including vehicle traffic from existing and future residential dwellings). Please provide justification for exceeding the recommended daily traffic volume capacity, otherwise consider reducing the number of children for the child care centre.	It should be noted that Table 3.2 of the WAPC's *Local Government Guidelines for Subdivisional Development* does not strictly specify the capacity of the road. Rather, it lists an "indicative volume range" of 300 vehicles per day. The actual capacity of the Nallan Lane is considered to be higher (the same as an Access Street C or D) which has the same pavement width ranges as a Laneway. Even if 300 vehicles per day was a strict maximum rate to be applied, any potential adverse impacts as a result of the exceedance by 50 vehicles per day is negligible. An additional 50 vehicles per day equates to 4 vehicles per hour for the 12 hours the child care centre is open. Furthermore, laneways typically provide vehicular access to the rear of lots. Nallan Lane differs from this in that it provides access between Aurea Boulevard in the north to Kalli Street in the south. No direct access to the rear of any lots is being provided by Nallan Lane. The estimated 350 vehicle trips per day generated by the development is considered accepted, with the surrounding road network able to accommodate the additional vehicle movements.

In consideration of **Table 1** above, the City requests for additional information have been appropriately responded to, with the development plans amended as required.

3 Response to submissions

A summary of public consultation submissions was received from the City on 11 November 2020. A total of 13 submissions were received. A detailed response to the key themes raised in the submissions is provided in **Attachment 4** of this response letter.

4 Conclusion

The amended development plans, acoustic technical note / peer review and responses contained within this letter address the City's comments received on 4 November 2020 and comments received in our meeting. We respectfully request the City proceed to finalise its assessment and favourable recommendation of the application to the Development Assessment Panel.

Should you have any queries or require further clarification in regard to the above matter please do not hesitate to contact the undersigned.

Yours faithfully,



OLIVER BASSON
PLANNING CONSULTANT

Proposed Child Care Centre

Lot 263 Aurea Boulevard, Golden Bay

Transport Impact Statement

PREPARED FOR:
Accord Property

December 2020

Document history and status

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1.0 Introduction

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Accord Property with regard to a proposed child care centre (CCC) to be located at Lot 263 Aurea Boulevard, Golden Bay, in the City of Rockingham.

The subject site is located at the southwest corner of the roundabout intersection of Aurea Boulevard and Thundelarra Drive, with Kalli Street and Nallan Lane forming the southern and western boundaries of the site as shown in **Figure 1**.

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: *"A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic*[1] *and therefore would have a moderate overall impact on the surrounding land uses and transport networks"*. Section 6.0 of this report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for this development.

The subject site is currently vacant land with a total area of 2250m^2. This site is part of a neighbourhood centre precinct in the Golden Bay Structure Plan, which includes properties on all four corners of the Aurea Boulevard / Thundelarra Drive intersection. The proposed development will be accessed directly from Nallan Lane.

As shown in **Figure 1,** land use in the close proximity of the site includes Golden Bay Primary School which is located approximately 155m south of the subject site, with residential development to the west and south closer to the subject site.

The key issues that are addressed in this report include the traffic generation and distribution of the proposed development, parking provision, access and egress movement patterns.

[1] *Between 10 and 100 vehicular trips per hour*



Figure 1: Location of the subject site

2.0 Proposed Development

The development proposal is for a child care centre to be located at Lot 263 Aurea Boulevard, Golden Bay, in the City of Rockingham.

The proposed child care centre would accommodate up to 100 children with a total of 18 staff members.

The development plan shows that the car parking area of the proposed development occupies the western portion of the subject site. The car parking area is proposed along the eastern verge of Nallan Lane fronting the subject site. Therefore, vehicle access and egress to the subject site will be directly via Nallan Lane.

The proposed development provides 27 on-site parking bays which comprises of 14 tandem bays and 13 single bays inclusive of an ACROD bay.

Pedestrian access to the proposed child care centre is available from the existing footpath networks on Kalli Street, Aurea Boulevard and Thundelarra Drive. A pedestrian walkway is proposed to the east side of the car park to connect with the existing footpath network provided on Kalli Street, Thundelarra Drive and Aurea Boulevard abutting the subject site.

A bin storage area is located at the northwest side of the child care building. The proposed development plan is provided in Appendix A.

3.0 Vehicle Access and Parking

3.1 Access

Vehicle access and egress to the subject site will be via Nallan Lane which provides direct access to the car parking area that is proposed on the eastern verge of Nallan Lane as shown in **Figure 2.**

Nallan Lane forms a T intersection (left in/left out only) with Aurea Boulevard at the northern end and a full movement T-intersection with Kalli Street at the southern end.

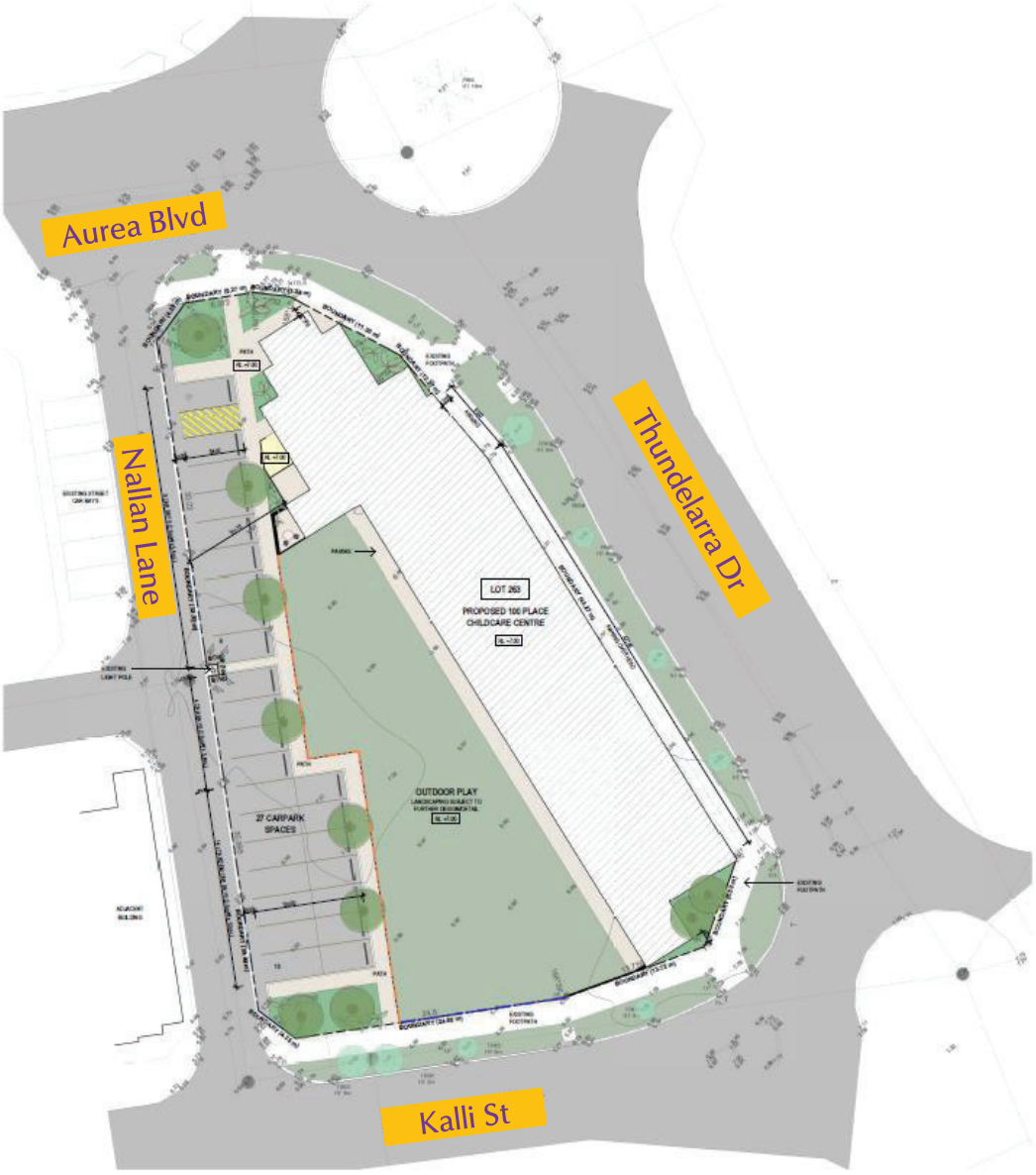


Figure 2: Access to the site

3.2 Parking Supply and Demand

The City of Rockingham Town Planning Scheme No.2 provides parking requirements for various land uses. The parking provision applicable to the proposed CCC is:

- 1 bay per employee; plus,
- 1 bay per 8 children.

The proposed child care centre will accommodate up to 100 children and 18 staff members. According to the City's Policy, the proposed child care centre requires a parking provision of 31 car parking bays. It is proposed to provide a total of 27 on-site parking bays inclusive of an ACROD bay which represents a theoretical shortfall of 4 bays.

The parking supply and demand is further discussed in the following section of the report.

3.3 Estimated Actual Parking Demand Based on Trip Generation

Transcore has undertaken a parking analysis based on the anticipated peak hour traffic generation of the proposed child care centre, to estimate the actual peak parking demand of the centre.

Section 6.0 of this report details the anticipated peak hour traffic generation of the proposed CCC. It was established that the calculated morning peak hour trip generation of the proposed CCC is 39 vehicles in and 36 vehicles out of the car park (afternoon peak hour is expected to generate less trips).

This represents a potential 39 vehicles using the child care centre car park during the peak hour.

The RTA NSW *"Guide to Traffic Generating Developments"* section on childcare centres provides commentary on childcare centre mode share, parking utilisation and parking length of stay. It should be noted that the commentary provided in the RTA guide is based on surveys of actual parking activity undertaken in New South Wales. The RTA guide indicates highest parking demand of 0.23 cars per child and the average recorded length of stay for all surveyed child care centres of 6.8 minutes.

Conservatively assuming that the length of stay for pick-up/drop-off parking for the proposed child care centre is 10 minutes, it is calculated that each parking bay can accommodate a turnover of up to 6 vehicles per hour.

It is therefore established that 7 bays (39/6 =6.5 say 7) should be reserved for pick-up and drop-off activities during peak hour periods which result in actual parking demand of 25 bays (7 bays for drop off/pick up + 18 bays for staff).

The proposed development provides a total of 27 bays inclusive of an ACROD bay which satisfies and exceeds the estimated actual parking demand of the proposed child care centre.

It should also be noted that:

- Some of the child care centre staff could potentially walk or use public transport to arrive to the site;
- There are seven on street parking bays on the western verge of Nallan Lane right opposite to the subject site and a number of embayed public parking bays on Kalli Street and Arizona Parade in the immediate vicinity of the subject site to accommodate the child care centre patrons during the peak hour pick-up and drop-off activities if required;
- Many patrons of the child care centre will be local residents, some of whom will walk their children to and from the centre;
- Some patrons of the child care centre may be employed at the nearby Golden Bay Primary School and as such would not need to utilise the centre's car park for drop-offs and pick-ups as they would have a reserved parking space at the school; and,
- The operator of the child care centre will also encourage staff car-pooling as an additional means of transport to and from the site which will further reduce the parking demand at the site.

For the reasons outlined above, it is considered that sufficient parking has been provided to meet the anticipated needs of the proposed child care centre.

4.0 Provision for Service Vehicles

A bin store is located at the north-western side of the child care building as shown in the proposed development plan in Appendix A.

It is understood that waste collection will take place on Nallan Lane by a private contractor. Waste will be collected during non – peak hour pick up and drop off time of the child care centre (i.e. between 10AM and 2PM).

The waste collection truck will be able to enter the site via Nallan Lane in forward gear, collect the waste and then exit the site via Nallan Lane in forward gear.

Turn path analysis undertaken in Appendix B confirms satisfactory movement of 8.8m waste collection truck within the site.

5.0 Hours of Operation

The proposed child care centre is proposed to operate during weekdays between 6:30AM to 6:30PM Monday to Friday.

6.0 Traffic Volumes

6.1 Existing Development Trip Generation

The subject site is currently vacant land and does not generate any traffic.

6.2 Proposed Development Trip Generation

In order to establish an accurate traffic generation rate for the proposed child care centre, traffic count surveys undertaken by Transcore at similar centres in the Perth metropolitan area were sourced.

Discussions with the respective centre managers revealed that the peak drop-offs and pick-ups for each of these centres occur between the hours of 7:00AM–10:00AM and 3:00PM–6:00PM.

From the total number of children at each of the centres on the surveyed days, the following average generation rates were established for the morning and afternoon surveyed periods:

- 7:00AM–10:00AM: 1.58 trips per child (52% in / 48% out); and,
- 3:00PM–6:00PM: 1.67 trips per child (47% in / 53% out).

From this information, the traffic generation rate for the combined period of 7:00AM–10:00AM and 3:00PM–6:00PM was calculated as 3.25 trips per child. To convert this figure to a daily generation rate, this figure was increased to 3.5 trips per child to account for any trips outside of the surveyed times. It was assumed that the daily in and out split for vehicle trips was 50/50.

Furthermore, the following peak hour generation rates were established from the surveys for the Child Care Centres:

- AM peak hour: 8:00AM – 9:00AM: 0.75 trips per child (52% in / 48% out); and,
- PM peak hour: 4:30PM – 5:30PM: 0.49 trips per child (43% in/ 57% out);

Comparison of the six-hour generation rates and the peak hour generation rates confirms that the distribution of traffic from these centres is spread over the peak periods and that full concentration of traffic does not occur in the peak hour. The AM peak hour represents 47% of the 3-hour AM peak period traffic generation and the typical school PM and road network PM peak hours represent 36% and 29% of the 3-hour PM peak period traffic generation, respectively. As such, childcare centres operate quite differently to schools as their peak period is spread out.

Accordingly, the following number of trips was estimated for the proposed child care centre, assuming a maximum scenario of 100 children being present (i.e. centre at full capacity):

- AM peak hour: 75 trips generated (39 in / 36 out);
- PM peak hour: 49 trips generated (22 in / 27 out); and,
- Daily traffic generation: 350 trips generated (175 in / 175 out).

6.3 Traffic Flow

Considering that all access to the site is available from Nallan Lane, it is concluded that all the estimated development generated traffic would arrive/ depart to and from the site via Nallan Lane and then dissipate throughout the local road network.

As with similar centres, an overwhelming majority of patrons would originate from within the local area with only a marginal number of patrons arriving from afar.

Hence, based on the general spatial distribution of existing and future residential developments in the immediate area, permeability of the local road network and the assumption that all traffic attracted to the proposed child care centre would arrive/ depart via Nallan Lane, the child care centre's traffic distribution adopted for this analysis is as follows:

- 25% to/from the west on Aurea Boulevard;
- 40% to/from the east on Aurea Boulevard;
- 10% to/from the north on Thundelarra Drive; and,
- 25% to/from the south on Thundelerra Drive.

Figure 3 illustrates the trip generation and traffic distribution over the local road network for the proposed child care centre.

The vehicles expected to access the site are likely to be private passenger cars with a portion of 4WD.



Figure 3. Total traffic generated by the proposed development – Weekday AM, weekday PM peak hours and daily

6.4 Impact on Surrounding Roads

The WAPC Transport Impact Assessment Guidelines (2016) provides guidance on the assessment of traffic impacts:

"As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis."

It is clear that the traffic increase from the proposed child care centre development would be significantly less than the critical threshold (100vph per lane). As detailed in Section 6.2, the proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact of the development traffic on the surrounding road network will not be significant.

7.0 Traffic Management on the Frontage Streets

Nallan Lane, west of the subject site, is constructed as 6.0m wide two-lane undivided road featuring on street parking to the north-western side of the road as shown in **Figure 4.** It is classified as an *Access Road* in the Main Roads WA *Functional Road Hierarchy* and operates under the built-up area speed limit of 50km/h.

Nallan Lane forms T-intersections with Aurea Boulevard to the north and Kalli Street to the south.



Figure 4: Northbound view along Nallan Lane

Thundelarra Drive, east of the subject site, is constructed as a two-lane road with landscaped median. It features 2.0m wide shared path and on street cycle lanes on either side of the road as shown in **Figure 5**. It is classified as an *Access Road* in the Main Roads WA *Metropolitan Functional Road Hierarchy* and operates under the default, built-up area speed limit of 50km/h.

Thundelarra Drive forms roundabout intersections with Aurea Boulevard and with Kalli Street/Talisker Bend in the immediate vicinity of the subject site.

Pedestrian crossing facilities with refuge islands are available on all four legs of the roundabout intersections of Aurea Boulevard/ Thundelarra Drive and Thundelarra Drive/Kalli St/Talisker Bend.



Figure 5: Southbound view along Thundelarra Drive

Kalli Street, south of the subject site, is constructed as a 6.0m wide single carriageway street with pedestrian paths on either side of the road as shown in **Figure 6**. It also features embayed car parking on both sides of the road. It is classified as an *Access Road* in the Main Roads WA *Metropolitan Functional Road Hierarchy* and operates under the default, built-up area speed limit of 50km/h.

Kalli Street a forms roundabout intersection with Thundelarra Dr/Talisker Bend to the east and a T-intersection with Arizona Parade to the west.



Figure 6: Westbound view along Kalli Street

Aurea Boulevard, north of the subject site, is constructed as a two-lane road with landscaped median. It features embayed on-street car parking and on-street cycle lanes on either side of the road as shown in **Figure 7**. Pedestrian paths are also provided on both sides of the road. It is classified as a *Local Distributor Road* in the

Main Roads WA *Metropolitan Functional Road Hierarchy* and operates under the default built up speed limit of 50km/h.



Figure 7: Westbound view along Aurea Boulevard

8.0 Public Transport Access

Public transport services in the vicinity of the subject site are illustrated in **Figure 8**. The closest bus service to the subject site is bus route 558 which traverses along Warnbro Sound Avenue, east of the subject site. Bus route 558 runs between Rockingham Station to Mandurah Bus Station via Warnbro Station.

The nearest bus stop is located on Warnbro Sound Avenue approximately 170m north east of the subject site which is accessible via the existing footpath network pedestrian crossing facility.

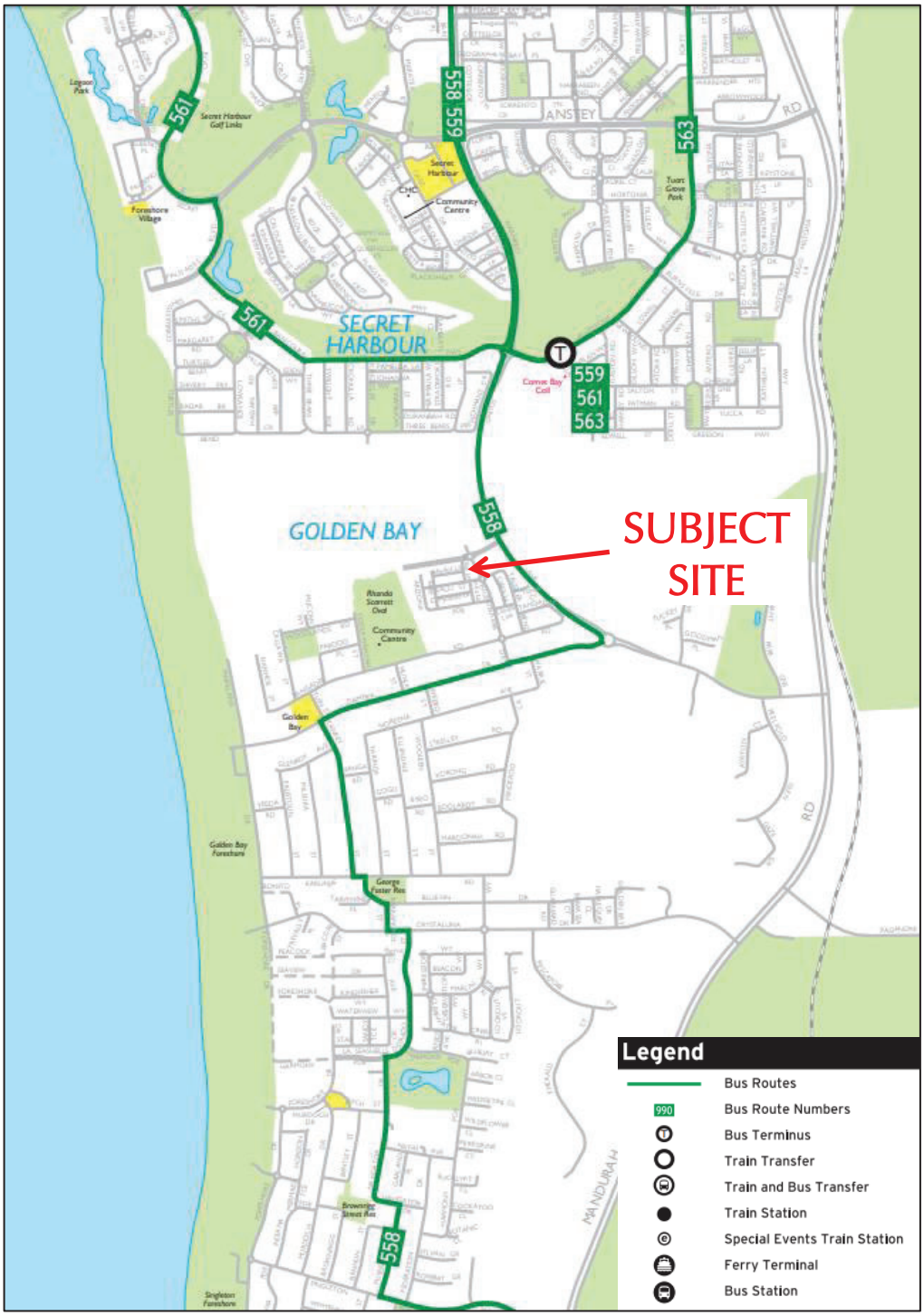


Figure 8: Public transport services (Transperth Maps)

9.0 Pedestrian Access

Pedestrian access to the proposed development is available directly from the existing external footpath network on Kalli Street, Aurea Boulevard and Thundelarra Drive.

10.0 Cycle Access

Existing bicycle facilities in the vicinity of the subject site are shown in **Figure 9,** which is sourced from the Department of Transport's Perth Bike Map series. This map was prepared in 2016 and shows that shared paths were already provided on Warnbro Sound Avenue and Dampier Drive.

However, shared paths are now also available on Aurea Boulevard, Thundelarra Drive and Kalli Street abutting the subject site. On-street cycle lanes are available on either side of Aurea Boulevard and Thundelarra Drive to the north and east of the subject site.

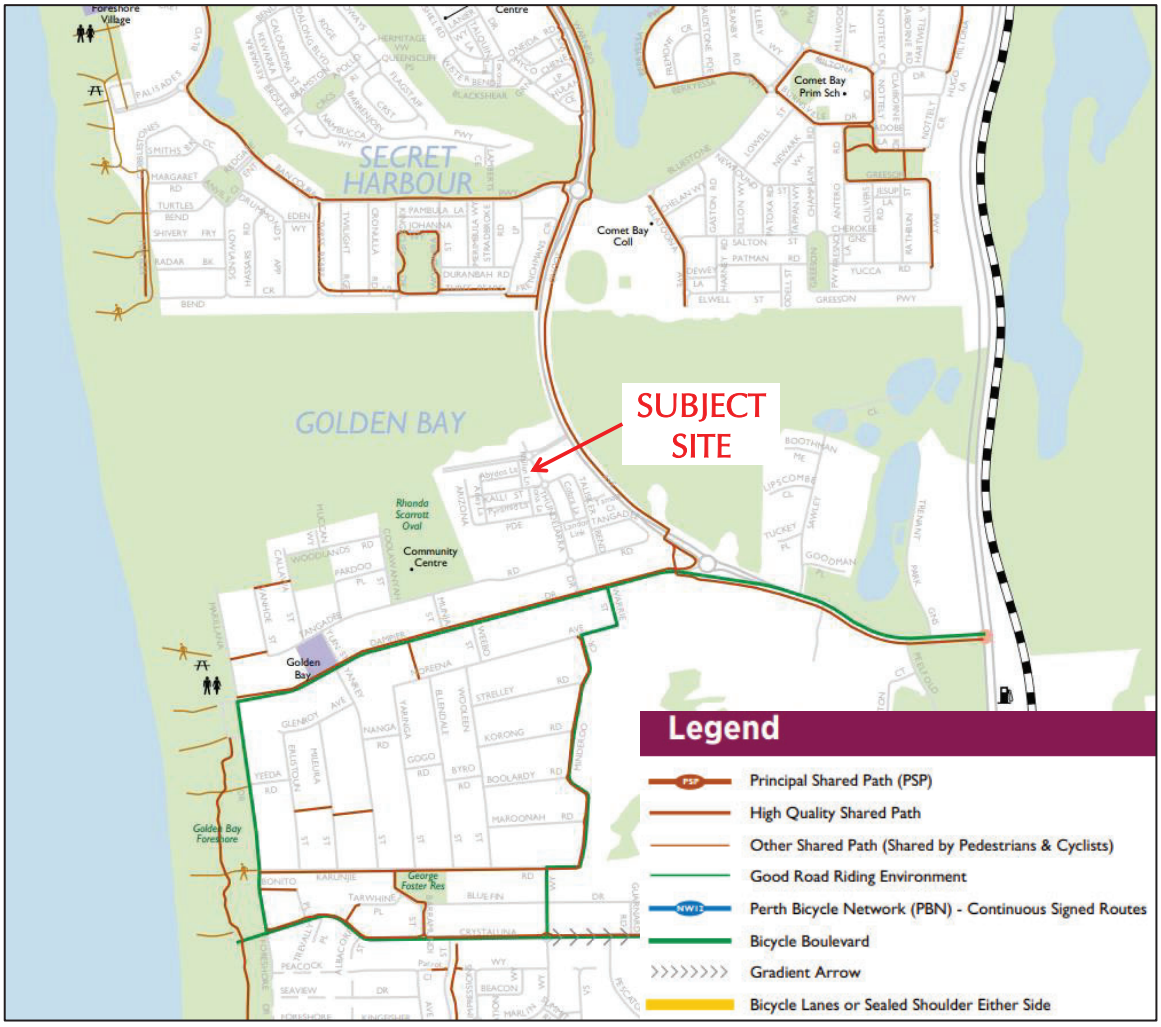


Figure 9: Perth bike map series – local area

11.0 Site Specific Issues

No site-specific issues have been identified for the proposed child care centre.

12.0 Safety Issues

No particular safety issues have been identified for the proposed child care centre.

13.0 Conclusions

This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Accord Property with regard to a proposed child care centre to be located at Lot 263 Aurea Boulevard, Golden Bay, in the City of Rockingham.

The subject site is vacant land with a total area of 2250m^2. The subject site is located at the southwest corner of the roundabout intersection of Aurea Boulevard and Thundelarra Drive, with Kalli Street and Nallan Lane forming the southern and western boundaries of the site

Vehicle access and egress to the subject site will be via Nallan Lane which provides direct access to the car parking area that is proposed on the eastern verge of Nallan Lane.

Based on the assessment undertaken in this report, the proposed parking supply of 27 bays inclusive of an ACROD bays represents a 4-bay shortfall under the City's parking policy but is shown to be sufficient to cater for the actual parking demand expected to be generated by the proposed child care centre and should therefore be considered satisfactory.

The site features good connectivity via the existing road network, path network and has convenient access to the existing public transport service on Warnbro Sound Avenue.

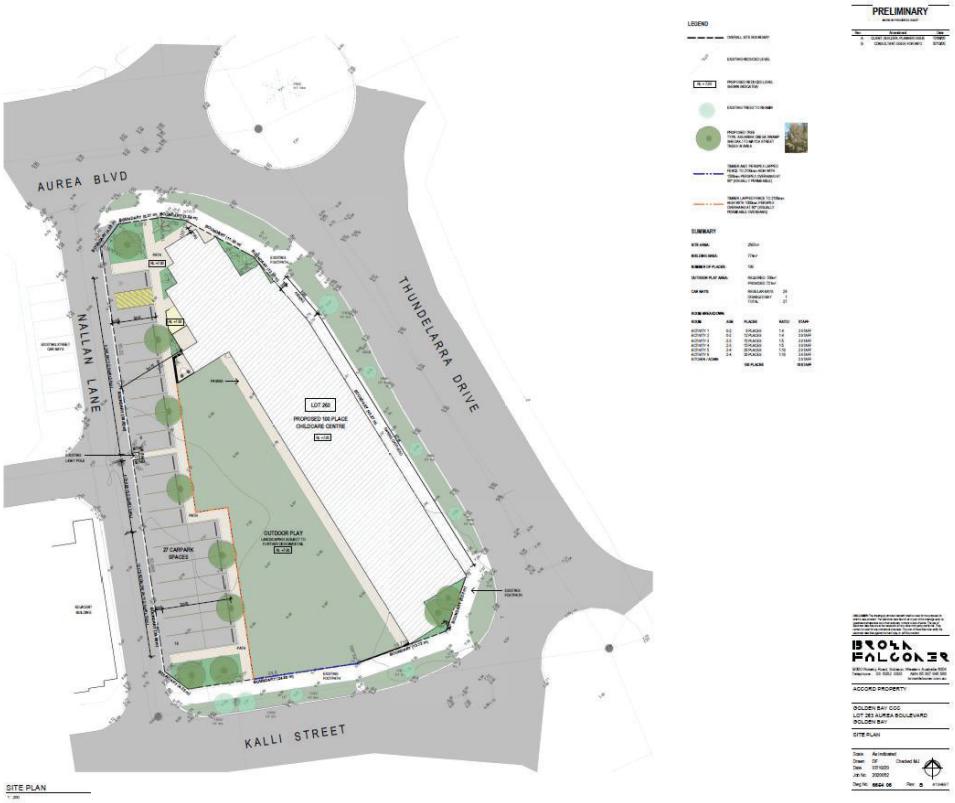
The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is estimated to be in order of 350 daily trips with 75 AM and 49 PM peak hour trips (total of both inbound and outbound movements) respectively. Accordingly, the traffic generation of the proposed development is relatively low and as such would not have significant impact on the surrounding road network.

No particular transport or safety issues have been identified for the proposed child care centre development.

Therefore, it is concluded that the findings of this Transport Impact Statement are supportive of the proposed child care centre.

Appendix A

PROPOSED DEVELOPMENT PLAN

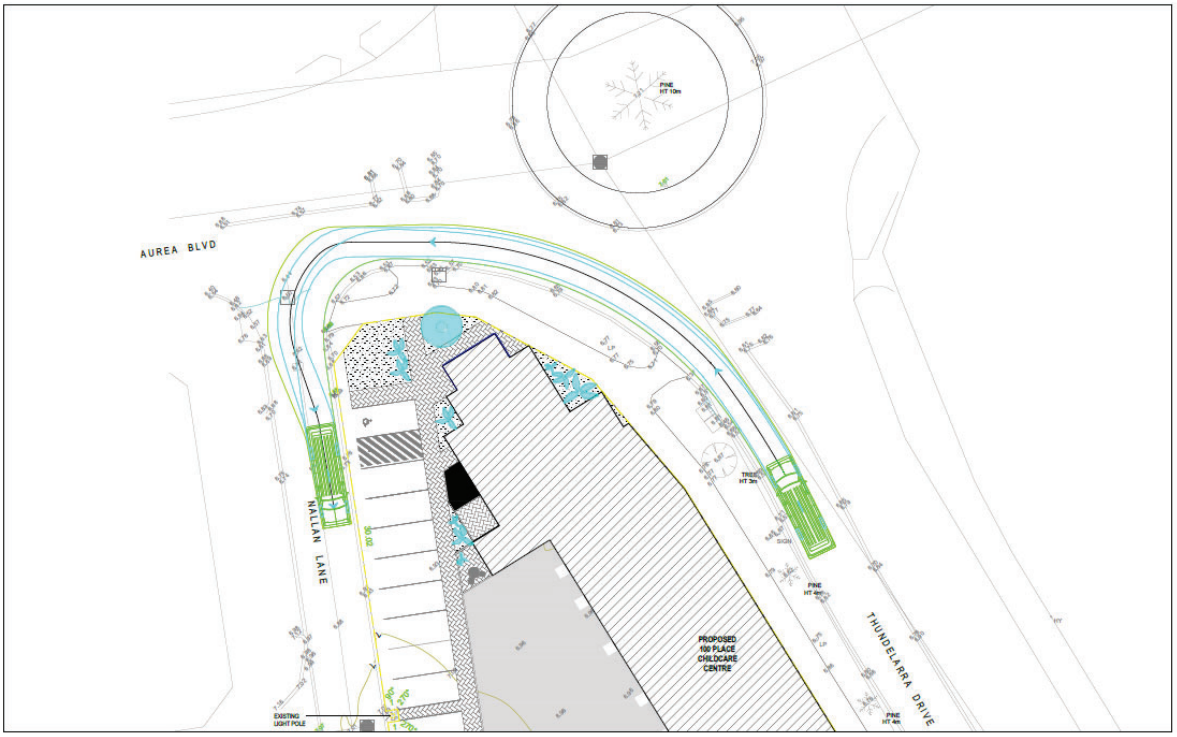

AUREA BLVD
THUNDELARRA DRIVE
NALLAN LANE
KALLI STREET
LOT 263
PROPOSED 150 PLACE CHILDCARE CENTRE
OUTDOOR PLAY
27 CARPARK SPACES
LEGEND
SUMMARY
PRELIMINARY
ACCORD PROPERTY
GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY
SITE PLAN

SITE PLAN


PRELIMINARY
LEGEND
SUMMARY
KALI STREET
NALLAN LANE
THUNDELARRA DRIVE
OUTDOOR PLAY
ACTIVITY 1
ACTIVITY 2
ACTIVITY 3
ACTIVITY 4
ACTIVITY 5
ACTIVITY 6
BATH
PREP
ST
EX. ST
ALFCO
DRY
RMS
LDRY
KITCHEN
LAT
POWER
ENTRY
STAFF
SLEEP
MEET
OFFICE
REC
PLAN
PASSAGE
BROLA FALCONER
ACCORD PROPERTY
GOLDEN BAY CCC
LOT 383 AUREA BOULEVARD
GOLDEN BAY
FLOOR PLAN
FLOOR PLAN

Appendix B

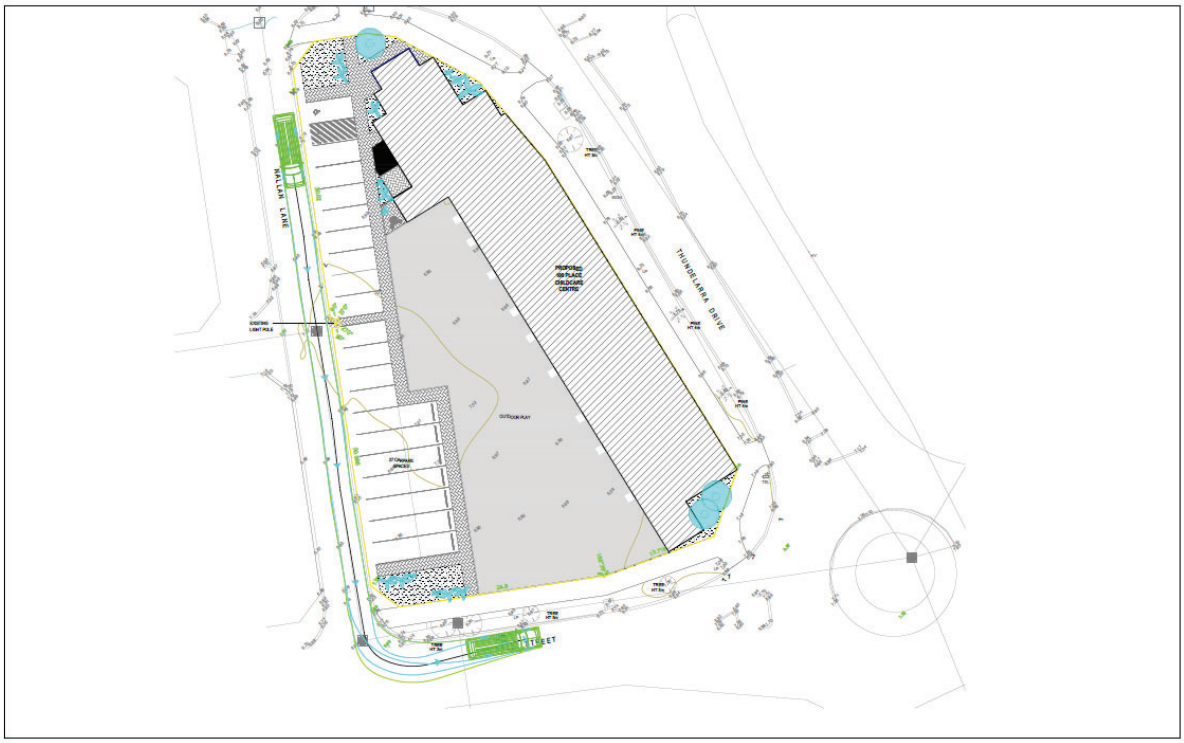
TURN PATH ANALYSIS



Lot 263 Aurea Boulevard, Golden Bay
Austroads 2013: 8.8m Service Vehicle
Service vehicle entry

LEGEND
Vehicle Body
Wheel Path

t20.209.sk03
5/11/2020
Scale: 1:250 @ A3



Lot 263 Aurea Boulevard, Golden Bay
Austroads 2013: 8.8m Service Vehicle
Service vehicle exit

LEGEND
Vehicle Body
Wheel Path

t20.209.sk04
5/11/2020
Scale: 1:350 @ A3

Summary of Submissions

Noise
Submission: Concern that noise from the proposed child care premises (ie noise from children playing, vehicle noise and mechanical plant noise) will adversely impact on surrounding residential amenity. This is a particular concern for the residential property owner at 10 Kalli Street which is reported to be the most potentially affected property.
Applicant's Response: The initial Environmental Noise Assessment prepared by Lloyd George Acoustics demonstrated compliance of the proposed child care centre with the *Environmental Noise Regulations 1997* subject to measures / recommendations. The acoustic peer review prepared by Reverberate also confirmed these findings, while suggesting revised fencing treatments which also comply with the Noise Regulations. Reverberate Consulting undertook a site visit to determine the current height and state of noise barriers at the nearest receptors. This was particularly relevant for 10 Kalli Street, being the closest and potentially most affected existing residence. The existing Colorbond fence on Nallan Lane facing the proposed child care centre was found to be in good condition, with no noticeable gaps or noise leakage paths. The fence was measured to be 1.8m high, on a masonry retaining wall varying between 330 and 180 mm high above the Nallan Lane kerb. The ground level at 10 Kalli St was approximately 150 mm lower than the top of the masonry retaining wall meaning the effective noise barrier height is approximately 1.95m to the residence at 10 Kalli Street (instead of the previously modelled 1.6m high). The increased barrier height results in a reduction in child care noise reaching 10 Kalli Street from children playing outside, mechanical services and car doors closing.
Submission: Concern about the robustness of the applicant's Acoustic Report, including the noise modelling assumptions used; the practicality and enforceability of the recommended noise attenuation measures.
Applicant's Response: The initial Environmental Noise Assessment prepared by Lloyd George Acoustics demonstrated compliance of the proposed child care centre with the *Environmental Noise Regulations 1997* subject to measures / recommendations. To respond to community concerns, an acoustic peer review was prepared by Reverberate to provide an additional level of robustness in the reporting, ensuring the proposed fencing treatments provide sufficient acoustic attenuation and no adverse amenity impacts to nearby residences by way of noise. The peer review confirmed the findings of the Lloyd George Acoustics report, while suggesting revised fencing treatments which also comply with the Noise Regulations. The fencing recommendations made by Reverberate have been incorporated into the revised development plans. Accordingly, the proposed development will have no adverse impacts on the amenity of the locality from a noise generation perspective.

The proposed fencing to the outdoor play area has been updated to reflect the outcomes of the acoustic assessment and further modelling. The only management measure required to ensure compliance with the Noise Regulations is the restricted use of select parking bays prior to 7am. Post 7am, all car parking bays are compliant with the assigned levels.

Until a dwelling is built at 17 Aurea Boulevard, up to 19 car parking bays are available on site which comply with the night-time assigned levels (i.e. are able to be used prior to 7am). Once a dwelling is built (assuming no acoustic fence is constructed) seven car parking locations are available for use prior to 7am. These are car parking bays 5b, 6a & b, 7a & b, 8 and 9.

Submission:

To address the assigned noise level exceedances, the Acoustic Report recommends the installation of 2.1m/2.4m high acoustic fencing (with additional height overhangs) along the western and southern boundaries of the outdoor play area. Concern that a 'garrison' type wall of this magnitude does not represent good quality design and should be reconsidered.

Applicant's Response:

Fencing surrounding the outdoor play area has been revised following the fencing recommendations made by Reverberate Consulting. The development now proposes:

- A 2.57m high masonry wall with acrylic sheet openings for the portion of the outdoor play area fronting Kalli Street.
- A 1.8m high Colorbond fence (double thickness) with 0.6m of acrylic sheeting above (total height of 2.4m) for the portion of the outdoor play area fronting Nallan Lane.

The proposed fencing provides the necessary acoustic attenuation to comply with the Noise Regulations and ensure no adverse amenity impacts by way of noise are experienced by nearby dwellings. The acrylic sheet openings along the Kalli Street fencing provides for passive surveillance, while maintaining suitable privacy for the children.

The acrylic sheeting on top of the Colorbond fencing fronting Nallan Lane reduces the perceived height of the fencing for both children playing outside and its appearance to the streetscape. Fencing along both frontages will be softened by landscaping.

Submission:

To attenuate noise from car doors closing, the Acoustic Report recommends the installation of an acoustic wall on 17 Aurea Boulevard when a dwelling is constructed on that land in the future. Concern about the legal ability to implement this measure, given this land is outside of the development application area.

Applicant's Response:

Please refer to the response provided above.

Until a dwelling is built at 17 Aurea Boulevard, up to 19 car parking bays are available on site which comply with the night-time assigned levels (i.e. are able to be used prior to 7am). Once a dwelling is built (assuming no acoustic fence is constructed) seven car parking locations are available for use prior to 7am. These are car parking bays 5b, 6a & b, 7a & b, 8 and 9.

Consistent with the other established dwellings in the locality, it can be reasonably expected that a solid fence (i.e. a noise barrier) will be constructed on the eastern boundary of 17 Aurea Boulevard, when the dwelling is built. Until such a time, the use of parking bays prior to 7am can be appropriately managed to ensure no adverse noise impacts on nearby dwellings.

Submission:

The Traffic Impact Statement indicates that the 7 existing car bays on the western side of Nallan Lane will likely be used by parents dropping off/ collecting children. Noise from this source is not accounted for in the Acoustic report.

Applicant's Response:

An assessment of vehicle noise from the existing public parking bays has not been undertaken, as the proponent is not in control of these bays or the vehicles parking in them. The public car bays are under the jurisdiction of the City of Rockingham. It is up to the City whether they wish to restrict parking in these bays prior to 7am.

The proposed development provides sufficient bays to accommodate both staff and visitors, with use of the 7 existing bays not required (especially prior to 7am).

Traffic

Submission:

Concern about traffic generated by the childcare premises causing congestion and traffic safety issues in Nallan Lane, as:

- Nallan Lane is designed as a laneway and provides rear access to the R40 residential land to the west. The applicant's Transport Impact Statement report does not adequately assess the impact of the proposal on this residential traffic.
- Vehicles using the proposed car parking area will need to reverse manoeuvre into the laneway, which is also used by residential traffic;
- In the case of staff vehicle parking, additional manoeuvring is required due to the tandem car parking arrangement proposed. This is not considered to be a practical arrangement.
- The Traffic Impact Statement acknowledges that the 7 existing parking bays on the western side of Nallan lane are likely to be used by traffic associated with the proposed childcare centre. This is considered inappropriate as the bays are intended for the use of visitors to the rear-loaded residential lots to the west.

Applicant's Response:

The proposed development will not generate high traffic volumes, with approximately 75 and 49 vehicles during the weekday AM and PM peak hours, respectively. This level of traffic generation is relatively minimal and falls within the threshold of a Transport Impact Statement as set out by the WAPC guidelines.

Nallan Lane is able to accommodate the traffic generated by the proposed development, as indicated in the TIS. Nallan Lane is a low volume, low speed traffic environment, so the parking manoeuvres will be able to be undertaken safely without any significant traffic impact.

The TIS establishes that the parking demand of the proposed child care centre does not rely upon the additional 7 existing parking bays on Nallan Lane. If residential visitor access to these bays becomes an issue in the future, this can be addressed by the City.

Submission:

Concern about the robustness of the applicant's Transport Impact Statement report, including the reported assumptions as well as perceived errors and omissions.

Applicant's Response:

The TIS has been prepared by Transcore (a suitably qualified traffic engineering consultant) in accordance with WAPC guidelines for a development generating this level of traffic. More detailed reporting (such as a Traffic Impact Assessment) would be appropriate for a larger scale development generating a higher level of traffic. The level of reporting provided within the TIS is appropriate for this development and in accordance with the WAPC's Transport Impact Assessment Guidelines.

Submission:

There is a lack of parking provided for the child care premises given the number of staff and children proposed, generating the potential for overflow parking to occur on Abydos Lane and in the surrounding streets.

Applicant's Response:

Based on 100 children and 18 staff, a total of 31 parking bays are required (of which 18 must be dedicated to staff). The proposed development provides 18 staff bays and 9 visitor bays onsite, with one accessible bay provided. Accordingly, a 4 bay 'on paper' car parking shortfall is proposed.

The estimated morning peak hour trip generation of the child care centre is 39 vehicles in and 36 vehicles out of the car park. This represents a potential 39 vehicles using the child care centre car park during the peak hour. This is the assessed 'worst case' usage of the car park during the peak hour.

The RTA NSW "Guide to Traffic Generating Developments" indicates an average recorded length of stay of 6.8 minutes for all surveyed child care centres. Conservatively assuming that the length of stay for pick-up/drop-off parking for the proposed child care centre is 10 minutes, it is calculated that each parking bay can accommodate a turnover of up to 6 vehicles per hour.

Therefore, a minimum of 7 visitor parking bays (39 vehicles / 6 vehicles = 6.5 bays) should be reserved for drop-off and pick-up activities peak hour periods. This results in an actual parking demand of 25 bays (7 visitor +18 staff bays = 25 bays). The proposed development provides 6 designated visitor parking bays to meet the actual visitor parking demand and 17 bays to accommodate the maximum of 17 staff on site at any one time. The reduced visitor bay demand of 7 bays, means the provision of 27 bays could adequately accommodate parking needs of staff and visitors at capacity. Efficient use of space is maximised through the inclusion of 14 tandem bays, for staff use.

Property Values

Submission:

Concern that the proposed child care premises will adversely impact surrounding property values.

Applicant's Response:

Property values pre or post development is not a valid planning consideration.

Proposed Landuse

Submission:

Concern that the proposed child care premises is not an appropriate use for this site.

Applicant's Response:

The Child Care Premises land use is a 'D' (Discretionary) use within the Commercial zone. The use is therefore capable of being approved, subject to the exercise of discretion by the decision maker.

The proposed child care centre use is entirely appropriate and suitable for establishment on the subject site for the following reasons:

- The proposed child care centre will provide essential child care and early learning services to the established and growing Golden Bay community within an existing community/commercial precinct.
- The proposed child care centre is ideally located at the intersection of Thundelarra Drive and Aurea Boulevard to provide good connectivity from the surrounding Golden Bay locality, and is located in close proximity to other services in the area including Golden Bay Primary School and the emerging commercial centre.

- The design of the development is sympathetic to the surrounding planned commercial context and ensures an active interface with the street. Building bulk has been concentrated at the northern portion of the subject site to present an attractive entrance statement to the commercial centre at the intersection of Thundelarra Drive and Aurea Boulevard.
- The proposed development has been deliberately designed and configured to minimise any intrusive impact on the amenity of surrounding residential properties. In this regard, an acoustic report demonstrates compliance with the relevant Environmental Noise Regulations.
- The proposal is supported by a Traffic Impact Statement which demonstrates it is entirely acceptable from a traffic and access point of view.

For the reasons outlined above, the proposed child care premises is entirely appropriate for development on the subject site.

Submission:

Concern that it would not be viable to approve a second childcare premises in close proximity to another approved childcare premises proposed on nearby land (Lot 716 Thundelarra Drive).

Applicant's Response:

The viability of the proposed child care centre is a commercial consideration and not a valid planning consideration. There is clearly a demand for child care centres in the locality.

The proximity of other child care centres in the locality has been considered as part of commercial due diligence. The proposed child care facility is sufficiently separated from other centres, with the closest centre being Great Beginnings Secret Harbour, located approximately 1.2km from the site. Please refer to the additional justification for child care centre demand below.

Planning Framework

Submission:

The application is inconsistent with the City's Planning Policy 3.3.5 Childcare Premises, in that:

- Approval of this application will result in an over-supply of this service in the vicinity of Golden Bay. Policy provisions are not addressed in the application, which deal with the location and distribution of childcare centres, and the need to ensure that childcare centres provide the maximum amount of benefit to the community through their distribution.
- There is an approved child care premises proposed nearby on Lot 716 Thundelarra Drive and the application does not adequately address the policy requirement which states *"where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises may have an adverse impact on the level of service to the community by similar existing or approved facilities, the proponent will be required to provide further information in regard to the level of existing services in the locality, proximity to other child care premises, population catchments for the proposed child care centre premises and the number of primary schools and kindergartens in the locality, in relation to the development of the proposed new facility."*
- The proposed parking is inadequate to comply with the policy.

Applicant's Response:

The proposed child care centre will not result in an oversupply of child minding services in Golden Bay. There is clearly a demand for child care centres in the locality, with the proximity of other child care centres in the locality considered as part of commercial due diligence.

Using the latest ABS census data, we provide the following summary of the evident demand:

- The suburbs of Secret Harbour, Golden Bay and Singleton form a catchment in which there are currently 1,769 persons aged 0-4 years. In this same catchment area there are currently only 4 childcare centres. These are the Goodstart Early Learning Secret Harbour (97 places), Great Beginnings Secret Harbour (92 places), Tiny Timms Singleton (63 places) and Small Friends Playschool Singleton (45 places). Therefore, there is only a total of 297 licensed childcare places within this catchment area servicing the 1,769 children. This forms a ratio of 5.96 0-4 year old's per licensed place (a high demand ratio). An average demand ratio typically sits in the 3-4 range. Even adding the 105 licensed places (proposed development) into this catchment only brings the ratio down to 4.4 0-4 year old's per licensed place, indicating there is still demand incorporating the proposed development. In addition, if we include the 92 place centre across the road into the equation, the demand ratio will be 3.58 0-4 year old's per licensed place, a ratio within the range operators find acceptable and sustainable.
- The suburb of Golden Bay forms a catchment in which there are currently 396 persons aged 0-4 years of age, where there are currently no existing childcare centres in the entire suburb of Golden Bay. If we apply the numbers to the suburb there will be a total of 105 places within this catchment area servicing the 396 children. This forms a ratio of 3.77 0-4 year old's per licensed place, this is at the higher end of an average demand ratio, indicating again that this area is undersupplied but also capable of servicing the proposed development.
- Golden Bay and Singleton present good population growth numbers especially following the national and state home builder grants. The majority of these are being used by young families or young couples looking to start a family. This will bring more children to the area and increase the demand for licensed places in this area in the future.

In summary, all catchment area's surrounding the proposed development are undersupplied for childcare places, supporting the proposed development from a community needs perspective.

The City's *Local Planning Policy 3.3.5 - Child Care Premises* acknowledges there is growing demand for child care facilities in all parts of the City, and this demand is expected to continue given the current and expected urban development being experienced. Noting Golden Bay is currently undergoing substantial residential subdivision and development, the proposed development is entirely consistent with this policy position.

The proposed supply of parking has been demonstrated to be sufficient and is supported by a TIS.

Submission:

The proposal does not comply with the Golden Bay Neighbourhood Centre Local Development Plan requirements, in that:

- The land is identified on the LDP for medium density grouped housing;
- The access and parking arrangements proposed are inconsistent with the LDP;
- The proposed development does not provide an adequate continuous activated street frontage;
- The Indicative Development Plan (contained within the LDP) identifies a childcare premises use on Lot 716 Thundelarra Drive and residential development on the subject site.

Applicant's Response:

An assessment against the provisions of the Detailed Area Plan was provided in the development application report, with the proposed development found to be largely consistent.

It is noted in the indicative development plan that the annotation of specific uses in the plan is to illustrate potential outcomes and does not constitute a requirement for specific land uses in specific

locations. The indicative development plan is, by virtue of its name, indicative. It provides an indication of the built form and possible land uses that could arise from the Detailed Area Plan.

The access and car parking arrangements have been assessed within the TIS and are considered acceptable. Access and car parking is not inconsistent with the Detailed Area Plan, with access from Nallan Lane.

An active frontage with a nil setback provided to Thundelarra Drive, with use of glazing and a northern entry statement. Awnings for pedestrian cover are provided to the majority of the Thundelarra Drive frontage. This is consistent with main street design.

The Detailed Area Plan, although designating the subject site for future medium density housing, is able to be departed from. The City are supportive of a child care centre on the subject site (subject to appropriate design) and there is a clear demand for child care services in the locality. For the reasons outlined above, there are strong merits for a minor departure from the Detailed Area Plan.

REVERBERATE
CONSULTING

Friday, 4 December 2020

Reference: P191040LT1 Rev 1.docm

Mr Lance Meyer
806/147 Pirie Street
Adelaide SA 5000

Dear Mr Meyer,

Peer Review – Golden Bay Childcare

Reverberate has undertaken a Peer Review of an acoustic report entitled
Childcare Noise Assessment - Lot 263 Thundelarra Drive, Golden Bay, Ref: 20085677-01.docx
Dated 25/09/20, by Lloyd George Acoustics [LGA]

This review was undertaken to challenge the robustness of the LGA report and to note any specific areas of concern that arise. During the course of this review, feedback was received from the City of Rockingham, requesting further information on various aspects covered by the LGA report. This Peer Review addresses the City's requests

The principal tasks of this review were to assess the noise impact from the following sources:

- Children playing outdoors
- Carpark noise emission consisting of car doors, vehicle movement and engine idling
- Mechanical plant noise emission
- Staff in the outdoor alfresco area
- Waste Collection

This memorandum summarises our findings.

1.0 SUMMARY

The noise impact of the following sources has been considered in the LGA report

- Children playing outdoors
- Carpark car door closing noise emission
- Mechanical plant noise emission

Overall, the noise assessments in the LGA report are supported by our review. There are some inconsistencies in LGA which are discussed in the following Section.

Of the conclusions drawn by LGA it was found that a noise barrier is not required at 17 Aurea Blvd to enable pre-7am activity in the carpark and at the site. This conclusion is based on our site visit and ground-truthing and is discussed below.

The overall noise emission from the childcare centre site can be controlled to meet the requirements of the Environmental Protection (Noise) Regulations 1997. On this basis we consider the potential noise emissions from the site acceptable.

Specific items from the LGA report are discussed in Section 2 below.

