



ATTACHMENTS

Development and Infrastructure Services Committee Meeting

10 March 2021

6.00pm

City of Albany Council Chambers

TABLE OF CONTENTS

Report No.	Description	Page No.
DIS252	Planning Assessment Report	1
	Certificate of Title	34
	Plans	36
	Environmental EME Report	41
	EPBC Act Protected Matters Report	43
	Schedule of Submission	53
	Applicant response to submissions	63
DIS253	Plans	72
	Schedule of Submissions	78
	Planning Report	125

PLANNING ASSESSMENT REPORT

Development Application for

The installation of a Telecommunications Facility at

32 Allerton Street, Robinson WA 6330

Lot 141 on Plan 192052

Document prepared by Visionstream Pty Ltd

On behalf of Telstra Corporation Ltd

Project Name: Albany Robinson

Project No.: WA07310.02

August 2020





Contents

Document Control	2
1.0 Executive Summary	3
1.1 Site and Proposal Details.....	3
1.2 Applicant Details	3
2.0 Introduction	4
3.0 Proposed Scope of Works	4
4.0 Purpose of the Proposal.....	4
5.0 Mobile Telecommunications Networks.....	5
6.0 Site Selection Process	5
7.0 Candidate Sites	6
7.1 Nominated Candidate	9
7.2 The Site.....	10
8.0 Federal Regulatory Framework	10
8.1 Telecommunications Act 1997	11
8.2 Telecommunications (Low-impact Facilities) Determination 2018.....	11
8.3 Communications Alliance Ltd. Code C564: 2018 Industry Code – Mobile Phone Base Station Deployment	11
9.0 State Regulatory Framework.....	12
9.1 Planning and Development Act 2005	12
9.2 Statement of Planning Policy No. 5.2 - Telecommunications Infrastructures (WAPC) ...	12
10.0 Local Regulatory Framework	17
10.1 The City of Albany Local Planning Scheme No. 1	17
11.0 General Provisions.....	18
11.1 Visual Impacts.....	18
11.2 Heritage.....	19
11.3 Flora and Fauna.....	19
11.4 Traffic	19
11.5 Access	19
11.6 Utilities.....	20
11.7 Construction.....	20
11.8 Bushfire	20
12.0 Conclusion	24
Appendix A - Certificate of Title	26
Appendix B - Plans of the Proposal	27
Appendix C - Environmental EME Report.....	28
Appendix D - Site Photographs	29
Appendix E - Environment Analysis Report (EPBC)	32

Document Control

This Development Application is prepared by:

Visionstream Australia Pty Ltd

ABN 85 093 384 680

Postal Address:

20 Corporate Drive

Heatherton VIC 3202

T (03) 8547 7803

W www.visionstream.com.au

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1.0 Executive Summary

1.1 Site and Proposal Details

Address of Site	32 Allerton Street, Robinson WA 6330
Legal Property Description	Lot 141 on Plan 192052
Local Authority	City of Albany
Planning Instrument	City of Albany LPS No. 1
Zone and Overlay	General Industry
Use	Telecommunications Facility
Owner	JAMES QUINLAN and KERRY QUINLAN

1.2 Applicant Details

Applicant	Telstra Corporation Limited ABN 051 775 556 C/- Visionstream Pty Ltd	
Contact Person	Clinton Northey	0439 180 205 clinton.northey@visionstream.com.au
Our Reference	WA07310.02	

2.0 Introduction

This report has been prepared by Visionstream on behalf of Telstra as supporting information to a Planning Permit Application for the installation of a 41.26m high telecommunications facility at 32 Allerton Street, Robinson WA 6330, which is more formally known as Lot 141 on Plan 192052.

Refer to Appendix 1 for Title details

All mobile phone network operators are bound by the operational provisions of the federal *Telecommunications Act 1997* ("The Act") and the *Telecommunications Code of Practice 2018*. The *Telecommunications (Low-Impact Facilities) Determination 2018* allows for the upgrade of existing mobile phone network infrastructure without the consent of a relevant statutory authority.

In this instance the proposed development does not comply as a "Low Impact facility" under the definitions contained in the Commonwealth legislation. Therefore, it is subject to the provisions of the *WA Planning and Development Act 2005* and the provisions of the City of Albany's *Local Planning Scheme No. 1*.

3.0 Proposed Scope of Works

The proposal is inclusive of the following scope of works:

- Installation of one (1) 40m high monopole;
- Installation of one (1) triangular headframe;
- Installation of nine (9) new panel antennas (no greater than 2.8m in length);
- Installation of one (1) Telstra Equipment Shelter that is not more than 3m high with a base area of not more than 7.5m² at the base of the aforementioned tower;
- Installation of associated ancillary cabling and equipment;
- Installation of 8m by 9m chain-link fence with a 3m wide gate.

Refer to Plans attached in Appendix B for further details.

4.0 Purpose of the Proposal

The current proposal will form part of Telstra's 4GX network solution to the Robinson locality and will help to make Robinson and the greater Albany region 5G ready. It will deliver essential mobile services (voice calling, SMS), as well as live video calling, video-based content including; news, finance and sports highlights, and high-speed wireless internet – wireless broadband. With a coverage footprint of more than 2.1 million square kilometers and covering more than 99% of the Australian population. Telstra's 4GX is Australia's largest and fastest national mobile broadband network and as such requires more network facilities, located closer together to ensure a high-quality signal strength to achieve reliable service and the fastest possible data transfer rates.

By way of a background:

Mobile phones and mobile broadband devices continue to play an important role in the lives of Australians. This includes providing the fundamental ability to be in contact with family and friends, operating businesses more efficiently and effectively as well as dialling triple 0 during a natural disaster or other emergency.

Because of the ever-growing demand for more data and better reception, mobile phone carriers such as Telstra continually have to upgrade and expand mobile phone networks to increase capacity, to eliminate coverage blackspots and to keep up with the demands and expectations placed upon them by the community.

Recently people trying to access the network in Robinson have notified Telstra of the need to improve the network and enhance the indoor coverage, a problem which is due to the increasing demands placed upon the existing network by mobile phone users, especially during peak periods.

As the incumbent telco Telstra knows how important access to modern telecommunications infrastructure is and in order to remedy the lack of mobile phone capacity and in building coverage in the aforementioned area Telstra wishes to establish a new mobile telecommunications base station facility at 32 Allerton Street, Robinson.

5.0 Mobile Telecommunications Networks

A mobile telecommunications network is made up of multiple base stations covering a geographic area. They work by sending and receiving radio signals from their antennas to mobile phones and other mobile devices such as tablet computers, wireless dongles etc. Base stations are designed to provide service to the area immediately surrounding the base station which can be up to several kilometers in distance. Depending on the technical objectives of a base station, the physical characteristics of each telecommunications facility; such as its height, number and size of antennas, equipment, cabling etc will vary.

As a general rule, the higher the antennas of a base station the greater the range of coverage and the ability to relieve capacity issues. If this height is compromised then additional facilities, and thus more infrastructure, will be required for any given locality. The further a facility is located away from its technically optimum position the greater the compromise of the service. This may result in capacity and coverage problems and require additional or taller base stations to provide adequate service.

Each base station transmits and receives signals to and from mobile devices in the area. As the mobile device users move around their devices will communicate with the nearest base station facility to them at all times. If the users cannot pick up a signal, or the nearest base station is congested because it is already handling the maximum number of phone calls or maximum level of data usage, then the users may not be able to place a call, they may experience call “drop outs” or they might experience a slow data rate while attempting to download content.

There are three main factors that can cause the above:

- One may be too far away from a facility to receive a signal, or there may be objects blocking the signal from the nearest facility; such as hills and large trees. To ensure optimum service the radio signals transmitted between the facility’s antennas and mobile devices need to be unimpeded, maintaining a “line-of-sight” between them.
- The facility may be transmitting as much data and calls as it can handle. This can result in call drop-outs and slower data rates when too many users are connected to a facility at once.
- The depth of coverage, which affects the ability to make calls inside buildings, may be insufficient in some local areas.

6.0 Site Selection Process

Telstra commences the site selection process with a search of potential sites that meet the network’s technical requirements, with a view to also having the least possible impact on the amenity of the surrounding locality. Telstra applies and evaluates a range of criteria as part of this site selection process.

Telstra assesses the technical viability of potential sites through the use of computer modelling tools that produce predictions of the coverage that may be expected from these sites as well as from the experience and knowledge of the radio engineers.

There are also a number of other important criteria that Telstra uses to assess options and select sites that may be suitable for a proposed new facility. These take into account factors other than the technical performance of the site, and include:

- The potential to co-locate on an existing telecommunications facility.
- The potential to locate on an existing building or structure.
- Visual impact and the potential to obtain relevant town planning approvals.

- Proximity to community sensitive locations and areas of environmental heritage.
- The potential to obtain tenure at the site.
- The cost of developing the site and the provision of utilities (power, access to the facility and transmission links).

In making the proposal for this site at 32 Allerton Street, Robinson, Telstra has carefully weighed all of the aforementioned criteria. This analysis is detailed in the next section.

7.0 Candidate Sites

Telstra carefully examined a range of possible deployment options in the area before concluding that a new telecommunications facility at 32 Allerton Street in Robinson would be the most appropriate solution to provide necessary mobile phone coverage to the Robinson locality.

Accordingly, this section of the report will demonstrate the following:

- Colocation opportunities and existing telecommunications infrastructure within proximity to the proposed installation; and
- An analysis of the locations considered when determining an appropriate location for a new telecommunications installation within the required coverage area.

Colocation opportunities

The Communications Alliance Ltd. (formerly Australian Communications Industry Forum Ltd. - ACIF) *Industry Code C564:2018 – Mobile Phone Base Station Deployment* promotes the use of existing sites in order to mitigate the effects of the facilities on the landscape. It should also be noted that as a first preference Telstra attempts to utilise, where possible, any existing infrastructure or co-location opportunities.

Below is a map of existing and proposed telecommunications facilities surrounding the Robinson and surrounding localities – the blue marker indicates the location of the proposed telecommunications facility in Robinson.

The grey marker to the South-West indicates where an existing NBN tower is located. However, the existing NBN site is too far away to meet the capacity and in building coverage requirements of the existing project. Furthermore, there are no other nearby telecommunications facilities within the locality that would be capable of meeting the needs of the proposal. Accordingly, there is an identified lack of suitable telecommunications facilities within the vicinity of the proposed installation. As a result, there were no suitable colocation opportunities to provide the required capacity and in building coverage objectives.

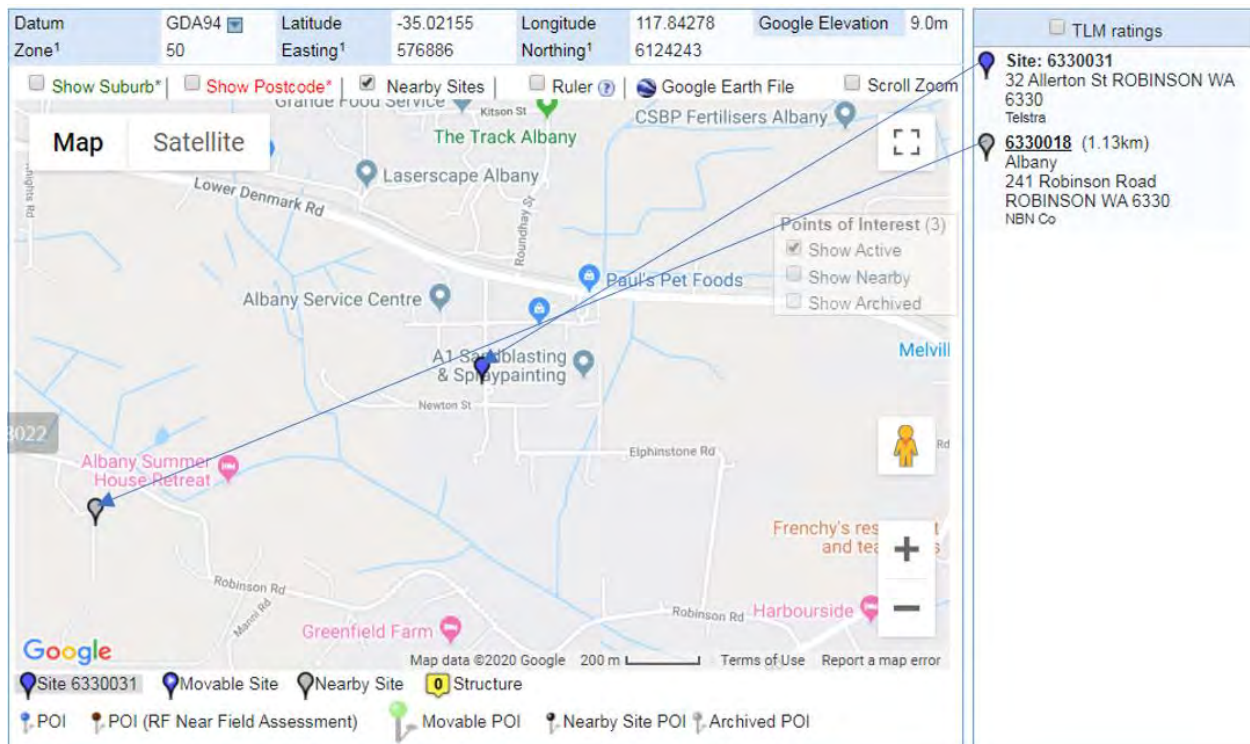


Figure 1: Location of nearby existing telecommunications facilities – Source: RFNSA, www.rfnsa.com.au

Candidates considered

The site selected is deemed to be the most optimal location to achieve the required capacity and coverage requirements and requires a 40m high telecommunications facility at 32 Allerton Street in Robinson (Candidate F). This is further outlined below along with the balance of alternative candidates considered as part of the site selection process

Candidate	Location	Proposal	Zoning	Description
Candidate A	91 Elphinstone Road, Robinson WA 6330 Lat: -35.026204 Long: 117.844602	Greenfield 40.0m Telstra monopole	Rural Residential	Unable to obtain land tenure.



Candidate B	241 Robinson Road, Robinson, WA 6330 Lat: -35.025027 Long: 117.831167	Greenfield 40.0m monopole	Rural Residential	This candidate is outside of the coverage area and therefore adequate mobile coverage was not possible from this candidate.
Candidate C	91 Robinson Road Albany WA 6330 Lat: -35.028640 Long: 117.84269	Greenfield 40.0m monopole	Rural Residential	Lack of interest from landowner, Candidate also discounted on planning terms.
Candidate D	173 Robinson Road Albany WA 6330 Lat: -35.02662 Long: 117.832472	Greenfield 40.0m monopole	Rural Residential	Candidate is outside of search ring area and discounted for this reason as an acceptable level of mobile coverage could not be achieved.
Candidate E	150 Robinson Road Albany WA 6330 Lat: -35.026338 Long: 117.839886	Greenfield 40.0m monopole	Rural Residential	This candidate is outside of the coverage area. Candidate discounted for this reason.
Candidate F	32 Allerton Street Robinson WA 6330 PRIMED CANDIDATE Lat: -35.02155 Long: 117.84278	Greenfield 40.0m monopole	General Industry	Preferred candidate and subject of this application.
Candidate G	60 Home Road, Robinson WA 6330 Lat: -35.03486 Long: 117.84332	Greenfield 40.0m monopole	Rural Residential	This site was originally primed as the preferred candidate. A Development Application was accordingly lodged in June 2018. As a result of significant community concern the DA was withdrawn.



Figure 2: Location of Proposed Candidates, Source: Google Earth

7.1 Nominated Candidate

A preferred nominated candidate was selected for the proposed facility based on the capacity and coverage objectives, planning and environmental issues, potential community sensitive uses and engineering criteria as noted above. In this case, Candidate F (a new 40m monopole located at 32 Allerton Street, Robinson) was considered the best option. This was based on the following:

- The site is appropriately located and sited to minimise visual and environmental impacts on the immediate and surrounding areas;
- Well setback from sensitive uses;
- The site will achieve the required capacity and indoor coverage objectives for the area;
- The site will help to make the Robinson and Albany region 5G ready;
- The site will meet design and construction considerations; and
- The proposal operates within the regulatory framework of Commonwealth, State and Local Government.
- There is a willing landowner.

As stated above, the site selection process carefully considered environmental and visual constraints, existing and future land use characteristics, the orderly planning of the area and the design of the facility. On balance, it is considered that the location and height of the facility ensure optimal service provision to the area whilst minimizing any perceived impacts.

The proposed Telstra site has been sited and designed to minimise any adverse impact on the amenity of the surrounding locality. The site is located on cleared industrial land away from sensitive sites such as Aboriginal heritage sites, schools and childcare centres.

As a result of the aforementioned points it is considered that the siting and design effectively responds to the landscape setting in the area.

7.2 The Site

The subject site is located at 32 Allerton Street in Robinson. The legal description of the property is Lot 141 on Plan 192052. A copy of the Certificate of Title has been attached for information purposes (**Appendix 1 – Certificate of Title**).

The land is owned by James Quinlan & Kerry Quinlan.

The aforementioned land is zoned 'General Industry' under the provisions of the City of Albany's *Local Planning Scheme No. 1* – refer to **Section 10.1** for additional information on planning schemes and map images.

The site will be accessed via Allerton Road through an established crossover. The adjoining properties are characterised by Industrial/Warehouse land uses.



Figure 3: Proposed Telstra Site – 32 Allerton Street, Robinson, WA 6330 (Source: Google Earth)

Appropriate setbacks to any identified sensitive sites such as schools and heritage areas have been considered and achieved during the detailed siting of the facility.

The site is located outside of areas of environmental significance as defined by The *Telecommunications (Low-Impact Facilities) Determination 2018*.

In addition, the proposed base station has been sited on General Industry zoned land in order to diminish any negative effects of the proposal upon the surrounding and more densely populated Residential zoned areas. Furthermore, the proposal will be surrounded by mature trees along Newton Street which will provide some visual screening which in turn will lessen potential impacts upon the visual amenity of the area and help to keep the facility hidden away from public view.

8.0 Federal Regulatory Framework

The following information provides a summary of the Federal legislation relevant to telecommunications development proposals.

8.1 Telecommunications Act 1997

The *Telecommunications Act 1997* (the Act) came into operation on 1st July 1997. The Act provides a system for regulating telecommunications and the activities of carriers and service providers.

Under the Act, telecommunications carriers are no longer exempt from State and Territory planning laws except in three limited instances:

1. There are exemptions for the inspection of land, maintenance of facilities, installation of “low impact facilities”, subscriber connections and temporary defense facilities. These exemptions are detailed in the *Telecommunications (Low-impact Facilities) Determination 2018* and these exemptions are subject to the *Telecommunications Code of Practice 2018*;
2. A limited case-by-case appeals process exists to cover the installation of facilities in situations of national significance; and
3. There are some specific powers and immunities from the previous *Telecommunications Act 1991*.

8.2 Telecommunications (Low-impact Facilities) Determination 2018

The *Telecommunications (Low-impact Facilities) Determination 2018* came into effect in March 2018.

The *Determination* contains a list of Telecommunications Facilities that the Commonwealth will continue to regulate. These are facilities that are essential to maintaining telecommunications networks and are unlikely to cause significant community disruption during their installation or operation. These facilities are therefore considered to be ‘Low-impact’ and do not require planning approval under State or Territory laws.

The proposed facility at 32 Allerton Street, Robinson does not fall under the *Telecommunications (Low-impact Facilities) Determination 2018* and, therefore, requires approval under State Planning Legislation.

8.3 Communications Alliance Ltd. Code C564: 2011 Industry Code – Mobile Phone Base Station Deployment

The new Communications Alliance Ltd. C564:2018 *Industry Code – Mobile Phone Base Station Deployment* (referred to as the *Deployment Code*) replaced the Australian Communications Industry Forum (ACIF) ‘*Industry Code - Deployment of Mobile Phone Network Infrastructure*’ (more commonly referred to as the *ACIF Code*) in July 2012. The purpose of the revisions incorporated in the new *Deployment Code* is to provide certainty and clarity for all parties in the implementation of the Code. For example, with regard to the consultation process with councils and communities, and with regard to providing and updating RF EMR Health and Safety information, reports and signage in keeping with relevant standards.

Similar to the *ACIF Code*, the new *Deployment Code* cannot change the existing regulatory regime for telecommunications at Local, State or Federal levels. However, it supplements the existing obligations on Carriers, particularly in relation to community consultation and the consideration of exposure to radio signals, sometimes known as electromagnetic energy (EME or EMR).

The *Code* imposes mandatory levels of notification and community consultation for sites complying with the *Telecommunications (Low-impact Facilities) Determination 2018*. It identifies varying levels of notification and/or consultation depending on the type and location of the proposed infrastructure.

The subject proposal, not being designated a ‘Low-impact’ Facility’, is not subject to the notification or consultation requirements associated with the *Deployment Code*. These processes are handled within the relevant State and Local consent procedures.

Nevertheless, the intent of the *Code* is to ensure Carriers follow a ‘precautionary approach’ to the siting of infrastructure away from sensitive land uses and this approach has been followed in the selection of this site, as demonstrated in the *Deployment Code* section 4.1 Precautionary Approach Checklist. This checklist will be uploaded to the RFNSA website, reference number 6330031.

Included in the section 4.1 Checklist is a statement of how the public's exposure to EME from the site has been minimised. All emissions from the site will be well within the requirements of the relevant Australian Standard. Details of this standard are contained in the following section.

This site has been selected and designed to comply with the requirements of the *Deployment Code* in so much as the precautionary approach has been adhered to and, as a result, the best design solution has been achieved.

9.0 State Regulatory Framework

The following information provides a summary of the State legislation/guidelines relevant to telecommunications development proposals.

9.1 Planning and Development Act 2005

The Minister of Planning and Infrastructure has ultimate authority for town planning in Western Australia. Development within Western Australia is controlled by the *Planning and Development Act 2005* through the application of environmental planning instruments. Under the *Planning and Development Act 2005*, the Western Australian Planning Commission (WAPC) is the responsible authority for land use planning and development matters and this report seeks to demonstrate compliance with the WAPC and other items of relevant legislation which pertain to the subject application.

9.2 Statement of Planning Policy No. 5.2 – Telecommunications Infrastructures (WAPC)

The WAPC *Statement of Planning Policy No. 5.2 – Telecommunications Infrastructure* (SPP 5.2) provides a framework for the preparation, assessment and determination of applications for planning approval of telecommunications facilities within the context of the planning system of Western Australia. *Planning Policy 5.2* states that 'telecommunications infrastructure should be located, sited and designed in accordance with the following Guiding Principles'.

Principles	Comments	Complies
There should be a co-ordinated approach to the planning and development of telecommunications infrastructure, although changes in the location and demand for services require a flexible approach.	Telstra undertakes a carefully co-ordinated and planned approach to the development of their network.	✓
Telecommunications infrastructure should be strategically planned and co-ordinated, similar to planning for other essential infrastructure such as networks and energy supply.	The proposed facility is strategically planned and co-ordinated to ensure that the facility will provide high level capacity and coverage to the Robinson locality. With the other telecommunications facilities within the vicinity (these being RFNSA No. 6330018 NBN Co). The proposed facility will not only provide much needed relief to the other facilities within the area but will also provide colocation opportunities for other carriers.	✓

Telecommunications facilities should be located and designed to meet the communication needs of the community.	With only one facility present within the Robinson area, the proposal has been located and designed to meet the growing communication needs of the community within the area.	✓
Telecommunications facilities should be designed and sited to minimise any potential adverse visual impact on the character and amenity of the local environment, in particular, impacts on prominent landscape features, general views in the locality and individual significant views.	The proposed 40m monopole has been sited to maintain the primary use of the land whilst considering the impact to the surrounding locality. The site carefully considered environmental and visual constraints, existing and future industrial land uses. Given the industrial and commercial uses of the site at Allerton Street and the surrounding area it is seen that the proposed facility will have minimum visual impact. On balance, it is considered that the location and height of the facility ensure optimal service provision to the area whilst minimising any perceived impacts.	✓
Telecommunications facilities should be designed and sited to minimise impacts on areas of natural conservation value and places of heritage significance or where declared rare flora are located.	A desktop study of the proposed site indicated that it is not affected by any heritage listings nor is it in close proximity to any heritage listings. As the land is already cleared there should be no impact on the natural environment or its surrounds.	✓
Telecommunications facilities should be designed and sited with specific consideration of water catchment protection requirements and the need to minimise land degradation.	Prior to the commencement of work Telstra will undertake such measures as deemed necessary by Council to effectively protect water catchments within the immediate area.	✓
Telecommunications facilities should be designed and sited to minimise adverse impacts on the visual character and amenity of residential area.	The land is situated within the General Industry Zone and as such there is no visual character or negative amenity presented to any residential area. The closest dwelling is approximately 220metres south of the proposed site, which can be identified as a Rural Small Holdings. Furthermore, Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area, particularly when viewed from residential areas. The proposed 40m monopole will remain unpainted (dull grey in colour) which blends in with the sky.	✓
Telecommunications cables should be placed underground, unless it is impractical to do so and there would be no significant effect on visual amenity or, in the case of regional areas, it can be demonstrated that there are long-term benefits to the community that outweigh the visual impact.	Overhead cabling is not proposed for this site.	✓

Telecommunications cables that are installed overhead with other infrastructure such as electricity cables should be removed and placed underground when it can be demonstrated and agreed by the carrier that it is technically feasible and practical to do so.	This principle does not apply to the subject of this application.	N/A
Unless it is impractical to do so telecommunications towers should be located within commercial, business, industrial and rural areas and areas outside identified conservation areas.	The proposed site is zoned 'General Industry' as identified by the City of Albany's <i>Local Planning Scheme No. 1</i> . Given the nature of the land the proposed facility will be located in the desired zoning.	✓
The design and siting of telecommunications towers and ancillary facilities should be integrated with existing buildings and structures, unless it is impractical to do so, in which case they should be sited and designed so as to minimise any adverse impact on the amenity of the surrounding area.	As per Section 7 of this report, no suitable opportunities for co-location were identified in the area and it has been identified that the proposed Telstra site location is seen as the preferred site location. Colocation was investigated; however, the locations were either an existing Telstra site which is too far from the subject area to meet the coverage objectives of the proposal or the existing NBN tower which does not meet the coverage requirements of the project. Given the nature of the surrounding land uses it is foreseen that the proposed telecommunications facility will not present an out of character visual effect	✓
Co-location of telecommunications facilities should generally be sought, unless such an arrangement would detract from local amenities or where operation of the facilities would be significantly compromised as a result.	As per Section 7 of this report, no suitable opportunities for co-location were identified in the area and it has been identified that the proposed Telstra site location is seen as the preferred site location. Colocation was investigated; however, the locations were either an existing Telstra site which is too far from the subject area to meet the capacity and coverage objectives of the proposal or the existing NBN tower which does not meet the capacity and coverage requirements of the project.	✓
Measures such as surface mounting, concealment, colour co-ordination, camouflage and landscaping to screen at least the base of towers and ancillary structures, and to draw attention away from the tower, should be used, where appropriate, to minimise the visual impact of telecommunications facilities.	Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area, particularly when viewed from the road or neighbouring properties. The monopole will remain unpainted (dull grey in colour) which blends in with the sky. Furthermore, the proposed subject site maintains suitable separation distance from surrounding residential areas.	✓
Design and operation of a telecommunications facility should accord with the licensing requirements of the Australian Communications Authority, with	Telecommunications facilities include radio transmitters that radiate electromagnetic energy (EME) into the surrounding area. The levels of these electromagnetic fields must comply with safety limits imposed by the Australian	✓

physical isolation and control of public access to emission hazard zones and use of minimum power levels consistent with quality services.	Communications and Media Authority (ACMA, previously ACA). All Telstra installations are designed to operate within these limits.	
Construction of a telecommunications facility (including access to a facility) should be undertaken so as to minimise adverse effects on the natural environment and the amenity of users or occupiers of adjacent property and to ensure compliance with relevant health and safety standards.	During construction Telstra contractors will endeavour to minimise the impact of their works on the amenity of nearby residents and on the surrounding environment. As the proposed site is located in an industrial area, adverse effects on nearby properties will be minimal. Following construction, maintenance (excluding emergency repair work) activities should not interfere with the amenity of users. All Health and Safety standards will be adhered to.	✓

Under section 5.1.1 of the *State Planning Policy 5.2: Telecommunications Infrastructure Policy* the West Australian Planning Commission provides a set of measures in assessing the visual impact of a proposed telecommunications facility.

An assessment of these guidelines below has found that the proposed Telstra Mobile Phone Base Station is compliant with the intent and requirements of the *State Planning Policy 5.2: Telecommunication Infrastructure Policy*.

Measures	Comments	Complies
Be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;	The proposed location is within an established industrial area, with the facility being located within the north-eastern corner of the site. As the site is located within an established industrial area there are no scenic routes, lookouts and or recreational areas within the vicinity of the proposed facility.	✓
Be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;	Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area, particularly when viewed from residential areas. The proposed 40m monopole will remain unpainted (dull grey in colour) which blends in with the sky. Furthermore, the proposed subject site maintains suitable separation distance from rural/residential dwellings.	✓
Not be located on sites where environmental, cultural heritage, social and visual landscape values may be compromised;	There are no known items of environmental, cultural or social significance located on the proposed site. Any visual impact has been mitigated through a variety of design elements.	✓
Display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;	The proposed 40m monopole has been sited to maintain the primary use of the land whilst considering the impact to the surrounding locality. The site carefully considered environmental and visual constraints, existing and future land use characteristics, the orderly planning of the area and the design of the facility. On balance, it is	✓

	considered that the location and height of the facility ensure optimal service provision to the area whilst minimizing any perceived impacts	
Be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community;	<p>Telstra has identified mobile phone coverage blackspots in the Robinson locality.</p> <p>The proposed location at 32 Allerton Street will provide improved and continuous capacity and coverage to the locality and will also provide other carriers with the opportunity to co-locate their infrastructure in the future.</p>	✓
Telecommunications infrastructure should be co-located and whenever possible: Cables and lines should be located within an existing underground conduit or duct; and Overhead lines and towers should be co-located with existing infrastructure and/or within an existing infrastructure corridor and/or mounted on existing or proposed buildings.	<p>As per Section 7 of this report, no suitable opportunities for co-location were identified in the area and it has been identified that the proposed Telstra site location is seen as the preferred site location. Colocation was investigated; however, the locations were either an existing Telstra site which is too far from the subject area to meet the capacity and coverage objectives of the proposal or the existing NBN tower which does not meet the capacity and coverage requirements of the project.</p> <p>Therefore, it has been identified that the proposed Telstra site location is seen as the preferred site location. As mentioned previously, the proposed Telstra monopole will also provide other carriers with the opportunity to co-locate their infrastructure in the future.</p> <p>As this is a greenfield site there is no option to utilise existing underground conduit or ducts. Overhead lines are not applicable to this application.</p>	✓

Albany Local Planning Strategy

The City of Albany sets out its planning strategy in the 'Albany Local Planning Strategy, and sets out following strategy:

- 'The strategy aims to meet the specific planning needs of the City while complying with relevant planning legislation and Stat and regional policies and guidelines. In particular, the ALPS has been prepared to comply Regulation 12A of the Town Planning Regulations 1967'
- 'The ALPS provides the planning direction required by the City's 3D Corporate Plan for future growth which was adopted in 2004 and a framework for the new draft Town Planning Scheme No.1 and more detailed structure and precinct planning.'
- 'The purpose of the ALPS is to set long-term planning directions for the City while providing greater detail on the planning framework and actions that need to be implemented to guide the City's growth over the next 20years'.

6.4.4 Telecommunications -Planning Objective:

Measures	Comments	Complies
To encourage the extension and maintenance of high-quality telecommunications for	The proposal will provide high quality telecommunications through forming a part of Telstra's 4GX network solution as well	✓



the whole City of Albany district	as preparing to ensure the Albany region is 5G ready.	
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10.0 Local Regulatory Framework

The following information provides a summary of the local provisions relevant to telecommunications development proposals.

10.1 City of Albany Local Planning Scheme No. 1

The *City of Albany Local Planning Scheme No. 1* provides the legal basis for planning in the City of Albany's local government area.

The proposed site and the surrounding area have a large portion which is zoned 'General Industry' as shown in **Figure 4** below.

For the purposes of this proposal the Principal Designated Use of the property is 'Industrial'.

Telecommunications infrastructure is listed as a 'D' use activity in the City of Albany's *Local Planning Scheme* text and the use will not be permitted unless Council has exercised its discretion by granting development approval. Nonetheless, the proposed telecommunications facility at 32 Allerton Street Robinson generally complies with the objectives of the *Scheme*. Moreover, the proposed facility will be sited in an ideal zone (General Industry) which limits negative impacts on the amenity of the area.



Figure 4: Zoning Map 1 (*City of Albany Local Planning Scheme No. 21*) (Source: Dept. of Planning)



Figure 5: Aerial Photo of Proposed Site Showing 250m Radius (Source: Google Earth)

The proposal has been sited to retain the land for its current use and minimises visual impacts upon the amenity of the area by being placed on an established industrial site where it is also surrounded by other established industrial blocks. The detailed siting has been undertaken to ensure the primary use of the land and any potential future use of surrounding land is not negatively impacted upon.

Overall the proposed development application is consistent with the intent and requirements of the *Western Australian Planning Commission SSP 5.2* and the *City of Albany's Local Planning Scheme No. 1*.

11.0 General Provisions

This proposal is for the establishment of a Telstra Mobile Base Station Facility in the Robinson locality.

Telstra considers that the proposal is appropriate for the locality given the 'General Industry' zoning of the proposed site and the nature of existing and anticipated uses of the surrounding land.

Environmental considerations such as visual impact, heritage, flora and fauna, traffic, flooding, bushfire, social and economic aspects, health and safety have been discussed within the below sub sections.

11.1 Visual Impacts

The site has been identified as being located within the 'General Industry' zone. In this regard, the detailed siting and design of the proposed facility has been taken into consideration in conjunction with the aims of the *City's Local Planning Scheme No. 1*.

Telstra has selected a site and location that seeks to minimise any perceived negative impacts on the visual amenity of the area. The proposed subject site maintains suitable separation distance to surrounding rural and industrial areas and takes advantage of the shielding provided by nearby mature vegetation which limits the structure's visibility from neighbouring properties.

The site selection carefully considered environmental and visual constraints, existing and future land use characteristics, the orderly planning of the area and the design of the facility. On balance, it is considered that the location and height of the facility ensure optimal service provision to the area whilst

minimising any perceived visual impact. Moreover, as previously mentioned the site will also provide other carriers with the opportunity to co-locate their infrastructure in the future.

11.2 Heritage

In order to determine any possible natural or cultural values of state or national significance associated with the site a search was conducted through the relevant Heritage Registers.

No heritage sites, including Aboriginal heritage sites, of significance were identified within the subject land holding or within close proximity.

11.3 Flora and Fauna

In order to determine any possible natural Flora and Fauna significance associated with the site, a search was conducted through the relevant environmental searches.

Searches identified the potential of 29 threatened ecological community and 11 migratory species of Flora and Fauna significance located in the vicinity of the proposed site. See **Appendix G** – Environment Analysis Report for further information.

The site is not located in an area of environmental significance as defined by The *Telecommunications (Low-Impact Facilities) Determination 2018*.

11.4 Traffic

Mobile phone base stations are not a significant generator of pedestrian or vehicular traffic.

The site will be visited on a quarterly basis throughout the year for maintenance purposes.

During the construction phase various vehicles will be used to deliver equipment and construct the Telstra Mobile Base Station Facility. Any traffic impacts associated with construction and establishment will be of a short-term duration (i.e. approximately five weeks over non-consecutive periods) and are not anticipated to adversely impact on the surrounding road network.

Adequate parking will be available on site for these vehicles and these movements would not impact the local traffic.

Traffic from this construction would only occur from the hours of 7am to 6pm. If a road closure is required for the erection and installation of equipment, the appropriate approvals will be obtained from the Department of Transport (DoT).

The mobile base station facility is unmanned would require maintenance checks approximately 3-4 times per year as required. Routine maintenance would involve one vehicle per visit and parking would be available close to the proposed site for this purpose.

11.5 Access

Access to the proposed site will be through a proposed crossover off Allerton Road (Refer to **Appendix B** – Proposal Plans (S1) for more information)

The proposed site access is considered to be appropriate given the Telstra facility will not be a significant generator of traffic. Once operational, the facility will require maintenance visits approximately 3-4 times per year as required but will remain unattended at all other times. As the facility generates minimal visits per year it is considered that traffic interference will be negligible.

During the construction phase various vehicles will be used to deliver equipment and construct the Telstra Mobile Base Station Facility. Any traffic impacts associated with construction and establishment

will be of a short-term duration (i.e. approximately five weeks over non-consecutive periods) and are not anticipated to adversely impact on the surrounding road network. Adequate parking would be available in the vicinity for vehicles used during construction and these movements would not impact local traffic. In the unlikely event that road closure is required Telstra will apply to the relevant authorities for permission.

11.6 Utilities

The proposal will connect to the existing power supply nearby on the street. An application will be made to the local utility company confirming route and availability of power supply for this site. The proposed site does not require any additional permits for the connection of a sewer/roadway.

Furthermore, the proposal incorporates very minimal hard surfaces and therefore will generate insignificant stormwater runoff from the site.

11.7 Construction

The construction of the mobile base station will take approximately five weeks over non-consecutive periods, subject to weather.

Noise and vibration emissions associated with the Telstra Mobile Base Station Facility will be limited to the construction phase. Noise generated during the construction phase will be of short duration and will be in accordance with the standards outlined in the *Environmental Protection (Noise) Regulations 1997*. Construction works will only occur between the hours of 7am and 6pm.

There will be some low-level noise from the ongoing operation of air conditioning equipment associated with the equipment shelter once it is installed. Noise emanating from the air conditioning equipment is at a comparable level to a domestic air conditioning installation and will generally accord with the background noise levels prescribed by *Australian Standard AS1055*.

The proposed site is appropriately setback from residential properties so that the noise related impacts will be negligible.

11.8 Bushfire

The specific site location is identified as being in a Bush Fire Prone Area by the Fire and Emergency Services Commissioner (See **Figure 6**).



Figure 6 – Bushfire Prone Areas Mapping (Source DFES Slip Mapping)

Natural disasters, including the continuing threat of bushfires, have served to highlight the critical importance of effective telecommunications. Previous bushfire incident reviews have demonstrated effective telecommunications networks are essential for disaster response management, allowing emergency services providers to be alerted to medical or fire emergencies.

In its *Communications Report 2014-2015* the Australian Communications and Media Authority reported that in 2014 -15, 66.9% of calls to the 000 emergency number were made from mobile phones. Therefore, in addition to day-to-day personal and business applications, effective telecommunications networks can be the difference between life and death in disaster situations.

The entirety of the facility will be earthed in accordance with the Australian Standard. Earthing draws any lightning strike underground away from combustible material. It is submitted that contrary to being a risk factor for fires, the site in this case could reduce the risk of lightning strike causing fires, by attracting the strike and earthing it underground.

The *State Planning Policy 3.7* provides the foundation for land use planning to address bushfire risk management in Western Australia. Notwithstanding the Department of Planning updated [Planning Bulletin 111/2016](#) to clarify that for telecommunications infrastructure, SPP 3.7 should be applied pragmatically.

The Planning Bulletin states:

“Exemptions from the requirements of SPP 3.7 and the deemed provisions should be applied pragmatically by the decision maker. If the proposal does not result in the intensification of development (or land use), does not result in an increase of residents or employees; or does not involve the occupation of employees on site for any considerable amount of time, then there may not be any practicable reason to require a BAL Assessment. Exemptions may apply to infrastructure including roads, telecommunications and dams; and to rural activities, including piggeries and chicken farms which do not involve employees on site for a considerable amount of time.”

With respect to the above, Visionstream on behalf of Telstra believes that all necessary design measures have been undertaken to ensure the facility does not increase or affect the bushfire risk to the area.

11.9 Health and Safety

Telstra acknowledges some people are genuinely concerned about the possible health effects of electromagnetic energy (EME) from mobile phone base stations and is committed to addressing these concerns responsibly.

Telstra, along with the other mobile phone carriers, must strictly adhere to Commonwealth Legislation and regulations regarding mobile phone facilities and equipment administered by the Australian Communications and Media Authority (ACMA).

In 2003 the ACMA adopted a technical standard for continuous exposure of the general public to RF EME from mobile base stations. The standard, known as the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003*, was prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and is the same as that recommended by ICNIRP (International Commission for Non- Ionising Radiation Protection), an agency associated with the World Health Organisation (WHO). Mobile carriers must comply with the Australian Standard on exposure to EME set by the ACMA.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that Telstra can transmit to and from any network base station. The general public health standard is not based on distance limitations or the creation of “buffer zones”. The environmental standard restricts the signal strength to a level low enough to protect everyone at all times. It has a significant safety margin, or precautionary approach, built into it.

In order to demonstrate compliance with the standard, the ARPANSA created a prediction report using a standard methodology to analyse the maximum potential impact of any new telecommunications facility. Carriers are obliged to undertake this analysis for each new facility and make it publicly available.

Importantly, the ARPANSA-created compliance report demonstrates the maximum signal strength of a proposed facility, assuming that it is handling the maximum number of users 24-hours a day.

In this way, the ARPANSA requires network carriers to demonstrate the greatest possible impact that a new telecommunications facility could have on the environment to give the community greater peace of mind. In reality, base stations are designed to operate at the lowest possible power level to accommodate only the number of customers using the facility at any one time. This design function is called “adaptive power control” and ensures that the base station operates at minimum, not maximum, power levels at all times.

Using the ARPANSA standard methodology, Telstra is required to complete and make available an EME report which predicts the maximum environmental EME level the facility will emit. Telstra has undertaken a compliance report that predicts the maximum levels of radiofrequency EME from the proposed installation at 32 Allerton Street in Robinson to be **1.64%** of the public exposure limit. The maximum environmental EME level predicted from this proposed facility is substantially within the allowable limit under the ARPANSA standard.

Refer to the EME Report attached at Appendix C.

Telstra relies on the expert advice of national and international health authorities such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the World Health Organisation (WHO) for overall assessments of health and safety impacts.

The WHO advises that all expert reviews on the health effects of exposure to radiofrequency fields have concluded that no adverse health effects have been established from exposure to radiofrequency fields at levels below the international safety guidelines that have been adopted in Australia.

Telstra has strict procedures in place to ensure its mobile phones and base stations comply with these guidelines. Compliance with all applicable EME standards is part of Telstra's responsible approach to EME and mobile phone technology.

11.10 Erosion, Sediment Control and Waste Management

All erosion and sediment control mitigation measures will be detailed in construction plans and will comply with the *Building Code of Australia* and Local Council Standards. On completion of the installation, the site will be restored and reinstated to an appropriate standard. No waste which requires collection or disposal will be generated by the operation of the facility.

11.11 Social and Economic Impact

Reliable mobile phone coverage is important to ensure the economic growth of communities. It is not expected to have any adverse social or economic impacts as a result of the development. Indeed, it is anticipated that there would be positive impacts because of the mobile telephone coverage, and the proposed facility could also be utilised in the event of an emergency with reference to mobile phone and internet use.

The proposed development is essential to enable Carriers to remain competitive and increase the choice of mobile telephone services to consumers. Additional competition in the market will have economic benefits for individual consumers and the community as a whole. The development is consistent with the objectives of the *Telecommunications Act 1997*, namely:

- To promote "the efficiency and international competitiveness of the Australian telecommunications industry" (s.3 (1)); and
- To ensure that telecommunications services "are supplied as efficiently and economically as practicable" (s.3 (2) (a) (ii).

12.0 Conclusion

There is strong State policy support for telecommunications facilities if, when balancing improved telecommunications services with environmental impacts; including for example, visual impact and flood or fire hazard, a particular proposal provides a net community benefit.

The proposed works would provide the community with reliable and enhanced 4G and 5G access, particularly in building coverage, which in turn supports the various rural, residential and tourist industries in the region and form part of a wider plan to ensure reliable and accessible coverage during emergency situations such as in the event of bush fires.

The proposed telecommunications facility will form an integral component in Telstra's national 4GX and 5G network. This 4G and 5G service brings higher speeds and extra 4G and 5G coverage to a range of communities across the nation. 4GX will include services provided over Telstra's new 700MHz spectrum and deliver higher typical mobile speeds on compatible devices, allowing more Australians to experience more reliable connections and ultra-fast mobile internet.

Telstra has undertaken an assessment of the relevant matters as required by the *Telecommunications Act 1997*, State Legislation and the City of Albany's *Local Planning Scheme No. 1*. The proposal is considered appropriate in light of the relevant legislative, environmental, technical, radio coverage/capacity and public safety requirements.

The proposed facility is considered appropriate for the subject site for the following reasons:

- The facility will provide reliable mobile phone service to the growing Robinson area. It will deliver mobile coverage and capacity to regional and remote communities who will be able to access fast mobile voice and data services. The improved service is increasing access to new technologies for key regional sectors and communities, which rely on a fast, reliable and affordable mobile network.
- Public views to the facility are limited by the industrial nature of the land and the presence of mature vegetation.
- The proposal is consistent with the relevant provisions of the *City of Albany's Local Planning Scheme No. 1*.
- The proposal will improve Telstra 4G and 5G communications services to the area, including voice calls, video calling and Wireless Broadband – a high speed wireless internet service via the 3G/4G and 5G phone network.
- The proposed facility is appropriately located on land that is industrial in nature, providing good separation from residential properties.
- Overall, it is considered that the proposed facility is acceptable and will not cause a considerable loss of visual amenity to the surrounding area due to the facility's design and presence of mature vegetation present on the subject property. It is submitted that a reasonable balance has been struck between the technical requirements for a new facility in this area, the need to deliver an optimum level of service based on the capacity and level of coverage delivered by a facility of this height and the need to minimise visual and other environmental impacts.
- The proposed installation will provide possible opportunities for future co-location on the monopole by other Carriers.
- Emissions from the proposed facility will be significantly below the Australian Radiation Protection and Nuclear Safety Agency standards adopted by the Australian Communications and Media Authority.

The assessment of the proposal demonstrates that the proposal represents sound and proper town planning and it is respectfully requested that consent is granted for this development application.

Should Council have any further queries regarding the subject application, please do not hesitate to contact the nominated representative outlined within this document.

Appendix A – Certificate of Title

Appendix B – Plans of the Proposal

Appendix C – Environmental EME Report

Appendix D – Site Photographs



View facing North towards the proposed site



View facing East towards proposed site



View facing West towards proposed site

Appendix E – Environment Analysis Report (EPBC)

ORIGINAL—NOT TO BE REMOVED FROM DEPARTMENT OF LAND ADMINISTRATION

Transfer G924600

WESTERN

AUSTRALIA

REGISTER BOOK

VOL.

FOL.

Volume 3010 Folio 204



CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

CT 2140

542



I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.


 REGISTRAR OF TITLES


Dated 12th October, 1998

ESTATE AND LAND REFERRED TO

Estate in fee simple in Gledhow Lot 141, delineated on the map in the Third Schedule hereto.

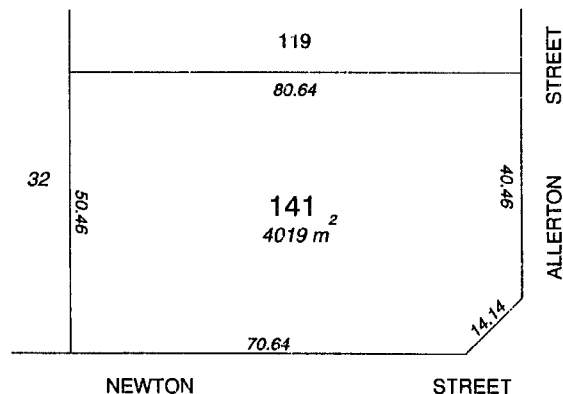
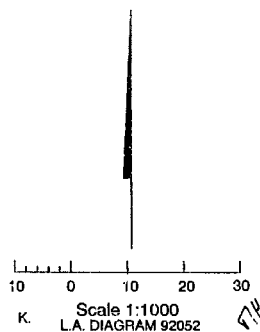
FIRST SCHEDULE (continued overleaf)

Gray William Carter of RMB 8571, Albany.

SECOND SCHEDULE (continued overleaf)

1. MORTGAGE G924599 to Kevin Leslie Crane of 14 Mermaid Avenue, Emu Point, Albany.
Registered 12.10.98 at 16.08 hrs.

THIRD SCHEDULE



NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON



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Page 1 (of 2 pages) 2140 542

VOL. FOL.

LT. 37

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SECOND SCHEDULE (continued)			NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS									
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NATURE	NUMBER											
Mortgage	H458761	to <u>Elderslie Finance Corporation Ltd.</u>	30.5.00	15.10								

CERTIFICATE OF TITLE VOL2140 FOL542

Plot date: 16 April 2020 - 10:19 AM

Telstra Networks Wireless Program Delivery Template - 01766P02 Issue 12 11/04/2016

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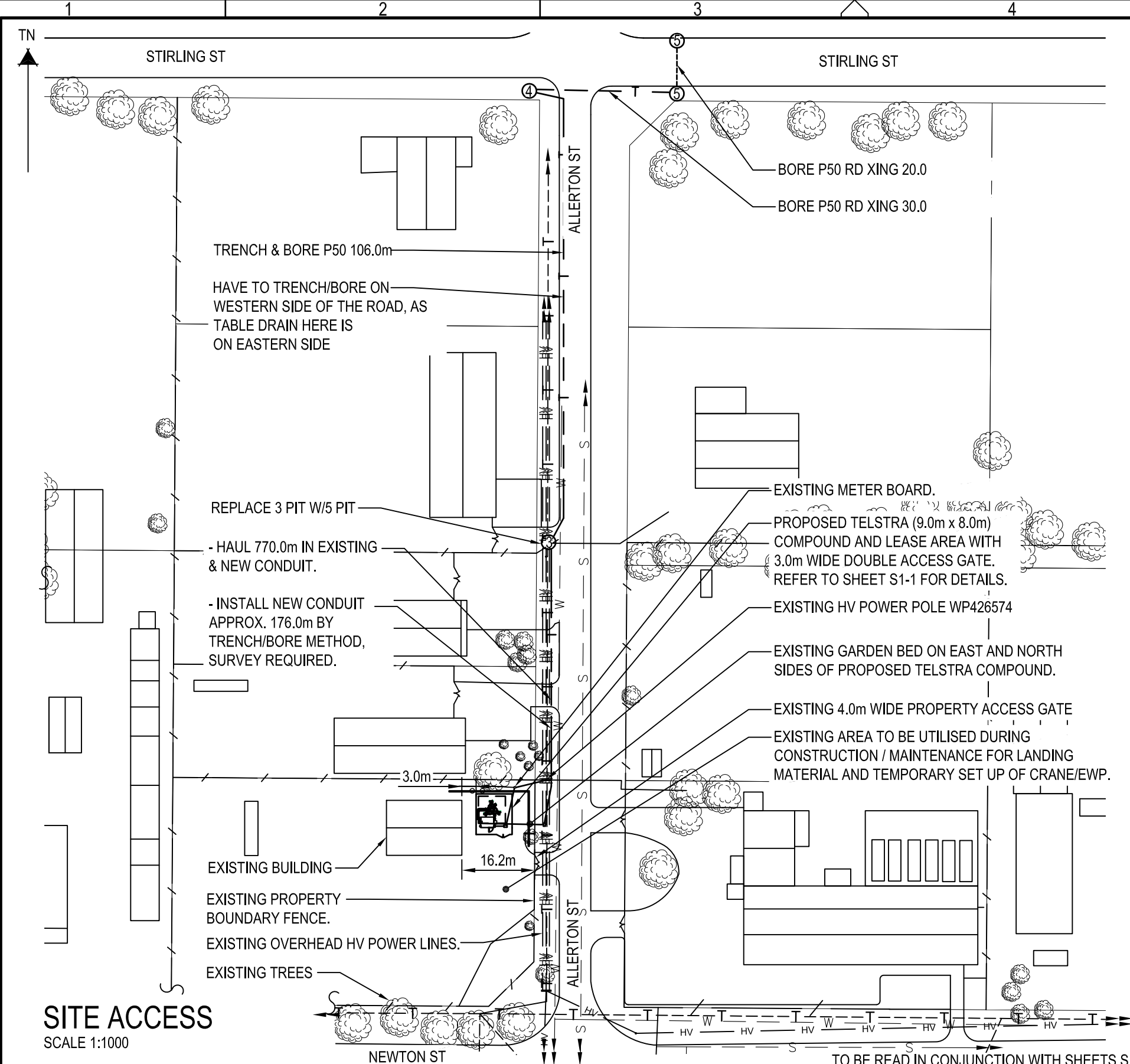
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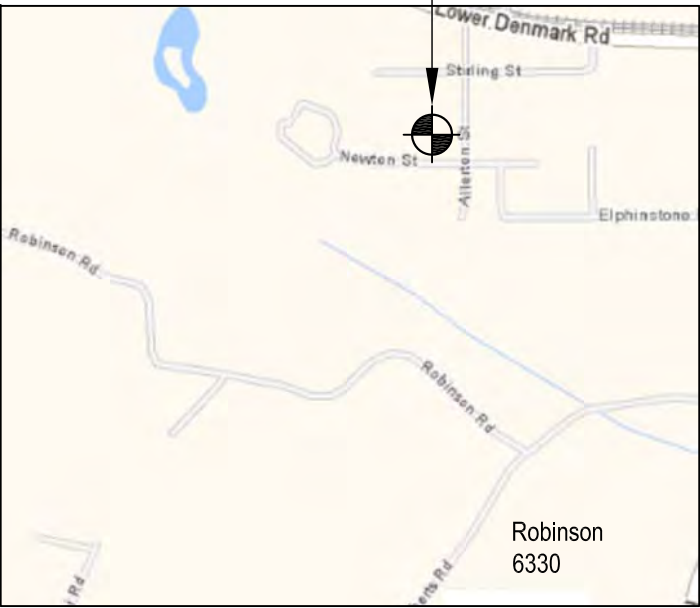
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REPORT ITEM DIS252 REFERS

RFNSA SITE No. 6330031



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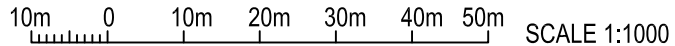
LOCALITY PLAN
NOT TO SCALE

SERVICES LEGEND

— T — — — T — — — T — — —	OPTICAL FIBRE BELOW GROUND
— E — — — E — — — E — — —	ABOVE GROUND ELECTRICAL SUPPLY
— — — E — — — E — — — E — — —	BELOW GROUND ELECTRICAL SUPPLY
— — — G — — — G — — — G — — —	GAS SUPPLY BELOW GROUND
— HV — — — HV — — — HV — — —	HIGH VOLTAGE ELECTRICAL SUPPLY
— — — W — — — W — — — W — — —	WATER SUPPLY BELOW GROUND
— — — S — — — S — — — S — — —	SEWER LINE
— — — SW — — — SW — — — SW — — —	STORM WATER
— FE — — — FE — — — FE — — —	ABOVE GROUND FEEDER CABLES
— — — FE — — — FE — — — FE — — —	BELOW GROUND FEEDER CABLES
— — — D — — — D — — — D — — —	BELOW GROUND DRAIN PIPE

SITE ACCESS

SCALE 1:1000



SCALE 1:1000

PROPERTY DESCRIPTION

PROPERTY ADDRESS: 32
ALLERTON ST, ROBINSON, WA
LOT: 141 ON DP 192052
LGA: CITY OF ALBANY

SITE STRUCTURE CO-ORDINATES (GDA94)

GPS READING ACCURACY: ±10m CENTRE OF MONOPOLE	
LATITUDE	-35.02155° (GDA94)
LONGITUDE	117.84278° (GDA94)

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐

ALTERATIONS IN RED ☐

NAME (PRINT)

SIGNATURE

DATE



TO BE READ IN CONJUNCTION WITH SHEETS S1-1, S1-2, S3 & S3-1.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
WA07310.01	KM	MT	PRELIMINARY - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	24.03.19	1
WA07310.01	NH	AH	FOR CONSTRUCTION - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	14.07.19	2
WA07310.02	AS	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	12.12.19	3
WA07310.02	AA	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	31.03.20	4

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PRELIMINARY



MOBILE NETWORK SITE 328015
ALBANY ROBINSON
SITE ACCESS AND LOCALITY PLAN
32 ALLERTON ST, ROBINSON, WA 6330

DWG NO.	W109233	SHT NO.	S1
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Cad file: W109233_PD.dwg

Plot date: 16 April 2020 - 10:19 AM

Telstra Networks Wireless Program Delivery Template - 01766P02 Issue 12 11/04/2016

A

B

C

D

E

F

TN

REPORT ITEM DIS252 REFERS

EXISTING TREE.

EXISTING METER BOARD TO BE UPGRADED TO ACCOMMODATE EXISTING METER AND PROPOSED TELSTRA METER.

EXISTING SHED U/G POWER ROUTE FROM EXISTING METER BOARD.

EXISTING BURIED SEPTIC TANKS

PROPOSED TELSTRA PANEL ANTENNAS, RRU'S & TMA'S. REFER TO SHEETS S1-2 & S3 FOR DETAILS.

PROPOSED SIGNS TO BE UV STABLE STICKERS AND FIXED TO REAR OF ALL TELSTRA PANEL ANTENNAS (9 OFF) # 2

PROPOSED SIGN TO BE SECURED 1.5m AGL TO MONOPOLE USING STAINLESS STEEL STRAPS # 6

PROPOSED TELSTRA 40.0m HIGH CONCRETE MONOPOLE.

PROPOSED TELSTRA TRIANGULAR HEADFRAME TO ACCOMMODATE PROPOSED ANTENNAS, TMA'S & RRU'S.

PROPOSED TELSTRA 450W NEMA 20B CABLE LADDER (2.9m) TO ACCOMMODATE PROPOSED TELSTRA LTE700 FEEDERS (12 OFF) & 7/8" HYBRID CABLES (3 OFF).

PROPOSED TELSTRA LTE700 GPS ANTENNA (1 OFF) TO BE INSTALLED ON PROPOSED STANDARD MOUNT.

PROPOSED TELSTRA SHELTER MK5.0 PIER FOOTINGS (2 OFF).

PROPOSED TELSTRA OUTDOOR SPD BOX IN WEATHERPROOF ENCLOSURE.

PROPOSED TELSTRA COMPOUND LEASE AREA (8.0m x 9.0m).

EXISTING SHED VERANDAH

EXISTING HV POWER POLE WP426574

PROPOSED TELSTRA U/G POWER ROUTE.

EXISTING WATER AND LEACH DRAIN PIPE.

EDGE OF EXISTING GARDEN BED

PROPOSED TELSTRA U/G FIBRE ROUTE (INDICATIVE ONLY). REFER TO NOTE 5.

PROPOSED TELSTRA 2.4m HIGH STANDARD SECURITY FENCE (8.0m x 9.0m) WITH 3.0m WIDE DOUBLE ACCESS GATES.

PROPOSED PAD FOOTING (6.0m x 6.0m) (INDICATIVE ONLY)

PROPOSED TELSTRA MK5.0 SHELTER (3.0m x 2.38m) TO ACCOMMODATE PROPOSED TELSTRA EQUIPMENT.

PROPOSED TELSTRA DISTRIBUTION BOARD.

PROPOSED TELSTRA P5 FIBRE PIT.

PROPOSED TELSTRA P5 POWER PIT.

STANDARD GRADE BLACK WOVEN POLYPROPYLENE WEED MAT, COVERED WITH 75mm DEEP 20mm AGGREGATE & RETAINED USING CCA TREATED TIMBER.

#13 PROPOSED SIGN TO BE SECURED TO COMPOUND ACCESS GATE

EXISTING SHRUB

EXISTING PROPERTY BOUNDARY FENCE.

AREA TO BE UTILISED DURING CONSTRUCTION / MAINTENANCE FOR LANDING MATERIAL AND TEMPORARY SET UP OF CRANE/EWP. REFER TO NOTE 6.

EXISTING OVERHEAD HV POWER LINES

EXISTING 4.0m WIDE PROPERTY ACCESS GATE

COMPLIANCE BOX

COMPLETED AS PER DESIGN

ALTERATIONS IN RED

NAME (PRINT)

SIGNATURE

DATE

NOTES :

- ALL FEEDERS ACCESS POINTS ON THE STRUCTURE MUST BE BIRD PROOFED AS PER EXTERNAL PLANT POLICY 003615.
- FOR EME SIGNS NOTED AS #X REFER TO 005486 DOCUMENTS FOR DETAILS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- PROPOSED TELSTRA LEASE AREA.
- PROPOSED TO HAUL 770.0m IN EXISTING AND NEW CONDUIT. INSTALL NEW CONDUIT APPROX. 176.0m BY TRENCH/ BORE. (TBC)
- TELSTRA CONTRACTOR TO ARRANGE AND COORDINATE ACTIVITIES BY PROPERTY OWNER BEFORE ORGANIZING MAINTENANCE AND CONSTRUCTION ACTIVITIES ON SITE TO MAKE SURE PROPERTY AND BUILDING ACCESS NOT RESTRICTED AND KEPT OPEN FOR PROPERTY OWNER USE.

SITE LAYOUT

SCALE 1:100

1m 0 1m 2m 3m 4m 5m SCALE 1:100

TO BE READ IN CONJUNCTION WITH SHEETS S1, S1-2, S1-3, S3 & S3-1.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
WA07310.01	KM	MT	PRELIMINARY - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	24.03.19	1
WA07310.01	NH	AH	FOR CONSTRUCTION - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	14.07.19	2
WA07310.02	AS	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	12.12.19	3
WA07310.02	AA	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	31.03.20	4

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PRELIMINARY

Telstra

MOBILE NETWORK SITE 328015
ALBANY ROBINSON

SITE LAYOUT
32 ALLERTON ST, ROBINSON, WA 6330

DWG
NO.

W109233

SHT
NO.

S1-1

Cad file: W109233_PD.dwg

6

A3

visionstream

REPORT ITEM DIS252 REFERS

PROPOSED TELSTRA LTE700 / LTE1800 / LTE2100
PANEL ANTENNAS (3 OFF A1, A2 & A3) TO BE
INSTALLED ON PROPOSED MOUNTS ON
TRIANGULAR HEADFRAME.

PROPOSED TELSTRA LTE700 TMA'S (6 OFF) TO
BE ATTACHED TO PROPOSED MOUNTS BEHIND
PANEL ANTENNAS (A1, A2, A3, A4, A5 & A6).

PROPOSED TELSTRA LTE2600 RADIO 4415 (B7) (3 OFF) & RRU
INTERFACE BOXES (3 OFF) TO BE INSTALLED ON PROPOSED
CROSSBAR MOUNTS ON PROPOSED HEADFRAME.

PROPOSED TELSTRA NR3600 AIR6488 PANEL ANTENNAS
(3 OFF A7, A8 & A9) TO BE INSTALLED ON PROPOSED
MOUNT ON TRIANGULAR HEADFRAME.

PROPOSED TELSTRA LTE1800 / LTE2100 RADIO 4443 (B1/B3)
(3 OFF) TO BE INSTALLED ON PROPOSED CROSSBAR MOUNTS
ON PROPOSED HEADFRAME.

PROPOSED TELSTRA TRIANGULAR HEADFRAME TO
ACCOMMODATE PROPOSED ANTENNAS, RRU'S & TMA'S.

PROPOSED TELSTRA 40.0m HIGH
CONCRETE MONOPOLE .

PROPOSED CROSS BAR TO ACCOMMODATE RRU MOUNTS.

PROPOSED TELSTRA LTE700 / LTE2600 PANEL
ANTENNAS (3 OFF A4, A5 & A6) TO BE
INSTALLED ON PROPOSED MOUNTS ON
TRIANGULAR HEADFRAME.

COMPLIANCE BOX

COMPLETED AS PER DESIGN

ALTERATIONS IN RED

NAME (PRINT)

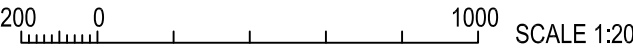
SIGNATURE

DATE

PRELIMINARY

ANTENNA LAYOUT AT EL 40.0m & RRU LAYOUT 39.0m & 39.5m

SCALE 1:20



TO BE READ IN CONJUNCTION WITH SHEETS S1, S1-1, S3 & S3-1.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
WA07310.01	KM	MT	PRELIMINARY - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	24.03.19	1
WA07310.01	NH	AH	FOR CONSTRUCTION - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	14.07.19	2
WA07310.02	AS	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	12.12.19	3
WA07310.02	AA	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	31.03.20	4



MOBILE NETWORK SITE 328015
ALBANY ROBINSON
ANTENNA LAYOUT
32 ALLERTON ST, ROBINSON, WA 6330

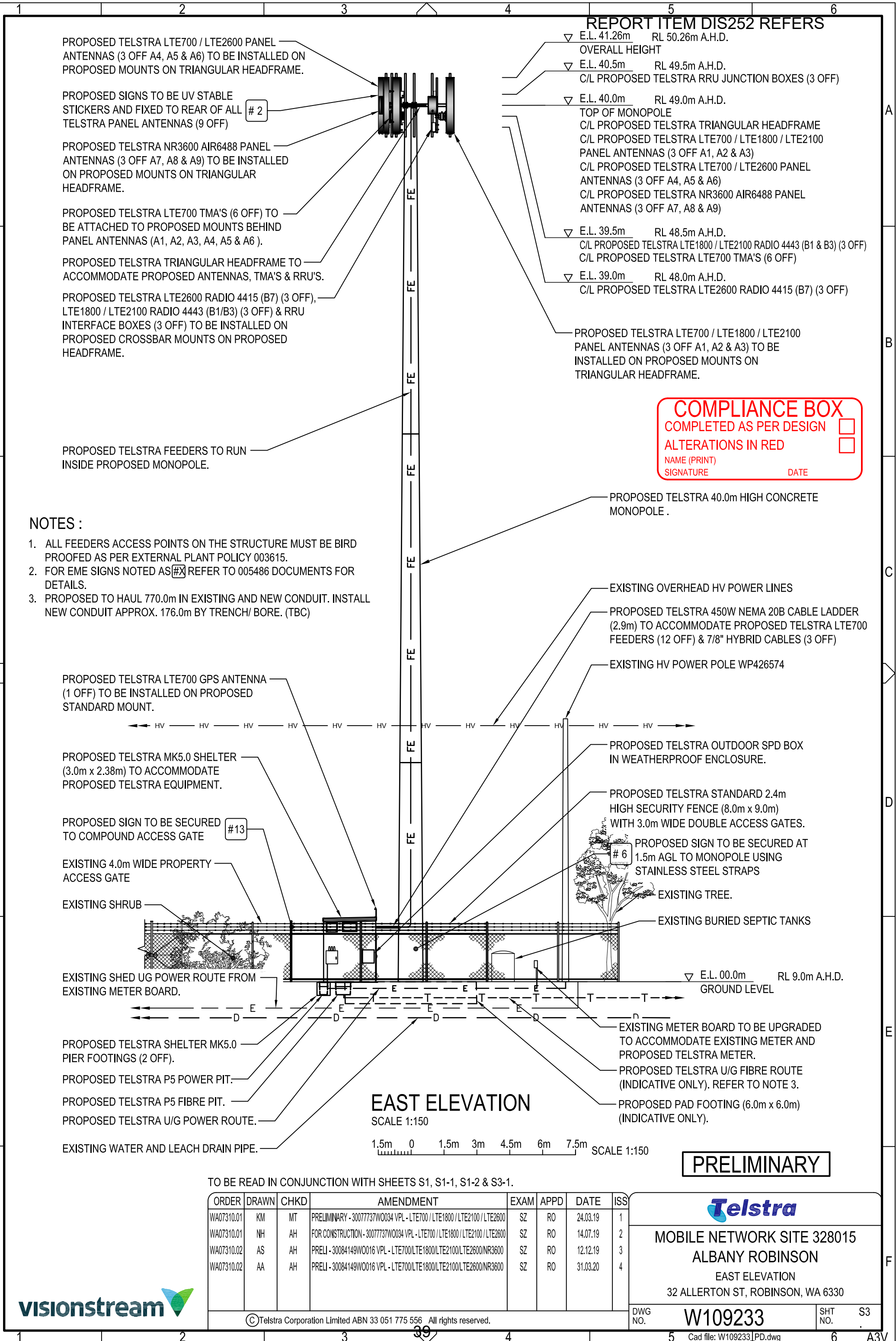
DWG
NO.

W109233

SHT
NO.

