ATTACHMENTS

Ordinary Meeting of Council

Tuesday 24 August 2021

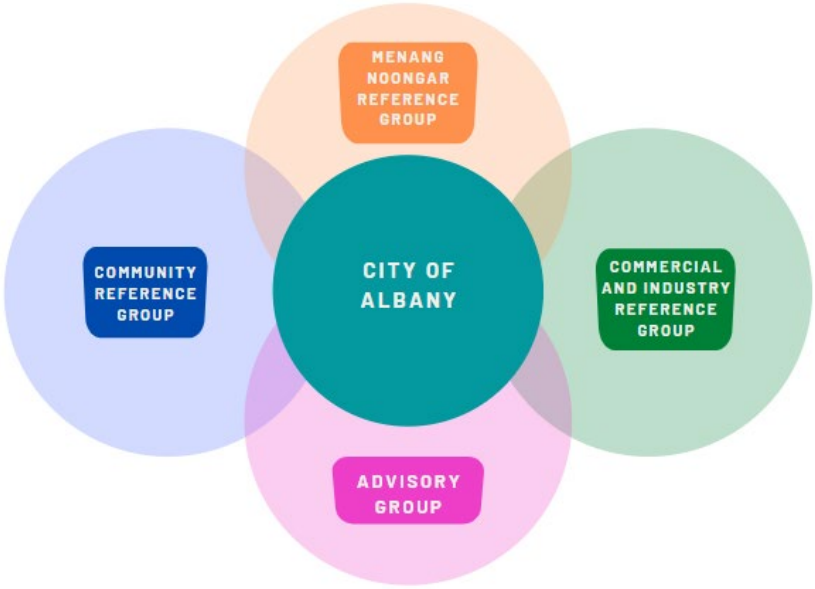
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Albany Bicentenary Governance Model

The following Governance Model is proposed to achieve broad community collaboration and involvement in the development and delivery of the Bicentenary project.

As the Bicentenary develops, this model may be reviewed to incorporate personnel or groups considered relevant to delivery of the project.



City of Albany

The project lead and key stakeholder as steward of the municipality. No other stakeholder will, or should have more interest in this initiative than the City of Albany. The City of Albany is the main project sponsor.

As part of its role, the City of Albany has employed a Bicentenary Coordinator to oversee the project in its entirety, including all stakeholder groups and contractors. Collate and synthesize information from meetings, data collection, and reference groups to compose reports, determine strategies, and drive implementation via the Implementation Group.

Albany Community

The Bicentenary is an opportunity to reflect on Albany's history, celebrate the diverse and vibrant community it has become and realise aspirations.

A holistic, integrated, whole-of-community approach is vital for success and the Governance Model includes three reference groups comprising key stakeholders in order to ensure broad engagement and collaboration with the community.

Reference Groups

Menang Noongar, Community and Commercial & Industry reference groups are intended to support the City of Albany as key advocates for the Bicentenary project, collating the ideas, aspirations and needs of their communities or sectors.

Reference groups will be facilitated by the City of Albany/Consultants (if BBRF successful) and members of the Advisory Group for concept development and reporting by March 2022.

Reference groups should remain active following the initial consultation phase for endorsement of the proposed scope and to support implementation.

Further reference groups can be formed during or subsequent to initial engagement should the need arise. Specialist reference groups may be required for specific 2026 projects such as publication of a commemorative book.

Advisory Group (previously Steering Committee)

The Advisory Group are key advocates for the project. It is proposed the Advisory Group lead a coordinated, high level advocacy effort and oversee engagement outcomes to deliver a strategic plan and accompanying prospectus by July 2022.

Upon endorsement of the above, an Implementation Group will be formed with members who have the relevant skills, experience and decision making authority for the purpose of implementing the outputs of the Advisory Group.

Advisory Group members will remain key stakeholders and advocates for the project, facilitating further engagement as required.

Implementation Group

A sub-group of the Advisory Group, permanent membership may remain small, or even City of Albany based, with others brought in on a co-opt basis depending on projects endorsed by the Advisory Group.

Membership should be endorsed by the City of Albany following delivery of a strategic plan and accompanying prospectus in order to align membership with the needs and initiatives arising.

The Implementation Group will liaise with relevant stakeholder groups, Departments and others as necessary to deliver project outcomes.

N.B – Project timeframes indicated above are based on the BBRF application deadlines for delivery and are subject to change.

Terms of Reference

Bicentenary of Albany

Advisory Group

The City of Albany has established an Advisory Group (AG) to assist in the development of a response to the Bicentenary of Albany. This group will form part of a broader governance architecture with oversight of engagement and planning for the Bicentenary.

Title	**Bicentenary of Albany Advisory Group**
Chair	City of Albany: Mayor Dennis Wellington
Project Manager	City of Albany: Bethany Findlay
Date	22 April 2021

Purpose

Key Objectives:

1. To lead a coordinated, high level advocacy effort to support the design and delivery of Albany's Bicentenary.

2. Ensure appropriate acknowledgement of Menang heritage and inclusion of the Noongar community in the Bicentenary project to achieve increased visibility and recognition.

3. Delivery of a strategic plan with a comprehensive recommendation on a preferred 'response' to the Bicentenary of Albany by July 2022.

4. Delivery of an accompanying high quality prospectus summarising the preferred approach and its benefits, suitable for funding and project advocacy.

5. Establishment of suitably qualified Implementation Group and plan following endorsement of strategic plan.

6. Facilitate extensive community and stakeholder consultation in the development and modelling of options for the Bicentenary of Albany.

General Responsibilities:

- Identify key stakeholders.
- Monitor project development against identified objectives.
- Provide guidance for the development of the scope, methodology, planning and management process.
- Oversee planning, procurement, design and development of any master plans, business plans or feasibility studies.
- Identify staging and implementation priorities.
- Ensure compliance with relevant Government and industry policies and standards.
- Provide guidance and assistance in regards to communication and consultation.
- Review and assess reports and make recommendations.
- Assist in identifying specialist expertise as required.

Operating Principles	• Be pragmatic and flexible in both approach and process to ensure timely and efficient project delivery. • Ensure appropriate representation of all views are considered. • Encourage openness, transparency, cooperation, collaboration and sharing of information with all stakeholders. • AG members are expected to declare any conflict of interests to the Chair at the first meeting, and at any time such conflict may arise while a sitting member. If a matter is before a meeting for consideration and a person present at the meeting has a direct or indirect pecuniary or non-pecuniary interest in the matter, this interest should be disclosed during the Statement of Disclosure at the opening of each meeting, or, as soon as possible after the relevant facts have come to their knowledge. The Chairperson will decide on the appropriate method for management of the conflict of interest. These decisions are to be minuted. • Identify opportunities to reduce duplication of effort and encourage project efficiencies. • Actively communicate, collaborate, listen and respond to colleagues and the wider community; have a creative approach to problem solving, always looking forward, and be socially and environmentally responsible. • Communicate absences and nominate proxies as required. • Maintain confidentiality in regard to information disclosure. This includes comments to media and the general public. • The Advisory Group will not have the authority or power to commit the City of Albany Council to expenditure outside of Council endorsement. • Planning for the Project and any generation of substantial concepts will follow local government protocols of approvals, due diligence and whichever applies during the process.

