



Regional Joint Development Assessment Panel Agenda

Meeting Date and Time: Tuesday, 29 November 2022; 9.30am
Meeting Number: RJDAP/76
Meeting Venue: Electronic Means

To connect to the meeting via your computer -
<https://us06web.zoom.us/j/82317977166>

To connect to the meeting via teleconference dial the following phone number -
+61 8 7150 1149 Australia

Insert Meeting ID followed by the hash (#) key when prompted - 823 1797 7166

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

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Attendance

DAP Members

Mr Tony Arias (Presiding Member)
Ms Rachel Chapman (A/Deputy Presiding Member)
Mr Justin Page (Third Specialist Member)

Item 8.1

Cr Kelly Nunn (Local Government Member, City of Karratha)
Cr Margaret Bertling (Local Government Member, City of Karratha)

Item 8.2

Cr Grant Henley (Local Government Member, City of Busselton)
Cr Paul Carter (Local Government Member, City of Busselton)

Officers in attendance

Item 8.1

Mr Ben Leavy (City of Karratha)
Mr Chris Sayer (City of Karratha)

Item 8.2

Mr Andrew Watts (City of Busselton)
Mr Paul Needham (City of Busselton)
Mr Oliver Darby (City of Busselton)
Mr Daniell Abrahamse (City of Busselton)

Minute Secretary

Ms Ashlee Kelly (DAP Secretariat)

Applicants and Submitters

Item 8.1

Mr Colin Gardiner (Modus)

Item 8.2

Mr Dan Pearce (Hatch Roberts Day)
Mr David Zimmerman (Blackoak Capital)
Mr Jeffrey Williams (St John of God, Bunbury Hospital)
Mr Jack Harding (St John of God, Bunbury Hospital)
Mr Darren Levey (Uloth and Associates)
Ms Kanella Hope (Planned Focus)

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.



This meeting is being conducted by electronic means (Zoom) open to the public. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Ms Kanella Hope (Deputy Presiding Member)

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.

The Presiding Member notes an addendum to the agenda was published to include details of a DAP request for further information and responsible authority response in relation to Item 8.2, received on 28 November 2022.

The Presiding Member notes an addendum to the agenda was published to include details of a DAP request for further information and responsible authority response in relation to Item 8.1, received on 29 November 2022.

6. Disclosure of Interests

Member	Item	Nature of Interest
Ms Kanella Hope	8.1	Impartiality Interest – Ms Hope was the Planning Consultant representing the Bunbury Farmers Market in their JDAP proposal earlier this year. That development is located immediately opposite the subject land in Vasse.
Mr Justin Page	8.2	Indirect Pecuniary Interest – In Item 8.2 the landowner of Lot 9556 is stated in the RAR as Stawell Pty Ltd. Lot 9556 is actually in the joint ownership of 'Perron Developments Pty Ltd' and 'Stawell Pty Ltd'. Perron Developments Pty Ltd is a subsidiary of Perron Group who is a client of Mr Page employer (Element)



7. Deputations and Presentations

- 7.1** Ms Kanella Hope (Planned Focus) presenting in support of the recommendation for the application at Item 8.2. The presentation will address her representation of the Bunbury Farmers Market who gained approval (RJDAP50) earlier this year to develop the Vasse by Bunbury Farmers Market opposite the subject land. Although her client is very supportive of the development and the recommendation to approve, request for some adjustment to conditions as set out below to improve and manage the interface between these two important new developments in Vasse.
- 7.2** Mr David Zimmerman (Blackoak Capital) presenting in support of the recommendation for the application at Item 8.2. The presentation will address high level overview of the proposal as it relates to the RAR, in particular concern with proposed condition 4.1.
- 7.3** Mr Jeffrey Williams (St John of God, Bunbury Hospital) presenting in support of the recommendation for the application at Item 8.2. The presentation will address overview of the proposal from the perspective of St. John of God.
- 7.6** Mr Dan Pearce (Hatch RobertsDay) presenting in support of the recommendation for the application at Item 8.2. The presentation will respond to the deputation at Item 7.1 by Ms Kanella Hope (Planned Focus) representing the Bunbury Farmers Market.

The City of Karratha and City of Busselton 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 No. 106 (Lot 106) Exploration Drive, Gap Ridge

Development Description:	Industry – General Workshop, Warehouse and Offices
Applicant:	Modus Design Pty Ltd
Owner:	Monadelphous Properties Pty Ltd
Responsible Authority:	City of Karratha
DAP File No:	DAP/22/02335

8.2 Lot 9556 Napoleon Promenade Busselton

Development Description:	Hospital and 5 x Commercial Tenancies
Applicant:	Hatch Roberts Day for St John of God Health Care and Blackoak Capital Ventures
Owner:	Stawell Pty Ltd
Responsible Authority:	City of Busselton
DAP File No:	DAP/22/02321



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
DP/14/00039 DR 65/2020	Shire of York	Lots 4869 (2256), 5931, 9926 (2948) and 26934 Great Southern Highway, St Ronans	Construction and Use of Allawuna Farm for the purposes of a Class II Landfill	28 July 2020
DAP/21/02063 DR241/2021	Shire of Dardanup	Lot 2 Banksia Road, Crooked Brook	Cleanaway Dardanup Landfill Facility	5 November 2021
DAP/21/02120 DR49/2022	City of Busselton	Lot 400 (No.24) Dunn Bay Road, Dunsborough	Proposed six storey mixed use (Restaurant/Cafe and Multiple Dwellings) Development	23 March 2022

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



Direction for Further Services from the Responsible Authority

Regulation 13(1) and DAP Standing Orders 2020 cl. 3.3

Guidelines

A DAP Member who wishes to request further services (e.g. technical information or alternate recommendations) from the Responsible Authority must complete this form and submit to daps@dplh.wa.gov.au.


The request will be considered by the Presiding Member and if approved, the Responsible Authority will be directed to provide a response to DAP Secretariat within the form.

It is important to note that **the completed form containing the query, response and any accompanying documentation will be published on the DAP website** as an addendum to the meeting agenda.

DAP Application Details

DAP Name	Regional JDAP
DAP Application Number	DAP/22/02321
Responsible Authority	City of Busselton
Property Location	Lot 9556 Napoleon Promenade Busselton

Presiding Member Authorisation

Presiding Member Name	Mr Tony Arias
Signature	
Date	25 November 2022
Response Due	28 November 2022; 12.00pm

Nature of technical advice or information required*

1	DAP query	Seeking comments from the City of Busselton on the applicant's objection to Condition 4.1 and Mr Levy's comments that the proposed easement is not required – Presentation Requests attached
	Response	<p>City officers have had discussions with the applicant to clarify that the concern relates to condition <u>4.4</u> (rather than 4.1) which requires the provision of an access easement under sections 195 and 196 of the Land Administration Act 1997 through the development site to connect to Napoleon Promenade.</p> <p>City officers have considered the applicants objection and agree to removal of condition 4.4 from the Responsible Authority Recommendation.</p> <p>The City have also discussed other conditions with the applicant and it is proposed to modify condition 3.1 d) to now read as follows:</p>

* Any alternate recommendation sought does not infer a pre-determined position of the panel.

		<p><i>3.1 d) Along the Coomidup frontage to the proposed lot truncation at the intersection with the new access road, a footpath of minimum 4.0m combined width, adjacent to the property boundary;</i></p>
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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	Kanella Hope
Company (if applicable)	Planned Focus
Please identify if you have any special requirements:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional DAP
Meeting Date	29 November 2022
DAP Application Number	DAP/76
Property Location	Lot 9556 Napoleon Promenade, Vasse
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 <input checked="" type="checkbox"/>
Is the presentation in support of or against the <u>report recommendation</u> ? (<i>contained within the Agenda</i>)	SUPPORT <input checked="" type="checkbox"/> AGAINST <input type="checkbox"/>
Is the presentation in support of or against the <u>proposed development</u> ?	SUPPORT <input checked="" type="checkbox"/> AGAINST <input type="checkbox"/>
Will the presentation require power-point facilities?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please attach



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.

<p>Brief sentence summary for inclusion on the Agenda</p>	<p><i>The presentation will address:</i></p> <p>I represent the Bunbury Farmers Market who gained approval (RJDAP50) earlier this year to develop the Vasse by Bunbury Farmers Market opposite the subject land.</p> <p>Although my client is very supportive of the development and the recommendation to approve, we request some adjustment to conditions as set out below to improve and manage the interface between these two important new developments in Vasse.</p>
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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:

I will speak to these matters in my presentation.

Recommended condition	Request
<p>3.1 g) Along the new cul-de-sac access road intersection to the proposed loading dock entry, a footpath of minimum 3.0m width and 3.5m width wherever possible and providing suitable pedestrian linkage to proposed footpaths fronting development on the northern side of the new access road.</p>	<p>Amend this condition to say:</p> <p><u><i>3.1 g) No footpath along the southern side of the new cul-de-sac access road intersection, with the Coomidup footpath designed to force all pedestrian movement across the cul-de-sac at the roundabout only. A combination of hard and soft landscaping treatments should be employed to prevent pedestrian access along the southern side of the cul-de-sac and the loading bay area.</i></u></p> <p>It is imperative for safe pedestrian access in this area that all pedestrian thoroughfare along Coomidup Boulevard occurs only at the new cul-de-sac roundabout crossing. There should be no pedestrian footpath along the southern side of the cul-de-sac where the hospital loading bay is located.</p> <p>A combination of hard and soft landscaping treatments at the hospital interface should prevent pedestrian movement anywhere other than along the footpath on the northern side of the cul-de-sac only.</p> <p>The Vasse by Bunbury Farmers Market development will involve a steady stream of guest traffic, including from the hospital. It is safest and avoids conflict with the loading bay and the Farmers Market entry points if pedestrians are removed from the southern side of the cul-de-sac and discouraged from randomly crossing the cul-de-sac anywhere other than at designated locations.</p>



<p>3.3 A schedule of the final materials, finishes and colours, which shall be generally consistent with the approved plans. The schedule shall include details of the type of materials proposed to be used, including their colour and texture.</p>	<p>Amend this condition to say:</p> <p><i>3.3 A schedule of the final materials, finishes and colours, which shall be generally consistent with the approved plans, <u>ensuring the parapet wall abutting the loading bay is suitably treated to minimise visual bulk.</u> The schedule shall include details of the type of materials proposed to be used, including their colour and texture.</i></p> <p>Only concept information is provided. The building is high alongside the loading bay. More detail and refinements are suggested, especially for the easterly facing parapet wall.</p>
<p>3.5 Details of the controlled access to loading/delivery area to ensure access for service vehicles only</p>	<p>Amend this condition to say:</p> <p><i>3.5 Details of the controlled access to the loading/delivery area to ensure access for service vehicles only. <u>This shall include an integrated security gate and side panels to the full height of trucks, that prevents and fully screens views into the service / loading area from the north and north easterly perspective.</u></i></p> <p>The back, service area of the hospital building is oriented towards the primary frontage of the Vasse by Bunbury Farmers Market development. A block image looking at the hospital from the Farmers Market entry is provided below.</p> <p>It is imperative this area is suitably screened and visually treated to prevent views of the service area of trucks loading / unloading. Without this, the service area and vehicles loading / unloading is entirely visible not only across the primary guest activity and entrance area of the Farmers Market, it is also on show along the primary Vasse thoroughfare of Coomidup Boulevard and the cul-de-sac.</p> <p>The artistic screen depicted on the lodged plans has insufficient height. A permanent gate that is kept closed outside of service and delivery vehicles entering, is essential to prevent views into this space, the side screens and concept landscaping are inadequate alone.</p> <p>Although Condition 5 requires the <i>works and other measures undertaken to satisfy Conditions 2, 3 and 4 shall be subsequently maintained for the life of the development</i>, it is also necessary to ensure this integrated security gate remains closed once service and delivery vehicles have entered. It is views of this space empty as well as in operation that are sought to be prevented.</p> <p>Also add a new condition 5.5</p> <p><i><u>5.5 The integrated security gate to the loading bay must stay closed at all times, only opening to enable service and delivery vehicles to enter. Views of the loading bay empty as well as in use are to always be prevented.</u></i></p>



<p>3.8 A final Landscaping Plan (LP). The LP shall include the following:</p>	<p>Amend this condition to say</p> <p><i>j. screen views of the loading bay area and the adjoining easterly facing parapet wall.</i></p> <p>The landscaping concept compels refinement, in hand with the final design, screen and security gate treatments, to manage this space.</p>
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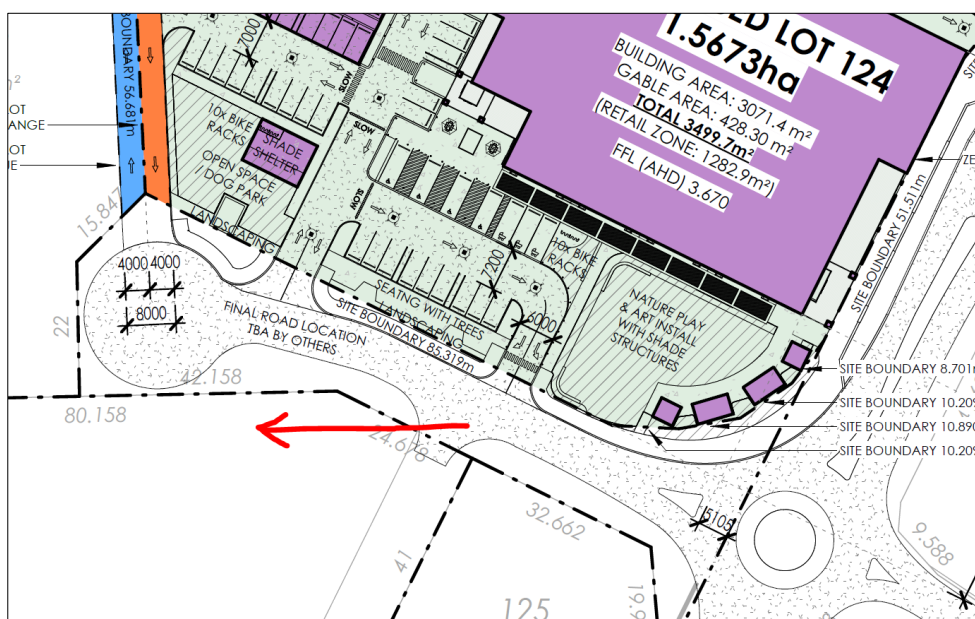
The following images provide some perspective views:



Perspective view from the Vasse by Bunbury Farmers Market primary entry, across the nature play area and cul-de-sac towards the hospital loading bay entry, noting views into loading bay operational / service space.



Site layout of the Vasse by Bunbury Farmers Market with approximate location / perspective into the hospital loading bay (red arrow)



Perspective looking north west, showing the footpath, and preferred pedestrian thoroughfare area, on the northern side of the cul-de-sac



Emerge Landscape concept for the nature play area





Perspective view from hospital loading bay across the Vasse by Bunbury Farmers Market



Perspective view from eastern side of Coomidup towards Vasse by Bunbury Farmers Market





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

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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	David Zimmerman, CEO
Company (if applicable)	Blackoak Capital
Please identify if you have any special requirements:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional Joint Development Assessment Panel
Meeting Date	29 th November 2022
DAP Application Number	DAP//22/02321
Property Location	Lot 9556 Napoleon Promenade Busselton
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 <input checked="" type="checkbox"/>
Is the presentation in support of or against the <u>report recommendation</u> ? (<i>contained within the Agenda</i>)	SUPPORT <input type="checkbox"/> AGAINST <input checked="" type="checkbox"/>
Is the presentation in support of or against the <u>proposed development</u> ?	SUPPORT <input checked="" type="checkbox"/> AGAINST <input type="checkbox"/>
Will the presentation require power-point facilities?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please attach



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	<i>The presentation will address:</i> High level overview of the proposal as it relates to the RAR, in particular concern with proposed condition 4.1.
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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:

Pleased with the level of engagement and the support of the City. We are generally happy with the requested conditions, excepting three specific points which I bring to the attention of the JDAP members.

1. A lengthy design process was carried out to arrive at the location and configuration of the built form on the land. The built form along Coomidup Boulevard is designed to provide active frontages for what are likely to be Allied Health related users and businesses wanting to be operating near the hospital. The landscaping and design has thought about this interface whilst dealing with the complex levels across the site.
2. The hospital is a very expensive building and hence it has been designed with the ability for it's operations to grow over the next 40 years within the proposed built form. This design has been peer reviewed by two separate architectural firms for the Vasse JV and the City. We don't see a need to expand the built form for several decades.
3. The suggested easement (condition 4.1) would create numerous operational issues and risks and we don't believe is supported by an wider traffic management plans or reports. It would create a hazardous "rat run" from Napoleon Promenade through our proposed car park to the new Bunbury Farmers Market creating risks for patients and staff. **We strongly request that this condition [4.1] be removed from the Development Approval.**



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Presenter Details

Name	Jeffrey Williams, CEO
Company (if applicable)	St. John of God, Bunbury Hospital
Please identify if you have any special requirements:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please state any accessibility or special requirements: Click or tap here to enter text.

Meeting Details

DAP Name	Regional Joint Development Assessment Panel
Meeting Date	29 th November 2022
DAP Application Number	DAP/22/02321
Property Location	Lot 9556 Napoleon Promenade Busselton
Agenda Item Number	8.2

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Will the presentation require power-point facilities?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please attach



Presentation Content*

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Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> Overview of the proposal from the perspective of St. John of God
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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:

- The St. John of God Bunbury Hospital has been in the South West for 95 years.
- Ongoing commitment to delivering patient focussed care closer to home.
- The proposed site has been identified following a detailed process. It offers proximal access the broader SW region including Busselton, Dunsborough and Margaret River.
- Significant time and planning has gone into the site, its service configuration and how it interplays with the Vasse Village and neighbouring functions including the Bunbury Farmers Market @ Vasse.
- SJGHC has designed the facility to continue meeting the needs of the community for the next forty years.
- There is a strong need to ensure the design meets the needs of our patrons.



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

Presenter Details

Name	Dan Pearce, Partner
Company (if applicable)	Hatch RobertsDay
Please identify if you have any special requirements:	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please state any accessibility or special requirements: Click or tap here to enter text.

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Will the presentation require power-point facilities?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please attach



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Brief sentence summary for inclusion on the Agenda	<i>The presentation will address:</i> Respond to the deputation at Item 7.1 by Ms Kanella Hope (Planned Focus) representing the Bunbury Farmers Market.
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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.

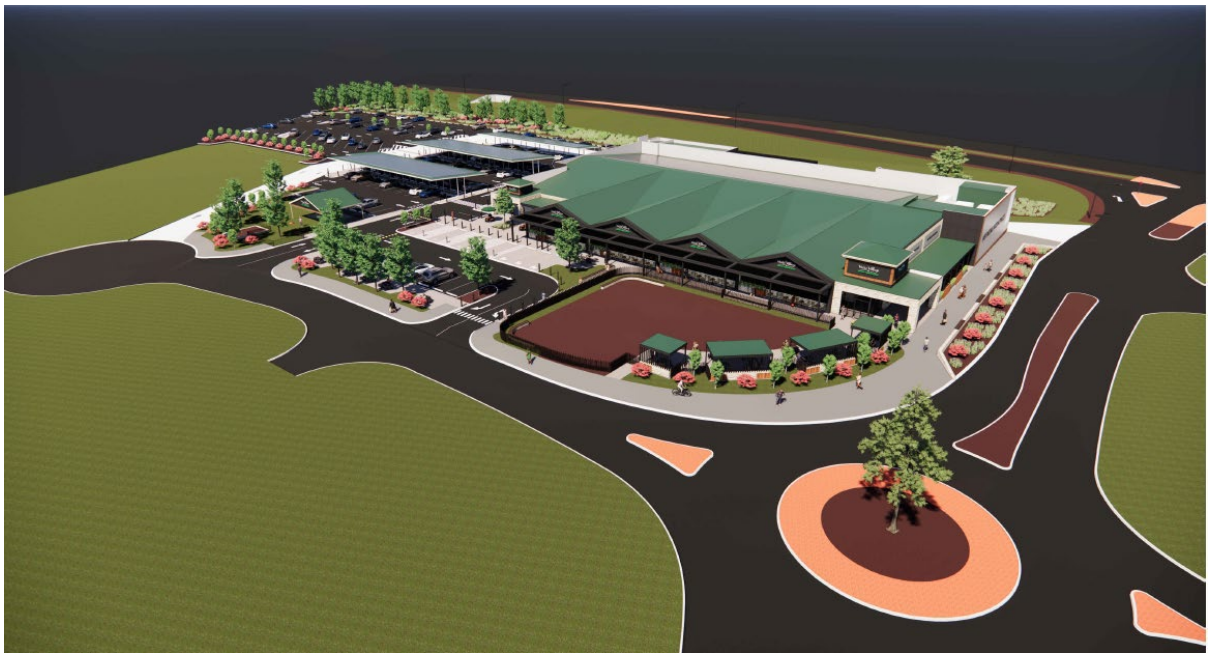
Please attach detailed content of presentation or provide below:

1. Responding to the various matters raised by Ms Hope on behalf of the Bunbury Farmers Market.
2. We support Ms Hope's requested modification to condition 3.1(g) for the reasons provided, however suggest the wording of any modified condition be as follows:

"Along the truncation adjacent to the intersection with the new access road, a footpath of minimum 3.0m width and 3.5m width wherever possible adjacent to the property boundary and providing suitable pedestrian linkage to proposed footpaths fronting development on the northern side of the new access road, with provision of suitable landscaping to provide separation between pedestrians and vehicles."
3. With respect to Ms Hope's recommended conditions and modification to conditions, 3.3, 3.5, 5.5 and 3.8 we make the following responses:
 - a) As demonstrated on the submitted plans and the figures below, the loading area will be developed to a high standard consistent with the build quality and landscape response of the rest of the Hospital.
 - b) The area will be finished in high quality cladding and materials, with the use of trees and a landscaped arbor structure providing screening of the dock, coupled with a security gate to control access. It was the intention of the applicant that portion of the required public art contribution might be used to create a bespoke gate structure to further enhance this aspect of the development.
 - c) The application was considered by both the City of Busselton and its design reviewer Mr Craig Smith with neither party requesting that this aspect of the development be subject to further refinement or investigation.
 - d) It is not necessary for the current conditions to be modified or new conditions imposed at this late stage, to compel specific design treatments to achieve this high-quality outcome.



- e) In particular we are concerned with the request to increase the height of screening devices “to the full height of trucks” considering this has not been costed or investigated to understand the implications of this last-minute request.
- f) Considering the disposition of parking and buildings of the Farmers Market opposite, we consider the current design response satisfactorily addresses this interface.
- g) The applicants will continue to work with the proponents of the Farmers Market to ensure the two developments complement each other and contribute to a high-quality environment for the clients of both facilities and the general public.





Government of **Western Australia**
Development Assessment Panels



Vasse Day Hospital





Government of **Western Australia**
Development Assessment Panels



EXPLORATION DRIVE, No. 106 (LOT 106) GAP RIDGE – INDUSTRY - GENERAL | WORKSHOP, WAREHOUSE AND OFFICES

Form 1 – Responsible Authority Report (Regulation 12)

DAP Name:	Regional Joint Development Assessment Panel (JDAP)	
Local Government Area:	City of Karratha	
Applicant:	Colin Gardiner/Modus Design Pty Ltd	
Owner:	Monadelphous Properties Pty Ltd	
Value of Development:	\$12.5 million <input checked="" type="checkbox"/> Mandatory (Regulation 5) <input type="checkbox"/> Opt In (Regulation 6)	
Responsible Authority:	City of Karratha	
Authorising Officer:	Jerom Hurley – Manager Approvals and Compliance Services	
LG Reference:	DA22147	
DAP File No:	DAP/22/02335	
Application Received Date:	16 September 2022	
Report Due Date:	2 November 2022	
Application Statutory Process Timeframe:	60 Days	
Attachment(s):	1. Location Plan 2. DAP Form 1 3. City of Karratha DA Form 4. Certificate of Title 5. Site Survey 6. Development Plans and Elevations 7. Typical Traffic Report 8. Stormwater Plans 9. Cover Letter 10. Gap Ridge - Design Guidelines Lodgement Checklist 11. Parking and Landscape Arrangement 12. Amended Stormwater Plan 13. Amended Development Plans and Elevations	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	<input type="checkbox"/> Yes	Complete Responsible Authority Recommendation section
	<input checked="" type="checkbox"/> N/A	
	<input type="checkbox"/> No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Regional Joint Development Assessment Panel resolves to:

Approve DAP Application reference DAP/22/02335 and accompanying plans

Title: Site General Arrangement	A002	31.10.2022	Rev. G
Title: Parking and Landscape Arrangement	A003	31.10.2022	Rev. C
Title: Vehicle Tracking Plan	CI-03.00	28.10.2022	Rev. B
Title: Floor Plan	SK100	22.03.2022	Rev. 1
Title: Elevations	A200	22.03.2022	Rev. C
Title: Sections	SK300	22.03.2022	Rev. 1
Title: Perspectives	SK400	22.03.2022	Rev. 1
Title: Pavement & Grading Plan	CI-03.00	28.10.2022	Rev. B
Title: Pavement & Grading Details	CI-03.30	28.10.2022	Rev. B
Title: Stormwater Drainage Plan	CI-04.00	28.10.2022	Rev. B
Title: Stormwater Drainage Details	CI-04.30	28.10.2022	Rev. B

in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the City of Karratha Local Planning Scheme No. 8, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of 4 years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
2. Prior to the development becoming operational all parking, vehicle access and manoeuvring areas are to be sealed, line marked, kerbed, drained, and thereafter maintained to the satisfaction of the City of Karratha.
3. The parking bays are to be a minimum width of 2,700mm and a minimum length of 5,500mm.
4. The vehicle crossover(s) must be constructed in accordance with the City of Karratha's Vehicle Crossover Specifications, and thereafter maintained to the satisfaction of the City of Karratha.
5. Development plans being revised to address the policy requirements under DP15: Gap Ridge Industrial Estate Development Requirements for front fencing to be located behind the front landscaping strip.
6. Prior to occupation of the development, landscaping and reticulation is to be installed in accordance with the endorsed landscaping and reticulation plans and is to be maintained to the satisfaction of the City of Karratha at all times.
7. Prior to occupation of the development, stormwater management is to be implemented and installed in accordance with the approved plans and shall be maintained at all times to the satisfaction of the City of Karratha.
8. All stormwater shall be discharged in a manner that avoids discharge onto the adjoining properties to the satisfaction of the City of Karratha.

9. Any external lighting shall be installed and maintained so as to avoid causing distraction and/or nuisance to passing traffic, and neighbouring properties to the satisfaction of the City of Karratha.
10. No goods, materials or vehicles are to be stored or parked permanently in the designated parking bays, landscaped areas or within accessways.
11. Prior to commencement of construction, a Construction Environmental Management Plan shall be submitted to and approved by the City of Karratha and thereafter implemented to the satisfaction of the City of Karratha.
12. Damage to road pavements, kerbing, footpaths or City assets (as applicable) caused by construction activity including but not limited to vehicle movements, shall be repaired at the proponent's cost in accordance with specifications and works supervision and scheduling arrangements to be approved by the City of Karratha.

Advice Notes

- A. A Building Permit is required to be issued prior to the commencement of any on-site building works.
- B. For Condition 2, all aisle widths shall comply with AS2890.1 (Off-street car parking) and accessible parking bay shall comply with AS2890.6:2009 (Off-street parking for people with disabilities).
- C. For Condition 4; before commencing any works on the vehicle crossover, the owner/developer must contact the City's Technical Services Department on 9186 8546 to discuss these works. Crossovers shall be built to the City of Karratha's standard for commercial crossovers.

Please see the Commercial Concrete Crossover Standard Drawing (KSD-1002) which can be downloaded from https://karratha.wa.gov.au/system/files/ksd-1002_commercial_crossover.pdf

- D. For Condition 11, the Applicant must submit and have approved by the Local Government, a Construction Environmental Management Plan addressing (but not limited to) the following matters:
 - Dust, odour, noise emissions;
 - Incident management;
 - Cyclone preparedness and management;
 - Sediment and erosion control and stormwater management.
- E. A separate application for development approval may be required to be submitted to the City of Karratha for assessment and approval of signage that does not meet the development standards of the City's Policy DP22 Advertising Signs.

- F. It is the responsibility of the proponent to submit an application to the City's Environmental Health Services for any health approvals required under the *Health Act 1911*.
- G. Any wash down of plant, vehicles or equipment must be carried out over a wash down pad with wastewater treated to remove solids and hydrocarbons prior to discharge to the environment. Please note that any petrol and oil arrestor such as a vertical gravity separator must be able to consistently produce a discharge having less than 15ppm hydrocarbons. A Health Act application including detailed plans and specifications of the facility and appropriate fee must be submitted together with building plans prior to the issue of a building licence. The facility should include a bunded area, draining to a petrol and oil arrestor system, and is to be protected by a roof and a spray barrier.
- H. Hazardous areas where dangerous goods are stored and handled must be in accordance with the *Dangerous Goods Safety Act 2004* and subsidiary legislation including approved codes of practice.
- I. The proposed development must maintain compliance with the *Environmental Protection (Noise) Regulations 1997* at all times to the satisfaction of the City of Karratha.
- J. It is the responsibility of the applicant to ensure that building setbacks correspond with the legal description of the land. This may necessitate re-surveying and re-pegging the site. The City of Karratha will take no responsibility for incorrectly located buildings.
- K. It is the responsibility of the applicant/owner to search the title of the property to ascertain the presence of any easements and/or restrictive covenants that may apply.
- L. During the course of constructing the works the applicant shall be responsible for all aspects of the works, including public safety and shall ensure adequate barricades, signage and other warning devices are in place at all times. Prior to the commencement of the works the applicant shall submit a traffic management plan for works affecting external roads.
- M. Should the proponent be aggrieved by this decision, or any of the conditions imposed, there is a right of review under the *Planning and Development Act 2005*. An application for review must be submitted in accordance with Part XIV of the *Planning and Development Act 2005* within twenty-eight (28) days of the date of this decision to: the State Administrative Tribunal, GPO Box U1991, Perth, WA 6845. Further information regarding this right of review is available on the SAT website www.sat.justice.wa.gov.au or by phoning 1300 306 017.

Details: outline of development application

Region Scheme	N/A
Region Scheme - Zone/Reserve	N/A
Local Planning Scheme	City of Karratha Local Planning Scheme No. 8
Local Planning Scheme - Zone/Reserve	Industrial Development (Zone) Local Road (Reserve)
Structure Plan/Precinct Plan	Gap Ridge Industrial Estate Development Plan (SPN/0402)
Structure Plan/Precinct Plan - Land Use Designation	Industry – General
Use Class and permissibility:	Industry – General; ‘D’
Lot Size:	6.8927 ha
Existing Land Use:	Hardstand Laydown Area
State Heritage Register	No
Local Heritage	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Heritage List <input type="checkbox"/> Heritage Area
Design Review	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Local Design Review Panel <input type="checkbox"/> State Design Review Panel <input type="checkbox"/> Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

The application proposes the development of a warehouse, associated administrative offices and storage/laydown area that will support the operations of the construction and engineering firm within proximity to Karratha. The proposed development includes:

- Warehouse (consisting of three (3) workshops);
 - Workshop 1 – MIS (865m²)
 - Workshop 2 – EC (1032m²)
 - Workshop 3 – Group Assets (884m²)
- Vehicle washdown bay (187m²);
- Offices;
- Laydown and storage areas; and
- Sealed internal accessways, carparking and landscaping.

When considering the City of Karratha Local Planning Scheme No. 8 (the Scheme) zoning table and approved Structure Plan (Gap Ridge Industrial Estate – Development Plan (SPN/0402)) and permissibility of land uses therein, the following use class and permissibility apply:

Use Class	Permissibility
Industry – General	Permitted

Based on the above use classes and use permissibility, the proposed use can be approved on the subject site.

Background:

The subject site (Lot 106 Exploration Drive) is located in the Gap Ridge Industrial Estate, which is approximately 9km from the Karratha City Centre (see Location Plan – Attachment 1). The site is currently partially developed, with approximately 50% of the northern portion of the site containing an approved 'laydown/ storage area'. A heavy/large crossover connects this portion of the site to Exploration Drive, which is the main road servicing the Gap Ridge Industrial Estate.

The following land uses and development surround the site:

North – The adjoining lot to the north (being Lot 105 on DP 71037) consists of two sublease areas, one is utilised strictly as a storage laydown area, and one is a storage laydown use with a warehouse located facing Exploration Drive.

East – Exploration Drive road reserve with an associated drainage swale. Further to the east of Exploration Drive is the remaining undeveloped parent lot (Lot 9006) of the Gap Ridge Industrial Estate. This area of land is shown as 'General Industry' zoning under the approved Structure Plan for the Gap Ridge Industrial Estate.

South – The adjoining lot (Lot 107 on DP 71037) to the south has a number of sublease areas that provide for a transport and logistics yard, storage and laydown area for a piping company that services the resource and energy sector, and a number of smaller storage yards.

West – The rear of the lot abuts a drainage reserve managed by the City that conveys stormwater away from the industrial estate. Further to the west beyond this drainage reserve is Rio Tinto's (formerly Hamersley Iron) railway servicing and shunting yard.

Legislation and Policy:

Legislation

Planning and Development Act 2005

Planning and Development (Local Planning Schemes) Regulations, 2015

City of Karratha Local Planning Scheme No. 8

City of Karratha Local Planning Strategy

State Government Policies

State Planning Policy 3.4 Natural Hazards and Disasters

State Planning Policy 3.7 Planning in Bushfire Prone Areas

State Planning Policy 4.1 State Industrial Interface

Structure Plans/Activity Centre Plans

Gap Ridge Industrial Estate Structure Plan

Local Planning Policies

DP15 – Gap Ridge Industrial Estate Development Requirements

DP22 – Advertising Signs

Consultation:

Public Consultation

The proposed development is not considered to be a complex application under the Deemed Provisions. The proposed development (which is defined as 'Industry – General' and is a 'D' use), aligns with the typology and character of the area, as depicted by the design requirements on the Gap Ridge Structure Plan. Therefore, it is deemed that due to the conformity of the development and desired typology of the area that the application, in this instance did not require further public consultation.

Referrals/consultation with Government/Service Agencies

In accordance with contractual requirements, the applicant referred the proposed development to Development WA, the subdivider of the Gap Ridge Industrial Estate. Development WA has Mandatory Design Requirements that any prospective proponent must consider in the design of their developments within the Gap Ridge Industrial Estate. Development WA has authorised the proposed development as satisfying the Mandatory Design Requirements. Development WA's assessing consultant raised some minor design matters that are addressed in the Planning Assessment section of this report.

Clause 66 (1) of Part 9, Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015* states that...*When, in the opinion of the local government, an application for development approval may affect any other statutory, public or planning authority, the local government is to provide a copy of the application to the authority for objections and recommendations.* The development application was referred to the following authorities on 5 October 2022:

External Agency	Comments/ Recommendations
Water Corporation	<p>Reticulated water and sewerage is currently available for the subject site. If our assets are affected by the proposed development the developer may be required to fund new works or the upgrading of existing works and protection of all works.</p> <p>This proposal will require approval by our Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.</p> <p>For further information about building applications, the developer should follow this link: https://www.watercorporation.com.au/home/builders-and-developers/building/lodging-a-building-application</p>

	<p>The information provided above is subject to review and may change. If the proposal has not proceeded within the next 6 months, please contact us to confirm that this information is still valid.</p> <p>Please provide the above comments to the landowner, developer and/or their representative.</p>
Horizon Power	<p>No response was received by Horizon Power for this application.</p> <p>Recent correspondence from Horizon Power for DAP/22/02221 – DA22025, within the ‘Gap Ridge Industrial Estate’ stated:</p> <p><i>“...the lot is already developed with provision for connection to the power network.</i></p> <p><i>The customers actual connection capacity will be assessed and any required network augmentation will be quoted in response to a formal connection application.”</i></p> <p>It is known that all lots sold by Development WA in the industrial estate are serviced by power.</p>

Design Review Panel Advice

Not Applicable.

Other Advice

The proposed development was also referred to all relevant departments within the City of Karratha, including Building and Technical Services.

Advice received is detailed below:

Internal Referral	Comments/ Recommendations
<i>Building Services</i>	No concerns were raised. The certifier will need to check facilities numbers against occupant numbers to determine compliance. Full assessment of fire safety measures will come via certifier.
<i>Environmental Health Services</i>	The EH Services team have provided an array of comments and conditions relating to requirements under health legislation, policy, guidelines. None of these impact the design or proposed use under this proposal. Relevant advice notes are recommended to be included to identify to the proponent matters that should be considered.

<i>Waste Services</i>	It was noted that the proponent would need to arrange waste collection for the site.
<i>Technical Services</i>	<p>The application was initially referred to the Tech Services team, who provided comments seeking further information relating to:</p> <ul style="list-style-type: none"> - Stormwater Management - Crossover Location and Design - Car Park Dimensions - Sealed Areas <p>Subsequently a 'Further Information Request' was initiated seeking the Applicant to address the above matters.</p> <p>The additional information was received for review by the City on 1 November 2022.</p> <p>Tech Services have reviewed the amended plans and provide the following comments:</p> <p><u>Crossover</u></p> <ul style="list-style-type: none"> • <i>Crossovers shall be built to the City of Karratha's Standard for commercial crossovers. (Condition & Advice Note)</i> • <i>Please see the Commercial Concrete Crossover Standard Drawing (KSD-1002) which can be downloaded from https://karratha.wa.gov.au/commercial_crossover (Advice Note)</i> • <i>City approval is required before undertaking any construction works of crossover. Please note that the crossover approval is a separate approval process. (Advice Note)</i> <p><u>Aisle Widths</u></p> <ul style="list-style-type: none"> • <i>Aisle widths shall comply with AS2890.1 (Off-street car parking) (Advice Note)</i> <p><u>Parking Dimensions</u></p> <ul style="list-style-type: none"> • <i>Please provide the dimensions of the parking bays. Angle Parking bays need to be 2.7m x 5.5m as per section 5.11.15 of the City of Karratha Local planning Scheme 8. (Condition)</i> • <i>Accessible parking bay shall comply with AS2890.6:2009(Off-street parking for people with disabilities)</i> • <i>The car park area shall be line marked. (Condition)</i> <p><u>Traffic Management Plan</u></p> <ul style="list-style-type: none"> • <i>The contractor shall implement a suitable traffic management when constructing crossovers (Advice Note)</i>

	<p>The amended stormwater plan submitted following the further information request has been reviewed, it is identified to have provided adequate information for the City's Tech Services to review the documentation. In this regard, it is recommended that the standard condition requiring the implementation of the stormwater plan be included.</p> <p>The above comments have been considered and where appropriate included as conditions and advice notes, to ensure compliance with the required standards and provisions.</p>
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Planning Assessment:

Local Planning Scheme No. 8

The proposal is considered to generally meet all the relevant aims, objectives, and provisions of the Scheme.

Clause 5.11.15 of the Scheme requires that all angled parking bays require dimensions of 2,700mm width and 5,500mm length. The plans currently do not indicate the dimensions of the car parking bays. It is recommended that a condition of development approval be imposed requiring the parking bays to be 2700mm width and 5,500mm length.

The number of vehicle bays provided is compliant with Scheme provisions.

Local Planning Strategy

The subject site is shown under the City's endorsed Local Planning Strategy (LPS) as 'General Industry'. This proposal is considered to be consistent with the intent of the LPS.

State Planning Policies

3.4 – Natural Hazards and Disasters (SPP 3.4)

The City of Karratha is located within a cyclone prone area. The proposed development must be designed and constructed to meet required engineering standards for Region D cyclonic wind loads.

4.1 – State Industrial Interface (SPP4.1)

SPP 4.1 requires industries and infrastructure to be separated from residential areas and other sensitive land uses through the use of buffers. The proposed development is within a portion of an industrial estate designated for general industry on a Western Australian Planning Commission (WAPC) approved Structure Plan. The nearest planned sensitive land uses to this proposed development are approximately 1.5 kilometres away to the east. It is therefore considered that the proposal meets the objectives of SPP 4.1.

Structure Plans/Activity Centre Plans

There is an endorsed Structure Plan over the Gap Ridge Industrial Estate. The proposal is accordance with the Structure Plan.

Local Planning Policy

Under section 5.2.8 of DP15: Gap Ridge Industrial Estate Development Requirements, parking areas adjacent to road intersections are to be avoided. The proposal includes parking adjacent to the Exploration Drive intersection Magnetite Turn.

However, the development plans include landscaping along the frontage, and it is considered that this landscaping will soften, screen and break up the appearance of this parking to an acceptable level.

The policy recommends that front fencing be setback behind a 3.0 metre landscape strip. The submitted plans show fencing in front of the landscape strip. It is recommended that a condition be imposed requiring this matter to be addressed to the City's satisfaction.

Conclusion:

It is considered that the submitted plans and recommended conditions of approval will ensure that the objectives and provisions of the Scheme, State and Local Planning Policies will be adhered to.

Alternatives

The JDAP may consider an alternative to the City's recommendation.

EXPLORATION DRIVE, No. 106 (LOT 106) GAP RIDGE – INDUSTRY - GENERAL | WORKSHOP, WAREHOUSE AND OFFICES

Form 1 – Responsible Authority Report (Regulation 12)

DAP Name:	Regional Joint Development Assessment Panel (JDAP)	
Local Government Area:	City of Karratha	
Applicant:	Colin Gardiner/Modus Design Pty Ltd	
Owner:	Monadelphous Properties Pty Ltd	
Value of Development:	\$12.5 million <input checked="" type="checkbox"/> Mandatory (Regulation 5) <input type="checkbox"/> Opt In (Regulation 6)	
Responsible Authority:	City of Karratha	
Authorising Officer:	Jerom Hurley – Manager Approvals and Compliance Services	
LG Reference:	DA22147	
DAP File No:	DAP/22/02335	
Application Received Date:	16 September 2022	
Report Due Date:	2 November 2022	
Application Statutory Process Timeframe:	60 Days	
Attachment(s):	1. Location Plan 2. DAP Form 1 3. City of Karratha DA Form 4. Certificate of Title 5. Site Survey 6. Development Plans and Elevations 7. Typical Traffic Report 8. Stormwater Plans 9. Cover Letter 10. Gap Ridge - Design Guidelines Lodgement Checklist 11. Parking and Landscape Arrangement 12. Amended Stormwater Plan 13. Amended Development Plans and Elevations	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A	Complete Responsible Authority Recommendation section
	<input type="checkbox"/> No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Regional Joint Development Assessment Panel resolves to:

Approve DAP Application reference DAP/22/02335 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the City of Karratha Local Planning Scheme No. 8, subject to the following conditions:

Conditions

1. This decision constitutes planning approval only and is valid for a period of 4 years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
2. Prior to the development becoming operational all parking, vehicle access and manoeuvring areas are to be sealed, line marked, kerbed, drained, and thereafter maintained to the satisfaction of the City of Karratha.
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9. Any external lighting shall be installed and maintained so as to avoid causing distraction and/or nuisance to passing traffic, and neighbouring properties to the satisfaction of the City of Karratha.
10. No goods, materials or vehicles are to be stored or parked permanently in the designated parking bays, landscaped areas or within accessways.
11. Prior to commencement of construction, a Construction Environmental Management Plan shall be submitted to and approved by the City of Karratha and thereafter implemented to the satisfaction of the City of Karratha.

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Advice Notes

- A. A Building Permit is required to be issued prior to the commencement of any on-site building works.
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Details: outline of development application

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Region Scheme - Zone/Reserve	N/A
Local Planning Scheme	City of Karratha Local Planning Scheme No. 8
Local Planning Scheme - Zone/Reserve	Industrial Development (Zone) Local Road (Reserve)
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Structure Plan/Precinct Plan - Land Use Designation	Industry – General
Use Class and permissibility:	Industry – General; ‘D’
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Design Review	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Local Design Review Panel <input type="checkbox"/> State Design Review Panel <input type="checkbox"/> Other
Bushfire Prone Area	No
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Proposal:

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Legislation and Policy:

Legislation

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Consultation:

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Water Corporation	<p>Reticulated water and sewerage is currently available for the subject site. If our assets are affected by the proposed development the developer may be required to fund new works or the upgrading of existing works and protection of all works.</p> <p>This proposal will require approval by our Building Services section prior to commencement of works. Infrastructure contributions and fees may be required to be paid prior to approval being issued.</p> <p>For further information about building applications, the developer should follow this link: https://www.watercorporation.com.au/home/builders-and-developers/building/lodging-a-building-application</p>

	<p>The information provided above is subject to review and may change. If the proposal has not proceeded within the next 6 months, please contact us to confirm that this information is still valid.</p> <p>Please provide the above comments to the landowner, developer and/or their representative.</p>
Horizon Power	<p>No response was received by Horizon Power for this application.</p> <p>Recent correspondence from Horizon Power for DAP/22/02221 – DA22025, within the ‘Gap Ridge Industrial Estate’ stated:</p> <p><i>“...the lot is already developed with provision for connection to the power network.</i></p> <p><i>The customers actual connection capacity will be assessed and any required network augmentation will be quoted in response to a formal connection application.”</i></p> <p>It is known that all lots sold by Development WA in the industrial estate are serviced by power.</p>

Design Review Panel Advice

Not Applicable.

Other Advice

The proposed development was also referred to all relevant departments within the City of Karratha, including Building and Technical Services.

Advice received is detailed below:

Internal Referral	Comments/ Recommendations
<i>Building Services</i>	No concerns were raised. The certifier will need to check facilities numbers against occupant numbers to determine compliance. Full assessment of fire safety measures will come via certifier.
<i>Environmental Health Services</i>	The EH Services team have provided an array of comments and conditions relating to requirements under health legislation, policy, guidelines. None of these impact the design or proposed use under this proposal. Relevant advice notes are recommended to be included to identify to the proponent matters that should be considered.

Waste Services	It was noted that the proponent would need to arrange waste collection for the site.
Technical Services	<p>The application was initially referred to the Tech Services team, who provided comments seeking further information relating to:</p> <ul style="list-style-type: none"> - Stormwater Management - Crossover Location and Design - Car Park Dimensions - Sealed Areas <p>Subsequently a 'Further Information Request' was initiated seeking the Applicant to address the above matters.</p> <p>The additional information was received for review by the City on 1 November 2022.</p> <p>Tech Services have reviewed the amended plans and provide the following comments:</p> <p><u>Crossover</u></p> <ul style="list-style-type: none"> • Crossovers shall be built to the City of Karratha's Standard for commercial crossovers. (Condition & Advice Note) • Please see the Commercial Concrete Crossover Standard Drawing (KSD-1002) which can be downloaded from https://karratha.wa.gov.au/commercial_crossover (Advice Note) • City approval is required before undertaking any construction works of crossover. Please note that the crossover approval is a separate approval process. (Advice Note) <p><u>Aisle Widths</u></p> <ul style="list-style-type: none"> • Aisle widths shall comply with AS2890.1 (Off-street car parking) (Advice Note) <p><u>Parking Dimensions</u></p> <ul style="list-style-type: none"> • Please provide the dimensions of the parking bays. Angle Parking bays need to be 2.7m x 5.5m as per section 5.11.15 of the City of Karratha Local planning Scheme 8. (Condition) • Accessible parking bay shall comply with AS2890.6:2009(Off-street parking for people with disabilities) • The car park area shall be line marked. (Condition) <p><u>Traffic Management Plan</u></p> <ul style="list-style-type: none"> • The contractor shall implement a suitable traffic management when constructing crossovers (Advice Note)

	<p>The amended stormwater plan submitted following the further information request has been reviewed, it is identified to have provided adequate information for the City's Tech Services to review the documentation. In this regard, it is recommended that the standard condition requiring the implementation of the stormwater plan be included.</p> <p>The above comments have been considered and where appropriate included as conditions and advice notes, to ensure compliance with the required standards and provisions.</p>
--	--

Planning Assessment:

Local Planning Scheme No. 8

The proposal is considered to generally meet all the relevant aims, objectives, and provisions of the Scheme.

Clause 5.11.15 of the Scheme requires that all angled parking bays require dimensions of 2,700mm width and 5,500mm length. The plans currently do not indicate the dimensions of the car parking bays. It is recommended that a condition of development approval be imposed requiring the parking bays to be 2700mm width and 5,500mm length.

The number of vehicle bays provided is compliant with Scheme provisions.

Local Planning Strategy

The subject site is shown under the City's endorsed Local Planning Strategy (LPS) as 'General Industry'. This proposal is considered to be consistent with the intent of the LPS.

State Planning Policies

3.4 – Natural Hazards and Disasters (SPP 3.4)

The City of Karratha is located within a cyclone prone area. The proposed development must be designed and constructed to meet required engineering standards for Region D cyclonic wind loads.

4.1 – State Industrial Interface (SPP4.1)

SPP 4.1 requires industries and infrastructure to be separated from residential areas and other sensitive land uses through the use of buffers. The proposed development is within a portion of an industrial estate designated for general industry on a Western Australian Planning Commission (WAPC) approved Structure Plan. The nearest planned sensitive land uses to this proposed development are approximately 1.5 kilometres away to the east. It is therefore considered that the proposal meets the objectives of SPP 4.1.

Structure Plans/Activity Centre Plans

There is an endorsed Structure Plan over the Gap Ridge Industrial Estate. The proposal is accordance with the Structure Plan.

Local Planning Policy

Under section 5.2.8 of DP15: Gap Ridge Industrial Estate Development Requirements, parking areas adjacent to road intersections are to be avoided. The proposal includes parking adjacent to the Exploration Drive intersection Magnetite Turn.

However, the development plans include landscaping along the frontage, and it is considered that this landscaping will soften, screen and break up the appearance of this parking to an acceptable level.

The policy recommends that front fencing be setback behind a 3.0 metre landscape strip. The submitted plans show fencing in front of the landscape strip. It is recommended that a condition be imposed requiring this matter to be addressed to the City's satisfaction.

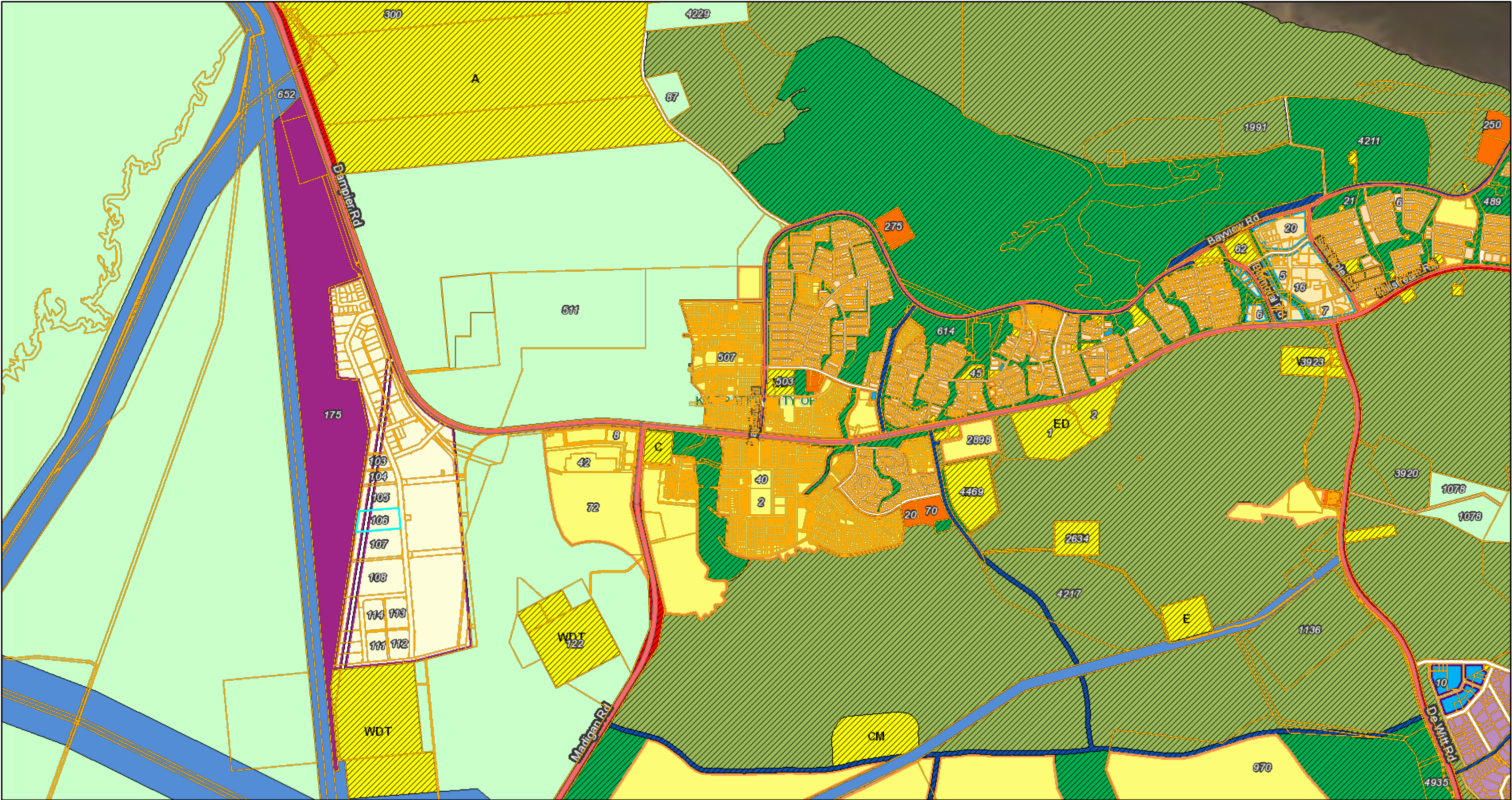
Conclusion:

It is considered that the submitted plans and recommended conditions of approval will ensure that the objectives and provisions of the Scheme, State and Local Planning Policies will be adhered to.

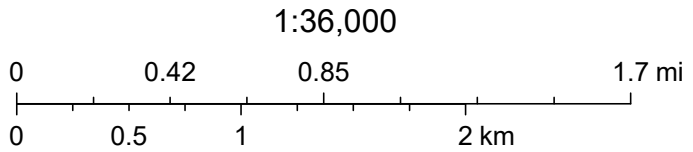
Alternatives

The JDAP may consider an alternative to the City's recommendation.

Location Plan - Lot 106 Exploration Drive, GAP RIDGE



11/11/2022, 3:41:59 PM



SLIP / LANDGATE, Esri, HERE, Garmin, USGS, METI/NASA, LANDGATE/SLIP, SLIP/LANDGATE, SLIP/Landgate, Landgate / SLIP



DAP FORM 1

Notice of Development Application to be Determined by a Development Assessment Panel

Planning and Development Act 2005

Planning and Development (Development Assessment Panel) Regulations 2011 – regulations 7, 10 and 21

Application Details

To	Name of local government and/or Western Australian Planning Commission City of Karratha		
Planning Scheme(s)	Name of planning scheme(s) that applies to the prescribed land Local Planning Scheme [LPS] 8 / Structure plan area DA24		
Land	Lot number, street name, town/suburb Lot 106, Exploration Drive, Gap Ridge		
Certificate of Title (provide copy)	Volume Number 2782	Folio 860	
	Location Number	Plan / Diagram Number 106/DP71307	
Details of development application made to responsible authority	Summary of Proposal Workshops, Wash Bay and Ancillary office development		
Development Use	Residential / Commercial / Industrial / Rural / Mixed Use / Other Industrial		
Estimated cost of development (GST Exc)	\$ 12,560,000		

Part A – Acknowledgement by Applicant and Landowner

Mandatory Application	<input checked="" type="checkbox"/> I give notice that I understand that this is a mandatory Development Assessment Panel application (regulation 5)
Optional Application	<input type="checkbox"/> I give notice that I have elected to have the development application that accompanies this form determined by a Development Assessment Panel (regulation 6)
Delegated Application	<input type="checkbox"/> I give notice that I understand that this is an application of a class delegated to a Development Assessment Panel for determination (regulation 9)


Applicant Details (to be completed and signed by applicant)

- By completing this notice, I declare that all the information provided in this application is true and correct.
- I understand that the information provided in this notice, and attached forming part of the development application will be made available to the public on the Development Assessment Panel and local government websites.

Name	Colin Gardiner		
Company	Modus Design Pty Ltd		
Address	Street Number/PO Box number, street name, suburb, state, postcode PO BOX 222 Como WA 6952		
Contact Details	Email colin.gardiner@modus.net.au	Phone 9444 9511	
Signature		Date 02/09/2022	

Landowner Details (to be completed and signed if landowner is different from applicant)		
<ul style="list-style-type: none"> By completing this notice, consent is provided to submitting this application. If there are more than two landowners, please provide all relevant information on a separate page. Signatures must be provided by all registered proprietors or by an authorised agent as shown on the Certificate of Title. Alternatively, a letter of consent, which is signed by all registered proprietors or by the authorised agent, can be provided. Companies, apart from sole directors, are required to provide signatories for two directors, a director and the company seal or a director and a company secretary. 		
Company (if applicable)	Monadelphous Properties Pty Ltd	
Contact Details	Email jcollings@monadel.com.au	Phone 9316 6220
Address	Street Number/PO Box number, street name, suburb, state, postcode 59 Albany Highway, Victoria Park, Perth, Western Australia, 6100	
Name/s	Robert Velletri	Phil Trueman
Title/s	Landowner/Sole Director/Director (2 signatures required) Managing Director	Additional Landowner/Director/Secretary (if applicable) Chief Financial Officer
Signature/s		
Date		

Part B – Local government acceptance for assessment

Responsible Authority	<input checked="" type="checkbox"/> Local Government (LG) <input type="checkbox"/> * Western Australian Planning Commission (WAPC) <input type="checkbox"/> * Dual – Local Government and Western Australian Planning Commission <input type="checkbox"/> Building Management and Works (Department of Finance) – <i>Public Primary School Applications</i>	
* WAPC/DUAL reporting details	If WAPC or DUAL is selected, please provide details of relevant provision (or within covering letter)	
Fees for applications (DAP Regulations - Schedule 1)	\$31,976.80 Amount that has been paid by the applicant \$10,045.00 Amount to be paid by local government (delegated applications only - regulation 22)	
Statutory Timeframe (regulation 12)	<input checked="" type="checkbox"/> 60 days (advertising not required) <input type="checkbox"/> 90 days (advertising required or other scheme provision)	
LG Reference Number	DA 22147	
Name of planning officer (Report Writer)	Ben Leavy	
Position/Title	Senior Planner	
Contact Details	Email ben.leavy@karratha.wa.gov.au	Phone (08) 9186 8044
Planning Officer's Signature		Date accepted for assessment 16 Sep 2022

Please refer to the [Guidance Note: Lodging a DAP Application](#) for further information.

APPLICATION FOR DEVELOPMENT APPROVAL

Local Planning Scheme No.8



The City of Karratha is committed to working towards a paperless environment and reducing our environmental footprint, therefore we encourage you to complete and submit your application electronically. **Please lodge your Development Application via email to: development.admin@karratha.wa.gov.au**

PROPERTY DETAILS		
Street / House No:	Lot No: 106	Diagram or Plan No: 106/DP71307
Street Name: Exploration Drive		Suburb: Gap Ridge
Title Encumbrances (e.g. easements, restrictive covenants): Limitations L829963, L800238, L800239		
OWNER DETAILS (if more than two owners, please complete the multiple owner form at https://karratha.wa.gov.au/planning-forms)		
Company Name: Monadelphous Properties Pty Ltd		ABN (if applicable): 77 008 840 499
Owner Name: Rob Velletri		Owner Name: Phil Trueman
Position Title: Managing Director (only required when signing on behalf of a Company)		Position Title: Chief Financial Officer (only required when signing on behalf of a Company)
Signature:	Date: 9/8/2022	Signature: Date: 9.8.22
The application will NOT proceed without the signature of ALL owners. Please refer to the checklists for requirements relating to signing as Owner at https://karratha.wa.gov.au/planning-forms		
APPLICANT DETAILS (if different from Owner)		
Name/Company Name: Modus Design Pty Ltd		
Contact Person: Colin Gardiner		Phone Number: 9444 9511
E-mail Address: colin.gardiner@modus.net.au		
Postal Address: PO BOX 222 Como WA 6952		
<input checked="" type="checkbox"/> I have referred to the relevant checklists at https://karratha.wa.gov.au/planning-forms <input checked="" type="checkbox"/> If required to be publicly advertised, I understand that the information provided with this development application may be made available to the public for advertising purposes and that an additional fee will apply, in accordance with the City's fees and charges.		
Signature: Colin Gardiner		 <small>Digitally signed by Colin Gardiner DN: C=AU, E=colin.gardiner@modus.net.au, O=Modus Design, CN=Colin Gardiner Date: 2022.08.03 16:07:05+08'00'</small>
		Date: 3/8/22
APPLICATION DETAILS		
Description of proposed works and/or land use: Workshop, warehouse and offices		
Estimated cost of proposed development (ex. GST): \$12,560,000		
Nature of any existing buildings and/or land use:		
Is this application an amendment to an existing development approval? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Has development and/or use commenced? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (If yes and your application is not for an amendment, retrospective fees will apply)		
Is this an application to vary the Residential Design Codes and/or Local Planning Policy DP7? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, written justification is specifically required to demonstrate how the proposal meets the relevant design principles of the R-Codes. Forms for the provision of written justification and neighbour consent can be found at https://karratha.wa.gov.au/planning-forms .		

Applications are not considered formally lodged and accepted for consideration until all required information is received, the application form is completed and signed and the required fee has been paid. Failure to lodge a complete application will delay a decision. Applicants are encouraged to contact or arrange an appointment with a Planning Officer, by phoning 9186 8555 or alternatively attending the Administration Building at 7-17 Welcome Road, Karratha, as discussing your proposal at an early stage can avoid unnecessary delays. Visit www.karratha.wa.gov.au for further information.

WESTERN



AUSTRALIA

REGISTER NUMBER	
106/DP71037	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
2	29/2/2012

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
2782FOLIO
860

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.

BGRoberts
REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 106 ON DEPOSITED PLAN 71037

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

MONADELPHOUS PROPERTIES PTY LTD OF 59 ALBANY HIGHWAY, VICTORIA PARK
(T L829962) REGISTERED 11/1/2012

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

1. *L800238 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 7/12/2011.
2. *L800239 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 7/12/2011.
3. *L829963 CAVEAT BY WESTERN AUSTRALIAN LAND AUTHORITY LODGED 11/1/2012.

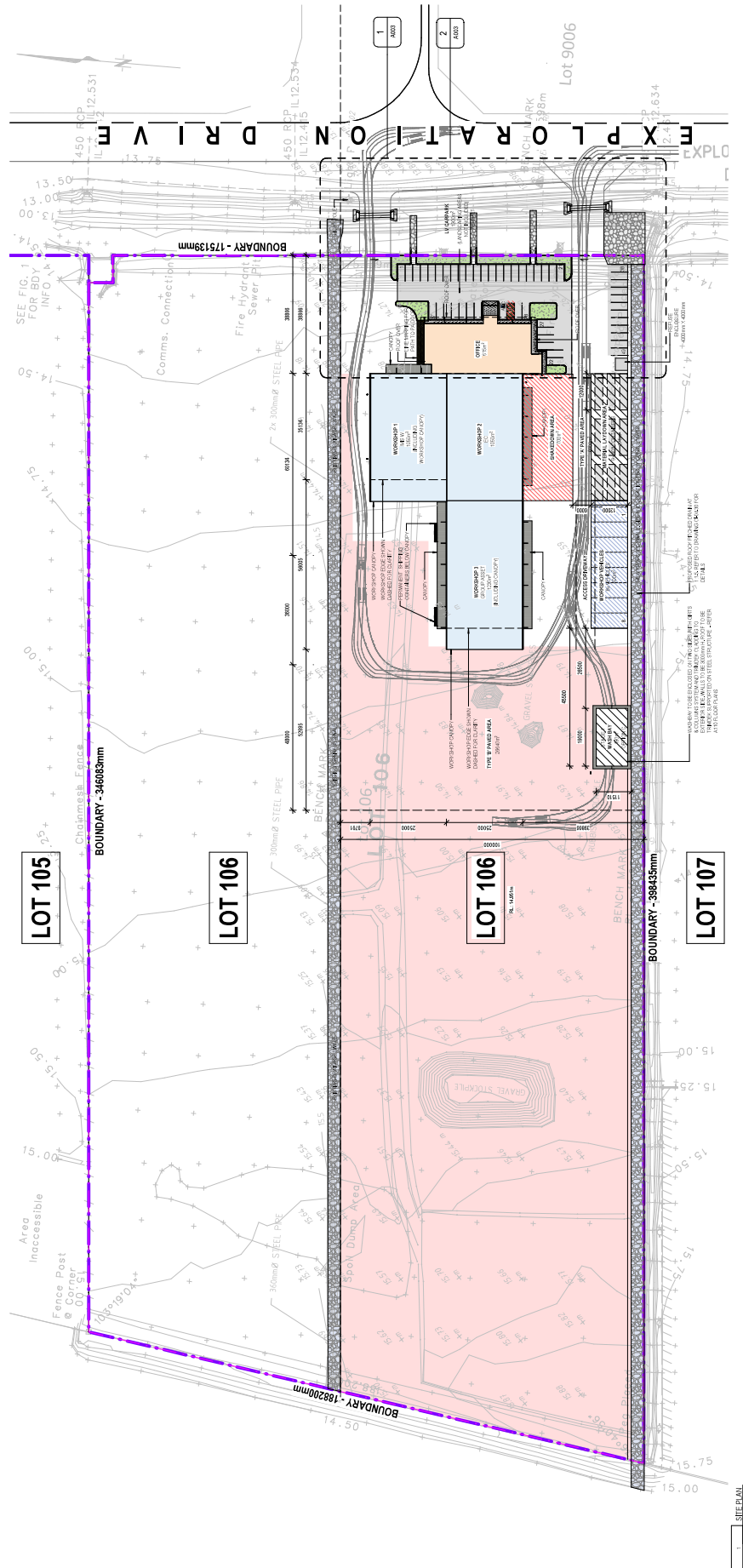
Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be 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: DP71037
PREVIOUS TITLE: 2746-542, 2746-543
PROPERTY STREET ADDRESS: LOT 106 EXPLORATION DR, GAP RIDGE.
LOCAL GOVERNMENT AUTHORITY: CITY OF KARRATHA

[illegible]

Contractor to verify all dimensions on site before commencing work. MACQUE Design Pty Ltd is to be notified of any discrepancies in the dimensions and setting out of the work.