S1-2

Cad file: W109233_PD.dwg



TELSTRA ANTENNA CONFIGURATION TABLE

ANTENNA No	ANTENNA TYPE & SIZE H x W x D	ANTENNA ACTION REQUIRED	ANTENNA HEIGHT C/L A.G.L.	ANTENNA BEARING (x°T)	SECTOR NO. & TECHNOLOGY
A1	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	60°	S1: LTE700 S1: LTE700
					S1: LTE1800 / S1: LTE2100 S1: LTE1800 / S1: LTE2100
					S1: LTE1800 / S1: LTE2100 S1: LTE1800 / S1: LTE2100
A2	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	170°	S2: LTE700 S2: LTE700
					S2: LTE1800 / S2: LTE2100 S2: LTE1800 / S2: LTE2100
					S2: LTE1800 / S2: LTE2100 S2: LTE1800 / S2: LTE2100
A3	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	290°	S3: LTE700 S3: LTE700
					S3: LTE1800 / S3: LTE2100 S3: LTE1800 / S3: LTE2100
					S3: LTE1800 / S3: LTE2100 S3: LTE1800 / S3: LTE2100
A4	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	60°	S1: LTE700 S1: LTE700
					S1: LTE2600 S1: LTE2600
					S1: LTE2600 S1: LTE2600
A5	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	170°	S2: LTE700 S2: LTE700
					S2: LTE2600 S2: LTE2600
					S2: LTE2600 S2: LTE2600
A6	ARGUS RVVPX310.11B-T2 PANEL 2533 x 350 x 208mm	INSTALL	40.0m	290°	S3: LTE700 S3: LTE700
					S3: LTE2600 S3: LTE2600
					S3: LTE2600 S3: LTE2600
A7	ERICSSON AIR6488 PANEL 810 x 400 x 200mm	INSTALL	40.0m	60°	S1: NR3600 S1: NR3600
A8	ERICSSON AIR6488 PANEL 810 x 400 x 200mm	INSTALL	40.0m	170°	S2: NR3600 S2: NR3600
A9	ERICSSON AIR6488 PANEL 810 x 400 x 200mm	INSTALL	40.0m	290°	S3: NR3600 S3: NR3600
A14	GPS ANTENNA KRE 101 2082/1 Ø68 x 96	INSTALL	BASE OF GPS 3.18m	0°	-

COMPLIANCE BOX

COMPLETED AS PER DESIGN

ALTERATIONS IN RED

NAME (PRINT)

SIGNATURE

DATE

PRELIMINARY

TO BE READ IN CONJUNCTION WITH SHEETS S1, S1-1, S1-2 & S3.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
WA07310.01	KM	MT	PRELIMINARY - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	24.03.19	1
WA07310.01	NH	AH	FOR CONSTRUCTION - 30077737W0034 VPL - LTE700 / LTE1800 / LTE2100 / LTE2600	SZ	RO	14.07.19	2
WA07310.02	AS	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	12.12.19	3
WA07310.02	AA	AH	PRELI - 30084149W0016 VPL - LTE700/LTE1800/LTE2100/LTE2600/NR3600	SZ	RO	31.03.20	4
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MOBILE NETWORK SITE 328015

ALBANY ROBINSON

ANTENNA CONFIGURATION TABLE

32 ALLERTON ST, ROBINSON, WA 6330

DWG NO. W109233

SHT NO. S3-1



Environmental EME Report

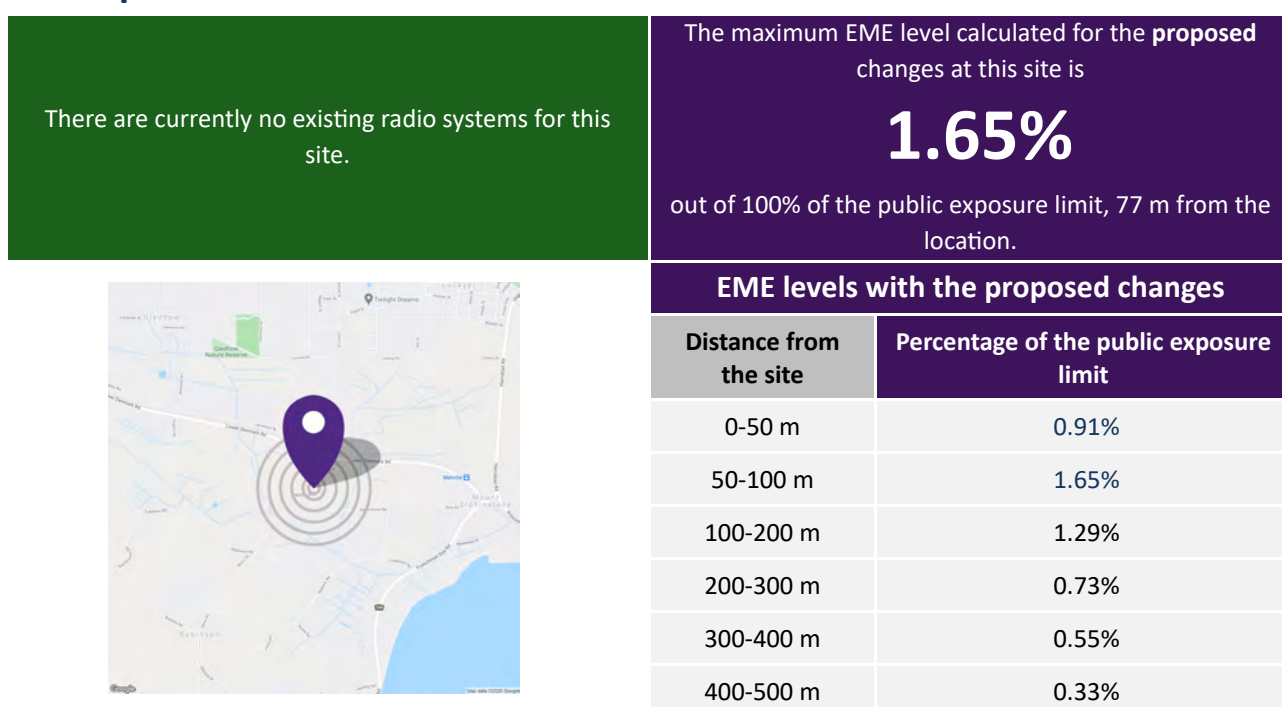
Location	32 Allerton St, ROBINSON WA 6330		
Date	25/08/2020	RFNSA No.	6330031

How does this report work?

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at 32 Allerton St, ROBINSON WA 6330. These levels have been calculated by Visionstream using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). A document describing how to interpret this report is available at ARPANSA's website:

[A Guide to the Environmental Report.](#)

A snapshot of calculated EME levels at this site



For additional information please refer to the EME ARPANSA Report annexure for this site which can be found at <http://www.rfnsa.com.au/6330031>.

Radio systems at the site

This base station currently has equipment for transmitting the services listed under the existing configuration. The proposal would modify the base station to include all the services listed under the proposed configuration.

Carrier	Existing		Proposed	
	Systems	Configuration	Systems	Configuration
Telstra			4G, 5G	LTE700 (proposed), LTE1800 (proposed), LTE2600 (proposed), LTE2100 (proposed), NR3500 (proposed), NR850 (proposed)

An in-depth look at calculated EME levels at this site

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined. All EME levels are relative to 1.5 m above ground and all distances from the site are in 360° circular bands.

Distance from the site	Existing configuration			Proposed configuration		
	Electric field (V/m)	Power density (mW/m ²)	Percentage of the public exposure limit	Electric field (V/m)	Power density (mW/m ²)	Percentage of the public exposure limit
0-50m				5.83	90.04	0.91%
50-100m				7.85	163.42	1.65%
100-200m				6.93	127.23	1.29%
200-300m				4.79	60.81	0.73%
300-400m				4.07	43.88	0.55%
400-500m				3.17	26.57	0.33%

Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest, identified through consultation requirements of the [Communications Alliance Ltd Deployment Code C564:2018](#) or other means.

Calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Maximum cumulative EME level for the proposed configuration

Location	Height range	Electric field (V/m)	Power density (mW/m ²)	Percentage of the public exposure limit
63 Robert Road Dwelling, Robinson, WA 6330	0-5 m	0.84	1.89	0.02%
37 Home Road Dwelling, Robinson, WA 6330	0-5 m	0.83	1.84	0.02%
27 Harding Road, Robinson, WA 6330	0-5 m	0.69	1.27	0.02%



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 06/11/19 10:35:29

[Summary](#)

[Details](#)

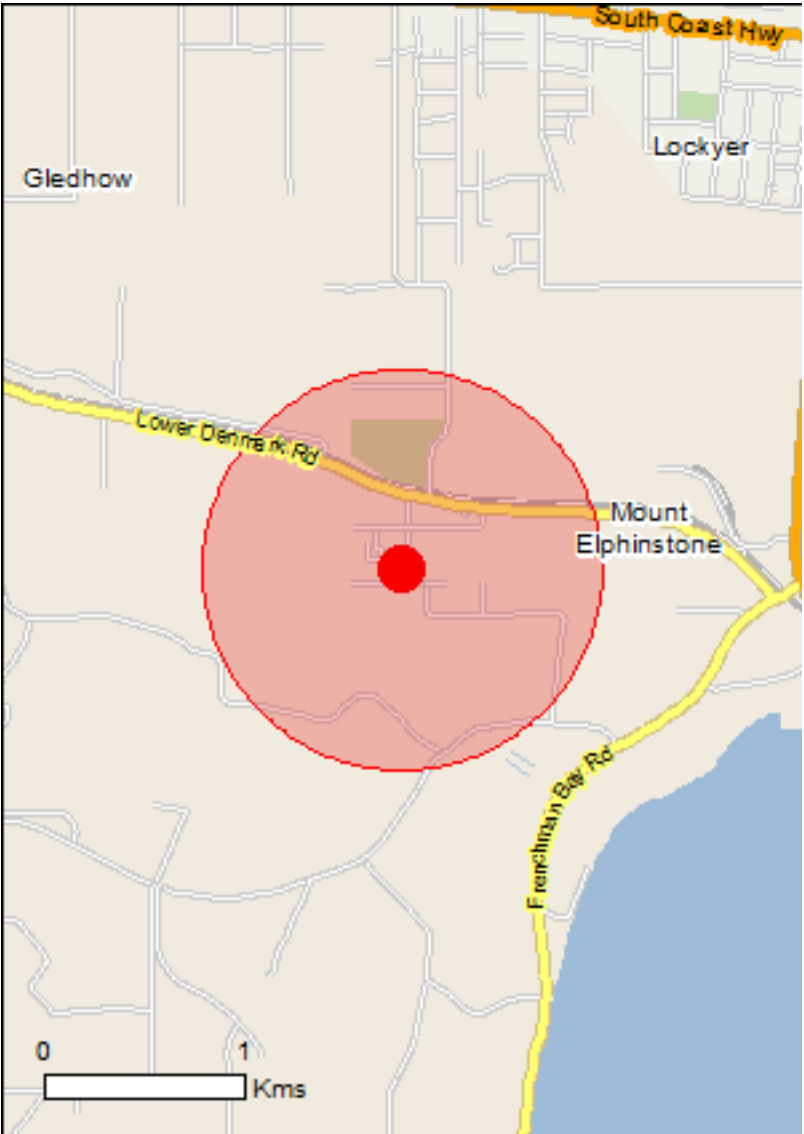
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are
©Commonwealth of Australia
(Geoscience Australia), ©PSMA 2010

[Coordinates](#)

[Buffer: 1.0Km](#)



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	29
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	17
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	21
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat likely to occur within area
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Breeding known to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Breeding likely to occur within area
Cereopsis novaehollandiae grisea Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable	Species or species habitat may occur within area
Dasyornis longirostris Western Bristlebird [515]	Endangered	Species or species habitat likely to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
REPORT ITEM DIS252 REFERS		
Insects		
Trioza barrettae Banksia brownii plant louse [87805]	Endangered	Species or species habitat may occur within area
Mammals		
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
Parantechinus apicalis Dibbler [313]	Endangered	Species or species habitat likely to occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat likely to occur within area
Other		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat may occur within area
Plants		
Banksia brownii Brown's Banksia, Feather-leaved Banksia [8277]	Endangered	Species or species habitat may occur within area
Banksia verticillata Granite Banksia, Albany Banksia, River Banksia [8333]	Vulnerable	Species or species habitat likely to occur within area
Caladenia granitora [65292]	Endangered	Species or species habitat may occur within area
Caladenia harringtoniae Harrington's Spider-orchid, Pink Spider-orchid [56786]	Vulnerable	Species or species habitat may occur within area
Calectasia cyanea Blue Tinsel Lily [7669]	Critically Endangered	Species or species habitat may occur within area
Chordifex abortivus Manypeaks Rush [64868]	Endangered	Species or species habitat likely to occur within area
Conostylis misera Grass Conostylis [21320]	Endangered	Species or species habitat may occur within area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat likely to occur within area
Isopogon uncinatus Albany Cone Bush, Hook-leaf Isopogon [20871]	Endangered	Species or species habitat likely to occur within area
Kennedia glabrata Northcliffe Kennedia [16452]	Vulnerable	Species or species habitat likely to occur within area
Sphenotoma drummondii Mountain Paper-heath [21160]	Endangered	Species or species habitat may occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla cinerea		
Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus		
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Limosa lapponica		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species

Name	Threatened	REPORT ITEM DIS252 REFERS	Type of Presence
Calidris acuminata Sharp-tailed Sandpiper [874]			habitat may occur within area Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered		Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered		Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]			Species or species habitat may occur within area
Cereopsis novaehollandiae grisea Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]			Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]			Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]			Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]			Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered		Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]			Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]			Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]			Species or species habitat likely to occur within area

Extra Information

Invasive Species

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur

Name	Status	Type of Presence
REPORT ITEM DIS252 REFERS within area		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Mammals		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area

Name	Status	Type of Presence
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-35.02159 117.84276

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [Office of Environment and Heritage, New South Wales](#)
- [Department of Environment and Primary Industries, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment, Water and Natural Resources, South Australia](#)
- [Department of Land and Resource Management, Northern Territory](#)
- [Department of Environmental and Heritage Protection, Queensland](#)
- [Department of Parks and Wildlife, Western Australia](#)
- [Environment and Planning Directorate, ACT](#)
- [Birdlife Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
- [Australian Museum](#)
- [South Australian Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- [Australian Tropical Herbarium, Cairns](#)
- [eBird Australia](#)
- [Australian Government – Australian Antarctic Data Centre](#)
- [Museum and Art Gallery of the Northern Territory](#)
- [Australian Government National Environmental Science Program](#)
- [Australian Institute of Marine Science](#)
- [Reef Life Survey Australia](#)
- [American Museum of Natural History](#)
- [Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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[Department of the Environment](#)
GPO Box 787
Canberra ACT 2601 Australia
+61 2 6274 1111

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

Note: This is a broad summary of the submissions only.

Summary of submission.	Officer Comment
<u>42 submissions representing surrounding landowners, employees and tenants</u>	
<p><u>Health concerns</u></p> <ul style="list-style-type: none"> • Property is General Industry where there are businesses with numerous staff and properties with young families. • Business owners concerned for the safety of their employees (total of 135) • Property owners concerned for the safety of their tenants (total of 41) • Concentrated and focused electromagnetic radiation will be emitted all day, every day. Daily exposure to EMR has been linked to cancer, chronic fatigue, immune system disruption, skin damage, damage to the eyes (cataracts and retina), neurological, DNA, fertility, spontaneous abortion, depression, and behavioural problems etc. • Environmental Protection Agency labelled Electromagnetic Radiation as a class 3 carcinogen • Should be located in less densely populated areas such as rural or bushland 	<p>The potential for detrimental health effects from the proposed tower was consistently raised. It is necessary to note that the City is not a regulatory body in respect to electromagnetic energy (EME). The Federally established Australian Protection and Nuclear Safety Agency (ARPANSA) enforce the <i>Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz</i>. The EME report submitted by the applicant states that the maximum calculated EME level from the site will be 1.65% of the maximum public exposure level.</p>

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1**Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469****SCHEDULE OF SUBMISSIONS AND MODIFICATIONS***Note: This is a broad summary of the submissions only.*

Summary of submission.	Officer Comment
<ul style="list-style-type: none"> • Sensitive sites include schools, childcare facilities and hospitals. There are families with young children living within 250m of the tower and school bus stops within 300m. If schools etc are considered sensitive, then how can a tower be placed where there are young children living? • Health impacts from radiofrequency and electromagnetic energy is real and has not been unproven • 5G involves millimetre waves which are known to have a profound effect on all parts of the human body. • The fact that the proposed development is claiming to be under the maximum public exposure limit for EME is irrelevant when there is scientific publications shown that EME affects living organisms at levels well below international and national guidelines. • Landowners and residents would be exposed without consent to a carcinogen. • Who is regulating the amount of EME? Other towers have been tested and found to be 270 times over the safe limit. • Lack of information regarding radiation levels due to dual 4G and 5G emissions from one tower. Lack of information due to the amount of panels proposed and the fact that the radiation emitted will overlap, doubling the radiation. 	

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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Summary of submission.	Officer Comment
<p><u>Visual Amenity</u></p> <p>Residents will have a direct line of sight. Telstra should provide an image to show the direct outlook from the tower from our property (<u>requested by 15 landowners</u>)</p>	<p>When assessing impacts on amenity, it is necessary to determine the level of existing amenity within the immediate area and secondly, within wider the locality.</p> <p>The existing amenity of Allerton Street can be classified as having an industrial landscape, defined by industrial workshops and storage yards. The wider area can be classified as having a rural residential landscape defined by dispersed dwellings located within sections of open paddocks and areas of dense vegetation.</p> <p>The applicant has provided a photo montage of the proposal taken from a number of surrounding properties. While acknowledging that the proposal will be partially visible when viewed from a number of properties within the area, it is necessary to consider that the mere fact that part of the proposed development will be visible does not, in itself, mean that the proposed development will have a negative impact on the visual amenity of the locality. As can be seen from SPP 5.2, factors such as the prominence of the development within the landscape and the extent to which visual aspects of value to the community as a whole might be compromised are relevant to this assessment</p> <p>It is acknowledged that the proposal will be visible from private properties in the surrounding area. It is necessary to consider the overall public benefit of the proposal against any amenity</p>

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

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Summary of submission.	Officer Comment
	impacts. The proposal is not located on ridge line. The applicant has proposed to leave the monopole unpainted in order to reduce the visual impact of the development.
<p><u>Site selection and [JW1] inconsistent with WAPC Statement of Planning Policy 5.2 – Telecommunications Infrastructure, including:</u></p> <ul style="list-style-type: none"> <i>Should address the needs of the community – there is no need for this tower as there is acceptable coverage already. No one in the area wants it.</i> <i>5.0 – Mobile Telephone Networks and co-location - ‘Base stations provide coverage to a geographic area known as a ‘cell’, which may vary in size but generally has a radius of up to 10km’s. The stations need to be carefully considered in relation to existing base stations. If additional base stations are need in areas where mobile network coverage already exists, demand may be met by adding more panels to existing towers, or by constructing new towers.’</i> <p>There is an existing base station at Lot 241 Robinson Rd, 1.13km from the proposed site. Why can’t more panels be added? The applications states this is not possible, but does not provide an explanation or evidence why?</p> <p>Why can’t a tower be placed near the Equestrian Centre where coverage would extend further down Roberts Rd and alleviate the problems in that area?</p> <ul style="list-style-type: none"> <u>Telecommunication infrastructure should be co-located wherever possible</u> 	<p>The proposal has been assessed against the Western Australian Planning Commission’s <i>State Planning Policy 5.2 - Telecommunications Infrastructure</i>. The SPP 5.2 provides guiding principles for the location, siting and design of telecommunications infrastructure.</p> <p>It is important to note that the SPP 5.2 provides the direction that telecommunication infrastructure should not be prohibited in any zone, hence why it is discretionary within all zones throughout the City of Albany. Furthermore, buffer zones and or setback distances are not to be included in planning schemes or policies. There is a clear direction in the SPP 5.2 to facilitate the roll out of an efficient telecommunications network, unless the location and siting unreasonably affects places of cultural or environmental significance, or the visual impact on balance has not been mitigated to outweigh the community benefit of the service it will provide the community.</p> <p>The proposal demonstrates compliance with the policy objectives of SPP 5.2. A full assessment of the policy can be found within the Council Report under Policy Implications.</p>

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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Summary of submission.	Officer Comment
<p>There is a telecommunication station within 1.13km of the proposed site at Lot 241 Robinson Rd. Why can't this be co-located with the existing tower? The application provides no evidence or explanation other than to say it is outside of the coverage area of the project. Base stations have a radius of up to 10-100km, so how come this is outside of the coverage area?</p> <ul style="list-style-type: none"> • <u>Structure planning at the local level</u> - <i>'In the preparation and assessment of structure plans at the local level, consideration should be given to the need for telecommunications services in supporting documentation'</i> <p>The application provides no evidence or supporting documentation to substantiate the need for additional telecommunication services in this location.</p> <ul style="list-style-type: none"> • <u>Site selection:</u> • States they should be located on high land. The chosen site is flat and behind a granite mountain. • Optimal site is a small block so puts it extremely close to all boundaries of neighbouring properties • No evidence of a need for improved telecommunication service in this area. No issues with current service • Residents within this area have not asked for, or do they need additional telecommunications infrastructure at this time and the local community has significant and compelling objections to this proposal. • Just because they could obtain land tenure, doesn't make it an optimal site. 	

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

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Summary of submission.	Officer Comment
<ul style="list-style-type: none"> • Applicant has not considered a sufficient number of potential locations to conclude that this is an optimal site. • Should be at the local race course or local pony club, who are agreeable to it being located on their property • Agrees that some places do not have reception along Roberts Rd and the Fire Brigade do complain that it is difficult to get coverage, however the area where the tower is doesn't experience this problem. Should be located at the Equestrian Centre 	
<p><u>Does not meet the CoA Local Planning Scheme No 1.</u></p> <p>General Industry Zone - a) This is not just a General Industry area. Rural Residential properties are within 250m radius of the tower. Lots of people with young children live within this area, plus many more work within this area.</p> <p>More people congregated here 6 days per week, 10 hours per day than there are spread out in a Rural Residential area</p>	<p>Telecommunications Infrastructure is classified as a 'D' use within the General Industry zone, meaning that the use is not permitted unless the local government has exercised its discretion by granting development approval.</p> <p>It is important to note that the SPP 5.2 provides the direction that telecommunication infrastructure should not be prohibited in any zone, hence why it is discretionary within all zones throughout the City of Albany. Furthermore, buffer zones and or setback distances are not to be included in planning schemes or policies. There is a clear direction in the SPP 5.2 to facilitate the roll out of an efficient telecommunications network, unless the location and siting unreasonably affects places of cultural or environmental significance, or the visual impact on balance has not been mitigated to outweigh the community benefit of the service it will provide the community.</p> <p>The proposal is considered to meet the provisions of LPS 1.</p>

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

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Summary of submission.	Officer Comment
<p><u>Does not meet the requirements of the C564:2018 Industry Codes – Mobile Phone Base Station Deployment</u></p> <p>Although not a low impact facility, the application claims to have satisfied these requirements. They have not.</p> <ul style="list-style-type: none"> • The applicant states that they have complied with these codes but they haven't. • Lack of transparency to residents and the local community. • If an agreement has been signed by the landowner and the applicant within the last 6 months, how is it possible for the applicant and the landowner to have this agreement without planning approval and without community and council discussion or involvement? • Young children will be exposed to this radiation so therefore the 'Precautionary Principle' must be applied. Precautionary Principle : If there is any perceived doubt about the safety, in this case EME radiation exposure to people, the implementation of such technology (infrastructure) should be paused or halted until it can be deemed to be safe 	<p>The consultation requirements of this Code do not apply to infrastructure that requires Development Approval. In such cases it is expected that public consultation will occur through the Development Application process.</p>

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Telecommunication Infrastructure – 32 Allerton Street, Robinson P2200469

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Summary of submission.	Officer Comment
<p><u>Environmental concerns - Evidence that EMR has detrimental effects on all wildlife. Risk on endangered species, specifically:</u></p> <ul style="list-style-type: none"> • <i>Habitat for endangered Western Ringtail Possum</i> • <i>Red and white tailed cockatoos frequent this area (red on critical list)</i> • <i>Barn Owls (sonar)</i> • <i>Sacred kingfisher</i> <p>How can you guarantee will not affect the above animals?</p> <p>Can you guarantee that the Barn Owl who located food by sound will not be affected by this tower?</p> <p>Local Apiarists live nearby and will impact the bees breeding and pollinating capacity, collapsing their colonies.</p>	
<p><u>Property value</u></p> <ul style="list-style-type: none"> • Will impact property value as there is a direct line of sight • Will have detrimental effect on their business 	<p>Decreased property values were consistently raised during the consultation process. Property values are not within the matters to be considered under clause 67 of the <i>Planning and</i></p>

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Summary of submission.	Officer Comment
<ul style="list-style-type: none"> Rates should be reduced if the City allows this impact on our property value. Requests that a property evaluation is done by an independent professional assessor at the cost of Telstra for all affected properties. 	<p><i>Development (Local Planning Schemes) Regulations 2015; and therefore are not a valid planning consideration.</i></p>
<p><u>Noise-</u></p> <p>Concerns were raised regarding constant humming from the proposed development.</p>	<p>It is anticipated that there will be some low-level noise from the ongoing operation of air conditioning equipment associated with the equipment shelter. This is comparable to a domestic air conditioning unit.</p> <p>The proposed development is considered to be appropriately setback from residential properties mitigating any associated noise. Further to this, the standard condition in relation to noise is proposed to be applied as a condition of approval should the proposal be supported.</p>
<p><u>Insufficient consultation undertaken by the City -</u></p> <p>Appropriate attempts have not been made to contact me. Phone calls, emails and text messages should have been used.</p>	<p>Although not specifically required under LPS1, the application was advertised for a period of twenty-seven (27) days (between the dates of 18/09/2020 – 14/10/2020). All landowners within a 500m radius of the site were notified directly by letter, and a notice was placed on the City of Albany website.</p> <p>Advertising of the proposal was undertaken in accordance with Clause 64 of the Planning and Development (Local Planning</p>

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Summary of submission.	Officer Comment
	Schemes) Regulations 2015 which requires a proposal to be advertised for a period of 14 days to surrounding landowners within the vicinity of the proposal. A copy of the proposal was also available on the City of Albany's website.



10 February 2021

Jessica Anderson
Senior Planning Officer
City of Albany
PO Box 484
ALBANY WA 6331

Via email: jessicaa@albany.wa.gov.au

Dear Jessica,

**Re: Response to Objections
Planning Application Reference PP2200433
The construction of a telecommunications facility and associated infrastructure
32 Allerton Street, Robinson WA 6330**

I refer to the above Development Application and the advertising/notification undertaken last year.

Below we provide responses to each of the main points raised in the submissions received.

Visual Impact

Telstra advises that the location of telecommunications facilities to service urban and country communities is nowadays commonplace.

Nevertheless, Telstra does seriously consider visual impact when siting and designing telecommunications facilities. Given that clear line of sight is integral to the functioning of any telecommunications facility, it is not possible to completely mitigate all impacts on surrounding view sheds. Telstra appreciates that a balance must be struck between amenity and service, without undue compromise to either. Accordingly, we have sought to implement this balance at 32 Allerton Street by choosing a location that best minimises the potential visual impact of all identified candidates investigated and outlined in summary above.



Telstra endeavors to minimise the visual prominence of the facility wherever it is possible to do so. There are restrictions in lowering the height of a telecommunications facility, as the panel antennas must be at a height where there are no obstructions between the antenna and the service area, Telstra has proposed the facility at the minimum height capable of achieving the technical requirements for the site. Telstra appreciates that the construction of a monopole introduces a new element to the environment, however we maintain it is not unreasonable to propose such infrastructure in such a community comprising a semi-rural and industrial setting, and that we have sought to minimise the impact of the proposal as best as possible.

The site has been deliberately located to within an industrial area, as far as possible away from sensitive land uses. The nearest dwelling is more than 220m away to the south, and the surrounding dwellings have either structures, such as sheds or vegetation between their residence and the tower itself.

A number of photomontages have been provided to show how the facility will be viewed within the context of the area. The facility does not appear to be unreasonable within the context of the area (in particular due to the Industrial zoning) and a slimline monopole rather than a lattice type tower has been proposed deliberately in this instance to reduce the visual impact.

EME & Health

Please be assured that Telstra take the responsibilities regarding the health and safety of their customers and the community very seriously. Telstra also acknowledge that some people are genuinely concerned about the possible health effects from electromagnetic energy (EME).

There are many sources of EME (often called electromagnetic radiation). They occur naturally as well as having artificial sources. Natural sources of EME include light from the sun, lightning and the earth's magnetic field. Refrigerators, hairdryers and computers, TVs, radios, mobile phones, WiFi, remote control devices, emergency services systems, baby monitors and microwave ovens.



Is EME from a Mobile Base Station Safe?

The Australian Communications and Media Authority (ACMA) has set mandatory limits for EME exposure for all devices that produce Radiofrequency signals. Mobile phones and their base stations are included in these mandatory limits, as are AM/FM radio and TV broadcast stations. The ACMA conduct regular audit operations to test for compliance against these limits. The levels are set by the Australian Radiation Protection and Nuclear Safety Agency - ARPANSA Maximum Exposure Levels to Radiofrequency Fields -3kHz to 300 GHz' (RPS3), which is derived from the International Commission Non-Ionizing Radiation Protection (ICNIRP) Guidelines. The Australian Communications and Media Authority (ACMA) has extensive information on health and mobile phone technology.

ICNIRP has recently undertaken an extensive review of the available scientific evidence and research on EME and health. As a result, new ICNIRP Guidelines were published on 11 March 2020 with a focus on the overall depth of research and safety of the guidelines. It is the responsibility of these expert authorities to continually review the science on electromagnetic energy (EME) and to protect public safety.

ARPANSA's position is: "Based on current research there are no established health effects that can be attributed to the low RF EME exposure from mobile phone base station antennas." <https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/mobile-phone-base-stations>.

You may wish to contact ARPANSA directly. ARPANSA provides an opportunity for the public and community to talk directly with scientists on issues about radiation exposure and protection in Australia. ARPANSA can be contacted on 1800 022 333 from 11:00 am to 12:30 pm on Tuesdays and Thursdays (Melbourne/Sydney AEST), except during public holidays. You can also send an enquiry via ARPANSA's online contact form." Additionally, the safety regulations operate by placing a limit on the strength of the signal (or radiofrequency EME) that Telstra can transmit. They are not based on distance, or creating "buffer zones" for residential areas, places of employment, schools or any other specific environment. The environmental standard limits the network signal strength to a level low enough to protect all people, in all environments, 24-hours a day. The safety limit itself, has a significant safety margin, or precautionary approach built into it.

The ACMA's regulatory arrangements require base stations to comply with the exposure limits in the ARPANSA RF Standard. The ARPANSA Standard is designed to protect people of all ages and health status against all known adverse health effects from



exposure to RF EME. This standard is the same for infants/children, seniors and pregnant women.

5G information & EME Health including immune system

There's already been a lot said about 5G technology, we rely on the expert scientists. "I'd like to reassure the community that 5G technology is safe. There is no evidence telecommunication technologies, such as 5G, cause adverse health impacts. This position is supported by health authorities in Australia – such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) – and around the world, such as the World Health Organization (WHO). The radio waves to which the general public is exposed from telecommunications are not hazardous to human health," said Chief Medical Officer, Professor Brendan Murphy.

The health authority in Australia, ARPANSA, is aware that there is a lot of concerning misinformation circulating throughout the community about the possible impacts of Australia's planned roll-out of the 5G mobile network.

"Contrary to some claims, there are no established health effects from the radio waves that the 5G network uses. The upgrade will run on radio waves similar to those used in the current 4G network, "With the novel coronavirus (COVID-19) pandemic, some members of the public are concerned about the human immune system and whether it can be compromised by wireless telecommunications sources such as 5G. There is no established evidence that low level radio wave exposure from 5G and other wireless telecommunications can affect the immune system or cause any other long term or short-term health effects," state The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

The EMF-Portal (www.emf-portal.org) is an open-access extensive database of scientific research into the effects of EMF, including studies on the effects of RF on health. It is managed by the RWTH Aachen University, Germany and linked from the WHO website. EMF-Portal contains more than 25,000 published scientific articles on the biological and health effects of EMF and 2,500 studies on mobile communications.

A number of studies have investigated whether low level radio wave exposure from telecommunications sources like 5G can impact the immune system. Such studies, including those that have investigated effects on antigens, antibodies and oxidative stress, have not provided evidence of changes in immune function.



There is no established evidence that low level radio wave exposure from 5G and other wireless telecommunications can affect the immune system or cause other long- or short-term health effects.

There has been a lot of misinformation about 5G. You may like to visit the following Telstra links to find out about the latest science on 5G and EME:

- <https://www.telstra.com.au/consumer-advice/eme/5g-and-eme>
- <https://exchange.telstra.com.au/understanding-5g-and-eme/>
- <https://exchange.telstra.com.au/5-things-you-should-know-about-5g-and-eme/>
- <https://exchange.telstra.com.au/5-surveys-of-5g-show-eme-levels-well-below-safety-limits/>

I can also recommend the following resources:

- <https://www.arpansa.gov.au/news/misinformation-about-australias-5g-network>
- <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>
- <http://www.emfexplained.info/?ID=25916>
- <https://www.who.int/features/qa/30/en/>
- <https://www.icnirp.org/en/frequencies/high-frequency/index.html>
- <https://www.cnbc.com/2019/03/27/is-5g-safe-for-humans-heres-what-scientific-consensus-says.html>

EME & Flora and Fauna

With respect to possible biological effect of RF EME, in 2019 Telstra asked ARPANSA for their response on the issue of possible effects on flora and fauna. They replied, *“There is no established evidence that EME exposure from wireless telecommunications sources is harmful to flora or fauna. It should be remembered that many studies investigating human health are performed in the laboratory on animals and plant cells.”*

The following are publications that are available on exposure to radio frequency electromagnetic fields (RF-EMF) on flora:



1. Tkalec M et al., November 2008, *Effects of radiofrequency electromagnetic fields on seed germination and root meristematic cells of Allium cepa L [onion]*, *Mutat Res.*
2. Sharma VP et al., 2009, *Mobile phone radiation inhibits Vigna radiate (mung bean) root growth by inducing oxidative stress*, *Science of The Total Environment*, 407:5543-5547.
3. Roux D et al., 2008, *High frequency (900 MHz) low amplitude (5 V/m) electromagnetic field: a genuine environmental stimulus that affects transcription, translation, calcium and energy charge in tomato*, *Planta*, 227:883-891
4. Tafforeau M et al., 2004, *Plant sensitivity to low intensity 105 GHz electromagnetic radiation*, *Bioelectromagnetics*, 25:403–407
5. Akbal A et al., 2012, *Effects of electromagnetic waves emitted by mobile phones on germination, root growth, and root tip cell mitotic division on Lens Culinaris medic [lentil seeds]*, *Pol J Environ Stud*, 1(2012):23-29
6. Aydin B et al., 2011, *Effects of radiofrequency electromagnetic fields on oxidative stress and physiological parameters of wheat (Triticum aestivum L. CV. golia)*, *Fresenius Environmental Bulletin*, 20(11):2815-23
7. Monselise EB et al., 2011, *Bioassay for assessing cell stress in the vicinity of radio-frequency irradiating antennas*, *J Environ Monit*, epub. This paper considered duck-weed.

Specifically, in relation to bees we are not aware of any evidence that 5G harms bees. You may be interested in these articles on how 5G technology is helping beekeepers:

- <https://americanbeejournal.com/why-we-shouldnt-fear-5g/>
- <https://www.gsma.com/iot/exclusive-interview-keeping-bees-safe-and-sound/>

Assessment of Planning Policy No.5.2 – Telecommunications Infrastructure & General Industry Zone of Albany Local Planning Scheme No.1

The WAPC Statement of Planning Policy No.5.2 – Telecommunications Infrastructure (SPP 5.2) provides a framework for the preparation, assessment, and determination of applications for planning of telecommunications facilities within the context of the planning system of Western Australia. This state policy outlines that telecommunications infrastructure should be located, sited, and designed according to a number of principles. A full assessment of the proposal is located at page 12 of the Development Application Report provided to Council.



In short, the principles include a co-ordinated approach to the development of telecommunications infrastructure and facilities designed and sited to minimise adverse impacts on the visual character and amenity of residential areas.

In this instance the development has been located within a General Industry Zone with the nearest dwelling being located 220m to the south of the proposed site. Furthermore, a slimline monopole is proposed rather than a lattice facility in this instance to reduce the visual impact.

In addition, the facility is considered to comply with the principles of the General Industry Zone of the Albany Local Planning Scheme No.1 with the site being centrally located within this zone. This reduces the visual impact of the site from outside of this Industrial area with reasonable setbacks to dwellings within the surrounding Rural Residential Zone. While telecommunications facilities can be found in all zones, Industrial Zones are generally considered the most suitable for such infrastructure as they hold the lowest amenity values in comparison to residentially zoned land. This location is considered to be far more appropriate than locating within the adjoining Rural Residential Zoned land where there a scattering of dwellings.

C564:2018 Industry Code – Mobile Phone Base Station Deployment.

Concern has been raised about the non-compliance with the Mobile Phone Base Station Deployment Code. As mentioned on page 11 of the Development Application Report The Code imposes mandatory levels of notification for sites complying with the Telecommunications (Low Impact) Determination 2018. It identifies varying levels of notification and/or consultation depending on the type and location of the proposed infrastructure.

The subject proposal, not being designed a 'Low-impact Facility' is not subject to the notification or consultation requirements associated with the *Deployment Code*. These processes are handled by Council in this instance with Council undertaking the consultation process that involved a mailout to surrounding properties in the area.

Property Devaluation

A number of submissions have raised the potential impact on property values as grounds for objection. While this concern is not a ground for town planning compliance/assessment it is clearly a consideration for some members of the community.



Fluctuations in price being subject to a vast number of factors – many of which are subjective such as amenity, access to transport, condition of land improvements, views and increasingly the quality and availability of telecommunications services. However, often significant are broader market forces affecting supply and demand for housing.

Unlike a transmission lines or power easement, utility installations such as telecommunications facilities do not materially affect the ability of adjoining landowners to develop or enjoy the use of their properties.

It is further noted that since the 1990's, there have been thousands of telecommunications facilities developed throughout Australian metropolitan and regional areas. During this period property values across the board have continued to increase, showing no sign of deterioration as a result of specific factors such as the location of telecommunications base stations. The improvements to mobile network connectivity resulting from improved service coverage is likely to be very significant, which will in turn support business, health, education and a range of other sectors.

Notwithstanding, Telstra is not aware of any credible evidence that directly links the siting of a telecommunications facility to either an increase or decrease in property prices.

Availability of sites

During preliminary stages of the proposal, a number of sites were investigated for their potential for a Telecommunications facility. Through the process these proposed candidates were discounted on a number of grounds, including willingness of the landowner, site access and radio frequency coverage (refer to DA report provided).

There were no available structures of a sufficient height that could accommodate a Telstra base station and therefore a new greenfield facility at the proposed location was selected (Please refer to the Planning Application for details of sites investigated). This included the NBN facility approximately 1.1km to the west of the subject site.

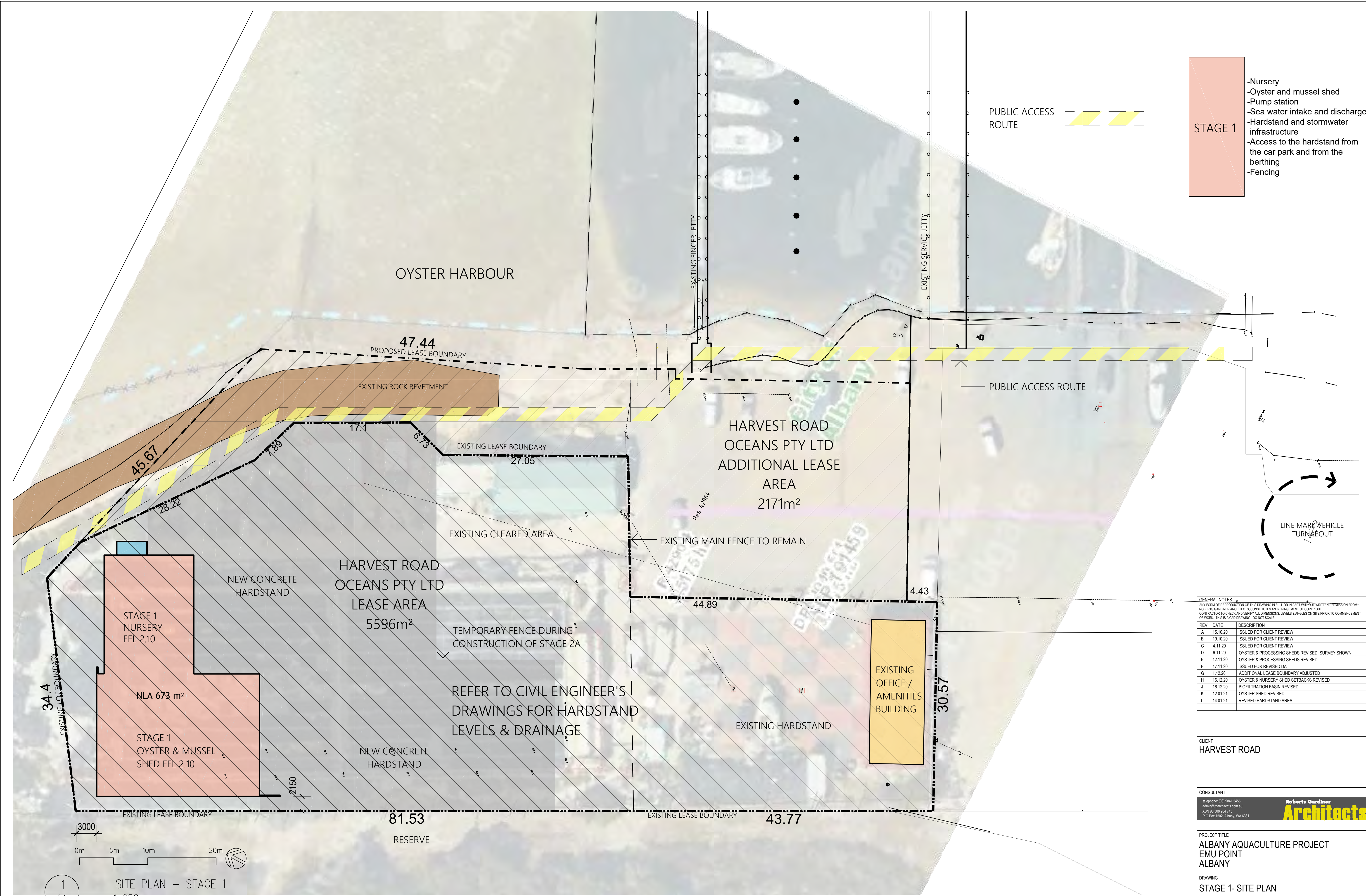
It should also be noted that this site was selected following another candidate's Development Application withdrawal that also attracted a number of submissions. This application for a Telstra facility at 60 Home Road, Robinson was withdrawn and therefore Telstra have now proposed this site to provide the required coverage to the greater area.

**Conclusion**

Furthermore, we note the critical role the facility would play in cases of emergency events. Whether it be checking the Fire Authority websites in cases of bushfire or calling family members on mobile phones during emergency situations, the improvements delivered by the facility will be significant, and we encourage Council to carefully consider these when assessing the Application alongside the representations received.

Kind regards,

Clinton Northey
Senior Town Planner
Visionstream Australian Pty Ltd



STAGE 1

- Nursery
- Oyster and mussel shed
- Pump station
- Sea water intake and discharge
- Hardstand and stormwater infrastructure
- Access to the hardstand from the car park and from the berthing
- Fencing

PUBLIC ACCESS ROUTE

PUBLIC ACCESS ROUTE

LINE MARK VEHICLE TURNABOUT

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REV	DATE	DESCRIPTION
A	15.10.20	ISSUED FOR CLIENT REVIEW
B	19.10.20	ISSUED FOR CLIENT REVIEW
C	4.11.20	ISSUED FOR CLIENT REVIEW
D	6.11.20	OYSTER & PROCESSING SHEDS REVISED, SURVEY SHOWN
E	12.11.20	OYSTER & PROCESSING SHEDS REVISED
F	17.11.20	ISSUED FOR REVISED DA
G	1.12.20	ADDITIONAL LEASE BOUNDARY ADJUSTED
H	16.12.20	OYSTER & NURSERY SHED SETBACKS REVISED
J	16.12.20	BIOFILTRATION BASIN REVISED
K	12.01.21	OYSTER SHED REVISED
L	14.01.21	REVISED HARDSTAND AREA

CLIENT
HARVEST ROAD

CONSULTANT

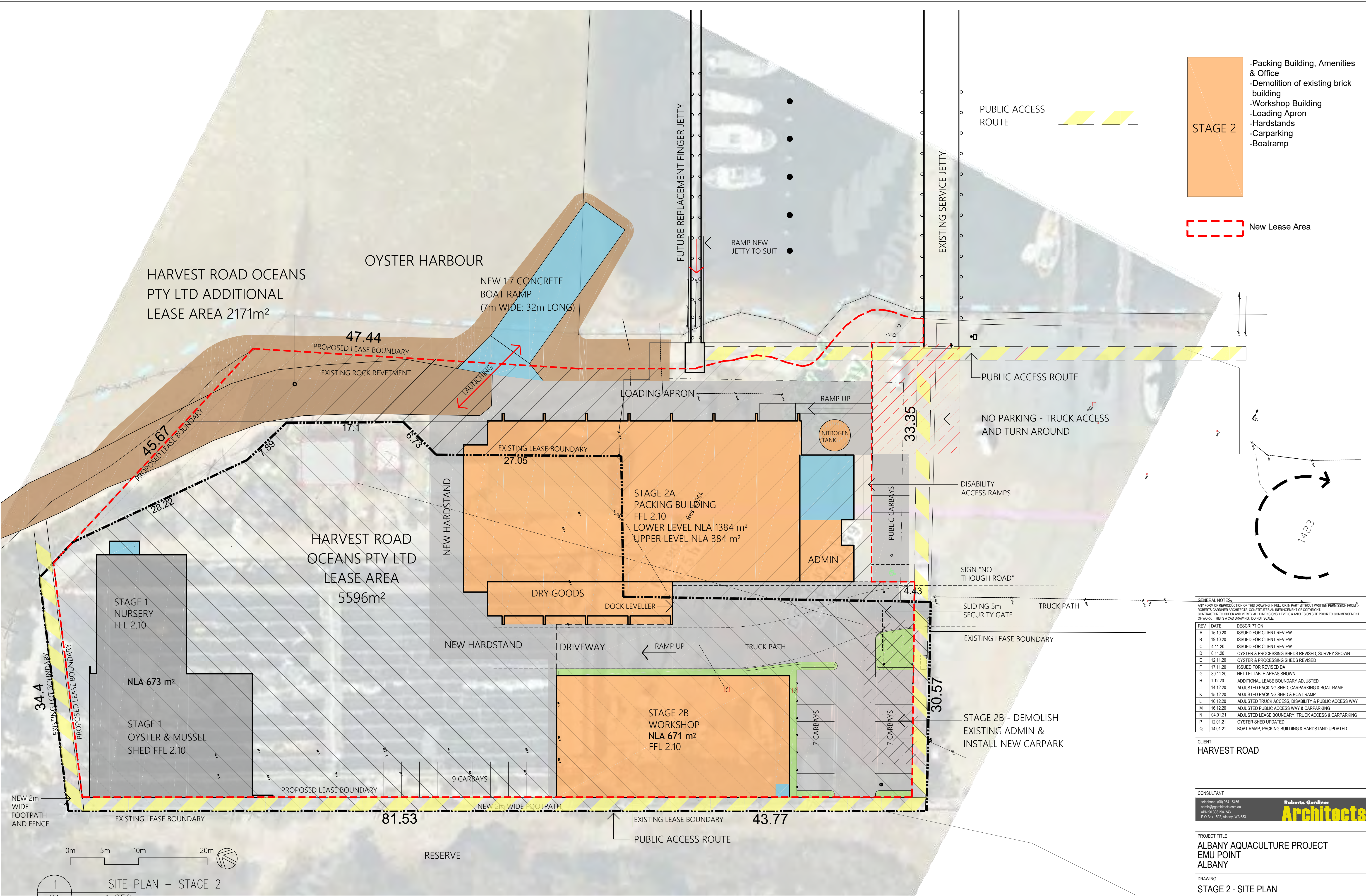
Roberts Gardiner
Architects

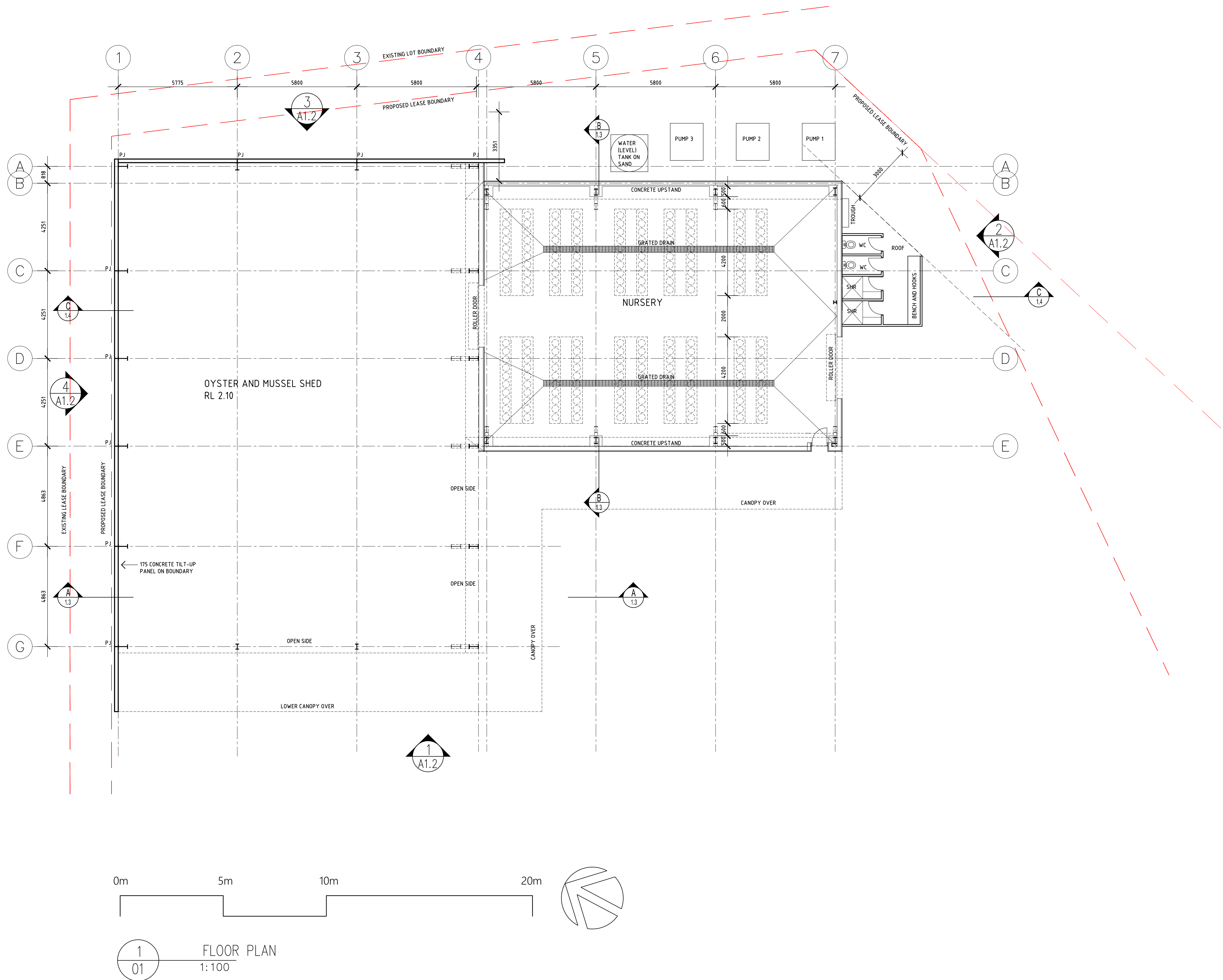
Telephone: (08) 9841 5165
admin@gardinerarchitects.com.au
ABN 90 328 204 743
P.O. Box 1502, Albany, WA 6331

PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 1- SITE PLAN

DESIGNED MR	DRAWN DG	SCALE 1:250
VERIFIED	APPROVED MR	DATE 14-01-21
PROJECT NUMBER 20-021	DRAWING NUMBER	REVISION
CAD FILE SITE PLAN OPTION 1.DWG	A-01	L





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REV	DATE	DESCRIPTION
A	19.10.20	ISSUED FOR CLIENT REVIEW
B	6.11.20	ISSUED FOR CLIENT REVIEW
C	17.11.20	ISSUED FOR REVISED DA
D	15.12.20	FLOOR LEVEL REVISED
E	12.01.21	NURSERY UPDATED

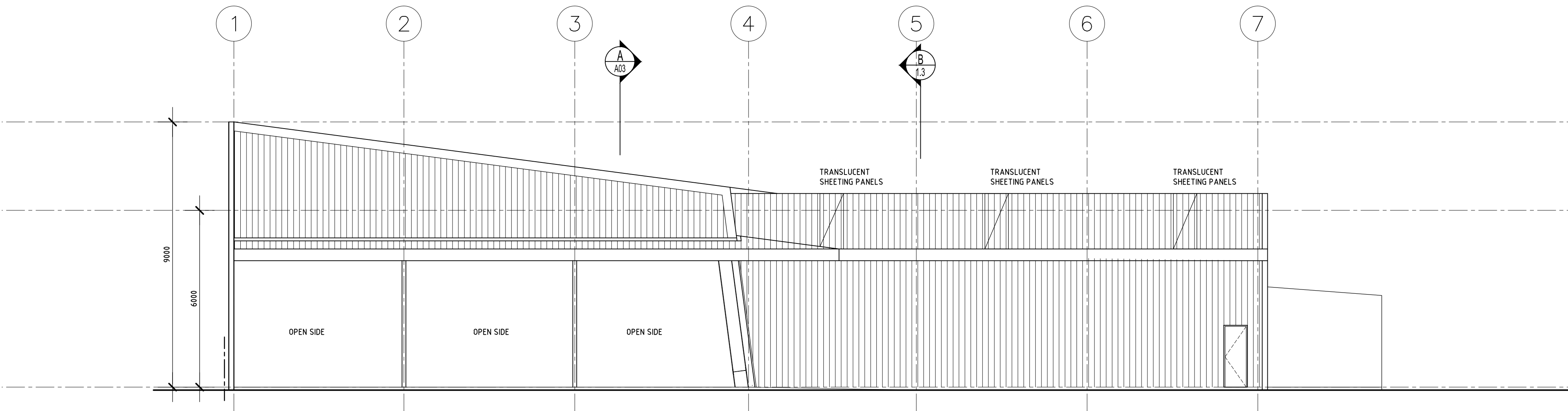
CLIENT
HARVEST ROAD

CONSULTANT
Roberts Gardiner Architects
Telephone: (08) 9941 5165
admin@gardinerarchitects.com.au
ABN 90 338 204 743
P.O. Box 1502, Albany, WA 6331

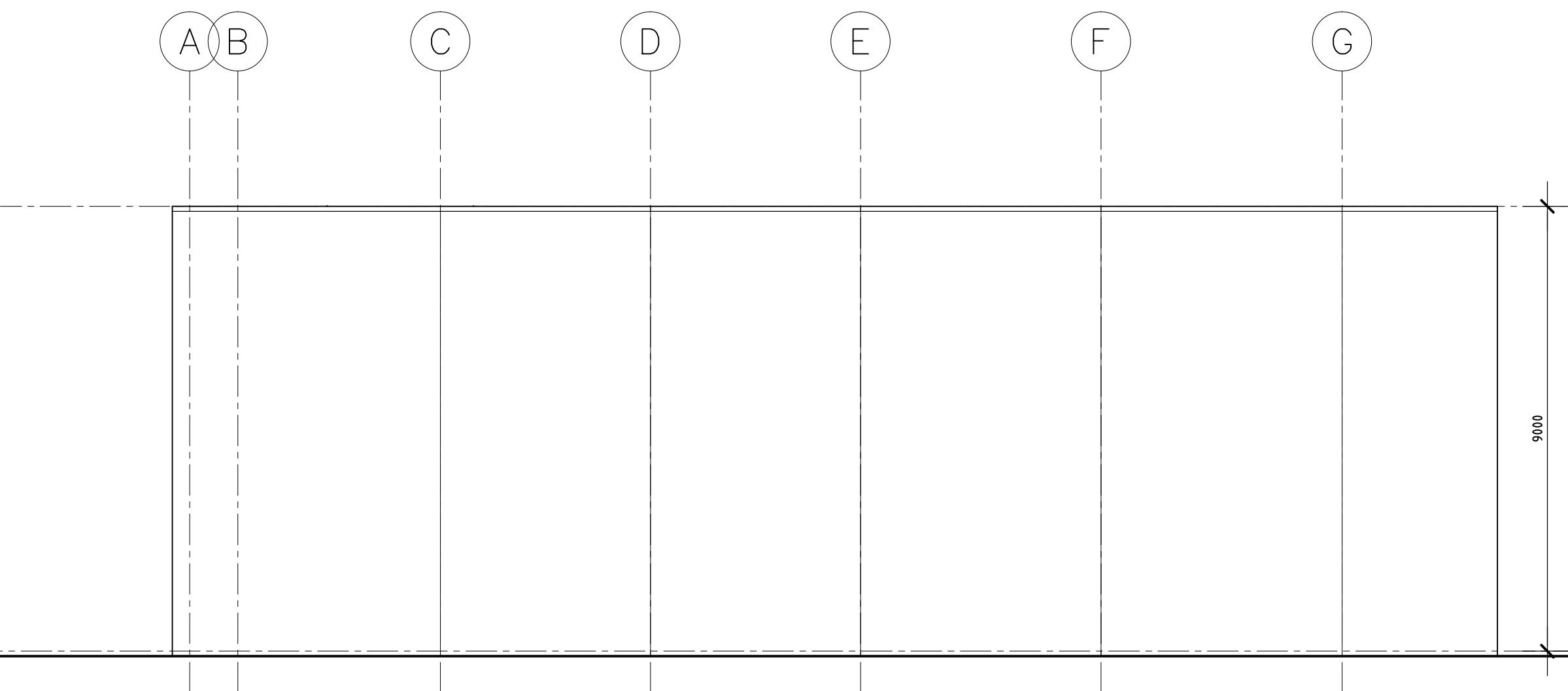
PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 1 - OYSTER / MUSSEL SHED & NURSERY

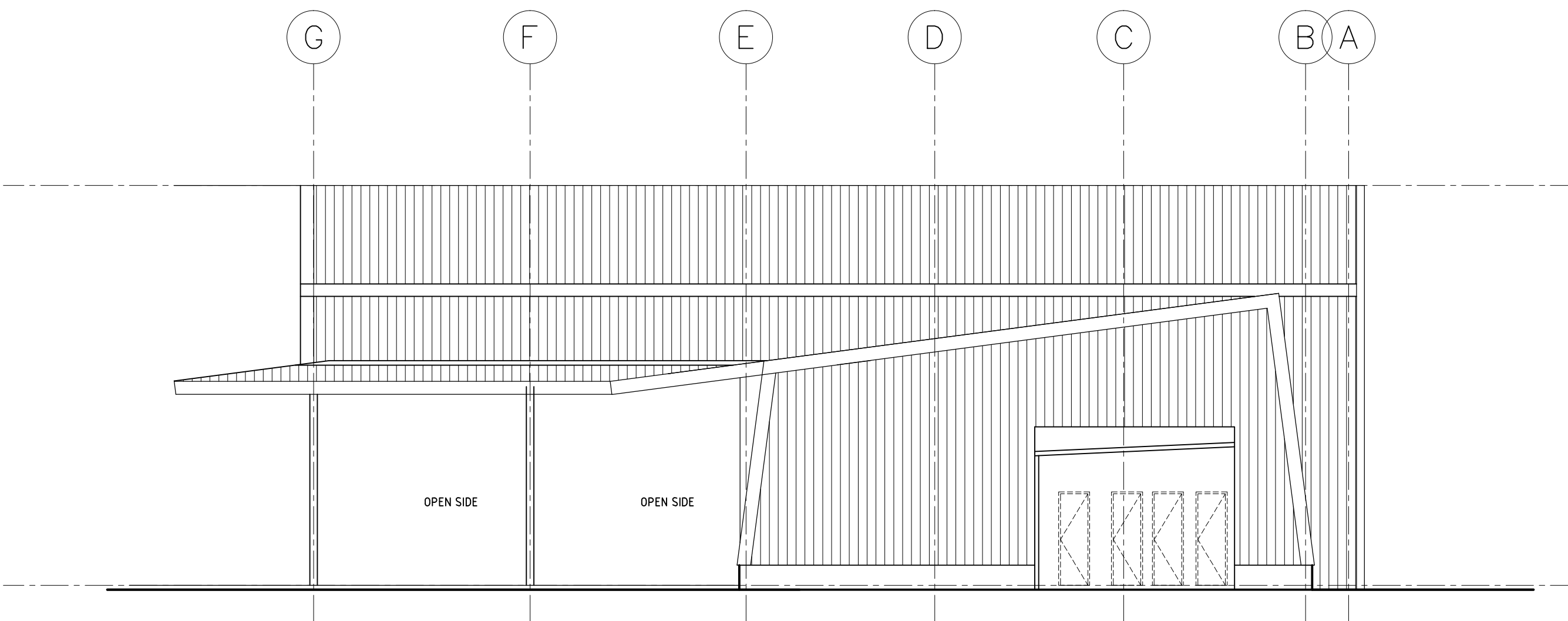
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VERIFIED	APPROVED MR	DATE 12-01-21
PROJECT NUMBER 20-021	DRAWING NUMBER A-1.1	REVISION E
CAD FILE OYSTER SHED.DWG		



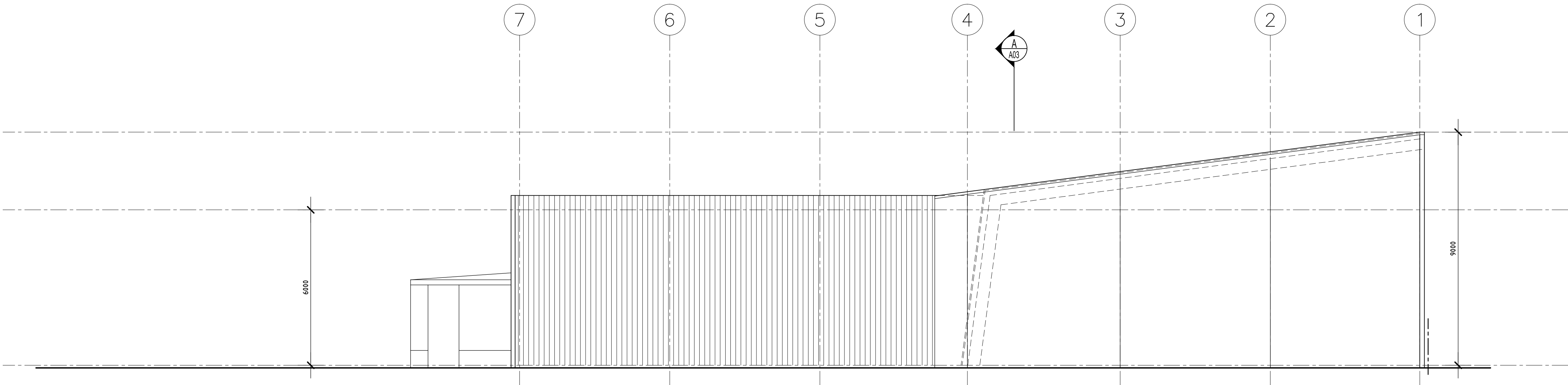
1 SOUTH ELEVATION
A1.1 1:100



4 WEST ELEVATION
A1.1 1:100



3 EAST ELEVATION
A1.1 1:100



3 NORTH ELEVATION
A1.1 1:100

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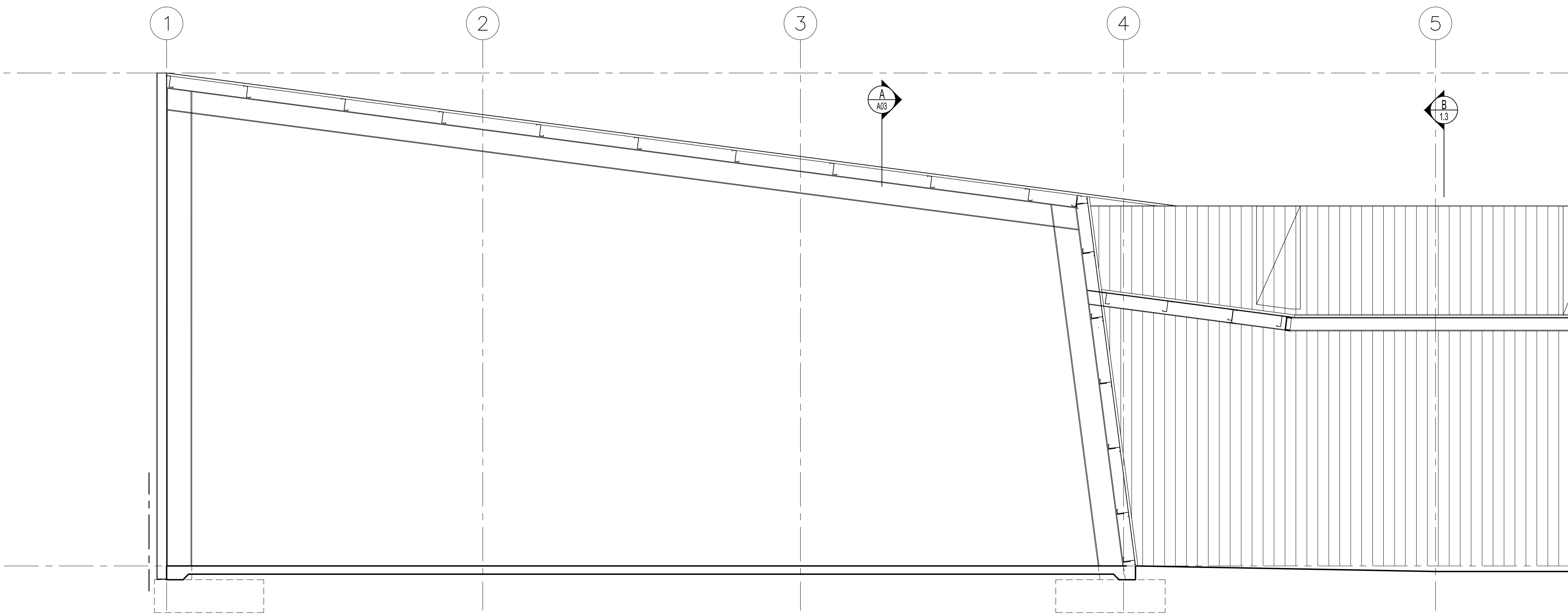
CONSULTANT
telephone: (08) 9941 5165
admin@gardinerarchitects.com.au
ABN 90 338 204 743
P.O. Box 1502, Albany, WA 6331



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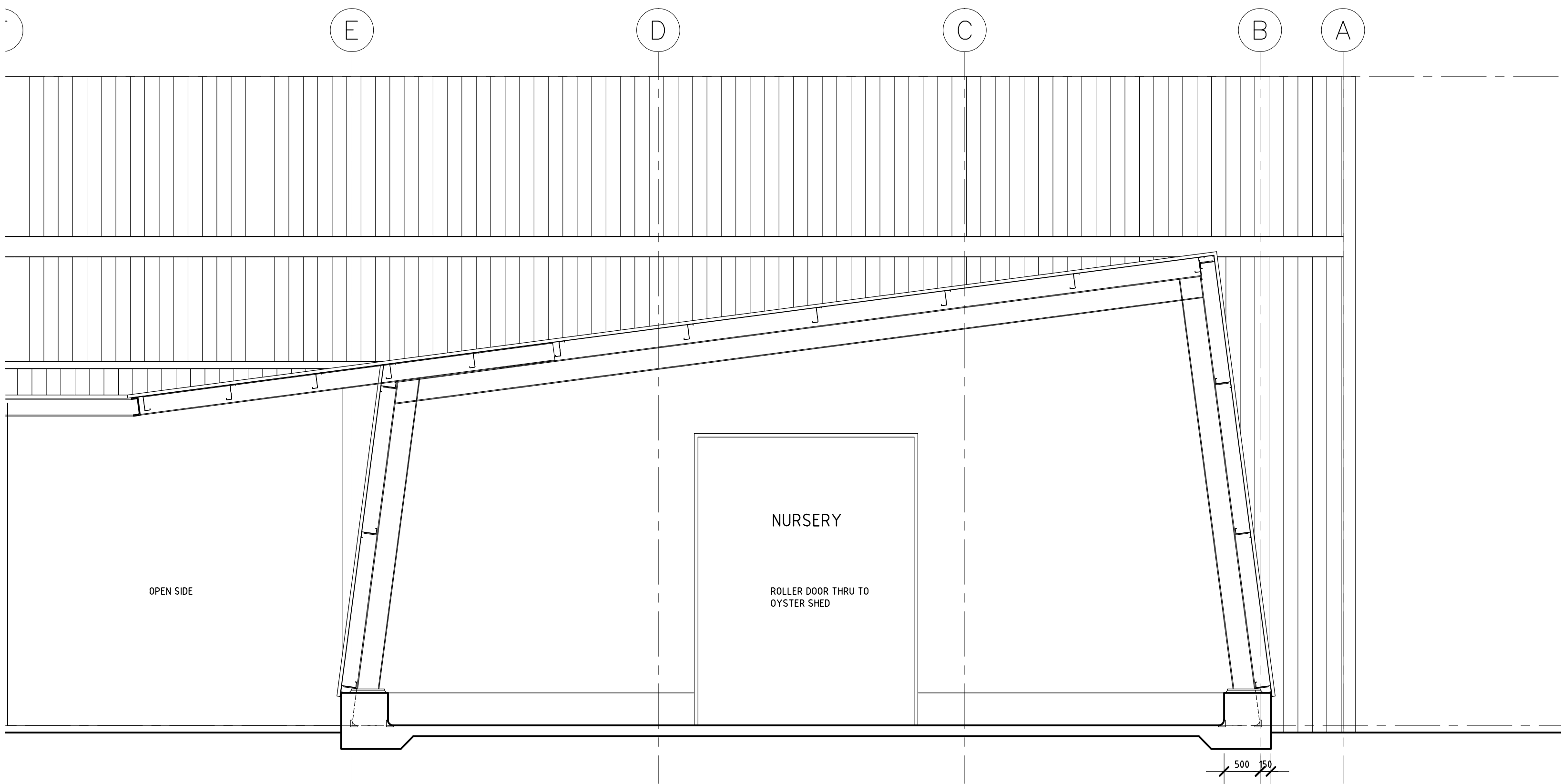
DRAWING
STAGE 1 - OYSTER / MUSSEL SHED & NURSERY

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DESIGNED MR	DRAWN DG		DATE	12-01-21
VERIFIED	APPROVED MR		DRAWING NUMBER	REVISION
PROJECT NUMBER 20-021			A-1.2	C
CAD FILE OYSTER SHED.DWG				



1
A1.1

SECTION AA
1:50



2
A1.1

SECTION BB
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REV	DATE	DESCRIPTION
A	18.11.20	ISSUED FOR CLIENT REVIEW
B	12.01.21	NURSERY UPDATED

CLIENT
HARVEST ROAD

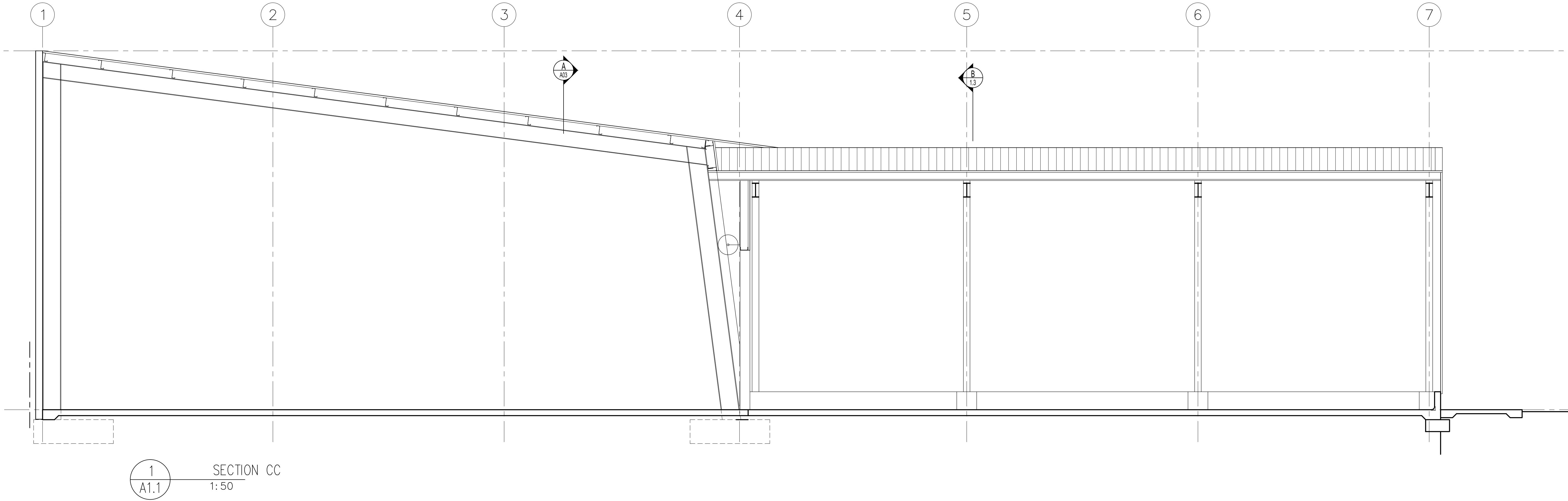
CONSULTANT
telephone: (08) 9841 5165
admin@gardinerarchitects.com.au
ASN 90 328 204 743
P.O.Box 1502, Albany, WA 6331