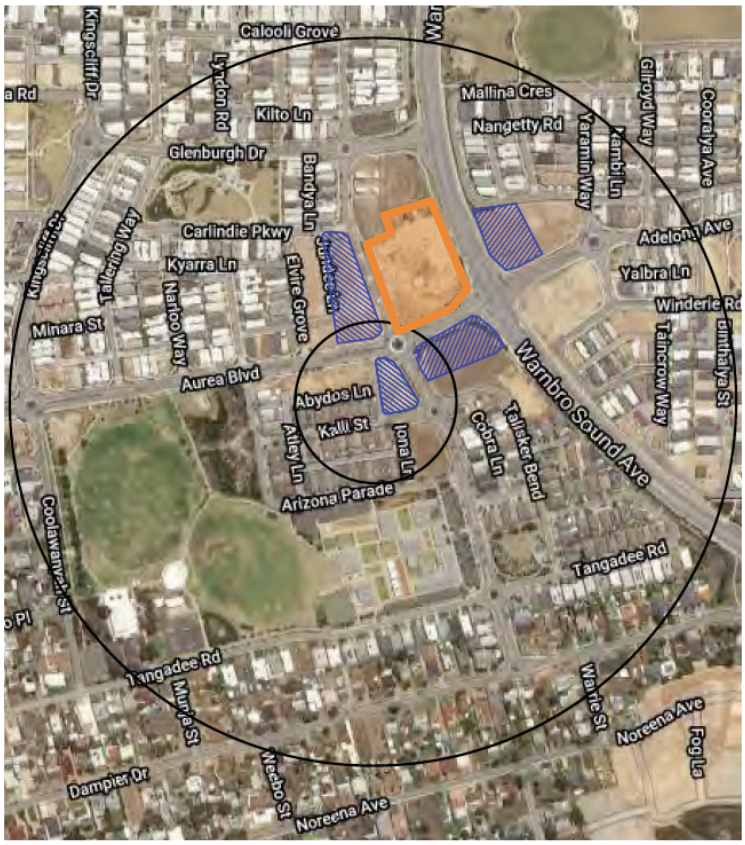
For the reasons outlined in this summary we recommend approval of the childcare centre development.

2.0 DETAILED ASSESSMENT

2.1 Assigned Levels

LGA in their assessment of Assigned Levels summarised the extent of commercial areas in their report[1]. This has been reproduced below in Figure 1. The LGA identified commercial areas are shown in blue. An additional, commercially zoned parcel of land (Lot 622 on DP 408508) was absent in the LGA assessment. This parcel is shown in orange below.

Figure 1- Golden Bay Childcare Centre – Land Use Map



It was found that the Assigned Levels for residences along Kalli St remain unchanged by this discrepancy, but increase by 1 dB for the (future) dwelling at 17 Aurea Blvd. These Assigned Levels, and corresponding calculations are shown in Table 1 and Table 2 below.

[1] LGA, Figure 2-1, page 6

Table 1 – Assigned Levels – #17 Aurea Boulevard

Receiving Premises	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise Sensitive Premises - Highly Sensitive	0700 to 1900 hours Monday to Saturday	47	57	67
	0900 to 1900 hours Sunday and public holidays	42	52	67
	1900 to 2200 hours all days	42	52	57
	2200 hours on any day to 0700 hours Monday to Saturday or to 0900 hours Sunday and public holidays	37	47	57
Noise Sensitive Premises – any area other than highly sensitive area	All hours	60	75	80

Table 2 – Influencing Factor Calculations – #17 Aurea Boulevard

Type of Land	450m Radius	100m radius	Total	
Industrial Land	0%	0%	0.0	dB
Commercial Land	5%	28%	1.6	dB
Transportation Factor			0	dB
TOTAL Influencing Factor			**2**	**dB**

By way of reference, the L_{A10} daytime Assigned Level for childcare noise emission, and/or mechanical services noise emission are then as follows:

Location	Assigned level
10 Kalli St	46 dB
17 Aurea Blvd (Prior to construction of a dwelling)	60 dB
17 Aurea Blvd (after dwelling construction)	47 dB

Likewise, the L_{Amax} night-time Assigned level for pre-7am car door closing in the Childcare carpark are:

Location	Assigned level
10 Kalli St	56 dB
17 Aurea Blvd (Prior to construction of a dwelling)	80 dB
17 Aurea Blvd (after dwelling construction)	57 dB

2.2 Ground Truthing

Reverberate undertook a site visit to determine the current height and state of noise barriers at the nearest receptors. This is particularly relevant for 10 Kalli St, being the closest and potentially most affected existing residence.

The noise barrier on Nallan Lane (Figure 2), facing the proposed childcare centre was found to be in good condition, with no noticeable noise leakage paths.

The barrier was measured to be 1.8 m high and sat on a masonry retaining wall varying between 330 and 180 mm high above the laneway kerb. The height variation was due to the slight slope in this area. The ground level at 10 Kalli St was approx. 150 mm lower than the top of the masonry retaining wall. The effective noise barrier height was therefore approx. 1.95 m to the residence at 10 Kalli St, not 1.6 m as modelled by LGA[2].

This increase in barrier height results in a reduction in childcare noise reaching 10 Kalli St compared to that forecast by LGA. This improved barrier reduces noise from children, mechanical services, carpark and other noises from the childcare.



Figure 2- 10 Kalli St boundary barrier to Nallan Lane

[2] LGA report Section 3.2, page 8

2.3 Noise From Children Outdoors

LGA has assessed, among other scenarios the noise from all children playing simultaneously outdoors. The Centre caters for a total of 100 children, with the following breakdown:

Age	Number of Groups	Total numbers
0 – 2 yo	2 groups	20 children
2 – 3 yo	2 groups	30 children
3 – 5 yo	2 groups	50 children
TOTAL	6 groups	100 children

It is unlikely that a childcare centre would typically operate with all children outside at once. From information received from the centre this would likely occur only very rarely, the typical operating pattern being a smaller number of children outdoors at once. From our experience it is more common that approx. 50 % of the children are outdoors at any particular time. We have nevertheless reviewed the noise impact based on 100% outdoor occupancy. Such a conservative assumption introduces a 'safety factor' of approx. 3 dB to the analysis, whereby the actual noise from the childcare centre is approx. 3 dB lower than that presented in the noise forecasts in this review, or by LGA.

It is also noted that LGA have used an 'area source' to forecast noise emissions from the children. It is debatable whether child noise in outdoor areas is better described by an 'area source' or a series of 'point sources'. Reverberate has modelled the noise emission both ways for this site and found that there is negligible difference between the two methods.

As part of the Peer Review, straight noise barriers were considered, as an alternative to the LGA overhang barriers. These barrier recommendations, to control outdoor child noise and meet the L_{A10} daytime Assigned Levels are summarised below in Table 3 and the attached Brown & Falconer drawings 3354 03 Rev D and 3354 06 Rev E.

Table 3 – Revised Playground Barrier Recommendations

Side of Playground	LGA 'Overhang' Barriers	Reverberate Straight Barriers
South Side	2.1 m plus 1.5 m overhang	2.55 m straight barrier
West Side	2.1 m plus 1.0 m overhang	2.4 m straight barrier

The recommended construction materials to meet the minimum acoustic requirements for the straight barriers are as follows:

A. 2 x skins of 0.42 mm BMT colorbond (either on same side or opposite sides of columns/frames
B. 6 mm FC
C. 90 mm brickwork
D. other gap-free materials with a minimum surface density of 8 kg/m2

The following transparent materials can also be used, for a maximum 25% of the barrier surface area:

E. 8 mm Perspex or acrylic sheeting,
F. 7 mm polycarbonate,
G. 6 mm glazing

Thicker, or additionally-supported materials may be required for structural, wind loading or other reasons.

2.4 carpark - car door closing

A review has been conducted of the level of noise generated by the closing of car doors in the carpark. This noise needs to comply with the night-time L_{Amax} Assigned Levels, where vehicles use the carpark before 7 am.
The corresponding L_{Amax} criteria from Section 2.1 above are:

#7, #9 & #10 Kalli St	- 56 dB
#17 Aurea Boulevard	- 80 dB (no dwelling)
#17 Aurea Boulevard	- 57 dB (when dwelling has been constructed)

LGA in their analysis have correctly applied a 10 dB adjustment for impulsive characteristics associated with this noise. Using the existing ground-truthed barriers for 10 Kalli St, the forecast noise levels at each of the nearest residences is presented in Table 4. The results in **green** comply with the corresponding pre-7am Assigned Levels, results in red exceed the Assigned Levels.

Table 4 – L_{Amax} (dB) car door noise forecasts at neighbours

	Receiver				
Car Location	7 Kalli St	9 Kalli St	10 Kalli St	17 Aurea Blvd	17 Aurea Blvd
				no dwelling	with dwelling**
1a	58	58	57	**51**	**51**
1b	57	58	57	**53**	**53**
2a	57	57	**56**	**53**	**53**
2b	58	57	57	**54**	**54**
3a	58	57	57	**54**	**54**
3b	58	57	57	**54**	**54**
4a	**56**	**56**	57	**54**	**54**
4b	57	**56**	**56**	**54**	**54**
5a	**56**	**55**	57	**54**	**54**
5b	**56**	**56**	**56**	**54**	**54**
6a	**55**	**55**	**56**	**54**	**54**
6b	**56**	**56**	**56**	**54**	**54**
7a	**54**	**54**	**56**	**56**	**56**
7b	**56**	**55**	**55**	**54**	**54**
8	**54**	**54**	**55**	**57**	**57**
9	**53**	**53**	**56**	**57**	**57**
10	**53**	**53**	**56**	**58**	58
11	**53**	**51**	**55**	**58**	58
12	**51**	**50**	**54**	**59**	59
13	**50**	**51**	**53**	**60**	60
14	**50**	**51**	**53**	**61**	61
15	**50**	**50**	**52**	**60**	60
16	**49**	**50**	**52**	**60**	60
17	**49**	**50**	**50**	**60**	60
18	**48**	**49**	**50**	**60**	60
19	**49**	**49**	**49**	**60**	60
20	**49**	**50**	**47**	**60**	60
acrod	**48**	**50**	**49**	**60**	60
Pre - 7am Assigned Level	56	56	56	80	57
Note * Impulsive adjustment applied to all forecast noise levels					
** no boundary barrier					

For the scenario with:

- No dwelling at 17 Aurea Blvd, and
- No noise barrier around 17 Aurea Blvd

It is shown that nineteen car parking locations are available which comply with the night-time Assigned Levels. These are Locations 5b, 6a & b, 7a & b and 8 to 21

For the scenario with:

- Dwelling at 17 Aurea Blvd, and
- No noise barrier around 17 Aurea Blvd

It is shown that seven car parking locations are available which comply with the night-time Assigned Levels. These are Locations 5b, 6a & b, 7a & b, 8 and 9.

It is highly likely that a noise barrier fence will be constructed by the owner at 17 Aurea Blvd, at the same time as the dwelling itself. This is consistent with the other completed houses in the area. It is also expected that the owner at 17 Aurea Blvd would seek a degree of privacy from the public carparks

on Nallan Lane, immediately adjacent to their lot. This same situation is present at 7 Kalli St, with adjoining public carparks on Iona Lane. In that instance that owner constructed a 1.8 m high noise barrier fence as shown in Figure 3 below.



Figure 3- Boundary barrier to public carparking bays for 7 Kalli St

Using this understanding we forecast that for the scenario with:

- Dwelling at 17 Aurea Blvd, and
- Noise barrier fence of unknown type and effectiveness provided by the owner of 17 Aurea Blvd

It is expected that more than seven car parking locations, and up to nineteen would be available which comply with the night-time Assigned Levels. These are Locations 5b, 6a & b, 7a & b, 8 and 9, as well as some of Locations 10 to 21.

Finally, we note that all parking bays are compliant for operation between 7am and 7pm, when the Assigned Levels at dwellings increase by 10 dB.

2.5 Carpark – general noise

The noise generated by car engines and transmissions was not specifically discussed by LGA, but the City has requested an assessment of vehicle noise within the carpark.

In this review we note that the noise impact from car engines and transmissions is lower when the vehicles are at the childcare centre, than when the vehicles are driving on the surrounding public roads. This is because:

A. The actual noise generated by each vehicle is quieter in the carpark than on the road. The vehicles move more slowly in the carpark, and are hence quieter,
B. The carpark is further away from the neighbours than the nearby roads. The vehicles therefore generate lower noise levels at the nearest residences when in the carpark.

Given that the noise impacts from vehicles on suburban public roads in general, are considered acceptable, the noise impact of vehicles on Nallan Lane, Kalli St and Aurea Blvd are considered acceptable. We conclude that the noise impact of these same vehicles, when in the childcare centre carpark, is lower than when on the public roads. This lower impact of vehicles in the carpark is therefore also considered acceptable.

Reverberate has additionally undertaken a noise forecast from a 30-40 movement per hour carpark. The forecast $L_{A10,\ 1hr}$ noise level varied between 43 to 47 dBA at the adjoining vacant 17 Aurea Blvd. These forecasts reduce to between 36 and 44 dB at 10 Kalli St. The forecast noise at an occupied 17 Aurea Blvd, with partial noise barrier, would be expected to be equivalent to the 10 Kalli St levels of 36-44 dB.

All these forecast levels comply with the daytime L_{A10} Assigned Levels of 46/47 dB applicable at the nearest neighbours. On this basis they are considered acceptable.

2.6 Mechanical Noise emission

The forecast mechanical services noises from LGA were found to be reliable. It is noted that noise exceedances of up to 7 and 12 dB are forecast, at existing and future residences, where relatively 'noisy' AC units are installed with no noise control. LGA have briefly discussed, but have not included, any specific noise controls in their noise emission forecasts.

We find that treatments are available to reduce the noise emissions from the mechanical services to meet the Assigned Levels. These treatments are in the form of:

A. Silencers & attenuators
B. Shielding & barriers
C. Acoustic louvres
D. Acoustic absorption
E. Lined ductwork
F. Night-time quiet mode operation
G. Revised unit placements
H. Revised selection of low-noise equipment

These combined treatments can reduce plant noise emission by 50 – 20 dB which is more than sufficient to allow compliance of mechanical services noise from the site, for both

Pre-7am night-time plant noise
Post-7am combined plant and child noise emission

Such treatments cannot currently be described in detail as sufficient detail on specific plant and location is not yet available. The detailed acoustic analysis will need to be conducted during the Detailed Design Phase of the project, after the final selections of plant equipment, and their locations have been established.

2.7 Staff noise

Staff noise generated in the Alfresco area on the West of the site was not assessed in the LGA report. We have undertaken forecasts of noise emission from two staff members engaged in discussions in the Alfresco area. As part of the modelling, no specific noise control measures had been implemented at this location.

The forecast L_{A10} noise from these talkers was up to 37 dB at the nearest location, a vacant and unshielded 17 Aurea Blvd. This level is significantly below the 47 dB Assigned level for the occupied, but unshielded site.

This noise impact would further reduce with any shielding introduced by The noise impact at other residential receivers was lower again.

2.8 Waste Collection Noise

Waste collection noise was not specifically addressed by the LGA report. This noise is not specifically controlled by compliance with the Assigned Levels in the Noise Regulations. To comply with the Noise Regulation requirements though, the following steps are to be taken by the waste collection contractor:

- Refuse collection is to be carried out in the quietest reasonable and practicable manner;
- Equipment used for refuse collection is the quietest reasonably available
- Collection to occur between 7 am and 7 pm Monday-Saturday, unless the waste collection contractor has a Noise Management Plan approved by the City.

In addition to this, the childcare centre should move waste bins to and from the pickup point only between the hours of 7am and 7pm.

REVERBERATE
CONSULTING

3.0 Closure

A Peer Review has been conducted of the methodology, assumptions, inputs and conclusions drawn by Lloyd George Acoustics in their *Childcare Noise Assessment - Lot 263 Thundelarra Drive, Golden Bay*, Ref: 20085677-01.docx, dated 25/09/20.

This review has found that the overall noise emission from the site is considered acceptable. The specific noises which have been considered include the following activities:

- Children playing outdoors
- Carpark noise emission consisting of car doors, vehicle movement and engine idling
- Mechanical plant noise emission
- Staff in the outdoor alfresco area
- Waste Collection

Recommendations to control these noises are summarised in the LGA report, with additional detail presented in Sections 2.3, 2.4 & 2.6 of this review and in the Brown and Falconer attached drawings.

Please let me know if you have any questions.

Yours sincerely,



Martti Warpenius
Director

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martti@reverberate.consulting

Attachments:
Brown & Falconer drawing 3354 03 Rev D
Brown & Falconer drawing 3354 06 Rev E



SITE PLAN

1 : 200

LEGEND

- OVERALL SITE BOUNDARY
- EXISTING REDUCED LEVEL
- RL + 7.00 — PROPOSED REDUCED LEVEL SHOWN INDICATIVE
- EXISTING TREES TO REMAIN
- PROPOSED TREE TYPE: CAGUARINA OBESA SWAMP SHEOAK / TO MATCH STREET TREES IN AREA
- 2572mm HIGH MASONRY WALL WITH ACRYLIC SHEET OPENINGS
- 2400mm HIGH FENCE, 42 LAYERS OF COLORBOND UP TO 1800mm HIGH AND ACRYLIC ABOVE (600mm HIGH)
- 2100mm HIGH COLORBOND FENCE.

SUMMARY

SITE AREA:	2251m²
BUILDING AREA:	780m²
NUMBER OF PLACES:	100
OUTDOOR PLAY AREA:	REQUIRED: 700m² PROVIDED: 721m²
CAR BAYS:	REGULAR BAYS 26 DISABLED BAY 1 TOTAL 27

ROOM BREAKDOWN:

ROOM	AGE	PLACES	RATIO	STAFF
ACTIVITY 1	0-2	8 PLACES	1:4	2 STAFF
ACTIVITY 2	0-2	12 PLACES	1:4	3 STAFF
ACTIVITY 3	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 4	2-3	15 PLACES	1:5	3 STAFF
ACTIVITY 5	3-4	20 PLACES	1:10	2 STAFF
ACTIVITY 6	3-4	30 PLACES	1:10	3 STAFF
KITCHEN / ADMIN				2 STAFF
		100 PLACES		**19 STAFF**

DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	17/09/20
B	CONSULTANT ISSUE FOR INFO	07/10/20
C	ISSUED FOR DA	08/10/20
D	ISSUED FOR DA AMENDMENT	03/12/20

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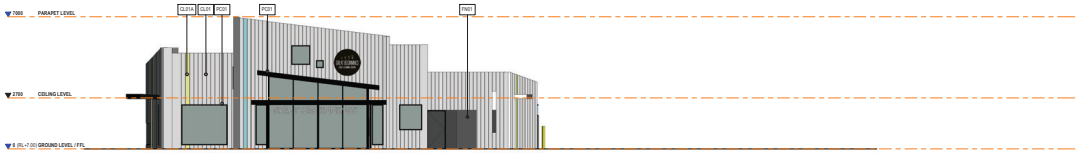
ACCORD PROPERTY

GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

SITE PLAN

Scale	As indicated
Drawn	DF
Checked	MJ
Date	03/12/20
Job No.	2020052
Dwg No.	3354 03
Rev.	D

A1 SHEET



1 - NORTH WEST ELEVATION

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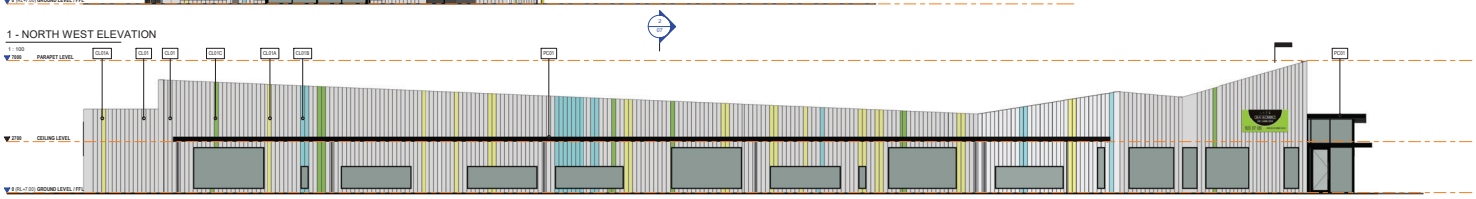
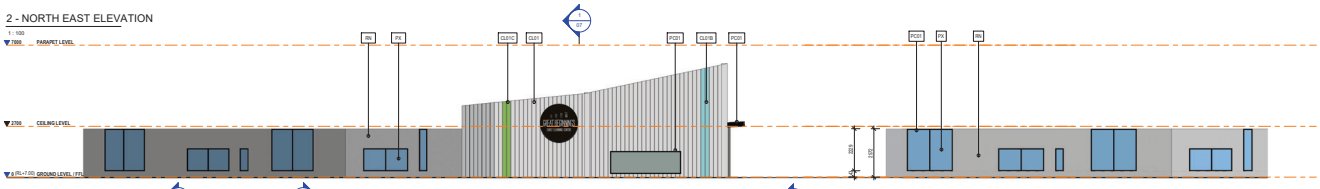


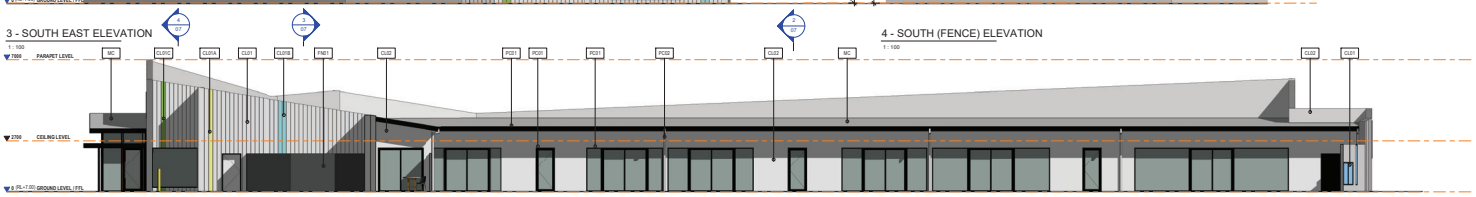
2 - NORTH EAST ELEVATION

1 : 100



3 - SOUTH EAST ELEVATION

1 : 100

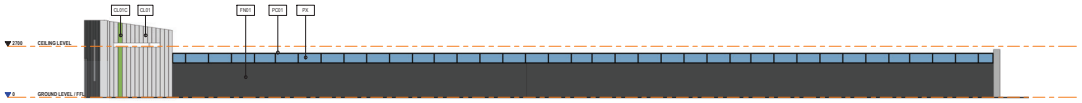


4 - SOUTH (FENCE) ELEVATION

1 : 100

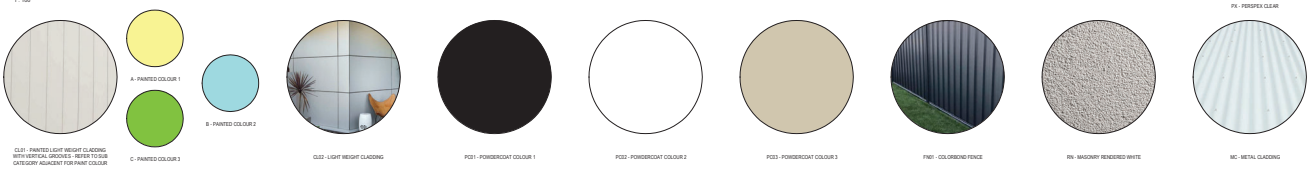
5 - SOUTH WEST ELEVATION

1 : 100



6 - WEST FENCE ELEVATION

1 : 100



DA ISSUE

ISSUED FOR DEVELOPMENT APPROVAL

Rev.	Amendment	Date
A	CLIENT, BUILDER, PLANNER ISSUE	11/09/20
B	CLIENT, PLANNER FOR INFO	01/10/20
C	CONSULTANT ISSUE FOR INFO	01/10/20
D	ISSUED FOR DA	08/10/20
E	ISSUED FOR DA AMENDMENT	03/12/20

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ACCORD PROPERTY

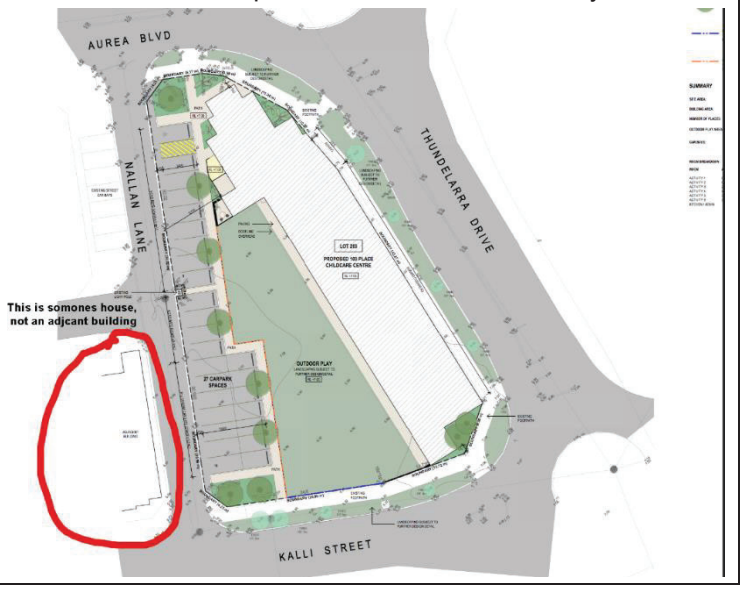
GOLDEN BAY CCC
LOT 263 AUREA BOULEVARD
GOLDEN BAY

ELEVATIONS

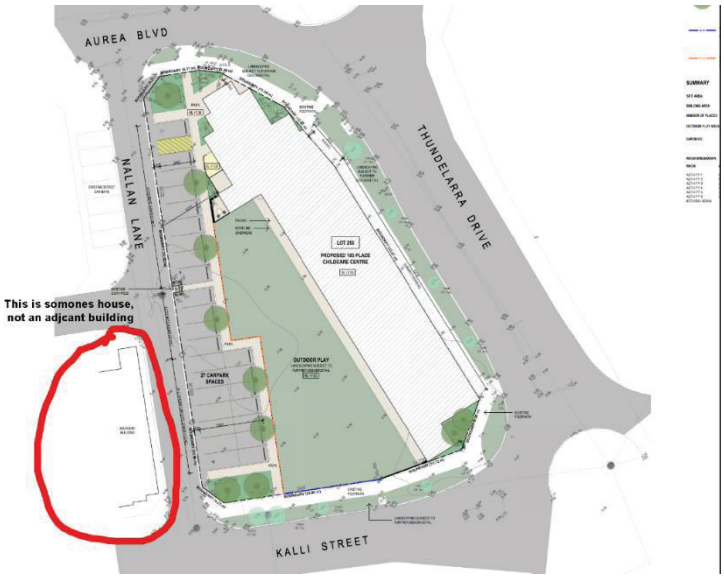
Scale	As indicated		
Drawn	DF	Checked	MJ
Date	03/12/20		
Job No.	2020052		
Dwg No.	3354 06	Rev:	E

A1 SHEET

Schedule of Submissions
Proposed Childcare Premises - Lot 263 Warnbro Sound Avenue, Golden Bay (20.2020.291.1)

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
1. Mr Robert Trew		<u>Submission 1</u> You claim there will be no outside play between 630-700am, but come on, we both know telling kids to be quiet on arrival is hard enough and not to mention the sound pollution of potentially 50-100 cars a day driving past every morning and night (due to a severe lack of public transport and you claim the centre can house 18 staff and up to 100 children at all times of the day creating traffic jams, not hard to do the math of the potential amount of traffic that will inhabit a small area as what happens at the school close by) in the morning and evenings. My mother, who is just a couple of years away from retirement bought her house 8 years ago at 10 Kalli street here with the idea of a quiet retirement in mind would never have bought here if this was proposed or built so close. Over a block and a half away on Thunderlarra drive northbound is a giant spot of land, not close to any houses where is some unfinished structure siting hopeless for sometime now and a total eyesore to the area. Even In the documentation you provided the satellite image shows another area for this to be built (not next to houses) Surely this is a more logical location, as it's not next to people's houses with plenty of space for traffic? Even the outdoor play area borders my mothers house at 10 Kalli street. What moron possibly thought this was a good idea? No surveys were done to anyone of anyone who lives here. Also your sound pollution report claims it will only be 48DB noise. This is simply untrue and I invite what ever idiot came to this conclusion to sit in the backyard listen to kids running past at 3pm and tell me that if that noise was going on all day that's really 48DB. But considering the people who make these decisions are only motivated by greed and couldn't care about the people who live in these areas nothing surprises me that you want to build an illogical childcare centre in this location. I will imagine you will be getting more emails in the comings days. No one ever came by and consulted my mother at 10 Kalli Street, and did any tests of the sort or consultation. I have attached a screenshot showing you how close this is to my mother's house. And possible other areas. Thank you. 

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.1 – cont…		**How about build here in the circles not directily next to where people live?**  <u>Submission 2</u> This area here is a small community made up of retirees who are home most days that surround the area who spend most of there days at home. You want to build a childcare centre directly next to many housing where people live? You claim there will be no outside play between 630-700am, but come on, we both know telling kids to be quiet on arrival is hard enough and not to mention the sound pollution of potentially 50-100 cars a day driving past every morning and night (due to a severe lack of public transport and you claim the centre can house 18 staff and up to 100 children at all times of the day creating traffic jams, not hard to do the math of the potential amount of traffic that will inhabit a small area as what happens at the school close by) in the morning and evenings. My mother, who is just a couple of years away from retirement bought her house 8 years ago at 10 Kalli street here with the idea of a quiet retirement in mind would never have bought here if this was proposed or built so close. Over a block and a half away on Thunderlarra drive northbound is a giant spot of land, not close to any houses where is some unfinished structure siting hopeless for sometime now and a total eyesore to the area. Even In the documentation you provided the satellite image shows another area for this to be built (not next to houses) Surely this is a more logical location, as it's not next to people's houses with plenty of space for traffic? Even the outdoor play area borders my mothers house at 10 Kalli street. What moron possibly thought this was a good idea? No surveys were done to anyone of anyone who lives here. Also your sound pollution report claims it will only be 48DB noise. This is simply untrue and I invite what ever idiot came to this conclusion to sit in the backyard listen to kids running past at 3pm and tell me that if that noise was going on all day that's really 48DB. But considering the people who make these decisions are only motivated by greed and couldn't care about the people who live in these areas nothing surprises me that you want to build an illogical childcare centre in this location. I will imagine you will be getting more emails in the comings days. I have attached a screenshot showing you how close this is to my mother's house. And possible other areas. Thank you

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.1 – cont…		 **How about build here in the circles not directily next to where people live?** 
2. Ms Trudie G Trew	10 Kalli Street GOLDEN BAY WA 6171	Rejection Letter for Proposed Child Care Centre Golden Bay. My name is Trudie Trew, and I am a resident at 10 Kalli Street, Golden Bay, 6174. I am writing in regard to the proposed development of the Child Care Centre Golden Bay, on the corner of Aurea Boulevard, Thundelarra Drive, Kalli Street and Nallan Lane. I hold concerns over the proposed child care facility in Golden Bay. I have reviewed the proposal and believe it will adversely impact the residents in the area, including myself. I have examined the development plans, traffic impact statement, and acoustic reports. The development appears to place a significant detriment to the residents relating to noise emissions from vehicle traffic, adults and children. I am a 61-year-old woman with various health issues. I am concerned that my health will be adversely affected by the noise emissions produced by the child care centre. I have not been contacted by the City of Rockingham about the development. I have not been contacted or approached by any of the companies conducting the planning assessments;

PUBLIC SCHEDULE OF SUBMISSIONS

Name	Address	Comment
No.2 – cont…		'Planning Solutions', 'Lloyd George Acoustics Pty Ltd' and 'Transcore'. There has been no consideration to ask any of the residents about the potential impacts. The first I ever heard of this was a sign placed on the road on the empty lot of land. I have identified the following issues I want to be taken into consideration for the proposal not to proceed. Section 1.2 Background of the Development Action Report— you say '*The location of the car parking area and the use of tandem bays was generally supported by the City provided that necessary justification from a suitably qualified traffic engineer is provided.*' — All well and good if the city supports, but what about the residence who live in the location? Did anyone bother to ask us? **Road and traffic issues** Given the facility can cater for 100 children, there may be up to and in excess of 100 vehicles accessing the facility every day, morning and afternoon. This will incur vehicles driving past bedroom windows, parking, and the closing of car doors. The shear potential volume of this would be unreasonable. I bought this house over 8 years ago as was promised all development such as a shopping centre and or health services would not be built close to here. The fact you even say no outside activities will occur between 630-7am is unlikely as parents arriving, dropping off there kids and talking is highly probable. Section 4.2 of the acoustic report confirms the detriment to my residence by car doors closing; "*From the results it can be seen that #10 Kalli Street is the most affected existing receive."* Furthermore, carpark bay 1A, 2A, 3A is approximately 5 metres from my bedroom window. The noise from these bays have been outlined in the report as significant noise contributors. I believe they are in contravention of the environmental protection noise regulations 1997 as there it exceeds the allowable DB prescribed (ref table 1 influencing factors). It would be a more reasonable design to not have the carpark utilise Nallan Lane, and to have utilised Thundelarra Drive to avoid parking directly next to someone's house and bedroom at 630am in the morning, engaging in closing of car doors which exceeds the recommended noise level as indicated in the below table to be excessive; *Table 5-2 Assessment of Predicted Car Door Noise, dB L_{Amax}* **Receiver** / **Floor** / **Façade** / **Car Door** / **Assigned Noise Level** / **Exceedence** *Existing Residences* #7 Kalli St / GF / N / 59 / **56** / 3 #9 Kalli St / GF / N / 59 / **56** / 3 #10 Kalli St / GF / E / 59 / **56** / 3 #10 Kalli St / GF / E / 61 / **56** / 5 #10 Kalli St / GF / E / 61 / **56** / 5 #10 Kalli Street (backyard) / GF / - / 58 / **56** / 2 #11 Kalli St / GF / N / 58 / **56** / 2

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.2 – cont…		Page 21 states; *'To comply with the Regulations at night-time at the existing receivers, all bays resulting in predicted noise levels over 46 dB LAmax should not be used before 7.00am, which based on Table 4-3, are parking bays 1a to 7a, 1b to 7b and 8 to 11.'* I have several concerns and questions that can be raised regarding this; • How is the council going to enforce this? • Will the council hire someone to monitor this situation? • How will this prevent other road users from parking there that are not a part of the facility? • How will other residents be prevented from parking there? • What happens if a resident has a party and other users park vehicles here? By having the car park here, it opens the potential for road users to park private vehicles here at all hours of the day and night. Further considerations to this effect need to be addressed by the council. Furthermore, the report fails to address ongoing noise from passing motor vehicles, in variance of engine capacity and or music through stereo systems. Whilst this may already occur, the volume of motor vehicles the child care centre will generate will produce an unacceptable volume of vehicles generating noise. **Road and traffic safety issues** Nallan Lane will become a major thoroughfare for the childcare centre's traffic. There is therefore, an increased risk of motor vehicles accidents. Given the close vicinity of Nallan Lane to my house, I fear my safety will be at risk. The new centre would pose an increased risk of motor vehicle accidents to my property. My concern is that my bedroom and main living area, including outdoor area, are all on the side of the road directly next to Nallan Lane and the proposed car parks. My residence only contains a single sheet Colourbond fence. In the event of an accident occurring, there is nothing adequately stopping a motor vehicle from going through the fence and into my house. Nallan Lane was only built for a traffic flow of local residents going to their garages, not to cater to a potential 100 cars a day at peak times. Also, Nallan Lane can be accessed from two points of entry and is only big enough for a one way only. Reading over the Transcore report is states many patrons will be local residences who would walk their children, even though most residence close by are retirees and is based on an assumption parents will not drive, everyone in this area drives. The report by Transcore does not factor in any of my concerns which I would have raised if spoken too. Their images used in the report also use NearMap and appear to have not been conducted in person and instead via a computer. The Transcore report claims Nallan Lane to be a Two-way, six metre wide road. I have measured this, it is only 5.3metres wide and any resident will tell you, it is not a two way. Considering the inaccuracy of Transcore reporting, and use of NearMap to get their evidence I question how much more have they got wrong in the report and did they actually conduct a proper onsite inspection? The validity and accuracy of their report must be questioned by the City of Rockingham. A failure to do so by the City of Rockingham would indicate to be a clear lack of responsibility and moral judgement regarding it's residents safety.

PUBLIC SCHEDULE OF SUBMISSIONS

Name	Address	Comment
No.2 – cont…		The report does not factor in potential traffic jams through the lack of parking and where overflow could occur potentially on Abydos Lane. This lane is a single road where many residents parking garages are located. If overflow at peak time due to lack of parking and drop off bays, what measures are in place to ensure people do not park on the vacant land on the laneway adjacent to our parking garages? As some who have to leave for work in the mornings and arriving home who have to utilise Nallan Lane, this potential for a jam is problem for the residents and is not addressed. Also not addressed, is the increased noise pollution of the traffic jams on the laneway that could happen. Also, if overflow, it leads to potential people parking on Kalli Street or surrounding areas impacting local residents who have increased car noise, and foot traffic. Given that I have now raised this issue, and in the event of an accident occurring, I will hold the City of Rockingham liable for any damages to my property, vehicle or injury to my person if this proposal goes ahead. **Noise Pollution** Having worked with children for 20 years at many schools in Rockingham and Mandurah, I am well aware of the noise levels, groups of children can produce. Section 4.1 states; *From the results it can be seen that #7 and #10 Kalli Street are the most affected existing receivers.* The outdoor child's play area faces my house directly. Even with the recommendations fully implemented, there will still be an unreasonable amount of noise emitted from the children. There are clear exceedance across the varying measurement locations. *Table 5-1 Assessment of Predicted Child Play Noise, dB L_{A10}* Receiver / Floor / Façade / Childplay / Assigned Noise Level / Exceedence *Existing Residences* #7 Kalli St / GF / N / 49 / **46** / 3 #9 Kalli St / GF / N / 48 / **46** / 2 #10 Kalli St / GF / E / 48 / **46** / 2 #10 Kalli St / GF / E / 48 / **46** / 2 #10 Kalli St / GF / E / 48 / **46** / 1 #10 Kalli Street (backyard) / GF / - / 49 / **46** / 3 *'From Table 5-1,it can be seen that exceedance up to 3 dB are predicted at the closest existing residences along Kalli Street,* while at future residences exceedance up to 6 dB are predicted.' This currently places current residents at unreasonable noise detriment and appears to be worse for future residents. This potentially could impact on housing values, again placing residents at a pecuniary detriment. Furthermore, there are no measures examined from voices being emitted from the carpark area, which can also include noises from both adults and children who chat outside in carparks, considering we can hear our neighbours outside talking, we will defiantly be hearing other conversations all day from the car parks. No noise control measures of this nature have been conducted with the report. The impact of people's voice's from the carpark at different levels should be examined, including children who are screaming and crying as most young children do not want to be dropped there. Anyone who has ever been to drop off children at one of these centres knows they are noisy places, that's why the majority are not built next to residential houses.

PUBLIC SCHEDULE OF SUBMISSIONS

Name	Address	Comment
No.2 – cont…		The three options provided to address the outdoor child's play area would not reasonably cover the noise emissions from children. Simply building a wall will not adequately prevent an unreasonable amount of noise being emitted. How will the council implement and enforce the policy outlined in the report, limiting the number of children in the play area? I find the situation to be adequately governed highly unlikely due to the fact I have worked with Children of all age groups for over two decades. Also, under the National quality standards for child care services, there is law to maintain flexible use of the indoor/outdoor environments. They will not be able to achieve this with a curfew. **Mechanical Plant** There is a clear lack of detail surrounding the actual impact of noise the mechanical plant will have. Even at this stage, the estimations exceed for all residences. *Table 5-3 Assessment of Mechanical Plant Noise, dB L_{A10}* Receiver / Floor / Façade / Overall Level / Assigned Noise Level / Exceedence *Existing Residences* #7 Kalli St — GF — N — 43 — **36** — 7 #9 Kalli St — GF — N — 42 — **36** — 6 #10 Kalli St — GF — E — 43 — **36** — 7 #10 Kalli St — GF — E — 42 — **36** — 6 #10 Kalli St — GF — E — 43 — **36** — 7 #10 Kalli Street (backyard) — GF — - — 43 — **36** — 7 #11 Kalli St — GF — N — 42 — **36** — 6 A series of recommendations may or may not rectify the excessive noise generated. I believe it is risky to the health of residents to proceed with the proposal until further consideration and planning has gone into the design of the mechanical plant. Looking over this document, I can see no matter what is introduced the noise levels will be exceeded. This is in direct contrast to page 9, section 3.4 Acoustic Considerations of the Development Report where it states *'As the subject site is in close proximity to residential properties to the West across Nallan Lane and to the South across Kalli Street, an acoustic assessment has been conducted by a suitably qualified acoustic consultant in the form of an Environmental Noise Assessment.'* But the Acoustic report clearly states the noise levels will be exceeded as is evident in their own report. **Conclusion** At current, the proposal does not comply with the Environmental Protection (Noise) Regulations 1997, as they are reliant on the recommendations outlined in 5.1 and 5.2. The mechanical plant is a grey area in the design process as the noise emissions cannot be measured. This unknown variable poses a risk to the health of all residents. Furthermore, the recommendations in relation to child's play are unlikely to be adhered to due to the nature of children, and breaches of these recommendations will likely occur. I respectfully request the City of Rockingham to re-consider their proposal in relation to the development of the Child Care Centre Golden Bay. I submit that the plans be re-located to a different location that will not adversely impact on the health of residents, by unreasonable noise emissions as likely to occur from such a facility so close next to a residential area.

Schedule of Submissions
Proposed Childcare Premises - Lot 263 Warnbro Sound Avenue, Golden Bay (20.2020.291.1)

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Name	Address	Comment
3. Ms Rebecca Burton	16 Kalli Street GOLDEN BAY WA 6174	The streets are not equipt to hold the amount of cars and pedestrians being so close to golden bay primary school. I say No! What abiut the vacant block the Iga was meant to be?
4. Mr Robert Trew	10 Kalli Street GOLDEN BAY WA 6174	Rejection Letter for Proposed Child Care Centre Golden Bay After viewing the proposal documents I am writing to say I reject the current proposal at https://rockingham.wa.gov.au/planning-and-building/local-planning/town-planning-advertising-and-submissions/proposed-child-care-premises-golden-bay. I have listed out several key areas of flaws in the proposals that violate local law that will directly affect several residents. **Notes of point** • All communication from the city of Rockingham and posting on social media and in letter boxes has incorrectly labelled the proposed site as Lot 263 Warnbro Sound Ave —The Correct planned address is Lot 262 Thundelarra Drive, Golden Bay. This has caused great rift and misunderstanding in the community here who believe the proposal to not be close to any houses. • No one from any proposal company contacted any resident about potential impact. • Was there any surveys done to determine the demand and also wants and needs of residents? • Most residents who live close by are Retirees and people almost at retirement. Not young families. • There is also already an abundance of large and small scale child care centres between Secret Harbour and Singleton. Isn't there also another currently being built at Secret harbour Shops? **Noise pollution** According to the Acoustic Sound report conducted by **Lloyd George Acoustics Pty Ltd** there are several areas of concern. • **All** reports show legal noise areas for residential areas will be exceeded. • No one from the company, never came to a resident house to conduct proper tests. • We believe these levels are lower than predicted. • Measures to reduce sound is inadequate, especially in the parking onsite. • 'No outside play between 630am and 7am…does not take into account people arriving, car doors slamming and playing and conversation in the car park. • Report doesn't take into account different engine capacity • Fails to mention drainage hole on Kalli Street and Nallan Lane which makes large clunk noise when driven over from the potential of increased traffic. • Solutions and recommendations will go against the national quality standards for child care services, there is law to maintain flexible use of the indoor/outdoor environments. They will not be able to achieve this with a curfew • How is the council going to enforce this? • Will the council hire someone to monitor this situation? • How will this prevent other road users from parking there that are not a part of the facility? How will other residents be prevented from parking there?

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Name	Address	Comment
No.4 – cont…		• What happens if a resident has a party and other users park vehicles here? • What happens if this centre is built and the noise pollution exceeds the legal levels? Who is held liable? • All sound levels reported will exceed the legality of the Environmental Protection (Noise) Regulations 1997 **Traffic Report** The traffic report by Transcore. • Does not appear to have been conducted in person. It used Images from NearMap. • Incorrect measurements of roads — Nallan Lane is measured by them at 6 metres when it is 5.3 metres. • Incorrect classification of roads —sites Main Roads classifications but Main Roads WA do not fall to this area. • The Report makes assumptions of predicted traffic and not based on facts and impact from other Childcare centres. • No consideration for overflow at peak times. • Will overflow go into Abydos Lane (where residents' garages are and backyards are) and Kalli Street? Directly impacting several residents • They play down the number of vehicles but it has the potential of 75-100 vehicles a day at peak morning and evening times on roads not designed to handle such traffic. • Fails to mention drainage holes on Kalli street and Nallan Lane which makes large clunk noise directly next to parking bays. **Illogical design, Location and other areas of note.** • Why is the car park proposed within 5 metres of residents' houses? Directly next to residents bedrooms? • Why is the playground proposed to be facing several residents' houses? • Would a more logical design to reverse the design so car park and playground away from residents houses? Thus limiting noise pollution? • There are several other options of land close by, all which are not directly next to residents' houses. Would be easier and not a waste of residents time to consider more logical locations. • The company wanting to open the centre is “Think Education” an ASX listed company, meaning none of the profits made will be invested into the local community. • 9 out of 10 nearby residents I’ve spoken to who live on Kalli Street, Thundelarra Drive, and Arizona parade, are against this centre as it only caters to a small percentage of the population, and would like the city to explore other more local businesses that will help to support the community. Local cafe, Bakery, mini supermarket ect…that everyone in the community can utilise. Thank you for your time in reading our concerns. My biggest worry is from the report by “Planning Solutions’ who claim in section 3.4 “The assessment considers the noise impacts associated with outdoor child play, AC plant, car doors and indoor child play with respect to the adjoining ‘noise sensitive’ residences to the west and south. The assessment demonstrates that the proposal will comply with the Environmental Protection (Noise) Regulations 1997 during the assessment period, subject to a number of built form and centre management measures.” Even though the acoustic report shows it is in violation of this.

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Name	Address	Comment
No.4 – cont…		This holds grave concern to us that this company has bent the truth and the laws to make this proposal favourable and several in-accuracy's in there proposal that goes against the law and against what is in the other reports. Based on all of this I respectfully ask the City of Rockingham to Reject this proposal as highlighted in several key points above till a better more lawful, empathetic and considerate proposal has been drafted that takes into account the impact of residents who live nearby and for the City of Rockingham to also to consider a location that will not directly affect nearby residents. Thank you for your time.
5. Ms Claudine Murray	6 Calooli Grove GOLDEN BAY WA 6174	great idea its needed here.
6. Ms Sarah McDonnell	42 Minderoo Crescent GOLDEN BAY WA 6174	Golden Bay is in need of a childcare centre, I would definitely be in use of their services. It would be great if they could extend their opening hours from 6 am to 9pm and be open on the weekends and public holidays to accommodate shift workers.
7. Ms Valerie Pastor		I think it's very wrong to put child care near us. We already have the School and sport activities, now to put up every day, all day with children yelling, I thing it's just so in fare that true everything here in Golden bay. We already have a problem with speeding cars emagen, 100 cars more on our street. Thundelarra drv not right. Got house to have a nice and peaceful life, now worst then anywhere. There lot more blocks you can put child care!!!
8. Ms Sharon Thompson	21 Kalli Street GOLDEN BAY WA 6174	Firstly I would like to comment that the address given for the proposed child care centre is different to area highlighted in the map contained on the proposal. Not a good start by either the council or the developers. I'll comment regarding the area highlighted as it appears to the be correct location. I have no problem with there being a child care centre located in the proposed area, but do have serious concerns with the size of it and the amount of staff required and children attending, in relation to parking and traffic in general. 18 staff will equate to 18 cars taking up space in the car park, cutting down heavily on the amount of bays left for parental parking. Kalli St is a quiet residential street, street parking is used by both residents and visitors. I can see that a lot of these bays would be utilised by either staff or patrons of the child care centre limiting the amount available for those of us who live here, and our visitors. Traffic up and down the street would increase also. Residents whose garages back onto Abydos Lane would be at risk of being 'locked in'' if parents were to park in the Laneway, which really is just an access lane for the homes that back onto it. I am really concerned on how this centre would impact in a very negative way in my community.

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9. Ms Dianne Vilkelis	18 Kalli Street GOLDEN BAY WA 6174	I disagree with the proposed childcare centre being built in Kalli Street and Nalin, Golden Bay. The facility is too close to residential homes. Nalin Drive is too narrow and only has traffic in one direction. We are also concerned the centre will be too noisy.
10. Mr Paul & Mrs Natalie Basso		Further to your letter with the above reference and dated 23 October, inviting us to comment, we are writing this letter strongly expressing our objections to the proposed childcare premises across the road to our already approved, currently in progress Childcare Centre in Golden Bay. We believe the proposed application for a 2nd proposed child care centre located on Lot 263 Warnbro Sound Avenue in Golden Bay has not appropriately addressed the planning framework in this location. The application states that there are no planned or established child care premises provided within the Golden Bay locality. Consequently, this is not true. As the owners of Lot 716 Thundelarra Driver, Golden Bay, we have already been issued with a development approval for a child care premises in December 2017 which is permitted to accommodate 92 children, 15 staff and 27 car park places, and operate between the hours of 7.00am to 7.00pm on Monday to Sunday. Section 4.1 of Planning Policy No.3.3.5 Child Care Premises states: *"Child Care premises generally would not be suitable where:* *(i) "The service provided by the Centre will have a demonstrable adverse impact on the existing or planned level of Child Care Premises enjoyed by the local community."* This is supported/reiterated by section 4.9 of the policy which states: *"where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises may have an adverse impact on the level of service to the community by similar existing or approved facilities, the proponent will be required to provide further information in regard to the level of existing services in the locality, proximity to other child care premises, population catchments for the proposed child care centre premises and the number of primary schools and kindergartens in the locality, in relation to the development of the proposed new facility."* As the application has not appropriately addressed the existence of an approved child care premises directly across the road, and in makes a false statement in that regard, it raises the question of legibility for the whole proposal. Particularly when it comes to access and accumulation of traffic impacts from the neighbouring attractors. *(ii) Access is from a major road or in close proximity to a major intersection where there may be safety concerns.* *(iii) Access is from a local access street which may impact on the amenity of the area due to traffic and parking.* The proposal intends to take its access from Nallan Lane, with the most reasonable access/egress being from/onto Aurea Boulevard or Kalli Street. Both intersect with Thundelarra Drive, which Aurea Blvd has a major roundabout which supports a main street arrangement in the neighbourhood centre of Golden Bay and is in close proximity to the intersection, suggesting the access at this location may be unsafe, given the overall anticipated traffic volumes using this section of road.

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No.10 cont…		The original intent for this site was for a grouped housing site, which would generate much lower traffic movements in and out of the laneway. Access via Kalli Street and Nallan Lane will impact on the amenity of residential development and pedestrian environment (residential development within walkable catchment to Neighbourhood Centre). Houses designed abutting the laneway are unlikely to have accounted for a parking lot abutting their property. Issues are likely to occur with conflicts between patron vehicles, resident vehicles and service vehicles (namely waste trucks on pickup day). Also, when it comes to providing parking for rear-loaded residential properties, there is no 'one size fits all' to planning for the appropriate number of parking for residents, particularly for visitor bays or occupiers with more than 2 vehicles. There is a strong likelihood, based on the access arrangements and surrounding development, that occupiers or visitors to the residential development along Abydos Lane will utilise the parking made available in Nallan Lane, impacting the availability of parking for patrons of the proposed child care centre, without a clear delineation/separation from the laneway. In addition to the above objections, the design clearly does not meet the Golden Bay design guidelines and requirements for that street as imposed on myself. Including but not limited to applicable colours, materials elevations and design do not comply. The organisation now applying for development approval clearly knew that there is already a childcare centre in progress already approved at our location, as they approached us to lease the centre prior to going ahead with this new childcare centre. Unfortunately our centre is already leased, so we had to decline. We believe it would not be viable to approve a second childcare centre across the road from each other. Furthermore our site was always zoned as the only childcare site in the area according to Peet the land developers and State Government when they sold the property to us. Also, it appears operating hours of their childcare on the application are the original operating hours we asked for, which we were rejected for and given 7.00am to 7.00pm. From review of the proposal, there is considered to be substantial and reasonable flaws in the information provided, with the application either neglecting to consider or completely disregarding specific planning matters, as broadly covered above. For this reason, we vehemently object to the proposal and wish to be kept updated of decisions and the opportunity to attend any invitations to discuss this matter further.
11. Mr Cameron Leckey Director **Rise Urban Pty Ltd**		Rise Urban represents Grassroots Childcare – an established and highly regarded operator of childcare centres across Australia. Grassroots Childcare is the lease holder of the approved childcare centre at Lot 716 Thundelarra Drive, Golden Bay, located immediately to the north of the subject site. Grassroots Childcare has signed an Agreement for Lease with the land owner and developer of Lot 716 on the basis of it having an approved development application for a childcare centre, and being the most suitable site for childcare in the vicinity.

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Name	Address	Comment
No.11 - cont…		We have been engaged by Grassroots Childcare to make a submission on the development application (DA) for a proposed Child Care Centre at Lot 263 Aurea Boulevard, Golden Bay ("the subject site"), which is currently being advertised by the City of Rockingham prior to determination by the Metro Outer Joint Development Assessment Panel ("MOJDAP"). Having reviewed the proposal and supporting information, we are of the view that the application does not satisfy the applicable planning framework and should not be approved. In particular: • The application threatens to undermine the viability of our client's approved childcare centre located immediately opposite the subject site on the north side of Aurea Boulevard, and is contrary to the City's Planning Policy No.3.3.5 (Child Care Premises), and in particular, clause 4.9 which deals with the location and distribution of child care centres, and the need to ensure that childcare centres provide the maximum amount of benefit to the community through their distribution. • The application is inconsistent with the approved Golden Bay Neighbourhood Centre Detailed Area Plan, which identifies the site as a grouped housing / medium density site. Furthermore, the proposed access and parking arrangements are inconsistent with the Detailed Area Plan, which only contemplated a residential use in this location, and did not entertain direct parking and access in the manner depicted by this application. • The proposed parking arrangements are inadequate, do not comply with the policy, and are not sufficiently justified in the accompanying traffic impact assessment. • The acoustic assessment recommends construction of an acoustic barrier which will adversely impact on the residential character and amenity of the locality, and without which, the amenity of adjoining residential properties will be significantly impacted. It also recommends a noise barrier be constructed on an adjoining residential lot in order to achieve compliance with the noise requirements. This recommendation is beyond the power of the applicant or landowner to deliver, and is impossible to achieve without the consent of the owner of the residential lot adjoining. For these reasons we submit that this application should be refused. **Context** Grassroots Childcare has a current development approval for a 92-place child care centre located immediately north of the subject site at Lot 716 Thundelarra Drive, Golden Bay (City of Rockingham ref: 20.2019.113.1 – AD19/53298), and has spent more than $200,000 to date in designing and preparing this project for construction. Having now resolved all outstanding planning, building and commercial considerations on the site, construction is scheduled to commence during the week of 9 November 2020, with completion expected by June 2021. Grassroots Childcare has entered into a lease agreement and progressed the planning and development over the site on the premise that their centre is appropriately sized and located to provide the maximum benefit to the community.