1	9444 9511	SLATE 13
2	7344 9511	1333 9444 9511 9511

+ info@meds.net.au
 121 224 459
 121 224 459
 PO BOX 222
 CONWO WA 6952
 WEMBLEY 6014

**SITE GENERAL
ARRANGEMENT**

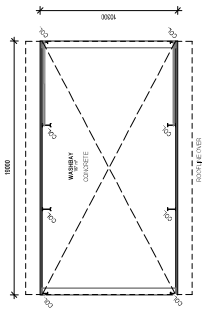
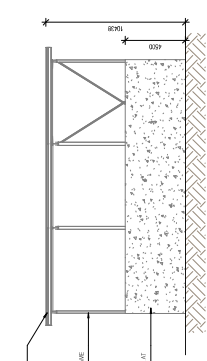
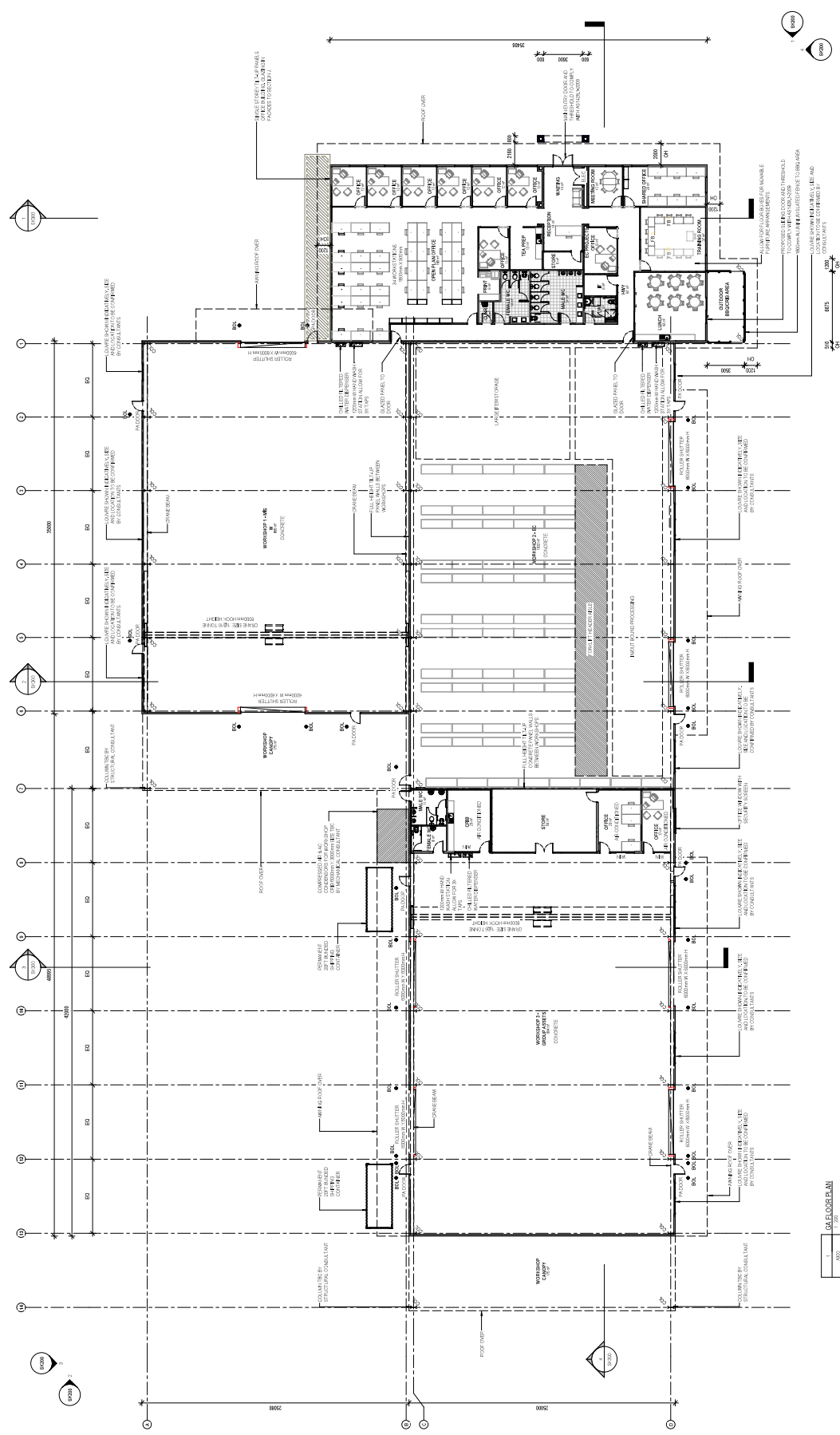
EMERGE MONADOLPHOUS GAP
RIDGE

MOBUS PROJECT D22-1563

DESIGN	SA
DRAWN	SA
CHECKED	CO
SCALE	1:750

DATE: 22.03.2022
REVISION: D

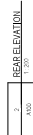
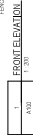
A1 DWS A002



1	GA FLOOR PLAN
ADDD	1-202

3	WASHBAY ELEV 1
	1/200

2	WASHBAY PLAN
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3	SIDE 1 ELEVATION
1:200	



1000000

Considerably all dimensions on site before commencing work. MACOS Design Pty Ltd is to be notified of any discrepancies in the dimensions and setting out of the work.

[illegible]

T 0000 3322
121 HEDSGAWN FUE
WEMBLEY 6014
• info@stud.ncl.ac.uk

ASN 27 121 224 459
ASN 121 224 459
PO BOX 222
COMO WA 9952

ELEVATIONS

EMERGE MONUMENTAL PHOENIX GAP

RIDGE

100

113

MCCLUS PROJECT D22-1563

Design	CA	CA
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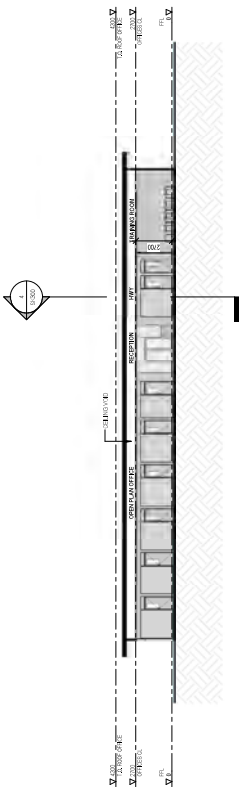
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 CHECKED BY
 SCALE 1:1000

DATE 22.03.2022

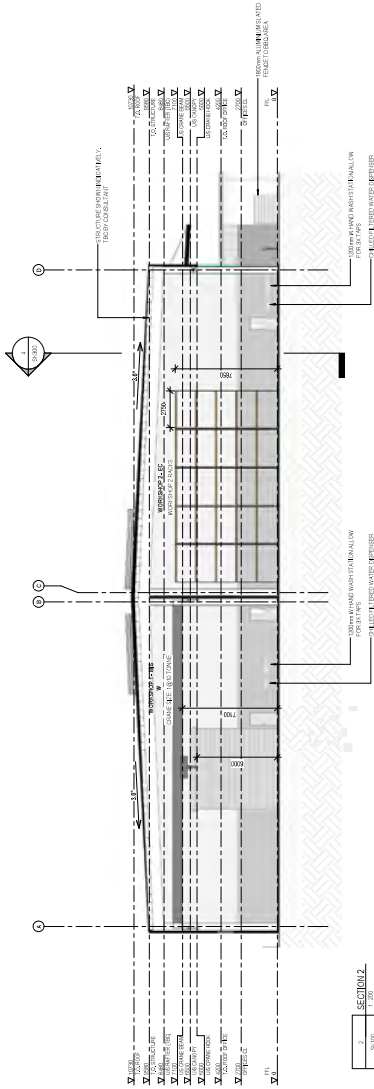
REVISION C

A1	A200
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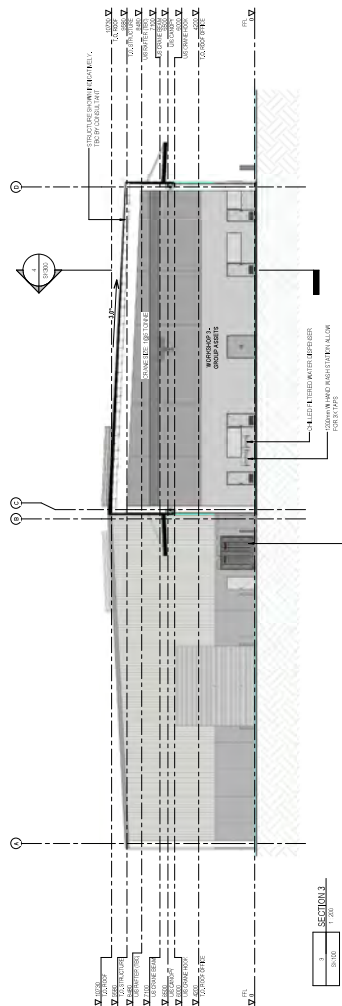
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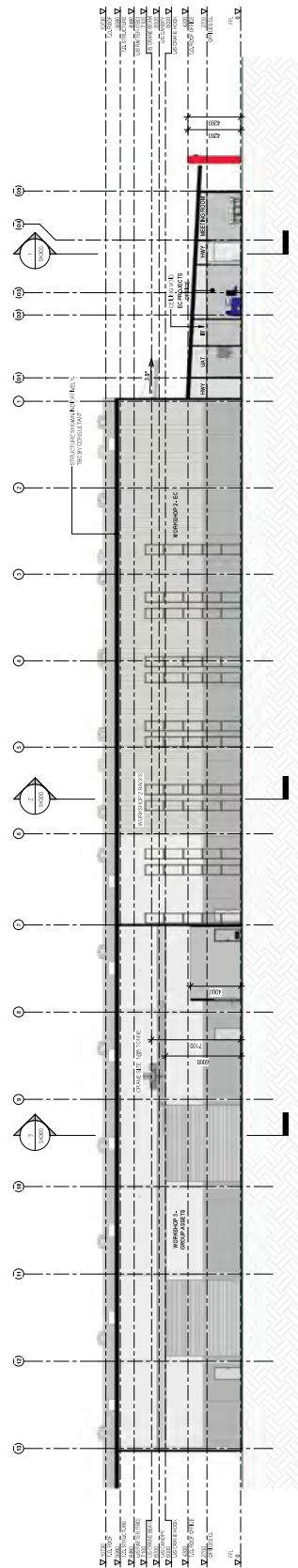
SECTION 1
1:200



SECTION 2
1:200



SECTION 3
1:200



SECTION 4
1:200



External Traffic

Type	Location	Frequency
45.5 tonne single trailer semi <ul style="list-style-type: none"> • Typical configuration 19m long • 9.0 x 16.5 tonne (tandem dual tyres – 8) x 20 tonne (tri group dual tyres – 12) 	All external areas excluding LV carpark	Daily
65 tonne B-Double – 27.5m long		
82 tonne double road train – 36.5m long		
33 tonne Kalmar Fork Lift <ul style="list-style-type: none"> • 22-24 tonne container lifts • Front axle fully loaded – 68.8 tonne • Rear axle fully loaded – 4.8 tonne 		
80 tonne Tadano Rough Terrain Crane <ul style="list-style-type: none"> • Vehicle gross weight 51.4 tonne • Front Axle – 24.3 tonne • Rear Axle 27.1 tonne 		Weekly
100 tonne float <ul style="list-style-type: none"> • Dolly and quad 25m long 		
750t Leibherr LT 1600/2 crawler crane	Road base hardstand areas only	Biannual
120 tonne B-Triple Road Train – 53.2m	N/A	Not Accessible – Would split trailers at truck stop

Internal Traffic

Type	Frequency
Light Vehicles (Toyota Hilux etc.)	Daily
Heavy Vehicles	
20 tonne Franna Crane	
80 tonne Tadano Rough Terrain Crane <ul style="list-style-type: none"> Vehicle gross weight 51.4 tonne Front Axle – 24.3 tonne Rear Axle 27.1 tonne 	Monthly
250 tonne crawler crane	Biannual
750t Leibherr LT 1600/2 crawler crane BODY <ul style="list-style-type: none"> As per Appendix I 	Biannual (EC Workshop Bay 1 only)



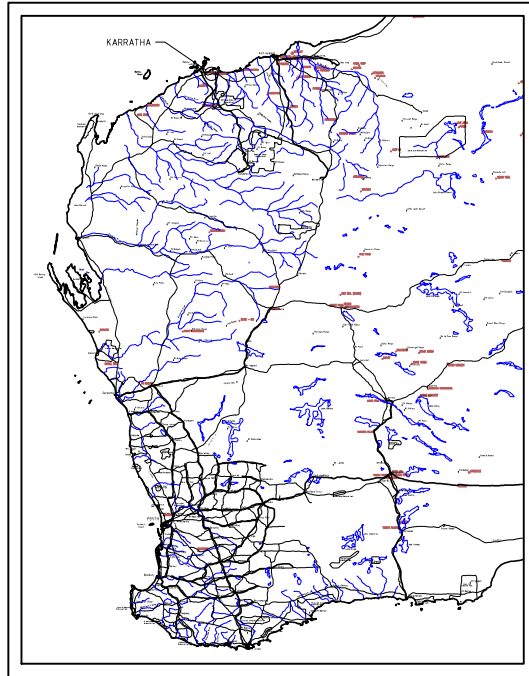
MONADELPHOUS

CIVIL WORKS

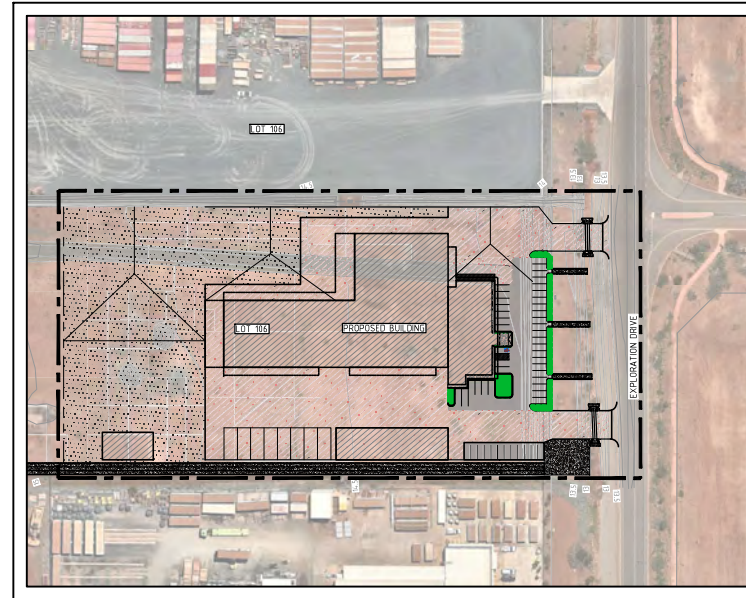
LOT 106 GAP RIDGE, KARRATHA, WA

PRELIMINARY

COPYRIGHT
ALL RIGHTS RESERVED. THIS WORK IS COPYRIGHT AND CANNOT BE REPRODUCED OR COPIED BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF PERITAS CONSULTING PTY LTD. ANY LICENSE EXPRESS OR IMPLIED TO USE THIS DOCUMENT FOR ANY PURPOSE WHATSOEVER IS RESTRICTED TO THE TERMS OF THE AGREEMENT BETWEEN PERITAS CONSULTING PTY LTD AND THE INSTRUCTING PARTY.



LOCALITY PLAN
NTS



SITE PLAN
SCALE: 1:1000

DRAWING SCHEDULE	
SHEET NUMBER	SHEET TITLE
CI-00.00	COVER SHEET
CI-01.00	STANDARD NOTES
CI-03.00	PAVEMENT AND GRADING PLAN
CI-04.00	STORMWATER DRAINAGE PLAN
CI-04.30	STORMWATER DRAINAGE TYPICAL DETAILS
CITY OF KARRATHA STANDARD DRAWINGS	
KSD-1002	STANDARD COMMERCIAL CONCRETE CROSSEOVER

1:1000 AT A1
0 10m 20m 40m 60m

NOT FOR CONSTRUCTION

REVISION	ISSUED FOR	DATE
A	ISSUED FOR INFORMATION	19.08.22



PERTH
P 08 8336 5299
A 34 COCKWOOD FIVE, BURWOOD, WA 6100
E ENQU@PERITASGROUP.COM.AU
MELBOURNE
F 03 9053 0292
A 1 QUEEN ROAD, MELBOURNE, VIC 3004
E INFO@PERITASGROUP.COM.AU

CLIENT



DESIGNED	DRAWN	CHECKED
L. RONCHI	A. OMELCHUK	E. BIAGIONI-FROUDIST
SURVEY DATUM	SCALE	SCALE
KARRA	N/A	@ A1
THIS IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		19.08.22

PROJECT
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

TITLE
COVER SHEET

PROJECT NUMBER	SHEET NUMBER	REV
PC21207	CI-00.00	A

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PERITAS CIVIL SPECIFICATION. BOTH THE CONTRACTOR AND SUBCONTRACTOR ARE DEEMED TO BE FULLY INFORMED OF THE CONTENTS AND REQUIREMENTS OF THE RELEVANT SECTION OF CIVIL SPECIFICATION.

- ## SITE INSPECTION

1. THE CONTRACTOR SHALL NOTIFY PERITAS CIVIL AND THE BUILDER OF THE DATE OF WORK COMMENCEMENT ON SITE.
2. SITE INSPECTIONS AT ANY STAGES OF CONSTRUCTION WILL BE REQUIRED TO BE CARRIED OUT BY REPRESENTATIVES OF PERITAS CIVIL. THE CONTRACTOR SHALL ~~USE WITH PERITAS CIVIL~~ TO ARRANGE FOR NECESSARY INSPECTIONS.
3. A MINIMUM OF 24 HOURS NOTICE FOR PERTH METRO AND 5 DAYS NOTICE FOR REGIONAL CENTRES IS REQUIRED FOR ANY SITE INSPECTION.

1. THE CONTRACTOR SHALL BE BOUND TO THE "A GUIDELINE FOR MANAGING THE IMPACTS OF DUST AND ASSOCIATED CONTAMINANTS FROM LAND DEVELOPMENT SITES, CONTAMINATED SITES REMEDIATION AND OTHER RELATED ACTIVITIES" PUBLISHED BY THE D.E.C. - MARCH 2011.

- AREAS OF FILL TO BE COMPACTED IN LAYERS IN ACCORDANCE WITH THE SPECIFICATION.
- REFERENCE SHALL BE MADE TO THE RELEVANT CLAUSES OF THE EARTHWORKS SPECIFICATION WHERE WORKS WITHIN PROPOSED ROAD RESERVES.
- THE ENTIRE EARTHWORKED AREA (EXCEPT PAVEMENTS) WHEN NOTED ON THE DRAWINGS SHALL BE STABILISED WITH HYDROMULCH IN ACCORDANCE WITH THE SPECIFICATION, THE CONTRACTOR SHALL PROVIDE DUSTING AND AN ADEQUATE DUST CONTROL DURING CONSTRUCTION, REFER TO SPECIFICATION.
- THE CONTRACTOR SHALL TAKE CARE WITH THE USE OF COMPACTION EQUIPMENT WITHIN THE VICINITY OF THE EXISTING RESIDUES SO AS TO AVOID VIBRATION DAMAGE TO BUILDINGS, COST OF REPAIRS FOR THE DAMAGE INCURRED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR,
- FOR VEGETATION NOTED TO BE CLEARED, THE CONTRACTOR SHALL MULCH THE VEGETATION AND DISPOSE OFF SITE.
- FINISHED SURFACE CONTOURS SHOWN ARE TOP OF PAVEMENT. CONTRACTOR TO CONSTRUCT EARTHWORKS TO BOX OUT STAGE.
- CONTRACTOR TO REMOVE FROM SITE ALL RUBBISH (CAR BODIES, DRUMS, ETC) WITHIN THE EARTHWORKS BOUNDARY TO AN APPROVED LOCAL AUTHORITY OR DEPOSITED AT AN APPROVED LANDFILL.
- AT EDGE OF EARTHWORKS BOUNDARY, CONTRACTOR TO BATTER AT 1 IN 6 TO NATURAL SURFACE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTE THAT NON-TRAFFICABLE SUBTERRANEAN STRUCTURES AND/OR VOIDS (SOAKWELLS, ETC) MAY EXIST ON THE SITE AND SHALL TAKE ADEQUATE MEASURES TO LOCATE THESE PRIOR TO ANY EXCAVATION WORK. CONTRACTOR TO ADOPT SAFE WORKING PRACTICES THAT OBVIATE ANY RISK THAT SUCH STRUCTURES MAY PRESENT.
- THE SUPERINTENDENT HAS NOT INVESTIGATED THE SITE & MAKES NO REPRESENTATION AS TO WHAT MAY EXIST ON OR BELOW THE SITE, THE CONTRACTOR SHALL MAKE THEIR OWN INVESTIGATIONS AS TO THE NATURE OF THE SUBSURFACE CONDITIONS OF THE SITE.
- PRIOR TO EARTHWORKS THE CONTRACTOR SHALL LOCATE ANY SOAKWELLS, SEPTIC TANKS, BOREHOLE STRUCTURE, ADOPT SAFE WORKING MATERIAL AND REMOVE AND BACKFILL ANY UNUSED PIPEWORK LOCATED SHALL BE REMOVED, SEPTIC TANKS SHALL BE COMMISSIONED AS PER THE LOCAL AUTHORITY REQUIREMENTS.
- BORES SHALL BE DECOMMISSIONED IN ACCORDANCE WITH THE "MINIMUM CONSTRUCTION REQUIREMENTS OF WATER BORES IN AUSTRALIA" PUBLISHED BY NATIONAL UNIFORM DRILLERS LICENSING COMMITTEE - FEBRUARY, 2012.
- THE CONTRACTOR SHALL RAKE THE SITE AND STOCKPILES AND REMOVE UNSUITABLE MATERIAL OFF SITE, THE STOCKPILES MAY REQUIRE SCREENING TO SEPARATE THE UNSUITABLE MATERIAL.
- DELETERIOUS AND UNSUITABLE MATERIAL SHALL BE REMOVED OFF SITE. IMPORTED FILL SHALL BE CLEAN AND FREE DRAINING SAND, CLEAN FILL CERTIFICATION IS TO BE PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING TO EXISTING LOTS WHERE REQUIRED.
- THE CONTRACTOR SHALL PROVIDE TEST RESULTS AND COMPACTION CERTIFICATES UPON COMPLETION OF EARTHWORKS.
- EARTHWORKS TO MATCH NEATLY TO EXISTING LEVELS AND ADJOINING PROPERTIES, IF A BATTER IS REQUIRED THE FILL SHALL BE CARRIED IN AND OUTSIDE THE DEVELOPMENT (NOT ADJOINING PROPERTY) AND BATTERED AT A MAXIMUM GRADE 1:4.

1. THE CONTRACTOR SHALL INSTALL ALL DUCTS FOR SERVICE PROVIDERS AT ROAD CROSSINGS OR AS NOTED ON THE DRAWINGS.

2. TRANSITIONS BETWEEN DIFFERENT KERB SECTIONS SHALL BE MADE OVER A LENGTH OF 2m AND SHALL COMMENCE AT THE TANGENT POINT OF KERB RETURNS IN THE CASE OF INTERSECTIONS

3. ALL CONSTRUCTION SHALL MAKE SMOOTH CONNECTION TO EXISTING WORK.

4. ROAD VERGES SHALL BE SURFACED WITH MINIMUM 75mm OF TOPSOIL FREE OF DELETERIOUS MATERIAL. IF REQUIRED, HYDROMULCHING WILL BE INSTRUCTED BY THE SUPERINTENDENT. FOR INTERNAL WORKS REFER TO LANDSCAPE DRAWINGS.

1. THE FOLLOWING AS CONSTRUCTED DOCUMENTATION SHALL BE SUBMITTED TO THE SUPERINTENDENT UPON COMPLETION OF THE WORKS
 - 1.1. DRAINAGE AS CONSTRUCTED PLAN
 - 1.2. ROADS/PAVEMENT AS CONSTRUCTED PLAN
2. REFER TO CONTRACT SPECIFICATION FOR AS CONSTRUCTED REQUIREMENTS AND RESPONSIBILITIES. IT SHALL BE NOTED THAT LICENSED SURVEY IS REQUIRED FOR WATER CONDUCTIONS AS CONSTRUCTED DOCUMENTATION.

1. THE FOLLOWING QUALITY ASSURANCE DOCUMENTATION SHALL BE SUBMITTED AND APPROVED BY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF SITE WORKS:
 - 1.1. IMPORT FILL - CLEAN FILL CERTIFICATE
 - 1.2. IMPORT FILL - PARTICLE SIZE DISTRIBUTION, ATTERBERG LIMITS, PERMEABILITY & ORGANIC CONTENT
 - 1.3. ROAD SUB-BASE - PARTICLE SIZE DISTRIBUTION, CALIFORNIA BEARING RATIO AND MATERIAL PROPERTIES AS OUTLINED IN THE CONTRACT SPECIFICATION.
 - 1.4. PRIME MIX
 - 1.5. ASPHALT - MIX PROPERTIES
 - 1.6. LIMESTONE BLOCKS - MATERIAL PROPERTIES AS OUTLINED IN THE CONTRACT SPECIFICATION
2. THE FOLLOWING QUALITY ASSURANCE DOCUMENTATION SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL UPON COMPLETION OF WORKS:
 - 2.1. COMPACTION CALIBRATION CERTIFICATE
 - 2.2. EARTHWORKS - CUT/FILL COMPACTION CERTIFICATE
 - 2.3. ROAD SUB-GRADE - COMPACTION CERTIFICATE
 - 2.4. ROAD SUB-BASE - COMPACTION CERTIFICATE
 - 2.5. ROAD BASE - COMPACTION CERTIFICATE
 - 2.6. ASPHALT - CORE SAMPLE TESTS
 - 2.7. DRAINAGE & SERVICES - COMPACTION CERTIFICATE
 - 2.8. RETAINING WALL - COMPACTION CERTIFICATE
 - 2.9. RETAINING WALL - ENGINEERING CERTIFICATE
3. REFER TO CONTRACT SPECIFICATION FOR FULL QUALITY ASSURANCE REQUIREMENTS.

1. ALL STORMWATER DRAINAGE PIPES DN300 OR SMALLER SHALL BE UPVC AND SHALL BE A MINIMUM CLASS SNE (S80 UNDER TRAFFICABLE AREAS) OR APPROVED EQUIVALENT.
2. STORMWATER PIPES LARGER THAN DN80 TO BE REINFORCED CONCRETE RUBBER RING JOINT (CLASS 2), UNLESS OTHERWISE NOTED.
3. JUNCTION AND ENTRY PITS ARE TO BE LOCATED IN ACCORDANCE WITH THE SETTING OUT INFORMATION SUPPLIED, IRRESPECTIVE OF THE INDICATED PIPE LENGTHS.
4. ALL PIPE DISTANCES ARE MEASURED CENTRE TO CENTRE OF PITS AND PIPES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL EXISTING SERVICES, ALL SEWER CROSSINGS SHALL BE PROVIDED WITH EITHER TIMBER BEARERS OR KEEL WITH TIMBER PILES AS REQUIRED.
6. WHERE CONNECTING INTO EXISTING DRAINAGE, THE CONTRACTOR IS TO PICK UP UPSTREAM AND DOWNSTREAM INVERT LEVELS OF EXISTING DRAINAGE LINE IMMEDIATELY DOWNSTREAM OF PROPOSED CONNECTION.
7. THE CONTRACTOR TO SUPPLY THIS SURVEY INFORMATION TO THE SUPERINTENDENT PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE CONSTRUCTION, THE CONTRACTOR TO THEN AWAIT NOTIFICATION FROM THE SUPERINTENDENT THAT DRAINAGE CONSTRUCTION MAY COMMENCE.
8. PIPE CONNECTIONS TO PITS TO BE MORTARED INSIDE/OUTSIDE WITH APPROVED MIX IN ACCORDANCE WITH SPECIFICATIONS.

[illegible]

PROJECT NUMBER:	DRG NUMBER:	REV:
PC21207	CI-01.00	A

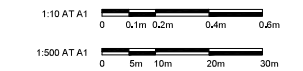


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REVISED

1. FOR PAVEMENT DETAILS REFER DRAWING PC21207-CI-04.30.

LEGEND:

- EXTENT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING SPOT HEIGHT
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED CONCRETE PAVING
- PROPOSED UNSEALED HARDESTAND
- PROPOSED ROCK PITCHING
- PROPOSED LANDSCAPING
- PROPOSED SPOT LEVEL
- FALL
- PROPOSED FALL DIRECTION
- PROPOSED PAVEMENT GRADING
- EXISTING CONTOURS
- BK
- PROPOSED BARRIER KERB
- PROPOSED SEMI-MOUNTABLE KERB
- PROPOSED ACROD BAY



NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	DATE
A	ISSUED FOR INFORMATION	AD 19.08.22

peritas

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MELBOURNE P 03 9677 9292
A 1 QUEEN ROAD, MELBOURNE VIC 3004
E ENQUIRE@PERITAS.COM.AU

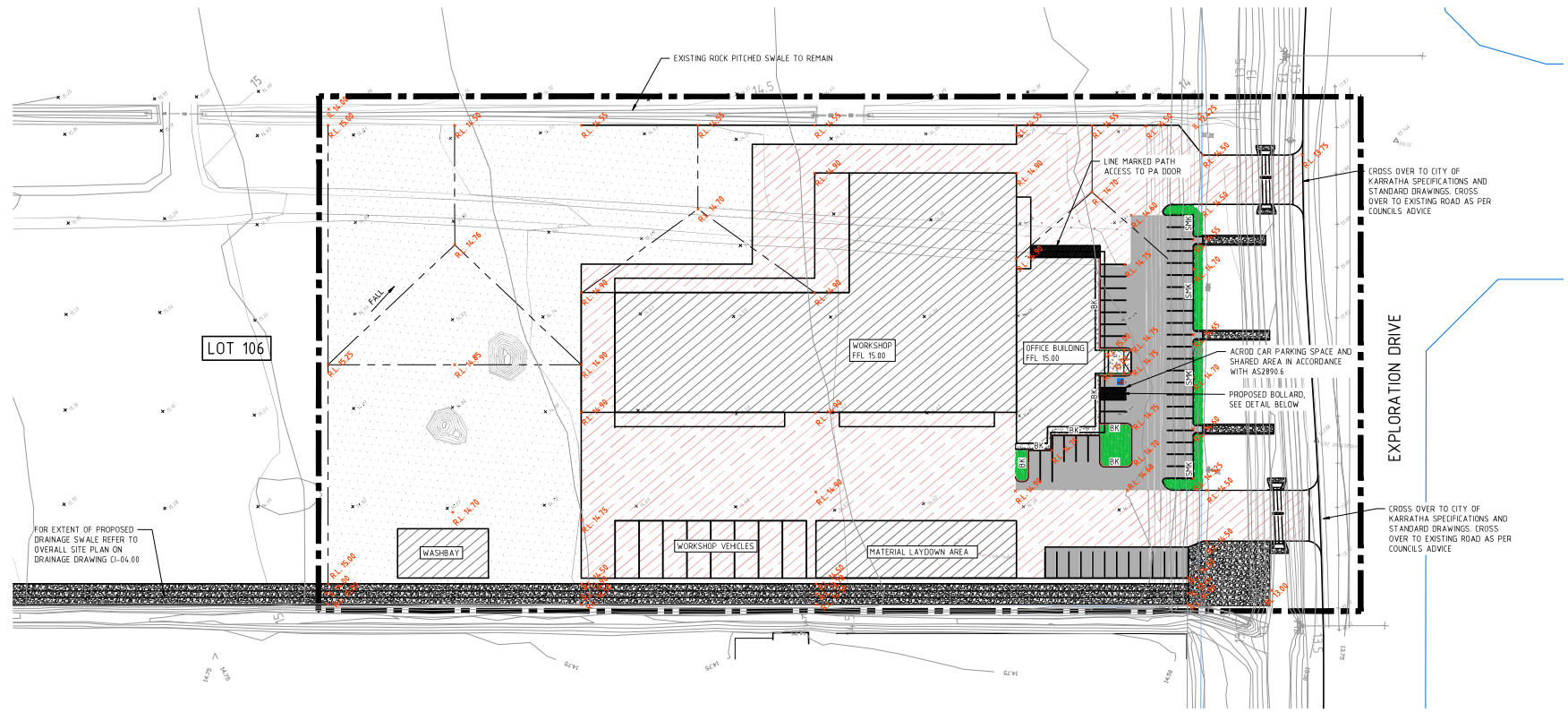
CLIENT

Monadelphous		
DESIGNED	DRAWN	CHECKED
L.RONCH	A.OHELCHUK	E.BIAGIONI-FROUDIST
SURVEY BATH	SCALE	SCALE
KAR94	1:500	@ A1
DWG IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		19.08.22

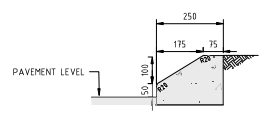
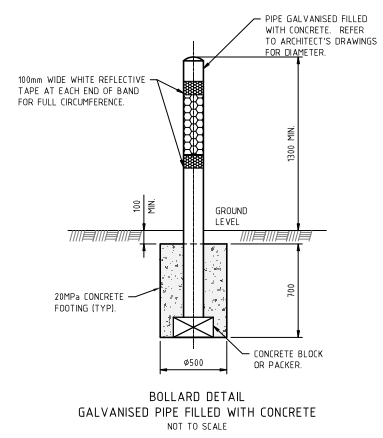
PROJECT:
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

PAVEMENT & GRADING PLAN AND DETAILS

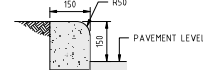
PROJECT NUMBER	DWG NUMBER	REV
PC21207	CI-03.00	A



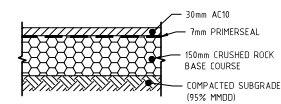
PAVING AND GRADING PLAN
SCALE 1:500



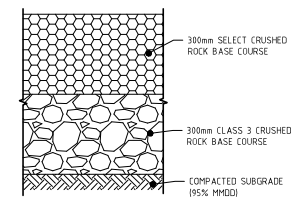
SEMI MOUNTABLE KERB
SCALE 1:10



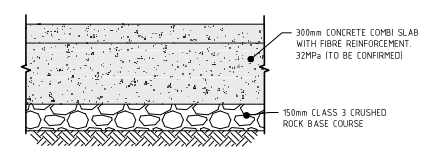
150mm BARRIER KERB DETAIL
SCALE 1:10



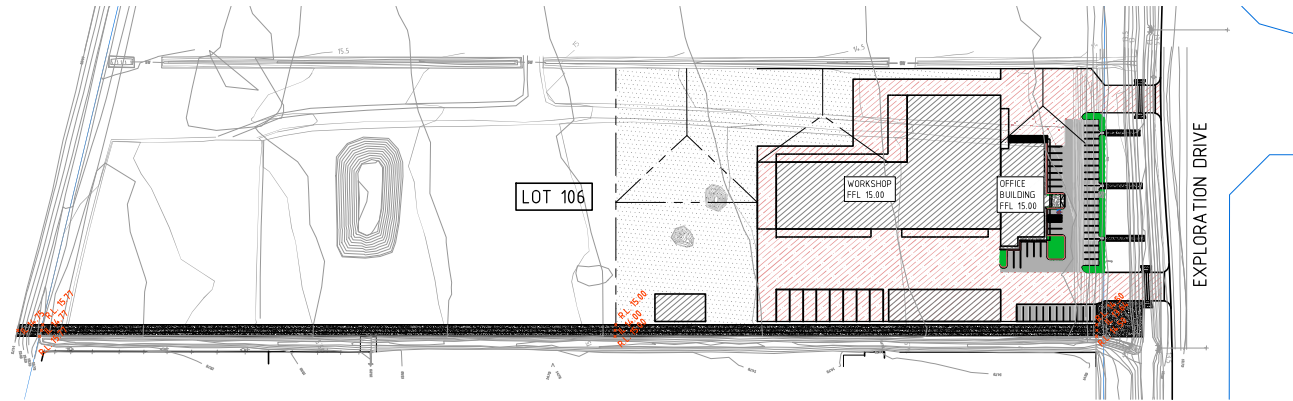
LIGHT DUTY PAVEMENT
SCALE 1:10



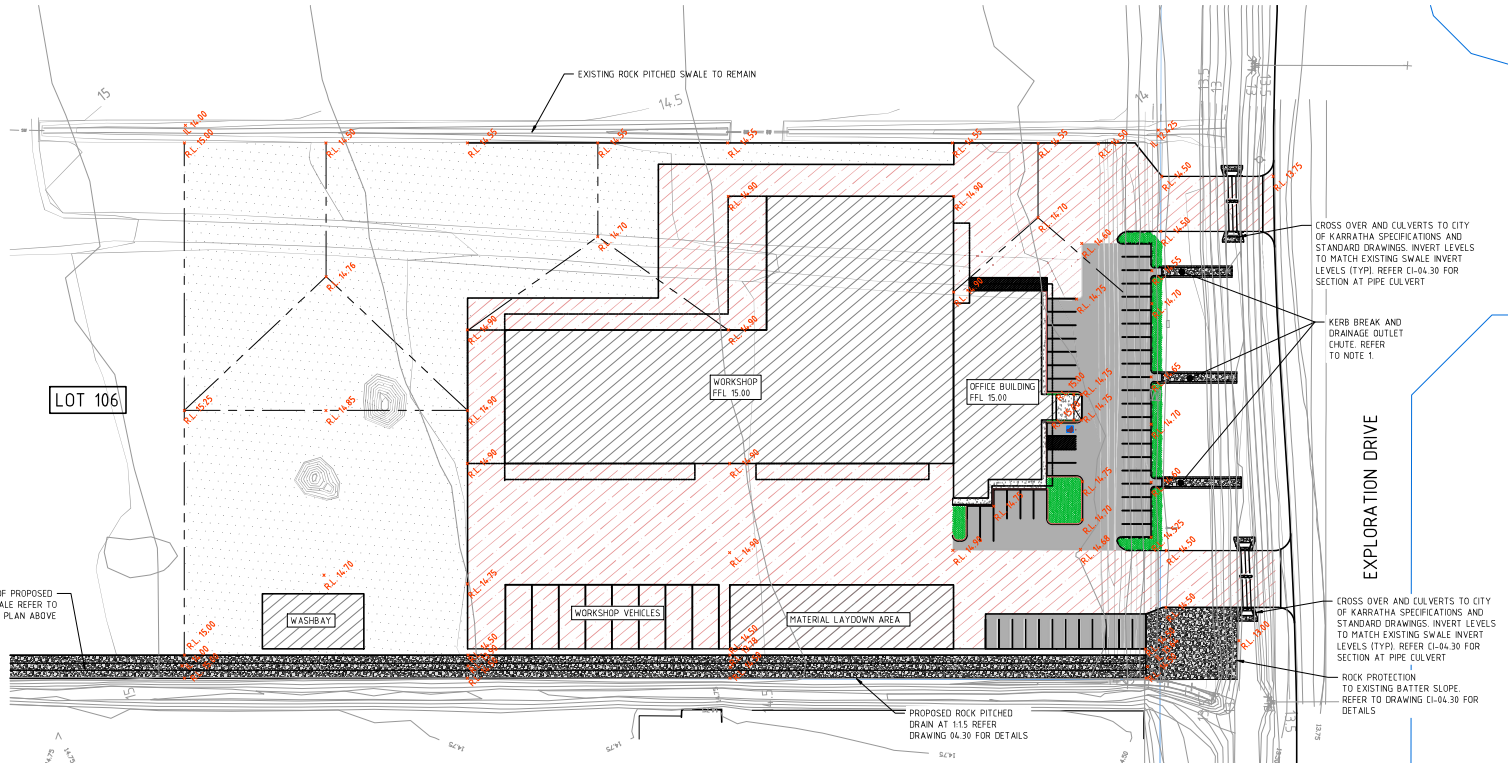
UNSEALED HARDESTAND
SCALE 1:10



CONCRETE PAVING
SCALE 1:10



STORMWATER DRAINAGE PLAN - OVERALL SITE
SCALE 1:1000



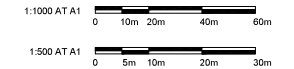
STORMWATER DRAINAGE PLAN
SCALE 1:500

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1. FOR DRAINAGE DETAILS REFER DRAWING PC21207-CI-04.30.

LEGEND:

- EXTENT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING SPOT HEIGHT
- PROPOSED CONCRETE PAVING
- PROPOSED UNSEALED HARDSTAND
- PROPOSED BUILDING/AREA
- PROPOSED ROCK PITCHING
- PROPOSED LANDSCAPING
- PROPOSED SPOT LEVEL
- PROPOSED FALL DIRECTION
- PROPOSED PAVEMENT GRADING
- EXISTING CONTOURS



NOT FOR CONSTRUCTION

REVISION	REVISION DESCRIPTION	DRAWN	DAT
A	ISSUED FOR INFORMATION	AD	19.08.22

peritas

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E ENQUIRE@PERITAS.COM.AU

CLIENT:

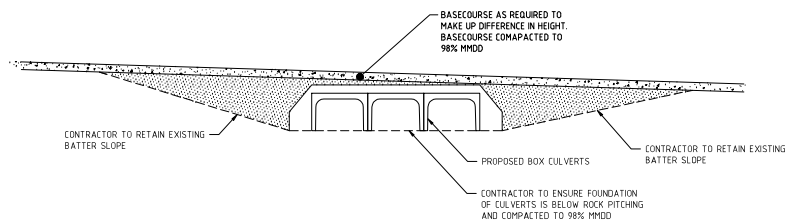
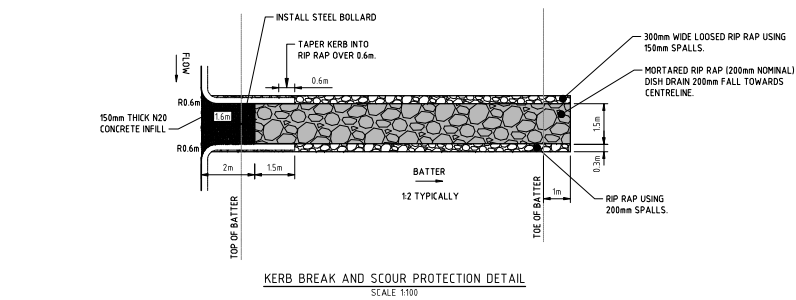
DESIGNED	DRAWN	CHECKED
L.RONCHI	A.OHELCHUK	E.BIAGIONI-FROLODIST
SURVEY DATA	SCALE	
KAROL	AS SHOWN	@ A1
DWG IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		19.08.22

PROJECT:
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

TITLE:
STORMWATER DRAINAGE
PLAN

PROJECT NUMBER	DWG NUMBER	REV
PC21207	CI-04.00	A

1. FOR LOCATION OF DRAINAGE KERB BREAKS AND CULVERTS IN PLAN REFER DRAWING PC21207-CI-04.00



BOX CULVERT UNDER CROSSOVER - DETAIL
NTS

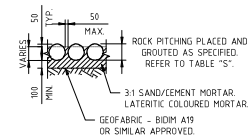
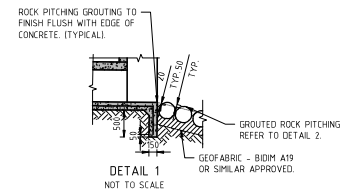
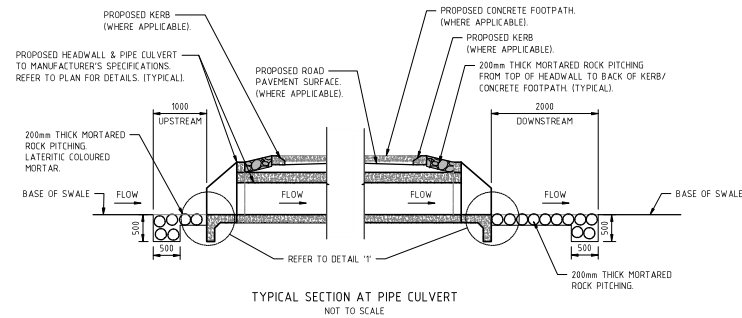
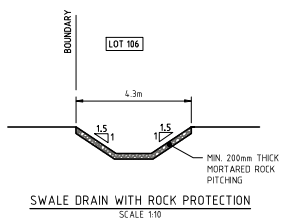
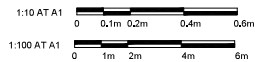


TABLE "S"	
ROCK PITCHING SPALL GRADING	
MINIMUM DIMENSIONS OF INDIVIDUAL SPALLS (MM)	SIZING RATIO
>200 TO <300	45 - 60%
100 TO <200	25 - 40%
>50 TO <100	10 - 20%



NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	DATE
A	ISSUED FOR INFORMATION	AD	19.08.22



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A 74 GREENWOOD FLD, BUNNINGS WA 6100
E ENQUIRE@PERITAS.COM.AU
A 1 QUEENSLAND RD, MELBOURNE VIC 3004
E ENQUIRE@PERITAS.COM.AU

CLIENT



DESIGNED	DRAWN	CHECKED
L.RONCH	A.OMELCHUK	E.BIAGIONI-FROUDIST
SURVEY DATA	SCALE	DATE
KAR94	AS SHOWN	@ A1
DWG IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		19.08.22

PROJECT
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

TITLE
STORMWATER DRAINAGE
TYPICAL DETAILS

PROJECT NUMBER	DWG NUMBER	REV
PC21207	CI-04.30	A

22 August 2022

Our Ref: D22-1563 / 1.03

modus
design pty ltd

Manager Planning Services
Planning Department
City of Karratha Administration
Lot 1083 Welcome Road
PO BOX 219
Karratha, WA 6714

Dear Sir / Madam,

**RE: DEVELOPMENT APPROVAL FOR WORKSHOPS AND ANCILLIARY
OFFICE – LOT 106, EXPLORATION DRIVE, GAP RIDGE, KARRATHA**

On behalf of our client EMIRGE Building and Construction, we seek development approval to construct an industrial building comprising 3 workshops for the abovementioned site.

The landowner and tenant for the proposed building is Monadelphous.

Background

Lot 106 has an area of 68,920 square meters and is presently zoned as 'Industrial Development.

The lot is currently vacant and is serviced with water, electrical and sewer connections.

The Proposal

The proposed development comprises of three workshops with roller shutter access and canopies / awnings over the openings. The three workshops will be fitted with gantry cranes and are housed under a single roof to form one building. There is an administrative office and light vehicle carpark at the front of the site close to Exploration Drive.

A washbay is proposed to the south of main building with various laydown and shakedown areas and parking for larger vehicles.

A swept path analysis has been undertaken to confirm that all vehicles can access and egress the site in forward gear. The details of the truck used for the analysis is a 19m semi-trailer and prime mover.

The entire development is of an appropriate scale for the area and is intended to comply with all necessary NCC and council regulations. The highest point of the built-form sits at approximately 11 metres above proposed floor level.



Unit 13
127 Herdsman Parade
Wembley
WA 6014

PO Box 222
Como WA 6952

t 08 9444 9511
w www.modus.net.au
e info@modus.net.au

KMART NATIONAL
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THE YEAR
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Town Planning Considerations

Proposal is a Compatible Land Use in the Locality

The site is located within the Gap Ridge industrial estate and zoned as 'Industrial Development' under *Part 3.2 Zoning Table* in LPS 8 and noted to be within the structure plan for area DA24.

The site is located with *Industrial Precinct B – General Industrial Area*, per *Appendix 1 item 2.* in LPS 8 we propose the land use as *Industry Light* in accordance with the definitions and thus note that in the zoning tables this is classed as 'Permitted' by the scheme.

Car Parking for Staff and Visitors

We have provided 49 car spaces including an accessible and shared carspace and 8 spaces for workshop vehicles on the site.

Proposed Carparking	Building Area / Carparking	
Industrial use based on 4 for the 1 st 200sqm and 1 per 100sqm remainder.	3330sqm	35 required
Office use based on 1 per 30sqm	615sqm	21 required
Total vehicle parking required.		57 provided.

Stormwater Management Plan

Stormwater and drainage has been designed by Peritas Consulting Engineers and is included in the application.

Conclusion

We trust the above provides clarification on the scope of the intended development and look forward to gaining the support of the City for development approval under officer's delegated authority.

Should you have any queries please do not hesitate to contact the undersigned on (08) 9444 9511.

Yours Faithfully,



Colin Gardiner

Design Director

For and on behalf of Modus Design Pty Ltd



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APPENDIX C: DESIGN GUIDELINES LODGEMENT CHECKLIST



GENERAL APPLICATION INFORMATION			
Address:	Lot 106 Exploration Drive, Gap Ridge		
Precinct:	General Industry	Sub-precinct:	
Applicant:	EMIRGE MONADELPHOUS GAP RIDGE		
Lodgement Checklist Completed:	Yes No	Details: Lodgement Requirements Land Use Requirements Mandatory Design Requirements	Complete / Incomplete Complete / Incomplete Complete / Incomplete
Site Plan Reference / Date:	Modus Project D22-1563 Amended plans dated 29/09		

LODGEMENT REQUIREMENTS

Tick to confirm that the following details have been provided:

- ☐ Provide one (1) electronic (preferred) or two (2) hardcopies of the development plans with the following details:
- ☐ Site Plan (1:200 preferred) of property with lot dimension and area, north point, contours (or levels), abutting street name(s), location of proposed building(s) including setbacks to boundaries, location of access/egress point(s), car parking and manoeuvring areas, effluent disposal system, infrastructure within the abutting road reserve (e.g. power poles, signage and Telstra pits);
 - ☐ Floor plans of proposed building(s) (1:100 preferred);
 - ☐ Elevations of proposed building(s) (1:100 preferred) including the existing and finished ground levels and the means to stabilise exposed soil (e.g. batters, retaining walls);
 - ☐ Landscaping concept plan for works forward of the building line (including species list);
 - ☐ Storm water management measures (e.g. drainage easement and swales);
 - ☐ Construction materials and colour scheme; and
 - ☐ Fencing details (type, location and height).

LAND USE REQUIREMENTS

Please provide below a breakdown of all the development's proposed land uses and activities. Please indicate the dedicated floor areas for each identified use:

Proposed Workshop (NLA 2,975sq.m excl canopy) and Office (NLA 615sq.m)

MANDATORY DESIGN REQUIREMENTS

Tick YES or NO in the column according to whether your proposal complies with the associated checklist items below. Please justify any variations to these requirements in the comments section or in an attached document:

DESIGN ELEMENTS		YES	NO	COMMENTS
5.2.1	STREET SETBACK			
	Public components such as office and visitor sign-in areas setback a minimum of 5.0 metres from the primary street frontage.	Y		Primary office setback approx. 21.5m
	Non-public components are setback a minimum of 16.0 metres and a maximum of 22.0 metres to the street frontage where primary access is achieved.		N	Variation – the warehouse is setback approx. 39m frp, the frontage. This is due to the provision of a significantly sized office component achieving appropriate interaction with the streetscape.
5.2.2	SIDE AND REAR BOUNDARY SETBACKS			

	Development is setback a minimum of 3.0 metres to side and rear boundaries.	Y		
5.2.3	SITE PLANNING AND DESIGN			
(a)	Building entrances, offices and other components that generate public movements have been located to address the primary street frontage.	Y		Compliant – office entrance and signage faces primary street
(b)	Loading bays, bin stores, outdoor storage, mechanical plant, washdown bays and other operational requirements are not visible from any street elevation.	Y		
5.2.4	SITE COVER			
(a)	The minimum enclosed building footprint is not less than 10% of the total lot area (for lots up to 4 hectares) or a minimum of 4000m ² (for lots over 4 hectares in area)	Y		Footprint = 4135sq.m / Lot size 6.8927ha - over 4000sq.m – compliant (note – potential for future built for also exists on the northern portion of the site)
(b)	The maximum site coverage does not exceed 50% of the lot area.	Y		
5.3.5	BUILDING CHARACTER AND ARTICULATION			
(a)	Building facades have been sufficiently articulated to create a strong street address through: <ul style="list-style-type: none"> The incorporation of a variety of building materials; The inclusion of projections, recesses, eave overhangs etc.; The absence of large expanses of blank walls. 	Y		Primary façade includes a variety of colours, overhangs and windows
(b)	Large expanses of highly reflective building materials and mirror glass windows have been avoided.	Y		
(c)	Offices, sign in areas, administration areas and other representative components are designed to face the primary street, include a building element such as a verandah, canopy or colonnade (with a minimum depth of 2.0 metres) facing the public street and parking areas.	Y		Primary office addresses primary street with red archway and building articulation.
(d)	Openings are included in side walls.	Y		The primary office has windows on the side walls and warehouse side walls include openings
(e)	All walls constructed on or near boundaries have been rendered or painted and are fully integrated into the building design.	Y		
5.2.6	MATERIAL FINISHES AND COLOURS			
	Outline material finishes and colours proposed. Confirm consistency with environmental factors and encouraged colour palette.	Y		Colours provided are considered to be generally consistent with the encouraged colour palette. Incorporation of the corporate colours in the feature to the office is considered acceptable and provides for additional articulation of the building.
5.2.7	EXTERNAL FIXTURES			
	External fixtures and equipment have been effectively screened from view and/or have been designed as integral part of the building aesthetic.	Y		Roof vents screened
5.2.8	VEHICLE PARKING AND MANOEUVRING AREAS			
(a)	<i>Please justify the number of parking bays provided in the comments column or attach as a separate document (refer to Appendix 4 of the Shire's Town Planning Scheme for rates per nominated use).</i>	Y		49 bays provided
(b)	All parking is provided within the lot itself.	Y		

(c.1)	Visitor and staff parking areas are located adjacent to areas of the building that are commonly accessed.	Y		Parking is adjacent to primary office
(c.2)	A pedestrian pathway is provided between parking areas and the building's main entrance.	Y		
(d)	No parking areas have been provided adjacent to road intersections and within the secondary street frontage.	Y		
(e)	Car parking areas and associated circulation areas and manoeuvring areas have been designed in accordance with Australian Standards AS2890 and are drained and sealed with bitumen to the satisfaction of the Shire of Roebourne.	Y		
(f)	Visitor and/or staff parking areas are located separate from operational areas.	Y		
(g)	Vehicle access and site manoeuvring areas have been designed so that all vehicles enter and leave the site in forward gear.	Y		
(h)	Parking areas are separated from buildings by landscaping and walkways.	Y		Parking and buildings separated by walkway
(i)	Car parking areas have been overlaid with a regular grid of suitable shade trees between parking rows at a ratio of 1 per 4 car bays (refer to Appendix B of the Design Guidelines for a list of suitable tree species).		N	Not shown on plans
5.2.9	CROSSOVERS			
(a.1)	The lot has been provided with a minimum of one crossover.	Y		Two crossovers proposed
(a.2)	Any second access point does not impact on the efficiency or road safety of the road network. <i>Please provide justification in the comments column or attach as a separate document.</i>	Y		Compliant, vehicles can enter and egress in forward gear
(b)	All crossovers have designed and located in accordance with the Shire of Roebourne's specifications and have been sealed with concrete.	Y		Compliant, crossovers designed as per Shire requirements
(c)	No vehicle crossovers have been located within 10 metres of a road intersection.	Y		Note – northern crossover is considered close to Magnatite Turn – appropriateness of this location will need to be confirmed with City of Karratha engineers.
5.2.10	WASHDOWN BAYS AND REFUSE COLLECTION AREAS			
(a)	The application plans indicate whether a sealed wash down area and patrol and oil trap have been installed and operated in accordance with the requirements of the Department of Water and Water Corp.		N	Wash bay shown on plans, not stated if in accordance with Department of Water and Water Corp
(b)	Garbage and recycling facilities are provided on site and designed to the standards outlined in the Design Guidelines.		N	Refuse area shown on plans, detail of refuse area not shown on plans
5.2.11	SIGNAGE			
	All signage must be designed and placed in accordance with the Shire of Roebourne's Local Law – Signs, Hoardings and Bill Posting	Y		
5.2.12	SIDE AND REAR FENCING			
	Identify whether side and rear fencing has been proposed.	Y		Chainlink fencing
	Indicate whether such proposed fencing is in accordance with the specifications identified in the Design Guidelines.	Y		
5.2.13	FRONT FENCING			

	Identify whether front fencing has been proposed.	Y		Existing garrison fencing to be retained – compliant with the design guidelines
	Indicate whether such proposed fencing is in accordance with the specifications identified in the Design Guidelines.	Y		
	Front fencing has been setback behind 3.0 metres landscape strip.	Y		
5.2.14	ENERGY MANAGEMENT AND LIGHTING			
(a)	Indicate whether site layout and building design include climate responsive measures. <i>Please provide any detail in comments column or as an attached document.</i>	Y		Orientation of the building and openings will be able to utilise south westerly winds East and west facades have been minimised
(b)	External lighting is contained within the site and not directed beyond the lot boundary.	Y		
5.2.15	LANDSCAPING AND STORMWATER MANAGEMENT			
(a)	A 3.0 metre landscape strip has been provided along all street frontages.	Y		Amended plans incorporate a 3m wide landscape strip.
(b)	Allotment drains within drainage easements are constructed with an one in six slope and have 100% vegetation coverage and mulched to a depth of 75mm.	Y		
(c)	All landscaped areas to have 100% coverage of mulch to a maximum thickness of 75mm.	Y		
(e)	Landscape design preserves vehicle sightlines.	Y		
(f)	Water wise irrigation systems provided.	Y		
(g)	Works or structures proposed within road side drainage swales.	Y		



EXPLORATION DRIVE

[illegible]

Contractor to verify all dimensions on site before commencing work. MODUG Design Pty Ltd is to be notified of any discrepancies in the dimensions and setting out of the work, for re-solution. Copyright of designs shown hereon is retained by this office. Authority is required for any reproduction.



1 9444 9511 SLITE 13
f 9444 9522 127 HERDSMAN PDE
e info@necdis.net.au WEMBLEY 6014
ASN 27 121 224 459 PO BOX 222
ACN 121 224 459 CORIO VIA 6952

PARKING AND LANDSCAPE ARRANGEMENT

EMIRGE MONADELPHOUS GAP
RIDGE

MODEL PROJECT D22-1563

DESIGN	GA
DRAWN	ED

☐ CHECKED
☐ SCALE

DATE 22.03.2022

REVISION A

A1	DWG	A003
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31/10/2022

Emirge

Level 1, 985 Wellington Street
WEST PERTH WA 6005

Attention : Mr Robert Dye

Dear Robert ,

**RE: PROPOSED WORKSHOPS & OFFICES – LOT 106 EXPLORATION DRIVE , GAP RIDGE, KARRATHA, WA
Stormwater Drainage Plan**

Peritas Consulting (Peritas) has been engaged by Emirge to prepare civil design documentation for the Proposed Workshops and Office facilities at Lot 106 Explorer Drive, Gap Ridge, WA.

The City of Karratha (CoK) has requested additional details in relation to the stormwater management strategy for the above site. The information provided below addresses council email dated 25/10/2022 (Refer to **Appendix A** for details).

The responses schedule is tabled below for ease of review.

Item No	Council Comment	Designer Response
1	Lot contour levels and finished levels	Noted. Refer to Appendix B for Site surveys and Appendix E1 - PC21207-CI-03.00(B) PAVEMENT AND GRADING PLAN for finished levels
2	Floor levels – demonstrate 500mm freeboard from the 1% AEP (Annual Exceedance Probability) flood level - As per specifications, required to minimise the risk of the building/ property getting flooded in a major rainfall event.	Noted. Refer to Section 2.3 and Appendix C. The FFL has 3.5 m freeboard to the 1 in 100 Yr ARI and 2.90 m to the 1 in 500 Yr ARI events.
3	Pre and post-catchment areas - Required to understand changes in catchments and their compositions, this will directly impact flows calculated in part 4	Due to the nature of the soils and the relatively impermeable nature of the predevelopment conditions of site, the pre and post development catchment characteristics are relatively similar. Refer to Appendix D for calculations.
4	Pre and post-development flows - As per specifications, post-development flows should not exceed pre-development flows to ensure additional pressure is not placed on to our drainage networks.	Due to the nature of the soils and the relatively impermeable nature of the predevelopment conditions of site, the pre and post development flows are similar. Refer to Appendix D for calculations.
5	Drainage flow paths - required to identify where is the water going (supported by lot contour levels)	Noted. Appendix E2 - PC21207-CI-04.00(B) STORMWATER DRAINAGE PLAN for stormwater details
6	Flow velocities of stormwater are to be no greater than 2m/per second - Required to understand the risk of erosions/scour and the need for rock protection.	Noted. Refer to Appendix D for stormwater calculations that shows that flows are less than 2m/sec. Stone pitching has been provided in all swale drains regardless of flow velocities.
7	The City require all calculations are for a 20%AEP critical event - As per specification, 20%AEP is defined as the minor event we design for. There should be no major changes between the pre and	Noted. Refer to Appendix D for stormwater calculations.

	post-development flows for this event. Modelling and calculations are required to validate the design.	
8	Stormwater runoff to be directed to a drain adjoining the lot or where there is no drain the runoff can be directed onto the roads	Noted. Appendix E2 - PC21207-CI-04.00(B) STORMWATER DRAINAGE PLAN for stormwater details
9	Drainage discharge points to include scour protection - As per item 6.	Provided. Refer to Appendix E2 - PC21207-CI-04.00(B) STORMWATER DRAINAGE PLAN for stormwater details
10	Large lots may require detention basins	Not required in this instance
11	Roofs shall not contain Down gutters & pipes and will discharge directly to the lot - Gutters and downpipes are not cyclone friendly and not as effective in high-intensity rainfall.	Not required in this instance

1. INTRODUCTION

1.1 Location

The subject site is located at Lot 106 Exploration Drive, Gap Ridge, WA. The site is located approximately 4 kilometres west of the Karratha town centre, and the location is shown in the **Figure 1** below.



Figure 1 Location Plan (highlighted in red)

2. PRE-DEVELOPMENT CONDITIONS

2.1 Site Condition and Topography

The site is bordered by Existing industrial development to the north, Exploration Drive to the east, major stormwater drains and rail reserves to the west and Centurion Logistics development (107 Exploration Drive) to the south.

Referring to **Figure 1**, the majority of the site is currently utilised as hardstands and storage areas which are mostly unsealed and by underlain by Clayey Gravels and Gravelly Clays. A geotechnical report prepared by GALT Geotechnics (J1101140 001 R Rev 0) dated 10 /11/2011) notes that :

Section 7.8 – Stormwater Disposal

As the in situ soil has a high fines content, it is likely to have a very low permeability. The use of soakwells for the disposal of stormwater is therefore not recommended. We recommend that stormwater be disposed off-site into the local authority's stormwater drainage subject to their regulations. Drainage swales may also be considered, however they are likely to drain very slowly following rain events (particularly heavy rainfall following cyclone events).