Roberts Gardiner
Architects

PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 1 - OYSTER / MUSSEL SHED & NURSERY

SECTIONS			SCALE 1:100	
DESIGNED MR	DRAWN DG	DATE 12-01-21		
VERIFIED	APPROVED MR	DRAWING NUMBER	A-1.3	REVISION B
PROJECT NUMBER 20-021				
CAD FILE OYSTER SHED.DWG				



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CONSULTANT

telephone (08) 9941 5165
admin@gardinerarchitects.com.au
ASN 90 328 204 743
P.O.Box 1502, Albany, WA 6331

Roberts Gardiner
Architects

PROJECT TITLE

ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING

STAGE 1 - OYSTER / MUSSEL SHED & NURSERY

SECTIONS			SCALE 1:100	
DESIGNED MR	DRAWN DG	DATE	12-01-21	REVISION
PROJECT NUMBER 20-021	APPROVED MR	DRAWING NUMBER	A-1.4	B
CAD FILE OYSTER SHED.DWG				

DEVELOPMENT APPLICATION P2200078**PUBLIC SUBMISSIONS**

Site details: 2 Swarbrick Street, Emu Point

Application details: Aquaculture and Restaurant

No.	Government Agency/Public Summary of Submission(s)	Proponent Comment	Officer Comment and Recommendation
1.	<p>OBJECTION</p> <p>I would like to make the following comments in respect to the Development application for a Shellfish factory at the Emu Point Parks and Recreation site at the Emu Point marina.</p> <p>1. Environmental Impact unclear</p> <p>There needs to be an independent environmental impact study made of the application prior to its planning consideration. The area proposed for the shellfish factory is part of a unique and pristine estuary system. It includes fragile fish, Bird and shell fish nursery with two major rivers feeding the estuary. The estuary is very shallow and doesn't readily flush and is subject of significant tidal variations and flooding from the rivers.</p> <p>The proposed factory is a significant and large industrial scale operation beyond anything previously undertaken at this location. It is inconsistent with the Public parks and recreation and Tourism focus in the location and therefore needs to be fully evaluated for its impact on the wider environment into the future.</p> <p>The importance of an independent environmental impact study to determine if this Development proceeds cannot be overstated.</p> <p>As the proponents themselves advise the factory will operate 16 hours a day, processing 80 million oysters and 1,700 tonnes of Mussels. This is an enormous industrial operation well out of scale for</p>	<p>Environmental Impact</p> <p>A Coastal Hazard Assessment (CHA) was prepared by M P Rogers & Associates Pty Ltd (MRA) to support the proposal and provided at Appendix E of the Development Application. A preliminary coastal hazard assessment of the site was conducted to satisfy the requirements of the State Coast Planning Policy (SPP2.6) and Coastal Hazard Risk Management and Adaptation Planning Guidelines (CHRMAG Guidelines). Further inspection of the site, seawall and jetty structures will be completed in future stages of the works.</p> <p>The CHA assesses the predicted impact of coastal processes and climate change including:</p> <ul style="list-style-type: none"> • Severe storm erosion • Historical shoreline movement • Climate change induced sea level rise • Storm surge inundation <p>The CHA has predicted that the beach section of the site is at risk of erosion in the long term and suggests a coastal management strategy to mitigate against the impact of erosion. The CHA recommends:</p> <p>“that the existing seawall is inspected to confirm its condition and suitability to protect the site. Furthermore, it is recommended that the remainder of the shoreline is protected.</p>	<p>1. Additional approvals are required from other agencies for things such as sea water discharge and intake, seabed leases, jetty licences and an aquaculture licence will need to be obtained.</p> <p>The application was referred to DWER, DPLH, DoT, the Department of Biodiversity Conservation and Attractions and the Department of Primary Industry and Regional Development, none of whom identified any major environmental issues associated with the stage 1 planning proposal which primarily involves the replacement and upgrade of existing infrastructure.</p> <p>2. The proponent has since opted to removed stage three, the restaurant and tourism facility, from the application. This application is for 'Aquaculture' only which is consistent with the purpose of the reserve (Marine and Associated Purposes) and the land use is consistent with the 'Restricted Uses' under RU2.</p> <p>3. A Coastal Hazard Assessment (CHA) was prepared by M P Rogers & Associates Pty Ltd (MRA) to support the proposal. A preliminary coastal hazard assessment of the site was conducted to satisfy the requirements of the State Coast Planning Policy (SPP 2.6) and Coastal Hazard Risk</p>

<p>anything that has operated at this location before. It is not facility for public or tourist amenity.</p> <p>Having two large biofiltration ponds as well as using seawater intake and discharge back into the estuary presumably includes waste from the processing of 80 million oysters. All of this is very close to public use areas and swimming facilities for families at Emu point. Therefore a study to understand where the waste will be discharged and ensure water quality in Oyster Harbour will not be adversely affected would be essential to reassure families and swimmers using Emu point and its environs.</p> <p>The introduction of Akoya Oysters into the area also needs to be fully assessed as part of this process.</p> <p><u>2. Development claimed to be tourist related.</u> The proponents have claimed that the land use is tourism through the inclusion of a restaurant as part of stage three, however the restaurant is not included in the first two stages of the development and is subject of the first two stages being fully implemented. On this basis the development of stages one and two which represent the immediate development application could not be deemed Tourist related. Indeed there seems no guarantee that the restaurant would proceed.</p> <p>Therefore the test for this development application should be the large scale industrial processing of Shellfish in a location that is supposed to be parks and recreation and for public use.</p> <p><u>3. Coastal erosion and mitigation</u> If I read the proposal correctly there seems to be no suitable risk mitigation against the expected coastal erosion and coastal inundation at the site.</p>	<p>The most appropriate form of this protection would be an extension to the existing seawall.”</p> <p>The development application also notes that the broader precinct is under the management of the City of Albany, as a publicly accessible reserve. We understand the City has a shared responsibility to manage the risk of coastal erosion, acknowledging that this development application applies to an existing developed area of Emu Point, and the construction/extension of a seawall is a broader public matter.</p> <p>Additional approvals are required from other agencies such as the Department of Water and Environmental Regulation and the Department of Transport for seabed leases, jetty licences, land reclamation and dredging of the Harbour.</p> <p>Removal of Tourism Component and what is replacing it Since the lodgement and advertising of the development application, the proponent has opted to remove stage three, the restaurant and tourism facility, from the current development application in order to explore further options, which will be determined at a later date. The application therefore seeks approval for only stage one and two of the development.</p> <p>Pedestrian access along the shoreline to the northern-most jetty will be retained and enhanced by way of additional line marking and signage so as to improve safety and legibility for all users.</p> <p>Wayfinding signage for vehicles and safety barriers will also be provided to reduce any impact from increased traffic through the car</p>	<p>Management and Adaptation Planning Guidelines (CHRMAP Guidelines). A condition is recommended that requires the proponent to submit an updated Coastal Hazard Assessment for the approval of the City of Albany to reflect subsequent changes to the proposal.</p> <p>A condition is also recommended requiring the proponent to get the seawall inspected by a suitably qualified expert to confirm its condition and suitability to adequately protect the site. Any repairs to seawall should be paid for by the proponent.</p> <p>It is also recommended that the proponent submit written acknowledgment to the City, accepting the buildings and their contents may be subject to periodic flooding and/or inundation, prior to the commencement of development as finished floor levels below those required under the City of Albany Development in Flood Prone Areas Policy are proposed.</p> <p>4. The proposed land use is consistent with both the reserve purpose and the Restricted Uses that are permitted at the subject site. The proposed use is also consistent with the previous use of the site.</p>
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	<p>This seems inconsistent with the extensive work conducted by the City of Albany in assessing future risk and risk mitigation from these expected events. The only risk mitigation is that the proponents expect local government to extend the sea wall for the benefit of the proponents. The proponents also claim it cannot mitigate the risks because of the nature of their proposal, that is it needs coastal access. Clearly considering other coastal locations that are not at similar risk of coastal erosion and inundation should be included.</p> <p><u>4. Emu Point and Oyster Harbour needs to be protected</u></p> <p>One of the reasons we purchased a property at Emu point was the pristine nature of the environment. It is a wilderness treasure for birds, fish and shellfish and while development of aquaculture is an important pursuit it should not be at the expense of the environment. It is also a wonderful playground for families, especially those with small children as it is sheltered with calm and shallow pristine waters. This needs to be protected too.</p> <p>It would be helpful for the proponents to consider ways in which both objectives can be achieved, perhaps smaller scale or at a different site.</p>	<p>park. This will include a vehicle turnaround area at the south of the proposed lease area, 'No Through Road' and 'Pedestrians This Way' signage. A Safety Management Plan will also be implemented once the stage one and two developments are in progress to ensure the safety of all users of the area.</p> <p>Any existing activities at the subject site will continue to be carried out such as bird catching and tagging and access to the jetties.</p> <p>Impact on existing community/ businesses/ suggestion to relocate/ Precinct Study Report</p> <p>The Scheme lists a number of Restricted Uses that are permitted at the subject site, including Aquaculture, Club Premises, Harbour Installations, Marina, Marine Filling Station and Restaurant. The Scheme provides the opportunity for the site to be developed as an Aquaculture Facility and a restaurant. The restaurant has been removed from the current development application and is to be further explored at a later date.</p> <p>The proposed use is consistent with the past and existing uses on Lot 501 as the site was previously used as an oyster processing facility. The Aquaculture use complements the substantial list of uses and activities in the wider area and is deemed an appropriate use by the Scheme. The use responds to the existing uses and reiterated the ideals of the area as a local coastal site and contributes to the diverse mix of uses and activities. The products produced by the facility will also be sold within the local community at the local market and potentially Emu Point Café.</p>	
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<p>2.</p>	<p>OBJECTION</p> <p>I have viewed the proposal at the City's Offices in North Road on October 19, 2020. I assume there are no further amendments to the proposal as I understand responses close this coming Wednesday, the 21st October.</p> <p>My comments are as follows:</p> <p><u>Procedure</u></p> <p>1. This proposal is a very important one, involving substantial expenditure on a very sensitive part of the Albany coastline.</p> <p>As such it is important for adequate consultation to occur, both from the general public, specific interest groups, businesses in the area and appropriate government agencies. It appears that all of this has not taken place, and that the proposal appears to have been "hurried through". There appears to have been little public consultation carried out; just a set of drawings held at the City's front counter to be examined by a trained eye. The trouble with this approach is that the public does not have a trained eye; they generally cannot read drawings and are not fully informed as a consequence.</p> <p>2. This proposal falls far short of what the City deserves as a competent proposal. It lacks the following reports which would explain the proposal fully:</p> <ul style="list-style-type: none"> • A Precinct Study Report which would look at all the activities along Swarbrick Street and the impact this facility would have on the existing area's operations and amenity. These activities include: <ul style="list-style-type: none"> ○ Oyster Processing ○ Commercial Fisheries Operations ○ Marine Service facilities ○ Boat Repairs 	<p>Lack of consultation</p> <p>Public advertising of the development application was conducted in accordance with the statutory requirements established by the City of Albany and the Deemed Provisions under the Planning and Development (Local Planning Schemes) Regulations 2015.</p> <p>The proponent is eager to discuss the project with stakeholders and is open to ongoing dialogue.</p> <p>Request for additional studies (traffic/precinct study)</p> <p>Parking traffic issues</p> <p>The removal of stage three from the current approvals process will reduce the potential impact of traffic generated by the proposal. As mentioned above, options for the tourism facility will be explored and applied at a later date and has been replaced by a pedestrian access path and wayfinding signage. The proposed car parking will now wholly service stages one and two and additional bays have been included in the proposed development to meet the parking requirements for these stages as set out per the requirements of City of Albany's Local Planning Scheme No.1 (the Scheme) Table 6 – Car and Bicycle Parking Requirements.</p> <p>A potential car parking reconfiguration study has been prepared (Appendix I of the DA report), to identify the opportunity for a more efficient provision of car bays in the wider Precinct. This plan can be implemented by the City of Albany at its discretion.</p> <p>During peak processing months a maximum of four trucks per day would be required to transport the product produced by the</p>	<p>1. Consultation has been extensive and in excess of the statutory requirements established by the <i>City of Albany and the Deemed Provisions of Planning and Development (Local Planning Schemes) Regulations 2015</i>. Both the proponent and the City of Albany have held numerous discussions with interest groups and members of the public before and after the lodgement of the development application.</p> <p>The application was directly mailed to all Emu Point Landholders, Penholders and Tenants of the Reserve. A planning notice was placed on site and a public briefing note was placed on the City of Albany website.</p> <p>The City was available to answer any questions on the advertised plans, and worked through the plans and implications of the project with a number of members of the public.</p> <p>2. Due to the removal of the Restaurant and Tourism facility from the application, the application (Stage 1) is primarily an upgrade of existing infrastructure on-site, therefore the impacts on the operation and amenity of the area are not expected to significantly increase.</p> <p>The proposed land use is also consistent with both the reserve purpose and the Restricted Uses that are permitted at the subject site.</p> <p>It should also be noted that the majority of uses listed had the opportunity to comment on how the proposal will impact their business through public advertising.</p>
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	<ul style="list-style-type: none"> ○ Slipway Services ○ Tourist Operations ○ Fish and Chips Retail ○ Boat Launching and associated set up, de-rigging and parking ○ Beach Access at the southern end ○ Dragon Boating Club paddling; launching and retrieval. ○ Boat Pens — City of Albany ○ Boat Pens — Department of Transport ○ Boat Retail ○ Storage Units ○ Commercial Premises. ○ Traffic associated with the above activities. <p>3. To my knowledge there has been no such (Precinct) study carried out to support this proposal or indeed guide future developments. There should be a traffic study, recognising the amount of vehicle movements currently experienced at peak times, and projecting what additional vehicle movements this proposal will generate. This should consider commercial vehicle movements when the Facility reaches peak production as well as public vehicle movements when the restaurant is up and running. I believe such a study would make it very obvious that to build a restaurant at the northern end adjacent to the processing works would present the following risks:</p> <ul style="list-style-type: none"> • Traffic congestion and the risk of injury to the general public. People will be driving through; sight-seeing before they try and find a park at the restaurant. It may well be full so they will go up and down, probably taking boat trailer parking instead. The increased commercial traffic is of concern as well, with many more truck journey's through the area. 	<p>proposed development. The predicted movement of these trucks was assessed by Stantec and a diagram of the truck turning template was provided at Appendix F of the development application. The proposed size of the trucks is 12.5m and movement and turning circles were deemed appropriate for the lot size and location, and noting that the Precinct already handles large vehicles associated with the existing marine operations.</p> <p>It was noted in the application that the proposed development is located within a bushfire prone area and a Bushfire Management Plan (BMP), provided at Appendix C, was prepared by Envision to accompany the proposal. The BMP identified the proposed restaurant as a vulnerable use and a Bushfire Emergency Evacuation Plan was prepared to manage use of the site. The proposed use for state one and two is considered consistent with the previous use and was not identifies as a high-risk use. The current access to the site was deemed appropriate for the use of service vehicle if the need arose, eliminating any need to construct a new road through the adjoining reserve.</p>	<p>3. See above. Suggestion for a future precinct study for the area is noted however, this is not applicable to the development application.</p> <p>4. The restaurant component has been removed from the application.</p> <p>5. See above.</p>
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	<ul style="list-style-type: none"> Risks to pedestrians when people are walking down the waterfront; with no formal path to the proposed restaurant with trucks, boats on trailers, tradesman attending to marine operations all crossing and using the area. <p>4. To look at it logically; there is no real requirement to build a restaurant adjacent to the processing facility. It would be more appropriate to have Albany oysters available throughout restaurants in Albany itself; or even at the Emu Point Cafe at the end of Mermaid Avenue. The Processing facility need not have a public viewing area; they can conduct tours on an appointment basis throughout the year, or form a collaboration with another tour group.</p> <p>5. I believe Council needs to reject Stage 3 of this proposal outright and request a lot more from the proponent in terms of a management plan for the whole site.</p>		
3.	<p>OBJECTION</p> <p>We are directly affected by the proposed business plans for the Aquaculture and Restaurant.</p> <p>We lease a boat pen (on the last jetty near the aquaculture facility) from the Dept. of Infrastructure and Planning. We have leased it for over 3 years. We have no plans to move from this boat pen. We chose this pen for its location (Emu Point) as we live in the area, ease of accessibility (I have a disability and have limited mobility) and for financial reasons.</p> <p>We do not agree with the proposal for the following reasons.</p>	<p>Parking/traffic issues</p> <p>Lack of community/stakeholder consultation</p> <p>Request for additional studies – traffic</p> <p>Please refer to the response above to Submission 2.</p> <p>Impact on existing marine activities</p> <p>The removal of stage 3 from the current development application has ensured that access to the jetties is maintained for public and private use. Pedestrian access along the shoreline to the northern-most jetty will be retained and enhanced by way of additional line marking and signage so as to improve safety and legibility for all users.</p>	<p>1. As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements. The removal of stage 3 (restaurant) from the current development application has ensured that access to the jetties is maintained for public and private use.</p> <p>2. The proposal is now compliant with LPS 1 car parking requirements and all parking will be contained on site.</p> <p>3. As a result of amendments to the application following the consultation period, a public access route will now be provided through</p>

	<ol style="list-style-type: none"> 1. Parking and access to our boat pen will be severely and negatively affected by the proposed aquaculture business infrastructure changes and especially with the proposed restaurant location. There are commercial fisherman who also have boat pens on the same jetty as us who will be negatively affected also. It is a very confined area already with limited parking without putting a restaurant there as well. 2. The increased parking requirements and congestion are not addressed at all in the proposal as they are not catering for other stakeholders/users such as ourselves in their plans at all. We find this is extremely disappointing and a complete oversight! Why is there no provision for existing users of this area? It is extremely poor taste and very arrogant behaviour to be not involved or included in the decision making process at this early important stage of planning. 3. Due to the ease of accessibility I also use the area to exercise my dog along the sand flats when the tide allows. I understand this will no longer be the case once the area is dredged etc? 4. We don't believe there will be adequate parking left for us with the amount of employees stipulated in the proposal (88) and then with the patrons of the restaurant included as well. 5. They have not stated which roads they will be transiting multiple times of the day. No traffic management plan. We live on Collingwood Rd. Will they be going 	<p>Pressure on the existing parking provisions is alleviated as the proposed car parking will sufficiently service the predicted requirements of stages one and two of the proposed development, as a continuation of existing functions. The operation of businesses will not be impacted by the proposed development and the use of the land as an oyster farm is consistent with the existing and surrounding uses. The oyster farm will provide employment and activity to a currently underutilised site.</p>	<p>the site to allow public access to the mudflats.</p> <ol style="list-style-type: none"> 4. See above. 5. The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week). <p>Given the limited number of traffic movements per day for the Stage 1 and Stage 2 development, traffic is not expected to impact the amenity of residential areas. A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>The Engineering Section have confirmed the roads are capable of accommodating the vehicle movements required.</p> <ol style="list-style-type: none"> 6. See above 7. The application was referred to DWER, DPLH, DoT, the Department of Biodiversity Conservation and Attractions and the Department of Primary Industry and Regional Development, none of whom identified any major environmental issues associated with the stage 1 planning proposal. 5. See above. Additional approvals are required from other agencies for things such as sea
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	<p>through this area, or Ulster Rd, or Bayonet Head Rd? No information provided.</p> <p>6. What size trucks will be used? No information provided. If there will be an increase in the number of truck movements over time increasing the noise factor affecting local wildlife? Can this be limited.</p> <p>7. We have an osprey family who uses the jetty marina as their fishing/resting base periodically during the day. Their fishing ability will be affected by the increased noise, water and road traffic in the area. What are the environmental and wildlife impacts? Has there been an environmental impact study done?</p> <p>8. Will water quality be affected? What pollutants will be entering the ecosystem with a popular swimming location nearby.</p> <p>I am a long term Albany resident and my ancestors settled Emu Point originally. I feel strongly the need to protect and nurture this wonderful area and to not just accept large scale industrial type businesses impacting negatively on this historical and beautiful location.</p>		<p>water discharge and intake, seabed leases, jetty licences and an aquaculture licence will need to be obtained.</p>
4.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>Written advice had been received from the City of Albany about an opportunity for residents in Emu Point to submit comments on a planning proposal. That proposal being Aquaculture and Restaurant, on Lot No.1423, 2 Swarbrick Street, Emu Point.</p> <p>Key Issues/Concerns</p> <p>Communication: Apparent total lack of contact by Harvest Road with any of the adjacent businesses in close proximity to proposed</p>	<p>Lack of community/stakeholder consultation</p> <p>Parking issues</p> <p>Increase traffic</p> <p>Create road through class A reserve to improve access</p> <p>Impact on use of the jetty</p> <p>Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>Communication: Consultation has been extensive and in excess of the statutory requirements established by the City of Albany and the Deemed Provisions of Planning and Development (Local Planning Schemes) Regulations 2015. Both the proponent and the City of Albany have held numerous discussions with interest groups and members of the public before and after the lodgement of the development application.</p>

<p>developments. While that might not be a requirement from a planning submission perspective, given the close proximity to other businesses, it would have been a good public relations initiative. Those businesses include Emu Point Slipway Services, Watercraft Marine, The Squid Shack, Fishing & Boating Club, Fishability Albany, Kalgan Queen and Albany Sea Rescue Group. Professional fishermen also need to be included in discussions about the proposal given their operations are likely to be affected</p> <p>Accessibility and Parking: Deemed a major issue, and concentrated primarily on the challenges associated with increased road traffic, public access, parking and safety. Additional important comments on these concerns can be found further into this submission.</p> <p>Public Access to Waterfront: From visual map assessment, it would appear that a gate will be placed on the northeast corner of the planned berthing jetty. On that basis, it would be reasonable to expect that no public access would be permitted across the berthing jetty in the future.</p> <p>That is of real concern, as, when seasonal and tidal conditions are suitable, people fish and hike to the west, and many bird watching enthusiasts use that waterfront to access the mudflats to observe and photograph migratory birds. It should also be noted that from time to time, organised bird groups assist with the tagging and releasing of annual migratory birds that frequent the mud flats.</p> <p>Future Parking Congestion Issues: Many issues need to be considered in relation to what is looming as a major parking problem, particularly when a restaurant with a 120 seat capacity and</p>		<p>The application was directly mailed to all Emu Point Landholders, Penholders and Tenants of the Reserve. A planning notice was placed on site and a public briefing note was placed on the City of Albany website.</p> <p>The operation of other businesses within the Reserve is not likely to be significantly impacted by Stage 1 development which is essentially upgrading existing outdated infrastructure on the site.</p> <p>Accessibility and Parking: A condition is recommended requiring the applicant to submit and implement a vehicular parking, pedestrian and access plan to the satisfaction of the City of Albany. This shall include detailed specifications for both the cul-de-sac vehicle turnaround and the public access route outside of the lease area, confirmation that car parking and access has been designed in accordance with the Australian Standard 2890 and provision of a turnaround / reversing area on site to allow vehicles to enter the street in forward gear.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>As a result of amendments to the application following consultation, all required car parks for the Stage 1 development are able to be provided on-site. This should alleviate concerns over parking pressures within the Reserve.</p> <p>Public Access to Waterfront: As a result of amendments to the application following the consultation period, a public access route will now be provided through the site to allow public access to the mudflats to the north of the lease</p>
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<p>the proposed retail outlet is constructed and is operational.</p> <p>Firstly, the area where the restaurant is planned has a current parking capacity for around 23 vehicles. When built, there is only a planned parking capacity of eight vehicles, which one would assume would be used by staff employed by the restaurant. Already we can see from that, there is a considerable parking area reduction.</p> <p>It should also be noted that the area where the restaurant is planned is currently used by professional fishermen and crews for vehicle parking overnight and extended periods, while at sea. This has been the case since the construction of the marina and for a period of some 50 years.</p> <p>There does not appear to be adequate planning or definition of where patrons would park vehicles once the 120 seat Restaurant and Interactive Shellfish Experience Centre is operational. It has been deemed that at least 30 parking bays would be needed for patrons of the restaurant, and there does not appear to be any provision for that in the current planning submission. This needs to be addressed before the planned development is finalised.</p> <p>This approach appears to pass the problem of parking onto the City of Albany to sort out, which is unreasonable. The current parking space is needed for professional fishermen and marina pen holders (for maintenance access etc.), along with slipway and marine businesses nearby.</p> <p>If parking for the restaurant is planned for the east of the proposed restaurant on the existing pavement areas, there needs to be an absolutely clear understanding of how the increased vehicle</p>		<p>area. Public access to the finger jetty and the service jetty will be retained.</p> <p>Future Parking Congestion Issues: As a result of amendments to the application following consultation, all required car parks for the Stage 1 development are able to be provided on-site. This should alleviate concerns over parking pressures within the Reserve.</p> <p>Increased Vehicle Movement: The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>Given the now limited number of traffic movements per day, traffic is not expected to impact the amenity of residential areas. A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>The City does not have the statutory authority to restrict an 'as of right vehicle' from using public roads.</p> <p>Recommendations for Changing Traffic Flow: Noted – see above.</p> <p>Separate Access to Harvest Road: The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p>
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<p>and potential foot traffic will be managed safely. Also, it should not impede, impact on or disrupt the day to day operations of the existing Emu Point Slipway Services or Watercraft Marine.</p> <p>Demand for Parking Space – Currently, with the high demand for parking space as listed above, and from recreational fishing and boating, tourists, Fishability Albany participants and locals, space is at a premium. In fact, there is often a need for vehicle and trailer parking overflow onto the beach, adjacent to the current carpark, to the east, being towards the Emu Point channel.</p> <p>Taking out 30 of those parking bays to accommodate parking for a planned restaurant is unacceptable.</p> <p>At this point in time, current traffic flow for those purposes seems to work satisfactorily, and without any safety issues or concerns. No doubt there are seasonal factors and weather conditions that influence the amount of casual through traffic.</p> <p>Casual observations indicate around 50 local and tourist vehicles per day traverse the area up to the service jetty and return, and can be up to around 100 per day.</p> <p>With the expected increase in the population of Albany, there will be increased demand for parking on the water front at Emu Point. There is already pressure on the existing parking.</p> <p>Increased Vehicle Movement: Once established, it is understood that there will be a considerable increase in traffic movement along Swarbrick Street and through the current parking areas. Planning submission documents indicate that there are plans for 56 staff to work on the Seafood Processing Facility, with the possibility of</p>		<p>Given the now limited number of traffic movements per day, traffic is not expected to impact the amenity of residential areas (including Swarbrick Street).</p> <p>A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>The City does not have the statutory authority to restrict an 'as of right vehicle' from using public roads.</p> <p>Commercial Jetty: As a result of amendments to the application following the consultation period, public access to the finger jetty and the service jetty will be retained.</p> <p>Conclusions: Support for Stage 1 noted.</p>
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<p>increasing to 88 staff. That is excluding restaurant staff and potential patrons.</p> <p>There are also plans to operate two shifts per day, six days per week; again, confirming an increase in the daily traffic movement. This would include staff movement to and from the workplace, inward supplies, waste and service vehicles, and outward transport of product.</p> <p>With all that in mind, it is not unreasonable to expect that this will increase traffic along Swarbrick Street and cause increased congestion in the area to an unsafe level, by having at least an extra 200 vehicle movements per day. Swarbrick Street is a narrow road with two 'T' road junctions and two cycleway exit points on to it.</p> <p>With the additional traffic expected when the restaurant is functional, a mix of pedestrians, cyclists and safety issues, and that really creates a totally unacceptable and unsafe environment.</p> <p>Recommendations for Changing Traffic Flow: We have given a lot of consideration to how to resolve the increased traffic, parking and safety issues for all.</p> <p>In that mix of discussion, the issue of natural vegetation growing right up to the boundaries of existing properties in the proposed development area has been raised. It should be noted too, that there have been several attempts in the past to seek support for protective burning to be carried out in the A Class Reserve adjacent to those properties.</p> <p>Unfortunately, there has been a reluctance by relevant authorities to come up with any plan for that to progress. Understandably therefore, there</p>		
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<p>will be some real challenges and high risk to property if there is an unplanned fire in that reserve.</p> <p>Separate Access to Harvest Road: We propose that the city work with the relevant departments and construct an access road from Clarke Street through the A Class reserve to the rear of Harvest Road's leased area. A small portion of the reserve could extend Harvest Road's lease west of the facility introducing a new parking area which is out of sight. This could also serve as a fire break. This would keep all Harvest Road traffic diverted from Swarbrick Street and separated from the existing businesses and tourists.</p> <p>Commercial Jetty: We are particularly concerned about the future of the Department of Transport's commercial jetty. Will all users of the jetty (including Fishability) be guaranteed of full access to the facility?</p> <p>Conclusions: We hope to work towards a suggested beneficial outcome for all involved.</p> <p>In saying that, we have absolutely no objections to the development of the Harvest Road Seafood Processing Facility and the planned restaurant and tourist facility.</p> <p>All we ask for is some serious consideration be given to what has been presented in this document. It is not just about now, but poor decisions made now could impact well into the future. For that reason, we urge everyone involved to think of the future of this area and the very real need now to consider including all users in that planning.</p> <p>We agree to proceed with Stage 1 of the development. Stages 2 and 3 need to be put on</p>		
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	hold indefinitely until a guarantee is made to address our concerns re the lease area and that public access to the jetty and the waterfront will not be compromised.		
5.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>We are writing in regards to the Emu Point Aquaculture and Restaurant Development proposed on the old Ocean Foods site at 2 Swarbrick St Emu Point. Firstly, we would like to make it clear that we are supporters of the redevelopment of the site and think that it is great that the area is going to be further utilized and face lifted after so many years of neglect. It is exciting to see new projects happening around Albany and enhancing the vibrancy of the town both for visitors and locals.</p> <p>Our main concern is that access to C jetty in front of the proposed restaurant in phase 3 as we will be restricted or blocked by the restaurant's positioning. We feel the positioning of the restaurant would be far better west of C jetty at the beginning of the preexisting yard.</p> <p>In owing and maintaining boats at Emu Point, we need access to other facilities in the area including Emu Point Slipway's boatlifting Jetty and service to take our boat out and hard stand it annually. The position of the restaurant is going clearly hinder this activity and the service we need in order to maintain our Yacht at Emu Point. Accompanying this there is also an underlying fear that C Jetty will be allowed to fall into disrepair as B Jetty has and be closed potentially leading to the jetty being removed or taken over by the developer pushing us out and leaving us nowhere in Emu Point to pen our yacht. This fear is clearly speculative however if it were to happen it would be a big loss for Emu Point and Albany boat owners and would leave us no choice but to</p>	<p>Impact on access to jetty and storing boats</p> <p>Increase consultation</p> <p>Please refer to the response above for Submissions 2 and 3.</p>	<p>As a result of amendments to the application following the consultation period, public access to the finger jetty and the service jetty will be retained.</p> <p>The restaurant component has since been removed from the application. Stage 1 planning proposal which primarily involves the replacement and upgrade of existing infrastructure.</p>

	<p>relocate to the Albany Town Marina costing us almost twice the price.</p> <p>In finishing we restate our support for the redevelopment and feel it good thing for Emu Point and Albany however further consultation with Stakeholders, Emu Point boat uses, and existing Emu Point businesses needs to take place in order for the development to work for all involved.</p>		
6.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>We, wish to make it clear we are not opposed to any such development at the Marina. However, we do have some major concerns around the issue of safety for our volunteers.</p> <p>We feel that increased traffic associated will cause safety issues for Volunteers as they perform their duties such as launching boats, recovering boats from the water, cleaning boats and other associated activities that require boats, the truck and the tractor to be parked outside of the shed.</p> <p>There are already problems with speeding traffic through the area and there have been several near misses for Volunteers. With an expected increase in traffic this problem will only get worse</p> <p>There are two options that we consider would assist in securing safety:</p> <p>14) Construct a road that comes off Swarbrick Street just before the Fishing Club building and goes around the back of the existing buildings to the proposed site. This would drastically reduce the numbers of vehicles entering the Marina area. It would also allow for a parking area to be established there.</p>	<p>Create new access road to reduce impact</p> <p>Please refer to the response above for Submissions 1 and 2.</p> <p>Impact on safety</p> <p>The safety of users of the existing marine facilities is of high importance and has been taken seriously by the proponent. Stage three of the development has been removed from this Development Application, and existing pedestrian access along the shoreline to the northern-most jetty will be retained. This will be improved by way of additional line marking and signage so as to improve safety and legibility for all users. Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas.</p>	<p>As a result of amendments to the application following consultation, all required car parks for the Stage 1 development are able to be provided on-site. This should alleviate concerns over parking pressures within the Reserve.</p> <p>The operation of other businesses within the Reserve is not likely to be significantly impacted by Stage 1 development which is essentially upgrading existing outdated infrastructure on the site.</p> <p>A condition is recommended requiring the applicant to submit and implement a vehicular parking, pedestrian and access plan to the satisfaction of the City of Albany. This shall include detailed specifications for both the cul-de-sac vehicle turnaround and the public access route outside of the lease area, confirmation that car parking and access has been designed in accordance with the Australian Standard 2890 and provision of a turnaround / reversing area on site to allow vehicles to enter the street in forward gear. Any speeding within the Reserve will fall under the jurisdiction of WAPOL.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p>

REPORT ITEM DIS253 REFERS

	<p>Another benefit of such a road is that it would serve as a firebreak for all the associated area.</p> <p>b) Alter the traffic islands at the entrance to the Emu Point Marina area to prevent public vehicular access past the Albany Volunteer Marine Rescue buildings.</p>		<p>The City does not have the statutory authority to restrict an 'as of right vehicle' from using public roads.</p> <p>A condition is also recommended requiring the applicant to provide a marked vehicle turnaround area and associated signage restricting pedestrian vehicle access to the Emu Point Slipway Services boat lifting and launching area and beyond.</p>
7.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>Please find following my concerns in relation to Aquaculture and restaurant development P2200417</p> <p>Stage 1 and 2 of the development appear to fit in with the current use of the site and general area. I would however strongly oppose the stage 3 restaurant development on the site. I see many problems and conflicts arising from allowing a 120 seat restaurant with that number of people (adults and children) accessing an area that is essentially a commercial location with a proposed increase in heavy vehicle movements.</p> <p>The development itself is proposed to have around 1800 truck movements per year. Trucks and heavy commercial vehicles service fishing boats on the concrete jetty bordering the proposed restaurant.</p> <p>The emu point boat lifting service (which provides an essential service for both commercial and recreational boat owners) lifts and moves boats up to 40 tonnes within 20m of the proposed restaurant. The boat/outboard motor repair business is regularly moving trailer boats with a tractor.</p> <p>The idea to allow restaurant access (particularly for children) through this heavy commercial</p>	<p>Lack of support for the restaurant – impact on existing businesses/traffic/marine activities/parking</p> <p>Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>Support for Stage 1 and 2 noted.</p> <p>The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>A condition is recommended requiring the applicant to provide a marked vehicle turnaround area and associated signage restricting pedestrian vehicle access to the Emu Point Slipway Services boat lifting and launching area and beyond.</p>

	<p>vehicle area is a recipe for potential tragic accidents.</p> <p>Parking is the other problem. On busy boating days the car parking areas are already full. To propose only 8 parking bays for a 120 seat restaurant is not acceptable. The proposed development should provide all its required parking onsite otherwise it is the ratepayers of Albany who suffer with parking hassles.</p> <p>I strong urge the City of Albany not to allow the stage 3 proposal in this commercial heavy vehicle area.</p>		
8.	<p>OBJECTION</p> <p>I am extremely concerned about the development of harvest roads oyster farm and possible future restaurant. As a Regular boat user there is already very limited parking as it is also Emu Point being a one road in there is going to be a lot of increased traffic in and out. I feel as though this development has been very rushed and that there are other suitable spots around the Albany area that wouldn't ruin the beautiful Emu Point we have now.</p>	<p>Impact on existing marine activities Consider relocation Please refer to the response above for Submissions 1.</p>	<p>As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements.</p> <p>The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>Council is unable to recommend alternative locations for development and must assess the application as it is placed before them.</p> <p>The proposed land use is consistent with both the reserve purpose and the Restricted Uses that are permitted at the subject site. The proposed use is also consistent with the previous use of the site</p>
9.	<p>OBJECTION</p> <p>I had a look at this development, and I am sure there is market for seafood products, but to build a restaurant on existing parking space that is at times already full, does not make sense. And the restaurant has only 8 car parking bays. The report shows a minimum 30 bays for patrons plus</p>	<p>Impact on traffic/parking Lack of support for restaurant Please refer to the response above for Submissions 1 and 2.</p>	<p>The proponent has since opted to removed stage three, the restaurant and tourism facility, from the application. As a result, the proposal is now compliant with LPS 1 car parking requirements.</p>

	<p>carbays for employees (ie up to 10 cars?). In addition to that most cars to NOT have 4 patrons but only 2, thus in a busy period 60 car bays are needed. Leaving no space for other tourists and harbour users.</p> <p>If this facility is such a great idea why is the lease area not extended a few dozen meters to the West?</p> <p>In its current form I would vote against this proposal.</p>		
10.	<p>SUPPORT SUBJECT TO MODIFICATIONS We have received written advice from the City of Albany for local residents to submit comments on this Planning Proposal.</p> <p>While we agree to Stage 1 &2 of this proposal, Stage 3 creates huge issues, with its location and the congestion it will create. Really a better place to site the restaurant is near the boat pens.</p> <p>Congestion is the key issue, with concern for the following, foot traffic, vehicle traffic, operating two boat businesses, and parking.</p> <p>How can we totally agree with this project, when the City of Albany, has not given any indication of how they will address these issues.</p> <p>Our suggestion is a service road be built, coming off Swarbrick Street, behind the Fishing Club, going along the edge of the "A" Class Reserve, to service Harvest Road and Emu Point Slipway Services.</p> <p>The Restaurant be sited in front of Marina to alleviate the congestion pressure on the two businesses near Harvest Road development.</p>	<p>Lack of support for the restaurant – traffic/parking/marine operations Build new access road Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>Support for Stage 1 and 2 noted.</p> <p>The proponent has since opted to removed stage three, the restaurant and tourism facility, from the application. This ensures the proposal is now compliant with LPS 1 car parking requirements and will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p>

	Hoping you will give honest consideration to these comments .		
11.	OBJECTION In my opinion the proposed project is too large for the space available on this site and will create problems with parking and access for existing activities and businesses.	Please refer to response above for Submissions 1.	As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements. Public access to the finger jetty, the service jetty and the mudflats will be retained.
12.	SUPPORT SUBJECT TO MODIFICATIONS I feel the people of Albany have not been made fully aware to the full consequences of this proposed development plan by Harvest road. Everyone has seen a nice picture in the paper with a lovely looking restaurant but have no idea that it is going to be stuck in the car park and the public intrusion that it is going to create. <ul style="list-style-type: none"> • Processing 16 hours per day – 6 days a week. • 8 trucks per day, 6 days per week. • Additional refuse trucks – 16 trucks per week. • 88 staff excluding restaurant use and the tourism facility. • Restaurant 120 patrons – needs car bays for patrons and staff • A major Aquaculture tourism centre – needs parking for coaches and visitors • A retail shop selling local produce and Harvey beef – needs parking • Regular local and tourists drive down to enjoy the scenery. At least 50 cars per day drive past, Doubles in summer and public holidays. • The service jetty is extremely popular, a major tourist and local draw card, for families to enjoy jetty fishing in sheltered waters. • Fishability's – use the jetty regularly. They have up to 20 plus cars, wheelchairs, and carers. • Boat pen holders need to access parking for the jetties and their boats. 	Impact on existing marine activity Please refer to the response above for Submissions 1 and 3.	Following public consultation Stage 3 of the proposed development, the restaurant and tourism component, has been removed. As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements. The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week). As a result of amendments to the application following the consultation period, public access to the finger jetty, service jetty and mudflats will be retained.

	<ul style="list-style-type: none"> Commercial fisherman require access to offload catch and fix fishing nets. Public gain access to Bayonet Head and the sand flats for hiking and fishing. Bird groups come down to tag and release birds on the mud flats at certain times of the year. Migratory shorebirds travel as far away at Asia/Alaska during summer months to land at the mudflats at Emu Point. 		
13.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>I have cruised extensively up and down the west Australian coast and would like to say that Emu Point is one of the best and safest natural harbours in West Australia. A safe and workable marina has been created.</p> <p>A couple of years ago and after much public consultation, the car parking and natural layout was reworked and at present seems to work well with the local community, recreational and commercial fishermen needs.</p> <p>The Emu Point precinct has been a working marina for 50 years, with modern boat lifting facilities and hardstand work areas to encourage maintenance and repair of private and commercial vessels. A boat shop boat chandlery and boat storage facilities.</p> <p>At certain times the marina precinct is pushed past capacity, it is a very popular spot for locals to take a leisurely drive to cruise down and enjoy the ambience, people like to stroll down with their dogs, other get access to the sandflats at low tide to get winkles or cast a line, migratory birds settle and the bird lovers come down to observe them. And I feel that all this is under jeopardy with the current plans that have been offered up for public comment.</p>	<p>Impact on traffic/parking Suggest access road Build restaurant on water Suggest impact study Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>As the restaurant has been removed from the application the proposal is now compliant with LPS 1 car parking requirements.</p> <p>As a result of amendments to the application following the consultation period, public access to the finger jetty, the service jetty and the mudflats will be retained.</p> <p>A condition is recommended requiring the applicant to submit and implement a vehicular parking, pedestrian and access plan to the satisfaction of the City of Albany. This shall include detailed specifications for both the cul-de-sac vehicle turnaround and the public access route outside of the lease area, confirmation that car parking and access has been designed in accordance with the Australian Standard 2890 and provision of a turnaround / reversing area on site to allow vehicles to enter the street in forward gear.</p> <p>A condition is also recommended requiring the applicant to provide a marked vehicle turnaround area and associated signage restricting pedestrian vehicle access to the Emu Point Slipway Services boat lifting and launching area and beyond.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe</p>

<p>We are not against development and encourage growth and feel that Harvest road will be great for Emu Point and Albany in general with jobs and tourism.</p> <p>This current planning application has changed considerably from the original concept of having the restaurant further north and located on their existing lease.</p> <p>The proposed changes to the existing lease areas and stage 3 restaurant and tourist building placed in the current car park will have major ramifications.</p> <p>We are seriously going to end up with major congestion with the proposed development plan. How can we take a car park away that can accommodate 23 cars for the public, pen holders and introduce a facility that needs more carparking?</p> <p>How can we block access to a workable marine jetty in one of the best natural harbours that offers the boating community a place to pen their boats that can earn the state government \$70,000 PA How can we stop public access to the waterfront, sandflats and Bayonet Head? According to the plan they have a gate across there working platform, this creates a public barrier and blocks an escape route in case of fire.</p> <p>The commercial fishermen will be impacted in many ways with access to the commercial jetty with their produce trucks and parking for their deckhands and supply vehicles.</p> <p>The Fishability use this jetty for wheelchair vans and carers with the disabled.</p> <p>The public and families use this jetty for fishing with lots of young children walking about, they need place to park and for the children to be safe from all the traffic.</p>		<p>turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>Council is unable to recommend alternative locations for development and must assess the application as it is placed before them.</p> <p>The City has not considered the release / clearance of the A-class reserve. The application achieves car parking requirements, the roads are capable of supporting the proposed vehicle movements and public access to the mudflats has been retained.</p>
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	<p>This plan will create many problems for the slipway services with the amount of traffic that will be created, and many safety issues will be problematic.</p> <p>Boats are required to be washed down before moving onto the hardstand area. Pedestrian safety will be impacted and vehicular movements restricted.</p> <p>This could create many operational problems to the Harvest Road production.</p> <p>The recommendations are as follow.</p> <p>The change to the existing lease areas and stage 3 development be immediately put on hold. I propose that the City work with the relevant departments and consider having an access road to divert all this extra traffic around the back of the leased areas at Emu Point, this could also be dual purpose and be used for a fire break for the local residential areas, the city could also help to gain a small portion of the reserve for the parking and extend Harvest Roads lease west.</p> <p>As for the restaurant I suggest that City work with Harvest Road and the relevant organisations and encourage a proposal that considers the restaurant and tourism centre gets built on piles over the water, (very low impact) so we can still have a public thoroughfare and a walkway around to Bayonet Head. This is not an uncommon scenario, I imagine expensive, but it could look and be amazing for Albany and Emu Point.</p> <p>There has been no impact study done, this all seem to be fast tracked without proper public and stake holder consultation.</p>		
14.	<p>OBJECTION</p> <p>I am against the proposed restaurant at lot 1423, 2 Swarbrick Street, Emu Point. I do not see this</p>	<p>Impact on existing marine activity</p> <p>Please refer to the response above for Submissions 3.</p>	<p>Noted - Stage 3 (restaurant) has since been removed from the development application.</p>

	as a good fit with the present marine industries carried on at present at that end of Swarbrick Street would leave to some conflict in the future.		
15.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>I am not opposed to development by Harvest Road. In fact, quite the opposite, as my business stands to benefit directly with increased trade and providing services for the company.</p> <p>However, I have severe concerns about the ability of the area to sustain a huge increase in traffic levels along Swarbrick St, the boat car park and the waterfront.</p> <p>I believe that the traffic projections and parking requirements have been much understated in the application document. Allowing for population increase in Albany alone will tax the existing access. If the project is to be sustainable over the next 20 years' major changes will be required.</p> <p>Currently at the height of peak periods around Christmas, Easter and any public holidays and given warm weather the car park is full to overflowing with boat trailers. Any other conceivable parking bay is full and people are parking back up Swarbrick St. The existing businesses in the area Squid Shack and Kalgan Queen are full to the rafters with clients and operating every day continuously. Already half of the beach has been opened to cope with the overflow.</p> <p>If you try to add patrons for a 120-seat restaurant and up to 80 staff members to the existing parking and traffic flow congestion it will be an absolute disaster. I run a business with 4 staff and every day we have 4 cars parked out the front, so the extrapolation would be that they will need at least 60 bays for staff and probably a minimum 60-80 bays for customers.</p>	<p>Impact on parking from the restaurant Impact on existing marine activities Suggest additional access road Impact on existing businesses Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>Given the now limited number of traffic movements per day, traffic is not expected to impact the amenity of residential areas. A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements.</p> <p>The City has not considered the release / clearance of the A-class reserve. The application achieves car parking requirements, the roads are capable of supporting the proposed vehicle movements and public access to the mudflats has been retained.</p>

<p>The proposal shows car parking bays in an area that is not currently part of their lease. I would object to any granting of this area to Harvest Road as it takes away from current available parking and ease of access to the commercial jetty for fisherman and boat owners. Also, to situate a restaurant next to a slipway facility will create safety issues and conflict between industry and recreation.</p> <p>I realise that the area on the attached map is A-Class reserve and will require acts of parliament, EPA approval and extra cost, however it would overcome all concerns with traffic flow and parking, by providing direct access to Harvest Road, creating 150-200 car park bays, extending their lease area for the required parking. It would have minimal impact on the reserve and allow for future access over to Bayonet Head via cycleway and pedestrian paths.</p> <p>If Harvest Road explored the possibilities of a land backed jetty extending into the water at the front of their existing lease (along with parking relocated to the rear, as per map) they could then have their restaurant in that area, further north of the current proposal. The existing channel could be dredged to facilitate direct access to the jetty relieving conflict with the boat pens, commercial and recreational boats.</p> <p>Finally, I cannot see the proposal in the current format being sustainable and do have major concerns and objections without alterations. I am speaking from firsthand experience as I am now the longest established business in this part of Emu Point and been here every day since 1996.</p> <p>I look forward to a consultative process with the City and Harvest Rd and look forward to the success of their project.</p>		
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16.	<p>OBJECTION</p> <p>I am writing in response to the proposal p2200417 aquaculture and restaurant at Emu Point.</p> <p>We have studied the proposal, had discussions with the other local businesses and also the Friends of Emu Point. We are very excited for the first 2 stages of the proposal, the oyster farm has always been a great addition to the area bringing in tourist and adding a unique experience Down here. We are very concerned about stage 3, and our main concern is the added foot traffic and cars. As some may be aware the car park is a very busy car park with lots of cars and trailers moving about, reversing into the water drive around and parking (for sometimes hours at a time) On a busy day quiet often my staff have nowhere to park and we only take up 2-4 car parks. Which also leaves no parking for our customers quite often leading to them leaving and us losing business. So for the restaurant the comment and I quote “the building has been designed to accommodate approximately 120, plus employees, suggesting that approximately 30 car parks would be required, plus bays for employees. It is noted that the proposal sits within the broader Emu Point precinct, where ample existing car parking is available, and which is effectively shared among the various users of Emu Point.”</p> <p>We believe the restaurant will affect our business in a negative way even if there was Ample parking available, which is not true, can you imagine the effect it will have on us as a small family run business with no parking at all. We are good, hard working people trying to make a living down here as are all the businesses and it saddens us to know that someone from out of town can come in and make such proposals</p>	<p>Lack of support for the restaurant</p> <p>Impact on parking/foot traffic</p> <p>Please refer to the response above for Submissions 1, 2 and 3.</p>	<p>Stage 3 (restaurant) has since been removed from the application.</p> <p>As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements.</p>
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	without any direct communication or consideration for the existing businesses.		
17.	SUPPORT SUBJECT TO MODIFICATIONS Due to extra traffic due to development on Swarbrick Street I would like to see that road resurfaced and perhaps a long speed bump half way along the straight part to slow the always speeding traffic.	Installation of a speed bump or any other traffic calming device on Swarbrick Street is remote from the proposed development site and is outside the scope of the development application. We understand it is the responsibility of the City of Albany as managing body of the land to investigate the existing issue of speed.	Noted, however this is outside of the scope of the development application.
18.	SUPPORT SUBJECT TO MODIFICATIONS I would like to forward to you my concerns on the development of Harvest Road Aquaculture & Restaurant proposal. Firstly, I am not against the development of the above business as it will be a great asset for Albany. The concerns I have are: <ul style="list-style-type: none"> • Firstly, the extra traffic that will be going to the site will be ongoing and I feel there is not enough area available to accommodate trucks and workers travelling along Swarbrick street and passing by the existing business at the boat harbour without causing congestion. • Parking is already at a premium down at the boat ramps and with cyclists and walkers in the area the area would become a hazard for all concerned • More Parking bays should be a priority with the expected influx of more visitors to the area. • I would like to see a road put through from the end of Clark Street down to the back of the proposed Harvest Road site which would take all vehicles involved with the new development away from the main area. • Most importantly is the fire hazard in the A class Reserve. • A road constructed through the reserve would be dual purpose acting as a fire break as well 	Impact of traffic/ truck/movements/ parking/ marine activities/ access to water Suggest access road – could act as fire break Fire hazard Please refer to the response above for Submissions 2.	The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week). Given the now limited number of traffic movements per day, traffic is not expected to impact the amenity of residential areas. A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended. It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility. As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements. Suggestion for an additional road is noted, however this is outside of the scope of the development application. The City has not considered the release / clearance of the A-class reserve. The application achieves car parking requirements, the roads are capable of supporting the proposed vehicle

	<p>as assisting traffic management. I know it is a problem being an A Class Reserve but a fire break could preserve a lot of Native Flowers, Birds and small animals.</p> <p>Trusting you will take the above points into consideration when voting on the above proposal.</p>		<p>movements and public access to the mudflats has been retained.</p>
19	<p>SUPPORT SUBJECT TO MODIFICATIONS Please find below comments in relation to the above development proposal;</p> <ol style="list-style-type: none"> 1. The jetties and piers now used for commercial fishing and private recreation should not be given over for the proposed commercial operation and benefit of a private company. 2. If the development were to go ahead, parking for increased vehicles should be provided for on the development site. Parking of vehicles in existing areas, now, on many occasions is at capacity. 3. The sea level at the time of the spring tides is above the level of the paving now used. The tide has covered these parking areas on at least three occasions from July to August 2020. Any development should take this into account. If we accept climate change and a rise of sea level, then it is not conceivable to consider the proposal as drawn. Electrical wiring, sewerage and plumbing would be underwater with dangerous outflow in the case of sewerage. It would need to be raised by a metre. 4. The production of filter feeding seafood needs clean water. We would seriously suggest that Oyster Harbour which is fed from the King and Kalgan Rivers, surrounded by increasing urban development and with unsewered 	<p>Impact on marine activities – jetty access Impact on parking Impact on sea level rising Existing sea water quality not fit for harvesting food Please refer to the response above for Submissions 1, 2 and 3.</p>	<ol style="list-style-type: none"> 1. As a result of amendments to the application following the consultation period, public access to the finger jetty and the service jetty will be retained for the Stage 1 development. 2. As a result of amendments to the application following the consultation period, the proposal is now compliant with LPS 1 car parking requirements. 3. A Coastal Hazard Assessment (CHA) was prepared by M P Rogers & Associates Pty Ltd (MRA) to support the proposal. A preliminary coastal hazard assessment of the site was conducted to satisfy the requirements of the State Coast Planning Policy (SPP 2.6) and Coastal Hazard Risk Management and Adaptation Planning Guidelines (CHRMAP Guidelines). A condition is recommended that requires the proponent to submit an updated Coastal Hazard Assessment for the approval of the City of Albany to reflect subsequent changes to the proposal. <p>A condition is also recommended requiring the proponent to get the seawall inspected by a suitably qualified expert to confirm its condition and suitability to adequately protect the site. Any repairs to seawall should be paid for by the proponent.</p>

	<p>development on the north and east sides, is not conducive to production of seafood (shellfish) of a standard required for human consumption.</p> <p>5. Production of Sydney rock oysters in Botany Bay, near the mouth of the Georges River in New South Wales, has now mostly ceased. It is an example of areas subject to human pollution.</p>		<p>It is also recommended that the proponent submit written acknowledgment to the City, accepting the buildings and their contents may be subject to periodic flooding and/or inundation, prior to the commencement of development as finished floor levels below those required under the City of Albany Development in Flood Prone Areas Policy are proposed.</p> <p>The applicant has advised they intent to design these buildings in a way which anticipates peak flood levels.</p> <p>4. The aspect does not form part of the planning application which related to the lad based activities only.</p>
20.	<p>SUPPORT SUBJECT TO MODIFICATIONS</p> <p>I would firstly like to state that I am for the proposal, being a new and vibrant industry for Albany and in particular Emu Point.</p> <p>However, I do have a major concern with the access to this industry along the main road into the boat harbour area where this proposed development is planned.</p> <p>We have recently built our new home on Swarbrick Street and already have huge concerns for the traffic and behaviour of that traffic along this street. The road is a major thoroughfare even now and is a very narrow road without a white centre line. A cycleway also ends at two (2) locations onto this narrow street which often sees vehicles large and small and many towing boats travelling along the street, over and above the forty (40) kmh limit allowed. The termination of this cycleway at Swarbrick Street near the Miller Street junction also causes a hazard as walkers and cyclist have nowhere to go and must cross</p>	<p>Impact on existing road network Swarbrick street – cycleway</p> <p>Please refer to the response above for Submissions 2.</p>	<p>The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>Given the now limited number of traffic movements per day, traffic is not expected to impact the amenity of residential areas. A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>The City engineering team have determined Swarbrick Street to be capable of accommodating traffic arising from the development and City does not have the statutory authority to restrict an 'as of right vehicle' from using public roads.</p>

	<p>the road and proceed along a very narrow footpath to the Boat harbour. The quality and standard of Swarbrick Street is one that was suitable when it was built for the amount of traffic then, but in 2020 and beyond, and with the increase of traffic both for the industry and customers to the existing and new development, it is definitely not of a suitable standard.</p> <p>The noise and disruption all of this traffic causes, or will cause, is a very big detriment to our safety and lifestyle and the many visitors and pedestrians in the area.</p> <p>Swarbrick Street is not a suitable road for constant use by trucks, vehicles towing boats and increased vehicle numbers and the many pedestrians and cyclists included into the mix.</p>		
21.	<p>LATE SUBMISSION</p> <p>We have serious concerns that the proposed development will be given approval with none of our submission given any consideration.</p> <p>We wish to reiterate our major concerns. It appears the local businesses, residents and recreational users of the area will be compromised while Harvest Road is granted exceptional rights to the existing parking, jetty and waterfront.</p> <p>The proposal for Harvest Road to take over a public used facility which would be the Northern most jetty (C JETTY) is unacceptable. This is the jetty commercial fisherman and boat pen owners. This will reduce the number of larger pens at Emu Point and this will directly affect commercial fisherman, local boat owners and there would be loss revenue to the Department of Transport of around \$70,000.00pa. We have been advised the current life expectancy of this jetty is around 10 years.</p>	Refer to response to initial submission.	<p>A number of significant amendments have been made to the application as a result of responses received during public consultation, including the removal of stage 3 (restaurant) from the proposal.</p> <p>As a result of amendments to the application following the consultation period, public access to the finger jetty and the service jetty will be retained.</p> <p>The proposal is now compliant with LPS 1 car parking requirements.</p> <p>A public access route will now be provided through the site to allow public access to the mudflats to the north of the lease area.</p> <p>A condition is recommended requiring the applicant to submit and implement a vehicular parking, pedestrian and access plan to the satisfaction of the City of Albany. This shall include detailed specifications for both the cul-de-sac vehicle turnaround and the public access</p>

<p>The loss of parking is significant for the local businesses, tourists and boat owners. The current parking is insufficient for present needs and will be reduced further when Harvest Road assumes ownership of these parking spaces.</p> <p>Public access and thoroughfare across the northern side of the facility will be stopped due to the operations of the aquaculture processing. How can this be acceptable?</p> <p>The movement and flow of traffic is jeopardised with no room for a turning island and the consequent danger of reversing traffic to pedestrians, cyclists and slow-moving vehicles.</p> <p>As mentioned in the 1st submission the increase in traffic on Swarbrick Street is of a major safety concern. There are two access points off the cycle way onto Swarbrick Street which leads them directly onto Swarbrick Street. Due to the lack of footpaths along Swarbrick Street pedestrians have to walk along the road causing a hazard</p> <p>Possible solutions from our perspective which should be given consideration are as follows:</p> <p>Firstly, the building envelope should be reduced to allow for a turning island for all traffic, and to provide for more parking.</p> <p>Secondly, the building envelope should be reduced to the original public proposal.</p> <p>Thirdly, we strongly suggest the release of land from the A-class reserve for future development rather than taking the public land on the foreshore.</p>		<p>route outside of the lease area, confirmation that car parking and access has been designed in accordance with the Australian Standard 2890 and provision of a turnaround / reversing area on site to allow vehicles to enter the street in forward gear.</p> <p>A condition is also recommended requiring the applicant to provide a marked vehicle turnaround area and associated signage restricting pedestrian vehicle access to the Emu Point Slipway Services boat lifting and launching area and beyond.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>The removal of stage three from the development application will reduce total weekly vehicle movements by just under 70% (approximately 72 traffic movements per week).</p> <p>Given the now limited number of required traffic movements per day, traffic is not expected to impact the amenity of the existing residences along Swarbrick Street and Emu Point Drive.</p> <p>A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>It should also be noted that a number of truck movements would have also been required to service the previous Ocean Foods Internationals facility.</p> <p>The Engineering Section have confirmed the roads are capable of accommodating the vehicle movements required.</p>
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			The City has not considered the release / clearance of the A-class reserve. The application achieves car parking requirements, the roads are capable of supporting the proposed vehicle movements and public access to the mudflats has been retained.
22.	<p>LATE SUBMISSION</p> <p>The expansion of Oyster farming in Oyster Harbour poses a series of questions on the impact of large scale oyster farming on the local environment. This includes seagrass, birdlife, fish nursery and community use of the estuary.</p> <p>To properly consider this significant development, it would be helpful for the community to have access to as much information on the development as possible. This would allow the community to form an objective view of the merits and the risks associated with the licensing of large scale industrial use of the shellfish leases.</p> <p>To this end the following series of questions have been developed to assist in considering as widely as possible as many aspects of the proposals and not limited to specific aspects like development applications.</p> <p>The questions are in three main groups:</p> <ol style="list-style-type: none"> 1. Ensuring the health of the estuary is maintained. 2. Protecting the wider community's safe and full use of Oyster Harbour. 3. Harvest Road proposal for shell fish processing facility <p>Ensuring the health of the Estuary</p> <p>A lot of local groups and state agencies have worked hard to improve the water quality, seagrass beds, fish nursery stocks (including King George Whiting) and Birdlife sanctuary of Oyster</p>		A formal response to this submission has been sent to the applicant. To be provided.

<p>Harbour. These efforts have been rewarded with a continually improving estuarian health for wildlife and community and family use of Oyster Harbour.</p> <p>It is now a pristine and well protected environment that is relatively unique in the world.</p> <p>To reassure the community that the pristine nature of Oyster Harbour will be maintained, the following questions should be publicly answered.</p> <ol style="list-style-type: none"> 1. What are the baseline measures, monitoring processes and regulation in place to protect the seagrass health, fish nursery, birdlife and safe community use of the harbour? 2. When were these established? 3. What were the results? 4. What impact is expected from the proposed Oyster farming and associated activity? 5. Who will be specifically responsible for managing these environmental factors? 6. What powers are available to the regulators to intervene or stop activities that are harming in the environment, as measured by baselines? 7. What specifically will trigger cessation of farming either temporary or permanent? 8. Is Oyster Harbour considered a fragile estuary environment? 9. How was the extent of the lease areas in Oyster Harbour determined? 10. What percentage of Oyster harbour (deeper than 1m) will be within farming leases? 11. How many proposals to farm Oysters in the lease areas are being considered? 12. What licensing conditions are in place over the leases in Oyster Harbour? 13. What revenue is expected from the lease of the Oyster farming zones? 14. Is the deadly <i>Vibrio Vulnificus</i> bacteria present in Oyster Harbour? 		
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<p>15. The native Oysters in Oyster Harbour were decimated by disease. Is the disease still present?</p> <p>16. One proponent has proposed introduction of 35 million Akoya Oysters from Japan, given that pacific oysters are prohibited, has the introduction of this species into Oyster harbour been assessed?</p> <p>Protecting the community safe and full use of Oyster harbour</p> <p>17. Will the community continue to have full recreational use of Oyster Harbour?</p> <p>18. Will there be any restrictions on areas public can have access?</p> <p>19. Will the leases impact on the existing tourism operators like Kalgan River Queen which provides historical and contemporary introduction to Oyster Harbour and surrounds?</p> <p>Harvest Road proposal for a shell fish processing facility</p> <p>The Harvest Road proposal has been sent out for public comment by the City of Albany. The development proposal includes an industrial scale processing facility (80m Oysters) based at the Emu Point Marina and seeks approval to build the facility and operate it 16 hours per day on a Public Parks and recreation zone. A restaurant is included in the proposal but will not proceed if the processing facility and Oyster nursery are not approved.</p> <p>20. What is the attitude of the City of Albany to the proposal to site the industrial processing part of Oyster farming at the Emu Point public Marina?</p> <p>21. Is the proposal consistent with the broader plans for Emu Point and consistent with the coastal management strategy?</p>		
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	<p>22. Does the proposed pump station, sea water intake and discharge and berthing platform impact the environment?</p> <p>23. Will the position of the processing facility in a residential area and open bins from the facility mean odours from processing?</p> <p>24. Will heavy transport be used to and from the facility, by land and sea?</p> <p>25. Would the industrial processing facility be better located on the foreshore near Port, Rail and heavy transport corridors and with other industrial operations and also more central to all the Oyster farming leases?</p> <p>26. Alternatively, should the processing facility be nearer the Whaleworld and Fisheries Oyster hatchery?</p>		
23.	<p>Department of Transport</p> <p>The Department of Transport (DoT) has reviewed the information contained in the Development Application package and provides the following comments for the City's consideration.</p> <p>DoT highlights that the proponent in section 2.3.1 states that the development site:</p> <p>"abuts a Registered Aboriginal Heritage Site, this being the waterbody of Oyster Harbour itself."</p> <p>This suggests that the proposal will be wholly contained within Lot 501. In DoT's review of the proposed development plans, it is clear that the proposal will not only rely on the use of adjoining Oyster Bay waters for the unloading of boats associated with the aquaculture operations, but also that it will involve an extension of an existing lease into the water for which the proponent states that</p> <p>"discussions are ongoing regarding an expansion of this Lease area".</p>		<p>Stage 1 (the subject of this application) does not propose any change to the existing lease area.</p> <p>Stage 1 does not propose to the northern most jetty under DoT's control.</p> <p>The applicant has subsequently removed Stage 3 (the restaurant) from the application.</p> <p>Additional licences may be required from DoT for seabed leases and jetty licences, outside of the planning application. Talks are understood to be progressing in this regard.</p> <p>A condition is also recommended requiring the applicant to provide a marked vehicle turnaround area and associated signage restricting pedestrian vehicle access to the Emu Point Slipway Services boat lifting and launching area and beyond.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe</p>

<p>As custodian of all Oyster Bay waters in the vicinity of the site and of the maritime infrastructure it contains, no definitive proposal has been tabled to DoT to inform any consideration of seabed and jetty leases/licenses.</p> <p>Further, the application seems to indicate that significant reclamation of waters in this 'expanded lease area' will be undertaken as well as significant dredging of other adjacent water areas to allow the movement of its vessels. However, no technical information has been provided in respect of the dredging proposal or the status of any environmental and cultural approvals that may be required.</p> <p>The application also suggests it will be 'taking over' and using the northern most jetty, currently under DoT's control. The applicant has not presented any documentation in respect of mooring rights, loading requirements or the impact on current leasing and management arrangements for the jetty, water fairways and/ or landside access. It is noted that at least 16 current pens associated with this jetty may be affected by the proposal.</p> <p>Technically, the proposed development does not seem to have direct or legal access to waterways. Proceeding with this component of the development will require extensive stakeholder liaison with penholders, DoT and the City in facilitating a suitable management arrangement.</p> <p>Stage 3 restaurant facility is excluded from the development application. This stage of the development will also encroach into water areas under DoT's control and DoT advises it will resist any proposal that removes the opportunity for continued public access along the foreshore. It</p>		<p>turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>Existing pedestrian access along the shoreline to the northern-most jetty will now be retained and improved by way of additional line marking and signage.</p> <p>Additional signage will also be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas.</p> <p>A condition that all truck delivery/collections and waste collection shall occur between the hours of 7.00am and 7.00pm is also recommended.</p> <p>Proposed Condition 2 is recommended to be applied as a condition of planning consent. The remainder of the proposed conditions do not relate to Stage 1 as this simply involves the upgrade of previous infrastructure and the lease area will remain unchanged.</p>
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	<p>will also trigger additional planning consideration in relation to vehicle and pedestrian access, parking and other environmental planning considerations.</p> <p>Due consideration is required in respect of any proposed extended hours of operation, the potential for conflict with nearby residential areas and of that between industrial heavy vehicle traffic and the public; particularly between this traffic and the continued operation of the adjacent boat lifter business immediately to the south.</p> <p>In light of the above comments, DoT suggests that the application is not suitably resolved to be determined. However, should the City consider approval of this application, DoT recommends the following conditions be imposed to facilitate replanning or clarification of the above planning risk issues:</p> <ol style="list-style-type: none"> 1. The proponent securing necessary approvals and seabed leases to extend the Lot 501 land lease into Oyster Bay water areas under DoT control. 2. The proponent securing necessary approvals and licenses to use the northernmost public jetty maintained by DoT, including making necessary arrangements to rehouse current pens that will be displaced by the proposal. 3. The proponent consulting with and providing necessary technical supporting information detailing the extent and method of reclaiming water areas of Oyster Harbour and of the dredging of other areas. 4. The proponent securing necessary heritage approvals associated with the reclamation and dredging of water areas of Oyster Harbour. 		
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<p>24.</p>	<p>Department of Planning, Lands and Heritage The Department will provide further comment on Stage 2 at the time the final design has been forwarded.</p> <p>Land Use Management The current purpose of Reserve 42964 (over which the Stage 1 Development Application has been made) is 'Marine and Associated Purposes'. A lease in favour of Harvest Road Oceans Pty Ltd (HRO) by the City of Albany (O4199841) was registered 4 April 2020 for aquaculture activities over a portion of Reserve 42964.</p> <p>There are no in-principle objections to the proposal, however, commercial development is discouraged on Crown reserves. It is suggested that to facilitate the proposed development, the land required may need to be excised out of Reserve 42964 for a commercial lease direct from the State.</p> <p>It is understood that the City has already commenced liaison with the Department's Land Use Management division in order to expedite resolution of this matter, concurrent with the City's assessment of the Development Application.</p> <p>It is also noted that the coastal boundary is based on the High Water Mark (HWM) on Deposited Plan 64940. As Stage 2 of the proposed development is seeking to build to the water line, it is recommended that the lease area be re-surveyed based on land markings to ensure there is no encroachment over time from changing water levels.</p> <p>Heritage Any ground disturbing works on the site will require a prior application for consent under Section 18 of the <i>Aboriginal Heritage Act 1972</i>. It</p>	<p>Proponent is in talks with State Agencies to discuss issued raised and ensure all relevant approval are sought.</p>	<p>The City has already commenced liaison with the Department's Land Use Management division in order to expedite resolution of the matter regarding commercial development on a crown reserve.</p> <p>The City has added an advice note recommending the applicant consider re-surveying the lease area to ensure development does not encroach outside of lease boundaries.</p> <p>The advice regarding the Aboriginal Heritage significance of the site is recommended to be attached as an advice note.</p> <p>Use of the jetties is not required in order to progress stage 1.</p> <p>Recommended conditions 2 and 4 have been included in the list of recommended conditions for the development. The remaining conditions have not been included for the following reasons:</p> <ol style="list-style-type: none"> 1. Provision 4.3.7.4 of LPS 1 allows the Local Government to grant development approval for non-habitable buildings below the levels identified in the Development in Flood Prone Areas Policy (3.02AHD) in exceptional circumstances, some of which have been achieved by this proposal. The applicants have also expressed a preference to build below the recommended finished floor levels. It is instead recommended that the City request the lessee provide written acknowledgement that they accept that the building and its contents may be subject to periodic flooding and/or inundation if they wish to proceed with the building at these levels and the City's preference that the buildings have a finished floor level of 3.02AHD be included as an advice note. The
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<p>is recommended that this advice accompanies any approval(s) issued by the City for the proposal.</p> <p>Coastal Planning Please note the following comments relate to Stage 1 of the DA which is within the current lease area.</p> <p>The revised development plans shown as Stage 1 and dated 14 January 2021 includes the Oyster & Mussel Shed and Nursery only in the same location as the previous revised plan received on 17 December 2020, which also included a pump house attached to the nursery on the harbour side. This results in greater separation of the nursery building from the lease boundary on the north-east boundary towards Oyster Harbour than the previous design. However, there is no change to our previous advice dated 19 November 2020, that is, the Department has no objection to Stage 1 progressing on the basis that the assumptions in relation to jetties are not included or required to progress Stage 1.</p> <p>As the erosion hazard lines indicated in MP Rogers & Associates' report submitted with the initial development application are contingent on a viable seawall being in place for the duration of the lease, it is particularly important that suggested conditions 4 and 5 listed below are applied to the development approval. In the event of a new lease being issued for Stages 1 and 2, however, suggested condition 2 regarding the timeframe of development approval may need to be amended so that development approval shall be limited to 2045 and no later than 2070, reflecting the erosion hazard lines in MP Rogers & Associates' report. The lease timeframe is contingent on the coastal hazard risk management approach, which has been</p>		<p>applicant has advised that the design of the buildings will allow them to safely withstand a flood event as both the hatchery and oyster and mussel shed have been designed to anticipate sea water flooding on the lower levels, with all sensitive equipment and electrics located significantly above finished floor levels.</p> <p>3. The City does not believe this condition sufficiently relates to the development application and could be considered to be more relevant to future uses. Instead, it is recommended that the following advice notes be attached to any development approval:</p> <p><i>The applicant is advised that the subject site is at risk of coastal erosion and/or inundation. The City recommends development on the lot should have a minimum finished floor level of 3.02 AHD to ensure adequate protection from inundation, in accordance with the City of Albany Development in Flood Prone Areas Policy; and</i></p> <p><i>The City of Albany has no obligation to protect against coastal hazards, and is not liable for any harm caused by coastal hazards.</i></p> <p>5. Addressed in an updated coastal management plan to be provided and implemented to the City's satisfaction.</p> <p>6. Assessment against SPP 2.6 will be undertaken through the provision of an updated Coastal Hazard Assessment. It is recommended that it be conditioned that this be submitted and implemented to the satisfaction of the City of Albany. All works</p>
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<p>proposed to be an upgrade and extension of the existing sea wall, this would need to extend across the site.</p> <p>In order to address the matters identified by the preliminary coastal hazard assessment, it is suggested that the City give consideration to inclusion of the following conditions and advice on any approval:</p> <p>Conditions:</p> <ol style="list-style-type: none"> 1. Development on the lot is to have a minimum finished floor level of 3.02 metres AHD to ensure adequate protection from inundation. 2. Development approval shall be limited to a period of not more than the term of the lease, at which point the approval will lapse and: <ol style="list-style-type: none"> I. The development shall be removed; and II. The land shall be rehabilitated to its pre-development condition, to the specifications and satisfaction of the lessee and the local government, at the lessee's cost when water, sewerage or electricity to the lot is no longer available as they have been removed/decommissioned by the relevant authority due to coastal hazards. <p>Advice in relation to Condition 2: There is no limit to the number of extensions that the local government may grant, allowing the development to remain until such time as condition 2(ii) occurs, at which time the development will be required to be removed in accordance with condition 2(i).</p> <ol style="list-style-type: none"> 3. A notification, pursuant to Section 70A of the Transfer of Land Act 1893 is to be placed on 		<p>shall be maintained thereafter to the satisfaction of the City of Albany.</p> <p>The public access route outside of the lease area will remain in its existing state for the Stage 1 development. Public access will be rerouted for the Stage 2 and will be required to be developed to the City's standard.</p>
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<p>the certificate of title of the proposed development lot advising of the existence of a hazard. The notification is to state as follows:</p> <p>“This lot is located in an area likely to be subject to coastal erosion and/or inundation over the next 100 years.</p> <p>4. The existing seawall being inspected by a suitably qualified expert to confirm its condition and suitability to adequately protect the site and any repairs of the seawall, at the lessee’s cost.</p> <p>5. Extension of the existing seawall along the foreshore adjacent to the proposed development to the specifications and satisfaction of a suitably qualified expert and the Local Government, at the lessee’s cost.</p> <p>6. All development is to comply with the provisions of State Planning Policy 2.6 - State Coastal Planning Policy.</p> <p>Land Use Planning</p> <p>Notwithstanding resolution of tenure and reserve matters as noted above and other site-specific issues, the proposal generally aligns with strategic directions of the Western Australian Planning Commission (WAPC) Lower Great Southern Strategy (2016) and the City’s Local Planning Strategy (2019) regarding expansion and diversification of the aquaculture industry; tourism; and economic growth.</p> <p>In determination of the Stage 1 Development Application, it is recommended that the City give consideration to the following comments:</p> <p>The Department is supportive of the notion of a paved 2m pedestrian access way (PAW) with</p>		
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	<p>fencing along the development boundary and bollards on the southern side of the PAW. This should also include the requirement of gates at various points to allow for emergency services access in the case of fire.</p> <p>It is anticipated that the City will continue to liaise directly, where relevant, with other State agencies on site-specific matters including:</p> <ul style="list-style-type: none"> • DFES (bushfire risk) • DWER (noise, dredging, water management and quality) • DPIRD/Fisheries (aquaculture development and processing) • Department of Health (wastewater disposal) • Department of Transport (adjacent marina and associated land uses, interaction with Management Order for adjacent reserve 49354) • Utility service providers (servicing capacity and requirements) 		
25.	<p>Department of Water and Environmental Regulation (Site Contamination Branch)</p> <p>No objection or recommended conditions to attach to the proposal. In 2015 investigations identified hydrocarbon impacted soil on site. However, the department now believes that the stockpiled hydrocarbon-impacted soil was removed from site in June 2020 and as a result the site now appears suitable for the proposed development.</p>	No action required.	Noted – no action required.
26.	<p>Department of Water and Environmental Regulation</p> <p>DWER provides the following comments.</p> <p>Oyster Harbour</p> <p>The proposed development is adjacent to Oyster Harbour, a regionally significant waterbody with</p>	Proponent is in talks with State Agencies to discuss issues raised and ensure all relevant approval are sought.	<p>A public access route will now be provided through the site to allow public access to the foreshore reserve and the mudflats to the north of the lease area.</p> <p>Dredging is no longer proposed for Stage 1 of the application.</p>

<p>high environmental, social and economic values. Emu point is a very popular location for locals and visitors to enjoy the access to the waterway, launch boats and participate in passive and active recreation.</p> <p>The proposed expansion of the lease area will extend into the water and thus limit access to the public to this foreshore area and to the foreshore reserve (Crown Reserve 6862) area to the north of the aquaculture development. Should the lease area be expanded, DWER would recommend that public access along the foreshore be maintained.</p> <p>Waterways Conservation Act 1976 DWER advises that Oyster Harbour is within the Albany Waterways Management Area, declared under the <i>Waterways Conservation Act 1976</i> (the Act). DWER is responsible for administering this legislation. Approvals are required from DWER to undertake certain activities that will cause disturbance to the bed and banks of the waterbodies.</p> <p>With regards to the development application, Stage 1 of the proposal states that dredging is proposed for the berthing platform. DWER advises that Section 9 of the <i>Waterways Conservation Regulations</i>, states</p> <p>A person shall not —</p> <ul style="list-style-type: none">a) construct or permit the construction of, any boat ramp, slip, bridge, jetty, boat house, pier, decking, or any other structure, whether floating or otherwise, in, over or contiguous with any waters; orb) construct a retaining wall at a bank of any waters; or		<p>The following advice is recommended to be attached to any planning approval:</p> <p><i>‘The proposed seawater intake and discharge activities may require an additional license. The applicant is advised to contact the Department of Water and Environmental Regulation for confirmation on this matter. ‘</i></p>
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	<p>c) fill in, wholly or partially, or dredge any portion of the bed of any waters, or cut into, build up or otherwise alter the bank or foreshore of any waters; or</p> <p>d) dig or excavate on associated land so as to endanger the stability or integrity of the banks or foreshore of any waters, or with the intention of causing any of the waters to be diverted into the place so dug or excavated,</p> <p>except pursuant to and in accordance with a current licence issued under the Act.</p> <p>As such the applicant is recommended to contact DWER for further advice regarding applying for a licence to dredge.</p> <p>DWER also requests further information about the seawater intake and discharge points to ascertain whether this activity should also be licenced.</p> <p>Stormwater management DWER is supportive of the stormwater management principles and design criteria, particularly the use of rainwater tanks to capture rainwater for use on the site and the use of permeable paving to increase infiltration. Discharge points to the harbour may require rock armouring to prevent scouring.</p>		
27.	<p>Department of Biodiversity, Conservation and Attractions No objection or recommended conditions to the proposal noting the majority of development occurs on alienated land and has no direct impact on natural values protected under the Biodiversity Conservation Act 2016 or any lands managed by the department under the Conservation and Land Management Act 1984.</p>	No action required.	Noted – no action required.