Membership	**Role**	**Organisation**	**Position**
	Chair	City of Albany	Mayor
	Member	City of Albany	CEO
	Member	Menang-Noongar Reference Group	Chair or nominated representative
	Member	Menang-Noongar Reference Group	Chair or nominated representative
	Member	Community Reference Group	Chair or nominated representative
	Member	Commercial and Industry Reference Group	Chair or nominated representative
	Member	Great Southern Development Commission	CEO
	Member	Minister for Regional Development; Agriculture and Food; Hydrogen Industry	Minister or Designate
	Member	Member for O'Connor	Member or Designate
	Member	Member for Albany	Member or Designate
	Member	Tourism Western Australia	Managing Director or Executive Director Destination Development

	Member	Department of Local Government Sport and Cultural Industries	Director General
	Member	Western Australian Museum	CEO
	Member	Department of Local Government Sport and Cultural Industries	Director General
	Member	Western Australian Museum	CEO
	Ex-Officio Secretariat	City of Albany	TBC
	The Advisory Group reserves the right to invite additional expertise to participate as required across the term of the group.		

Advisory Group Ground Rules

The following rules must be adhered to by all who attend the meetings and consist of:

- Start and finish on time.
- All participate and contribute – everyone is given an opportunity to voice their opinions.
- We agree to be respectful of the rights of others to hold values, attitudes, and opinions that differ from their own.
- Keep discussions on the topic and focused.
- We will declare our interests where appropriate & follow City of Albany protocols.

Duration of the Working Group

The Advisory Group will commence under these Terms of Reference from the 'Resumption Meeting' start date of 22 April 2021 and will cease to operate under these arrangements at a time the group agrees. The Terms of Reference will be reviewed regularly to ensure their relevance in relation to the role, membership and responsibilities of the Group in the next phases.

Additional Members

The Advisory Group consists of members as identified under membership. However, there is also the capacity to invite additional representation from other project stakeholders/technical advisors if and when required. Stakeholders will be invited to be involved to assist in issues relevant to their area of operation, interest and expertise.

Quorum

4 members

Reporting and Control

Reporting Frequency

Meetings will be convened as required to achieve the stated purpose(s) with the aim of meeting at least twice per year.

Change Control

Changes considered 'in scope' of the Advisory Group responsibility will be scheduled on the agenda.

Terms of Reference for the Advisory Group will be reviewed at the completion of this phase of the project.

Agenda Management	Papers will be emailed to the Advisory Group members at least 2 days prior to the meeting. Minutes will be available at the latest, 10 working days after a meeting. Minutes of previous meetings that are accepted by the Advisory Group should be signed by the Chair as being a true record of the discussions and decisions of the Group.

Roles and Responsibilities

Chairperson:

The Chairperson is the presiding officer of the Advisory Group, the chief advocate for the project within the community and is responsible for ensuring that:

- Meetings are guided by a documented agenda, developed in consultation with the Secretariat;
- The right matters are considered during the meeting;
- Matters are considered carefully and thoroughly;
- All members are given the opportunity to effectively contribute;
- The Group comes to clear decisions and these are properly understood and documented; and
- Minutes of the meeting are published in a timely manner.

In the event that the Chairperson is absent or the role is temporarily vacant, the Members present at a meeting shall appoint one of the Members to preside at the meeting.

Members:

Members contribute to and share responsibility for the overall function and performance of the Group. They are required to meet all expectations in relation to probity, transparency and accountability. This includes not making inappropriate use of information gained through Group matters.

Each member present at a meeting shall be entitled to one vote.

Members are advocates for the Bicentenary project and should contribute positively to the project within their formal capacity as member, the operation of the Group, and at all times within the community.

Secretariat

The secretariat provides administrative support to the Group by:

- Ensuring that items presented are of suitable quality and content, are fit for purpose and submitted within required timeframes;
- Ensuring that all actions and deadlines directed by the Advisory Group are completed in a timely manner;
- Maintaining the official records of the Group;
- Assisting in the creation and distribution of the agenda and papers;
- Ensuring papers presented to the Group have adequate information relevant to the subject and decision requested, to enable informed decision making;
- Drafting and distributing the meeting minutes; and
- Undertaking research and other diligence as requested by the Group.

Terms of Reference

Bicentenary of Albany

Menang Noongar Reference Group

The City of Albany has established a Menang Noongar Reference Group (MNRG) to assist in the development of a response to the Bicentenary of Albany. This group will form part of a broader governance architecture that will have oversight of engagement and planning for the Bicentenary.

Title	**Bicentenary of Albany Menang Noongar Reference Group**
Chair	TBC
Project Manager	City of Albany: Bethany Findlay
Date	TBC

Purpose

Key Objectives:

- Lead a coordinated advocacy effort within the Menang Noongar community to support the design and delivery of Albany's Bicentenary.
- Provide guidance to the Advisory Group on appropriate opportunities to involve and recognise Menang culture as an essential component of the Bicentenary.
- The MNRG will provide a link between Council, the Advisory Group and the broader Indigenous community.
- Support the independent facilitator to undertake engagement and consultation with the local Menang Noongar community on the 2026 project.
- Provide the Advisory Group with a comprehensive overview of the needs, ideas and aspirations of the Menang Noongar community.
- Provide information, guidance and strategic advice on matters relating to the Menang Noongar community, culture and heritage.
- Identify and articulate opportunities linked to or arising from the 2026 Project.
- Identify potential funding and/or sponsorship opportunities or in kind support which may be beneficial to the Project.
- Provide advocacy, expert advice and support during design and implementation of Project objectives.

General Responsibilities:

- Identify and facilitate discussion with key stakeholders, families and groups.
- Provide expert advice to the Advisory Group regarding community's needs, ideas & aspirations.
- Support the Advisory & Implementation Groups to achieve Project objectives ensuring appropriate recognition and involvement of the Menang community where applicable.
- Ensure the views and interests of the Indigenous community are represented, and relevant stakeholders engaged.
- Provide an active and positive contribution to the Project.
- Review documents as required and provide advice and recommendations. Any major changes to draft documents recommended by the reference group will be advised to the Advisory Group.