A feature survey has been completed for the site and enclosed as **Appendix B**.

Based on the contours the site slopes in a west to east direction at an approximate 1 in 230 grade towards Exploration Drive and councils main drain (earth swales) along Exploration Drive. The change in site levels ranges from RL 15.8 m AHD to 14.2m AHD.

2.2 Pre-Development Stormwater

The natural surface grades west to east, during the rain events the surface water will naturally flow in a north-easterly and south-easterly direction. The flows will be captured in swale drains on each boundary of the site and transmitted to the front of the property. During peak rain events it is expected that the main method of stormwater conveyance is via surface runoff.

The existing surface flows are intercepted and conveyed via swale drains in the property to the existing Council main drains along the road network, as shown on plan PC21207-CI-04.00. The preliminary dimension of both northern and southern swale drains is shown in the detailed stormwater calculations attached as **Appendix D**.

The pre and post development catchment characteristics are largely unchanged as majority of the site is currently impervious surfaces (hardstands and impermeable soils). The final site discharge will be almost unchanged with any increase in the flow rate be accommodated by existing capacity within the site swale drains.

2.3 Major Storm Event Flood Level

The site is within the influence of the 7 Mile Creek Catchment (Refer to **Figure 2 below** and **Appendix C**). A flood study undertaken as part of the Karratha Coastal Vulnerability Study (JDA – August 2012) predicted the maximum flood events based on climate changes, coastal hydrology, coastal movements and storm surge allowances and determined flood levels for up to the 1 in 500 Yr ARI event and taking into account 2060 Climate conditions. The study predicted potential regional flood levels adjacent to the site from the 7 Mile Creek influences for 1 in 500 Yr ARI to be RL 12.00 to 12.10 m AHD and for the 1 in 100 Yr ARI events to be RL 11.3 – 11.5 m AHD.

The FFL of the site facilities has been selected to be RL 15.00 with pavements and hardstand areas generally to be between RL 14.35 to RL 15.85 m AHD.

This means that the FFL is some **2.90 m above** the 1 in 500 YR ARI storm events and some **3.5 m above** the 1 in 100 Yr ARI flood levels.



Figure 2 - 7 Mile Creek and Site Location (Site highlighted in red)

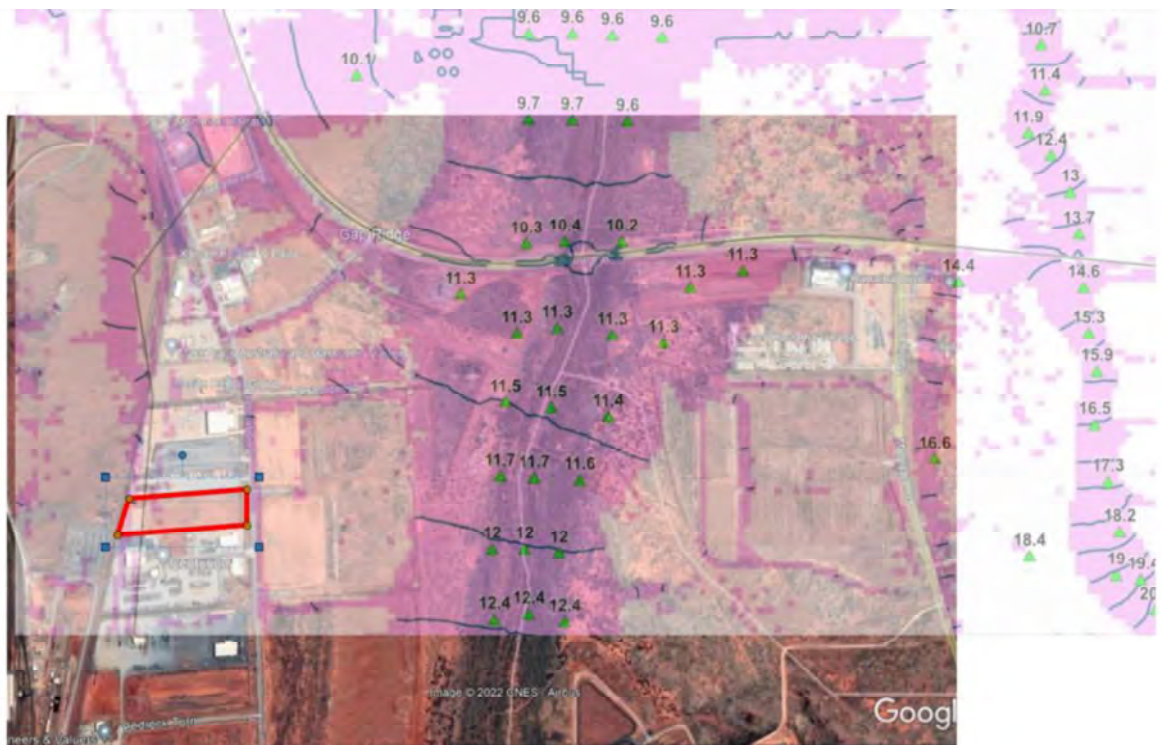


Figure 3 – 1 in 500 Yr Flood Overlay (Site highlighted in red)

3. STORMWATER MANAGEMENT

The proposed stormwater management strategies are shown on plan PC21207-CI-04.00 enclosed in **Appendix E**.

Surface runoff up to 1% AEP storm event from the site can be accommodated in the site swale drains. There is sufficient capacity in the swale drains to also provide some attenuation of the stormwater drainage if required, as the swales have capacity above the required discharge rates.

Stormwater storage volume within the swales can therefore be considered if flow into the existing main drain needs to be restricted.

3.1 Conveyance

It is proposed to capture the flow from minor storm events up to 20% AEP runoff generated by the development using a combination of kerbed gutter flows and concrete lined chutes into the existing Council street drainage swale network in accordance with the estate design guidelines. During major storm events, the flow up to 1% AEP will be by overland flows into the Council main drains.

4. REFERENCES

Government of Western Australia Department of Water 2007, Stormwater Management Manual for Western Australia.

Department of Water Oct 2008, Better Urban Water Management.

City Of Karratha – Stormwater Design guidelines for Residential Developments – June 2011

Should you have any queries please do not hesitate to contact us.

Yours faithfully,



Enzo Biagioni-Froudish
Principal – Civil Engineering
On behalf of Peritas Consulting Pty Ltd

Enc.

APPENDIX A - EXCERPT FROM CITY OF KARRATHA EMAIL DATED 25/10/2022

APPENDIX B - SITE SURVEY

Error! Reference source not found.REGIONAL FLOOD PLANS

APPENDIX D - STORMWATER CALCULATIONS

APPENDIX E - STORMWATER MANAGEMENT PLAN

APPENDIX A - EXCERPT FROM CITY OF KARRATHA EMAIL DATED 25/10/2022

The following clarifications were requested by council in relation to the stormwater management strategy adopted for Lot 106 Exploration Drive, Gap Ridge site.

Stormwater Management Plan

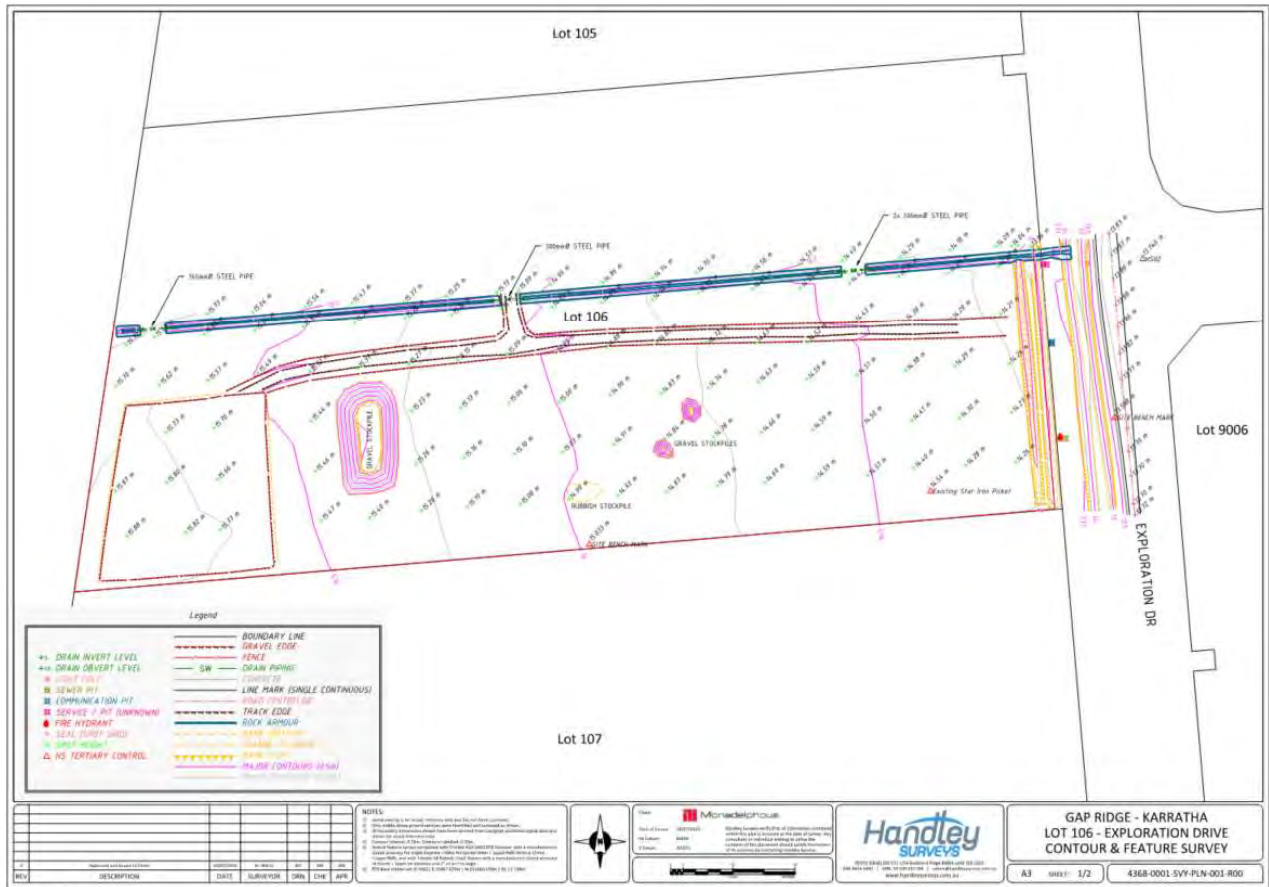
The submitted 'Stormwater Management Plan (SWMP)' does not adequately address the requirements needed to properly assess the plan.

It is requested that the SWMP is updated to address the following (highlighted):

Stormwater Management Plan Requirements (SWMP):

1	Lot contour levels and finished levels
2	Floor levels – demonstrate 500mm freeboard from the 1% AEP (Annual Exceedance Probability) flood level - As per specifications, required to minimise the risk of the building/ property getting flooded in a major rainfall event.
3	Pre and post-catchment areas - Required to understand changes in catchments and their compositions, this will directly impact flows calculated in part 4
4	Pre and post-development flows - As per specifications, post-development flows should not exceed pre-development flows to ensure additional pressure is not placed on to our drainage networks.
5	Drainage flow paths - required to identify where is the water going (supported by lot contour levels)
6	Flow velocities of stormwater are to be no greater than 2m/per second - Required to understand the risk of erosions/scour and the need for rock protection.
7	The City require all calculations are for a 20%AEP critical event - As per specification, 20%AEP is defined as the minor event we design for. There should be no major changes between the pre and post-development flows for this event. Modelling and calculations are required to validate the design.
8	Stormwater runoff to be directed to a drain adjoining the lot or where there is no drain the runoff can be directed onto the roads
9	Drainage discharge points to include scour protection - As per item 6.
10	Large lots may require detention basins
11	Roofs shall not contain Down gutters & pipes and will discharge directly to the lot - Gutters and downpipes are not cyclone friendly and not as effective in high-intensity rainfall.

APPENDIX B - SITE SURVEY



Lot 105

Lot 9006

EXPLORATION DR



Legend

+H	Drain Invert Level	—	Boundary Line
+CL	Drain Obvert Level	—	Gravel Edge
★	Light Pole	—	Fence
⊗	Sewer Pit	—	Drain Piping
⊗	Communication Pit	—	Concrete
⊗	Service / Pit (Unknown)	—	Line Mark (Single Continuous)
●	Fire Hydrant	—	Road Centreline
×	Spot Height	—	Track Edge
△	HS Tertiary Control	—	Rock Armour
		—	Bank (Bottom)
		—	Change of Grade
		—	Bank (Top)
		—	Major Contours (0.5m)
		—	Minor Contours (0.25m)

NOTES:
1) Aerial imagery is for visual reference only and has not been surveyed.
2) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
3) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
4) Contour interval 0.25m. Contours labelled 0.25m.
5) All spot heights are taken from a single point of observation.
6) RTK Base station set at H501 (13267.62m | N154180.186m | E11.746m)

REV	DESCRIPTION	DATE	SURVEYOR	CHK	APR
0	Approved and Issued to Client	26/07/2019	M. WILES	BO	BW

Client: Monadelphous
Date of Survey: 26/07/2019
Lot: 106
Datum: ANZSD
Scale: 1:1250

Handley Surveys
18879 (HEAD OFFICE) 03 9346 1000 | 18879 (FIELD OFFICE) 08 9346 1000
(08) 9346 1000 | 18879 (FIELD OFFICE) 03 9346 1000 | 18879 (FIELD OFFICE) 08 9346 1000
www.handleysurveys.com.au



Lot 105

Lot 9006

EXPLORATION DR

Lot 106

Lot 107

GRAVEL STOCKPILES

ROBBISH STOCKPILE

GRAVEL STOCKPILE

Legend

- +H

GRAVEL INVERT LEVEL
- +CL

DRAIN OVERT LEVEL
- ★

LIGHT POLE
- ⊗

SEWER PIT
- ⊗

SERVICE / PIT (UNKNOWN)
- FIRE HYDRANT
- ×

SEAL (SPOT GRID)
- ×

SPOT HEIGHT
- △

HS TERTIARY CONTROL
- BOUNDARY LINE
- GRAVEL EDGE
- FENCE
- SW
- CONCRETE
- LINE MARK (SINGLE CONTINUOUS)
- ROAD CENTRELINE
- TRACK EDGE
- ROCK ARMOUR
- BANK (BOTTOM)
- CHANGE OF GRADE
- BANK (TOP)
- MAJOR CONTOURS (0.5m)
- MINOR CONTOURS (0.25m)

NOTES:
1) Aerial imagery is for visual reference only and has not been surveyed.
2) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
3) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
4) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
5) All boundary dimensions shown have been derived from Landgate published digital data and are not to be used for legal purposes.
6) RPT Base station set at H501 (132867.63m | N 154180.186m | E 13.746m)

REV	DESCRIPTION	DATE	SURVEYOR	CHK	APR
0	Approved and Issued to Client	26/07/2019	M. WILES	BO	BN

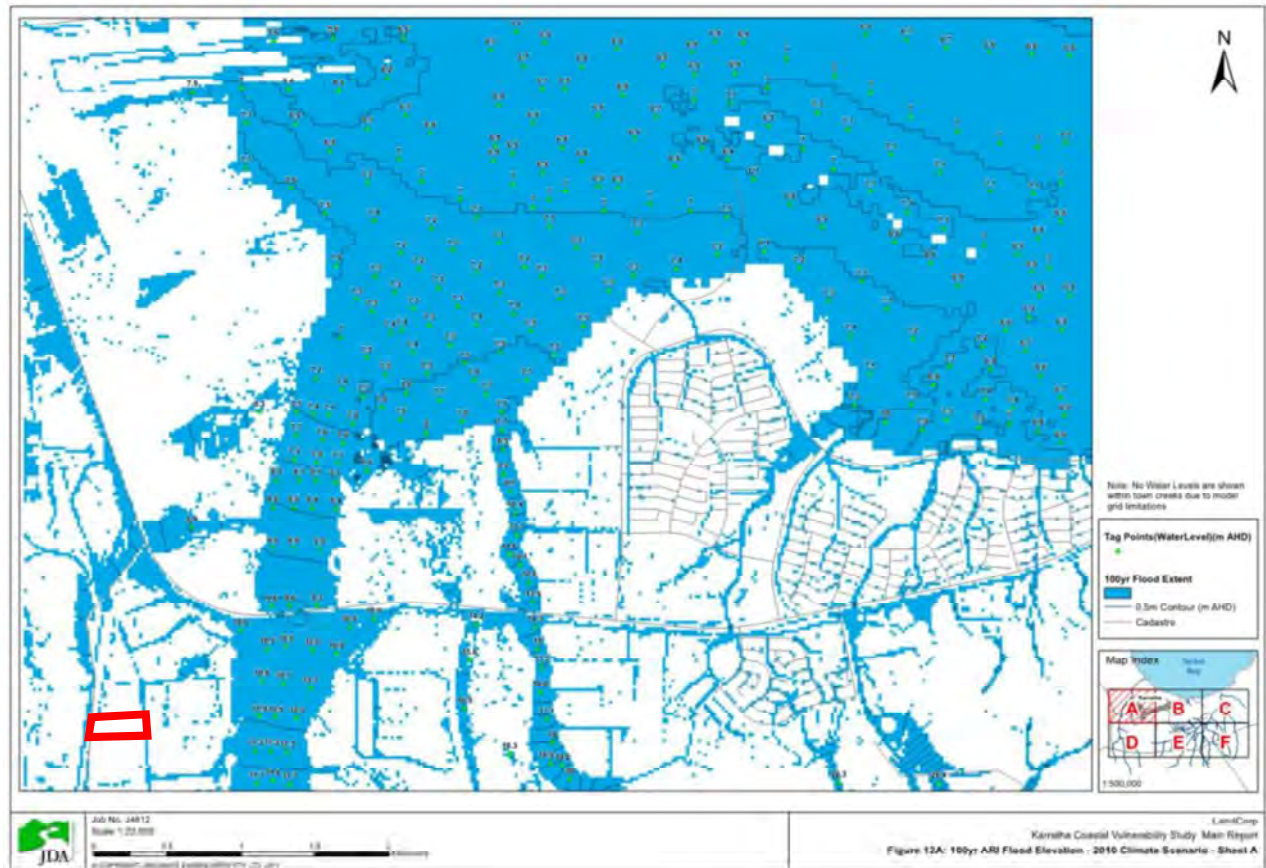
Client: Monadelphous
Date of Survey: 18/07/2019
Ht Datum: KARRI
V Datum: ANSD1
Handley Surveys certifies that all information contained herein is true and correct to the best of our knowledge and belief. It is not intended to be used for any purpose other than that for which it was prepared. The accuracy of the information is not guaranteed. The accuracy of the information is not guaranteed. The accuracy of the information is not guaranteed.

Handley SURVEYS
9879 (HEAD OFFICE) 023 846404 | 08 844 1440 | 08 844 1440 | 08 844 1440
www.handleysurveys.com.au
GAP RIDGE - KARRATHA
LOT 106 - EXPLORATION DRIVE
CONTOUR & FEATURE SURVEY
A3 SHEET: 2/2 4368-0001-SVY-PIN-001-R00

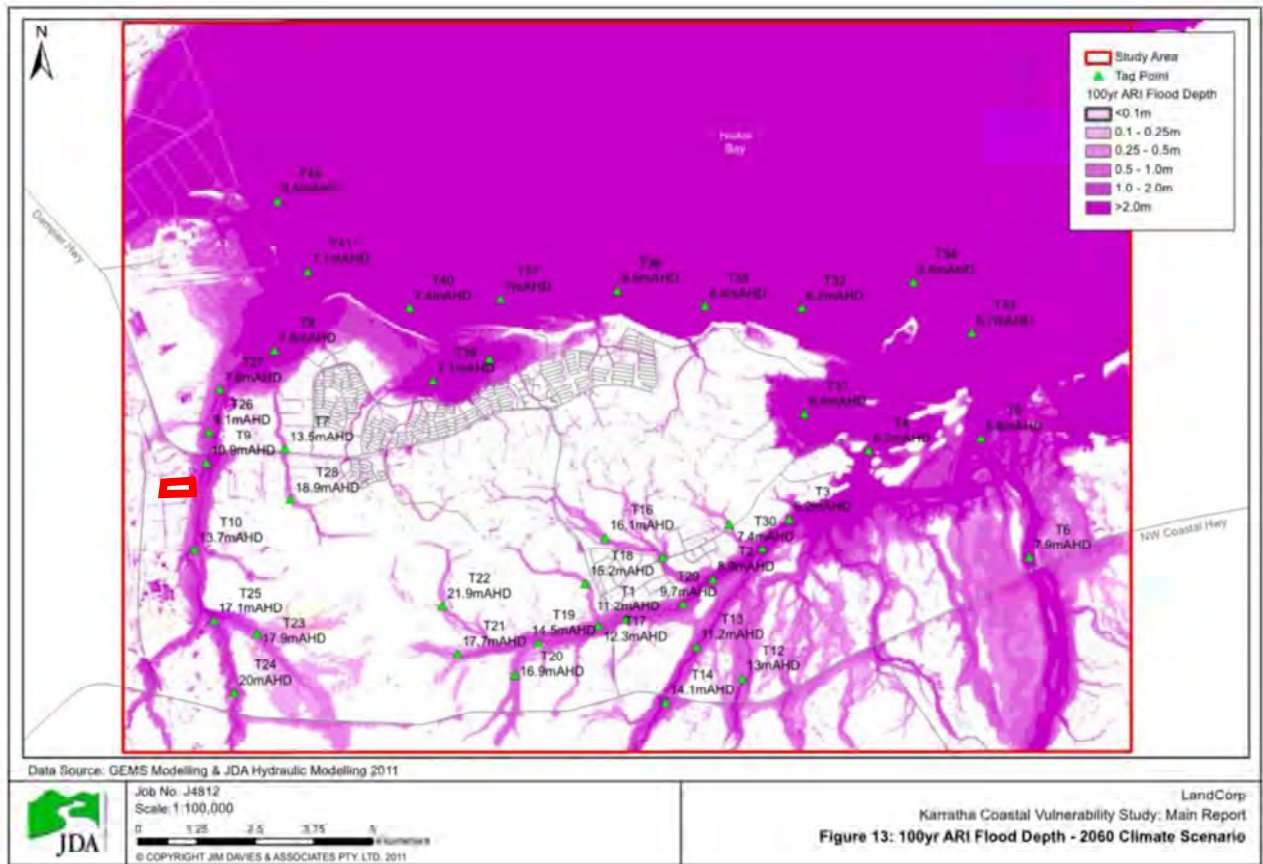
APPENDIX C - REGIONAL FLOOD PLANS

(Excerpt from Karratha Coastal Vulnerability Study – JDA Aug 2012)

Below Figure 12 A – 1 in 100 Yr ARI Flood Elevation – 2010 Climate Scenario – Sheet A



Below Figure 13 – 1 in 100 Yr ARI Flood Depth – 2060 Climate Scenario



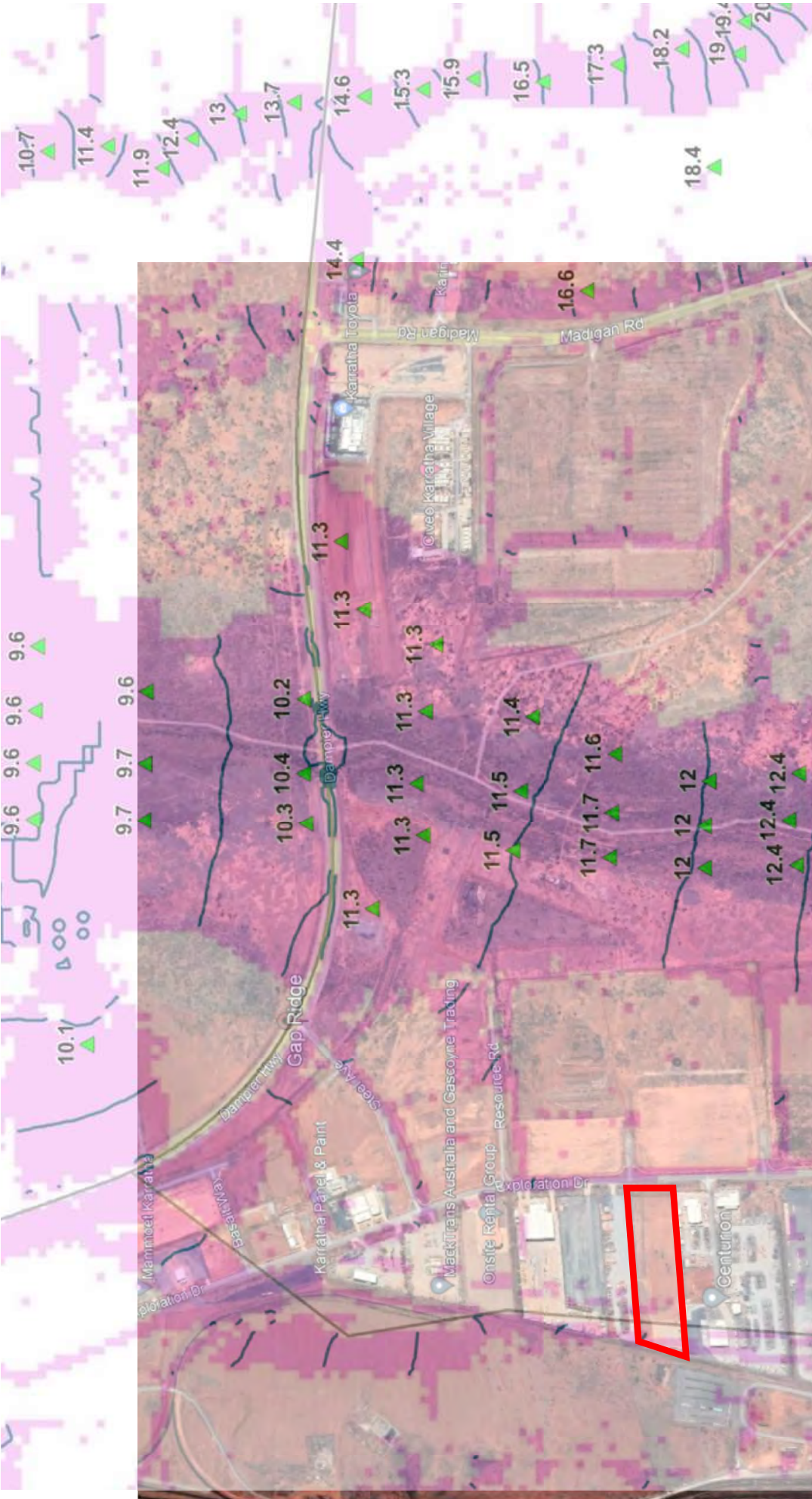


Image © 2022 CNES/Airbus

APPENDIX D - STORMWATER CALCULATIONS

LOCATION 20.725 S 116.850 E * NEAR.. Karratha WA

LIST OF COEFFICIENTS TO EQUATIONS OF THE FORM

$$\ln(I) = A + B \times (\ln(T)) + C \times (\ln(T))^2 + D \times (\ln(T))^3 + E \times (\ln(T))^4 + F \times (\ln(T))^5 + G \times (\ln(T))^6$$

T = TIME IN HOURS AND I = INTENSITY IN MILLIMETRES PER HOUR

RETURN PERIOD	A	B	C	D	E	F	G
1	3.163600	-0.65468E+0	-0.76736E-1	0.87851E-2	0.47395E-2	-0.32837E-3	-0.11271E-3
2	3.486620	-0.64221E+0	-0.74827E-1	0.77725E-2	0.46544E-2	-0.22983E-3	-0.12816E-3
5	3.932094	-0.61298E+0	-0.67664E-1	0.91939E-2	0.35599E-2	-0.47278E-3	-0.57722E-4
10	4.154385	-0.59702E+0	-0.64072E-1	0.94953E-2	0.30801E-2	-0.54351E-3	-0.33115E-4
20	4.377879	-0.58385E+0	-0.60809E-1	0.96368E-2	0.26478E-2	-0.58866E-3	-0.13680E-4
50	4.629520	-0.56915E+0	-0.57199E-1	0.10027E-1	0.21440E-2	-0.66996E-3	0.13858E-4
100	4.797654	-0.55953E+0	-0.55002E-1	0.10361E-1	0.18292E-2	-0.73174E-3	0.32526E-4

RAINFALL INTENSITY IN mm/h FOR VARIOUS DURATIONS AND RETURN PERIODS

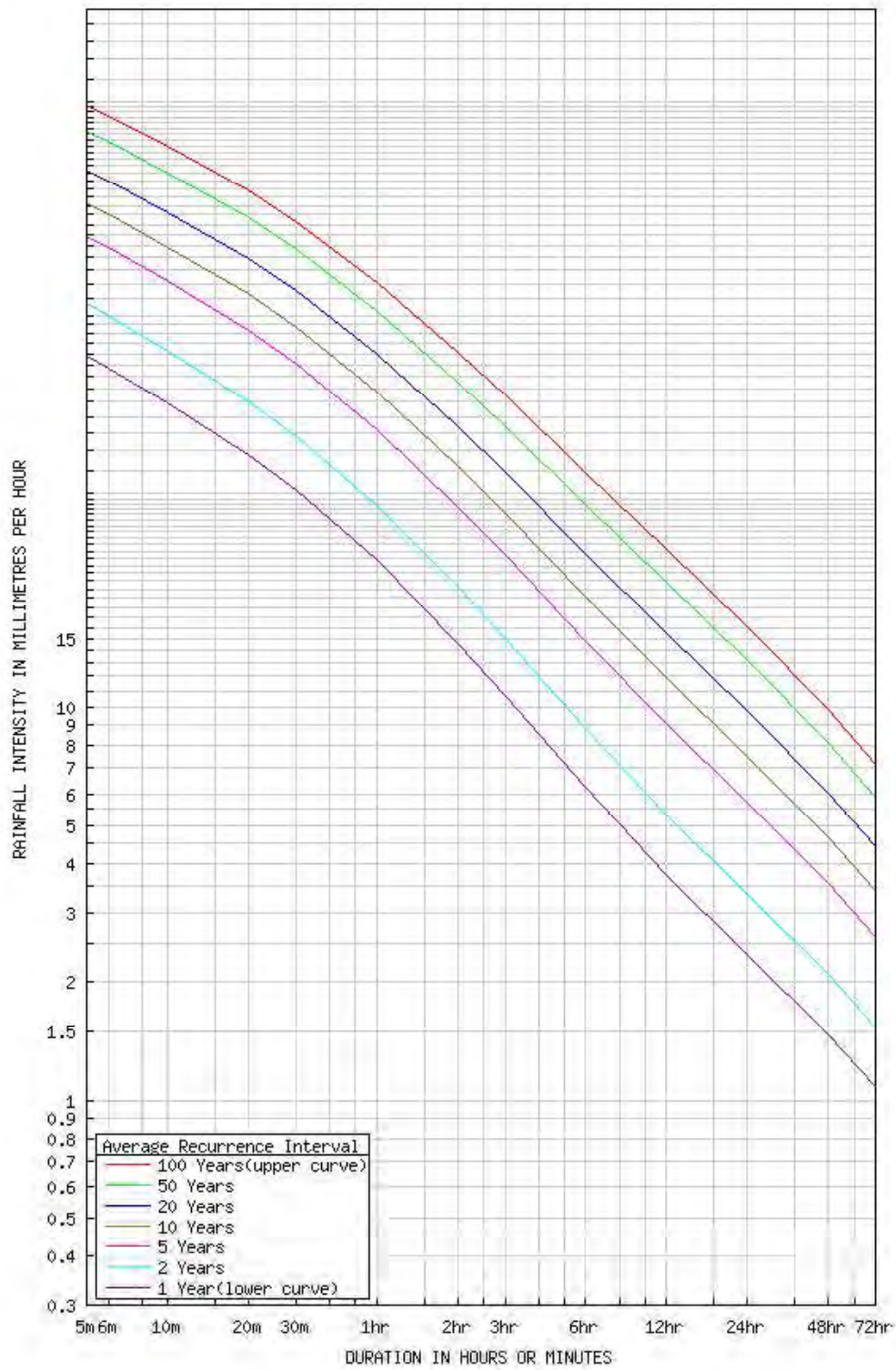
DURATION	RETURN PERIOD (YEARS)						
	1	2	5	10	20	50	100
5 mins	78.8	107.	158.	192.	235.	294.	342.
6 mins	73.3	99.5	148.	180.	220.	276.	321.
10 mins	59.8	81.5	122.	149.	183.	231.	270.
20 mins	44.1	60.2	91.6	113.	139.	177.	208.
30 mins	35.8	49.1	75.4	93.2	116.	147.	173.
1 hour	23.7	32.7	51.0	63.7	79.7	102.	121.
2 hours	14.5	20.3	32.4	41.0	51.8	67.4	80.4
3 hours	10.7	15.0	24.4	31.1	39.6	52.0	62.3
6 hours	6.26	8.85	14.8	19.2	24.7	32.9	39.8
12 hours	3.75	5.33	9.11	11.9	15.5	20.9	25.4
24 hours	2.34	3.35	5.73	7.53	9.80	13.2	16.1
48 hours	1.47	2.10	3.57	4.67	6.06	8.14	9.90
72 hours	1.08	1.53	2.59	3.39	4.40	5.91	7.19

(Raw data: 33.32, 5.31, 1.53, 104.32, 20.96, 5.92, skew= 0.000)

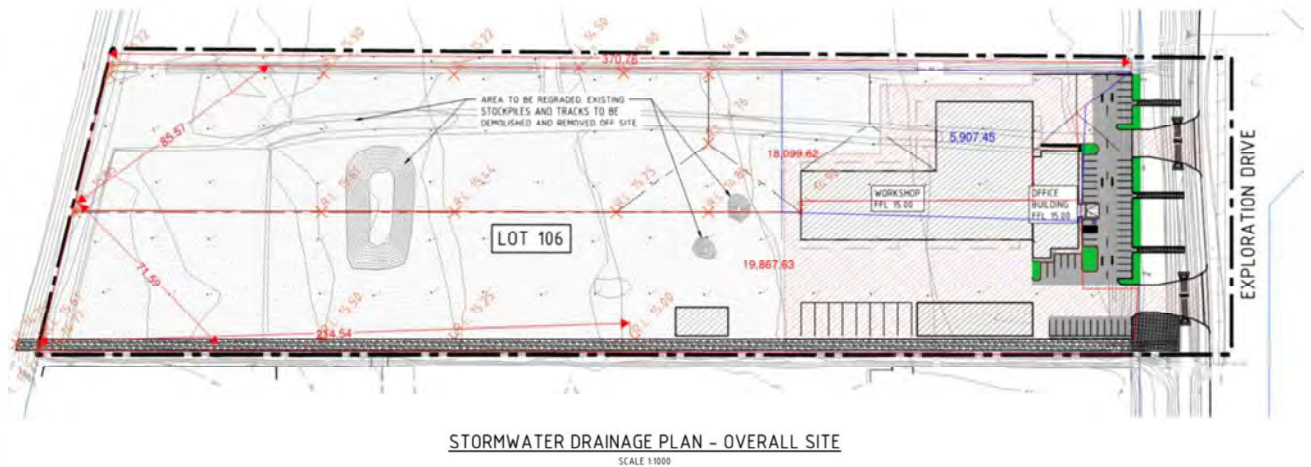
HYDROMETEOROLOGICAL ADVISORY SERVICE

(C) AUSTRALIAN GOVERNMENT, BUREAU OF METEOROLOGY

* ENSURE THE COORDINATES ARE THOSE REQUIRED SINCE DATA IS BASED ON THESE AND NOT LOCATION NAME.



SWALE DRAIN CALCULATIONS



Based on the above catchment characteristics, the swale drains should be sized to meet the following requirements:

Northern Swale Catchment area of cut-off drain = 1.810 ha
Southern Swale Catchment area of cut-off drain = 1.987 ha

Land description	Dense bushland			Medium density bush, or Good grass cover, or High density pasture, or Zero tillage cropping			Light cover bushland, or Poor grass cover, or Low density pasture, or Low cover bare fallows			A.R.I. (years)	Frequency Factor (F_y)
	Soil permeability			Soil permeability			Soil permeability				
	High	Med	Low	High	Med	Low	High	Med	Low		
Intensity (mm/hr) I_{10}											
39–44	0.08	0.24	0.32	0.16	0.32	0.40	0.24	0.40	0.48	1	0.80
45–49	0.10	0.29	0.39	0.20	0.39	0.49	0.29	0.49	0.59	2	0.85
50–54	0.12	0.35	0.46	0.23	0.46	0.58	0.35	0.58	0.69	5	0.95
55–59	0.13	0.40	0.53	0.27	0.53	0.66	0.40	0.66	0.70	10	1.00
60–64	0.15	0.44	0.59	0.30	0.59	0.70	0.44	0.70	0.70	20	1.05
65–69	0.17	0.50	0.66	0.33	0.66	0.70	0.50	0.70	0.70	50	1.15
70–90	0.18	0.53	0.70	0.35	0.70	0.70	0.53	0.70	0.70	100	1.20

Pre-Development Flows

Soil Permeability= Low to Very Low

100-year ARI run-off Coefficient, $C_{100} = C_y = F_y \cdot C_{10} = 1.20 \times 0.70 = 0.84$

$$t = 6.94 (L \cdot n^*)^{0.6} / (I^{0.4} \cdot S^{0.3})$$

where

- t = overland travel time (min)
- L = overland sheet flow path length (m)
- n^* = surface roughness/retardance coefficient
- I = rainfall intensity (mm/hr)
- S = slope of surface (m/m)

Time of Concentration, $T_c = 6.94 \times (85m \times 0.20)^{0.6} / (230^{0.4} \times 0.02^{0.3}) = 13.95$ mins

Intensity (1% AEP) = 235 mm/hr

Intensity (20% AEP) = 115 mm/hr

Pre-Development Flow in Swale Drains (Each swale has approximately the same Catchment area = 1.9 ha)

5-year ARI Flow, $Q_5 = 2.78 \times C \times I \times A_{imp} = 2.78 \times 0.84 \times 115 \times 1.9 \times 0.9 = 459$ litres /sec

100-year ARI Flow, $Q_{100} = 2.78 \times C \times I \times A_{imp} = 2.78 \times 0.84 \times 235 \times 1.9 \times 0.9 = 938$ litres /sec

Size of Swale determined for **Pre-development flows**:

Bottom Width = 2.0m

Side slopes = 1 in 1.5 (Stone pitched)

Flow depth = 0.36 m

Nominal total depth with freeboard = 0.7m

Capacity of Swale = 950 litres /sec ($V=0.98$ m/sec) OK!

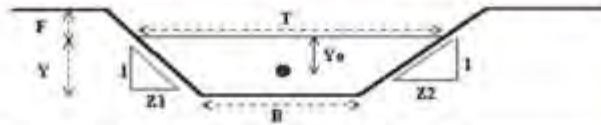
Normal Flow Analysis - Trapezoidal Channel

Client: **Emirge**

Project: **Lot 106 Explorer Drive Gap Ridge**

Chn ID: **Northern & Southern Swale Drains**

Job No: **PC21207**



Design Information (Input)

Channel Invert Slope $S = 0.00327$ m/m
Manning's n $n = 0.025$
Bottom Width $B = 2.2$ m
Left Side Slope $Z1 = 1.5$ 1 on 7
Left Side Manning's n $n = 0.025$
Right Side Slope $Z2 = 1.5$ 1 on 7
Right Side Manning's n $n = 0.025$
Freeboard Height $F =$ m
Design Water Depth $Y = 0.355$ m

Discharge $Q = 0.95$ cumecs
Froude Number $Fr = 0.57$
Flow Velocity $V = 0.98$ m/s
Flow Area $A = 0.97$ m²
Top Width - water surface level $T = 3.27$ m
Top Width - incl freeboard $Tf = 3.27$ m
Mannings n Average $n = 0.025$
Wetted Perimeter $P = 3.48$ m
Hydraulic Radius $R = 0.28$ m
Hydraulic Depth $D = 0.30$ m

DEPTH	WETTED PERIMETER	AREA	VELOCITY V	FLOW	DEPTH/ VELOCITY
0.00					
0.04	2.33	0.08	0.24	0.02	0.01
0.07	2.46	0.16	0.38	0.06	0.03
0.11	2.58	0.25	0.48	0.12	0.05
0.14	2.71	0.34	0.58	0.20	0.08
0.18	2.84	0.44	0.66	0.29	0.12
0.21	2.97	0.54	0.73	0.39	0.16
0.25	3.10	0.64	0.80	0.51	0.20
0.28	3.22	0.75	0.86	0.64	0.24
0.32	3.35	0.86	0.92	0.79	0.29
0.36	3.48	0.97	0.98	0.95	0.35

Post-Development Flows

Soil Permeability= Asphalt & Roofed surfaces (5910 m²)

Balance Site Soils/Hardstands permeability (13,090m²) = As per pre-development = Low to Very Low

Total Catchment post development still 19,000 m² or 1.90ha

100-year ARI run-off Coefficient, $C_{100} = C_y = F_y \cdot C_{10} = 1.20 \times 0.70 = 0.84$ for Hardstands
= 1.0 for Roofs and Asphalted areas

$$t = 6.94 (L \cdot n^*)^{0.6} / (I^{0.4} \cdot S^{0.3})$$

where

t = overland travel time (min)
 L = overland sheet flow path length (m)
 n^* = surface roughness/retardance coefficient
 I = rainfall intensity (mm/hr)
 S = slope of surface (m/m)

Time of Concentration, $T_c = 6.94 \times (85m \times 0.20)^{0.6} / (230^{0.4} \times 0.02^{0.3}) = 13.95$ mins (assume same for longest route)

Intensity (1% AEP) = 235 mm/hr

Intensity (20% AEP) = 115 mm/hr

Post - Development Flow in Swale Drains (Each swale has approximately the same Catchment area = 1.9 ha)

5-year ARI Flow, $Q_5 = 2.78 \times C \times I \times A_{imp} = 2.78 \times 1.0 \times 115 \times ((1.309 \times 0.9) + (0.591 \times 1.0)) = 566$ litres /sec

Note that storage required in the swale to attenuate flows to pre-development flows for the 20% AEP is 121 m³.
Available storage is in excess of this volume. Refer to Calculations below.

100-year ARI Flow, $Q_{100} = 2.78 \times C \times I \times A_{imp} = 2.78 \times 1.0 \times 235 \times ((1.309 \times 0.9) + (0.591 \times 1.0)) = 1,156$ litres /sec

Size of Swale determined for **Post-development flows**:

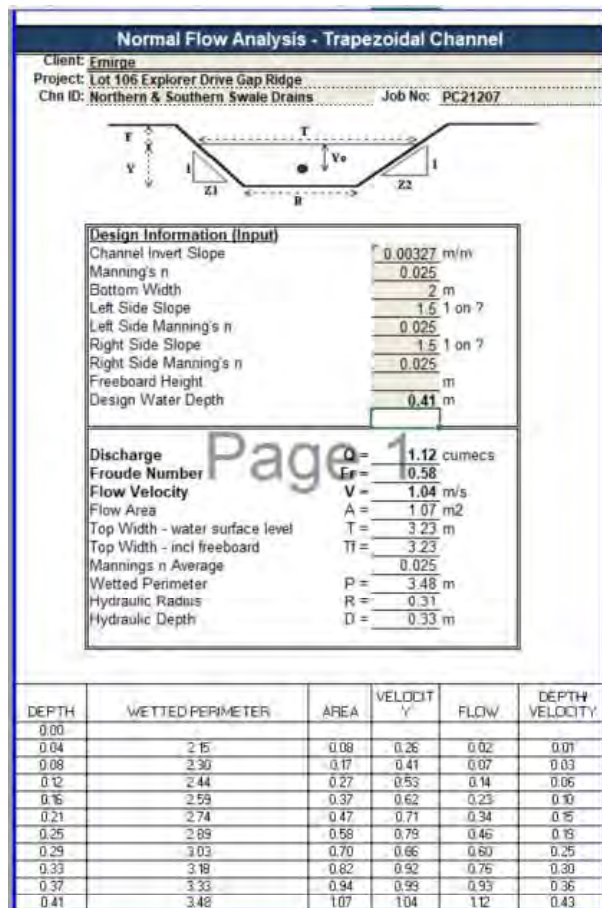
Bottom Width = 2.0m

Side slopes = 1 in 1.5 (Stone pitched)

Flow depth = 0.38 m

Nominal total depth with freeboard = 0.7m

Capacity of Swale = 1,120 litres /sec (V=1.04 m/sec) OK!





Storage Soakage Calculator

Catchment Area Description: Northern & Southern Swale

Project Name: Lot 06 Exploration Drive

Date: 28/10/2022

Location: Karatha Soil Type: No Soakage Critical Time: 8 min

Soakage Rate: 0.0 m/s Soakage Area: 830.6 m²

Rate Override: 0 m/s Volume Required: 120.9 m³

→ 0.0 m³/s Vol at 350m³/ha: 665 Sub - Total Volume: 121.2 m³

Other Outlet: 0.459 m³/s Vol at 15mm (m²): 285 Difference: -0.2 m³

Depth at 15mm (m): 0.38306 Less Pavement Ponding: 0.0 m³

2% Area for Bio (m²): 380 Less Pipe Storage: 0.0 m³

Total Volume Provided: 121.2 m³

Pipe Diam (mm): 300 Pipe Length (m): 0

SOAKWELL		SIZE 1	SIZE 2	SIZE 3	BASIN 1	BASIN 2	Graf EcoBloc Maxx	STORMTECH SC-310	STORMTECH SC-740
Diameter	1.8	m	1.20	m	0.6	m	Units High	0	0
Depth	1.8	m	0.9	m	0.9	m	Units Wide	0	0
Number	0		0		0		Units Long	0.15	0.15
Stone Wrap	0.15	m	0.15	m	0.15	m		Stone Cover	0.40
Stone Voids	0.40		0.40		0.40			Stone Voids	0.40
Infiltration Area	0.0	m ²	0.0	m ²	770.4	m ²	Infiltration Area	0.0	m ²
Storage Volume	0.0	m ³	0.0	m ³	121.2	m ³	Storage Volume	0.0	m ³



APPENDIX E - STORMWATER DRAINAGE PLAN (Stormwater Management)

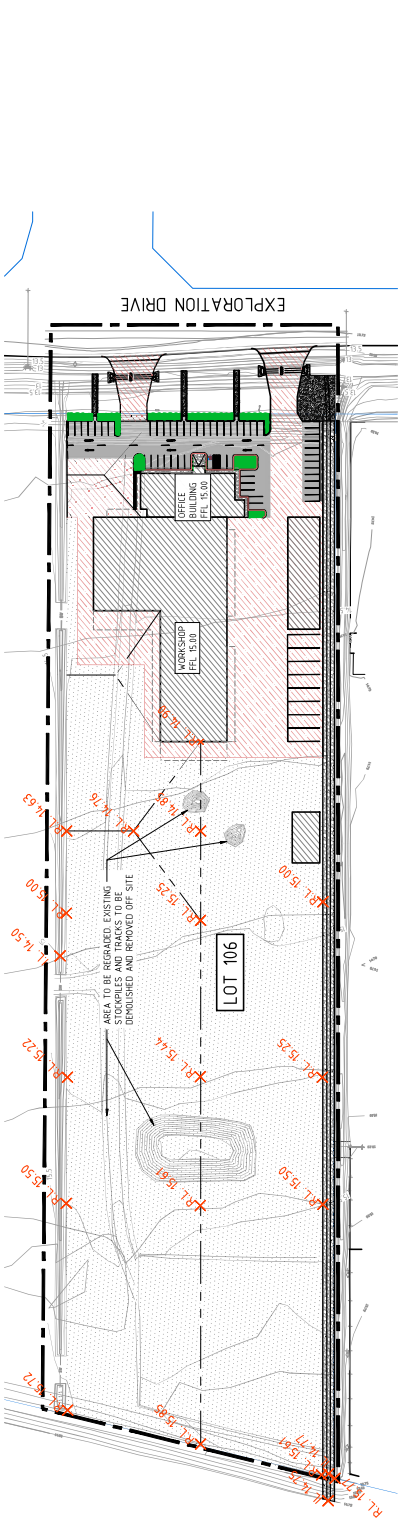


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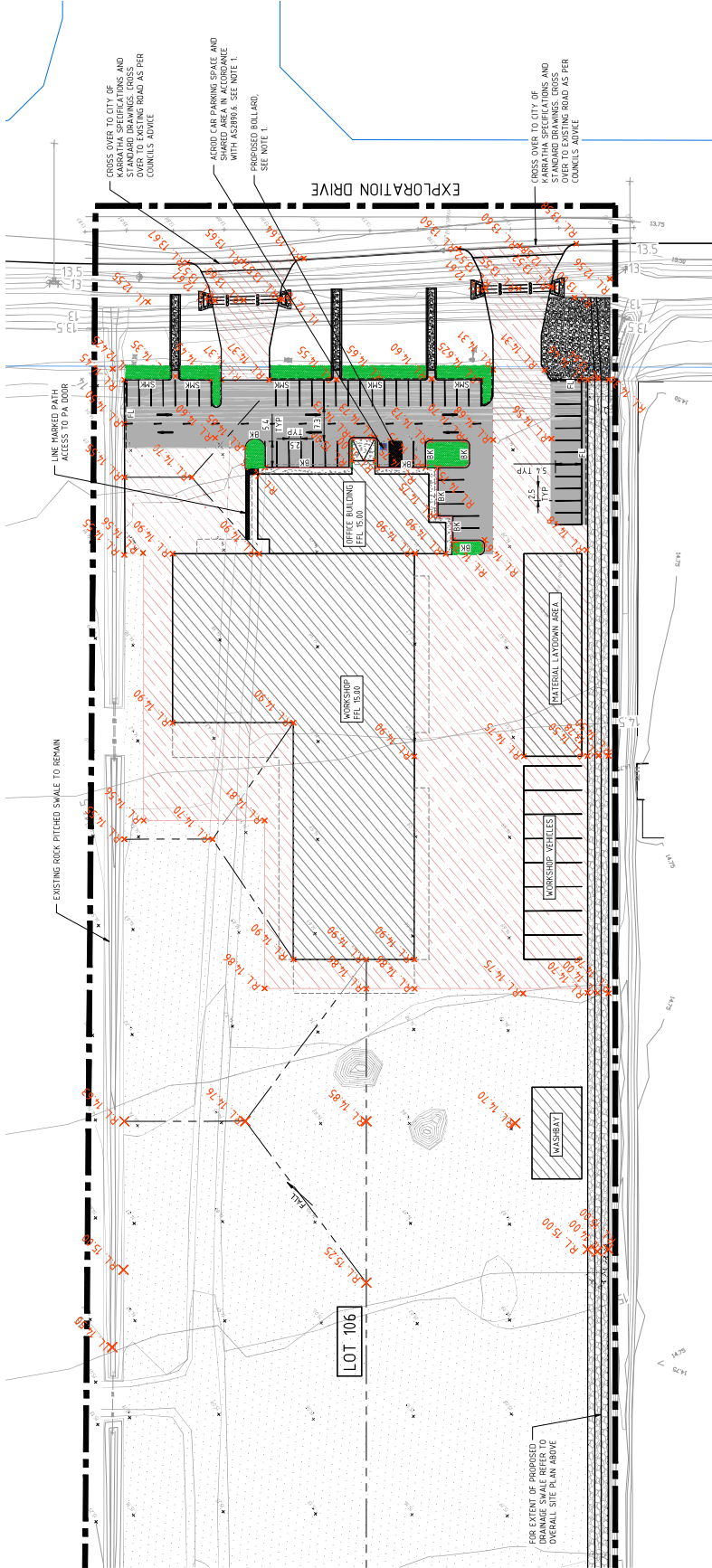
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LEGEND:

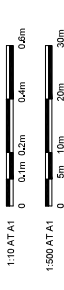
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- EXISTING SPOT HEIGHT
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- PROPOSED UNSEALED HARDSTAND
- PROPOSED BUILDING/AREA
- PROPOSED MORTARED ROCK PITCHING
- PROPOSED ROCK PITCHING
- PROPOSED SPOT LEVEL
- PROPOSED LANDSCAPING
- PROPOSED FALL DIRECTION
- PROPOSED PAVEMENT GRADING
- EXISTING CONTOURS
- PROPOSED BARRIER KERB
- PROPOSED SEMI-MOUNTABLE KERB
- PROPOSED FLUSH KERB
- PROPOSED ACIDW BAY



PAVEMENT PLAN - OVERALL SITE
SCALE 1:1000



PAVING AND GRADING PLAN
SCALE 1:500

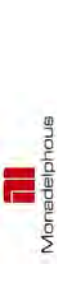


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2	ISSUED FOR INFORMATION	12.08.22	CR	12.08.22



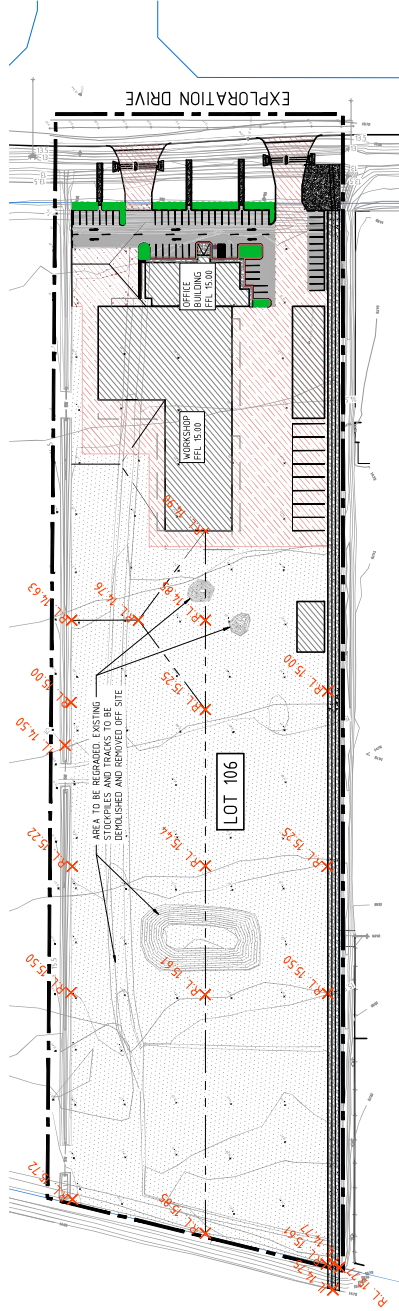
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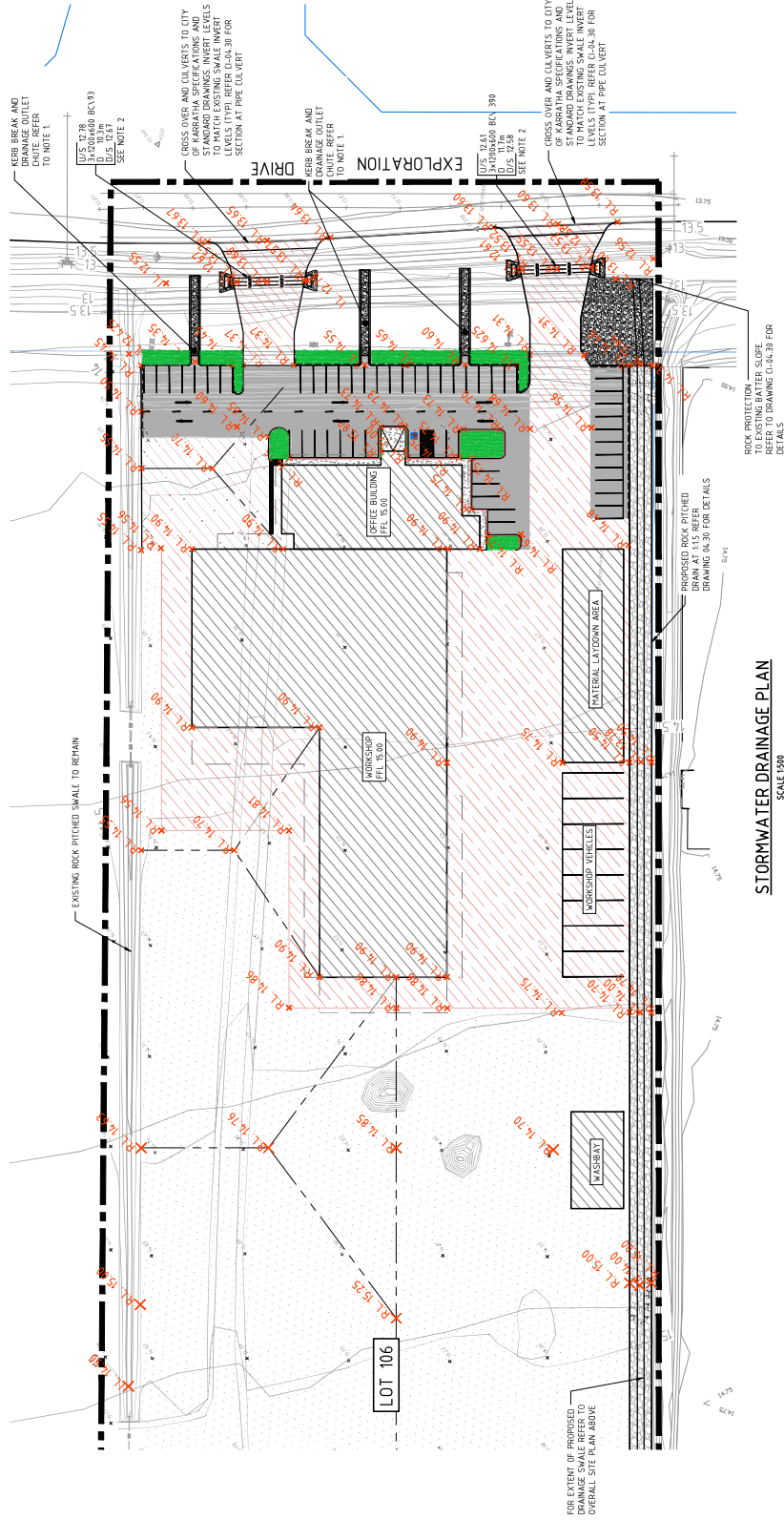
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2	ISSUED FOR INFORMATION	12.08.22	CR	12.08.22	

MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

PAVEMENT & GRADING
PLAN



SCALE 1-1000

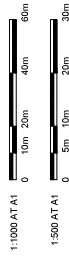


STORMWATER DRAINAGE PLAN

SCALE 1:500

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1. FOR DRAINAGE DETAILS REFER DRAWING PC2107-CL-04.30.
2. FINISHED INVERTS OF BOX CULVERT TO BE ADJUSTED TO MATCH EXISTING ROAD SIDE SWALE DRAIN INVERTS AND GRADING.

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E: ENQUIRE@PERTASGROUP.COM.AU	E: ENQUIRE@PERTASGROUP.COM.AU

DESIGNED	DRAWN	CHECKED
L. RONCHI	A. OMELCHUK	E. BIAGINI-FROUDIST
SURVEY DATION	SURVEY No.	SCALE
KAR94		AS SHOWN @ 1"
DWG IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		7/6 OR 77

PROJECT
MONDELPHOUS
LOT 106 GAP RIDGE
KARRATHA

STORMWATER DRAINAGE PLAN

PROJECT NUMBER:	PC21207	ORG NUMBER:	CI-04.00	REV:	B
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LOT 106 GAP RIDGE, KARRATHA, WA
PRELIMINARY



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CLIENT



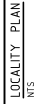
COVER SHEET

DRAWING SCHEDULE	
SHEET NUMBER	SHEET TITLE
02-00	COVER SHEET
02-01	STANDARD NOTES
02-02	PAVEMENT AND GRADING PLAN
02-03	PAVEMENT AND GRADING DETAILS
02-04	STORMWATER DRAINAGE PLAN
02-05	STORMWATER DRAINAGE TYPICAL DETAILS

CITY OF KARRATHA STANDARD DRAWINGS

KAS-100

1 STANDARD DRAWING, 20 SHEETS, BROSSER



GENERAL NOTES

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH PERITAS CIVIL SPECIFICATION, BOTH THE CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE SPECIFICATIONS AND REQUIREMENTS OF THE RELEVANT SECTION OF CIVIL SPECIFICATION.
 2. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS, TOGETHER WITH OTHER ENGINEERING DISCIPLINES AND NOTIFY PERITAS IMMEDIATELY OF ANY DISCREPANCIES.
 3. PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL CONFIRM THE ALIGNMENTS AND LEVELS OF THE EXISTING SERVICES AT ALL LOCATIONS WHERE THE SERVICES ARE TO BE INSTALLED, AND SHALL BE RESPONSIBLE FOR CROSS, CONNECT TO INSTALLED NEARBY, OR ARE LOCATED CLOSE PROXIMITY TO THE EXISTING SERVICES, ANY WORKING WITHIN THE VICINITY OF THE EXISTING SERVICES TO BE CARRIED OUT TO SERVICE AUTHORITIES REQUIREMENTS.
 4. THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO OBTAIN PERMISSIONS TO DETERMINE ALL UTILITIES WITHIN THE CONTRACT AREA PRIOR TO PROGRESS CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE GUARANTEES WHICH ARE TO BE FORWARDED TO THE PRINCIPAL, IN THE SUPERINTENDENT'S FURNISHMENT OF THE INVOICES.
 5. ALL LEVELS ARE IN M TO AHD.
 6. HORIZONTAL DATUM RA 94.
 7. THE CONTRACTOR SHALL OBTAIN ALL LEVELS FROM ESTABLISHED BENCHMARKS AS PROVIDED BY THE PROJECT SURVEYOR, ALL BENCHMARKS ARE TO BE PROTECTED.
 8. ANY DISCREPANCY ON THESE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKING, ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
 9. THE CONTRACTOR TO LIMIT ACCESS ONLY TO THOSE AREAS WITHIN THE EARTHWORKS BOUNDARY UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT, ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT FOR DECISION PRIOR TO COMMENCEMENT OF WORKING.
 10. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, LOCAL COUNCIL REQUIREMENTS AND SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED BY THE SUPERINTENDENT FOR DECISION PRIOR TO COMMENCEMENT OF WORKING.
 11. ANY AREAS NOT USED BY THE WORKS SHALL BE MADE GOOD UPON COMPLETION OF THE WORKS AT THE CONTRACTORS EXPENSE.
 12. DETAIL DRAWINGS INCLUDING IN THE SET TO TAKE PRECEDENCE OVER REFERENCED DRAWINGS.
 13. NO BURNING OR BLASTING IS PERMITTED ON SITE.
- ## SITE INSPECTION
1. THE CONTRACTOR SHALL NOTIFY PERITAS CIVIL AND THE BUILDER OF THE DATE OF VISITATION FOR COMMENCEMENT ON SITE.
 2. INSPECTIONS AT ANY STAGES OF CONSTRUCTION WILL BE REQUIRED PRIOR TO THE COMMENCEMENT OF WORKING, THE CONTRACTOR SHALL LIAISE WITH PERITAS CIVIL TO ARRANGE FOR NECESSARY INSPECTIONS.
 3. A MINIMUM OF 24 HOURS NOTICE FOR PERMIT WORK AND 5 DAYS NOTICE FOR REGULAR VISITS IS REQUIRED FOR ANY SITE INSPECTION.