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Name	Address	Comment
No.11 - cont…		The decision to locate their centre in this location was based on analysis of the demand for such a facility in this location, with the centre being designed to accommodate the large majority of this demand. If approved, the proposed childcare centre will undermine the substantial investment associated with our client's childcare centre being constructed on Lot 716 Thundelarra Drive, and will have significant consequences for the ongoing viability of our client's project. **Key points of contention** Statutory and Policy Context *Statutory and Strategic Framework* The City's Local Planning Scheme No.2 (LPS2) and the Golden Bay Structure Plan (GBSP) designate the subject site as being for commercial land uses, with the GBSP requiring the preparation of a Detailed Area Plan (DAP). The resultant Golden Bay Neighbourhood Centre DAP however identifies the subject site as being for residential development, specifically '2/R60', at a 2 storey minimum height. The DAP also identifies two specific vehicle access / egress points from Nallan Lane, and a continuous activated street frontage to Thundelarra Drive. The proposed childcare centre is inconsistent with these land use, parking and built form objectives of the DAP. - Land Use Figure 4 of the Development Application Report contains an excerpt of the Indicative Development Plan for the Golden Bay Neighbourhood Activity Centre DAP. Notwithstanding the indicative nature of this Development Plan, a childcare centre is notated on the site where our client's childcare centre has been approved. The subject site is identified as 'Residential', which is reflective of the land use contained within the DAP. Whilst the DAP and Indicative Development Plan do not align with the land use/zoning designations as per the LPS2 and Golden Bay Structure Plan, they do imply a more fine-grain level of planning which is more compatible with existing land uses (particularly the adjacent residential areas) and provides for a more consolidated, distinct and logical Neighbourhood Activity Centre. It is also a matter to which a decision maker must have due regard pursuant to clause 56(1) and 67(h) of the *Deemed Provisions*. The use class of Childcare Premises is a discretionary use in this zone, and the City and JDAP should have regard to the approved DAP and its fine-grained planning context as part of assessing the suitability of this land use. Contrary to the Development Application Report, the development of a childcare centre on the subject site is therefore not entirely consistent with the City's Planning framework. - Access and Parking In relation to vehicle access, the DAP identifies two specific access / egress points onto Nallan Lane – one to the north of the site and one to the south. It is understood that the intent of this access arrangement was to consolidate and control access to a future residential site in order to avoid *ad hoc* access to the laneway. The proposal is inconsistent with this access arrangement – instead proposing continuous parking at 90 degrees to the laneway for its full length.

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Name	Address	Comment
No.11 - cont…		This will result in a parking arrangement that is clearly contrary to the intent of the DAP. - Active Frontage The DAP requires a mandatory active street frontage to Thundelarra Drive and Aurea Boulevard. The Development Application Report suggests that this requirement has been satisfied, however we note that the floor plan indicates a "passage" for the full length of the Thundelarra Drive frontage. This passage separates the activity rooms from the Thundelarra Drive frontage, and can hardly be considered a habitable or active use, as it is purely a thoroughfare, with little or no relationship to the street. The proposal also has a lack of consideration for the Kalli Street frontage. A portion of the frontage is a storeroom or similar with a parapet wall, while the remainder is outdoor play area with screened fencing. Kalli St is a quiet residential street which will now have the inactive fence and back end of a commercial development visually dominating the entrance to the street, to the detriment of the visual amenity of the street's residents *Policy Framework* Due diligence undertaken prior to the preparation and lodgment of this development application would have identified the 27 June 2019-approved childcare centre to the immediate north of the subject site. Further, a second childcare centre comprising an 82-place facility has already received development approval within the vicinity of the subject site, approximately 1.5km to the north on Oneida Road in Secret Harbour. Approval of this proposed childcare centre will result in an oversupply of this service in the vicinity of Golden Bay and consequently undermine the viability of the existing centres, and reduce the benefits to the community it is intended to serve. Commentary on the above is not addressed in the Development Application Report and, in this regard, represents a contravention of the following provisions of the City's Planning Policy No.3.3.5 (Child Care Premises), which includes the following relevant provisions which ought to be given considerable weight in this decision: *4.1 Location* *It is important that Child Care Premises are appropriately located to meet the needs of children and their families. It is also important in limiting the impact a Child Care Premises may have on surrounding activities and vice versa. This may be achieved by locating Child Care Premises on sites that are:* *(a) Distributed evenly to provide maximum benefit to the community it serves;* Further under this Policy, a Child Care Premises is generally not considered suitable where: *4.1(i) The service provided by the Centre will have a demonstrable adverse impact on the existing or planned level of Child Care Premises enjoyed by the local community;* *4.1(k) Access is from a local access street which may impact on the amenity of the area due to traffic and parking;*

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Name	Address	Comment
No.11 - cont…		Clause 4.9 of the City's Policy then goes on to state: *4.9 Need for Child Care Premises* *Where, in the opinion of the Manager, Statutory Planning, a proposed Child Care Premises may have an adverse impact on the level of service to the community by similar existing or approved facilities, the proponent will be required to provide further information in regard to the level existing services in the locality, proximity to other Child Care Premises, population catchments for the proposed Child Care Premises and the number of primary schools and kindergartens in the locality, in relation to the development of the proposed new facility.* This application is fatally flawed in that the matter of distribution, need and adverse impacts on the planned level of childcare premises are not addressed in the Development Application Report, given the lack of recognition of the approved Lot 716 Thundelarra Drive and nearby Secret Harbour Child Care Centres. When reviewing Western Australian Planning Commission (WAPC) Planning Bulletin 72/2009 (Child Care Centres), which this Planning Policy should be read in conjunction with, the matter of need and adverse impacts upon the planned level of childcare premises is further elaborated on. In this regard, Planning Bulletin 72/2009 notes that: *"…there may be a need to show that the development will not have an adverse impact on the amenity of the area or the level of service to the community by similar existing or approved facilities. In such instances, and depending on the scale of the proposal, the applicant may be asked to provide further information in regard to the level of existing services in the locality, proximity to other centres, population catchments for the new centre and the number of primary schools and kindergartens in the locality, in relation to the development of a new facility."* The Development Application Report, notwithstanding its lack of recognition for approved childcare facilities in the vicinity, appears to cherry-pick provisions of the Planning Policy that suit its purpose and disregards those that do not. For example, none of the provisions that would deem a Child Care Premises generally unsuitable or indeed necessary [such as 4.1(i), 4.1(k) and 4.9] are addressed. It is clear that both from a Planning framework and strategic locational perspective, a childcare centre on the subject site is not compliant with the Policy, and is entirely inappropriate in the context of approved facilities in the vicinity. Traffic and Car Parking impacts The Development Application Report makes the presumption that the appended Traffic Impact Statement is compliant with the applicable Policy provisions. There are several matters that require further analysis and which are not addressed in the Development Application Report. In the first instance, it must be noted that access to and along what is essentially a rear laneway for purposes identified as Residential in the DAP and accompanying Indicative Development Plan, as well as being inconsistent with the DAP, is considered fundamentally inappropriate.

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.11 - cont…		There does not appear to have been much consideration given to the likely congestion and safety issues associated with the high volume of vehicles accessing, and reversing directly into the laneway – particularly adjacent to the 'T' intersection, where vehicles can approach from multiple angles, and there will be a proliferation of small children during peak periods. With regard to car parking, the proposed 4 bay shortfall is one point of contention, however to have 14 of the required 18 bays for staff use in a tandem formation will no doubt result, in practical terms, in car parking not being able to be contained on-site and therefore effecting the immediate residential area. Childcare staff often work with staggered start and finish times throughout the day. It is our experience that typically, those that arrive first leave first. A tandem parking arrangement is entirely unsuitable in these circumstances, and will result in significant disfunction of the parking area. We also note that on page 10 of the Traffic Impact Statement, it is acknowledged that the 7 existing bays along the western side of Nallan Lane would likely be used by parents at drop-off and pick-up. This represents a safety hazard, given there is no footpath or safe crossing point on this side, and this is not adequately addressed in the Traffic Impact Statement. Furthermore, these bays are intended for the use of visitors to the rear-loaded residential lots to the west, and are not provided for the benefit of the users of the childcare centre. For these reasons we submit that the parking arrangements are poorly considered and inadequate for this type of facility, and should not be approved in this form. <u>Acoustic impacts</u> The Environmental Noise Assessment notes several instances where the assigned noise level will be exceeded. The noted solution to this is the construction of a 2.1m high vertical masonry wall, with additional overhangs taking the overall height to between 2.5m and 2.85m in height around the western and southern sides of the outdoor play area. Given the subject site is situated within a residential area, a "garrison" wall of this magnitude is not representative of a good quality design outcome, and should be reconsidered. In the context of car parking and acoustics, as noted in the previous section of this submission, the Traffic Impact Assessment acknowledged that the 7 existing bays along the western side of Nallan Lane likely to be used by parents at drop-off and pick-up would also generate noise that is not accounted for in the Environmental Noise Assessment. This includes non-compliant noise generation from car doors prior to 7am, which will undoubtedly impact on the amenity of the adjoining residential area. The recommended solution to this is that the residential property at #17 Aurea Boulevard be required to construct a 2.4m high acoustic barrier at the time of development. This is an entirely unreasonable proposition, and is beyond the gift of the applicant / developer to implement. Furthermore, it will be difficult for the city to impose this requirement when #17 is developed, as a single house will generally be exempt from planning approval. It therefore cannot reasonably be assumed that the noise impacts associated with the use of these parking bays can be mitigated successfully.

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Name	Address	Comment
No.11 - cont…		The Environmental Noise Assessment takes into account a number of subjective circumstances, for which adherence is outside the realm of planning consideration, extremely difficult to enforce, and is beholden on the operator to manage. For example, limitations on times and numbers of children enjoying outdoor child play, car doors and the 'best practice' recommendations provided in part 6. For these reasons it should not be relied upon to demonstrate that the proposal will not impact on the amenity of nearby residents. **Conclusion** As demonstrated through this submission, there are a number of significant planning issues that have not been adequately addressed as part of this application. Whilst some issues such as acoustic impacts and car parking arrangements could potentially be addressed through reconsideration of the design, this will not resolve the fundamental issue of land use, and the inappropriateness of this location for a child care centre having regard to the approved centre immediately across the road, and the second centre in Secret Harbour. For these reasons, we are of the view that the application is not appropriate for this site, and should be refused by the City of Rockingham and the MOJDAP. We look forward to reviewing the City's RAR in the coming weeks, and putting our client's case to the MOJDAP when the time comes. Should you require any further information, please contact the undersigned on 0427 058 484, or via email at Cameron@riseurban.com.au
12. Ms Nikki Bombak	24 Kalli Street GOLDEN BAY WA 6174	Please reject this proposal on the grounds of increased traffic to a small laneway and increased noise pollution to local residents, some who are pensioners and home during the day. There is already approval for a childcare centre across the road from this proposal which will further impact local traffic during peak times during the day. ***** FOR YOUR IMMEDIATE ATTENTION *** Reject the proposed Child Care Centre Golden Bay** On October the 27th the City of Rockingham sent out a letter informing residence of a proposed Child Care Centre — **Which was incorrectly addressed as Lot 263 Warnbro Sound Ave** The Correct planned address is **Lot 262 Thundelarra Drive, Golden Bay** on the corner of Thundelarra Drive, Kalli Street, Nallan Lane and Aurea Blvd as seen by the pictures is the planned development. The City of Rockingham at https://rockingham.wa.gov.au/planning-and-building/local-planning/ town-planning-advertising-and-submissions/proposed-child-care-premises-golden-bay proposes

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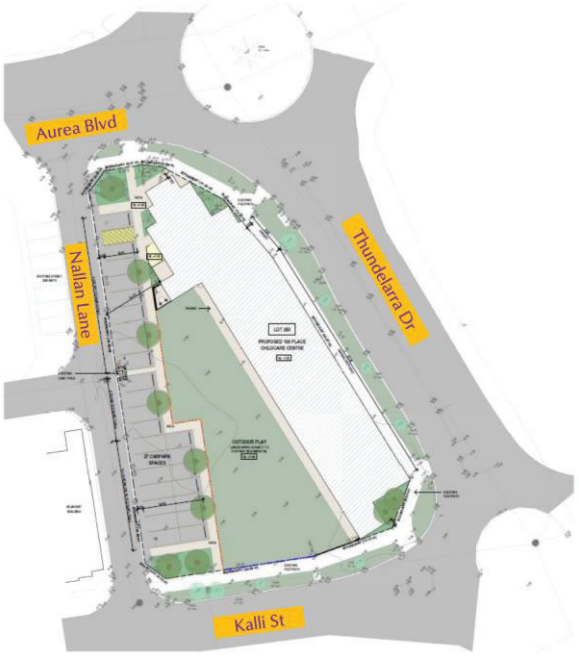
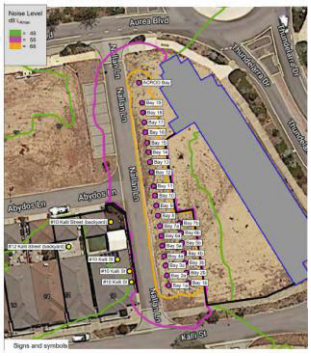
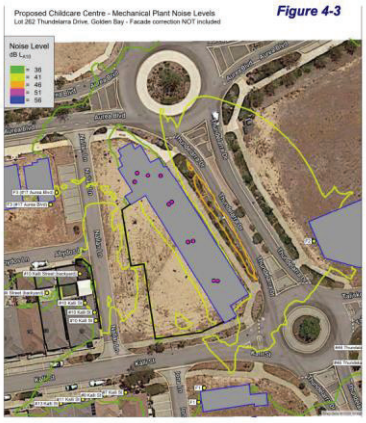
Name	Address	Comment
No.12 – cont..		 Figure 1: Location of the subject site  Figure 2: Access to the site up to 18 staff and 100 children capacity • Proposed hours of operation include 6.30am to 6:30 pm, Monday to Friday. No outdoor activities will occur between 6.30am and 7am • 27 on site car bays via access from Nallan Lane Residence who live in Kalli Street, Thundelarra and those who have garages and backyards on Abydos Lane and Pyramid Lane will be effected for a number of reasons based on the proposal reports. These include. • Noise pollution from the centre will exceed legal levels for residential areas

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.12 – cont..		• Incorrect reporting on local traffic conditions. • Increased Traffic of up 100 cars in mornings and evenings and potential 40% increase for surrounding areas • llogical design The following pages I will outline highlights from the proposals and why we need to write, phone the City of Rockingham to reject this proposal. **Noise Pollution** The Acoustic report can be found at https://rockingham.wa.gov.au/forms-and-publications/planning-and-building/local-planning/acoustic-report-golden-bay-child-care-premises and was done by a company called 'Lloyd George Acoustics Pty Ltd The Key findings from this report shows that all noise levels will exceed the legal requirement of noise pollution from the environmental protection noise regulations 1997 as there it exceeds the allowable DB prescribed. The below Graphs show that all noise pollution from child play, mechanical on site plant, increased traffic and car doors slamming in the car park exceed the legal DB levels for a residential area. The solutions presented will also be impossible to enforce and control to get these levels under control and are only a maybe. Considering no tests were done inside anyone residences or backyards we also dismiss certain findings. The following reports are noise levels including if assumed preventable sound reducing measures are introduced. **Car door slamming**  *Table 5-2 Assessment of Predicted Car Door Noise, dB L_{Amax}* Receiver | Floor | Façade | Car Door | Assigned Noise Level | Exceedence *Existing Residences* #7 Kalli St | GF | N | 59 | 56 | 3 #9 Kalli St | GF | N | 59 | 56 | 3 #10 Kalli St | GF | E | 59 | 56 | 3 #10 Kalli St | GF | E | 61 | 56 | 5 #10 Kalli St | GF | E | 61 | 56 | 5 #10 Kalli Street (backyard) | GF | - | 58 | 56 | 2 #11 Kalli St | GF | N | 58 | 56 | 2 #12 Kalli Street (backyard) | GF | - | 52 | 56 | *Complies* #13 Kalli St | GF | N | 56 | 56 | *Complies* #46 Thundelarra Dr | GF | SW | 43 | 56 | *Complies* #46 Thundelarra Dr | GF | NW | 42 | 56 | *Complies* This images above shows the proposed car park and noise levels. According to the documentation expected car door slams will exceed noise pollution levels by several DB. Just what we want at 630am-7am in the morning.

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.12 – cont..		**Mechanical Plant (exhausts, air conditioners, industrial laundry)**



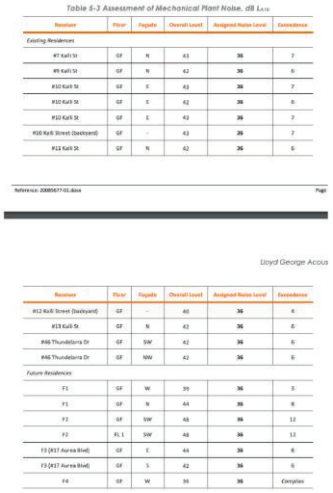


Table 5-3 Assessment of Mechanical Plant Noise, dB L_{A10}

Receiver	Floor	Façade	Overall Level	Assigned Noise Level	Exceedance
Existing Residences					
#7 Kalli St	GF	N	43	36	7
#9 Kalli St	GF	N	42	36	6
#10 Kalli St	GF	E	43	36	7
#10 Kalli St	GF	E	42	36	6
#10 Kalli St	GF	E	43	36	7
#10 Kalli Street (backyard)	GF	-	43	36	7
#12 Kalli St	GF	N	42	36	6

Reference: 20200677-01.docx Page

Lloyd George Acous

Receiver	Floor	Façade	Overall Level	Assigned Noise Level	Exceedance
#12 Kalli Street (backyard)	GF	-	40	36	4
#13 Kalli St	GF	N	42	36	6
#46 Thundelarra Dr	GF	SW	42	36	6
#46 Thundelarra Dr	GF	NW	42	36	6
Future Residences					
F1	GF	W	39	36	3
F1	GF	N	44	36	8
F2	GF	SW	48	36	12
F2	FL 1	SW	48	36	12
F3 (417 Aurea Blvd)	GF	E	44	36	8
F3 (417 Aurea Blvd)	GF	S	42	36	6
F4	GF	W	36	36	*Complies*

The above image and report shows that several residents will be effected by noise pollution from the Mechanical Plant exceeding the legal level. These levels even take into account sound reducing solutions.

Children Playground Sound Levels

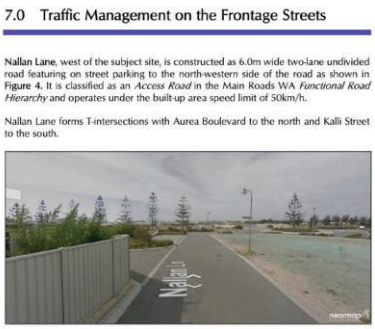


Table 5-1 Assessment of Predicted Child Play Noise, dB L_{A10}

Receiver	Floor	Façade	Childplay	Assigned Noise Level	Exceedance
Existing Residences					
#7 Kalli St	GF	N	49	46	3
#9 Kalli St	GF	N	48	46	2
#10 Kalli St	GF	E	48	46	2
#10 Kalli St	GF	E	48	46	2
#10 Kalli St	GF	E	48	46	1
#10 Kalli Street (backyard)	GF	-	49	46	3
#11 Kalli St	GF	N	47	46	1
#12 Kalli Street (backyard)	GF	-	45	46	*Complies*
#13 Kalli St	GF	N	46	46	*Complies*
#46 Thundelarra Dr	GF	SW	40	46	*Complies*
#46 Thundelarra Dr	GF	NW	40	46	*Complies*

The above images are a presumption of children play ground noise with protective measures, still exceeds the legal requirement.

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.12 – cont..		**6 RECOMMENDATIONS** The noise impacts from the proposed childcare centre to be located at Lot 263 Thundelarra Drive, Golden Bay, have been assessed against the relevant criteria of the *Environmental Protection (Noise) Regulations 1997*. Based on the modelling and assessments in relation to the noise emissions from child play and car doors closing, it is concluded that compliance can be achieved provided the recommendations in *Section 5.1* and *Section 5.2*. In addition, the following best practices in relation to child play should be implemented: • The behaviour and 'style of play' of children should be monitored to prevent particularly loud activity e.g. loud banging/crashing of objects, 'group' shouts/yelling, • Favour soft finishes in the outdoor play area to minimise impact noise (e.g. soft grass, sand pit(s), rubber mats) over timber or plastic, • Favour soft balls and rubber wheeled toys, • Crying children should be taken inside to be comforted, • No amplified music to be played outside, • External doors and windows to be closed during indoor activity / play, and • Any music played within the internal activity areas to be 'light' music with no significant bass content and played at a relatively low level. With regard to mechanical plant noise, potential exceedences were identified however, mechanical plant has not been designed in detail and therefore the following is to be considered, and reviewed, during detailed design: • All plant to be the quietest available, and • Select AC units which can operate on a 'low noise mode' prior to 7am, or potentially not operate before 7am. Data obtained from manufacturers such as Daikin (RXYQ range) or Fujitsu (AJY range) indicate that overall 4-7 dB reduction maybe be achieved by setting the unit on 'Level 2' quiet mode. When on such mode, it is also assumed that tonality would no longer be present in the noise emissions, and • Consider providing acoustic louvres or solid barriers around the AC plant e.g. 6 mm solid fibre sheeting behind architectural louvres. The height and extent of the louvers/barriers will need to be determined based on final plant selection and location, and • Kitchen exhaust fan could be located within the ceiling space and ducted to the roof, with the roof cowl then to be located furthest away from sensitive receivers, and • Allow for silencers or acoustic flexible ducts on the outside air side of all exhaust fans, and • All plant to be mounted on suitable anti-vibration mounts. <u>These recommendations are unrealistic because</u> • Children from 0-5 cannot be expected to follow • How can the council enforce? • The proposal says - No outside play between 630am-7am, but not does factor in staff and parents arriving before and during these times, outside chatter, crying kids and car doors closing. • The best practises are hard to implement and will be hard to maintain discipline • How can they enforce certain bays not to be used? • The recommendations offer no guarantee the sound levels will meet legal requirements. **Road Traffic and Safety** The Road and traffic assessment was conducted by a company called <u>Transcorehttps://rockingham.wa.gov.au/forms-and-publications/planning-and-building/local-planning/ traffic-impact-statement-golden-bay-child-care-pre</u> this report features a series of in-accurate reporting and fails to take into account local resident consideration. Further-more, the report appears have not been conducted in person

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.12 – cont..		  Transcore claim Nallan Lane is a 6 metre wide two lane road. Correct measurements are Nallan Lane is only 5.3 metres wide. And any resident who uses will tell you, it is only one way and single lane at best. Transcore reporting does state it is an “access lane” quoting a definition by Main Roads WA — But Main Roads WA does not fall under the city of Rockingham but argues it is big enough to be major road to host all the parking and entrance to the proposed site of potentially 35-75 vehicles every morning. And then claim there will be no increased traffic flow in the same report. But an Access Lane is supposed to be a small road that gives access to emergency vehicles and local residents, not hosting a major development and car park and increased traffic flow. The report does not factor in potential traffic jams through the lack of parking and where overflow could occur potentially down Abydos Lane where all our parking garages are increasing the risk of potential accidents and noise pollution for residence. Also if overflow, it leads to potential to people to park on Kalli Street and other streets, where the parking is required by local residence. The report makes wild assumptions that staff will walk or use public transport and that most people live close by will walk to the centre to play down its traffic impact report. These finding are bases on no statical figures, survey or proper local research. **Final Notes of Point** The company Planning Solutions who did the report https://rockingham.wa.gov.au/forms-and-publications/planning-and-building/local-planning/development-application-report-golden-bay-childca — Made a claim all proposals meet legal requirements, this is despite the Acoustic Sound report saying the noise pollution levels exceed the legal requirement. No one has been directly contacted or tests done on their properties to determine the accuracy of reports. Looking at the reports it appears the impact of the location has been played down to make it a favourable location as evident by the low predictions by Transcore for the local roads and inaccurate

		measurements. Planning Solutions bending the truth in various points in their proposal.
PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
No.12 – cont..		And no-one has had Lloyd George Acoustics Pty Ltd representative come into their homes, or backyards to conduct any sound tests. The solutions to these problems are illogical and not practical. Example — "No outdoor activities between 630am and 7am" does not take into account staff arriving, car noise, doors slamming, parents chatting-outside in the car park and or kids playing outside in the car park. At current, the proposal does not comply with the Environmental Protection (Noise) Regulations 1997, as they are reliant on the recommendations outlined in 5.1 and 5.2. The mechanical plant is a grey area in the design process as the noise emissions cannot be measured. This unknown variable poses a risk to the health of all residents. Furthermore, the recommendations in relation to child's play are unlikely to be adhered to due to the nature of children, and breaches of these recommendations will likely occur. Their proposal is flawed and bends the truth, and the law in order for them to gain the contract. **What YOU can do** Based on the findings we respectfully request the City of Rockingham Council to re-consider their proposal in relation to the development of the Child Care Centre Golden Bay. I submit that the plans be re-located to a different location that will not adversely impact on the health of residents, by unreasonable noise emissions as likely to occur from such a facility so close next to a residential area and potential increased traffic and safety issues for a small residential area. Please use the information to write a letter or email by November 9th and send to City of Rockingham and ATTN to 'C Parlane' with the subject 'Rejection of proposed Childcare Centre Golden Bay ; customer@rockingham.wa.gov.au Please CC our local member for parliament to his office in the same email Paul Papalia at paul.papalia@mp.wa.gov.au And CC JDAP — who the city will make there proposal too referrals@dplh.wa.gov.au Please get any friends or family who visit your house to also write a complaint and rejection. You can also sign on the online petition which I'll send on as well in due time to the city. https://www.change.org/sayNoToChildCareCentreGoldenBay In due time, we will be contacted regarding a meeting to express our views and concerns.

Schedule of Submissions
Proposed Childcare Premises - Lot 263 Warnbro Sound Avenue, Golden Bay (20.2020.291.1)

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
13. Ms Lisa Critchley	23 Kalli Street GOLDEN BAY WA 6171	To Whom It May Concern, My name is Lisa Critchley; I own my own home at 23 Kalli Street, Golden Bay. I have lived in Golden Bay for around 7 years. I am writing to reject the proposed child care business plan for Golden Bay. The proposed child care premises are very close to residential properties in the street. I believe running a child care centre in this location will increase traffic in the area (increasing emissions) and bring about excessive noise pollution (children and parents/caregivers and slamming car doors) negatively affecting residents and their visitors. It is my understanding the site is a commercial site. I think it would be highly appropriate to consult with the community regarding the needs of the people in the area. I strongly encourage further community consultation on this matter. Kindest regards, Lisa Critchley.

PUBLIC SCHEDULE OF SUBMISSIONS		
Name	Address	Comment

Schedule of Submissions
Proposed Childcare Premises - Lot 263 Warnbro Sound Avenue, Golden Bay (20.2020.291.1)

SERVICING AUTHORITY SCHEDULE OF SUBMISSIONS		
Name	Address	Comment
1. Ms Sharnie Stuart **Department of Education**		Thank you for your letter dated 23 October 2020 providing the Department of Education (Department) with the opportunity to comment on the proposed JDAP application for a Child Care Premises at Lot 263 Warnbro Sound Avenue, Golden Bay (subject site). The State Government's EduCare commitment seeks to increase the opportunity for parents to access child care related services within close proximity of public primary school sites. However, it is essential that the operation of such services would not adversely impact on the nearby public primary school/s in terms of amenity, safety, traffic and parking. The subject site is located within close proximity to Golden Bay Primary School (Primary School). The Department understands that the proposal is seeking a shortfall of four on-site car parking bays. Currently, there are several on-street parking bays directly adjacent to the Primary School. These bays are generally utilised for student drop-off/pick-up bays during peak operating times for the Primary School. The potential utilisation of the on-street car bays for the users of the proposed development may limit the drop-off/pick up parking availability for parents of the students attending the Primary School. In view of this, the Department has no objection to the proposal subject to the following conditions being imposed: • a Car Parking and Access Management Plan (CPAMP) to be submitted to and approved in writing by the City of Rockingham, in consultation with the Department. The CPAMP shall demonstrate that all drop-offs and pick-ups associated with the proposal does not impinge upon the availability of on-street parking bays, which are directly adjacent to the Primary School, during the school's peak operating times. In addition, the CPAMP shall encourage the use of alternative transportation measures to staff and users of the proposed facility; and • service delivery and waste collection during the child care premises operation be arranged at hours that do not conflict with peak school drop off/ pick up times. Should you have any questions in relation to the above, please do not hesitate to contact Sharnie Stuart, Senior Consultant-Land Planning on (08) 9264 4046 or by email at sharnie.stuart@education.wa.edu.au

Lot 3 (101) Johnson Road, Bertram – 34 Multiple Dwellings

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer	
Local Government Area:	City of Kwinana	
Applicant:	Giles Harden Jones/Harden Jones Architects	
Owner:	Renel Pty Ltd/Fred Witting	
Value of Development:	$4.09 million ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)	
Responsible Authority:	City of Kwinana	
Authorising Officer:	Senior Planning Officer	
LG Reference:	DA9805	
DAP File No:	DAP/20/01881	
Application Received Date:	27 October 2020	
Report Due Date:	29 January 2021	
Application Statutory Process Timeframe:	90 Days	
Attachment(s):	1. Development Plan Set 2. Site Context Plans 3. Perspectives 4. Previous Approved Plans 5. Arborist Report 6. Bushfire Management Plan 7. Landscaping Plan 8. Planning Assessment SPP 7.3 R-Codes Volume 2- Apartments 9. Schedule of Submissions 10. Council Minutes	
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 Outer JDAP resolves to:

1. **Approve** DAP Application reference DAP/20/01881 and accompanying plans:
   Drawing No: A.001 – Feature Survey
   Drawing No: A.002 – Site Plan
   Drawing No: A.201 – Ground Floor Plan
   Drawing No: A.202 – First Floor Plan
   Drawing No: A.203 – Roof Plan

Drawing No: A.204 – Floor Plan 1
Drawing No: A.205 – Floor Plan 2
Drawing No: A.206 – Floor Plan 3
Drawing No: A.207 – Floor Plan 4
Drawing No: A.208 – Floor Plan 5
Drawing No: A.401 – Elevation Plan 1
Drawing No: A.402 – Elevation Plan 2
Drawing No: A.403 – Elevation Plan 3
Drawing No: A.404 – Elevation Plan 4
Drawing No: A.405 – Elevation Plan 5
Drawing No: A.300 – Solar Plan 1
Drawing No: A.301 – Solar Plan 2
Drawing No: A.302 – Ventilation Plan 1
Drawing No: A.303 – Ventilation Plan 2
Drawing No: A.501 – Shadow Diagram
in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and Clause 6.1 of the City of Kwinana Local Planning Scheme No. 2, subject to the following conditions:

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. The proponent shall meet the requirements of Local Planning Policy No.5 – Development Contribution Towards Public Art (LPP5) through one of the following options:
   a. Prior to the lodgement of a building permit, submit a Public Art Report in accordance with LPP No. 5 to the City of Kwinana that details the public art to be developed as a component of the development. Prior to the occupation of the development, the approved artwork shall be installed on site to the satisfaction of the City of Kwinana; or

   b. Prior to the occupation of the development, the proponent shall provide a financial contribution of $40,900 (1% of the development cost) to the City of Kwinana in lieu of installing art work on site to the satisfaction of the City of Kwinana.

3. Prior to occupation of the proposed development, the proponent shall submit a Mosquito & Midge Management Strategy for approval by the City of Kwinana.

4. Arrangements being made with the City of Kwinana to the satisfaction of the Western Australian Planning Commission, for the landowner/applicant to contribute towards the costs of providing community infrastructure as established through Amendment 145 (when gazetted) to the City of Kwinana Local Planning Scheme No. 2.

5. Prior to occupation of the proposed development, the landowner/applicant contributing towards development infrastructure provisions pursuant to the City of Kwinana Local Planning Scheme No. 2.

6. Prior to the commencement of site works, fencing in accordance with AS 4970-2009 is to be installed and maintained for the duration of all development works around retained trees as identified in Figure 1 of the Preliminary Tree Survey Report prepared by David Cuddihy, dated 18/10/2020 to the satisfaction of the City of Kwinana; and,

   The recommendations of the Preliminary Tree Survey Report prepared by David Cuddihy, dated 18/10/2020 to be implemented to the satisfaction of the City of Kwinana.

7. The applicant shall implement dust control measure for the duration of site works to the satisfaction of the City of Kwinana.

8. Prior to the submission of an application for building permit, a lighting plan for the following areas is to be submitted to and approved by the City of Kwinana:
   a) Pathways;
   b) Communal open space;
   c) Pedestrian and vehicle entry points; and
   d) Vehicle access and car parking area.

9. Prior to the submission of an application for building permit, the Waste Management Plan prepared by Harden Jones Architects (Rev A) and dated 09/12/2020 is to be amended to the satisfaction of the City of Kwinana; and

   The approved Waste Management Plan shall be implemented thereafter, prior to the occupation of the development, to the satisfaction of the City of Kwinana.

10. Prior to the submission of an application for building permit, the plans are to be amended to show car parking bay no.22 being relocated to be a tandem arrangement with car parking bay no.36.

11. Prior to the submission of an application for building permit, the plans are to be amended to be consistent with the approved landscaping plan, specifically in relation to the design of the outdoor living paved area for Units 6 and 7.

12. All bin storage areas are to be constructed of the same design and materials as the Multiple Dwellings to the satisfaction of the City of Kwinana.

13. Prior to the submission of an application for building permit, an Energy Efficiency Plan demonstrating adoption of at least one (1) energy efficiency initiative is to be submitted to and approved by the City. The approved Energy Efficiency Plan shall be implemented thereafter prior to the occupation of the development to the satisfaction of the City of Kwinana.

14. Prior to the submission of an application for building permit, details of all external fixtures, utilities and facilities (including the location and size of plant equipment, vents, water heaters and air conditioning units) are to be submitted to and approved by the City; and

    Prior to occupation of the development, all external fixtures, utilities and facilities are to be installed in accordance with the approved details and adequately screened from view from surrounding streets and residents or public realm, and integrated into the design of the development to the satisfaction of the City.

15. Prior to submission of a building permit, the landscaping plan is to be amended to indicate the following to the satisfaction of the City of Kwinana:
    a. Vegetation on trellis wire where noted on the plan no. A202 adjacent to the Common Area and 'Block E' dwellings.
    b. Additional 'Small' trees (100L) on the north, east and southern boundaries.

    The Landscaping shall be installed in accordance with the approved Landscaping Plan (as amended) prior to the occupation of the development and maintained thereafter to the satisfaction of the City of Kwinana.

16. Prior to occupation of the development permanent fixed and obscure glazing is to be installed for all major openings indicated on the approved plans to be screened and/or installed with white glass to 1.65m to the satisfaction of the City of Kwinana.

17. Prior to the occupation of the development, vehicle parking bays are to be constructed in accordance with AS2890, clearly marked on the ground and drained prior to occupation of the development to the satisfaction of the City of Kwinana.

18. Prior to the occupation of the development, two on site visitor parking bays are to be sign posted and thereafter maintained to the satisfaction of the City of Kwinana.

19. Prior to occupation of the development, electric clothes drying facilities shall be provided for all multiple dwellings to the satisfaction of the City of Kwinana.

20. The development shall at all times comply with the requirements and recommendations of the Bushfire Management Plan prepared by Working On Fire Planning Pty Ltd and dated 16 December 2020, reference number: 20200908 (Rev 2) to the satisfaction of the City of Kwinana.

21. Stormwater is to be contained and disposed of on site to the satisfaction of the City of Kwinana.

22. The crossover is to be constructed to the satisfaction of the City of Kwinana. The existing footpath is to remain in place as it currently exists and the crossover to tie in with it.

23. Vehicle parking is not permitted within the Johnson Road reserve.

Advice Notes

1. In regards to the Mosquito and Midge contribution condition, the applicant is advised to contact the City of Kwinana Environment and Health Department for further information and the current cost contribution.

2. In relation to the amended Waste Management Plan, this plan is to reflect the current development layout, which addresses the management, maintenance, location of bin storage and collection facilities and, details of public liability insurance to cover damages and injury that may occur as the result of waste collections carried out by the City of Kwinana's contractor shall be submitted to and approved by the City of Kwinana prior to the lodgement of a building permit application for the development.

3. The applicant is advised that under section 51C of the Environmental Protection Act 1986 (EP Act), clearing of native vegetation is an offence unless undertaken under the authority of a clearing permit, or the clearing is subject to an exemption. Exemptions for clearing that are a requirement of written law, or authorised under certain statutory processes, are contained in Schedule 6 of the EP Act. Exemptions for low impact routine land management practices outside of environmentally sensitive areas (ESAs) are contained in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (the Clearing Regulations). You are advised to contact the Department of Water and Environment Regulation for further information.

4. The applicant is advised that this conditional development approval is not a building permit giving authority to commence construction. Prior to any building work commencing on site a Building Permit must be issued and penalties apply for failing to adhere to this requirement.

5. The applicant should ensure the proposed development complies with all other relevant legislation, including but not limited to, the Environmental Protection Act 1986 and Regulations, Health (Miscellaneous Provisions) Act 1911 and Regulations, and the National Construction Code.

6. The applicant is advised that the Minister for Planning has issued a formal notice extending the deadline for substantial commencement by an additional two (2) years for all applications approved during the current State of Emergency. In effect, this means that the timeframe for substantial commencement is now four (4) years from the date of this determination.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of Kwinana Local Planning Scheme No.2
Local Planning Scheme - Zone/Reserve	Residential R40
Structure Plan/Precinct Plan	Casuarina Local Structure Plan (May 1998)
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	Multiple Dwelling – SA
Lot Size:	4068m^2
Existing Land Use:	Vacant Land
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	Yes
Swan River Trust Area	No

Proposal:

Proposed Land Use	Multiple Dwellings
Proposed Net Lettable Area	N/A
Proposed No. Storeys	2
Proposed No. Dwellings	34

The subject application is for 34 Multiple Dwellings on Lot 3 (101) Johnson Road, Bertram (subject site). The property is surrounded by established residential zoned land with the proposed dwellings obtaining access from Johnson Road. The site is currently vacant.

Key elements of the proposed development are as follows:

- 34 dwellings distributed across 5 two-storey buildings (referred to as 'Blocks');
- 30 two-bedroom and 4 one-bedroom dwellings, inclusive of 7 Universal Design dwellings at the ground floor level (Block A and B);
- 36 car bays for residents and visitors;
- 16 resident bicycle bays and 5 visitor bicycle bays;
- A multi-storey communal open space area located in the middle of the site;
- One central vehicle access point; and
- 3 bin stores.

The development plans can be seen in Attachments 1 and 3.

Background:

Site Context

The subject site is 4068 square metres in size and is currently vacant. A number of significant, established trees exist on the site. The proposed Multiple Dwellings are distributed across five, two storey buildings with vehicle access being obtained via a crossover from Johnson Road.

Johnson Road is a north-south distributor road which extends through the suburb of Bertram, running parallel to the Kwinana freeway. The subject site is zoned Residential R40 under the City of Kwinana Local Planning Scheme No.2 (LPS2). In terms of existing context, the subject site borders onto established Residential R20 zoned properties to the north, east and south. These established R20 lots range between 500 to 550 square metres in area. See Attachment 2 showing the site context.

Site History

The relevant historical events relating to the subject site is listed below:

> January 2013
>
> A Development Application (City Reference: DA7520) for 34 two storey Multiple Dwellings at the subject lot was approved in January 2013. See Attachment 4 showing the previously approved plans.
>
> It should be noted that the application was approved under the Planning and Development Act 2005 which requires development to be substantially commenced within two years from the date of approval.

January 2017
Since the application was approved in 2013, the proponent requested the City renew the application on two occasions as works on the site had not yet commenced. In January 2017, City Officers issued approval for the application to be renewed and be valid for a further two years. The plans and conditions, as approved under DA7520 in January 2013, were unchanged as part of this renewal.

The above application has now expired and the subject application with a revised design has been submitted considering new State Planning Policy has recently been released in relation to the development of apartments. State Planning Policy 7.3 – Volume 2: Apartments was gazetted in May 2019 and is required to be considered in the assessment of all multiple dwelling (apartment) applications.

Legislation and Policy:

Planning and Development (Local Planning Schemes) Regulations 2015
Development approval is required in accordance with Clause 60 of Schedule 2 ('Deemed Provisions') of the Planning and Development (Local Planning Schemes) Regulations 2015 ('the Regulations 2015'); as the proposed use and works are not exempt from approval under Clause 61 of the deemed provisions.

City of Kwinana Local Planning Scheme No.2
The application has been considered under the relevant requirements of the City's Local Planning Scheme No. 2 (LPS2). Further commentary is provided in the Planning Assessment section.

State Government Policies

- State Planning Policy 3.7 – Planning in Bushfire Prone Areas:
  The application was considered against this State Planning Policy as the subject lot is within a Bushfire Prone Area. A Bushfire Management Plan was provided and referred to the Department of Fire and Emergency Services for comment.

- State Planning Policy 7.3 – Residential Design Codes Volume 2 – Apartments (R-Codes Vol.2):
  The application was considered with regard to the applicable element objectives for multiple dwellings as outlined within the R-Codes Vol.2. Further commentary is provided in the Planning Assessment section below.

Local Planning Policies

- Local Planning Policy No. 4 – Local Planning Policy 4 Administration of Development Contribution Plans:
  The application was considered against this Local Planning Policy as the proposed development is affected by Development Contribution Areas as detailed in Schedule V of the Scheme. This is further discussed in the Planning Assessment below.

- Local Planning Policy No. 5 – Development Contribution towards Public Art:

The application was considered against this Local Planning Policy as the proposed development is valued greater than $2 million. This is further discussed in the Planning Assessment below.

- Local Planning Policy No. 8 – Designing Out Crime:
  The application was considered to meet the relevant provisions of this Local Planning Policy for CPTED design.

Consultation:

Public Consultation

The application was advertised to all landowners (via mail out) within 50 metres of the subject site for a period of 21 days. A total of eight submissions were received during the advertising period. All submissions raised various concerns in relation to the proposed development. A Schedule of Submissions can be found in Attachment 9. The issues raised within the submissions are summarised in the table below.

Issue Raised	**Officer comments**
Traffic: 1. Concerns were raised in relation to the increased traffic in the area that will be generated as a result of this development. 2. Concerns were raised that an increase in traffic on Johnson Road (which is currently a busy road) will increase noise and light spill impacts on existing dwellings. 3. Submitters noted congestion on Johnson Road is commonly a result of the bus stopping at the bus stop that is directly opposite the proposed development. Concerns raised that the proposed development will generate excessive traffic and congestion that would pose a safety issue on residents living in the area. 4. Concerns were raised in relation to an increase in vehicle pollution caused by every residence in a small land area.	1. The proposed development provides parking in accordance with the acceptable outcomes of the R-Codes Volume 2. A total of 36 parking bays are provided on site. The existing road network is considered to be adequate to accommodate for an additional 36 vehicles. 2. City Officers acknowledge that the proposed development will likely increase vehicle noise and light spill as compared to the current situation. However, the subject site has been zoned R40 and is capable of such development. Regardless, noise and light spill are matters that are regulated under the Environmental Protection Regulations. 3. As previously outlined, the existing road network is considered to be adequate to accommodate for an additional 36 vehicles. It should be noted that the proposal encourages other forms of transport such as cycling with each unit having a bicycle storage area. 4. Vehicle pollution is not a planning matter.
Parking: 1. Concerns identified there is limited off street parking available in the existing residential area and the proposed development	1. The total number of parking bays being provided on the site is consistent with the R-Codes Volume 2. Two visitor parking bays are provided on the site. A condition is added to ensure vehicle parking is not within the Johnson Road reserve.

will make an existing parking situation worse. 2. Concerns were raised in relation to the proposed development and that it will make parking difficult for visitors of existing residents in the neighbourhood. 3. Concerns were raised that there is no parking on Johnson Road, enhancing traffic safety issues. 4. A submitter requested that 'Block E' (first floor) be removed and 'Block D' removed altogether to reduce the number of dwellings which in turn would address concerns regarding insufficient car parking on site as there would be fewer dwellings.	2. The proposed development is not envisaged to impact on visitor parking for residents in the neighbourhood. As outlined above, visitor parking bays are provided within the site. 3. The City's Engineering Department have confirmed that parking within the Johnson road reserve is not possible due to the width of the road reserve and services within the reserve. Parking in the road reserve would create a safety issue. 4. The proposed density of the development is considered to meet the objectives of the R-Codes Volume 2. See the planning assessment below for further commentary.
Tree Retention/Landscaping: 1. Submitters stated that existing trees on the site attract bird species all year round and add aesthetic value to the existing neighbourhood and therefore development on the subject site must retain existing vegetation. 2. Concerns were raised in relation to the proposed plans that indicate trees to be retained in the centre of the site - the trees are much larger than indicated on the plans. The 'Block D' units will impact on the trees to be retained in the common area. The proposal for an 82m2 common area to retain the existing trees is unrealistic as these existing trees are very large and have a significant span that is relatively low to the ground. 3. The landscaping plan indicates trees on the permitter of the development. Concerns were raised that the number of trees indicated on the perimeter is insufficient and a higher quantity	Refer to the discussion below in this report under the heading: Tree Canopy and Deep Soil Areas: 1. The applicant provided an arborist report (refer to Attachment 5) to confirm that the retention of 7 of 10 existing trees is possible with the proposed development design. 2. A condition is added for the provision of an increased number of 100 Litre (small trees up to 8m) to be provided on the site and indicated on the Landscaping Plan. 3. As outlined above, a qualified arborist has provided a report that confirms the proposal for tree retention is feasible. The City's Landscape Architects have also reviewed the Landscape Plan and did not raise any further concerns in this regard.

of mature trees is to be planted to assist with reducing impacts of privacy on adjoining lots, specifically applicable in relation to the balcony from Unit 28. 4. A submitter recommended the tree retention issue (as per point 2 above) be resolved by removing 'Block D' from the plan. This would provide greater space for a better implemented common space that does not adversely impact retained trees.	
Overshadowing: 1. Concerns were raised in relation to overshadowing to the south that will impact on the outdoor living area and vegetation on the adjoining properties. 2. Concerns were raised that the proposed development is not in keeping with Objective 3.2.2 of the R-Codes, Volume 2. Overshadowing from the proposed development impacts on the entire backyard and outdoor living area on the adjoining properties to the south. The overshadowing will also impact on the use of the adjoining property backyard areas including vegetable gardens and clothes drying areas. 3. Concerns were raised that overshadowing from the proposed development prevents winter sun from entering the main living area and habitable rooms on the adjoining property dwellings, particularly to the south. 4. Concerns were raised in relation to the overshadowing on adjoining properties to the south, which will impact on the practical use and enjoyment of the back yard and major habitable areas in the house.	The proposal is consistent with the objectives and acceptable outcomes of the R-Codes Volume 2 in relation to overshadowing. See discussion regarding overshadowing in the planning assessment section of this report.

5. A submitter recommended the development design be amended by making Block 'E' single story instead of two (double) storey to reduce impacts of overshadowing.	
Bushfire: 1. Concerns were raised in relation to the proposed development and the fact it is located opposite a conservation reserve. The number of dwellings will increase the number of people in the area, which could lead to evacuation issues during a bushfire emergency.	1. A Bushfire Management Plan (BMP) was submitted as part of the application. The BMP was referred to the Department of Fire and Emergency Services for comment and meets relevant bushfire planning requirements as required under State Planning Policy 3.7.
Density: 1. Concerns were raised that the proposed development is out of character with the existing, much less dense, family oriented development that characterises the area. 2. Submitters stated the development plans indicate a plot ratio of 0.57, where 0.6 is permitted, showing this development is at the upper limit. Concerns were raised that the proposed development is not in keeping with the local context of single level family homes. 3. Concerns were raised that the proposal is the most dense apartment development in the Kwinana area (apart from Wellard Village). The proposed development would be better suited closer to a train station and a proposal with fewer dwellings would be better suited in this context. 4. Concerns were raised that the proposal is out of character with the existing neighbourhood and will become an eyesore.	1. The proposal for 34 multiple dwellings is consistent with the R40 zoning of the lot. The intention of this lot is to provide for dwelling diversity which is a key planning principle. Further discussion on Density can be seen in the Planning Assessment section of this report below. 2. As above – see Planning Assessment Section below. 3. The proposed development is opposite a bus station and less than 900 metres from the Kwinana train station. Furthermore, a similar zoned, vacant R40 lot is located only 300 metres north of the site and has potential for similar type of development. 4. The proposed development is double storey. Although all existing dwellings in the near locality are single storey, they are permitted to be double storey. The City promotes diversity of dwelling types which includes the provision of one and two bedroom dwellings as well as single and double storey designs. However there is no requirement in LPS2 or planning policy that requires this outcome. 5. The proposed density of the development is consistent with the objectives of the R-Codes Volume 2, in relation to plot ratio. Further discussion on this can be seen in the planning assessment section.

5. A submitter stated that 34 dwellings means at least 75 people in a small space which is too many people in a small space and will have adverse impacts on the area. 6. Concerns were raised in relation to the density of the proposed development which could impact on the local primary school in the area which lacks the room to expand. 7. Concerns were raised that the proposed development will have a large volume of people living closely together, which can have negative social impacts.	6. The proposal is for one and two bedroom dwellings. This type of development would generally not support larger families that could impact on the capacity of the local primary school. 7. The proposed development is designed to incorporate significant landscaping and a communal area that is central to the site. These design elements seeks to promote passive surveillance which in turn reduces negative social impacts. The development has been considered against the City's CPTED policy that incorporates design elements seeking to achieve greater passive surveillance of common areas while providing adequate private living areas to reduce negative social impacts. As mentioned in a number of points above, refer to the Planning Assessment section of this report for further discussion on the matter of density.
Amenity & Building Design: 1. A submitter requested clarity on the plans submitted as part of the application which indicate four pillars to the rear of the property. 2. Concerns were raised that the proposed development will dominate private open space and negatively impact on the visual amenity of adjoining properties due to the bulk of the development. 3. Concerns were raised that the proposal will impact on the single storey dwellings in the area which currently enjoy views of the natural reserve areas. 4. Concerns were raised in relation to the future of the proposed development and that it could be a public housing development that could have adverse impacts on the amenity of the area and existing residents.	1. The applicant has stated that these pillars are for the parking trellis structure which will have vegetation over. There will be no adverse impact on the adjoining property as it is an unenclosed trellis structure. 2. The proposed development is a maximum of 2 storeys and is generally designed with a variety of finishes and articulations. It is considered that the proposed development generally meets the Element Objectives of the R-Codes Volume 2 in terms of the overall design with some minor elements subject to conditions of approval. 3. It should be noted that the proposed development is generally consistent with the higher R40 zoning than the surrounding R20 zoned development. Double storey development is permitted on R20 zoned lots. Additionally, if the site were to be developed with single storey R20 development, views of the natural reserve area to the west of Johnson Road would still be impacted. 4. The proposed development is a private initiative. A variety of 1 bedroom, 2 bedroom and universal accessible dwellings are proposed which will provide for housing diversity – a key

	planning principle. The ownership of dwellings or tenancy is not a planning matter.
Noise: 1. Concerns were raised in relation to the construction of the proposed development which could result in the structural integrity of existing dwellings being compromised and dust and noise from the site adversely impacting adjoining properties. 2. Concerns were raised in relation to the existing dwellings to the east, where the proposed internal driveways extend, will be impacted by noise from vehicles entering and parking within the site. A submitter recommended a limestone block wall to a minimum height of 1800mm be constructed by the developer on the eastern boundary to reduce noise levels. 3. Concerns were raised that the proposal for 34 dwellings on a lot of this size will increase noise levels, thus disturbing the quiet neighbourhood. 4. Concerns were raised in relation to the location of proposed courtyards that are directly adjacent to the eastern boundary and in close proximity to adjoining properties, increase noise impacts on adjoining lots. 5. Additional vehicles using the local road network and entering the site as a result of the development will increase noise levels in this quiet area.	1. A condition is added to ensure the dust control measures are in place during construction stage. It is considered that noise emissions from the development will not negatively impact on the amenity of the surrounding residential properties. An advice note has been recommended in this report informing the proponent of this development of their obligation under the *Environmental Protection (Noise) Regulations 1997*. 2. City Officers acknowledge concerns regarding vehicle noise emanating from the site into adjoining property outdoor living areas. It is considered that the boundary fence up to 1.8 metres in addition to landscaping along the eastern boundary (hedging) will reduce impacts of noise. 3. While it is acknowledged logically noise levels could increase as a result of this development in the area, the development is obliged to comply with the *Environmental Protection (Noise) Regulations 1997*. 4. The courtyards for Unit 12 and 13 are located adjacent to the eastern boundary. Each courtyard is 1.8 metres by 1.8 metres and is designed with a tree (up to 8m tall) and a significant hedge adjacent to the boundary (see landscaping plan). The size of the courtyards and the landscaping proposed will contribute to limiting impacts of noise. 5. See comments above regarding the issue of 'Traffic'.
CPTED: 1. A question was raised that if the dwellings promote a lower socio-economic status, who will be accountable for the increase in crime and theft?	1. The subject application has been considered against the provisions and principles of the City's Local Planning Policy No. 8 and is considered to comply therewith. The behaviour of occupants is not a planning matter.
Visual Privacy: 1. Concerns raised in relation to properties that are adjoining the proposed development will lose privacy. Submitters proposed no	1. The applicant has provided amended plans that clearly identify windows to be installed with obscured glazing and balconies that have visually impermeable screening. The installation of permanent screening and/or obscure

windows or balconies shall overlook adjoining properties. 2. Raised concern that a number of properties will lose a significant amount of privacy specifically due to the design of Units 28, 29, 30 and 31. 3. The balcony for Unit 28 has full line of site into the backyard of 11 and 13 Waterfields Drive. The proposed screening only covers a small corner of the balcony and seems to be visually permeable. The screening is insufficient and provides a full line of sight into adjoining property habitable rooms and outdoor living area. 4. Unit 29/Unit 30: Upper floor windows do not provide adequate privacy. The plan indicates 'white glass' to 1650mm only with the remaining window are remaining clear. This impacts on the privacy on the adjoining lots. There is no indication that these windows open. The submitter requested 'White Glass' be added to the entire height of the windows. 5. Unit 29/Unit 31: The plans indicate a 'hi-light' window that can slide open which will impact the privacy of adjoining lots. The submitter requested 'white glass' on the windows that face directly onto the backyards of all residents along Waterfields Drive.	glazing is recommended as a condition of approval. 2. Concerns relating to impacts of visual privacy on adjoining lots from Units 28, 29, 30 and 31 were relayed to the applicant who amended the plans to incorporate additional screening. 3. The applicant provided amended plans that demonstrate a minimum 1.8 metre high privacy screen (visually impermeable) for a portion of the Unit 28 balcony to satisfactorily reduce impacts of overlooking. 4. The proposed obscure glazing (white glass) up to 1650mm above the floor level is considered adequate and will have minimal impacts of overlooking. A condition is recommended to ensure the applicable windows are fixed (i.e. not openable). 5. All proposed 'hi-lite' windows have a minimum sill height of 1800mm above the floor level to reduce impacts of overlooking. It should also be noted that all windows facing adjoining properties to the south are from bedrooms and where obscured glazing is not proposed, the minimum setback to the boundary is 4.5m as per the relevant Acceptable Outcomes. The development has been designed to have major habitable areas (such as living room and balconies) away from the southern boundary, reducing impacts of visual privacy. This matter is discussed further below under the planning assessment: Visual Privacy.
Property Value: 1. Concerns were raised that the proposed development will decrease the value of existing properties in the vicinity.	The matter of a development's impact on surrounding property values is not a planning matter.