28.	<p>Department of Fire and Emergency Services The Department of Fire and Emergency Services provided comment on the original development application referred in September 2020. As part of the initial referral DFES reviewed the Bushfire Management Plan (BMP) prepared for all three stages of development. DFES comments were based on <i>State Planning Policy 3.7 Planning in Bushfire Prone Areas</i> (SPP3.7) and the <i>Guidelines for Planning in Bushfire Prone Areas</i> (Guidelines). DFES did not assess the proposal against the DPLH 2019 Position Statement relating to <i>Tourism Land Uses in Bushfire Prone Areas</i>.</p> <p>DFES original comments were based on the restaurant (original Stage 3 of the proposal) being classified as a vulnerable land use and therefore the requirements under SPP3.7 being triggered. DFES identified the following matters to be considered by the decision maker in determining the application or matters that were required to be addressed in order to comply with SPP3.7 and the Guidelines:</p> <ul style="list-style-type: none"> • BAL contour map – clarification or required amendments identified to the BAL/BMP to address aspects such as staging of development, vegetation classification and designated refuge building to be constructed to AS3959 Building Standards (Refuge Building originally identified as the restaurant, since deleted) • Bushfire protection criteria – clarification or required amendments identified to address aspects such as location and siting & design and vehicular access. DFES indicated in their assessment the proposal in its current form did not comply with development located in areas exposed to BAL-40/BAL-FZ nor vehicle access requirements in relation to two-way access not being provided to the site (as the 	Conditions recommended to be applied to address	<p>It is noted that the Stage 1 proposal is a redevelopment of the previous operations on site. The redevelopment of the site, as part of the Stage 1 proposal, provides an improvement to fire safety to what previous industrial development operating on site.</p> <p>The updated BMP was submitted as part of the revised proposal for Stages 1 and 2. Assessment of the updated BMP relates to Stage 1 of the proposal, the subject of this development application.</p> <p>The BMP outlines the following aspects of the proposal in regards to assessment against bushfire protection criteria:</p> <ul style="list-style-type: none"> • Historic use: the site has been historically (since 1996) used for industry. This includes the development within BAL-40 and BAL-FZ. • Constrained site development parameters: <ul style="list-style-type: none"> ○ The site is adjoined by an A-class reserve to the west (classified Forest under bushfire regulations) and adjoins the harbour to the east. As a result of the A-class reserve, some development will be located within area assessed as BAL-40/BAL-FZ. Previous development on-site was located within a similar location. ○ The Stage 1 proposal, involves development that will remain within BAL-40 and BAL-FZ (Oyster and Mussel Shed/Nursery). The location of the development is to address operational requirements to provide sufficient hardstand area adjoining the harbour of for the launch and retrieval of vessels associated with the facility. • Location and design response of development to address operational and bushfire requirements:
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	<p>site is located at the end of a non-compliant cul-de-sac outlined under SPP3.7 and the Guidelines). Further clarification was required regarding onsite refuge.</p> <ul style="list-style-type: none"> • Vulnerable land uses – clarification to address aspects such as details outlined Bushfire Emergency Evacuation Plan regarding nominated shelter-in-place. <p>The revised plans for Stage 1, including a revised BMP was referred to DFES for comment.</p> <p>Officer comments against the amended BMP for revised Stage 1 proposal are outlined under the Officer Comment and Recommendation section.</p>		<ul style="list-style-type: none"> ○ The applicant has indicated and rationale provided in the updated BMP outlining that there is no practical alternative available for the location of the development the subject of Stage 1 proposal (Oyster and Mussel Shed/Nursery) other than along the western boundary. These elements required assessment against the relevant Performance Principles contained under SPP3.7 and the Guidelines. ○ It is noted that other development forming part of the Stage 2 proposal (Processing/Amenities Building and bulk fuel container), are to be located outside of the BAL-40/BAL-FZ areas. The location and design of these buildings (including shielding construction requirements) result in compliance with the acceptable solutions of SPP3.7 and the Guidelines. <p>As outlined above, the Stage 1 proposal involves redevelopment of the site. The redevelopment and associated reconfiguration of buildings and operations on site will result in an improvement upon the site's previous fire safety.</p> <p>The revised proposal and updated BMP incorporates the following mitigation measures to address fire safety requirements:</p> <ul style="list-style-type: none"> • The revised proposal involves increasing the set back of buildings to 2.1m from the western boundary. • Consolidation of originally proposed open-air storage of the plastic oyster baskets (that vulnerable to bushfire attack and has the potential to burn intensely and produce toxic smoke) in an enclosed out-building (floor
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REPORT ITEM DIS253 REFERS

			<p>areas 670 m2) located furthest from the high occupancy buildings. The building has a vertical wall located 2m from the northern and western boundary with a non-combustible construction specified (see condition of approval).</p> <ul style="list-style-type: none">• Construction of buildings to a specified Fire Rating Level (BAL FZ FRL 30/30/30) to reduce the risk of damage to stored materials from radiant heat transferred internally from standard uninsulated construction materials (steel sheeting etc).• Mitigation measures related to Stage 2 of the proposal are also outlined under the revised BMP, however these are not the subject of assessment of the Stage 1 proposal, and will be subject to assessment as part of an application for Stage 2.• The revised BMP outlines that the consolidation of buildings, replacing the ad hoc storage of potentially flammable items, also improves the orderly movement within the site during an emergency.• The proposed minimum 2m setback from the western boundary is in addition to an existing 4m wide firebreak within the adjoining reserve, that extends the perimeter of the site.• Additional fire hoses to be provided along the western and northern boundaries of the site. <p>Conditions are recommended to be imposed to address bushfire requirements, including:</p> <ul style="list-style-type: none">• Gates being installed within the existing (and any proposed new) boundary fencing to allow access for emergency service vehicles;• Measures and actions identified in the BMP and BEEP being implemented and maintained;
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REPORT ITEM DIS253 REFERS

			<ul style="list-style-type: none">• Firebreaks, fire fighting equipment and other appropriate fire management protection measures required to be maintained in accordance with the City's Fire Management Plan;• Asset protection zone to be provided and maintained in accordance with the City's Fire Management Notice <p>The revised development application for Stage 1, including the measures outlined above as part of the updated BMP, along with conditions recommended to be applied as part of development approval are considered to address the matters raised by DFES original comment to the City's satisfaction.</p>
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Harvest Road Aquaculture Facility Lot 501 Swarbrick Street, Emu Point Development Application

September 2020 | 20-232



HARVEST
— ROAD —

Roberts Gardiner
Architects

element.
the art and science of place

We acknowledge the custodians of this land, the Whadjuk Noongar and their Elders past, present and emerging. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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Issue	Date	Status	Prepared by	Approved by
1	01.09.20	Draft	Emily Greenwood	Daniel Lees
2	03.09.20	Final	Emily Greenwood	Daniel Lees

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Contents

1. Introduction	1
1.1 About Harvest Road	1
1.2 Planning Approval Required	1
2. Subject Site	3
2.1 Legal Description	3
2.2 Site Context	3
2.3 Environmental and Heritage Considerations	3
3. Proposed Development	5
3.1 Overview	5
3.2 Key Components and Staging of Development	5
3.3 Land Use and Activities	6
3.4 Built Form and Design	7
3.5 Landscaping	7
3.6 Vehicle and Pedestrian Movement	7
3.7 Staffing, Visitors and Hours of Operation	8
4. Planning Discussion	9
4.1 Strategic Planning Framework	9
4.2 Land Use	11
4.3 Public Art	11
4.4 Bushfire Management	11
4.5 Servicing and Site Suitability Considerations	12
5. Conclusion	15
6. Appendices	17
Appendix A – Certificate of Title	17
Appendix B – Architectural Plans	19
Appendix C – Bushfire Management Plan	21
Appendix D – Waste Management Plan	23
Appendix E – Coastal Hazard Assessment	25
Appendix F – Truck Turning Template	27
Appendix G – Servicing Concepts	29
Appendix H – Urban Water Management Plan	31
Appendix I – Additional Parking Concept	33



1. Introduction

This development application has been prepared by **element** on behalf of Harvest Road, in support of an Aquaculture Facility for Harvest Road's Leeuwin Coast brand, along with a future Restaurant (tourism facility), on the northern portion of Lot 501 Swarbrick Street, Emu Point (the subject site). The Aquaculture Facility will process shellfish from a number of seabed leases in the vicinity, with the future restaurant/tourism building providing an 'edutainment' venue, as a place for locals and visitors alike to learn about aquaculture operations and sample shellfish.

This report provides an overview of the subject site, proposed development and land use, and an assessment of the proposal against the applicable planning framework.

1.1 About Harvest Road

Harvest Road is one of Western Australia's largest integrated agriculture businesses and is a part of Tattarang, one of Australia's largest private investment groups. Harvest Road is an agricultural investment business with a growing portfolio of fine food brands for domestic and international markets, spanning over 40 countries. The company has been run by the Forrest family for over six generations with experience and understanding of the region running deep. This has enabled the company to produce a diverse range of high quality foods exclusively in Western Australia, including beef, honey, horticultural and now aquaculture products.

This aquaculture venture will produce uniquely Western Australian seafood that is as clean and pure as the pristine waters in which it is grown. A vision statement from the company is as follows:

'But as we share a taste of home with the world, we are working towards something greater. We believe in oceans that flourish. Where marine life is abundant and healthy. Where we give more than we take.'

'We have built our aquaculture business on sustaining this vision. Through regenerative practices we are closing the loop and are creating solutions to prevent climate breakdown, enhance food security and revitalise local ecosystems.'

The proposal will focus on the production of mussels, Rock Oysters and the hidden local gem that is the Akoya oyster, the particulars of which as detailed in the report below.

1.2 Planning Approval Required

The development application requires the approval of the City of Albany. Owing to the estimated cost of development of \$9 million, this application is an 'optional' Development Assessment Panel (DAP) application. The applicant elects for the City of Albany to determine this application rather than the DAP.



2. Subject Site

2.1 Legal Description

The subject site is described as Lot 501 Swarbrick Street, Emu Point, which has a total land area of 35,175m². This application applies to the northern-most portion of Lot 501, encompassing an area of approximately 8,430m².

The particulars of the Certificate of Title are summarised in Table 1 below.

Table 1: Site Particulars

Lot	Deposited Plan	Vol/Fol	Area	Landowner
501	64940	LR3159/265	3.518ha	Crown Land City of Albany (primary interest holder)

Refer to Appendix A – Certificate of Title.

2.1.1 Tenure Arrangements

The subject site is Crown Land, however is subject to a Management Order to the City of Albany. The Management Order is understood to be for 'marine and associated purposes'. Part of the site subject of this application is subject of a Lease from the City of Albany to Harvest Road and discussions are ongoing regarding an expansion of this Lease area to reflect the extent of the proposed development area.

2.2 Site Context

The site is located within the Emu Point locality, an urban enclave located on a peninsula accessed by a single road (Emu Point Drive – Swarbrick Street), approximately 8.5 driving distance, east of the Albany city centre. Emu Point is an established marine facility, that comprises marine servicing, jetties, hardstand, boat-trailer and public car parking, a café, and the sea rescue squadron base. Broadly it comprises a marina, public boat ramp and carpark. The site is located at the northern-most extent of the Emu Point foreshore reserve, remote from the nearest neighbouring residential area, approximately 220m to the south.

The site is surrounded by remnant vegetation to the west and Oyster Harbour to the east.

The site has previously been used for aquaculture operations, as an oyster processing facility. Recent demolition works have occurred on the northern portion of the development area, and the remaining building is proposed to be demolished (and replaced) as part of this application.

2.3 Environmental and Heritage Considerations

2.3.1 Heritage

A desktop search of the Department of Planning Lands and Heritage's Aboriginal Heritage Inquiry System indicates that the site abuts a Registered Aboriginal Heritage Site, this being the waterbody of Oyster Harbour itself. It is understood that this does not impact the subject site itself.

Further searches of the Heritage Council's State Heritage Register and the City's records indicate that this development will not impact any historic heritage sites.

2.3.2 Contamination

A desktop review of the Department of Water Environmental Regulations (DWER) Contaminated Sites Database identifies that the site is not currently classified as a contaminated site, however it is identified as “remediated for restricted use” (as of 24 September 2015).

A basic summary of records from the DWER database reveals that the contamination was identified as Hydrocarbons (such as oil), which were found in soils beneath a generator shed.

As part of the recent demolition works, recent remediation testing has been completed to confirm that the site is suitable for the proposed development. This will form the basis of a separate application to DWER to seek a reclassification of the subject site (eg. to “decontaminated”).

2.3.3 Acid Sulphate Soils

A desktop search indicates that the site has no known risk of encountering acid sulphate soils.

2.3.4 Bushfire Prone Site

A desktop search of the Department of Fire and Emergency Services’ Map of Bushfire Prone Areas indicates that the site is located within a Bush Fire Prone Area, this is discussed in more detail later in the report. A Bushfire Management Plan has also been prepared in support of the proposed development.

Refer to Appendix C – Bushfire Attack Level Assessment



3. Proposed Development

3.1 Overview

The proposed development comprises a marine base/aquaculture facility for the processing of shellfish and associated car parking, and a future Restaurant (tourism facility) building.

The marine base will include a processing/packing building, nursery shed and a workshop, within three separate buildings. At a future date, the aquaculture facility will be complemented by a restaurant/tourism building where customers can experience the harvesting of fresh oysters and enjoy a meal with a view of Oyster Harbour.

The proposed development represents a significant improvement to the current arrangements and state of buildings and fixtures on the site, seeking to capitalise on the desirable water-front location and befitting of Emu Point as an existing tourist attractor in its own right.

Refer to Appendix B – Architectural Plans

3.2 Key Components and Staging of Development

The proposed development comprises two functions, the marine base/aquaculture facility for the processing of shellfish, and the future Restaurant (tourism facility) component. These two functions are proposed to be developed in three stages:

Stage One:

- Nursery
- Oyster and mussel shed
- Pump station
- Sea water intake and discharge
- Hardstand and stormwater infrastructure
- Access to the hardstand from the car park and from the berthing
- Berthing platform
- Fencing
- 20x car parking bays (within the current lease boundary)

Stage Two:

- Demolition of the existing brick building
- Processing/packing facility
- Amenities & office
- Workshop

Stage Three:

- Restaurant/Tourism facility
- 8x car parking bays and biofiltration basin

It is intended that the development of stage three will occur once stages one and two are completed and fully functional and in operation. In this regard a staged clearance of any conditions of planning approval, and a staged building permit are intended to be sought.

3.3 Land Use and Activities

3.3.1 Aquaculture Facility

The aquaculture processing facility will be farming Native Rock Oysters, Akoya Oysters and mussels. Rock Oysters will be grown from larvae to spat size (the juvenile age of an oyster) within one of the proposed warehouses on the site. Once they have grown to 5mm they are large enough to be grown in open water and are filled into oyster baskets. They remain on water for the grow-out period and are graded for size every 6-8 weeks to find the fully grown oysters, which are then transferred to the packing facility.

Akoya Oysters and mussels both follow the same process. Juvenile spat are grown in a land-based hatchery and are then seeded onto ropes hanging in water to grow for 12 to 15 months. They are then stripped off the ropes and collected in 400kg bulk bins. These bins are stored for dispatch.

The key activities of the seafood facility have been summarised below:

- Rock Oysters spat is received at the facility to grow in the nursery. Akoya and mussels, ropes seeded with spat are received at Emu Point ready for transfer to grow.
- Rock oysters are filled into baskets prior to transfer. Baskets (Rock oysters) and ropes (Akoya, mussels) are loaded onto truck boats at the berthing platform and transferred to areas to grow.
- Rock Oysters are graded every 6 to 8 weeks throughout their lifecycle, with grading planned to occur on water for the first 18 months and on land for the final 12 months.
- Harvested mussels and oysters are filled into ~400kg bulk bins on-water and transferred to Emu Point.
- Product will be stored in cool rooms for up to two days before being dispatched from site. Live Rock Oysters are stored at 15oC, while Akoya and Mussels are stored at 4oC.

The processing facility is made up of two main operations, farming and processing.

Farming

The farming operation is proposed to operate 12 hours per day, six days a week. Some of the key activities will be the operations of barges, boats, nursery attendants and general farm management.

Processing/Packing

The processing/packing of the shellfish will occur on land at the proposed facility that is expected to operate up to 16 hours per day, 6 days a week during peak periods.

Production output of the site will vary throughout the year due to seasonal variation in growing cycles and market demand. At full scale, the operation is expected to product 45 million Rock Oysters, 35 million Akoya Oysters and 1,700 tonnes of mussels per annum. Table 2 below shows estimated average daily production volume by month and by product:

Table 2 – Production Capacity

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Rock Oyster ('000)	-	-	195	217	239	347	217	239	282	217	217	-
Akoya Oyster ('000)	146	146	146	146	146	146	146	146	146	146	146	146
Mussels (t)	9	-	-	-	9	9	9	9	9	9	9	9

3.3.2 Restaurant/Tourism Facility

The future restaurant use and tourism facility will provide visitors to Emu Point the ability to enjoy a meal with a view of Oyster Harbour and experience how the shellfish are cultivated and harvested. This facility is targeting families, "foodies" and people valuing authentic experiences focused on aquaculture. There are currently few opportunities for experience-based tourism attractions offered in Western Australia that focus on showcasing the harvesting of oysters fresh from the ocean, and on aquaculture operations generally. The proposed facility will offer a unique interactive shellfish experience for visitors that can be hard to find elsewhere on the south coast of WA.

The future component has been designed to operate as a flexible space, to accommodate and showcase

local food and beverage, in a restaurant-like setting, to provide a land base for water-based tourism activities, such as visits to oyster leases, water-based tours into Oyster Harbour (and beyond), and to provide educational opportunities associated with the aquaculture operations.

3.4 Built Form and Design

The proposal has been designed by Roberts Gardiner Architects, and the suite of architectural documents provide 3D visuals of the proposed development. The proposal has been designed to respect the existing surrounding built form and is at a scale that complements the landscape. The proposed buildings reflect a contemporary interpretation of the old Western Australian timber jetty kiosks. Sustainability is a key design factor for the choice of materials and construction including the use of sustainable timber for the key architectural features of the tourism building.

An existing boat shed, not subject of this application or part of the development site, is currently the most prominent structure at in the Emu Point precinct, standing at approximately two and a half storeys (11-12m). The proposed bulk and scale of the oyster and mussel nursery/shed is the largest of the three warehouses at 9.7m in height, the packing/processing shed is proposed to be 9.64m and the workshop 9.4m in height. These building heights are indicative, with the final heights to be determined at detailed design building permit stage, however ultimately will complement the existing surrounding improvements and buildings in the precinct.

3.5 Landscaping

Landscaping has is proposed at the southern portion of the site that interfaces with the existing car park and boat ramps. A landscaping strip will frame the face of the buildings facing the public area with a biofiltration basin through the middle of the car park to break-up the vehicle circulation area. Another biofiltration basin has been provided along the western boundary of the site, between the workshop and oyster shed/nursery buildings. These will act as a pollution control technique using living material to capture and biologically degrade pollutants produced by the proposed development.

3.6 Vehicle and Pedestrian Movement

The restaurant (tourism) building and workshop buildings are the main structures visible to and defining the edge of the publicly accessible area of Emu Point, with the oyster nursery located beyond this. The restaurant (tourism) building will be fully accessible and visible to the public, and parking for visitors will be available. A gate is proposed to separate the rest of the facility for bio-security purposes, and will only be accessible to staff members.

Trucks delivering goods and transporting produce are expected to access the site, along with forklifts operating internal to the site. Due to seasonality of each harvested species, required transport frequency will vary depending each month. Table 3 below shows estimated daily truck departures based on a refrigerated truck with capacity of 20 bulk bins (~12 pallets).

Table 3 – Truck Departures

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Truck Departures	2	1	2	2	4	4	4	4	4	3	3	2

During low seasons (June to October), it is estimated only two total truck departures will be required for daily production volumes (total truck movements of four per day, two arrival and two departure). Across peak months (November to May), up to four daily truck departures are anticipated (total truck movements of eight per day). Infrequent inbound supply receivals are also expected to provide the site with consumables and other operational equipment. One to two deliveries per week are expected. A daily delivery of food and beverages to the restaurant (tourism facility) is also anticipated. The proposed traffic volumes are not considered to result in a material impact on the road network, or unreasonably impact on the amenity of the existing residential area, noting that the Emu Point precinct is a long established marine facility that already involves daily truck/heavy vehicle movement, along with the previous aquaculture operations on the subject site.

The use of a forklift internal to the site will be required to service the proposed development and is limited to loading of bulk bins of shellfish from storage onto trucks and unloading one off or irregular delivery of equipment or seeded ropes.

3.7 Staffing, Visitors and Hours of Operation

The projected staffing to accommodate the proposed aquaculture facility (excluding the restaurant use and tourism facility) is outlined in Table 4 below. It is expected that approximately 56 staff will be onsite at any one time to operate the different components of the facility, farming, processing, engineering and administrative tasks, however this number may be exceeded from time to time, as may be required to suit operational requirements.

The development is projected to generate roles for approximately 88 staff (excluding the restaurant use and tourism facility), plus additional numbers to account for staff leave arrangements.

The farming component is proposed to operate for 12 hours a day, 6 days a week and the processing will operate for 16 hours per day, 6 days a week.

Table 4 – Staffing Plan for Seafood Processing Facility

Area	Role	Headcount / shift	Shift	Total Employees	Comment
Farming	Barges	4	2	8	2 x 2 barges
	Boats	15	2	30	2.5 crew x 10 boats
	Nursery	2	1	2	
	Farm Management	5	1	5	
	Total Farm	26		45	
Processing	Receival	2	2	4	2 operators to load and unload boats, feed hoppers
	Grading	10	2	20	1 inspection, 1 packing x 5 lines
	Premium Box Packing	4	1	4	1 inspection, 1 packing
	Despatch	1	1	1	1 forklift operator to load and unload trucks
	Supervision	1	2	2	1 supervisor per shift
	QA	1	1	1	
	Manager	1	1	1	
	Total Processing	20		33	
Engineering	Eng/Maintenance	4	1	4	
Other	Admin Staff	3	1	3	
	Research Officers	2	1	2	
	Executive	1	1	1	
	Total	6		6	
Total		56		88	

4. Planning Discussion

4.1 Strategic Planning Framework

4.1.1 Great Southern Tourism Strategy

The Great Southern Tourism Strategy (the Strategy) provides a coordinated approach that will ensure better planning for the development of future services and infrastructure and lead to more efficient long-term management of existing outdoor recreation activities, programs, events and infrastructure. The Strategy's target area extends 350km along the Southern Ocean from Nornalup (west) to Bremer Bay (east) north along the Wheatbelt to the regional hub of Katanning. This area covers 11 local governments, including the City of Albany and approximately 60,000 people.

The aims of the Strategy are:

- *Establish strong partnerships that will guide infrastructure development and management.*
- *Build and manage world-class trails and facilities.*
- *Promote the Great Southern as an adventure tourism destination.*
- *Build capacity and capability amongst outdoor recreation providers.*
- *Ensure all people have more opportunities to participate in outdoor recreation.*

This proposal builds on one of Albany's biggest assets, the ocean and associated waterbodies, and has been developed in order to take advantage of the benefits of the location and promote outdoors-based Great Southern tourism, fresh produce and provide a boost to the local economy.

4.1.2 State Planning Policy 2.6 State Coastal Planning

State Planning Policy 2.6 – State Coastal Planning (SPP2.6) sets out a range of Policy Measures to ensure that development in coastal locations appropriately takes into account coastal risk and environmental considerations.

The objectives of the policy are listed below:

1. *ensure that development and the location of coastal facilities takes into account coastal processes, landform stability, coastal hazards, climate change and biophysical criteria;*
2. *ensure the identification of appropriate areas for the sustainable use of the coast for housing, tourism, recreation, ocean access, maritime industry, commercial and other activities;*
3. *provide for public coastal foreshore reserves and access to them on the coast; and*
4. *protect, conserve and enhance coastal zone values, particularly in areas of landscape, biodiversity and ecosystem integrity, indigenous and cultural significance.*

Owing to the location, the proposed development will have regard to the provisions and objectives of SPP2.6. A Coastal Hazard Assessment has been prepared for the site in support of the proposed development and is discussed below.

4.1.3 Coastal Hazard Risk Management and Adaptation Planning Guidelines

The Coastal Hazard Risk Management and Adaptation Planning Guidelines (CHRMAP) is designed to support the implementation of SPP 2.6 and assist the decision makers to:

- a) *Consider the risks arising from coastal hazards through evaluating their consequence and likelihood, and the vulnerability of specific assets;*
- b) *Identify risk management responses to those risks arising from coastal hazards; and*
- c) *Prioritising and implement the risk management responses.*

This guideline encourages and guides decision-makers and landholders to address these differing responsibilities through the preparation of CHRMAP plans. A Coastal Hazard Assessment has been prepared for the site in support of the proposed development and is discussed below.

4.1.4 State Planning Policy 3.7 Planning for Bushfire Prone Areas

The site is within an identified bushfire prone area. Accordingly, the proposal is to be assessed for compliance with State Planning Policy 3.7 Planning in Bushfire Prone Areas ("SPP 3.7") *"to preserve life and reduce the impact of bushfire on property and infrastructure"*. A Bushfire Management Plan and Bushfire Emergency Evacuation Plan have been prepared for the site in support of the proposed development and are discussed below.

4.1.5 Planning Bulletin 83/2013 Planning for Tourism

The Planning Bulletin 83/2013 Planning for Tourism (Bulletin 83) sets out the policy position of the WAPC and local government for subdivision, development and scheme amendment proposals for tourism purposes.

The proposed development is considered appropriate for the subject site as Emu Point can be classified as a Tourism Site, which has been defined by Bulletin 63 as:

Sites which are zoned for tourism purposes or have an existing tourism function, and that have qualities and attributes which necessitates their retention for tourism purposes

Bulletin 83 has the following policy objectives:

- *Highlight the importance of strategic planning for tourism.*
- *Recognise local and regional variations in tourism demand and development pressures; and their impacts on the viability of tourism development, in assessing and determining tourism proposals.*
- *Provide guidance to local government in planning for tourism development to be undertaken as part of the local planning strategy process.*
- *Provide guidance on the development of non-tourism uses on tourism sites.*
- *Provide for flexibility in the design and assessment of tourism and mixed use development.*

The wider Emu Point precinct provides a popular boat ramp and jetties, the beach itself, playgrounds and existing restaurant/café businesses, and is also less than a kilometre from Emu Point Holiday Park accommodation. The site has a great locational advantage and is already well known to locals and tourists alike.

The proposed development will help complement the existing tourism-based uses in the area and will provide a unique aquaculture based experience that is not currently available, entirely consistent with the aforementioned objectives.

4.1.6 City of Albany Local Planning Strategy 2019

The City's Local Planning Strategy (the Strategy) is a strategic document, which provides direction over the next 10-15 years with the aim to deliver a more compact city where residents have improved access to local shops, services, employment and transportation. The Strategy was designed to guide the City's progress towards its vision to be Western Australia's most sought after and unique regional city to work, live and visit.

This aquaculture project realises the ambitions of the City of Albany's 2019 Local Planning Strategy. Specific to aquaculture, the Strategy identifies the City of Albany region as the single largest producer of mussels and oysters in the State, and a premium producer of Rock Oysters and Blue Mussels for local and export consumption.

The Strategy recognises the prime conditions that exist at Oyster Harbour and Emu Point as an oyster hatchery location, and the opportunity for the City of Albany to capitalise on these conditions, and strengthen its leading position in this market.

This project at Emu Point delivers on these aquaculture ambitions, with Rock Oysters, Akoya and Mussels.

4.1.7 Local Planning Policy Development in Flood Prone Areas

The Local Planning Policy Development in Flood Prone Areas provides requirements for development in areas subject to periodic inundation or flooding. The objective for the policy is as follows:

To ensure development adjacent to water bodies and land prone to flooding is appropriately located and positioned at an established finished floor level to reduce the potential for property damage.

The subject site is located adjacent to Oyster Harbour, and as a result the Coastal Hazard Assessment has been prepared for the site in support of the proposed development and is discussed below.

4.2 Land Use

There is no region planning scheme applicable to the site.

The site is reserved 'Parks and Recreation' under the City of Albany's Local Planning Scheme No. 1 (LPS1), with a 'Restricted Use' overlay specific to the site, restricting the land uses that can be undertaken at the site.

The objective of the 'Parks and Recreation' reserve is as follows:

"Public Purposes which specifically provide for a range of public recreational facilities."

The proposed aquaculture facility is entirely consistent with the 'Aquaculture' land use, which is included in the list of Restricted Uses for the site and is defined as per the *Fish Resource Management Act 1994* as follows:

"means the keeping, breeding, hatching, culturing or harvesting of fish"

The proposed development is considered to be consistent with the intent of the 'Parks and Recreation' objective as the development will be providing a much-needed upgrade to the existing site conditions, will reactivate the currently underutilised area, and will provide an additional tourism asset accessible to the public as part of the future stage three development. The proposal is entirely consistent with the marine operations already undertaken at Emu Point, and consistent with the previous use, being an oyster processing facility.

'Restaurant' is also one of the Restricted Uses for the site. This is considered an appropriate land use classification for the proposed future restaurant use and tourism facility, noting that this is effectively an ancillary activity associated with the primary aquaculture operations.

4.3 Public Art

The City's Local Planning Policy Public Art has been established to ensure private commercial, non-residential or mixed use developments valued over \$1.5 million are required to provide 1% of the estimated total project cost for the development of public artwork which reflect or enhance local cultural identity.

Noting that stages one and two of the proposed development are effectively industrial in nature, and not readily visible to the public, or accessible to the public, it is proposed that public art only be provided to the future stage three restaurant/tourism component, with the required 1% contribution to be based upon the construction cost of this stage only.

Roberts Gardiner Architects has had regard to potential public art opportunities associated with the future stage three restaurant/tourism component, and it is considered that this can be appropriately addressed as a condition of any planning approval.

4.4 Bushfire Management

Envision Bushfire Protection has prepared a Bushfire Management Plan (BMP) in accordance with State Planning Policy 3.7 (SPP 3.7) and the Guidelines for Planning in Bushfire Prone Areas V1.3 (the Guidelines) in order to identify appropriate mitigation measures and can be found at Appendix C.

Refer to Appendix C – Bushfire Management Plan

The BMP has identified that the restaurant use has been classified as 'vulnerable' as the use invites visitation by people who are unfamiliar with the locality. A Bushfire Emergency Evacuation Plan has therefore been prepared and is included at Appendix C.

Table 5 – Current and Proposed BAL Ratings

Built Environment	Current BAL	Proposed BAL
Processing/Amenities Building	BAL FZ	BAL-19/12.5
Bulk Fuel Store	NA	BAL-19
Tourism (restaurant)	NA	BAL-12.5
Oyster and Mussel Shed/Nursery	BAL FZ	BAL-FZ
Marine Workshop	Undefined	BAL-FZ

The site will be developed predominantly with hardstand, and buildings, and therefore it will not provide a continuity of bushfire fuels that may act as a wick leading to ignite the adjacent vegetated reserve, or spread from the adjacent reserve to the habitable buildings. The proposal therefore presents a low risk of ignition and spread of a bushfire from the site into the adjacent reserve.

4.5 Servicing and Site Suitability Considerations

4.5.1 Traffic Movement and Parking

Stantec has reviewed the proposal to ensure that it can accommodate the required truck movements to service the facility.

Refer to Appendix F – Truck Turning Template

With respect to car parking for the aquaculture facility, this is considered to best be described as 'Industry – General' with respect to the projected demand for car parking, given the processing activities that will be primarily undertaken. Table 6 of LPS1 would require the following parking for the use:

Car parking - '1 per 100m² NLA'

Bicycle parking - '1 per 20 car bays'

Based on a combined Net Lettable Area (NLA) for the workshop, shed and processing warehouse of approximately 2,355m² (ie. stages one and two), approximately 24 car bays and two bicycle bays would be required.

A total of 20 car bays are proposed as part of the stage one and stage two development, plus a number of bicycle parking bays.

The restaurant/tourism building is intended to be developed as stage three of the proposal, along with eight additional car bays. Table 6 of LPS1 would require the following parking for the use:

'1 per 4 persons the facility designed to accommodate + 1 per employee'

The building has been designed to accommodate approximately 120 people, plus employees, suggesting that approximately 30 car parking bays would be required, plus bays for employees.

It is noted that the proposal sits within the broader Emu Point precinct, where ample existing car parking is available, and which is effectively shared among the various users of Emu Point.

Separate to this application there is an opportunity for the City of Albany to establish a more efficient layout of the wider Emu Point car park, which is included as Appendix I, that would deliver additional public car parking in the precinct. Separate to this application, the City is encouraged to consider the additional car parking opportunities presented at Appendix I.

Refer to Appendix I – Additional Parking Concept

4.5.2 Waste Management

A waste management plan has been prepared by Encycle Consulting for the servicing of waste and recyclables by a private waste service provider from the proposed shellfish processing facility and future restaurant use.

Refer to Appendix D – Waste Management Plan

The development will have two bin stores to allow for the separate storage and collection of:

1. Seafood processing shell waste, general waste from bio-secure area, and general waste and recyclables from processing administration areas (bin store 1).
2. General waste and recyclables from the future restaurant/tourism facility, based on a fully licenced restaurant with commercial kitchen (bin store 2, to be constructed in Stage 3).

Bin store 1 will be located north of the processing facility and bin store 2 will be located north of the restaurant use. Bin store 2 will be enclosed and screened from view from the public, in accordance with the City's LPS1 section 4.8.8. As Bin store 1 is located along the northern boundary of the processing facility and is screened from view of the public, although it is not enclosed bins will have lids to mitigate vermin and flies. Hot and cold water services are to be made available for washing bins.

Tables 6 and 7 below refer to the size and number of bins required for both stores and the collection frequency.

Table 6 – Bins Store 1 - Number and bin size of bins to be stored – Stage 1 & 2: Processing Facility and administration

Waste Type	Bin Size (Litre)	Number of Bins	Collection Frequency
General waste	240	2	Twice weekly
Commingled recycling	240	1	Twice weekly
Total		3	

Table 7 – Bin Store 2 - Number and bin size of bins to be stored – Stage 3: Restaurant Use

Waste Type	Bin Size (Litre)	Number of Bins	Collection Frequency
General Waste	660	8	Twice weekly
Commingled recycling	240	2	Twice weekly
Cardboard	660	1	Twice weekly
Glass	240	5	Twice weekly
Soft plastic	240	1	As required
Used cooking oil	200 L tank	1	As required
Polystyrene	660	1	As required

A commercial waste service provider will service the general waste and recycling bins from both bin stores. On collection days rear lift vehicles for each waste and recycling stream will enter the site. the vehicle will drive in forward motion and park adjacent to the bin stores. The operatives will enter the bin stores to retrieve and service the bins. The empty bins will be returned to the bin stores. Access to the grease trap for the restaurant use will be located adjacent to the building and accessed at stage 3 of the development.

A staff member will be responsible for overseeing the waste management and will maintain the stores, keeping them clean and tidy. All staff will be made aware of the waste and recycling systems and how to use them.

4.5.3 Erosion and Flood Prone Area

A preliminary Coastal Hazard Assessment (CHA) has been prepared by M P Rogers & Associates in accordance with State Planning Policy 2.6 State Coastal Planning (SPP 2.6) and Coastal Hazard Risk Management and Adaptation Planning Guidelines (CHRMAG). The CHA has provided appropriate adaptation or management measures which may be implemented as part of the development.

Refer to Appendix E – Coastal Hazard Assessment

The CHA identifies that the beach section of the site is at risk of erosion in the long term, and therefore a coastal management strategy is necessary for the site. Table 8 below is provided by the CHA and outlines SPP 2.6's hierarchy of risk and mitigation options for coastal erosion and coastal inundation hazards, and the appropriateness of each strategy for the subject site.

Table 8 - Risk Adaptation & Mitigation Options for Coastal Erosion and Inundation

Risk Mitigation and Adaption Options	Appropriateness for site	
	Coastal Erosion	Coastal Inundation
Avoid	The option to avoid is not viable for Emu Point Boat Harbour. The development site exists at the harbour and is dependent on the harbour frontage.	The option to avoid is not viable for Emu Point Boat Harbour. The whole site sits below this level and it is impractical to locally fill and develop above this level.
Planned or managed retreat	Planned or managed retreat is not appropriate. The development needs to service Emu Point boat harbour, therefore relocating the development inland is not an option.	Planned or managed retreat is not appropriate. The development needs to service Emu Point Boat Harbour, therefore relocating the development inland is not an option.
Accommodate	This strategy is not appropriate. The development would not be economically viable to be designed to withstand the impacts of significant shoreline recession.	This strategy is most appropriate for the site. This would involve taking measures through the design, construction and management of the site to acknowledge the risk of flooding and inundation.
Protect	This option of coastal erosion mitigation is the most effective for the site. It is recommended that the existing seawall is inspected to confirm its condition and suitability to protect the site. Furthermore, it is recommended that the remainder of the shoreline is protected. The most appropriate form of this protection would be an extension to the existing seawall.	

The “accommodate” strategy is appropriate for coastal inundation as the nature of the proposed shellfish processing facility operations are coastally dependent and the proposal does not include any habitable buildings. This means the development can be designed and managed to accommodate short term inundation.

Noting the broader precinct is under the management of the City of Albany, as a publicly accessible tourism/recreation area, it is considered appropriate that the City appropriately consider its response to the risk of coastal erosion, as it is to be acknowledged that this development application applies to an existing developed area of Emu Point, and the construction/extension of a seawall is a broader public matter.

Refer to Appendix E – Coastal Hazard Assessment

4.5.4 Urban/Stormwater Management

An Urban Water Management Plan has been prepared by Stantec and included at Appendix H. This outlines the stormwater management principles and design criteria, along with the bio-filter proposal, to demonstrate the appropriateness of the development in terms of managing stormwater adjacent Oyster Harbour.

Refer to Appendix H – Urban Water Management Plan

4.5.5 Servicing

The power and sewer servicing concepts prepared by Stantec and included at Appendix G demonstrate that the proposed development can be appropriately provided with essential services.

Refer to Appendix G – Servicing Concepts

5. Conclusion

This report has been prepared in support of the proposed Aquaculture Facility for Harvest Road's Leeuwin Coast brand, along with a future Restaurant (tourism facility), on the northern portion of Lot 501 Swarbrick Street, Emu Point.

Based on the discussion above it is considered that the proposed development is consistent with the strategic and statutory planning framework provisions that apply to the site. In conclusion, the proposal is considered appropriate having regard to the following:

- The proposed use of the site for 'Aquaculture' is appropriate under the Restricted Uses that apply.
- The development will be built in three stages:
 - The oyster and mussel nursery shed and associated infrastructure;
 - The processing facility, workshop and associated infrastructure; and
 - The restaurant (tourism) use.
- The development will provide a unique tourism opportunity for visitors and locals and will revitalize the under-utilized northern portion of the Emu Point precinct;
- The project realises the ambitions of the City of Albany's 2019 Local Planning Strategy, and builds upon the identified strengths of the region as the single largest producer of mussels and oysters in the State, and a premium producer of Rock Oysters and Blue Mussels for local and export consumption.

In this regard the approval of the City of Albany is respectfully requested.



6. Appendices

Appendix A – Certificate of Title

WESTERN



AUSTRALIA

REGISTER NUMBER

501/DP64940DUPLICATE
EDITION**N/A**

DATE DUPLICATE ISSUED

N/AVOLUME
LR3159FOLIO
265

RECORD OF QUALIFIED CERTIFICATE
OF
CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997
NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 501 ON DEPOSITED PLAN 64940

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: CITY OF ALBANY OF YORK STREET, ALBANY
(XE H755179) REGISTERED 22/5/2001

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

1. L325852 RESERVE 42964 FOR THE PURPOSE OF MARINE & ASSOCIATED PURPOSES REGISTERED 25/5/2010.
H755179 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 50 YEARS, SUBJECT TO THE CONSENT OF THE MINISTER FOR LANDS. REGISTERED 22/5/2001.
L012753 THE CORRECT ADDRESS OF THE MANAGEMENT BODY IS NOW 102 NORTH ROAD, YAKAMIA. REGISTERED 20/7/2009.
L643697 THE CORRECT ADDRESS OF THE MANAGEMENT BODY IS NOW 102 NORTH ROAD, ALBANY. REGISTERED 2/6/2011.
2. H368667 CAVEAT BY BANK OF WESTERN AUSTRALIA LTD AS TO PORTION ONLY LODGED 22/2/2000.
3. L012753 LEASE TO ALBANY SEA RESCUE SQUAD INC OF POST OFFICE BOX 1031, ALBANY EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 20/7/2009.
4. L643697 LEASE TO EMU POINT BOAT STORAGE PTY LTD OF POST OFFICE BOX 805, ALBANY EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 2/6/2011.
L643698 SUB-LEASE OF LEASE L643697 TO GLENN ROBERT KEYMER, SUSAN MICHELLE KEYMER, BOTH OF POST OFFICE BOX 5103, ALBANY, AS JOINT TENANTS EXPIRES: SEE SUB LEASE. AS TO PORTION ONLY. REGISTERED 2/6/2011.
N567798 TRANSFER OF LEASE L643697, LESSEE NOW DARREN WYNNE RUSSELL, LINDA JANE RUSSELL, BOTH OF PO BOX 5216 ALBANY WA 6332, AS JOINT TENANTS REGISTERED

END OF PAGE 1 - CONTINUED OVER

REPORT ITEM DIS253 REFERS
ORIGINAL CERTIFICATE OF CROWN LAND TITLE
QUALIFIED

REGISTER NUMBER: 501/DP64940

VOLUME/FOLIO: LR3159-265

PAGE 2

2/3/2017.

5. N154567 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 22/10/2015.

- Warning:
- (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
Lot as described in the land description may be a lot or location.
 - (2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
 - (3) The interests etc. shown hereon may have a different priority than shown.

-----END OF CERTIFICATE OF CROWN LAND 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:	DP64940
PREVIOUS TITLE:	LR3078-477, LR3117-246
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF ALBANY
RESPONSIBLE AGENCY:	DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)

NOTE 1: A000001A CORRESPONDENCE FILE 00401-1994-03RO

Subject to dealing

LANDGATE COPY OF ORIGINAL NOT TO SCALE 27/08/2020 11:43 AM Request number: 60944337

Appendix B – Architectural Plans

SCHEMATIC DESIGN DRAWINGS

ISSUED FOR DEVELOPMENT APPROVAL

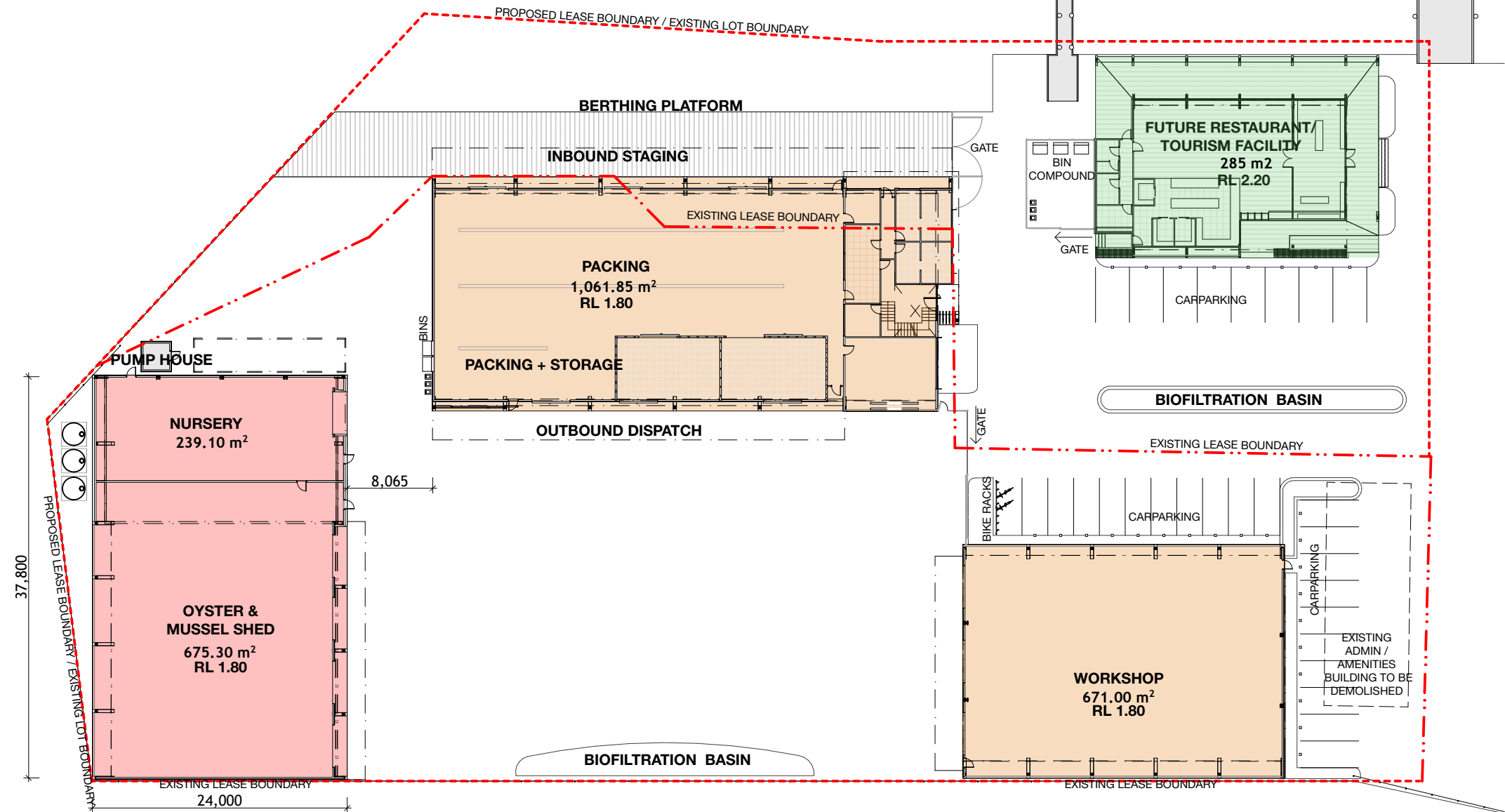
Monday, 31 August 2020

Drawing No.	Drawing Title
SK4.00	COVER SHEET
SK4.01	SITE PLAN
SK4.02	GF OYSTER & MUSSEL SHED PLAN
SK4.03	GF OYSTER & MUSSEL SHED ELEVATIONS
SK4.04	GF PACKING PLAN
SK4.05	PROCESS PLAN ELEVATIONS
SK4.06	GF WORKSHOP PLAN
SK4.07	RESTAURANT / TOURIST FACILITY
SK4.08	3D VIEW
SK4.09	3D VIEW
SK4.10	3D VIEW
SK4.11	3D VIEW
SK4.12	3D VIEW
SK4.13	3D VIEW
SK4.14	3D VIEW
SK4.15	3D VIEW
SK4.16	3D VIEW
SK4.17	3D VIEW
SK4.18	3D VIEW
SK4.19	3D VIEW
SK4.20	3D VIEW





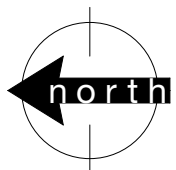
OYSTER HARBOUR



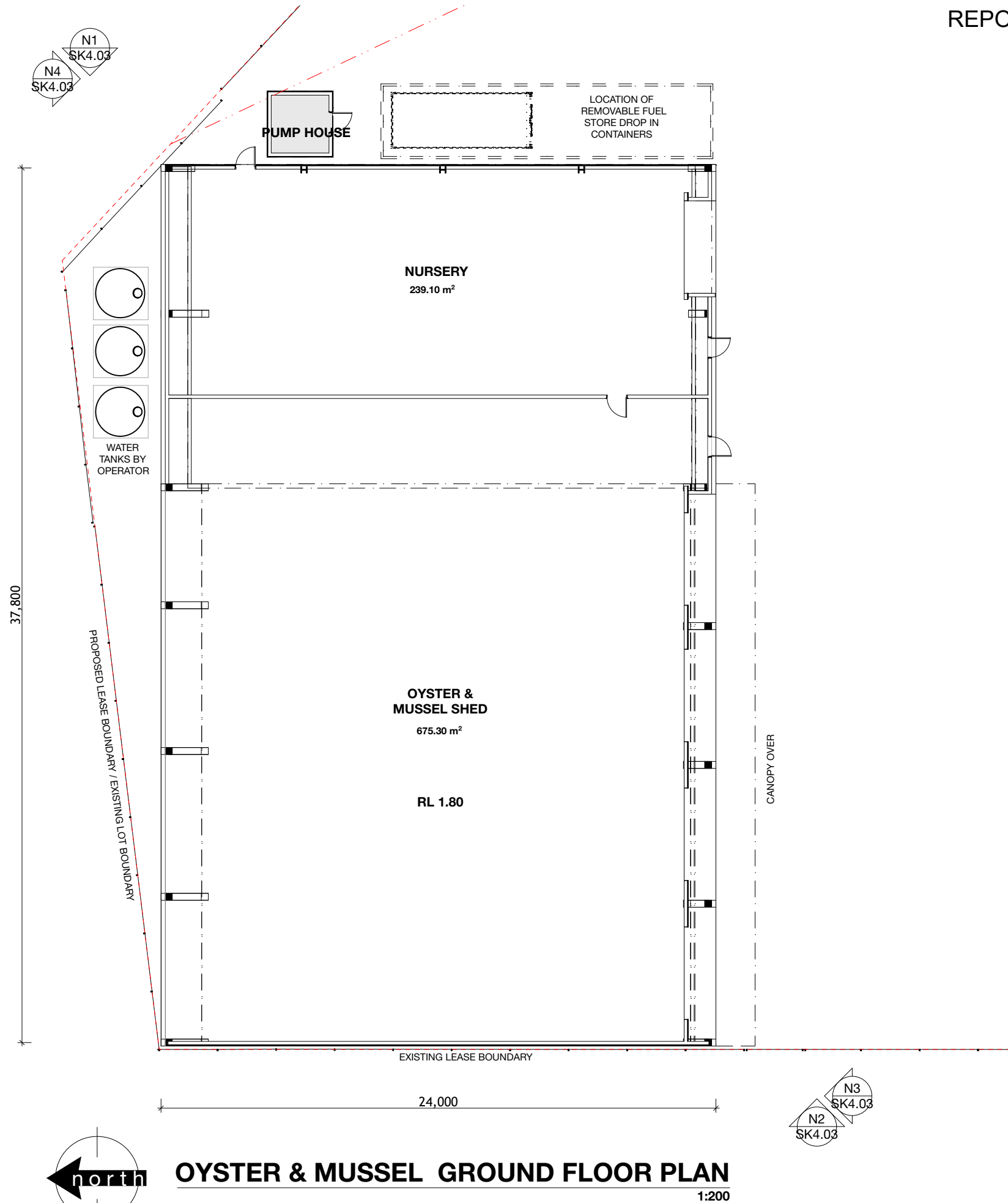
- STAGE 1**
- Nursery
 - Oyster and mussel shed
 - Pump station
 - Sea water intake and discharge
 - Hardstand and stormwater infrastructure
 - Access to the hardstand from the car park and from the berthing
 - Berthing (and dredging)
 - Fencing

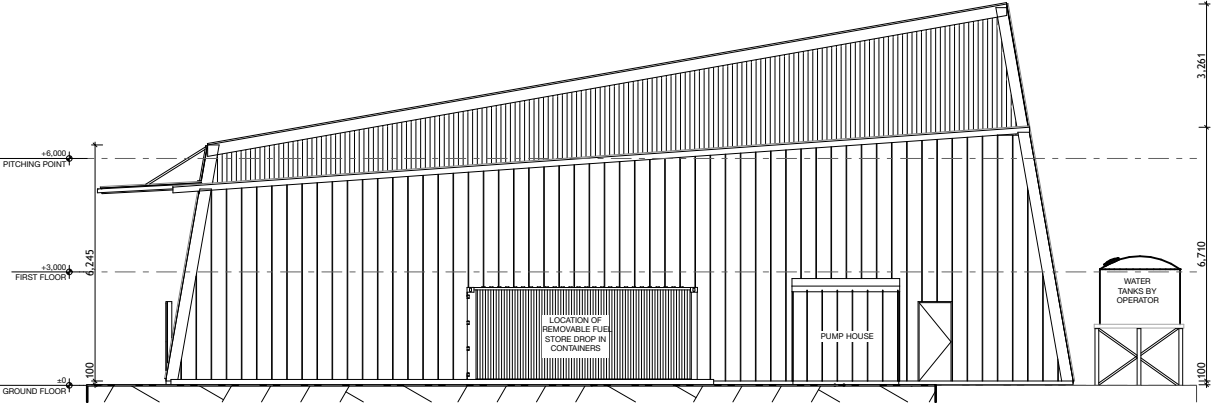
- STAGE 2**
- Demolition of existing brick building
 - Packing facility
 - Amenities & office
 - Workshop

- STAGE 3**
- RESTAURANT /TOURISM FACILITY BUILDING
PENDING FUTURE LEASE
- Tourism facility
 - Improvements to car park and biofiltration basin outside tourism facility

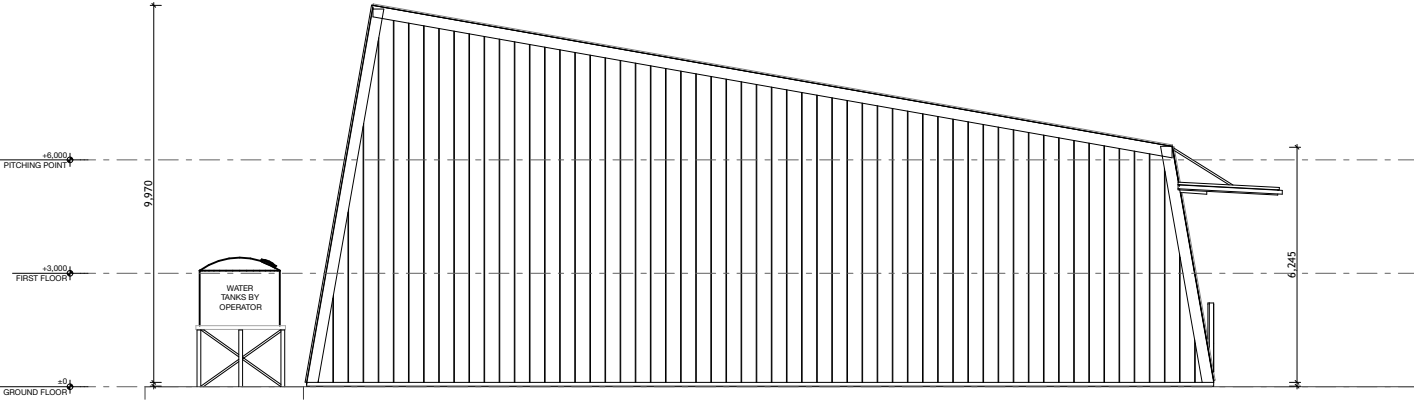


SITE PLAN
1:500

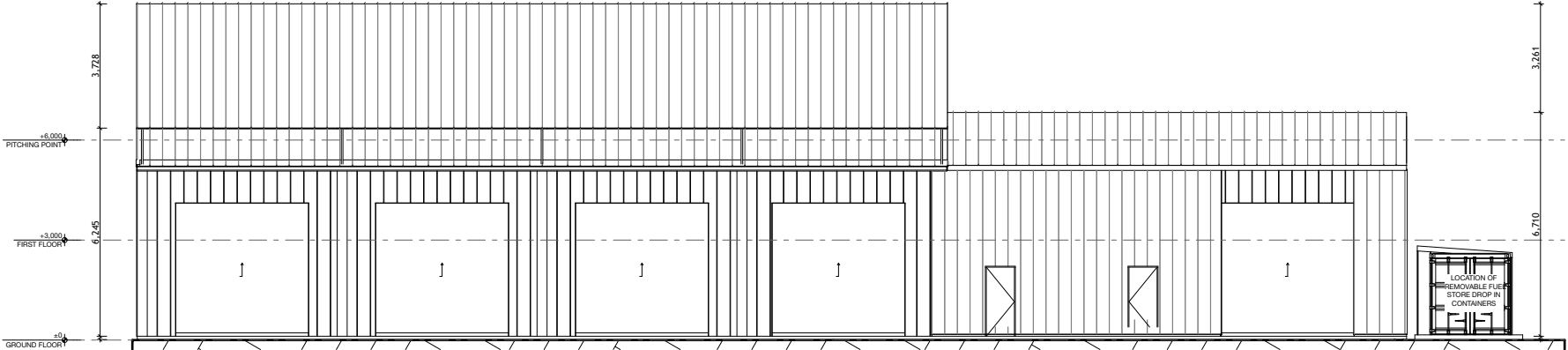




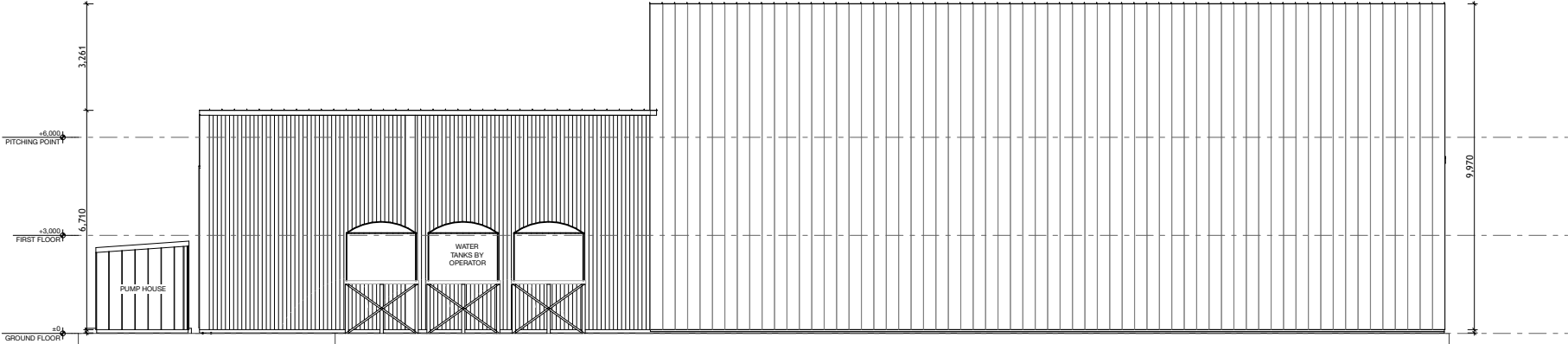
N1 EAST ELEVATION
1:200



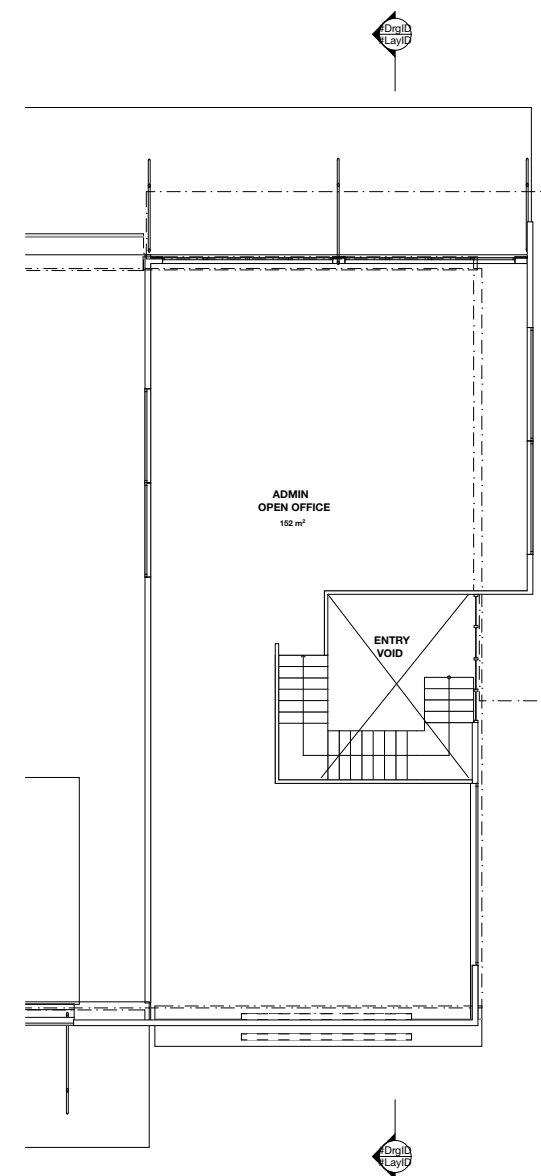
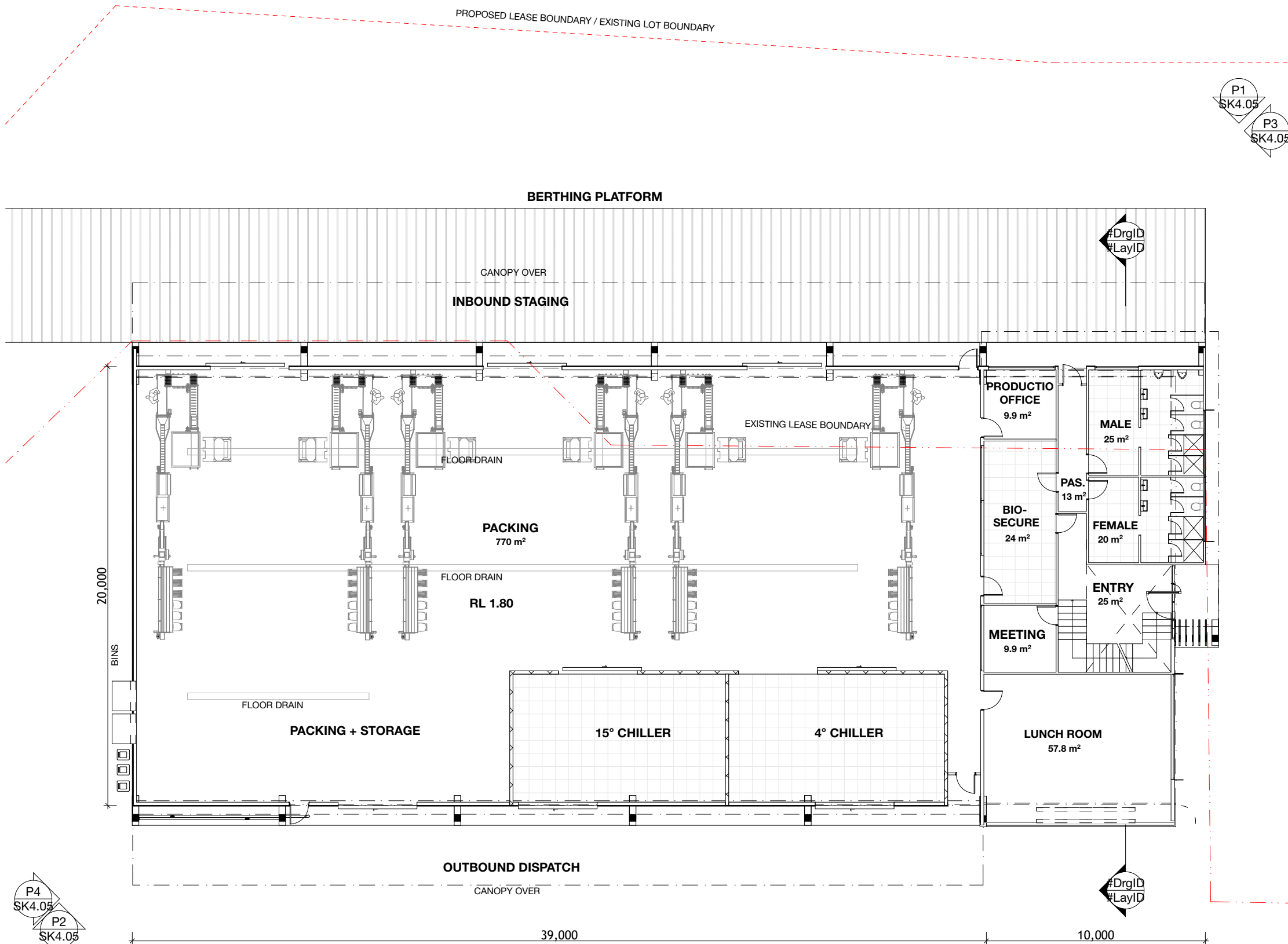
N2 WEST ELEVATION
1:200