Operating Principles	• Be pragmatic and flexible in both approach and process to ensure timely and efficient project delivery. • Ensure appropriate representation of all families. • Encourage openness, transparency, cooperation, collaboration and sharing of information with all stakeholders. • MNRG members are expected to declare any conflict of interests to the Chair at the first meeting, and at any time such conflict may arise while a sitting member. If conflict situations arise in meetings, members are to advise other members and follow City of Albany protocols. These decisions are to be minuted. • Act as advocates for the Project, its intent and outcomes. • Identify opportunities to reduce duplication of effort and encourage project efficiencies. • Actively communicate, collaborate, listen and respond to colleagues and the wider community; have a creative approach to problem solving, always looking forward, and be socially and environmentally responsible. • Communicate absences and nominate proxies as required. • Maintain confidentiality in regard to information disclosure. This includes comments to media and the general public. • The Menang Noongar Reference Group will not have the authority or power to commit the City of Albany Council to expenditure outside of Council endorsement. • Planning for the Project and any generation of substantial concepts will follow local government protocols of approvals, due diligence and whichever applies during the process.

Membership	**Role**	**Organisation**	**Position**
	Membership to be determined in collaboration with the local Indigenous Community. A representative from the City of Albany with the relevant skills and experience will be a non-voting member of the MNRG for administrative purposes. Secretariat support will be provided by the City of Albany through this member or additional personnel as required.		

Reference Group Ground Rules	The following rules must be adhered to by all who attend the meetings and consist of: • Start and finish on time. • All participate and contribute – everyone is given an opportunity to voice their opinions. • We agree to be respectful of the rights of others to hold values, attitudes, and opinions that differ from their own. • Keep discussions on the topic and focused. • We will declare our interests where appropriate & follow City of Albany protocols.
Duration of the Working Group	The MNRG will commence under these Terms of Reference from the 'Initiation Meeting' [start date TBC] and will be ongoing until completion of the Project or at such time the Group agrees it has achieved the remit and is no longer required to meet in the current form for progression of the Project. Terms of Reference will be reviewed at the first scheduled meeting and members will agree on its content. Following this, Terms of Reference will be reviewed regularly to ensure their relevance in relation to the role, membership and responsibilities of the Group in the next phases.
Additional Members	Members with the relevant skills, experience, interest or decision-making authority can be included in the membership of this group on a co-opt basis to provide advice or assistance on the remit or associated objectives.
Quorum	Number to be determined once group size known.
Reporting and Control	Reporting Frequency: Meetings will be convened as required to achieve the stated purpose(s) Change Control: Changes considered 'in scope' of the MNRG responsibility will be scheduled on the agenda. Terms of Reference will be reviewed at the completion of each phase of the project.
Agenda Management	Papers will be emailed to MNRG members at least 2 days prior to the meeting. Minutes will be available at the latest, 10 working days after a meeting. Minutes of previous meetings that are accepted by the MNRG should be signed by the Chair as being a true record of the discussions and decisions of the Group. All minutes and documents relating to the MNRG will remain the sole property of the City of Albany.

Roles and Responsibilities

Chairperson:

The Chairperson is the presiding officer of the Indigenous Reference Group, the chief advocate for the project within the community and nominated representative to the Advisory Group.

The Chair is responsible for ensuring that:

- Meetings are guided by a documented agenda, developed in consultation with the Secretariat;
- The right matters are considered during the meeting;
- Matters are considered carefully and thoroughly;
- All members are given the opportunity to effectively contribute;
- The Group comes to clear decisions and these are properly understood and documented; and
- Minutes of the meeting are published in a timely manner.

In the event that the Chairperson is absent or the role is temporarily vacant, the Members present at a meeting shall appoint one of the Members to preside at the meeting.

Link to Advisory Group:

Up to 2 members of the MNRG will be co-opted to the Advisory Group. It is expected this will be the Chair and Vice Chair.

Members:

Members contribute to and share responsibility for the overall function and performance of the Group. They are required to meet all expectations in relation to probity, transparency and accountability. This includes not making inappropriate use of information gained through Group matters.

Each member present at a meeting shall be entitled to one vote.

Members are advocates for the Bicentenary project and should contribute positively to the project within their formal capacity as member, the operation of the Group, and at all times within the community.

Secretariat

The secretariat provides administrative support to the Group by:

- Ensuring that items presented are of suitable quality and content, are fit for purpose and submitted within required timeframes;
- Ensuring that all actions and deadlines directed by the Steering Group are completed in a timely manner;
- Maintaining the official records of the Group;
- Assisting in the creation and distribution of the agenda and papers;
- Ensuring papers presented to the Group have adequate information relevant to the subject and decision requested, to enable informed decision making;
- Drafting and distributing the meeting minutes; and
- Undertaking research and other diligence as requested by the Group.

Terms of Reference

Bicentenary of Albany

Community Reference Group

The City of Albany has established a Community Reference Group (CRG) to assist in the development and design of a response to the Bicentenary of Albany. This group will form part of a broader governance architecture that will have oversight of engagement and planning for the Bicentenary.

Title	**Bicentenary of Albany Community Reference Group**
Chair	TBC
Project Manager	City of Albany: Bethany Findlay
Date	TBC

Purpose

Key Objectives:

- The CRG will provide a link between Council, the Advisory Group and the Albany community.
- Provide the Advisory Group with a comprehensive overview of the needs, ideas and aspirations of the broader local community.
- Identify and articulate opportunities linked to or arising from the 2026 Project.
- Identify potential funding and/or sponsorship opportunities or in-kind support which may be beneficial to the Project.
- Provide advocacy, expert advice and support during implementation of Project objectives.

General Responsibilities:

- Identify and facilitate discussion with key stakeholders.
- Provide expert advice to the Advisory Group regarding community needs, ideas & aspirations.
- Support the Implementation Group to achieve objectives of the Advisory Group in relation to community activities.
- Ensure the views and interests of the community are represented, and relevant stakeholders engaged.
- Provide an active and positive contribution to the Project.
- Review documents as required and provide advice and recommendations. Any major changes to draft documents recommended by the reference group will be advised to the Advisory Group.

Operating Principles	• Be pragmatic and flexible in both approach and process to ensure timely and efficient project delivery. • Ensure appropriate representation of all views are considered. • Encourage openness, transparency, cooperation, collaboration and sharing of information with all stakeholders. • CRG members are expected to declare any conflict of interests to the Chair at the first meeting, and at any time such conflict may arise while a sitting member. If conflict situations arise in meetings, members are to advise other members and follow City of Albany protocols. These decisions are to be minuted. • Act as advocates for the Project, its intent and outcomes. • Identify opportunities to reduce duplication of effort and encourage project efficiencies. • Actively communicate, collaborate, listen and respond to colleagues and the wider community; have a creative approach to problem solving, always looking forward, and be socially and environmentally responsible. • Communicate absences and nominate proxies as required. • Maintain confidentiality in regard to information disclosure. Including comments to media and general public. • The Community Reference Group will not have the authority or power to commit the City of Albany Council to expenditure outside of Council endorsement. • Planning for the Project and any generation of substantial concepts will follow local government protocols of approvals, due diligence and whichever applies during the process.
Membership	**Process** Expressions of Interest for members will be called for. Interested individuals will be required to submit a 2-page CV and letter outlining their relevant experience, community representation and interest. EOI's will be assessed by a panel comprising the Mayor of Albany, Executive Director of Community Services, Bicentenary Coordinator and 1-2 independent members of the community. A minimum of 5 and maximum of 10 members will be determined through this process who have the relevant skills and community relationships to ensure broad representation. Membership should ensure representation of key sectors including: - Creative Industries - Sport - Heritage - Volunteers/NFP - Youth - Seniors Once established a Chair will be nominated by the Group & Terms of Reference adopted. Secretariat support will be provided by the City of Albany.