Referrals/consultation with Government/Service Agencies

The application was referred to two external agencies:

- Department of Water and Environmental Regulation (DWER)
- Department of Fire and Emergency Services (DFES)

The key issues that were identified in the referral responses are outlined below.

DWER:
The Department does not object to the proposal, although it recommended that should the City issue planning approval, no exemption will apply to any proposed clearing of remnant vegetation and a clearing permit is required. As identified within the arborist report (see Attachment 5), three of the 10 existing trees on the site are proposed to be cleared. The Department's comments are recommended as an advice note.

DFES:
The subject lot is located within a Bushfire Prone Area and was therefore referred to DFES for comment. DFES provided a response, particularly in relation to the Bushfire Management Plan that was submitted by the applicant. A number of amendments were requested by DFES and have been satisfactorily addressed by the applicant. An assessment of the BMP and State Planning Policy 3.7 has been undertaken and the proposal is considered to be satisfactory from a bushfire planning perspective. The Bushfire Management Plan can be seen in Attachment 6.

Planning Assessment:

City of Kwinana Local Planning Scheme No.2
The subject land is located within the 'Residential' zone of the City's LPS2.
It is noted that the land use: 'Multiple Dwelling' is an 'SA' land use which requires advertising under the LPS2. The proposal was advertised as required, with 8 submissions received.

The subject site has a density coding of R40 under LPS2. This density coding is higher than the surrounding residential development which is coded at R20. Therefore, the surrounding development is of a consistent pattern of single houses. The addition of Multiple Dwellings is a change to the existing streetscape. However, it is noted that while the dwellings in the locality are predominantly single storey, they are permitted to be two storey. While a row of two storey single houses in an R20 zone would typically have a setback between each dwelling, the staggered setbacks of the multiple dwellings made possible by the use of balconies seeks to break up the building mass and create a more interesting streetscape interface.

Additionally, the residential nature of the land use complements the existing character of the area. In this regard, City Officers note that under the R40 zoning, a possible scenario could be for the development of 18 single storey houses on the site. In this scenario, each dwelling would have up to four bedrooms and two car parking bays. This equates to a total of 36 car parking bays and up to 72 bedrooms compared to the proposed 36 parking bays and 64 bedrooms as part of this subject application. This demonstrates that the proposed development accommodates for a similar population as the scenario where single storey houses are proposed.

Given the increase in density compared with the surrounding sites, it is considered that this type of development was intended for this larger site. The proposed development contributes to increasing housing diversity within the locale and provides for passive surveillance of the reserve to the west of Johnson Road.

Local Planning Policy No. 4 – Local Planning Policy 4 Administration of Development Contribution Plans

The proposed development is impacted by Development Contribution Areas (DCA's) as detailed in Schedule V of LPS2. As a result, LPP4 applies to the subject land and elaborates on the implementation of the development contribution plans. The City has 15 DCA's and Lot 3 Johnson Road is subject to three DCA's: 1, 7 and 13. DCA's 1-7 relate to development contributions for civil infrastructure such as roads and DCA's 8- 15 relate to contributions for community infrastructure such as local community centres. DCA's 8 – 15 are currently subject to a LPS2 amendment (Amendment 145) so all cost contributions are provisional until the Amendment is gazetted.

This policy requires City Officers to *Impose conditions of planning approval that require the payment of development contributions.*

Therefore, conditions of approval to this effect (for both the community infrastructure and civil infrastructure) are included in the recommendation.

Local Planning Policy No. 5 – Development Contributions towards Public Art

The application was considered against LPP5 as the proposed development is valued greater than $2 million. This policy requires a public art contribution be provided for new developments valued over $2 million. The public art contribution requirement can be met in a variety of ways, including the provision of public art on the subject site or on public land, or a financial contribution.

The City considers the policy requirements are relevant to the proposal as it has a reasonable planning purpose and the development is highly visible from the public realm. A condition of approval requiring adherence with the policy is included in the recommendation.

State Planning Policy 7.3 – R-Codes Volume 2:

The application has been assessed against SPP7.3 –Residential Design Codes Volume 2 Apartments (R-Codes Volume 2). A full assessment of the proposed development against R-Codes Volume 2 can be seen in Attachment 8.

Specifically, the following matters have been considered as key considerations for this application:

- Parking
- Tree canopy and deep soil areas:
- Overshadowing:
- Density:
- Visual Privacy:
- Side & Rear Setbacks
- Energy Efficiency
- Waste Management

These matters are discussed below.

Parking

The proposed development is considered to provide sufficient parking and is sufficient with the R-Codes Volume 2 as noted in the table below:

Element objective	Relevant acceptable outcome and/or design guidance	Proposal
O3.9.2 -Car parking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres. O3.9.4 – The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.	Table 3.9: Parking Ratio	36 car parking bays are provided on site.

The proposal is consistent with the acceptable outcomes of Element 3.9, with 34 bays and two visitor bays being provided. The proposal is consistent with the objectives of Element 3.9 as the development is within 900 metres of a train station and a bus stop is located adjacent to the site on Johnson Road allowing for reduced car parking. Furthermore, the development is for predominately two bedroom dwellings, with only one car bay per dwelling considered to be a reasonable ratio.

In order to better meet the objectives of Element 3.9, City Officers consider the proposed location of car parking bay no.22 has a negative impact on the amenity and safety for users of the common area. Therefore, a condition is recommended to relocate car parking bay no. 22 to be a tandem arrangement with car parking bay no.36. This design will ensure the number of parking bays on site is not reduced and provides for a greater common area that is safe for all users. This has been verbally discussed with the applicant who has agreed in principle with this condition.

Tree Canopy and Deep Soil Areas:

The proposed development excels in the retention of existing established vegetation on the site as noted in the assessment table below:

Element objective	Relevant acceptable outcome and/or design guidance	Proposal
O3.31- Site planning maximises retention of existing healthy and appropriate and protects the viability of adjoining trees O3.3.3 - Development includes deep soil areas, or other infrastructure to	Table 3.3a: Minimum Deep Soil Area and Tree Provision Requirements	7 of the 10 existing trees on the development site are proposed to be retained. A detailed Landscaping plan provided. The development proposes a total deep soil area of 11.3% which meets the 7%

support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.		deep soil area requirements outlined in Table 3.3a.

The proposal is consistent with the objective of Element 3.3 as the majority of large trees that exist on the site are proposed to be retained. An arborist report has been provided (see Attachment 5) that demonstrates the feasibility of the retained trees. Majority of retained trees are located in the Communal Open Space area.

Significant deep soil planting areas are also proposed throughout the site. Diverse and innovative planting is proposed across the site with small and medium trees, particularly along the side and rear boundaries to reduce impacts of building bulk on adjoining properties and provide greater amenity for Outdoor Living Areas.

Adequate deep soil areas have been proposed and the development is compliant with the 7% deep soil area requirements outlined in Table 3.3a of the R-Codes Volume 2. As indicated above, a landscaping plan has been submitted which, in addition to retaining 7 existing large trees on site, illustrates 14 new medium trees and a variety of small trees to comply (and exceed) the suggested acceptable outcomes of both Table 3.3a and 3.3b of the R-Codes Volume 2. Given the increased deep soil areas and retention of existing trees, it is considered that the proposal adequately satisfies the landscaping requirements.

The majority of small and medium trees proposed to be planted are located along the side and rear boundaries. The small trees can grow up to 8 metres tall, which seeks to reduce any impacts of building bulk on the adjoining properties. Furthermore, the landscaping will increase amenity for both residents on the site and adjoining properties and seek to address other impacts such as noise reduction, visual privacy while enhancing overall amenity. It should be noted that suitable conditions have been included in the Officer Recommendation to ensure consistency across plans and further demonstrate compliance with these aspects.

<u>Orientation:</u>

Impacts of overshadowing as a result of the proposed development have been considered against Element 3.2 of the R-Codes Volume 2. Impacts of overshadowing will primarily be on the adjoining properties to the south which back onto the development site. Concerns to this affect were raised in submissions received during the advertising period as previously discussed in this report.

The proposed development meets the acceptable outcomes as seen in Element 3.2 as seen in the table below:

Element objective	**Relevant acceptable outcome and/or design guidance**	**Proposal**
O3.2.2 Building form and orientation minimises	A3.2.3 - Development shall be designed such that the shadow cast at midday on 21st June onto any adjoining	Overshadowing to the adjoining properties to the south: Lots 4, 5,6 Waterfields Drive is a maximum of 25%

overshadowing of the habitable rooms, open space and solar collectors of neighbouring properties during mid-winter.	property does not exceed adjoining properties coded R25 and lower – 25% of the site area.	(Lot 4 = 25%; Lot 5 = 18%; Lot 6 = 9%). See Overshadowing Plan in Attachment 1.

The proposal is consistent with the acceptable outcomes of Element 3.2, with the maximum overshadowing equating to 25% of the adjoining property site area. It is acknowledged that overshadowing from the proposed development will impact on the adjoining lots (to the south) and portions of outdoor living areas. However, there will be no impacts on solar collectors on the adjoining lots. Additionally, there are some portions of outdoor living areas on the adjoining properties that have access to sunlight on June 21 as seen in the image below (red clouds). It is noted that while majority of the outdoor living area for lot 5 Waterfields Drive is affected by overshadowing, there is a significant front setback area of the dwelling that is not affected by overshadowing and is capable of active and passive use.



The objective has been met via acceptable outcomes Element 3.2.

Density:

Density of the development has been considered under Element 2.5 – Plot Ratio of the R-Codes Volume 2 as seen in the table below:

Element objective	**Relevant acceptable outcome and/or planning guidance**	**Proposal**
O2.5.1 - The overall bulk and	Table 2.1: Plot Ratio Requirements	34 multiple dwellings with a maximum height of two stories

scale of development is appropriate for the existing or planned character of the area.		is proposed. A plot ratio of 0.63 is proposed.

Although the proposal varies from the acceptable outcomes of Element 2.5, Table 2.1 which outlines a plot ratio of 0.6, the proposed development is a maximum of two storeys with this height permitted on all surrounding properties. Plot ratio is the total floor area (excluding storage areas) of all dwellings combined, divided by the total site area. The proposed plot ratio of 0.63 in lieu of 0.6 equates to an additional 127 square metres of floor space. This variation is considered minor and will not have a significant impact on overall building bulk. This is further emphasised when considering the additional floor area of each individual unit equates to 3.7 square metres.

In addition to the above, an R40 zoned lot is located less than 300m to the north of the subject site that has the potential for similar type development as highlighted in the image below. This further demonstrates the proposal is consistent with the objectives of Element 2.5 in that the scale of the development is consistent with the planned character of the area.



Visual Privacy:

As outlined above, concerns were raised from submitters during the advertising period in relation to impacts of overlooking and visual privacy. In this regard, the development has been considered against and is considered to achieve the objectives of Element 3.5 of the R-Codes Volume 2 by implementing the acceptable outcomes suggested (Table 3.5).

Element objective	Relevant acceptable outcome and/or planning guidance	Proposal
O3.5.1 – The orientation and design of buildings, windows and balconies minimises direct overlooking of habitable rooms and private outdoor living areas within the site and of neighbouring properties, while maintaining daylight and solar access, ventilation and the external outlook of habitable rooms.	Table 3.5: Required Privacy Setback to Adjoining Sites	All major openings (windows and balconies) are setback in accordance with Table 3.5 and/or are screened with obscure glazing/screening.

All major openings are setback from side and rear boundaries in accordance with Table 3.5, minimising impacts of overlooking. The design of the multiple dwellings is such that majority of major living areas across the development are located so as to have minimal impact on adjoining properties. For example, the balconies of the first floor dwellings part of 'Block E' are orientated to the north, minimising impacts of overlooking on the adjoining properties to the south. Such design is similar for 'Block D'. The balconies for the first floor dwellings of 'Block C' are setback 7.5 metres from the adjoining properties and are designed with impermeable balustrading, reducing impacts of overlooking.

The City considers that visual privacy of the adjoining lots should not be compromised should the plans be implemented as designed and therefore a Condition has been recommended to ensure this is done before the apartments are occupied.

Energy Efficiency

The applicant needs to demonstrate what significant energy initiative/s they intend to incorporate into the development to meet the relevant Element Objectives of the R-Codes Volume 2. The applicant has stated they intend to have at least one energy initiative by incorporating solar into the development to power the common areas. The applicant has not provided any further information in this regard. The City considers that this aspect can be further addressed/resolved prior to application for a building permit and therefore a suitable condition has been recommended in the Officer's recommendation section of this report.

Waste Management

In accordance with the requirements of Element 4.17 of R-Codes Volume 2, the applicant has provided bin storage areas to accommodate for bins complemented by a Waste Management Plan outlining how waste will be managed and the types of bins proposed. The plan relies on the City's waste service to collect waste and recycling from the proposal, utilising 360 litre waste bins and 660 litre recycle bins. However, the City's waste service does not provide 360 litre waste bins or 660 litre recycle bins. Therefore, this outstanding matter in addition to provision of adequate bin pad locations have not been fully resolved at this stage.

The waste management plan is not sufficient to ensure an adequate waste service is provided and therefore this matter requires further consideration and liaison between the City and the applicant. City Officers are of the view that kerb side waste collection is likely to be an acceptable solution/outcome. A condition is recommended requiring the applicant to submit a waste management plan for the City's approval prior to application for a building permit application.

Lighting

In accordance with the requirements of Element 3.4 of R-Codes Volume 2, a condition is recommended for the applicant to submit a lighting plan for the common areas across the site. This condition is also consistent with the City's Local Planning Policy no. 8: Designing out Crime. The lighting plan will seek to minimise places for concealment provide greater opportunity for passive surveillance from adjoining dwellings.

Conclusion:

The proposed development addresses the local context and is in keeping with the designated R40 zoning of the site. It is considered that the development will contribute positively to the locality by providing housing diversity to an area that is largely comprised of single houses. Additionally, the proposed development is considered to enhance the streetscape amenity through its quality landscaping and tree retention proposal. The proposed development is located within close proximity to public transport with a bus stop located adjacent to the site and the Kwinana train station being located less than 900 metres from the site. It is considered that the development is also well suited for the future context of this area with a similar zoned vacant site located only 300 metres to the north.

The proposal is generally compliant with the relevant planning requirements as outlined in the R-Codes Volume 2. City Officers are of the view that the proposed development is a higher quality outcome in terms of amenity, design and use than the previously approved applications on this site, which is in part due to its need to address the R-Codes Volume 2. As such, it is recommended that the application be approved subject to appropriate conditions.

Attachment 1

SITE AREA	4068 SQM	
30 x (2x1)	70 SQM	2100 SQM
04 x (1x1)	54 SQM	216 SQM
PLOT RATIO		0.57
36 CAR BAYS TOTAL		
TOTAL BIKE RACK ON SITE		16 RESIDENTIAL 05 VISITOR

DWG No	TITLE
A.000	COVER
A.001	FEATURE SURVEY
A.002	SITE PLAN
A.201	GROUND FLOOR PLAN
A.202	FIRST FLOOR PLAN
A.203	ROOF PLAN
A.204	PLANS
A.205	PLANS
A.206	PLANS
A.207	PLANS
A.208	PLANS
A.300	NATURAL VENTILATION
A.301	NATURAL VENTILATION
A.302	NATURAL VENTILATION
A.303	NATURAL VENTILATION
A.401	ELEVATION
A.402	ELEVATION
A.403	ELEVATION
A.404	ELEVATION
A.405	ELEVATION
A.501	SHADOW DIAGRAM
A.601	SITE CONTEXT
A.602	STREET CONTEXT
A.603	RENDER
A.604	RENDER

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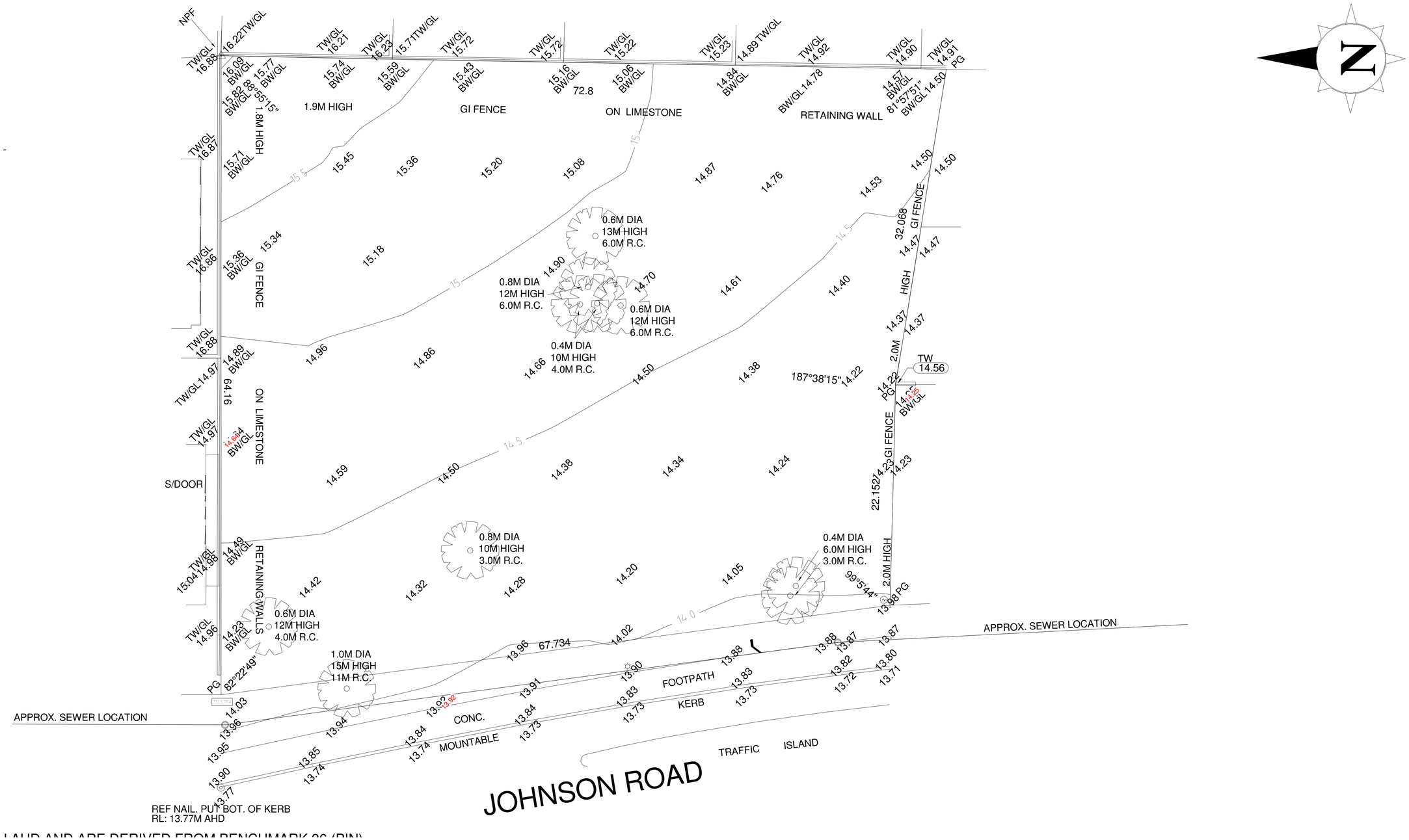
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002



FEATURE SURVEY

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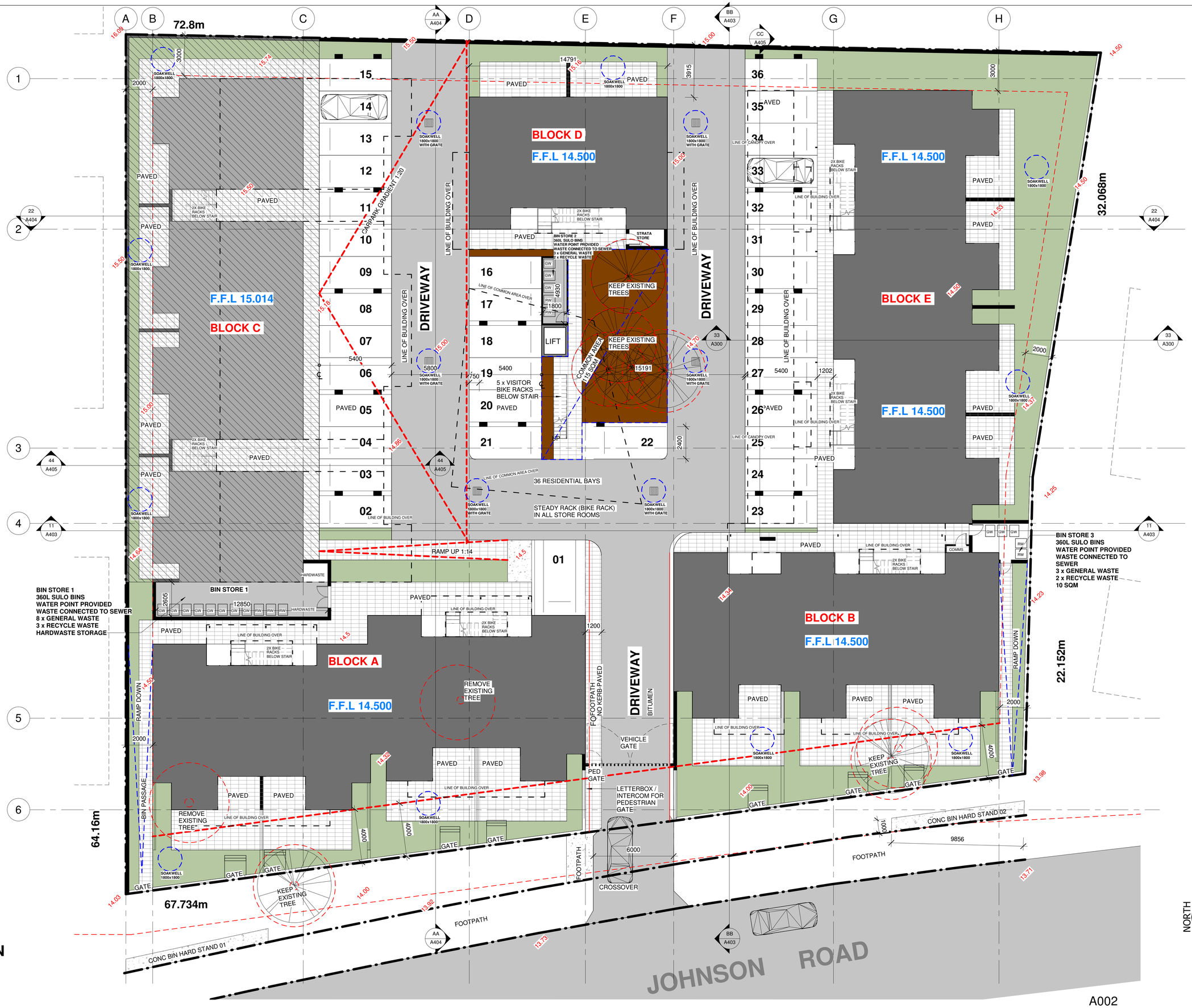

SITE PLAN
1 : 130

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JDAP DA002

A002

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SITE AREA	**4068 SQM**	
30 x (2x1)	**70 SQM**	**2100 SQM**
04 x (1x1)	**54 SQM**	**216 SQM**
PLOT RATIO		**0.57**
36 CAR BAYS TOTAL		
TOTAL BIKE RACK ON SITE		16 RESIDENTIAL 05 VISITOR

BIN STORE 1
360L SULO BINS
WATER POINT PROVIDED
WASTE CONNECTED TO SEWER
8 x GENERAL WASTE
3 x RECYCLE WASTE
HARDWASTE STORAGE

BIN STORE 2
360L SULO BINS
WATER POINT PROVIDED
WASTE CONNECTED TO SEWER
3 x GENERAL WASTE
2 x RECYCLE WASTE

BIN STORE 3
360L SULO BINS
WATER POINT PROVIDED
WASTE CONNECTED TO SEWER
3 x GENERAL WASTE
2 x RECYCLE WASTE
10 SQM

CONDENSATE DRYER TO ALL UNITS - TYPICAL

1. GROUND FLOOR
1 : 130

A201

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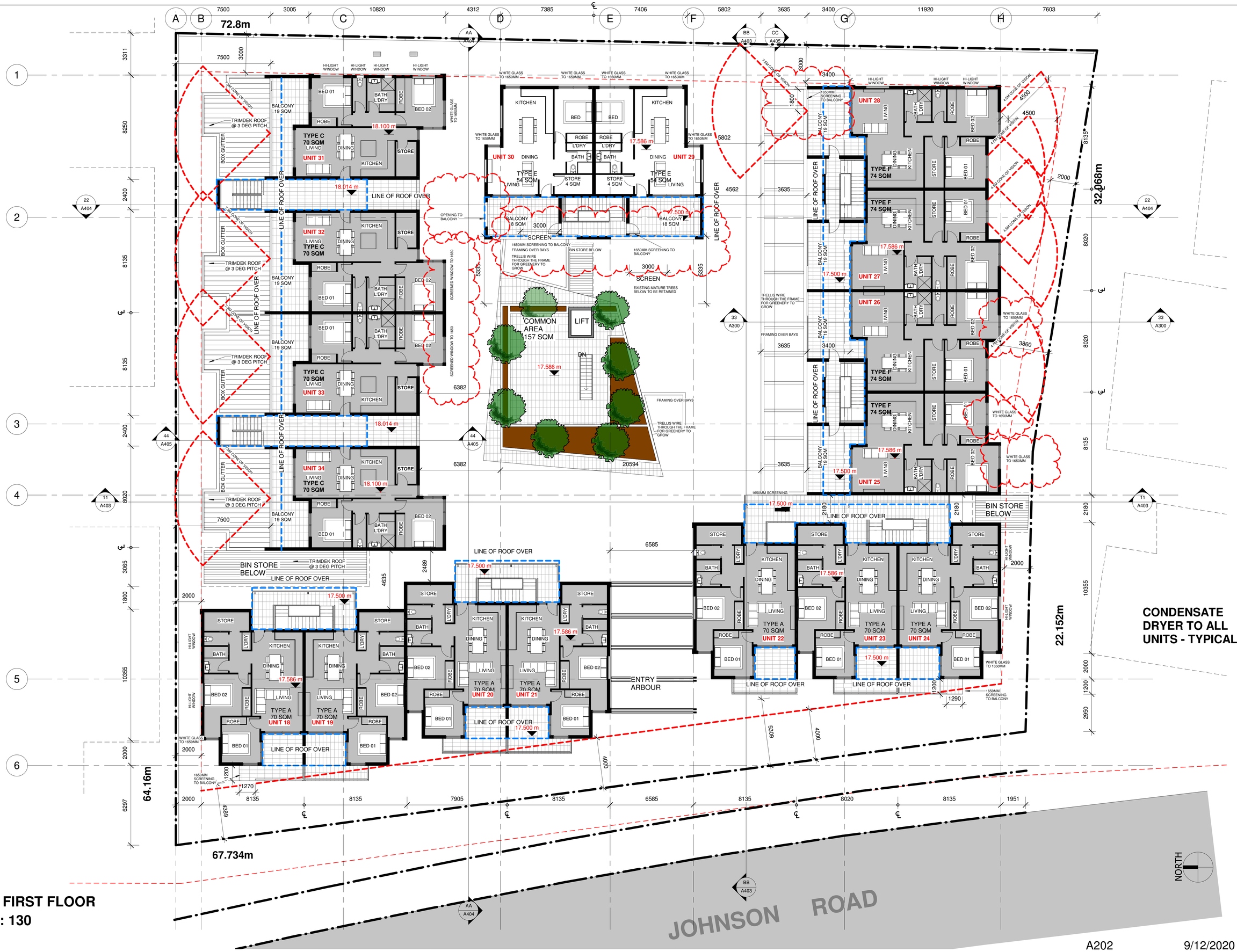
JDAP DA002


72.8m
64.16m
67.734m
22.152m
32.068m
UNIT 18
UNIT 19
UNIT 20
UNIT 21
UNIT 22
UNIT 23
UNIT 24
UNIT 25
UNIT 26
UNIT 27
UNIT 28
UNIT 29
UNIT 30
UNIT 31
UNIT 32
UNIT 33
UNIT 34
TYPE A 70 SQM
TYPE C 70 SQM
TYPE E 54 SQM
TYPE F 74 SQM
COMMON AREA 157 SQM
LIFT
LINE OF ROOF OVER
TRIMDEK ROOF @ 3 DEG PITCH
BOX GUTTER
BALCONY 19 SQM
BALCONY 18 SQM
1.5M CONE OF VISION
4.5M CONE OF VISION
HI-LIGHT WINDOW
WHITE GLASS TO 1650MM
SCREENED WINDOW TO 1650
1650MM SCREENING TO BALCONY
TRELLIS WIRE THROUGH THE FRAME FOR GREENERY TO GROW
FRAMING OVER BAYS
EXISTING MATURE TREES BELOW TO BE RETAINED
BIN STORE BELOW
ENTRY ARBOUR
CONDENSATE DRYER TO ALL UNITS - TYPICAL
JOHNSON ROAD
NORTH
HARDENJONESARCHITECTS
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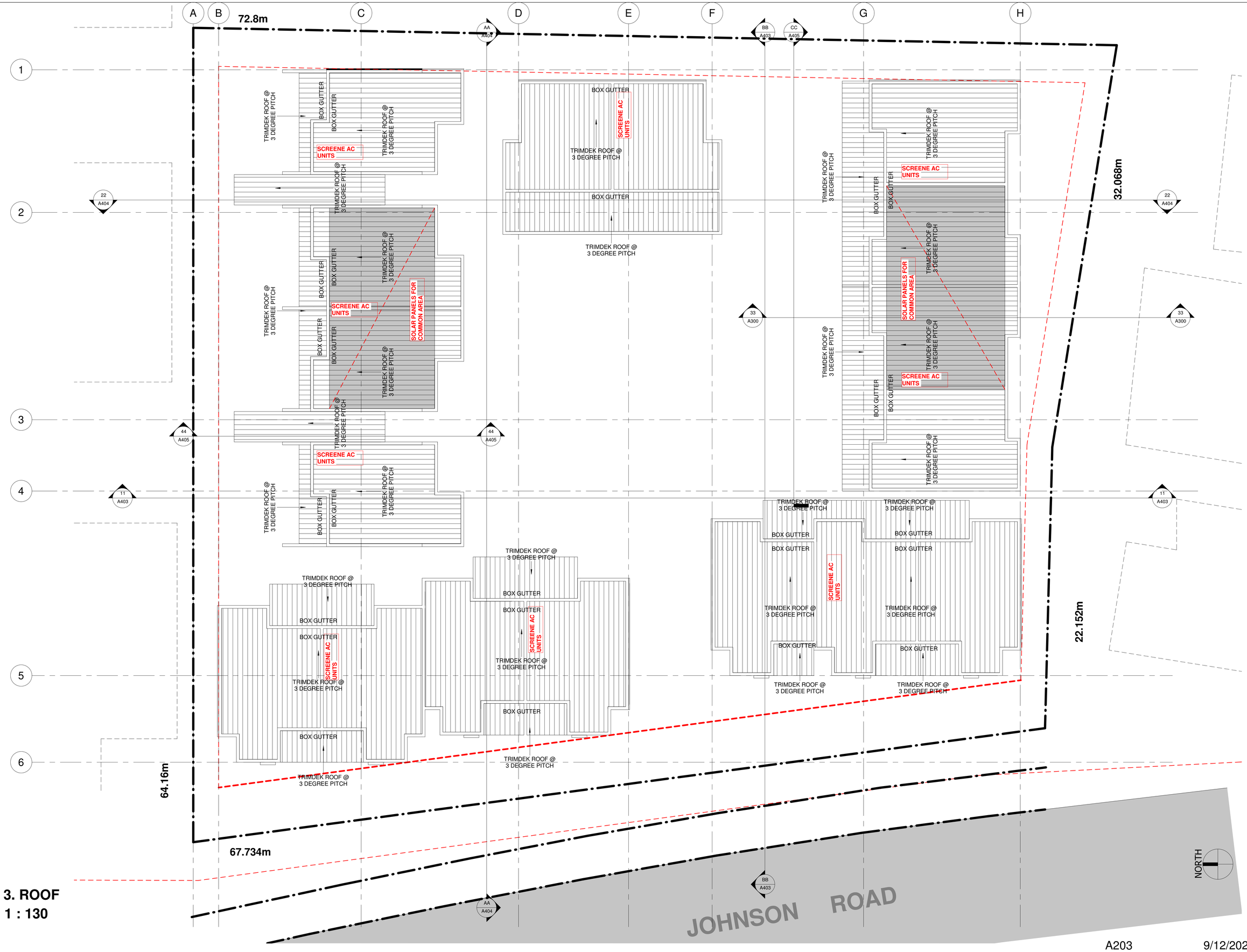
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002
2. FIRST FLOOR
1 : 130
A202
9/12/2020 12:51:51 PM



3. ROOF
1 : 130

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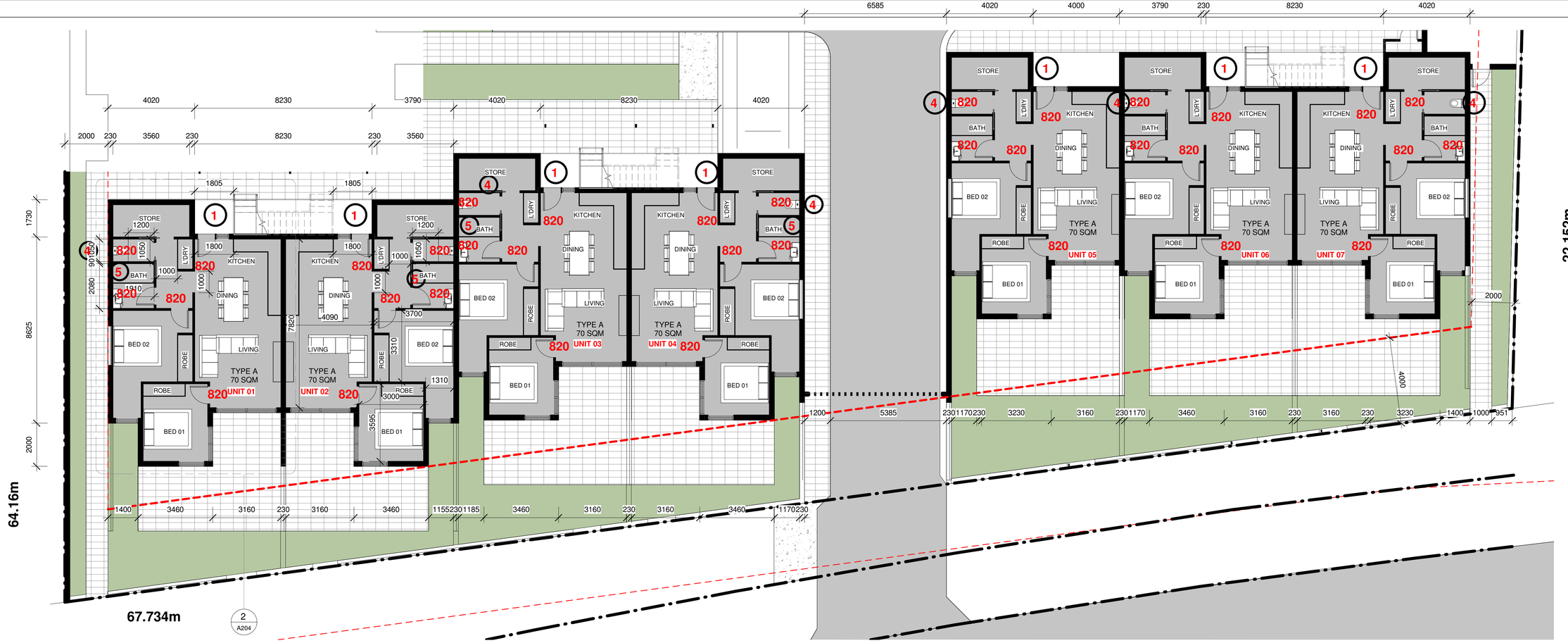
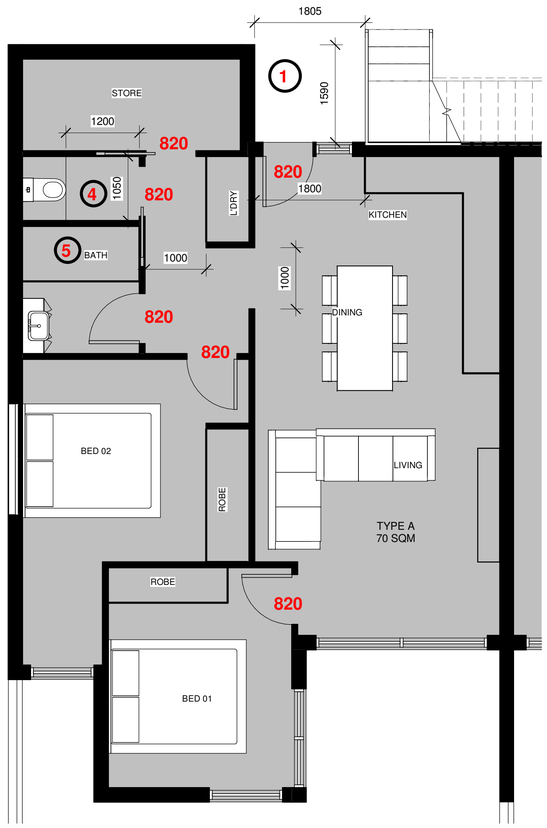
JDAP DA002



1. GROUND FLOOR - BLOCK A / B
1 : 100

LIVIABLE HOUSING DESIGN - SILVER LEVEL

1. Dwelling Access.
   1000mm Corridor Width. Clear Path of Travel and No Steps
2. Dwelling Entry.
   Minimum 820 Door Clear Opening
   1200x1200 Entry Zone
3. Internal Doors and Circulation
   1000mm Corridor Width.
   Minimum 820 Door Clear Opening
4. WC.
   900 Width to WC
   1200 forward of the WC Pan
5. Shower
   Hobless Showers
   Shower Recess located in the Corner
6. Bathroom Walls – Reinforcement & Strength
   Construction will be brick/block
7. Stairways – Handrails
   Continuous Handrails to Stairwells Provided
8. Kitchen Space
   No requirement for Silver level
9. Laundry Space
   No requirement for Silver level
10. Ground/Bedroom Space
    No requirement for Silver level
11. Switches & GPO's
    No requirement for Silver level
12. Door and Tapware.
    No requirement for Silver level
13. Family Room/Living Spaces
    No requirement for Silver level
14. Window Sills.
    No requirement for Silver level
15. Flooring
    No requirement for Silver level



TYPICAL SILVER LEVEL UNIT
1 : 50

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2. FIRST FLOOR - BLOCK A / B

1 : 100

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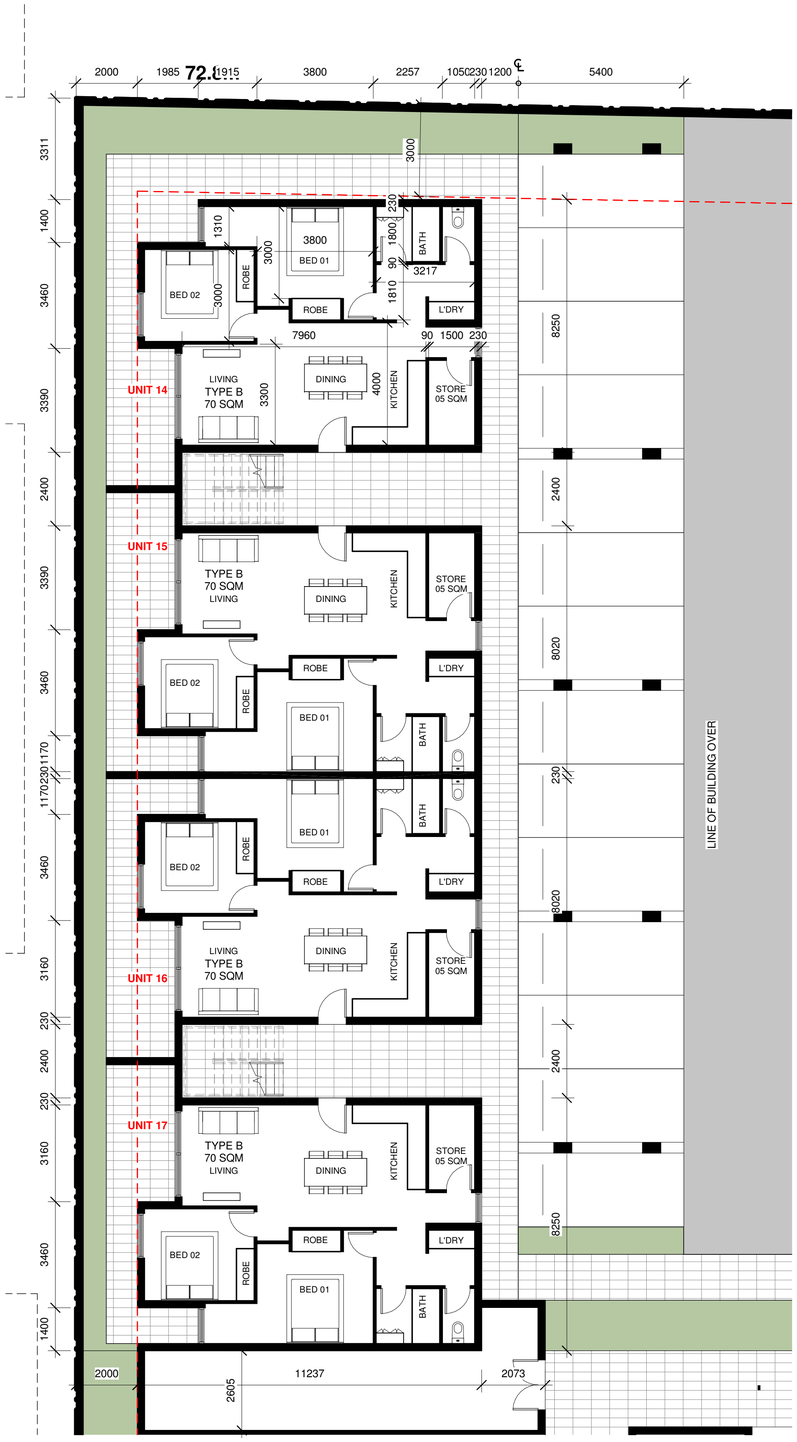
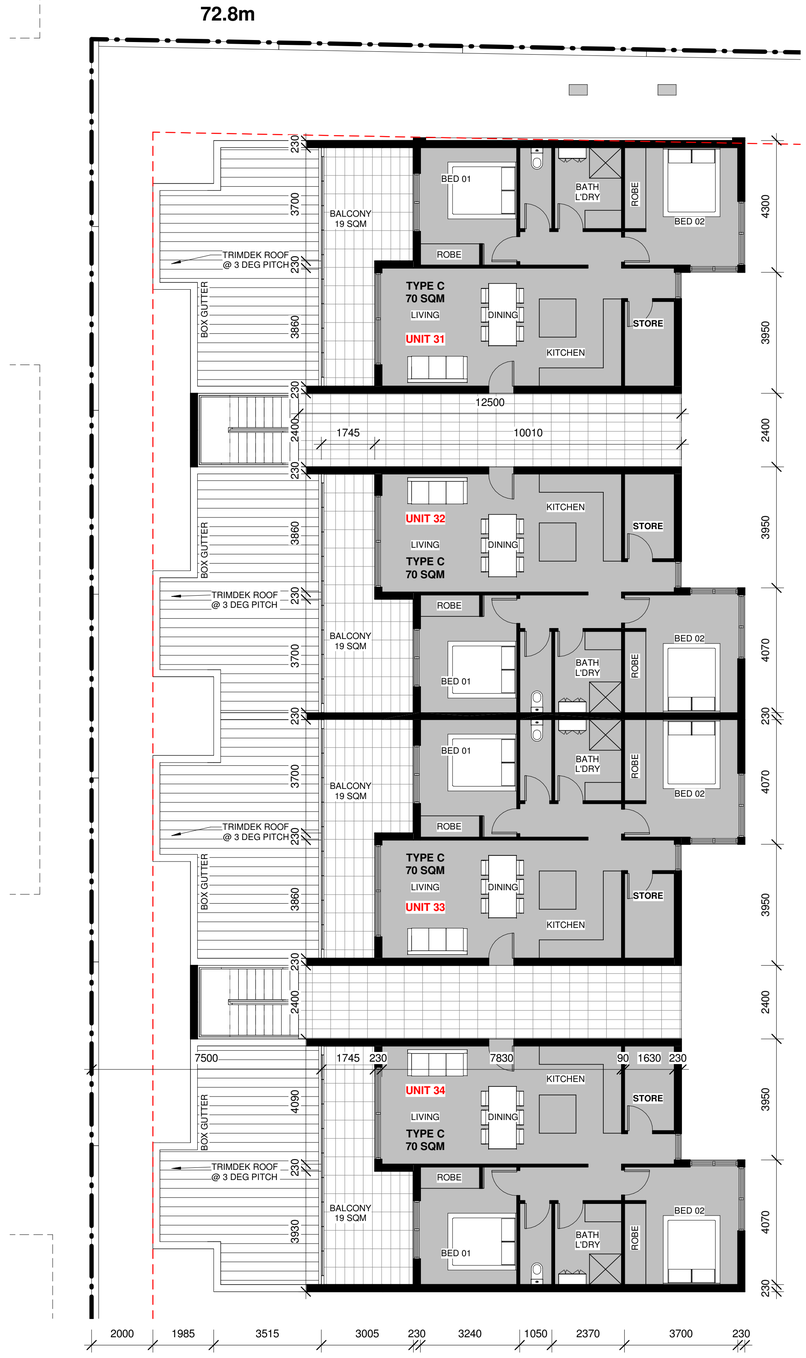


1. GROUND FLOOR - BLOCK C
1 : 100



2. FIRST FLOOR - BLOCK C
1 : 100

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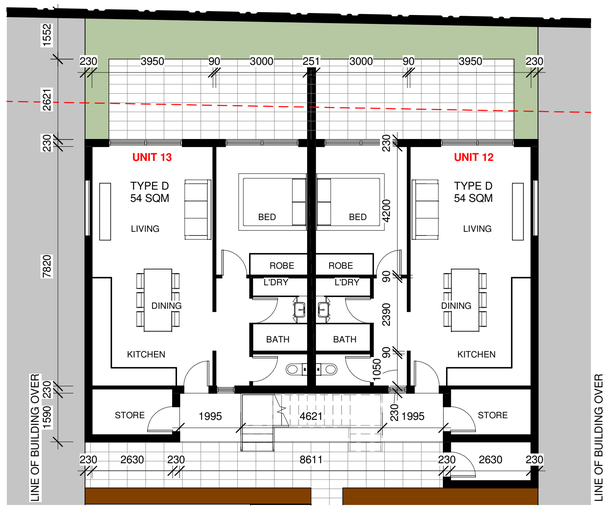
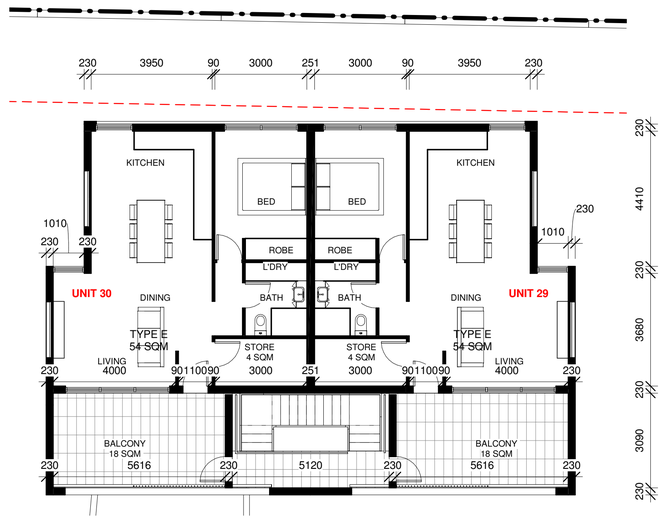
JDAP DA002



1. GROUND FLOOR - BLOCK D
1 : 100



2. FIRST FLOOR - BLOCK D
1 : 100

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JDAP DA002



1. GROUND FLOOR - BLOCK E
1 : 100



2. FIRST FLOOR - BLOCK E
1 : 100

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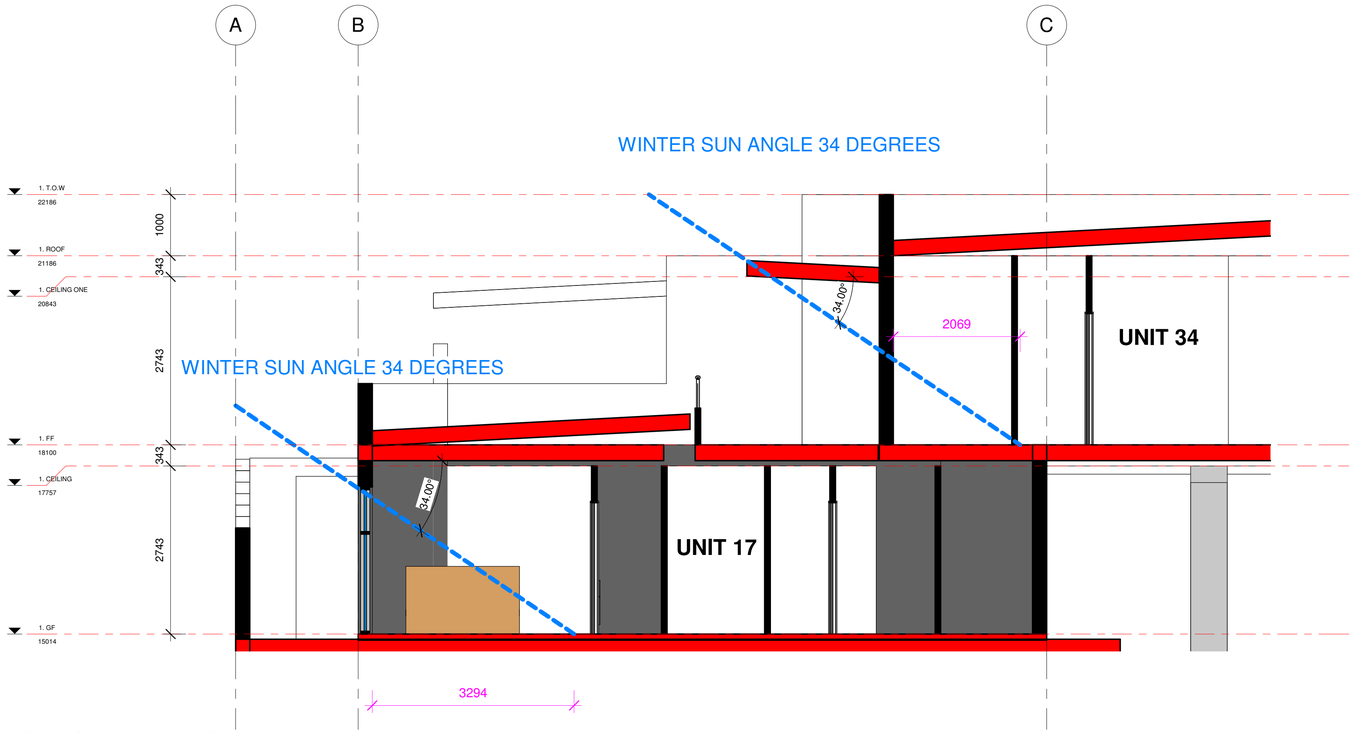
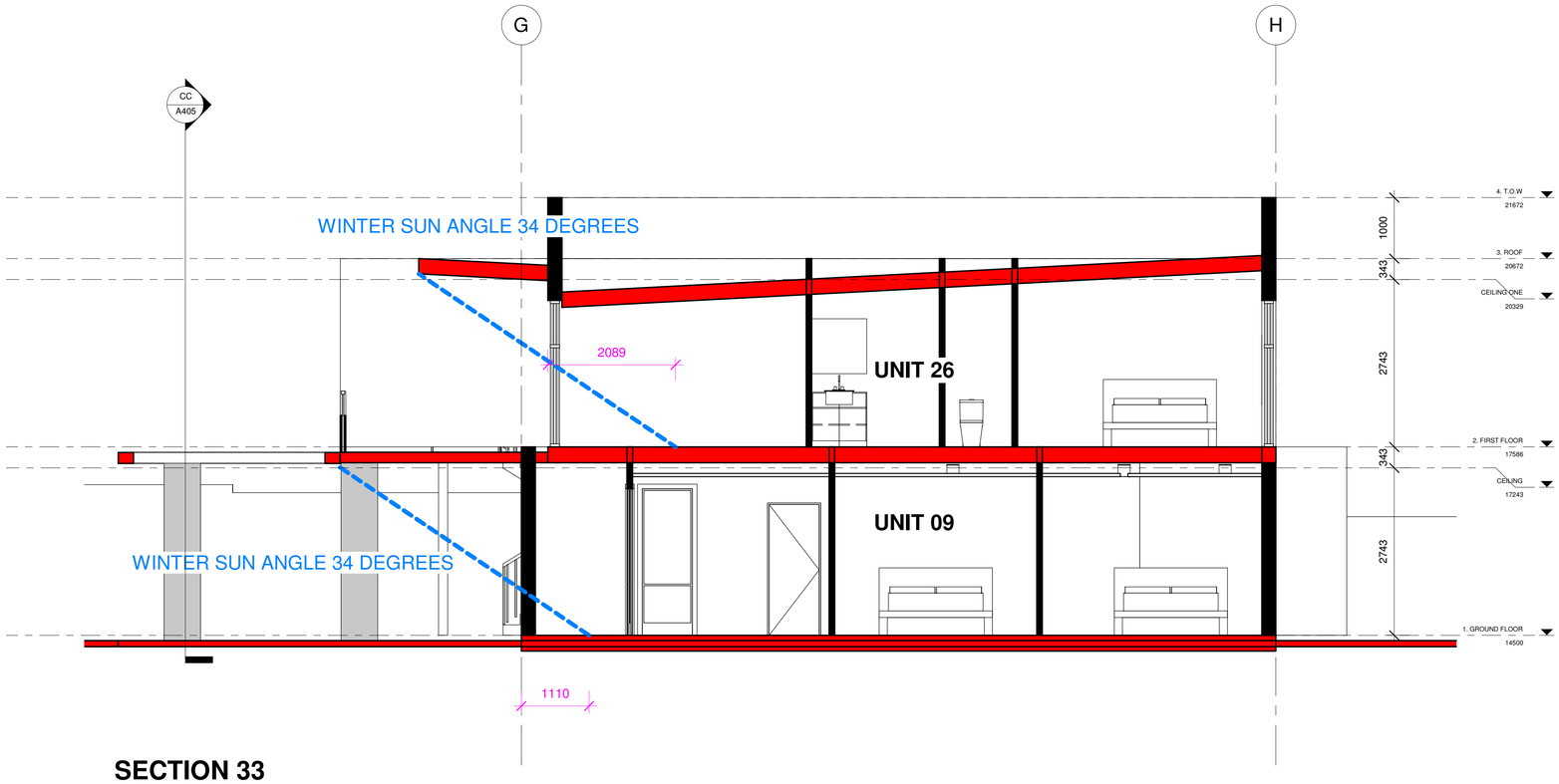
JDAP DA002



Section 11 - Callout 1
1 : 50



SECTION 33
1 : 50

DESIGN WA - APARTMENT DESIGN
VOLUME TWO OF STATE PLANNING POLICY NO. 7.3 RESIDENTIAL DESIGN CODES GUIDANCE FOR MULTIPLE-DWELLING AND MIXED-USE DEVELOPMENTS

4.1 SOLAR AND DAYLIGHT ACCESS - FIGURE 4.1B
(ILLUSTRATED ON PROPOSED DESIGN) - CLIMATE ZONE 5

89% OF APARTMENTS ACHIEVES MINIMUM 2 HOURS SUN LIGHT ON 21ST OF JUNE.