N3 SOUTH ELEVATION
1:200

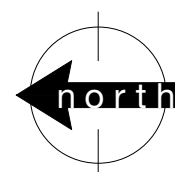


N4 NORTH ELEVATION
1:200



FIRST FLOOR PLAN

1:200



PACKING BUILDING GROUND FLOOR PLAN

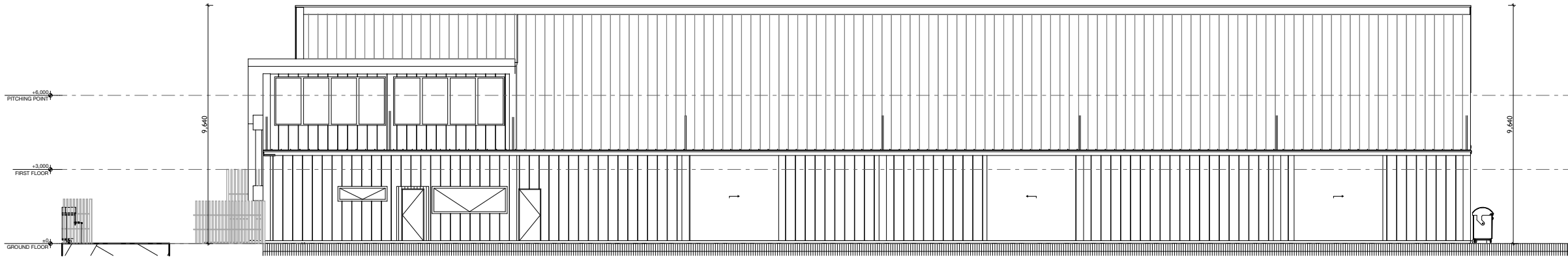
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ALBANY AQUACULTURE PROJECT
EMU POINT, ALBANY

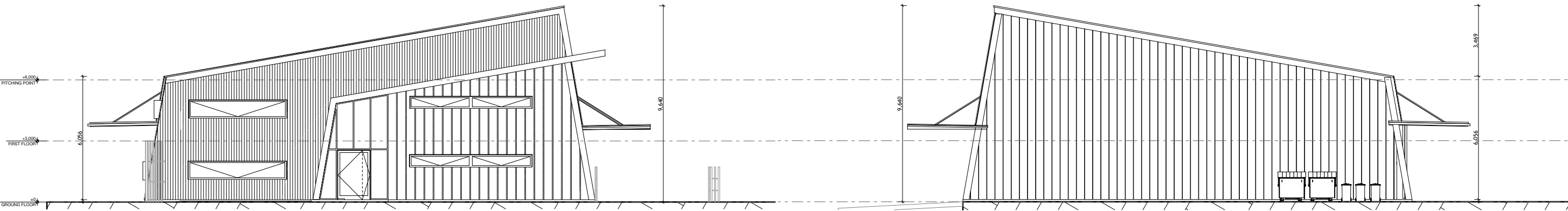
Roberts Gardiner
Architects

SK4.04 REV B
GF PACKING PLAN

1:200 @ A3(420x297mm)
meters 10

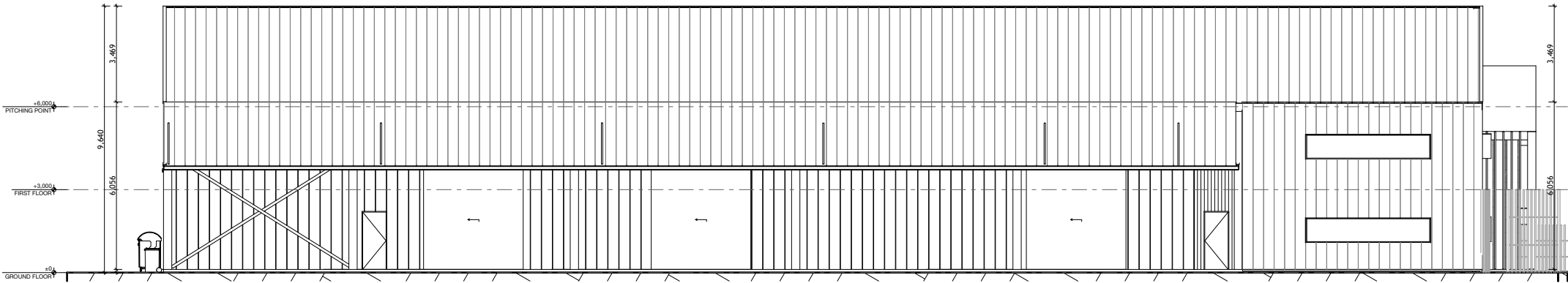


P1 EAST ELEVATION
1:200

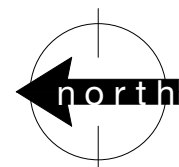
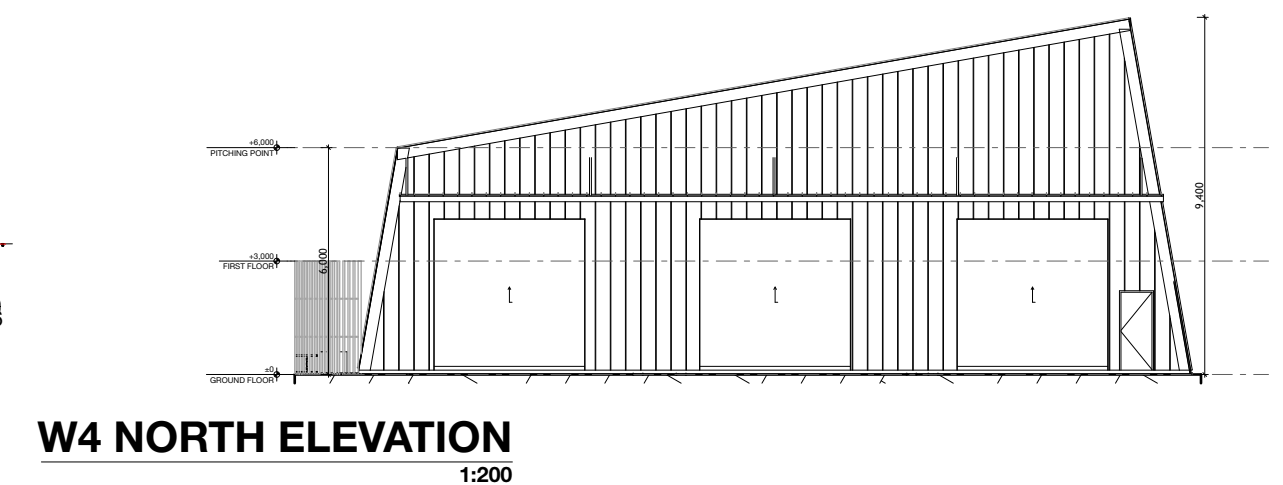
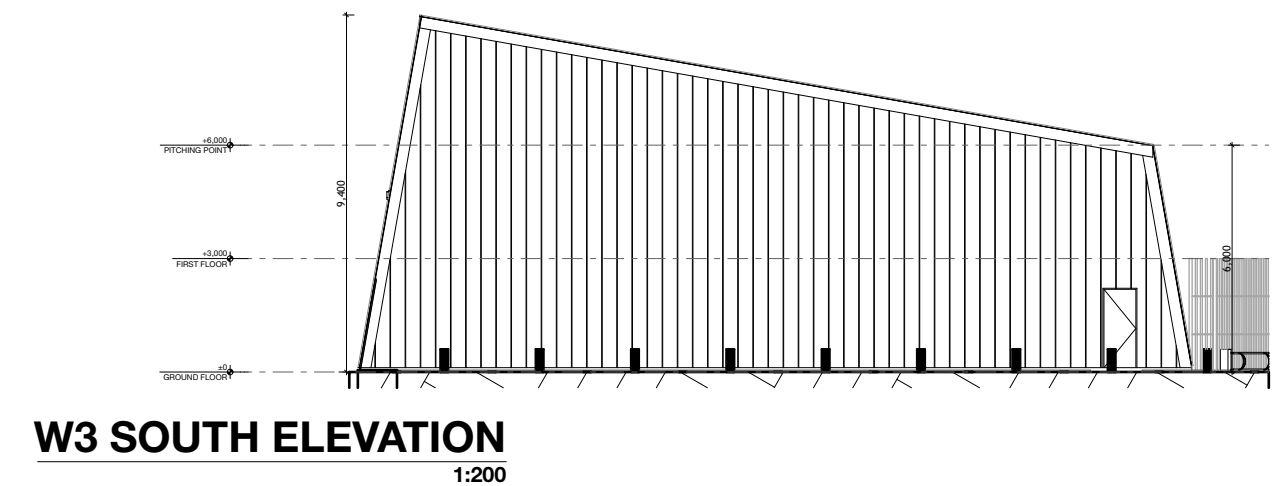
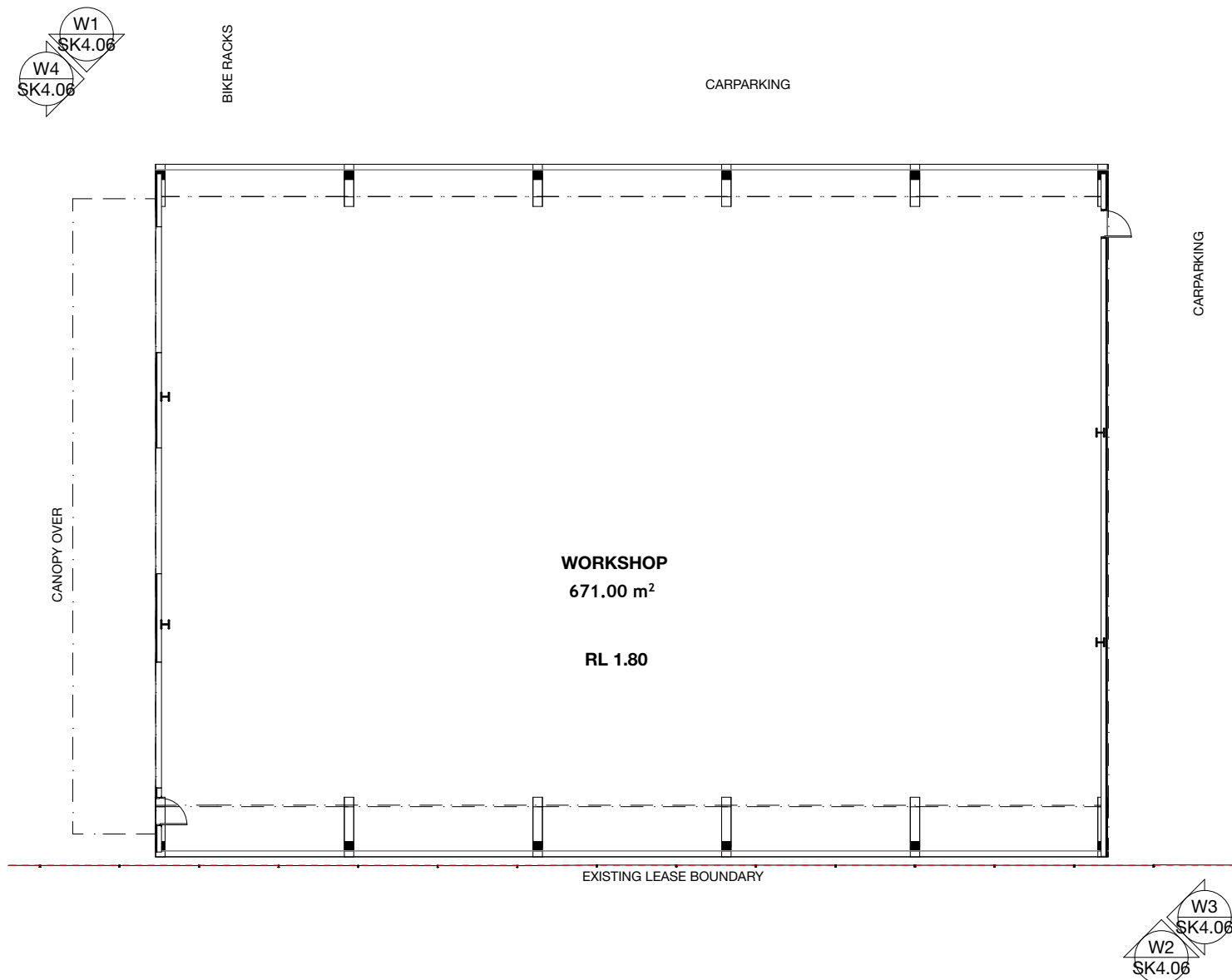
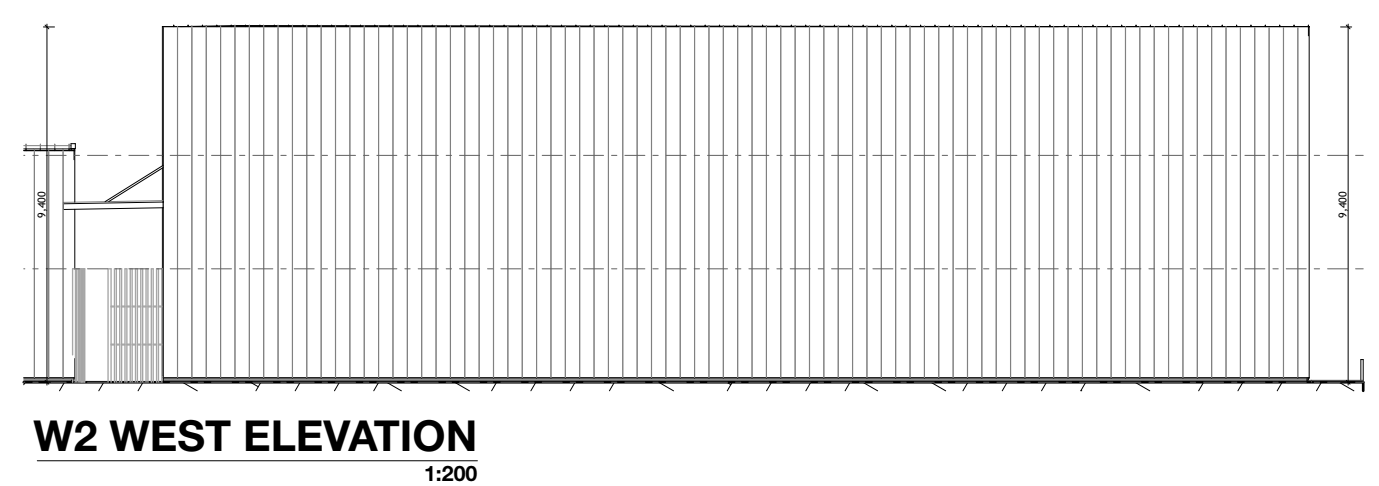
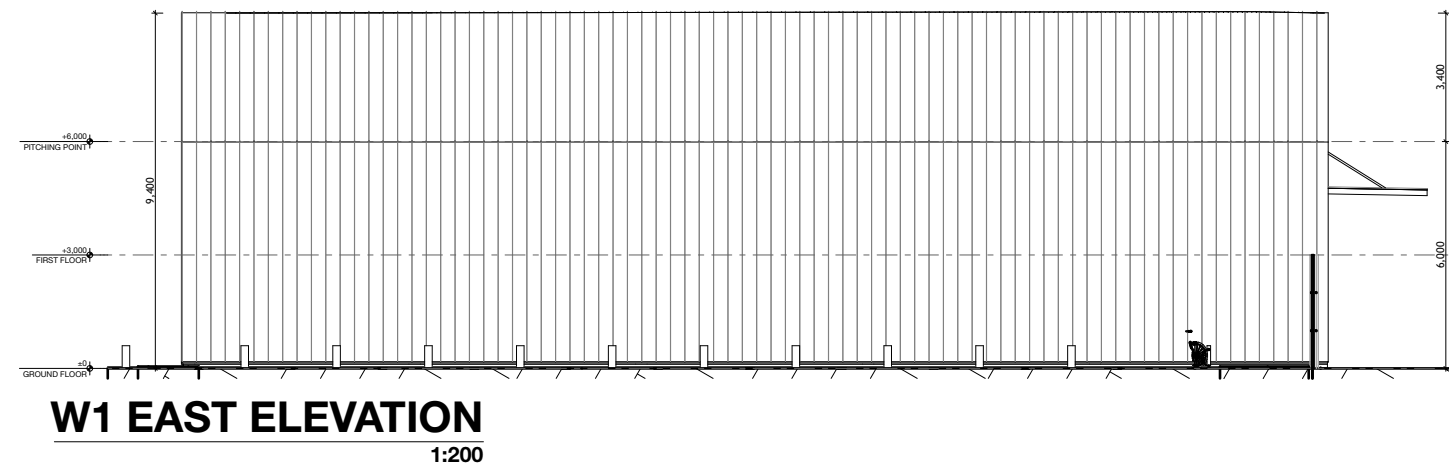


P3 SOUTH ELEVATION
1:200

P4 NORTH ELEVATION
1:200



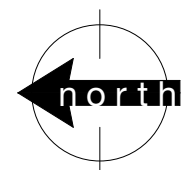
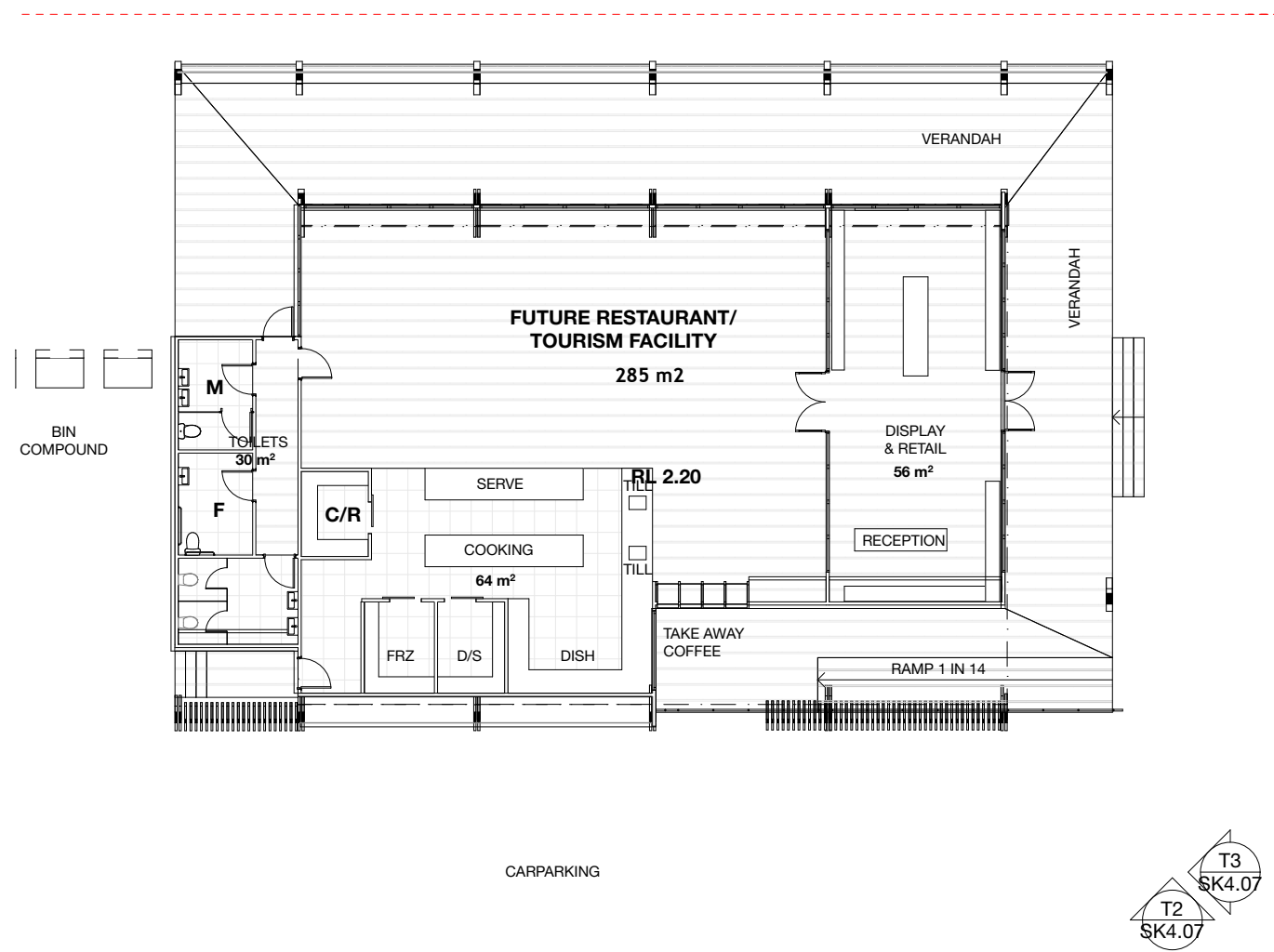
P2 WEST ELEVATION
1:200



WORKSHOP GROUND FLOOR PLAN
1:200

ALBANY AQUACULTURE PROJECT
EMU POINT, ALBANY

T1
SK4.07

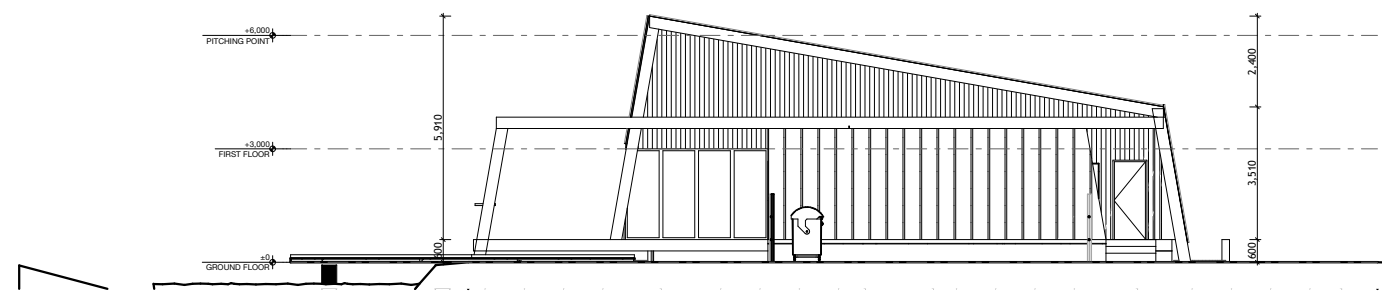


RESTAURANT/TOURIST FACILITY FLOOR PLAN

1:200

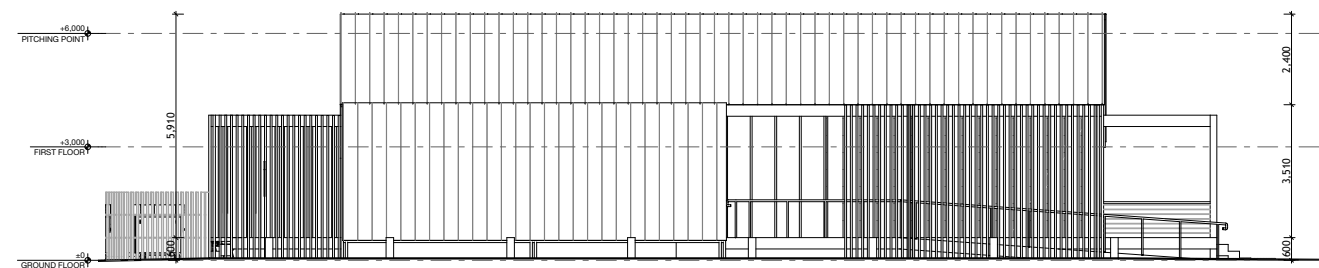
T2
SK4.07

T3
SK4.07



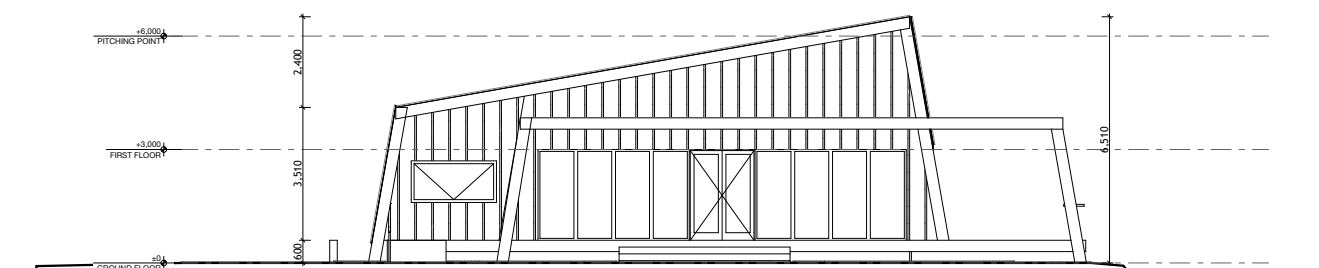
T1 NORTH ELEVATION

1:200



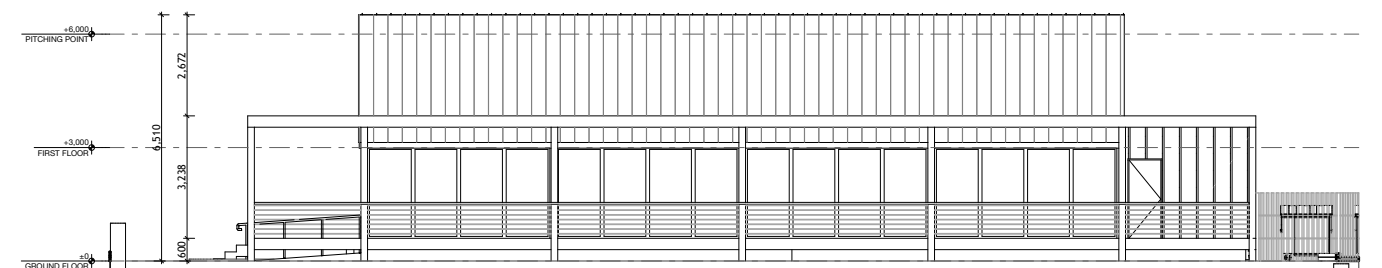
T2 WEST ELEVATION

1:200



T3 SOUTH ELEVATION

1:200



T4 EAST ELEVATION

1:200



PLAN 3D VIEW



ENTRY 3D VIEW



TOURISM USE BUILDING & PROCESSING BUILDING 3D VIEW



TOURISM USE BUILDING 3D VIEW



PROCESSING BUILDING 3D VIEW



NURSERY + OYSTER & MUSSEL SHED 3D VIEW



MARINE OPS/ WORKSHOP SHED 3D VIEW



3D VIEW



3D VIEW



PROCESSING BUILDING 3D VIEW



RESTAURANT / TOURISM USE BUILDING 3D VIEW



RESTAURANT / TOURISM USE BUILDING 3D VIEW



RESTAURANT / TOURISM USE BUILDING 3D VIEW



AERIAL SITE PLAN



ENTRY VIEW

ALBANY AQUACULTURE PROJECT
EMU POINT, ALBANY

Appendix C – Bushfire Management Plan

Bushfire management plan/State item DIS253 REFERS the Bushfire Protection Criteria coversheet

Site address:

Site visit:

Yes

☐

No

☐

Date of site visit (if applicable):

Day

Month

Year

Report author or reviewer:

WA BPAD accreditation level (please circle):

Not accredited

☐

Level 1 BAL assessor

☐

Level 2 practitioner

☐

Level 3 practitioner

☐

If accredited please provide the following.

BPAD accreditation number:

Accreditation expiry: Month

Year

e management plan version number:

e management plan date: Day

Month

Year

Client/business name:

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?		
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the bushfire protection criteria elements)?		

Is the proposal any of the following (see _____)?

	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)		
Strategic planning proposal (including rezoning applications)		
High risk land-use		
Vulnerable land-use		

None of the above

☐

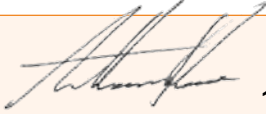
Note: Only if one (or more) of the above answers in the tables is yes should the decision maker (e.g. local government or the WAPC) refer the proposal to DFES for comment.

development is for accommodation of the elderly, etc.)? .g. Considered vulnerable land-use as the

The information pr

e management plan to the best of my knowledge is true and correct:

Signature of report author
or reviewer


177

Date

Bushfire Management Plan

Aquaculture Maintenance and Seafood Processing Facility

Lot 501 Emu Point

Client – Tattarang

August 2020

LIMITATIONS STATEMENT

This Bushfire Management Plan ('BMP') has been solely prepared for Tattarang Pty Ltd. It proposes to develop a food processing facility at Lot 501 Emu Point (**the Site**) within the City of Albany.

Envision Bushfire Protection

ABN: 90958370365

124 Derby Road SHENTON PARK WA 6008

P: 0439 112 179

Email: admin@envisionbp.com.au

Version Control

Lot 501 Emu Point WA			
Version	Date	Author	
V1	10 August 2020	Anthony Rowe	Draft
V2	14 August 2020	Anthony Rowe	Revision of BAL Report included

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Disclaimer

In undertaking this work, the authors have made every effort to accurately apply the available information **at the time of writing** following the instructions of the regulatory authorities and applying best practice as described by the Fire Protection Association Australia. Any conclusions drawn or recommendations made in the report are made in good faith, and the consultants take no responsibility for how this information and the report are subsequently used.

Envision Bushfire Protection accepts no liability for a third party's use of, or reliance upon, this specific report.

Importantly the measures contained in this report cannot guarantee human safety or an absence of harm or that the building will not be damaged or would survive a bushfire event on every occasion. This is due to the unpredictable nature of fire behaviour (knowledge in this field continues to develop) and the unpredictable nature of extreme weather conditions.

This report has been prepared, in part utilising the WALGA Environmental Planning Tool ('EPT'). The author agrees that at all times, copyright in the material on the EPT website remains with WALGA and the Contributors as the case may be and has cited the EPT as being the source of information and acknowledges the contributor's copyright in the Information.

Scope of this report

Envision Bushfire Protection has been engaged to provide expert bushfire safety and planning advice.

The scope of the advice has been to assess the proposal for compliance with the policy measures described in State Planning Policy 3.7 and identify appropriate mitigation measures to be considered by the determining authority. This is described in a Bushfire Management Plan and prepared with regard to the Department of Planning Lands and Heritage templates.

The investigations and mitigation measures identified in the BMP, has, in turn, formed the basis for the preparation of a Bushfire Emergency Evacuation Plan.

Client relationship

I was engaged to provide expert bushfire safety and planning advice. My relationship with the client is a standard commercial contract, and no private, personal, or other matter has influenced the content of the BMP or my findings.

STATEMENT OF CONFORMITY – PLANNING AND DEVELOPMENT ACT 2005



Anthony Rowe Level 3 - BPAD36690

Principal



The signatory declares that this Bushfire Management Plan meets the requirements of State Planning Policy 3.7 and the Guidelines for Planning in Bushfire Prone Areas V1.3.

EXECUTIVE SUMMARY

Preface

The applicant, Tattarang Pty Ltd., proposes to rearrange its Aquaculture facility, at Lot 501 Emu Point (the Site) within the City of Albany. The site is located at Emu Point and is situated between a Forest reserve (west) and the coast.

The development proposal comprises the replacement of the existing buildings with the following:

- Processing/Amenities Building - consolidate and replace existing administration and process building;
- Bulk Fuel >500 L portable store (new to site);
- Oyster and Mussel Shed/Nursery - replacement and consolidation of the existing facility;
- Tourism - restaurant (new to site); and
- Marine workshop - activity consolidation.

The site is within a declared bushfire prone area. Accordingly, the proposal is to be assessed for compliance with State Planning Policy 3.7 *Planning in Bushfire Prone Areas* ('SPP 3.7') "*to preserve life and reduce the impact of bushfire on property and infrastructure*" in meeting the supporting elements described in the Guidelines for Planning in Bushfire Prone Areas V1.3 (the Guidelines).

In accordance with SPP 6.4 and clause 6.6, the proposed tourism use (restaurant) invites visitation by people unfamiliar with the locality who may require direction in a bushfire event. It is, therefore classed as a 'Vulnerable' development and the application is required to be accompanied by a Bushfire Emergency Evacuation Plan.

The proposal will require an assessment of the works against the bushfire siting and design provisions, to minimise the impact of bushfire on buildings. The proposal will also require an assessment of the suitability of the site for a tourism facility and measures to minimise the exposure of visitors to the effects of bushfire: to preserve life.

Consideration has been given to the Western Australian Planning Commission's Position Statement *Tourism Land use in bushfire prone areas*, November 2019 (Tourism Statement) for the assessment of the proposed tourism use.

The proposal, whilst it will include a bulk fuel store (>500 L) in a mobile facility (sea container/double bunded arrangement) the quantity is equivalent to the current operation and is a consolidation of existing 'unstructured' fuel storage and refuelling on site. The proposal places the bulk fuel store in BAL-19, accompanied by spill containment measures and sited away from the boundary which is in BAL-FZ. The proposal is not considered to constitute a 'high risk' as defined by SPP 3.7.

The nature of the existing land use and its continuation does not utilise open flame or spark generation. The servicing of machinery will be undertaken within an enclosed workshop and is not analogous with the descriptions of a 'high risk' found at cl.5.6.

The site will be a predominantly paved hardstand, and buildings, therefore it will not provide a continuity of bushfire fuels that may act as a wick leading to ignite the adjacent forest or spread from the forest to the habitable buildings. The proposal therefore presents a low risk of ignition and spread of a bushfire from the site into the adjacent forest¹.

The proposal will replace existing arrangements, within BAL 40-BAL-FZ, with new buildings that on completion will be located within BAL 40-BAL-FZ and have a lower level of occupancy. Following the recent SAT case Bunnings², as a consolidation of an existing arrangement, it is not considered to increase the bushfire threat or increase the vulnerability of land use within BAL 40 or BAL-FZ.

¹ Assessed by AS 3959:2018

² BUNNINGS GROUP LIMITED and PRESIDING MEMBER OF THE METRO NORTH WEST JOINT DEVELOPMENT ASSESSMENT PANEL [2019] WASAT 121 (26 November 2019)

Proposal details (addressed in Section 1)

The site is located within the Emu Point community, an urban enclave located on a peninsula accessed by a single road (Emu Point Drive – Swarbrick Street) and 7 km (8.4 km by road) east of the Albany town centre. The site is 0.83 ha and located in a small industrial precinct on the foreshore of Emu Point (Zoned Reserve Parks and Recreation). The precinct comprises marine servicing facilities, a café, and the sea rescue squadron base. It adjoins a marina, public boat ramp and carpark. It is located at the northern extent of the Emu Point foreshore reserve and residential area, which extends for a further 450m south to the coast. The site is provided with a reticulated water supply, a hydrant is located at its southern boundary, and is within 4G telecommunication coverage.

The site is joined at its west and north boundaries by forest vegetation. The forest extends from a distance greater than 150 m to the west of the site and 50 m to the north of the site before becoming coast. Oyster Harbour connects to the ocean by a 160m wide channel east of the site. The channel opposite the site connects to a peninsula and forest.

The proposal will augment the approved aquaculture industry at the site. The approved land use had accommodated the storage of aquaculture equipment in open pens, an oyster nursery, a machinery servicing area, product processing/nursery and an administration building.

The site area is to be enlarged, on agreement with the City, to maximise its area within the extent of the City Reserve, to enable a re-arrangement of the site activities. The proposal will replace the open-air storage with undercover storage and provide an enlarged workshop and nursery to accommodate an expansion of the industry. The site will also accommodate a new administration building, processing facility, restaurant (habitable buildings), and a bulk fuel store. The site has been arranged to place the habitable buildings and fuel store furthest from the adjacent forest (in the lowest Bushfire Attack Level areas on the site).

Environmental considerations (addressed in Section 2)

The development site, the portion of the lot that is subject to the proposed land use, has been historically cleared of vegetation, apart from occasional trees, not restricted, at the site perimeter.

No further clearing of regulated vegetation is proposed.

Future land management and landscaping must ensure the hazard level at the development site is not increased.

Bushfire assessment results (addressed in Section 3)

The Bushfire Attack Level across the site has been determined, BioDiverse Solutions (Kathryn Kinnear BPAD 30-794) BAL report 14/08/20. It illustrates the BAL levels (BAL Contours) extending into the site from adjacent Forest located north and west of the site.

The following summarises the present BAL ratings and the proposals BAL ratings at the various buildings upon completion.

Built element	Current BAL	Proposed BAL
Processing/Amenities Building	BAL FZ	BAL-19/12.5
Bulk Fuel store	NA	BAL-19
Tourism (restaurant)	NA	BAL-12.5
Oyster and Mussel Shed/Nursery	BAL FZ	BAL-FZ
Marine workshop	undefined	BAL-FZ

Identification of bushfire hazard issues (addressed in Section 4)

Bushfire behaviour is affected by the weather conditions (Forest Fire Danger Index), the fuel mass of the vegetation type (Forest is the highest), and the slope under vegetation (speed doubles for any 10.0° increase in slope).

An assessment of the Forest Fire Danger Index ('FFDI') suggests a high individual variability in FFDI 50+ in the second half of December and the second half of March. Severe conditions (FFDI 50-74) are generally between mid-December to mid-March. FFDI 60+ is generally restricted to occurring in mid-January through February and is typically the period when Extreme days may occur. The site's location adjacent to the coast may moderate the FFDI, due to a reduced temperature and higher humidity, although wind strength may be greater nearer the coast.

Since 1972 Bureau of Meteorology data for Albany has identified only one day has been classed as Extreme Fire Danger Rating and twelve days have been classed as Severe. No days have been classed as Catastrophic. The projected FFDI, accounting for climate change remains within an FFDI 80; as is presently applied to AS 3959:2018 method 1 BAL determinations in WA.

Severe to Extreme fire danger levels are infrequent across the bushfire season. None were declared in the vicinity of the area in 2019/20. In the past five years, the average number of Total Fire Ban days declared per fire season in Albany is three days, although eight days were declared in 2014/15.

The prevailing wind directions during the fire season have a strong bias from the east through to the south-west.

The possible threat scenarios are:

- A fire front arriving under south-westerly winds from the continuous forest west of the site. Regrettably, human interaction is the source of the majority of bushfire ignitions. The continuous forest west of the site has a high surface exposure to human interaction, and a fire from this aspect is likely (1 in 10 years).
- Ember attack from extreme fire behaviour in a forest fire, across the water channel, and east of the site. The forest is National Park, and natural causes, a lightning strike is considered a most likely cause (1 in 10 years).
- A fire arriving from the north, northeast direction is unlikely because it would be against the prevailing wind conditions.
- The area immediately south of the site is a low threat land condition that cannot sustain a bushfire.

Assessment against the bushfire protection criteria (addressed in Section 5)

Compliance Table (Addressed in 5.1)

The proposal was compared with the four Bushfire Protection Criteria and the acceptable Solutions for the Elements addressing Location, Siting and Design, Access, and Water.

Element 1: Location. *To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure*

And

Element 2: Siting and Design of Development. *To ensure that the siting and design of development minimises the level of bushfire impact*

Element 1 has been clarified to refer primarily to strategic planning considerations. Both the Acceptable Solutions in Element 1 and 2 provide that future development should not exceed a moderate Bushfire Hazard Level or BAL-29.

The site has been historically used for industry, that includes development within BAL-40 and BAL-FZ.

The Processing/Amenities Building Bulk, and bulk fuel store, are located with an indicative BAL exposure of BAL-19 (shielded side BAL-12.5). The proposed Tourism use (restaurant) has an indicative BAL exposure of BAL-12.5. These components of the proposal are less than the acceptable BAL 29 level and therefore compliant with Element 2.

The components that will remain within BAL-40 and BAL-FZ are the Marine workshop and Oyster and Mussel Shed/Nursery. These components are, therefore, to be assessed by Performance Principle.

Performance Principle

The Performance Principle assessment has followed cl. 4.5.2.2 in the Guidelines and SPP cl.2, *risk-based land-use planning*, cl.5.1 *avoid any increase in threat*, and cl.6.7 *introduction and intensification of development should avoid BAL 40-FZ and BAL-FZ*.

In applying these principles, this Assessment has also followed the SAT Bunnings Group Limited and Presiding Member of the Metro North-West Joint Development Assessment Panel [2019]. The SAT found that SPP 3.7 should not be inflexibly applied, it is risk-based, and the existing use is a consideration in achieving a reduced risk of bushfire threat and vulnerability.

The proposal represents a reduced risk on the present authorisation because:

1. The present open-air storage of the plastic oyster baskets is vulnerable to bushfire attack and has the potential to burn intensely and produce toxic smoke. Whilst a fire initiated in this storage is unlikely, if it occurred, it could spread to the adjacent forest to cause a bushfire.

The proposal is to consolidate this storage in an enclosed out-building (floor areas 670 m²) located furthest from the high occupancy buildings. The building has a vertical wall located on the western boundary and is set back 1 m from the northern boundary with a sloping wall. The building, being an enclosure, of non-combustible construction, will restrict the escape of fire from the storage area into the forest. The enclosure will similarly protect the stored oyster baskets from flame contact and ember attack. Steel sheeting can transfer radiant heat, a Fire Rating Level, which includes an insulation performance, has been specified (BAL FZ FRL 30/30/30). These measures will reduce the risk of spread of fire from the site and the impact of bushfire on the site by reducing the risk of ignition and therein building loss (adverse economic consequence) and potentially toxic emissions.

2. The present marine workshop activity is spread across the site. Materials are stored against the western boundary.

The proposal will consolidate site works into a single Marine Workshop placed on the western boundary, with a building designed to a construction standard comparable to BAL FZ (FRL 30/30/30) for walls and BAL FZ requirements for roof construction, penetrations, wall openings ie. garage doors, and to windows facing to the north and west. The Marine workshop will minimise the need to undertake work externally to the building, and any work outside the building will also be governed by the Total Fire Ban day declarations although the adjacent vegetation can be ignited any time during a fire season. A general restriction on welding and grinding (spark generation and the use of open flame, should apply within 20 metres of the west boundary, during the bushfire season, and a fire hose should be positioned on the west boundary. This will reduce the risk of spread of fire from the site and the improved building resilience, by BAL FZ construction, will reduce the risk of ignition and therein building loss (adverse economic consequence) and potentially toxic emissions.

Both the proposed oyster basket storage and marine workshop will be located on the property boundary. They are not large isolated buildings requiring a perimeter vehicle access and do not require a defensible space separation because they do not rely on brigade intervention for their survival. The construction standards, as identified in AS3959:2018 are not a guarantee against building loss, but it is a lesser likelihood than is presently provided, therefore a reduced risk.

The consolidation of buildings on-site also promotes the opportunity for an orderly arrangement of the site, rather than an ad hoc storage of potentially flammable items at the boundary with the forest. The fuel store also represents a consolidation of the current arrangement and a safer placement within BAL-19 away from

the adjacent vegetation. An indirect purpose but extended benefit of the Tourism facility is the public's perception of quality food from a quality environment that will also encourage the site to be maintained in an orderly manner.

A fire break of 4 m in the adjacent reserve, requires maintenance, but can provide access to the reserve, and also reduce direct flame contact upon the buildings at the boundary after the peak flame residency (2 minutes)³.

Element 3: Vehicular Access. *To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.*

The Acceptable Solution requires development to have through road access providing alternative destination options for evacuation outside of the fire ground and for emergency services to attend and retreat. The road network and present land use is dependent upon a single access. There is no practical means of providing a secondary vehicle access.

SPP 3.7 does not apply retrospectively, and therefore the access requirement does not apply to the reconfigured existing land use. The alternative solution is therefore required only for the additional Tourism use (restaurant).

This Element is addressed by Performance Principle specific to the new land use (Tourism use (restaurant))

Performance Principle

SPP 3.7 reflects that a higher standard of safety should be provided to visitors than that provided to residents or workers who are in regular attendance and are aware of the bushfire risks (either through public promotion or *Occupational Safety and Health Act 1984* requirements). Visitors, on the other hand, may not be aware of bushfire risk, may be unfamiliar with the area, and will, therefore, require direction to ensure their protection in bushfire event. SPP 3.7 therefore provides a requirement to consider and prepare a Bushfire Emergency Evacuation Plan and a risk-based approach to reduce vulnerability⁴ to bushfire.

The State Government in order to facilitate tourism development particularly in response to an absence of a secondary access has introduced the Western Australian Planning Commission's Position Statement Tourism Land use in bushfire prone areas, November 2019 (Tourism Statement), to identify performance principle solutions including tourism specific Acceptable Solutions or a justification by a Bushfire Risk Assessment following the methodology described in the Position Statement and NERAG 2020.

"The provision of one access route can be considered where:

- the proposal is within a residential built-out area; or*
- the access route abuts moderate or low threat vegetation, and*
- where it is demonstrated that secondary access (including an emergency access way) cannot be achieved, and*
- the access route is not travelling back towards or through the hazard."*

The basis for the exemption of a residential built out area is an immediate connection to a BAL Low area and the accessibility to services.

The site and location for the Tourism use (restaurant), is a continuation of the residential built out area of Emu Point. A feature of the locality is the promotion of a vehicle access along the foreshore reserve between Swarbrick Street, Roe Parade and Mermaid Avenue.

The site is within a hydrant network; the nearest existing public hydrant will be located within 14 m of the expanded site. Whilst the site is upon the edge of the residential built out area it offers an immediate access

³ Gould JS et al. *Project Vesta: fire in dry eucalypt forest: fuel structure, fuel dynamics and fire behaviour*. CSIRO Publishing, 2008 and cited in ABCB Bushfire Verification Method 2019 for building construction.

⁴ SPP 3.7 cl.2 risk based approach, Objective 5.2 to reduce vulnerability to bushfire through consideration of bushfire risks.

into the residential area either by car or pedestrian along the foreshore beach reserve; a route that abuts low threat vegetation.

A Bushfire Emergency Evacuation Plan has been prepared in accordance with the WAPC A Guide to Developing a Bushfire Emergency Evacuation Plan, and it identifies the evacuation arrangements including evacuation west by the single access if the bushfire threat is from the east, and into the residential built out area if a fire is arriving from the west or north. There is no extensive bushfire threat to the south of the site, a residential area and foreshore reserve. The access route options are not travelling back towards or through the hazard.

The Tourism use (restaurant) is located within BAL 12.5 and complies with the Acceptable Solution Western Australian Planning Commission's Position Statement Tourism Land use in bushfire prone areas, November 2019 (Tourism Statement).

Element 4: Water. *To ensure that water is available to the subdivision, development or land use to enable people, property, and infrastructure to be defended from bushfire.*

The acceptable solution is satisfied if a proposal has access to a reticulated water supply, and hydrant system. The site has access to the Albany township reticulated water supply network and has a hydrant at its southern boundary. Internal hydrants are also to be supplied following the requirements of the *Building Act 2011*, *indicatively shown in the BAL Report 14/08/20*. The proposal is compliant with Element 4, but it is recommended, to aid suppression both of fire on the hardstand and in the adjacent forest, that additional fire hoses are provided at along the western and northern boundary.

Additional Bushfire Management Strategies (addressed in section 5.2)

Additional management strategies, further to the Bushfire Protection Criteria, includes the consideration of a vulnerable land use and its compliance with cl 5.5 in the Guidelines for Planning in Bushfire Prone Areas⁵.

A Bushfire Emergency Evacuation Plan ('BEEP') has been prepared for the Tourism use (restaurant) in accordance with cl 5.5 and the WAPC A Guide to developing a Bushfire Emergency Evacuation Plan, the WAPC Emergency Evacuation Plan template and regard given to AS 3745:2010 *Planning for emergencies in facilities*.

The BEEP is attached in Appendix 2. The contents of the BEEP have been compared with and demonstrate compliance with cl.5.5.2 in the Guidelines for Planning in Bushfire Prone Areas, which contains detail regarding what should be included in a BEEP. This is identified by Table 6 in section 5.2 of the report.

The determining authority can, therefore, be satisfied consideration has been given to the Guidelines Section 5.5.2 'Developing a Bushfire Emergency Evacuation Plan'.

Spatial representation of the bushfire management strategies (Figure EX 1)

Further to the Assessment against the bushfire protection criteria, the key features demonstrating compliance should be represented spatially in the Spatial representation of the bushfire management strategies. It represents the required bushfire risk management measures that must be implemented and maintained

Responsibilities for implementation and management of the bushfire measures

Owner

1. The adoption of the Bushfire Emergency Evacuation Plan (Appendix 2).	Ongoing
2. The marine workshop is to be constructed to a standard comparable with or exceeding the BAL-FZ standards identified in AS 3959:2018 at Section 9 or by a National Construction Code Performance Requirement.	Prior to occupation and ongoing
Walls: s.9.4	
– Non-combustible insulation FRL min 30/30/30	

⁵ Required by the DPLH *BMP Template for a complex development application*.

<p>External glazed elements, assemblies and doors: s.9.5</p> <ul style="list-style-type: none"> – Windows located to the south and east building elevation – Garage Doors in accordance with s.9.5.6 <p>Roofs.....: s.9.6</p> <p>Verandahs.....: s.9.7</p> <p>Water and Gas Supply Pipes:s.9.8</p>		
3.	<p>The Oyster and Mussel Shed/Nursery is to be enclosed and constructed to a standard comparable with or exceeding the BAL-FZ standards identified in AS 3959:2018 at Section 9 or by a National Construction Code Performance Requirement.</p> <p>Walls: s.9.4</p> <ul style="list-style-type: none"> – Non-combustible insulation FRL min 30/30/30 <p>External glazed elements, assemblies, and doors: s.9.5</p> <ul style="list-style-type: none"> – Ventilation and Access doors in accordance with s.9.5.6 <p>Roofs.....: s.9.6</p> <p>Verandahs.....: s.9.7</p> <p>Water and Gas Supply Pipes:s.9.8</p>	Prior to occupation and ongoing
4.	<p>Any form of 'hot works' are restricted from being undertaken outside of the marine workshop during the declared bushfire season. <i>This includes welding, gas cutting, soldering, power-operated cutting or grinding discs and any activities that due to the risk of creating sparks could start a fire.</i> It excludes the undertaking of any hot works, outside of a total fire ban day, that are associated with building maintenance and the installation of plant and equipment, undertaken prior 1.00 pm during the declared bushfire season.</p>	Ongoing
5.	<p>Landscaping is to be maintained as a reticulated garden consistent with low threat vegetation excluded by cl. 2.2.3.2(f).</p>	Prior to occupation and ongoing
6.	<p>Internal site vehicle access is to be provided in accordance with Element 3 Table 6 column 3 in the Guidelines for Planning in Bushfire Prone Areas V1.3.</p>	Prior to occupation and ongoing
7.	<p>The provision of external water (fire) hoses shielded from radiant heat and capable of applying water safely onto all external surfaces of the building without reliance on a reticulated power supply.</p>	Prior to occupation
8.	<p>The provision of external water (fire) hoses along the west (between buildings) and north boundary, shielded from radiant heat and capable of applying water 30 m onto the adjacent vegetation. <i>To attend to any small ignitions from the site or an open fire within the site and near the boundary. This is in addition to any chemical fire extinguishers specified for the site.</i></p>	Prior to occupation

The City of Albany

1.	<p>Maintain the fire break (4 m clear mineral surface) at the western and northern boundary with Boronia Reserve</p>	Ongoing
2.	<p>Administering the requirements of the <i>Planning and Development Act 2005</i> by ensuring the facility closure in accordance with the terms of the Development approval.</p>	Ongoing

3.	Administering the requirements of the <i>Planning and Development Act 2005</i> and the <i>Building Act 2011</i> .	Ongoing
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State Government

1.	Notification of Emergency Alerts - Website and Telecommunication Media	Ongoing
2.	Policing operations to minimise the deliberate ignition of bushfires.	Ongoing
3.	Maintain fuel reduction on public lands	Ongoing

Advisory notes

1. The landowner acknowledges any materials located against or near adjacent to the buildings, should they ignite, will expose the buildings to flame contact and will increase the risk of building ignition.
2. The landowner acknowledges that any buildings or combustible structures located within 6 m of the building may affect its BAL rating – the advice of the City should be obtained prior to placing any building or structure within 6 m of a building.
3. The landowner acknowledges that external building materials can be damaged, perish or distort over time and that can, in turn, provide a point of vulnerability for bushfire attack. The landowner acknowledges their responsibility to undertake an inspection of the building's external surfaces prior to each fire season, to eliminate any externally visible gaps greater than 2 mm.
4. The landowner is responsible for availing themselves of any promotions and information to assist owners in preparing for and responding to a bushfire event as may be made by the Shire or the Department Fire and Emergency Services.

Acknowledgement - Proponent






The proponent acknowledges the responsibilities as listed above and the requirement to ensure that should the land transfer to a new owner, that the new owner is aware of the BMP and their ongoing responsibility.

Figure EX 1 - Spatial representation of the proposed risk management strategies

**Notes**

1. Mandatory BAL construction standards (red). Recommended BAL construction standard (blue).
2. Site landscaping is to be maintained as a reticulated garden consistent with low threat vegetation excluded by cl. 2.2.3.2(f).
3. Hot works are not to be undertaken in the restricted area during the annual bushfire season
4. Internal site vehicle access is to be provided in accordance with Element 3 Table 6 column 3 in the Guidelines for Planning in Bushfire Prone Areas V1.3.
5. Internal hydrants (six) are to be provided to the site as per the Hydrant plan.
6. The provision of external water (fire) hoses shielded from radiant heat and capable of applying water safely onto all external surfaces of the building without reliance on a reticulated power supply.
7. The provision of external water (fire) hoses along the west (between buildings) and north boundary, shielded from radiant heat and capable of applying water 30 m onto the adjacent vegetation.

LEGEND

-  Site Boundary and internal hardstand area
-  Hot works restricted area
-  Accessway with turning areas indicated
-  Public Hydrant
-  City reserve firebreak 4 m wide

Property Assessment Details

Lot 501 Emu Point

Prepared by: Anthony Rowe

Accreditation Level: Level 3

Accreditation Number: 36690

Date: 8 August 2020

YOUR LOCATION IS**Boat Harbour****Emu Point****1. IF YOU ARE TOLD TO LEAVE**

EVACUATE BY VEHICLE TO
ALBANY LEISURE AND AQUATIC CENTRE
 52-70 BARKER ROAD, CENTENNIAL PARK
OR AS OTHERWISE ADVISED BY DFES (directly
 or via publicly broadcast information and
 warnings)

2. Close all windows and doors (staff)
3. Evacuate by vehicle from the Boat Harbour
 to Albany via Swarbrick Street – Emu Point
 Drive - Troode Street – Collingwood Road –
 Angove Road – Campbell Road – North
 Road
DO NOT TRAVEL THROUGH FIRE.
4. Monitor emergency information
 - a. ABC Local radio 630 am
 - b. DFES on 13 33 37
 - c. Emergency WA -
www.emergency.wa.gov.au

1. IF YOU SEE SMOKE**2. IF YOU SEE FIRE****PHONE 000 or 112 (mobile)**

**Describe your location and where the smoke
 or fire is.**

**If advised it is not safe to travel along Emu
 Point Drive**

1. Evacuate to the Emergency Assembly Point
 at the Swarbrick Street boat ramp.
2. Cover head with a towel provided by the
 restaurant.
3. Keep hydrated.
4. Monitor emergency information
5. Return to restaurant if safe
6. Evacuate site when Emu Point Drive is
 declared safe.

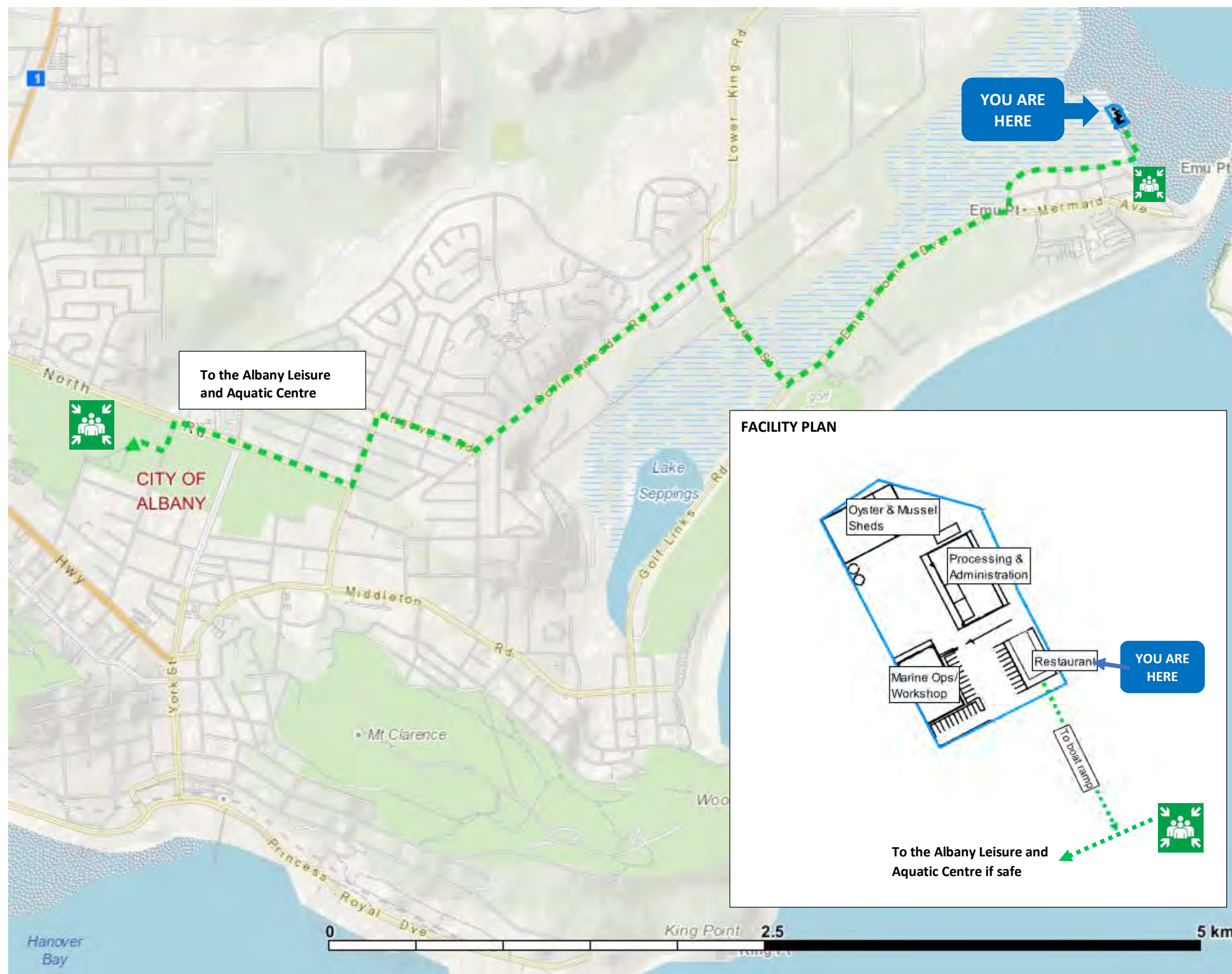


Table of Contents

1. PROPOSAL DETAILS	1
1.1 Introduction.....	1
1.2 Background	1
1.3 Proposal details	1
1.4 Regulatory Compliance Requirements	8
2. ENVIRONMENTAL CONSIDERATIONS.....	12
2.1 Native Vegetation – Modification and Clearing	12
2.2 Re-Vegetation/Landscape Plans.....	13
3. BUSHFIRE ASSESSMENT.....	13
3.1 Bushfire Attack Level Assessment (Inputs)	13
3.2 Indicative Bushfire Attack Level (Outputs) Method 1.....	14
4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES	15
4.1 Bushfire Behaviour.....	15
5. BUSHFIRE PROTECTION MEASURES.....	19
5.1 Bushfire Protection Criteria Compliance	19
5.2 Additional Bushfire Management Strategies	29
5.3 Spatial representation of the bushfire management strategies	31
6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES	31
APPENDIX 1 - BAL Assessment.....	32
APPENDIX 2 - Emergency Evacuation Plan	59
APPENDIX 3 - APZ Guidelines.....	80
APPENDIX 4 – Access Standard.....	82
APPENDIX 5 – Water Tank.....	84
APPENDIX 6 – References.....	86

1. PROPOSAL DETAILS

1.1 Introduction

The applicant Tattarang Pty Ltd. proposes to build an Aquaculture Project facility, at Lot 501 Emu Point (the Site) within the City of Albany.

The proposal will augment the existing industry at the site, which is for aquaculture processing and associated storage of aquaculture equipment and machinery servicing.

The additional development includes undercover storage and an administration building. Additional uses at the site will include a food processing plant, oyster and mussel nursery building, tourism (restaurant), workshop and a portable bulk fuel store (>500 L).

The site is in the Southern region of Western Australia within the township of Albany (**Plate 1**) and is located within a bushfire prone area (OBRM 2019) **Plate 2**.

Development, buildings, and land use, located within a bushfire prone area, are required to demonstrate compliance with the requirements of State Planning Policy 3.7.

The policy intent is *to preserve life and reduce the impact of bushfire on property and infrastructure*, and compliance is achieved where a proposal incorporates the Acceptable Solutions as described under each Element in the Bushfire Protection Criteria or can satisfy the intent of each Element by performance principle and the Precautionary Principle.

This document presents an assessment of a proposed vulnerable class of development "visitation uses that may involve people who are unaware of their surroundings" with the requirements of State Planning Policy 3.7 and *Guidelines for Planning in Bushfire Prone Areas* (WAPC, V1.3 December 2017) including assessment against each of the Bushfire Protection Criteria and the requirement for an Emergency Evacuation Plan.

1.2 Background

The site has an approval for use for aquaculture productions and the site is occupied by Oyster and Mussel bays, a workshop and an administration building.

1.3 Proposal details

The proposal and its context comprises:

Landowner	Tattarang Pty Ltd
Address	Lot 501 Emu Point
Local Government Area	City of Albany
Local Planning Scheme Zone	Parks and Recreation City of Albany Local Planning Scheme No. 1 (LPS 1), Restricted Use
Bushfire Season	1 November to 14 May 2020 (may vary each year)
Lot size	0.83 ha
Landscape context (5 km)	The site is adjoined on the west by forest vegetation extending from greater than 150 m west of the site and less than 50 m north of the site before becoming coast. The coast adjoins the eastern boundary as part of a bay. The area to the south of the site is low threat (AS 3959:2018). Located south from the site and extending 730m to the coast is a marina hardstand area, public boat ramp, and an urban residential area (enclave) 450 m wide. The residential area is on a peninsula and is separated from the forest located on an opposite peninsula by a waterway of 160 m wide.

	North	East	South	West
	Coast	Coast then 160 m to Forest	Residential the coast	Forest
Land description site Existing buildings Topography Site Vegetation	<p>The site is 0.83 ha in area comprising hardstand and buildings with a single row of sporadic trees and shrubs located inside the north and west boundary. The site is otherwise classed as low threat by AS 3959:2018, cl. 2.2.3.2 (e) and the immediate area is flat although the forest is located in a shallow depression that runs east to west</p> <p>The development proposal comprises replacing the existing buildings with the following:</p> <ul style="list-style-type: none"> • Processing/Amenities/administration Building, consolidate and replace existing administration and process building; • Bulk Fuel store, new; • Oyster and Mussel Shed/Nursery, replacement and consolidation of the existing facility; • Tourism building (Restaurant), new; and • Marine workshop, replacement and extension. 			
Building Class	6, 8 and 10a			
Adjoining Landuses	North	East	South	West
	coast	coast	Public recreation and residential	Forest
Road Access Road compliance	<p>The site is located 7 km east of the Albany Town centre, and serviced by a single road (Emu Point Drive - Swarbrick Street) that services the residential area, a public boat ramp and the site.</p> <p>Safer place option destinations include</p> <ul style="list-style-type: none"> • Albany township urban area • Emu Point residential area 			
Nearest town centre	Albany town centre is 7 km from the site (8.4 km by road)			
Water supply	The site has access to the Albany Township reticulated water supply and a hydrant is located 20 m from the site entry			
Tele communications	The site is within the 4G Telstra network, but may require a network extension amplifier at the site.			
Emergency services	The nearest rural fire brigade is located in the Albany township (7.6 km).			
Minor Development	N/A			
Unavoidable development	Yes			
Vulnerable Development	Yes			
High-risk land use	N/A			

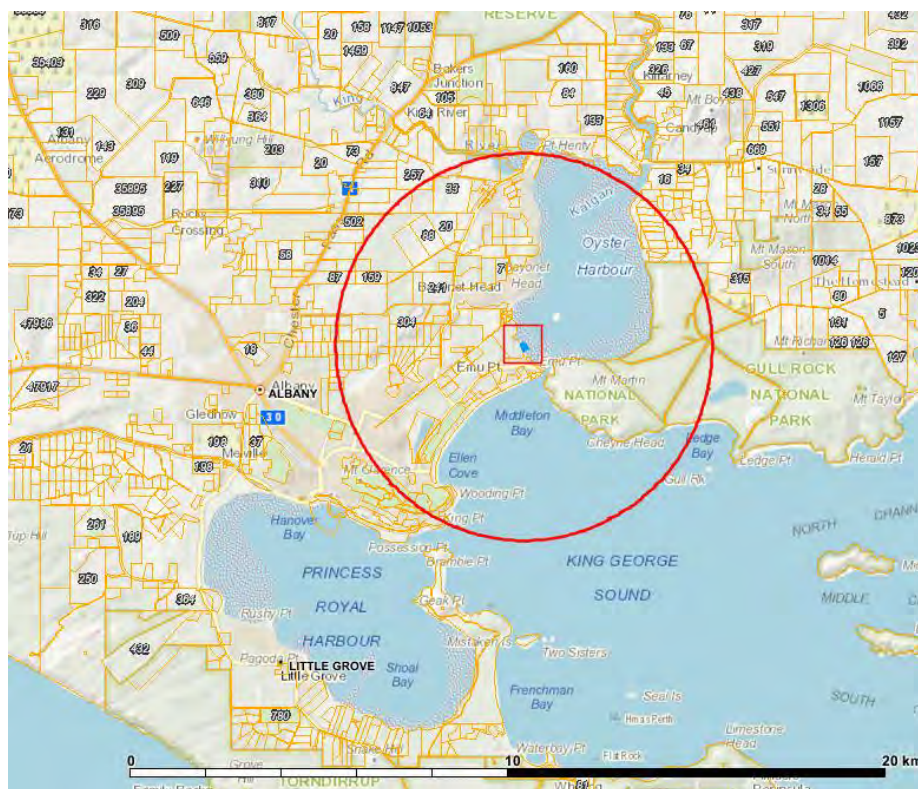


Plate 1: Site in Locality



Plate 2: OBRM Bushfire Prone Area (Pink area)

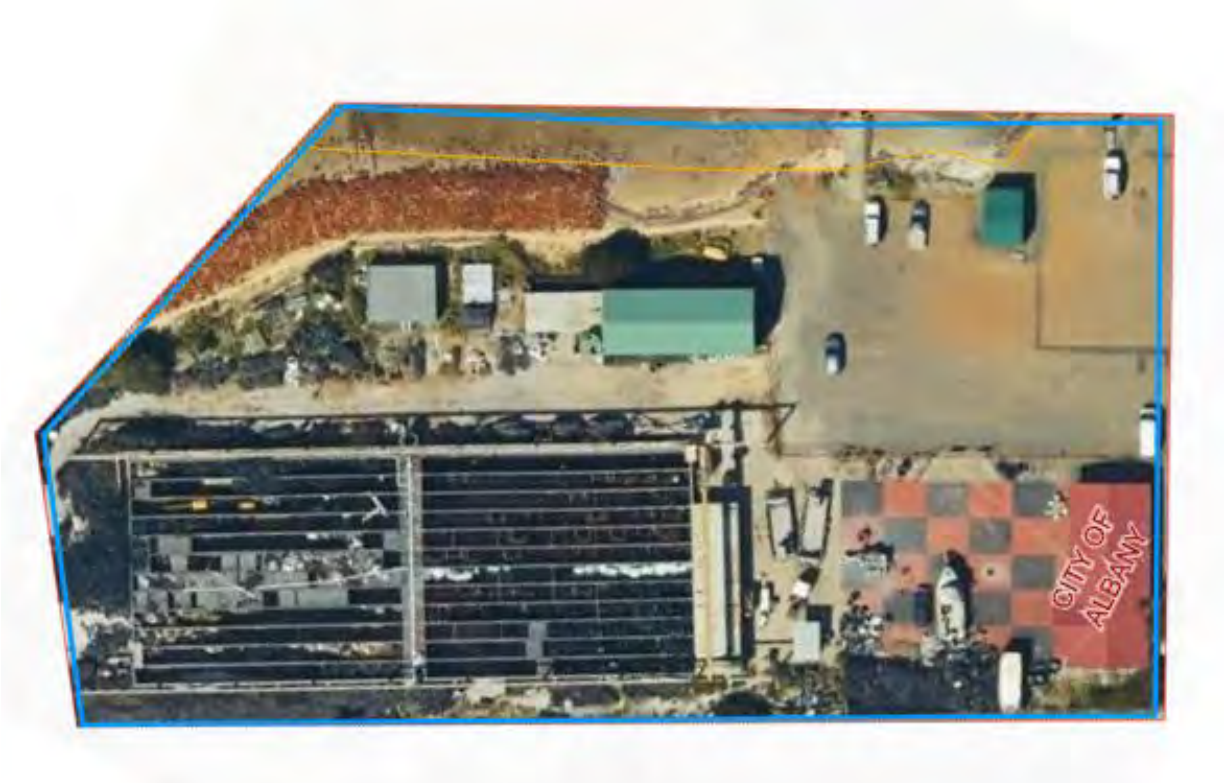


Plate 3: Authorised site use.