EARTHWORKS NOTES

1. THE CONTRACTOR SHALL BE SUBMITTED TO THE A.GUIDELINE FOR MANAGING THE IMPACTS OF DUST AND ASSOCIATED CONTAMINANTS FROM LAND DEVELOPMENT SITES. CONTAMINATED SITES REMEDIATION AND OTHER RELATED ACTIVITIES PUBLISHED BY THE DCEC, MARCH 2011.
2. THE CONTRACTOR SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATION.
3. REFERENCE SHALL BE MADE TO THE RELEVANT CLAUSES OF THE EARTHWORKS SPECIFICATION WHERE WORK IS WITHIN PROPOSED ROAD RESERVES.
4. THE ENTIRE EARTHWORKED AREA (EXCEPT PAVEMENTS) WHEN NOTED ON THE DRAWINGS SHALL BE STABILIZED WITH HYDROMULCH IN ACCORDANCE WITH THE SPECIFICATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FENCING AND ADEQUATE DUST CONTROL DURING CONSTRUCTION, REFER TO SPECIFICATION.
5. THE CONTRACTOR SHALL TAKE CARE WITH THE USE OF COMPACTION EQUIPMENT WITH THE VIBRITY OF THE EXISTING RESOURCES SO AS TO AVOID OVERCOMPACTION OF THE EXISTING SUBGRADE. OVERCOMPACTION INCURRED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. FOR VEGETATION NOTED TO BE CLEARED, THE CONTRACTOR SHALL MULCH THE VEGETATION AND DEPOSE OFF SITE.
7. FINISHED SURFACE CONTOURS SHOWN ARE TOP OF PAVEMENT. CONTRACTOR TO CONSTRUCT EARTHWORKS TO BOX OUT STAGE.
8. CONTRACTOR TO REMOVE FROM SITE ALL RUBBISH (e.g. CAR BODIES, DRUMS, TANKS, TIRES, ETC.) AND ALL OTHER DEBRIS. CONTRACTOR SHALL OBTAIN AUTHORITY DISPOSAL SITE, ALL FEES TO BE PAID BY THE CONTRACTOR.
9. AT THE EDGE OF EARTHWORKS BOUNDARY, CONTRACTOR TO BATTER AT 1 IN 6 TO NATURAL SLOPE, UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL NOTE THAT NON-TRAFFICABLE SUBTERRANEAN STRUCTURES AND/OR VIDS (SOAKWELLS ETC.) MAY EXIST ON THE SITE AND SHALL TAKE ADEQUATE MEASURES TO LOCATE THESE PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND COMING TO ANY AREA THAT SUCH STRUCTURES MAY PRESENT.
11. THE SUBTERRANEAN WAS NOT INVESTIGATED ON THE SITE & UNLESS NO REPRESENTATION AS TO WHAT MAY EXIST ON OR BELOW THE SITE, THE CONTRACTOR SHALL MAKE THEIR OWN INVESTIGATIONS AS TO THE NATURE OF THE SUBSURFACE CONDITIONS OF THE SITE.
12. PRIOR TO EARTHWORKS THE CONTRACTOR SHALL LOCATE ANY SOAKWELLS AND REMOTE AND BACKFILL ANY UNUSED PREWORK LOCATED SHALL BE REMOVED. SEPTIC TANKS SHALL BE DECOMMISSIONED AS PER THE LOCAL AUTHORITY REQUIREMENTS.
13. BODIES SHALL BE DECOMMISSIONED IN ACCORDANCE WITH THE "MINIMUM REQUIREMENTS FOR THE DECOMMISSIONING OF WATER SUPPLY STRUCTURES" PUBLISHED BY NATIONAL UNIFORM FIRING LICENSING COMMITTEE - FEBRUARY 2012.
14. THE CONTRACTOR SHALL RAKE THE SITE AND STOCKPILES AND REMOVE UNSUITABLE MATERIAL OFF SITE. THE STOCKPILES MAY REQUIRE SOMETHING TO SEPARATE THE UNSUITABLE MATERIAL.
15. THE CONTRACTOR SHALL RAKE THE SITE AND STOCKPILES AND REMOVE UNSUITABLE MATERIAL OFF SITE.
16. IMPORTED FILL SHALL BE CLEAN AND FREE DRAINING SAND, CLEAN FILL CERTIFICATION IS TO BE PROVIDED BY THE CONTRACTOR.
17. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING TO EXISTING LOTS WHERE REQUIRED.
18. THE CONTRACTOR SHALL PROVIDE TEST RESULTS AND COMPACTION CERTIFICATES UPON COMPLETION OF EARTHWORKS.
19. EARTHWORKS TO MATCH NEATLY TO EXISTING LEVELS AND ADJOINING

ROAD & PAVEMENT NOTES

1. THE CONTRACTOR SHALL INSTALL ALL DUCTS FOR SERVICE PROVIDERS AT ROAD CROSSINGS OR AS NOTED ON THE DRAWINGS.
2. TRANSITIONS BETWEEN DIFFERENT KERB SECTIONS SHALL BE MADE OVER A LENGTH OF 2m AND SHALL COMMENCE AT THE TANGENT POINT OF KERB RETURNS IN THE CASE OF INTERSECTIONS.
3. ALL CONSTRUCTION SHALL MAKE SMOOTH CONNECTION TO EXISTING WORK.
4. ALL ROAD VERGES SHALL BE SURFACED WITH MINIMUM 75mm OF PORCUL - QUINCE. FOR ALL OTHERS, THE CONTRACTOR SHALL BE INSTRUCTED BY THE SUPERINTENDENT, FOR INTERNAL WORKS REFER TO LANDSCAPE DRAWINGS.

AS CONSTRUCTED DOCUMENTATION

1. THE FOLLOWING AS CONSTRUCTED DOCUMENTATION SHALL BE SUBMITTED TO THE SUPERINTENDENT UPON COMPLETION OF THE WORKS:
 - 1.1. DRAINAGE AS CONSTRUCTED PLAN
 - 1.2. ROADS/PAVEMENT AS CONSTRUCTED PLAN
2. REFER TO CONTRACT SPECIFICATION FOR AS CONSTRUCTED REQUIREMENTS AND RESPONSIBILITIES. IT SHALL BE NOTED THAT LICENSED SURVEY IS REQUIRED FOR WATER CORPORATION'S AS CONSTRUCTED DOCUMENTATION.

QUALITY ASSURANCE

1. THE FOLLOWING QUALITY ASSURANCE DOCUMENTATION SHALL BE SUBMITTED AND APPROVED BY THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF CONSTRUCTION:
 - 1.1. **IMPORT FILL - CLEAN FILL CERTIFICATE**
 - 1.2. **PERMEABILITY & ORGANIC CONTENT**
 - 1.3. **ROAD SUBGRADE - PARTICLE SIZE DISTRIBUTION, CALIFORNIA UNIFORMITY TEST, & NATURAL PROPERTIES AS OUTLINED IN THE CONTRACT SPECIFICATION**
 - 1.4. **ROAD BASE - PARTICLE SIZE DISTRIBUTION, CALIFORNIA BEARING RATIO, & NATURAL PROPERTIES AS OUTLINED IN THE CONTRACT SPECIFICATION**
 - 1.5. **PRIME MIX**
 - 1.6. **LIMESTONE BLOCKS - MATERIAL PROPERTIES AS OUTLINED IN THE CONTRACT SPECIFICATION**
2. THE FOLLOWING QUALITY ASSURANCE DOCUMENTATION SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL UPON COMPLETION OF EACH OF THE FOLLOWING:
 - 2.1. **COMPACTION CALIBRATION CERTIFICATE**
 - 2.2. **EARTHWORKS - CUT/FILL COMPACTION CERTIFICATE**
 - 2.3. **ROAD SUBGRADE - COMPACTION CERTIFICATE**
 - 2.4. **ROAD BASE - COMPACTION CERTIFICATE**
 - 2.5. **ASPHALT - CORE SAMPLE TESTS**
 - 2.6. **DRAINAGE & SERVICES - COMPACTION CERTIFICATE**
 - 2.7. **RETAINING WALL - COMPACTION CERTIFICATE**
 - 2.8. **REINFORCED CONCRETE - COMPACTION CERTIFICATE**
 - 2.9. **SEWER & WATER MAINS - COMPACTION CERTIFICATE**
 - 2.10. **REFER TO CONTRACT SPECIFICATION FOR FULL QUALITY ASSURANCE REQUIREMENTS**

DRAINAGE NOTES

1. ALL STORMWATER DRAINAGE PIPES DN300 OR SMALLER SHALL BE UPVC OR SHALL BE A MINIMUM CLASS S16 (S18 UNDER TRAFFICABLE AREAS) OR APPROVED EQUIVALENT.
2. STORMWATER PIPES LARGER THAN DN300 TO BE REINFORCED CONCRETE RIBBED RING JOINT CLASS S16 (S18 UNDER TRAFFICABLE AREAS) OR APPROVED EQUIVALENT.
3. RUBBER RING JOINT CLASS S16 (S18) UNLESS OTHERWISE NOTED.
4. JUNCTION AND ENTRY PIPES ARE TO BE LOCATED IN ACCORDANCE WITH THE SETTING OUT INFORMATION SUPPLIED, RESPECTIVE OF THE INDICATED PIPE LENGTHS.
5. ALL PIPE DISTANCES ARE MEASURED CENTRE TO CENTRE OF FITS AND PIPES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL EXISTING SERVICES, ALL SEWER CROSSINGS SHALL BE PROVIDED WITH EITHER TIMBER BARRIERS OR KELT WITH TIMBER PLAYS AS REQUIRED, WHERE CONNECTING INTO EXISTING DRAINAGE, THE CONTRACTOR IS TO PICK UP UPSTREAM AND DOWNSTEAM EXISTING LEVELS OF EXISTING DRAINAGE LINE IMMEDIATELY DOWNSTEAM OF PROPOSED CONNECTION.
7. THE CONTRACTOR TO SUPPLY THE SURVEY INFORMATION TO THE SUPERINTENDENT PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE CONSTRUCTION, THE CONTRACTOR TO THEN AVOID NOTIFICATION FROM THE SUPERINTENDENT THAT DRAINAGE CONSTRUCTION MAY COMENCE.
8. APPROVED JOINTS TO FITS TO BE NOTIFIED UNDERSIDE WITH APPROVED MKN IN ACCORDANCE WITH SPECIFICATIONS.

NOT FOR CONSTRUCTION

[illegible]

DESIGNED	DRAWN	CHECKED
L. RONCH	A. OMELCHUK	E. BAGGINI-FROUDIST
SURVEY DATUM	WAPC No.	SCALE
KAR94		N/A @ A1
DRAWING IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		26.09.22

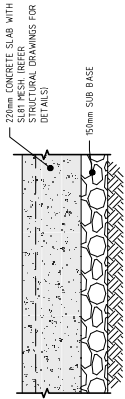
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

STANDARD NOTES

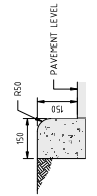
PROJECT NUMBER:	DWG NUMBER:	REV:
PC21207	CI-01.00	B



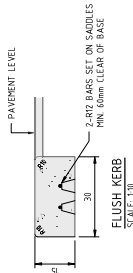
1. FOR PAVEMENT TYPES IN PLAN REFER DRAWING
PC21207-(1-03.00).



EXTERNAL CONCRETE HARDSTAND
SCALE: 1:10



LIGHT DUTY
SCALE: 1:10



FLUSH KERB
SCALE: 1:10

SPACE IDENTIFICATION
EACH DEDICATED SPACE SHALL BE IDENTIFIED BY MEANS OF A WHITE SYMBOL OF ACCESS IN ACCORDANCE WITH AS 1428.1 BETWEEN 800mm AND 1000mm HIGH PLACED ON A BLUE RECTANGLE WITH NO SIDE MORE THAN 1200mm, PLACED AS A PAVEMENT MARKING IN THE CENTRE OF THE SPACE BETWEEN 500mm AND 600mm FROM ITS ENTRY POINT AS ILLUSTRATED

PAVEMENT MARKINGS SPECIFIED IN ITEMS (A) AND (B) OF THIS CLAUSE SHALL BE YELLOW AND SHALL HAVE A SLIP RESISTANT SURFACE. RAISED PAVEMENT MARKERS SHALL NOT BE USED FOR SPACE DELINEATION.

1. LINE-MARKING
 - 1.1. DEDICATED PARKING SPACES SHALL BE OUTLINED WITH UNBROKEN LINES 80 TO 100mm WIDE ON ALL SIDES EXCEPT ANY SIDE DELINEATED BY A KERB, BARRIER OR WALL.

2.1. WALKWAYS WITHIN OR PARTLY WITHIN A SHARED AREA SHALL BE MARKED WITH UNBROKEN LONGITUDINAL LINES ON BOTH SIDES OF THE WALKWAY EXCEPT ANY SIDE DELINEATED BY A KERB, BARRIER OR WALL.

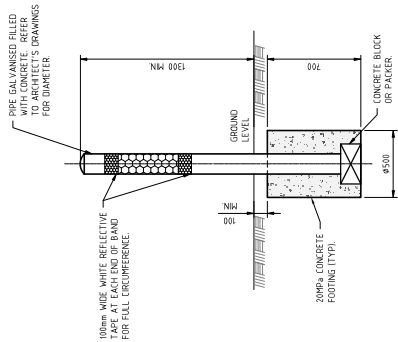
2.2. OTHER VACANT NON-TRAFFICKED AREAS, WHICH MAY BE INTENTIONALLY OR UNINTENTIONALLY OBSTRUCTED (E.G. BY UNINTENDED PARKING), SHALL BE OUTLINED WITH UNBROKEN LINES 80 TO 100mm WIDE ON ALL SIDES EXCEPT ANY SIDE DELINEATED BY A KERB, BARRIER OR WALL, AND MARKED WITH DIAGONAL STRIPES 150 TO 200mm WIDE WITH SPACES 200mm TO 300mm

2.3. NO SHARED AREA MARKINGS SHALL BE PLACED IN ANGLE OF 45 ± 10 DEGREES TO THE SIDE OF THE SPACE.

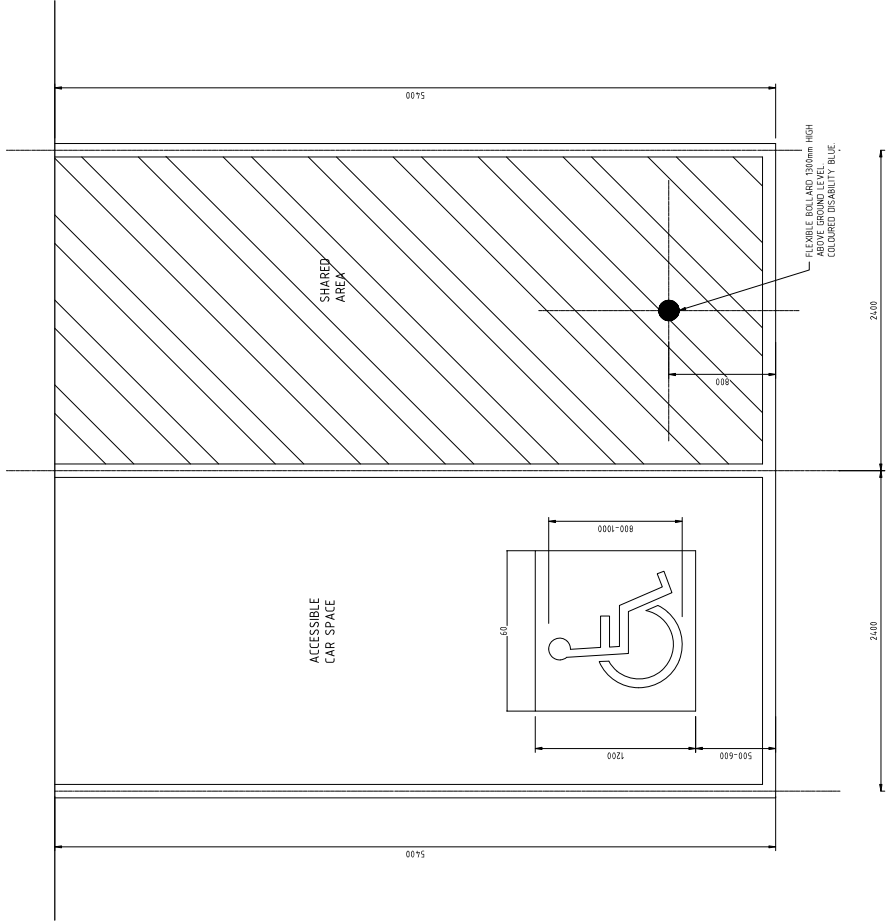
3. BOLLARDS:

3.2. RECOMMENDED COLOUR BLUE TO CONTRAST AGAINST YELLOW LINE MARKING

3.3. RECOMMEND FLEXIBLE BOLLARDS TO REDUCE MOTOR VEHICLE DAMAGE



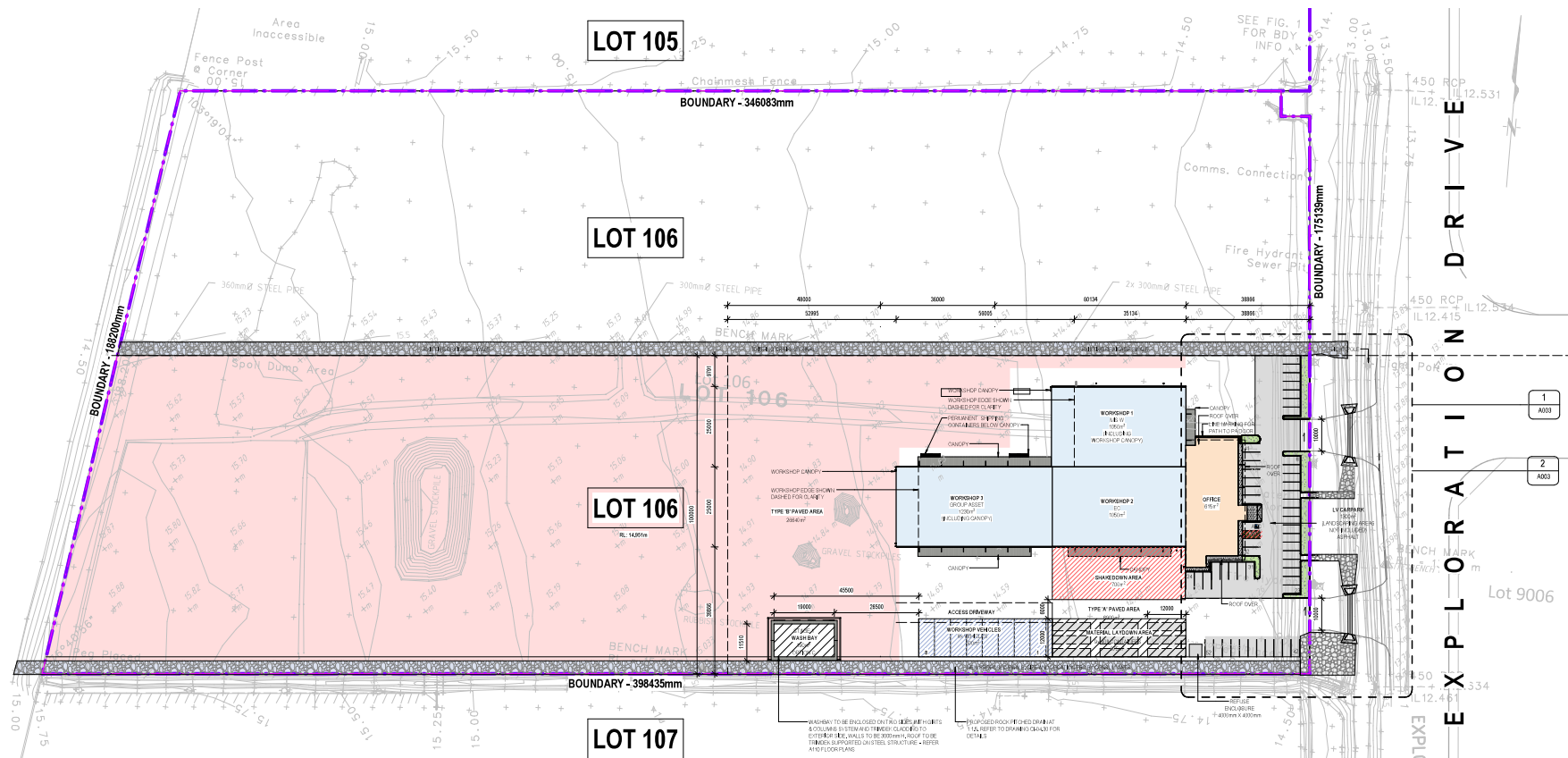
BOLLARD DETAIL
GALVANISED PIPE FILLED WITH CONCRETE
NOT TO SCALE



**SINGLE ACCESSIBLE CAR PARKING SPACE
IN ACCORDANCE WITH AS2890.6**
SCALE: 1:50

NOT FOR CONSTRUCTION

1	SITE PLAN
A000	1:750



DATE	ISSUE	DESCRIPTION
11/10/2023	G	ISSUED FOR COORDINATION
16/10/2023	F	ISSUED FOR COORDINATION
16/10/2023	E	ISSUED FOR DESIGN ASSISTMENT
27/03/2023	G	ISSUE FOR CA
20/03/2023	E	ISSUE FOR COORDINATION
16/03/2023	G	ISSUE FOR COORDINATION
01/04/2023	F	ISSUE FOR CLARITY REVIEW
DATE	ISSUE	DESCRIPTION

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1	info@modus.com.au	WINDYBELL QLD
ABN	27 121 224 459	PO BOX 322
ACN	101 224 459	COOROOR QLD 4345

SITE GENERAL ARRANGEMENT

EMERGE MONADELPHOUS GAP RIDGE

MODUS PROJECT	D22-1563
DESIGN	SA
DRAWN	SA
CHECKED	CU
SCALE	1:750
DATE	22/03/2023
REVISION	G

ACALYPHA INFERNO FIRESTORM
AGAVE ATTENUATA
BOUGHN'UNDA SMARTY PANTS
CROTON ANTHEMISCHUS
CLEODENDRON NERME
CROTON CODIAEUM
CROTON SUNNY STAR
DRACAENA MARGINATA
DRACAENA MARGINATA TRILOBE
EREMOPHILA GLABRA
EREMOPHILA MACULATA
HEMEROCALLIS LITTORALE
BORA CORAL FIRE
BORA MALAY PINK
BORA PRINCE OF ORANGE
HARRADA PANICULATA
PITILLOTUS EXALTATUS
RHOEO DECOLOR
RUSSELLA EQUESTIFORMIS
STREPTA REGINA
WESTRINGIA FRUTICOSA

TOTAL LANDSCAPING AREA: 221.34m²[illegible]

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t 9444 9511 SLITE
 f 9444 9522 127 HERDMAN P
 e info@medis.nl.eu WEMBLEY 60
 ASN 27 121 224 459 PO BOX 2
 ACN 121 224 459 COMO VA 65

PARKING AND LANDSCAPE ARRANGEMENT

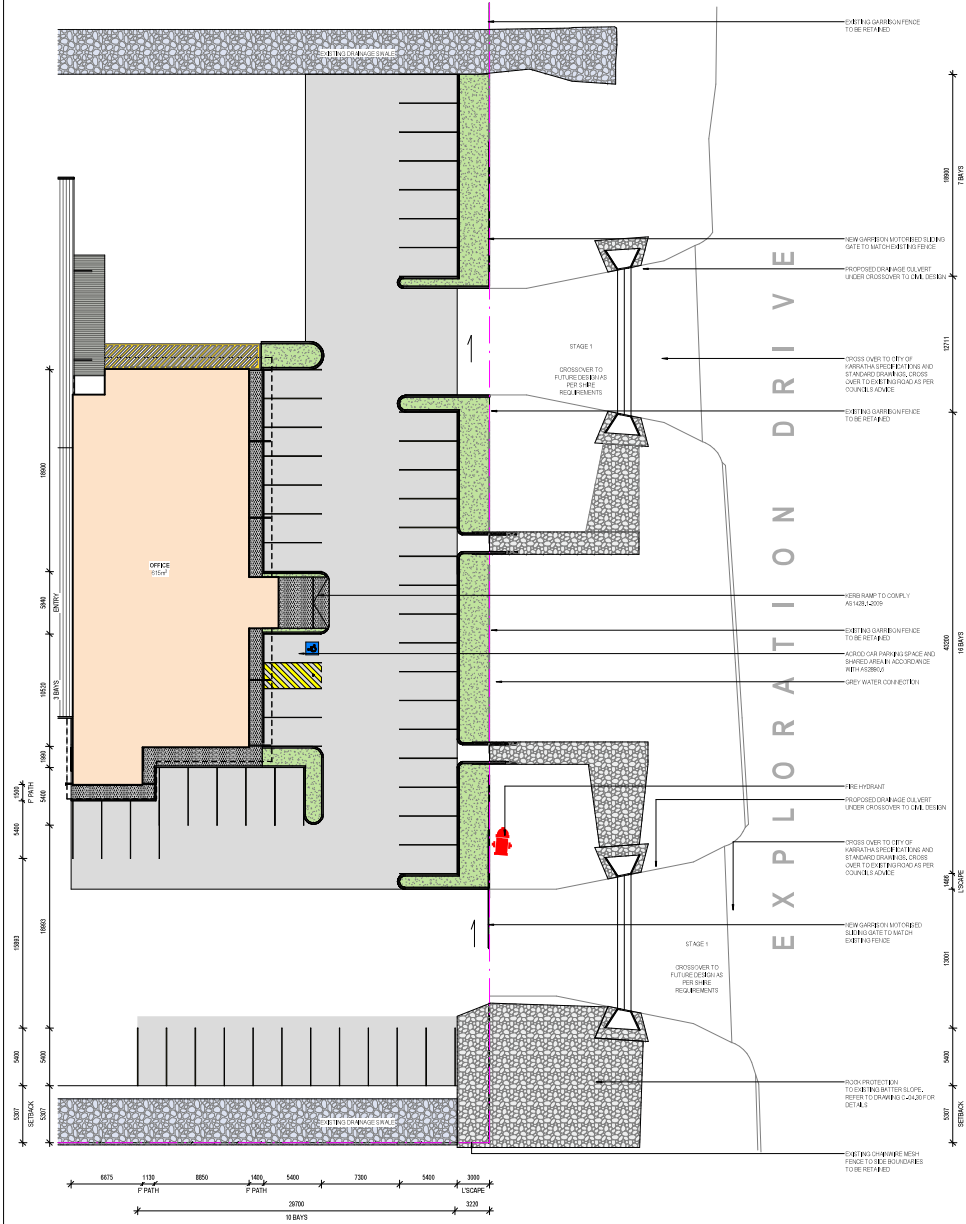
EMIRGE MONADELPHOUS GAR
RIDGE

Page 10

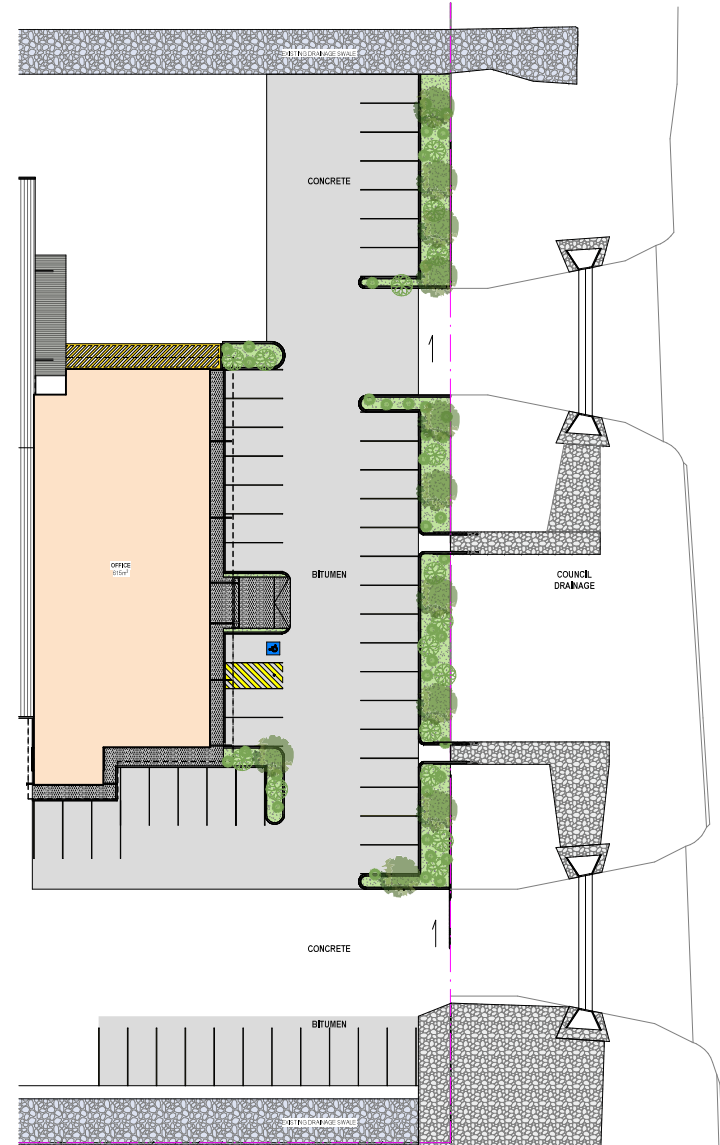
MODUS PROJECT D22-156
DESIGN
DRAWING

As indicated by the clock icon, the scale was checked on 22.03.2018.

A1
DWG

[illegible]

1	PROPOSED CAR PARK PLAN
A002	1:200



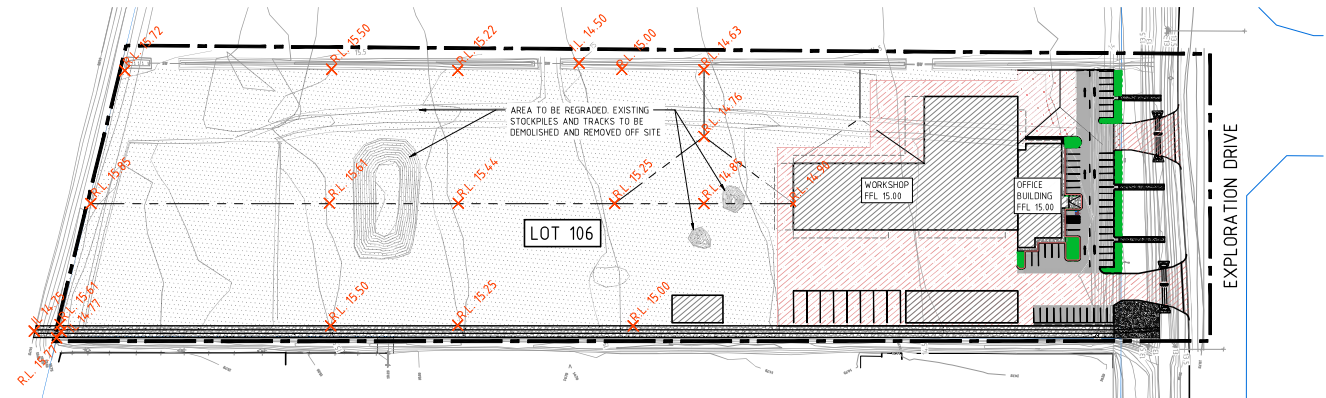
2	PROPOSED LANDSCAPING PLAN
ASCC	1:200

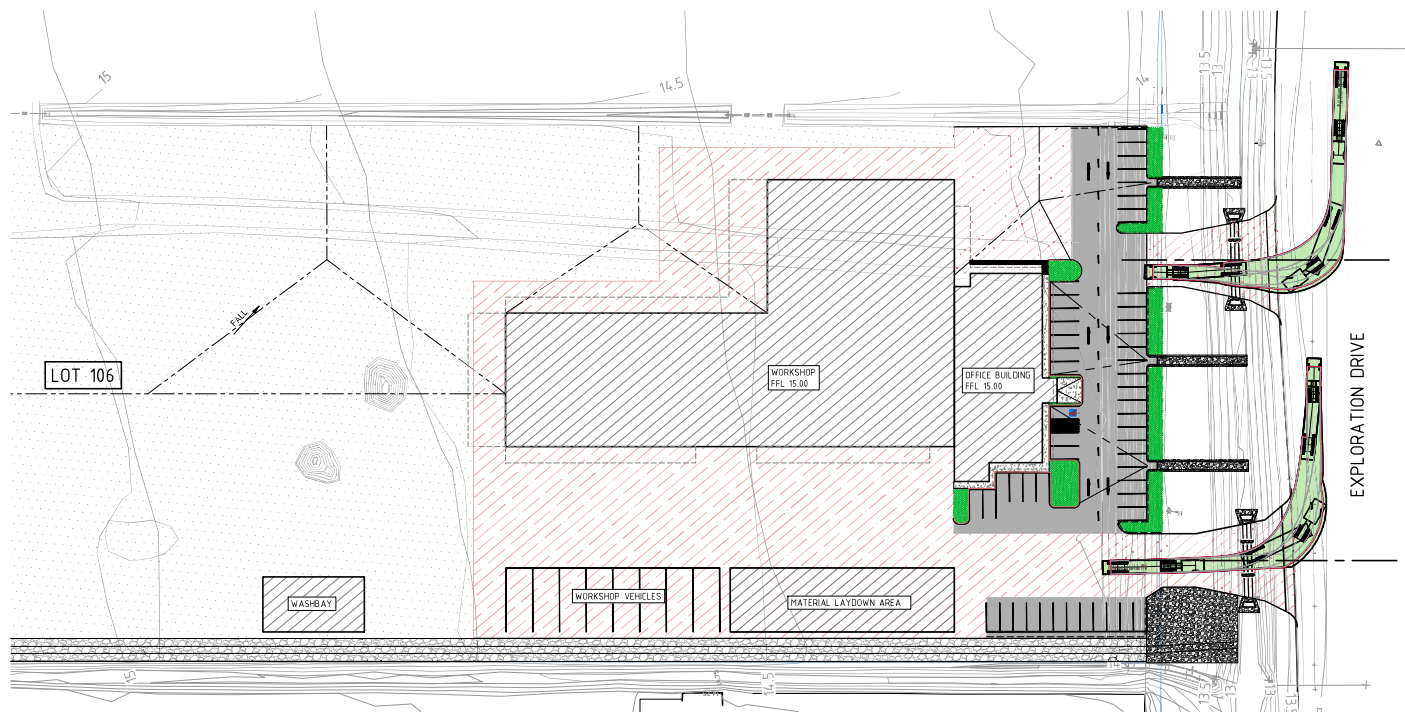


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PERITAS CONSULTING PTY LTD AND THE INSTRUCTING PARTY.
REV: 01

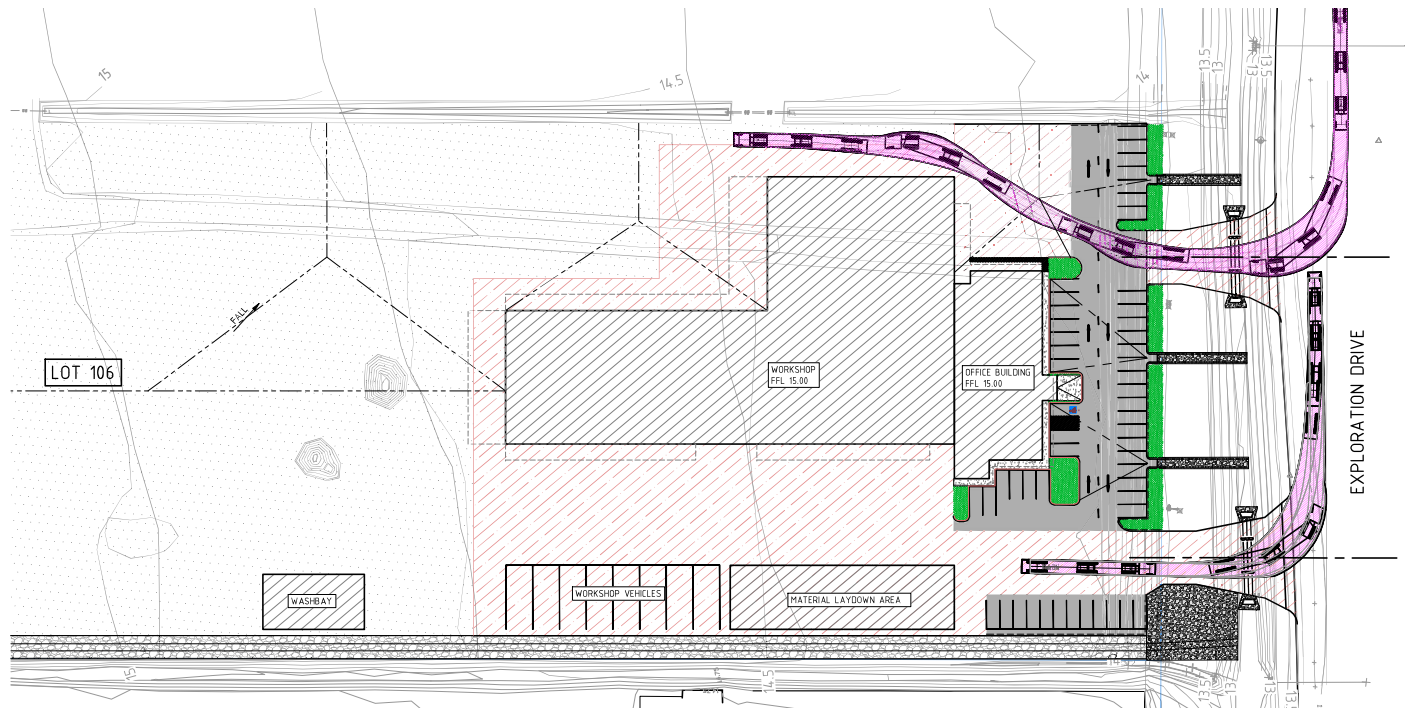
1. FOR PAVEMENT DETAILS REFER DRAWING PC21207-CI-03.00.

- LEGEND:**
- EXTENT OF WORKS BOUNDARY
 - EXISTING CADASTRAL BOUNDARY
 - EXISTING SPOT HEIGHT
 - PROPOSED CONCRETE PAVING
 - PROPOSED UNSEALED HARDSTAND
 - PROPOSED BUILDING/AREA
 - PROPOSED MORTARED ROCK PITCHING
 - PROPOSED ROCK PITCHING
 - PROPOSED LANDSCAPING
 - PROPOSED SPOT LEVEL
 - FALL
 - PROPOSED FALL DIRECTION
 - PROPOSED PAVEMENT GRADING
 - EXISTING CONTOURS
 - PROPOSED BARRIER KERB
 - PROPOSED SEMI-MOUNTABLE KERB
 - PROPOSED FLUSH KERB
 - PROPOSED ACROD BAY





VEHICLE TRACKING PLAN - 19m SEMI
SCALE 1500



VEHICLE TRACKING PLAN - 26m B-DOUBLE
SCALE 1500

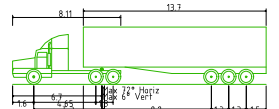
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REVISIONS:

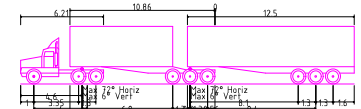
1. FOR PAVEMENT DETAILS REFER DRAWING PC21207-CI-03.30.

LEGEND:

- EXTENT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING SPOT HEIGHT
- PROPOSED CONCRETE PAVING
- PROPOSED UNSEALED HARDSTAND
- PROPOSED BUILDING/AREA
- PROPOSED MORTARED ROCK PITCHING
- PROPOSED ROCK PITCHING
- PROPOSED LANDSCAPING
- PROPOSED FALL DIRECTION
- PROPOSED PAVEMENT GRADING
- EXISTING CONTOURS



Prime mover and semi-trailer (19 m)
Overall Length 19.000m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.540m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12.500m



B-Double (26m)
Overall Length 25.800m
Overall Width 2.500m
Overall Body Height 4.300m
Min Body Ground Clearance 0.540m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 15.900m

1:500 AT A1
0 5m 10m 20m 30m

NOT FOR CONSTRUCTION

REVISION	REASON	ISSUED	DATE
A	ISSUED FOR INFORMATION	L.R.	28.10.22
B	ISSUED FOR INFORMATION	L.R.	31.10.22

peritas

PERTH
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E INFO@PERITAS.COM.AU

MELBOURNE
C 03 9072 9292
A 1 QUEENSLAND, MELBOURNE, VIC 3004
E INFO@PERITAS.COM.AU

CLIENT:

Monadelphous

DRAWN	DRAWN	CHECKED
L.RONCH	L.RONCH	E.BIAGIONI-FROLOIST
SURVEY DATE	WAVE No.	SCALE
KAROL	1500	@ A1
DWG IS NOT FOR CONSTRUCTION UNLESS SIGNED BELOW		DATE CREATED
		28.10.22

PROJECT:
MONADELPHOUS
LOT 106 GAP RIDGE
KARRATHA

TITLE:
VEHICLE TRACKING
PLAN

PROJECT NUMBER	DWG NUMBER	REV
PC21207	CI-SK001	B

**LOT 9556 NAPOLEON PROMENADE, VASSE - HOSPITAL AND 5 X
COMMERCIAL TENANCIES**

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Regional	
Local Government Area:	City of Busselton	
Applicant:	Hatch Roberts Day for St John of God Health Care and Blackoak Capital Ventures	
Owner:	Stawell Pty Ltd	
Value of Development:	\$40.0 million <input checked="" type="checkbox"/> Mandatory (Regulation 5) <input type="checkbox"/> Opt In (Regulation 6)	
Responsible Authority:	City of Busselton	
Authorising Officer:	Paul Needham - Director Planning and Development Services	
LG Reference:	DA22/0610	
DAP File No:	DAP/22/02321	
Application Received Date:	2 September 2022	
Report Due Date:	18 November 2022	
Application Statutory Process Timeframe:	90 Days (plus 7 days extension)	
Attachment(s):	1. Location Plan 2. Development Plans 3. Artist Perspectives 4. Applicant Planning Report 5. Proposed Subdivision Plan 6. Landscape report 7. Traffic and Access Investigation Report 8. Waste Management Plan 9. Acoustic report 10. Independent Design Review 11. Schedule of Submissions	
Is the Responsible Authority Recommendation the same as the Officer Recommendation?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Complete Responsible Authority Recommendation section
	<input type="checkbox"/> No	Complete Responsible Authority and Officer Recommendation sections

Responsible Authority Recommendation

That the Regional JDAP resolves to:

1. **Approve** DAP Application reference DAP/22/02321 and accompanying plans (A001 Rev B, A002 Rev A, A003 Rev B, A004 Rev A, A005 Rev A, A006 Rev A, A101 Rev B, A201 Rev C, A230 Rev B, A400 Rev B, A500 Rev A, A501 Rev C, A502 Rev C, A503 Rev A and A915 Rev A) in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of the *City of Busselton Local Planning Scheme No. 21*, subject to the following conditions:

GENERAL CONDITIONS:

1. The development hereby approved shall be substantially commenced within four years from the date of this decision letter.
2. The development hereby approved shall be undertaken in accordance with the signed and stamped, Approved Development Plans, and except as may be modified by the following conditions.

PRIOR TO COMMENCEMENT OF ANY WORKS CONDITIONS

3. The development hereby approved, or any works required to implement the development, shall not commence until the following plans or details have been submitted to the City and have been approved in writing –
 - 3.1 Detailed plans of modifications required to integrate the development into the surrounding streetscape, including works associated with street verges, vehicle crossing points, roadside drainage, street furniture, footpaths, lighting and servicing infrastructure to provide vehicular and pedestrian access to the site, and which achieve the following:
 - a) West of the proposed crossover to Napoleon Promenade to the western lot boundary, a footpath/dual use path of a combined width of a minimum 3.5m width and integrating with the existing narrower path and the existing dual use path adjacent to the Buayanup River Drain;
 - b) From the proposed Napoleon Promenade crossover to the truncation at the intersection with Coomidup Boulevard, a footpath adjacent to the property boundary of minimum 3.5m width;
 - c) Along the truncation adjacent to the roundabout at the Napoleon Promenade/Coomidup Boulevard intersection a footpath of minimum 3.0m width and 3.5m width wherever possible adjacent to the property boundary, with provision of suitable landscaping to provide separation between pedestrians and vehicles;
 - d) Along the Coomidup frontage to the proposed lot truncation at the intersection with the new access road, a footpath adjacent to the property boundary of minimum 3.0m width and 3.5m width wherever possible;

- e) Final design and levels of embayment parking and adjoining footpath along Coomidup Boulevard to correspond with levels identified on subdivision engineering drawings;
 - f) Along the truncation adjacent to the intersection with the new access road, a footpath of minimum 3.0m width and 3.5m width wherever possible adjacent to the property boundary, with provision of suitable landscaping to provide separation between pedestrians and vehicles; and
 - g) Along the new cul-de-sac access road intersection to the proposed loading dock entry, a footpath of minimum 3.0m width and 3.5m width wherever possible and providing suitable pedestrian linkage to proposed footpaths fronting development on the northern side of the new access road.
- 3.2 Final details of the advertising signage, including but not limited to the design, materials and levels of illumination.
- 3.3 A schedule of the final materials, finishes and colours, which shall be generally consistent with the approved plans. The schedule shall include details of the type of materials proposed to be used, including their colour and texture.
- 3.4 A detailed plan which shows natural ground levels, finished ground levels and finished floor levels.
- 3.5 Details of the controlled access to loading/delivery area to ensure access for service vehicles only.
- 3.6 Details of the proposed bicycle parking which are to be designed in accordance with the Australian Standard for Parking Facilities – Bicycle Parking (AS2890.3-2015). The details shall include, as a minimum, the location, design and materials to be used in their construction.
- 3.7 A stormwater and groundwater management plan, consistent with the approved Urban Water Management Plan for Vasse Newtown Town Centre;
- 3.8 A final Landscaping Plan (LP). The LP shall include the following:
- a. Details of all planting areas for shade trees to be provided within the car parking area, as well as the provision of suitable root barriers and irrigation;
 - b. the location, number, size and species of proposed trees and shrubs, including calculations for the landscaping area;
 - c. any lawns to be established;
 - d. any existing trees to be retained;
 - e. those areas to be reticulated or irrigated;
 - f. open style fencing to the western site boundary to provide definition to the Buayanyup River Drain Reserve (R50351);
 - g. be based on water sensitive urban design principles;

- h. be based on Designing Out Crime principles; and
- i. verge treatments, including hard and soft landscaping treatments.

3.9 A Construction Management Plan (CMP). The CMP shall address the following:

- a. public safety and amenity;
- b. site security;
- c. contact details of essential site personnel, construction period and operating hours;
- d. community information, consultation and complaints management plan;
- e. traffic, access and parking management;
- f. delivery of materials and equipment to the site;
- g. storage of materials and equipment on the site;
- h. waste management;
- i. sanitary facilities;
- j. dust management during the construction process;
- k. stormwater and sediment control; and
- l. any other matter deemed relevant by the City.

3.10 Lighting Plan which shall include provision of lighting for all awnings, parking areas, footpaths and areas accessible to the public and be consistent with the requirements of Australian Standard AS 4282—2019, *Control of the obtrusive effects of outdoor lighting*.

PRIOR TO OCCUPATION/USE OF THE DEVELOPMENT CONDITIONS

- 4. The development hereby approved shall not be occupied, or used, until all plans, details or works required by Conditions 2 and 3 have been implemented; and the following conditions have been complied with to the satisfaction of the City –
 - 4.1. Satisfactory arrangements for works to be undertaken to create the new road extending west from the intersection of Coomidup Boulevard and Ganges Lane to provide access to the northern side of the development.
 - 4.2. Satisfactory arrangements for works to be undertaken to upgrade the intersection of Coomidup Boulevard, Ganges Lane and the new access road via installation of a roundabout.
 - 4.3. Crossovers located and constructed to the City's specifications.

- 4.4. Arrangements being made with the City for an easement over the development site (proposed Lot 123), in accordance with sections 195 and 196 of the *Land Administration Act 1997* for the benefit of the City of Busselton and the public at large to be shown on the Deposited Plan to be registered on the Certificate of Title, for the purposes of providing public vehicular and pedestrian access from the new road extending west from the intersection of Coomidup Boulevard and Ganges Lane, through to Napoleon Promenade on the southern side of the development.
- 4.5. All vehicle parking, access ways, footpaths and external lighting shall be constructed to a minimum standard in accordance with the Australian Standard for Parking Facilities - Off-Street Car Parking (AS 2890.1) and shall be developed in the form and layout depicted on the approved plans to the satisfaction of the City.
- 4.6. Accessible car parking and access shall be provided and designed in accordance with the Australian Standard for Parking Facilities - Off-Street Car Parking for people with disabilities (AS 2890.6).
- 4.7. Arrangements to provide public art works within the development site. This entails compliance with the Percent for Art provisions of the City's Development Contribution Policy via appropriate works up to a minimum value of 0.5% of the Estimated Cost of Development ("ECD").

ONGOING CONDITIONS

5. The works and other measures undertaken to satisfy Conditions 2, 3 and 4 shall be subsequently maintained for the life of the development, and the following conditions must be complied with to the satisfaction of the City –
 - 5.1 No roller doors or screens are permitted to be installed to the eastern elevations of the building;
 - 5.2 Glazing to commercial tenancies fronting Coomidup Boulevard is to incorporate a minimum of 70% clear, non-tinted glazing, which shall not be subsequently obscured by alternative window treatment, signage or internal shelves;
 - 5.3 All services and service related hardware, including antennae, satellite dishes and air conditioning units, being suitably located away from public view and/or screened to the satisfaction of the City;
 - 5.4 Landscaping and reticulation shall be maintained in accordance with the approved Landscaping Plan to the satisfaction of the City. Unless otherwise first agreed in writing, any trees or plants which, within a period of five years from first planting, are removed, die or, are assessed by the City as being seriously damaged, shall be replaced within the next available planting season with others of the same species, size and number as originally approved.

ADVICE TO APPLICANT

1. If the applicant and/or owner are aggrieved by this decision there is a right of review under the provisions of Part 14 of the *Planning and Development Act 2005*. A review must be lodged with the State Administrative Tribunal, and must be lodged within 28 days of the decision.
2. This Decision Notice grants Development Approval to the development the subject of this application. It cannot be construed as granting Development Approval for any other structure shown on the approved plans which was not specifically included in this application.
3. Please note it is the responsibility of the applicant / owner to ensure that, in relation to Condition 1, this Development Approval remains current and does not lapse. The City of Busselton does not send reminder notices in this regard. The term “substantially commenced” has the meaning given to it in the *Planning and Development (Local Planning Schemes) Regulations 2015* as amended from time to time.
4. In accordance with the provisions of the *Building Act 2011*, and *Building Regulations 2012*, an application for a building permit must be submitted to, and approval granted by the City, prior to the commencement of the development hereby permitted.
5. Applicants/developers are encouraged to review the *Percent for Art Policy Step by Step Guide for Developers* which can be viewed on the City's website at www.busselton.wa.gov.au and liaise with the City's Cultural Planning Officer at the earliest possible opportunity.
6. The Estimated Cost of Development shall be based on demonstrated contract values or estimates provided by a quantity surveyor, with such contract or estimates being no more than 3 months old at the time of calculation of the payment amount, and if such information is more than 3 months old, the Estimated Cost of Development shall be indexed to the general construction industry index for Western Australia.
7. The stormwater design should consider the approved *Vasse Newtown, Town Centre Stage 1 UWMP, September 2014 (Version J5347e, dated 02/10/14)*, in particular:
 - a. consideration of the discharge from Stage 2 (i.e. subject Lot 9556);
 - b. ensuring stormwater modelling parametrisation and controls matches that of this approved UWMP (to avoid unintended cumulative impacts that may result in the off-site discharges that exceed the capacity of downstream infrastructure, potentially resulting in localised flooding);
 - c. consideration of groundwater levels.
8. The proponent shall refer to Department of Water and Environmental Regulation's acid sulfate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works”. Link: <https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines>

9. In accordance with the requirements of the *Local Government (Uniform Local Provisions) Regulations 1996*, you are hereby notified that any vehicle access from the land to a road or other public thoroughfare must be in accordance with the City's adopted Crossover Policy and Vehicle Crossovers Technical Specification.
10. Food handling, preparation and storage areas to be designed and constructed in accordance with the *Food Act 2008*, *Food Regulations 2009* and the *Australian and New Zealand Food Authority (ANZFA) Food Safety Standards*.
11. All public access areas (dining areas, etc) are to comply with the provisions of the *Health (Miscellaneous Provisions) Act 1911*, related regulations and guidelines and in particular Part VI – Public Buildings.

Details: outline of development application

Region Scheme	N/A
Region Scheme - Zone/Reserve	N/A
Local Planning Scheme	City of Busselton <i>Local Planning Scheme No. 21</i>
Local Planning Scheme - Zone/Reserve	Zone - Urban Development
Structure Plan/Precinct Plan	Vasse Village Precinct Structure Plan
Structure Plan/Precinct Plan - Land Use Designation	Vasse Village Precinct Structure Plan – 'Local Centre'
Use Class and permissibility:	Hospital ('D' use)
Lot Size:	Parent Lot - 5.6988ha Proposed Lot 123 – 1.319ha
Existing Land Use:	Vacant land
State Heritage Register	No
Local Heritage	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Heritage List <input type="checkbox"/> Heritage Area
Design Review	<input type="checkbox"/> N/A <input type="checkbox"/> Local Design Review Panel <input type="checkbox"/> State Design Review Panel <input checked="" type="checkbox"/> Other
Bushfire Prone Area	Yes
Swan River Trust Area	No

Proposal:

Development approval is sought for a proposed Shop at Lot 9556 Napoleon Promenade, Vasse (the lot will be referred to as 'the Site' throughout this report).

The development comprises:

- 23 hour day surgery with 3 operating theatres.
- Operating hours generally 7am-9pm, Monday–Friday. No emergency theatre.
- Renal Dialysis and Oncology unit on contract from WA Country Heath Services.
- Compounding pharmacy and dispensary for post procedural prescriptions
- Allied health operations including consulting suites and gym.
- 5 x commercial tenancies (total 1108m² floor area)
- Café at front entry to hospital.
- 168 car parking bays

Proposed Land Use	Hospital and 5 x Commercial Tenancies
Proposed Net Lettable Area	Hospital - 4351m ² Commercial tenancies - 1108m ²
Proposed No. Storeys	One
Proposed No. Dwellings	N/A

Background:

This application is made over part existing Lot 9556 on Deposited Plan 417770, which is a 5.6988ha balance of title lot. An application for subdivision approval has been granted by the Western Australian Planning Commission (WAPC) to create proposed Lot 123 (1.3192ha), specifically for the proposed Hospital development, as well as two other commercial lots and a new cul-de-sac access road extending west from the intersection of Coomidup Boulevard and Ganges Lane. Work required to implement that subdivision approval, however has not yet commenced.

Lot 9556 has frontage to Bussell Highway to the north, Napoleon Promenade to the South and Coomidup Boulevard to the east. To the immediate west the site is bound by the Buayanyup River Drain Reserve (R50351), which is managed by the Water Corporation. Further west of the drain reserve is a City managed Recreation Reserve (R53185), beyond which is the Vasse Lifestyle Village.

The Site is zoned 'Urban Development' under the City's *Local Planning Scheme No. 21* ('Scheme') and subject of the Vasse Village Precinct Structure Plan under which the site is designated to be within the Local Centre zone and included in the Main Street Character Area. The Vasse Village Precinct Structure Plan was approved by the WAPC on 11 November 2022.

This report is supported by the following attachments –

1. Location Plan
2. Development Plans
3. Artist Perspectives
4. Applicant Planning Report
5. Proposed Subdivision Plan
6. Landscape report
7. Traffic and Access Investigation Report
8. Waste Management Plan
9. Acoustic report
10. Independent Design Review
11. Schedule of Submissions

Legislation and Policy:

Legislation

Planning and Development Act 2005

Planning and Development (Local Planning Schemes) Regulations 2015
(‘Regulations’)

City of Busselton Local Planning Scheme No. 21 (‘Scheme’)

- Clause 3.2 - Zone Objectives – Urban Development Zone
- Clause 3.3 - Zoning Table
- Clause 3.4 - Interpreting the Zoning Table
- Clause 4.8 – Height of Buildings
- Schedule 3 – Special Provision Areas – SP 65

City of Busselton Local Planning Strategy

8.0 Theme 2 Activity Centres and Economy

9.0 Theme 3 Transport and Infrastructure

10.0 Theme 4 Environment, Landscape and Heritage

State Government Policies

SPP 3.0 – Urban Growth and Settlement

SPP 3.7 - Planning in Bushfire Prone Areas

SPP 6.1 – Leeuwin Naturaliste Ridge

SPP 7.0 – Design of the Built Environment

Structure Plans/Activity Centre Plans

Vasse Village Precinct Structure Plan

Local Planning Policies (LPP)

- *Local Planning Policy 2.1 Car Parking*
- *Local Planning Policy 4.4 Percent for Art*
- *Local Planning Policy 4.13 Design Review*
- *Local Planning Policy 6.1 Stormwater Management*

Consultation:

Public Consultation

Consultation on the proposed development was undertaken as a 'complex application' for a period of 28 days in the following manner:

- Letters sent to surrounding landowners and occupiers within 200m of the Site;
- Four signs erected on the Site;
- Notification placed in the local paper; and
- Development plans and information provided by the applicant were made available for public viewing on the City's website via 'Your Say'.

Consultation on the proposal concluded on 2 November 2022 with public submissions received from 14 individuals. All public submissions received indicated general support for the proposed development.

The key reasons for support raised in the submissions are:

- Meets a need for additional health services and reduces pressure on Busselton Hospital;
- Less need to travel to Bunbury and beyond to access health services;
- More local jobs for professional health staff;
- Interest in securing a commercial tenancy; and
- Well located to service Busselton, Dunsborough and Margaret River;

The issues significant to determination of the application are addressed in the planning assessment below and a schedule of submissions is provided at Attachment 10.

Referrals/consultation with Government/Service Agencies

In addition to the above mentioned community consultation, referral responses were received from the following State Government agencies:

- Department of Water and Environmental Regulation (DWER);
- Water Corporation; and
- Main Roads WA (MRWA).

No particular issues of significance were raised in submissions from DWER or the Water Corporation that could not be easily addressed through conditions of approval.

An outline of the concerns raised by MRWA, as well as the City's response, are provided below.

MRWA

The application was referred to MRWA for comment given the proximity of the proposed development to Bussell Highway and the potential for impact of traffic volumes on the Coomidup Boulevard and Bussell Highway intersection.

MRWA raised concern with the proposed development being considered forward of the revised Precinct Structure Plan (previously referred to as an Activity Centre Plan) having been finalised for the Vasse Village. The Vasse Village Precinct Structure Plan was approved by the WAPC on 11 November 2022

Main Roads contends that the 'Day Hospital' facility/primary land use would have a broader regional catchment area, similar to other such facilities in the State, and the majority of trips generated would be from the external population/patient catchment via the Bussell Highway / Coomidup Boulevard junction.

This matter is discussed further in the Traffic and Access section of the report below.

Independent Design Review Advice

The City does not currently have a Design Review Panel (DRP) process in place. In lieu of a formal DRP assessment, the City engaged Craig Smith, Architect to undertake a design assessment based on the design principles established in SPP 7.0 in accordance with the State Design Review Panel procedure.

The review identified that at a pre-DA stage the design demonstrated a clear and successful resolution of the building, parking and servicing, the project is well developed and is unlikely to require substantial change prior to submission of the Development Application, though work would be required on dealing with the issue of pedestrian amenity and levels related to footpaths. A full copy of the design review comments can be found at Attachment 10.

It should be noted that the design review process informs the planning assessment, but design review is not the same thing as planning assessment, and there may be some conclusions of the design review that are not consistent with the planning assessment.

Planning Assessment:

The proposal has been assessed against all of the relevant legislative requirements of the Scheme, State and Local Planning Policies 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 and are discussed further below:

- Zoning and Land Use
- Precinct Structure Plan and Subdivision
- Built Form and Character
- Public Art
- Traffic and Access

Zoning and Land Use

The Site is zoned 'Urban Development' and under the Draft Vasse Village Precinct Structure Plan (Vasse PSP) is designated as being subject to provisions of the 'Local Centre' zone.

The objectives of the Urban Development zone are:

- a. To designate land for future urban development and provide a basis for more detailed structure planning in accordance with this Scheme.
- b. To provide for a range of residential densities to encourage a diversity of residential housing opportunities.
- c. To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development.
- d. To proactively plan for vibrant and attractive activity centres in urban areas developed along 'main-street' lines with activated public streets, high levels of pedestrian and civic amenity and a mix of public spaces including retail, commercial, café, restaurant, bar, entertainment, tourism and community uses.
- e. To provide for a range of recreational, community, cultural and social facilities to meet the needs of a growing and diverse population.
- f. To provide for the protection of natural areas and habitats within urban areas.

The objectives of the Urban Development zone are:

- a. To provide for development at a scale sufficient to serve the Centre's catchment, but not detract from the commercial primacy of the Regional Centre and Centre zones.
- b. Providing for limited expansion of existing smaller centres to ensure access to services at a local level and building neighbourhood identity.
- c. To ensure that development provides for activation of the street and public spaces, high quality design and a variety of land uses.

The Vasse PSP divides the village into three Character Areas, the subject land being within the Main Street Character Area, which has the following objectives:

- a. Create a vibrant and attractive main street environment along Napoleon Promenade;
- b. Provide a heart for the surrounding community with a distinct sense of place; and
- c. Provide for development that activates the public realm and fosters a pleasant pedestrian environment.

The proposed land use is defined as a 'Hospital', which is a 'D' (permitted) use in the Local Centre zone. As per Local Planning Scheme No.21 the definition of a hospital is:

"Hospital" means premises that are a hospital within the meaning given in the *Health Services Act 2016* section 8(4).
(Amendment No.35 – GG. 2 Feb 2018)

Precinct Structure Plan and Subdivision

The draft Vasse Village PSP has been prepared to guide the development of Stage 2 of the Vasse Village. The draft plan seeks to deliver a successful and functioning main street outcome for Coomidup Boulevard; built forms that respond to streets and public

spaces; and a legible movement network for pedestrians, cyclists and vehicles. The plan also proposes to increase the current shop retail floor space cap by 1,850m² to 6,500m² NLA.

The Vasse PSP identifies the Site as 'Local Centre zone' and being within the 'Main Street' character area. The PSP also identifies a Recreation Reserve to be created on the northern side of the Site via the proposed land subdivision, which will allow implementation of the 20m wide highway buffer that is intended by the PSP and *Local Planning Policy 4.5 Busselton Bypass Access*.

Advertising of the draft PSP occurred in Feb / March 2022 and received conditional support (subject to minor modifications) from the City of Busselton Council in July 2022. Following completion of the necessary modifications the PSP has been sent to the WAPC for final endorsement, which is anticipated to be provided in the near future. It is therefore a seriously entertained proposal and provides appropriate context for the consideration and approval of the Hospital proposal.

A subdivision application to create new lots in accordance with the PSP has been approved by the WAPC.

The normal processes would be that a Structure Plan is approved first, followed by subdivision approval, then followed by Development Approval over a created lot. It is to be noted that a structure plan is an instrument to which due regard is to be given and is a seriously entertained document. In this instance it is considered acceptable that the development application be determined prior to the completion of the first two processes due to the PSP and the subdivision being largely prepared in order to facilitate the development of the subject land and the development proposal being assessed as consistent with the objectives of the PSP and subdivision.

Built Form Character and Design

The following sets out the development standards for 'Main Street' as identified in the Vasse PSP and how the proposed shop development meets the requirements:

Development Standard	Requirement	Comment
Plot Ratio	1:1	Complies
Building Height		
Maximum Height	3 Storeys	Complies
Minimum Height	2 storeys, or 1 storey with equivalent to 2 storey façade to Napoleon Prom/Coomidup Blvd	Complies – the proposed development presents a two storey equivalent façade (5.5m) to Coomidup Boulevard and the proposed treatment was supported by the independent design review.

Building Setbacks		
Front	Mandatory Nil setback to 90% of frontage	Complies – Nil setback to Coomidup Blvd.
Side	Minimum Nil	Complies
Rear	Minimum Nil	Complies
Building Frontage		
Primary Entrance	<p>Tenancies with direct frontage to Napoleon Promenade / Coomidup Boulevard must provide direct access to Napoleon Promenade / Coomidup Boulevard.</p> <p>No external public entry from the rear of such tenancies will be permitted.</p>	<p>Complies - Direct access is provided to Coomidup Blvd from all tenancies with a direct frontage.</p> <p>Complies</p>
Windows at Ground Level	Min glazing for 50% of Front Façade Area	<p>East Façade</p> <ul style="list-style-type: none"> • Total Façade = 287m² • Glazing = 149m² (51.9%) <p>South Facade</p> <ul style="list-style-type: none"> • Total façade = 438m² • Glazing = 167m² (38.1%)
Awnings	Minimum depth 2.4m for full building frontage to primary street	<p>3.5m deep awning structure along southern entrance.</p> <p>2.4m awning along commercial tenancies to Coomidup Blvd.</p>
Car Parking		
	An automatic concession of 10% is applicable to the on-site parking requirements set out in the City of Busselton Local Planning Policy 2.1 for single storey development.	<p>Complies.</p> <p>Requirement: Hospital - 1 bay per 2 beds.</p> <p>38 beds = 19 bays</p> <p>Commercial tenancies - 1 bay per 30m² NLA (1103m² NLA) = 37 bays</p> <p>Total required = 56 bays</p> <p>The applicants have further considered parking needs generated by other hospital</p>

		<p>areas such as back of house and pharmacy using the 1 bay per 30m² NLA calculation. As a result of this the total number of parking bays required would be 79.</p> <p>The Vasse PSP allows for a 10% concession for single storey development in the Village Centre.</p> <p>Accessible parking bays are to be provided at the rate of 2 spaces per 100 spaces overall provided.</p> <p>The development proposal includes 168 parking bays (including four disability access bays) and a loading area which exceeds the specified minimums as outlined above.</p>
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Streetscape

Prior to the recent WAPC approval of the Vasse Village Precinct Structure Plan, the area of the Vasse Village where the development site is situated had not been planned for and had been identified by the previous Activity Centre Plan as being an area 'Subject to Further Planning'. The PSP has designated the site to be within the Local Centre zone and included in the Main Street Character Area. The PSP identifies in respect to movement networks that -

High quality pedestrian environment supported by a network of footpaths on main streets and other centre streets and shared paths. Additionally, the design provides for frequent, designated crossing points throughout the street network.