Reference Group Ground Rules	The following rules must be adhered to by all who attend the meetings and consist of: • Start and finish on time. • All participate and contribute – everyone is given an opportunity to voice their opinions. • We agree to be respectful of the rights of others to hold values, attitudes, and opinions that differ from their own. • Keep discussions on the topic and focused. • We will declare our interests where appropriate & follow City of Albany protocols.
Duration of the Working Group	The CRG will commence under these Terms of Reference from the 'Initiation Meeting' [start date TBC] and will be ongoing until completion of the Project or at such time the Group agrees it has achieved the remit and is no longer required to meet in the current form for progression of the Project. Terms of Reference will be reviewed at the first scheduled meeting and members will agree on its content. Following this, Terms of Reference will be reviewed regularly to ensure their relevance in relation to the role, membership and responsibilities of the Group in the next phases.
Additional Members	Members with the relevant skills, experience, interest or decision-making authority can be included in the membership of this group on a co-opt basis to provide advice or assistance on the remit or associated objectives.
Quorum	Number to be determined once group size known.
Reporting and Control	Reporting Frequency: Meetings will be convened as required to achieve the stated purpose(s) Change Control: Changes considered 'in scope' of the Community Reference Group responsibility will be scheduled on the agenda. Terms of Reference for the Community Reference Group will be reviewed at the completion of each phase of the project.
Agenda Management	Papers will be emailed to CRG members at least 2 days prior to the meeting. Minutes will be available at the latest, 10 working days after a meeting. Minutes of previous meetings that are accepted by the CRG should be signed by the Chair as being a true record of the discussions and decisions of the Group. All minutes and documents relating to the CRG will remain the sole property of the City of Albany.

Roles and Responsibilities

Chairperson:

The Chairperson is the presiding officer of the Community Reference Group, the chief advocate for the project within the community and nominated representative to the Advisory Group.

The Chair is responsible for ensuring that:

- Meetings are guided by a documented agenda, developed in consultation with the Secretariat;
- The right matters are considered during the meeting;
- Matters are considered carefully and thoroughly;
- All members are given the opportunity to effectively contribute;
- The Group comes to clear decisions and these are properly understood and documented; and
- Minutes of the meeting are published in a timely manner.

In the event that the Chairperson is absent or the role is temporarily vacant, the Members present at a meeting shall appoint one of the Members to preside at the meeting.

Members:

Members contribute to and share responsibility for the overall function and performance of the Group. They are required to meet all expectations in relation to probity, transparency and accountability. This includes not making inappropriate use of information gained through Group matters.

Each member present at a meeting shall be entitled to one vote.

Members are advocates for the Bicentenary project and should contribute positively to the project within their formal capacity as member, the operation of the Group, and at all times within the community.

Secretariat

The secretariat provides administrative support to the Group by:

- Ensuring that items presented are of suitable quality and content, are fit for purpose and submitted within required timeframes;
- Ensuring that all actions and deadlines directed by the Steering Group are completed in a timely manner;
- Maintaining the official records of the Group;
- Assisting in the creation and distribution of the agenda and papers;
- Ensuring papers presented to the Group have adequate information relevant to the subject and decision requested, to enable informed decision making;
- Drafting and distributing the meeting minutes; and
- Undertaking research and other diligence as requested by the Group.

Terms of Reference

Bicentenary of Albany

Commercial & Industry Reference Group

The City of Albany has established a Commercial & Industry Reference Group (CIRG) to assist in the development of a response to the Bicentenary of Albany. This group will form part of a broader governance architecture that will have oversight of engagement and planning for the Bicentenary.

Title	**Bicentenary of Albany Commercial & Industry Reference Group**
Chair	TBC
Project Manager	City of Albany: Bethany Findlay
Date	TBC

Purpose

Key Objectives:

- The CIRG will provide a link between Council, the Advisory Group and the broader commercial community.
- Support engagement and consultation with the commercial community.
- Provide the Advisory Group with a comprehensive overview of the ideas, aspirations and needs of the local commercial community.
- Identify and articulate any commercial opportunities linked to or arising from the 2026 Project.
- Identify potential corporate funding and/or sponsorship opportunities or in kind support which may be beneficial to the Project.
- Provide advocacy, expert advice and support during design and implementation of Project objectives.

General Responsibilities:

- Identify and facilitate discussion with key industry stakeholders.
- Provide expert advice to the Advisory Group regarding industry needs, aspirations and ideas.
- Support the Implementation Group to achieve objectives of the Advisory Group in relation to commercial activities.
- Ensure the views and interests of the commercial community are represented, and relevant stakeholders engaged.
- Provide an active and positive contribution to the Project.
- Review documents as required and provide advice and recommendations. Any major changes to draft documents recommended by the reference group will be advised to the Advisory Group.

Operating Principles	• Be pragmatic and flexible in both approach and process to ensure timely and efficient project delivery. • Ensure appropriate representation of all views are considered. • Encourage openness, transparency, cooperation, collaboration and sharing of information with all stakeholders. • CIRG members are expected to declare any conflict of interests to the Chair at the first meeting, and at any time such conflict may arise while a sitting member. If conflict situations arise in meetings, members are to advise other members and follow City of Albany protocols. These decisions are to be minuted. • Act as advocates for the Project, its intent and outcomes. • Identify opportunities to reduce duplication of effort and encourage project efficiencies. • Actively communicate, collaborate, listen and respond to colleagues and the wider community; have a creative approach to problem solving, always looking forward, and be socially and environmentally responsible. • Communicate absences and nominate proxies as required. • Maintain confidentiality in regard to information disclosure. This includes comments to media and the general public. • The Commercial Reference Group will not have the authority or power to commit the City of Albany Council to expenditure outside of Council endorsement. • Planning for the Project and any generation of substantial concepts will follow local government protocols of approvals, due diligence and whichever applies during the process.