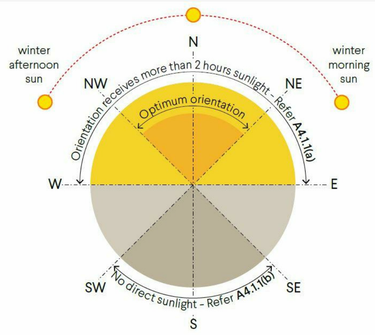


Figure 4.1b The hours of sunlight that can be expected in mid winter are directly related to the orientation of the windows or balconies. To achieve 2 hours sunlight (refer A4.1.1(a)), windows must be facing between west and north; or between north and east. This diagram shows the optimal orientation for sunlight to reach any portion of a window or balcony on 21 June in climate zones 4, 5 and 6.

A4.2.2. MINIMUM 75% OF ALL DWELLINGS ARE CAPABLE OF BEING NATURAL CROSS VENTILATED.

ALL APARTMENTS NO'NCV'NCV' ACHIEVE NATURAL CROSS VENTILATION

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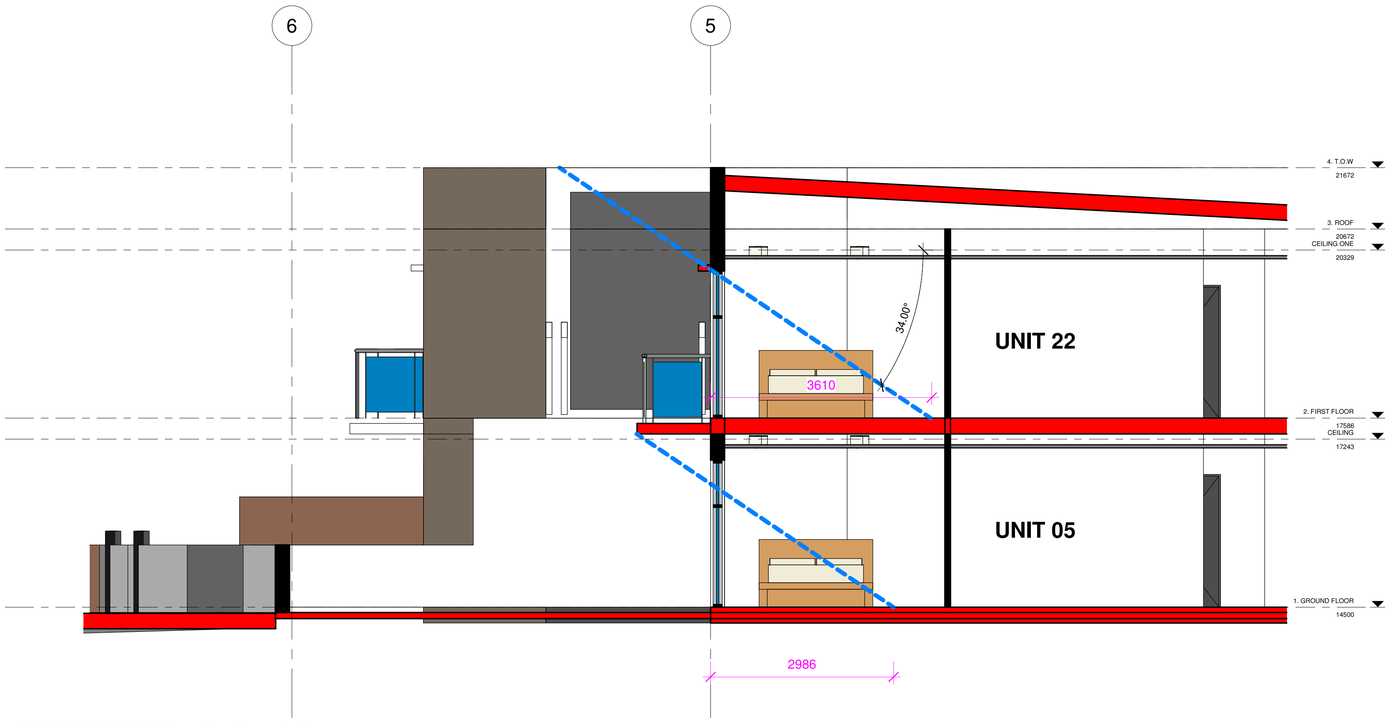
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002



SECTION BB - Callout 1
1 : 50

DESIGN WA - APARTMENT DESIGN
VOLUME TWO OF STATE PLANNING POLICY NO. 7.3 RESIDENTIAL DESIGN CODES GUIDANCE FOR MULTIPLE-DWELLING AND MIXED-USE DEVELOPMENTS

4.1 SOLAR AND DAYLIGHT ACCESS - FIGURE 4.1B
(ILLUSTRATED ON PROPOSED DESIGN) - CLIMATE ZONE 5

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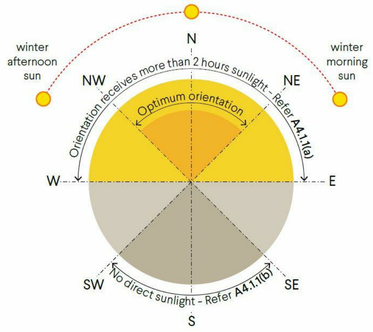

Figure 4.1b The hours of sunlight that can be expected in mid winter are directly related to the orientation of the windows or balconies. To achieve 2 hours sunlight (refer A4.1.1(a)), windows must be facing between west and north; or between north and east. This diagram shows the optimal orientation for sunlight to reach any portion of a window or balcony on 21 June in climate zones 4, 5 and 6.

STATE PLANNING POLICY 7.3 RESIDENTIAL DESIGN CODES VOLUME 2 - APARTMENTS 61

A4.2.2. MINIMUM 75% OF ALL DWELLINGS ARE CAPABLE OF BEING NATURAL CROSS VENTILATED.

ALL APARTMENTS NO'NCV'NCV' ACHIEVE NATURAL CROSS VENTILATION

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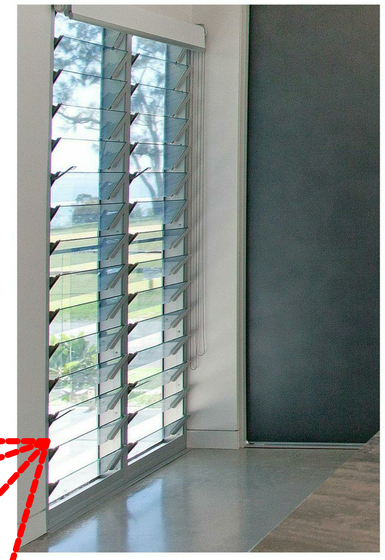
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002

NORTH

AFTERNOON SUN

MORNING SUN



LOUVERED WINDOW TO ALL APARTMENT TYPES INDICATED FOR CROSS-VENTILATION

DRIVEWAY

DRIVEWAY

DRIVEWAY

BIN STORE

COMMON AREA 115 SQM

10 X BIKE RACKS

UP

LIFT

1. GROUND FLOOR SOLAR / NATURAL VENTILATION DIAGRAM
1 : 140

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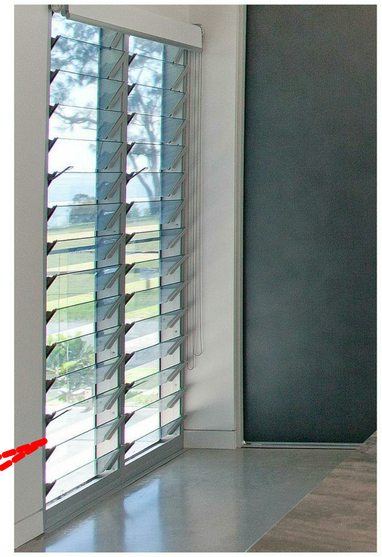
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002

NORTH

AFTERNOON SUN

MORNING SUN



LOUVERED WINDOW TO ALL APARTMENT TYPES INDICATED FOR CROSS-VENTILATION



2. FIRST FLOOR SOLAR / NATURAL VENTILATION DIAGRAM

1 : 140

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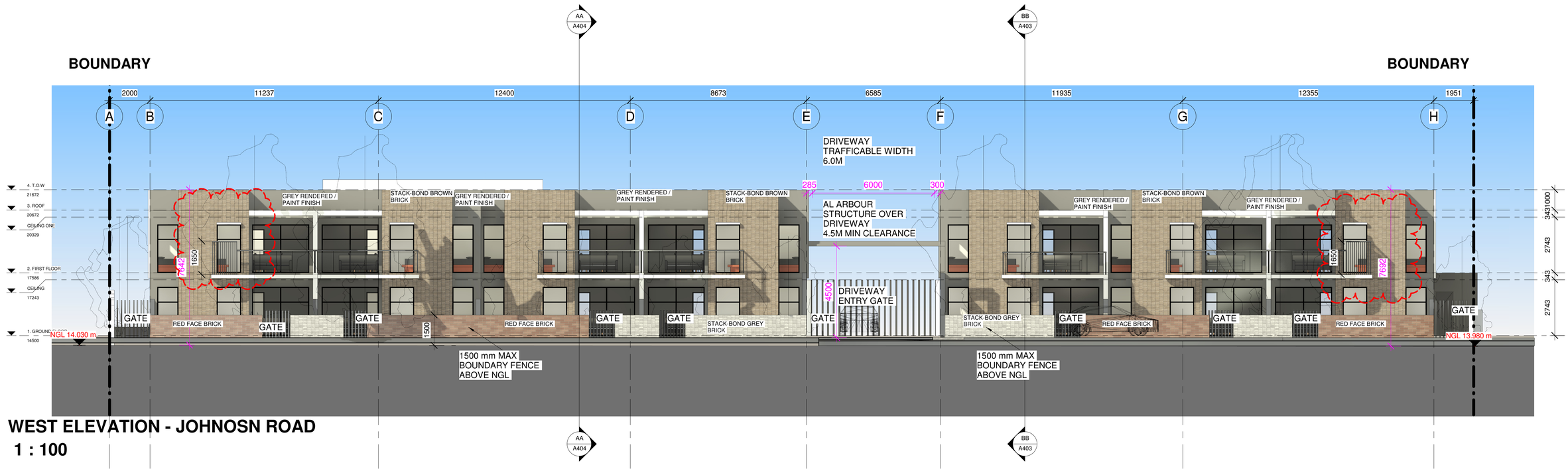
EAST ELAVTION
1 : 100



WEST ELEVATION - JOHNOSN ROAD
1 : 100

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SOUTH ELEVATION
1 : 100



NORTH ELEVATION
1 : 100

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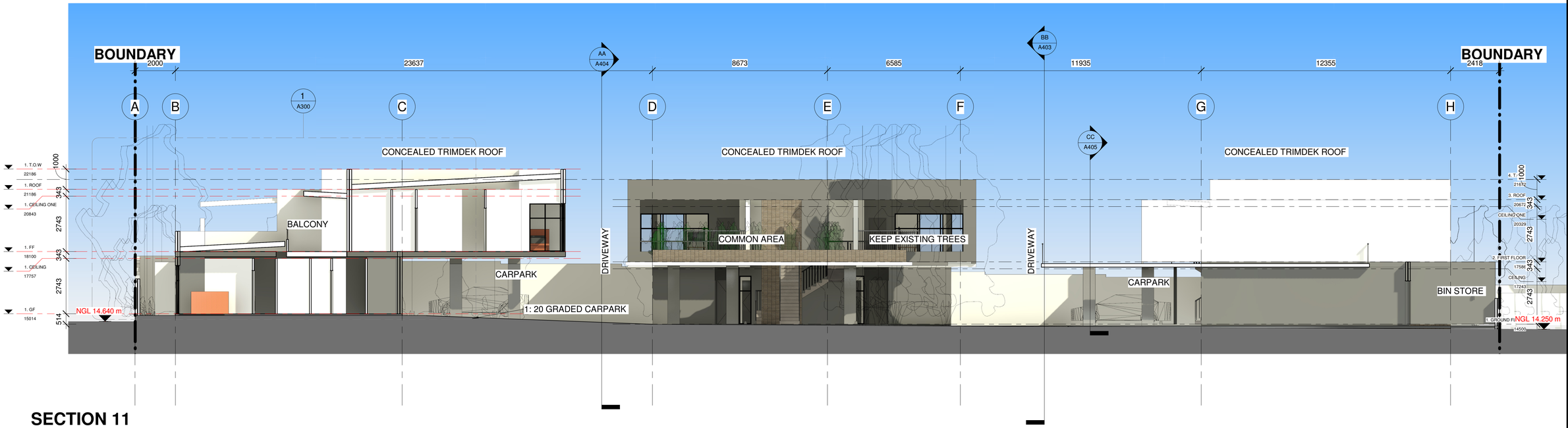
JDAP DA002



SECTION 11
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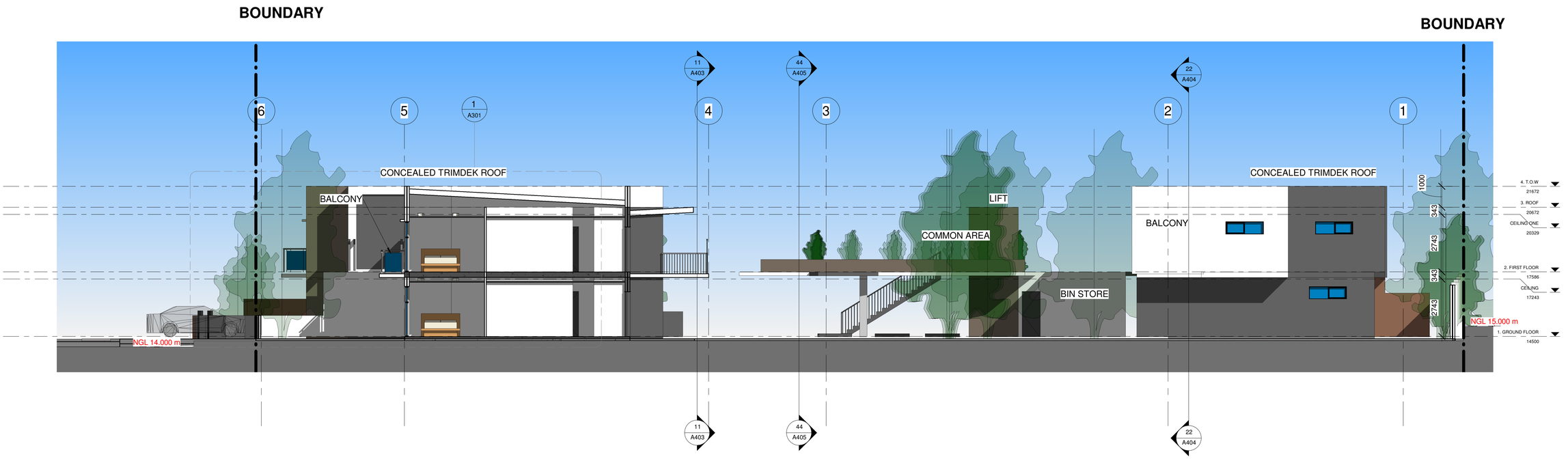

SECTION BB
1 : 100

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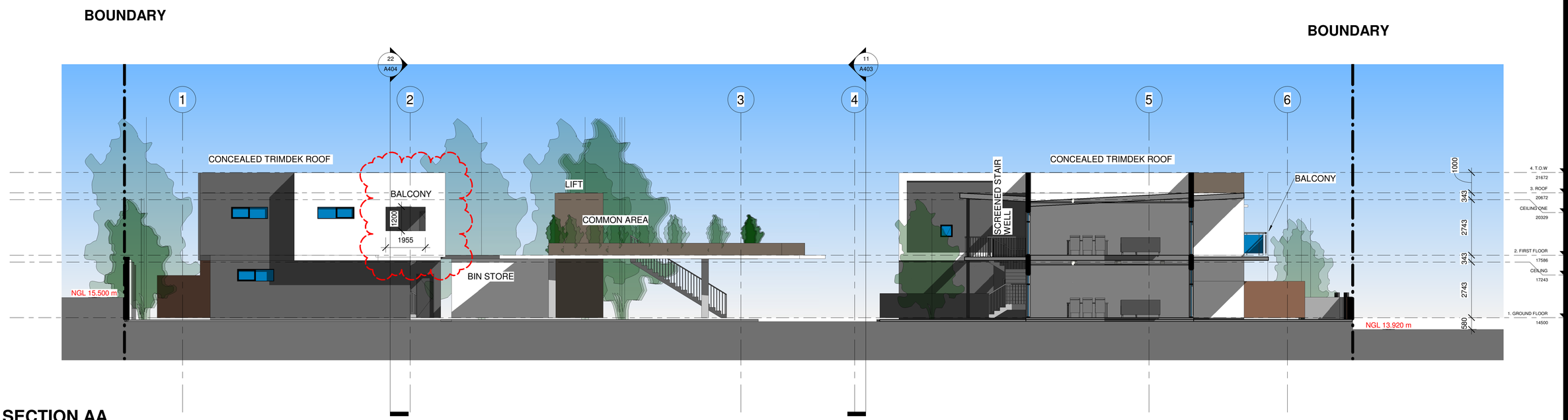
JDAP DA002



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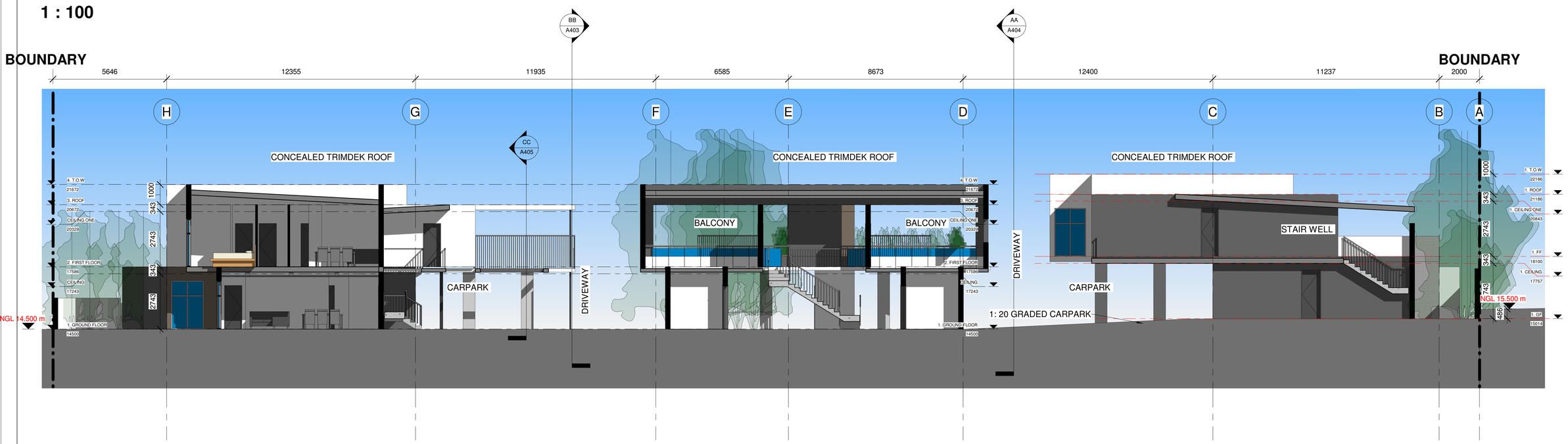

SECTION 22
1 : 100

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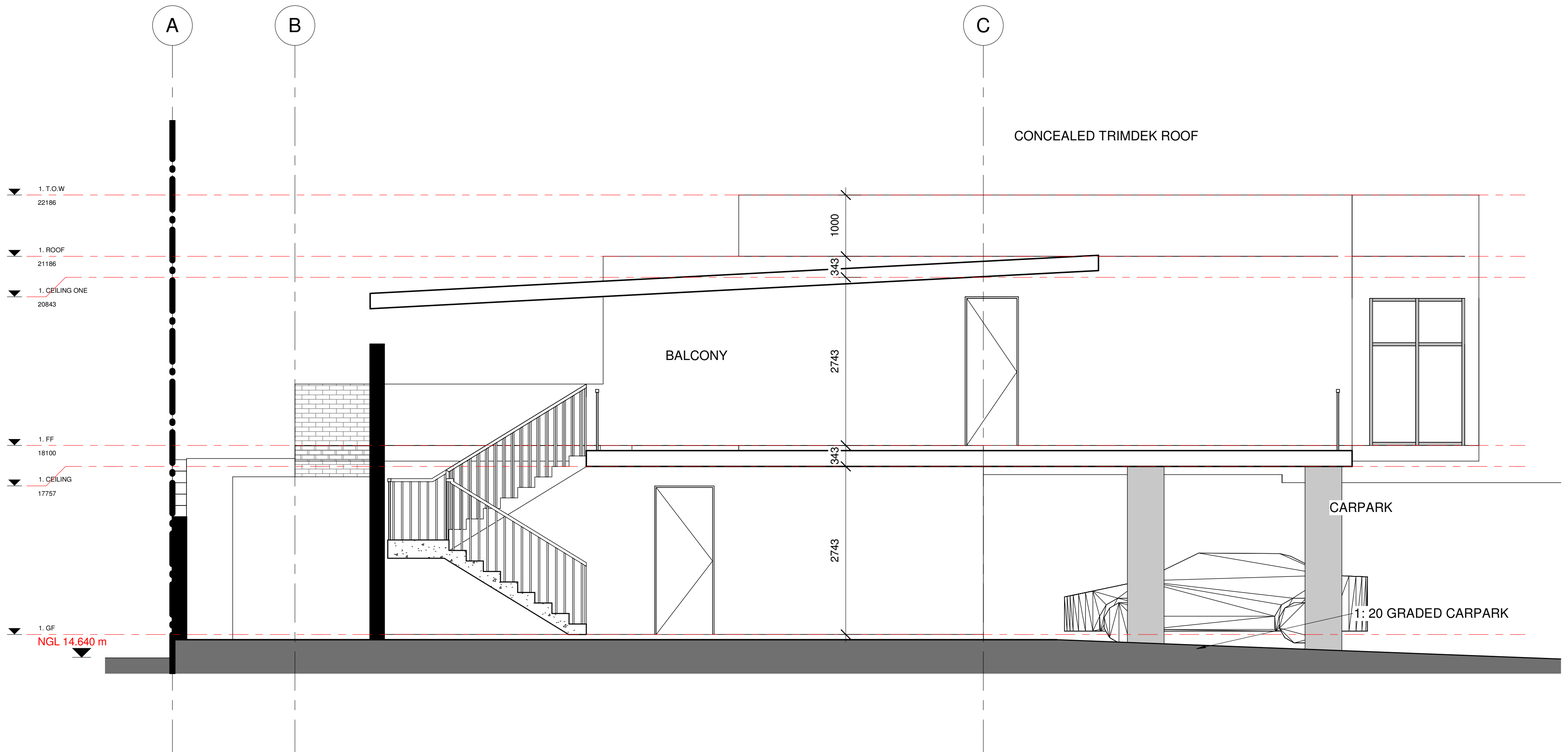
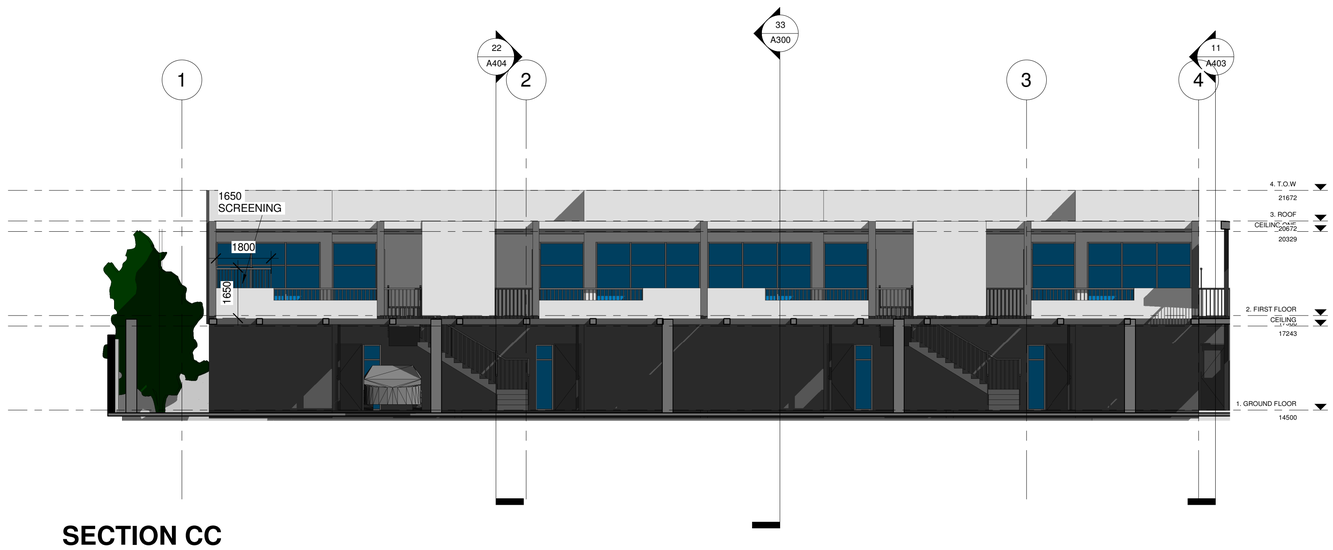
JDAP DA002



SECTION 44
1 : 50



SECTION CC
1 : 100

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LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002



SHADOW DIAGRAM
1 : 200

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LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002

Attachment 2



SITE CONTEXT

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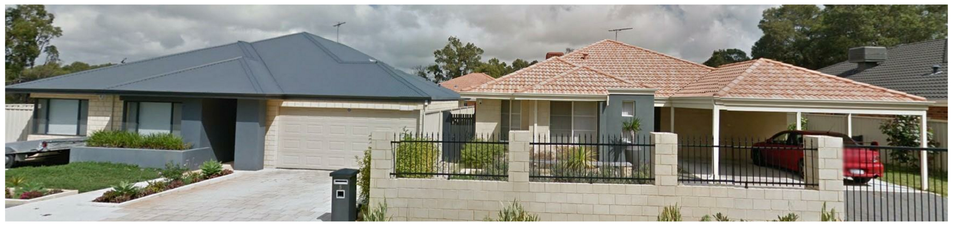
JDAP DA002



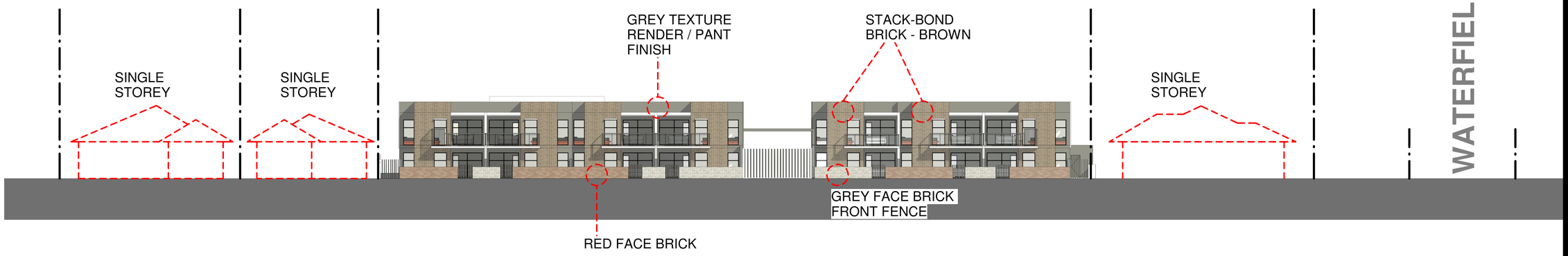




SURROUNDING SITE CONTEXT / MATERIALS



BUS STOP ADJACENT TO SITE



WEST ELEVATION - JOHNOSN ROAD - STREET CONTEXT
1 : 200

WATERFIELDS DRIVE

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LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002

Attachment 3



JOHNSON ROAD VIEW

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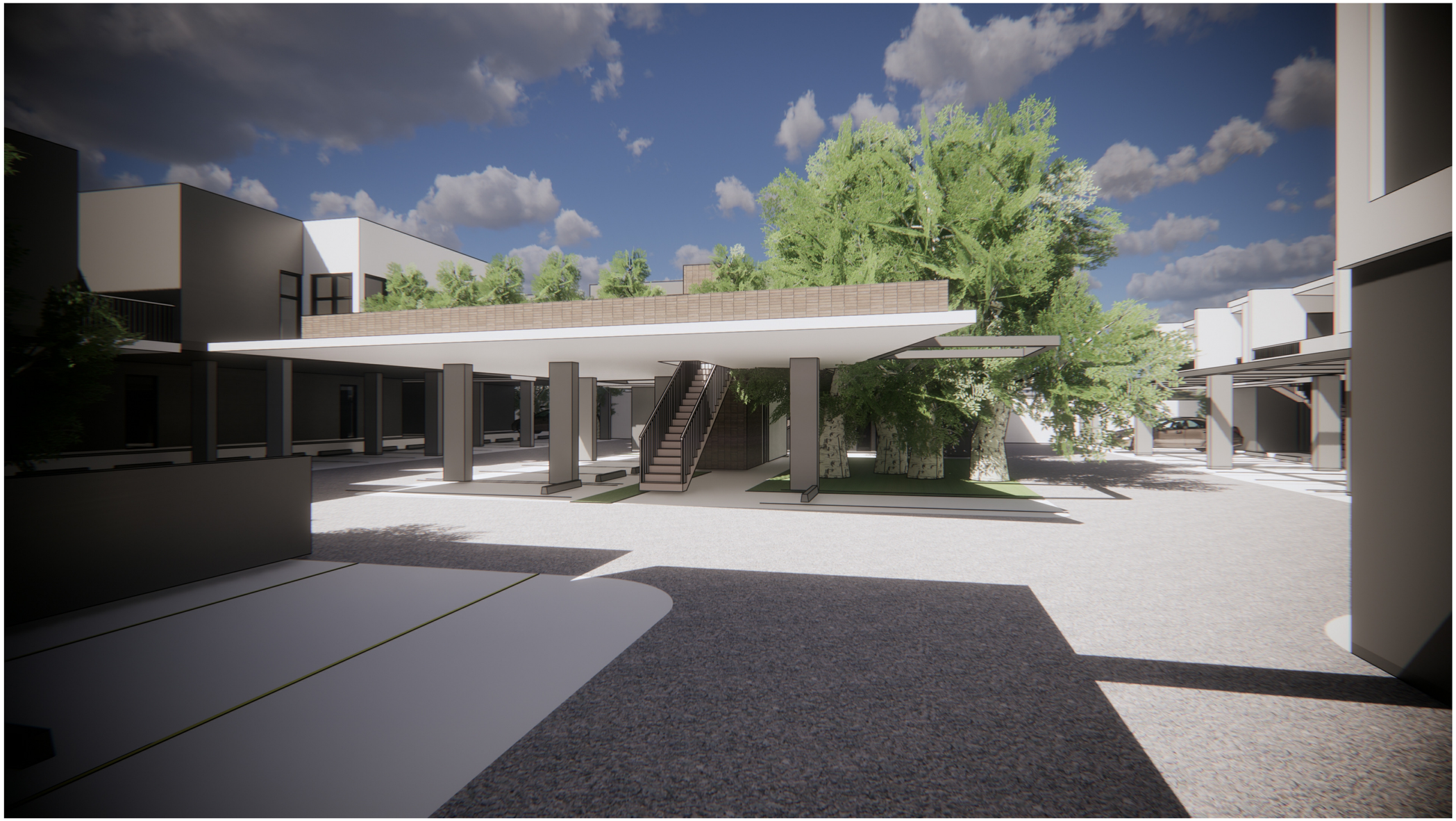
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002



COMMON AREA

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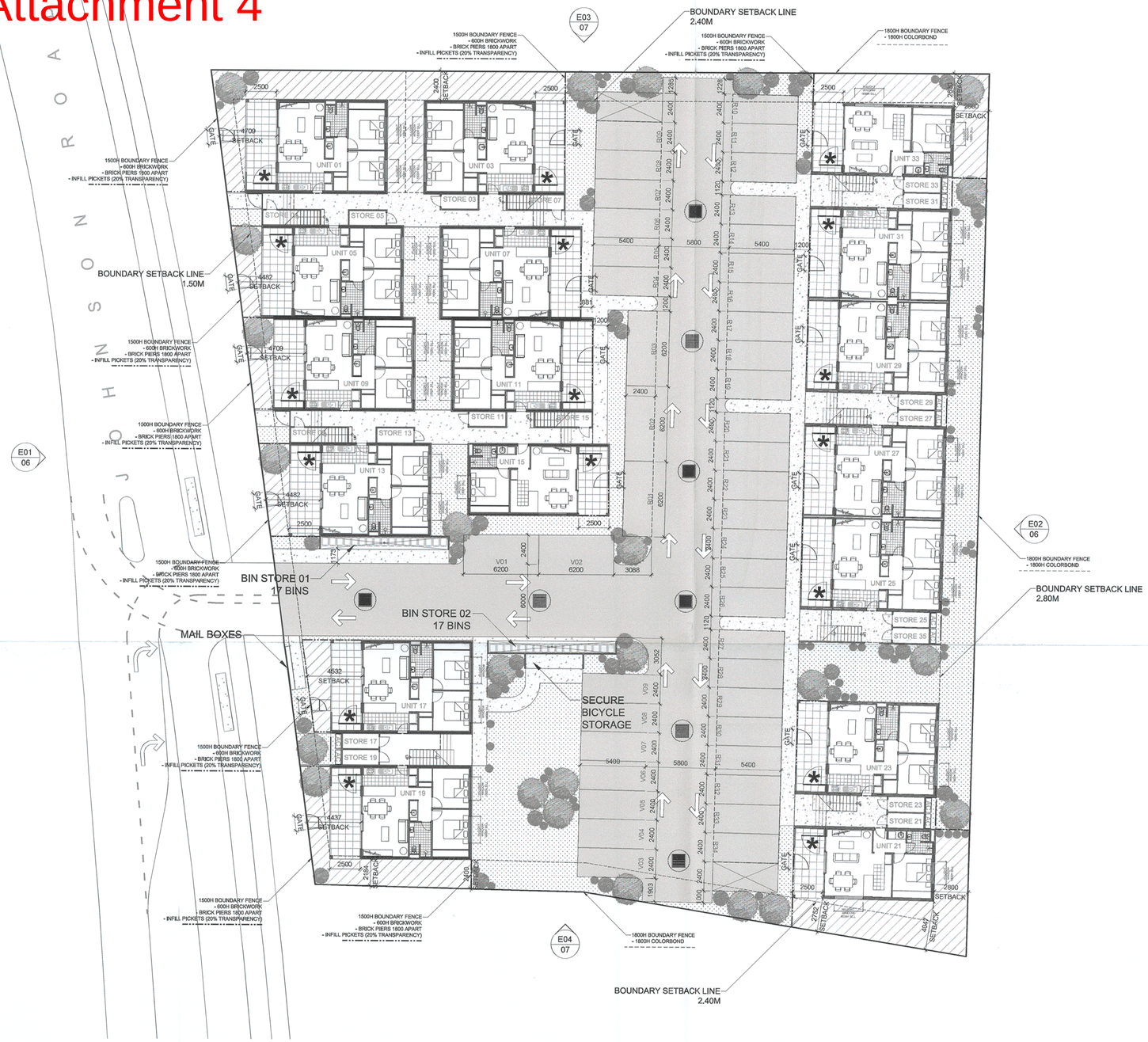
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA002

Attachment 4

DA7520 - 1

* HINGED & LOUVERED SCREEN TO OBSCURE CLOTHES LINE 1800W X 2200H



20000

01 - GROUND FLOOR PLAN
1:200 @ A1 - 1:400 @ A3

CITY OF KWINANA
PLANNING APPROVAL

SUBJECT TO ATTACHED CONDITIONS

Lot 101 Johnson Rd, BERTRAM
DEVELOPMENT APPROVAL_REV05

hardenjonesarchitects

Proposed Site Plan 03
7 January 2013

Suite 8 - 300 Rokeby Rd Subiaco WA 6008
Ph: 08 9380 9900 Fax: 08 9380 9909
E: admin@hjarchitect.com.au
www.hjarchitect.com.au

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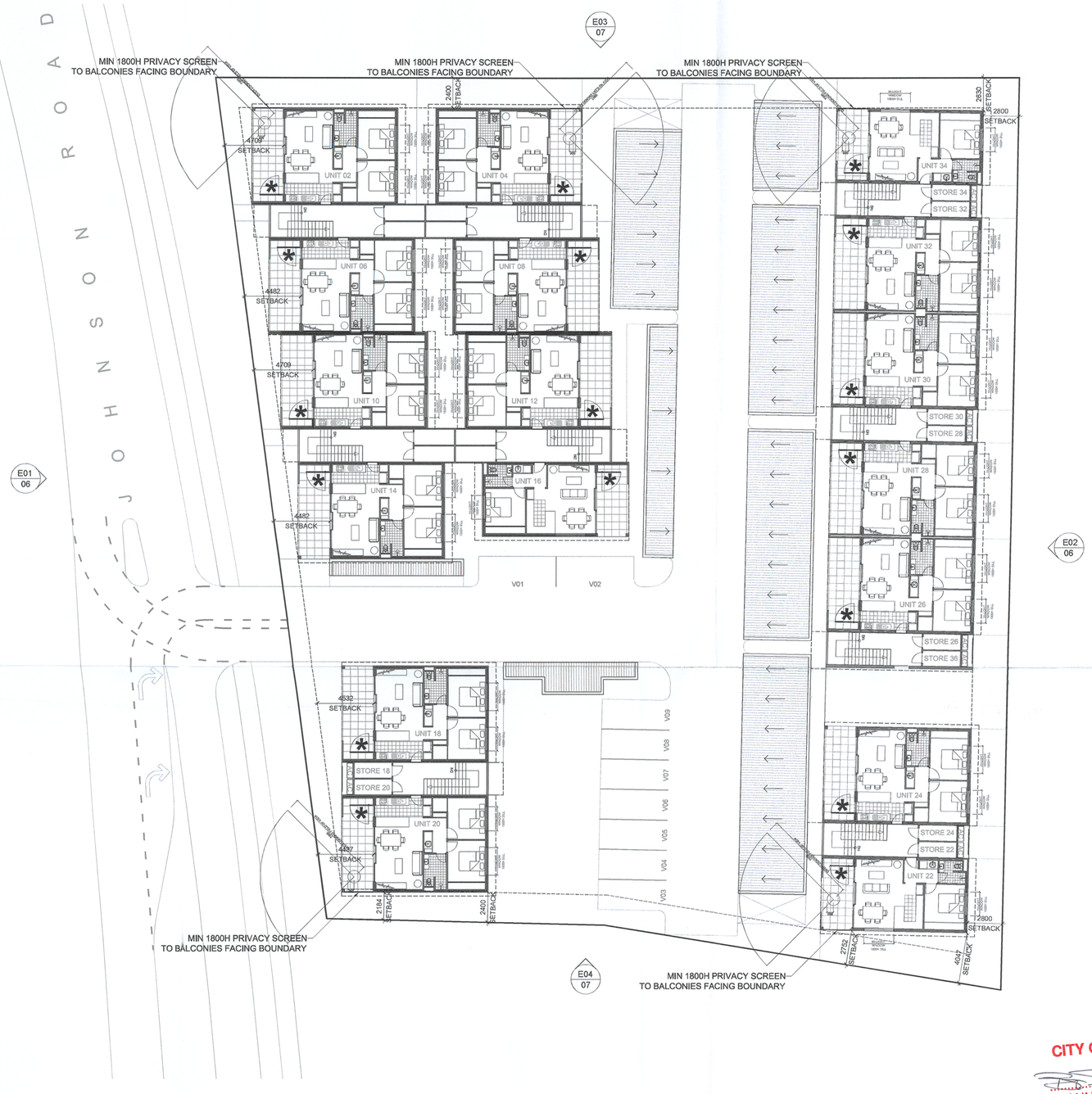
* HINGED & LOUVERED SCREEN TO OBSCURE CLOTHES LINE 1800W X 2200H



DA7520 - 1

CITY OF KWINANA
PLANNING APPROVAL

SUBJECT TO ATTACHED CONDITIONS

20000

N

01 - FIRST FLOOR PLAN
1:200 @ A1 - 1:400 @ A3

Lot 101 Johnson Rd, BERTRAM
DEVELOPMENT APPROVAL_REV05

hardenjonesarchitects

Proposed Site Plan 04
7 January 2013

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E: admin@hjarchitect.com.au
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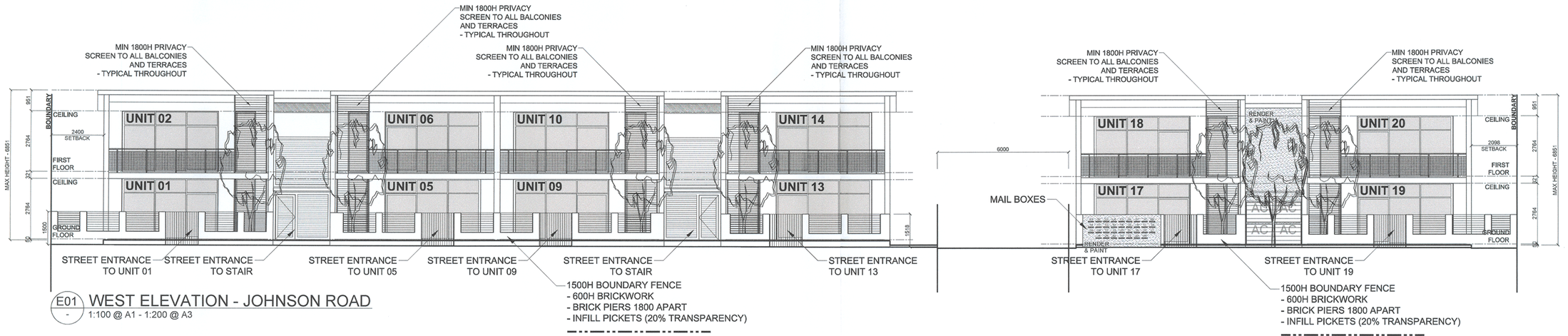
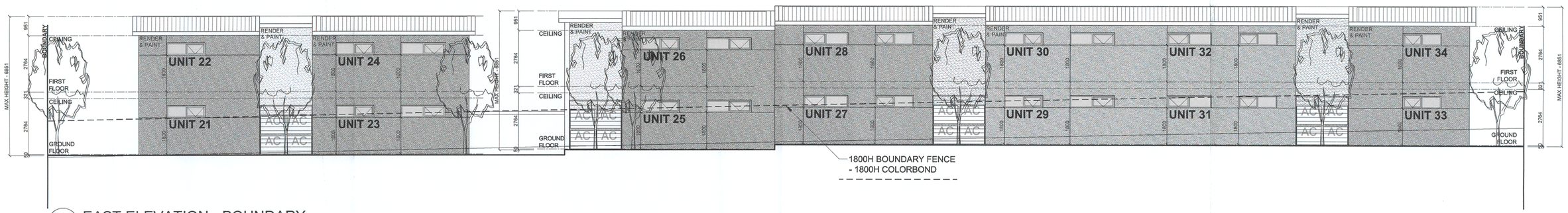
DA7520 - 1



E01 - WEST ELEVATION - JOHNSON ROAD
1:100 @ A1 - 1:200 @ A3



E02 - EAST ELEVATION - BOUNDARY
1:100 @ A1 - 1:200 @ A3

10000

CITY OF KWINANA
PLANNING APPROVAL
SUBJECT TO ATTACHED CONDITIONS

Lot 101 Johnson Rd, BERTRAM
DEVELOPMENT APPROVAL_REV05

hardenjonesarchitects

Group Elevations
7 January 2013
06

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Attachment 5

18 October, 2020

Preliminary Tree Survey Report

LOT 101 Johnson Road
Bertram, 6167

Consulting Arborist
David Cuddihy
Graduate Certificate
Arboriculture



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1. Client

Fred Witting c/o Renel P/L

witting@westnet.com.au

2. Summary

The purpose of this report is to provide an independent preliminary tree survey of all trees located at LOT 101 Johnson Rd, Bertram 6167. Consulting Arborist, David Cuddihy has been employed to conduct a site visit to gather tree information and determine Tree Protection Zones in light of the proposed development plans (Appendix 15.1). Information will be provided on construction surrounding trees and recommendations will made to minimize damage to the subject trees during the construction process.

3. Key objectives

- Assess the subject trees at the construction site as outlined in Figure 1.
- Identify scientific names of subject trees.
- Determine the subject trees height, width, trunk diameter, tree protection zone (TPZ) and structural root zone (SRZ)
- Provide information pertaining to construction surrounding trees.
- Provide recommendations to protect subject trees throughout the construction process.

4. Methodology

- The subject trees were assessed from observations made from ground level on the 15th October 2020.
- Field notes were taken and the information documented was an accurate account of the subject trees on the above specified date.
- The height and spread of the trees were estimated.
- A measuring tape was used to determine the DBH.
- TPZ & SRZ have been determined based on the DBH measurement and trunk calliper.
- An android phone (OPPO AX7) was used at ground level to gather photographic evidence.
- Plans have been supplied by the client (Appendices 15.1).
- Some information contained in this report has been supplied by the client.

5. Site details

5.1 Site Maps



Fig.1 – Indicating subject trees 1 – 10 located at LOT 101 Johnson Rd., Bertram (Google maps)

5.1 Site Overview

6. Tree details

ID	Species	Height/Width (m)	DBH (mm)	TPZ/SRZ (m)	Comments
Tree 1	*Banksia attenuata* (Candle Stick Banksia	8/6	400	4.8/2.25	Tree marked for retention
Tree 2	*Banksia sp.*	8/6	450	5.4/2.37	Tree marked for removal
Tree 3	*Corymbia calophylla* (Marri)	20/10	900	10.8/3.17	Tree marked for retention
Tree 4	*Corymbia calophylla* (Marri)	20/16	900	10.8/3.17	Tree marked for retention
Tree 5	*Corymbia calophylla* (Marri)	18/12	850	10.2/3.09	Tree marked for retention
Tree 6	*Corymbia calophylla* (Marri)	8/6	300	3.6/2	Tree marked for retention
Tree 7	*Corymbia calophylla* (Marri)	8/8	400	4.8/2.25	Tree marked for retention
Tree 8	*Corymbia calophylla* (Marri)	16/10	570	6.84/2.61	Tree marked for removal
Tree 9	*Allocasuarina sp.* (Sheoak)	18/10	500	6/2.47	Tree marked for removal
Tree 10	*Corymbia calophylla* (Marri)	18/18	1050	12.6/3.38	Tree marked for retention

Table 1 – Tree species and relevant dimensions

7. Tree Protection

Tree roots are generally shallow in the soil and can travel well beyond the drip line of the tree's crown. Roots that collect water and nutrients are typically found within the top 600mm of the soil and are therefore susceptible to damage or disturbance. It is important to protect the roots in this surface layer to ensure the tree is not placed under stress. The best way to protect a tree during construction is by establishing a tree protection zone (TPZ)

8. Tree Protection Zone, Structural Root Zone & Encroachment

8.1 Tree protection Zone (TPZ): The tree protection zone is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. The TPZ incorporates the structural root zone (SRZ).

8.2 Structural Root Zone (SRZ): refers to an area around the trunk of the tree that relates to the structural stability of the tree. If larger roots within this area are damaged it is highly likely the tree's structure will be compromised, possibly causing whole tree failure. The SRZ primarily relates to structure as opposed to tree health, to protect tree health The TPZ should be adhered to.

8.3 Incursion: It may be possible to encroach into or make variations to the standard TPZ. Encroachment includes excavation, compacted fill and machine trenching. Encroachment can be classified as minor or major encroachment.

Minor: If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ.

Major: If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ.

9. TPZ establishment

A TPZ is calculated in accordance with Australian Standard 4970-2009 Protection of trees on development sites. A TPZ aims to; protect the tree roots from high traffic and soil disturbance, provide root space to sustain a tree's health, minimise interruption to the tree's growing environment and prevent vehicle damage to the tree trunk and branches.

9.1 TPZ Guidelines

1. A Tree Protection Zone (TPZ) shall be established for the duration of any works near a tree.
2. The tree protection distance method outlined in the current Australian Standard will be used for the allocation of tree protection zones. The TPZ for individual trees is calculated based on trunk (stem) diameter (DBH), measured at 1.4 meters up from ground level. The radius of the TPZ is calculated by multiplying the tree's DBH by 12. TPZ distances are measured as a radius from the center of the trunk at ground level.
3. A qualified arborist must approve any modification to a tree protection zone

The following are not permitted within a tree protection zone:

1. Mechanical excavation on the road, footpath or any public space
2. Stockpiling of building materials, debris or soil
3. Vehicular traffic except on existing paved surfaces
4. Installation of service pits or hatches
5. Vehicular crossings
6. Severing of tree roots with a diameter greater than 30mm
7. Alteration of soil levels and structure

9.2 TPZ Signage

A prohibition sign complying with AS4970:2009 stating "NO ENTRY – TREE PROTECTION ZONE" and including contact details of the site foreman is to be attached to the fence to be visible from all sectors of the site, and remain in place until all construction has been completed (Fig. 2)



Fig. 2 – TPZ signage to be placed on fencing and visible to construction workers.

10. Construction around trees

There are a number of factors to consider when performing construction works around trees.

10.1 Root damage

Root damage is the most common cause of damage to trees on construction sites. Root excision triggers responses in hormonal levels, water and nutrient status and gaseous exchange that result in growth changes and biomass allocation. Mechanical damage reduces the root:shoot ratio and subsequently inhibits the trees ability to uptake water resulting in symptoms synonymous to drought.

The compensatory mechanics to cope with reduced capacities of water and nutrient supply due to root loss include an enhancement of root physiological activity of the remaining roots and/or regeneration and rejuvenation of the root system.

It is now recognised that the survival of trees following root damage or severance is largely dependent on the rapid extension of roots to absorb water, replenish transpirational water loss and reduce drought related water stress symptoms. Therefore, it is important to protect the remaining root structure and encourage further growth. Fine roots that regenerate close to the surface will be susceptible to damage in the upcoming hotter months however, they can be protected with the application of mulch.

Apart from the actual removal or roots during excavation or trenching, soil compaction is one of the major causes of root damage on construction sites

10.2 Compaction

An ideal soil for root growth and development contains about 50 per cent pore space for water and air movement. A reduction of the total porosity (Compaction) impedes an adequate gas exchange between soil and atmosphere which depends on a continuous system of air-filled pores throughout the soil.

Decreased air permeability and soil porosity limit extension, elongation, density and penetration of fine roots which has been witnessed by the reluctance of new roots to expand into the construction sand.

Compaction is measured by bulk density that is the dry weight of soil by volume. Compacted construction sand has a bulk density value of approximately 1.6g/cm3 which is typically too high to support root growth.

10.3 Root pruning

Most trees will tolerate root pruning up to 25% total mass and some species endure considerably more. Given they have space to do so, roots will regenerate in time to compensate for the loss and re-align the root:shoot ratio.

10.4 Soil gradient change

Raising the grade or soil level over existing roots can have a significant effect on the future growth and survival of existing trees. When soil or any type of fill is placed over the existing root system, it causes a reduction in the oxygen supply to the tree roots and slows down the rate of gas exchange between the roots and the air in the soil pore space.

Many of the soil organisms (rhizosphere) also utilize the water and oxygen in their normal growth processes. Lack of oxygen in the soil may result in accumulation of noxious gases and chemicals detrimental to good growth. When this occurs, the feeder roots fail to develop, the root system and the above-ground portion of the tree begin to decline.

Initial symptoms generally include; delayed bud break, reduced growth, stunted light green to yellow leaves, necrosis, crown thinning and leaf abscission. Tree mortality may take anywhere from several months to several years to occur.

10.5 Backfill

Where excavation within the TPZ has been undertaken, backfill around tree roots with a soil mixture of topsoil and well-rotted compost with a neutral pH value. The topsoil and compost are to be free from weed growth and harmful materials. Do not backfill around tree trunks to a height greater than 200 mm above the original ground surface. Immediately after backfilling, thoroughly water the root zone surrounding the tree.

10.6 Structural soils

The aim of structural soil is to provide a solid base to support loads while permitting root growth. Here in Australia, SESL has developed specifications for structural soils suited to Australian conditions. A typical SESL structural soil is composed of 5 to 6 parts 75-mm rail ballast (which is defined by AS 2758.7) to 1 part soil. When the mix is compacted, it retains a void space of at least 30%, which is available for water and air movement and root growth.

It is important to understand structural soil as the entire structural foundation, not just as a soil product that fits in with the foundation. Doing away with the traditional small pit for each tree, it allows roots to travel as far as they can beneath the pavement.

When structural soil is properly used, roots can penetrate deep enough to avoid surface heat and to find enough water. Growing deeply, they are less likely to lift and crack pavements. Structural soil meets the needs of both engineers, by providing a firm foundation, and landscapers, by providing adequate rooting volume with air permeability, moisture-holding capacity and cation exchange capacity.