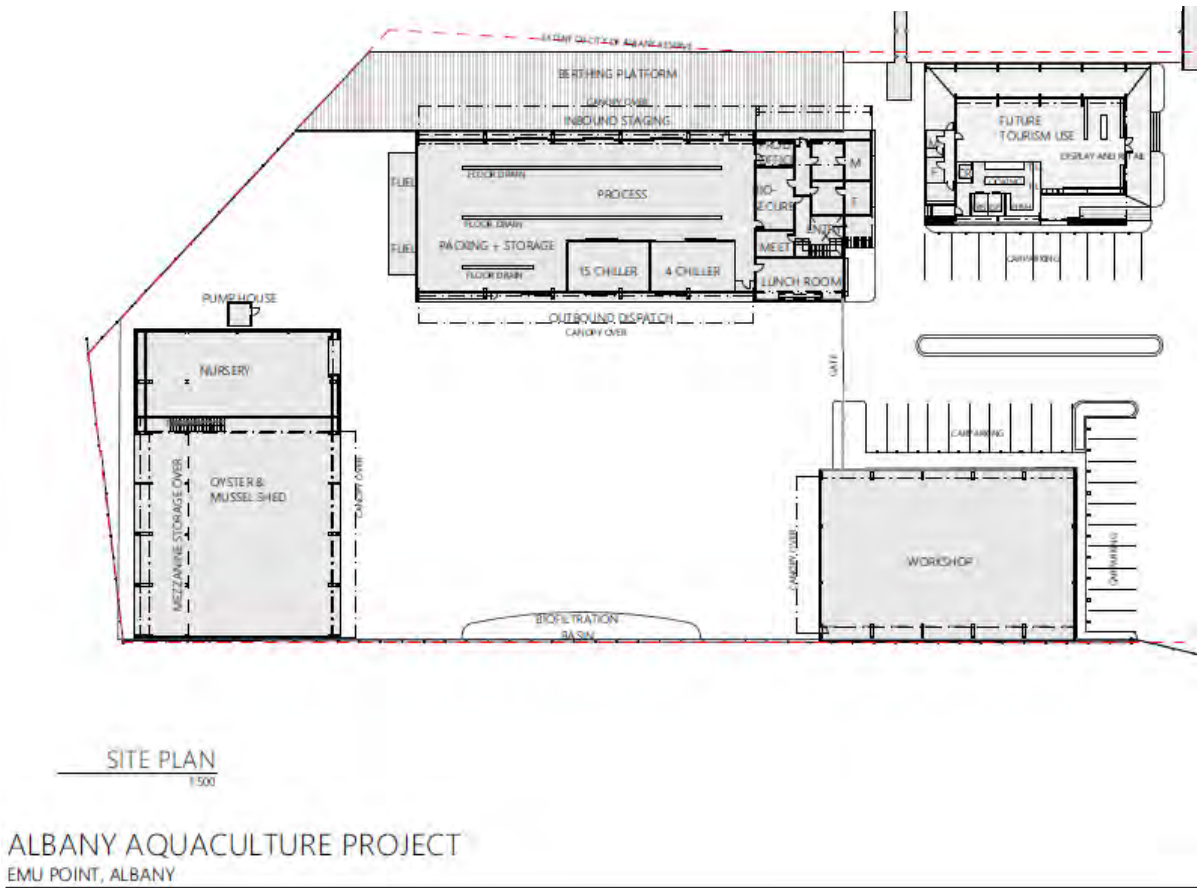


Plate 4: Proposed development



Plate 5: Proposed Marine Workshop 3D view



Plate 6: Proposed Tourism Use Building (Restaurant) 3D view



Plate 7: Proposed Oyster and Mussel Shed/Nursery, 3D view



Plate 8: Proposed Processing/Amenities/Administration Building 3D view



Plate 9: Proposed compound hardstand vehicle manoeuvring area 3D



Plate 10: Proposed bulk fuel store, red containers, 3D view

1.4 Regulatory Compliance Requirements

The following regulations have been applied to this Assessment.

Planning and Development Act 2005 - SPP 3.7

On 7 December 2015, the State Government introduced a state map of Bushfire Prone Areas by order under the *Fire and Emergency Services Act 1998* and introduced development controls in Bushfire Prone Areas through the *Planning and Development Act 2005*. These controls were authorised by State Planning Policy 3.7 (Planning in Bushfire Prone Areas) regulations introduced under Part 10A Schedule 2 of the *Planning and Development (Local Planning Scheme) Regulations 2015* and guided by the *Guidelines for Planning in Bushfire Prone Areas*.

The State Planning Policy, Regulations, and Guidelines now form the foundation for fire risk management planning in WA at a community and land development level. The Policy Intent of SPP 3.7 is a risk-based land-use planning and development **to preserve life and reduce the impact of bushfire on property and infrastructure**.

5. Policy Objectives

5.1 Avoid any increase in the threat of bushfire to people, property and infrastructure. The preservation of life and the management of bushfire impact are paramount.

Examples of increasing a threat of bushfire may include a high-frequency ignition (increased likelihood) or converting a low bushfire hazard to an extreme bushfire hazard (converting pasture to forest).

5.2 Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process.

Take action to ameliorate the effects of a bushfire, reduce the likelihood, reduce human exposure (provide an opportunity to evacuate or shelter (minor injuries), reduce BAL at the building or increase construction standards or both.

Clause 6.7 Development applications in areas where an extreme BHL and/or BAL-40 or BAL-FZ applies

Clause 6.7 provides that where a development application will result in the introduction or intensification of a development or a land-use that on completion, have a BAL-40 or BAL-FZ, it will not be supported unless it is a 'minor development' or an 'unavoidable development'.

A minor development only applies to single dwellings and is not applicable to this proposal.

The proposal involves development, at the boundary of the site, which is adjacent to classified bushfire-prone vegetation. On completion, the proposal will have elements exposed to BAL-40 or BAL-FZ.

In the recent BUNNINGS GROUP LIMITED and PRESIDING MEMBER OF THE METRO NORTHWEST JOINT DEVELOPMENT ASSESSMENT PANEL [2019] WASAT 121 (26 November 2019), the SAT affirmed the intent of the Policy Measures are not to be applied inflexibly but instead should be approached on a basis of risk and the individual circumstance.

The SAT acknowledged the consideration of unavoidable development but was not entirely satisfied that no alternative was available on the site, and preferred to acknowledge the non-compliance with the Acceptable Solution and instead proceed with discretion (flexibly) to assess the risk and the individual circumstance of the proposal.

Analogous with this proposal, the SAT case involved existing activity that had been authorised to occur up to its boundary. The proposal, notwithstanding it was a building addition extending into BAL FZ, represented a reduced risk compared to the current authorisation involving the open storage of flammable materials within the BAL FZ area. The proposal instead reduced the existing risk by enclosing the flammable materials within a non-combustible structure. It introduced a barrier to remove the potential for a site fire to spread to the adjacent vegetation and provide a barrier to avoid flame contact and excessive radiant heat, from the adjacent vegetation, impacting upon the stored flammable materials.

Clause 6.6 Vulnerable or High-Risk land uses Land Uses (Guidelines for Planning in Bushfire Prone Areas cl.5.5.1)

Vulnerable development

The proposal is to provide a processing facility, a place of work that is subject to OHS training of its employees for a range of hazards including bushfire. Visitors attracted to the tourist facility (restaurant) are a class of people who may be unfamiliar with their surroundings and who may require assistance or direction in the event of a bushfire. The tourist component of the proposal is a vulnerable class of land use as defined in SPP 3.7, which refers to the descriptions in cl.5.5.1 of the Guidelines.

Typically, *vulnerable* land uses are those where persons may be less able to respond in a bushfire emergency.

In recent court determinations, it has been acknowledged that whilst people may choose to live in or work in a dangerous location, that is different to inviting people who may or may not be aware of the danger of a bushfire. (JURAN and CITY OF ARMADALE [2018] WASAT 49 (21 June 2018). Consequently, the requirement for the precautionary principle to be applied by cl.6.11 in SPP 3.7, necessitates a higher consideration of safety, than may normally be expected of an owner, where it involves a 'vulnerable' development.

An additional requirement provided by SPP 3.7 and its Guidelines, is that a proposal that is classified as a vulnerable development by cl. 6.6 in SPP 3.7 is to be accompanied by a BEEP, comprising the details described at cl.5.5.2 of the Guidelines.

High-risk development

SPP 3.7 defines high-risk land use as a land-use which may lead to the potential ignition, prolong the duration and/or increase the intensity of a bushfire. Examples of high-risk land use are provided in the Guidelines. They are activities that may also expose the community, firefighters and the surrounding environment to dangerous, uncontrolled substances during a bushfire event. Generally, these are activities involving heat or spark generation.

The proposal is to include a bulk fuel supply in a mobile facility (sea container/double bunded arrangement to be used with the operation. The scale and site location within a hardstand area, is unlikely to contribute to the ignition of the adjacent vegetation or expose firefighters and the surrounding environment to dangerous, uncontrolled substances during a bushfire event. It is not considered to constitute a 'high risk' as defined by SPP 3.7.

Plastic oyster baskets, presently stored in the open air, have the potential to be ignited by a bushfire and plastic has the potential to create potentially hazardous fumes. The store is distant to habitable buildings enabling fumes to dissipate, but measures should be taken to reduce the propensity for widespread ignition and fume generation.

The proposed workshops activities are enclosed within buildings on a surrounding hardstand. Notwithstanding, there may be an occasional requirement for hot works to be undertaken on the site outside of the workshop, the proposal is not considered to constitute a high-risk land use. Measures should ensure such activity will avoid the entry of flames or sparks into the adjacent vegetation.

6.11 Precautionary principle

Where the responsible decision maker (as applicable to the application either the WAPC, Local Government, JDAP) considers a proposal has not satisfied the relevant policy measures the application may not be approved

The accompanying note for the decision maker provides:

In this context, "should" is to be read as a strong recommendation. In relation to strategic planning proposals, subdivisions and development applications, this policy also recognises that each site is to be assessed on merit and that the determination of an application may involve the use of discretion in planning decision making to support innovative bushfire risk management solutions.

The policy measures, therefore, should not be applied inflexibly.

WAPC Position Statement: Tourism land uses in bushfire prone areas - November 2019

The Western Australian Planning Commission has released the Position Statement: *Tourism land uses in bushfire-prone areas*, to supplement the Guidelines for *Planning in Bushfire Prone Areas* V1.3 and provide guidance to use the Performance Principle, where compliance with the Acceptable Solutions is not achievable.

The proposal in this instance is a vulnerable day use, and the Position Statement enables exception to the requirement for a through access to enable consideration where only a single road access is available.

The Building Act 2011

The *Building Act 2011*, and *Building Regulations 2012*, applies the construction standards of the Building Code of Australia, where it relates to an 'applicable' building.

A building permit as a demonstration of compliance with the requirements of the National Construction Code is required for new habitable buildings, unless expressly exempted.

Specific bushfire construction standards are only applied in Western Australia to class 1-3 and 10a buildings, in accordance with the risk and construction response provided by AS3959:2018.

Other building classes are subject to the siting conditions under the *Planning and Development Act 2005* and a discretionary application of construction standards, where they are not in conflict with the requirements of the National Construction Code ('NCC').

A Building Permit will be required consistent with the planning authorisation but will be addressed separately to this report under the *Building Act 2011*.

AS 3959:2018, therefore, will not apply to the building construction standard involved in this proposal, however it will be used for determining the location and siting requirements and the general compliance that no building, regardless of NCC class should be located where the BAL exposure is greater than BAL 29.

Bushfires Act 1954

Section 33 of the *Bushfires Act 1954* recognises the responsibility of all landowners to prevent the spread of bushfire. Local government, at any time, may give notice in writing to an owner or occupier of land within the district of the local government. The Notice may specify works to be undertaken, including the management of grasses on the property usually to be maintained at less than 10cm during the fire season. It also provides that the identified works can be undertaken as a separate operation or in coordination with the neighbouring land.

Environment Protection Act 1986 and Environmental Protection (clearing native vegetation) Regulation 2004

It is an offence to clear native vegetation without the authority of a permit or an exemption. The act of clearing native vegetation, requires a permit from either the Department of Water and Environmental Regulation (DWER) or the Department of Mines, Industry Regulation and Safety (DMIRS), unless an exemption applies.

Exemptions include:

Environment Protection Act 1986

- Clearing of regulated vegetation required by local Government Section 33 *Bushfire Act 1954*.
- Clearing of regulated vegetation in accordance with the terms of a subdivision approval.
- Clearing of regulated vegetation in accordance with a permit (for prescribed burning) under the *Bushfires Act 1954*.

Environmental Protection (clearing native vegetation) Regulation 2004 (exemptions do not apply in Environmentally Sensitive Areas, and clearing > than 5ha)

<https://www.der.wa.gov.au/your-environment/environmentally-sensitive-areas>

- Clearing of regulated vegetation to the extent necessary to construct an approved building.
- Clearing of regulated vegetation that is for fire hazard reduction burning.
- Clearing of regulated vegetation to maintain an area cleared in the last ten years.

(WA) Bio-diversity Conservation Act 2016 and Bio-diversity Conservation Regulations 2018

The *Biodiversity Conservation Act, 2016*, replaces the *Wildlife Conservation Act, 1950*, and the *Sandalwood Act, 1929*, it became operational with the *Bio-diversity Conservation Regulations 2018*, on 1 January 2019.

The Act provides for listing species, threatened ecological communities (TECs), key threatening processes and critical habitats. It introduces criteria for listing species' endangered', 'critically endangered' or 'vulnerable', to align with the *Environment Conservation and Biodiversity Conservation Act 1999* (Cth).

The subject land is not presently affected by a TEC.

Commonwealth Environment Protection Biodiversity Conservation Act 1999

The Commonwealth Environment Protection Biodiversity Conservation Act 1999 provides for the protection of [matters of national environmental significance](#). National environment law does not generally regulate fire prevention measures taken by state and territory governments, but no specific exemptions are provided.

2. ENVIRONMENTAL CONSIDERATIONS

2.1 Native Vegetation – Modification and Clearing

A fundamental consideration in the assessment of development under SPP 3.7 is to avoid instances where bushfire risk management measures would conflict with or be limited by other biodiversity management measures.

In accordance with the Department of Planning Lands and Heritage template (BMP template to support a BAL Contour Assessment) a review of the listed databases has been undertaken as part of this Assessment to identify whether restrictions or other specific considerations may apply that would affect the implementation of any bushfire protection initiatives that may otherwise be identified.

Table 2: Ecology datasets

Is the land affected by:	Affected by the proposal	If yes - describe	
Conservation Wetland or buffer (DBCA-019 DBCA-017)	No		
RAMSAR Wetland (DBCA-010)	No		
Threatened and Priority Flora (DBCA-036)	Nearby		
Threatened and Priority Fauna (DBCA-037)	Nearby	A potential roosting area for the Carnaby Black Cockatoo is located east of the site	
Threatened Ecological Communities (DBCA-038)	No		
Bush Forever (COP-071)	No		
Environmentally Sensitive Area (DWER-046)	No		
Regionally Significant Natural Areas (DWER-070)	Nearby	Remnant vegetation corridors are identified outside of the site.	
Conservation Covenant (DPIRD-023)	No		
South West Ecological Linkages	No		
Does the proposal require the removal of restricted vegetation?			No

No clearing of land or land management is proposed outside of the site. The site is a paved/clear surface and contains no restricted vegetation that is classified as a bushfire threat, AS 3959:2018 cl. 2.2.3.

In accordance with the *Bushfire Act 1954*, neither the site condition nor the proposed land-use is likely to be conducive of the spread of bushfire from the site into the adjacent forest.

Site drainage can be employed to ensure stormwater, the proceeds of firefighting or chemical spill (fuel store) does not drain to the adjacent forest.

2.2 Re-Vegetation/Landscape Plans

The site is to be retained in a low threat condition(AS 3959:2018 cl.2.2.3).

Individual landscaping, immediate to buildings, will comprise irrigated lawns and gardens (non-curing), incorporating high moisture low flammability species.

3. BUSHFIRE ASSESSMENT

3.1 Bushfire Attack Level Assessment (Inputs)

The Bushfire Attack Level across the site has been determined by BioDiverse Solutions (Katheryn Kinnear BPAD 30-794) BAL report 14/08/20.

The Assessment has been undertaken on 21 July 2020 in accordance with the methodologies described in AS3959:2018 and in accordance with the Guidelines and the Fire Protection Association accredited practitioner methodology.

All vegetation within 150 m (**context**) of the subject building has been classified (AS 3959:2018 Clause 2.2.3) to determine the Bushfire Hazard Level at the locality;

The BAL rating has been determined through site inspection and Assessment of the following parameters:

- Fire Danger Index (FDI) rating; assumed to be FDI - 80 for Western Australia; *Note for the purpose of planning for a shelter an FFDI with 1:200 APE is used. This equates to an FFDI of 100.*
- A separation distance between the building and the classified vegetation source(s) within 100 m (for BAL impact) the separation distance is measured from the wall face (receiver) to the unmanaged understory rather than the canopy edge (dripline) *see plate 6*; and
- Slope of the land under the classified vegetation.

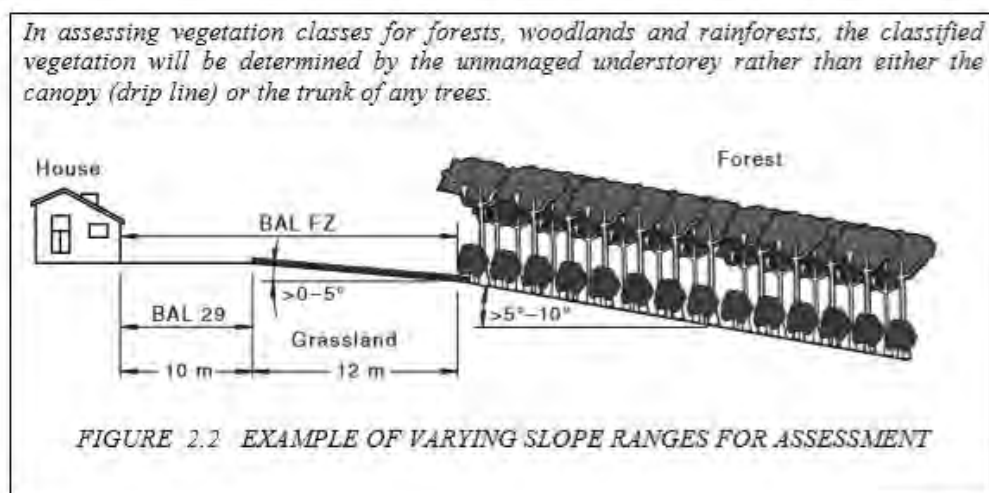


Plate 11: Arrangement of inputs for the determination of a BAL.

The BAL Assessment, prepared in accordance with the FPAA Guidelines, is attached (Appendix 1). It illustrates the Bushfire Attack levels across the site and tables the BAL level indicative at each proposed building.

The BAL Assessment has assumed the adjoining vegetation to the site will be retained and that the site itself as a hardstand surface, is not classified as a bushfire threat.

3.2 Indicative Bushfire Attack Level (Outputs) Method 1

The Determined Bushfire Attack Level (highest BAL) for the site / proposed development is based upon the conditions and classified vegetation present at the time of inspection; it does not represent the state upon completion, but only the requirement for bushfire protection measures. Determined Bushfire Attack Level has been derived in accordance with clause 2.2.6 (Method 1) of AS 3959:2018.

Table 3: Indicative BAL Level at proposed buildings

Processing/Amenities Building	BAL-19/12.5
Bulk Fuel store	BAL-19
Oyster and Mussel Shed/Nursery	BAL-FZ
Tourism use	BAL-12.5
Marine workshop	BAL-FZ

4. IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

4.1 Bushfire Behaviour

Bushfire behaviour is the primary determinant of the bushfire risk and the design fire as a basis for identifying appropriate treatments. Bushfire behaviour is affected by three factors;

- Climate (drought and season) & weather (temperature, humidity, wind, atmospheric instability) – determines the intensity of a fire, the speed and direction, and potential for advanced spotting. Measured as an FDI in AS 3959.
- Topography (slope of the ground, aspect, and wind influences) – fire travels faster uphill, the flame length is increased uphill, landforms can channel and increase local windspeed and create turbulence. Measured as 0.0° or a degree downslope in AS 3959 (Method 1).
- Vegetation (horizontal and vertical structure, flammability, mass, and availability). Measured as a vegetation classification, or an exclusion, in AS 3959 (Method 1).

It is assumed that a bushfire will achieve a steady-state and be fully developed to maximum intensity over a 100 m (minimum fire run). Grass fires travel faster (GFDI) than a forest canopy fire, but a forest canopy fire can eject a higher level of embers and also eject them over a greater distance. Crown fires occur when the ground fire is intense, and conversely, when ground fuels are managed, the resultant fire intensity may not be sufficient to involve the crown, and a crown fire cannot be sustained. Separating the vertical structure, so there is no direct connection between the ground and the crown, reduces the likelihood of a crown fire.

The arrangement of fuel has a greater effect upon the intensity of the fire than just its mass; its exposure to oxygen is referred to as its availability in a bushfire.

Climate

The climate in Albany (from the Bureau of Meteorology Albany Weather Station) can be described as Mediterranean with wet winters and warm summers from December through to March. Summers are typically very warm with a mean daily temperature max 22.9 degrees, min 15.6 degrees in February although the Southern Ocean provides a cooling effect on temperature in the coastal areas of the City, providing for a milder climate than inland areas. The average number of rain days per year for Albany is 103 days but summers are dry with a monthly average of less than 24 mm of rain.

Bushfires generally travel in the direction of the prevailing wind. Prevailing wind conditions are most likely to be extreme in the afternoon in February and there is little variation in the wind roses from December to March). The direction of the prevailing wind conditions can affect the options for evacuation and anticipated fire intensity depending upon the slope and fuel.

The wind roses below for February (averaged) recorded at 9 am and 3 pm illustrate the winds are strongest and most frequent from the south-east and east in the afternoon.

The hot, dry summers and strong seasonal winds create an environment where there is a significant risk of bushfire.

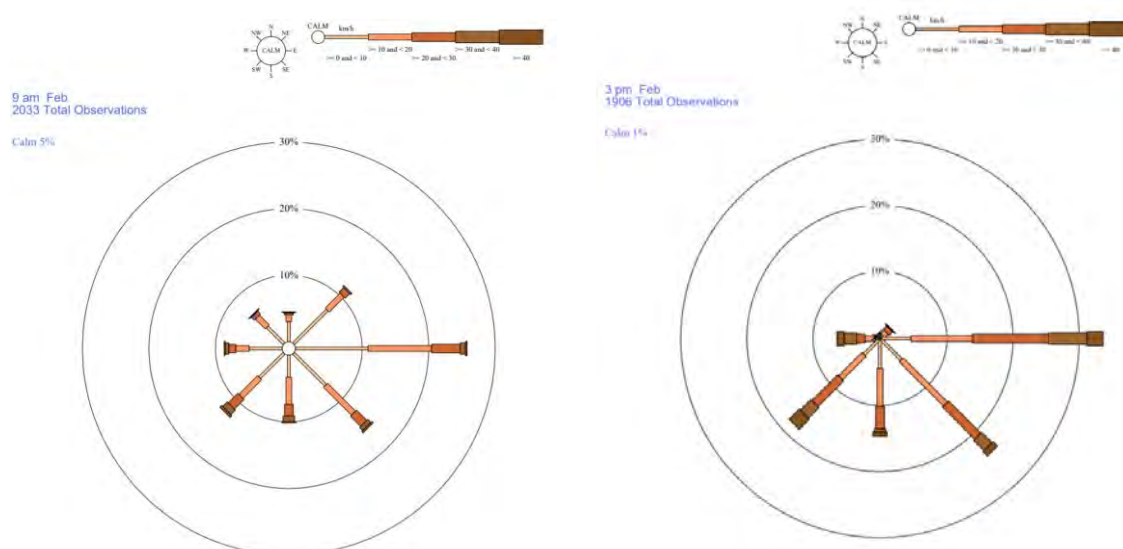


Plate 12: Wind roses (Feb 9 am and 3 pm), Bureau of Meteorology, Albany.

Fire Danger Weather

The above FFDI data is provided from the Bureau of Meteorology Albany Weather Station, which is the nearest recording location to the site.

The FFDI is calculated from temperature, wind speed, relative humidity, drought factor (time since last rain) and Keetch-Byram Drought Index (soil moisture) index which is a measure of soil moisture.

The last twenty years are mapped as that incorporates the trends of climate change.

An assessment of the FFDI suggests a high individual variability in FFDI 50+ in the second half of December and the second half of March.

Severe conditions (FFDI 50-74) are generally between mid-December to mid-March, although FFDI 60+ is generally restricted to mid-January through February and typically the period when Extreme days may occur. The site's location adjacent to the coast may moderate the FFDI, due to a reduced temperature and higher humidity although wind strength may be greater nearer the coast.

Since 1972 Bureau of Meteorology data for Albany has identified only one day has been classed as Extreme Fire Danger Rating and twelve days have been classed as Severe. No days have been classed as Catastrophic. The projected FFDI, accounting for climate change, remains within an FFDI 80; which is the present nominal level that is used in AS 3959:2018 method 1 BAL determinations in WA.

In the past five years the average number of Total Fire Ban days declared per fire season in Albany is three days, although eight days were declared in 2014/15.

The prevailing wind directions during the fire season have a strong bias from the east through to the south-west.

Table 4: Ranking of highest FFDI since 1972

Ranking	Date	Month	Year	FFDI	FDR
1	9	March	1996	75	Extreme
2	17	February	1987	69	Severe
3	28	January	1976	64	Severe
4	23	February	1991	62	Severe
5	5	February	2001	58	Severe

6	16	January	1973	57	Severe
7	6	March	2012	56	Severe
8	20	December	1974	55	Severe
9	9	February	1998	54	Severe
10	19	April	1994	53	Severe
11	11	January	1981	52	Severe
12	1	February	2003	52	Severe
13	12	March	2010	50	Severe
14	7	January	1998	48	Very High
15	31	January	1991	47	Very high

Landscape context risk



Plate 13: Landscape context 5Km from site.

The landscape context risk illustrates the potential fire runs, prevailing wind directions and bushfire attack exposure.

The prevailing wind conditions are from the southern hemisphere. Winds from the north are rare during the bushfire season.

Notable features are a bushfire from the south-east is separated from the site by a body of water, but forest fires can eject embers and smoke a sufficient distance to bridge the water separation. A fire from the east would, however, permit an evacuation in the opposite direction.

The site is located east from a continuity of Forest vegetation. A low threat area is available to the east of the site, a shallow low wave beach.

The possible threat scenarios are:

- A fire front arriving under south-westerly winds from the continuous forest west of the site. Regrettably, human interaction is the source of the majority of bushfire ignitions. The continuous forest west of the site has a high surface exposure to human interaction, and a fire from this aspect is likely (1 in 10 years).
- Ember attack from extreme fire behaviour in a forest fire, across the water channel, and east of the site. The forest is National Park, and natural causes, a lightning strike is considered a most likely cause (1 in 10 years).
- A fire arriving from the north, northeast direction is unlikely because it would be against the prevailing wind conditions.
- The area immediately south of the site is a low threat land condition that cannot sustain a bushfire.

5. BUSHFIRE PROTECTION MEASURES

5.1 Bushfire Protection Criteria Compliance

For each of the elements listed within Appendix 4 of the Guidelines for Planning in bushfire-prone areas, the 'intent' must be achieved either by the proposal meeting the acceptable solutions; or where these acceptable solutions cannot be fully met, then by a performance-based solution that can achieve the 'intent.'

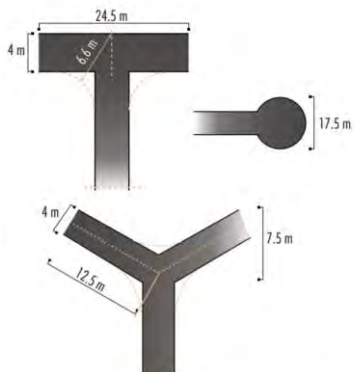
Table 3: Compliance Table

✓	Acceptable solution provided	C	An Acceptable Solution to be conditioned
N/A	Not Applicable	P	Performance Principle solution see 5.2

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 1: location To ensure that strategic planning proposals, subdivision, and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property, and infrastructure	A1.1 Development location The strategic planning proposal, subdivision, and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below.	N/A		<p>The proposal is an augmentation of an existing use; the proposal is not a strategic planning proposal requiring a determination of the suitability of an area for an individual development.</p> <p>Following the WAPC Position Statement: <i>Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design</i> November 2019, a development application is to assess compliance with Acceptable Solution A2.1, or where a proposal does not satisfy the interpretation a performance principle-based solution is to be applied.</p> <p>The proposal does not comply with the Acceptable Solution, to achieve development with a BAL not exceeding BAL-29, because buildings are proposed in BAL-40-BAL-FZ. The proposal, therefore, is to be addressed by a Performance Principle method.</p> <p>See section 5.2 of this Assessment.</p>

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 2: Siting and Design To ensure that the siting and design of development minimises the level of bushfire impact	A2.1 Asset Protection Zone Every habitable building is surrounded by, and every proposed lot can achieve, and APZ depicted on submitted plans, which meets the following requirements: <ul style="list-style-type: none"> Width: Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m² (BAL-29) in all circumstances. Location: the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes). Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones.' (see Schedule 1). 		P	<p>The site adjoins forest to its west and north boundary. The adjoining vegetation casts BAL levels of declining intensity into the site.</p> <p>Existing development at the site is located within BAL-40- BAL-FZ.</p> <p>The proposed development will result in development placed within BAL-40 -BAL-FZ.</p> <p>The proposal does not comply with the Acceptable Solution, to achieve development with a BAL not exceeding BAL-29, because buildings are proposed in BAL-40-BAL-FZ. The proposal, therefore, is to be addressed by a Performance Principle method.</p> <p>See section 5.2 of this Assessment.</p>
Element 3: Vehicular Access To ensure that the vehicular access serving a subdivision/ development is available and safe	A3.1 Two access routes Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations, and are available to all residents/the public at all times and under all weather conditions.		P	<p>The site is serviced by a single access (Troode Street - Emu Point Drive – Swarbrick Street) that extends from the Albany Town centre to the Emu Point residential area and includes the site. The site is adjacent to the coast and at the terminus of the road access to Emu Point.</p> <p>This matter is to be addressed as a Performance Principle in accordance with the procedures prescribed by the WAPC Position Statement <i>Tourism Landuses in Bushfire Prone Areas</i>.</p> <p>See section 5.2 of this Assessment.</p>

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies																																																						
during a bushfire event	<p>A3.2 Public road</p> <p>A public road is to meet the requirements in Table 6, Column 1.</p> <p>Table 6: Vehicular access technical requirements</p> <table><tr><th>TECHNICAL REQUIREMENTS</th><th>1 Public road</th><th>2 Cul-de-sac</th><th>3 Private driveway</th><th>4 Emergency access way</th><th>5 Fire service access routes</th></tr><tr><td>Minimum trafficable surface (m)</td><td>6*</td><td>6</td><td>4</td><td>6*</td><td>6*</td></tr><tr><td>Horizontal clearance (m)</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td></tr><tr><td>Vertical clearance (m)</td><td>4.5</td><td>N/A</td><td>4.5</td><td>4.5</td><td>4.5</td></tr><tr><td>Maximum grade <50 metres</td><td>1 in 10</td><td>1 in 10</td><td>1 in 10</td><td>1 in 10</td><td>1 in 10</td></tr><tr><td>Minimum weight capacity (t)</td><td>15</td><td>15</td><td>15</td><td>15</td><td>15</td></tr><tr><td>Maximum crossfall</td><td>1 in 33</td><td>1 in 33</td><td>1 in 33</td><td>1 in 33</td><td>1 in 33</td></tr><tr><td>Curves minimum inner radius (m)</td><td>8.5</td><td>8.5</td><td>8.5</td><td>8.5</td><td>8.5</td></tr><tr><td colspan="6">*Refer to E3.2 Public roads: Trafficable surface</td></tr></table>	TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes	Minimum trafficable surface (m)	6*	6	4	6*	6*	Horizontal clearance (m)	6	6	6	6	6	Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5	Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10	Minimum weight capacity (t)	15	15	15	15	15	Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33	Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5	*Refer to E3.2 Public roads: Trafficable surface						✓		The single access is a public road compliant with the DPLH interpretation of Table 6 Column 1.
TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes																																																					
Minimum trafficable surface (m)	6*	6	4	6*	6*																																																					
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*Refer to E3.2 Public roads: Trafficable surface																																																										
	<p>A3.3 Cul-de-sac (including a dead-end road)</p> <p>Requirements in Table 6, Column 2;</p> <ul style="list-style-type: none">Maximum length: 200 metres (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 metres provided no more than eight lots are serviced and the emergency access way is no more than 600 metres); andTurn-around area requirements, including a minimum 17.5 metre diameter head.	N/A		<p>The site's location is not compliant with the Acceptable Solution requirements for a cul-de-sac.</p> <p>The terminus of the road access, public car park and boat ramp accommodated is of sufficient size to accommodate the turning of a type 3.4 fire brigade appliance.</p>																																																						
	<p>A3.4 Battle-axe</p> <p>Requirements in Table 6, Column 3;</p> <ul style="list-style-type: none">Maximum length: 600 metres; and Minimum width: six metres.	N/A																																																								

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
	<p>A3.5 Private driveway longer than 50 m</p> <p>Requirements in Table 6, Column 3;</p> <ul style="list-style-type: none"> Required where a house site is more than 50 metres from a public road; Passing bays: every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum six metres); Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house; and Any bridges or culverts are able to support a minimum weight capacity of 15 tonnes. All-weather surface (i.e. compacted gravel, limestone or sealed)  <p>Figure 22: Design requirements for a private driveway longer than 50 metres Turning areas should allow type 3.4 fire appliances to turn safely</p>	C		<p>The internal accessway, longer than 50 m is required to reach the Nursery and Oyster and Mussel shed, the site is approximately 100 m from the entry to the north boundary. The site is a hard stand surface and the buildings are separated from one another. Access is to be provided around the Processing building to future berthing platform, this access will take vehicles to the northern extent of the site.</p> <p>Whilst the site is to be hardstand it is indicated to be utilised for forklift operation, and the existing site use shows that vehicles and stores, trailers etc. may be present over much of the space.</p> <p>The site operation and attending emergency services would benefit from a marked accessway provided in accordance with Column 3 (Private Driveway) in Table 6 <i>Vehicular access technical requirements</i> in Element 3 <i>Guidelines for planning in bushfire prone areas V1.3</i></p>

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
	A3.6 Emergency access way Requirements in Table 6, Column 4; <ul style="list-style-type: none"> No further than 600 metres from a public road; Provided as right of way or public access easement in gross to ensure accessibility to the public and fire services during an emergency; and Must be signposted. 	N/A		
	A3.7 Fire service access routes (perimeter roads) Requirements Table 6, Column 5; <ul style="list-style-type: none"> Provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency; Surface: all-weather (i.e. compacted gravel, limestone or sealed) Dead end roads are not permitted; Turn-around areas designed to accommodate type 3.4 appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres); No further than 600 metres from a public road; Allow for two-way traffic and; Must be signposted 	N/A		
	A3.8 Firebreak width, in accordance with the City of Armadale Fire Break Notice Lots greater than 0.5 hectares must have an internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.	C		<p>The Oyster and Mussel Shed/Nursery and the Marine OPS workshop buildings <i>are proposed to be constructed</i> at the western boundary of the site.</p> <p>The Built Environment Branch DFES may have setback requirements at Building Permit which may be satisfied by an access arranged on the adjoining land.</p>

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
Element 4: Water To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire	A4.1 Reticulated areas The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services. E4.1: The Water Corporation's 'No. 63 Water Reticulation Standard' is deemed to be the baseline criterion for developments and should be applied unless local water supply authorities' conditions apply.	N/A		A public hydrant is located 14 m within the expanded site area. It is slightly further than the recommended 120 m (Watercorp DS 63) from the furthest building on site but an internal on-site hydrant network is proposed as part of the <i>Building Act 2011</i> approval requirements for a commercial development. The context for the Watercorp standards DS 63, is the planning of a residential subdivision, the context is not applicable to the development proposal. An indicative hydrant layout within the site has been provided in the BAL Report 14/08/20. Additional fire hoses are recommended to be placed along the western and northern boundary to assist suppression of fire on the hardstand area and a fire in the adjacent forest.
	A4.2 Non-reticulated areas <ul style="list-style-type: none"> Volume: minimum 50,000 litres per tank; Ratio of tanks to lots: minimum one tank per 25 lots (or part thereof); Tank location: no more than two kilometres to the furthest house site within the residential development to allow a 2.4 fire appliance to achieve a 20 minute turnaround time at legal road speeds; Hardstand and turn-around areas suitable for a type 3.4 fire appliance (i.e. kerb to kerb 17.5 metres) are provided within three metres of each water tank; and Water tanks and associated facilities are vested in the relevant local government 	N/A		
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively) Single lots above 500 square metres need a dedicated static water supply on the lot that has the effective capacity of 10,000 litres.	N/A		

Performance Principles – (Clause 4.5.2.2 Guidelines)

A Performance Principle may be used where a proposal cannot comply with the Acceptable Solution. Clause 4.5.2.2 identifies a series of submission requirements, however, all the requirements listed are not applicable where they are subordinate to proper planning administration, as may have been clarified by the State Administrative Tribunal. It is also to be noted that other than a statement to which the proposal conforms or deviates from the acceptable solution the other criteria is only relevant to a use of material, it does not, therefore, address a performance principle solution for vehicular access.

A statement of the extent of deviation from the acceptable solution

The proposed development will include buildings located in areas exceeding BAL-29. The proposal, therefore, does not comply with the Acceptable Solutions for Elements 1 and 2.

The Performance Principle for Element 1 instead provides:

"The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL-29 or below, and the risk can be managed. For unavoidable development in areas where BAL-40 or BAL-FZ applies, demonstrating that the risk can be managed to the satisfaction of the Department of Fire and Emergency Services and the decision-maker."

The Performance Principle for Element 2 instead provides:

"The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. That it incorporates a defensible space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate."

The proposed development will introduce a tourism land use to an area with only a single road access within a bushfire prone area. The proposal, therefore, does not comply with the through road requirement in the Acceptable Solution for Element 3.

The Performance Principle for Element 3 instead provides:

"The internal layout, design, and construction of public and private vehicular access and egress in the subdivision/ development allow emergency and other vehicles to move through it easily and safely at all times."

Element 1 Location and Element 2 Siting and Design

In approaching this assessment, regard has been given to the recent SAT matter:

BUNNINGS GROUP LIMITED and PRESIDING MEMBER OF THE METRO NORTHWEST JOINT DEVELOPMENT ASSESSMENT PANEL [2019] WASAT 121 (26 November 2019)

This case has a strong analogy with the proposal under consideration. The site adjoined classified vegetation from one aspect with access to a BAL low area adjoining the site. The authorised development, Bunnings store, had conducted activities including retail and storage in open air and under structures within close proximity to a boundary with the classified vegetation and therefore in an area rated as BAL-FZ.

The proposal was to rationalise the outdoor areas and place them within an enclosed building rated with an FRL of 100/100/100, exceeding the construction standard required for BAL FZ of FRL 30/30/30.

The SAT considered whether the application met the definition of unavoidable development, as an exception from the BAL-40-BAL-FZ non-compliance, but instead preferred to consider the matter as non-compliant with the Acceptable Solution. It preferred that SPP3.7 should be applied flexibly with cogent reasoning given to a risk-based approach, and in turn, a risk reduced from the present circumstance.

In the SAT case, the Appellant (Bunnings) was able to satisfy the SAT (cl 6.11) that the proposal provided a reduced risk by placing the present open-air materials within a building constructed to be resistant to bushfire attack, equivalent to an FRL 100/100/100, utilising a method of cement tilt-up construction for that purpose. This was accepted by the SAT as a superior solution to the open-air storage, and the building constructions exposed to BAL 40-FZ. It was also acknowledged that it would restrict the escape of fire from the site as well as reducing the impact of a bushfire arriving upon the site.

The proposal therefore satisfied SPP 3.7 Objectives cl.5.1 and cl.5.2. It avoided the spread of fire from the site to increase the threat of bushfire, satisfying Objective cl. 5.1 and it was able to satisfy Objective cl. 5.2 by reducing the vulnerability of stored material to the impact of bushfire.

The SAT also considered the practicality of BAL 29 as a defensible space but found there was no practical basis for operations to be conducted in this distance. Prolonged firefighting tolerance is BAL 4 (4 kWm²). The SAT did not support the separation distance, as provided by BAL-29, was required for firefighting operations when the construction standard itself was resistant to bushfire attack.

Following the SAT Bunnings Group Limited and Presiding Member of the Metro North-West Joint Development Assessment Panel [2019] the proposal has been compared to reducing the threat of bushfire from the site into the classified vegetation and reducing the vulnerability of development on the site, from a bushfire impacting upon the site. In essence, to also demonstrate the proposal can satisfy SPP 3.7 cl. 5.1 and 5.2, respectively.

The proposal represents a reduced risk on the current authorisation because:

1. The present open-air storage of the plastic oyster baskets is vulnerable to bushfire attack and has the potential to burn intensely and produce toxic smoke. Whilst a fire initiated in this storage is unlikely, if it occurred, it could spread to the adjacent forest to cause a bushfire.

The proposal is to consolidate this storage in an enclosed out-building (floor areas 670 m²) located furthest from the high occupancy buildings. The building has a vertical wall located on the western boundary and is set back 1 m from the northern boundary with a sloping wall. The building, being an enclosure, of non-combustible construction, will restrict the escape of fire from the storage area into the forest. The enclosure will similarly protect the stored oyster baskets from flame contact and ember attack. Steel sheeting can transfer radiant heat, a Fire Rating Level, which includes an insulation performance has been specified (BAL FZ FRL 30/30/30). These measures will reduce the risk of spread of fire from the site and the impact of bushfire on the site by reducing the risk of ignition and therein building loss (adverse economic consequence) and potentially toxic emissions.

2. The present marine workshop activity is spread across the site. Materials are stored against the western boundary.

The proposal will consolidate site works into a single marine workshop placed on the western boundary, with a building designed to a construction standard comparable to BAL FZ (FRL 30/30/30) for walls and BAL FZ requirements for roof construction, penetrations, wall openings i.e. garage doors, and to windows facing to the north and west. The marine workshop will minimise the need to undertake work externally to the building, and any work outside the building will be restricted by the Total Fire Ban day declarations although the adjacent vegetation can be ignited any time during a fire season. A general restriction on welding and grinding (spark generation and the use of open flame, should apply within 20 metres of the west boundary, during the bushfire season, and a fire hose should be positioned on the west boundary. This will reduce the risk of spread of fire from the site and the improved building resilience, by BAL FZ construction, will

reduce the risk of ignition and therein building loss (adverse economic consequence) and potentially toxic emissions.

Both the proposed oyster basket storage and Marine workshop will be located on the property boundary. They are not large isolated buildings requiring a perimeter vehicle access, and they do not require a defensible space separation from the boundary because they do not rely on brigade intervention for their survival. The construction standards, as identified in AS 3959:2018, are not a guarantee against building loss, but it is a lesser likelihood than is presently provided, therefore a reduced risk.

The consolidation of buildings on-site also promotes the opportunity for an orderly arrangement of the site, rather than an ad hoc storage of potentially flammable items at the boundary with the forest. The fuel store also represents a consolidation of the current arrangement and a safer placement away from the adjacent vegetation and within BAL-19. An indirect purpose but extended benefit of the tourism facility is the public's perception of quality food from a quality environment that will also encourage the site to be maintained in an orderly manner.

A fire break of 4 m provided in the adjacent reserve requires maintenance, but can provide access to the reserve, and reduce direct flame contact upon the buildings at the boundary after the peak flame residency (2 minutes)⁶.

Element 3: Vehicular Access. To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.

The Acceptable Solution requires development to have through road access providing alternative destination options for evacuation outside of the fire ground and for emergency services to attend and retreat. The road network and present land use is dependent upon a single access. There is no practical means of providing a secondary vehicle access.

SPP 3.7 does not apply retrospectively, and therefore the access requirement does not apply to the reconfigured existing land use. The alternative solution is therefore required only for the additional use tourism use (restaurant).

This Element is addressed by a Performance Principle specific to the new land use (Tourism (restaurant))

Performance Principle

SPP 3.7 reflects that a higher standard of safety should be provided to visitors than that provided to residents or workers who are in regular attendance and are aware of the bushfire risks (either through public promotion or *Occupational Safety and Health Act 1984* requirements). Visitors on the other hand may not be aware, may be unfamiliar with the area, may not be trained and will require direction to ensure their protection in a bushfire event. SPP 3.7, therefore, provides a requirement to consider and prepare a Bushfire Emergency Evacuation Plan and a risk-based approach to reduce vulnerability⁷ to bushfire.

The State Government in order to facilitate tourism development particularly in response to an absence of a secondary access has introduced the Western Australian Planning Commission's Position Statement Tourism Land use in bushfire prone areas, November 2019 (Tourism Statement), to identify performance principle solutions including tourism specific Acceptable Solutions or a justification by a Bushfire Risk Assessment following the methodology described in the Position Statement and NERAG 2020.

"The provision of one access route can be considered where:

- the proposal is within a residential built-out area; or*
- the access route abuts moderate or low threat vegetation, and*
- where it is demonstrated that secondary access (including an emergency access way) cannot be achieved, and*

⁶ Gould JS et al. *Project Vesta: fire in dry eucalypt forest: fuel structure, fuel dynamics and fire behaviour*. CSIRO Publishing, 2008 and cited in ABCB Bushfire Verification Method 2019 for building construction.

⁷ SPP 3.7 cl.2 risk based approach, Objective 5.2 to reduce vulnerability to bushfire through consideration of bushfire risks.

- *the access route is not travelling back towards or through the hazard."*

The basis for the exemption of a residential built out area is an immediate connection to a BAL Low area and the immediate accessibility to services.

The site and location for the tourism use (restaurant), is a continuation of the residential built out area of Emu Point and within its hydrant network (the nearest existing public hydrant will be located 14 m within the expanded site).

A feature of the immediate locality is the promotion of a vehicle access along the foreshore reserve between Swarbrick Street and Roe Parade and Mermaid avenue. The site has immediate access into the residential area, BAL Low, either by car or on foot along the foreshore beach reserve.



Plate 14: Expanded BAL Contour, areas not shaded are BAL Low it includes the boat ramp area. If the narrow strip of foreshore vegetation was managed to remove the understorey, leaving grass <100 mm, the safety of the foreshore for the community is improved.

The area of the boat ramp is adjacent to the building location and is also BAL Low and extends from the carpark expanse that also includes the Albany Sea Rescue, as an institutional presence.

Emu Point is a popular public destination for the community of Albany. At any time during summer it will attract visitors, in addition to those that may be attracted by the proposal, who will also be required to shelter if a fire from the west makes Emu Point Drive unsafe.

The foreshore at Emu Point is a natural and practical destination to shelter from a bushfire approaching from the west and in addition to the reassuring presence of the Albany Sea Rescue the location has public amenities. The area could be enhanced by modest works to remove the understorey vegetation at the narrow strip of forest adjacent the reserve.



Plate 15: Foreshore Emergency Assembly



Plate 16: Albany Sea Rescue at carpark

A Bushfire Emergency Evacuation Plan has been prepared in accordance with the WAPC A Guide to developing a Bushfire Emergency Evacuation Plan. It identifies the evacuation arrangements including a preference for early evacuation west by Emu Point Drive if the access is safe or if the bushfire threat is from the east. A secondary destination if Emu Point Drive is not safe is to take shelter as a last resort in the residential built-out area. Whilst Emu Point Drive runs through vegetation classed as Scrub and Forest, the height of the vegetation and setback from the road is unlikely to see the road blocked other than for the passing of the fire. Shelter taken at the Emu Point foreshore would not be for an extended period.

The tourism use (restaurant) satisfies the Acceptable Solution for a single access situation provided in the Western Australian Planning Commission's Position Statement Tourism Land use in bushfire prone areas, November 2019 (Tourism Statement).

5.2 Additional Bushfire Management Strategies

Additional management strategies, further to the Bushfire Protection Criteria, includes the consideration of a vulnerable land use and its compliance with cl 5.5 in the Guidelines for Planning in Bushfire Prone Areas⁸.

Appendix 2 includes the BEEP. This plan has followed the State Government Guide to Developing a Bushfire Emergency Plan, and AS 3745-2010 *Planning for emergencies in facilities* to identify the administrative structures required for the preparation and implementation of the Emergency Evacuation Plan. It is provided to supplement an overall facilities emergency evacuation plan.

The attached Emergency Evacuation Plan incorporates the requirements listed under section 5.5.2 V1.3 Guidelines for Planning in Bushfire Prone areas, identified in the checklist below.

Assumptions

- The owner or manager is on-site when the facility is occupied
- The occupants are able-bodied, or if any visitor has a disability, appropriate support and vehicles are available if evacuation is required.
- That no child is left unattended.
- The occupants can see and smell smoke and can see a fire.
- That occupants can read and understand the English language.

⁸ Required by the DPLH *BMP Template for a complex development application*.

Key features to achieve occupant life safety include:

- Establishing alert triggers;
- Establishing evacuation procedure; and
- Assigning clear responsibilities and training for allocated roles and responsibilities.

Table 6: Compliance with Cl. 5.5.2 *Guidelines for Planning in Bushfire Prone Areas*

The emergency evacuation plan should be concise and consider:	Addressed in Emergency Evacuation Plan <i>The plan has followed AS3745-2010</i>
The number of guests at the facility	Staff 10 Visitors 100
Whether the occupants are permanent or transient	Transient
Whether there is a caretaker on site	Hosted
Whether there are people with a disability, medically dependant, young children, or the elderly	Visitors are able-bodied or expected to be in the care of a patron.
Identification of a safe alternative location if there was a need for evacuation/relocation	Albany Leisure and Aquatic Centre
A proposed method of movement of occupants to a safe location(s)	Private vehicles
Details of suitable access/egress routes for the expected type/volume of traffic, including alternatives when suitable roads are inaccessible, insufficient or inappropriate	
Transport options for those without access to private vehicles	Visitors are expected to arrive by private vehicle and will be instructed at induction to ensure a vehicle remains on-site when at the facility.
Options to shelter in place as a last resort	Not required
Roles and responsibilities of facility personnel and emergency services.	Emergency procedures and responsibilities shall be clearly displayed within the buildings.

The emergency evacuation plan should consider if actions will change based on a series of triggers, such as:	Addressed in the Emergency Evacuation Plan
Effective warning methods appropriate for the occupants (including consideration of at-risk persons and the demographics of the occupants)	The duty manager (chief warden) to monitor the media for Fire Danger Rating information

Closure of facility and early relocation of occupants appropriate to the fire danger rating (FDR) and bushfire warnings	Pre-emptive closure on declaration of Catastrophic FDR.
Any local government bushfire requirements (for example, harvest and vehicle movement bans)	N/A
A suitably qualified emergency management professional should prepare the emergency evacuation plan in collaboration with relevant stakeholders including the landowner/developer and the local government (refer to section 6.14 of the Guidelines)	Anthony Rowe Accreditation Level 3 Accreditation Number: 36690

5.3 Spatial representation of the bushfire management strategies

Further to the Assessment against the bushfire protection criteria, the key features demonstrating compliance should be represented spatially in the Spatial representation of the bushfire management strategies. It represents the required bushfire risk management measures that must be implemented and maintained.

The Spatial representation of the bushfire management strategies is provided in Figure EX1.

6. RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES

The responsibilities for implementation and management of the bushfire measures, summarises the measures identified to achieve compliance with the bushfire protection measure following SPP 3.7. This has been provided in the Executive Summary. The details contained within the planning application authorised by the responsible decision maker are enforceable under section 214 of the *Planning and Development Act 2005*. The items addressed in the table responsibilities for implementation and management of the bushfire measures form part of the planning authorisation and where there is conflict supersede the detail of the planning application.

The responsibilities assigned to the City of Albany reflect the current activities of the City and are not to be relied upon nor are binding upon the City as a consequence of this Bushfire Management Plan.

APPENDIX 1 - BAL Assessment

AS3959 Bushfire Attack Level (BAL) Contour Plan

Site Details			
Address:	Lot 501 Emu Point		
Suburb:	Emu Point	State:	W.A.
Local Government Area:	City of Albany		
Description of Building Works:	Proposed aquaculture maintenance and seafood processing facility		
Stage of WAPC Planning	Development application		

BAL Contour Plan Details			
Report / Job Number:	MSC00296	Report Version:	FINAL Vers 1.0
Assessment Date:	21/07/2020	Report Date:	14/08/2020
BPAD Practitioner	Kathryn Kinnear	Accreditation No.	BPAD 30794



SECTION 1: PROPOSAL DETAILS

The proponent, Tattarang proposes to develop Lot 501 Emu Point to build the Albany Aquaculture Project facility (herein referred to as “the Subject Site”). The subject site is located within the suburb of Emu Point within the City of Albany (CoA). Refer to the Development Plan (Figure 1) and Locality Plan (Figure 2). The subject site is located in the WA bushfire prone area mapping (OBRM, 2019), due to bushfire prone vegetation adjacent to the site, refer to Figure 3.

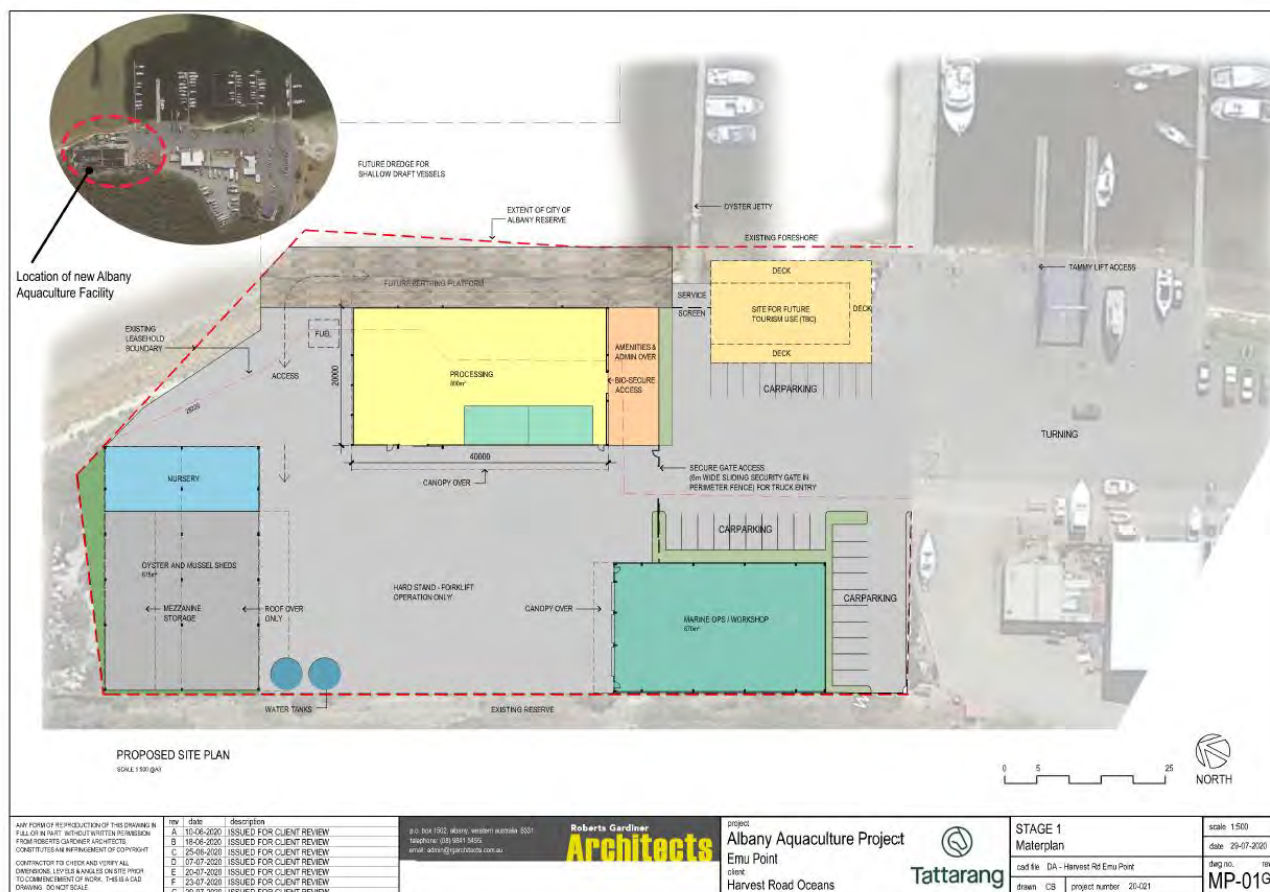


Figure 1: Master Plan (Revision G)

Development proposal

The Harvest Road Seafood Processing Facility is proposed to produce up to 83m Oysters and 1700 Tonnes of mussels per annum. The development at full scale is expected to have approximately 90 staff including farming, processing and administration staff. A tourism facility in the site is proposed as shown the on the Master plan (Figure 1) and may entertain an 110 person capacity restaurant/café style development. The proponent will be seeking an extension to the lease boundary and will be sought with the CoA through the Development Approval Process.

The site is reserved 'Parks and Recreation' under the City of Albany Local Planning Scheme No. 1 (LPS 1), with a Restricted Use overlay specific to the site. There is no region planning scheme in force. The specific Restricted Uses for the site are:

- Aquaculture
- Club Premises
- Harbour Installations
- Marina
- Marine Filling Station
- Restaurant

The LPS 1 Objective for the 'Parks and Recreation' reserve is:

- Public Purposes which specifically provide for a range of public recreational facilities.



Figure 2: Location Plan



Figure 3: State Bushfire Prone Area Mapping (OBRM, 2019)

SECTION 2 - ENVIRONMENTAL CONSIDERATIONS

Vegetation modification proposed:

Some vegetation will be removed which has grown along the fence line in the north of the site. New security fencing is proposed in the development footprint similar to the cyclone fencing on site. Any works associated with the new fencing will be commensurate with the current policy of 1.5m adjacent to CoA reserves.

Re-vegetation/landscape plans:

Some localised landscaping associated with visual amenity and stormwater management is proposed, however will be to WAPC guidelines Asset Protection Zone (APZ) standards, refer to Appendix A for these standards.

SECTION 3: ASSESSMENT RESULTS

SECTION 3.1 – Assessment Inputs

Vegetation Classification (Bushfire Fuels)

Bushfire Assessment inputs for the site has been calculated using the Method 1 procedure as outlined in AS3959. This incorporates the following factors:

- WA adopted Fire Danger Index (FDI), being FDI 80;
- Vegetation Classes to with Table 2.3 and Exclusion clauses 2.2.3.2;
- Slope under classified vegetation; and
- Distance between proposed development site and classified vegetation.

Site assessment was undertaken by Kathryn Kinnear (BPAD 30794) on the 21st July 2020. Photographs of the Subject Site and surrounding areas were taken and have been presented in this report. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified in the following pages and shown on the Vegetation Classes Map (Figure 4). A summary of the vegetation types is shown in Table 1.

Table 1: Vegetation Classification to AS3959

Plot No.	Vegetation Type (Table 2.3)	Slope (Table 2.4.3)
Plot 1	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)	N/A
Plot 2	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f)	N/A
Plot 3	Forest Type A	Downslope >0-5 Degrees
Plot 4	Shrubland Type C	Downslope >0-5 Degrees
Plot 5	Scrub Type D	Flat/upslope
Plot 6	Forest Type A	Downslope >0-5 Degrees

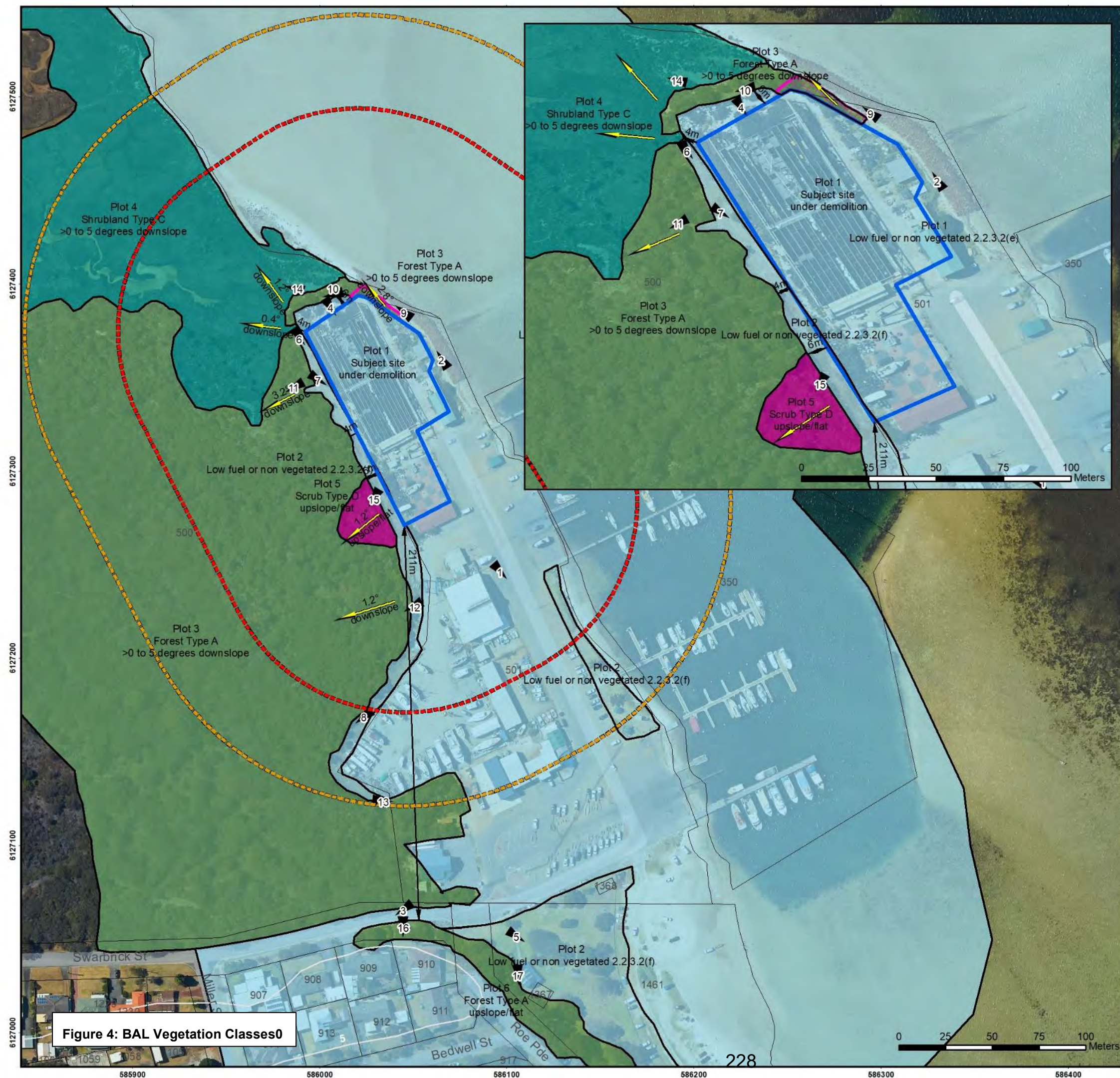


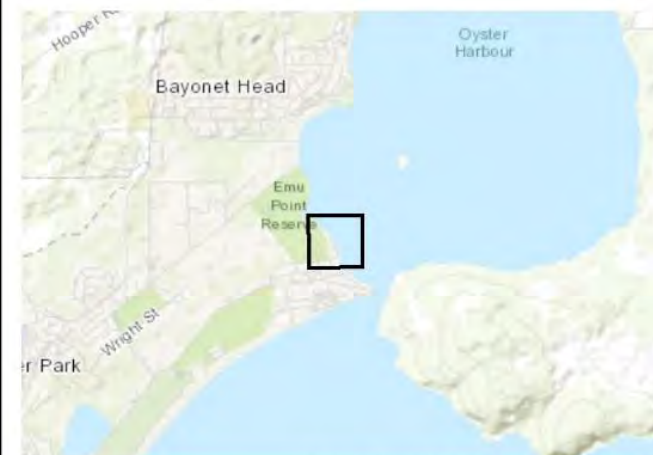
Figure 4: BAL Vegetation Classes

REPORT ITEM DIS253 REFERS

This BAL Plan was prepared by:
Kathryn Kinnear, Bio Diverse Solutions
Accreditation No: BPAD30794
Jurisdiction: Level 2 - WA



29 Hercules Crescent
Albany, WA 6330
Australia
Tel: 08 9842 1575
Fax: 08 9842 1575



Overview Map Scale 1:100,000

Legend

- Subject Site
 - 100m Assessment Boundary
 - 150m Assessment Boundary
 - Cadastre
 - 5m Contours
 - Separation Distance
 - Slopes Degrees
 - Photo Point
 - Future Low Fuel
 - Vegetation/Plot Boundary
- Vegetation**
- Forest Type A
 - Shrubland Type C
 - Scrub Type D
 - Low fuel or non vegetated 2.2.3.2



Scale
1:2,000 @ A3
GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

CLIENT

Tattarang
Emu Point Oyster Farm
Emu Point, WA 6330

Figure 4: Vegetation Classes

BAL Assessor KK	QA Check BT	Drawn by CV
STATUS FINAL	FILE MSC0296	DATE 23/07/2020


Plot	1	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)
 <p>139°SE (T) ▲ 21m</p> <p>21 Jul 2020, 09:45:33</p>			<p>Location: Located internal to subject site and north-east, east, south and south-east of subject site.</p> <p>Dominant species & description: Bare hardstand areas, Oyster Harbour, parking, demolition site. As per exclusion clause 2.2.3.2 (e) of AS3959.</p>

Photo Id 1: View of parking lot, to the south of the subject site.


Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)
 <p>327°NW (T) ▲ 7m</p> <p>21 Jul 2020, 09:05:33</p>			<p>Additional photo of Plot 1.</p>

Photo Id 2: View of groin to the east of the subject site.

Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)
			Additional photo of Plot 1.

Photo Id 3: South of the subject site. View of Swarbrick Street looking west.


Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)
			Additional photo of Plot 1.

Photo Id 4: View of demolition site, internal to the subject site.

Plot	2	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f)
			<p>Location: Located west and south of the subject site.</p> <p>Dominant species & description: Mowed grasses and POS areas managed by CoA. Managed firebreaks. As per exclusion clause 2.2.3.2 (f) of AS3959.</p> <p>Available fuel loading: <2t/ha.</p>
<p><i>Photo 1d 5: View of low fuel area situated south of the subject site, outside 150m assessment area.</i></p>			
Plot	2 cont.	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f)
			<p>Additional photo of Plot 2.</p> <p>CoA have confirmed a regular maintenance program along the western/south western interface to the site.</p>
<p><i>Photo 1d 6: View of 4m firebreak located to the west of the subject site.</i></p>			


Plot	2 cont.	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f)
			Additional photo of Plot 2.

Photo Id 7: View of 4m firebreak located to the west of the subject site.








Plot	2	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f)
			Additional photo of Plot 2.

Photo Id 8: View of firebreak situated to the south-west of the subject site.

Plot	3	Classification or Exclusion Clause	Forest Type A
 <p>21 Jul 2020, 09:06:06</p>			<p>Location: North and east of the subject site.</p> <p>Separation distance: 0-6m.</p> <p>Dominant species & description: Peppermint trees grading to paperbarks in the west. Multilayered grasses, juvenile trees, <i>Acacia longifolia</i>, <i>Asparagus asparagoides</i> (Bridal creeper) and buffalo grass.</p> <p>Average vegetation height: 4-6m.</p> <p>Foliage cover: >30-70% Foliage cover.</p> <p>Fuel loading: 25-35t/ha.</p> <p>Effective Slope: Downslope >0-5 degrees.</p> <p>Note: new fencing around site, vegetation assumed to be future low fuel along fence line.</p>
Photo Id 9: View of Forest Type A along eastern fence line adjacent to Harbour.			
Plot	3 cont.	Classification or Exclusion Clause	Forest Type A
 <p>21 Jul 2020, 09:12:29</p>			<p>Additional photo of Plot 3.</p> <p>Note: new fencing around site, vegetation assumed to be future low fuel along fence line. Not presently slashed however forms part of the proposed development footprint.</p>
Photo Id 10: View of Forest Type A located along northern fence line.			

Plot	3 cont.	Classification or Exclusion Clause	Forest Type A
			<p>Location: West of the subject site.</p> <p>Separation distance: 0-6m.</p> <p>Dominant species & description: Paperbark, Hibbertia, <i>Spiridium globulosum</i>, Cape tulip, Bridal creeper, <i>Acacia longifolia</i>, Melaleuca sp., herbs and rushes. Multilayered.</p> <p>Average vegetation height: 4-6m.</p> <p>Foliage cover: >30-70% foliage cover.</p> <p>Fuel loading: 25-35t/ha.</p> <p>Effective Slope: Downslope >0-5 degrees.</p>
Photo Id 11: View to the south-west through Plot 3.			
Plot	3 cont.	Classification or Exclusion Clause	Forest Type A
			<p>Additional photo of Plot 3.</p>
Photo Id 12: View to the west south-west through Plot 3.			

Plot	3. cont.	Classification or Exclusion Clause	Forest Type A
			Additional photo of Plot 3.
Photo Id 13: South of the subject site. View to the east through Plot 3 showing thick vegetation adjacent to fencing.			
Plot	4	Classification or Exclusion Clause	Shrubland Type C
			<p>Location: North of subject site in the tidal flats.</p> <p>Separation distance: 4m.</p> <p>Dominant species & description: Herbs and rushes and <i>Melaleuca</i> sp., <i>Atriplex</i> sp. (saltmarsh species) and various low swamp tidal species.</p> <p>Average vegetation height: 1-1.5m.</p> <p>Foliage cover: >30% Foliage cover.</p> <p>Fuel loading: 15t/ha.</p> <p>Effective Slope: Downslope >0-5 degrees.</p>
Photo Id 14: View to the north west through Plot 4. Note: 1.7m person in photo.			

Plot	5	Classification or Exclusion Clause	Scrub Type D
 <p>21 Jul 2020, 09:24:35</p>			<p>Location: South west of the subject site.</p> <p>Separation distance: 4m.</p> <p>Dominant species & description: Dead <i>Melaleuca cuticularis</i> (Salt water paperbark), rushes, <i>Asparagus asparagoides</i> (Bridal creeper), and <i>Polygala myrtifolia</i> (myrtle-leaf milkwort).</p> <p>Average vegetation height: 2.5m.</p> <p>Foliage cover: >30% Foliage cover.</p> <p>Fuel loading: 25t/ha.</p> <p>Effective Slope: Flat/upslope.</p>
Photo Id 15: View to the south west through Plot 5. Note: 1.7m person in photo.			
Plot	6	Classification or Exclusion Clause	Forest Type A
 <p>21 Jul 2020, 09:34:01</p>			<p>Location: South of the subject site. Outside 150m assessment boundary.</p> <p>Separation distance: 211m.</p> <p>Dominant species & description: <i>Agonis flexuosa</i>, connected crowns, juvenile trees, <i>Hibbertia</i> sp., <i>Pelargonium</i> sp. (Geranium), <i>Watsonia</i>, <i>Moraea flaccida</i> (Cape Tulip), kikuyu grass and <i>Adenanthos sericeus</i> (Albany Woolly Bush). Multilayered.</p> <p>Average vegetation height: 4-6m.</p> <p>Foliage cover: >30-70% foliage cover.</p> <p>Fuel loading: 25-35t/ha.</p> <p>Effective Slope: Flat/upslope.</p>
Photo Id 16: View to the south through Plot 6.			