Membership	**Role**	**Organisation**	**Position**
	Expressions of Interest for members will be called for. Interested individuals will be required to submit a 2-page CV and letter outlining their relevant experience, commercial & industry representation and interest. EOI's will be assessed by a panel comprising the Mayor of Albany, Executive Director of Community Services, Bicentenary Coordinator and 1-2 independent members. A minimum of 5 and maximum of 10 members will be determined through this process who have the relevant skills and community relationships to ensure broad representation. Membership should ensure representation of key sectors including: - Small Business - Tourism - Primary Industries - Creative Industries - Trade Once established a Chair will be nominated by the Group & Terms of Reference adopted. Secretariat support will be provided by the City of Albany.		

Reference Group Ground Rules	The following rules must be adhered to by all who attend the meetings and consist of: • Start and finish on time. • All participate and contribute – everyone is given an opportunity to voice their opinions. • No personal attacks. Challenge ideas, not people. • We agree to be respectful of the rights of others to hold values, attitudes, and opinions that differ from their own. • Keep discussions on the topic and focused. • We will declare our interests where appropriate & follow City of Albany protocols.
Duration of the Working Group	The Commercial Reference Group will commence under these Terms of Reference from the 'Initiation Meeting' [start date TBC] and will be ongoing until completion of the Project or at such time the Group agrees it has achieved the remit and is no longer required to meet in the current form for progression of the Project. Terms of Reference will be reviewed at the first scheduled meeting and members will agree on its content. Following this, Terms of Reference will be reviewed regularly to ensure their relevance in relation to the role, membership and responsibilities of the Group in the next phases.
Additional Members	Members with the relevant skills, experience, interest or decision-making authority can be included in the membership of this group on a co-opt basis to provide advice or assistance on the remit or associated objectives.
Quorum	Number to be determined once group size known.
Reporting and Control	Reporting Frequency: Meetings will be convened as required to achieve the stated purpose(s) Change Control: Changes considered 'in scope' of the Commercial Reference Group responsibility will be scheduled on the agenda. Terms of Reference for the Commercial Reference Group will be reviewed at the completion of each phase of the project.
Agenda Management	Papers will be emailed to CERG members by COB the day prior to the meeting. Minutes will be available at the latest, 10 working days after a meeting. Minutes of previous meetings that are accepted by the CERG should be signed by the Chair as being a true record of the discussions and decisions of the Group. All minutes and documents relating to the Commercial Reference Group will remain the sole property of the City of Albany.

Roles and Responsibilities

Chairperson:

The Chairperson is the presiding officer of the Commercial & Industry Reference Group, the chief advocate for the project within the community and nominated representative to the Advisory Group.

The Chair is responsible for ensuring that:

- Meetings are guided by a documented agenda, developed in consultation with the Secretariat;
- The right matters are considered during the meeting;
- Matters are considered carefully and thoroughly;
- All members are given the opportunity to effectively contribute;
- The Group comes to clear decisions and these are properly understood and documented; and
- Minutes of the meeting are published in a timely manner.

In the event that the Chairperson is absent or the role is temporarily vacant, the Members present at a meeting shall appoint one of the Members to preside at the meeting.

Members:

Members contribute to and share responsibility for the overall function and performance of the Group. They are required to meet all expectations in relation to probity, transparency and accountability. This includes not making inappropriate use of information gained through Group matters.

Each member present at a meeting shall be entitled to one vote.

Members are advocates for the Bicentenary project and should contribute positively to the project within their formal capacity as member, the operation of the Group, and at all times within the community.

Secretariat

The secretariat provides administrative support to the Group by:

- Ensuring that items presented are of suitable quality and content, are fit for purpose and submitted within required timeframes;
- Ensuring that all actions and deadlines directed by the Steering Group are completed in a timely manner;
- Maintaining the official records of the Group;
- Assisting in the creation and distribution of the agenda and papers;
- Ensuring papers presented to the Group have adequate information relevant to the subject and decision requested, to enable informed decision making;
- Drafting and distributing the meeting minutes; and
- Undertaking research and other diligence as requested by the Group.

CITY OF ALBANY

MONTHLY FINANCIAL REPORT

(Containing the Statement of Financial Activity)

FOR THE PERIOD ENDED 30 JUNE 2021

LOCAL GOVERNMENT ACT 1995
LOCAL GOVERNMENT (FINANCIAL MANAGEMENT) REGULATIONS 1996

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CITY OF ALBANY
COMPILATION REPORT
FOR THE PERIOD ENDED 30 JUNE 2021

Report Purpose
This report is prepared to meet the requirements of Local Government (Financial Management) Regulations 1996, Regulation 34.

Overview
The financial information included within this report is preliminary, and has not yet been audited.
Reserve transfer figures are preliminary and subject to possible further end of year adjustments
Other figures are subject to change pending the year end audit.

The closing surplus (preliminary, not yet audited) of $3,154,749 is used to fund carried forward projects in the 2021/22 Budget.

The projected surplus carried forward (forecast in May-21, included in the 2021/22 budget), was $3,959,643.

The discrepancy is timing related. Primarily where grant revenue, forecast to be recognised in FY20/21, is held as a liability and is to be reported as revenue once contractual obligations are met.

Under the 2021/22 budget, Note 15: Projects carried forward - allocates this as follows:

Total Carried forward - 2020/21 Budget		$25,495,884
Funded by:		
	Municipal (Opening Surplus)	$3,959,643
	Grant	$15,650,339
	Reserves	$5,885,902

Statement of Financial Activity by reporting nature or type
Shows a Closing Funding Position for the period ended 30 June 2021 of $3,154,749.

Note: The Statements and accompanying notes are prepared based on all transactions recorded at the time of preparation and may vary.