11. Discussion

11.1 Introduction

Established trees of good health and vigour represent an asset to any development site, particularly if landscaping is a significant component of the proposed development. Trees are retained because of their aesthetic features, for shade, for the scale that they will give to new buildings or for their historical value. Trees are living organisms that require certain environmental conditions in order to maintain their value as an asset. As remediation of badly stressed or damaged trees is rarely successful, it is essential to avoid or minimise damage during the construction phase. Hence, to retain trees and meet their requirements, procedures that ensure the protection of trees must be in place at all stages of the development.

11.2 TPZ and modifications

The tree protection zone is a guideline established to help protect trees, especially during construction. The TPZ is calculated based on the trunk diameter and makes some assumptions as to the likely spread of the trees roots. In urban settings, the trees roots are not often where they are expected and can also be influenced by soil type and tree species. A majority of Perth's suburbs are situated on sandy soils that typically have low compaction rates and high filtration that can result in tree roots growing downwards as opposed to the more conventional lateral growth. As a result, it may be possible in certain circumstances to make significant encroachments into the TPZ and sometimes the structural root zone.

Currently one of the biggest areas of contention and legal dispute centers on what is an acceptable (or unacceptable) level of impact. These concerns intersect with issues surrounding encroachment. Theoretically, the standard allows 100% impact on the TPZ, provided that the project arborist can adequately demonstrate that the tree will remain viable. Some arborists advise that if the SRZ cannot be substantially preserved, then the tree should be removed. This is not in accord with the standard, and might be seen as an easy or perhaps safe approach.

11.3 Tree retention

There is always a compromise between retaining trees on a development site and the economic imperatives of land development. Retaining trees on development sites is a fine balance between sustaining that amenity and the economic development of the land. Establishing priorities for the retention of trees is an important part of the planning process if amenity is to be sustained in the long term. If the trees are found to have high significance, plans may be altered or construction methods changed to accommodate tree retention. Excavation within the TPZ can be conducted in a non-intrusive manner that can dramatically reduce disturbance to the trees roots.

12. Summary of observations

Aerials photos of the area indicate there has been significant clearing of native bushland to facilitate the adjacent suburb and there is little evidence of mature trees within the development envelope. It is encouraging to be presented with development plans with a focus on retaining significant, mature trees.

- 7 of the 10 trees on site are Marri that are an endemic species to Western Australia. 4 of these would be considered significant due to their age, size and habitat value and should be preserved and protected.
- The development plans incorporate the existing trees into the design.
- Construction will occur within some of the trees TPZ illustrating the need for construction methods and materials to be reviewed. Deep excavation for footings etc. does not appear to be necessary in the TPZ of most trees marked for retention.
- Plans indicate a soak well to be placed within the TPZ of Tree 3 that will need to be positioned carefully without damaging the trees structural roots.
- Plans indicate the drive way will pass through the SRZ of Tree 3. It is imperative that no deep soil excavation is carried out in the construction process if the tree is to be retained. Deep excavation will likely severe significant structural roots that will compromise the trees structural integrity.
- The above ground floor of the common area appears to be amongst the canopy of trees. Some of the trees have a significant lean and canopy bias making them difficult to uplift or prune effectively to facilitate construction. Pruning of the trees to accommodate the common area roof will need to be done carefully and selectively.

13. Recommendations

- Onsite consultation between a project arborist and builder to discuss the common area roofing amongst the trees to have a clear understanding of what is or is not possible to achieve. This may result in the possible removal of selected trees to facilitate construction.
- Prune trees that will likely be affected by mechanical damage prior to construction.
- Apply a thick layer (75-100mm) of mulch in the entire TPZ of trees where construction or earthworks will not take place. A layer of mulch will reduce compaction levels during construction, act as a protective barrier for the trees roots and help soil water retention throughout the entirety of the construction process.

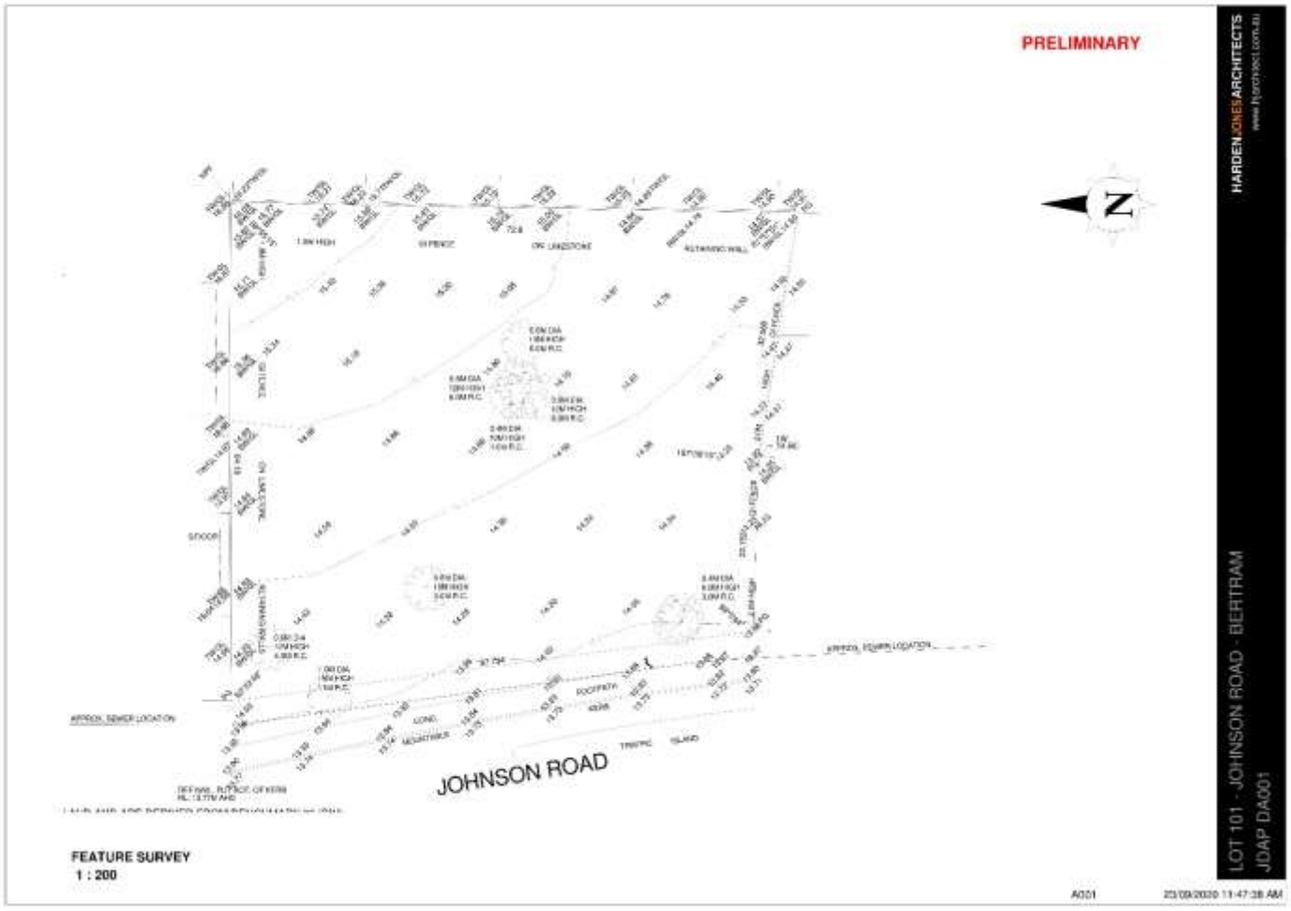
- A Suitably qualified Arborist to be on site during excavation to document root disturbance/damage and prune roots where necessary.
- Excavate soil manually (i.e. by shovel) to expose roots that may be impacted by earthworks particularly in the SRZ. Clean cut all roots that will be affected by earthworks to facilitate root re-growth and minimise pathogen infection. This should be conducted by a suitably qualified Arborist
- Establish tree protection zones for all subject trees for the remaining duration of construction. Temporary fencing can be erected around the trees to form a physical barrier that can prevent mechanical damage and reduce compaction.
- Use structural soils (10.6) in areas of the TPZ where construction is necessary.
- Irrigate trees thoroughly during the entirety of the construction process.
- Monitor trees during construction and contact an Arborist if crown deterioration is observed.

14. Disclaimer

The conclusions and recommendations contained in this report refer to the trees' condition on the day of inspection only. The report should be read and considered in its entirety. All care has been taken using the most up to date arboricultural information in the preparation of this report. The report is based on visual inspection only. No guarantee can be given nor can it be predicted that branch failure or uprooting (windthrow) would not occur as a result of high winds and /or excessive rainfall and other unpredictable events. Tree health and environmental conditions can change at any time due to unforeseen circumstances.

15. Appendix

15.1 Development plans




PRELIMINARY
BLOCK D
BLOCK C
BLOCK E
BLOCK A
BLOCK B
DRIVEWAY
DRIVEWAY
DRIVEWAY
JOHNSON ROAD
SITE PLAN
1 : 130
HARDEN JONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001


PRELIMINARY
SITE AREA 4068 SQM
30 x (2x1) 70 SQM
04 x (1x1) 54 SQM
36 CAR BAYS TOTAL
DRIVEWAY
DRIVEWAY
DRIVEWAY
JOHNSON ROAD
1. GROUND FLOOR
1 : 130
HARDEN JONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001


PRELIMINARY
72.8m
32.088m
22.152m
54.16m
67.734m
2. FIRST FLOOR
1 : 130
JOHNSON ROAD
HARDENJONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001
A202
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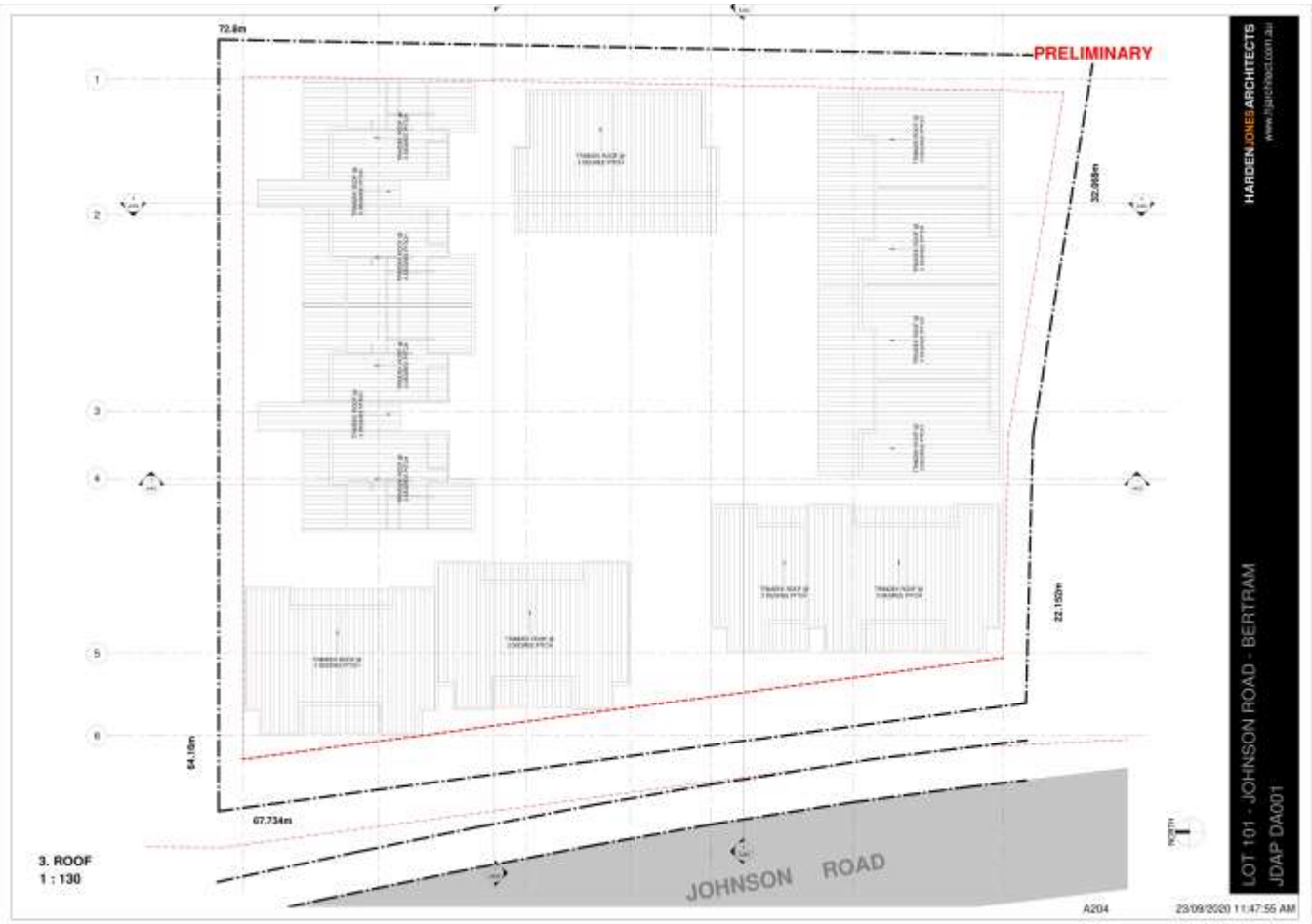
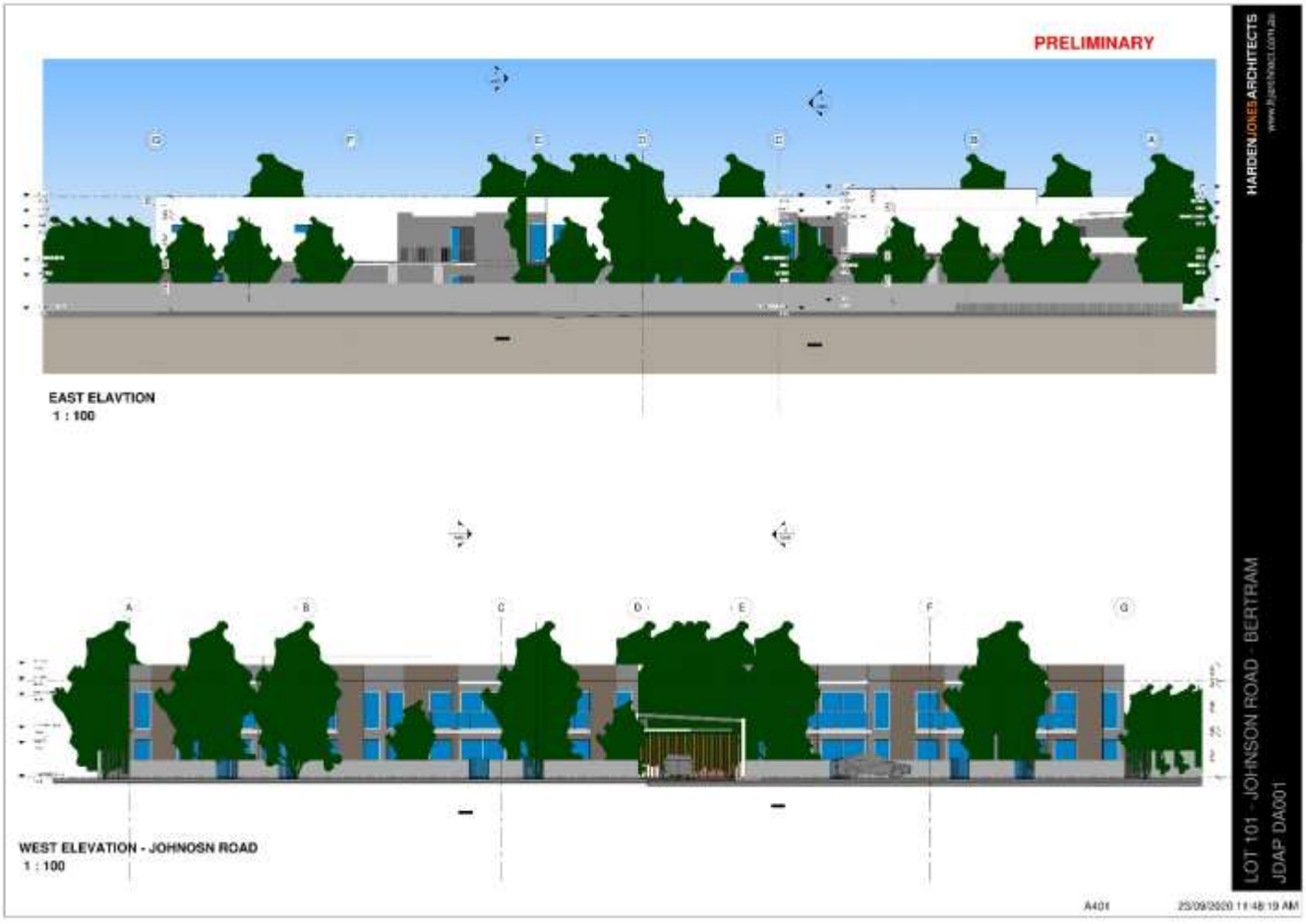

PRELIMINARY
72.8m
32.088m
22.152m
54.16m
67.734m
3. ROOF
1 : 130
JOHNSON ROAD
HARDENJONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001
A204
23/09/2020 11:47:55 AM



1. GROUND FLOOR SOLAR / NATURAL VENTILATION DIAGRAM
1 : 140



2. FIRST FLOOR SOLAR / NATURAL VENTILATION DIAGRAM
1 : 140


PRELIMINARY
EAST ELAVTION
1 : 100
WEST ELEVATION - JOHNOSN ROAD
1 : 100
HARDEN JONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001
A401


PRELIMINARY
Section 3
1 : 100
Section 4
1 : 100
HARDEN JONES ARCHITECTS
LOT 101 - JOHNSON ROAD - BERTRAM
JDAP DA001
A404

Attachment 6

BUSHFIRE MANAGEMENT PLAN
Apartment complex 101 Johnson Road, Bertram



CLIENT:	Fred Witting Renel Pty Ltd
SITE LOCATION:	101 Johnson Rd Bertram, WA 6167
DATE:	16/12/2020
SHIRE/CITY:	City of Kwinana
FIRE CONSULTANT:	David Deeley
CLIENT CONTACT #	0419 937 408
WOFP FILE #:	20200908
VERSION #:	2.0

WORKING ON FIRE PLANNING
INTEGRATED FIRE MANAGEMENT
Working On Fire Planning Pty Ltd
ABN: 42 623 954 316
PO Box 1249 Bibra Lake DC WA 6965
planning.australia@workingonfire.com
www.workingonfireplanning.com.au

Property address: 101 Johnson Road, Bertram, WA 6167.

Lot size: 4068 m^2

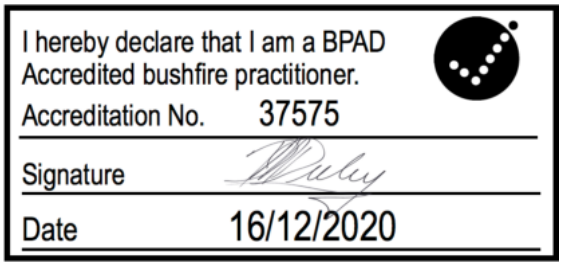
Landowner: Renel Pty Ltd

Prepared by: David Deeley

Document control

Client: Fred Witting, 267 Marmion St, Cottesloe, WA 6011

Report version	Purpose	Author/reviewer and accreditation details	Date submitted
Draft 1.0	BAL / BMP – draft for review	Dr David Deeley L2 BPAD 37575	27/09/2020
Final 1.0	Author - BAL / BMP	Dr David Deeley L2 BPAD 37575	29/09/2020
Final 2.0	DFES amendments included	Dr David Deeley L2 BPAD 37575	16/12/2020



Disclaimer

The recommendations and measures contained in this assessment report are based on the requirements of the Australian Standards 3959:2018 – Building in Bushfire prone Areas, WAPC / DFES Guidelines for Building in Bushfire Prone areas (State Planning Policy 3.7) and CSIRO's research into Bushfire behaviour. These are considered the minimum standards required to balance the protection of the proposed dwelling and occupants with the aesthetic and environmental conditions required by local, state and federal government authorities. They DO NOT guarantee that a building will not be destroyed or damaged by a bushfire. All surveys and forecasts, projections and recommendations made in this assessment report and associated with this proposed dwelling are made in good faith on the basis of the information available to the fire protection consultant at the time of assessment. The achievement of the level of implementation of fire precautions will depend amongst other things on actions of the landowner or occupiers of the land, over which the fire protection consultant has no control. Notwithstanding anything contained within, the fire consultant/s or local government authority will not, except as the law may require, be liable for any loss or other consequences (whether or not due to negligence of the fire consultant/s and the local government authority, their servants or agents) arising out of the services rendered by the fire consultant/s or local government authority.

Bushfire Assessment Results

The proposal is to construct 17 grouped apartments in 5 2-storey blocks (Figure 1). The development is to occur within an area of established urban residential form. Scheme water has been provided and the existing public road network provides adequate access.

A site inspection was undertaken on 15th September, 2020 ad at that time, the Lot had largely been cleared of any original vegetation other than several large isolated trees (Photos 92 to 99). The site at that time was covered by sown pasture species that had recently been mown and slashed. None of the vegetation on the property at the time of the site visit presented any bushfire threat.

What is at issue however, is the large area of Class A Forest immediately across the road from No 101. This area of Forest extends over 100 m to the west and is contiguous with a vegetated drainage corridor that connects to retained vegetation around Belgravia Dampland and the Rockingham to Mandurah rail corridor. This Class A Forest across from the proposed development constitutes an 'Extreme' bushfire hazard. Additionally, an extensive stand of original vegetation extends to the south east associated with the Bertram Sanctuary Reserve however the proposed development is shielded from this by a single row of small-Lot dwellings to the SE.

A BAL assessment was completed for the property (Appendix 2), which found that the road reserve associated with Johnson Road provides sufficient separation from the western aspect of the property, combined with a proposed building setback for the apartment complex of 4 m (Figure 6), that a rating ≤BAL-29 can be achieved.

What will be required to mitigate the 'Extreme' bushfire hazard presented by the Class A Forest across the road from No 101, is that the City of Kwinana maintain the Johnson Rd road reserve in a Low-threat condition in perpetuity.

The results of the BAL assessment based on what was observed at the time of the site visit, have been copied here as Table 1.

Table 1: BAL Analysis

Plot	Vegetation Classification	Effective Slope °	Separation (m)	BAL
1	Excludable – Clause 2.2.3.2(f)	N/A	N/A	BAL – LOW
2	Class B Woodland	Upslope/Flat	46	BAL – 12.5
3	Class A - Forest	Upslope/Flat	46	BAL – 12.5
4	Class C Shrubland	Upslope/Flat	52	BAL – 12.5
5	Class A - Forest	Upslope/Flat	76.5	BAL – 12.5
6	Class G Grassland	Upslope/Flat	29.5	BAL – 29
7	Class A - Forest	Upslope/Flat	29.5	BAL – 29
Determined Bushfire Attack Level				**BAL – 29**

Copied from the BAL assessment at Appendix 2.

Assessment against the bushfire protection criteria

The measures presented here meet the intent of SPP3.7.

Bushfire protection criteria	Method of compliance Acceptable solutions	Proposed bushfire management strategies
Element 1: Location	A1.1 Development location The development is in a location that on completion will achieve a rating of ≤BAL-29. This meets the intent of Element A1.1.	The proposal is to construct 17 grouped apartments in 5 2-storey blocks. The development is to occur within an area of established urban residential form. Scheme water has been provided and the existing public road network provides adequate access.
Element 2: Siting and design	A2.1 Asset Protection Zone Johnson Road is a 2-way sealed local connector with a sealed surface of from 7 to 11 m width. An existing road reserve of from 20 to 26 m together with a proposed 4 m building setback serves as an APZ such that a rating of ≤BAL-29 is achieved. This meets the intent of Element A2.1.	An existing road reserve (Johnson Road), and a proposed 4 m building setback provides adequate setback from Class A Forest to the west. Established small-Lot urban form on three aspects serves as a suitable APZ. Any future landscaping / planting around the site will also be consistent with Schedule 1 (see Page 8 of Appendix 1).
Element 3: Vehicular access	A3.1 Two access routes. The existing public road network provides two all-weather access routes to two separate destinations. This meets the intent of Element A3.1	(see Photos 23, 24).
	A3.2 Public road. N/A	There are no public roads on site.
	A3.3 Cul-de-sac N/A	There are no cul-de-sacs.
	A3.4 Battle-axe N/A	There are no battle-axe Lots
	A3.5 Private driveway longer than 50 metres. Most private driveways serving the apartment complex are <50 m. Private driveways servicing central and rear apartment blocks may be >50 m up to a maximum of 75 m. These are to be constructed to the specifications of Table 1, column 3. This meets the intent of Element A3.5	Private driveways servicing central and rear apartment blocks are to be fully sealed or paved and are to be ≥6 m in width.
	A3.6 Emergency access way N/A	The existing public roads provide adequate egress in an emergency.
	A3.7 Fire service access routes (perimeter roads) N/A	The existing public and private roads provide adequate access for emergency services.
	A3.8 Firebreak width. N/A	101 Johnson Road is <0.5 ha so no perimeter firebreak is required.

Bushfire protection criteria	Method of compliance Acceptable solutions	Proposed bushfire management strategies
Element 4: Water	A4.1 Reticulated areas Reticulated water has been provided for the apartment complex. This meets the intent of A4.1.	A reticulated water supply has been provided to the Lot. All apartments will be provided with reticulated water. Internal water supply pipes must comply with clause 7.8 of the BAL-29 requirements of AS 3959 or where shielding provisions apply to clause 6.8 of the BAL-19 requirements of AS 3959.
	A4.2 Non-reticulated areas N/A	N/A
	A4.3 Individual lots within non-reticulated areas. N/A	N/A

Table 1 Technical requirements for public roads.

TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5
*Refer to E3.2 Public roads: Trafficable surface					

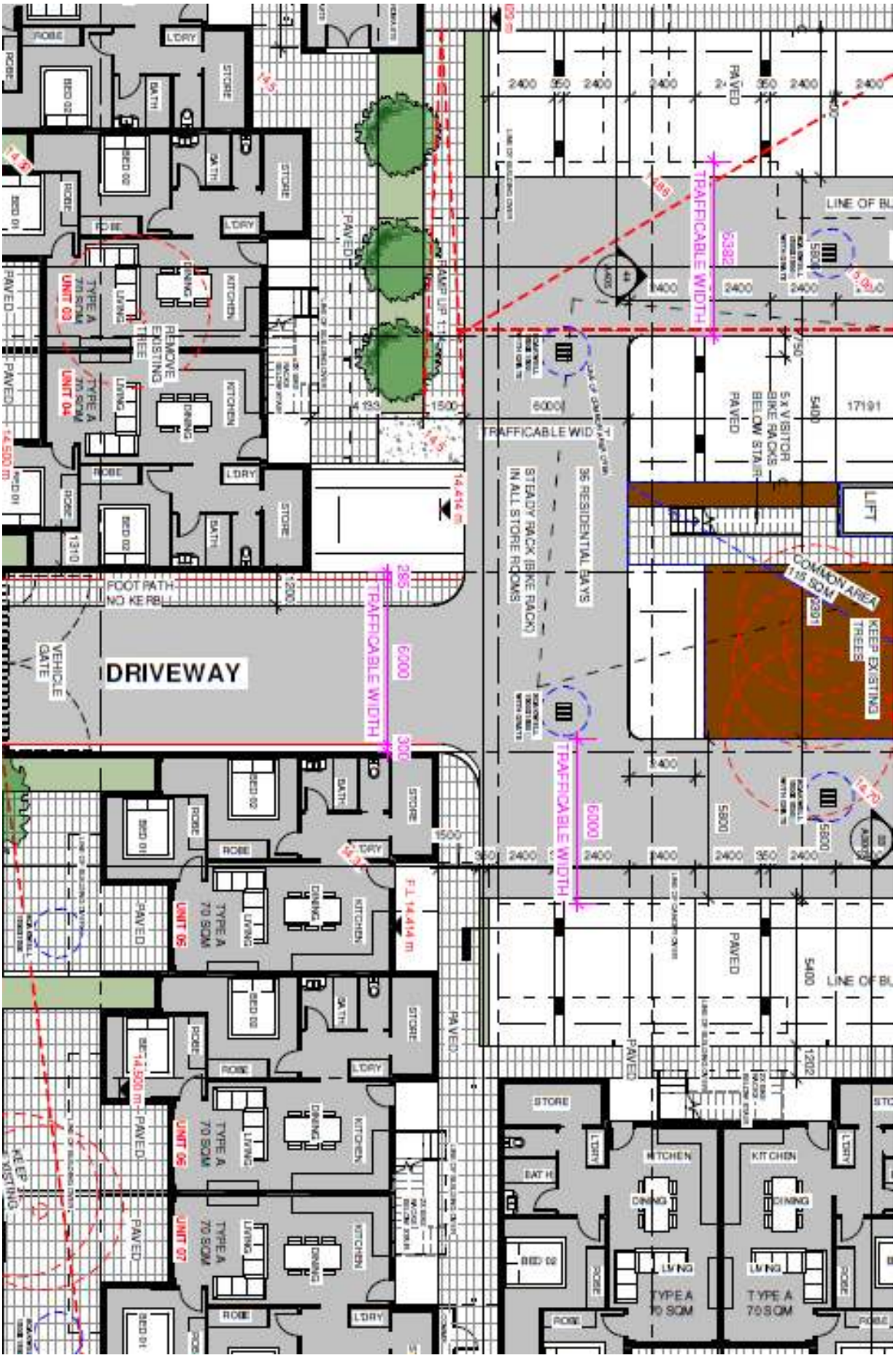


Figure 1 Site plan for proposed apartment complex

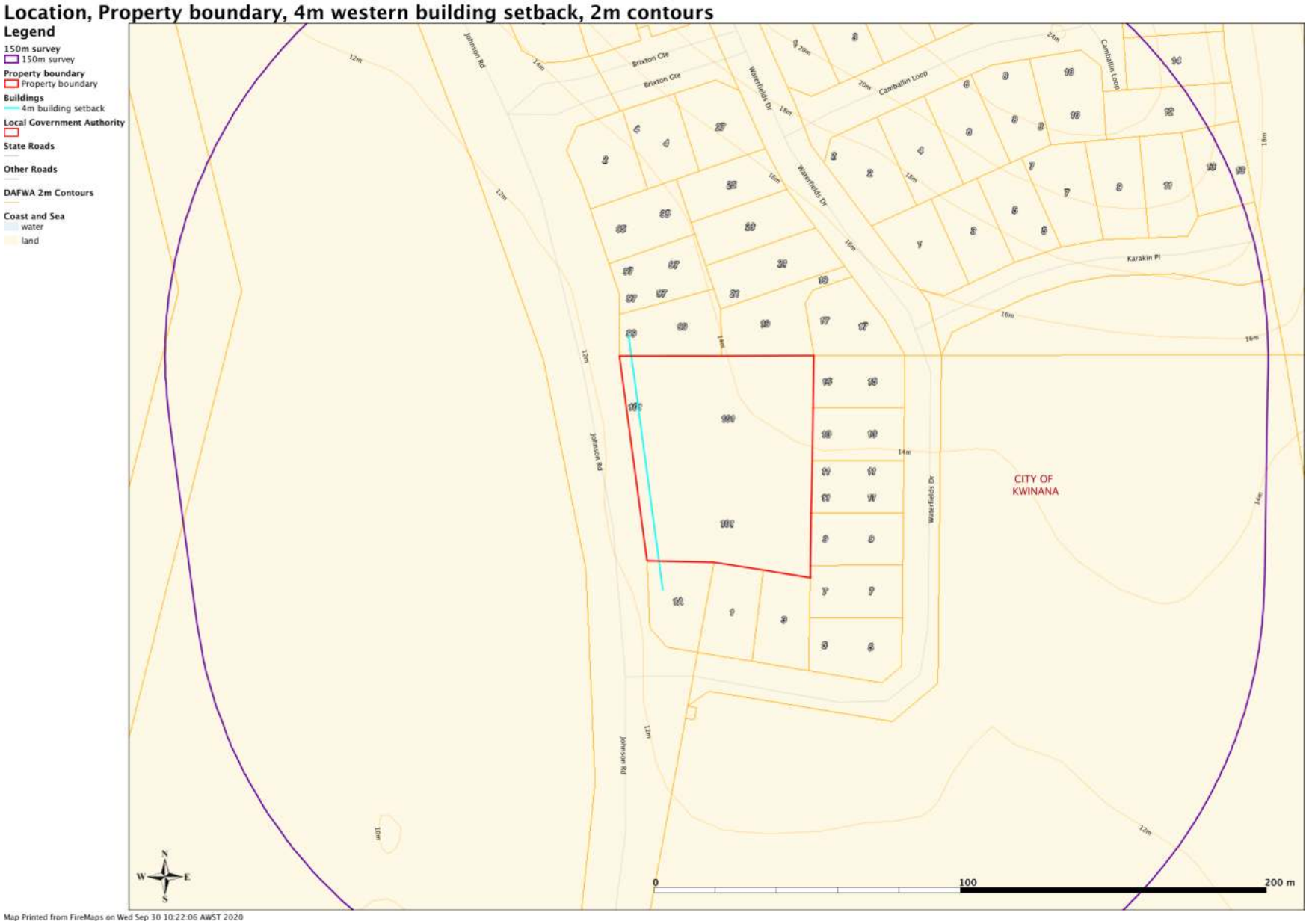


Figure 2 Location, Property boundary, 4 m setback, 2 m contours



Figure 3 Air photo and photo points



Figure 4 Vegetation classified existing

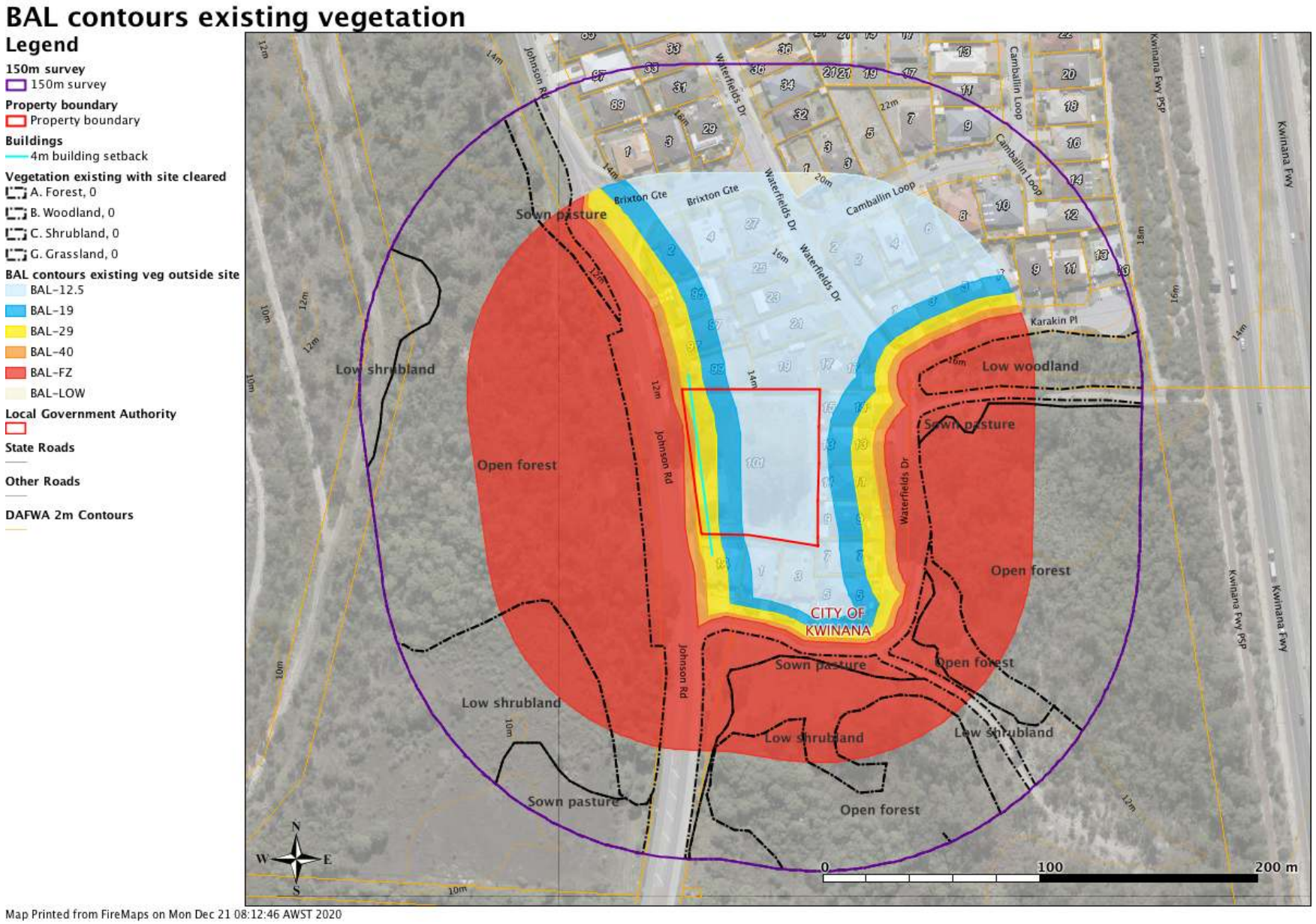


Figure 5 BAL contours existing vegetation

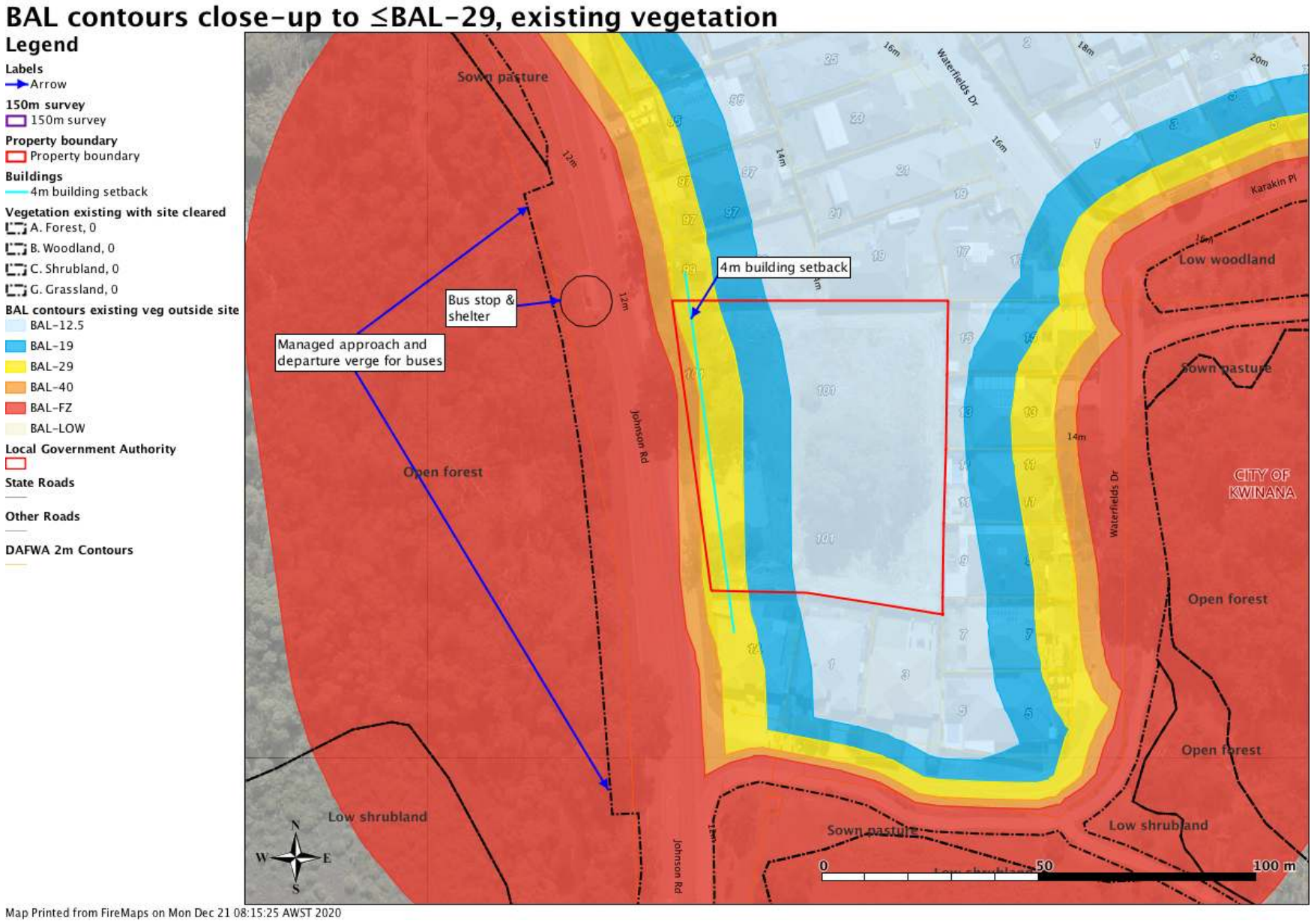


Figure 6 BAL contours close-up showing separation distances to ≤BAL-29

Responsibility for implementation and management

DEVELOPER/LANDOWNER – PRIOR TO OCCUPANCY	
No.	**Implementation action**
1	Design and construct private driveways from Johnson Rd to central and rear apartment blocks as per the specifications stated in this BMP.
2	Clear existing groundcovers and shrubs (other than several large trees to be retained), on site to establish a suitable Asset Protection Zone to the dimensions and standards stated in the BMP.
3	Design and install emergency water fittings such as hose reels etc. as per the BCA's specifications

LANDOWNER/OCCUPIER – ONGOING MANAGEMENT	
No.	**Management action**
1	Maintain any retained or recreated vegetation to the standard stated in the BMP. 'Schedule 1' specifications to apply.
2	Comply with the relevant local government annual firebreak notice issued under S33 of the *Bush Fires Act 1954.*
3	Maintain vehicular access routes within the Lot to the required surface condition and clearances.
4	Maintain the emergency hose reels and associated fittings in good working condition.

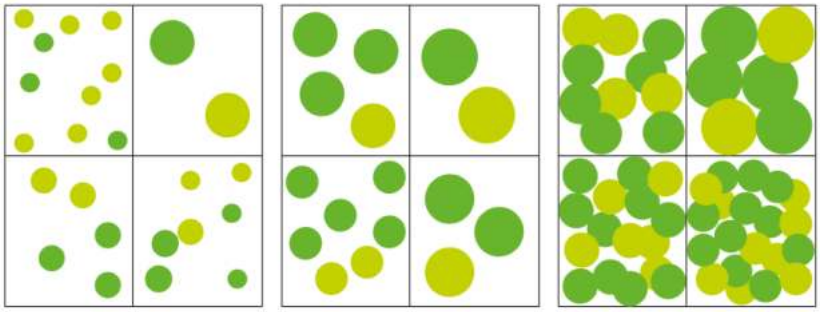
LOCAL GOVERNMENT	
No.	**Management action**
1	Provide annual firebreak and hazard reduction notices.
2	Monitor land owner compliance with regulations.
3	Promote education and awareness of bushfire prevention and preparation measures.
4	Maintain the vegetation within the road reserve for Johnson Road adjacent to No 101, in a 'Low-threat' condition in perpetuity.

Appendix 1 Schedule 1 APZ requirements

Source: WAPC (2017) Guidelines for planning in bushfire prone areas. V1.3 Dec, 2017 Appendices.

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m^2 in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Appendix 2 BAL assessment

Bushfire Attack Level Assessment Report

Prepared by a BPAD Accredited Practitioner

BPAD Bushfire Planning & Design

Fire Protection Association Australia Life Property Environment

FPA AUSTRALIA



Working on Fire Planning Pty Ltd
Bushfire Attack Level (BAL) Assessment Report

This report has been prepared by an Accredited BPAD Practitioner using the Simplified Procedure (Method 1) as detailed in Section 2 of AS 3959 – 2018. All enquiries related to the information and conclusions presented in this report must be made to the BPAD Accredited Practitioner.

Property Details and Description of Works

Job Details	**Unit no**	**Street no**	**Lot no**	**Street name / Plan Reference**	
		101		Johnson Rd	
	Suburb			**State**	**Postcode**
	Bartram			WA	6167
Local government area	**Shire/City.**				
	City of Kwinana				
Main BCA class of the building	Class 2	**Use(s) of the building**		Private apartments	
Description of the building or works	New Construction				

Report Details

Report / Job Number	Report Version	Assessment Date	Report Date
2019	2.0	15 September 2020	24 November 2020

BPAD Accredited Practitioner Details

Name: Select

Company Details

WORKING ON FIRE PLANNING
INTEGRATED FIRE MANAGEMENT
Working On Fire Planning Pty Ltd
ABN: 42 623 954 316
PO Box 1249 Bibra Lake DC WA 6965
planning.australia@workingonfire.com
www.workingonfireplanning.com.au

I hereby declare that I am a BPAD Accredited bushfire practitioner.
Accreditation No. 37575
Signature
Date 24/11/2020

Authorised Practitioner Stamp

Reliance on the assessment and determination of the Bushfire Attack Level contained in this report should not extend beyond a period of 12 months from the date of issue of the report. If this report was issued more than 12 months ago, it is recommended that the validity of the determination be confirmed with the Accredited Practitioner and where required an updated report issued.

Site Assessment & Site Plans - The assessment of this site was undertaken on 15 September 2020 by a BPAD Accredited Practitioner for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 - 2018 Simplified Procedure (Method 1).



Note: All diagrams are indicative only. They are not intended to represent a building's shape or scale.

Vegetation Classification All vegetation within 150 m of the site was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot determining the Bushfire Attack Level is identified below.

Photo ID:	11	**Plot:**	1
Vegetation Classification or Exclusion Clause			
Excludable - 2.2.3.2(f) Low Threat Vegetation			
Description / Justification for Classification			
Established urban form			



Photo ID:	12	**Plot:**	2
Vegetation Classification or Exclusion Clause			
Class B Woodland - Woodland B-05			
Description / Justification for Classification			
Trees 10 m–30 m high; 10%–30% foliage cover dominated by *Eucalypts* and/or *Callitris* with a prominent grassy understorey. May contain isolated shrubs. **Note:** Plot 2 Woodland to the left, Plot 3 Forest to the right			



Photo ID:	10	**Plot:**	3
Vegetation Classification or Exclusion Clause			
Class A Forest - Open forest A-03			
Description / Justification for Classification			
Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.			



Photo ID:	25	Plot:	2

Vegetation Classification or Exclusion Clause

Class B Woodland - Woodland B-05

Description / Justification for Classification

Trees 10 m–30 m high; 10%–30% foliage cover dominated by banksia, eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs.

Note: 5 m staff in photo showing low trees (Banksias) to be ≤5 m.



Photo ID:	26	Plot:	2

Vegetation Classification or Exclusion Clause

Class B Woodland - Woodland B-05

Description / Justification for Classification

Trees 10 m–30 m high; 10%–30% foliage cover dominated by banksia, eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs.

Note: Plot 2 Woodland at right, Plot 3 Forest at left. 5 m staff showing isolated tall shrubs to be ≤4 m.



Photo ID:	27	Plot:	2

Vegetation Classification or Exclusion Clause

Class B Woodland - Woodland B-05

Description / Justification for Classification

Trees 10 m–30 m high; 10%–30% foliage cover dominated by banksia, eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs.
Note: Rehabilitation success has been very poor here (ie. <50% survival of planted Kangaroo paws, Smoke bushes and other shrubs), because of coarse very dry sand swale parallel to Karakin Pl. This area will not support Forest.



Photo ID:	13	Plot:	1

Vegetation Classification or Exclusion Clause

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description / Justification for Classification

Established urban form



Photo ID:	08	Plot:	4

Vegetation Classification or Exclusion Clause

Class C Shrubland - Low shrubland C-12

Description / Justification for Classification

Shrubs <2 m high; greater than 30% foliage cover. Understoreys may contain grasses. *Acacia* and *Casuarina* often dominant in the arid and semi-arid zones.

Note: Shrubland a mid-ground. Class A Forest Plot 3 background left, Plot 5 Class D Scrub at background right.



Photo ID:	14	Plot:	1

Vegetation Classification or Exclusion Clause

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description / Justification for Classification

Established urban form



Photo ID:	30	Plot:	6

Vegetation Classification or Exclusion Clause

Class G Grassland – Sown pasture G-26

Description / Justification for Classification

Grassland with <10% cover from shrubs and low trees. Fuel load to 4.5t/ha.

Note: This clearly shows City of Kwinana managed grassland verge, with power transformer.



Photo ID:	31	Plot:	6

Vegetation Classification or Exclusion Clause

Class G Grassland – Sown pasture G-26

Description / Justification for Classification

Grassland with <10% cover from shrubs and low trees. Fuel load to 4.5t/ha.

Note: This clearly shows City of Kwinana managed grassland verge, around subdivision entry statement and electric power installation.



Photo ID:	14	Plot:	1

Vegetation Classification or Exclusion Clause

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description / Justification for Classification

Established urban form



Photo ID:	07	Plot:	5

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.



Photo ID:	28	Plot:	4

Vegetation Classification or Exclusion Clause

Class C Shrubland - Low shrubland C-12

Description / Justification for Classification

Shrubs <2 m high; greater than 30% foliage cover. Understoreys may contain grasses. *Acacia* and *Casuarina* often dominant in the arid and semi-arid zones. This area is a dampland with wet peaty soils. It will not support Forest.

Note: Dense Bracken Shrubland at mid-ground. Single isolated tree at left, Class A Forest Plot 5 at background right.



Photo ID:	29	Plot:	6

Vegetation Classification or Exclusion Clause

Class C Shrubland - Low shrubland C-12

Description / Justification for Classification

Shrubs <2 m high; greater than 30% foliage cover. Understoreys may contain grasses. *Acacia* and *Casuarina* often dominant in the arid and semi-arid zones. This area is a dampland with wet peaty soils. It will not support Forest.

Note: Dense Bracken Shrubland at mid-ground. Single isolated tree at left, Class A Forest Plot 5 at background right.



Photo ID:	02	Plot:	7

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.



Photo ID:	01	Plot:	7

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.



Photo ID:	16	Plot:	7

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.

Note: Narrow band of City-managed Grassland in foreground adjacent to the round-about.



Photo ID:	92	Plot:	1

Vegetation Classification or Exclusion Clause

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description / Justification for Classification

Established urban form adjoining the Lot being developed.



Photo ID:	24	Plot:	7

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.

Note: Looking south Forest to the right. Clearly shows the City-managed Grassland verge adjacent to the bus stop.



Photo ID:	23	Plot:	7

Vegetation Classification or Exclusion Clause

Class A Forest - Open forest A-03

Description / Justification for Classification

Trees 30 m high; 30%–70% foliage cover. Typically dominated by *Eucalypts*, *Melaleuca* or *Callistemon* and *Callitris*.

Note: Looking north Forest to the left. Clearly shows the City-managed Grassland verge adjacent to the bus stop and shelter.



Relevant Fire Danger Index The fire danger index for this site has been determined in accordance with Table 2.1 or otherwise determined in accordance with a jurisdictional variation applicable to the site.

Fire Danger Index			
FDI 40 ☐	FDI 50 ☐	FDI 80 ☒	FDI 100 ☐
Table 2.4.5	*Table 2.4.4*	*Table 2.4.3*	*Table 2.4.2*

Potential Bushfire Impacts

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below.

Table 1: BAL Analysis

Plot	Vegetation Classification	Effective Slope °	Separation (m)	BAL
1	Excludable – Clause 2.2.3.2(f)	N/A	N/A	BAL – LOW
2	Class B Woodland	Upslope/Flat	46	BAL – 12.5
3	Class A - Forest	Upslope/Flat	46	BAL – 12.5
4	Class C Shrubland	Upslope/Flat	52	BAL – 12.5
5	Class A - Forest	Upslope/Flat	76.5	BAL – 12.5
6	Class G Grassland	Upslope/Flat	29.5	BAL – 29
7	Class A - Forest	Upslope/Flat	29.5	BAL – 29

Determined Bushfire Attack Level (BAL)

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development has been determined in accordance with clause 2.2.6 of AS 3959-2018 using the above analysis.

Determined Bushfire Attack Level	**BAL – 29**

DISCLAIMER

The determinations and recommendations in this report are based on the requirements of Australian Standards 3959 – 2018, (Construction of Buildings in Bushfire prone Areas) and State Planning Policy 3.7, (Planning in Bushfire Prone Areas and appendices). This assessment has been undertaken in good faith and has been based on the site conditions apparent at the time of inspection, and other information provided by the client or their agents. Construction of the dwelling to the prescribed BAL level will not on its own guarantee that a building will not be destroyed or damaged by a bushfire. The consultant has no control over the subsequent actions of the home owner in the construction, development and maintenance of a property, which in the event of a bushfire may contribute to loss or damage. Accordingly the consultant, local government authority, their servants or agents shall not be held accountable for any damage to property, loss or other consequence as a result of the services provided or determinations in this report.

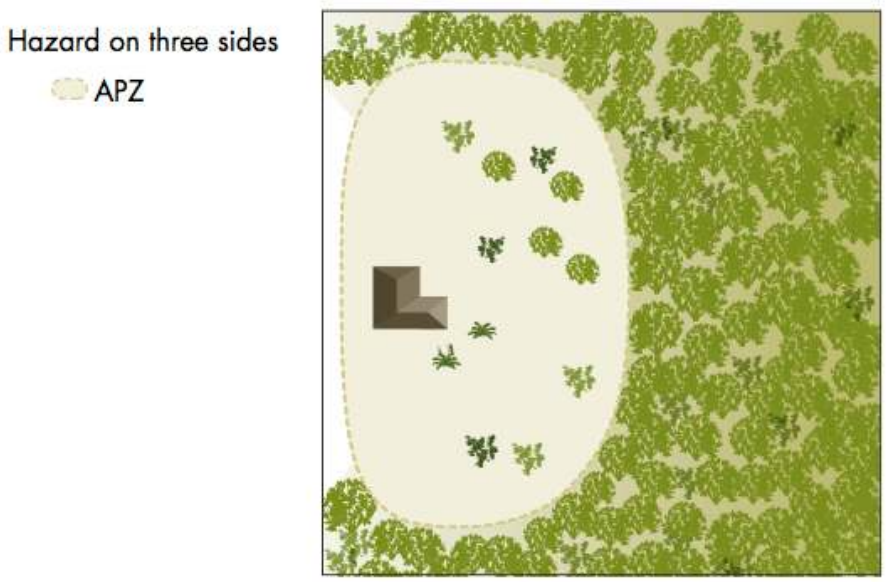
THINNING RECOMMENDATIONS

There may be an opportunity for the client to conduct vegetation thinning to achieve a lower BAL rating where this is recommended. Thinning is the modification of vegetation by minimising or removing ground fuels, understory species and trees; the intention is to maintain the aesthetic values and natural habitats whilst minimising fire risk. **Approval for vegetation modification must be sought from the responsible authorities, and can only be conducted within the boundary of the property.**

The following table indicates the vegetation modification distances (IN RED) required from the edge of the proposed building to achieve the specified BAL.