The focus of pedestrian interaction for the proposed development will be along the Coomidup Boulevard frontage which at present has no developed footpath. The footpath along Napoleon Promenade was previously put in place as a temporary measure to provide pedestrian connection to residential development west of the Village Centre and along the frontage to the development site is approximately 2.0m wide.

The PSP identifies that for the Main Street thoroughfare type, a typical road reserve width of 23.0m should be achieved with a 4.0m sidewalk provided to each side, separated from traffic by a landscaping strip. The recommendation of this report reflects these provisions of the PSP and a desire to maintain a consistent level of pedestrian amenity as that in the established part of the Vasse Village (footpaths in excess of 3.5m) by including conditions related to the minimum width and positioning of the footpaths that should be developed around street boundaries of the site. Recommend footpath widths are 3.5m where possible, with a minimum width of 3.0m, footpaths should generally be located against the property boundary rather than back of kerb and landscaping to provide for added separation to increase pedestrian safety at high risk areas such as roundabout street intersections.

Public Art

The City's *Local Planning Policy 4.4 Percent for Art* specifies that all commercial development with an estimated cost of development (ECD) in excess of \$1 million are subject to requirements of the policy that a value equivalent to 1% of the development value is spent toward the provision of public art work. As the proposed development has an ECD of \$40 million the requirements of LPP4.4 are triggered.

Whilst ordinarily developments with an ECD in excess of \$1 million require spend on public art works to have a value equivalent to 1% of the development value, in this instance officers recommend that it is appropriate that the value of the public art requirement is lowered to 0.5% of the ECD. The reason for the recommended reduction is that the specialist nature of the design requirements associated with the development of a hospital result in one of the highest development costs per square metre of building footprint of any conceivable permissible land use. It is anticipated that many land uses with a similar building area may have an ECD that is considerably less than half of the \$40 million development cost of the proposed hospital.

The applicant has been proactively engaging with City Planning staff and Cultural Development Officer in regard to potential art works to meet the requirements of LPP4.4 and the recommended condition.

Traffic and Access

Access to the Site is proposed to be gained from a new cul-de-sac road, extending from the western side of Coomidup Boulevard opposite the intersection with Ganges Lane. The new access is proposed to be excised from the existing parent lot as part of a subdivision application approved by the WAPC in March 2022. The location of the new road necessitates a roundabout treatment in Coomidup Boulevard to ensure reasonable traffic flow at the proposed four-way intersection.

The City recommends requirement for provision of an easement in gross to the benefit of the City and the public at large from the new road, through the development site (proposed Lot 123) to allow access to Napoleon Promenade as indicatively identified in the draft Precinct Structure Plan. This proposed easement would provide for improved vehicular and pedestrian permeability for a relatively large street block and an additional route for vehicles to exit onto Napoleon Promenade should Coomidup Boulevard be congested. A similar condition was required as part of the WAPC subdivision approval, however given that the new lots have yet to be created and construction may occur prior to final title creation, the City feels that it is prudent to also include the easement requirement as a condition of development approval.

The City understands from discussion with the applicant that they have an apprehension about the possibility of the proposed easement providing for safety and security concerns for staff, particular after dark. It is anticipated that need for access through the site The City is of the belief that there are arrangement that the City and applicant can come agreement on by which access restrictions outside of standard business hours can be managed to alleviate the applicants concerns.

MRWA raised concern with the proposed development being considered forward of the revised Precinct Structure Plan (previously referred to as an Activity Centre Plan) having been finalised for the Vasse Village. The Precinct Structure Plan has subsequently been approved by the WAPC prior to consideration of this development application.

It is the City's position that prior planning for Vasse Village had always anticipated commercial development on this portion of land.

Whilst the proposed development is expected to generate significant volumes of traffic as indicated in the Traffic and Access Investigation report prepared for the proposal, City engineers consider that the proposal will result in lower traffic generation than originally anticipated for more intensive commercial uses on the land. It is not expected that the function of the surrounding network will fail based on the proposed development.

Previous discussion between the City, MRWA and the applicants for the development of the Farmer's Market which has been approved for development on the subject land to the northern side of the new cul-de-sac access road, narrowed down MRWA's primary concern to a desire to prevent a significant adverse impact on the Coomidup Boulevard and Bussell Highway intersection and avoid the potential need to signalise the intersection. A number of treatment options were discussed and considered appropriate to avoid traffic conflict, encourage smooth traffic flow and minimise stacking. The options of relevance to the proposed hospital development include:

1. The construction of a suitable roundabout at the intersection of Coomidup Boulevard, Ganges Lane and the new road proposed to access the development which allows semi-trailers to manoeuvre around and/or mount the kerb to ensure that service vehicles have multiple options for access to and from the site;
2. Controlled access loading / service vehicle access to prevent light vehicles attempting to use this route as a short-cut to the Coomidup Boulevard and potentially causing vehicle conflict; and
3. Potential future implementation of measures to prohibit right turn movements of trucks and other vehicles from Coomidup Boulevard onto the Bussell Highway.

It is also considered that the recommended easement through the development site to Napoleon Promenade would have the ability to assist in overall traffic flows in the area.

These matters have been addressed in recommended conditions or advice notes should an approval be issued. While it is noted that some of the matters above will likely be resolved through subdivision, given the subdivision of the lot is yet to be finalised, they also need to be addressed through the development approval, as the

proposal would not be suitable for approval without them being resolved, in the unlikely event that the subdivision did not occur prior to occupation of the development.

Conclusion:

Subject to the inclusion of relevant conditions, the proposal is considered appropriate to support and it is accordingly recommended for approval.

Alternatives

In accordance with clause 17(4) of the Regulations, the DAP may determine an application by either approving the application with or without conditions or refusing the application.

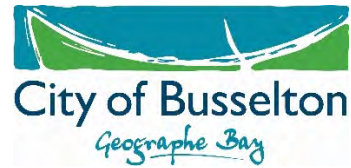
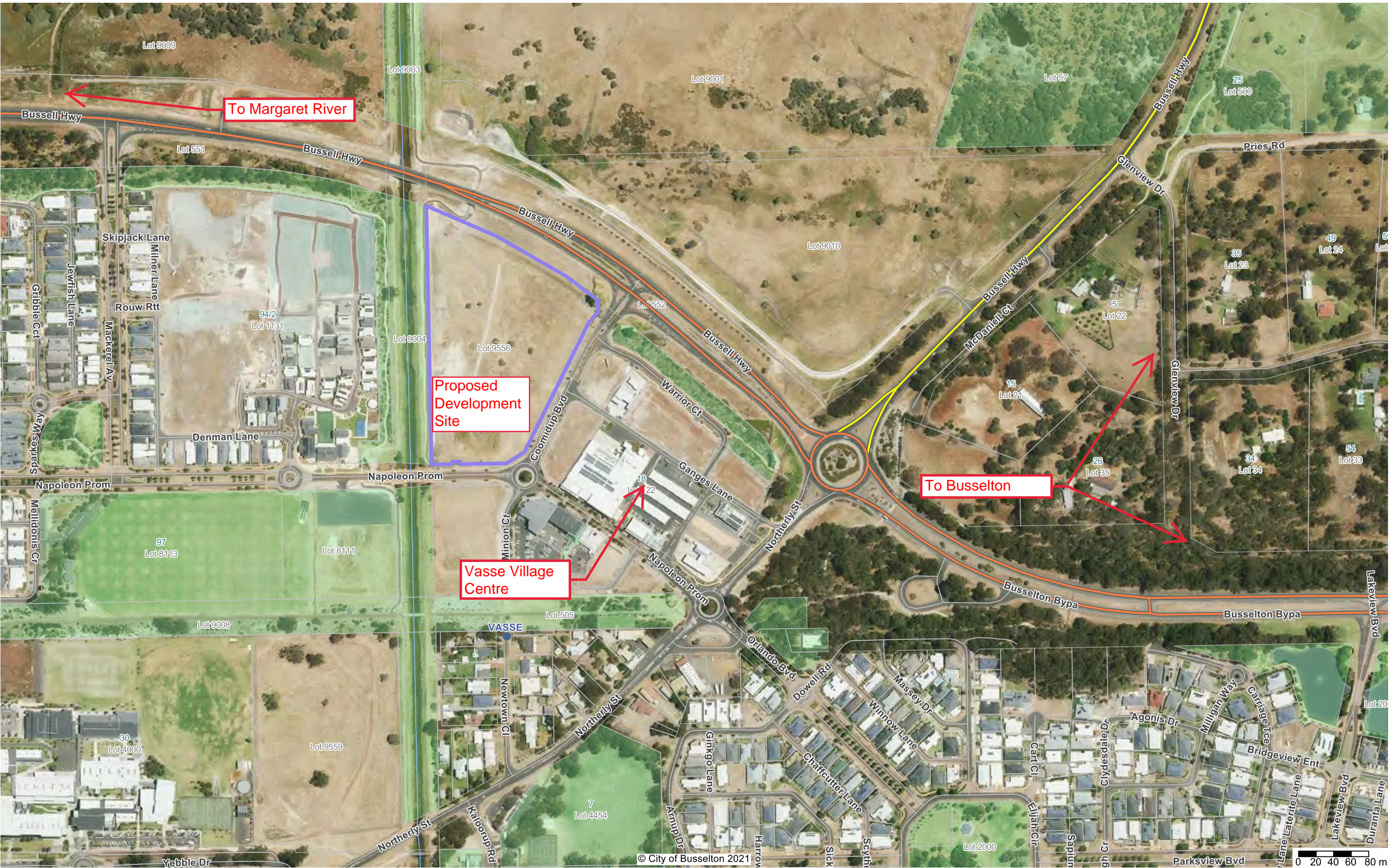
As a result, the DAP can choose to approve the development with or without additional or different conditions or refuse the proposal, setting out the reasons for doing.

Should the DAP resolve to refuse or approve the application, this determination needs to be made based on valid planning considerations as outlined under clause 67 of the Regulations and as set out in the *Development Assessment Panel Practice Notes: Making Good Planning Decisions*.

However, as outlined in the Planning Assessment and Officer Comments sections above, the City considers that the development in its current form meets the relevant provisions and/or objectives of the applicable planning framework and the application is therefore recommended for approval.

If the applicant is aggrieved by the decision or any aspect of the decision, the applicant has a right of review in accordance with the *State Administrative Tribunal Act 2004* and the *Planning and Development Act 2005*.

Attachment 1 - Location plan



Disclaimer: Every effort has been made to make the information displayed here as accurate as possible. This process is ongoing and the information is therefore ever changing and cannot be disseminated as accurate. Care must be taken not to use this information as correct or legally binding. To verify information contact the City of Busselton office.

Shop - Lot 9556 Napoleon Promenade,
Vasse

9/03/2022

1:4000 @ A3L





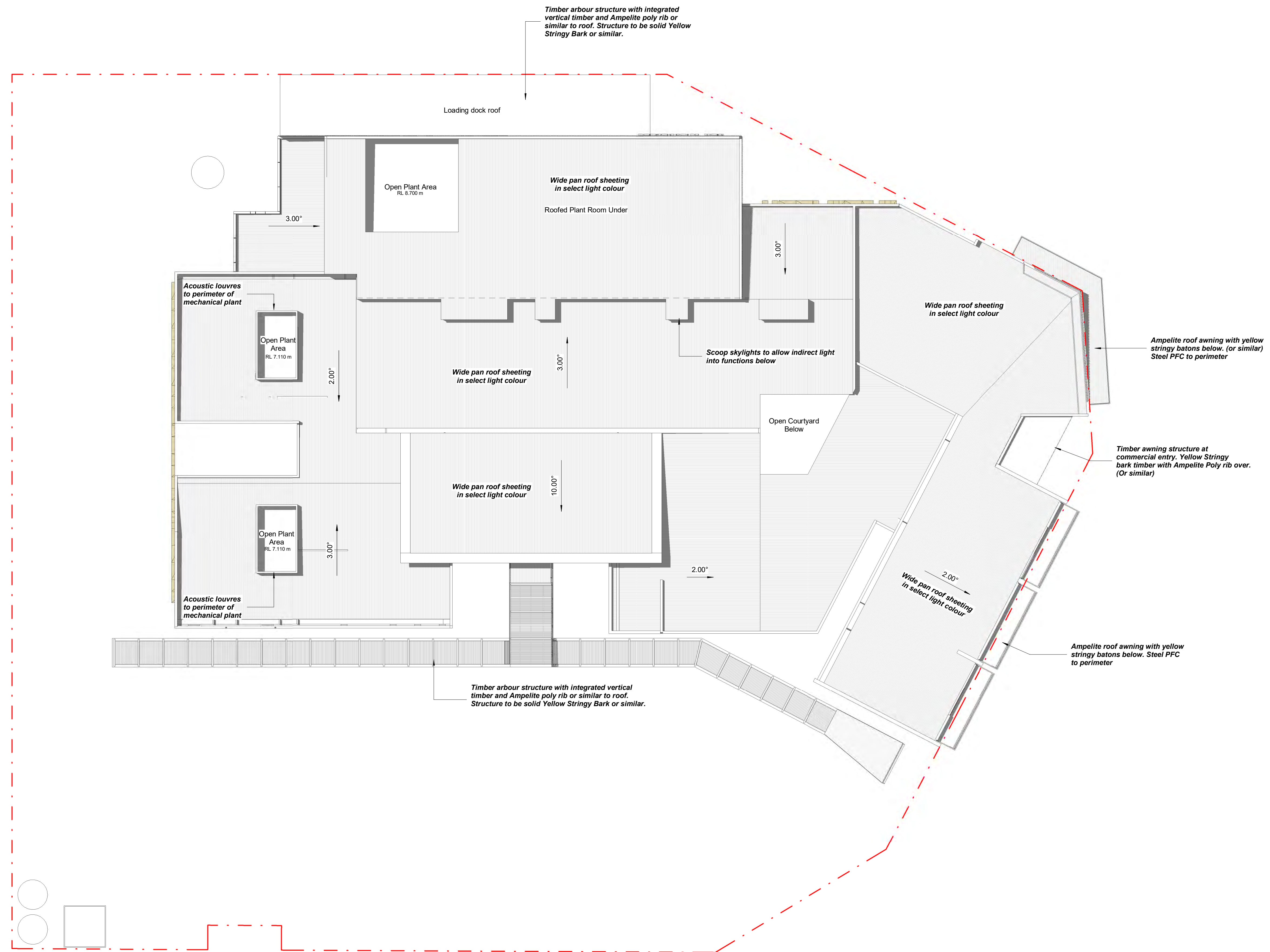


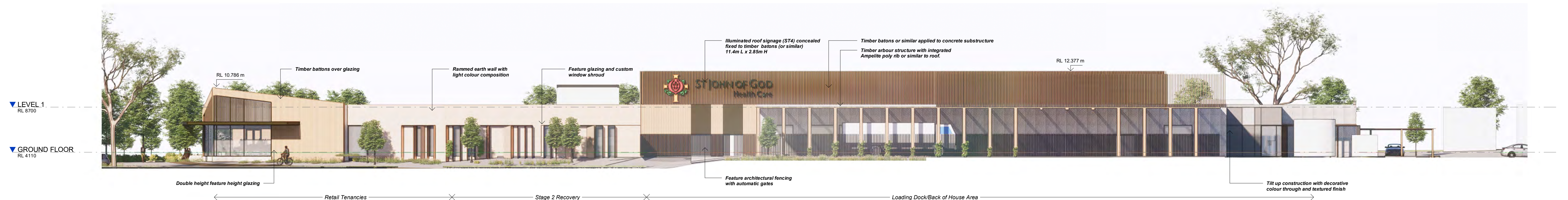
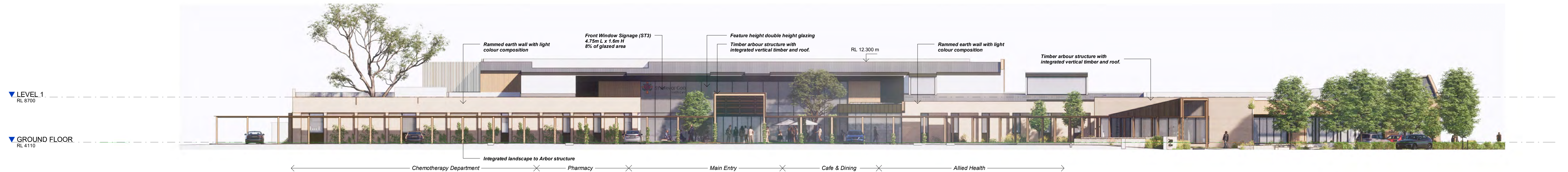
Department Areas	
Department	Area
Admin	201 m²
Allied Health	502 m²
BOH	460 m²
Chemotherapy	325 m²
CSSD	166 m²
FOH	433 m²
Pharmacy	176 m²
Renal - BOH	3 m²
Renal Dialysis	362 m²
Shared Renal/Chemo	111 m²
Short Stay	608 m²
Theatre	1004 m²
Grand total: 213	4351 m²

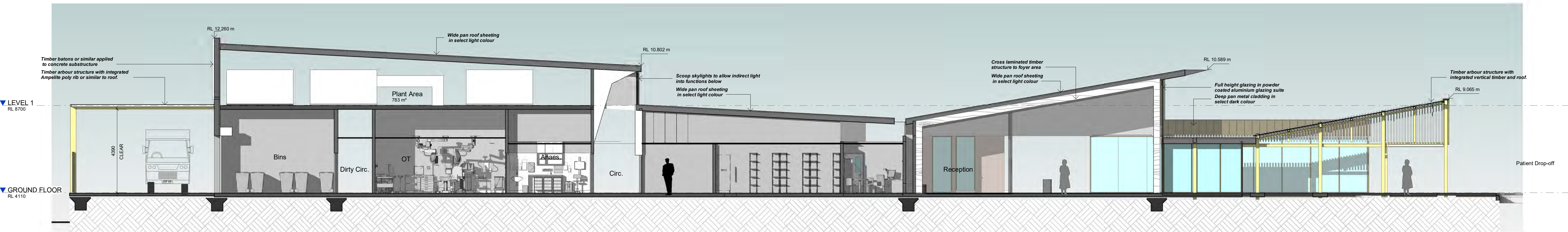
Parking Schedule		
Keynote	Description	Type
PRK001: 164	5.4 x 2.6m	5.4 x 2.6m
PRK002: 4	5.4 x 2.7m	DISABLED
Grand total: 168		

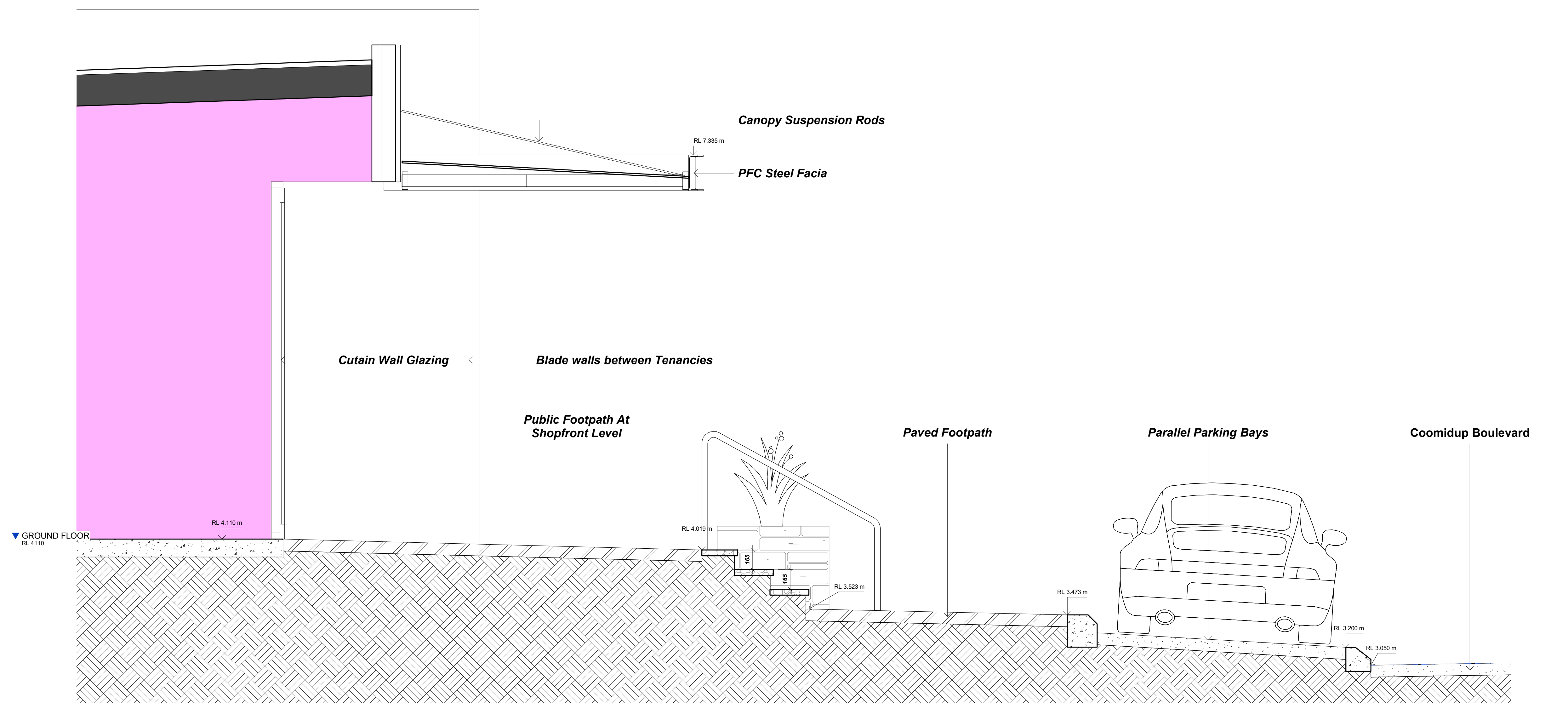
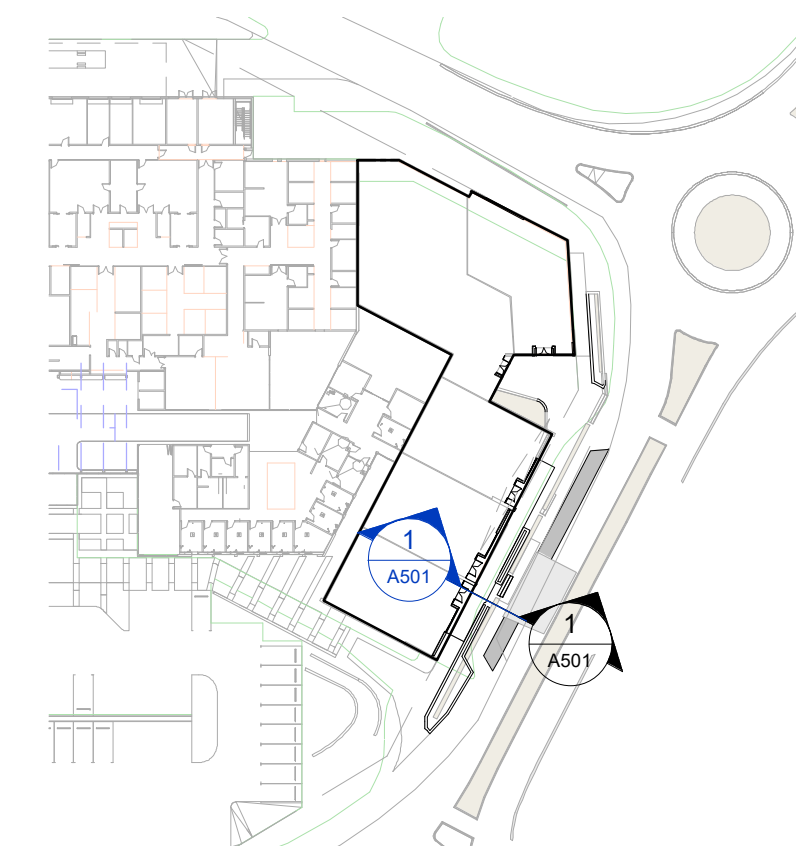
Retail Areas	
Name	Area
Tenancy 1	392 m²
Tenancy 2	188 m²
Tenancy 3	178 m²
Tenancy 4	176 m²
Tenancy 5	174 m²
Grand total: 5	1108 m²

Department	
Admin	
Allied Health	
BOH	
Chemotherapy	
CSSD	
FOH	
Pharmacy	
Renal - BOH	
Renal Dialysis	
Retail	
Shared Renal/Chemo	
Short Stay	
Theatre	

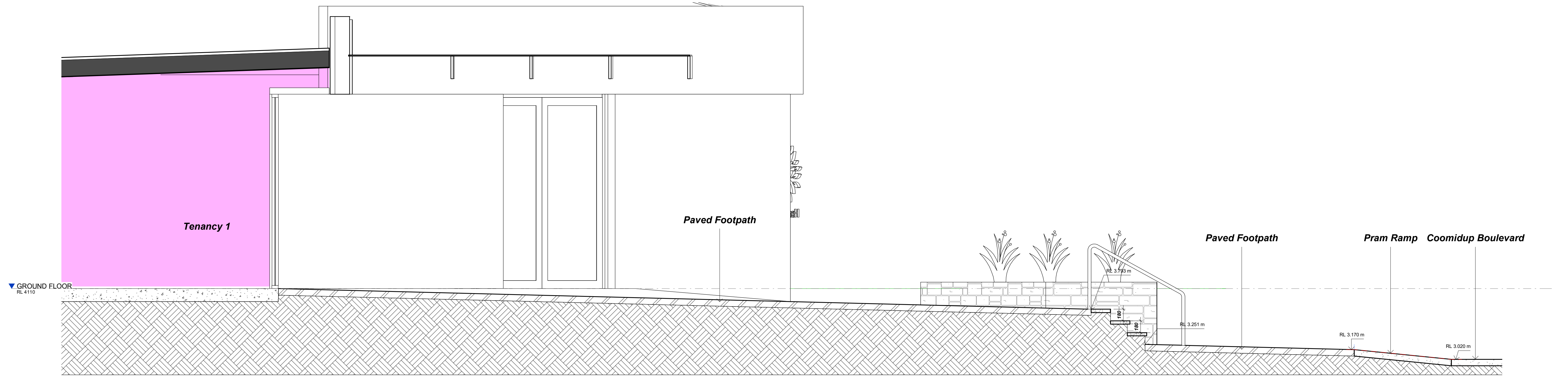
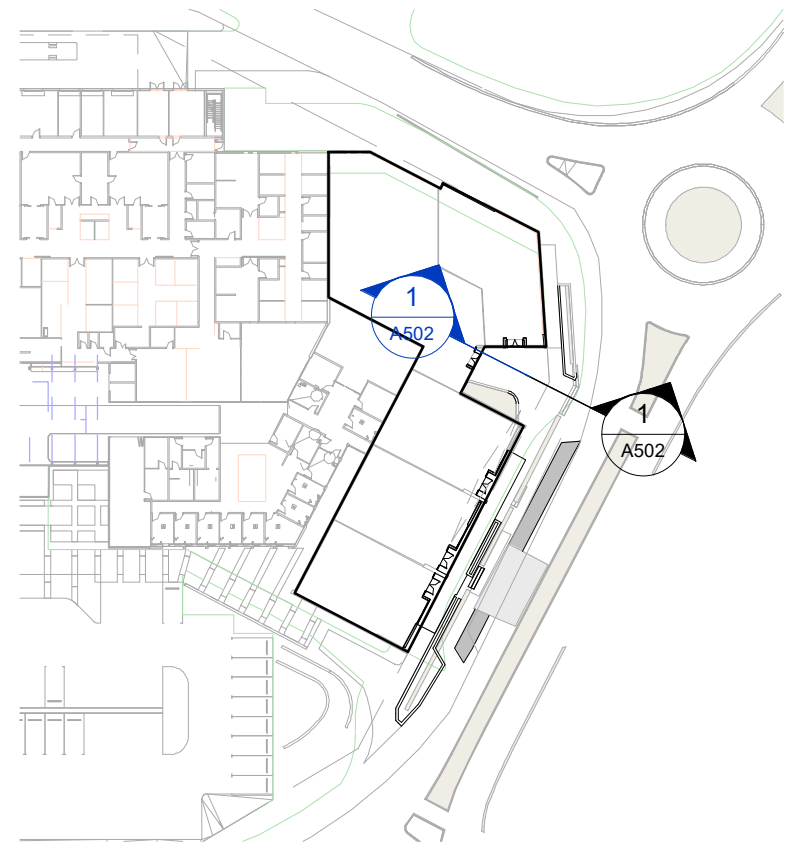




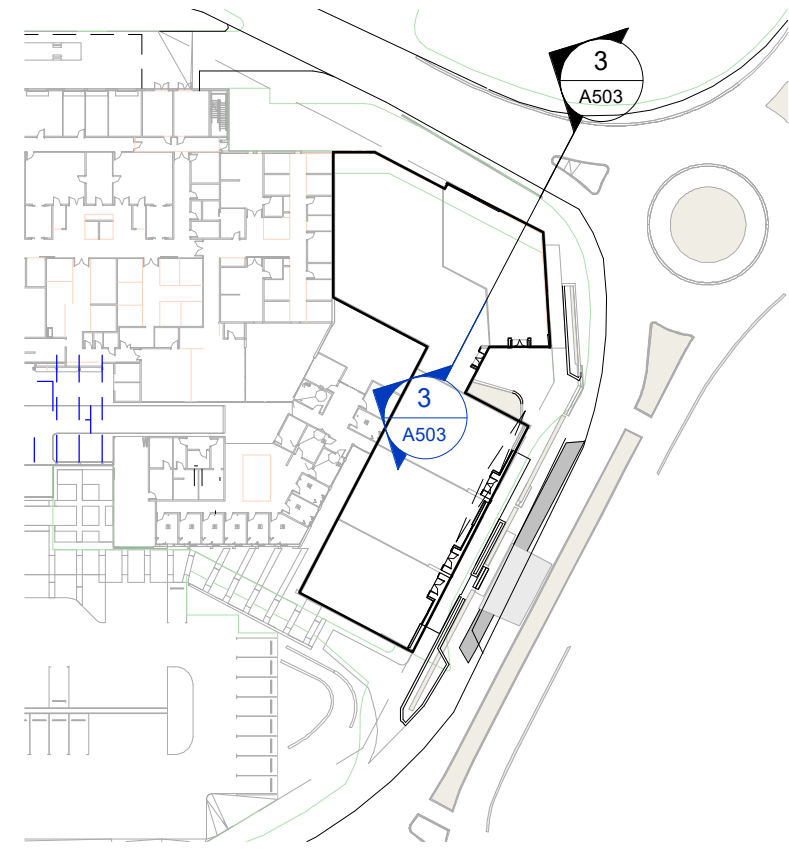




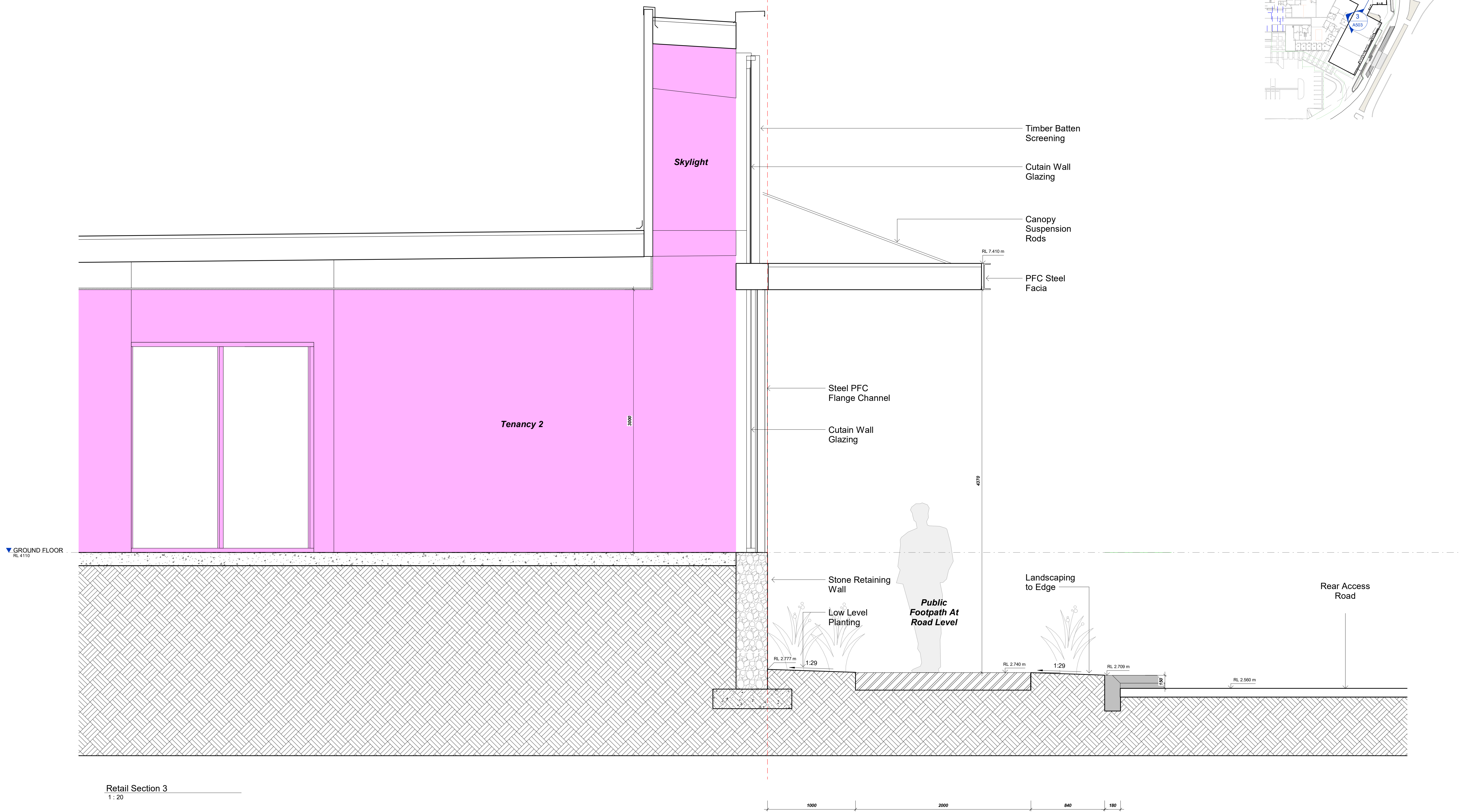
Retail Section Detail 1
1 : 20



Retail Section Detail 2
1 : 30



Boundary Line



Retail Section 3
1 : 20



SIGN (ST1)
CONCEALED FIXED TO RAMMED EARTH WALL
APPROX SIZE 4m L x 1m H
****WORDING MAY DIFFER SLIGHTLY**



SIGN (ST2)
CONCEALED FIXED TO RAMMED EARTH WALL
APPROX SIZE 4.5m L x 1.25m H
****WORDING MAY DIFFER SLIGHTLY**



SIGN (ST3)
APPLIED TO GLAZING
APPROX SIZE 4.75m L X 1.6m H
8% OF GLAZED AREA
****WORDING MAY DIFFER SLIGHTLY**



ST JOHN OF GOD
Health Care

SIGN (ST4)
ILLUMINATED, CONCEALED
FIXED TO TIMBER CLADDING
APPROX SIZE 11.4m L X 2.85m H
****WORDING MAY DIFFER SLIGHTLY**



Vasse Day Hospital

DRAWING LIST

No.	Sheet Name	Current Revision
A001	Cover Sheet	B
A002	Perspective	A
A003	Perspective	B
A004	Perspective	A
A005	Perspective	A
A006	Perspective	A
A101	Context Plan	B
A201	Floor Plan	C
A230	Roof Plan	B
A400	Elevations	B
A500	Section	A
A501	Retail Section Detail 1	C
A502	Retail Section Detail 2	C
A503	Retail Section Detail 3	A
A915	Schedules - External Signage	A











Vasse Day Hospital Development Application



Hames
Sharley

Blackoak
CAPITAL VENTURES

HATCH | RobertsDay

We acknowledge the Traditional Custodians of country throughout Australia and their continuing connection to culture, community, land, water and sky.

Specifically, we acknowledge the Wadandi People as the traditional owners of the Vasse region and the land on which the Day Hospital is located on.

We pay our respect to Wadandi Elders and Knowledge Holders past, present and future and express our gratitude for their continued sharing of knowledge and culture.

Document Control		
Title:	Development Application – Vasse Day Hospital	
Prepared for:	BlackOak Capital Ventures and St John of God	
Prepared by:	Hatch RobertsDay	
Project Team:	Architect	Hames Sharley
	Landscape	Emerge Associates
	Transport	Uloth & Associates
	Mechanical	Pritchard Francis
	Structural	Pritchard Francis
	Sustainability	Norman Disney & Young
	Acoustic	Lloyd George Acoustics

Disclaimer

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		F. Acoustic Report
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EXECUTIVE SUMMARY

Hatch RobertsDay acts on behalf of St John of God Health Care (SJGHC) in conjunction with Blackoak Capital Ventures and Invested Health Developments, and architects Hames Sharley, in making an application for a Day Hospital at Lot 9556, Napoleon Promenade in the Vasse Village Centre (the subject site).

The facility will move, as well as replicate, services from the South-West Health Campus (SWHC) located in Bunbury, improving local community access to private health facilities across the Busselton & Margaret River region and creating capacity on the current SWHC. It will also provide a centre of employment in the City of Busselton and the wider south west region through the construction and operation phases.

The Day Hospital and satellite centre will accommodate a range of services operated by different St John of God Health Care entities including St John of God Bunbury Hospital (SJGBH), St John of God Healthcare At Home (HAH) and potentially Social Outreach services. The facility will include a day procedure unit, 23 hour beds, day chemotherapy unit, sessional consulting, pre-admission services, outpatient allied health services, ambulatory care services, office and meeting accommodation and a public café. The facility will also provide secure parking for healthcare at home vehicles.

The design is underpinned by the concept of a restorative healthcare journey that brings together the site and community context, human comfort and healthcare, and the St John of God Values. The design is highly compliant with the planning framework for the site.



1.

INTRODUCTION

1.1

About St John of God

St John of God Health Care is Australia’s largest not for profit health care provider. Established in Western Australia in 1895, it now operates 27 facilities comprising more than 3,300 hospital beds, as well as home nursing, disability services and social outreach programs. St. John of God employs more than 15,500 staff across Australia and New Zealand.

Within Western Australia, SJOG operate facilities in Subiaco, Mt Lawley, Murdoch and Midland, as well as regional facilities in Geraldton and Bunbury.

The St John of God organisation is driven by core values that underpin the design of the hospital.



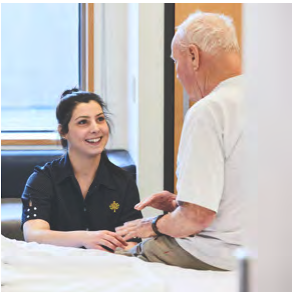
Hospitality

A welcoming openness, providing material and spiritual comfort to all.



Compassion

Feeling with others and striving to understand their lives, experiences, discomfort and suffering, with a willingness to reach out in solidarity.



Respect

Treasuring the unique dignity of every person and recognising the sacredness of all creation.



Justice

A balanced and fair relationship with self, neighbour, all of creation and with God.



Excellence

Striving for excellence in the care and services we provide.

2. DEVELOPMENT CONTEXT

2.1

Site History

The Vasse area, and the south-west region was originally inhabited by the Wadandi people. They moved seasonally from the coast to the hinterland and came together for ceremonial purposes, coinciding with availability of food. The Wadandi people made use of the permanent water and abundant food resources around the rivers and inlets of the Vasse area.

Following colonisation, the area was settled and used for agricultural pursuits. During the 1920's, drainage was introduced to remove water from the low-lying areas, resulting in the Vasse Diversion Drain (Buayanyup Drain) that borders the west of the subject site.

In the 1990's Vasse was identified by the State Government as a future town in the Statement of Planning Policy No. 6.1 Leeuwin-Naturaliste Ridge Policy which aimed to achieve "creative, vital and sustainable communities living in balance with economic development and the unique landscape and environmental values of the Leeuwin-Naturaliste Ridge policy area." This vision was underpinned by the following objectives relevant to the Vasse Day Hospital development:

- Provide a range of settlement options located to enhance the economic, social and environmental functions, while promoting quality and innovation in urban design and built form
- Encourage a mix of compatible land uses while separating conflicting land uses;
- Facilitate a robust, diverse and sustainable economy; and
- Foster a sense of community and creativity.

Development of the Vasse Estate has proceeded in line with the Leeuwin-Naturaliste Ridge vision since the early 2000's, leading to the development of the Birchfields and Dawson residential estates, and the highly successful Vasse Village Centre. The development of the proposed Day Hospital continues the SPP vision for Vasse as an economic and civic centre for the wider region, underpinned by economically, socially and environmentally sustainable growth.

2.2

Regional Context

The subject site is located within the Vasse Village in the commercial heart of the Vasse Estate, located within the City of Busselton.

The Vasse Estate is situated approximately 60km south west of Bunbury and 250km south of Perth. Within the south-western context, Vasse is situated 10km west of the Busselton Town Centre, 14km east of Dunsborough, 40km north of Margaret River and 70km from Augusta.

The Vasse Village Centre is conveniently positioned in the South-West Region to provide excellent transport linkages to the wider region.

The Vasse Village is located at the intersection of three major arterials, being Northerly Street, Bussell Highway and the Busselton Bypass. This provides convenient access to the centre from all regional destinations including Busselton, Margaret River, Augusta, Dunsborough and Yallingup as well as convenient access to other St John of God hospital facilities in Perth and Bunbury.

The regional context of the subject site is shown in Figure 1.



Figure 1 - Regional Context

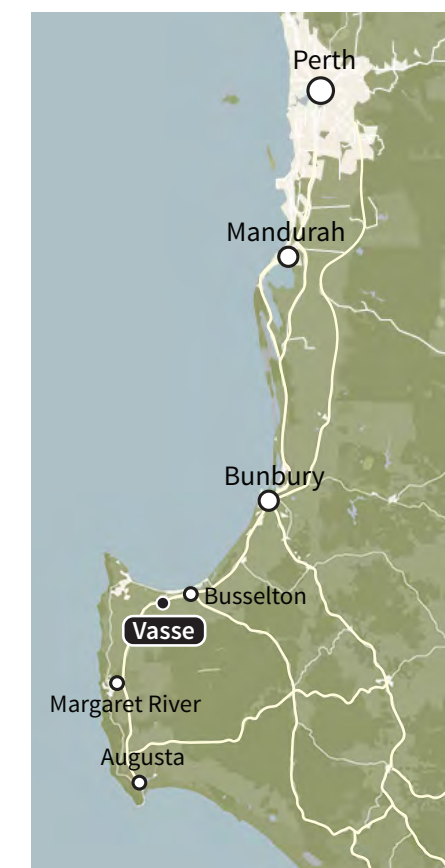


Figure 2 - State Context



2.3 Local Context

The subject site is located in a prominent corner of the Vasse Village Centre main street. The Village Centre has a total area of approximately 13.61 hectares, of which a substantial portion has been developed or is under construction. Development works completed include the creation of key public open space areas, landscaped road reserves and parking, as well as private development, comprising a Coles supermarket and service station, fast food outlets, medical centre, childcare and specialty retail tenancies. Notably, the Bunbury Farmers Market was recently approved the lot to the north of the subject site. Existing development in the Village Centre is shown below:



2.3 (cont.) The subject site sits at the intersection of the key main streets within the Village Centre being Coomidup Boulevard and Napoleon Promenade. The east-west axis of Napoleon Promenade provides a strong pedestrian and traffic link to the main street of the Village Centre as well as the adjacent residential estates and public open space areas. Coomidup Boulevard provides a direct connection to Bussell Highway and the wider south west region.

The site's prominent location requires that the proposed hospital make a significant contribution to the architectural character of the Village Centre.

Figure 3 - Local Context



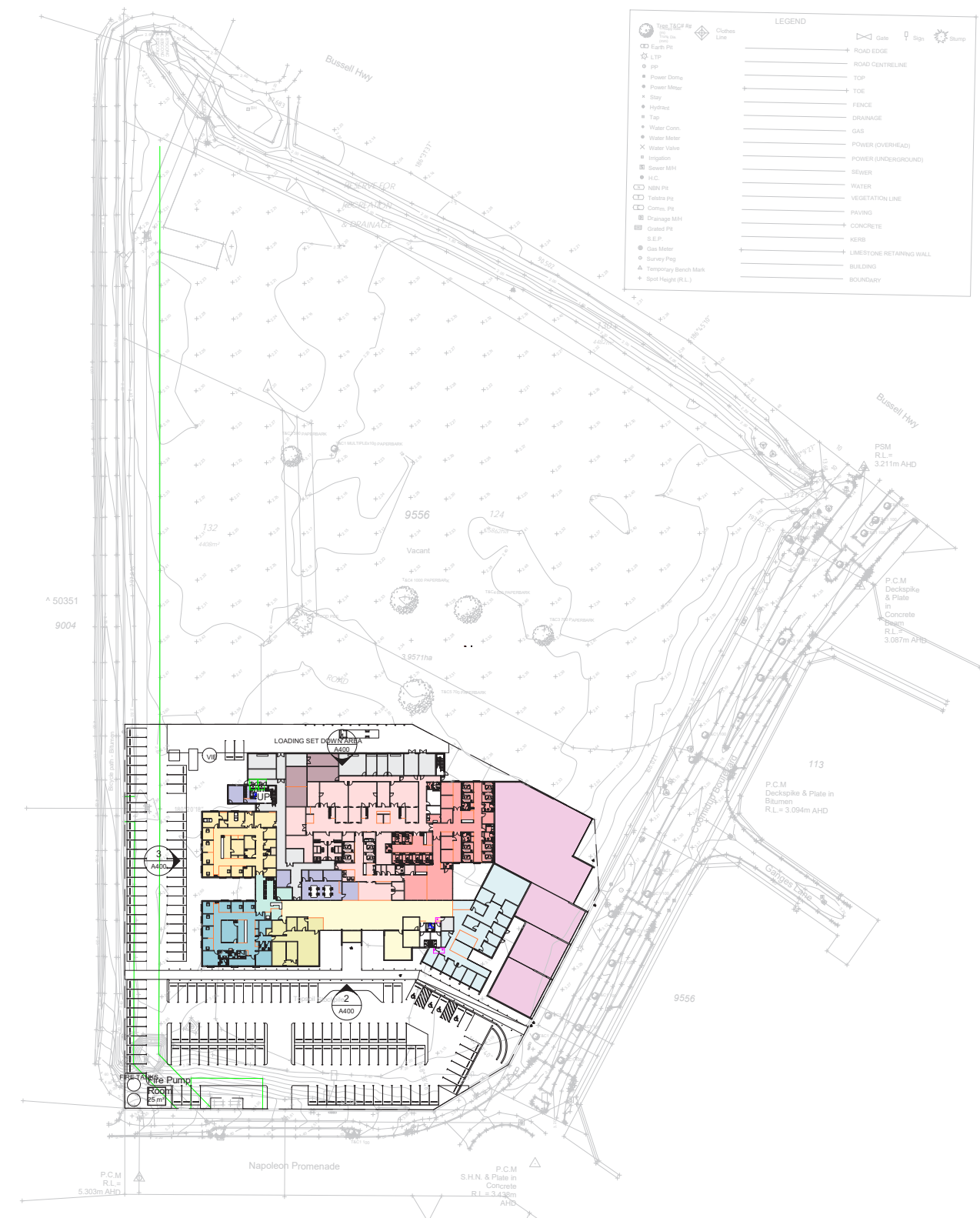
2.4 Key Site Details

The subject site is bordered by Coomidup Boulevard to the east, Napoleon Promenade to the south and the Buayanyup Drain to the West. The subject site is legally described in Table 1 - Site Details and Figure 3.

Table 1 - Site Details

Lot	Plan	Certificate of Title		Owner
		Volume	Folio	
9556	417770	2986	279	Perron Developments Pty Ltd & Stawell Pty Ltd

Figure 4 - Site Plan



2.5

Development Need – Demographic Snapshot

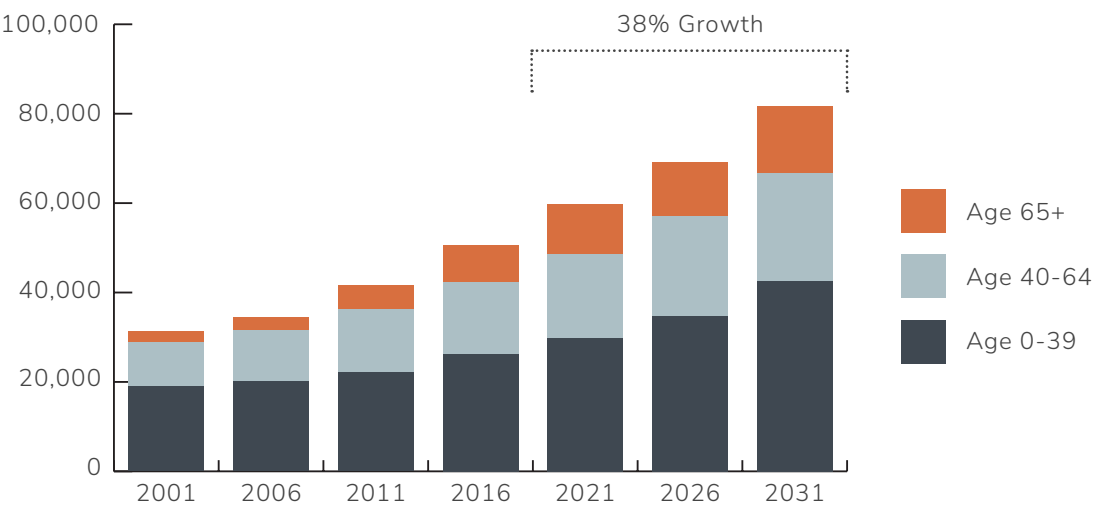
Within the south-west region, St John of God currently operates the St John of God Bunbury Hospital which services the South-West Region including Bunbury, Vasse-Leeuwin and Manjimup. The Vasse-Leeuwin Region incorporates the town sites of Busselton, Dunsborough, Vasse, Margaret River and Augusta. Vasse is part of the City of Busselton, the largest and closest centre (50km/40mins drive) to Bunbury and with the neighbouring Margaret River, one of the fastest growing regions in Australia.

As of the 2021 census, the local governments of Augusta Margaret River and Busselton saw a population increase of 17.8% and 10.8% respectively from the 2016 census. The wider south-west region saw an increase of 6% in this time period.

The Busselton catchment population is projected to grow by 38% between 2021 and 2031. This is well above the state average of 17% and the national average of 15%.

Between 2001 and 2021 the proportion of over 65s in the Busselton catchment grew from 13% of the population to 19%. Projections indicate this age group will continue to represent a significant proportion of the catchment population.

Figure 5 - Busselton Catchment Population Demographics



2.6

Development Need – Healthcare Trends

Healthcare trends show a shift of surgical activity from overnight to same day with significant growth also forecast for chemotherapy services. It is important that healthcare models adapt to these shifts to ensure sustainable and effective delivery. The concept design of a Day Hospital at Vasse has been developed to meet this need with 80% of current surgical work able to be delivered same day or with single night admission.

SJGBH has completed a Clinical Service Plan for the south west region. This plan indicates demand for 2 additional theatres and 30 chemotherapy chairs/beds by 2032. The plan shows below expected market share in the Vasse-Leeuwin region (42% vs 54% in the Bunbury region) with referrals lost to the metropolitan area (other privates) and the Bunbury Day Hospital, pointing to the need for a private hospital in the Busselton-Margaret River Region.

There is currently no private hospital service provision in the region, presenting the opportunity and imperative to increase St John of God Health Care's (SJGHC) presence by providing additional theatre access for defined specialties along with a continuum of care services closer to home for this community.

3. PRE-LODGEMENT CONSULTATION

3.1 Pre-Lodgement Consultation

The proponents have undertaken a number of pre-lodgement consultation activities with relevant regulatory authorities and parties.

City of Busselton

The design has been presented to City of Busselton on a number of occasions throughout the design process, and to the City’s Design Review Panel for consideration (see Section 3.2 below).

Department of Health Licensing and Accreditation Regulatory Unit


The design was presented to the Department of Heath’s Licensing and Accreditation Regulatory Unit (LARU) for approval of the concept. The LARU is responsible for the licensing and monitoring of private hospitals in Western Australia. The design was granted formal LARU Concept Approval.

Vasse Joint Venture


The concept has been discussed at length with the Vasse Joint Venture partners, the developers of the Vasse Estate, receiving positive reception and support.

Public Awareness

The project was announced to the community via media release and on social media on 26 July 2022 including preliminary design. This announcement was met with unprecedented positivity from the South-West community. On-line commentary cited the importance of a local hospital facility and the significant improvements to wellbeing that will result from the development of the Hospital at Vasse.



@St John of God Health Care



Wonderful news for all!

Great outcome for the growing population of Augusta, Margaret River, Dunsborough, Busselton regions.

to be able to have treatment in Busselton will certainly alleviate the huge stress on families.

Awesome news











3.2 Design Review Process

The proposed development was presented to the City’s design reviewer Craig Smith Architects on 26 July 2022 for formal design review panel. The outcomes / feedback of the design review is summarised in Table 2 - Design Review below.

The Design Review Process (DRP) concluded that, “whilst further development and revisions are recommended in a number of areas, the project is well developed at this stage and is unlikely to require substantial change prior to submission of the Development Application.”

No elements of the proposal were not supported or required major revision prior to lodgement. The architectural package reflects the changes requested or noted through the design review, which are detailed below.

Table 2 - Design Review

	Design Principle	DRP Comment	
Not supported	 Context and Character	<i>“Generally supported.”</i>	
Pending further action	 Landscape Quality	<i>“Insufficient detail to provide full support at this stage, however, the stated intent should lead to a successful outcome.”</i>	
Supported	 Built form and scale	<i>“The scale is supported. Development of the external form of the building and commitment to materials and finished should provide further improvement.”</i>	
	 Functionality and build quality	<i>“Whilst options and cost are still being considered the build to rent model should drive the use of low maintenance and high quality materials. The provisional material selections are supported.”</i>	
	 Sustainability	<i>“The stated level is encouraging, but commitment is required to confirm.”</i>	
	 Amenity	<i>“The general arrangement of the plan and the functions included in the building are acceptable, footpaths excepted.”</i>	
	 Legibility	<i>“Primary image of building on the more public SE and NE corners is supported.”</i>	
	 Safety	<i>“Attention has been applied to the fundamentals of creating a safe and efficient building; further detail is required on egress and servicing.”</i>	
	 Community	<i>“The project has the capacity to provide substantial, staff, user and community benefit.”</i>	
	 Aesthetics	<i>“The general approach to design and the execution are supported.”</i>	

This DA package responds to the comments provided via the DRP, progressing the design and providing further information where suggested by the DRP. Specific response to the relevant Design Principles requiring further attention is summarised below.



Landscape Quality

The finalised landscape report provided at Appendix D and summarised at Section 5.5 progresses the landscape concepts presented for design review. The landscape design aims to create spaces that echo the architectural themes of recovery, tranquillity and the restorative journey in a manner that is beautiful, functional and sustainable. The design utilises largely native species to create a series of integrated garden spaces reflecting the Hospital's architectural style and the theme of biophilia, with a green arbour at the entrance of the hospital providing a signature landscape element on arrival at the facility.



Safety

CPTED principles are applied to all areas of the public realm to provide passive surveillance, reduce dead ends and blind spots, minimise recesses and hidden nooks. Security and safety at night is a key consideration, with architectural and landscape lighting integrated holistically, and lighting to pathways and parking facilities provided.

Activation of the eastern frontage along Coomidup Boulevard creates a strong relationship with the street, and enables surveillance of and sightlines to the public realm. Whilst these are raised to a floor level of 44m RL to mitigate flood levels, the design provides a safe and accessible path for pedestrians walking from the farmers market to Napoleon Promenade that is separated from traffic and verge parking. The steps and level change is minor, limiting impact to people parking along the verge, with a low planted edge that provides good visibility to shopfronts and barrier free.

The DRP noted the importance of separation of public and private/operational spaces. Restricting public access to certain operational zones is also an important consideration that is reflected in the final design. Staff parking is separated and gated with secure access to the hospital via staff entrance ways. Internally, security access gates from the external public zones are provided for all internal landscaped courtyards and gardens so that access is restricted to allow maintenance personnel only.

Responding directly to comments made by the DRP, vehicle access is separated from servicing and operational access requirements, with the design mitigating any conflict between parking and servicing. These entrances also draw traffic away from the intersection of Coomidup Blvd and Napoleon Promenade .



Community

Vasse Day Hospital responds directly to the needs of the south-west community, providing much needed health services to the local community and regional catchment as a health precinct, inclusive of other complementary functions and consultation services.

The design makes a major and positive architectural contribution to the Vasse Village Centre. Built form activation along Coomidup Boulevard and at the key corners of the site reinforce the main street feel of the Village Centre. External level differences are managed to ensure access to and from the adjacent public realm is safe, equitable and high quality. Internally, the single level design promote good access across all areas of the hospital. The level requirements are discussed in Appendix I – Civil Engineering Report. These differences are managed through accessible ramping that provides continued access at both the Coomidup Boulevard Street level, and the finished floor level of the tenancies for people of all abilities. This ties in with the ramping up from the corner of Coomidup and Napoleon, through the arbour structure, to the front entrance of the Hospital.

Critically the design itself promotes social and physical well-being through an integrated landscape and architectural design strategy that balances the needs of the public, patients and staff.



Sustainability

Blackoak Capital and St John of God are committed to developing a sustainable hospital. Sustainability measures include the use of sustainable materials such as wood and rammed-earth, opportunities for natural ventilation to reduce energy demand, native and waterwise planting, electric only services with solar PV array collectors for solar harvesting and provision for battery storage and EV charging. These sustainability measures are discussed in the Sustainability Report in Appendix E and summarised in Section 5.6 of the report.

The DRP requested confirmation of a Green Star rating be provided at DA stage. The Sustainability Report includes a preliminary Green Star for Buildings v1tool Assessment undertaken by Norman Disney & Young (NDY) that demonstrates the development can achieve the proposed 5 star requirement.



4. PROPOSED DEVELOPMENT

4.1 Development Description

The Day Hospital will provide 23 hour surgical services, day oncology, dialysis services, ambulatory services such as physiotherapy as well as consulting rooms for specialist doctors to use. At full capacity, the Hospital is expected to employ approximately 70 staff.

A key objective in developing the Vasse Day Hospital is to provide additional theatre access for defined specialties along with continuum of care services closer to home for the Busselton – Margaret River community.

The Day Hospital and satellite centre will accommodate a range of services operated by various St John of God Health Care entities including St John of God Bunbury Hospital (SJGBH), St John of God Healthcare At Home (HAH) and potentially Social Outreach services.

The facility will accommodate:

- Administrative Offices
 - Ambulance Bay & Entry
 - Consulting Suites – Sessional and Tenanted
 - Day Chemotherapy Unit including onsite chemotherapy compounding
 - Day Procedure Unit including 23 Hour Beds
 - Day Renal Dialysis Unit
 - Healthcare At Home Satellite Distribution Centre
 - Meeting Room
 - Outpatient Allied Health Services
- (Physiotherapy, Dietetics, OT), Consulting and Gym
 - Pharmacy
 - Preadmission Services
 - Reception Services
 - Social Outreach including Community Alcohol and Drug Services, Community Mental Health Services.
 - Staff Room
 - Staff, patient and visitor parking
 - Toilets
 - Treatment Room (including Phlebotomy)



The facility will offer the following benefits:



The Hospital supplements the existing public health system in the South West by providing a private service and day surgery to patients in the Busselton & Margaret River region,



Promoting local economic development and improved service outcomes for the community, the development will attract additional ancillary health services and consulting suites to the Vasse Town Centre;



Continues SJGHC’s commitment to providing services to the South-West community;



Is designed to allow for the expansion of surgical and chemotherapy capacity as required in the short to medium term to meet the future needs of the community.

Figure 6 - Floor Plan



4.2

Design Assessment

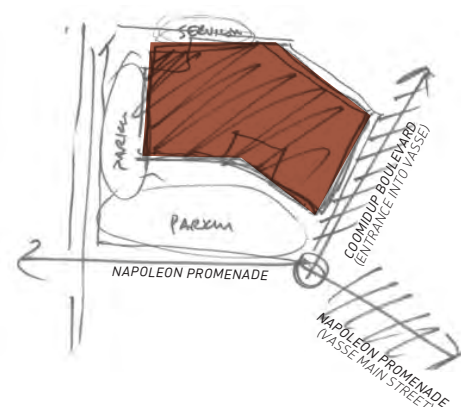
The Hospital has been carefully designed by Architects Hames Sharley. The design philosophy is centred around the concept of the 'restorative journey', underpinned by human comfort and St John of God's values, as well as consideration of the site context. The design draws from the natural environment to promote recovery and tranquillity for patients and staff, prioritising the human spirit of the building through an 'inside-out' approach.

Re-examining the institutional building typology, the interior of the building offers a variety of spaces, scales and series of 'houses' connected by 'streets' to highlight the importance of place and community, and reflecting the Village Centre context.

The key design considerations of the development are outlined below.

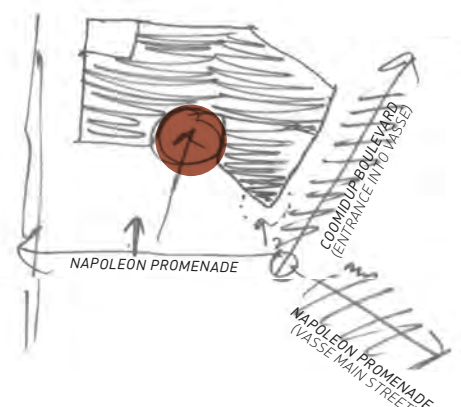
01 Site and Access

The site is prominently located near the entrance of Coomidup Boulevard from Bussell Highway and addresses three street frontages. The built-form is positioned towards Coomidup Boulevard with street activation and engagement with the prominent corner approach from the north east. Parking and access is via Napoleon Promenade to the South, addressing level differences between the site and this section of the street. Servicing with staff parking is discreetly located away from the core main street area to the east.



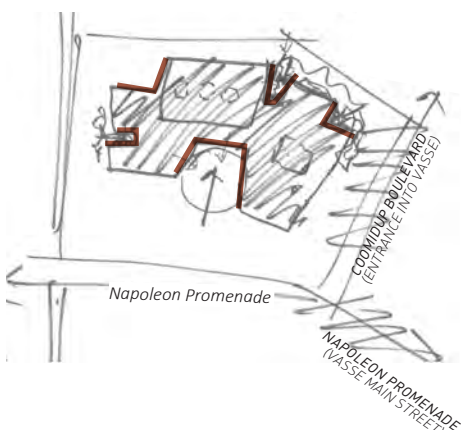
02 Arrival

Clear points of arrival are visible from Napoleon Promenade and within the site parking area. The built form is set back from Napoleon Promenade to enable long views of the facility from the Vasse Main Street, terminating to a single point of arrival to the hospital and then passing through a shaded courtyard and café alfresco area into the facility. Rammed earth walls lead in from both sides of the entrance which is centrally located and provides a focal point to the building.



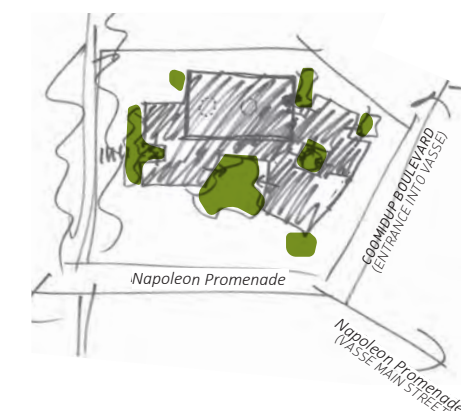
03 Breaking down scale

The large footprint of the building is broken down in scale by 'reliefs' in the facade to create pavilion like architecture at the key edges. These reliefs not only articulate the urban edge of the built form but bring natural light into the building and prevent the building appearing too monolithic or institutional. This all contributes to a fine-grain built form to Coomidup Boulevard that reflects the southwest vernacular.