Preparation
Prepared by: P. Martin
Financial Accountant

Reviewed by: S. Van Nierop
Manager Finance

Date prepared: 31-Jul-2021

CITY OF ALBANY
STATEMENT OF FINANCIAL ACTIVITY
BY NATURE OR TYPE
FOR THE PERIOD ENDED 30 JUNE 2021

	Ref Note	Original Annual Budget	Revised Annual Budget	YTD Budget (a)	YTD Actual (b)	Var. $ (b)-(a)	Var. % (b)-(a)/(a)	Var.
		$	$	$	$	$	%	
Operating Revenues								
Rate Revenue		38,713,076	38,845,107	38,845,107	**38,810,603**	(34,504)	(0%)	
Grants & Subsidies		3,841,554	4,445,125	4,445,125	**6,052,882**	1,607,756	36%	▲
Contributions, Donations & Reimbursements		759,356	1,201,902	1,201,902	**1,213,830**	11,928	1%	
Profit on Asset Disposal		1,000	1,000	1,000	**111,259**	110,259	11026%	▲
Fees and Charges		14,616,563	17,195,098	17,195,098	**19,096,042**	1,900,944	11%	▲
Interest Earnings		533,114	445,748	445,748	**392,634**	(53,114)	(12%)	
Other Revenue		183,306	183,306	183,306	**189,256**	5,950	3%	
		58,647,969	**62,317,286**	**62,317,286**	**65,866,506**			
Operating Expenses								
Employee Costs		(25,490,427)	(25,629,236)	(25,629,236)	**(25,670,346)**	(41,110)	(0%)	
Materials and Contracts		(20,949,996)	(20,840,427)	(20,840,427)	**(16,632,662)**	4,207,765	20%	▼
Utilities Charges		(1,786,962)	(1,786,962)	(1,786,962)	**(1,855,345)**	(68,383)	(4%)	
Depreciation (Non-Current Assets)		(16,848,328)	(17,629,569)	(17,629,569)	**(17,354,367)**	275,202	2%	▼
Interest Expenses		(640,704)	(640,704)	(640,704)	**(628,143)**	12,561	2%	
Insurance Expenses		(738,880)	(738,880)	(738,880)	**(700,903)**	37,977	5%	
Loss on Asset Disposal		(454,292)	(454,292)	(454,292)	**(85,256)**	369,036	81%	▼
Other Expenditure		(2,721,166)	(3,045,516)	(3,045,516)	**(2,645,654)**	399,862	13%	▼
Less: Allocated to Infrastructure		916,295	916,295	916,295	**1,355,323**	439,028	(48%)	▼
		(68,714,460)	**(69,849,291)**	**(69,849,291)**	**(64,217,355)**			
Contributions for the Development of Assets								
Grants & Subsidies		16,818,720	22,227,445	22,227,445	**7,572,540**	(14,654,905)	(66%)	▼
Contributions, Donations & Reimbursements		457,266	4,326,219	4,326,219	**404,156**	(3,922,063)	91%	▼
		17,275,986	**26,553,664**	**26,553,664**	**7,976,696**			
Net Operating Result		**7,209,495**	**19,021,659**	**19,021,660**	**9,625,847**			
Funding Balance Adjustment								
Add Back: Depreciation		16,848,328	17,629,569	17,629,569	**17,354,367**	(275,202)	(2%)	▼
Adjust (Profit)/Loss on Asset Disposal		453,292	453,292	453,292	**(26,003)**	(479,295)	(106%)	▼
Adjust (Profit)/Loss on Value of Investments		-	-	-	**(12,150)**	(12,150)	-	
Carrying Value Investment Land Sold		-	82,000	82,000	**158,000**	76,000	93%	
Movement From Non-Current to Current		-	-	-	**710,666**	710,666	100%	▲
Funds Demanded From Operations		**24,511,115**	**37,186,520**	**37,186,521**	**27,810,728**			
Capital Revenues								
Proceeds from Disposal of Assets		675,500	675,500	675,500	**703,830**	28,330	4%	
		675,500	**675,500**	**675,500**	**703,830**			
Acquisition of Fixed Assets								
Land and Buildings	5	(7,118,042)	(8,742,640)	(8,742,640)	**(2,709,077)**	6,033,563	69%	▼
Furniture, Plant and Equipment	5	(3,604,178)	(4,566,377)	(4,566,377)	**(2,291,290)**	2,275,087	50%	▼
Infrastructure Assets - Roads	5	(7,050,384)	(7,696,207)	(7,696,207)	**(4,859,548)**	2,836,660	37%	▼
Infrastructure Assets - Coastal Enhancement	5	(5,654,670)	(6,785,984)	(6,785,984)	**(2,561,717)**	4,224,267	62%	▼
Infrastructure Assets - Other	5	(13,865,612)	(16,799,047)	(16,799,047)	**(6,165,757)**	10,633,290	63%	▼
		(37,292,886)	**(44,590,255)**	**(44,590,255)**	**(18,587,388)**			
Financing/Borrowing								
Repayment of Borrowing		(2,522,892)	(2,522,892)	(2,522,892)	**(2,522,894)**	(2)	(0%)	
Proceeds from Borrowing		2,000,000	-	-	**-**	-		
Principal Portion of Lease Liabilities		(170,922)	(170,922)	(170,922)	**(170,923)**	(1)	(0%)	
Self-Supporting Loan Principal		13,307	13,307	13,307	**13,307**	0	(0%)	
		(680,507)	**(2,680,507)**	**(2,680,507)**	**(2,680,509)**			
Demand for Resources		**(12,786,778)**	**(9,408,742)**	**(9,408,742)**	**7,246,661**			
Restricted Funding Movements								
Opening Position		4,057,162	4,055,047	4,055,047	**4,055,047**	0	0%	
Restricted Cash Utilised - Loan		102,070	-	-	**-**	0		
Transfer to Reserves		(13,834,304)	(14,845,792)	(14,845,792)	**(22,841,305)**	(7,995,513)	54%	▼
Transfer from Reserves		22,461,850	20,199,487	20,199,487	**14,694,346**	(5,505,141)	-27%	▼
		12,786,778	**9,408,742**	**9,408,742**	**(4,091,912)**			
Closing Funding Surplus/(Deficit)		**-**	**-**	**-**	**3,154,749**			