SAMPLE PLOT	ASPECT	VEGETATION CLASSIFICATION	CURRENT DISTANCE TO VEG. (m)	EFFECTIVE SLOPE °	CURRENT RATING	ACHIEVABLE RATING	TOTAL DISTANCE REQUIRED (m)
1	------	Select Classification		-----	------	------	
2	------	Select Classification		-----	------	------	
3	------	Select Classification		-----	------	------	
4	------	Select Classification		-----	------	------	
5	------	Select Classification		-----	------	------	
6	------	Select Classification		-----	------	------	
7	------	Select Classification		-----	------	------	
8	------	Select Classification		-----	------	------	

NOTE: No additional thinning required



Refer to Schedule 1: Standards for Asset Protection Zones.

ADDITIONAL INFORMATION FOR THE CLIENT

BUSHFIRE ATTACK LEVELS AND CORRESPONDING SECTIONS FROM AS 3959-2018

Bushfire Attack Level (BAL)	Classified vegetation within 100 m of the site and heat flux exposure thresholds	Description of predicted bushfire attack and levels of exposure	Construction Section
BAL-LOW	See Clause 2.2.3.2	There is insufficient risk to warrant any specific construction requirements	4
BAL-12.5	≤12.5 kW/m^2	Ember attack.	3 & 5
BAL-19	>12.5 kW/m^2 ≤19 kW/m^2	Increasing levels of ember attack and burning debris ignited by wind-borne embers together with increasing heat flux	3 & 6
BAL-29	>19 kW/m^2 ≤29 kW/m^2	Increasing levels of ember attack and burning debris ignited by wind-borne embers together with increasing heat flux	3 & 7
BAL-40	>29 kW/m^2 ≤40 kW/m^2	Increasing levels of ember attack and burning debris ignited by wind-borne embers together with increasing heat flux with the increased likelihood of exposure to flames	3 & 8
BAL-FZ	>40 kW/m^2	Direct exposure to flames from fire front in addition to heat flux and ember attack	3 & 9

RADIANT HEAT THRESHOLDS OF PAIN AND IGNITION FROM AS 3959-2018

In a bushfire, radiant heat levels may be unsafe for humans and could also ignite combustible materials in the vicinity. Table G1 provides an indication of the potential effects of radiant heat levels on both humans and selected materials to assist the reader in understanding the implications of the different BALs.

TABLE G1 - TYPICAL RADIANT HEAT INTENSITIES FOR VARIOUS PHENOMENA

PHENOMENA	kW/m^2
Pain to humans after 10 s to 20 s	4
Pain to humans after 3 s	10
Ignition of cotton fabric after a long time (piloted) (see Note 2)	13
Ignition of timber after a long time 13 (piloted) (see Note 2)	13
Ignition of cotton fabric after a long time (non-piloted) (see Note 3)	25
Ignition of timber after a long time (non-piloted) (see Note 3)	25
Ignition of gabardine fabric after a long time (non-piloted) (see Note 3)	27
Ignition of black drill fabric after a long time (non-piloted) (see Note 3)	38
Ignition of cotton fabric after 5 s (non-piloted) (see Note 3)	42
Ignition of timber in 20 s (non-piloted) (see Note 3)	45
Ignition of timber in 10 s (non-piloted) (see Note 3)	55

NOTES:

1. Source AS 1530.4—2005.

2. Introduction of a small flame to initiate ignition.

3. Flame not introduced to initiate ignition.

HOW TO PROCEED WITH THIS DOCUMENT

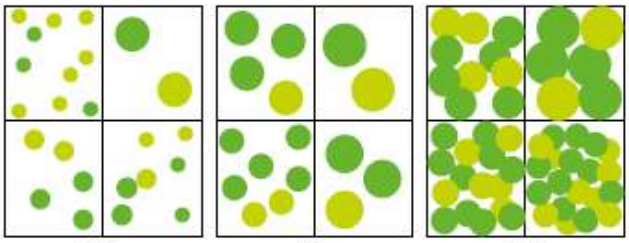
1. If you have been issued with a BAL report that requires **no further clearing / thinning**, this document can be submitted with your application for Development Approval **and** your application for Building Approval with your local authority.
2. If you need to amend the vegetation on your lot to achieve a maximum allowable BAL-29, clearing and thinning of vegetation may be required. In this case all vegetation amendments must be completed and a further site inspection carried out by the bushfire consultant. A **Final BAL Report** can then be issued **at additional cost.** The final BAL report will enable the completion of a compliance certificate by your builder / building inspector. This can then be submitted to your local authority for Building Approval.

Vegetation thinning standards outlined below provide an indication of the requirements for Asset Protection Zones as prescribed in State Planning Policy 3.7. These are the minimum standards required on sites that require vegetation amendments to achieve acceptable BAL levels. **Your Local Authority may prescribe additional or modified standards:**

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 16: Tree canopy cover – ranging from 15 to 70 per cent at maturity

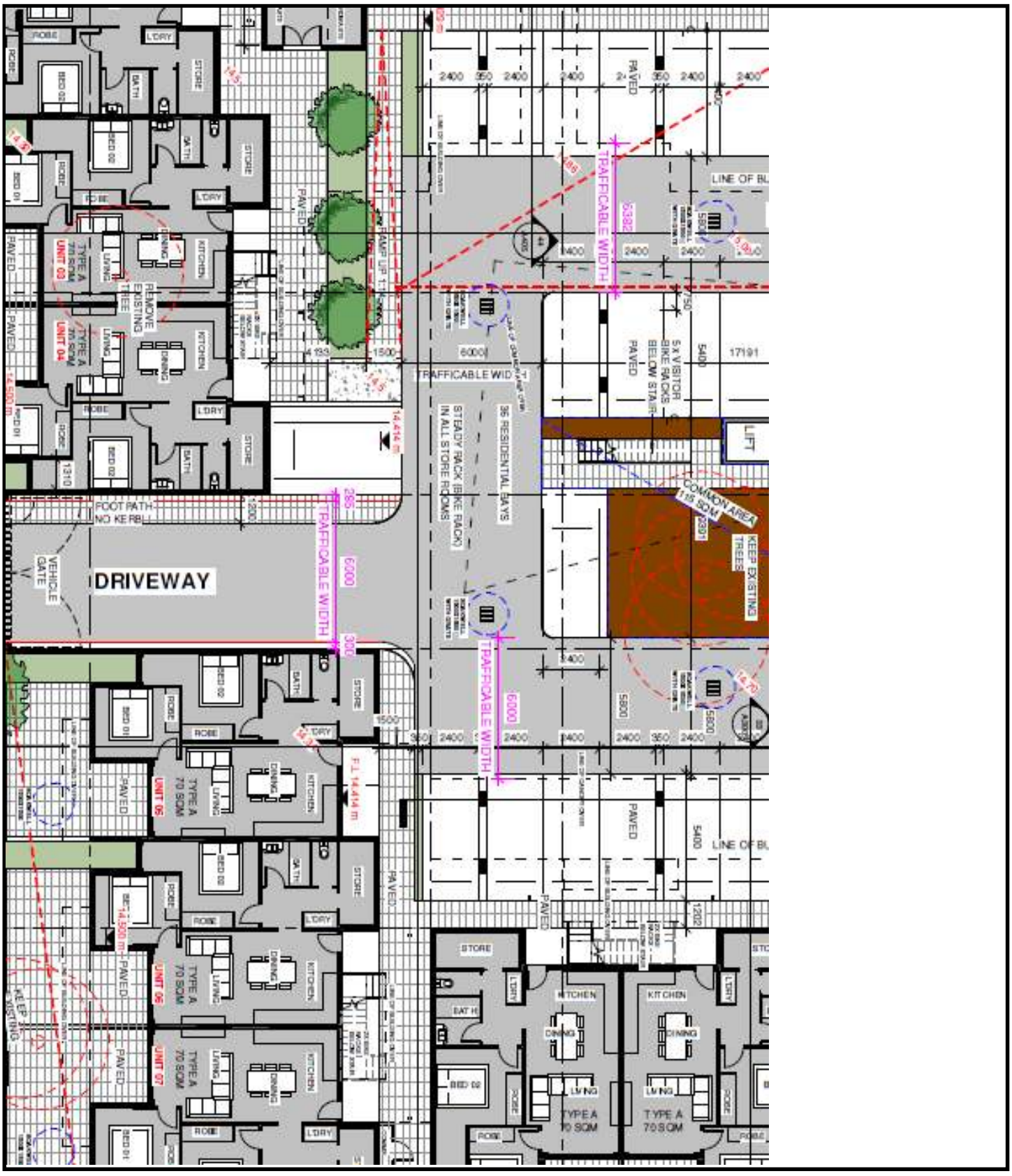


- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Source: WAPC Dec 2017 Guidelines for planning in bushfire prone areas. V1.3.

Appendix 1: Plans and Drawings

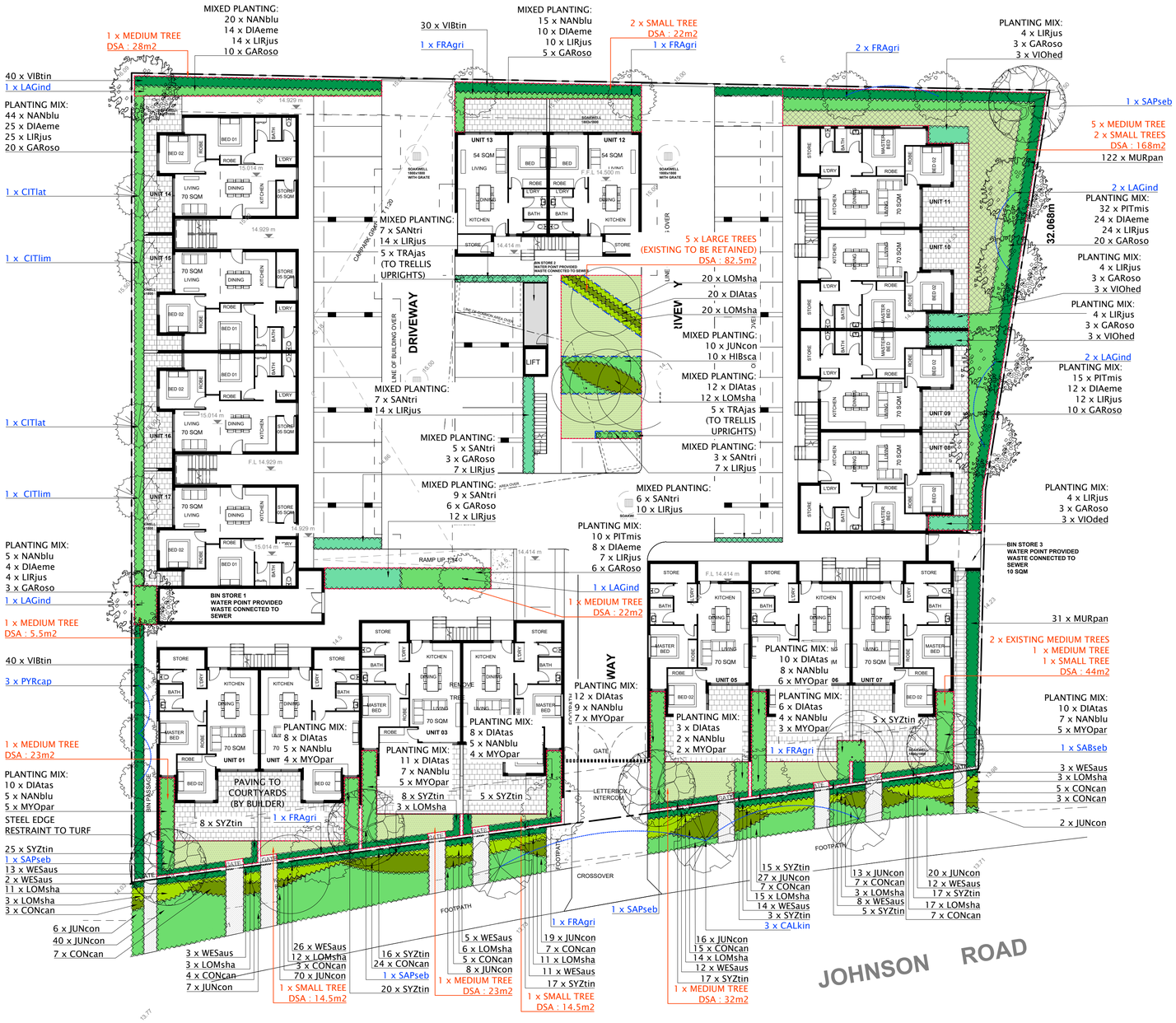
Drawing / Plan Description Site plan		
Job Number 20200908	**Revision** 20201208	**Date of Revision** 08/12/2020



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.

Attachment 7

REV	DATE	DWN	APP	DESCRIPTION
A	10.10.2020	KD	KD	PLANTING PLAN – GROUND FLOOR
B	12.10.2020	KD	KD	UPDATED TREE SURVEY
C	09.12.2020	KD	KD	UPDATED TO COUNCIL COMMENTS



LEGEND

TREES

EXISTING TREES (TO BE RETAINED)

SELECTED TREES (REFER TO SCHEDULE)

PLANTING

- PLANTING TYPE 01 (LOW)
- PLANTING TYPE 02 (HEDGE)
- PLANTING TYPE 03 (SHADE)
- PLANTING TYPE 04 (STRAPPY)
- PLANTING TYPE 05 (STRAPPY)
- SELECTED LAWN SPECIES
- SELECTED ARTIFICIAL TURF
- PAVERS (BY OTHERS)

PLANTING SCHEDULE – GROUND FLOOR

Symbol	Species	Common Name	Quant	Size
Trees:				
CITlat	Citrus latifolia	Dwarf Tahitian Lime	2	100L
CITlim	Citrus limon	Dwarf Eureka Lemon	2	100L
FRAgri	Fraxinus griffithii	Evergreen Ash	7	100L
LAGind	Lagerstroemia indica	White Crepe Myrtle	7	100L
CALkin	Callistemon 'Kings Park Special'	Kings Park Bottlebrush	3	100L
PYRcap	Pyrus calleryana 'Capital'	Ornamental Pear	3	100L
SAPseb	Sapium sebifera	Chinese Tallow	5	100L
Shrubs and Groundcovers:				
CONcan	Conostylis candicans	Grey Cotton Heads	97	140mm
DIAeme	Dianella tasmanica 'Emerald Arch'	Emerald Arch	72	140mm
DIAtas	Dianella tasmanica 'Tas Red'	Tas Red	81	140mm
GARoso	Gardenia 'O So Fine'	Low Gardenia	95	140mm
HIBsca	Hibbertia scandens	Snake Vine	10	140mm
JUNcon	Juniperus conferta	Shore Juniper	228	140mm
LIRjus	Liriope muscari 'Just Right'	Just Right	167	140mm
LOMsha	Lomandra fluvatilis 'Shara'	Shara	150	140mm
MURpan	Murraya paniculata	Orange Jessamine	153	200mm
MYOpar	Myoporum parvifolium 'Yareena'	Yareena	12	140mm
NANblu	Nandina domestica 'Blush'	Blush	99	140mm
PITmis	Pittosporum tobira 'Miss Muffet'	Miss Muffet	57	200mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	37	140mm
SYZtin	Syzygium 'Tiny Trev'	Tiny Trev	135	200mm
TRAjas	Tracelospermum jasminoides	Star Jasmine	9	140mm
WESaus	Westringia 'Aussie Box'	Compact Coastal Rosemary	109	200mm
VIBtin	Viburnum tinus	Laurustinus	110	200mm
VIOhed	Viola hedera	Native Violet	12	140mm

REFER 202 FOR PLANTING NOTES



kdla kelsie davies landscape architecture

DEVELOPMENT APPROVAL

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JOB No. 0085 PAGE 201 REV C

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BERTRAM APARTMENTS

LANDSCAPE PLANTING PLAN – GROUND FLOOR

HARDEN JONES ARCHITECTS

LOT 101 JOHNSON RD, BERTRAM

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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
A	10.10.2020	KD	KD	PLANTING PLAN – ROOF TOP
B	12.10.2020	KD	KD	UPDATED TREE SURVEY
C	09.12.2020	KD	KD	UPDATED TO COUNCIL COMMENT

PLANTING SCHEDULE – ROOF TOP

Symbol	Species	Common Name	Quant	Size
Shrubs and Groundcovers:				
CASgla	Casuarina glauca	Cousin It	32	140mm
DIAtas	Dianella tasmanica 'Tas Red'	Tas Red	21	140mm
SANtri	Sansevieria trifasciata laurentii	Mother-in-law's Tongue	23	200mm
WESgre	Westringia 'Grey Box'	Compact Coastal Rosemary	22	140mm

LANDSCAPE AREA CALCULATIONS

DEEP SOIL AREAS (DSA)

Existing Tree DSA = 126.5m2
Ground Floor (proposed) = 352.5m2
Total = 479m2 (11.8% of site)

CANOPY COVER

Existing Trees (x 7) = 306m2
Proposed Medium Trees (x 12) = 336m2
Proposed Small Trees (x 14) = 175m2
Total Canopy Cover = 817m2 (20% of site)

NOTES

1. GENERAL

1.1 DRAINAGE FROM THE RAISED PLANTER AREAS TO BE PROVIDED BY BUILDER
1.2 ALL SCALES ARE AS NOTED AND TO SUIT A1 PAPER SIZE
1.3 ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.
1.4 THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEDULES, REPORTS AND DRAWINGS AND PROJECT SPECIFICATIONS.
1.5 FOR ALL FINISHED LEVELS, PLANTER HEIGHTS, DRAINAGE DESIGN AND WATER CONNECTION POINTS REFER TO ASSOCIATED PROJECT DOCUMENTATION (BY OTHERS).
1.6 FOR ALL ASSOCIATED IRRIGATION DESIGN REFER TO IRRIGATION DOCUMENTATION AND SPECIFICATION.
1.7 PLANTING SETOUT SHOULD BE CHECKED BY SUPERINTENDENT BEFORE INSTALLATION BEGINS.

2. SOIL PREPARATION

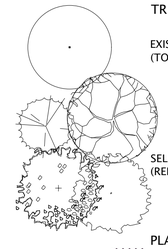
2.1 ALL AREAS ARE TO BE FINE GRADED EVENLY TO CONFORM TO KERB LEVELS AND SURROUNDING FINISHES.
2.2 SURFACES SHALL BE FREE FROM DEPRESSIONS, IRREGULARITIES AND NOTICEABLE CHANGES IN GRADE. GENERALLY, GRADES SHALL DEVIATE IN LEVEL NO GREATER THAN 20mm IN ONE LINEAR METRE.
2.3 PLANTED AREAS SHALL BE SPREAD WITH MIN. 50mm OF APPROVED STANDARD SOIL CONDITIONER THAT SHALL BE RIPPED INTO EXISTING SOIL TO A MIN. DEPTH OF 200mm.
2.4 RAISED PLANTER AREAS AND POTS SHALL BE INSTALLED WITH APPROPRIATE DRAINAGE CELL, AGGREGATE AND GEOTEXTILE MEMBRANE BELOW SOIL.
2.5 FILL SOIL TO RAISED PLANTER AREAS AND POTS TO BE APPROVED LIGHTWEIGHT LANDSCAPE MIX.
2.6 PLANTING AREA SOIL PROFILES TO BE PREPARED AS SPECIFIED AND REVIEWED BY SUPERINTENDENT BEFORE PLANTING AND CONNECTING IRRIGATION.

3.PLANTING

3.1 PLANTED AREAS SHALL BE MULCHED WITH AN ORGANIC 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.
3.3 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.
3.4 REFER TO PLANTING SCHEDULE FOR SPECIES AND SIZES.
3.5 IF SPECIES ARE UNAVAILABLE (OR IN SIZES SPECIFIED), SUBSTITUTES MUST BE APPROVED BY SUPERINTENDENT BEFORE DELIVERY AND INSTALLATION.
3.6 VERGE TREES TO BE APPROVED AND INSTALLED BY COUNCIL. SPECIES HAS BEEN SELECTED IN ACCORDANCE TO COUNCIL GUIDELINES

4 IRRIGATION

4.1 PLANTING TO GROUND LEVEL TO BE IRRIGATED VIA A FULLY AUTOMATIC SYSTEM FROM MAINS.
4.2 PLANTING ON UPPER LEVEL TO BE IRRIGATED VIA BATTERY OPERATED VALVE
4.3 WATER PRESSURE TO HAVE A MINIMUM FLOW RATE OF 30L/pm AT 300kPA FROM THE WATER CONNECTION POINT.
4.4 CONTROLLER TO BE LOCATED IN CERNTRAL STORE ROOM UNLESS OTHERWISE DIRECTED.
4.5 SLEEVES BENEATH PAVED SURFACES AND TO RAISED PLANTING AREAS TO BE PROVIDED BY OTHERS.
4.6 PLEASE REFER TO (FUTURE) IRRIGATION DRAWING SET FOR FINAL LAYOUT AND SCHEDULE.



LEGEND

TREES

EXISTING TREES (TO BE RETAINED)

SELECTED TREES (REFER TO SCHEDULE)

PLANTING

- PLANTING TYPE 01 (LOW)
- PLANTING TYPE 02 (HEDGE)
- PLANTING TYPE 03 (SHADE)
- PLANTING TYPE 04 (STRAPPY)
- PLANTING TYPE 05 (STRAPPY)
- SELECTED LAWN SPECIES
- SELECTED ARTIFICIAL TURF
- PAVERS (BY OTHERS)



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DEVELOPMENT APPROVAL

JOB No. 0085 PAGE 202 REV C

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BERTRAM APARTMENTS
LANDSCAPE PLANTING PLAN – ROOF TOP
HARDEN JONES ARCHITECTS
LOT 101 JOHNSON RD, BERTRAM

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Attachment 8

Lot 101 (3) Johnson Road Bertram –
34 Multiple Dwellings

Planning Assessment – SPP 7.3 R-Codes Volume 2 – Apartments

DA9805

ELEMENT 2.2	BUILDING HEIGHT	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.2.1 – The height of development responds to the desired future scale and character of the street and local area, including existing buildings that are unlikely to change.	*The Site is located in Bertram on one of the last remaining vacant development sites in the Area. It is Zoned* *R40. The Site is surrounded by Single Lot Residential. The Bulk of the Single Lot Residential are single level* *Dwellings.* *The Proposed Development will be 2 level, which is permitted under SPP 7.3 (Design WA). The 2 Level development has a suburban residential scale and proportion in keeping with the suburban nature of the site. The overshadowing plan indicates compliance with Design WA*	The proposed development is located within a small pocket of established, lower density R20 single housing. All housing within this area is established and all dwellings have been constructed as single storey. A 4ha vacant lot is located approximately 250m to the north of the subject site and is zoned R40 similar to the subject site. Similar to the subject site, this property also has potential for higher density multiple dwelling type density. As per the applicant comment, two storey development is permitted within the residential zoned (regardless of R20 or R40).
O2.2.2 – The height of buildings within a development responds to changes in topography.	*There is an approximate 1.5m Cross Fall to the Site. North East falls to South West. To compensate for this cross fall, Block C Apartments have been raised approximately 500mm to reduce site works and on boundary retaining.*	The subject site extends from RL14 in the south western corner to RL16 in the north eastern corner. The development responds to the changes in levels with all development having a FFL of 14.5 on the east and southern elevations. However, 'Block C' which extends to the north eastern corner, has a FFL of 15. In summary, 1m of cut maximum is proposed and 0.5m of fill (maximum) is proposed across the site.
O2.2.3 – Development incorporates articulated roof design and/or roof top communal open space where appropriate.	*Communal Open Space is located in the Centre of the Development and has been designed to integrate into the existing established trees on site.* *The Communal open space will be a focal point for the development.*	The roof of this development is a concealed design. A rooftop common area (130m^2) is provided in the centre of the site.
O2.2.4 – The height of development recognises the need for daylight and solar access to adjoining	*The proposed development meets the Overshadowing provisions of SPP 7.3. A501.*	No impacts of overshadowing will occur to the abutting lots to the north.

and nearby residential development, communal open space and in some cases, public spaces.	*The proposed development meets the provisions of SPP 4.1 A301-A302*	Access to afternoon sun will be reduced for 4x lots to the east – particularly impacting on outdoor living areas. All lots to the south (x3) are impacted by overshadowing (up to 25%). However, the applicant has provided an overshadowing plan that shows proposed overshadowing impacts to meet the acceptable outcomes of Element 3.2 regarding overshadowing.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A2.2.1 – Development complies with the building height limit (storeys) set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the building height limit set out in the applicable local planning instrument.

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Building height (storeys) *refer 2.2*	2	3	3	4	4	5	3	6	7	9	

Comment:

- *The height requirements are as per table 2.1 – the City of Kwinana planning framework does not alter this requirement.*
- *Subject lot is zoned R40. The proposed multiple dwellings are 2 storeys as per table 2.1.*

ELEMENT 2.3 STREET SETBACKS

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	APPLICANT COMMENT	ASSESSOR COMMENT
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	

O2.3.1 – The setback of the development from the street reinforces and/or complements the existing or proposed landscape character of the street.	*The site is located in an outer urban suburb. It is surrounded predominantly by Single Level Dwellings. The proposed building form will complement the existing street scape and add a point of difference to the character of this portion of Johnson Road.* *The elevations provide articulation and interest, balconies, Street Observation, internal activation to the Communal Open Space.*	The proposed development is designed to be stepped to ensure adequate setback from the street is provided. Existing dwellings in the area are zoned R20 and have a building setback from Johnson road of approximately 5 metres on average. The design of the development is such that the average setback is approximately 5m also.
O2.3.2 – The street setback provides a clear transition between the public and private realm.	*The Street Setbacks are consistent with the Provisions of Design WA. Street Setback in the SW Corner has been slightly increased to accommodate and retain existing established trees.*	A front fence is provided along the front boundary. Each residence fronting onto the street (at ground level) has its own entrance gate between the public and private realm.
O2.3.3 – The street setback assists in achieving visual privacy to apartments from the street.	*Achieved. The Apartment living spaces are setback from the Street Edge, Balcony Spaces provide a visual barrier and privacy element for the apartment occupants. Screening also contributes.*	The setback of dwellings and the fact the footpath on the verge is road aligned provides adequate visual privacy for apartments fronting the street.
O2.3.4 – The setback of the development enables passive surveillance and outlook to the street.	*Achieved, balconies to all apartments provide for good passive surveillance to Johnson Road.*	All ground floor dwellings have their outdoor living area within the street setback area providing great street surveillance.

ACCEPTABLE OUTCOMES

Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.2.1 – Development complies with the street setback set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the street setback set out in the applicable local planning instrument

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Minimum primary and secondary street setbacks *refer 2.3*	4m [4]	2m	2m		2m		2m or Nil [5]	2m or Nil [5]	2m or Nil [5]		

(4) Minimum secondary street setback 1.5m

(5) Nil setback applicable if commercial use at ground floor

Comment:

- Zoning: R40. Minimum setback of 4m to the primary street is provided as per above table.
- Proposed Ground floor setback is a minimum of 4m to the primary street.
- Proposed first floor balcony encroaches into the 4m primary street setback for Units 19 + 21 + 24. Minor encroachments – refer to objectives.

ELEMENT 2.4	SIDE AND REAR SETBACKS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.4.1 – Building boundary setbacks provide for adequate separation between neighbouring properties.	*The setbacks are in accordance with Design WA. Upper Level Balconies where facing North (to take advantage of Northern Light) have been setback to 7.5m in accordance with the design codes.*	The setback of the dwellings from the side boundaries ranges 2m to 3m on the northern boundary and 2m to 7m on the southern boundary (at ground floor). The first floor is setback similar as ground floor on the south, however is setback a minimum of 7.5m to the northern boundary. Existing dwellings to the north are setback approximately 1.5m and 4.5m to the south. The separation is considered adequate to limit potential for negative impacts on adjoining properties.
O2.4.2 – Building boundary setbacks are consistent with the existing streetscape pattern or the desired streetscape character**.**	*The Proposed Setbacks are consistent with the provisions of Design WA and the existing street setbacks.* *Note, Immediately South is a Corner Site, therefore the Johnson Road setback of this dwelling is oriented to Water Fields Drive*	As outlined above, proposed building setbacks are generally consistent with the existing single storey, pitched roof development in the area.
O2.4.3 – The setback of development from side and rear boundaries enables retention of existing trees and provision of deep soil areas that reinforce the landscape character of the area, support tree canopy and assist with stormwater management.	*Refer to the Landscape Proposal and the Arborist Report that form part of this submission. It has been elected to retain some of the existing mature trees in the centre of the site as a trade-off for on-site visitor parking.*	As per the landscaping plan provided, significant trees are proposed in the side and rear setback areas. These are 100L trees to provide for adequate landscaping. Retention of existing trees is proposed in the front setback area adjacent to Unit 7. Additionally, a condition is recommended for additional vegetation in the side and rear setback areas – this was also in response to submissions received as a result of advertising.
O2.4.4 –The setback of development from side and rear boundaries provides a transition between sites with different land uses or intensity of development.		The setbacks and articulation provided in the north and south elevations work to provide an acceptable transition. The proposed buildings to the eastern boundary are largely double storey, blank walls with an average setback of 3m. Whereas most existing dwellings to the east are setback 4/5m from this boundary.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.4.1 - Development complies with the side and rear setbacks set out in Table 2.1, except where: **a)** modified by the local planning framework, in which case development complies with the side and rear setbacks set out in the applicable local planning instrument		

AND /OR

b) a greater setback is required to address *3.5 Visual privacy*.

(Excerpt from table 2.1)

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Boundary wall height (storeys)[1,2] *refer 2.4*	1 [3]		1 [3]	2 [3]	2 [3]		2	3	4		
Minimum side setbacks[6] *refer 2.4*	2m	3m	3m		3m		Nil				
Minimum rear setback *refer 2.4*	3m		3m		6m		6m	Nil	Nil		
Average side setback where building length exceeds 16m *refer 2.4*	2.4m	3.5m	3.5m	3.5m	3.5m	4.0m	NA	NA	NA		

(1) Wall may be built up to a lot boundary, where it abuts an existing or simultaneously constructed wall of equal or greater proportions

(2) Where the subject site and an affected adjoining site are subject to different density codes, the length and height of any boundary wall on the boundary between them is determined by reference to the lower density code

(3) Boundary wall only permitted on one boundary, and shall not exceed 2/3 length.

(6) Boundary setbacks will also be determined by provisions for building separation and visual privacy within this SPP and building separation provisions of the NCC.

Comment:

- *No boundary walls are proposed.*
- *Minimum side setbacks required: 2m; Proposed = 2m (minimum)*
- *Minimum rear setback required: 3m; Proposed = 2.8m (minimum) (see above Objectives)*
- *Average side setback required: 2.4m; Proposed = >2.4m (alternating setbacks from 2m to 3m)*

A2.4.2 – Development is setback from the boundary in order to achieve the Objectives outlined in *2.7 Building separation*, *3.3 Tree canopy and deep soil areas*, *3.5 Visual privacy* and *4.1 Solar and daylight access*.

Comment:

- See objectives above.

ELEMENT 2.5	PLOT RATIO	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.5.1 – The overall bulk and scale of development is appropriate for the existing or planned character of the area.		34 Multiple Dwellings are proposed. Although the area is dominated by single storey development on ~ 500m2 lots, the proposed development is a maximum of two storeys. This height of the development is permitted on all surrounding properties. As previously stated, an R40 zoned lot is located less than 300m to the north of the subject site that has the potential for similar type development:  Average area per multiple dwelling = 120m2
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.5.1 – Development complies with the plot ratio requirements set out in Table 2.1, except where modified by the local planning framework, in which case development complies with the plot ratio set out in the applicable local planning instrument. *(Excerpt from table 2.1)*		

Streetscape contexts and character *refer A2*	Low-rise		Medium-rise		Higher density residential		Neighbourhood centre	Mid-rise urban centres	High density urban centres		Planned areas
Site R-Coding	R40	R50	R60	R80	R100	R160	R-AC4	R-AC3	R-AC2	R-AC1	R-AC0
Plot ratio [7] *refer 2.5*	0.6	0.7	0.8	1.0	1.3	2.0	1.2	2.0	2.5	3.0	

(6) Refer to Definitions for calculation of plot ratio

Comment:

- *Permitted Plot ratio = 0.6; Site area = 4096m2; Permitted plot ratio area = 2457m2;*
  PROPOSED PLOT RATIO = 2584m2 = 0.63 *(See objective above) It should be noted that the applicant has indicated different/incorrect floor area figures on the plans. The applicant has acknowledged this area and will seek to amend the figures as part of the building permit application to reduce confusion.*

ELEMENT 2.6	BUILDING DEPTH	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.6.1 – Building depth supports apartment layouts that optimise daylight and solar access and natural ventilation.	*The Proposed Apartments do not have an effective depth of greater than 9.0m (generally less)* *The apartments meet the provisions of 4.1 & 4.1.*	Apartments are designed having the ability for daylight and ventilation directly through (i.e. internal access corridors are generally not provided).
O2.6.2 – Articulation of building form to allow adequate access to daylight and natural ventilation where greater building depths are proposed.	*Refer 02.6.1 Above*	All apartment blocks are designed with articulation when viewed from all aspects. Depth of habitable rooms allow for sunlight access. Non habitable rooms located where least light is available. Multiple aspects for light/ventilation are provided.
O2.6.3 – Room depths and / or ceiling heights optimise daylight and solar access and natural ventilation.	*Proposed Ceiling Heights of habitable rooms are min 2700 as indicated on elevations/Sections*	As per applicants comment, proposed dwellings have a minimum 2.7m ceiling height. This is 300mm higher than the standard ceiling height of 2.4m.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.6.1 – Developments that comprise single aspect apartments on each side of a central circulation corridor shall have a maximum building depth of 20m. All other proposals will be assessed on their merits with particular consideration to *4.1 Solar and daylight access* and *4.2 Natural ventilation*. **COMMENT:** o *Proposed design does not include central circulation corridors. 'Block C' includes small corridors at ground and upper level – width of the units on either side is less than 9m.*		

ELEMENT 2.7	BUILDING SEPARATION	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O2.7.1 – New development supports the desired future streetscape character with spaces between buildings.	*The Street scape for Johnson road is generally established as single/two level suburban context. As the subject site is the last to be developed in the immediate surround, the proposed development will complement the suburban nature of the area.*	The proposed development when viewed from Johnson road will complement the streetscape as the façade of the buildings is stepped, with adequate side setbacks and a 6.5m wide access way in the centre of the site to break up the development.
O2.7.2 – Building separation is in proportion to building height.		Considering the minimum side setback of the development is 2m and only minor portions of the buildings are at this setback, separation distances are adequate. As previously stated, the 6.5m wide access way breaks up the development adequately (height of the building is approximately 7m).
O2.7.3 – Buildings are separated sufficiently to provide for residential amenity including visual and acoustic privacy, natural ventilation, sunlight and daylight access and outlook.	*Achieved – see REF: A031-A302*	Dwellings are designed with windows that are generally offset to avoid direct overlooking. The development is designed to ensure balconies are located so as to avoid any direct overlooking onto another resident balcony. Orientations have been considered in this regard for balconies and major living areas to either face north or the street. Screening, where appropriate, is designed to still allow adequate ventilation and sunlight into dwellings.
O2.7.4 – Suitable areas are provided for communal and private open space, deep soil areas and landscaping between buildings	*Refer to Landscape Plan*	The landscaping plan indicates significant trees to be retained in the centre of the site. This will provide a good buffer between buildings in the internal section of the site, as the trees are central to the site.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A2.7.1 – Development complies with the separation requirements set out in Table 2.7.		

Table 2.7 Building separation

	Separation between:	Building height		
		≤ 4 storeys (up to 15m)	**5-8 storeys** (up to 28m)	**≥ 9 storeys** (over 28m)
Within site boundary	Habitable rooms/balconies	12m	18m	24m
	Habitable and non-habitable rooms	7.5m	12m	18m
	Non-habitable rooms	4.5m	6m	9m
To adjoining property boundaries	Habitable rooms/balconies and boundary	Refer *2.4 Side and rear setbacks* (Table 2.1) and *3.5 Visual privacy* (Table 3.5)	9m	12m
Distances apply from major openings of rooms, or the inside of balustrading of balconies. Average dimensions may be applied subject to major openings meeting other requirements for privacy, daylight and the like.				

COMMENT:

- *Dwellings are generally designed and located to be in accordance with setbacks of table 2.7 above. Units 32 and 33 major openings for Bed 2 are designed with visually impermeable glass to reduce impacts of overlooking to the common area. Similar design (white glass) is proposed between Unit 31 and Unit 30.*

ELEMENT 3.2	ORIENTATION	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.2.1 – Building layouts respond to the streetscape, topography and site attributes while optimising solar and daylight access within the development.	*Refer to REF: A501-504. Provisions of 4.1 & 4.2 Achieved*	The development adequately orientates to and is designed to address Johnson Road. Majority of buildings are designed to have balconies and living areas that orientate to the north.
O3.2.2 – Building form and orientation minimises overshadowing of the habitable rooms, open space and solar collectors of neighbouring properties during mid-winter.	*Refer to A301. Overshadowing of Adjoining properties meets the provisions of SPP 7.3*	Buildings are adequately setback from each other reducing impacts of overshadowing. Overshadowing from the proposed development does impact on adjoining lots (to the south). However, no impacts are on solar collectors on the adjoining lots. Overshadowing does impact on the outdoor living areas, particularly of 1 and 1A Waterfields drive. However, there are portions of outdoor living areas on the lots to the south that will have access to sunlight on 21 June. Lot 5 Waterfields drive also has a significant front setback area that has access to sunlight. The objective has been met via acceptable outcomes Element 3.2.3.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.2.1 – Buildings on street or public realm frontages are oriented to face the public realm and incorporate direct access from the street.

COMMENT:

- *'Block A/B' orientates to Johnson Road. Both Ground and upper floor outdoor living areas/balconies face Johnson Road.*

A3.2.2 – Buildings that do not have frontages to streets or public realm are oriented to maximise northern solar access to living areas.

COMMENT:

- *Block C: All living areas (both levels) are located to the north and designed with significant major openings to provide access to northern sunlight.*
- *Block E: Ground Floor: no major openings are on the norther elevation (see objectives). Balcony and Living Areas are located to the north on the first floor.*
- *Block D: Limited access to northern sunlight on Ground floor. Limited northern access provided on first floor (highlight/frosted windows) – Balcony for unit 30 should have some opening to the north. Objectives met.*

A3.2.3 – Development in climate zones 4, 5 and 6 shall be designed such that the shadow cast at midday on 21st June onto any adjoining property does not exceed:

- adjoining properties coded R25 and lower – 25% of the site area[1]
- adjoining properties coded R30 – R40 - 35% of the site area[1]

- adjoining properties coded R50 – R60 – 50% of the site area[1]
- adjoining properties coded R80 or higher – Nil requirements.

(1) Where a development site shares its southern boundary with a lot, and that lot is bound to the north by other lot(s), the limit of shading at A3.2.3 shall be reduced proportionally to the percentage of the affected properties northern boundary that abuts the development site. (Refer to Figure A7.2 in Appendix 7)

COMMENT:

- *Overshadowing to Lots 4,5,6 Waterfields Drive: Lot 4 = 25%; Lot 5 = 18%; Lot 6 = 9% - meets acceptable outcome.*

A3.2.4– Where adjoining sites are coded R40 or less, buildings are oriented to maintain 4 hours per day solar access on 21 June for existing solar collectors on neighbouring sites.

N/A

ELEMENT 3.3	TREE CANOPY AND DEEP SOIL AREAS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.3.1 – Site planning maximises retention of existing healthy and appropriate and protects the viability of adjoining trees.	*Refer to Landscape Plan* *Refer to Arborist Report that will be submitted as part of this Application.*	Majority of existing trees are proposed to be retained. Existing trees are contained within the front setback area and the communal open space.
O3.3.2 – Adequate measures are taken to improve tree canopy (long term) or to offset reduction of tree canopy from pre-development condition.	*As above.*	Landscaping plan indicates a variety of larger trees to be planted on the site, particularly on the parent lot boundaries to maintain tree cover and provide for a buffer to adjoining lots.
O3.3.3 – Development includes deep soil areas, or other infrastructure to support planting on structures, with sufficient area and volume to sustain healthy plant and tree growth.	*As above*	Multiple deep soil areas provided across the site, for 'new' trees, particularly within side and front setback areas.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.3.1 – Retention of existing trees on the site that meet the following criteria:

- healthy specimens with ongoing viability **AND**
- species is not included on a State or local area weed register **AND**
- height of at least 4m **AND/OR**
- trunk diameter of at least 160mm, measured 1m from the ground **AND/OR**
- average canopy diameter of at least 4m.

COMMENT:

- *10x significant trees exist on the site.*

A3.3.2 – The removal of existing trees that meet any of the criteria at A3.3.1 is supported by an arboriculture report.

COMMENT:

- *Arboriculture report provided – 7 trees to be retained. 3 to be removed.*

A3.3.3 – The development is sited and planned to have no detrimental impacts on, and to minimise canopy loss of adjoining trees.

COMMENT:

- *The development does not impact on any adjoining property significant vegetation.*

A3.3.4 – Deep soil areas are provided in accordance with Table 3.3a. Deep soil areas are to be co-located with existing trees for retention and/or adjoining trees, or alternatively provided in a location that is conducive to tree growth and suitable for communal open space.

Table 3.3a Minimum deep soil area and tree provision requirements

Site Area	Minimum deep soil area	Minimum requirement for trees [1]
Less than 700m²	10% **OR** 7% if existing tree(s) retained on site (% site area)	1 medium tree and small trees to suit area
700 – 1,000m²		2 medium trees **OR** 1 large tree and small trees to suit area
› 1,000m²		1 large tree and 1 medium tree for each additional 400m² in excess of 1000m² **OR** 1 large tree for each additional 900m² in excess of 1000m² and small trees to suit area
[1] Minimum requirement for trees includes retained or new trees Refer Table 3.3b for tree sizes		

COMMENT:

- *11.8% of the site is proposed to be DSA (7% required). 3 Large trees required to be provided and multiple small trees. The proposal is to retain 7 existing large trees. Landscaping plan indicates multiple small trees and hedges to be consistent with Table 3.3a.*

A3.3.5 – Landscaping includes existing and new trees with shade producing canopies in accordance with Tables 3.3a and 3.3b.

Table 3.3b Tree sizes

Tree size	Indicative canopy diameter at maturity	Nominal height at maturity	Required DSA per tree	Recommended minimum DSA width	Minimum DSA width where additional rootable soil zone (RSZ) width provided[1] (min 1m depth)	Indicative pot size at planting
Small	4-6m	4-8m	9m²	2m	1m (DSA) + 1m (RSZ)	100L
Medium	6-9m	8-12m	36m²	3m	2m (DSA) + 1m (RSZ)	200L
Large	›9m	›12m	64m²	6m	4.5m (DSA) + 1.5m (RSZ)	500L
[1] Rootable areas are for the purposes of determining minimum width only and do not have the effect of reducing the required DSA.						

COMMENT:

- *As above, the landscaping plan indicates a variety of 'small' and 'medium' trees throughout the site. This includes hedges and a variety of larger trees such as the Crepe Myrtle which can grow up to 8m tall. Landscaping plan indicates the DSA's for each medium and large tree to be in accordance with the above table. The minimum width of DSA is 1m for small trees on the side and rear boundaries.*

A3.3.6 – The extent of permeable paving or decking within a deep soil area does not exceed 20 per cent of its area and does not inhibit the planting and growth of trees.

COMMENT:

- *As above, trees are predominately located within the outdoor living area. Root systems will protrude into the paved areas of the outdoor living.*

A3.3.7 – Where the required deep soil areas cannot be provided due to site restrictions, planting on structure with an area equivalent to two times the shortfall in deep soil area provision is provided.

COMMENT:

- *Planting over parking structures (trellis), entrance feature is proposed. To be conditioned.*

ELEMENT 3.4	COMMUNAL OPEN SPACE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.4.1 – Provision of quality communal open space that enhances resident amenity and provides opportunities for landscaping, tree retention and deep soil areas.	*Refer to Landscape Plan KDLA REV B* *Refer to Arborist Report that will be submitted as part of this Application.*	Communal Open Space (COS) is located where the majority of trees are proposed to be retained – good initiative.
O3.4.2 – Communal open space is safe, universally accessible and provides a high level of amenity for residents.	*Universal Access is achieved to the Common Area.* *Refer to Landscape Plan KDLA REV B*	There are two types of COS provided (ground floor and upper floor). Both are highly accessible and in the centre of the site. Lift is provided to enable universal access to upper floor.
O3.4.3 – Communal open space is designed and oriented to minimise impacts on the habitable rooms and private open space within the site and of neighbouring properties.	*Communal Open Space is located in the centre of the development as a raised deck that incorporates the retention of existing & established trees in the centre of the Development Site.* *The location of the communal open space, retention of the established trees, its proximity to the entry (visible as one enters the residential complex) gives it a strong presence within the centre of the development.*	Ground floor private open space is to the outside of the dwellings (i.e. opposite of the centre where the COS is located). Upper floor private OLA (balconies) are affected for Block D. 5m setback proposed to COS (upper floor) from balcony's for Block D – however some screening is provided on the upper floor COS and the trees proposed to be retained in the ground floor COS will assist in further screening.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.4.1 – Developments include communal open space in accordance with Table 3.4

Table 3.4 Provision of communal open space

Development size	Overall communal open space requirement	Minimum accessible / hard landscape area (included in overall area requirement)	Minimum open space dimension
Up to 10 dwellings	Informal seating associated with deep soil or other landscaped areas	NA	NA
More than 10 dwellings	Total: 6m² per dwelling up to maximum 300m²	At least 2m² per dwelling up to 100m²	4m

COMMENT:

- *Total required communal open space = 204m2 + 68m2 = 272m2. PROPOSED = 130m2 (upper floor) + 131m2 (ground floor) = 261m2 (shortage of 11m2) See Objectives above.*

A3.4.2 – Communal open space located on the ground floor or on floors serviced by lifts must be accessible from the primary street entry of the development.

COMMENT:

- *Communal open space is located on the ground floor and on a floor serviced by a lift. It is accessible from the primary street entry of the development (via a gate).*

A3.4.3 – There is 50 per cent direct sunlight to at least one communal open space area for a minimum of two hours between 9am and 3pm on 21 June.

COMMENT:

- *Access to sunlight for the upper floor area is predominately unhindered throughout the day.*

A3.4.4– Communal open space is co-located with deep soil areas and/or planting on structure areas and/ or co-indoor communal spaces.

COMMENT:

- *Communal open space is co-located with an area that is in the centre of the site and where a number of existing trees will be retained.*

A3.4.5 – Communal open space is separated or screened from adverse amenity impacts such as bins, vents, condenser units, noise sources and vehicle circulation areas.

COMMENT:

- *Communal open space is in the centre of the site. There is a bin store nearby however it is screened (lockable room). While the ground floor communal space is near traffic driveways etc., the upper floor communal area will not be impacted by any adverse amenity factors.*

A3.4.6 – Communal open space is well-lit, minimises places for concealment and is open to passive surveillance from adjoining dwellings and/or the public realm.

COMMENT:

- *A lighting plan to be provided as a condition. COS is in the centre of the site and is open to passive surveillance from adjoining dwellings and/or the public realm (particularly apartments to the south and east – balconies).*

A3.4.7 – Communal open space is designed and oriented to minimise the impacts of noise, odour, light-spill and overlooking on the habitable rooms and private open spaces within the site and of neighbouring properties.

ELEMENT 3.5	VISUAL PRIVACY	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.5.1 – The orientation and design of buildings, windows and balconies minimises direct overlooking of habitable rooms and private outdoor living areas within the site and of neighbouring properties, while maintaining daylight and solar access, ventilation and the external outlook of habitable rooms.	*7.5m Cone of Vision (COV) is achieved for the upper level apartments/North Elevation.*	Block A and B: First floor balconies orientate to the street having minimal impacts of overlooking within the site and neighbouring properties. Block C: The first floor has been designed with balconies having access to northern sunlight. Impacts of overlooking to the north are reduced as balconies are setback 7.5m from the northern boundary and solid balustrading is proposed to reduce direct overlooking. Block D: Balconies and major living of the first floor is located away from the adjoining property. Impacts of overlooking over the COS are reduced as screening is proposed for a portion of the balcony. Block D: Balconies face into the property, overlooking the parking area. Bedrooms are setback a minimum of 4.5m from adjoining properties to the south or windows are provided with obscure glazing.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.5.1 – Visual privacy setbacks to side and rear boundaries are provided in accordance with Table 3.5.

Table 3.5 Required privacy setback to adjoining sites

Cone of vision from unscreened:	First 4 storeys		5th storey and above
	Adjoining sites coded R50 or lower	Adjoining sites coded higher than R50	
Major opening to bedroom, study and open access walkways	4.5m	3m	Refer Table 2.7
Major openings to habitable rooms other than bedrooms and studies	6m	4.5m	
Unenclosed private outdoor spaces	7.5m	6m	

COMMENT:

- *Non compliances: (see overlooking plan)*
  - *Unit 24 (to south) – plan indicates screening – condition to confirm.*
  - *Unit 25 (to south) – white glass provided to 1650mm*
  - *Unit 26 (to south) – white glass provided to 1650mm*
  - *Unit 28 (to east) – plan indicates screening – condition to confirm.*

- *Unit 18 (to north) – plan indicates screening*

A3.5.2 – Balconies are unscreened for at least 25 per cent of their perimeter (including edges abutting a building).

COMMENT:

- *All Balconies are unscreened for at least 25 per cent of their perimeter.*

A3.5.3 - Living rooms have an external outlook from at least one major opening that is not obscured by a screen.

COMMENT:

- *Living rooms have an external outlook from at least one major opening that is not obscured by a screen – YES!*

A3.5.4 – Windows and balconies are sited, oriented, offset or articulated to restrict direct overlooking, without excessive reliance on high sill levels or permanent screening of windows and balconies.

COMMENT:

- *Windows and balconies are sited, oriented, offset or articulated to restrict direct overlooking, without excessive reliance on high sill levels or permanent screening of windows and balconies.*
  - *Bedrooms only face into the southern adjoining lots – OK*

ELEMENT 3.6	PUBLIC DOMAIN INTERFACE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.6.1 – The transition between the private and public domain enhances the privacy and safety of residents.	*Principal entry to the apartments is clearly indicated with clear sightlines for residents and visitors.*	All ground floor dwellings fronting onto Johnson Road have direct access via the front courtyard. A gate and pathway is provided for each residence. The front fencing is 1.5m above the ground level although the actual height of the actual fence is 1.2m when viewed from the street. This height will provide sufficient privacy for the OLA while maintaining surveillance onto the street.
O3.6.2 – Street facing development and landscape design retains and enhances the amenity and safety of the adjoining public domain, including the provision of shade.	*Refer O3.6.1 above and below.* *Principal Entry is located off Johnson Road with an Entrance Canopy for Shade and Weather Protection.*	The public domain incorporate trees for shade.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.6.1 – The majority of ground floor dwellings fronting onto a street or public open space have direct access by way of a private terrace, balcony or courtyard.

COMMENT:

- *All ground floor dwellings fronting onto Johnson Road have direct access via the front courtyard. A gate and pathway is provided for each residence.*

A3.6.2 – Car-parking is not located within the primary street setback; and where car parking is located at ground level behind the street setback it is designed to integrate with landscaping and the building façade (where part of the building).

COMMENT:

- *Car-parking is not visible from the primary street. Car parking is in the central area of the development with limited landscaping. To indicate greenery to grow on trellis wire over southern car parking bays in landscaping plan as condition.*

A3.6.3 – Upper level balconies and/or windows overlook the street and public domain areas.

COMMENT:

- *All upper level balconies overlook Johnson Road*

A3.6.4 – Balustrading includes a mix of visually opaque and visually permeable materials to provide residents with privacy while maintaining casual surveillance of adjoining public domain areas.

COMMENT:

- *Balustrading includes a mix of visually opaque and visually permeable materials to provide residents with privacy while maintaining casual surveillance of adjoining public domain areas.*

A3.6.5 – Changes in level between private terraces, front gardens and the ground floor level of the building and the street level average less than 1m and do not exceed 1.2m.

N/A

A3.6.6 – Front fencing includes visually permeable materials above 1.2m and the average height of solid walls or fences to the street does not exceed 1.2m.

COMMENT:

- *Fencing has a maximum solid height of 1.5m.*

A3.6.7 – Fencing, landscaping and other elements on the frontage are designed to eliminate opportunities for concealment.

N/A

A3.6.8 – Bins are not located within the primary street setback or in locations visible from the primary street.

COMMENT:

- *Bins are located in 3x storage areas distributed across the site and out of view.*

A3.6.9 – Services and utilities that are located in the primary street setback are integrated into the design of the development and do not detract from the amenity and visual appearance of the street frontage.[1]

(1) Firefighting and access to services such as power and water meters require careful consideration in the design of the front façade. Consult early with relevant authorities to resolve functional requirements in an integrated design solution.

COMMENT:

- *To be conditioned.*

ELEMENT 3.7	PEDESTRIAN ACCESS AND ENTRIES	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.7.1 – Entries and pathways are universally accessible, easy to identify and safe for residents and visitors.	*Pedestrian entry is clearly defined within the Building Elevation.*	Entry into the site is only accessible if you have a gate code – promoting safety. Each dwelling fronting Johnson road also has its own gate and access ways – easy to identify.
O3.7.2 – Entries to the development connect to and address the public domain with an attractive street presence.	*Achieved Ref: Elevations and Perspectives lodged with this submission. Clear Pathways defined*	One vehicle entrance – An arbour feature is proposed for the vehicle entrance way. Each ground floor dwelling fronting Johnson Road has its own gate and pathway connecting to the existing footpath.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A3.7.1 – Pedestrian entries are connected via a legible, well-defined, continuous path of travel to building access areas such as lift lobbies, stairs, accessways and individual dwelling entries.

COMMENT:

- *All pedestrian entries are connected via legible, well-defined paths. The paths link the parking areas and can be accessed from the pedestrian entry into the site.*

A3.7.2 – Pedestrian entries are protected from the weather.

COMMENT:

- *All pedestrian entries are protected under the roof cover.*

A3.7.3 – Pedestrian entries are well-lit for safety and amenity, visible from the public domain without opportunity for concealment, and designed to enable casual surveillance of the entry from within the site.

COMMENT:

- *Pedestrian entries are all visible from the COS. The opportunity for concealment is minimised even for stair wells as they are designed with high roofs that are 'open'.*

A3.7.4 – Where pedestrian access is via a shared zone with vehicles, the pedestrian path is clearly delineated and/or measures are incorporated to prioritise the pedestrian and constrain vehicle speed.

COMMENT:

- *Pedestrian paths are separate from the vehicle access ways and are delineated via different material.*

A3.7.5 – Services and utilities that are located at the pedestrian entry are integrated into the design and do not detract from the amenity of the entry.