04 Pockets of nature

Fundamental to the healthcare function of the building is the principle of 'biophilia' which promotes access to natural light and the outlook into restorative courtyards and gardens from interior spaces. The integration of low maintenance, water wise native landscaping with the architecture and surrounding context is another key principle which improves the experience for users. This reflects the natural setting of Vasse.



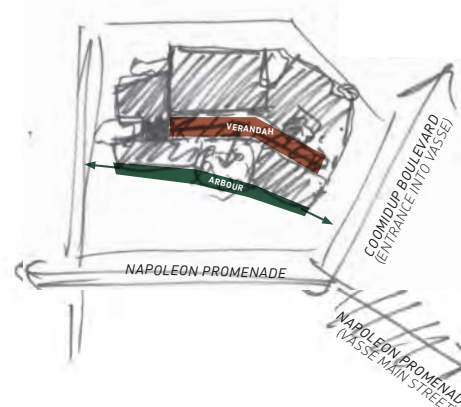
05 The Arbour & Verandah

Two architectural connectors draw from the local viticultural vernacular create distinct transitional experiences at the Hospital. The Arbour provides clear wayfinding and shaded pedestrian access from the Napoleon Promenade corner to the main arrival courtyard and front door. It mediates thermal comfort and the transition from public to private, outdoor to indoor spaces. The verandah is the public entrance, comprising a generous foyer space that connects the various departments of the hospital. It brings in natural light and connects the interior to the arrival courtyard garden.



06 Front Doors

Intuitive wayfinding and legible front doors are important design drivers that create a seamless and familiar experience for visitors and patients. The primary entrance doors are prominent with direct access and clear line of sight to the main reception desk and foyer lounge. The design enables self-guided way finding, with all department reception desks (front doors) highly visible from the main reception foyer. The café and toilets are also located in a direct and legible position to the front entrance.



SPP 7.0 Design of the Built Environment

The design responds to each of the ten design principles of SPP 7.0, achieving the policy goal of design excellence of the built environment.



Context and Character

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place

- The design considers the community’s place experience in respect to how the hospital addresses the three street frontages with appropriate urban design moves to each.
- The design draws cues from the natural surroundings and water elements, including the adjacent Buayanyup drain, to generate a visually stimulating design that promotes recovery and tranquillity through an earthy material palette.
- Drawing inspiration from southwest vernacular and the surrounding wine region, utilising warm and raw materials that are inviting and textual. Locally sourced rammed earth, timber and stone are authentic and robust materials that reflect the local architecture and have low-embodied energy materiality.



Landscape Quality

Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place

- The key landscape design objective is to create spaces that echo the architectural themes of recovery, tranquillity and the restorative health journey in a manner that is beautiful, functional and sustainable.
- The design will create a series of integrated garden spaces at a variety of scales for a range of users and purposes, reflecting the architectural style and theme of biophilia with consideration of matters of scale, access, sight lines, privacy and safety.
- The design and materiality of landscape features such as walls, paving and furniture is integrated with signage and public art that complements the architectural style.
- Outdoor furniture will be robust, sustainable, accessible and comfortable, with a combination of fixed and moveable furniture provided. Pots and planters will be strategically placed to provide colour and interest whilst allowing for full movement and access.
- The arbour at the building entry is a key architectural feature that will be softened and enhanced with a selection of vigorous, low maintenance climbing plants.
- The planting design will be undertaken with input from Emerge Associates’ in-house botanist, with selection of attractive, resilient, low maintenance and predominantly native plant species appropriate to the site and the particulars of each garden space (such as responding to orientation, light levels, etc).
- The external planting design will reference the Wadandi Six Seasons in acknowledgment of the traditional owners of the area. Species will be chosen to illustrate the six distinct seasons, providing year-round colour and interest Text incorporated into external elements such as walls and furniture will reference the Aboriginal history of the site, with a focus on the pre-colonial period where the land was known for its abundance of food and water.
- Irrigation is proposed to be taken from a combination of mains water and stormwater capture and delivered subsurface dripline irrigation with the ultimate aim of minimal long-term water use.



Built Form and Scale

Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area

- Single storey and fine grain built form with articulation and courtyard gardens that break up the large footprint into smaller scale ‘pavilion’ like buildings that sympathetically blend with the form of the existing Village.
- Verandah and Arbours as architectural elements provide identifiable and shaded pedestrian arrival points. These reference both the historical architecture of Vasse and the contemporary built form. They also provide a mediating space for thermal transition zones from the outdoor gardens to the indoor semi ventilated and air-conditioned spaces which promotes better health and wellbeing.
- Fine grain, activated facades along Coomidup Boulevard’s pedestrian friendly streetscape with continuous canopy coverage and raised landscaped footpaths to interface with the main entrance street from Bussell Highway for the comfort and safety of pedestrians.
- Height and prominence in roof lines that address Coomidup Boulevard for increased presence and exposure to fast moving traffic.



Functionality and Build Quality

Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle

- Generous foyer space which doubles as the main circulation area and is designed as a multi-use space for future adaptability and flexible functions to occur.
- Evenly distributed access to natural light ensures current and future functions have optimal daylight.
- Flexibility of retail and/or medical tenancies along Coomidup Boulevard enable multiple tenancing options responding to local need and demand.
- Materiality of heavy and light weight elements, as well as timber framed components are of high quality and robust materials to ensure longevity. The lightweight components are able to be disassembled and rammed earth / stone elements recycled, considering the full life-cycle of the building materials.
- The entry courtyard and cafe alfresco area is an intimate outdoor space that is protected from the winds from various directions by a combination of built form, mature tree canopy, and mitigated by vegetation and the Arbor shade structure to the south. The intent is for this space to create a micro-climate that mediates the thermal comfort and transition into indoor environments, contributing to the arrival sequence to the hospital.





Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes

- 5 - Star Green Star rating targeted.
- Use of natural and locally sourced timber structural elements and low embodied energy materials such as rammed earth, timber and stone considering the life-cycle of the material.
- Mixed-mode and generous volume foyer space with natural ventilated capabilities to create a mediating space and reduce reliance on mechanical air-conditioning in relevant spaces.
- De-gasification via electric only services with solar PV array collectors for solar harvesting, provisions for battery storage and EV charging.
- Water sensitive initiatives and systems to be further explored in the detailed design phase.
- Water-wise and bio-diverse landscaping. Plant species selected to promote fauna and insect life.
- Interior materials and finishes that are low maintenance but also focused on human comfort, wellness and hygiene.
- Generous and flexible foyer space known as the 'verandah' provides a social welcoming space.



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

- Vasse Day Hospital is a Civic and Healthcare building that re-examines the institutional image of a hospital whilst promoting recovery and tranquillity for patients and staff.
- Provides a balanced amenity for both patients and staff through break-out spaces, courtyards, alfresco areas, cafés, lounges and a variety of indoor and outdoor spaces that facilitate health, well-being, respite, and prioritise the human spirit and the restorative journey.
- Considers the adjacent town centre context in how it presents to the streetscape, gives back to the public realm with generous landscaping, activated street fronts to Coomidup Boulevard and the integration of street furniture and shaded walkways.
- Key aspects of the design such as lighting, ergonomics, wayfinding, safety, familiarity, colour and acoustics draw from Hames Sharley's extensive research into human comfort and its practical application in design.



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

- Clear and legible vehicular and pedestrian access points, through signage and architectural elements
- Clear public entrance to the Hospital through an arrival courtyard to the main entrance front door of the building.
- Arbour as an urban and landscape device functions as a key wayfinding element for approaching pedestrians from the core main streets, as well as providing shade comfort.
- Clear sight lines to all department arrival points from the front door and main reception area. This promotes legible and intuitive wayfinding for clients.
- Clear circulation and hierarchy in circulation spaces and clarity in the architectural elements that provide prominence to entrances, activated fine grain shopfronts, corner signage opportunities etc.



Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use

- CPTED principles are applied to all areas of the public realm to provide passive surveillance, reduce dead ends and blind spots, minimise recesses and hidden nooks.
- Street surveillance and sightlines are provided to adjacent streets and key corners of the site through glazing and commercial tenancies.
- Architectural and landscape lighting is integrated and designed holistically. Security and safety at night is a key consideration, with lighting to pathways and parking facilities provided.
- Staff parking is separated and gated with secure access to the hospital via staff entrance ways.
- Security access gates from the external public zones are provided for all internal landscaped courtyards and gardens so that access is restricted to allow maintenance personnel only.
- External level differences are managed with accessibility as a key priority. Internally, the single floor and flat level design promotes good accessibility across all areas of the hospital.



Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social

- Vasse Day Hospital serves the local and broader regional community and catchment areas as a health precinct, inclusive of other complementary functions and consultation services.
- Facilitates social and physical well-being through an integrated landscape and architectural design strategy that balances the needs of the public, patients and staff



Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and Places that engage the senses

- Taking architectural and materiality cues from south west winery architecture, the design re-imagines the regional hospital typology and creates a welcoming, inviting and comfortable place to be for all visitors.
- Using raw, authentic and textural materials – the natural aesthetic reflects the local character and natural surroundings whilst providing a timeless aesthetic designed to age well. This materiality is detailed in Appendix B.
- Indoor and outdoor spaces integrate, landscape as the hero that is experienced throughout – softening the built elements and connecting people with nature.
- Warmth in the use of timber and rammed earth as juxtaposed materials that speak to the balance of aesthetics.

5. PLANNING ASSESSMENT

The proposed development is highly compliant with the statutory and strategic planning framework relevant to the site including land use permissibility, and primary built form controls. This compliance is demonstrated below.

5.1 City of Busselton Local Planning Scheme No.21

The subject land is zoned Urban Development in the City of Busselton Local Planning Scheme No.21 (LPS21).

The Scheme also applies the following categories to the land:

- Special Provision Policy Area – SP 65 - Vasse Activity Centre Plan
- Special Control Areas – SCA Environmental Conditions
- Special Control Areas – SCA Development Contributions

The Urban Development zone seeks to proactively plan for:

“Vibrant and attractive activity centres in urban areas developed along ‘main-street’ lines with activated public streets, high levels of pedestrian and civic amenity and a mix of public spaces including, retail, commercial, café, restaurant, bar, entertainment, tourism and community uses.”

LPS21 sets out various objectives for the Urban Development Zone, centred around designation of land for future urban development via structure planning. The Scheme does not set out any particular use requirements under this zone stating at Clause 3.4.3 (own underlined emphasis added):

- “If the zoning table does not identify any permissible uses for land in a zone the local government may, in considering an application for development approval for land within the zone, have due regard to any of the following plans that apply to the land*
- a. A structure plan;*
 - b. An activity centre plan;*
 - c. a local development plan.”*

As required by the 'Urban Development' zoning, the Village Centre is subject to the approved Vasse Activity Centre Plan (ACP) and the draft Vasse Village Precinct Structure Plan (PSP) The ACP and draft PSP identify the Town Centre as 'Local Centre' zone. The objectives of the 'Local Centre' zone are:

- a. To provide for development at a scale sufficient to serve the Centre's catchment, but not detract from the commercial primacy of the Regional Centre and Centre zones.*
- b. Providing for limited expansion of existing smaller centres to ensure access to services at a local level and building neighbourhood identity.*
- c. To ensure that development provides for activation of the street and public spaces, high quality design and a variety of land uses.*

The Day Hospital aligns with the definition of 'Hospital' included in LPS21, which is defined as premises that are a hospital within the meaning given in the Health Services Act 2016 section 8(4). The Health Services Act 2016 section 8(4) defines a Hospital as:

- a. Premises where medical, surgical or dental treatment, or nursing care, is provided for ill or injured persons and at which overnight accommodation may be provided; and*
- b. A day hospital facility; and*
- c. A nursing post.*

5.1 (cont.)

'Hospital' is listed as a discretionary use in the Local Centre zone meaning the use may be permitted where the local government has exercised its discretion by granting development approval.

In addition to the primary function of the facility as a hospital, a number of ancillary uses are proposed. Table 3 - Ancillary Land Use Permissibility identifies that all ancillary uses are permitted.

Table 3 - Ancillary Land Use Permissibility

Use	Definition	Permissibility
Consulting Rooms	Premises used by no more than 2 health practitioners at the same time for the investigation or treatment of human injuries or ailments and for general outpatient care.	Permitted
Medical Centre	Premises other than a hospital used by 3 or more health practitioners at the same time for the investigation or treatment of human injuries or ailments and for general outpatient care.	Permitted
Office	Premises used for administration, clerical, technical, professional or similar business activities.	Permitted
Restaurant/ Cafe	Premises primarily used for the preparation, sale and serving of food and drinks for consumption on the premises by customers for whom seating is provided, including premises that are licenced under the liquor control act 1988.	Permitted

SP 65 identifies that the maximum recommended retail floor space allowable shall generally be limited to 4,650m² (NLA). This figure is proposed to be increased to 6,500m² in the draft Vasse Village Centre Precinct Structure Plan. The application does not materially contribute to the retail use in the Village.

5.2

City of Busselton Local Planning Strategy

The City of Busselton Local Planning Strategy recognises the continued growth of the Busselton-Vasse Urban Area as a regional centre, and through the identification of suitable areas for planned, progressive expansion of those settlements. The Strategy identifies that population growth will put significant pressure on existing community infrastructure and will create demand for new and/or different facilities driven by an increasingly diverse demographic.

The Strategy themes of Settlement and Community and Activity Centres and Economy include a range of objectives which strongly align with the development of a private hospital in the Vasse Town Centre, as follows

- Expansion and improvement of community facilities to meet the needs of a growing and increasingly diverse population.
- Build and maintain economic prosperity and security.
- Plan to support strong employment growth, and economic development and diversification.
- Transitioning towards a less resource and carbon-intensive economy that is less dependent on continued population growth for economic sustainability.
- Development of new activity centres in urban growth areas and limited expansion of existing smaller centres to ensure access to services at a local level and build neighbourhood identity.

The development of a private hospital at Vasse therefore strongly aligns with the objectives of the City’s Local Planning Strategy.

5.3 Structure Plans/Activity Centre Plans

5.3.1 Vasse Village Activity Centre Plan

The Vasse Activity Centre Plan (ACP) provides guidance for the subdivision and development of the Village area, including character area objectives, to guide the exercise of discretion.

Much of the core main street area of the Village is now developed, or subject to development approval. The area in which the subject site is located, is identified in the ACP plan as “subject to future planning”.

The ACP will be superseded by the forthcoming approval of the draft PSP (discussed below). The draft PSP is broadly consistent with the approved ACP, however it updates the area “subject to future planning” by extending the existing ACP main street provisions, retail, and traffic assumptions to also include this area.

The existing ACP sets out various principles to support the growth of Vasse Village into one of the South West’s most dynamic and interesting local centres. Vasse continues to be one of the fastest growing communities in the South West, if not Western Australia, and at its heart is the Vasse Village, a new place for locals and visitors to shop, relax and connect. Key ACP principles include:

- **Vision** - Create distinctive places, interesting products and services, convenience, and an inviting location.
- **Activity** - Provide for a range of complementary activities which includes a range of speciality food and beverage and retail outlets.
- **Built form** - Support a core main street and an appropriate regional vernacular.
- **Movement** – Deliver a high-quality movement network to accommodate all user needs.
- **Public realm** - Accommodate a range of planned public open spaces, that create an integrated and active village environment, fostering community interaction and cultural activities.
- **Resilience** – compact, walkable urban design, supporting regional sustainability

The ACP identifies a retail NLA of 4,650m² for the Village (aligning with the Scheme requirement), whilst acknowledging that further growth in retail floor space to meet demonstrable demand and population growth in the primary and secondary catchments will be required. This outlines a retail demand of 4,755m² in Vasse in 2017, increasing to 6,020m² by 2026. The ACP is clear in stating that as an instrument of due regard, the retail floor area can be varied.

The Day Hospital is consistent with the objectives and controls of the ACP. It provides complementary commercial activity and service to the Village Centre, contributing to a diverse economic mix; it reflects the regional vernacular in its built form; and provides a safe and legible pedestrian and vehicular movement network.



5.3.2 Draft Vasse Village Precinct Structure Plan

The draft Vasse Village Precinct Structure Plan is broadly consistent with the approved ACP, whilst incorporating the Stage 2A ‘unplanned’ area’ and providing economic context to support an increase of the current NLA ‘cap’ to 6,500m².

The draft PSP is expected to be approved by the WAPC in October or November of 2022, aligning with the timeframes for the consideration of this development application. Advertising of the draft PSP occurred in Feb / March 2022 and received conditional support (subject to minor modifications) from the City of Busselton in July 2022. It is therefore a seriously entertained proposal and provides appropriate context for the consideration and approval of the Hospital proposal.

The objectives for development within the PSP area are:

1. Create a welcoming and active Village Centre environment that is true to the principles of the broader Vasse Estate;
2. Accommodate a diverse and integrated mix of retail, commercial, civic and residential uses;
3. Develop a fine grain, high quality local built form vernacular;
4. Establish strong sense of place through the use of local materials within the built form and public realm wherever possible; and
5. Deliver a high-quality environment for pedestrians and cyclists, integrated with vehicle accessibility.

Under the draft PSP, the Vasse Village is made up of three Character Areas characterized by distinct land use focuses and urban form guidance. The subject site is located in the Main Street Character Area. This area is intended to be a diverse mix of land uses of individually developed commercial premises within an immersive main street environment. The Main Street character area is characterised by strong pedestrian activity reinforced by a high quality urban realm and public art, creating a place for public life to flourish. The objectives for the main street character area in the PSP (like the ACP) are:

- a. Create a vibrant and attractive main street environment along Napoleon Promenade;
- b. Provide a heart for the surrounding community with a distinct sense of place; and
- c. Provide for development that activates the public realm and fosters a pleasant pedestrian environment.

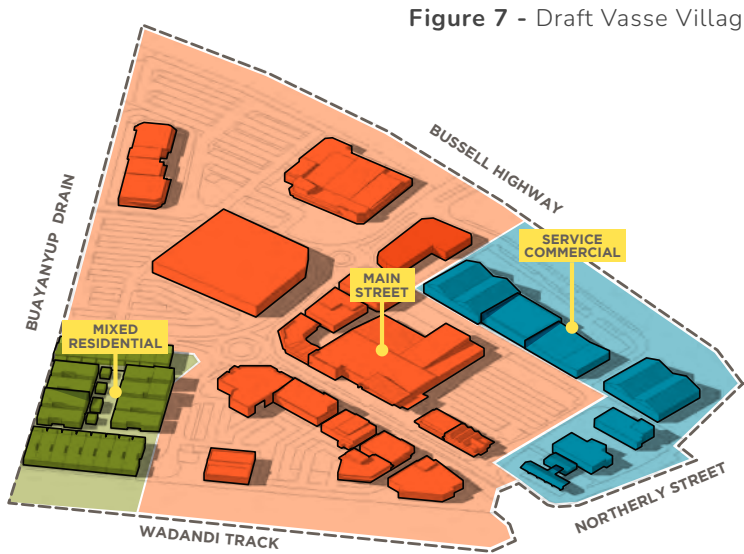


Figure 7 - Draft Vasse Village PSP Character Areas

5.3.2 (cont.) The PSP sets out development standards for each character area. An assessment against the development standards for the applicable Main Street Character Area is provided in Table 4 - Main Street Character Area Development Control Standards Assessment below.

Table 4 - Main Street Character Area Development Control Standards Assessment

Control		Requirement	Assessment
Maximum Height		3 Storeys	Compliant
Building Height		2 Storeys, or 1 Storey with equivalent 2 storey façade to Napoleon Promenade / Coomidup Boulevard	Façade is articulated and presents a two storey equivalent façade (5.5m) to Coomidup Blvd. The façade treatment was supported by the DRP.
Building Setbacks	Front	Mandatory Nil setback to 90% of frontage	Nill setback to Coomidup Blvd Approx 39m setback to Napoleon Promenade
	Side	Minimum Nil	
	Rear	Minimum Nil	
Building Frontage	Primary Entrance	Tenancies with direct frontage to Napoleon Promenade / Coomidup Boulevard must provide direct access to Napoleon Promenade / Coomidup Boulevard.	Direct access is provided to Coomidup Blvd from all tenancies with a direct frontage.
		No external public entry from the rear of such tenancies will be permitted.	Compliant
Windows at Ground Level		Minimum glazing for 50% of front façade area	East Façade <ul style="list-style-type: none">Total Façade = 287m²Glazing = 149m² (51.9%) South Facade <ul style="list-style-type: none">Total façade = 438m²Glazing = 167m² (38.1%)
Awnings		Minimum depth 2.4m for full building frontage to primary street	3.5m deep awning structure along southern entrance. 2.4m awning along commercial tenancies to Coomidup Blvd.

The proposal is entirely compliant with the primary development controls of the PSP, apart from the minimum glazing of the southern façade. It is important to note that the southern façade has a lot of clinical spaces such as mental health rooms, ensuites and chemotherapy beds making excessive glazing difficult. Importantly, the vast majority of the façade around the entrance and the café is almost entirely glazing, provides a strong entry statement and has a strong relationship to the street. It is also noted that this façade is set back from Napoleon Promenade behind the car park, so has less of a direct frontage to the street. Tenancies with a direct interface and frontage to Coomidup Boulevard have glazing above the minimum requirement.

5.4

Local Planning Policies (LPP)

The proposed Day Hospital addresses the requirements of the local planning policies relevant to consideration of the development as demonstrated below.

5.4.1

Local Planning Policy 2.1 Car Parking

Car Parking

Parking requirements in the City of Busselton are set out in Local Planning Policy 2.1 Car Parking (LPP 2.1). The Policy outlines a requirement for the ‘Hospital’ use as 1 bay per 2 beds. Based on this metric, parking requirement for the Hospital would be 19 bays, with an additional 38 bays for the retail/commercial tenancies.

However, as the overall Hospital has a number of individual components, and parking demand in practice is driven by staff, patient and visitor parking, a parking analysis has also been undertaken based on the individual uses within the hospital. This is contained in Table 5 - Parking Analysis below.

Table 5 - Parking Analysis

	GFA (m ²)	NLA (m ²)	No. Beds	Land Use	Parking Requirement	No. Bays Required	10% Discount (Vasse PSP)
Admin	201	148	0	Office	1 per 30m ² NLA	5	4
Allied Health	502	326	0	Medical Centre	1 per 30m ² NLA	11	10
Back of House	460	0	0	Medical Centre	1 per 30m ² NLA	0	0
Chemotherapy	330	126	8	Hospital	1 Space per 2 Beds	4	4
FOH	433	85	0	Medical Centre	1 per 30m ² NLA	3	3
CSSD	166	0	0	Medical Centre	1 per 30m ² NLA	0	0
Pharmacy	176	112	0	Shop	1 per 30m ² NLA	4	3
Renal Dialysis	366	126	8	Hospital	1 Space per 2 Beds	4	4
Shared Renal/ Chemo	111	36	0	Medical Centre	1 per 30m ² NLA	1	1
Short Stay	614	202	18	Hospital	1 Space per 2 Beds	9	8
Theatre	1004	353	3	Hospital	1 Space per 2 Beds	2	1
Retail Tenancies	1108	1108	0	Medical Centre	1 per 30m ² NLA	37	33
Total Bays						79	71
Total Bays Provided							168

Alternatively, a blanket requirement of 1 bay per 30m² NLA could be applied to the development, resulting in a requirement for 79 bays, inclusive of the 10% discount applied as part of the Vasse PSP. This is consistent with the approach taken in the Busselton Town Centre, and the requirement for Office, Shop and Medical Centre uses.

Finally, as the use of the commercial/retail tenancies has not been determined, and under the Policy a ‘medical clinic’ use generates a requirement of 5 spaces per practitioner, a ‘worst case’ parking analysis has also been undertaken. The analysis demonstrates that there is sufficient parking for 26 practitioners across the five tenancies, in addition to the parking required for the hospital under the policy.

5.4.1 (cont.)

Bicycle Parking and End of Trip Facilities

Bicycle Parking and End of Trip facilities are also specified in City of Busselton’s Local Planning Policy No. 2.1, with a requirement for 2 employee parking spaces per 6 practitioners plus 2 visitor parking spaces per 4 practitioners for ‘Health / Medical Consulting Rooms’. End-of-trip facilities are then also required for employees, including lockers and showers at rates of 1 locker per employee bicycle parking space, plus 1 shower per 8 employee parking spaces.

For bicycle parking at the Day Hospital, it is assumed that a total of 30 practitioners will be accommodated, resulting in a requirement of 25 bicycle parking spaces. This includes 10 spaces for employees (together with 10 lockers and 2 showers) plus 15 spaces for visitors. Bicycle parking for Hospital Staff will be accommodated in the bike store, located adjacent to the lockers and end of trip facilities for staff, shown on the floor plans.

The assumed 26 practitioners within the ‘Medical Clinic’ tenancies will therefore require a total of 22 bicycle parking spaces under a worst case scenario including 9 spaces for employees and 13 spaces for visitors. Lockers are proposed to be provided by the individual tenancies, when they are fitted out in the future.

Under all possible analysis, it is clear that the parking provided meets and exceeds the requirements of LPP 2.1. Importantly, the provision of parking has been determined based on the needs of the facility. On this basis, the parking provided is sufficient to address staff and visitor parking for the development throughout its life.

5.4.2

Local Planning Policy 4.4 Percent for Art

The City of Busselton’s Local Planning Policy 4.4 Percent for Art (LPP 4.4) requires a percent for art contribution for applications for development approval with a construction cost valued over \$1 million. In addition to LPP 4.4, the Vasse JV also includes Percent for Art requirements in its contracts of sale, aligning, but refining obligations under the City’s policy.

Public art obligations are typically delivered ‘in kind’ as public art the value of 1% of the development cost. The Policy allows for contributions to also be delivered as cash-in-lieu for expenditure by the City nearby the development site. Traditionally, public art is delivered externally to a development, within public view.

The Policy objectives do allow for wider interpretation, including considerations such as promoting community wellness. This provides an opportunity in partnership with the City to broaden the way public art can be delivered for this landmark project.

St John of God Values

Art is an integral part of the St John of God healthcare experience where art is used to create a warm and inviting environment and supporting the intellectual, social and spiritual dimensions of being human.

SJGHC uses the arts specifically to promote clients health, healing and recovery, by:

- a. Designing our facilities to create welcoming and healing environments by incorporating the arts inside and outside our facilities, creating areas for relaxation and contemplation.
- b. Displaying artworks throughout galleries within our hospitals. We showcase the work of well-known and local artists as well as artworks created by patients, visitors, caregivers, volunteers and members of the community, including school students.
- c. Hosting performances within our hospitals, providing entertainment for clients and visitors as well as opportunities to be involved in singing and song writing workshops, community choirs and other performance groups.
- d. Promoting participation in arts activities such as our mobile art studio CARTWHEELS at patient bedsides and music and arts therapy delivered by allied health professionals.
- e. Developing partnerships with artists and arts organisations to bring new and established artists, creatives and arts and health initiatives into our hospitals.
- f. Continuing to investigate and research the benefits of our arts programs on the overall wellbeing of patients, visitors and caregivers. This helps to increase the wider knowledge and understanding of the importance of arts for health.

Public Art Delivery

A Public Art Discussion Paper has been prepared by Hatch RobertsDay and St John of God (Appendix K) to inform and coordinate the delivery of public art consistent with LPP 4.4. The Discussion Paper also identifies a range of innovative and creative opportunities that can be deployed at the Hospital that at once complement the traditional delivery models anticipated in the Policy, whilst extending and augmenting its objectives.



- 5.4.2 (cont.)
- It is proposed that the Public Art Strategy and delivered artistic product for the Vasse Day Hospital will:
- a. Reflect the Catholic heritage of St John of God Health Care;

b. Reflect our values of hospitality, compassion, respect, excellence & justice;

c. Reflect the aboriginal culture of the Wardandi people of the Noongar nation upon whose country the hospital will be built;

d. Reflect the local community, landscape and culture; and

e. Reflect calm, healing vibes that help reduce anxiety and promote healing.

As a significant project with a sizeable percent for art contribution, the Day Hospital provides the opportunity for a more nuanced and multidimensional approach to delivering artwork and initiatives in and around the Hospital. It is hoped that the approach to the delivery of public art, aligned with the project values, can be further progressed following the conditional approval of the Hospital, including consideration and exploration of the following mediums, expanded on in detail in Appendix K:

- a. Sculptural elements

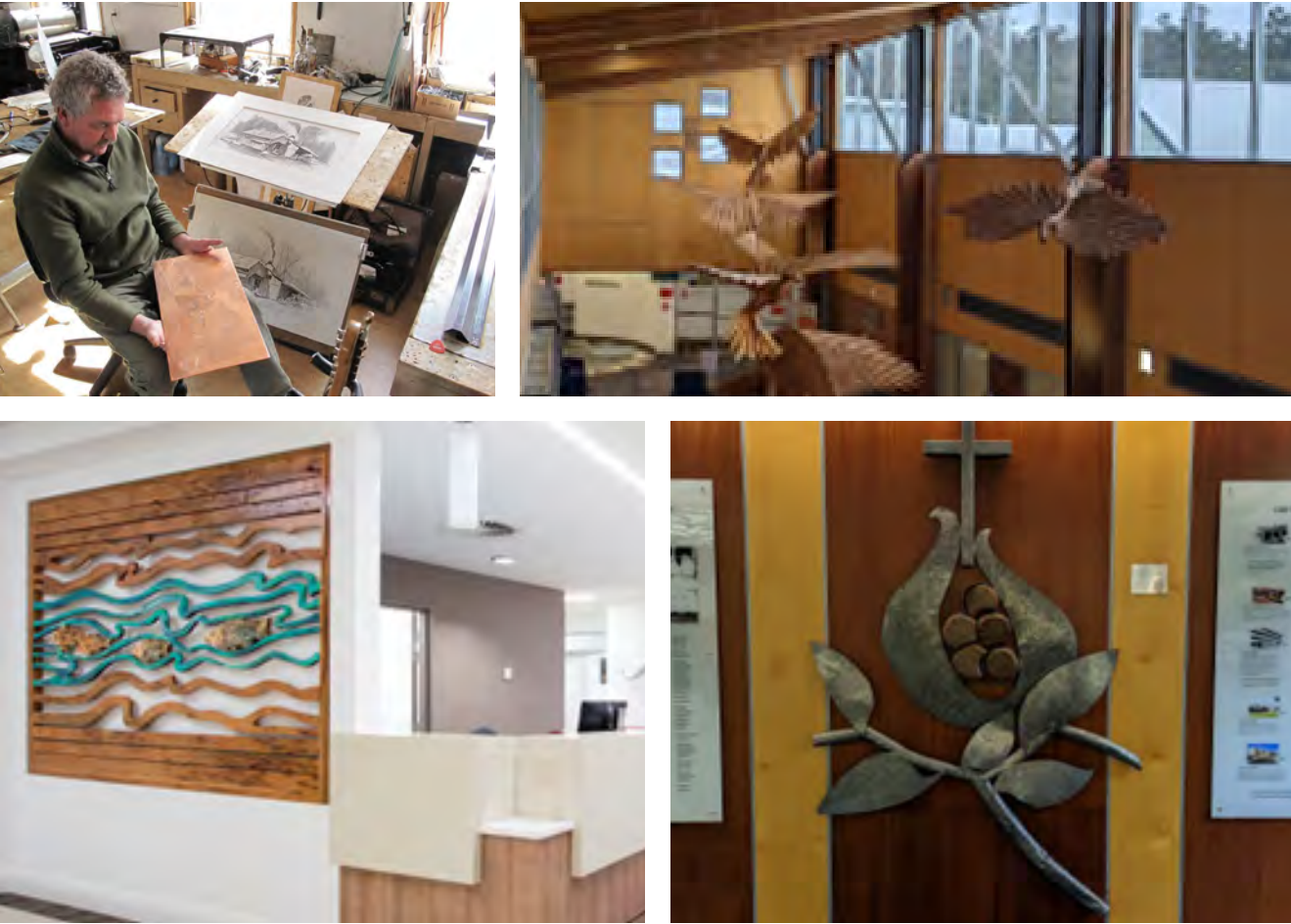
b. Built form

c. Visual Art Collection

d. Gallery Space

e. Service delivery

To facilitate this outcome, it is requested that DA approval include a condition requiring the preparation of a Public Art Strategy in consultation with the City of Busselton, for the deployment of the required percent for art contribution, but which explicitly enables the further consideration and delivery of the alternative delivery models and initiatives detailed in the Discussion Paper.



- 5.4.3
- Local Planning Policy 4.12 Advertisements and Advertising Signs**
- Advertisements and advertising signs in the City of Busselton are controlled by Local Planning Policy 4.12 (LPP 4.12) which sets out the requirements for signage in the Local Centre Zone.
- The facility proposes a variety of appropriate signage to ensure legibility, and identify the hospital to visitors and patients. Four separate signage elements are proposed including two entry statement signs (as defined in LPP 4.12), one window sign and two wall signs. Signage is detailed in the Architectural Drawings found in Appendix B.
- The window sign is in accordance with the City's policy. It is 7.6m² (4.75m in length and 1.6m in height) and represents 8% of the glazing.
- The entry statement signs are provided within the high-quality landscape features at key points of the site. They are 4.5m in length and 1.25m in height. Whilst not strictly permitted by the Policy, these signs represent a positive component of the development. The signs enhance legibility and wayfinding for vehicles and pedestrians in the Village Centre. Their incorporated into landscaping features reduces the visual impact on the architecture of the Village that could be perceived from traditional pylon signs.
- Finally, an illuminated sign 11.4m in length and 2.85m height is proposed on the northern façade. It is noted this sign will be screened from Busselton Highway by the Bunbury Farmers Market development, recently approved to the north of the subject site. This sign will identify the Hospital to people driving south along Coomidup Boulevard.
- The provision of signage incorporated in landscaping features, whilst not permitted by the Policy, is considered a positive architectural outcome for the Village Centre. These will improve legibility and wayfinding, whilst limiting the visual impact found with other signage types.
- 5.4.4
- Local Planning Policy 6.1 Stormwater Management**
- A Stormwater Management Plan prepared by JDA Consultant Hydrologists providing hydrological advice to support development of Vasse Village 2A. This aligns with The City's Local Planning Policy 6.1 Stormwater Management (LPP 6.1) in requiring all lots retain 1m³ per 65m² of initial runoff prior to discharging into the City's stormwater system. This is summarised in Appendix I – Civil Design Report.

6. Technical Inputs

6.1 Landscape

The landscape design has been prepared by Emerge Associates. The report is found in Appendix D, and outlined in section 4.3 of this report. The key landscape design objective is to create spaces that echo the architectural themes of recovery, tranquillity and restorative journey in a manner that is beautiful, functional and sustainable.

Key elements of the landscape design include the creation of a series of integrated garden spaces and courtyards within the development, and the harbour structure . This ranges from small private spaces for contemplation and solitude, to larger areas suited to the activity and energy of multiple users. The harbour structure is a key entry statement for the Hospital, and will be softened and enhanced with a selection of vigorous, low maintenance climbing plants.

The planting design will be informed by Emerge’s botanists, and will be reflective of the Wadandi seasons by utilising local native plants specifically chosen to illustrate the six distinct seasons, providing year-round colour and interest. This native planting will also result in more sustainable watering practices.

Water supply for irrigation will be from a combination of mains water and stormwater capture (details to be confirmed). Irrigation is proposed to be subsurface dripline irrigation which delivers efficient water use and minimises evaporation. The irrigation design will focus on successful plant establishment with the ultimate aim of minimal long-term water use.

6.2 Sustainability

Reflecting St John of God and BlackOak Capital’s commitment to sustainable development, the St John of God Vasse Private Hospital development will utilise the Green Star for Buildings certification tool to benchmark and guide the sustainability outcomes and objectives for the development, with the key sustainability objective of meeting the 5 Star Green Star for Buildings certification from the Green Building Council of Australia. Formal certification will be confirmed prior to commencing Detailed Design of the facility.

A Preliminary Green Star for Buildings v1tool Assessment has been undertaken by Norman Disney & Young (NDY) and is provided at Appendix E. Under the Design and As Built tool, a development requires between 35 and 69 points to achieve a 5 Star rating. The assessment is summarised below, demonstrating the development can achieve the proposed 5 star requirement of 35 points under a ‘low risk’ scenario. The analysis further demonstrates the development could achieve a further 9 points under a ‘moderate risk’, with 14 points available through extra initiatives.

Category	Available Points	Targeted Points for 5 Star
Responsible	17	3
Healthy	14	5
Resilient	8	1
Positive	30	11
Places	8	5
People	9	4
Nature	14	6
Leadership	4	0
Total	104	35

6.2 (cont.)

The points achieved in the preliminary green star are derived from a variety of sustainability measures across the design and operation of the facility. These include the use of sustainable materials such as wood and rammed-earth, opportunities for natural ventilation to reduce energy demand, native and waterwise planting, electric only services with solar PV array collectors for solar harvesting and provision for battery storage and EV charging.

6.3 Civil Engineering

A review of structural engineering considerations relevant to the development has been undertaken by Pritchard Francis and is provided at Appendix X. The report outlines the structural engineering requirements applicable, and provides a Structural Schematic Design Sketch for the proposed development.

6.4 Structural Engineering

A review of structural engineering considerations relevant to the development has been undertaken by Pritchard Francis and is provided at Appendix J. The report outlines the structural engineering requirements applicable, and provides a Structural Schematic Design Sketch for the proposed development.

6.5 Acoustic Assessment

The proposed Hospital is located within the Trigger Distance Strategic freight and major traffic route set out in State Planning Policy 5.4 – Road and Rail Noise. As the Hospital includes overnight stay rooms, which are considered noise sensitive uses, the application is supported by an Acoustic Assessment prepared by Lloyd George Acoustics, provided at Appendix F.

The report concludes that as the noise sensitive overnight stay rooms are located in an area modelled to be compliant with the noise target of SPP 5.4, no mitigation measures are required.

6.6 Traffic and Access Investigation

Uloth and Associates have prepared a Traffic and Access Investigation which provides an assessment against the car parking, bicycle parking, traffic generation and access requirements of the Day Hospital. The Report is found in Appendix C.

The investigation concludes that car parking, bicycle parking and end of trip facilities are provided at, or at a greater rate than required by the City’s Parking Policy.

Regarding traffic generation, the proposed development is expected to generate less traffic than the traffic flows previously assumed for this site within the June 2021 Transport Report for the Village Centre. This results in reduced traffic generation for the overall Village Centre, and therefore improved intersection operations at the external intersections. Taking into account the additional access proposed off Napoleon Promenade, the traffic flows were found to operate at a high Level of Service A during the critical future PM peak hour (indicating very good operating conditions with little or no delay).

Finally, SIDRA analysis demonstrates that access requirements for service vehicles and ambulances accessing the northern part of the site, and for cars accessing the southern part of the site are met.

7. Conclusion

The development is grounded in SJG’s planning for the south west region and the modelled demand for a private hospital facility for the convenient delivery of health care services for the Busselton – Margaret River community. The facility builds on the care provided at the SWHC, improves local community access to private health facilities across the Busselton & Margaret River region and will create capacity on the current SWHC for additional health outcomes for the community’s benefit.

The new facility will also be a significant employment and economic generator in the Vasse Village, the City of Busselton and the wider region, and make a major contribution to the sustainability of the settlement, consistent with the State’s Leeuwin-Naturaliste vision. The Hospital affirms expectations for Vasse’s role as a major new town in the region, with the development reflecting an historic moment in the town’s evolution.

The proposed development has been carefully designed by architects Hames Sharley to meet the rigorous requirements of St John of God’s health operations. The design is underpinned by the concept of a restorative journey that reflects the values of St John of God. It responds directly to each of the ten design principles of SPP 7.0 – Design of the Built Environment, was supported in the design review process, and achieves the policy objective of design excellence.

The proposal is highly compliant with the strategic and statutory planning framework for the site with respect to land use permissibility and development controls. Key development metrics are met, with ample parking for staff, patients and visitors, a very significant and innovative public art program, extensive landscaping and iconic architecture that make the Day Hospital a landmark within the Village.

It is also significant that the public announcement of the proposal was met with unprecedented community support. This reinforces SJG’s vision for an expanded role in the region and the community’s natural desire for the provision of both high quality health care and development.

In light of the above, the Vasse Day Hospital is commended to the City of Busselton and the Regional JDAP for approval.



Appendix A
Certificate of Title

Appendix B
Architectural Drawings

Appendix C
Traffic Report

Appendix D
Landscape Report

Appendix E
Sustainability Report

Appendix F

Acoustic Report

Appendix G

Architectural Presentation

Appendix H

Waste Management Strategy

Appendix I

Civil Engineering Statement

Appendix J

Structural Engineering Statement

Appendix K

Public Art Discussion Paper

Appendix L

LARU Concept Approval



VASSE DAY HOSPITAL

LANDSCAPE DA REPORT

AUGUST 2022





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REVISION	DATE	ISSUE OR AMENDMENT	BY	REVIEWED
A	19/08/2022	DRAFT FOR CLIENT COMMENT	AK	SC

1.0 Landscape Quality

1.1 Landscape Response

Emerge Associates have been engaged to prepare a landscape concept design for the Vasse Day Hospital.

The overarching landscape design objective is to create a holistic setting and spaces that echo the architectural themes of recovery, tranquility and restorative journey in a manner that is beautiful, functional and sustainable.

The landscape design aims to create a series of coherent spaces that respond to the functions and hierarchies of use within the hospital site.

1.2 Overall Landscape Character Strategy

The landscape design aims to achieve the following outcomes:

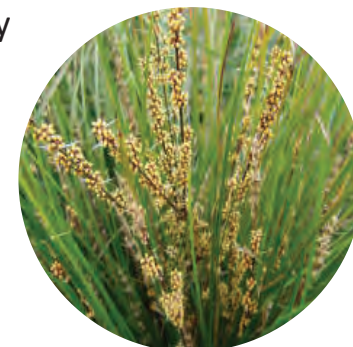
- Exemplary landscape design to complement and enhance the style and palette of the hospital building and respond to and enhance the Vasse streetscape character.
- Creation of a series of legible, integrated garden spaces that respond to the building scale and to the accessibility, privacy and safety requirements of hospital staff, patients and visitors.
- Creation of a hierarchy of movement and spaces through the hospital and grounds through carefully considered pathways, materials and planted areas.
- Creation of spaces in a variety of scales for a range of users and purposes; from small private spaces for contemplation and solitude, to larger areas suited to the activity and energy of multiple users
- Considered use of trees and plants on both horizontal and vertical planes to provide appropriate green spaces throughout the site.

- The arbor structure at the building entry is a key architectural feature and will be softened and enhanced with a selection of vigorous, low maintenance climbing plants.
- The design and materiality of landscape features such as walls, paving and furniture will be integrated with signage and public art and will complement the architectural style.
- Outdoor furniture will be robust, sustainable, accessible and comfortable, with a combination of fixed and moveable furniture provided. Pots and planters will be strategically placed to provide colour and interest whilst allowing for full movement and access.



1.3 Water Efficient Landscape Design

- Planting will be selected in consultation with Emerge Associates' in-house Botanist, with attractive, resilient and low maintenance plant species to be selected.
- The planting design will use a considered and balanced mix of predominantly native plant species with an emphasis on low maintenance, waterwise varieties.
- Planting to the building exterior will incorporate species local to the south-west to create diverse habitat and attract native flora and fauna.
- Throughout the site a combination of native evergreen and exotic deciduous trees will provide variation in foliage, texture, colour and shade quality
- Proposed irrigation will be dripline irrigation installed under the mulch layer to efficiently deliver water and minimise evaporation. The water supply will be a combination of mains water, grey water re-use and stormwater capture.
- Decorative gravel mulch will be used for internal courtyards and sheltered gardens to provide an ongoing cover to reduce water evaporation.
- Organic bark mulch will be installed to external gardens, verge planting and carpark landscaping
- A combination of raised planters and containers and garden beds at ground level will provide a variety of planting environments.
- Wherever possible, plants will be grouped according to water requirements. Water use in all areas will be monitored and adjusted as plants establish to maximise water use efficiencies.



ORNAMENTAL GRASSES



HARDENBERGIA
VIOLACEA



TRACHELOSPERMUM
JASMINOIDES

1.4 Orientation and Wind Considerations

- For internal courtyards and south facing gardens with limited natural light, appropriate shade tolerant tree and plant species will be selected.
- All trees will be irrigated via sub-surface drip irrigation and mulched with gravel or organic mulch to minimise evaporation.

1.5 Plant Selection Vertical Gardens

- Evergreen, low maintenance climbing plant species will be selected to grow over the external arbor structure at the building entry.
- Vigorous evergreen climbing plant species will be selected for vertical gardens where privacy screening is required.
- Proposed climbing species are *Trachelospermum jasminoides* (Chinese Star Jasmine) and *Hardenbergia violacea* (Native Wisteria).



2.0 Cultural Engagement

2.1 Aboriginal Engagement and Interpretation

An important project aim is to engage and consult with local Aboriginal people and community groups. There is a desire to develop genuine engagement between the design team, the hospital and the local Noongar community to allow for incorporation of Aboriginal cultural meaning within the design.

In acknowledgement of the deep connection between members of the local Aboriginal community and the land, design responses for the site must be respectful, relevant, culturally appropriate and site specific.

Some potential opportunities for inclusion of Aboriginal knowledge and culture within the design include:

- Acknowledgement of Aboriginal associations with place, both traditional and contemporary, through interpretive art, signage and landscape features.
- Identification of locally relevant knowledge and stories of environmental, historical or cultural significance and incorporation of Aboriginal storytelling into aspects of the landscape design.
- Creation of a Six Seasons Bush Medicine garden based on plant knowledge provided by local Aboriginal people.
- Engagement of established or emerging local Aboriginal artists to create public artworks

It is recommended that engagement is undertaken early in the design process to ensure that design responses incorporating and referencing Aboriginal culture are authentic, relevant and appropriate.



OPPORTUNITY TO INCLUDE ABORIGINAL PUBLIC ART



ART WORKS AND GRAPHICS ILLUSTRATING ABORIGINAL STORIES



VERTICAL SCREENING ELEMENTS INCORPORATING LOCAL ABORIGINAL KNOWLEDGE



INTERPRETIVE SIGNAGE AT KEY LOCATIONS WITHIN THE SITE



ETCHED STEEL PAVING INLAYS WITH INTERPRETIVE TEXT RELEVANT TO PLACE



NOONGAR SIX SEASONS MEDICINAL GARDEN

3.0 Landscape Design

3.1 Overall Masterplan

The proposed landscape works for the Vasse Day Hospital have been designed to complement the architectural style and theming.

The building design is based upon the themes of recovery, tranquility and restorative journey. Use of materials such as natural stone, rammed earth and timber in the architecture reflect the character of the Vasse region and are echoed in the landscape design.

The design includes a series of outdoor spaces in and around the hospital; each area has been thoughtfully designed in response to it's scale and function.

A timber arbor structure extends along the south side of the hospital building and is a key architectural feature. Evergreen climbing plants are proposed to soften and enhance the arbor, with shade tolerant ornamental grasses to be planted along the building perimeter below the structure.

Paving under the arbor will feature bands of natural stone between panels of exosed aggregate concrete. Narrow steel strips with inlaid text referencing local Noongar stories will be incorporated in the paving at the building entry and through key accessways in acknowledgement and celebration of the Wardandi people, the Traditional Owners of the area.

South facing courtyards are located to each side of the main entrance, where the arbor structure extends to double height with an integrated roof. To the west of the entry is a public courtyard with a tranquil water feature, ornamental trees and planting and bespoke fixed seating of rammed earth with timber battens.

To the east of the entry is an outdoor dining area for the adjoining cafe. A large ornamental Pear tree, *Pyrus calleryana Bradford*, is the hero of this space, with plenty of space for moveable cafe table settings below the canopy.

An internal lightwell courtyard is located adjacent to the Discharge Lounge. The Discharge Courtyard is intended as a peaceful and calming green space to be viewed from the Discharge Lounge. The courtyard is inaccessible, although maintenance access is allowed for.

On the west side of the building between the Renal and Chemo wards lies the Western Courtyard. This courtyard is designed to create a calming green oasis to be viewed from the two overlooking wards. This space is inaccessible, with no seating or useable areas proposed.

The hospital car park wraps the building to the south and west. Parking bays paved in permeable pavers are proposed to capture and treat stormwater runoff. Vehicle access ways will be surfaced in red asphalt. Overflow parking is provided on the north side of the building.

Trees are provided at a rate of one tree for every four bays in the car park. Car park trees will be native evergreen species to provide year round shade, with *Melaleuca leucadendra* and *Eucalyptus torquata* proposed to internal areas and *Corymbia calophylla* and *Corymbia ficifolia* to the car park perimeter.

Planting to the exterior of the building will be predominantly native, incorporating species local to the south-west. The planting design aims to create a diverse habitat for native birds, animals and insects.

On the eastern approach to the building, a series of natural stone retaining walls are proposed. A Six Seasons medicinal garden theme is proposed for this area, with gardens to include plants local to the south west region that were traditionally used for healing by the local Wardandi people.

Planting is proposed to extend from the western car park up to the existing north-south bike path, with native trees, shrubs and groundcovers. Planting will enhance the interface with the canal.

LEGEND

- 01 RED ASPHALT CARPARK SURFACE
- 02 PERMEABLE CARPARK PAVING
- 03 SERVICE AREA
- 04 TIMBER ARBOR STRUCTURE WITH INTEGRATED ROOF AND CLIMBING PLANTS
- 05 ENTRY COURTYARDS
- 06 DISCHARGE COURTYARD
- 07 WESTERN COURTYARD
- 08 MENTAL HEALTH GARDEN
- 09 STAFF AREA
- 10 NATURAL STONE WALLS AND SIGNAGE
- 11 SIX SEASONS MEDICINAL PLANTING
- 12 WATERWISE NATIVE SHRUB AND GROUND COVER PLANTING
- 13 SCREENING OF SERVICE AREA WITH CLIMBING PLANTS ON TRELLIS STRUCTURE
- 14 RED ASPHALT BIKE PATH ALONGSIDE CANAL



NATIVE PLANTING



INTERNAL COURTYARDS



ORNAMENTAL TREES



LEGEND

- BUILDING ROOFLINE
- NATURAL STONE PAVER BANDS IN EXPOSED AGGREGATE CONCRETE
- EXPOSED AGGREGATE CONCRETE PAVING
- TIMBER ARBOR STRUCTURE WITH EVERGREEN CLIMBING PLANTS
- PERMEABLE CARPARK PAVING
- TIMBER SEATING
- WATER FEATURE
- STONE CLAD WALLS
- PLANTER BOX WITH CLIMBERS ON VERTICAL WIRES
- PLANTING IN ORNAMENTAL GRAVEL MULCH
- TREE PLANTING
- SHRUB & GROUNDCOVER PLANTING

0 2.5 5.0 7.5 10.0 12.5 m
SCALE 1:500 @ A3

3.2 Discharge Courtyard

Overlooked by the Discharge Lounge, this courtyard is designed primarily to be a lightwell and space to be observed. The courtyard provides a private and tranquil garden backdrop as patients wait to be discharged.

The Discharge Courtyard design features:

- A series of formal stone paving bands cutting across light-coloured decorative gravel beds
- A low, raised central planter with an ornamental *Lagerstroemia indica x fauriei* Natchez tree as showpiece
- Feature shrubs in containers
- An understorey of small and mid sized shrubs and groundcovers
- Local granite boulders scattered throughout the space
- Rectangular planters in front of solid walls to soften the edges of the space
- Vertical growth supported by wires in rectangular perimeter planters
- Uplighting to key trees and ornamental plants

PROPOSED PLANT LIST

- Adiantum aethiopicum*
- Agave attenuata*
- Ajuga reptans*
- Allocasia brisbanensis*
- Aspidistra elatior*
- Asplenium australasicum*
- Dianella revoluta*
- Dichondra repens*
- Dichondra ‘Silver Falls’*
- Ficus elastica*
- Lagerstroemia indica x L. fauriei ‘Natchez’*
- Lomandra ‘Seascape’*
- Plectranthus argentatus*
- Viola hederacea*
- Trachelospermum asiaticum Flat Mat*



LEGEND

- 01 FEATURE STONE PAVING BANDS
- 02 DECORATIVE GRAVEL MULCH
- 03 RAISED RECTANGULAR PLANTER
- 04 FEATURE PLANT IN ROUND POT
- 05 RAISED CENTRAL GARDEN BED
- 06 ORNAMENTAL TREE
- 07 SHADE TOLERANT UNDERSTOREY PLANTING
- 08 LOCAL GRANITE BOULDERS
- 09 GARDEN BED AT PAVING LEVEL WITH FEATURE SHRUBS AND GROUNDCOVERS

LIGHTING LEGEND

- WALL WASH LIGHTING
- FEATURE PLANT UPLIGHTING
- UP-LIGHTS TO TREES



FEATURE PLANTING
CONTAINERS



PLANTING ON VERTICAL AND
HORIZONTAL PLANES



SHADE TOLERANT FEATURE
PLANTS



ORNAMENTAL FEATURE
TREES



RAISED PLANTERS

3.3 Western Courtyard

The Western courtyard is located between the renal and chemotherapy wards. Similarly to the Discharge Courtyard, this space is primarily visual and is aimed at creation of a relaxed and tranquil outlook from adjacent rooms. A combination of tall plants, climbers and vertical panels will assist in privacy screening to limit views from the courtyard and opposing windows into adjoining rooms.

The Western Courtyard features:

- A series of formal stone paving bands cutting across light-coloured decorative gravel garden beds
- Two ornamental Japanese Maple trees (*Acer palmatum*)
- Rectangular planter along south side of courtyard with opportunity for vertical growth via climbers on trellis wires
- Feature shrubs in containers
- An understorey of small and mid sized shrubs and groundcovers
- Local granite boulders scattered throughout the space
- Uplighting to key trees and ornamental plants

PROPOSED PLANT LIST

- Acer palmatum*
- Adiantum aethiopicum*
- Agave attenuata*
- Ajuga reptans*
- Allocasia brisbanensis*
- Asplenium australasicum*
- Carpobrotus viriscens*
- Dianella revoluta* ‘Little Jess’
- Dichondra repens*
- Dichondra* ‘Silver Falls’
- Ficus elastica*
- Lomandra Tanika*
- Plectranthus argentatus*
- Viola hederacea*
- Trachelospermum jasminoides*

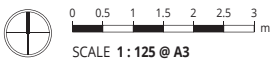


LEGEND

- 01 FEATURE STONE PAVING BANDS
- 02 DECORATIVE GRAVEL MULCH
- 03 RAISED RECTANGULAR PLANTER
- 04 ORNAMENTAL TREE
- 05 GARDEN BED AT PAVING LEVEL WITH FEATURE SHRUBS AND GROUNDCOVERS
- 06 LOCAL GRANITE BOULDERS
- 07 EXPOSED AGGREGATE CONCRETE FOOTPATH
- 08 PERMEABLE CARPARK PAVING

LIGHTING LEGEND

- FEATURE PLANT UPLIGHTING
- UP-LIGHTS TO TREES



VERTICAL PLANTERS ON
TRELLIS WIRES



RECTANGULAR PLANTERS



ORNAMENTAL FEATURE
TREES



SHADE TOLERANT PLANTS

3.4 Main Entry Courtyards

An expansive arbour runs along the full length of the hospital entrance. The arbour is a key feature of the architectural design and will be complemented by associated landscaping.

A courtyard space is located on each side of the main entrance. On the western side is a public courtyard with a water feature, two ornamental trees and fixed furniture. This courtyard is designed to be tranquil and relaxing setting with abundant seating.

The courtyard to the east of the entry is an external seating area for the adjoining cafeteria. Furniture is not fixed and can be moved around as required under the shade tree at the courtyard’s centre.

- Both entry courtyards feature
- Formal stone paving bands through exposed aggregate concrete paved areas
 - Ornamental shade trees with uplighting
 - Feature shrubs in containers and on ground plane
 - Flowering climbers to adjacent arbour structure
 - Ornamental gravel mulch

PROPOSED PLANT LIST

- Agave attenuata*
Asplenium australasicum
Carpobrotus viriscens
Dianella revoluta
Dichondra repens
Dichondra ‘Silver Falls’
Ficus elastica
Hardenbergia violacea
Lagerstroemia indica x *L. fauriei* ‘Natchez’
Agonis flexuosa ‘After Dark’
Lomandra Tanika
Punica granatum (in pots)
Viola hederacea

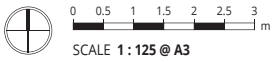


LEGEND

- 01 FEATURE STONE PAVING BANDS
- 02 EXPOSED AGGREGATE CONCRETE PAVING
- 03 RAISED RECTANGULAR PLANTER
- 04 ORNAMENTAL TREE WITH GRAVEL MULCHEDT BASE
- 05 RECTANGULAR WATER FEATURE
- 06 RAMMED EARTH AND TIMBER BATTEN SEATING
- 07 ALFRESCO CAFE SEATING WITH FLEXIBLE FURNITURE
- 08 ARBOUR WITH EVERGREEN CLIMBERS
- 09 LINEAR PLANTING BED WITH MASS PLANTING OF ORNAMENTAL GRASSES
- 10 GARDEN BED AT PAVING LEVEL WITH FEATURE SHRUBS, GROUNDCOVERS AND LOCAL GRANITE BOULDERS

LIGHTING LEGEND

- ★ FEATURE PLANT UPLIGHTING
- ✖ UP-LIGHTS TO TREES



POMEGRANATE TREES IN POTS AS FEATURES



MASS PLANTED ORNAMENTAL GRASSES



CLIMBING PLANTS TO ARBOUR STRUCTURE



RAMMED EARTH AND TIMBER BATTEN FURNITURE



WATER FEATURE

3.5 Mental Health Gardens

The Mental Health rooms are located on the south eastern side of the hospital. Rooms overlook a shaded garden area to the east and gardens beneath the arbor structure to the south.

Ensuring privacy for these rooms is key, with a combination of vertical planting and vertical screening structures proposed. Raised rectangular planters are proposed to extend from the arbour structure posts towards the building, with climbers on vertical wires creating a series of privacy screens. If additional screening is needed, a combination of perforated screens will be included.

The Mental Health gardens are inaccessible and are intended to create a peaceful and calming outlook from adjoining rooms. The gardens will be heavily shaded and a carefully selected palette of shade tolerant shrubs and groundcovers is proposed to create an area of lush greenery.

The Mental Health Gardens feature

- Raised rectangular planter boxes with climbers on vertical wires
- Perforated panels as privacy screens
- aggregate concrete paved areas
- Shade tolerant ornamental shrubs and groundcovers
- Flowering climbers to adjacent arbor structure
- Ornamental gravel much and local granite feature boulders



LEGEND

- 01 FEATURE STONE PAVING BANDS
- 02 EXPOSED AGGREGATE CONCRETE PAVING
- 03 RAISED RECTANGULAR PLANTER WITH VERTICAL CLIMBERS
- 04 ARBOR STRUCTURE WITH EVERGREEN CLIMBERS
- 05 NATIVE WA PLANTING TO CAR PARK SURROUNDS
- 06 SHADE TOLERANT SHRUB AND GROUND COVER PLANTING
- 07 ORNAMENTAL GRAVEL MULCH WITH LOCAL GRANITE BOULDERS

LIGHTING LEGEND

- FEATURE PLANT UPLIGHTING

PROPOSED PLANT LIST

Adiantum aethiopicum
Agave attenuata
Ajuga reptans
Allocasia brisbanensis
Asplenium australasicum
Cyathea cooperii
Dianella revoluta 'Little Jess'
Dichondra repens
Dichondra 'Silver Falls'
Ficus elastica
Hardenbergia violacea
Lomandra 'Tanika'
Plectranthus argentatus
Viola hederacea
Trachelospermum asiaticum 'Flat Mat'
Trachelospermum jasminoides

4.0 Materials Palette



PERMEABLE CARPARK
PAVING



COURTYARD TREES CREATING
DAPPLED SHADE



ETCHED STEEL PAVING INLAYS
WITH INTERPRETIVE TEXT



RECTANGULAR BOX PLANTERS IN
COURTYARDS



FEATURE TREES IN INTERNAL
COURTYARDS



RAINBOW STONE GRAVEL
MULCH



NATURAL STONE CLADDING TO
WALLS



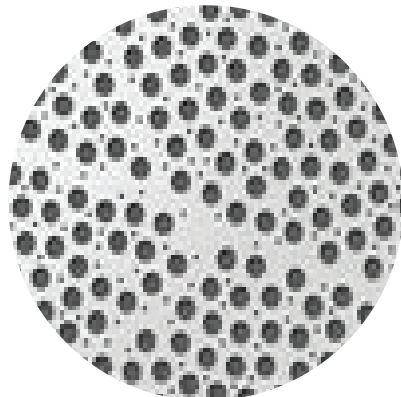
COURTYARD PLANTERS



CLIMBERS ON STAINLESS STEEL
TRELLIS WIRES



ENTRY WATER FEATURE



PERFORATED
PANELS AND SCREENS



EXTERNAL SEATING TO
COURTYARD AND ENTRY



RAMMED EARTH FEATURE WALLS



BIRD ATTRACTING NATIVE PLANTS



NOONGAR SIX SEASONS
MEDICINAL GARDEN
Vasse Day Hospital



STAINLESS STEEL INLAYS IN
WALLS AND PAVING

5.0 Planting Palette

GENERAL LANDSCAPE PLANTS (Native, water-wise species)



Anizoganthus flavidus Red
'Red Kangaroo Paw'



Anizoganthus viridus
'Green Kangaroo Paw'



Hakea 'Burrendong
Beauty'



Dianella revoluta
'Little Jess'



Grevillea obtusifolia
'Gin Gin Gem'



Philotheca spicata
'Pepper & Salt'



Hypocalymma angustifolium
'White Myrtle'



Darwinia citriodora
'Lemon Scented Darwinia'



Westringea fruticosa
'Grey Box'



Lomandra 'Tanika'



Hakea laurina
'Pin Cushion Hakea'



Eremophila subteretifolia
'Lake King Eremophila'



Myoporum insulare
'Coastal Boobialla'



Banksia dallanneyi
'Couch Honeypot'



Calothamnus quadrifidus
'One-sided Bottlebrush'



Lepidosperma gladiatum
'Coast Sword Sedge'



Scaevola aemula
'Purple Fanfare'



Thysanotus patersonii
'Twining Fringe Lily'



Ficinia nodosa
'Knobby Club Rush'



Pimelea ferruginea
'Pink Rice Flower'



Corymbia ficifolia
'Red Flowering Gum'



Ulmus parvifolia Inspire
'Inspire Chinese Elm'



Pyrus calleryana Capital
'Capital Pear'



Pyrus calleryana Bradford
'Bradford Pear'



Melaleuca leucadendra
'Weeping Paperbark'



Punica granatum
'Pomegranate Tree'



Eucalyptus torquata
'Coral Gum'



Melaleuca viridiflora
'Red Flowering
Broadleaf Paperbark'

GENERAL LANDSCAPE TREES

6.0 Planting Palette cont.

SHADE TOLERANT SPECIES FOR COURTYARDS AND SOUTH FACING GARDENS



Trachelospermum jasminoides
'Chinese Star Jasmine'



Hardenbergia violacea
'Native Wisteria'



Lomandra 'Tanika'



Agave attenuata



Asplenium australasicum
'Bird's Nest Fern'



Correa pulchella
'Native Fuchsia'



Agonis flexuosa 'After Dark'
Willow Peppermint



Lagerstroemia indica x L. fauriei
Natchez 'Natchez Crepe Myrtle'



Common Maidenhair Fern
'Adiantum aethiopicum'



Dianella revoluta
'Little Jess'



Carpobrotus viriscens
'Pig Face'



Dichondra repens
'Kidney Weed'



Viola hederacea
'Native Violet'



Dichondra
'Silver Falls'



Acer palmatum
'Japanese Maple'

COURTYARD TREES

NATIVE PLANTS FOR A NOONGAR SIX SEASONS MEDICINAL GARDEN



Banksia prionotes
'Acorn Banksia'



Hypocalymma angustifolium
'White Myrtle'



Hibbertia hypericoides
'Yellow Buttercups'



Kennedia prostrata
'Running Postman'



Carpobrotus viriscens
'Pig Face'



Corymbia calophylla
'Marri'



Dianella revoluta
'Blueberry Lily'



Xanthorrhoea preissii
'Grass Tree'



Common Maidenhair Fern
'Adiantum aethiopicum'



Banksia dallanneyi
'Couch Honeypot'



Melaleuca radula
'Graceful Honey Myrtle'



Banksia attenuata
'Candlestick Banksia'



Banksia menziesii
'Firewood Banksia'

ENDEMIC MEDICINAL TREES

Proposed Vasse Day Hospital - Lots 123 & 125 Napoleon Promenade, Vasse

TRAFFIC AND ACCESS INVESTIGATION

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1. INTRODUCTION AND BACKGROUND

A Development Application is being prepared for a proposed St John of God Day Hospital at Lots 123 and 125 Napoleon Promenade, Vasse, which is located at the north-western corner of the Napoleon Promenade - Coomidup Boulevard roundabout, within Stage 2A of the Vasse Village Centre, as shown in Figure 1.