CITY OF ALBANY
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2021

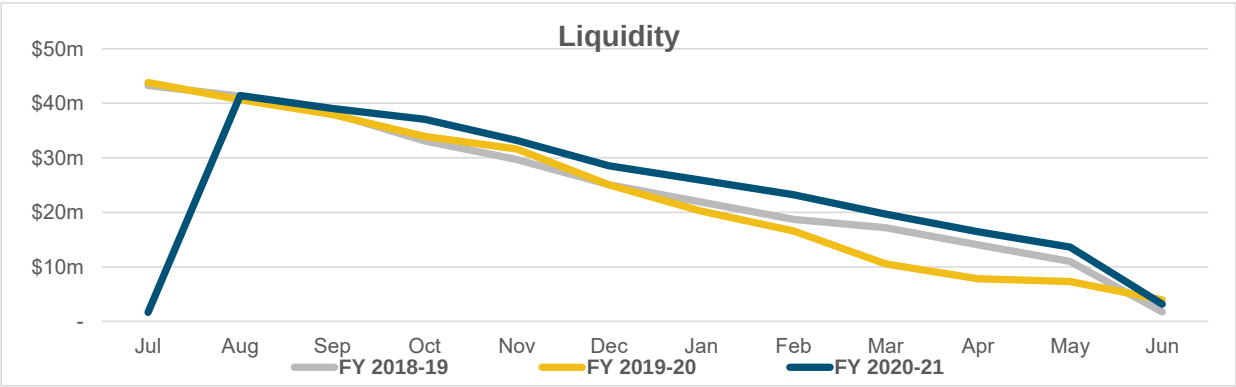
NOTE 1
EXPLANATION OF MATERIAL VARIANCES TO YTD BUDGET IN EXCESS OF $100,000

	Var. $	Var. %	Var.	Timing/ Permanent	Explanation of Variance
	$	%			
Operating Revenues					
Rate Revenue	(34,504)	0%			No material variance.
Grants & Subsidies	1,607,756	36%	▲	Permanent	Prepayment of 21/22 Financial Assistance Grants.
Contributions, Donations & Reimbursements	11,928	1%			No material variance.
Profit on Asset Disposal	110,259	11026%	▲	Permanent	Variance is in favour of the City and is primarily resultant from a buoyant second-hand market for asset disposals made through the City's plant replacement programs reported under Note 5.
Fees and Charges	1,900,944	11%	▲	Permanent	Performance ahead of YTD budget across most areas of the City. Significant positive variances include ALAC ($401k), Refuse ($320k), Airport ($315k), Planning/Building ($284k), NAC ($265k), Sale of Scrap Metal ($78k) and Leasing ($46k).
Interest Earnings	(53,114)	-12%			No material variance.
Other Revenue	5,950	3%			No material variance.
Operating Expenses					
Employee Costs	(41,110)	(0%)			No material variance.
Materials and Contracts	4,207,765	20%	▼	Permanent	Attributable variances across 294 budgeted accounts (average of $14.62k variance for each account). Large variances to budget can be observed in Motorsport Planning ($294k), Major Software Licences ($271k), Food Waste Diversion ($242k), Kerbside Waste Collection ($210k), Recreation - Strategic Planning ($198k), Bicentenary Planning ($139k) & Trades Maintenance ($127k). Numerous underspends across various departments & minor programs can be observed in the range of $40 to $110k.
Utilities Charges	(68,383)	(4%)			No material variance.
Depreciation (Non-Current Assets)	275,202	2%	▼	Permanent	Depreciation less than YTD budget primarily for furniture and equipment, can be attributed to timing of additions and disposals, as well as some assets reaching their residual value and no longer depreciated.
Interest Expenses	12,561	2%			No material variance.
Insurance Expenses	37,977	5%			No material variance.
Loss on Asset Disposal	369,036	81%	▼	Permanent	Variance is in favour of the City and is primarily resultant from a buoyant second-hand market for assets being disposed of through plant replacement programs reported under Note 5.
Other Expenditure	399,862	13%	▼	Permanent	Principally the variance can be attributed to Bridge Maintenance ($145k), Seed Funding for Sporting Clubs ($117k), Donation and Sponsorship activities for COVID-19 Community Recovery Programs ($96k), Minor Structures Maintenance ($66k), and Community Events Assistance ($32k).
Less: Allocated to Infrastructure	439,028	(48%)	▼	Permanent	Observed variance is directly attributable to the current underspend exhibited in the city's maintenance projects.
Contributions for the Development of Assets					
Grants & Subsidies	(14,654,905)	(66%)	▼	Permanent	Variance is attributable to the timing of cash from grants being received and the recognition of associated income. Income recognition is tied to the completion of project milestones, and thus the variance is directly associated to capital expenditure. As grant funded projects near completion, income will be recognised. Grant contributions received in advance are reported as a Contract Liability, observed in Note 2.
Contributions, Donations & Reimbursements	(3,922,063)	91%	▼	Permanent	As above. Variance is attributable to the timing of cash from grants being received and the recognition of associated income. Income recognition is tied to the completion of project milestones, and thus the variance is directly associated to capital expenditure.
Funding Balance Adjustment					
Add Back: Depreciation	(275,202)	(2%)	▼	Permanent	Depreciation less than YTD budget primarily for furniture and equipment, can be attributed to timing of additions and disposals, as well as some assets reaching their residual value and no longer depreciated.
Adjust (Profit)/Loss on Asset Disposal	(479,295)	(106%)	▼	Permanent	Variance is in favour of the City and is primarily resultant from the timing of the City's plant replacement program and budget phasing with regards to land disposal transactions. Additionally a buoyant second-hand market for assets being disposed of through plant replacement programs reported under Note 5, has resulted in gains on asset disposals.
Carrying Value Investment Land Sold	76,000	93%			No material variance.
Capital Revenues					
Capital Revenues	28,330	4%			No material variance.
Acquisition of Fixed Assets					
Land and Buildings	6,033,563	69%	▼	Permanent	Observable variances across 49 capital projects. Includes Waste projects, Security System upgrades of City buildings, Library Fit Out, & general upgrades to City buildings. SES Facilities & Amenities ($2.86m) Waste projects ($1.307m), Animal Impound Improvements ($132k), Solar Panel Installations ($136k) & ALAC Roof Renewal ($150k) have been identified as carry forward projects for 21/22.
Furniture, Plant and Equipment	2,275,087	50%	▼	Permanent	Primarily timing of heavy plant replacements ($701k variance - underspend carried forward) and multiple minor projects across various business units. NAC Refresh ($374k variance) & DFES contributed fire appliances ($969k variance) have been carried forward to 21/22.
Infrastructure Assets - Roads	2,836,660	37%	▼	Permanent	Timing of completion for numerous road projects. Attributable variances noted as carry forward projects include Sanford Rd ($313k), Frenchman Bay Rd ($287k), Drummond St ($539k), Palmdale Rd ($526k) & Mindijup Rd ($278k).
Infrastructure Assets - Coastal Enhancement	4,224,267	62%	▼	Permanent	Middleton Beach Public Realm Enhancements. Project has been carried forward for 21/22.
Infrastructure Assets - Other	10,633,290	63%	▼	Permanent	Principal variances have been carried forward to 21/22 and include Airport runway resurfacing ($4.98m YTD variance), CPSP Projects ($594k), Artificial Fishing Reef ($400k), Sanford Road Drainage ($254k), Kerbing Renewals ($144k) as well as numerous smaller projects.
Financing/Borrowing					
Repayment of Borrowing	(2)	(0%)			No material variance.
Proceeds from Borrowing	-	-			No material variance.
Principal Portion of Lease Liabilities	(1)	(0%)			No material variance.
Self-Supporting Loan Principal	0	(0%)			No material variance.
Restricted Funding Movements					
Opening Position	0	0%			No material variance.
Restricted Cash Utilised - Loan	-				No material variance.
Transfer to Reserves	(7,995,513)	54%	▼	Permanent	Preliminary reserve transfers - final amounts subject to possible further end of year adjustments.
Transfer from Reserves	(5,505,141)	(27%)	▼	Permanent	Preliminary reserve transfers - final amounts subject to possible further end of year adjustments.