Plot	6	Classification or Exclusion Clause	Forest Type A
			Additional photo of Plot 6.
Photo Id 17: View to the south through Plot 6.			

COMMENTS ON VEGETATION CLASSIFICATIONS:

- Distances from vegetation were made based on surface fuels to edge of Lot (subject site) boundary;
- Effective slopes were measured in the field using a Nikon Forestry Pro and represented on the respective plots;
- Method 1 (AS3959) Simplified procedure was used for vegetation classification and BAL Assessment process;
- All vegetation was classified within the subject site and within 150m of the lot boundaries to AS3959 Table 2.3, noting the assessment area was extended to the south (200m) to assess vegetation for any performance-based assessment; and
- The perimeter of the vegetation was measured using field GPS and notations on field GIS maps.

SECTION 3.2 Assessment Outputs

A Method 1 BAL calculation (in the form of BAL contours) has been completed for the proposed development. The BAL Contours are depicted in accordance with AS3959 (Method 1) and WAPC defined methodology (WAPC, 2017). The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed buildings and subsequently informs the standard of building construction required to increase building tolerance to potentially withstand such impacts in line with the assessed BAL.

The potential bushfire impact to the proposed development from each of the identified vegetation plots are identified below in Table 2 and shown in the BAL Contour Plan, Figure 5.

Table 2: Potential Bushfire impacts to the Albany Aquaculture Project

Vegetation Type (Table 2.3)	Slope (Table 2.4.3)	Distance to Vegetation (m)	Highest BAL Contour to lot	BAL to proposed buildings
Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e) (Plot 1)	N/A	N/A	BAL Low	Low
Low fuel or non-vegetated areas Exclusion 2.2.3.2 (f) (Plot 2)	N/A	N/A	BAL Low	Low
Forest Type A (Plot 3)	Downslope >0-5 Degrees	0-6m	BAL- FZ	Fuel Storage & office/reception BAL 19 (Class 8)
				Oyster & mussel sheds, Nursery BAL FZ (Class 10a)
				Tourism facility BAL 12.5 (Class 6)
Shrubland Type C (Plot 4)	Downslope >0-5 Degrees	4m	BAL- FZ	N/A overridden by Plot 3.
Scrub Type D (Plot 5)	Flat/upslope	4m	BAL- FZ	BAL FZ to workshop (Class 8)
Forest Type A (Plot 6)	Downslope upslope	211m	BAL-Low	BAL -Low

NOTES ON BAL ASSESSMENT

- The BAL Contour Plan was prepared by an Accredited Level 2 Bushfire Planning Practitioner (BPAD30794).
- The BAL Contour Map has been prepared in accordance with Department of Planning (WAPC) Guidelines for Planning in Bushfire Prone Areas Version 1.3 (WAPC, 2017).
- Vegetation is assumed to be cleared along the fence line for the development to 1.5m for the new fencing.
- Development based on the Master Plan as supplied by Roberts Gardiner Architects (Figure 1) (Revision G).

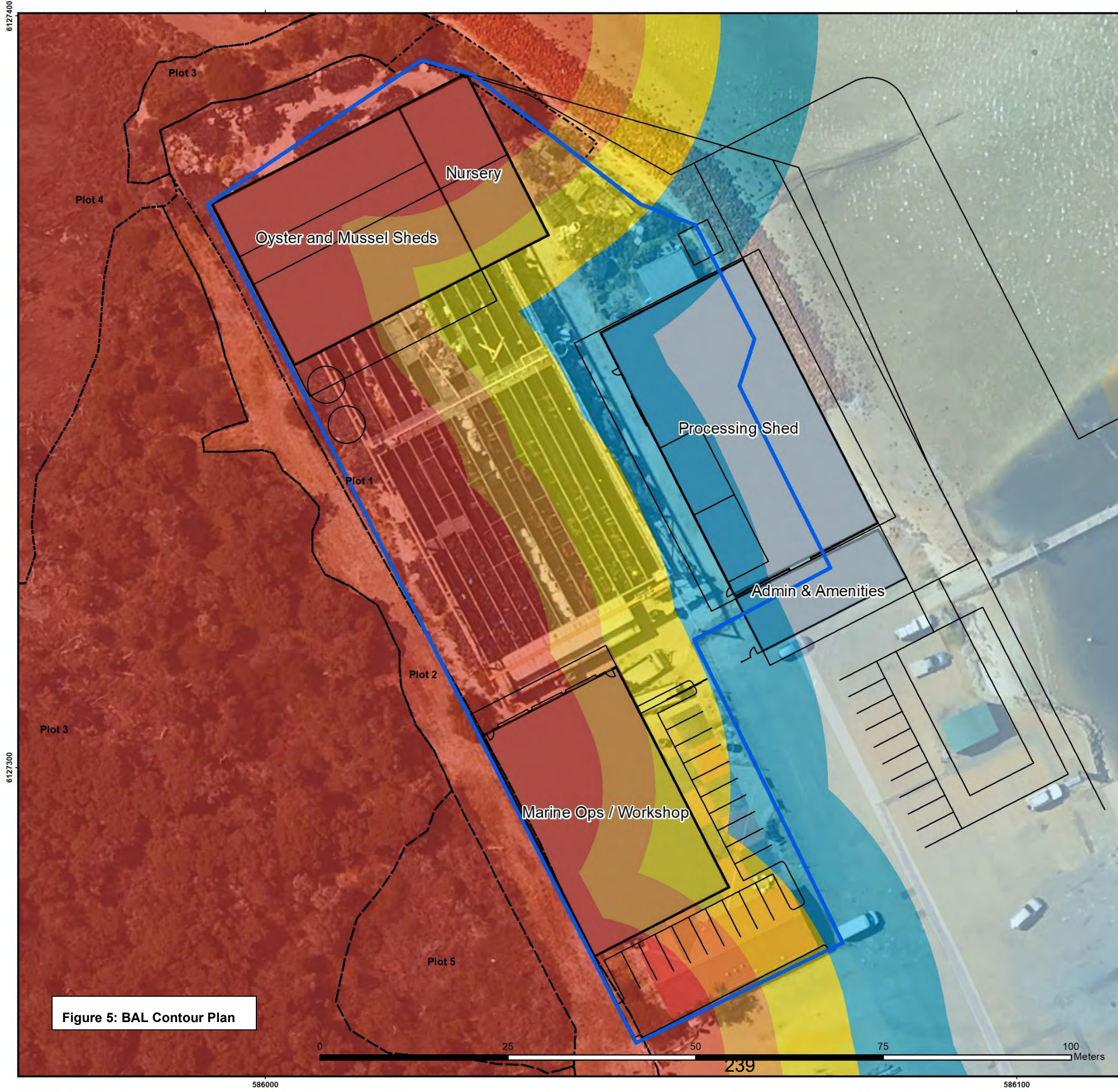


Figure 5: BAL Contour Plan

REPORT ITEM DIS253 REFERS

This BAL Plan was prepared by:
Kathryn Kinnear, Bio Diverse Solutions
Accreditation No: BPAD30794
Jurisdiction: Level 2 - WA

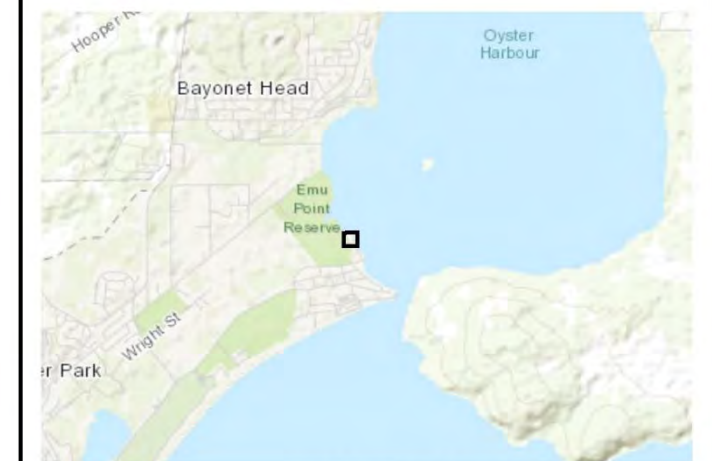


BPAD
Bushfire
Planning & Design
Accredited Practitioner
Level 2







**BIO
DIVERSE
SOLUTIONS**

29 Hercules Crescent
Albany, WA 6330
Australia
Tel: 08 9842 1575
Fax: 08 9842 1575









Overview Map Scale 1:100,000

Legend

-  Subject Site
-  Vegetation/Plot Boundary
-  Proposed Building
-  Site plan revision G

BAL Contours

-  BAL-FZ
-  BAL-40
-  BAL-29
-  BAL-19
-  BAL-12.5
-  BAL-LOW



Scale
1:500 @ A3
GDA MGA 94 Zone 50

Data Sources

Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

CLIENT

Tattarang
Emu Point Oyster Farm
Emu Point, WA 6330

BAL Contour Plan

BAL Assessor KK	QA Check BT	Drawn by SA
STATUS FINAL	FILE MSC0296	DATE 31/07/2020

SECTION 4: IDENTIFICATION OF BUSHFIRE IMPACTS

Bushfire risks/hazards

The bushfire prone mapping over the site is due to the remnant vegetation in the City of Albany reserve to the north, west and south west of the subject site. This reserve is to protect the tidal interface of Oyster Harbour and the native vegetation associated with the tidal flats. Bushfire hazards are described in the WAPC *Guidelines for planning in a bushfire prone area* (WAPC, 2017) as “Bushfire Hazards Levels (BHL) and the vegetation types mapped for the site and adjacent 150m is shown in Figure 1. The vegetation presents as Forest Type A (extreme Bushfire Hazard Level (BHL)), Shrubland Type C (Moderate BHL) and a small area of Scrub Type D (Extreme BHL). The subject site was previously used for sheds and hardstand areas whereby demolition is currently in progress, presenting as a Low BHL. To the east is Oyster Harbour which presents as Low BHL.

Vegetation clearing for the development is not proposed as the site is already developed (brown field site). The CoA reserve for parks and recreation is directly adjacent the site. A 4m-6m firebreak separates the development to the CoA reserve which is managed by the CoA maintenance team. Some minor removal of vegetation will be required when new fencing is erected and this is not anticipated to be more than 1.5m from the boundary. Some localised landscaping associated with visual amenity and stormwater management is proposed, however will be to WAPC guidelines Asset Protection Zone (APZ) standards, refer to Appendix A for these standards. Any plans pertaining to the site should be reviewed by the Bushfire practitioner prior to submission to the City of Albany to ensure compliance to the WAPC guidelines.

BAL contours emanating onto the site allocate BAL FZ on the subject site as a whole. The development of the site for the reception/office and the tourism facility are located in BAL 19 and BAL 12.5 respectively. A detailed Bushfire Management Plan (BMP) is required to assist the project through the development approvals process, this is to be prepared by Envision due to the reasons outlined below.

It is to be noted by the project team that any air conditioning/cooling units proposed for the aquaculture facility will need to be fitted with non-combustible material and comply with the Building Commission requirements (See Appendix B). It is noted the requirements for residential areas, however compliance by the proponent is recommended for this site/development.

Access

The site is accessed from Emu Point Drive, onto Clark Street onto Swarbrick Street to the south of the subject site. Access terminates at the carparking areas to the south creating a cul-de-sac. WAPC guidelines (WAPC, 2017) outline the “Acceptable solutions” (A3.1) to have alternative access in opposite directions available to the public at all times. The development is non-compliant to this aspect and therefore will require a “Performance based assessment” by Level 3 Bushfire Practitioners. A detailed BMP is presently being prepared by Envision to address the access issue.

Vulnerable land use

A tourism development is defined as a “Vulnerable land use” under State Planning Policy (SPP) 3.7 and the intent of this policy is to have a planning response to recognise that persons attending a tourism venture may be less able to respond to a bushfire emergency. A detailed Bushfire Management Plan and an Emergency Evacuation Plan (EEP) is being prepared by Level 3 Bushfire Practitioner Anthony Rowe (Envision). The EEP forms a comprehensive action plan to guide the tourism aspect of the development and employees at the seafood processing facility in a bushfire emergency. As access in alternative directions is not available

to all people attending the site, a “Performance based” assessment is required. A detailed BMP is presently being prepared by Envision to address the access issue.

High risk industry

Fuel storage is defined as a “High risk industry” under State Planning Policy (SPP) 3.7 and is not recommended in BAL FZ or Bal 40. It is noted the fuel storage is to be a mobile facility in a sea container/double bunded arrangement and located in BAL 19 zones. Internal to the site will be maintained in a low fuel state, (APZ standards to apply see Appendix A). A reduction in on-site flammable material and the moveable nature of the fuel storage may deem this a low risk. A detailed BMP is presently being prepared by Envision to address the fuel storage issue.

Water supply

Water supply will be through the existing water connections to the site and hydrants are to be provided to the site as per the Hydrant Site Plan below, refer to Figure 6.

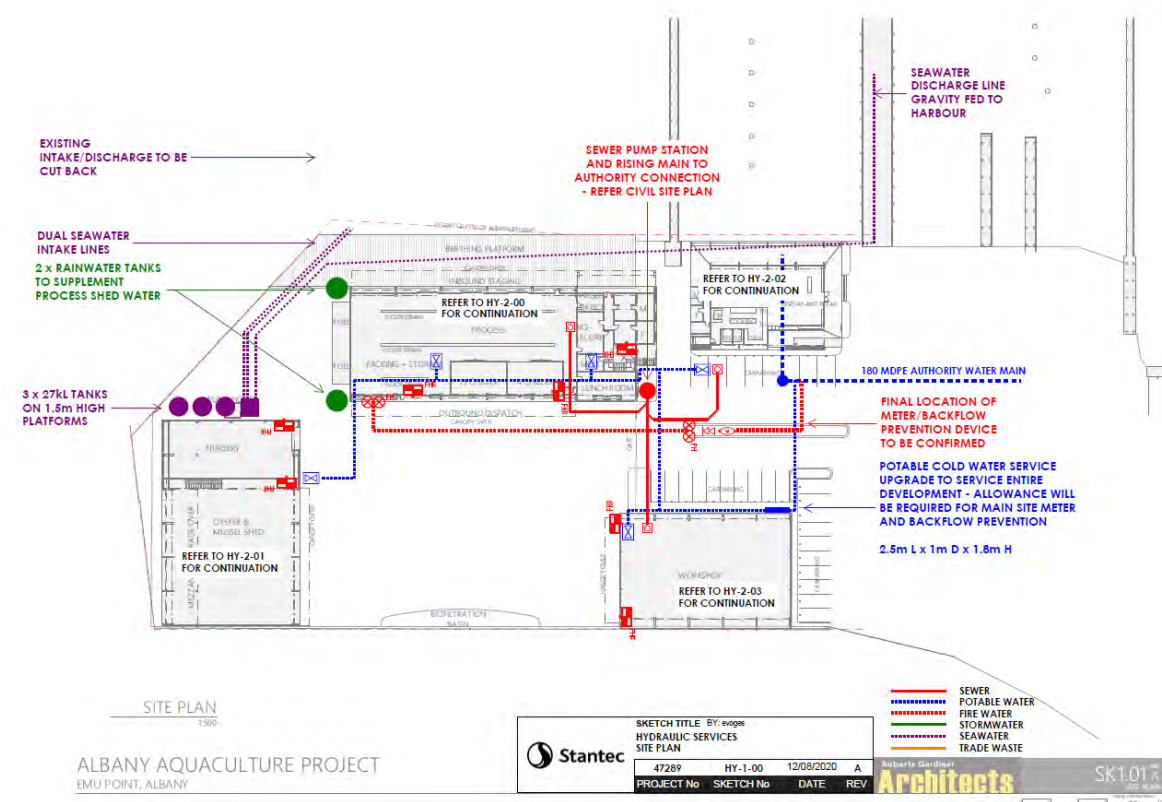


Figure 6: Hydrant Site Plan

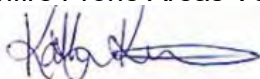
SECTION 5: DISCLAIMER

The recommendations and measures contained in this assessment report are based on the requirements of the Australian Standards 3959 – Building in Bushfire Prone Areas, WAPC State Planning Policy 3.7 (WAPC, 2015), WAPC Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017), and CSIRO's research into Bushfire behaviour. These are considered the minimum standards required to balance the protection of the proposed dwelling and occupants with the aesthetic and environmental conditions required by local, state and federal government authorities. They DO NOT guarantee that a building will not be destroyed or damaged by a bushfire. All surveys and forecasts, projections and recommendations made in this assessment report and associated with this proposed dwelling are made in good faith on the basis of the information available to the fire protection consultant at the time of assessment. The achievement of the level of implementation of fire precautions will depend amongst other things on actions of the landowner or occupiers of the land, over which the fire protection consultant has no control. Notwithstanding anything contained within, the fire consultant/s or local government authority will not, except as the law may require, be liable for any loss or other consequences (whether or not due to negligence of the fire consultant/s and the local government authority, their servants or agents) arising out of the services rendered by the fire consultant/s or local government authority.

SECTION 6: Certification

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS3959 and the Guidelines for Planning in Bushfire Prone Areas Ver 1.3 (WAPC, 2017).

SIGNED, ASSESSOR:



DATE:

14/08/2020

Kathryn Kinnear, Bio Diverse Solutions

Accredited Level 2 Bushfire Practitioner (Accreditation No: BPAD30794)

**References**

Western Australian Planning Commission (WAPC) (2017) Guidelines for Planning in Bushfire Prone Areas Version 1.3. Western Australian Planning Commission and Department of Planning WA, Government of Western Australia.

Western Australian Planning Commission (WAPC) (2015) State Planning Policy 3.7 Planning in Bushfire Prone Areas. Department of Planning WA and Western Australian Planning Commission.

Office of Bushfire Risk management (OBRM) (2019) Map of Bushfire Prone Areas. Data retrieved from State Land Information Portal (SLIP):

<https://maps.slip.wa.gov.au/landgate/bushfireprone/>

REVISION RECORD

Revision	Summary	Prepared by	Reviewed by:	Date
Draft Id 27/7/2020	Draft report internal QA review	K. Kinnear	B.Theyer	27/07/2020
Draft 1 28/07/20	Draft issued to client and A.Rowe.	K.Kinnear	J.Benson	28/07/2020
Final Vers1.0 14/08/2020	Issued to client & Envision	K.Kinnear		14/08/2020

Appendix A

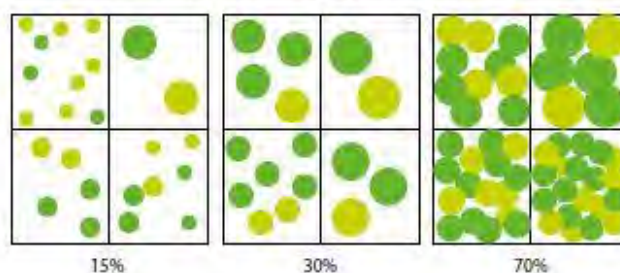
WAPC APZ standards to apply

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and/or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Appendix B

Building Commission Advice note

Roof mounted evaporative coolers in bushfire prone areas



Roof-mounted evaporative coolers

From 8 April 2016, new roof-mounted evaporative coolers being installed on residential buildings that are located in a designated bush fire prone area **must be fitted with non-combustible covers.**

It is important to be aware of these requirements before purchasing this type of cooling unit for your home.

To find out if you live in a designated bush fire prone area, go to the Department of Fire and Emergency Services website at www.dfes.wa.gov.au, navigate to "Regulation and Compliance" and view the *Map of Bush Fire Prone Areas* or simply do an internet search for 'Map of Bush Fire Prone Areas'.

Existing evaporative coolers

It isn't mandatory to upgrade an existing roof-mounted evaporative cooler that is in a designated bush fire prone area, however it is recommended you discuss retrofitting options for non-combustible covers with the retailer or manufacturer.

Risks with evaporative coolers

The Department of Fire and Emergency Services has identified that roof-mounted evaporative coolers can catch fire if burning embers enter through unprotected gaps and ignite the cooling pads. This can result in fire burning into the ceiling and spreading to the rest of the building.

Complying with the requirements

The installation of a roof-mounted evaporative cooler in a designated bush fire prone area is captured under the State's building laws and must therefore comply with the performance requirements of the Building Code of Australia (the Building Code). This generally requires compliance with Australian Standard AS 3959-2009-Construction of buildings in bushfire-prone areas.

If you are considering installing a roof-mounted evaporative cooler in a designated bush fire prone area you need to have your property assessed for its level of bush fire risk as this will determine the appropriate level of protection that your evaporative cooler will require.

Bush fire construction requirements have been in the Building Code since the 1990s but only apply in designated bush fire prone areas.

Assessing the level of bush fire risk

The Building Code recognises the assessment method of AS 3959-2009 as an acceptable way of assigning a Bushfire Attack Level (BAL) for the site. BALs are a measure of the intensity of the potential bush fire attack for a building and provide a basis for establishing appropriate bush fire construction requirements. There are six different BALs: BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ (Flame zone).

Who determines the BAL?

The Fire Protection Association (FPA) Australia can provide guidance on accredited BAL Assessors and suitably qualified consultants offering services in Western Australia. Further information is available at www.fpaa.com.au.

The following table outlines the requirements for a roof-mounted evaporative cooler in accordance with the assessed BAL of your site.

Assessed BAL	Bush fire requirements for roof-mounted evaporative coolers
BAL-LOW Low bush fire risk	None.
BAL-12.5 – BAL-29 Moderate to high bush fire risk	Must be fitted with non- combustible butterfly closers as close as practicable to the roof level; or alternatively be fitted with non-combustible covers with a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion resistant steel, bronze or aluminium. Additionally the unit must be adequately sealed to the roof with non-combustible material to prevent gaps greater than 3mm.
BAL-40 and BAL-FZ Very high to extreme bush fire risk	Obtain a building permit from the permit authority to install a roof-mounted evaporative cooler. This is because the Building Code does not permit the installation of a roof- mounted evaporative cooler unless it has met certain test criteria or an alternative solution has been developed. Please note: you should discuss these requirements with a registered building surveying contractor or the relevant permit authority.

Acceptable covers

The type of cover that is acceptable depends on the material the body of the evaporative cooling unit is constructed from, typically either moulded plastic, which would be combustible, or metal which would be non-combustible.

Plastic units

If the plastic unit doesn't have a butterfly closer it must be fully encased in non-combustible covers, not just covering the air intake areas.

A butterfly closer is a type of valve fitted inside the unit which opens when the unit is running and closes when the unit's fan is turned off and helps to prevent any fire from an ignited evaporative cooler entering the roof.

Metal units

An evaporative cooler made of metal, and not otherwise fitted with a butterfly closer, must be fitted with non-combustible ember protection screens covering the air intake areas.

Where you are unsure if the roof-mounted evaporative cooler you are thinking of purchasing will comply with the requirements for your location, you should raise your concerns with the retailer.

If you do not wish to have your site assessed for a BAL, or obtain a building permit, you need to consider an alternative method for cooling your home that does not involve the installation of a roof-mounted evaporative cooler.

Test criteria

AS 3959-2009 provides another compliance option, where any element of construction or system of an evaporative cooler that satisfies the test criteria of Australian Standard AS 1530.8.1 (BAL-12.5 to BAL-40) or AS 1530.8.2 (BAL-FZ) may be used in lieu, essentially overriding the prescriptive requirements of AS 3959 – such tests are normally instigated by the manufacturer and are carried out in National Association of Testing Authorities Australia registered laboratories.

Who is responsible for compliance?

For sites assessed as BAL-12.5 to BAL-29, where the installation is not part of a building permit, the home owner (registered proprietor) is responsible for ensuring the evaporative cooler complies with the Building Code as outlined in "Complying with the requirements" above. In high risk areas (BAL-40 and BAL-FZ) where a building permit would generally be required and in other areas if the installation is part of a building permit, the person named as "builder" on the building permit is responsible for ensuring compliance. There are substantial penalties for installing evaporative coolers in designated bush fire prone areas that do not comply.

Also, the Australian Consumer Law may allocate liability to builders, suppliers, installers, and manufacturers in some circumstances, including where the cooler or its installation is not fit for its usual purpose or a purpose made known by a consumer.

In 2011 the government wrote to manufacturers about the risks associated with roof-mounted evaporative coolers in bush fire prone areas and in 2015 further informed them that the proposed designation of bush fire prone areas will trigger a requirement for roof-mounted evaporative coolers to meet the minimum requirements of AS 3959.

Electrical appliance safety standard

Furthermore, manufacturers should ensure that the construction of an evaporative cooler that is intended to be installed in a designated bushfire prone area complies with Australian Standard AS/NZS 60335.2.98:2005 that deals with household and similar electrical appliance safety. This Standard requires fixed evaporative coolers to be tested under the conditions of AS 1530.8.1 (that deals with tests on elements of construction for buildings exposed to simulated bushfire attack—radiant heat and small flaming sources) and if ignition of an evaporative cooler has not occurred, it is deemed that the evaporative cooler is able to be used in BAL-12.5 to BAL-29 sites without a fire damper. Furthermore, if a fire damper is required as is proposed it must be tested and installed in accordance with AS/NZS 60335.2.98:2005.

What types of buildings need to comply?

The requirements apply to new installations of roof-mounted evaporative coolers on the following new or existing classes of residential buildings (as classified under the Building Code) that are located in a designated bush fire prone area. If you are unsure of your building's classification, contact the relevant permit authority (local government).

Class	General description
Class 1a	A single dwelling such as a house or one of a group of two or more attached dwellings, including a row house, town house, terrace house or villa unit.
Class 1b	Small scale boarding house, a guest house, hostel (in which not more than 12 persons would ordinarily be resident; or four or more single dwellings located on one allotment and used for short term holiday accommodation.
Class 2	A building containing two or more sole-occupancy units each being a separate dwelling (apartments, flats etc.).
Class 3	A residential building (other than a Class 1 or Class 2 building) for a number of persons, such as a large scale boarding house; guest house; hostel; a residential part of a hotel; motel; school; accommodation for the aged, children or people with disabilities.
Or an associated Class 10a building or deck that is or is proposed to be, located less than 6 metres from any of the above classes of buildings. (A Class 10a is a non-habitable building such as a private garage, carport or shed).	

Other classes of buildings, whilst not captured by the Building Code provisions for roof-mounted evaporative coolers in bush fire prone areas, are also subject to similar risk of ignition and building owners, designers and property managers may wish to consider taking mitigating actions against that risk which could include compliance with AS 3959.

Further information

Find an accredited BAL assessor	www.fpaa.com.au Navigate to "Accreditation and Licensing", "Bushfire Planning and Design".
Verify registration status of a building surveying contractor	www.commerce.wa.gov.au/building-and-energy/building-and-energy-licence-search
Building for better protection in bush fire areas – A homeowner's guide	www.commerce.wa.gov.au/publications/building-better-protection-bushfire-areas or contact Building and Energy on 1300 489 099 or email be.info@dmirs.wa.gov.au
Map of Bush Fire Prone Areas	www.dfes.wa.gov.au Navigate to "Regulation and Compliance", or simply do an internet search for "Map of Bush Fire Prone Areas".
View a copy of AS 3959-2009 – Construction of buildings in bushfire-prone areas	Your local government or local library should have a hard copy of AS 3959-2009 that you can view, or you can purchase a copy at www.saiglobal.com
View the State's building laws: Building Regulations 2012 and Building Act 2011	www.legislation.wa.gov.au

Disclaimer – The information contained in this fact sheet is provided as general information and a guide only. It should not be relied upon as legal advice or as an accurate statement of the relevant legislation provisions. If you are uncertain as to your legal obligations, you should obtain independent legal advice.

Building and Energy | Department of Mines, Industry Regulation and Safety

1300 489 099

8.30am – 4.30pm

Level 1 Mason Bird Building
 303 Sevenoaks Street (entrance Grose Avenue)
 Cannington Western Australia 6107
 M: Locked Bag 100, East Perth WA 6892
 W: www.dmirs.wa.gov.au/building-and-energy
 E: be.info@dmirs.wa.gov.au

Regional Offices

Goldfields/Esperance	(08) 9021 9494
Great Southern	(08) 9842 8366
Kimberley	(08) 9191 8400
Mid-West	(08) 9920 9800
North-West	(08) 9185 0900
South-West	(08) 9722 2888

National Relay Service: 13 36 77

Translating and Interpreting Service (TIS): 13 14 50

This publication is available in other formats on request to assist people with special needs.

DMIRSCTT9.6188

APPENDIX 2 - Emergency Evacuation Plan

BUSHFIRE EMERGENCY EVACUATION DOCUMENTS

TOURISM FACILITY LOT 501 EMU POINT, ALBANY

AUGUST 2020

This document contains two parts:

1. The preparation compliance with the WAPC *A Guide to developing a BUSHFIRE EMERGENCY EVACUATION PLAN October 2019: and*
2. The Emergency Evacuation Plan contained in Appendix 1. The Emergency Evacuation Plan incorporates the requirement of AS3745-2010 where relevant in the WAPC Emergency Evacuation Plan Template.

1. ESTABLISHING THE EMERGENCY MANAGEMENT TEAM

In accordance with the Guidelines for preparing a bushfire emergency evacuation plan an accredited bushfire practitioner was engaged (Anthony Rowe BPAD L3 36690).

The bushfire planning practitioner has been responsible for assisting the emergency management team with

- The establishment and implementation of emergency plans and procedures
- Formulation of emergency procedures
- Reviewing the local emergency services

The Emergency Planning Committee with feedback from the Emergency Management Team should regularly review the emergency evacuation plan to ensure it remains practical and current.

Emergency Planning Committee

The Emergency Planning Committee is to comprise the owner, key personnel at the Aquaculture facility, and the appointed Chief Warden (Emergency Management Team)

The **Emergency Planning Committee** is responsible for overseeing the preparation of the site buildings and grounds for the approaching bushfire season, including attendance to any maintenance required to minimise the risk of damage from bushfire attack.

The Committee is responsible for reviewing the BEEP and overseeing the undertaking of education and training. It is to evaluate the outcomes of any drills and ensure appropriate resources are provided to prepare for the bushfire season.

This includes ensuring that site mobile phones are registered on the Emergency Alert System.

The Committee will establish the Emergency Management Team and assign roles and responsibilities to staff.

Emergency Management Team

The Emergency Planning Committee is to establish an **Emergency Management Team**, who will designate site personnel to various responsibilities. These people will be trained to undertake specific tasks to support the evacuation of the facility and the survival of patrons in the event of an emergency. It will also include training on the effective operation of the firefighting equipment.

The site Emergency Response Team shall comprise of the following positions:

- Chief Warden.
- Deputy Chief Warden.
- Area Warden.

Assigned responsibilities include

- First Aid Personnel.
- Traffic Warden.
- Communications Officer.

For the restaurant, the Emergency Management Team should comprise of the day manager of the facility and senior personnel. They will be responsible for responding to a bushfire event and ensuring the safety of patrons.

2. PREPARING THE EMERGENCY PLAN

The emergency plan applies to the restaurant at **Lot 501 Emu Point ALBANY**.

The Bushfire Management Plan dated **14 August 2020** articulates bushfire safety measures that include:

- The building construction standards and maintenance to increase resistance to ignition of buildings and flammable material on site to minimise visitor exposure to bushfire impact.
- The site shall be maintained in a low threat state (AS3959:2018, cl. 2.2.3.2(e) and 2.2.3.2(f)).

This Emergency Plan has been prepared in response to bushfire threats identified in the BMP.

The site is on the coast at Emu Point, 9 km north-east of the Albany town centre. The site adjoins forest to its west, from which direction the only access to Emu Point is provided. The site may also be subject to ember attack from the forest located to the east and across the channel.

If it is not safe to evacuate along Emu Point Drive, the evacuation /shelter is to be taken at the Emergency Assembly Point at the boat ramp at the terminus of Swarbrick Drive.

3. DETERMINE EMERGENCY ACTION

The **primary action** in response to bushfire threat is early **evacuation**

- Evacuation to the Albany Leisure and Aquatic Centre, Barker Road, Centennial Park.
- Evacuation to the Emergency Assembly Point Swarbrick Street carpark.
- Pre-emptive closure on days declared with a 'Catastrophic' Fire Danger Rating

In a bushfire event, announcements will be received via electronic media and online, regarding bushfire incidents and potential threats to the site.

- Monitor the DFES Alerts and Warnings web page <https://www.emergency.wa.gov.au>
The Chief Warden (HOST) is responsible for monitoring this site at regular intervals during the bushfire season

The Trigger to evacuate.

- If directly advised to leave by DFES or the Police, evacuate to the Albany Leisure and Aquatic Centre, Barker Road, Centennial Park.
- If fire and smoke is identified to the east of the site, across the channel, then evacuate to the Albany Leisure and Aquatic Centre, Barker Road, Centennial Park.
- If a fire and smoke is identified west of the site evacuate to the Emergency Assembly Point Swarbrick Street carpark.

Time Required to Evacuate – 30 minutes

Suitable Access Routes:

- Albany Leisure and Aquatic Centre, Barker Road, Centennial Park - Swarbrick Street – Emu Point Drive – Golf Links Road – Middleton Road.
- Swarbrick Street extension to the carpark Emergency Assembly Point.

Transportation Arrangements:

- Private Vehicle to the Albany Leisure and Aquatic Centre, Barker Road, Centennial Park.
- On foot or by private vehicle to Swarbrick Street carpark Emergency Assembly Point.

4. EVACUATION / SHELTER REQUIREMENTS

Albany Leisure and Aquatic Centre, Barker Road, Centennial Park is a nominated City evacuation centre, however in a bushfire event announcements will be made via electronic media and online confirming the availability and location of safer places and evacuation centres.

Visitors to the restaurant are expected to arrive by private vehicle. Sufficient vehicles must always remain on-site to facilitate evacuation.

Shelter on site is not recommended nor should it be required, as vehicle and pedestrian access will be available to the Emergency Assembly Point Swarbrick Street carpark and south into the residential built out area and beach.

5. PRIMARY AND SECONDARY EMERGENCY PROCEDURES

The Emergency Evacuation Plan must be reviewed annually, ensuring all information, procedures, contact details and any attached publications (e.g. DFES) are current.

A current copy must be kept at the facility, and an A3 size copy of the evacuation diagram is to be displayed adjacent to the entry to the restaurant.

Preparation before each bushfire season should include:

- Fire extinguishers checked to ensure they are charged and in working order.
- Fire hoses should be checked to ensure all are in good condition and capable of reaching all surfaces of buildings.
- Roofs and gutters of buildings should be checked to ensure they are free of leaf litter and debris.
- Roof and walls should be checked for gaps exceeding 2 mm which can occur with the ageing of materials.

In addition to the seasonal assessment, on the mornings of predicted Severe, Extreme or Catastrophic Fire Danger Rating (FDR) days, the site grounds should be inspected, to ensure there are no flammable materials against or in proximity to the buildings and bins are closed. Access should be kept clear and be easily trafficable.

6. TRAINING REQUIREMENTS

The Emergency Planning Committee is responsible for:

- The written procedures applicable to the site.
- Individual roles and responsibilities.
- Identifying Response Actions
 - Access and egress routes and managing evacuation.
 - Assembly point location and shelter procedures.
 - Firefighting equipment locations and operation.

The Emergency Planning Committee, together with the Chief Warden is responsible for:

- Training of staff
 - individual roles and responsibilities.
- Training in the use and operation of
 - Personnel Protective Equipment.
 - Monitoring of warnings and incidents, where to find and how to use the Emergency WA website
- Fire fighting equipment and operation
- The undertaking of evacuation drills
 - Practicing the alert
 - Raising the alarm
 - Access and egress routes.
 - Assembly point locations.

The priority of the Emergency Management Team Chief Warden and team members is the well being of visitors; they are not expected to fight fire. Fire fighting members will be determined by the Emergency Planning Committee and from key personnel from the Aquaculture facility.

Visitors

The information must be displayed to inform visitors that the facility is located within a bushfire prone area.

7. EQUIPMENT REQUIREMENTS

Evacuation Equipment required

- Mobile phone
- Contact list
- Torch
- Bottled water available for visitors
- A bath or beach towel is available for each visitors
- First aid kit complete and up to date, with a sufficient quantity of eyewash

REPORT ITEM DIS253 REFERS

Emergency Evacuation Plan Preparation Checklist

<i>The following questions will assist the individual in developing or reviewing the Emergency Evacuation Plan to identify an off-site location. For an appropriate off-site location</i>	
If there are occupants with support needs that require a similar facility to support them, is the off-site location suitable?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comment: Patrons with support needs may visit the facility but would have a carer or family member in attendance with them to provide the required support.	
Is the off-site location in an area away from the effects of a bushfire?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comment: City nominated emergency evacuation facility, and BAL Low Emergency Assembly Point	
Are there amenities (toilets, food, water etc.) available at the off-site location? (if applicable) Yes City nominated emergency evacuation facility Partial The Swarbrick Street Emergency Assembly Point has access to a public toilet. Water, towels for shade, and first aid equipment is to be provided by the facility.	
Can the off-site location accommodate the number of occupants?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comment: City nominated emergency evacuation facility	
Does the route to the off-site location require transporting through bushfire affected areas or areas that may be affected by an approaching bushfire?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
The single route access to the Albany Leisure and Aquatic Centre passes scrub and forest and may not be safe from an adjoining fire west of the site, in which case the evacuation should be to the foreshore Swarbrick Street Emergency Assembly Point.	
Has the owner of the off-site location advised that they are happy to accommodate occupants if evacuation from a bushfire emergency occurs?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comment: City nominated emergency evacuation facility	

REPORT ITEM DIS253 REFERS

<i>Consider the following questions to assist in planning transport arrangements.</i>		
Are private vehicles to be used?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
If using private vehicles will there be sufficient vehicles to transport all the occupants, will they be available when you need them and will there be drivers available? If no, consider another mode of transport	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
Have occupants with support needs been considered when determining transport types and necessary timing to evacuate?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
Do you require ambulances? If yes, St John Ambulance Australia needs to be consulted.	Yes	<input type="checkbox"/>
	No	<input checked="" type="checkbox"/>
Is a community bus available?	Yes	<input type="checkbox"/>
	No	<input checked="" type="checkbox"/>
Will community buses be available when you need them and will drivers be available?	Yes	<input type="checkbox"/>
	No	<input checked="" type="checkbox"/>
Are other means of transport available? Yes, by foot to Swarbrick Street Emergency Assembly Point Extraction by boat is possible but unlikely to be required Emu Point is not expected to be isolated for a prolonged period.	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
Do you need any other type of special transport?	Yes	<input type="checkbox"/>
	No	<input checked="" type="checkbox"/>

REPORT ITEM DIS253 REFERS

<p><i>The following questions will assist the individual in developing or reviewing the Emergency Evacuation Plan to identify an on-site building. For an appropriate building, the answers to the below questions should receive a 'yes'.</i></p>		
Is the property well maintained and kept free from a build-up of fuel and leaf litter in gutters and around buildings?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
<ul style="list-style-type: none"> Yes new buildings are proposed, materials are to be stored in an orderly manner, and the buildings are separated by hardstand areas 		
Is there a building on-site that is away from bushland and is unlikely to be impacted by bushfire?	Yes	<input type="checkbox"/>
<ul style="list-style-type: none"> The restaurant is recommended to be constructed commensurate to BAL 12.5 and will experience radiant heat only from one aspect. It has not been designed to community shelter standards, and as such, it would, therefore, be prudent to evacuate the building. 	No	<input checked="" type="checkbox"/>
Is the building constructed in a manner that minimises bushfire attack with appropriate Asset Protection Zones?	Yes	<input type="checkbox"/>
	No	<input checked="" type="checkbox"/>
n/a		
Can the building accommodate the number of occupants and visitors?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
n/a		
Is there ease of accessibility to the building, and is it easily identifiable?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
n/a		
Is there access to amenities (toilets, food, water, etc.) away from the effects of a bushfire?	Yes	<input checked="" type="checkbox"/>
	No	<input type="checkbox"/>
n/a		

BUSHFIRE EMERGENCY PLAN

NAME OF FACILITY Restaurant

ADDRESS BOAT HARBOUR, EMU POINT

PREPARED BY Anthony Rowe, L3 BPAD 36690

OWNER/OPERATOR TATTARANG

DATE 14 AUGUST 2020

VERSION NUMBER 1

Document Control

Version	Date	Details	Undertaken by
1	10/08/2020	DRAFT	Anthony Rowe
2	14/08/2020	FINAL	Anthony Rowe

Emergency Management Team

Name	Role	Identification Colour	Contact Details
	Chief Warden	White helmet	
	Deputy Chief Warden	White helmet	
	Area Warden	Red helmet	
	First Aid	Green Helmet	

FACILITY DETAILS

This Plan is for a restaurant at Boat Harbour, Emu Point and has been designed to assist management in protecting life and property in the event of a bushfire.

The plan outlines procedures for both **evacuation** and **shelter-in-place** to enhance the protection of occupants from the threat of a bushfire.

The BEEP is an internal document, to be used by site staff to guide evacuation procedures, with an up-to-date copy maintained within the restaurant and provided to all staff.

The primary action to follow in a bushfire emergency is to:

Evacuate



Shelter in place



NAME OF CONTACT PERSON		TBC	
POSITION / ROLE OF CONTACT PERSON		TBC	
PHONE NUMBER		TBC	
FACILITY TYPE	Restaurant	NUMBER OF BUILDINGS	1
NUMBER OF STAFF	TBC	NUMBER OF OCCUPANTS	100
NUMBER OF OCCUPANTS WITH SUPPORT NEEDS		0	
DESCRIPTION OF SUPPORT NEEDS		Not applicable	

REPORT ITEM DIS253 REFERS

RESPONSIBILITIES

The following outlines who has responsibility for implementing emergency procedures in the event of a bushfire.

Position	Role	Responsibility
OWNER		<ul style="list-style-type: none"> Ensure the facility is prepared for the bushfire season Ensure staff have received relevant training for their responsibility in an emergency
DUTY MANAGER (Emergency Management Team)	Chief Warden	<ul style="list-style-type: none"> Daily - check www.emergency.wa.gov.au for any warnings or alerts Monitor Fire Danger Ratings at all times when visitors are at the facility Monitor conditions on Severe plus FDR days <ul style="list-style-type: none"> Local ABC Radio 630am Emergency.wa.gov.au Determine with DFES/emergency services that safe evacuation is available Consider any special needs of visitors that may affect the decision and capability to evacuate Determine to Evacuate- advise visitors to evacuate due to an emergency warning and if DFES advise the evacuation route is safe Manage orderly evacuation from site and account for all visitors. Remain contactable (mobile phone) at all times oversee evacuation from the site when the route has been declared safe
	Area Warden	<ul style="list-style-type: none"> Taking direction from and carrying out tasks allocated by the Chief Warden. Checking all buildings/facilities and accounting for all visitors. Ensuring all visitors have been alerted and evacuation has been initiated in an orderly manner. Maintaining communication and keeping visitors in their care calm, and updating the Chief Warden with situation reports. Keeping visitors together Contributing to debriefing.

EMERGENCY CONTACTS

Name of Organisation	Office / Contact	Contact details
Fire / Police / Ambulance	Fire or Emergency	000 (112 from a mobile)
Department of Fire & Emergency Services	Emergency Information	13 33 37 (13 DFES)
Emergency WA	Warnings and incidents	www.emergency.wa.gov.au
Bureau of Meteorology	Weather information	1300 659 213

Secondary Contacts

Name of Organisation	Office / Contact	Contact details

PREPAREDNESS

CHECKLIST – ongoing, prior to and during the bushfire season		
BUSHFIRE SEASON: COMMENCES 1 DECEMBER AND CONCLUDES 12 MAY OF EVERY YEAR (UNLESS OTHERWISE ADVISED)		
Action	Frequency	Responsibility
To be completed just prior to the bushfire season (by November 30 each year)		
1. Ensure all roof and building junctions are clear of litter	Annual	Owner
2. Check roofs and building surfaces present no gaps greater than 2 mm. By external inspection or observation of daylight in the roof cavity. Screen any gaps (steel mesh 2 mm aperture) or fill with mineral wool or non-flammable sealant	Annual	Owner
3. Ensure the required training of the Emergency Management Team has been undertaken, commensurate to the individuals responsibilities.	Annual	Owner
4. All objects attached to the buildings are non-combustible or easily removable, and the removing mechanism is in working order	Annual	Owner
5. The hydrants and hoses supplied for firefighting are in working order and clearly signposted with operating instructions fire fighting equipment has been tested and serviced in accordance with Australian Standard 1851-2012 <i>Routine service of fire protection systems and equipment</i> ,	Annual	Owner
6. The Evacuation Diagram is clearly displayed	Annual	Owner
To be completed during the bushfire season between 1 December and 12 May each year by the Emergency Management Team.		
7. Ensure fire extinguishers are charged, ready for use and the instructions on use are attached.	Ongoing	Owner or Manager
8. Ensure Evacuation Equipment is available <ul style="list-style-type: none"> Bottled water available for each visitor A bath or beach towel is available for each visitor First aid kit is complete and up to date, with a sufficient quantity of eyewash 	Ongoing	Owner or Manager
9. All buildings are free of flammable materials, none located within 3 m	Ongoing	Owner or Manager
10. Regularly check the Incidents and Warnings www.emergency.wa.gov.au and ensure the Emergency Alert App is activated.	Ongoing	Owner or Manager
11. Emergency Contacts details are current and identified on the Evacuation Diagram	Ongoing	Owner or Manager

REPORT ITEM DIS253 REFERS

The Department of Fire and Emergency Services provides community and emergency advice about predicted and current conditions that advise about the level of bushfire threat.

The Fire Danger Rating (**FDR**) is based on the forecast weather conditions, the higher the rating, the higher the threat.

Extreme or Catastrophic ratings are the highest level and represent unsafe conditions.

Fire Danger Rating (DFES)

Emergency Warnings

CATASTROPHIC

EXTREME

The worst conditions for a fire. Homes are not designed or built to withstand a fire in these conditions. The only safe place is away from bushfire risk areas.

SEVERE

VERY HIGH

Seek out information and be ready to leave or stay and actively defend your property if a fire starts. Only stay if you are 100% prepared.

HIGH

LOW - MODERATE

Be vigilant. Check your fire plan and continue to monitor conditions as they can change quickly.

EMERGENCY WARNING

An out of control fire is approaching very fast. You need to act immediately to survive. If you haven't prepared your home, it is too late. You must leave now if it is safe to do so.

WATCH AND ACT

A fire is approaching and is out of control. Put your plan into action. If your plan is to leave, make sure you leave early. Only stay if you are mentally, physically and emotionally prepared to defend your property, and you have all the right equipment.

ADVICE

A fire has started, but there is no immediate danger. Stay alert and watch for signs of a fire.

AWARENESS AND PRE-EMPTIVE PROCEDURES

The following outlines the actions that must be taken to ensure occupants maintain an awareness of the bushfire threat and the appropriate procedures to follow.

Actions	Frequency	Responsible Person
Days forecast Very High or Severe Fire Danger rating		
Check the Emergency WA website daily for alerts and warnings www.emergency.wa.gov.au	Check hourly and actively monitor any incidents within 10 Km	Chief Warden
Check grounds and buildings are free of accumulated rubbish/leaf litter, and storage bins are closed	Daily in the morning	Chief Warden
Days forecast Extreme Fire Danger rating		
Check the Emergency WA website daily for alerts and warnings www.emergency.wa.gov.au	Check hourly and actively monitor any incidents, prepare to evacuate, check with DFES if within 5 Km	Chief Warden
Check grounds and buildings are free of accumulated rubbish/leaf litter, and storage bins are closed	Morning and Afternoon	Chief Warden

An 'Advice,' 'Watch and Act' or 'Emergency Warning' alert or other communication has been issued by an emergency service authority		
Pre-emptive Closure	Public announcement made on the preceding day	Emergency Planning Committee
Or follow Extreme Fire Danger rating procedures		

EMERGENCY PROCEDURE, LOCATION, AND TRANSPORT DETAILS

Evacuation

Designated evacuation assembly point/s

1. The restaurant

Primary off-site location

Name of venue	Albany Leisure and Aquatic Centre		
Address of venue	52-70 Barker Rd, Centennial Park		
Nearest cross street	Blair Street	Map reference	XVQH+QF Centennial Park
Venue phone number	(08) 6820 3400		
Primary route to location	Head west on Swarbrick Street – Emu Point Drive (2km) and turn right onto Troode Street. Turn left onto Collingwood Road and at the roundabout take the 3 rd exit onto Angove Road. At the roundabout take the 1 st exit onto Campbell Road then at the next roundabout take the 3 rd exit to North Road. After 1km turn left onto Sanford Road, then turn right and follow the road to the Leisure and Aquatic Centre carpark		
Secondary route to location	No secondary route		

Primary transportation arrangements

Visitors will have transport adequate for all members of their party.

Estimated travelling time to destination 12 minutes

Secondary off-site location

Name of venue	Boat Harbour Carpark Swarbrick Street – assemble at the Emergency Assembly Point		
Address of venue	Emu Point Boat Harbour Swarbrick Street		
Nearest cross street	Miller Street	Map reference	2W4V+6P Emu Point
Primary route to location	Head south towards Swarbrick Street – assemble at the Emergency Assembly Point (adjacent public boat ramp). Take evacuation equipment.		
Secondary route to location	na		

Secondary transportation arrangements na

Estimated travelling time to destination 1 minutes (pedestrian)

Shelter-in-Place

The **primary action** to follow if there is an imminent bushfire threat is to **EVACUATE** following confirmation (DFES or emergency services) that a safe evacuation route is available.

Designate Onsite Building: the Restuarant

Shelter in place is not recommended and should not be required, however, if DFES or emergency services have advised it is too late to leave, visitors should assemble in the restaurant with ready access to an exit.

EMERGENCY RESPONSE

Procedures for evacuation and shelter-in-place in the event of a bushfire.

Trigger	Action	Responsible Person
EVACUATE		
DFES have advised to evacuate and Emu Point Drive is safe A Fire is observed to the East	Instruct visitors on evacuation destination Obtain visitors contact information (mobile phone details). Evacuate visitors by private vehicle to Albany Leisure and Aquatic Centre 52-70 Barker Rd, Centennial Park - or to home destinations if safe. Account for all visitors reaching their destinations.	Chief Warden Emergency Management Team
DFES have advised Emu Point Drive is unsafe A fire is advised or observed to be approaching from the west	Instruct visitors on evacuation destination Obtain visitors contact information (mobile phone details). Evacuate on foot to the Emergency Assembly Point, Swarbrick Street Boat ramp. <ul style="list-style-type: none"> - Issue the emergency evacuation equipment to visitors (bath or beach towel and bottled water). - Account for all visitors from the restaurant and the aquaculture facility - Move on foot to the Emergency Assembly Point - As the fire approaches cover head and mouth with bath or beach towel for protection and to filter smoke. - Move to avoid uncomfortable radiant heat. - Keep hydrated. - Monitor the fires passing. - Return to the restaurant if safe to do so and evacuate the locality when declared safe. - Account for all visitors 	Chief Warden Emergency Management Team

REPORT ITEM DIS253 REFERS

SHELTER IN PLACE		
<p>DFES advise it is too late to Leave</p> <p>The fire has arrived at the site from the west</p>	<p>Instruct visitors on evacuation destination</p> <p>Obtain visitors contact (mobile phone details).</p> <p>Implement Survival Procedures (from the DFES Homeowners Bushfire Survival Manual).</p> <ul style="list-style-type: none"> - Close all doors and windows - Block smoke ingress. - Move to avoid radiant heat through western windows. - Observe the fires passing. - Keep calm and stay hydrated. - Monitor the building condition for ignitions. <p>Do not stay in a burning building.</p> <ul style="list-style-type: none"> - When the fire front has passed, exit the building via an east facing exit - Avoid radiant heat. - Assemble visitors in a clear space separated from flammable objects. - use fire equipment to attend to any small ignitions on or around the building. <p>If there is no sign of fire in the building</p> <ul style="list-style-type: none"> - When the fire front has passed, exit the building via an east facing exit - Inspect the building and use fire equipment to attend to any small ignitions on or around the building. - Determine the building is safe - Monitor the building condition for ignitions. - Evacuate visitors from the area when safe to do so. - Account for all visitors. 	<p>Chief Warden</p> <p>Emergency Management Team</p>

RECOVERY

Action	Responsible Person
Account for all visitors	Chief Warden
Inspect building; declare safe to return or stay	Chief Warden
Evacuate visitors from the fire ground when safe as advised by DFES or when an All Clear is publically advised.	Chief Warden
Debrief <ul style="list-style-type: none"> – assess the severity of the event – would the actions taken be sufficient to ensure the safety of staff and visitors in an extreme event – were there any unexpected problems not accounted for in the existing emergency plan – update the emergency plan to include any learnings from the event 	Emergency Planning Committee with the Emergency Management Team

Attachment 1 – Emergency Plan and Evacuation Map

FACILITY DETAILS		EMERGENCY WARNINGS (DFES)																
<div>Location - Boat Harbour, Emu Point</div> <div>Facility – Restaurant</div> <div>Visitors – Maximum 100</div>																		
<table><tr><th>CONTACT PERSONS</th><th>ROLE</th><th>CONTACT NO.</th></tr><tr><td></td><td>Chief Warden</td><td></td></tr><tr><td></td><td>Area Warden</td><td></td></tr><tr><td></td><td>Area Warden</td><td></td></tr><tr><td></td><td>Area Warden</td><td></td></tr></table>		CONTACT PERSONS	ROLE	CONTACT NO.		Chief Warden			Area Warden			Area Warden			Area Warden			
CONTACT PERSONS	ROLE	CONTACT NO.																
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<table><tr><th>Chief Warden</th><th>Area Wardens</th></tr><tr><td><ul style="list-style-type: none">Determine with DFES/emergency services that safe evacuation is available.advise visitors to evacuate due to an emergency warning and confirm the evacuation destination and routeManage orderly evacuation from the site and ensure all visitors have been accounted for.Remain contactable (mobile phone) at all times.Assess and monitor the building condition for occupancy .</td><td><ul style="list-style-type: none">Ensure all visitors are accounted for.Guide visitors in an orderly manner.Maintain communication and keep visitors calm.Keep visitors together until evacuation occurs.Remain contactable (mobile phone) at all times.Account for visitor whereabouts and confirm to the Chief Warden when visitors have safely evacuated.</td></tr></table>		Chief Warden	Area Wardens	<ul style="list-style-type: none">Determine with DFES/emergency services that safe evacuation is available.advise visitors to evacuate due to an emergency warning and confirm the evacuation destination and routeManage orderly evacuation from the site and ensure all visitors have been accounted for.Remain contactable (mobile phone) at all times.Assess and monitor the building condition for occupancy .	<ul style="list-style-type: none">Ensure all visitors are accounted for.Guide visitors in an orderly manner.Maintain communication and keep visitors calm.Keep visitors together until evacuation occurs.Remain contactable (mobile phone) at all times.Account for visitor whereabouts and confirm to the Chief Warden when visitors have safely evacuated.													
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<div>INFORMATION SOURCES</div> <div><div>Local ABC radio630 am</div><div>DFES information line13 33 37</div><div>Emergency WAwww.emergency.wa.gov.au</div><div>Bureau of Meteorology1300 659 213</div></div>																		
<div>EMERGENCY CONTACTS</div> <div>Fire, Police or Ambulance 000 (112 from a mobile)</div>																		

YOUR LOCATION IS**Boat Harbour****Emu Point****1. IF YOU ARE TOLD TO LEAVE**

EVACUATE BY VEHICLE TO
ALBANY LEISURE AND AQUATIC CENTRE
 52-70 BARKER ROAD, CENTENNIAL PARK
OR AS OTHERWISE ADVISED BY DFES (directly
 or via publicly broadcast information and
 warnings)

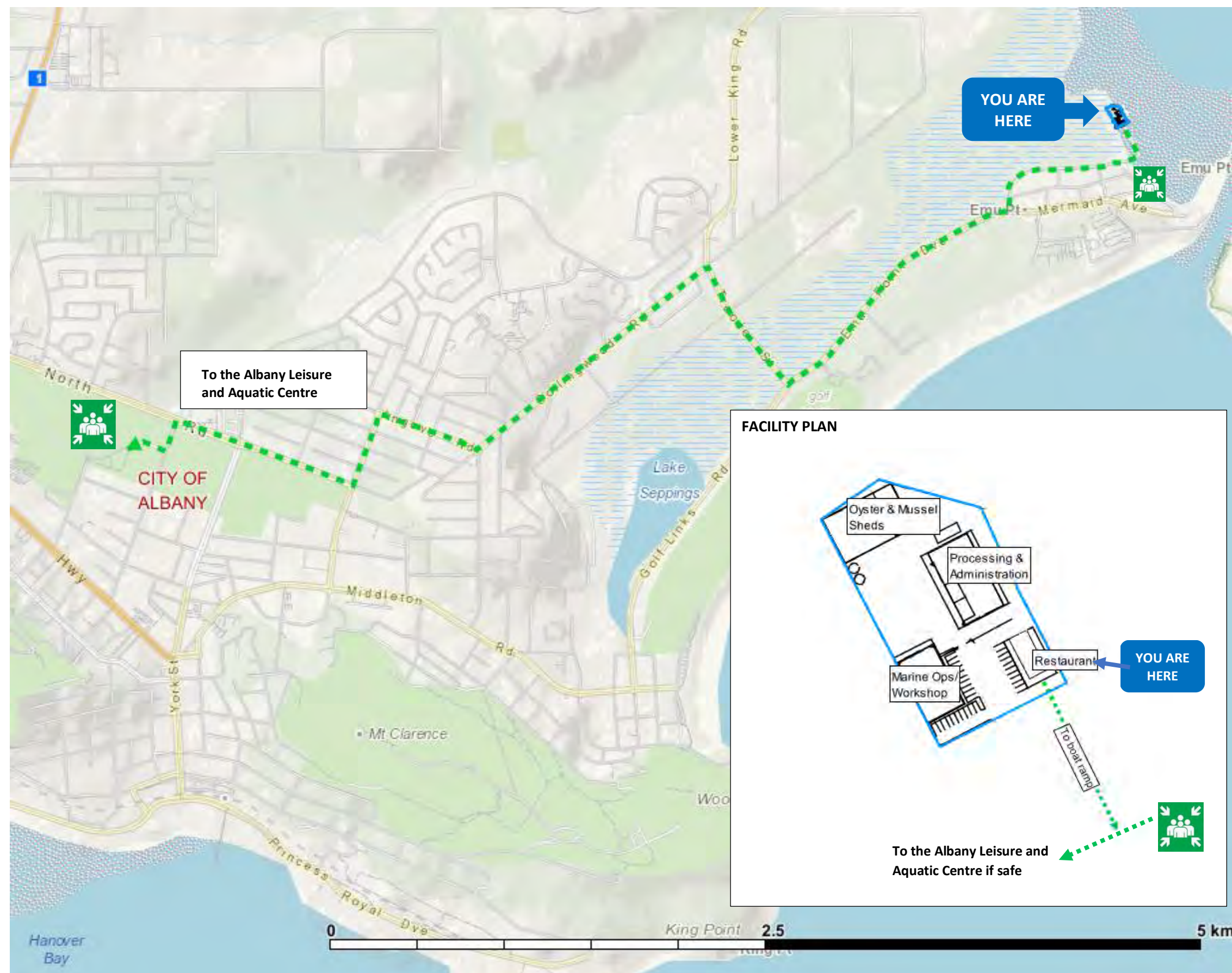
2. Close all windows and doors (staff)
3. Evacuate by vehicle from the Boat Harbour
 to Albany via Swarbrick Street – Emu Point
 Drive - Troode Street – Collingwood Road –
 Angove Road – Campbell Road – North
 Road
DO NOT TRAVEL THROUGH FIRE.
4. Monitor emergency information
 - a. ABC Local radio 630 am
 - b. DFES on 13 33 37
 - c. Emergency WA -
www.emergency.wa.gov.au

1. IF YOU SEE SMOKE**2. IF YOU SEE FIRE****PHONE 000 or 112 (mobile)**

**Describe your location and where the smoke
 or fire is.**

**If advised it is not safe to travel along Emu
 Point Drive**

1. Evacuate to the Emergency Assembly Point
 at the Swarbrick Street boat ramp.
2. Cover head with a towel provided by the
 restaurant.
3. Keep hydrated.
4. Monitor emergency information
5. Return to restaurant if safe
6. Evacuate site when Emu Point Drive is
 declared safe.

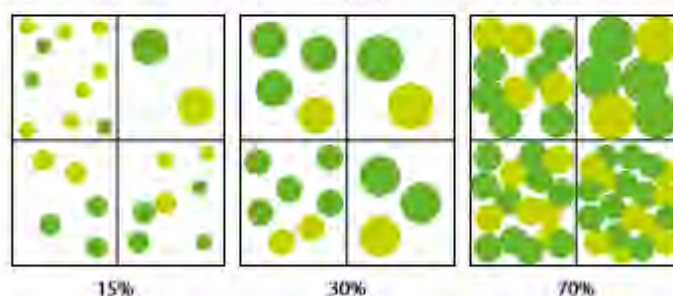


APPENDIX 3 - APZ Guidelines

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT**SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES**

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover = ranging from 15 to 70 per cent at maturity

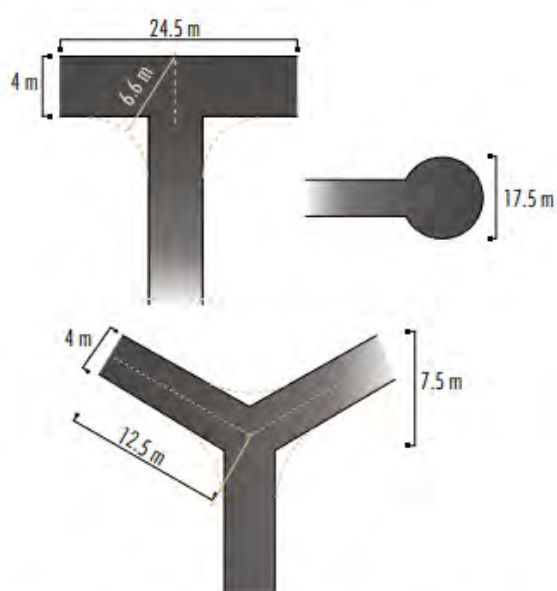


- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

APPENDIX 4 – Access Standard

Table 6: Vehicular access technical requirements

TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5

**Figure 22:** Design requirements for a private driveway longer than 50 metres

Turning areas should allow type 3.4 fire appliances to turn safely

APPENDIX 5 – Water Tank

Specification for Water Tanks

A capacity of not less than 10,000 L is maintained solely for fire-fighting purposes.

The water supply must be stored in an above ground water tank constructed of concrete, steel or corrugated iron.

The water supply outlet/s must be fixed to the water tank.

The outlets should provide a gate valve with 100 mm cam loc fitting, with a 50 mm adaptor for use by the brigade.

All fixed above-ground water pipelines and fittings must be of non-corrodible and non-combustible materials.

Be located so that fire brigade vehicles are able to get to within 4 metres of the water supply outlet

The water supply must be readily identifiable.

APPENDIX 6 – References

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Appendix D – Waste Management Plan



waste less, achieve more

Lot 501 25 Swarbrick St, Emu Point

Waste Management Plan

31 August 2020

Project No. 20-1067

Rev_2

Harvest Road Oceans (Tattarang Pty Ltd)



waste less, achieve more

Encycle Consulting Pty Ltd

ABN 41 129 141 484

Level 1, 76 Roberts St
Osborne Park WA 6017
PO Box 6044
East Perth WA 6892

t: +61 8 9444 7668

gbusby@encycle.com.au

www.encycle.com.au

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Rev_0	G Busby	J Campbell	27 August 2020
Rev_1	G Busby	J Campbell	28 August 2020
Rev_2	G Busby	J Campbell	31 August 2020

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Table of contents

Glossary of terms and acronyms	4
1 Introduction	5
1.1 Context	5
1.2 Key components of the WMP	6
2 Estimated waste and recycling volumes.....	7
2.1 Future tourist / aquaculture facility administration waste and recycling quantities....	7
2.2 Aquaculture processing facility – ‘on land’ waste generation	8
2.3 Bin number and type of bins required for development.....	9
2.3.1 Future tourist facility – bin compound	10
2.3.2 Seafood processing facility – bin storage area.....	10
3 Bin storage areas and amenity.....	12
3.1 Bin storage areas	12
3.2 Bin storage area amenity	13
4 Internal transfer	14
5 Collection and vehicle access.....	15
5.1 Collection.....	15
5.2 Vehicle access.....	15
6 Ongoing communication and management.....	17
6.1 Management	17
6.2 Communication.....	17
Table 1: Waste & recycling volumes - future tourist facility / aquaculture administration	7
Table 2: Number & size of bins to be stored - future tourist facility	10
Table 3: Number & size of bins to be stored - seafood processing / administration.....	11
Table 4: Number & size of bins to be stored - seafood processing shell waste	11

Glossary of terms and acronyms

Biofoul	Biofoul refers to the spread of marine pests to new areas. Seaweeds, fish, invertebrates, parasites and pathogens can be spread to new areas by release of ballast water from commercial ships, biofouling of vessels and equipment, accidental or deliberate release of imported species, and for the purposes of this project, the translocation of biofouling on aquaculture stock and equipment
Cart	Wheeled, open top bin often used for bulky items such as cardboard
Commingled recycling	Common recyclables, mostly packaging; such as glass, plastics, aluminium, steel, liquid paper board (milk cartons). Commingled recycling may include paper but often, and particularly in offices, paper and cardboard are collected separately.
General waste	Material that is intended for disposal to landfill (or in some States, incineration), normally what remains after the recyclables have been collected separately.
MGB	Mobile Garbage Bin – A wheeled bin with a lid often used for kerbside collection of waste or recyclables. (Often called a 'wheelie bin').
MRB	Mobile Recycling Bin – A wheeled bin ("wheelie" bin) with a lid often used for kerbside collection of recyclables (similar to an MGB). Generally have a different colour body and/or lid to MGBs.
Organic waste	Separated food and/or 'green' material (e.g. grass clippings or vegetation prunings).
Recyclable	Material that can be collected separately from the general waste and sent for recycling. The precise definition will vary, depending upon location (i.e. systems exist for the recycling of some materials in some areas and not in others).
Recycling	Where a material or product undergoes a form of processing to produce a feedstock suitable for the manufacture of new products.
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).
Spat	Oyster larvae attached to a surface, such as other oyster shells, is known as spat. After several generations and growing into adults, dense oyster clusters are formed known as oyster reefs or beds
tpa	Tonnes per annum

1 Introduction

This Waste Management Plan (WMP) has been prepared for Harvest Road Oceans for the Development Application for the proposed seafood processing facility for oysters, akoya and mussels; inclusive of processing areas, amenities, nursery, sheds, workshops and the proposed 'future tourism facility' at Lot 501 25 Swarbrick Street, Emu Point, Albany.

This WMP has been prepared based on the following information:

- Architectural plans provided by SK4.01 Rev C on 27 August 2020
- Review of 'Waste Management Design Brief' (Encycle, August 2020)
- Emu Point proposed aquaculture facility, August 2020 (presented by Harvest Road Oceans to City of Albany on 13 August 2020)
- City of Sydney Policy for Waste Management in New Developments (2018)
- Correspondence with Mark Allsopp, Harvest Road Oceans regarding processing operations
- Correspondence with NSW Department of Planning and Infrastructure regarding mortality rates of oysters / mussels (note: general discussion on industrial facility)
- Conversation with Jan Van Der Mescht – City of Albany regarding council waste management requirements on 29 June 2020
- City of Albany 'Local Planning Scheme No.1', section 4.8.8

The WMP has been developed for the servicing of waste and recyclables by a private waste service provider from the proposed seafood processing and future tourism facility.

1.1 Context

For efficient and effective waste management, the collection of seafood processing waste, general waste and recyclables has been considered at the facility design phase. Key factors considered include:

- The types and volumes of processing wastes that will be produced from operations
- The volumes of general waste and recyclables likely to be generated during administration operations and from the proposed future tourist facility
- Size of bin storage areas
- Access to bins and storage areas from within the building
- Safety for all operatives involved in waste management
- Access for trucks for waste collection
- Secure from unauthorised access
- Amenity (odours, noise and traffic movements)
- The ongoing management of waste and recycling services

Section 4.8.8 of the City of Albany 'Local Planning Scheme No.1' has also been considered in this WMP with relevance to:

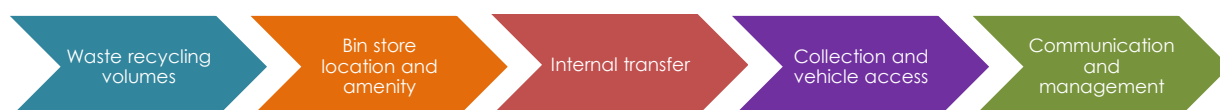
- The City requiring areas for bin and refuse storage
- Bin store areas to be:
 - Located, constructed / drained, paved and screened from public view to the satisfaction of the local government
 - Permanently retained for that exclusive use
- No person shall alter any bin store forming part of an approved development without having first obtained the subsequent planning approval of the local government

Further to the above, 'Development Control Guidelines: Operational Waste Management – for Industries' (Lake Macquarie City Council, 2019) for 'Sustainable Aquaculture' were reviewed for management of shell waste from processing operations. Additional factors considered in the design of the seafood processing facility for best practice waste management included:

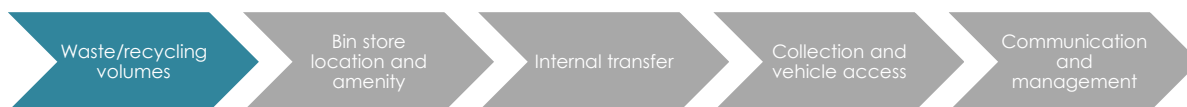
- Enclosed design of bins / bin stores to prevent access by rodents and / or insects with the potential to be disease vectors
- Shell waste that includes dead animals / shell meat is not to be left lying around, buried or cremated on site (with the exception of waste to energy, waste treatment, hot composting systems or similar)

1.2 Key components of the WMP

This WMP consists of five core components. This report presents detailed information on each of the following components.



2 Estimated waste and recycling volumes



2.1 Future tourist / aquaculture facility administration waste and recycling quantities

The City of Sydney Policy for Waste Management in New Developments (2018) and Encycle's experience and knowledge of the potential use of the buildings have been used as a basis for estimating waste generation rates for the proposed 'future tourist facility' and administrative areas of the aquaculture facility.

For the purposes of waste generation, the 'future tourist facility' is assumed to be a fully licensed restaurant with a commercial kitchen. This allows for sufficient planning for the bin compound size to accommodate higher waste generation rates pending finalisation of the building function. The generation rates used are set out in Table 1.

The last column in Table 1 presents Encycle Consulting's in-house estimate of the material streams present in the recycling stream based on our working experience of operational buildings across Australia.