After previously preparing the Transport Assessment Report for the overall Village Centre (most recently updated in June 2021 to take into account the revised Stage 2 plans), Uloth and Associates has now been appointed to prepare this Traffic and Access Investigation report to review the proposed development site plan and access arrangements, and to confirm that the previous trip generation calculations and traffic impact analyses are still applicable.

1.1 BACKGROUND INFORMATION AND PREVIOUS TRAFFIC STUDIES

Initial detailed planning for the Vasse Village Centre was carried out in 2013. However, a new Transport Assessment Report was prepared in August 2015 to confirm that the proposed intersection designs adjacent to the Village Centre could accommodate the full development of the overall surrounding areas.

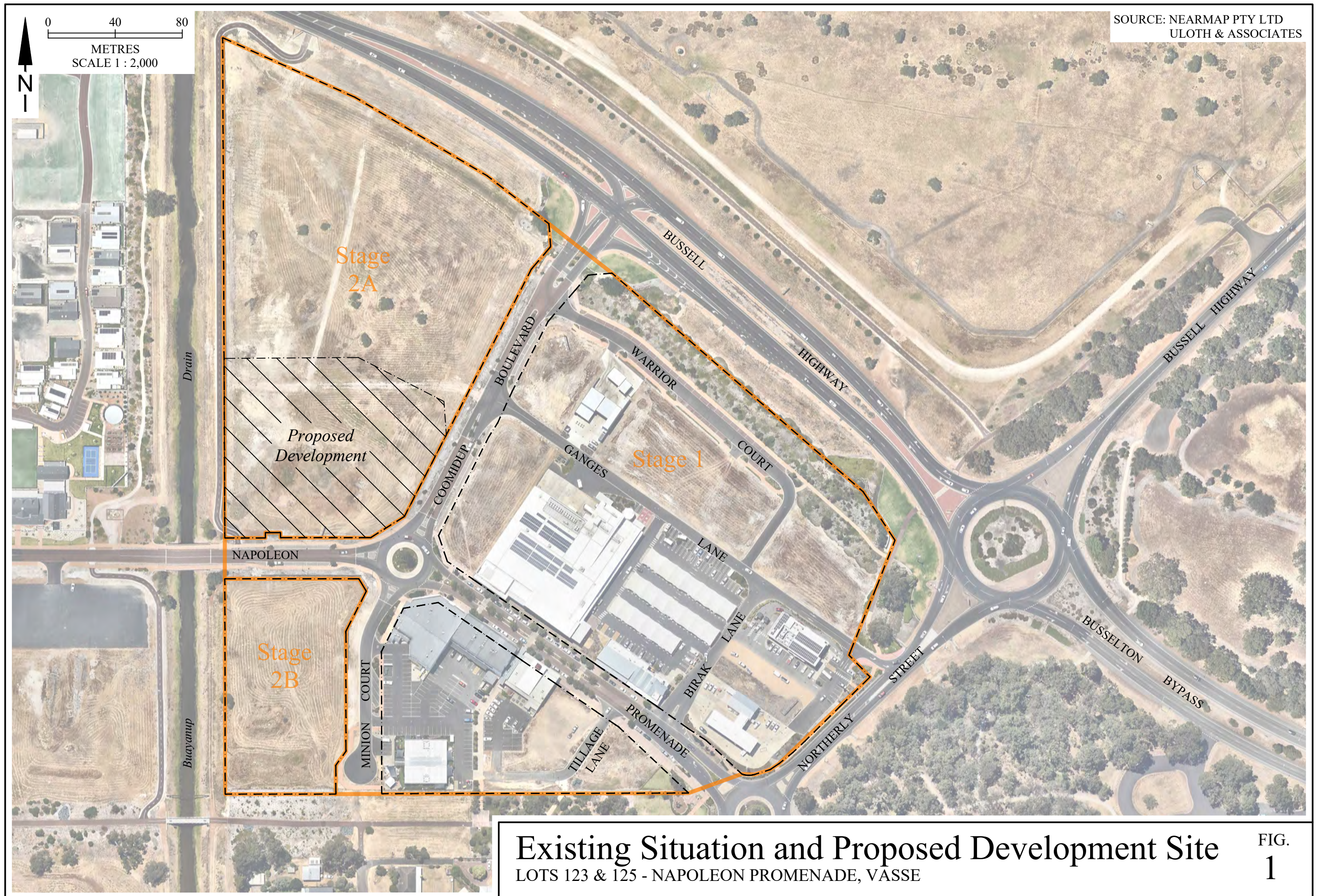
An addendum report was then prepared (in August 2018) to address modifications to the initial plan for Vasse Village Centre and to support the Vasse Village Activity Centre Plan prepared by Roberts Day.

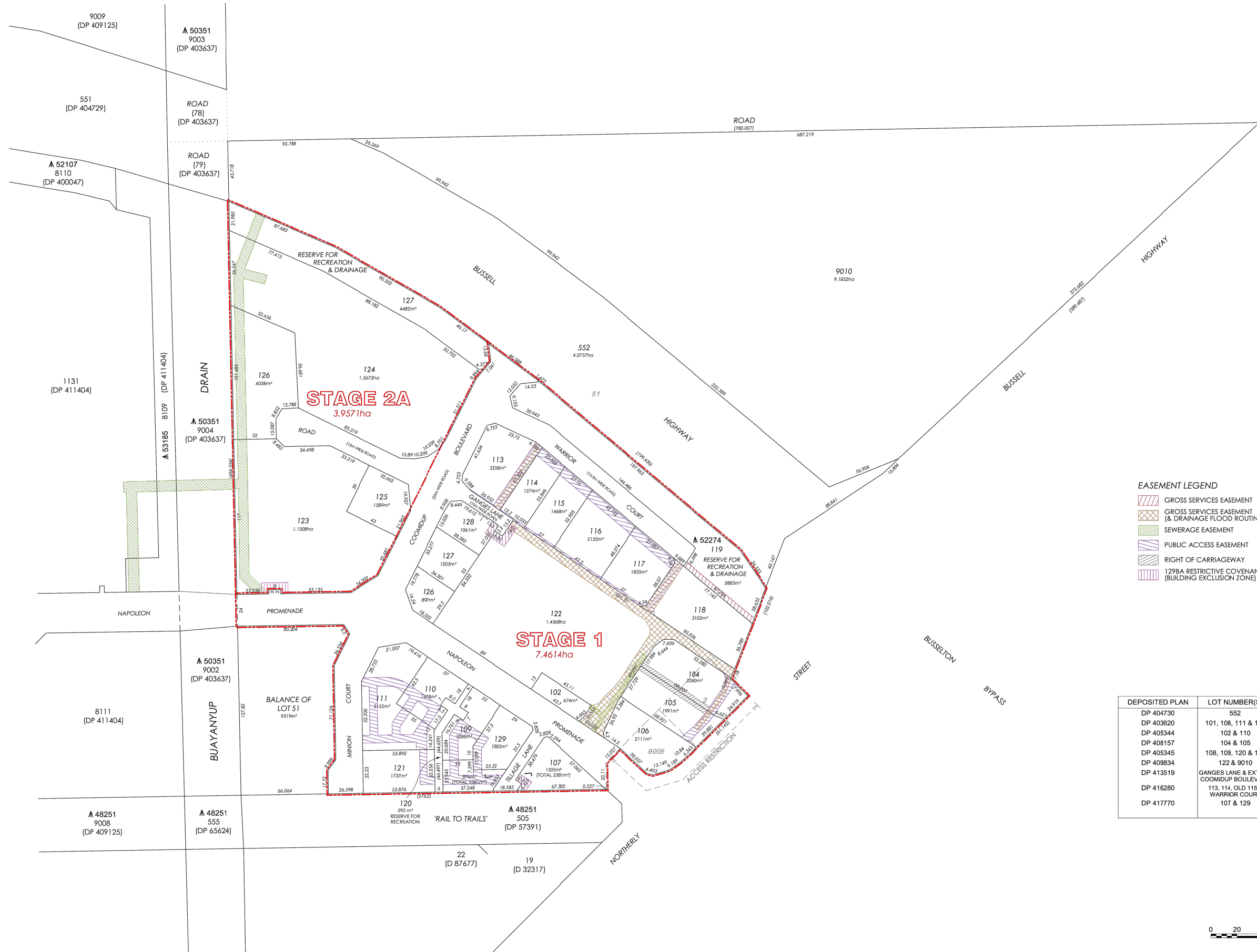
A parking study was later undertaken (in April 2021) to confirm the validity of applying a parking concession (proposed in the Vasse Village Activity Centre Plan), the findings of which confirmed that the 'automatic 10 percent reduction' from the requirements of the City's Local Planning Policy is acceptable, therefore recommending its ongoing application for further development within Vasse Village Centre.

A new subdivision plan was then prepared for Stage 2A of Vasse Village Centre (as shown in Figure 2), specifically designed to introduce a new public road (Road A) opposite Ganges Lane, to provide access for the now approved Bunbury Farmers Market development on Lot 124, as well as for this currently proposed Day Hospital on Lots 123 and 125. The revised Stage 2A Development Plan was supported by an 'Addendum 2' Transport Assessment Report for the overall Village Centre (dated 10 June 2021), which provided updated long term traffic forecasts and intersection operational analyses for full development under the revised plan.

1.2 STUDY OBJECTIVES

The overall study objective for this current Traffic and Access Investigation is to review and confirm the suitability of the Development Application plan for the currently proposed Vasse Day Hospital on Lots 123 and 125 within Stage 2A of Vasse Village Centre. Specific objectives include the calculation of overall car parking and bicycle parking requirements, confirmation of the anticipated traffic generation and traffic impacts for the overall Village Centre, and a review of the proposed access arrangements, car park layout and servicing requirements.





- EASEMENT LEGEND**
- GROSS SERVICES EASEMENT
 - GROSS SERVICES EASEMENT (& DRAINAGE FLOOD ROUTING)
 - SEWERAGE EASEMENT
 - PUBLIC ACCESS EASEMENT
 - RIGHT OF CARRIAGEWAY
 - 129BA RESTRICTIVE COVENANT (BUILDING EXCLUSION ZONE)

DEPOSITED PLAN	LOT NUMBER(S)
DP 404730	552
DP 403620	101, 106, 111 & 119
DP 405344	102 & 110
DP 408157	104 & 105
DP 405345	108, 109, 120 & 121
DP 409834	122 & 9010
DP 413519	GANGES LANE & EXTEND COOMIDUP BOULEVARD
DP 416280	113, 114, OLD 115 & WARRIOR COURT
DP 417770	107 & 129



FIG. 2



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File No.	20438	Date:	26/Mar./2021	CLIENT:	PERRON DEVELOPMENTS		
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2. EXISTING SITUATION AND PROPOSED DEVELOPMENT SITE

As noted above in Chapter 1, the proposed development site is located at the north-west corner of Napoleon Promenade - Coomidup Boulevard roundabout, on the western side of the overall Vasse Village Centre. The site is currently vacant land and is zoned Urban Development under City of Busselton's Local Planning Scheme No.21.

The existing roads and intersections in the vicinity of the proposed development site are shown in the aerial photograph in Figure 1, in Chapter 1. The site is located adjacent to Napoleon Promenade (which forms the Main Street through the Village Centre, linking with Northerly Street to the east and extending into the residential area to the west) and Coomidup Boulevard (which connects to the realigned Bussell Highway – previously known as Vasse Bypass).

It can be seen in Figure 1 that Bussell Highway adjacent to the Village Centre is a 4-lane divided road (classified as a Primary Distributor road within the Main Roads WA functional road hierarchy) with a wide median and an all-movements junction at Coomidup Boulevard, while Coomidup Boulevard is a 2-lane divided boulevard (identified as an Access Road) that connects from Bussell Highway at its northern end to a 4-way roundabout with Napoleon Promenade at its southern end. Napoleon Promenade is also identified as an Access Road, and is a 2-lane divided boulevard to the east of Coomidup Boulevard, but narrows to a 2-lane undivided road west of Coomidup Boulevard, adjacent to the site.

Bussell Highway has a speed limit of 60 kilometres per hour adjacent to Vasse Village Centre, increasing to 90 kilometres per hour approximately 400 metres west of the proposed development site, while Coomidup Boulevard, Napoleon Promenade and all other roads within the Vasse Village Centre have a speed limit of 50 kilometres per hour.

Traffic counts previously carried out by Uloth and Associates (in August 2019) shows that Bussell Highway west of the large roundabout at Northerly Street carried 6,980 vehicles per average weekday, while Northerly Street south of Bussell Highway carried 6,610 vehicles per average weekday. Additional counts (in August 2020) then show that Coomidup Boulevard carried 1,360 vehicles per day south of Bussell Highway, while Napoleon Promenade carried 4,810 vehicles per day (on an average weekday) west of Northerly Street.

It can be seen in Figure 1 that the initial stage of the Village Centre has already been constructed, including the main Shopping Centre building, some speciality shops and office developments (along Napoleon Promenade), plus a petrol station and a fast food outlet (along Northerly Street), together with Napoleon Promenade, Coomidup Boulevard, and a number of additional local access roads. The remaining development areas are also indicated in Figure 1, identified as Stage 2A (on the north-west side of Coomidup Boulevard) and Stage 2B (on the southern side of Napoleon Promenade).

It can also be seen in Figure 1 that footpaths have been constructed along the eastern side of Coomidup Boulevard, and along both sides of Napoleon Promenade and Warrior Court, together with provision for an additional footpath along the western side of Coomidup Boulevard. A shared cycle path has also recently been constructed along the western boundary of the proposed development site, adjacent to the Buayanup Drain, extending from Napoleon Promenade to an underpass beneath Bussell Highway, connecting to the existing shared path along the northern side of the highway.

3. PROPOSED DEVELOPMENT PLAN

The proposed development site plan, as prepared by Hames Sharley, is shown in Figure 3, while Figure 4 shows the proposed plan overlaid on the existing aerial photograph, together with the approved Road A along the northern edge of the site and its roundabout intersection at Coomidup Boulevard - Ganges Lane.

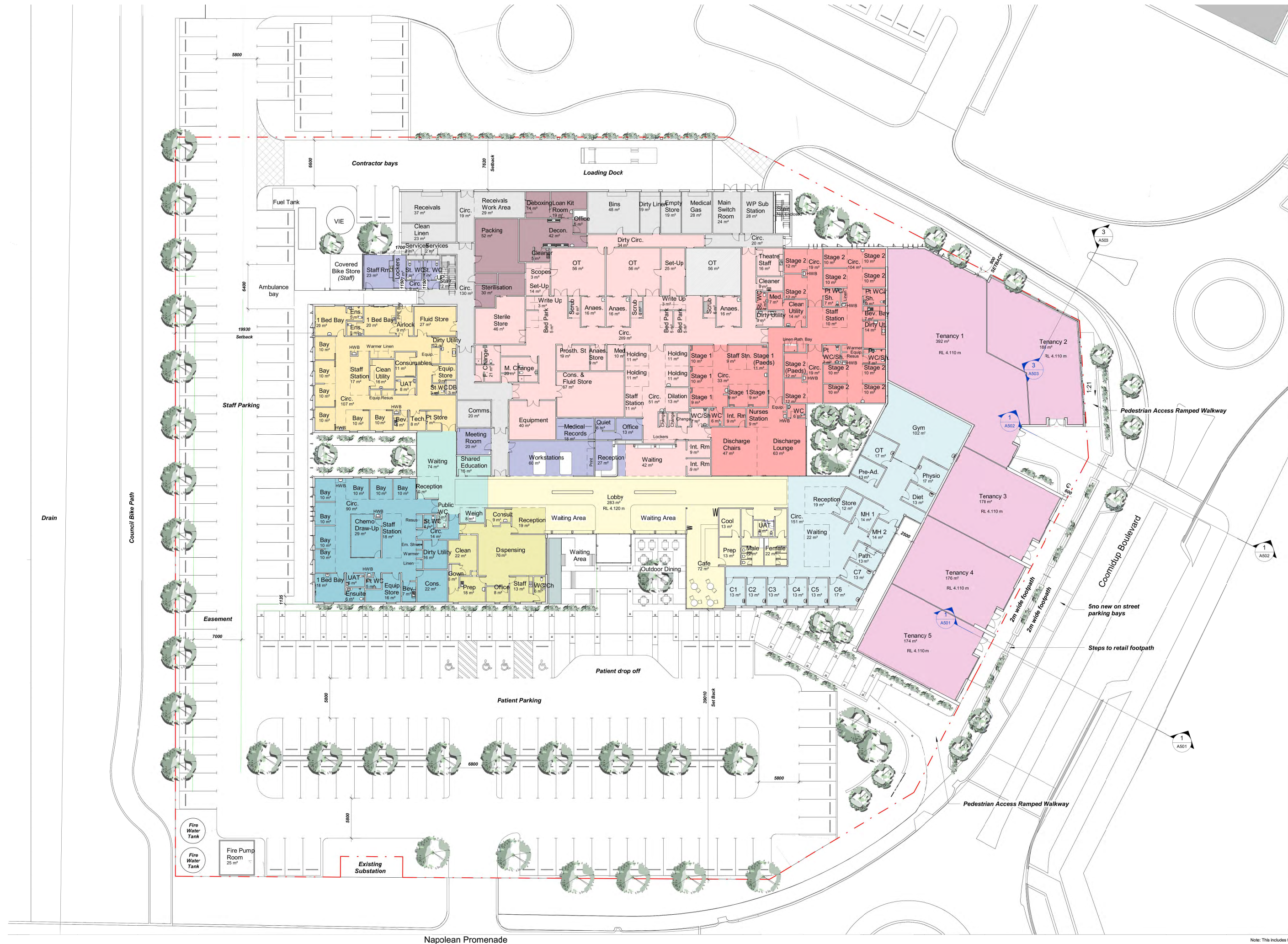
The proposal includes the construction of a Day Hospital, which predominantly fronts Napoleon Promenade towards the south, together with five Medical tenancies fronting Coomidup Boulevard and the proposed roundabout intersection at the new Road A, as shown in Figure 3. The plan includes a total of 5,471 square metres Gross Floor Area (GFA), comprising of 4,351 square metres for the Hospital and 1,108 square metres for the Medical tenancies.

The plan also provides a total of 168 car parking spaces, including 162 standard spaces (at 2.6 x 5.4 metres with 5.8 metre aisles, in accordance with User Class 3 under AS 2890.1), 2 'contractors' spaces within the proposed service area, and 4 accessible (disabled) spaces located at the main entrance, with adjacent shared areas as required under AS 2890.6.

A covered Bike Store is also provided for Hospital employees, together with lockers and showers. However, bicycle parking and end of trip facilities for the Medical tenancies will be provided as part of each individual fitout.

It can be seen in Figure 4 that vehicular access for the overall car park is via a proposed main access (Driveway 1) off Napoleon Promenade, plus a secondary access (Driveway 2) off the end of the proposed cul-de-sac of the new Road A (which is to be constructed as part of the Stage 2A Village Centre subdivision, together with the proposed roundabout at Coomidup Boulevard).

It can also be seen in Figure 4 that the proposed service area/loading bay is located along the northern side of the proposed development, with a dedicated additional driveway off Road A, together with an internal connection through to the adjacent car park.



- Department
- Admin
 - Allied Health
 - BOH
 - Chemotherapy
 - CSSD
 - FOH
 - Pharmacy
 - Renal - BOH
 - Renal Dialysis
 - Retail
 - Shared Renal/Chemo
 - Short Stay
 - Theatre

FIG
3

4. PARKING REQUIREMENTS

Car parking requirements are specified in City of Busselton's *Local Planning Policy No. 2.1*, including 1 space per 30 square metres of Net Lettable Area (NLA) for 'Health Centre', and 5 car spaces per practitioner for 'Medical Clinic'. Accessible (disabled) spaces should also be provided, at a rate of 2 spaces per 100 spaces provided overall.

For parking calculation purposes, the proposed floorspace figures for the Hospital have therefore been converted (by Hatch Roberts Day) from 4,351 square metres GFA to an equivalent total of 1,514 square metres NLA. It is also assumed that as a worst-case scenario a total of perhaps 26 practitioners could be accommodated across the 5 Medical tenancies.

On the basis of 1,514 square metres NLA of 'Health Centre' for the Hospital, and an assumed 26 practitioners within the 'Medical Clinic' tenancies, the overall parking requirement would be 181 spaces (including 4 accessible spaces). However, this figure then reduces further to 163 spaces (including 4 accessible spaces) due to the 'automatic 10 percent reduction' applicable under the Vasse Village Activity Centre Plan. The proposed development plan therefore provides a surplus of 5 spaces under the assumed worst-case scenario.

Bicycle Parking and End of Trip facilities are also specified in City of Busselton's *Local Planning Policy No. 2.1*, with a requirement for 2 employee parking spaces per 6 practitioners plus 2 visitor parking spaces per 4 practitioners for 'Health / Medical Consulting Rooms'. End-of-trip facilities are then also required for employees, including lockers and showers at rates of 1 locker per employee bicycle parking space, plus 1 shower per 8 employee parking spaces.

The assumed 26 practitioners within the 'Medical Clinic' tenancies would therefore require a total of 22 bicycle parking spaces, including 9 spaces for employees and 13 spaces for visitors, together with End of Trip facilities providing 9 lockers and 2 showers (noting that lockers are proposed to be provided within individual tenancies, as part of their future fitout).

For bicycle parking at the Day Hospital, it is assumed that a total of 30 practitioners will be accommodated, resulting in a requirement of 25 bicycle parking spaces. This includes 10 spaces for employees (together with 10 lockers and 2 showers) plus 15 spaces for visitors.

5. TRIP GENERATION AND OVERALL TRAFFIC IMPACT

As noted above in Chapter 1, the June 2021 Transport Assessment Report for the revised Stage 2 Development Plan provided updated long term traffic forecasts and intersection operational analyses for the overall Village Centre. Table 1 of that report shows that the analysis took into account the recently approved Bunbury Farmers Market on Lot 124, together with an assumed 'Mixed Use' development (2,150m²) and 'Medical' development (5,000m²) within the remainder of Stage 2A.

An updated Table 1 is now provided here, to reflect the Day Hospital and Medical tenancies now proposed within Stage 2A under the current Development Application, together with the corresponding updated trip generation for the overall Village Centre.

It can be seen in Table 1 that the proposed Development Application will generate an estimated 2,390 vehicle trips per day (as shown in bold type), with 237 vehicle trips during the critical PM peak hour, based on trip generation rates from the Institute of Transportation Engineers (ITE) *'Trip Generation Manual'*. This is a reduction of 490 vehicle trips per day compared to the June 2021 report.

It can therefore also be seen in Table 1 that the overall Village Centre will now generate a total of 24,810 vehicle trips per day, with 2,481 trips during the PM peak hour (compared to the previous 25,220 trips per day and 2,650 trips per PM peak hour). And after taking into account the estimated internal (linked) trips within the Village Centre, the total number of external trips to/from the Village Centre will now be 18,950 trips per day, with 1,901 trips per PM peak hour (compared to 19,490 trips and 2,050 trips, respectively, within the June 2021 report).

The overall traffic impacts of the Vasse Village Centre will therefore reduce slightly as a result of the currently proposed Development Application, with reduced traffic flows (and therefore improved intersection operations) at the external intersections.

TABLE 1
PROPOSED LAND USE AND ESTIMATED TRIP GENERATION
VASSE VILLAGE CENTRE – UPDATED FOR CURRENT DEVELOPMENT APPLICATION

LAND USE DATA	TRIP GENERATION		
	AM Peak Hour (vph)	PM Peak Hour (vph)	Weekday (vpd)
<ul style="list-style-type: none"> Stage 1 <ul style="list-style-type: none"> - Shopping Centre (4,287 m²) ¹⁾ - Fast Food (900 m²) ²⁾ - Petrol Station (8 pumps) ³⁾ - Office (1,714 m²) ⁴⁾ - Speciality (2,339 m²) ⁵⁾ - Showrooms (5,970 m²) ⁶⁾ - Medical (1,137 m²) ⁷⁾ - Childcare (70 children, 380 m²) ⁸⁾ - Tavern (785 m²) ⁹⁾ Stage 2A <ul style="list-style-type: none"> - Farmers Market (3,400 m²) ¹⁾ - Mixed Use (1,108 m²) ⁵⁾ - Medical (4,351 m²) ¹⁰⁾ - Residential Apartments (12 Units) ¹¹⁾ Stage 2B <ul style="list-style-type: none"> - Residential Apartments (36 units) ¹¹⁾ 	145 452 80 34 36 87 0 34 0	527 452 106 33 130 322 63 34 131	5,190 4,800 1,300 170 1,300 3,280 390 240 1,310
• Total Trip Generation	1,159	2,481	24,810
• Less Internal (Linked) Trips within the Village Centre	-268	-580	-5,860
• Total External Trips	891	1,901	18,950

Notes:

- 1) Based on NSW RMS rates for 'Shopping Centres'.
- 2) Based on ITE Trip Generation for 'Fast Food with Drive-Through (#934)'.
- 3) Based on ITE Trip Generation for 'Service Station with Convenience Market (#945)'.
- 4) Based on NSW RMS rates for 'Office and Commercial'.
- 5) Based on NSW RMS rates for 'Specialty Shops'.
- 6) Based on ITE Trip Generation for 'Hardware/Paint Store (#861)'.
- 7) Based on ITE Trip Generation for 'Clinic (#630)' - 9th Edition.
- 8) Based on previous surveys and available research.
- 9) From previous studies.
- 10) Based on ITE Trip Generation for 'Clinic (#630)' - 11th Edition
- 11) Based on ITE Trip Generation for 'Low Rise Apartments (#220)' - 11th Edition.

Bold type identifies the currently proposed development.

Source: Uloth and Associates, August 2022

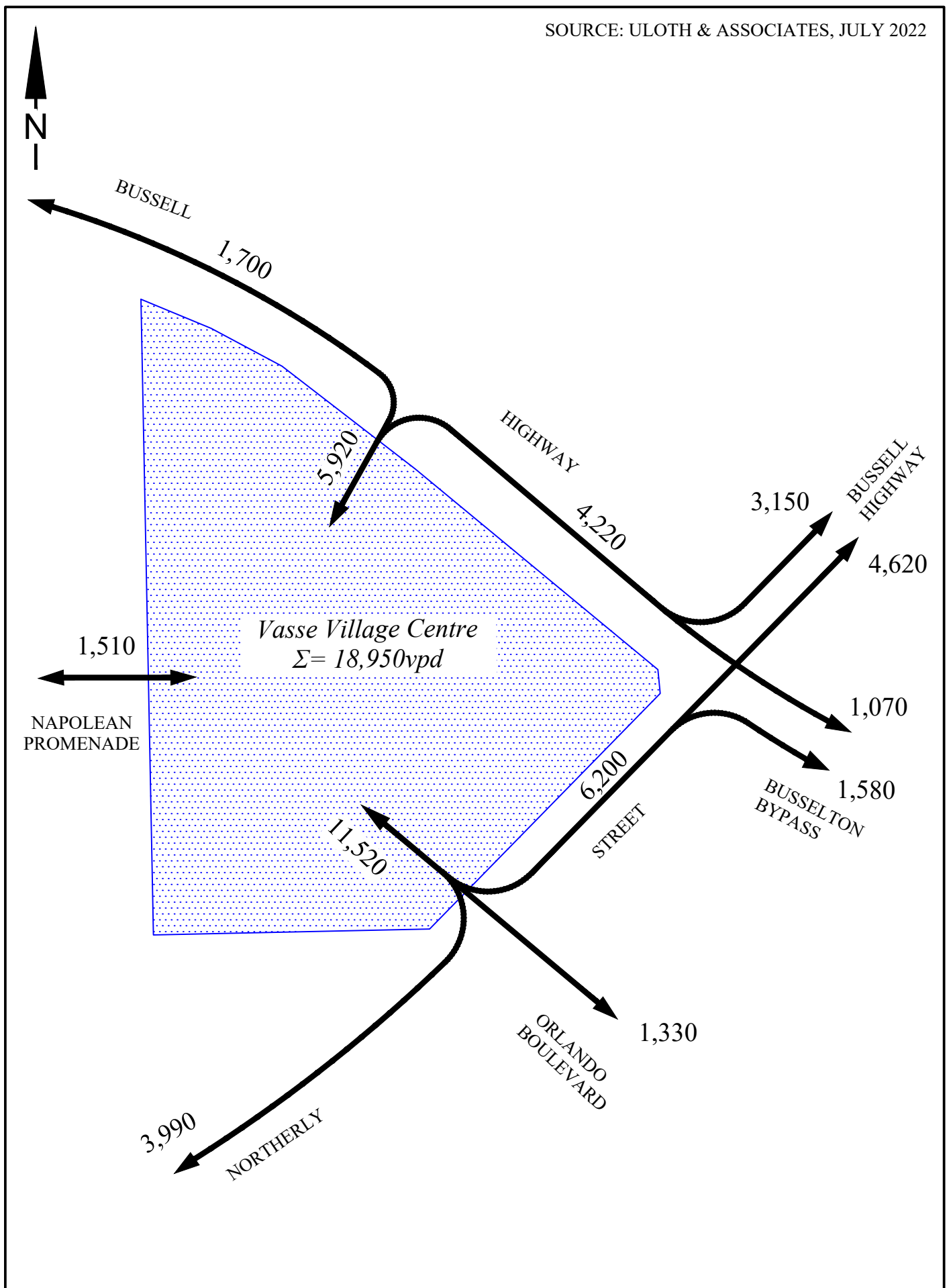
6. FUTURE TRAFFIC FLOWS AND INTERSECTION OPERATIONAL ANALYSIS

Figure 5 shows the distribution of future daily external traffic flows generated by the overall Village Centre onto the surrounding road network on the basis of the updated trip generation of 24,810 vehicle trips per day, using the external distribution previously identified within the June 2021 and August 2018 reports, noting that an estimated 5,860 vehicles per day are linked trips between various different parts of the Centre, leaving 18,950 vehicles per day of external traffic (as shown above in Table 1).

Figure 6 then shows the future traffic flows and trip distribution for the currently proposed Development Application, with an estimated 2,390 vehicle trips per day (and 237 vehicle trips per PM peak hour), while Figures 7 and 8 show the resulting long term total daily and PM peak hour traffic flows at all roads and intersections within and adjacent to the Village Centre (following full development of the overall Vasse Development Guide Plan), including the proposed new Driveway 1 off Napoleon Promenade and the resulting modified traffic patterns within Coomidup Boulevard and Road A.

Tables 2, 3 and 4 then show the long term PM peak hour intersection operational (SIDRA) outputs for the affected intersections immediately adjacent to the proposed development, being the proposed Driveway 1 junction with Napoleon Promenade, the proposed Coomidup Boulevard roundabout at Ganges Lane and the new Road A, and the existing roundabout at the Napoleon Promenade - Coomidup Boulevard - Minion Court intersection.

It can be seen in Table 2 that the proposed Driveway 1 junction with Napoleon Promenade will operate at a high Level of Service A during the long-term PM peak hour (indicating very good operating conditions with little or no delay), while Tables 3 and 4 show that the existing and proposed roundabouts on Coomidup Boulevard will also both operate at a high Level of Service A during the critical peak hour.

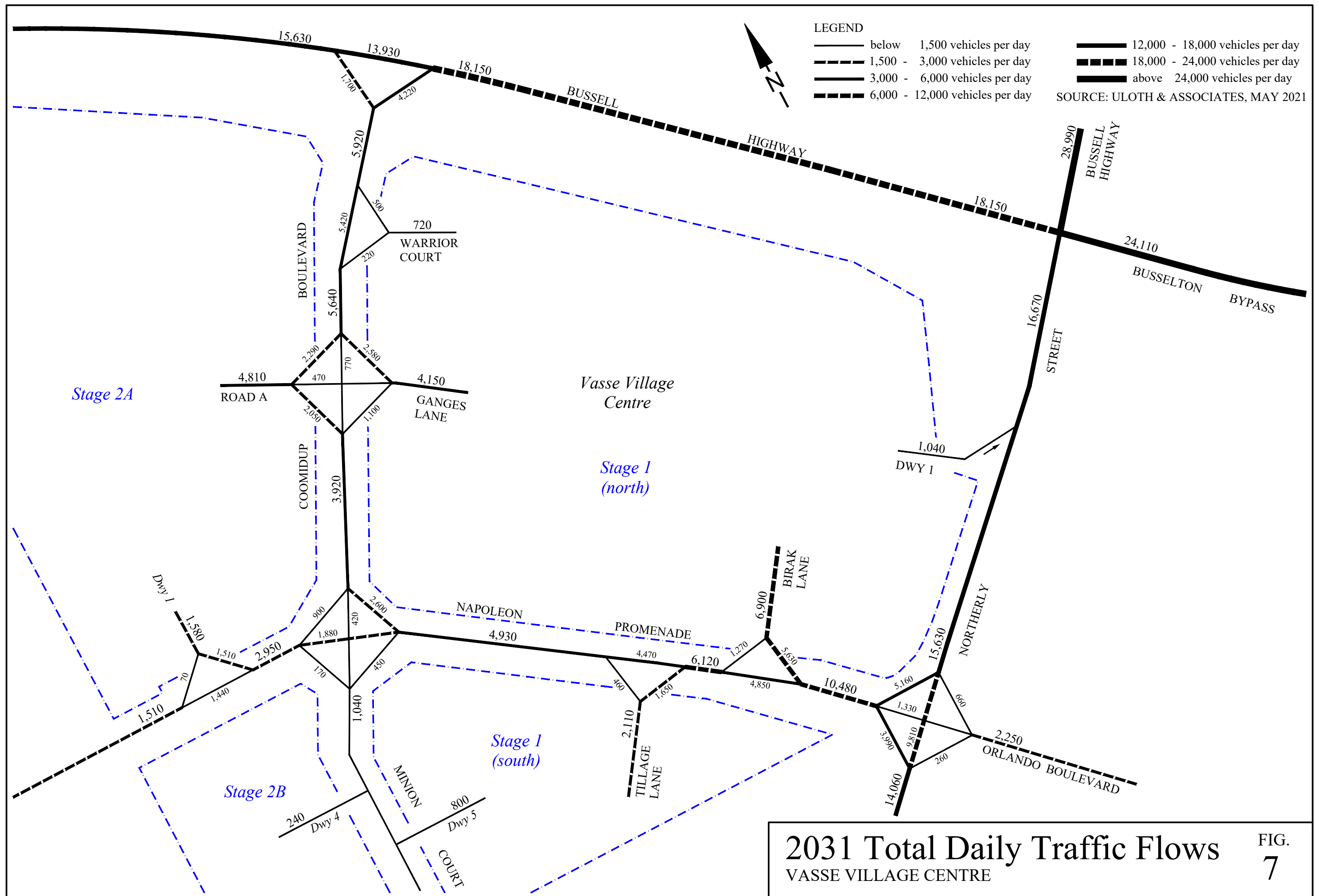


Daily External Trip Distribution

VASSE VILLAGE CENTRE - WITH UPDATED STAGE 2 DEVELOPMENT

FIG.
5

FIG.
6



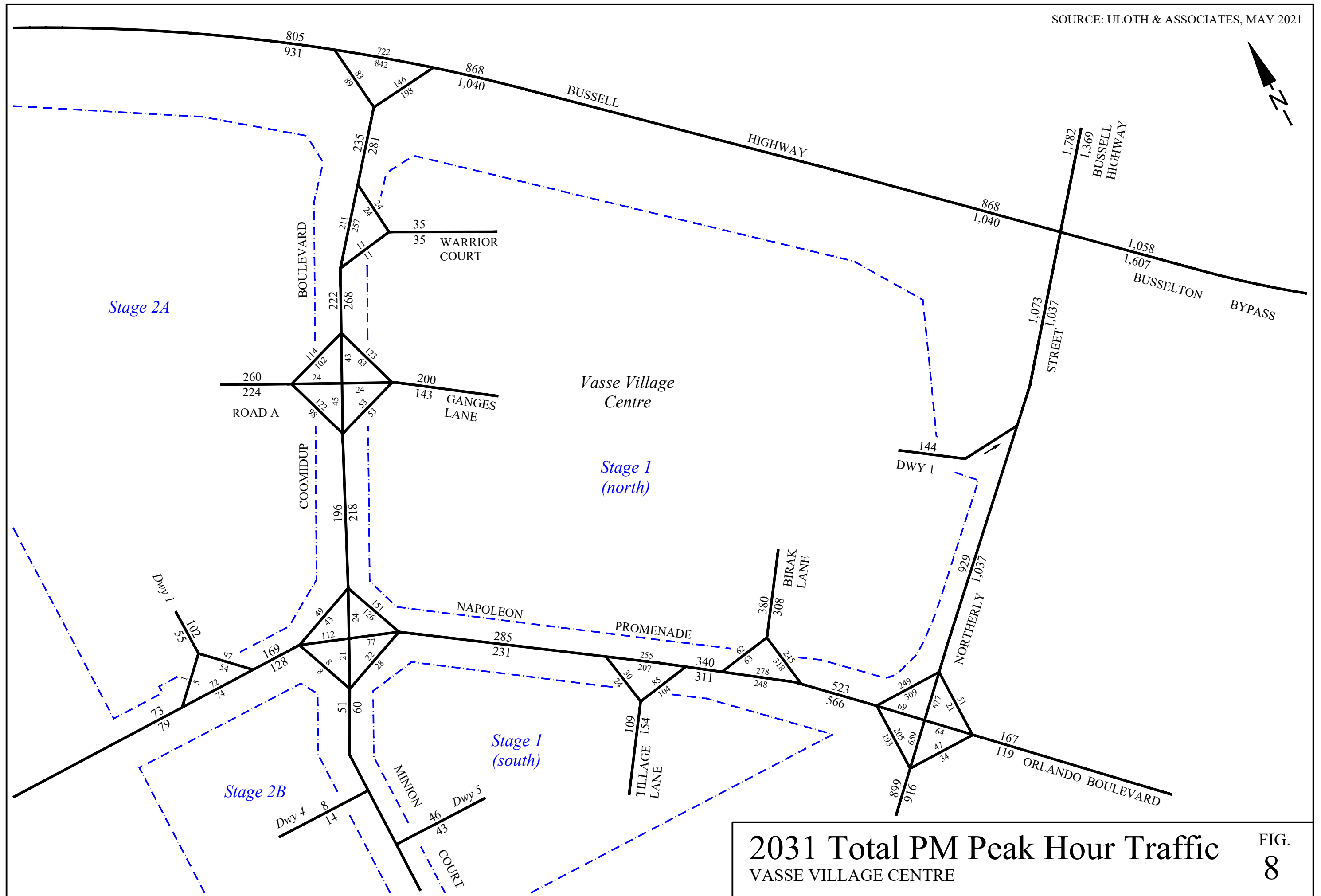
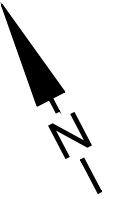


TABLE 2
 OPERATIONAL CHARACTERISTICS FOR UNSIGNALISED NAPOLEON PROMENADE -
 DRIVEWAY 1 JUNCTION – LONG TERM PM PEAK HOUR
 WITH FULL DEVELOPMENT OF THE VASSE DEVELOPMENT GUIDE PLAN

ITEMS	OPERATIONAL CHARACTERISTICS					
	PM Peak Hour					
No. of Approach Lanes: N E S W Max X Value	1 1 - 1 0.075					
Approach	Move- ment	X- Value	Max. Queue		Avrge Delay (sec)	Level of Serv.
			Veh.	Metres		
Driveway 1 - north	LR	0.072	0.3	2	5.8	A
Napoleon Promenade - east	TR	<u>0.075</u>	0.3	2	2.5	A
Napoleon Promenade - west	LT	0.040	0.0	0	0.1	A

Notes: Level of Service calculations are based on Average Delay.
 Underlined X-values denote maximum values.

Source: Uloth and Associates

TABLE 3
 OPERATIONAL CHARACTERISTICS FOR PROPOSED COOMIDUP BOULEVARD -
 GANGES LANE - ROAD A ROUNDABOUT – LONG TERM PM PEAK HOUR
 WITH FULL DEVELOPMENT OF THE VASSE DEVELOPMENT GUIDE PLAN

ITEMS	OPERATIONAL CHARACTERISTICS					
	PM Peak Hour					
No. of Approach Lanes: N E S W Max X Value	1 1 1 1 0.248					
Approach	Move- ment	X- Value	Max. Queue		Avrge Delay (sec)	Level of Serv.
			Veh.	Metres		
Coomidup Boulevard - north	LTR	<u>0.248</u>	1.5	11	5.9	A
Ganges Lane - east	LTR	0.146	0.9	7	6.9	A
Coomidup Boulevard - south	LTR	0.186	1.1	8	5.5	A
Road A - west	LTR	0.239	1.6	12	6.3	A

Notes: Level of Service calculations are based on Average Delay and Degree of Saturation.
 Underlined X-values denote maximum values.

Source: Uloth and Associates

TABLE 4
 OPERATIONAL CHARACTERISTICS FOR NAPOLEON PROMENADE -
 COOMIDUP BLVD - MINION CRT ROUNDABOUT – LONG TERM PM PEAK HOUR
 WITH FULL DEVELOPMENT OF THE VASSE DEVELOPMENT GUIDE PLAN

ITEMS	OPERATIONAL CHARACTERISTICS					
	PM Peak Hour					
No. of Approach Lanes: N E S W	1 1 1 1					
Max X Value	0.186					
Approach	Move- ment	X- Value	Max. Queue		Avrge Delay (sec)	Level of Serv.
			Veh.	m		
Coomidup Blvd - north	LTR	<u>0.186</u>	0.9	7	4.6	A
Napoleon Prom - east	LTR	0.180	0.9	7	5.6	A
Minion Ct - south	LTR	0.049	0.2	2	6.1	A
Napoleon Prom -west	LTR	0.149	0.7	5	4.0	A

Notes: Level of Service calculations are based on Average Delay.
 Underlined X-values denote maximum values.

Source: Uloth and Associates

7. ACCESS AND SERVICING

Figure 9 shows the swept paths for a 12.5 metre Heavy Rigid Vehicle accessing the proposed service yard and loading dock at the northern end of the site. It can be seen in Figure 9 that the HRV will enter the proposed service yard directly off Road A via a dedicated service vehicle access driveway, before exiting through the proposed car park and returning to Road A via the new Driveway 2 at the northern end. However, it is important to note that one of the parking spaces will need to be converted to a 'small car' bay in order to accommodate the swept path for a HRV exiting the site.

It can also be seen in Figure 9 that an ambulance can easily access the proposed Ambulance Bay, due to the extra-wide parking area provided.

Figure 10 then shows the swept paths for cars accessing and traversing the main car park at the southern end of the overall development, with 2 x B99 Cars entering the exiting the proposed Driveway 1 off Napoleon Promenade, and with a B99 Car plus a B85 Car traversing the internal corners within the proposed car park. Required kerb lines and aisle widths at key locations are also identified, together with the required realignment of the cycle path at the south-west corner of the site.

FIG.
9

8. OVERALL CONCLUSIONS AND RECOMMENDATIONS

The overall conclusions and recommendations regarding the proposed Vasse Day Hospital development are detailed in this chapter, on the basis of the study findings and conclusions presented and discussed above in Chapters 2 to 7, as follows:

- The minimum car parking requirement for the proposed development is 163 spaces, including 4 accessible (disabled) spaces. A total of 168 spaces are currently proposed, resulting in a surplus of 5 spaces.
- A total of 47 bicycle parking spaces are required for the overall proposed development, comprising 25 spaces for the Hospital and 22 spaces for the Medical tenancies. The Hospital requirement includes 10 spaces for employees (with 10 lockers and 2 showers) plus 15 spaces for visitors, while the Medical tenancies need to provide 9 spaces for employees (with 9 lockers and 2 showers) plus 13 spaces for visitors.
- The proposed development is expected to generate a total of 2,390 vehicle trips per day, with 237 vehicles per hour during the critical PM peak hour. This is less than the traffic flows previously assumed for this site within the June 2021 Transport Report for the overall Village Centre, which results in reduced traffic generation for the overall Village Centre, and therefore improved intersection operations at the external intersections.
- However, with a new access (Driveway 1) proposed off Napoleon Promenade, the traffic flows immediately adjacent to the current development site will change. Intersection operational (SIDRA) analysis was therefore carried out at 3 intersections adjacent to the proposed development site, confirming that each of the affected intersections will operate at a high Level of Service A during the critical future PM peak hour (indicating very good operating conditions with little or no delay).
- Access requirements for service vehicles and ambulances accessing the northern part of the site, and for cars accessing the southern part of the site have also been confirmed, with Figure 9 (in Chapter 7) showing that one of the car spaces will need to be reduced to a 'Small Car' bay in order to accommodate the swept paths for a 12.5 metre Heavy Rigid Vehicle, while Figure 10 (also in Chapter 7) shows kerb lines and aisle widths at key locations within the southern car park, together with the required realignment of the cycle path at the south-west corner of the site.

VDH Waste Management Plan

Date: 22/08/2022

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Glossary of terms and acronyms

Clinical and related waste (CRW)	<p>(a) clinical waste, or</p> <p>(b) cytotoxic waste, or</p> <p>(c) pharmaceutical, drug or medicine waste, or</p> <p>(d) sharps waste.</p> <p>Clinical waste means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing any of the following:</p> <p>(a) human tissue (other than hair, teeth and nails),</p> <p>(b) bulk body fluids or blood,</p> <p>(c) visibly blood-stained body fluids, materials or equipment,</p> <p>(d) laboratory specimens or cultures,</p> <p>(e) animal tissue, carcasses or other waste from animals used for medical research,</p> <p>but does not include any such waste that has been treated by a method approved in writing by the Director-General of the Department of Health.</p>
Commingled recycling	Common recyclables, mostly packaging; such as glass, plastics, aluminium, steel, and liquid paper board (milk cartons). Commingled recycling may include paper but often, and particularly in offices, paper and cardboard are collected separately.
Cytotoxic waste	Material which is, or may be, contaminated with a cytotoxic drug during preparation, transport, or administration of cytotoxic therapy. This includes any residual cytotoxic drug remaining after administration to patients, equipment used in the administration of cytotoxic drugs, disposable protective equipment (PPE) used in administration of cytotoxic therapy or in handling cytotoxic waste, urine, faeces and vomitus of patients receiving cytotoxic therapy, and any used or expired cytotoxic drugs.
Dirty Utility room	Rooms within a hospital ward or floor to contain products that have been used on patients, including bins for various waste streams and used linen.
E-waste	Electrical, IT and associated equipment. Much of this is re-useable or recyclable.
General waste	Any waste not included in other waste categories, which is not capable of being composted, recycled, reprocessed or reused. Examples of this stream in a hospital setting include incontinent pads (unless blood contaminated), stoma bags, urinary catheters, suction catheters, gloves, hand towels, medical disposals, and disposal nappies.
Organic waste	Separated food and/or 'green' material (e.g. grass clippings or vegetation prunings).
Pharmaceutical Waste	Pharmaceutical substances include expired or discarded pharmaceuticals, those no longer required by patients or departments and waste materials/substances generated during the manufacture and administration of pharmaceuticals.
Recyclable products	Items that are composed of materials, components or compounds, capable of being remanufactured or reused i.e. plastic bottles, cans, cardboard boxes, glass, clean office paper (that is not confidential). Items are considered recyclable if facilities are available to collect and reprocess them.
Recycling	Where a material or product undergoes a form of processing to produce a feedstock suitable for the manufacture of new products.
Reuse	The transfer of a product to another user, with no major dismantling or processing required. The term "reuse" can also be applied in circumstances where an otherwise disposable item is replaced by a more durable item hence avoiding the creation of waste (e.g. using a ceramic coffee mug in place of disposable cups).

Sharps	<p>Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and/or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.</p> <p>Sharps include:</p> <ul style="list-style-type: none"> · Glass ampoules · Needles · Glucometer lancets · Scalpel blades · Razor blades · Stitch cutters · Suture needles · Syringes with needles attached · IV tubing spikes
Waste	<p>includes:</p> <p>(a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or</p> <p>(b) any discarded, rejected, unwanted, surplus or abandoned substance, or</p> <p>(c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or</p> <p>(d) any processed, recycled, re-used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or</p> <p>(e) any substance prescribed by the regulations to be waste.</p>
Waste compound	<p>Area within St John of God Vasse Day Hospital back of house area that includes:</p> <ul style="list-style-type: none"> • Main bin store including cardboard baler • Secure bin store

1 Purpose

This Waste Management Plan outlines the proposed approach for the management of waste for the Vasse Day Hospital to be operated by St John of God Health Care.

This Waste Management Plan:

- Describes the likely waste streams to be generated by the new Hospital,
- Describes the measures to manage, reuse, recycle and safely dispose of this waste, and
- Identifies appropriate servicing arrangements both on site and in collaboration with the St John of God Bunbury Hospital Site.

2 Scope of plan

To implement an efficient, safe and environmentally friendly waste management system where waste to landfill is reduced and resource recovery increased.

The Vasse Day Hospital will be operated by St John of God Bunbury Hospital and operate within their governance systems and structures. Where possible and appropriate the waste management systems will leverage those adopted at the South West Health Campus (50km away).

The Vasse Day Hospital will consist of:

- Day Surgery Hospital
 - 2-3 Operating Theatres
 - 23 Hour Beds
 - Chemotherapy (plus Compounding Pharmacy)
 - Renal Dialysis
- Ambulatory Care Services
 - Allied Health Services
 - Gymnasium
 - Mental Wellbeing services
- Medical Centre
 - Sessional consulting rooms
 - Pharmacy
 - Pathology Collection Service
- Café
- Administrative and Office spaces
- Site Energy Plant
- Ground Level Car park
- Retail Tenancies

The Waste management plan has been prepared based on the following:

- Architectural plans for VDH from Hames Sharley received 27 June 2022
- WALGA Multi-unit Dwellings Development Waste Management Guidelines (2018)
- WALGA Commercial and Industrial Waste Management Plan Guidelines (2017)
- Guidance documents listed in Appendix A
- Data provided from existing waste service providers (Cleanaway Daniels) for the period of July 2021 to June 2022 inclusive for St John of God Bunbury Hospital (SJGBH)
- Waste and recycling generation rates based on St John of God **Subiaco's Waste** Management Plan.

The Waste Management Plan will be advised by the Sustainability Management Committee for St John of God Healthcare (SJGHC). They will review the plan on an annual basis and their recommendations will fuel changes to the plan as required.

3 Description of Vasse Day Hospital (VDH) Project

Vasse Day Hospital (VDH) is a 23 hours day procedure facility offering chemotherapy, renal dialysis, day surgical procedures, Allied Health and consulting tenancies. The site will also include a site energy plant, ground level car parking and retail tenancies. Figure 1 depicts the proposed floor plan for VDH and Figure 2 shows the bin and back of house area more closely.



Figure 1: Map of Proposed VDH



Figure 2: Focused view of Bin Store and Back of House Areas.

The VDH will consist of 2 operating theatres (with a third built as shell for future expansion) for 23 hour maximum stays with 6 stage 1 and 12 stage 2 recovery beds. The services provided will be:

- Chemotherapy (plus Compounding Pharmacy)
- Renal Dialysis
- Allied Health Services
- Gymnasium
- Mental Wellbeing services
- Sessional consulting room
- Pharmacy
- Pathology Collection Service
- Retail Tenancies
- Café
- Administrative and Office spaces
- Site Energy Plant
- Ground Level Carpark

4 Waste Management Principles

The following waste management hierarchy has been used as a guiding principle in the development of this Waste Management Plan:



It is recognised within the healthcare sector there are a number of issues that need to be factored into the decision making process in regards to the resultant generation and management of waste.

These include:

- Patient treatment regimes
- Infection control
- Workplace health & safety for staff, patients and visitors as well as waste management contractors
- Availability of alternative products

- Costs for products and waste management services

Opportunities and requirements for managing waste will include:

- Staff education and responsible ordering programs
- Purchasing materials that will result in less waste, which have minimal packaging, are pre-cut or fabricated
- Identify all waste products that can be reused and systems to separate and store reusable items
- Identifying the potential applications for reuse both onsite and offsite and facilitate reuse
- Identifying all recyclable waste products that will be produced on site
- Providing systems for separating and storing recyclables prior to collection
- Ensure the chosen waste disposal contractor(s) comply with regulatory requirements and provides regular collection of bins

5 Waste Management Plan

5.1 VDH

The waste streams and systems for the VDH are based on the streams and systems that are currently in place at the existing St John of God Bunbury Hospital (SJGBH). SJGBH undertakes a continual improvement process for their waste management systems. They have implemented various recycling streams and improved waste handling and collection processes and are keen to do more in the future.

5.2 Waste streams

The following are the main waste streams that are expected to be generated within the VDH on a daily basis:

- General waste
- Commingled recycling
- Cardboard recycling
- Confidential documents
- Non-confidential paper recycling
- Soft plastics (packing and kitchen waste)
- PVC recycling (i.e. fluid bags, tubing, oxygen masks)
- Clinical and related waste (CRW) (includes anatomical waste)
- Sharps
- Syringe recycling
- Metal instruments recycling (e.g. scissors)
- Pharmaceutical waste
- Cytotoxic waste
- Electronic waste (E-waste) and batteries
- Organic waste (i.e. food waste) – café tenancy
- Used cooking oil – café tenancy

5.3 Estimated waste generation

The estimated waste and recycling generation for the VDH was calculated by applying indicative rates from St John of God Bunbury's actual historical waste data.

Waste and recycling data from Cleanaway (Daniels) at the existing SJGBH for the period July 2021 to June 2022 inclusive and average bed occupancy rates from 2001 to 2021 (inclusive) were used to estimate waste generation. Average waste generation data from the existing hospital includes kitchens, theatres and other areas of high waste generation and is very likely to be an overestimate when applied to the VDH.

5.3.1 Summary of Beds/Areas

Table 1: Summary of beds/areas

<i>Bed types</i>	<i>No</i>	<i>Units</i>
Chemotherapy Chairs/beds	8	Chairs/Beds
Renal Dialysis Chairs/beds	8	Chairs/Beds
Recovery Stage 1 beds	6	Beds
Recovery Stage 2 beds	12	Beds
Total chairs/beds	34	Chairs/Beds
Projected patients per day	228	

<i>Areas in Hospital (m²)</i>	<i>VDH Floor area</i>
Theatre (inc recovery and discharge)	1210
Staff rooms	201
Back of house area	403
Chemotherapy	325
Renal Dialysis	362
CSSD	169
Café	72
Pharmacy	176
Consulting/Allied Health	351
Waiting/circulation areas	1077
Retail (Tenancies)	1141
Total area	4346

The estimated waste and recycling generation for the VDH was calculated using average volume / bed / day from St John of God **Subiaco's** waste generation rates and using half the activity of St John Bunbury's **Waste** data for cytotoxic waste due to comparable size and potential activity.

Table 2 shows the high-level estimated volume of waste anticipated to be generated from the new VDH. Please note that estimates are based on floor area and maybe overestimated compared to actual volumes.

Table 2: Estimated volume (m³) of waste and recycling streams generated by VDH.

Waste/recycle stream	Estimated volume per day (m ³)	Estimated volume per week (m ³)
General waste	429.02	2145.08
Commingled recycling	44.86	224.29
Cardboard & paper recycling	128.07	672.36
Confidential documents	6.40	32
Soft Plastics	3.21	16.07
PVC recycling	9.60	48
CRW	12.80	64
Sharps recycling		
Metal instruments recycling	3.20	16
Cooking Oil	0.01	0.07
Organic waste	0.03	0.14
Cytotoxic Waste	0.10	0.48

Table 3 summarises the estimated types of waste bins/receptacle numbers required and the collection frequency proposed for the various waste and recycling streams. The number of bins filled daily is a representation of the volume of waste and recycling streams that will be generated. Not all bins will be stored in the bin store.

For example, general waste 240 L bins will be stored in dirty utility rooms and brought to the 48 m² bin store for emptying and swapping with a clean bin. After emptying, bins will be cleaned and are then available for swapping out as needed.

Table 3: Summary of total waste bins/receptacles required and collection frequency

Waste/ recycling stream	Bin size (L)	Collection frequency	Number of bins filled daily	Number of spare bins for rotation
General waste	240 L (emptied in 660L bin in bin store)	Weekly	15	7
Commingled recycling	240 L (emptied in 660L bin in bin store)	Weekly	9	5
Cardboard recycling	Bales (from bale press)	Twice weekly	18	N/A
Non-confidential paper recycling	240L	Weekly	2	2
Confidential paper	240L	Monthly	5	N/A
Soft plastics	240 L	Weekly	2	1
PVC recycling	240 L	Weekly	1	1
CRW	240 L	Weekly	2	1
Sharps recycling	64 L	Weekly	4	2
Metal instruments recycling	15 L buckets	Weekly	2	2
Cooking Oil	240L bin	Weekly	1	1
Organic waste	240L bin	Weekly	1	1
Cytotoxic	240L bin	Weekly	2	2

Note that actual types and volumes of the various waste streams will be dependent on the type of patient services provided, treatments delivered, number of inpatients (occupied bed days) and number of outpatients. With healthcare, this can fluctuate according to time of year and changes in treatments and services provided.

5.4 Estimated waste generation

The generation rates used are presented in Table 4 below and are based on data provided by Cleanaway (Daniels) for waste collection at SJGBH, and scaled to fit VDH floor plan areas. These rates do not include a breakdown of material streams included in the 'recycling' stream. This column is estimated using SJGBH example as a base.

Table 4: Waste generation rates used for VDH

Premises type	Waste generation rate	Recycling generation rate	Percentage breakdown of recycling stream by material	
Offices/ Allied Health/Medical suites / Pharmacy	0.1L/1m ² /day	0.1L/1m ² /day	7% commingled 79% paper	14% cardboard 10% soft plastics
Chemotherapy / Renal Dialysis/ Theatres	2.38L/1m ² /day	0.13L/1m ² /day	2% Anatomical 18% Cardboard 12% Sharps	63% other CRW 3% Cytotoxic 2% Pharmaceutical
Cafe	3 L/1m ² /day	2L/1m ² /day	40% commingled 50% cardboard 10% soft plastics	Separation from general waste: 10% used cooking oil 20% organics
Retail Tenancy	0.5L/1m ² /day	0.25L/1m ² /day	25% commingled 50% cardboard	25% soft plastics

Table 5: Number of bins by area to be stored in the general waste and recycling bin store

Type of waste	Bin size (L)	Number of bins	Collection frequency
Café bins			
General waste	660	1	Twice weekly
Commingled recycling	240	2	Weekly
Soft Plastics	240	1	Monthly
Cardboard	Bales	4	Weekly
Used cooking oil	240	1	Weekly
Organic waste	240	1	Weekly
Chemotherapy / Renal Dialysis/ Theatres			
General waste	660L	5	Weekly
Commingled recycling	660L	3	Weekly
Cardboard	Bales	10	Weekly
Soft Plastics	240L	1	Weekly
Sharps	22L	4	Weekly
Cytotoxic	64L	2	Weekly
Anatomical	64L	2	Weekly
Other CRW	240L	2	Weekly
Offices/ Allied Health/Medical suites / Pharmacy			
General waste	240L	4	Weekly
Commingled recycling	240L	4	Weekly
Cardboard	Bales	4	Weekly
Non confidential paper	240L	2	Weekly
Soft Plastics	240L	2	Weekly
Confidential Paper	240L	2-3	As required
Suites tenancies bins			
General waste	240L	2-3	Weekly
Commingled recycling	240L	1-2	Weekly
Confidential recycling	240L	1-2	As required
All areas			
Battery recycling	20	1	Returned to SJGBH for combined recycling as required
e-waste storage (section 2.5)	2 m ² for storage		

Note that actual types and volumes of the various waste streams will be dependent on the type of tenancy services provided, treatments delivered, and number of outpatients. With healthcare, this can fluctuate according to time of year and changes in treatments and services provided.

5.5 Internal storage: wards and departments

As per the existing hospital building, dirty utility rooms within departments (approximately two per area) and bin store room (1 in back of house area) will be used to store bins for disposal of waste by hospital staff.

5.6 Internal storage: non-clinical and back of house areas

General waste and commingled recycling bins will be located in non-clinical and back of house areas as required for the activities conducted in each specific area. Cleaners will transfer waste and recycling to the waste compound for collection.

5.7 Internal waste transfer

Hospital staff will place waste and recyclables into appropriate receptacles in the dirty utility rooms. Hospital staff will rotate full bins from dirty utility rooms with empty bins from the disposal room on an as needs basis. Full bins from the disposal rooms will be transferred to the bin store for collection by the service provider (other streams).

Bins in non-clinical and back of house areas will be serviced by cleaners and the waste and commingled recycling transferred directly to the appropriate bins in the waste compound.

5.8 Clinical waste transfer

Department of Health guidance on transfer of clinical and related waste will be adhered to. All clinical and related wastes will be:

- Handled by staff with knowledge and access to appropriate Personal Protective Equipment
- Packaged so that there is no risk of waste escaping
- Transported and disposed of in accordance with WA Department of Health and EPA legislation and guidelines and relevant Codes of Practice
- **Sharps containers should be placed within "arms reach" of where the sharp is generated**
- Licensed medical waste service providers will service the sharps containers/bins from their place of use within the tenancies and replace them at the same time with empty containers/bins
- Clinical waste will be stored in uniquely identified receptacles located in separate rooms from all other wastes and recyclables, and disposed of according to designated Clinical and Hazardous Waste Procedures.

5.9 Retail Tenancies

Retail tenancies have been included for the purpose of calculation of approximate waste volumes from the development as a whole. The collection, sorting and disposal of waste for these tenancies will be managed separately by the Lessor.

Waste disposal from the retail tenancies is to be via a back of house corridor and out the northern elevation facing the new access road. Waste for these spaces is expected to be collected in 240L general waste and recycling bins, dependent on occupancy and use of tenancy, and collected separately from the VDH.

Bins will be stored in a secure enclosure which will be constructed out of materials which compliment the building. Bins will be required to be taken to road edge near loading dock for collection.

5.10 Waste storage and collection area

Waste and recycling generated by the proposed VDH will be accommodated within the bin store at VDH. The waste compound includes a secure area for storing CRW, a cardboard bale press, and a range of bins for recyclables and general waste. Current collection frequencies are a maximum of daily (weekdays only). Any additional waste from the VDH will be accommodated by increasing collection frequencies for general waste (currently 3 times per week).

Suez are SJGBH's **current service provider for all waste and recycling streams except** sharps containers. Reusable sharps containers are serviced by Cleanaway (Daniels).

Figure 2 shows the pathway for transferring waste from various areas to the waste compound located in the back of house area.

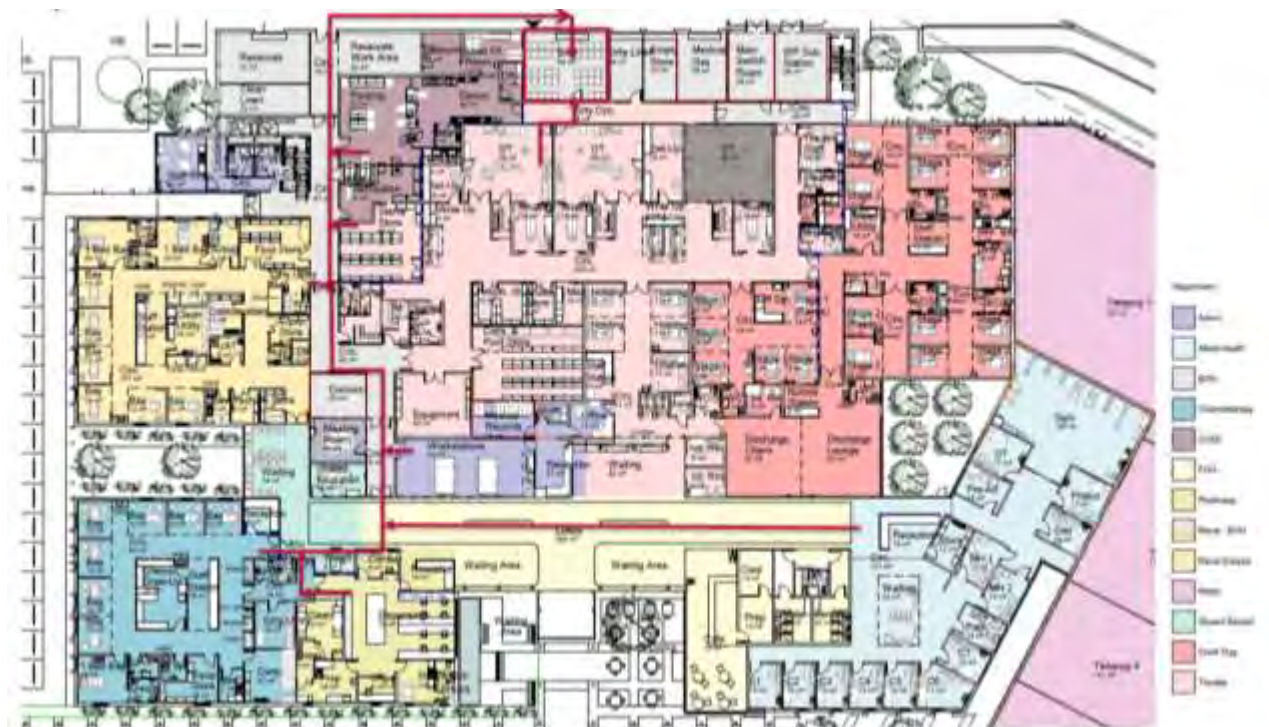


Figure 2: Waste transfer route from VDH areas to bin store area.