COMMENT:

- *Services and utilities that are located at the pedestrian entry are integrated into the design and do not detract from the amenity of the entry*

A3.7.6 – Bins are not located at the primary pedestrian entry.

COMMENT:

- *Bins are not located at the primary pedestrian entry. To be confirmed in a Waste Management Plan.*

ELEMENT 3.8	**VEHICLE ACCESS**	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.8.1 – Vehicle access points are designed and located to provide safe access and egress for vehicles and to avoid conflict with pedestrians, cyclists and other vehicles.	*Achieved. Carparking Spaces are designed to the Building Code and Australian Standard. Bay Width and Length Complies. Blind Isles are included. Wheel Stops will be included.* *Residential Parking Spaces will be clearly annotated/signage within the complex.*	One vehicle access point into the site is proposed. The design of the driveways is delineated from the paths within the site for pedestrians. A shared space is proposed for the entrance way, although pedestrian and vehicle access ways are clearly delineated with different materials.
O3.8.2 – Vehicle access points are designed and located to reduce visual impact on the streetscape.	*Vehicle Entry is located off the Johnson Road Elevation. This is the only entry point to the site. IE, no ROW Access.*	Only one vehicle access point is proposed. The vehicle access point breaks up the built form on the front elevation. The entrance way is designed with an 'Arbour' to provide for an attractive feature entrance.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A3.8.1 – Vehicle access is limited to one opening per 20m street frontage that is visible from the street. **COMMENT:** ○ *Only one entrance is proposed that is less than 20m in width.*		
A3.8.2 – Vehicle entries are identifiable from the street, while being integrated with the overall façade design and/ or located behind the primary building line. **COMMENT:** • *A trellis entrance structure is designed. See Objectives above.*		
A3.8.3 – Vehicle entries have adequate separation from street intersections.		

COMMENT:

- *See Objectives above.*

A3.8.4 – Vehicle circulation areas avoid headlights shining into habitable rooms within the development and adjoining properties.

COMMENT:

- *Habitable rooms are generally located within the site to be consistent with this outcome.*

A3.8.5 – Driveway width is kept to a functional minimum, relative to the traffic volumes and entry/egress requirements.

COMMENT:

- Ok

A3.8.6 – Driveways designed for two way access to allow for vehicles to enter the street in forward gear where:

- the driveway serves more than 10 dwellings
- the distance from an on-site car parking to the street is 15m or more **OR**
- the public street to which it connects is designated as a primary distributor, district distributor or integrated arterial road.

COMMENT:

- Ok

A3.8.7 – Walls, fences and other structures truncated or reduced to no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points where a driveway meets a public street and where two streets intersect (refer Figure 3.8a).

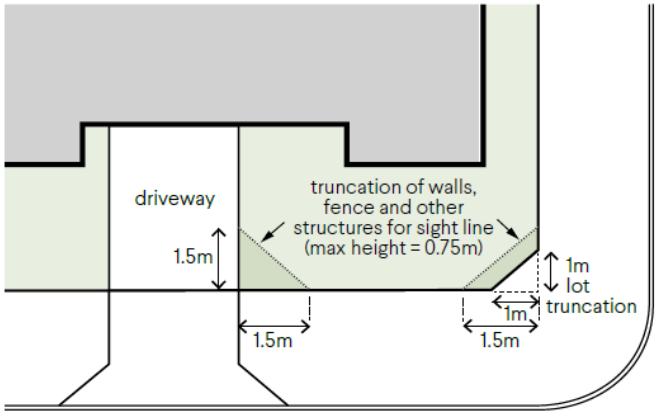


Figure 3.8a Truncation at street corner to provide sightlines (refer A3.8.7).

COMMENT:

- *The width of the driveway and the setback of street aligned footpath (very wide footpath) will ensure safety.*

ELEMENT 3.9	CAR AND BICYCLE PARKING	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O3.9.1 – Parking and facilities are provided for cyclists and other modes of transport.	*Bike Racks are provided on site for Residents (located in stores) and for the Public as indicated below the common area deck.* *'Steadyracks' are proposed.*	1 x bicycle rack is provided per 2 dwellings at the ground level.
O3.9.2 – Car parking provision is appropriate to the location, with reduced provision possible in areas that are highly walkable and/or have good public transport or cycle networks and/or are close to employment centres.	*The Proposed Development is in a Location A in accordance with Part 3.9.* *Site is Located within 900m of Kwinana Train Station.* *Transperth Bus 543 Stop is immediately outside the Main Entry to the Complex Buses run direct to Kwinana* *Tran Station* *Proposed On Site Parking is in accordance with Table 3.9 Parking Ratio*	The proposal is approximately 820m from the Kwinana Train Station and there is a bus stop directly adjacent to the development site. The development is 500m from the Bertram commercial centre. There is also commercial zoned land (currently vacant) located approximately 500m to the north of the subject site. Footpaths connect the site to all of the above centres/locations. These factors demonstrate the site to be located in an area that has good public transport and in close proximity to current and future commercial centres.
O3.9.3 – Car parking is designed to be safe and accessible.	*Achieved. Car parking is designed in accordance with Aus Standard, the NCC and will be reviewed/certified* *as part of the Build Permit Submission.*	Parking is generally designed to be safe. Applicant to remove bay 22 from the Common Area to further enhance safety. See recommended condition.
O3.9.4 – The design and location of car parking minimises negative visual and environmental impacts on amenity and the streetscape.	*Parking is located within the Development Complex, therefore no impact on the Streetscape.*	Car parking is located in the centre of the development and cannot be viewed from the street.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A3.9.1 – Secure, undercover bicycle parking is provided in accordance with Table 3.9 and accessed via a continuous path of travel from the vehicle or cycle entry point.		

Table 3.9 Parking ratio

Parking types		Location A	Location B
Car parking[1]	1 bedroom dwellings	0.75 bay per dwelling	1 bay per dwelling
	2+ bedroom dwellings	1 bay per dwelling	1.25 bays per dwelling
	Visitor	1 bay per four dwellings up to 12 dwellings 1 bay per eight dwellings for the 13th dwelling and above	
Bicycle parking[1]	Resident	0.5 space per dwelling	
	Visitor	1 space per 10 dwellings	
Motorcycle/ Scooter parking[2]	Developments exceeding 20 dwellings provide 1 motorcycle/scooter space for every 10 car bays		

[1] Calculations of parking ratios shall be rounded up to the next whole number.
[2] For each five motorcycle/scooter parking bays provided in accordance with Table 3.9, car parking bays may be reduced by one bay.

Definitions:
Location A: within 800m walkable catchment of a train station and/or 250m of a transit stop (bus or light rail) of a high-frequency route and/or within the defined boundaries of an activity centre.
Location B: not within Location A.

COMMENT:

- *Bicycle parking provided as per requirements (except Unit 22 – to request amended plans showing access to unit 22)*

A3.9.2 – Parking is provided for cars and motorcycles in accordance with Table 3.9.

COMMENT:

- *Location A: Required = 33 bays; Location B: Required = 42; Visitor Bays required = 3; PROPOSED = 36 bays. Scooter/motorcycle parking not provided.*

A3.9.3 – Maximum parking provision does not exceed double the minimum number of bays specified in Table 3.9

COMMENT:

- *OK – only 36 bays are provided.*

A3.9.4 – Car parking and vehicle circulation areas are designed in accordance with AS2890.1 (as amended) or the requirements of applicable local planning instruments.

COMMENT:

- *This is designed in accordance with AS2890.1*

A3.9.5 – Car parking areas are not located within the street setback and are not visually prominent from the street.

COMMENT:

- *Parking is located behind buildings.*

A3.9.6 – Car parking is designed, landscaped or screened to mitigate visual impacts when viewed from dwellings and private outdoor spaces.

COMMENT:

- *Car parking is generally located with the upper floor above to mitigate visual impacts when viewed from dwellings and private outdoor spaces*

A3.9.7 – Visitor parking is clearly visible from the driveway, is signed 'Visitor Parking' and is accessible from the primary entry or entries.

COMMENT:

- *Visitor parking is not clearly visible or marked as 'Visitor Parking' (Condition).*

A3.9.8 – Parking shade structures, where used, integrate with and complement the overall building design and site aesthetics and have a low reflectance to avoid glare into apartments.

COMMENT:

- *Trellis wire is provided over some parking.*

A3.9.9 – Uncovered at-grade parking is planted with trees at a minimum rate of one tree per four bays.

COMMENT:

- *Landscaping plan is sufficient, particularly with large retained trees central of the site.*

A3.9.10 – Basement parking does not protrude more than 1m above ground, and where it protrudes above ground is designed or screened to prevent negative visual impact on the streetscape.

N/A

ELEMENT 4.1	SOLAR AND DAYLIGHT ACCESS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.1.1 – In climate zones 4, 5 and 6: the development is sited and designed to optimise the number of dwellings receiving winter sunlight to private open space and via windows to habitable rooms.	*All apartments meet the provisions of 4.1 Solar Access Climate Zone 5* *60% and above of apartments achieve the Cross-Ventilation Requirements as indicated by 'NCV' note on apartment plan.* *Common Area Spaces (apartment Levels will have operable windows to allow for NCV)*	Blocks A, B, C and D are designed with adequate sunlight to access the Private Open Space. Majority of dwellings are designed with major habitable areas such as balconies and living areas to have a northern orientation. Otherwise, outdoor living areas are large enough to accommodate for some sunlight.
O4.1.2 – Windows are designed and positioned to optimise daylight access for habitable rooms.	*All Habitable Rooms have windows that are positions to enhance natural light ingress.* *All Habitable Rooms have windows visible from the interior of the room*	Majority of dwellings are designed to have windows to the north (whether it be hi-lite or glazed). As outlined below, more than 85% of dwellings have more than adequate access to northern sunlight for major openings.
O4.1.3 – The development incorporates shading and glare control to minimise heat gain and glare: – from mid-spring to autumn in climate zones 4, 5 and 6 **AND** – year-round in climate zones 1 and 3.	*Balconies have shade devices over REF Apartment Floor Plans* *Windows have shade devices REF Apartment Floor Plans*	A significant number of balconies are designed to have a portion that is somewhat screened to minimise heat gain and glare.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.1.1 – In climate zones 4, 5 and 6 only:

a) Dwellings with a northern aspect are maximised, with a minimum of 70 per cent of dwellings having living rooms and private open space that obtain at least 2 hours direct sunlight between 9am and 3pm on 21 June **AND**

b) A maximum of 15 per cent of dwellings in a building receiving no direct sunlight between 9am and 3pm on 21 June.

- In climate zones 4, 5 and 6 only:
  a) Dwellings with a northern aspect are maximised, with a minimum of 70 per cent of dwellings having living rooms and private open space that obtain at least 2 hours direct sunlight between 9am and 3pm on 21 June **AND**
- A maximum of 15 per cent of dwellings in a building receiving no direct sunlight between 9am and 3pm on 21 June.

COMMENT:

- *The ground floor dwellings in Block D do not receive direct sunlight. However, this equates to less than 15% of the total number of dwellings complying with this Acceptable Outcome.*

A4.1.2 – Every habitable room has at least one window in an external wall, visible from all parts of the room, with a glazed area not less than 10 per cent of the floor area and comprising a minimum of 50 per cent of clear glazing.

COMMENT:

- *See objectives.*

A4.1.3 – Lightwells and/or skylights do not form the primary source of daylight to any habitable room.

N/A

A4.1.4 – The building is oriented and incorporates external shading devices in order to:

- minimise direct sunlight to habitable rooms:
  - between late September and early March in climate zones 4, 5 and 6 only **AND**
  - in all seasons in climate zones 1 and 3
- permit winter sun to habitable rooms in accordance with A 4.1.1 (a).

- The building is oriented and incorporates external shading devices in order to:
  - minimise direct sunlight to habitable rooms:
    - between late September and early March in climate zones 4, 5 and 6 only **AND**
    - in all seasons in climate zones 1 and 3

    permit winter sun to habitable rooms in accordance with A 4.1.1 (a).

COMMENT:

- *See objectives above.*

ELEMENT 4.2	**NATURAL VENTILATION**	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.2.1 – Development maximises the number of apartments with natural ventilation.	*Achieved. Refer above and A301-A302*	All apartments are designed to have natural ventilation through.
O4.2.2 – Individual dwellings are designed to optimise natural ventilation of habitable rooms.	*Achieved. Refer above and A301-A302*	Louvered Windows are proposed to the rear of most apartments to ensure natural ventilation is maintained and does not rely solely on the entrance/door into the apartment.
O4.2.3 – Single aspect apartments are designed to maximise and benefit from natural ventilation.	*Achieved. A301-A302*	All apartments have at least two aspects.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.2.1 – Habitable rooms have openings on at least two walls with a straight line distance between the centre of the openings of at least 2.1m.

COMMENT:

- *Proposed apartments meet this requirement with multiple openings that provide for ventilation.*

A4.2.2 –

- A minimum 60 per cent of dwellings are, or are capable of, being naturally cross ventilated in the first nine storeys of the building
  - All apartments are designed with natural cross ventilation. See Natural Ventilation Diagram.
- Single aspect apartments included within the 60 per cent minimum at (a) above must have:
  - ventilation openings oriented between 45° – 90° of the prevailing cooling wind direction **AND**
  - room depth no greater than 3 × ceiling height

COMMENT:

- *All ventilation openings are 45 degrees to prevailing cooling South West wind.*
- *The maximum room depth (Living/Kitchen) is 8m (see Block C ground floor) – 3 x ceiling height = 8.229m.*

A4.2.3 – The depth of cross-over and cross-through apartments with openings at either end and no openings on side walls does not exceed 20m.

COMMENT:

- *The maximum depth of all proposed apartments is 12m*

A4.2.4 – No habitable room relies on lightwells as the primary source of fresh-air.

COMMENT:

- *No lightwells proposed/required.*

ELEMENT 4.3	SIZE AND LAYOUT OF DWELLINGS	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.3.1 – The internal size and layout of dwellings is functional with the ability to flexibly accommodate furniture settings and personal goods, appropriate to the expected household size.	*Apartments have been designed in accordance with Table 4.3a & 4.3b* *Refer to dimensions indicated on Apartment Plans*	Internal layout of apartments is generally functional. The 'snorkel' design of some bedrooms (see GF Unit 10, Bed 2) is 1.17m wide which is adequate space for a chair and/or desk.
O4.3.2 – Ceiling heights and room dimensions provide for well-proportioned spaces that facilitate good natural ventilation and daylight access.	*Ceiling Heights to Habitable rooms are 2.700m minimum and minimum Sizes in accordance with Table 4.3b*	Ceiling heights are 2.743m. The depth of the apartments is generally consistent with a maximum depth of 8m to allow natural sunlight access through the living area through to Kitchen areas. Sloping roofs and ceiling heights (for balconies particularly) is proposed to allow for greater daylight access.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.3.1 – Dwellings have a minimum internal floor area in accordance with Table 4.3a.

Table 4.3a Minimum floor areas for dwelling types

Dwelling type	Minimum internal floor area
Studio	37m²
1 bed	47m²
2 bed × 1 bath[1]	67m²
3 bed × 1 bath[1]	90m²

[1]An additional 3m² shall be provided for designs that include a second or separate toilet, and 5m² for designs that include a second bathroom.

COMMENT:

- *Proposed 1 bed apartments are 60m2 (excluding store room). Proposed 2 x 1 apartments are 80m2 (excluding store room).*

A4.3.2 – Habitable rooms have minimum floor areas and dimensions in accordance with Table 4.3b.

Table 4.3b Minimum floor areas and dimensions for habitable rooms

Habitable room type	Minimum internal floor area	Minimum internal dimension
Master bedroom	10m²	3m
Other bedrooms	9m²	3m
Living room – studio and 1 bed apartments	N/A	3.6m
Living room – other dwelling types	N/A	4m

[1] Excluding robes

COMMENT:

- *All areas and dimensions meet Table 4.3b. Living rooms have a 4m width.*

A4.3.3 – Measured from the finished floor level to finished ceiling level, minimum ceiling heights are:

- Habitable rooms – 2.7m
- Non-habitable rooms – 2.4m
- All other ceilings meet or exceed the requirements of the NCC.

COMMENT:

- *All ceiling heights are 2.743m*

A4.3.4 – The length of a single aspect open plan living area is equal to or less than 3 x the ceiling height. An additional 1.8m length may be provided for a kitchen, where the kitchen is the furthest point from the window in an open plan living area provided that the maximum length does not exceed 9m.

COMMENT:

- *Apartments are generally designed to appear as single aspect dwellings. However, a major opening (louvered) window is proposed on the opposite side of the outdoor living area in each applicable apartment. Regardless, the maximum depth of living/kitchen areas is 8m.*

ELEMENT 4.4	PRIVATE OPEN SPACE AND BALCONIES	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.4.1 – Dwellings have good access to appropriately sized private open space that enhances residential amenity.	*Achieved. Areas of balconies & dimensions indicated on submission drawings*	All outdoor living areas and balconies exceed the minimum requirements and are adequately sized for the two bedroom apartments.
O4.4.2 – Private open space is sited, oriented and designed to enhance liveability for residents.	*Achieved. Balcony spaces are located directly abutting habitable spaces and are located to give privacy and amenity to the resident/occupier.*	Private open space is generally orientated to have access to northern sunlight for majority of buildings.
O4.4.3 – Private open space and balconies are integrated into the overall architectural form and detail of the building.	*Achieved. Areas of balconies indicated on submission drawing, perspectives and elevations*	All private open space areas are designed to be integrated into the building.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.4.1 – Each dwelling has private open space accessed directly from a habitable room with dimensions in accordance with Table 4.4.

Table 4.4 Private open space requirements

Dwelling type	Minimum Area[1]	Minimum Dimension[1]
Studio apartment + 1 bedroom	8m²	2.0m
2 bedroom	10m²	2.4m
3 bedroom	12m²	2.4m
Ground floor / apartment with a terrace	15m²	3m

[1] Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

COMMENT:

- *Block A/B: Ground Floor Private open space far exceeds 10m2. Upper Floor: Balconies are 10m2 where dimension is minimum 3m*
- *Block C: Ground Floor: minimum dimension of 3m and area of 13m2. Upper Floor: Minimum dimension of 2.8m and area of 10.5m2 (although it is L shaped with total 19m2 area).*
- *Block D (1 bed dwellings): Ground Floor: minimum dimension is 3.7m. Total area exceeds 8m2. Upper Floor: Minimum balcony dimension is 3m (18m2 total area)*
- *Block E: Ground floor: Minimum dimension and area exceeds requirements of table 4.4. Upper Floor: Minimum balcony dimension = 3.3m; Minimum area = 17m2*

A4.4.2 – Where private open space requires screening to achieve visual privacy requirements, the entire open space is not screened and any screening is designed such that it does not obscure the outlook from adjacent living rooms.

COMMENT:

- *Living areas for every apartment on the first floor have a direct view onto a balcony. Beyond each balcony, no screening is proposed providing for an acceptable outlook (only a small portion of the living area for Unit 28 will be affected by screening).*

A4.4.3 – Design detailing, materiality and landscaping of the private open space is integrated with or complements the overall building design.

COMMENT:

- *Landscaping plan indicates consistent landscaping for Private open space as per public areas and COS. All materials/colours and designs of private open space is integrated into the overall building design.*

A4.4.4 – Services and fixtures located within private open space, including but not limited to air-conditioner units and clothes drying, are not visible from the street and/or are integrated into the building design.

COMMENT:

- *This is to be conditioned – further detail to be provided at building permit stage.*

ELEMENT 4.5 CIRCULATION AND COMMON SPACES

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.5.1 – Circulation spaces have adequate size and capacity to provide safe and convenient access for all residents and visitors.	*Circulation Spaces min dimensions 1600mm as indicated on Submission Drawings*	
O4.5.2 – Circulation and common spaces are attractive, have good amenity and support opportunities for social interaction between residents.	*Achieved. Circulation areas have access to Natural Light and ventilation.*	

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.5.1 – Circulation corridors are a minimum 1.5m in width.

COMMENT:

- *Block C: Corridors to stairs/dwelling entrance is 2.4m wide.*
- *Block A/B and C – Corridor between the two buildings is 1.8m wide*
- *Block A/B and E – Corridor between the two buildings is 2.18m wide.*

A4.5.2 – Circulation and common spaces are designed for universal access.

COMMENT:

- *Both common access areas are accessible via a lift or are at ground floor.*

A4.5.3 – Circulation and common spaces are capable of passive surveillance, include good sightlines and avoid opportunities for concealment.

COMMENT:

- *The common spaces are located within the centre of the lot ensuring adequate passive surveillance.*

A4.5.4 – Circulation and common spaces can be illuminated at night without creating light spill into the habitable rooms of adjacent dwellings.

COMMENT:

- *Condition added.*

A4.5.5 – Bedroom windows and major openings to living rooms do not open directly onto circulation or common spaces and are designed to ensure visual privacy and manage noise intrusion.

COMMENT:

- *Majority of bedrooms are located away from common access ways (generally to the 'rear' of the apartment). Obscure glazing is provided for Unit 32 and 33 to reduce overlooking onto Common area. Block D (upper floor) balconies have been amended to have screening to a portion of the communal open space to increase privacy.*

ELEMENT 4.6	**STORAGE**	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.6.1 – Well-designed, functional and conveniently located storage is provided for each dwelling.	*Achieved. Storage Spaces are provided, access from either within the apartment or in immediate proximity to the apartment front door.*	Storage 'rooms' are provided for each dwelling and are convenient. They are private and integrated to have no impact on Private Open Space.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.6.1 – Each dwelling has exclusive use of a separate, ventilated, weatherproof, bulky goods storage area. This can be located either internally or externally to the dwelling with dimensions in accordance with Table 4.6.		

Table 4.6 Storage requirements

Dwelling type	Storage area[1]	Minimum dimension[1]	Minimum height[1]
Studio dwelling	3m²	1.5m	2.1m
1 bedroom dwelling	3m²		
2 bedroom dwellings	4m²		
3 bedroom dwellings	5m²		

[1] Dimensions exclusive of services and plant.

COMMENT:

- *All store rooms are 4m2 minimum area with a minimum dimension of 1.5m. Store heights are as per building – 2.74m*

A4.6.2 – Bulky good stores that are not directly accessible from the dwelling/private open space are located in areas that are convenient, safe, well-lit, secure and subject to passive surveillance.

COMMENT:

- *All stores are located within apartments, except for Block D ground floor apartments (access is directly adjacent to the 'front' entrance to the dwelling – not affecting private open space). Strata Store is provided opposite the COS and is integrated into the building.*

A4.6.3 – Storage provided separately from dwellings or within or adjacent to private open space[1], is integrated into the design of the building or open space and is not readily visible from the public domain.

(1) Storage on/adjacent to private open space is additional to required open space area and dimensions.

COMMENT:

- N/A

ELEMENT 4.7	MANAGING THE IMPACT OF NOISE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.7.1 – The siting and layout of development minimises the impact of external noise sources and provides appropriate acoustic privacy to dwellings and on-site open space.	*Achieved. Apartment Construction will be in accordance with the Reporting as provided by a Qualified* *Acoustic Engineer*	Apartments are generally designed with balconies only overlooking/impacting on on-site open space. Two balconies (unit 29 and 30) and a bedroom window (unit 33) have potential to be impacted by common areas considering proximity. However, the Common areas are designed with screening on the permitter and adequate landscaping.
O4.7.2 – Acoustic treatments are used to reduce sound transfer within and between dwellings and to reduce noise transmission from external noise sources.	*Achieved. Apartment Construction will be in accordance with the Reporting as provided by a Qualified* *Acoustic Engineer*	Adequate noise treatments to be applied at building permit stage.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.7.1 – Dwellings exceed the minimum requirements of the NCC, such as a rating under the AAAC Guideline for Apartment and Townhouse Acoustic Rating (or equivalent). **COMMENT:** o *This will be considered at Building Permit Stage. No additional conditions to this effect required.*		
A4.7.2 – Potential noise sources such as garage doors, driveways, and service areas, plant rooms, building services, mechanical equipment, active communal open space and refuse bins are not located adjacent to the external wall of habitable rooms or within 3m of a window to a bedroom. **COMMENT:** o *Majority of bedrooms are located away from access ways/driveways and service areas.*		
A4.7.3 – Major openings to habitable rooms are oriented away or shielded from external noise sources. **COMMENT:** o *Major openings are generally shielded. Unit 33 is setback 5m from COS (upper floor bed 2) – minimum impacts considering landscaping and screening for COS.*		

ELEMENT 4.8	DWELLING MIX	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.8.1 – A range of dwelling types, sizes and configurations is provided that caters for diverse household types and changing community demographics.	*Apartment Types are 1 Bed and 2 Bed to provide a diverse mix of dwelling types to cater for a variety of end occupants/owners/residents.*	The proposal is for a mix of 1 and 2 bedroom dwellings on the site. Considering the wider residential area this is located, the proposal will add diversity to the existing 4 x 2 dwellings that dominate the wider area.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.8.1 –

a) Dwelling mix is provided in accordance with the objectives, proportions or targets specified in a local housing strategy or relevant local planning instrument **OR**

b) Where there is no local housing strategy, developments of greater than 10 dwellings include at least 20 per cent of apartments of differing bedroom numbers.

COMMENT:

- *30 @ 2x1 and 4 @ 1x1: 7% in lieu of 20% mixture – see objectives above.*

A4.8.2 – Different dwelling types are well distributed throughout the development, including a mix of dwelling types on each floor.

COMMENT:

- *All 1 bed dwelling types are in Block D only. See objectives above.*

ELEMENT 4.9	UNIVERSAL DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.9.1 – Development includes dwellings with universal design features providing dwelling options for people living with disabilities or limited mobility and/or to facilitate ageing in place.	*20% (3.2) Apartments will meet the Silver Level of the Universal Access requirements 1-15* *http://www.livablehousingaustralia.org.au/library/SLLHA_GuidelinesJuly2017FINAL4.pdf* *Apartments Type A & b meet the Universal Access Requirements. Refer HJA Drawing A204*	All ground floor dwellings in Block A/B are designed to accommodate for people living with disabilities/limited mobility. All these are silver level designed buildings.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.9.1 – **a)** 20 per cent of all dwellings, across a range of dwelling sizes, meet Silver Level requirements as defined in the Liveable Housing Design Guidelines (Liveable Housing Australia) **OR** **b)** 5 per cent of dwellings are designed to Platinum Level as defined in the Liveable Housing Design Guidelines (Liveable Housing Australia). **COMMENT:** ○ *7 dwellings (20%) of yield is Silver Level. See Drawing No. A204.*		

ELEMENT 4.10	FAÇADE DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.10.1 – Building façades incorporate proportions, materials and design elements that respect and reference the character of the local area.	*Facades and elevations contain materials and finishes that reflect the suburban nature of the development.* *IE, face & rendered brick, windows of a residential nature/etc.*	Building facades are designed with a combination of materials and colours (grey rendered, brown brick, white rendered). Colours are suitable for the area considering it is opposite a nature reserve.
O4.10.2 – Building façades express internal functions and provide visual interest when viewed from the public realm.	*Achieved. The treatment of the facades have good scale/proportion and relief*	Building facades facing Johnson Road could be designed with greater/additional materials/colours/ articulation to provide greater visual interest (roof is just one height).

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.10.1 – Façade design includes:

- scaling, articulation, materiality and detailing at lower levels that reflect the scale, character and function of the public realm
- rhythm and visual interest achieved by a combination of building articulation, the composition of different elements and changes in texture, material and colour.

COMMENT:

- *Proposed buildings are articulated with minimal lengths of 'blank' walls on the north/south and west facades.*
- *Building facades as viewed from the east are minimally articulated, although different façade treatments/windows are proposed.*

A4.10.2 – In buildings with height greater than four storeys, façades include a defined base, middle and top for the building.

COMMENT:

- N/A

A4.10.3 – The façade includes design elements that relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights.

COMMENT:

- *Proposed Block C is a 'stepped' design with the upper floor setback from the northern boundary.*
- *No parapets are proposed with all development being setback a sufficient distance from side boundaries.*

A4.10.4 – Building services fixtures are integrated in the design of the façade and are not visually intrusive from the public realm.

COMMENT:

- To condition

A4.10.5 – Development with a primary setback of 1m or less to the street includes awnings that:

- define and provide weather protection to entries
- are integrated into the façade design
- are consistent with the streetscape character.

COMMENT:

- N/A

A4.10.6 – Where provided, signage is integrated into the façade design and is consistent with the desired streetscape character.

COMMENT:

- N/A

ELEMENT 4.11 ROOF DESIGN

ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT** *Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.*	**ASSESSOR COMMENT**
O4.11.1 – Roof forms are well integrated into the building design and respond positively to the street.	*Flat Roofs are proposed. The surrounding area contains a variety and mix of generally new housing stock.* *Some have flat roofs, some pitched.* *Flat roofs are not inconsistent with the immediate surrounding area*	Roof forms are concealed. While the streetscape is dominated by pitched roofs, the proposed concealed design seeks to reduce heights and impacts of building bulk.
O4.11.2 – Where possible, roof spaces are utilised to add open space, amenity, solar energy generation or other benefits to the development.	*Future Solar Panels can be located on the Roof Spaces* *Air Conditioning plant will be located on the ground floors or Roof Areas, screed and generally non-visible from the Street.* *Refer to the Roof Plans as part of the Submission*	The COS utilises the roof of a car parking area. The concealed design allows for services such as AC to be better shielded from view. The development is capable of solar energy generation on the concealed roofs.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.11.1 – The roof form or top of building complements the façade design and desired streetscape character.

COMMENT:

- *The proposed concealed roof form complements the façade and reduces the overall height and bulk of the building.*

A4.11.2 – Building services located on the roof are not visually obtrusive when viewed from the street.

COMMENT:

- *Air con units are proposed on the roof tops and the concealed design will reduce visibility and adverse impacts of visual amenity.*

A4.11.3 – Useable roof space is safe for users and minimises overlooking and noise impacts on private open space and habitable rooms within the development and on adjoining sites.

COMMENT:

- *The proposed upper level COS in the centre of the site is designed with vegetation on its perimeter to reduce impacts of overlooking.*

ELEMENT 4.12	LANDSCAPE DESIGN	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.12.1 – Landscape design enhances streetscape and pedestrian amenity; improves the visual appeal and comfort of open space areas; and provides an attractive outlook for habitable rooms.	*Refer to Landscape Plan KDLA REV B*	Diversity in landscaping is proposed across the site. Existing trees to be retained will provide an attractive outlook, particularly those in the centre of the site within the COS.
O4.12.2 – Plant selection is appropriate to the orientation, exposure and site conditions and is suitable for the adjoining uses.	*Refer to Landscape Plan KDLA REV B*	The proposed plants are suitable for the site and surrounding area. Distribution of plants is also based on access to sunlight.
O4.12.3 – Landscape design includes water efficient irrigation systems and where appropriate incorporates water harvesting or water re-use technologies.	*Refer to Landscape Plan KDLA REV B*	Irrigation plan not provided. No significant technologies proposed.
O4.12.4 – Landscape design is integrated with the design intent of the architecture including its built form, materiality, key functional areas and sustainability strategies.	*Refer to Landscape Plan KDLA REV B*	The notable landscape design is the fact the buildings are designed around the COS where a number of existing trees are proposed to be retained.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.12.1 – Submission of a landscape plan prepared by a competent landscape designer. This is to include a species list and irrigation plan demonstrating achievement of Waterwise design principles. **COMMENT:** ○ *Irrigation plan not provided (referenced).* ○ *Landscaping plan OK – see landscaping architect comments.*		
A4.12.2 – Landscaped areas are located and designed to support mature, shade-providing trees to open space and the public realm, and to improve the outlook and amenity to habitable rooms and open space areas. **COMMENT:** ○ *7 of 10 large trees that exist on the site are proposed to be retained. Larger shade providing trees are proposed in open space around the perimeter of the site. Trees proposed to be retained and additional added to front setback area.*		
A4.12.3 – Planting on building structures meets the requirements of Table 4.12.		

Table 4.12 Planting on structure: minimum soil standards for plant types and sizes

Plant type	Definition	Soil volume	Soil depth	Soil area
Large tree	Over 12m high, crown spread at maturity	76.8m³	1,200mm	64m² with minimum dimension 7m
Medium tree	8-12m high, crown spread at maturity	36m³	1,000mm	36m² with minimum dimension 5m
Small tree	4-8m high, crown spread at maturity	7.2m³	800mm	3m × 3m
Small ornamentals	3-4m high, crown spread at maturity	3.2m³	800mm	2m × 2m
Shrubs	--	--	500-600mm	--
Ground cover	--	--	300-450mm	--
Turf	--	--	200mm	--

- Small shrubbery only proposed on the COS rooftop.

A4.12.4 – Building services fixtures are integrated in the design of the landscaping and are not visually intrusive.

COMMENT:

- *Building services are generally integrated into the building. Landscaping is proposed around, for example the bin storage areas.*

ELEMENT 4.13	ADAPTIVE REUSE	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.13.1 – New additions to existing buildings are contemporary and complementary and do not detract from the character and scale of the existing building.	N/A	N/A
O4.13.2 – Residential dwellings within an adapted building provide good amenity for residents, generally in accordance with the requirements of this policy.	N/A	N/A

ELEMENT 4.15	ENERGY EFFICIENCY	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.15.1 – Reduce energy consumption and greenhouse gas emissions from the development.	*The Development will be assessed and certified in accordance with the current Building Code Energy Efficiency requirements.*	The applicant has indicated that the common area will be powered by solar. A condition is recommended to ensure at least one energy efficient initiative is proposed.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.15.1 – ***a)*** *Incorporate at least one significant energy efficiency initiative within the development that exceeds minimum practice (refer Design Guidance) OR* ***b)*** *All dwellings exceed the minimum NATHERS requirement for apartments by 0.5 stars.1* **COMMENT:** *See objectives above.*		

ELEMENT 4.16	WATER MANAGEMENT AND CONSERVATION	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.16.1 – Minimise potable water consumption throughout the development.	*Dwellings will be individually metered*	Each unit is proposed to be individually metred. Single bathrooms provided for two bedroom units.
O4.16.2 – Stormwater runoff from small rainfall events is managed on-site, wherever practical.	*Stormwater will be managed on site*	The development is designed with a landscaping strip along the entire perimeter of the site. This will allow for stormwater to be contained on site.
O4.16.3 – Reduce the risk of flooding so that the likely impacts of major rainfall events will be minimal.		1800 x 1800 soak wells provided throughout the site, to manage stormwater.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.16.1 – Dwellings are individually metered for water usage. **COMMENT:** ○ *Applicant has indicated that all dwellings will be individually metred.*		
A4.16.2 – Stormwater runoff generated from small rainfall events is managed on-site. **COMMENT:** ○ *Soft/drainage areas are provided along the entire perimeter of the site to further ensure stormwater will be managed on site.*		
A4.16.3 – Provision of an overland flow path for safe conveyance of runoff from major rainfall events to the local stormwater drainage system. **COMMENT:** ○ *N/A*		

ELEMENT 4.17	WASTE MANAGEMENT	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.17.1 – Waste storage facilities minimise negative impacts on the streetscape, building entries and the amenity of residents.	*Refer to the Waste management Plan as part of the Submission Documents*	Access for bins provided on either side of the site is adequate. The bins storage areas are enclosed and away from view of the street. A waste management plan was provided. However, the City's Health team stated that it was inconsistent and not adequate. Due to timeframes, a condition is recommended for a waste management plan.
O4.17.2 – Waste to landfill is minimised by providing safe and convenient bins and information for the separation and recycling of waste.	*Refer to the Waste management Plan as part of the Submission Documents.* *Green Waste and Hard Waste management to be as per the WMP and coordinated with the Local* *Government Waste Services*	The City's Waste Team provide education to all residents to further insure separation of recycling and waste.

ACCEPTABLE OUTCOMES
Acceptable Outcome pathway may not be applicable where a performance solution is provided

A4.17.1 – Waste storage facilities are provided in accordance with the Better Practice considerations of the WALGA Multiple Dwelling Waste Management Plan Guidelines (or local government requirements where applicable).

COMMENT:

- *21x bins provided to comply with Appendix 1 of the above Guidelines*.

A4.17.2 – A Level 1 Waste Management Plan (Design Phase) is provided in accordance with the WALGA Multiple Dwelling Waste Management Plan Guidelines - Appendix 4A (or equivalent local government requirements).

COMMENT:

- *Condition added – see objective.*

A4.17.3 – Sufficient area is provided to accommodate the required number of bins for the separate storage of green waste, recycling and general waste in accordance with the WALGA Multiple Dwelling Waste Management Plan Guidelines - Level 1 Waste Management Plan (Design Phase) (or local government requirements where applicable).

COMMENT:

- *3x bin storage areas provided. They are enclosed and of adequate size for manoeuvring bins.*

A4.17.4 – Communal waste storage is sited and designed to be screened from view from the street, open space and private dwellings.

COMMENT:

- *3x waste storage areas are enclosed and located within the site, away from view of the street. 1 bin storage area is central in the site, however is enclosed to ensure limited impact on the open space and dwellings.*

ELEMENT 4.17	WASTE MANAGEMENT	
ELEMENT OBJECTIVES *Development is to achieve the following Element Objectives*	**APPLICANT COMMENT**	**ASSESSOR COMMENT**
	Outline the rationale demonstrating that the proposal has met the Element Objectives, through either a performance based solution or using the Acceptable Outcomes. The Design Guidance provided in the policy may be of assistance.	
O4.18.1 –The site is serviced with power, water, gas (where available), wastewater, fire services and telecommunications/broadband services that are fit for purpose and meet current performance and access requirements of service providers.	*Utilities and Building Services are located as indicated on the Submission drawings* *Services will be designed, installed and certified by a suitable qualified and or experienced Engineer or* *Supplier/Trade where applicable.* *Services and utilities will be carefully designed and hidden from view where possible.*	Proponent has indicated that all utilities are provided.
O4.18.2 – All utilities are located such that they are accessible for maintenance and do not restrict safe movement of vehicles or pedestrians.	*Achieved*	Utilities are located so as to not interfere with pedestrian and/or vehicular movements. Further information to be indicated on building permit plans as per a recommended condition. Comms area located to the rear of Unit 7 (enclosed area)
O4.18.3 – Utilities, such as distribution boxes, power and water meters are integrated into design of buildings and landscape so that they are not visually obtrusive from the street or open space within the development.	*Achieved*	To be conditioned.
O4.18.4 – Utilities within individual dwellings are of a functional size and layout and located to minimise noise or air quality impacts on habitable rooms and balconies.	*No Utilities such as Air Conditioning units are located on balconies or near habitable spaces.*	To be conditioned.
ACCEPTABLE OUTCOMES *Acceptable Outcome pathway may not be applicable where a performance solution is provided*		
A4.18.1 – Utilities that must be located within the front setback, adjacent to the building entry or on visible parts of the roof are integrated into the design of the building, landscape and/or fencing such that they are accessible for servicing requirements but not visually obtrusive. **COMMENT:** o *This is to be conditioned.*		
A4.18.2 – Developments are fibre-to-premises ready, including provision for installation of fibre throughout the site and to every dwelling. **COMMENT:** o *The applicant has indicated this will be achieved as part of the development.*		

A4.18.3 – Hot water units, air-conditioning condenser units and clotheslines are located such that they can be safely maintained, are not visually obtrusive from the street and do not impact on functionality of outdoor living areas or internal storage.

COMMENT:

- To be conditioned

A4.18.4 – Laundries are designed and located to be convenient to use, secure, weather-protected and well-vented; and are of an overall size and dimension that is appropriate to the size of the dwelling.

COMMENT:

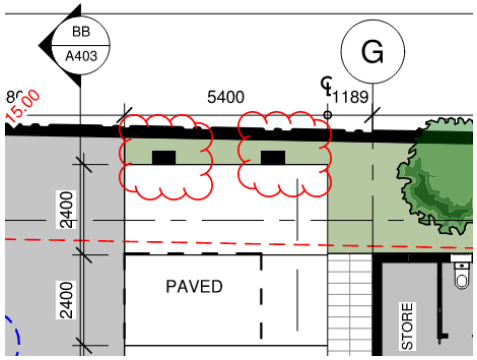
- *Laundry areas located within Bathroom or a separate area located within a cabinet (adjacent to hallway within dwelling). Small 2 bed dwellings proposed and therefore the size is appropriate.*

Attachment 9

Submitter	Submitter comments
1A Waterfields Drive	OBJECTION: 1. Traffic congestion and noise: Johnson Road is a busy road that generates significant road noise and light spill from vehicles. The proposed development will increase noise and light spill impacts on existing dwellings. 2. Car Parking: There is limited off street parking available in the existing residential area and the proposed development will make the parking situation worse. 3. Bushfire: the proposed development is located opposite a conservation reserve and the number of dwellings will increase the number of people in the area, which could lead to evacuation issues during a bushfire emergency. 4. Tree Retention: Trees are characteristic of this residential area. Any development on Lot 101 Johnson Road should retain existing vegetation. 5. Density and Visual Appearance: the proposed development is out of character will the existing, much less dense, development that characterises the area. 6. Overshadowing: Overshadowing will affect my property as it will impact on the outdoor living area and vegetation within. 7. Visual Privacy: properties that are adjoining the proposed development will lose privacy. There should be no windows or balconies that overlook adjoining properties. 8. Earthworks and Construction: earthworks and construction will have adverse impacts on the adjoining lots. The construction of the proposed development could result in the structural integrity of existing dwellings being compromised. Dust and noise from the site will impact on adjoining lots. 9. Property Value: The proposed development will decrease the value of the properties around it. 10. Crime: If the dwellings promote a lower socio-economic status, who will be accountable for the increase in crime and theft?
1 Waterfields Drive	OBJECTION: 1. Overshadowing: The proposed development is not in keeping with Objective 3.2.2 of the R-Codes Volume 2. Overshadowing from the proposed development impacts on the entire backyard of my property. Overshadowing from the proposed development prevents winter sun from entering the main living area and bedroom of the adjoining property dwelling. The proposed development has considered access to sunlight for the development only and not impacts on the adjoining lots. An area on my property that has significant vegetation (lemon tree, garden and vegetables) will be impacted by overshadowing, which will have an adverse impact on the use of my property's backyard. Overshadowing will impact on the adjoining properties clothes drying area. The significant overshadowing over my backyard/outdoor living area interferes with the practical use and enjoyment of the back yard and major habitable areas in the house. The overshadowing unreasonably interferes with the use of our land and does not adhere to the guidelines found in SPP .3.

	2. Traffic Congestion: Johnson Road has become a high thoroughfare road. Congestion on Johnson Road is commonly a result of the bus stopping at the bus stop that is directly opposite the proposed development area. The proposed development will generate additional traffic that would impact on safety on Johnson Road 3. Car Parking: There is limited off street parking available in the existing residential area and the proposed development will make the parking situation worse. The proposed development will make it difficult for visitors of existing residents in the neighbourhood. 4. Density: The development plans indicate a plot ration of 0.57, where 0.6 is permitted, showing this development is at the upper limit. The proposed development is not in keeping with the local context of single level family homes. The proposal is the most dense apartment development in the Kwinana area (apart from Wellard Village) – see example images below (appendix A). The proposed development would be better suited closer to a train station. A proposal with fewer dwellings would be better suited in this context. 5. Tree Retention: Although the proposed plans indicate trees to be retained in the centre of the site, the trees are much larger than indicated. The 'Block D' units will impact on the trees (see Appendix B below). The required deep soil area for the retained trees is required to be 220m2 and the common open space area is insufficient. The existing trees on the site attract bird species all year round and add aesthetic value to the existing neighbourhood. 6. Visual Bulk/Appearance: The proposed large development will negatively impact on our backyard outlook and dominate our private open space. The proposal will impact on the single storey dwellings in the area that enjoy views of the natural reserve areas. 7. Noise: The proposal for 34 apartments will generate considerable noise, impacting the amenity of adjoining dwellings. 8. The proposed development has little regard to our dwelling and the wider neighbourhood. The submitter also stated they support development in the area and suggested the following amendments: • *The development's overshadowing would be rectified by making Block 'E' single story instead of two (double) story.* • *The tree retention issue could be resolved by dropping Block 'D' from the plans altogether. This would give more room for a better implemented common space that does not clash with the trees.* • *The above two measures also take care of the insufficient car parking on site as there would be fewer dwellings.*
11 Waterfields Drive & 13 Waterfields Drive	OBJECTION: 1. Visual Privacy: Our properties will lose a significant amount of privacy specifically due to Units 28, 29 and 30. These Units have full line of sight into the backyards of the adjoining lots. Unit 28 has full line of site into the backyard of 11 and 13 Waterfields Drive.

	2. Unit 28: Upper storey screening is inadequate. The proposed screening only covers a small corner of the balcony and seems to be visually permeable. The screening is insufficient and provides a full line of sight into adjoining property habitable rooms and outdoor living area. 3. Unit 29/Unit 30: Upper floor windows are inadequate privacy. The plan indicates 'white glass' to 1650mm only with the remaining window are remaining clear. This impacts on the privacy on the adjoining lots. There is no indication that these windows open. 'White Glass' is requested to be added to the entire height of the windows. 4. Unit 29/Unit 31: The plans indicate a 'hi-light' window that can slide open which will impact the privacy of adjoining lots. 'white glass' is requested on the windows that face directly onto the backyards of all residents along Waterfields Drive. 5. Noise: The existing residential area is a quite/peaceful area. Adding 34 units will create a significant increase in noise, impacting the peaceful and quite character of the area. The existing dwellings to the east, where the proposed internal driveways extend will be impacted by noise from vehicles. The location of courtyards directly adjacent to the eastern boundary and close proximity of 2 storey dwellings will increase noise on, and adversely impact adjoining lots. Vehicle access ways within the proposed development will channel noise to the eastern boundary, adversely impacting on adjoining lots. 6. Tree Retention: The proposal for an 82m2 common area to retain existing trees is unrealistic. The existing trees are very large and have a significant span and are relatively low to the ground. How will these trees actually be retained? How much of the threes will be trimmed/removed? 7. Landscaping: the plan indicates trees on the permitter of the development site which is insufficient. A higher quantity of mature trees is to be planted to assist with reducing impacts of privacy. It is requested that these trees be mature trees to ensure screening and privacy is retained (this is specifically applicable for the balcony from Unit 28). 8. Proposed plan No. A501 (Shadow Diagram) indicates 4 pillars to the rear of the property. Please clarify what these are for and if they will be visible from adjoining lots

	 The submitter suggested the following amendment: - Construct a full limestone block wall to a minimum height of 1800mm along the eastern boundary to reduce noise levels.
1 Karakin Place	OBJECTION: 1. The existing area surrounding the proposed development site is quite and characterised by young families. 2. All existing dwellings in the area are single storey and the proposed development is therefore not in keeping with the established area. 3. The double storey proposal will be detrimental to the existing residential area. 4. Visual Privacy: Residents on the adjoining lots will lose privacy as the proposed apartments view directly into adjoin property back yards. 5. Noise: The proposal for 34 apartments will increase noise levels, thus disturbing the quiet neighbourhood. 6. Traffic: the proposed development will increase traffic on the quiet streets in the area and increase traffic on Johnson road, which is already a very busy road. 7. House values will decrease as a result of this development.
2 Brixton Gate	OBJECTION: 1. Traffic congestion and noise: Johnson Road is a busy road that generates significant road noise and light spill from vehicles. The proposed development will increase noise and light spill impacts on existing dwellings. 2. Car Parking: There is limited off street parking available in the existing residential area and the proposed development will make the parking situation worse.

	3. Bushfire: the proposed development is opposite a reserve and the number of dwellings will increase the number of people in the area which could lead to evacuation issues during a bushfire emergency. 4. Tree Retention: Trees are very important to this residential area. Any development on Lot 101 Johnson Road is to retain existing vegetation as it provides visual amenity for the existing neighbourhood. 5. Density and Visual Appearance: the proposed development is out of character with the existing, much less dense, development that characterises the area. The proposal is out of character with the existing neighbourhood and will become an eyesore. 6. The number of dwellings should be reduced to be more appropriate in the circumstances.
95 Johnson Road	OBJECTION: 1. 34 dwellings means at least 75 people in a small space, plus kids, teenagers, etc. This is too many people in a small space and will have adverse impacts on the area. 2. The proposed development will increase traffic and Johnson Road will become a busy, non-stop road impacting on the safety of my family to get on to the road. 3. The proposed development will cause safety issues as it could create traffic jams on Johnson Road also due to the location of the bus stop. 4. The proposed development could be a public housing development that may have adverse impacts on the amenity of the area and existing residents. 5. The value of the properties in the area will be reduced because of congestion. 6. I would be very pleased and thankful if you brought the number of dwellings down to 6 to 7 dwellings, in keeping with the area.
17 Waterfields Drive	OBJECTION: 1. The proposed development is too many dwellings for such a small area. 2. The area consists of many families and Johnson Road is already busy enough. 3. We don't oppose the building of units but feel that it should be a smaller number than 34 4. The proposed development will cause the wider neighbourhood to lose its neighbourly characteristic. 5. The school in the area is large and lacks the room to expand.
19 Waterfields Drive	OBJECTION: 1. The proposed development will increase vehicle pollution. For every unit there will be at least one car causing excessive greenhouse gases for such a small land area. 2. Noise: The proposed 34 units for this small land mass will magnify the noise levels. 3. Traffic: the proposed development will generate extra traffic impacting on the safety of vehicles on Johnson road. Johnson road should be widened prior to extra traffic being permitted on.

	4. The proposed two story dwellings will adversely impact on our privacy. 5. The proposed number of units will devalue our property 6. The proposed development will have a large volume of people living closely together, which can have negative social impacts. 7. Parking: There is no parking on Johnson Road, enhancing traffic safety issues.

Appendix A

Examples of other apartments in the Orelia Kwinana area.



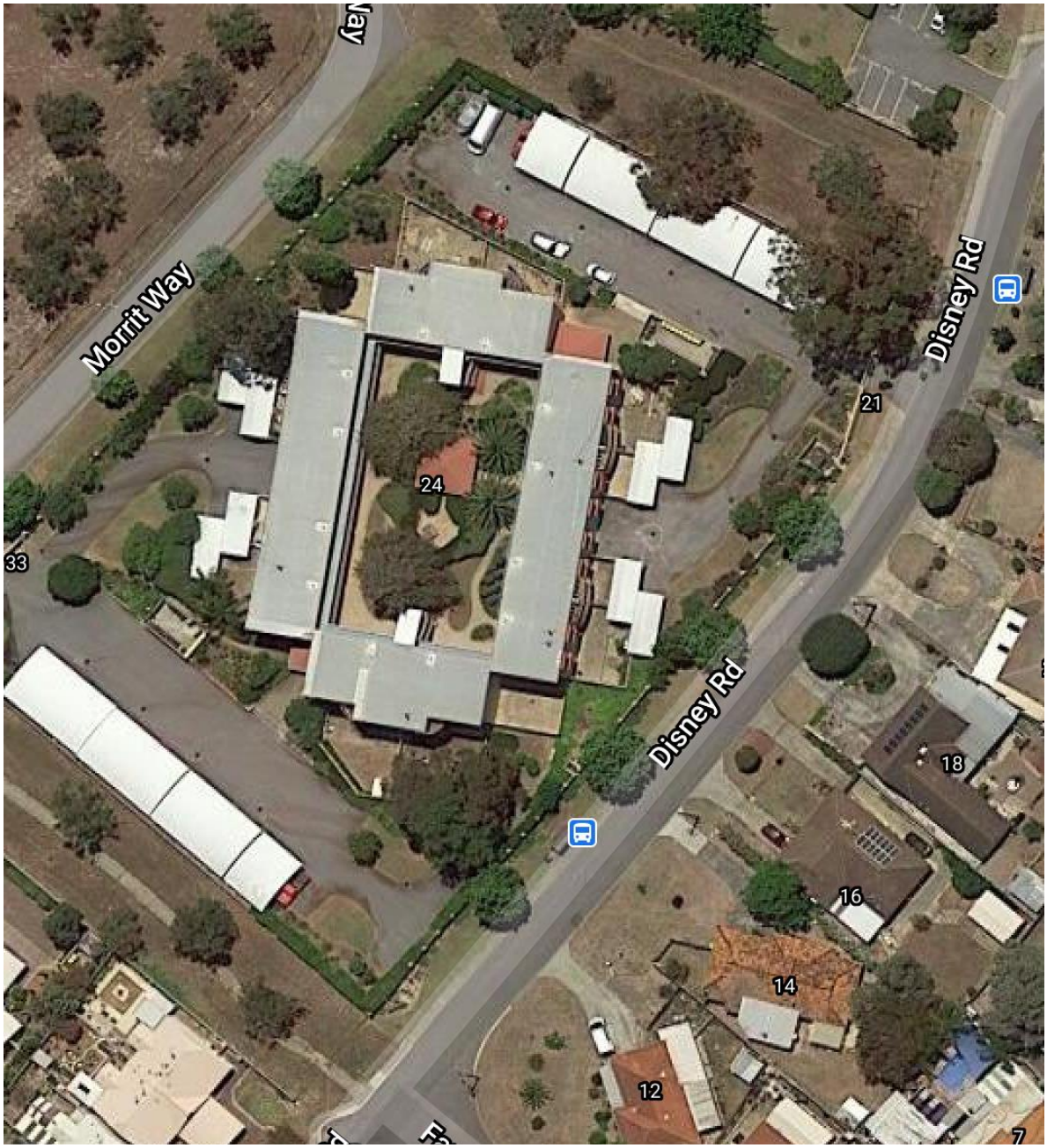
Canham Way Orelia



Jecks Place & Steward Way Orelia



Langridge Crescent Orelia



Morrit Way/Disney Rd Orelia

Appendix B - Superimposed image of the development and the location of the trees. Trees & Common Space Deck, Block D clash.



Attachment 10

17.1 JOINT DEVELOPMENT ASSESSMENT PANEL APPLICATION FOR 34 MULTIPLE DWELLINGS – LOT 101 (3) JOHNSON ROAD BERTRAM

Risk Treatment in place	Reduce - mitigate risk
Response to risk treatment required/in place	Work instructions in place and checklists used when assessing the application. The recommendation on the application is justified on the basis of compliance with the Local Planning Scheme, and the discretion afforded to the JDAP to vary these documents. Liaising with the applicant throughout the application process.
Rating (after treatment)	Low

COUNCIL DECISION

334

MOVED CR M KEARNEY **SECONDED CR S LEE**

That Council resolve to support the development application for 34 Multiple Dwellings at Lot 101 Johnson Road, Bertram as per the recommendation outlined in the Responsible Authority Report (Attachment A) to the Metro Outer Joint Development Assessment Panel.

CARRIED
5/4

FOR
Mayor Carol Adams, casting vote used
Councillor Merv Kearney
Councillor Sandra Lee
Councillor Matthew Rowse

AGAINST
Deputy Mayor Peter Feasey
Councillor Wendy Cooper
Councillor Dennis Wood
Councillor Sherilyn Wood

NOTE – The Council raised concerns with the development with regards to the following:

- Parking, including the number of vistor bays allocated
- Potentail traffic issues
- Johnson Road is a single carriage road and not suitable for such a development
- There only being a single entry/exit
- Overshadowing
- Visual privacy
- Site lines