Table 1: Waste & recycling volumes - future tourist facility / aquaculture administration

Premises type	Waste generation rate	Recycling generation rate	Percentage breakdown of recycling stream by material
Restaurant	6.7 L /1m ² /day	1.3 L /1m ² /day	50% cardboard 40% commingled 2% soft plastics 10% cooking oil 100% glass (in addition)
Retail <100m ²	0.5 L /1m ² /day	0.25 L /1m ² /day	50% cardboard 40% commingled 10% soft plastics
Production admin office	0.1 L /1m ² /day	0.1 L /1m ² /day	79% paper 14% cardboard 2% soft plastics 7% commingled
Production meeting space	0.1 L /1m ² /day	0.1 L /1m ² /day	79% paper 14% cardboard 2% soft plastics 7% commingled
Production lunch room	0.1 L /1m ² /day	0.1 L /1m ² /day	79% paper 14% cardboard 2% soft plastics 7% commingled

2.2 Aquaculture processing facility – ‘on land’ waste generation

To assess solid waste streams and estimate waste generation rates for the aquaculture activities ‘on land’, Encycle contacted NSW Department of Planning and Infrastructure (DPI) and the WA Department of Planning Industries and Primary Research (DPIRD) to:

- Determine types of waste produced from an industrial aquaculture facility and how it is generally managed (i.e. shell waste and biofoul)
- Ascertain average rates for mortality of oysters, akoya and mussels from industrial scale production (i.e. production at 700 hectares (ha))
- Obtain general shell weights and conversion factors (tonnes to cubic metres) for oyster shells

The sections below discuss seafood processing waste streams and their management.

Shell waste

Processing of the oysters, akoya and mussels ‘on land’ will involve predominantly a bulk handling process for shipment of shell fish to end markets and for packaging at an upstream facility, thereby minimising generation of shell waste at the proposed aquaculture facility.

The shellfish that does not meet grade (i.e. oysters, akoya and mussels that are undersized) will be re-deployed into baskets and grown to market size. Discussion with Harvest Road Oceans and DPIRD indicated that there would be insignificant amounts of broken shells with meat remaining, as the meat will be consumed by other marine life prior to extraction from the water. Shellfish that have been damaged and partially consumed by other marine life will be disposed at sea at the Tattarang ‘leases’ when baskets are being brought out of the water and checked.

Discussion with NSW DPI and DPIRD indicated that for an industrial aquaculture facility a 1% mortality on production for market size oysters (i.e. 50 grams) could be attributed to calculate shell waste weight. Consequently, 1% of mortality on production tonnes has been applied for oysters and akoya to derive the shell waste weight (at 700 ha). Whilst waste oyster shells will be lighter given that biomass will probably be consumed by other marine life prior to being processed ‘on land’, using 1% provides for a conservative estimate for the adequate provision of waste management receptacles.

Discussion with NSW DPI and Harvest Road Oceans indicated that mussel shell generation rates would comprise higher shell waste rates than oysters, given that they have more brittle shells than oysters. Given that best practice is to be implemented in terms of the aquaculture operations, and given that other marine life will consume the biomass prior to being processed ‘on land’, a 3% estimate has been applied for mussel shells to the overall production tonnes (at 700 ha).

Bio-foul

Bio-foul refers to the spread of marine pests to new areas. Mussel and akoya bio-fouling will be stripped off the crop by equipment at sea and mussel and akoya crop will also be washed at sea. Rock oysters will be grown in an intertidal system that enables the oyster baskets to be lifted out of the water each day, therefore minimising any bio-fouling and allowing it to be washed into the sea. Harvest Road Oceans propose to employ best practice processing and

harvesting equipment and techniques; thereby reducing mortality rates, and mitigating generation of bio-foul and shell waste.

Non-sterilised waste

Any non-sterilisable items contaminated with contagious or zoonotic pathogens (such as contaminated gloves, eyewear, masks, gowns, head covers, earplugs and other personal protective equipment) are to be separated into containers or suitable bags in the bio-secure area, clearly labelled and separately stored in a 240 L MGB in the bin storage area.

Packaging

The mussels will be transported in bulk fish bins and the akoya and oysters in hessian oyster bags within refrigerated transportation vehicles. Shellfish is to be marketed directly from outlets and / or packaged in an upstream facility located closer to metropolitan Perth. Consequently, there will be no packaging waste streams generated from processing or transport activities.

Workshop

The function of the workshop will be for the storage of processing and marine equipment. No maintenance, boat repair or building activities will be undertaken and consequently no generation of hydrocarbons or other waste streams will be produced.

2.3 Bin number and type of bins required for development

The development will be undertaken in a staged approach as summarised below:

- Stage 1: Construction of nursery, oyster and mussel shed, pump station, sea water intake and discharge, hardstand and stormwater infrastructure, berthing (and dredging) and fencing
- Stage 2: Demolition of existing brick building, construction of processing facility, amenities, office, and workshop
- Stage 3: Construction of tourism facility and improvements to car park

As stage 3 will involve development of the 'future tourist facility', two (2) bin storage areas are proposed for the development:

1. Bin storage area to service the proposed 'future tourist facility', which is designed for waste generation rates for a fully licensed restaurant (identified as 'bin compound')
2. Bin storage area to service the seafood processing operations and administration

The number and types of bins to be stored in the bin storage areas are detailed in the following sections. The number and types are to accommodate twice-weekly collections, as per the following considerations:

- The potential impacts of seasonality on the proposed tourist facility
- Variances in production rates at the aquaculture processing facility

- Current collection frequencies by commercial service provider/s to the Emu Point location are twice-weekly
- Increased costs if daily collections were required to the Emu Point location
- Increased heavy vehicle movements to the Emu Point location if daily collections occurred
- Reduced likelihood of odours given the nature of bulk processing activities and consumption of shell meat by other marine life from damaged / broken shells prior to being brought to 'land'
- By designing for twice-weekly collections, the design will accommodate more frequent collections if required, thus future-proofing the facility

More frequent collections are possible (i.e. daily collections). Increased collections for the waste streams from the proposed 'tourist facility' may need to be considered pending the function of the tourist facility and impact of seasonality. Increased collections for the seafood processing shell waste may be required in the event of any extreme weather events or disease impacts, or any potential odour management requirements.

2.3.1 Future tourist facility – bin compound

The bin numbers that can be accommodated in the bin compound for the proposed 'future tourist facility' (assuming a fully licensed restaurant) are presented in Table 2.

Table 2: Number & size of bins to be stored - future tourist facility

	Bin size (L)	Number of bins	Collection frequency
General waste	660	8	Twice weekly
Commingled recycling	240	2	Twice weekly
Cardboard	660	1	Twice weekly
Glass	240	4	Twice weekly
Soft plastic	240	1	As required
Used cooking oil	200 L tank	1	As required
Polystyrene	660	1	As required

2.3.2 Seafood processing facility – bin storage area

Table 3 details the type and number of general waste and recycling mobile garbage bins (MGBs) and Table 4 details MGBs required for the storage of shell waste, and are summarised below:

- General waste: 2 x 240 L MGBs
- Comingled recycling: 1 x 240 L MGB
- Shell waste (treated as general waste): 2 x 660 L MGBs

Table 3: Number & size of bins to be stored - seafood processing / administration

	Bin size (L)	Number of bins	Collection frequency
General waste*	240	2	Twice-weekly
Commingled recycling	240	1	Twice-weekly
Total		3	

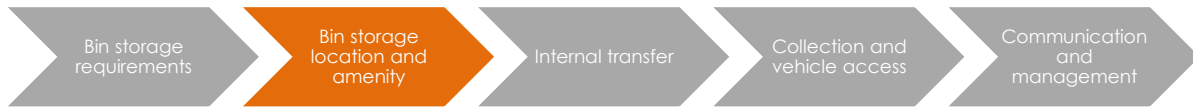
* Separate general waste bin for bagged, non-sterilised items from bio secure area (i.e. gloves, eyewear, masks, gowns, head covers, earplugs and other personal protective equipment).

Table 4: Number & size of bins to be stored - seafood processing shell waste

Production species	Total shell weight	Mortality rate	Total waste shells		Number of bins for collection frequency
Unit measure	<i>tpa</i>	% production <i>tpa</i>	<i>tpa</i>	Litres (L)*	
Rock oysters	2,285	1%	23		2 x 660 L general waste bins for twice-weekly collections OR 1 x 660 L general waste bin for daily collection
Akoya	1,845	1%	18		
Mussels	1,705	3%	51		
Total	5,835		92 tpa	92,000 L (approx.)	

*NSW DPI advised that 1 tn of oyster shells can fit adequately in 1 m³ (1,000 L) 'bulka bag'.

3 Bin storage areas and amenity



3.1 Bin storage areas

The development will have two bin storage areas to allow for the storage and collection of:

1. General waste and recyclables from the future tourist facility, based on fully licensed restaurant with commercial kitchen (bin compound will be constructed in Stage 3 and located north of the tourist facility)
2. Seafood processing shell waste, general waste from bio secure area, and general waste and recyclables from processing administration areas, located north of the north of the processing building.

The bin compound will be enclosed and screened from public view (in accordance with City of Albany, 'Local Planning Scheme No.1' section 4.8.8), and lidded bins will be provided at the processing facility. Hot and cold water services are to be made available for washing bins.

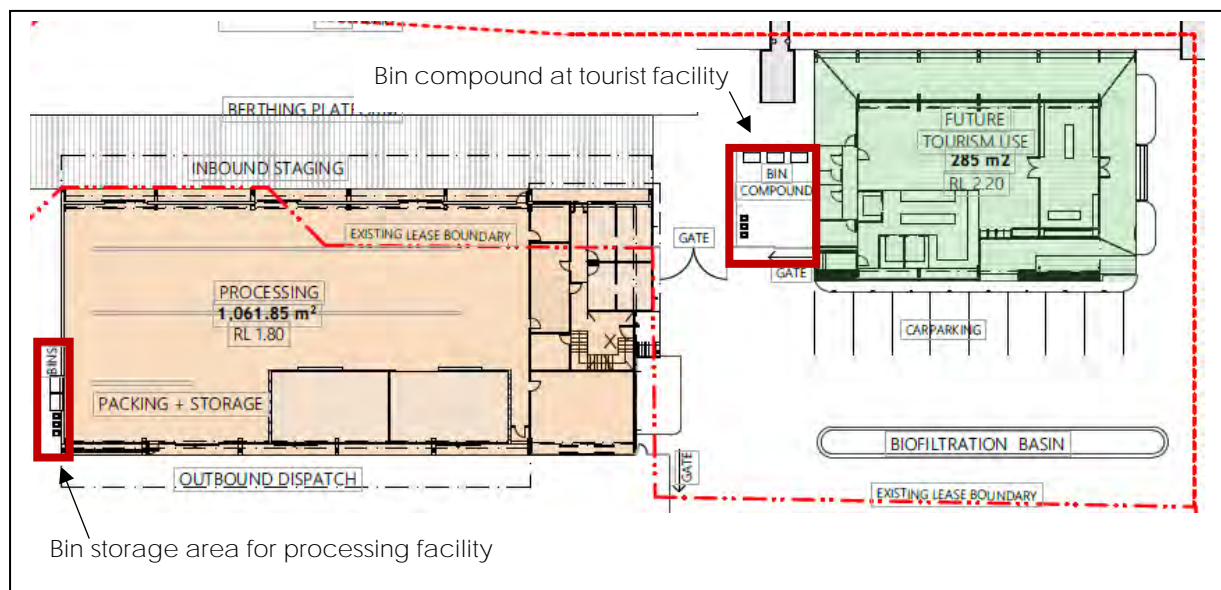
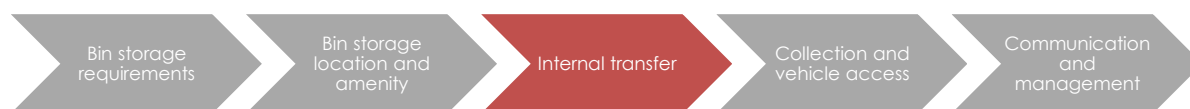


Figure 1: Bin storage areas

3.2 Bin storage area amenity

Bin Transfer	
Aisle door and lift width:	All doors and corridors on the transfer route are designed for the largest bin to fit through.
General health and safety:	Waste systems are designed to ensure that bins (particularly when full) are not required to be moved over any significant distances, up/down steep ramps (grade of slope <1:20) and definitely avoid stairs or other potential hazards.
	Manual handling of waste in garbage bags is excluded from the waste management systems where possible.
Bin compound	
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 compound walls and ceilings:	All internal walls in bin compound will be designed 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.
Ventilation and odour:	The design of bin compound 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 compound.
Vermin:	Self-closing doors to the bin compound will be installed to eliminate access by vermin.
Lighting:	Bin compound will be provided with artificial lighting, sensor or switch controlled both internal/external to the room.
Fully enclosed:	Lidded bins will be stored at the bin storage areas. The bin compound will be fully enclosed and only be accessible by delegated staff, site supervisor (or similar) and the waste service provider.
Aesthetics:	The bin compound will be consistent with the overall aesthetics of the development.
Signage:	Visual aids and signage will be provided to ensure that the bin storage areas work as intended, and appropriate waste streams are disposed in correct bins.

4 Internal transfer



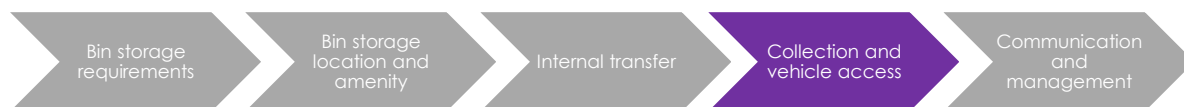
Staff from the proposed 'future tourist facility' will manually transfer general waste and recyclables from work areas to the bin compound.

Operational staff assessing and handling processing of oysters, akoya and mussels will dispose of shell waste from the processing areas or directly from baskets and dispose of to 660 L MGBs stored north of processing building.

Any non-sterilisable items contaminated with contagious or zoonotic pathogens (such as contaminated gloves, eyewear, masks, gowns, head covers, earplugs and other personal protective equipment) will be separated into containers or suitable bags in the bio-secure area and transferred by a delegated staff member, to a designated and appropriately labelled general waste MGB stored north of processing building.

Cleaners and / or delegated staff will transfer waste and recyclables from the administration, lunch room and meeting space to the relevant general waste or recycling MGB stored north of the processing building. Once the bin compound is constructed, waste from these areas could be disposed to the general and recycling bins as an alternative option.

5 Collection and vehicle access



5.1 Collection

A commercial service provider will service the general waste and recycling bins.

On collection days, rear lift vehicles for each waste and recycling stream will enter the site, driving in a forward motion and in accordance with the vehicle 'swept path' (refer Appendix A). It is recommended that bin collections are scheduled for the early morning (before 7am if possible). This collection regime will mitigate safety risks and minimise potential amenity impacts to customers of the tourist facility.

To service the bin compound at the future tourist facility, the vehicles will drive in a forwards motion and park adjacent and west of the bio-filtration basin. To mitigate safety risks, the rear lift vehicles will not reverse and park adjacent to the bin compound. The operatives will retrieve and service the bins, and replace the empty bins to the bin compound.

Access to the grease trap for the 'future tourism facility' will be located adjacent to the building and accessed at stage 3 of the development.

To service the bins located north of the processing facility, the vehicles will drive in a forwards motion and park adjacent to the bin storage area. The operatives will retrieve and service the bins and return empty bins to the bin storage area.

5.2 Vehicle access

Figure 2 and 3 show the collection points and where the waste vehicles will stop to service the bins. The information provided below outlines rear-lift vehicles dimensions for a private service provider to the Emu Point area. The truck 'swept path' is presented in Appendix A for the site.

Rear-lift vehicles servicing bins

Dimension	Cleanaway
Truck length – travel (m)	8
Truck width (m)	3
Vehicle height (travel) (m)	3.5
Vehicle height (during bin lifting) (m)	3.4
Turning Circle (m)	17.7
Max weight (t)	23.5

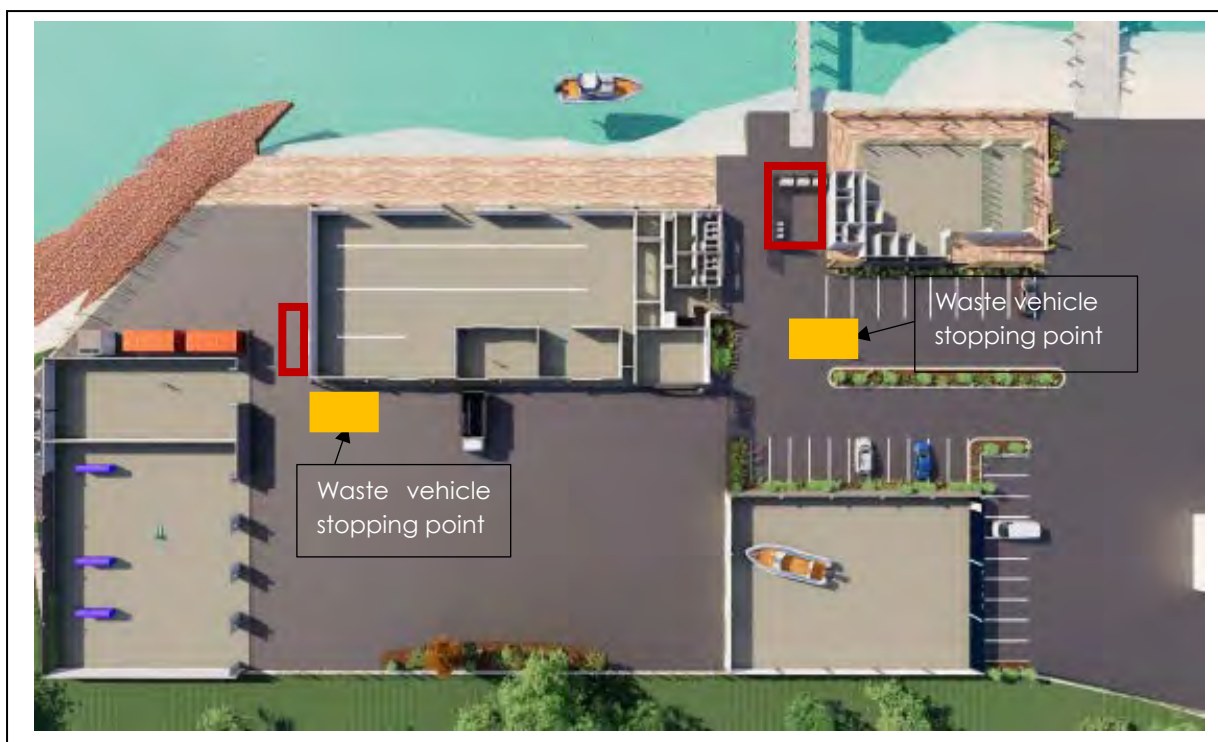
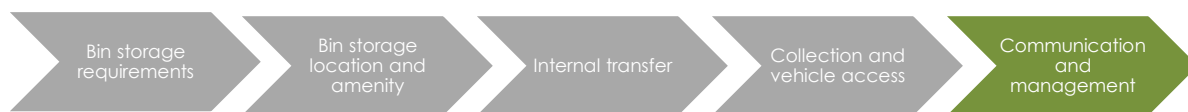


Figure 2: Waste collection vehicle stopping points



Figure 3: Waste vehicle stopping point on 'swept path' drawing

6 Ongoing communication and management



6.1 Management

A delegated staff member will be responsible for overseeing the waste management systems. Staff will be trained and informed about their responsibility to work closely with the waste service providers regarding the schedule for servicing of the bins. The staff member will be responsible for maintaining the bins storage areas and bin compound in a clean and tidy condition at all times and ensuring bins are washed regularly.

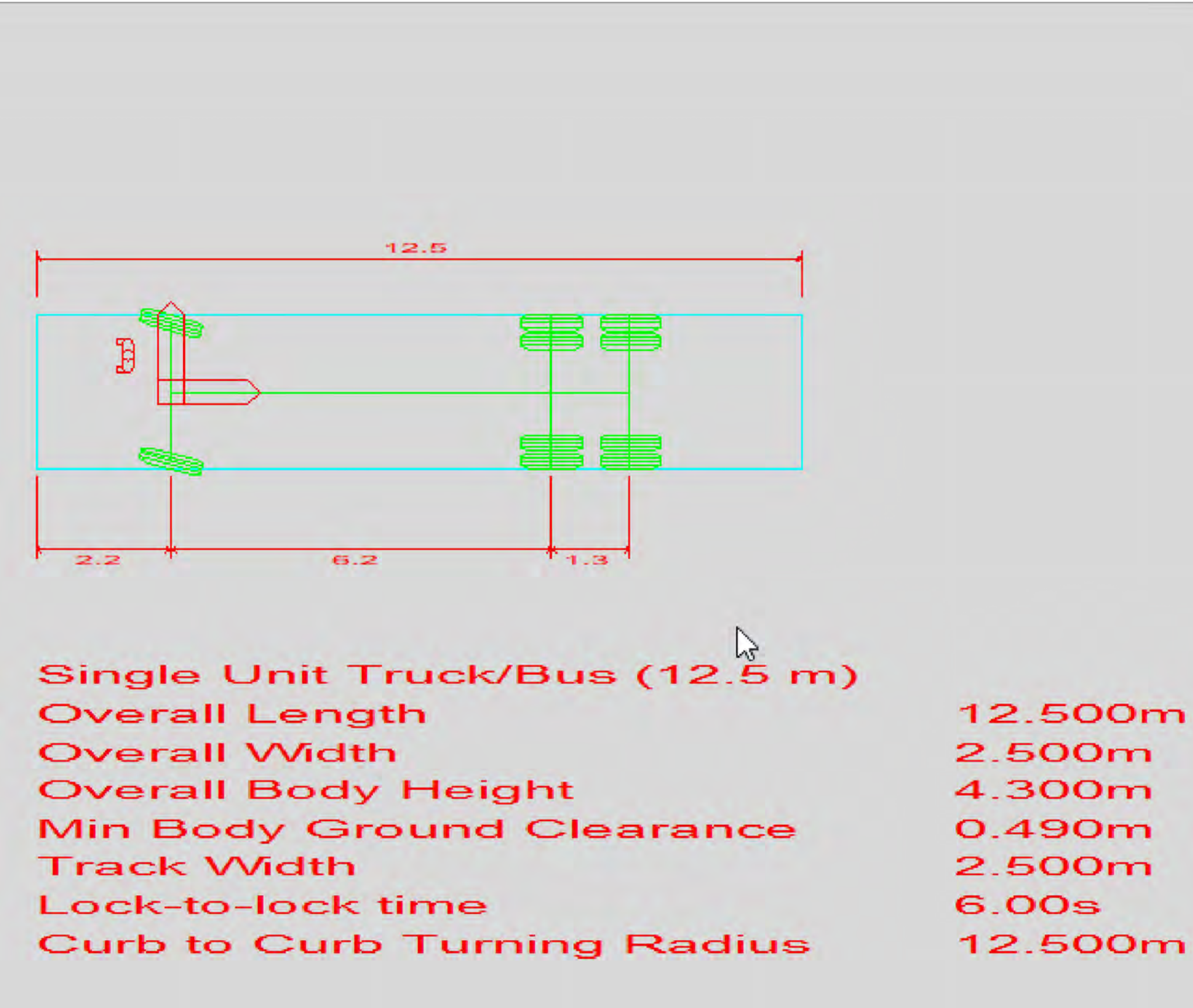
6.2 Communication

All staff will be made aware by management / aquaculture processing site supervisor (or equivalent) of the waste and recycling systems and how they should be used. Management / site supervisor will be responsible for the continuing education and communication of staff on correct segregation of waste and recyclables, general waste from the bio secure area and storage of shell waste from processing operations.



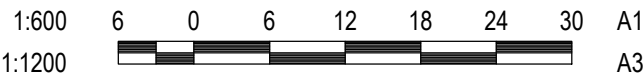
VEHICLE TYPE

AUSTROADS 2013 SINGLE UNIT TRUCK.



LEGEND

- s — PROPOSED PRESSURE MAIN
- - - s - EXISTING SEWER
- - - w - EXISTING WATER
- PROPOSED PARKING BAYS



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HAVEST ROAD OCEANS

OYSTER FARM EMU POINT, ALBANY
TRUCK SWEPT PATH

REV	DESCRIPTION	DRAWN	APPD	DATE
C	TRUCK SWEPT PATH AND PARKING BAYS AMENDMENTS	JD	FW	25/08/2020
B	PRELIMINARY SKETCH - TRUCK SWEPT PATH AMENDMENTS	JD	FW	12/08/2020
A	PRELIMINARY SKETCH	JD	FW	28/07/2020



SCHEMATIC DESIGN
NOT FOR CONSTRUCTION
CIVIL

MGA	mAHD	1:600	47289	CI-059-SK02	C
COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV

Appendix E – Coastal Hazard Assessment

R1419 Rev 0**August 2020****Tattarang****Emu Point****Preliminary Coastal Hazard Assessment**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

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m p rogers & associates pl

creating better coasts and ports

Suite 1, 128 Main Street, Osborne Park, WA 6017

p: +618 9254 6600

e: admin@coastsandports.com.au

w: www.coastsandports.com.au

K1789, Report R1419 Rev 0

Record of Document Revisions

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0	Issued for Client use	K Worth	T Hunt	T Hunt	18/08/2020

Form 035 18/06/2013

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Table of Contents

1. Introduction	4
2. Site Conditions & Development	6
3. Preliminary Coastal Hazard Assessment	7
3.1 Coastal Erosion Hazards	7
3.2 Coastal Inundation Hazards (S4 Allowance)	14
4. Coastal Risk Management & Adaption Strategy	17
4.1 Proposed Coastal Management Strategy	17
5. Conclusion	20
6. References	21
Appendices	22
Appendix A Coastal Erosion Hazard Lines	23

Table of Figures

Figure 1.1	Location Plan	5
Figure 2.1	Emu Point Boat Harbour	6
Figure 3.1	SBEACH Profile Location & Alignment	9
Figure 3.2	SBEACH Results	10
Figure 3.3	Emu Point Boat Harbour 2017 (Left) & 2020 (Right)	11
Figure 3.4	Recommended Allowance for Sea Level Rise (DoT 2010)	12
Figure 3.5	Coastal Erosion Hazard Lines	14
Figure 3.6	Storm Surge Components	15
Figure 4.1	Risk Management & Adaption Hierarchy	17

Table of Tables

Table 3.1	Storm Event Conditions	8
Table 3.2	Sea Level Rise Allowances	12
Table 3.3	S3 Shoreline Recession Due to Sea Level Rise Allowances	13
Table 3.4	Summary of Allowances for Coastal Erosion Hazards	13
Table 3.5	S4 Inundation Levels	15
Table 4.1	Risk Adaptation & Mitigation Options for Coastal Erosion	18
Table 4.2	Risk Adaptation & Mitigation Options for Coastal Inundation	18

1. Introduction

Emu Point is located to the east of the Albany town centre on the south coast of Western Australia. Tattarang are proposing to develop an aquaculture and tourism facility at the existing Emu Point boat harbour which would be leased from the City of Albany (City). Figure 1.1 presents the location of the development site.

Tattarang have engaged specialist coastal engineers M P Rogers & Associates Pty Ltd (MRA) to complete a preliminary coastal hazard assessment for the site. The requirement to complete a coastal hazard assessment for the site is driven by the requirements of the State Coastal Planning Policy (SPP2.6) and is the preliminary component of Coastal Hazard Risk Management and Adaptation Planning (CHRMAP).

Within Western Australia, SPP2.6 provides guidance on the assessment of coastal hazard risks for assets or infrastructure located in close proximity to the coast. This guidance is provided in the form of a methodology to assess the potential extent of coastal hazard impacts, as well as for the development of CHRMAP. Further details in this regard are also provided in the CHRMAP Guidelines (WAPC 2019).

To complement the Development Application for the site, MRA has completed a preliminary assessment of the coastal hazards at the site and the appropriate adaptation or management measures which may be implemented as part of the development or required for the site.

This report outlines the methods, data and outcomes of the assessment and forms the preliminary component of the CHRMAP.



Figure 1.1 Location Plan

2. Site Conditions & Development

Emu Point Boat Harbour is located on the south west coast of Oyster Harbour. The majority of the existing development is protected by a seawall, however a section of unprotected beach exists at the site.



Figure 2.1 Emu Point Boat Harbour

A detailed inspection of the existing site, seawall and jetty structures would be completed in future design stages of the works.

Survey of the site indicates it is typically low lying, mostly in the order of +1 mAHD. The nearshore area in front of the site is very shallow, with typically less than 0.5 m of water at mean sea level. A section of this is proposed to be dredged to accommodate the development.

The site is located within the estuary of Oyster Harbour and is therefore subject to both river and coastal influences. These will both be considered in the assessment.

3. Preliminary Coastal Hazard Assessment

Given the proximity of the development to the coastline, development planning requires consideration of coastal hazard risk in accordance with the requirements of SPP2.6 (WAPC 2019).

As per the requirements of SPP2.6, the following items are considered in order to assess the appropriate allowances for coastal processes and climate change over the relevant planning timeframes.

- Severe storm erosion (S1 Allowance).
- Historical shoreline movement (S2 Allowance).
- Climate change induced sea level rise (S3 Allowance).
- Storm surge inundation (S4 Allowance).

These criteria are discussed in further detail in the following sections of this report.

3.1 Coastal Erosion Hazards

3.1.1 Severe Storm Erosion (S1 Allowance)

SPP2.6 outlines that the S1 allowance should provide an adequate buffer to accommodate the potential erosion caused by a storm with an Annual Encounter Probability (AEP) of 1%. This is equivalent to a 100 year average recurrence interval (ARI) storm.

Estimation of the S1 allowance for Emu Point Boat Harbour requires the selection of an appropriate storm event. The selected storm is then modelled using an appropriate model to determine the extent of potential recession relative to the Horizontal Shoreline Datum (HSD).

Storm Event

The estuarine nature of the site means that the 100 year ARI storm will be caused by wind waves being generated across Oyster Harbour.

Locally generated wind waves are created when winds blow over an area of water often referred to as the fetch. The main mechanism for wind wave generation is the interaction of the wind stress with the surface tension of the water, creating waves in the general direction of the wind. The size of the waves created by the wind is determined by a number of factors, including the following.

- The size of the fetch.
- The length of time or duration the wind blows over the fetch.
- The speed of the wind.
- The water depth.

For example, a severe cyclone blowing for a number of days over a large fetch in deep water will create very large waves. Conversely, a light wind blowing over a small fetch in shallow water will create small wind waves.

Emu Point Boat Harbour is exposed to winds from approximately north to east. The fetch lengths are relatively short at the site, typically around 3 km. A local hindcast of wave heights was completed by MRA during 100 and 500 year ARI events. Table 3.1 provides a summary of the wind wave conditions expected at the site.

Table 3.1 Storm Event Conditions

ARI (years)	Design Waves	
	H _s (m)	T _p (s)
100	0.8	2.7
500	0.9	2.8

The 100 year ARI conditions determined above are consistent with previous modelling completed on the other side of Emu Point Boat Harbour by Royal Haskoning DHV (2017).

SBEACH Storm Modelling

The SBEACH computer model was developed by the Coastal Engineering Research Centre (CERC) to simulate beach profile evolution in response to storm events. It is described in detail by Larson & Kraus (1989). Since this time the model has been further developed, updated and verified based on field measurements (Wise et al 1996, Larson & Kraus 1998, Larson et al 2004).

MRA has validated SBEACH for use on sandy coasts in Western Australia (Rogers et al 2005). This validation has shown that SBEACH can provide useful and relevant predictions of storm induced erosion, provided the inputs are correctly applied and care is taken to ensure that the model is accurately reproducing the recorded wave heights and water levels. Primary inputs include time histories of wave height, period and water elevation, as well as pre-storm beach profile and median sediment grain size.

The input pre-storm beach profile used in the SBEACH modelling was developed using bathymetry based on DoT nautical charts as shown in Figure 3.1, and survey from site.



Figure 3.1 SBEACH Profile Location & Alignment

The estimated 100 year storm was synthesised from a record of a severe event experienced in Albany in 1984. This was known to cause considerable beach erosion in the area and appropriate for use. The waves from that event were scaled to peak at the estimated 100 year ARI wave height at the site.

The SBEACH model was run for the 100 year ARI storm. The results of the storm simulation are presented in Figure 3.2. This figure presents the pre and post storm beach profiles, the maximum water elevation and maximum wave height during the event.

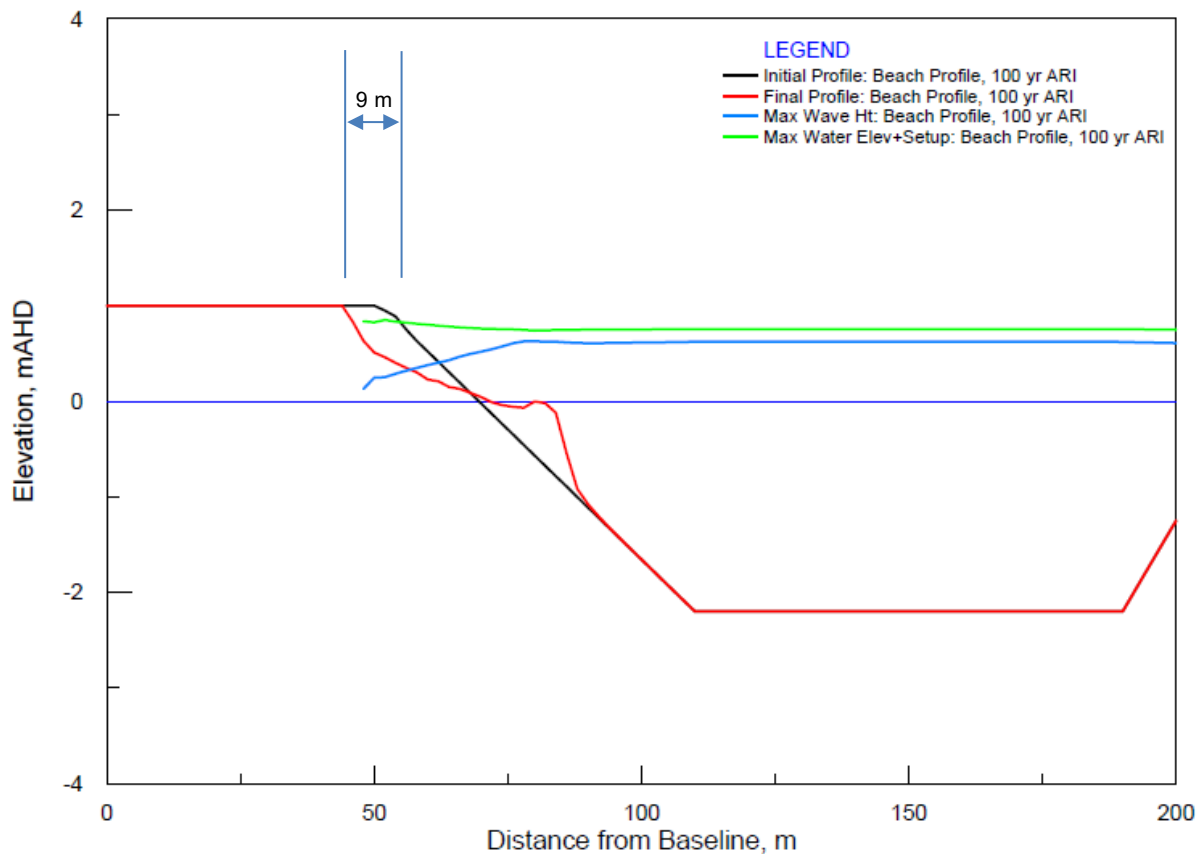


Figure 3.2 SBEACH Results

The S1 allowance is determined as the maximum extent of erosion behind the HSD. The HSD corresponds to the seaward shoreline contour representing the peak steady water level of the modelled event. The HSD was calculated from the modelling as the +0.8 mAHD contour.

The results of the modelling show that the severe storm erosion allowance for the site could be 9 m behind the HSD. This storm erosion allowance is similar to the 5 m allowance determined by Royal Haskoning DHV (2017) for the other side of the Boat Harbour.

Calculated S1 Allowance

The S1 allowance for each of the planning timeframes is therefore conservatively rounded to 10 m. Note that the same S1 allowance is required for each planning timeframe, as SPP2.6 requires a design storm with 1% AEP, regardless of the timeframe being considered.

3.1.2 Shoreline Movement (S2 Allowance)

Historically, changes in shoreline position occur on varying timescales from storm to post storm, seasonal and longer term (Short 1999). The severe storm erosion allowance accounts for the short term storm induced component of beach change. The long term trends allowed for in the Shoreline Movement (S2) Allowance account for the movement of the shoreline that may occur within the longer term planning timeframes. To estimate the S2 Allowance, historical shoreline movement trends are examined and likely future shoreline movements predicted.

Shoreline Movement

The majority of the site is protected by a seawall, with only a small section of unprotected beach. This small section of beach has shown minimal movement since the construction of the existing seawall, as shown in the figure below.



Figure 3.3 Emu Point Boat Harbour 2017 (Left) & 2020 (Right)

On the basis of minimal net movement an allowance of 20 m or 0.2 m/year has been allowed. This is consistent with the erosion rates determined by Royal Haskoning DHV (2017) for the other side of the Boat Harbour.

3.1.3 Sea Level Rise (S3 Allowance)

Climate change is believed to cause an increase in mean sea level as a result of two main processes:

- The melting of land based ice, increasing the volume and height of the ocean waters; and
- A decrease in ocean density through thermal expansion, which increases the volume and thus the ocean height (CSIRO 2007).

Observations of sea levels have been carried out for centuries, at some locations, allowing historical trends to be identified. The global mean sea level rose by between 0.12 to 0.22 m over the 20th century, which equates to an average of around 1.8 mm/yr (IPCC 2007).

Through review of this and other data and research, DoT released recommendations on the appropriate allowances for future climate change and sea level rise to be used for coastal planning and development in Western Australia (DoT 2010). These recommendations were adopted by SPP2.6 and are presented in Figure 3.4.

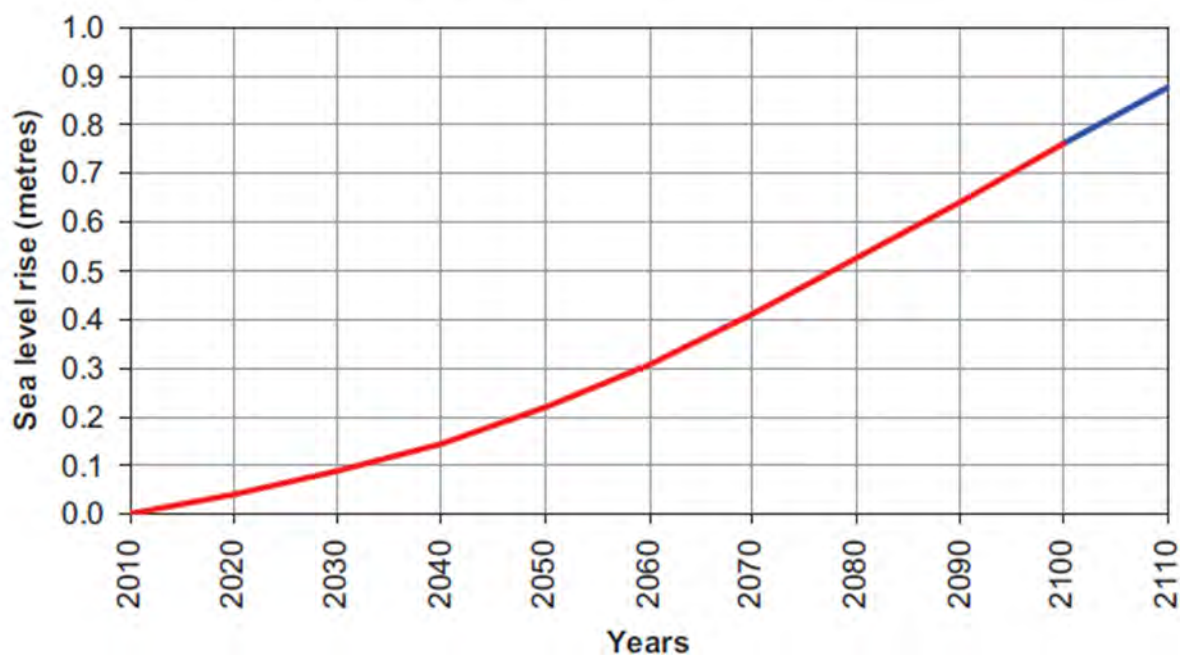


Figure 3.4 Recommended Allowance for Sea Level Rise (DoT 2010)

The recommended allowances for future sea level rise over each of the planning timeframes have been determined and are presented in Table 3.2. All of these increases in sea level are referenced to 2020.

Table 3.2 Sea Level Rise Allowances

Planning Timeframe	SLR Allowance (m)
Present Day (2020)	0.00
2045	0.14
2070	0.37
2095	0.66
2120	0.96

The effect of sea level rise on the coastline is difficult to predict. Komar (1998) provides a reasonable treatment for sandy shorelines, including examination of the Bruun Rule (Bruun 1962).

The Bruun Rule relates the recession of the shoreline to the sea level rise and slope of the nearshore sediment bed:

$$R = \frac{1}{\tan(\theta)} S$$

Where: R = recession of the shore.

θ = average slope of the nearshore sediment bed.

S = sea level rise.

Komar (1998) suggests that the general range for a sandy shoreline recession is $50S - 100S$. SPP2.6 recommends that for sandy shorelines the recession be taken as 100 times the estimated rise in sea level. Therefore, the recommended allowances for shoreline recession due to sea level rise are presented in Table 3.3.

Table 3.3 S3 Shoreline Recession Due to Sea Level Rise Allowances

Planning Timeframe	Sea Level Rise Allowance (m)
Present day (2020)	0
2045	14
2070	37
2095	66
2120	96

3.1.4 Summary of Coastal Erosion Allowances

The allowances for coastal processes determined in the previous sections are presented in Table 3.4. As required by SPP2.6, a 0.2 m/year allowance for uncertainty has been included. The total vulnerability allowances should be measured from the HSD.

Table 3.4 Summary of Allowances for Coastal Erosion Hazards

Timeframe	S1 (m)	S2 (m)	S3 (m)	Uncertainty (0.2 m/yr)	Total Allowance (m)
2020	10	0	0	0	10
2045	10	5	14	5	34
2070	10	10	37	10	67
2095	10	15	66	15	106
2120	10	20	96	20	146

The sum of each of the allowances outlined in the above table provides an indication of the areas that may be at risk from coastal erosion in the respective planning timeframes. The location of the coastal erosion hazard lines for the various planning horizons are presented in Figure 3.5 and Appendix A.

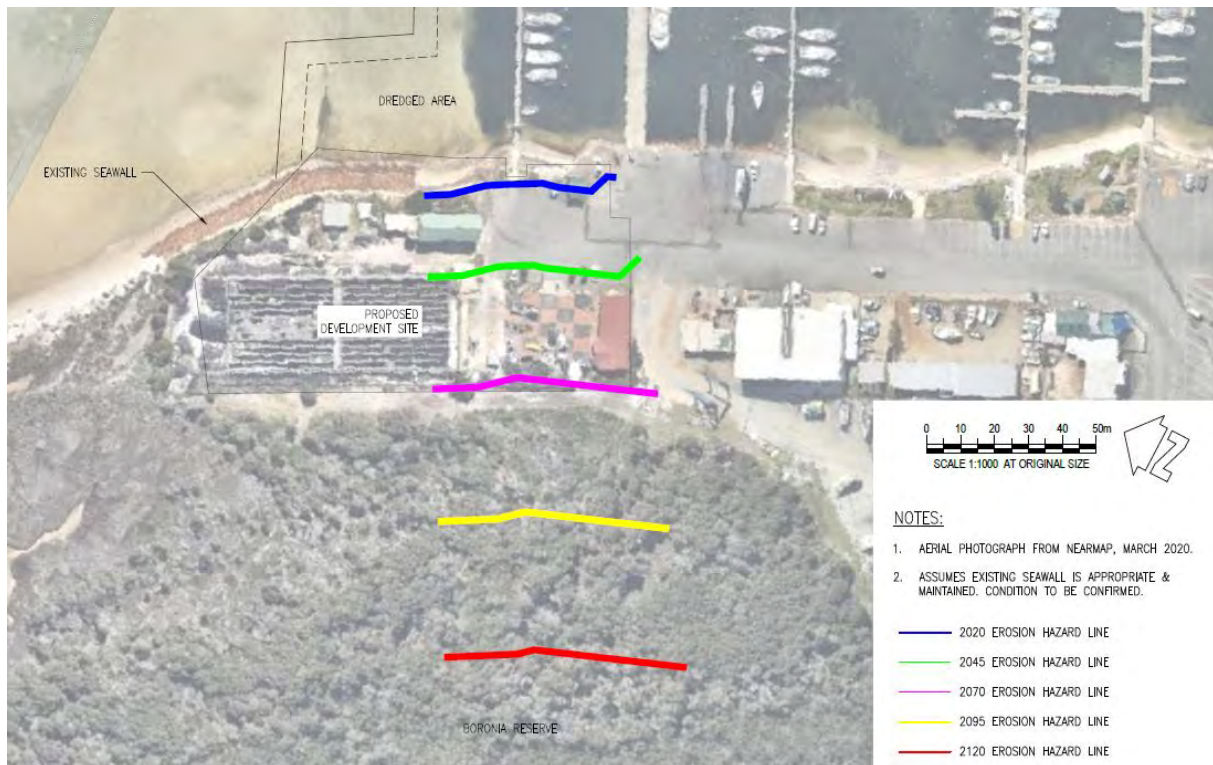


Figure 3.5 Coastal Erosion Hazard Lines

These indicate that the proposed development site will be at risk to coastal erosion in the near future.

3.2 Coastal Inundation Hazards (S4 Allowance)

With respect to coastal inundation hazards, SPP2.6 requires that development consider the potential effects of an event with an AEP of 0.2% per year. This is equivalent to an inundation event with an ARI of 500 years.

Assessment of the inundation level requires consideration of peak storm surge, including wave setup. A storm surge occurs when a storm with high winds and low pressures approaches the coastline (refer Figure 3.6). The strong, onshore winds and large waves push water against the coastline (wind and wave setup) and the barometric pressure difference creates a region of high water level. These factors acting in concert create the storm surge. The size of the storm surge is influenced by the following factors.

- Wind strength and direction.
- Pressure gradient.
- Seafloor bathymetry.
- Coastal topography.

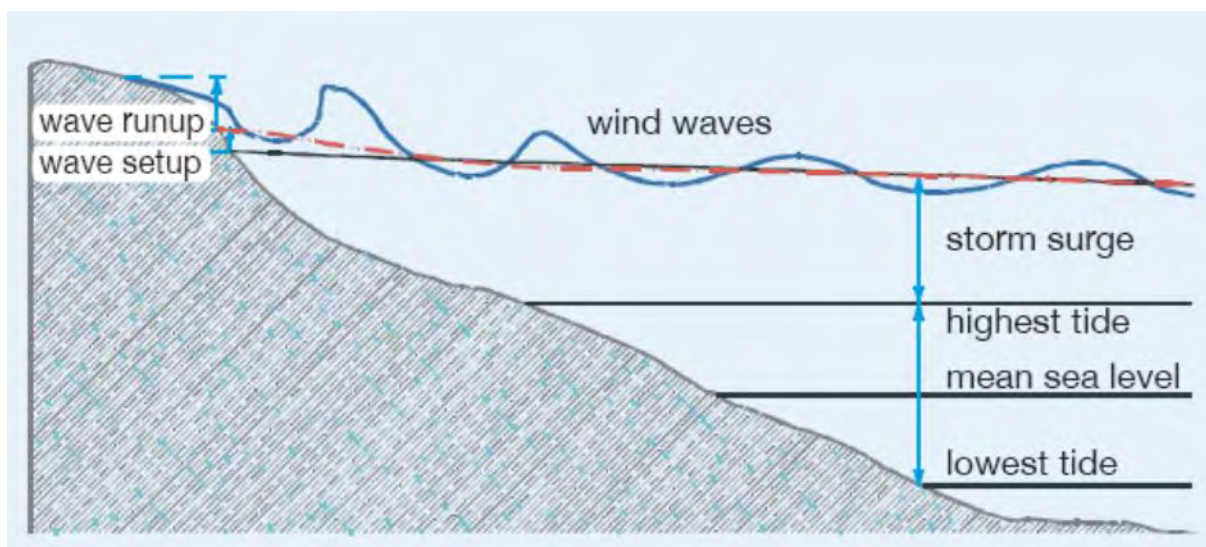


Figure 3.6 Storm Surge Components

MRA have previously completed an extreme analysis of the Albany water level record (MRA 2017). This analysis showed that the estimated 500 year ARI water level at the tide gauge is approximately 1.24 mAHD.

As indicated in Figure 3.6, closer to the shore wave setup can increase the water levels. Dean and Walton (2008) provide a comprehensive review of wave setup on beaches, which confirms that the majority of setup occurs on the beach face. This is not entirely accounted for in the measurements at the Albany tide gauge and therefore needs to be determined.

The SBEACH model was setup and run for the 500 year ARI water level, to translate the water level from the nearshore area to the shoreline to estimate the additional wind and wave setup. It was estimated that an additional setup in the order of 0.2 metres could be expected at the site. This has been included in estimates of the appropriate inundation levels for the various planning timeframes, presented in Table 3.5.

Table 3.5 S4 Inundation Levels

Component	Planning Timeframe				
	2020	2045	2070	2095	2120
500 year ARI peak steady water level at tide gauge (mAHD)	1.24	1.24	1.24	1.24	1.24
Allowance for nearshore setup - wind and wave (m)	0.2	0.2	0.2	0.2	0.2
Allowance for sea level rise (m)	0.00	0.14	0.37	0.66	0.96
Total Inundation Level (mAHD)	1.44	1.58	1.81	2.10	2.40

Development levels should consider an additional freeboard (typically around 0.3 m) above these levels.

In addition to the potential inundation hazards from coastal flooding, the site is also subject to flooding from riverine influences. The City's *Development in Flood Prone Areas* policy recommends a development level of 3.02 mAHD for development around Oyster Harbour. This indicates that river flooding of the estuary could be more extreme than coastal inundation and should be taken as the upper limit.

These potential inundation levels should be considered in the planning for the development at Emu Point. Further details regarding the management of coastal inundation risk are provided in the preliminary coastal risk management and adaptation strategy.

4. Coastal Risk Management & Adaption Strategy

SPP2.6 outlines a hierarchy of risk adaptation and mitigation options, where options that allow for a wide range of future strategies are considered more favourably. This hierarchy of options is reproduced in Figure 4.1.



Figure 4.1 Risk Management & Adaption Hierarchy

These options are generally outlined below.

- Avoid – avoid new development within the area impacted by the coastal hazard.
- Retreat – the relocation or removal of assets within an area identified as likely to be subject to intolerable risk of damage from coastal hazards.
- Accommodation – measures which suitably address the identified risks.
- Protect – used to preserve the foreshore reserve, public access and public safety, property and infrastructure.

The assessment of options is generally done in a progressive manner, moving through the various options until an appropriate mitigation option is found.

4.1 Proposed Coastal Management Strategy

The proposed coastal management strategy needs to take into account the hazards from coastal erosion and inundation.

4.1.1 Coastal Erosion

The coastal erosion hazard plan presented in Appendix A indicates that the beach section of the site is at risk of erosion in the longer term. This would significantly impact the proposed development. Therefore, it is necessary to determine a coastal management strategy for the site.

The table below outlines SPP2.6's hierarchy of risk and mitigation options for coastal erosion hazards, and the appropriateness of each strategy for the Emu Point Boat Harbour site.

Table 4.1 Risk Adaptation & Mitigation Options for Coastal Erosion

Risk mitigation & adaption option	Appropriateness for site
Avoid	The option to avoid is not viable for Emu Point Boat Harbour. The development site exists at the harbour and is dependent on the harbour frontage.
Planned or managed retreat	Planned or managed retreat is not appropriate. The development needs to service Emu Point boat harbour, therefore relocating the development inland is not an option.
Accommodate	This strategy is not appropriate. The development would not be economically viable to be designed to withstand the impacts of significant shoreline recession.
Protect	This option of coastal erosion mitigation is the most effective for the site. It is recommended that the existing seawall is inspected to confirm its condition and suitability to protect the site. Furthermore, it is recommended that the remainder of the shoreline is protected. The most appropriate form of this protection would be an extension to the existing seawall.

4.1.2 Coastal Inundation

The coastal inundation hazard assessment indicates that areas of the development below 2.40 mAHD are at risk of coastal flooding in the coming 100 years. River flooding may have as great or greater influence on the site. The table below outlines SPP2.6's hierarchy of risk and mitigation options for coastal inundation and the appropriateness of the strategy for the site.

Table 4.2 Risk Adaptation & Mitigation Options for Coastal Inundation

Risk Mitigation & Adaptation option	Appropriateness for Site
Avoid	The option to avoid is not viable for Emu Point Boat Harbour. The whole site sits below this level and it is impractical to locally fill and develop above this level.
Planned or managed retreat	Planned or managed retreat is not appropriate. The development needs to service Emu Point Boat Harbour, therefore relocating the development inland is not an option.
Accommodate	This strategy is most appropriate for the site. This would involve taking measures through the design, construction and management of the site to acknowledge the risk of flooding and inundation.

The accommodation strategy is appropriate for this development due to the coastally dependent nature of the aquaculture operations, and due to the development not including permanently habitable buildings (ie residential). The development can therefore be designed and managed to accommodate short term inundation. This is different to a freehold residential development.

Accommodation of flooding and inundation of the site would involve:

- Acknowledgement that the site would flood in severe river floods or storm surge events and preparing appropriate management plans and measures for these events.
- Designing buildings and structures to accommodate river and ocean flooding.
- Design of aquaculture operations to cater for flood levels or short term inundation.
- Appropriate interior design of buildings to accommodate flooding and short term inundation. This may include items such as lifting all services and power points and appropriate floor coverings.

5. Conclusion

This report has presented the results of a preliminary coastal hazard assessment for the proposed aquaculture and tourism development at Emu Point Boat Harbour, within the City of Albany. The assessment has been completed against the requirements of the State Coastal Planning Policy (SPP2.6, WAPC 2013).

The results of this preliminary coastal hazard assessment show that the existing seawall that sits in front of the Emu Point Boat Harbour facility will need to be extended to mitigate the potential coastal erosion hazards that may occur in the future. The condition and details of the existing seawall would also need to be inspected to confirm its suitability to protect the site. Should it be inappropriate, this may require upgrading or modification. These works would be incorporated into the proposed deck structures for berthing of aquaculture operation vessels.

The assessment also highlights the risk of flooding and inundation of the site. This could be from both coastal and riverine sources. The proposed development will need to accommodate potential inundation hazards from coastal and riverine flooding by utilising design and management strategies which render the inundation risk as tolerable.

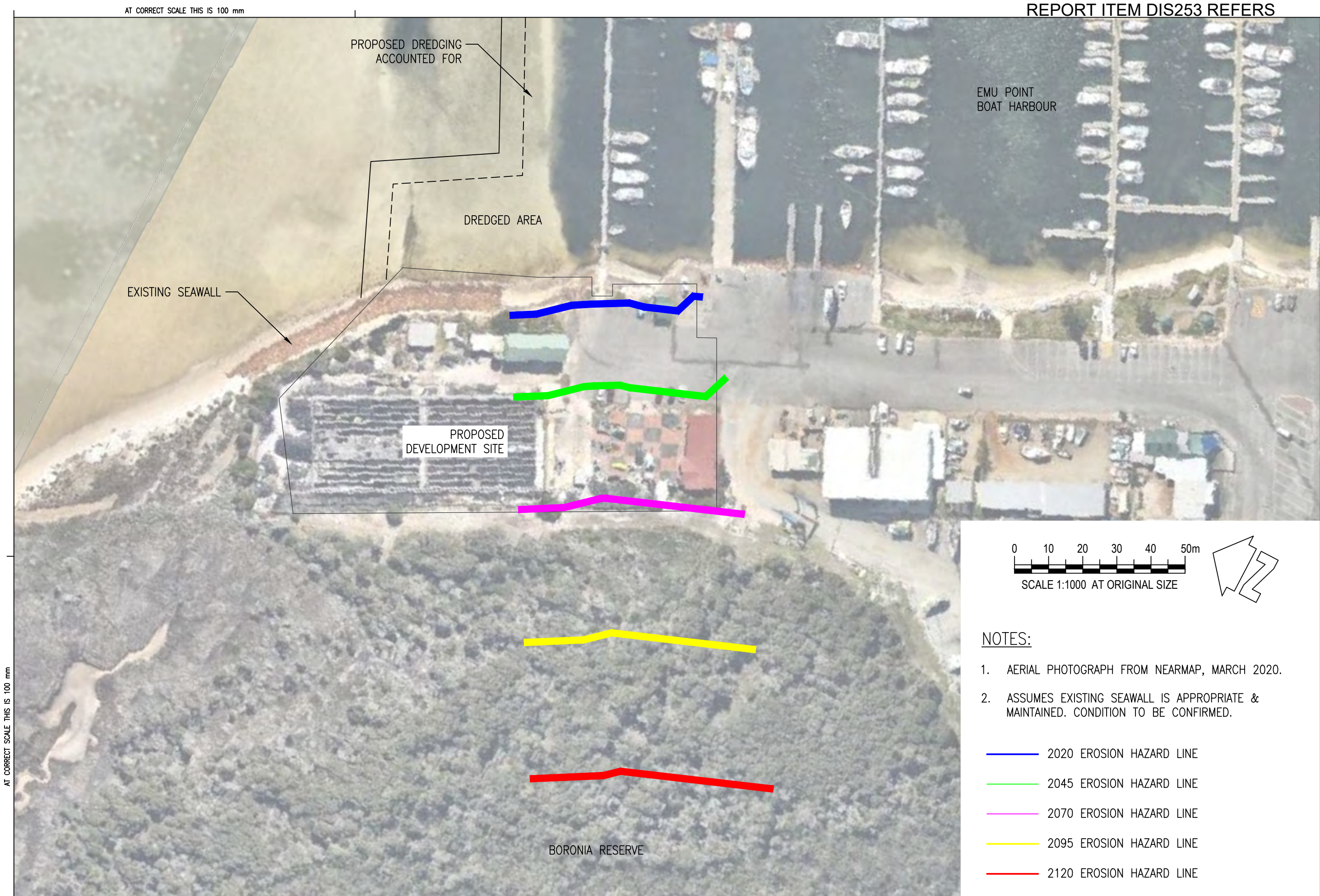
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Appendices

Appendix A Coastal Erosion Hazard Lines

Appendix A Coastal Erosion Hazard Lines



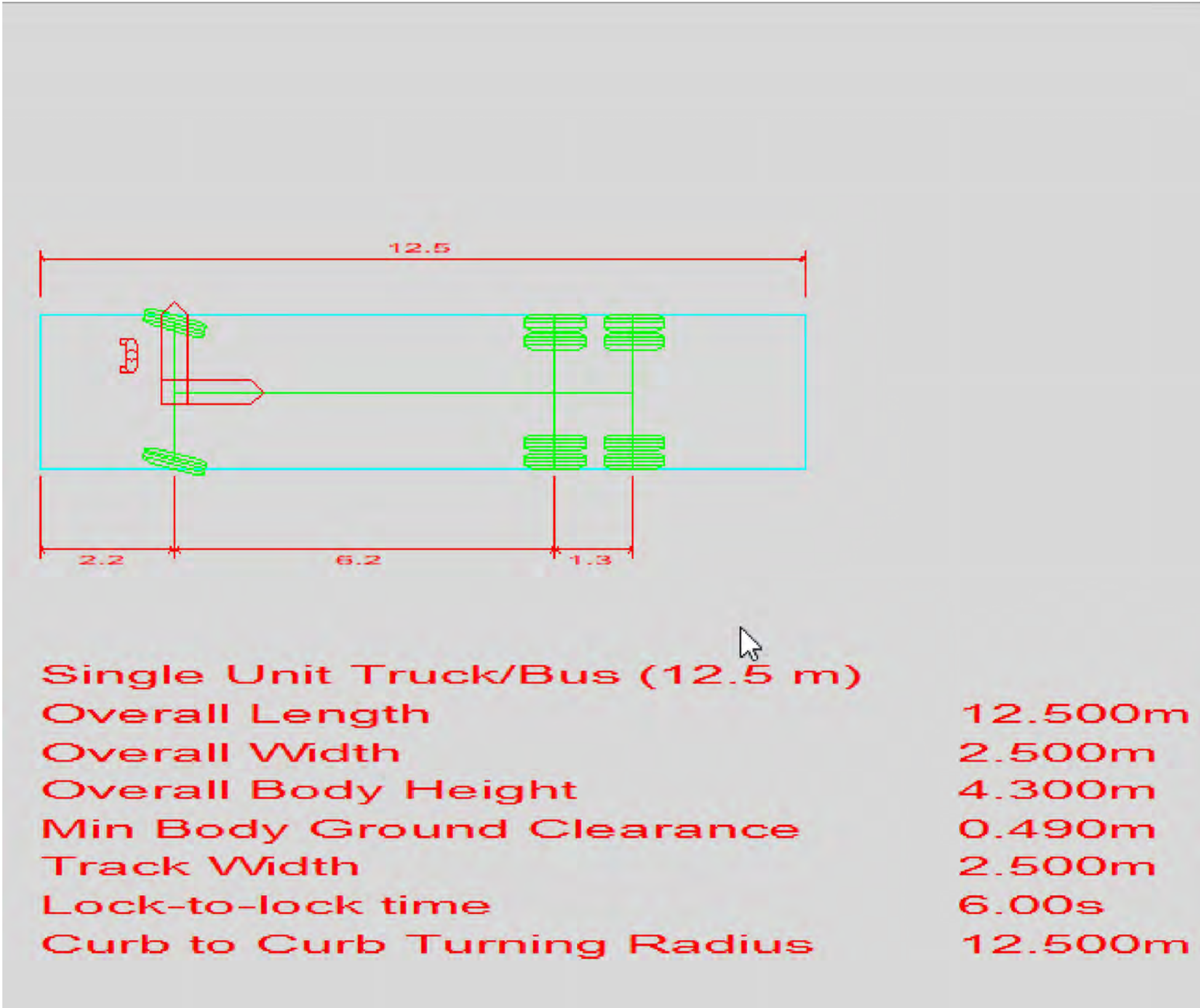
m p rogers & associates pl
www.coastsandports.com.au

Appendix F – Truck Turning Template



VEHICLE TYPE

AUSTROADS 2013 SINGLE UNIT TRUCK.



LEGEND

- s — PROPOSED PRESSURE MAIN
- - - s - EXISTING SEWER
- - - w - EXISTING WATER
- PROPOSED PARKING BAYS

1:600 6 0 6 12 18 24 30 A1
1:1200 A3

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HAVEST ROAD OCEANS

OYSTER FARM EMU POINT, ALBANY
TRUCK SWEPT PATH

REV	DESCRIPTION	DRAWN	APPD	DATE
C	TRUCK SWEPT PATH AND PARKING BAYS AMENDMENTS	JD	FW	25/08/2020
B	PRELIMINARY SKETCH - TRUCK SWEPT PATH AMENDMENTS	JD	FW	12/08/2020
A	PRELIMINARY SKETCH	JD	FW	28/07/2020




SCHEMATIC DESIGN
NOT FOR CONSTRUCTION
CIVIL

MGA	mAHD	1:600	47289	CI-059-SK02	C
COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV

Appendix G – Servicing Concepts

DATE PLOTTED: 12/08/2020 11:46:40 AM BY: J. HAWKINS, MATTHEW

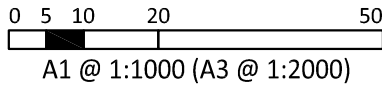




DIAL100
BEFORE YOU DIG

WARNING
BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.





A	PRELIMINARY ISSUE		MJH	RP	12/08/2020
REV	DESCRIPTION		DRAWN	APPD	DATE

KEYPLAN

HARVEST ROAD OCEANS PTY LTD PO BOX 3155 BROADWAY NEDLANDS WA 6009
ARCHITECT/CIENT

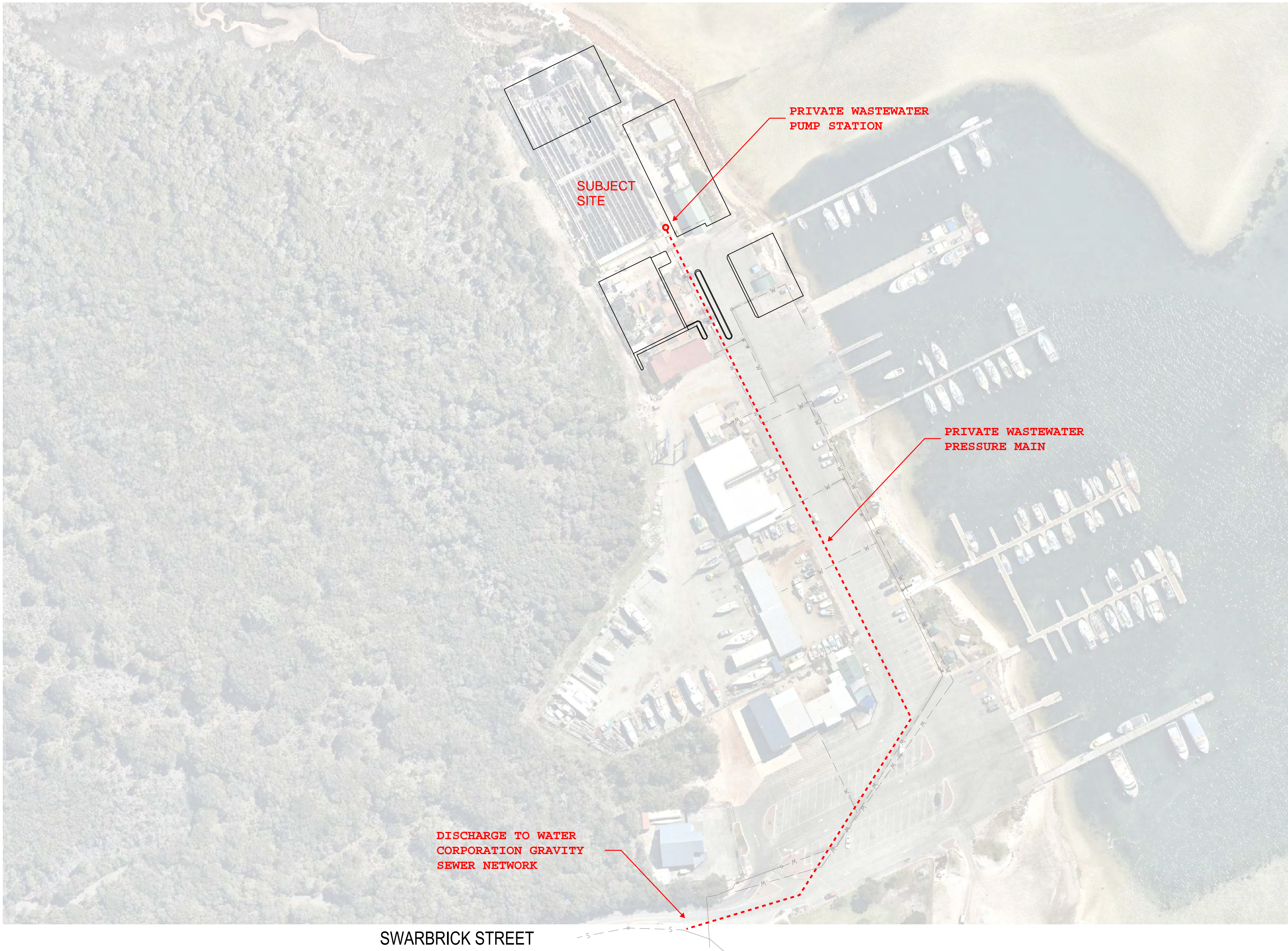
OYSTER FARM EMU POINT, ALBANY HIGH VOLTAGE UPGRADE
PROJECT/TITLE



PRELIMINARY
NOT FOR CONSTRUCTION
ELECTRICAL SERVICES

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SCALE @ A1	PROJECT No	DRAWING No	REV

CAD FILE SKETCHING



LEGEND

- PROPOSED WASTER WATER PRESSURE MAIN
- S - - - - - EXISTING SEWER
- - - - - W - - - - - EXISTING WATER

1:1000 10 0 10 20 30 40 50 A1
1:2000 A3

TATTARANG

OYSTER FARM EMU POINT, ALBANY
SEWER PRESSURE MAIN

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CIVIL

A	PRELIMINARY SKETCH	JD	FW	12/08/2020
REV	DESCRIPTION	DRAWN	APPD	DATE

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COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV

Appendix H – Urban Water Management Plan

LEGEND

	PERMEABLE PAVEMENT
	ASPHALT/CONCRETE PAVEMENT
	BIOFILTRATION BASIN
	PROPOSED PIT/PIPE NETWORK
	SURFACE FLOW PATHS



- Reduction of stormwater runoff through use of permeable pavements where appropriate.
- Flood routing, or 'topping out', of runoff and ponding from major storm events shall be directed around buildings to adjacent reserve and/or to the Harbour.
- Collection of stormwater runoff from hard stand and pavements in biofiltration basins for treatment and infiltration.
- Biofiltration basins to treat and infiltrate 'first flush events' from hard stand and pavements.
- Biofiltration basins to be shallow (~200mm) to mitigate adverse impact from high groundwater levels.
- Overflow, or lengthy ponding, of Biofiltration Basins to be mitigated by piped 'overflow' outlet to Harbour.
- Roof runoff to be collected where practical, for re-use onsite.
- Rainwater tank overflow and direct discharge of stormwater runoff from roofs to be directed to Harbour by piped discharge.
- Biofiltration basins to be densely vegetated with suitable endemic species, for guidance refer to the DWER Biofilter Vegetation Guideline for the south west of Western Australia.



200 @ A3(420x297mm)
meters 10

Appendix I – Additional Parking Concept

DATE PLOTTED: 12/08/2020 5:10:50 PM BY: DURANTE, JULIA

NOTES

- 1. PARKING BAY NUMBERS MAY REDUCE TO ALLOW FOR TRAFFIC CALMING AND LANDSCAPING.
- 2. FIRE TRUCK, AND OTHER HEAVY VEHICLE REQUIREMENTS, ARE TO BE CONFIRMED AND CONSIDERED IN DESIGN.
- 3. LAYOUT INDICATIVE AND SUBJECT TO FURTHER DESIGN DEVELOPMENT.



1:500 5 0 5 10 15 20 25 A1
1:1000 A3

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CAD FILE: RECONFIGURATION LAYOUT.DWG

B	PRILIMINARY SKETCH WITH LAYOUT AMENDMENTS	JD	FW	12/08/2020
A	PRELIMINARY SKETCH	JD	FW	28/07/2020
REV	DESCRIPTION	DRAWN	APPD	DATE

TATTARANG
ARCHITECT/CIENT

OYSTER FARM EMU POINT, ALBANY CARPARK RECONFIGURATION CONCEPT
PROJECT/TITLE

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COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV

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Level 18, 191 St Georges Tce, Perth WA 6000
T. (08) 9289 8300 – E. hello@elementwa.com.au
elementwa.com.au