5.10.1 Bin store amenity	
Washing bins and waste storage area:	Impermeable floors grading to an industrial floor waste (including a charged 'water-trap' connected to sewer or an approved septic system), with a hose cock to enable bins and /or the enclosure to be washed out. 100 mm floor waste gully to waste outlet. Both hot and cold water will be available.
Bin store walls and ceilings:	All internal walls in bin stores will be cement rendered (solid and impervious) to enable easy cleaning. Ceilings will be finished with a smooth faced, non-absorbent material capable of being easily cleaned. Walls and ceilings will be finished or painted in a light colour.
Bunding:	The CRW bin store is bunded, with no connection to a drainage point in case of leaks.
Ventilation and odour:	The design of bin store will provide for adequate separate ventilation with a system that complies with Australian Standard 1668 (AS1668). The ventilation outlet is not in the vicinity of windows or intake vents associated with other ventilation systems.
Doors:	Ventilated roller doors will be specified both internally and externally to enable bins to be easily wheeled into and out of the bin stores. Doors are self-closing doors to eliminate access by vermin
Lighting:	Bin store will be provided with artificial lighting, sensor or switch controlled both internal/external to the room.
Noise:	Noise is to be minimised to prevent disruption to occupants or neighbours.
Fully enclosed and secure:	The bin store will be fully enclosed and only be accessible by cleaners, building management staff and the waste service provider.
Signage:	Visual aids and signage will be provided to ensure that the area works as intended.

6 Management processes for waste streams


6.1 Sharps waste

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Small bins in ward areas and theatres. Larger storage in back of house areas.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.2 Pharmaceutical waste

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.3 Anatomical waste

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.4 Radioactive (cytotoxic) waste

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		


6.5 Chemical waste

Collection receptacle(s)				Signage	
Contractor	Cleanaway				
Staff education	Staff receive clinical waste training during on-boarding process				
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.				
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.				

6.6 E-waste

Collection receptacle(s)		Signage	
Contractor	TBA		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Waste is transported to Bunbury site.		

6.7 Landfill

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.8 Commingled recycling

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.9 Paper and cardboard

Collection receptacle(s)		Signage	
Contractor	Cleanaway		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Staff deliver bins to back of house area for sorting into appropriate bin.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

6.10 Confidential paper

Collection receptacle(s)		Signage	
Contractor	TBA		
Staff education	Staff receive clinical waste training during on-boarding process		
Operational procedures: on ward	Bins located in administrative areas. When full, emptying is arranged and bin moved to back of house area.		
Operational procedures: ward to loading dock	Staff deliver waste to back of house area for sorting into appropriate bin. Cleanaway collect bins weekly.		

7 Actions to meet mandatory and recommended actions

<i>Status</i>	<i>Action description</i>
Mandatory	<i>Manage clinical waste in accordance with EPA publication IWRG61.1 Clinical and related waste – operational guidance and the department's supplementary guidance on clinical waste.</i>
Mandatory	<i>Divert e-waste from landfill.</i>
Recommended	<i>PVC collection in Theatre, Chemotherapy and Dialysis departments</i>
Recommended	<i>Complete waste mapping templates for all departments and administrative and support areas over a two-year period</i>
Recommended	<i>Develop and implement waste audit plan</i>
Recommended	<i>Identify improvement targets for existing waste collections (e.g. contamination levels, collection volumes/weights, availability of collection throughout hospital, streamlining of collection process).</i>
Recommended	<i>Use waste audit, contamination and litter audit findings to develop training program for all staff (clinical, environmental services, engineering etc.) to improve disposal of problem items, waste streams or areas experiencing high levels of littering and/or contamination rates.</i>
Recommended	<i>Remove individual bins at desks and replace with bin stations (including landfill and recycling bins) at strategic points throughout office areas.</i>

7.1.1 Objective 1

Increase the recycling rate across the health service from 70% in 2024-25 to 80% by 2026-27 and to 90% by 2028-29.

7.1.1.1 Activities

- 1. Introduce commingled recycling bins to all areas and signage*
- 2. Introduce food waste composting/recycling*
- 3. Invest in recyclable solutions for currently landfill plastics*

7.1.1.2 Budget

\$10,000 over 5 years

7.1.1.3 Timeline

- Complete commingled recycling activities by 2025.*
- Introduce additional recycling streams by 2027*

7.1.1.4 Monitoring

Bi-annual waste audits and monitoring EDMS reporting platform

7.1.1.5 Reporting

- Monthly update to Sustainability Management Committee*
- Six-monthly update to senior management.*

7.1.1.6 Communication

Communicated through:

- CEO newsletter*
- Changes introduced at safety huddles during change over meetings*

7.1.1.7 Responsibilities

St John of God Bunbury Managers responsible for implementation and monitoring

Appendix A – Support documents

Health service policies, procedures and guidelines relating to this document

Document #	Policy/ Procedure name	Document owner
IC002	Waste Management Policy	SJGHC
IC002001	Waste Management Procedure	SJGHC
IC000200000001	Waste Classification Toolkit	SJGHC
IC00020002	Cytotoxic Waste Management Procedure	SJGHC
MS000180002	Cytotoxic Disposal and Waste Management Procedure	SJGHC
MS0018	Cytotoxic Administration, Safe Handling, Disposal and Waste Management Policy	SJGHC
IC0060002	Disposal and Release of Human Tissue and Implanted Medical Devices Procedure	SJGHC
IC0012	Use, Management and Disposal of Sharps Policy	SJGHC
BM000100000003	Blood Products Administration Table Toolkit	SJGHC
IC0003	Cleaning Policy	SJGHC
IC0022	Clean Environment – Patient and Instrument Flow Policy	SJGHC
IC0018	Management of Single Use and Single Patient Devices Policy	SJGHC
	Code of Practice for Clinical and Related Waste Management, Public Health Act 2016	Department of Health WA
AS3816: 2018	Management of clinical and related wastes	Australian Standard
AS/NZ 4261	Reusable containers for the collection of sharp items used in human and animal medical applications	Australian Standard
AS4031	Non-reusable containers for the collection of sharp medical items used in health care areas	Australian Standard
	Biohazardous Waste Industry Group, Manual for the Management of Biohazardous Waste, 7th edition, 2014	Waste Management Association of Australia
	St John of God Subiaco Hospital Redevelopment: Waste Management Plan 2021	St John of God Subiaco
WAL2707	Commercial and Industrial Waste Management Plan Guidelines (2017)	WALGA
WAL2710	Multi-Dwelling Development Waste Management Plan Guidelines (2018)	WALGA

Appendix B -Proposed and Current actions

The health service has previously delivered and is the process of completing a range of actions that fit within the scope of the waste management plan. These actions are:

Project	Waste stream targeted	Department	Status (Complete, delayed, in progress)	Outcome(s)	Project lead
<i>Introduce PVC recycling</i>	<i>PVC</i>	<i>All departments</i>	<i>In progress</i>		
<i>Introduce food waste composting</i>	<i>Food Waste</i>	<i>All departments</i>	<i>In progress</i>		
<i>Introduce metal instrument recycling</i>	<i>Metal instrument recycling</i>	<i>All departments</i>	<i>In progress</i>		
<i>Introduce commingled recycling bins in all reads with clear signage for use</i>	<i>Commingled recycling</i>	<i>All departments</i>	<i>In progress</i>		
<i>Introduce E-Waste recycling space</i>	<i>E-Waste</i>	<i>All departments</i>	<i>In progress</i>	<i>E-Waste being returned to Bunbury Hospital site. Review quantity annually to justify onsite recycling collection.</i>	

Appendix C – Waste mapping on wards

Ward: Theatre

Types of rooms: 2 Operating suite, 7 stage 1 & 12 stage 2

Available bins on the ward floor:

Clinical waste

- 10 bins
- P22 in each room, on wheels, always in room.

General waste

- 10 bins
- 1 small bin in each room, grey bin, black lining
- 60 litre bin at desk

Sharps bin

- 3 bins
- P22, on wheels, moved between rooms

Comment:

Recycling also generated in holding areas. No bins so items taken to dirty utility

Behaviour:

Nurses dispose of most of the waste

Doctor rarely disposes of waste

Dirty utility

Available bins:

Clinical waste

- 2 bins
- 240 litre yellow wheelie bin

General waste

- 2 bins
- 240 litre black body red lid

Commingled recycling

- 1 bin
- 240 litre green body yellow lid

Single use metal instrument

- One collection tray
- Collected by CSSD technician

Comments:

Loading Dock

Comment:

Several 660 Litre bins for emptying area waste into ready for collection

Nurse moves recycling from ward/bed to dirty utility after treating each patient)

Cleaner moves waste from dirty utility to loading dock 2x per day morning and afternoon

Waste contractors pick up waste

Ward: Pharmacy, Chemotherapy, & Renal Dialysis

Types of rooms: 16 total private rooms

Available bins on the ward floor:

Cytotoxic waste

- 10 bins
- P22 in each room, on wheels, always in room.

General waste

- 10 bins
- 1 small bin in each room, grey bin, black lining
- 60 litre bin at desk

Sharps bin

- 3 bins
- P22, on wheels, moved between rooms

Comment:

Recycling also generated in rooms. No bins so items taken to dirty utility

Behaviour:

Nurses dispose of most of the waste

Doctor rarely disposes of waste

Dirty utility

Available bins:

Cytotoxic waste

- 2 bins
- 240 litre purple wheelie bin

General waste

- 2 bins
- 240 litre black body red lid

Commingle recycling

- 1 bin
- 240 litre green body yellow lid

Single use metal instrument

- One collection tray
- Collected by CSSD technician

Comments:

Loading Dock

Comment:

Several 660 Litre bins for emptying area waste into ready for collection

Nurse moves recycling from ward/bed to dirty utility after treating each patient)

Cleaner moves waste from dirty utility to loading dock 2x per day morning and afternoon

Waste contractors pick up waste

Ward: Cafe

Types of rooms: 72m²

Available bins on the ward floor:

General waste

- 10 bins
- 1 small bin in each room, grey bin, black lining
- 60 litre bin at desk

Commingled Recycling

- 2 banks of bins for patient/customer use
- 2 240 L bins in kitchen area

Food Waste

- 2 bins in prep and cleaning areas

Comment:

Behaviour:

Patients/customer dispose of some of the waste

Staff dispose of most of the waste

Preparation/Kitchen area

Available bins:

Food Waste

- 2 bins per area
- 240 litre black body burgundy lid wheelie bin

General waste

- 2 bins
- 240 litre black body red lid

Commingled recycling

- 1 bin
- 240 litre green body yellow lid

Comments:

Loading Dock

Comment:

Several 660 Litre bins for emptying area waste into ready for collection.

Nurse moves recycling from ward/bed to dirty utility after treating each patient)

Cleaner moves waste from dirty utility to loading dock 2x per day morning and afternoon

Waste contractors pick up waste

Ward: Allied Health/consulting and Administrative areas

Types of rooms: 14 consulting rooms and 5 admin spaces

Available bins on the ward floor:

Confidential recycling

- 240L in each room, on wheels, always in room.

General waste

- 10 bins
- 1 small bin in each room, grey bin, black lining
- 60 litre bin at desk

Sharps bin (pathology room only)

- 1 bins
- P22, on wheels, moved between rooms

Comment:

Bins are not labelled

Behaviour:

Nurses dispose of most of the waste

Doctor rarely disposes of waste

Dirty utility

Available bins:

Confidential recycling waste

- 2 bins per area
- 240 litre blue wheelie bin

General waste

- 2 bins
- 240 litre black body red lid

Commingled recycling

- 1 bin
- 240 litre green body yellow lid

Comments:

Loading Dock

Comment:

Several 660 Litre bins for emptying area waste into ready for collection.

Nurse moves recycling from ward/bed to dirty utility after treating each patient)

Cleaner moved waste from dirty utility to loading dock 2x per day morning and afternoon

Waste contractors pick up waste

Transportation Noise Assessment

Vasse Day Hospital

Reference: 22077433-01

Prepared for:
Blackoak Capital

Report: 22077433-01

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Date:	Rev	Description	Prepared By	Verified
19-Jul-22	0	Issued to Client	Matthew Nolan	Matt Moyle

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A	Proposed Plans
B	Terminology

1 INTRODUCTION

Blackoak Capital is proposing to construct a private day hospital on Lot 123 and 125 in Vasse Village, Western Australia - refer *Figure 1-1*. The proposed hospital is single storey, with the plans provided in *Appendix A*.



Figure 1-1 Site Locality (PlanWA)

State Planning Policy No. 5.4 Road and Rail Noise (hereafter referred to as SPP 5.4) provides the following trigger distances:

Table 1-1 Transport Corridor Classification and Trigger Distances

Transport Corridor Classification	Trigger Distance	Distance Measured From
Strategic freight and major traffic routes Roads as defined by Perth and Peel Planning Frameworks and/or roads with either 500 or more Class 7 to 12 Austroads vehicles per day, and/or 50,000 per day traffic volume.	300 metres	Road carriageway edge
Other significant freight/traffic routes These are generally any State administered road and/or local government road identified as being a future State administered road (red road) and other roads that meets the criteria of either ≥ 100 Class 7 to 12 Austroads vehicles daily or $\geq 23,000$ daily traffic count (averaged equivalent to 25,000 vehicles passenger car units under region schemes).	200 metres	Road carriageway edge
Passenger railways	100 metres	Centreline of the closest track
Freight railways	200 metres	Centreline of the closest track

Overnight stay rooms have been identified within the hospital and are considered noise sensitive under SPP 5.4. The hospital is approximately 150-200m from Bussell Hwy ('Strategic freight and major traffic routes'), therefore a transportation noise assessment is warranted (refer Figure 1-2).

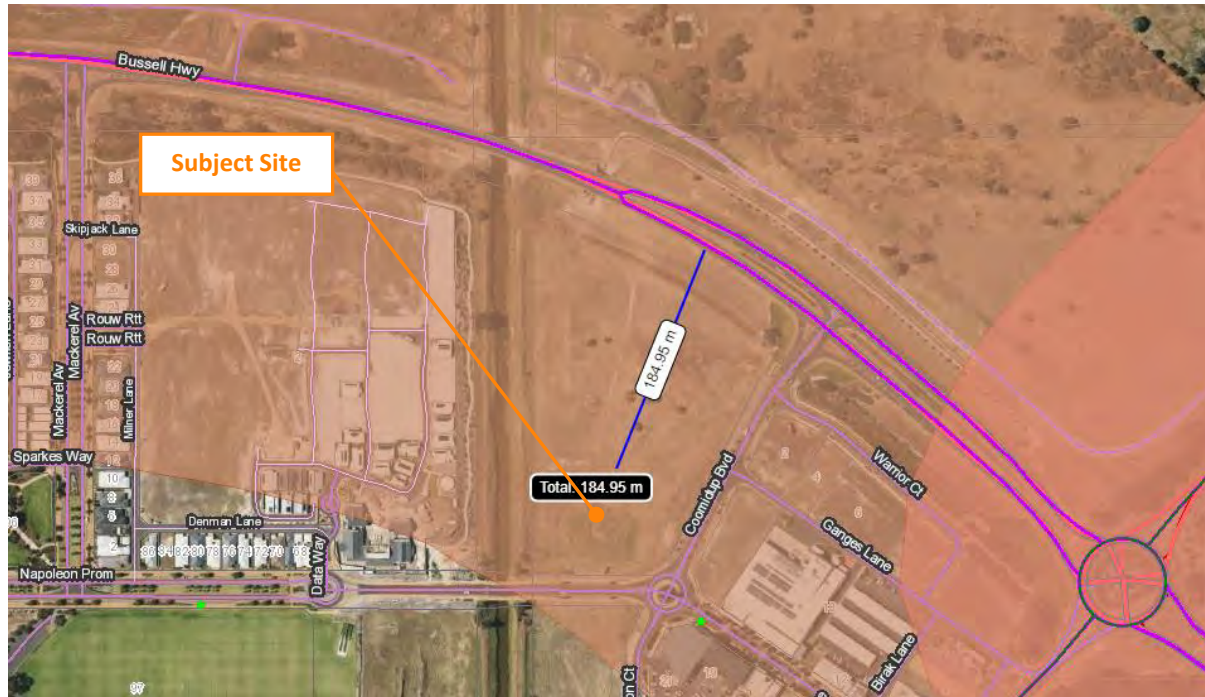


Figure 1-2 Site Locality in Relation to Road (PlanWA)

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

2 CRITERIA

The criteria relevant to this assessment is the *State Planning Policy No. 5.4 Road and Rail Noise* produced by the Western Australian Planning Commission (WAPC). The objectives of SPP 5.4 are to:

- Protect the community from unreasonable levels of transport noise;
- Protect strategic and other significant freight transport corridors from incompatible urban encroachment;
- Ensure transport infrastructure and land-use can mutually exist within urban corridors;
- Ensure that noise impacts are addressed as early as possible in the planning process; and
- Encourage best practice noise mitigation design and construction standards

Table 2-1 sets out noise targets that are to be achieved by proposals under which SPP 5.4 applies. Where the targets are exceeded, an assessment is required to determine the likely level of transport noise and management/mitigation required.

Table 2-1 Noise Targets for Noise-Sensitive Land-Use

Outdoor Noise Target		Indoor Noise Target	
55 dB $L_{Aeq}(\text{Day})$	50 dB $L_{Aeq}(\text{Night})$	40 dB $L_{Aeq}(\text{Day})$ (Living and Work Areas)	35 dB $L_{Aeq}(\text{Night})$ (Bedrooms)

Notes:

- Day period is from 6am to 10pm and night period from 10pm to 6am.
- The outdoor noise target is to be measured at 1-metre from the most exposed, habitable¹ facade of the noise sensitive building.
- For all noise-sensitive land-use and/or development, indoor noise targets for other room usages may be reasonably drawn from Table 1 of Australian Standard/New Zealand Standard AS/NZS 2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors (as amended) for each relevant time period.
- Outdoor targets are to be met at all outdoor areas as far as is reasonable and practicable to do so using the various noise mitigation measures outlined in the Guidelines.

The application of SPP 5.4 is to consider anticipated traffic volumes for the next 20 years from when the noise assessment is undertaken.

In the application of the noise targets, the objective is to achieve:

- indoor noise levels specified in *Table 2-1* in noise-sensitive areas (e.g. bedrooms and living rooms of houses and school classrooms); and
- a reasonable degree of acoustic amenity for outdoor living areas on each residential lot. For non-residential noise-sensitive developments, for example schools and childcare centres, the design of outdoor areas should take into consideration the noise target.

3 METHODOLOGY

The methodology used in this assessment is to follow the screening assessment procedure provided in *Road and Rail Noise Guidelines*. As Bussell Hwy is a total of 4 lanes, any noise sensitive area that is further than 150m from Bussell Hwy is considered to be compliant with the SPP 5.4 requirements.

Within the Vasse Day Hospital, Tenancy 2 is the only area within 150m from Bussell Hwy (refer *Figure 3-1*). It is understood that Tenancy 2 will not be used as a residence or for overnight stays, therefore it is considered not to be noise sensitive. As Tenancy 2 is not considered noise sensitive and the noise sensitive rooms within the Vasse Day Hospital are further than 150m from Bussell Hwy, the Vasse Day Hospital development is considered to be compliant with the SPP 5.4 requirements.

¹ A habitable room is defined in State Planning Policy 3.1 as a room used for normal domestic activities that includes a bedroom, living room, lounge room, music room, sitting room, television room, kitchen, dining room, sewing room, study, playroom, sunroom, gymnasium, fully enclosed swimming pool or patio.

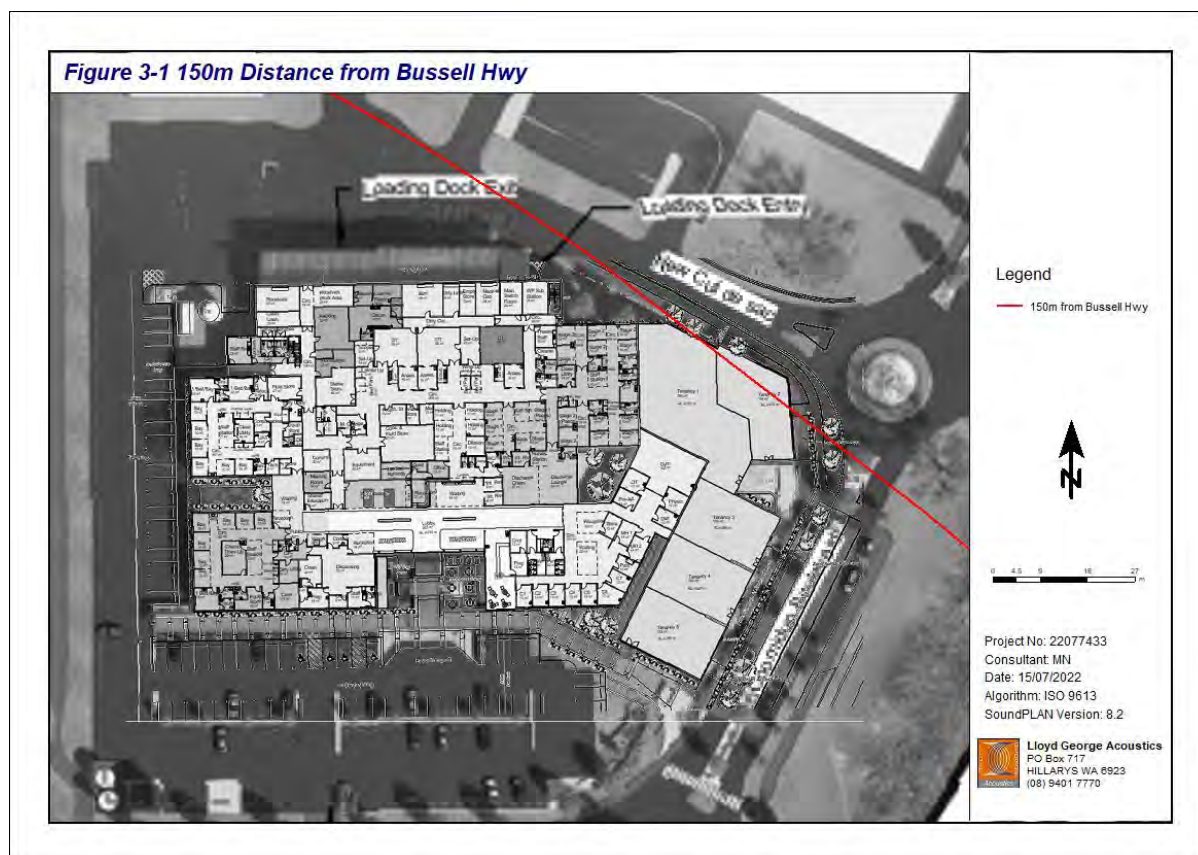


Figure 3-1 150m Distance from Bussell Hwy

Transport Corridor Classification		Number of lanes (both directions), including bus/priority lanes and entrance/exit ramps	Forecast noise exposure category based on lot distance(m) from edge of nearest main road carriageway (not entrance/exit ramps)																											
			adjacent	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250	275	300						
Strategic freight/major traffic route <ul style="list-style-type: none">• 500 or more Class 7-12 Austroads vehicles per day, or• 50,000+ vehicles per day		2 to 4 lanes	72	68	66	65	63	62	61	61	60	59	59	58	57	57	56	55	54	53	52	51	50							
		5 to 6 lanes	74	70	68	66	65	64	63	62	61	61	60	59	59	58	58	57	56	55	54	53	52							
		7 to 8 lanes	76	72	69	68	66	65	64	64	63	62	62	61	60	60	59	58	57	56	55	54	53							
		9 to 10 lanes	77	73	70	69	67	66	65	65	64	63	63	62	61	61	60	59	58	57	56	55	54							
		10 or more lanes	78	74	71	70	68	67	66	66	65	64	64	63	62	62	61	60	59	58	57	56	56							
Other significant freight / traffic routes <ul style="list-style-type: none">• Any actual or planned future State Administered Road• Local Government Roads Carrying 100 or more Class 7 – 12 Austroads vehicles/day• 25,000+ vehicles per days vehicles/day	Urban Region Scheme areas 60-80 km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	56	55	54	54	53	53	52	51	50	49	48	47							
		3 to 6 lanes	69	66	64	63	62	61	60	59	58	58	57	56	56	55	55	54	53	52	51	50	49							
	Urban Region Scheme areas 100+ km/hr	1 to 2 lanes	70	67	65	64	63	62	61	60	59	59	58	57	57	56	56	55	54	53	52	51	50							
		3 to 6 lanes	74	70	68	66	65	64	63	62	61	61	60	60	59	59	58	57	56	55	54	53	52							
	Rural areas 60-80 km/hr	1 to 2 lanes	62	59	57	56	55	54	53	52	51	51	50	49	49	48	48	46	45	44	43	42	41							
		3 to 4 lanes	66	63	61	60	59	58	56	56	55	54	53	53	52	52	51	50	49	48	47	46	45							
	Rural areas 100+ km/hr	1 to 2 lanes	67	64	62	61	60	59	58	57	56	55	54	54	53	53	52	51	50	49	48	47	46							
		3 to 4 lanes	69	66	64	63	62	61	60	59	58	57	56	56	55	55	54	53	52	51	50	49	48							

Figure 3-2 Noise Exposure Forecast from Guidelines

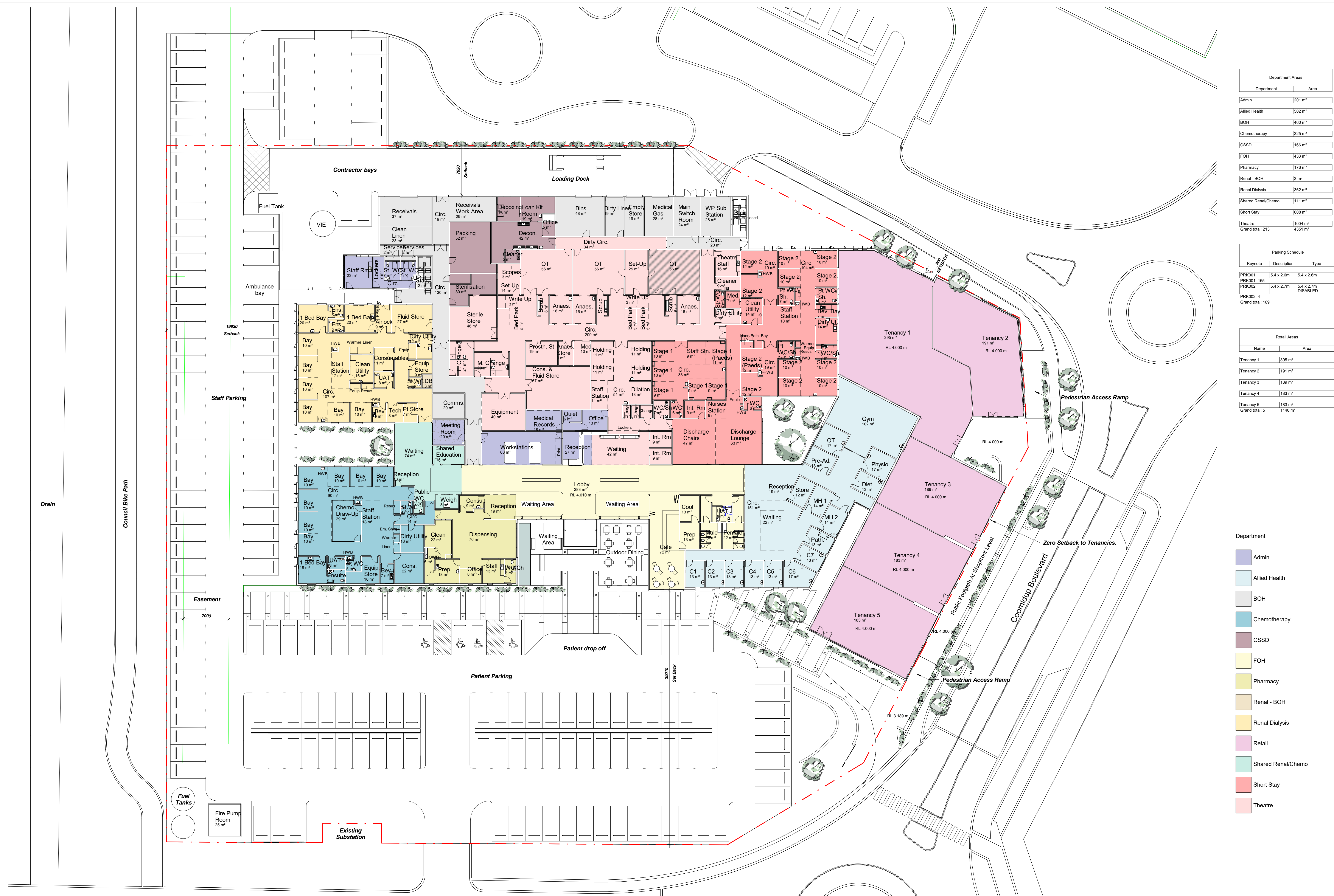
4 RESULTS

As described in *Section 3*, the noise sensitive overnight stay rooms are considered to be located in an area compliant with the outdoor noise target of SPP 5.4. As a result, no further mitigation measures are required.

Appendix A

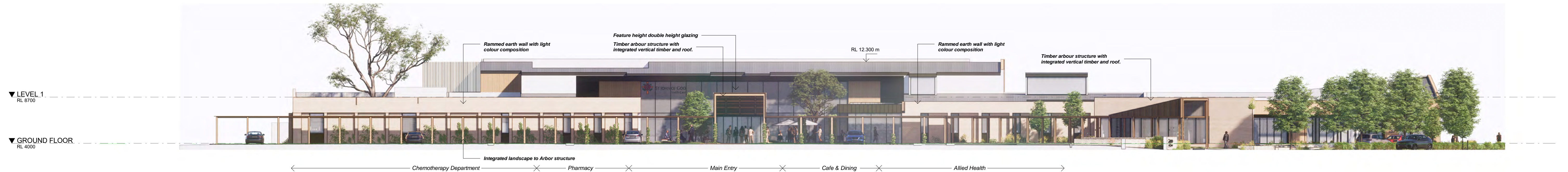
Proposed Plans







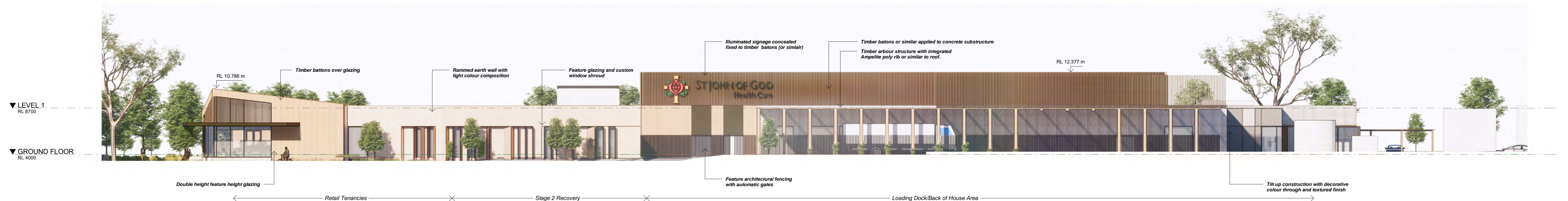
1 East Elevation
100 1 : 200



2 South Elevation
100 1 : 200



3 West Elevation
100 1 : 200



4 North Elevation
100 1 : 200

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.

L_1

An L_1 level is the noise level which is exceeded for 1 per cent of the measurement period and is considered to represent the average of the maximum noise levels measured.

L_{10}

An L_{10} level is the noise level which is exceeded for 10 per cent of the measurement period and is considered to represent the “intrusive” noise level.

L_{90}

An L_{90} level is the noise level which is exceeded for 90 per cent of the measurement period and is considered to represent the “background” noise level.

L_{eq}

The L_{eq} level represents the average noise energy during a measurement period.

$L_{A10,18hour}$

The $L_{A10,18hour}$ level is the arithmetic average of the hourly L_{A10} levels between 6.00 am and midnight. The *CoRTN* algorithms were developed to calculate this parameter.

$L_{Aeq,24hour}$

The $L_{Aeq,24hour}$ level is the logarithmic average of the hourly L_{Aeq} levels for a full day (from midnight to midnight).

$L_{Aeq,8hour} / L_{Aeq} (Night)$

The $L_{Aeq} (Night)$ level is the logarithmic average of the hourly L_{Aeq} levels from 10.00 pm to 6.00 am on the same day.

$L_{Aeq,16hour} / L_{Aeq} (Day)$

The $L_{Aeq} (Day)$ level is the logarithmic average of the hourly L_{Aeq} levels from 6.00 am to 10.00 pm on the same day. This value is typically 1-3 dB less than the $L_{A10,18hour}$.

Noise-sensitive land use and/or development

Land-uses or development occupied or designed for occupation or use for residential purposes (including dwellings, residential buildings or short-stay accommodation), caravan park, camping ground, educational establishment, child care premises, hospital, nursing home, corrective institution or place of worship.

About the Term 'Reasonable'

An assessment of reasonableness should demonstrate that efforts have been made to resolve conflicts without comprising on the need to protect noise-sensitive land-use activities. For example, have reasonable efforts been made to design, relocate or vegetate a proposed noise barrier to address community concerns about the noise barrier height? Whether a noise mitigation measure is reasonable might include consideration of:

- The noise reduction benefit provided;
- The number of people protected;
- The relative cost vs benefit of mitigation;
- Road conditions (speed and road surface) significantly differ from noise forecast table assumptions;
- Existing and future noise levels, including changes in noise levels;
- Aesthetic amenity and visual impacts;
- Compatibility with other planning policies;
- Differences between metropolitan and regional situations and whether noise modelling requirements reflect the true nature of transport movements;
- Ability and cost for mobilisation and retrieval of noise monitoring equipment in regional areas;
- Differences between Greenfield and infill development;
- Differences between freight routes and public transport routes and urban corridors;
- The impact on the operational capacity of freight routes;
- The benefits arising from the proposed development;
- Existing or planned strategies to mitigate the noise at source.

About the Term 'Practicable'

'Practicable' considerations for the purposes of the policy normally relate to the engineering aspects of the noise mitigation measures under evaluation. It is defined as "reasonably practicable having regard to, among other things, local conditions and circumstances (including costs) and to the current state of technical knowledge" (*Environmental Protection Act 1986*). These may include:

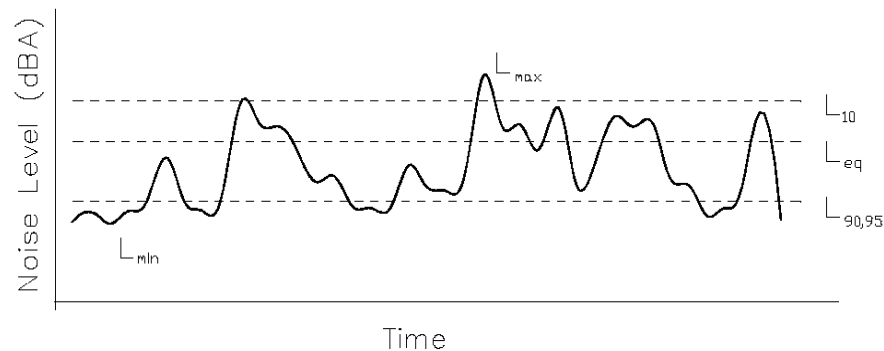
- Limitations of the different mitigation measures to reduce transport noise;
- Competing planning policies and strategies;
- Safety issues (such as impact on crash zones or restrictions on road vision);
- Topography and site constraints (such as space limitations);
- Engineering and drainage requirements;
- Access requirements (for driveways, pedestrian access and the like);
- Maintenance requirements;
- Bushfire resistance or BAL ratings;
- Suitability of the building for acoustic treatments.

R_w

This is the weighted sound reduction index and is similar to the previously used STC (Sound Transmission Class) value. It is a single number rating determined by moving a grading curve in integral steps against the laboratory measured transmission loss until the sum of the deficiencies at each one-third-octave band, between 100 Hz and 3.15 kHz, does not exceed 32 dB. The higher the R_w value, the better the acoustic performance.

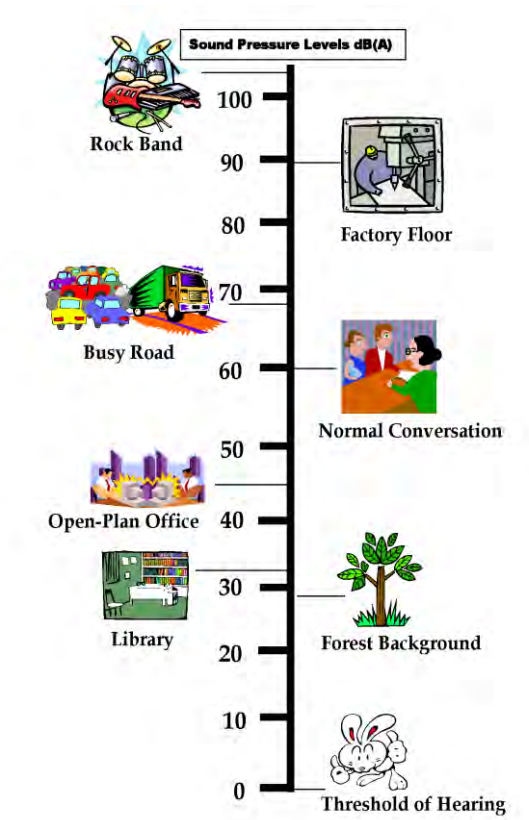
C_{tr}

This is a spectrum adaptation term for airborne noise and provides a correction to the R_w value to suit source sounds with significant low frequency content such as road traffic or home theatre systems. A wall that provides a relatively high level of low frequency attenuation (i.e. masonry) may have a value in the order of -4 dB, whilst a wall with relatively poor attenuation at low frequencies (i.e. stud wall) may have a value in the order of -14 dB.

Chart of Noise Level Descriptors**Austroads Vehicle Class**

VEHICLE CLASSIFICATION SYSTEM AUSTROADS	
CLASS	LIGHT VEHICLES
1	SHORT Car, Van, Wagon, 4WD, Utility, Bicycle, Motorcycle
2	SHORT - TOWING Trailer, Caravan, Boat
HEAVY VEHICLES	
3	TWO AXLE TRUCK OR BUS *2 axle
4	THREE AXLE TRUCK OR BUS *3 axle, 2 axle groups
5	FOUR (or FIVE) AXLE TRUCK *4 (5) axle, 2 axle groups
6	THREE AXLE ARTICULATED *3 axle, 3 axle groups
7	FOUR AXLE ARTICULATED *4 axle, 3 or 4 axle groups
8	FIVE AXLE ARTICULATED *5 axle, 3+ axle groups
9	SIX AXLE ARTICULATED *6 axle, 3+ axle groups or 7+ axle, 3 axle groups
LONG VEHICLES AND ROAD TRAINS	
10	8 DOUBLE or HEAVY TRUCK and TRAILER *7+ axle, 4 axle groups
11	DOUBLE ROAD TRAIN *7+ axle, 5 or 6 axle groups
12	TRIPLE ROAD TRAIN *7+ axle, 7+ axle groups

Typical Noise Levels



City of Busselton Design Review 1	
Project	Vasse Day Hospital Corner of Napoleon Promenade and Coomidup Boulevard Vasse
Review Purpose	Consideration of pre DA scheme – 1st design review
Review Date	26 July 2022
Planning Control	City of Busselton
Reviewer	Craig Smith
In Attendance	<p><i>Zoom Meeting Participants</i></p> <p>At City of Busselton Andrew Watts City of Busselton Paul Needham City of Busselton</p> <p>On line Jack Harding St John of God Bunbury</p> <p>Hames Sharley Office, Perth: Craig Smith Craig Smith Architect Andrew Tang Smith HSA Chris White HSA Phillip Parker HSA David Zimmerman Blackoak Capital Tim Mack Blackoak Capital Drew Scott Blackoak Capital Tim Parker Hatch RobertsDay Daniel Pearce Hatch RobertsDay</p>

Overview

This review is based on the presentations, documents issued by Hames Sharley dated 6 July 2022 and two Hatch RobertsDay attachments, the Request to Initiate Design Review Process dated 7 July 2022 and the minutes of a meeting with Lee Reddell and Andrew Watts dated 15 July. The project has yet to be submitted for Development Approval and this review takes into account that the plans are not yet fully developed. The proponent may seek clarification from Council, in writing, of any aspect of this review.

The proposed development is a very significant project for Vasse that will provide expanded medical services to a substantial area of the south west.

While no planning report has been issued to date the July 15 meeting covered many of the planning issues.

David Zimmerman commenced the review by providing the background to the project including funding arrangement and the development of the site planning and the evolution of the design brief.

Hames Sharley principal, Andrew Tang Smith provided the presentation on the building.

Siting

The siting of the building was driven by the following criteria:

- Legibility of the entry and user comfort.
- Parking location and provision,
- 100 year floodplain requirement for hospital buildings,
- Separation of service areas,
- Street frontage to lease tenancies
- Operation of neighbouring properties (notably the market to the north and supermarket to the east)
- Pedestrian access and safety.

The site is a former wetland, modified by the construction of the adjacent main drain in the 1920s.

The drain and the railway infrastructure form a cruciform geometry in the vicinity of the site which is central to the growth area of Vasse

The siting adjacent to a roundabout defines the main approaches to the site, for both vehicles and pedestrians. The commercial tenancies are clearly visible from the north east.

Design Influences

The team looked for design influence in traditional and recent buildings of the region, including commercial buildings with public access, such as wineries.

The resulting design criteria included:

- Inviting/ welcoming
- Local materials / earthy and tactile / timber and rammed earth
- Authentic
- Connection to water

To these influences, the values of St John of God were added, including;

- Hospitality
- Compassion
- Respect
- Justice
- Excellence

These were applied in respect to the health and wellbeing of patients and staff alike and the environmental sustainability of the project. The project has been designed for comfort, to be non-institutional, where possible and light, green and sustainable.

Clear wayfinding was considered for the approaches to the main entry by the use of raised entry elements and a pedestrian friendly arbor.

The movement from arrival through the building includes transitional spaces with both natural and mechanical ventilation. A 4-5 Green Star rating is being pursued for the building.

The building is essentially single storey, with a substantial plant room over the theaters providing a different scale to the north elevation.

The design approach was to create a building that met all the design criteria by means of a series of pavilions with a varied rooflines and “pockets of nature” in courtyards and recessed garden spaces. This has been carried out successfully with most of the treatment rooms, consulting and office spaces having access to natural light. There is privacy planting in front of some of these spaces and between rooms that face each other across courtyards. Mr. Harding confirmed that appropriate maintenance of the arbor and other planting would be undertaken by St John of God.

Only the theatres and some clinical areas take on the form more associated with internalised hospital functions. This is an acceptable outcome.

Future expansion is catered for by only two of the three theaters being commission initially and the capacity to use part or all of the tenancy spaces if and as required.

While the building has been designed to have visibility from the highway, it is Council's intent to provide shielding planting to both the highway and the main drain. The separation of the service areas to the north provides a very clear differentiation of the back of house functions from the publically accessible areas.

The presentation was followed by a discussion about access and footpaths to the east and south.

Further, the question of the proposed crosswalk and use of the narrow footpath to the south was raised as an item to be resolved with Council. A crosswalk is unlikely to be warranted.

Comments & Recommendations

Building

- The project is appropriately located.
- The siting of the building should provide clarity from both roads and the roundabout.
- The layout of the building is efficient and the design is largely well resolved.
- The quality of external materials is not yet clearly resolved, despite discussion on the subject. These should be committed in the DA submission.
- The raised floor level is a practical solution to future hospital uses but has led to access issues.
- The inclusion of extra land to simplify servicing is supported.
- Confirmation of an actual Green Star target should be made.
- The main building entry is ideally located and protection from the weather has been considered.
- Wind mitigation has also been considered at the main entry, though opportunities exist to further improve this aspect of the design and the outdoor spaces associated with the café.
- Public art should be considered.
- The relationship of the proposal to nearby buildings should be explained in the DA report.
- The 3D renders provide clear indication of the intent.
- The sectional drawings demonstrate the intent for access to natural light within the building.
- The interiors of this project will be crucial to its success. Detailed layouts are required to assess the quality and amenity of the interior design.
- Whilst located, the layout of mechanical and fire services is yet to be provided.
- Access provisions for the building appear to have been well considered.
- A PV array as noted in the presentation would work for this building.

Exterior and servicing

- The areas external to the site need further attention. The solution to the footpath to the east lacks the attention to user comforts that are applied to the building. The need to maintain the 4.110m floodplain floor level to all the leasable tenancies, for future incorporation into the hospital, has produced a less than satisfactory use of the area available for footpath in the road reserve. The level transition should be addressed on the site rather than in the road reserve.
- A review of the difference in scale of the entry elements and the domestic scale of the arbor walkways might be considered.
- The visual impact of the raised carpark at the roundabout should be minimised.
- Attention to successful execution of screen planting should be demonstrated.
- Dimensioned parking layouts are required and traffic impact resolved with Council.
- Safety for pedestrians in and around the site should be reviewed.
- Servicing appears safe with separate access. Safety provisions for this area should be provided.
- Bin Store/Collection waste management plan to be to Council standards.

- Landscaping requires further detail and commitment as the material palette does not, as yet, commit to design outcomes.
- An indication of any landscaping that is to be undertaken outside the site should be in the DA proposal.
- Signage has not been considered at this stage.




Conclusion











Even in its pre-DA form the design demonstrates a clear and successful resolution of the building, parking and servicing resulting in little need for change, with the reservation that further development of the brief may still occur and work is required on the footpaths.

This report provides comment on the 10 Design WA criteria. Not all items are fully supported. This is an indication of the preliminary nature of the plans which are well developed for this stage, but there are no items classified as not supported.

Summary evaluation against SPP7.0

The concept proposal was considered against the good design principles set out in SPP7.0 *Design of the Built Environment* and the following summary evaluation made.

Design Review Progress		
	Supported	 Pending further attention  Not supported

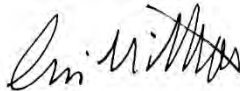
Good Design Principles	Design Review 1	
1: Context and character		Generally supported.
2: Landscape quality		Insufficient detail to provide full support at this stage, however, the stated intent should lead to a successful outcome.
3: Built form and scale		The scale is supported. Development of the external form of the building and commitment to materials and finished should provide further improvement.
4: Functionality and build quality		Whilst options and cost are still being considered the build to rent model should drive the use of low maintenance and high quality materials. The provisional material selections are supported.
5: Sustainability		The stated level is encouraging, but commitment is required to confirm.
6: Amenity		The general arrangement of the plan and the functions included in the building are acceptable, footpaths excepted.
7: Legibility		Primary image of building on the more public SE and NE corners is supported
8: Safety		Attention has been applied to the fundamentals of creating a safe and efficient building; further detail is required on egress and servicing.
9: Community		The project has the capacity to provide substantial, staff, user and community benefit.
10: Aesthetics		The general approach to design and the execution are supported.

Notes on Good Design Ratings

A Pending item may vary from a simple variation to a substantial change to an otherwise acceptable concept. Supported items may still require minor change or development.

Whilst further development and revisions are recommended in a number of areas, the project is well developed at this stage and is unlikely to require substantial change prior to submission of the Development Application.

Design Reviewer

A handwritten signature in black ink, appearing to read 'Craig Smith', is positioned above the printed name.

Date 27/07/2022

Craig Smith, Principal Craig Smith Architect

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No.	NAME	NATURE OF SUBMISSION
External Agencies		
1.	Department of Water and Environmental Regulation	<p>It is noted that the subject land is contained within the draft <i>Vasse Village Precinct Structure Plan</i> (Rev 1, dated 1/2/2022), which was reviewed by the Department (our ref: PA 047528).</p> <p>The Department has identified that the proposal has the potential for impact on the environment and water resource values. Key issues and recommendations are provided below and these matters should be addressed:</p> <p>Issue 1: Stormwater and groundwater management</p> <ul style="list-style-type: none"> • Advice 1: The stormwater design consider the approved <i>Vasse Newtown, Town Centre Stage 1 UWMP, September 2014 (Version J5347e, dated 02/10/14)</i>, in particular: <ul style="list-style-type: none"> ○ consideration of the discharge from Stage 2 (i.e. subject Lot 9556) ○ ensuring stormwater modelling parametrisation and controls matches that of this approved UWMP (to avoid unintended cumulative impacts that may result in the off-site discharges that exceed the capacity of downstream infrastructure , potentially resulting in localised flooding) ○ consideration of groundwater levels <p>Issue 2: The requirements of <i>State Planning Policy 2.6</i> require consideration</p> <ul style="list-style-type: none"> • Advice 2: The proponent is advised to consult with the City with regards to site and finished floor levels in context of storm surge and sea level rise and any potential risk of a breach in the spoil heaps flanking the Buayanyup River <p>Issue 3: Potential impacts from the disturbance of acid sulphate soils</p> <ul style="list-style-type: none"> • Advice 3: The proponent refer to DWER's acid sulfate soil guidelines for information to assist with the management of ground disturbing works at: https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines

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No.	NAME	NATURE OF SUBMISSION						
		<p>Issue 4: Fit-for-purpose water supply (groundwater)</p> <ul style="list-style-type: none"> Advice 4: The proponent is to confirm if a fit-for-purpose water supply (groundwater) is required, noting that the take of groundwater is subject to licensing under the <i>Rights in Water and Irrigation Act 1914</i> <p>Issue 5: Buayanup River</p> <ul style="list-style-type: none"> Advice 5: Care to be taken during the construction process to ensure that there is no sediment transport to the Buayanup River during major storm events <p>Table 1 - Department of Water and Environmental Regulation detailed comments on DA22/0610</p> <table> <tr> <th>Item No.</th><th>Ref</th><th>Reviewer comment/advice</th></tr> <tr> <td>1</td><td>N/A</td><td> <p>Issue 1: Stormwater and groundwater management</p> <p>Advice 1: The stormwater design consider the approved <i>Vasse Newtown, Town Centre Stage 1 UWMP, September 2014 (Version J5347e, dated 02/10/14)</i>, in particular:</p> <ul style="list-style-type: none"> consideration of the discharge from Stage 2 (i.e. subject Lot 9556) ensuring stormwater modelling parametrisation and controls matches that of this approved UWMP (to avoid unintended cumulative impacts that may result in the off-site discharges that exceed the capacity of downstream infrastructure , potentially resulting in localised flooding) consideration of groundwater levels <p>Discussion 1:</p> </td></tr> </table>	Item No.	Ref	Reviewer comment/advice	1	N/A	<p>Issue 1: Stormwater and groundwater management</p> <p>Advice 1: The stormwater design consider the approved <i>Vasse Newtown, Town Centre Stage 1 UWMP, September 2014 (Version J5347e, dated 02/10/14)</i>, in particular:</p> <ul style="list-style-type: none"> consideration of the discharge from Stage 2 (i.e. subject Lot 9556) ensuring stormwater modelling parametrisation and controls matches that of this approved UWMP (to avoid unintended cumulative impacts that may result in the off-site discharges that exceed the capacity of downstream infrastructure , potentially resulting in localised flooding) consideration of groundwater levels <p>Discussion 1:</p>
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No.	NAME	NATURE OF SUBMISSION		
				<p>The <i>Vasse Day Hospital – Landscape DA Report</i> (by emerge, Rev A, dated: 19 Aug 2022) states:</p> <ul style="list-style-type: none"> “The hospital car park wraps the building to the south and west. Parking bays paved in permeable pavers are proposed to capture and treat stormwater runoff” <p>The <i>Vasse Day Hospital Development Application</i> (by emerge, dated: 2022) states:</p> <ul style="list-style-type: none"> “A Stormwater Management Plan prepared by JDA Consultant Hydrologists providing hydrological advice to support development of Vasse Village 2A. This aligns with The City’s Local Planning Policy 6.1 Stormwater Management (LPP 6.1) in requiring all lots retain 1m3 per 65m2 of initial runoff prior to discharging into the City’s stormwater system. This is summarised in Appendix I – Civil Design Report.” <p>The <i>Blackoak Capital Ventures Pty Ltd - Vasse Day Hospital Sustainability Services</i> (by Norman Disney & young, doc: rp220815p0009, Rev: 1.0 – DA, dated: 23 August 2022) states:</p> <ul style="list-style-type: none"> “Minimise potable water consumption through specification of water-efficient fixtures and controls. Landscaping plants have been selected as predominantly native and suited to the local climate, with minimal ongoing irrigation requirements. Stormwater will be retained onsite via retention and treated via bioswales. The specification of rainwater harvesting will be reviewed in detailed design.” “All stormwater runoff generated will be retained on site. The landscaping design will ensure stormwater runoff is treated via retention through the use of bioswales on site, minimising the stormwater outflows from the site. The stormwater strategy will be further

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				<p>developed in detailed design and will be considered in conjunction with opportunities for rainwater harvesting.”</p> <p>As DWER has not been provided with the Stormwater Management Plan (as referred to in the above statements to be contained within ‘Appendix I – Civil Design Report’, we are unable to provide comment on the Stormwater Management Plan.</p> <p>DWER advises the approved <i>Vasse Newtown, Town Centre Stage 1 UWMP, September 2014 (Version J5347e, dated 02/10/14)</i> included consideration of the discharge from Stage 2 (i.e. subject Lot 9556).</p> <p>As such, the stormwater design for this development must be cognisant of the approved UWMP. It is recommended that the stormwater modelling parametrisation and controls matches that of the approved UWMP, to avoid unintended cumulative impacts that may result in the off-site discharges that exceed the capacity of downstream infrastructure, potentially resulting in localised flooding.</p> <p>No information has been provided in regards to the highest groundwater, which can impact the ability of stormwater infiltration infrastructure (such as soakwells and bioswales proposed) to perform adequately.</p> <p>The department notes that the subject land is classified as a ‘Multiple Use Palusplain which is indicative of a high water table.</p> <p>As such, in the event there is an insufficient separation between the soakwells/bioswales and groundwater, the performance of these can be impacted.</p>
		2	N/A	Issue 2: The requirements of <i>State Planning Policy 2.6</i> require consideration

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No.	NAME	NATURE OF SUBMISSION		
				<p>Advice 2: The proponent is advised to consult with the City with regards to site and finished floor levels in context of storm surge and sea level rise and any potential risk of a breach in the spoil heaps flanking the Buayanyup River</p> <p>Discussion 2: The subject land is located in the vicinity of the Buayanyup River. It should be noted that the spoil heaps flanking the Buayanyup River are not managed as levy banks.</p> <p>Due to the connectivity of the Buayanyup River to the ocean and the coastal location of the proposal, this development is subject to major coastal flooding (e.g. storm surge), particularly if there is a breach of the spoil heaps flanking this waterway.</p> <p>As such, the site finished floor level (FFL) should take into account storm surge and sea level rise as per State Planning Policy 2.6.</p>
		3	N/A	<p>Issue 3: Potential impacts from the disturbance of acid sulphate soils</p> <p>Advice 3: The proponent refer to DWER's acid sulfate soil guidelines for information to assist with the management of ground disturbing works at: https://www.der.wa.gov.au/your-environment/acid-sulfate-soils/69-acidsulfatesoils-guidelines</p> <p>Discussion 3: Acid sulfate soils (ASS) risk mapping shows that the site is located within an area identified as having a moderate to low risk of ASS occurring within 3 metres of the natural soil surface. DWER advises that an ASS related condition is not considered necessary in this instance. However, the above advice is recommended to be applied to the relevant approval.</p>
		4	N/A	<p>Issue 4: Fit-for-purpose water supply (groundwater)</p>

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				<p>Advice 4: The proponent is to confirm if a fit-for-purpose water supply (groundwater) is required, noting that the take of groundwater is subject to licensing under the <i>Rights in Water and Irrigation Act 1914</i></p> <p>Discussion 4: No information has been provided in the referral if the use of groundwater as part of the fit-for-purpose water supply is proposed, such as for landscaping – noting the statement in the <i>Vasse Day Hospital – Landscape DA Report</i> (by emerge, Rev A, dated: 19 Aug 2022):</p> <ul style="list-style-type: none"> “Proposed irrigation on will be dripline irrigation on installed under the mulch layer to efficiently deliver water and minimise evaporation. The water supply will be a combination of mains water, grey water re-use and stormwater capture.”
		5	N/A	<p>Issue 5: Buayanup River</p> <p>Advice 5: Care to be taken during the construction process to ensure that there is no sediment transport to the Buayanup River during major storm events</p> <p>Discussion 5: Due to the proximity of the Buayanup River to the proposal, there is a risk that sediment may be transported into this waterway via sheet flow during major storm events resulting in turbidity and sedimentation.</p>
2.	Water Corporation	<p>The buildings can be provided with a sewer service by connection to or extension from the existing sewerage network on Napoleon Promenade.</p> <p>The building will need to be adequately setback from the 375mm diameter collector sewer that is contained within an easement inside the western boundary of the development site. At the building licence stage, the proponent will be required to submit their building plans through the Corporation’s Buildernet system to obtain an approval.</p>		

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3.	Main Roads WA - Traffic	<p>Main Roads is not supportive of the proposed development given several deficiencies in the traffic analysis report which accompanied the planning proposal.</p> <p>Main Roads has previously expressed concerns with the planning approach to Precinct 2A/Stage 2 of the Village Centre and the lack of appropriate consideration for anticipated transportation impacts on the Bussell Highway / Coomidup Boulevard junction, in particular anticipated land requirements for future road widening on the Coomidup Boulevard side of the Bussell Highway / Coomidup Boulevard junction.</p> <p>In this regard, previous traffic modelling and analysis associated with the recently approved Bunbury Farmers Market for Vasse Newtown, and the subsequent/associated subdivision and structure plan amendment applications have failed to appropriately investigate and address the 'interim' and 'ultimate'/longer term network planning requirements for the Bussell Highway / Coomidup Boulevard junction. Attached is previous comments from Main Roads to the City and the WAPC in relation to recent planning proposal in this precinct, which have highlighted various issues and deficiencies in traffic modelling (forecasting requirements, growth rates, trip generation, peak assessments etc.) parking provision and servicing requirements/heavy vehicle access constraints and recommended changes to the local road/movement network to accommodate anticipated traffic demands for the local and Main Roads network. Importantly, traffic analysis to date appears to have reduce trip generation figures for the village centre as opposed to appropriately increasing trip generation in line with the actual expansion in commercial floor areas and further development of the village centre.</p> <p>It is noted that the latest traffic analysis report prepared in support of the proposal excludes further analysis of the Bussell Highway / Coomidup Boulevard junction and Main Roads contends that the 'Day Hospital' facility/primary land use would have a broader regional catchment area, similar to other such facilities in the State, and the majority of trips generated would be from the external population/patient catchment via the Bussell Highway / Coomidup Boulevard junction as this comprises the nearest and most direct route to the development location from the external Main Roads regional network. It is also noted that the traffic analysis still includes a full movement intersection at the Coomidup Boulevard / Warrior Court junction and it is understood that the City has supported a previous recommendation to convert this intersection to a LIFO configuration. If applicable, traffic</p>

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		<p>distribution in the modelling should be amended to divert all traffic/trips to the planned roundabout junction at Ganges Lane.</p> <p>It is recommended that the traffic analysis be reviewed in line with previous Main Roads comments (attached) issued for planning proposals in Precinct 2/Stage 2 and further analysis be undertaken for the Bussell Highway / Coomidup Boulevard junction to determine transportation impacts on the junction and potential requirements for upgrading.</p> <p>It is noted that a new vehicle access is proposed onto Napoleon Promenade. It is recommended that vehicle sight lines to the west be reviewed, given the changing (vertical) road geometry to the west over the drain to ensure that appropriate vehicle sight line requirements and level of traffic safety would be maintained.</p>
Public Submissions - Supports		
1.	C Don Dunsborough	I have a 5 year old boy and it will be very beneficial to have a hospital in Vasse, so we don't have to travel into Busselton.
2.	R Randles Vasse	We are interested in securing one of the commercial tenancies as our organisation is at growth stage. We are unable to grow in our current tenancy and there are limited options in the Vasse Village currently. We are in our 4th year of business and have an established client base.
3.	J Kehoe Vasse	My employers are interested in securing one of the commercial tenancies as our organisation is at growth stage and there is extensive demand for more psychologists in the area. We are unable to grow in our current tenancy and there are limited options in the Vasse Village currently. We are in our 4th year of business and have an established client base.
4.	T Hischer Kealy	Needed services for the community
5.	K Chapman Kealy	Good for the community.
6.	A Feary Busselton	This would be a fantastic addition for the South West, would help with travel as we currently have to drive to Bunbury.
7.	L Beard Kealy	Great for our community and eases pressure on Busselton Hospital. Also good job prospects for local nurses and surgeons.

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8.	J Palk Kealy	I think it is an excellent addition to a growing town.
9.	B Trigwell Vasse	Will be a great addition to Vasse and save so many people travelling to Bunbury.
10.	L Perry Kealy	Good for the community.
11	L Cocco Vasse	Vasse is perfectly located in between the three main towns down south.
12.	R Hill Kealy	Hoping the wait time won't be as long as Bunbury and closer for patients. Would be great if there was Specialist rooms, we really need more Specialists instead of having to go to Perth.
13.	Planned Focus on behalf of GDH Enterprises	<p>I represent GDH Enterprises Pty Ltd, who recently gained similar DAP approval to develop the Vasse by Bunbury Farmers Market opposite (DAP21- 02138 / RJDAP 50 22 March 2022).</p> <p>The proposed Day Hospital is a welcome addition to Vasse Village and my client is very supportive of this development.</p> <p>Vasse by Bunbury Farmers Market went to considerable lengths in their development, firmly encouraged by the City of Busselton, to integrate their development and site layout with the streetscape, ensuring an active street frontage and interface.</p> <p>This was with aim to encourage safe, comfortable pedestrian movement and outdoor activity in this part of the Vasse Village, as well as connection along Coomidup Boulevard, linking to the primary main street activity on Napoleon Promenade.</p> <p>This primary corner within the Vasse by Bunbury Farmers Market development includes a large nature play area that will be available to the community and visitors, not just Farmers Market customers. This area has been designed for high activity, and to seamlessly blend with the public streetscape. The open, fully glazed, south facing front elevation of the Vasse by Bunbury Farmers Market building is a statement, and views are achieved from the outside into the building and vice versa.</p>

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		<p>By contrast, and perhaps opportunity to improve, the Day Hospital is more closed off to both the Coomidup and cul-de-sac street frontages, and the northern aspect the site enjoys. There is limited glazing and setbacks, particularly facing north towards the Farmers Market. The loading bay area of the Day Hospital was anticipated to be positioned more towards the rear of the hospital, on the western side, rather than alongside the Farmers Market. This impost should be offset. Whilst the traffic arrangement appears to work, views into the back, operational area of the</p> <p>hospital, which does angle towards and is visible from the main street thoroughfare of Coomidup Boulevard, as well as the primary entrance and nature play area of the Farmers Market, compels further careful design and treatment.</p> <p>The Emerge concept does not provide a lot of detail and the elevations are at a broad scale for the north and east façade / street interface areas.</p> <p>In this context, and although the architectural quality is demonstrably high, the rest of the northern elevation of the building, how it wraps around towards the east and how it works with the Coomidup Boulevard main street pedestrian thoroughfare, may also compel refinement.</p> <p>My client would appreciate exploring these issues further, if not gaining additional reassurance from the applicant about the relationship between these two important developments in this area of the Vasse Village.</p>