CITY OF ALBANY
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2021

NOTE 2
NET CURRENT FUNDING POSITION

	Ref Note	FOR THE PERIOD ENDED 30 JUNE 2021	FOR THE PERIOD ENDED 31 MAY 2021	FOR THE PERIOD ENDED 30 JUNE 2020
		$	$	$
Current Assets				
Cash Unrestricted		16,421,799	25,332,543	11,515,058
Cash Restricted		37,374,753	29,404,665	29,306,650
Receivable - Rates and Rubbish	4	1,693,991	2,272,400	1,624,258
Receivables - Other		1,062,885	1,052,159	848,063
Accrued Income		251,943	224,784	402,766
Prepaid Expenses		505,528	42,035	446,133
Investment Land		-	-	158,000
Community Group Loan		13,729	-	13,307
Stock on Hand		1,048,767	1,241,448	1,420,289
		59,592,394	**59,570,033**	**46,383,862**
Less: Current Liabilities				
Payables		(4,085,391)	(1,998,559)	(3,856,959)
Borrowings		(2,413,321)	(1,078,806)	(2,522,894)
Prepaid Rates		(1,372,118)	(1,156,930)	(1,119,712)
Contract Liabilities		(5,812,866)	(6,972,669)	(1,094,479)
Lease Liabilities		(183,570)	(14,244)	(170,923)
Accrued Expenses		(1,252,297)	(3,765)	(230,741)
Income in advance		(388,340)	(449,937)	(508,924)
Provisions		(6,002,919)	(6,007,252)	(6,060,777)
Retentions		(135,232)	(110,490)	(135,542)
		(21,646,054)	**(17,792,653)**	**(15,700,951)**
Add Back: Borrowings		2,413,321	1,078,806	2,522,894
Add Back: Lease liability payments		183,570	14,244	170,923
(Less): Cash Backed Reserves		(37,374,753)	(29,227,794)	(29,298,894)
(Less): Loans Receivable (Current)		(13,729)	-	(13,307)
(Less): Investment land		-	-	(158,000)
		(34,791,591)	**(28,134,744)**	**(26,776,385)**
Net Current Funding Position		**3,154,749**	**13,642,637**	**3,906,525**

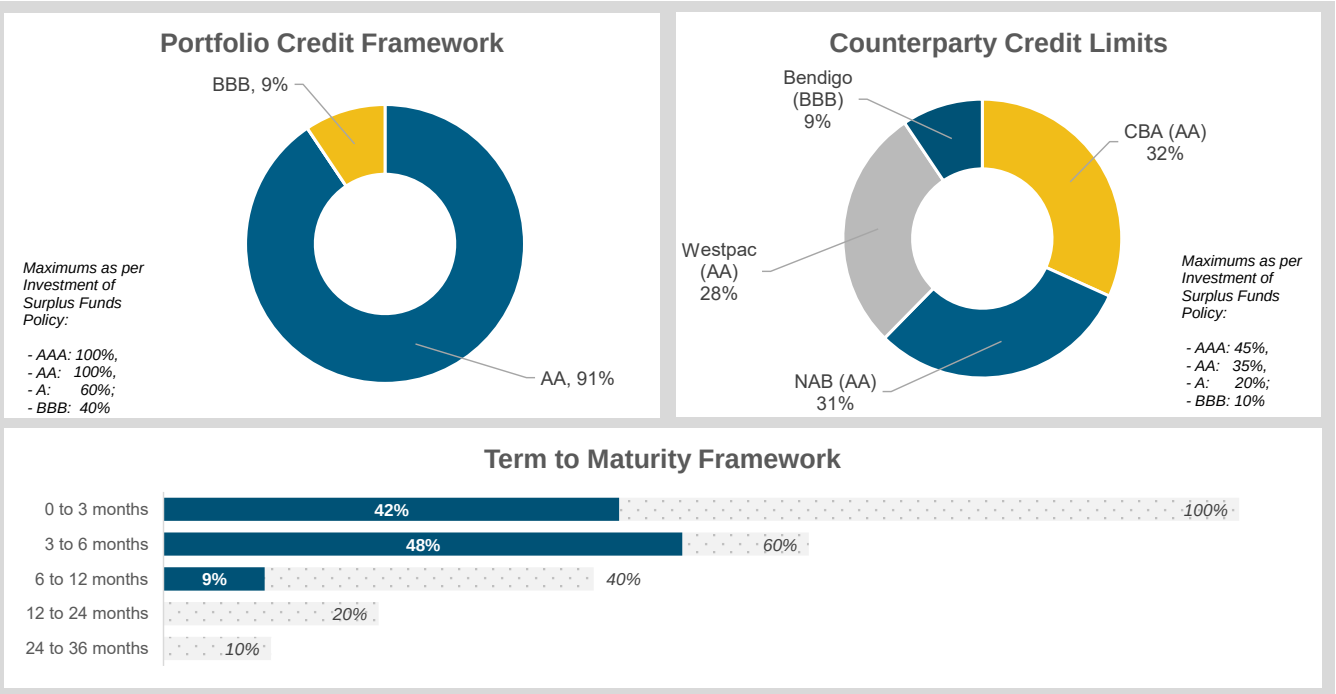


COMMENTS:

CITY OF ALBANY
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2021

NOTE 3
CASH INVESTMENTS

Investment Type	Institution	S&P Rating	Interest Rate	Deposit Date	Maturity	Investment Term Category	Amount Invested ($)	Expected Interest ($)
General Municipal	NAB	AA	0.30%	07-Apr-21	06-Jul-21	0 to 3 months	3,000,000	2,219
General Municipal	Westpac	AA	0.22%	09-Feb-21	09-Jul-21	3 to 6 months	3,000,000	2,712
General Municipal	CBA	AA	0.21%	04-May-21	02-Aug-21	0 to 3 months	3,000,000	1,553
General Municipal	CBA	AA	0.23%	07-May-21	09-Aug-21	3 to 6 months	1,500,000	888
General Municipal	NAB	AA	0.29%	21-Jun-21	20-Sep-21	0 to 3 months	1,500,000	1,085
General Municipal	NAB	AA	0.28%	28-Jun-21	28-Sep-21	0 to 3 months	2,500,000	1,764
General Municipal	Bendigo	BBB	0.25%	22-Jun-21	20-Oct-21	3 to 6 months	2,000,000	1,644
							16,500,000	**11,866**
Restricted	CBA	AA	0.21%	07-Apr-21	07-Jul-21	0 to 3 months	2,000,000	1,047
Restricted	Bendigo	BBB	0.20%	15-Mar-21	13-Jul-21	3 to 6 months	2,000,000	1,315
Restricted	Westpac	AA	0.22%	15-Feb-21	15-Jul-21	3 to 6 months	2,000,000	1,808
Restricted	Westpac	AA	0.27%	21-Jan-21	21-Jul-21	3 to 6 months	3,000,000	4,061
Restricted	CBA	AA	0.23%	22-Mar-21	22-Jul-21	3 to 6 months	3,500,000	2,691
Restricted	Westpac	AA	0.35%	29-Jan-21	29-Aug-21	6 to 12 months	4,000,000	8,132
Restricted	NAB	AA	0.30%	31-May-21	30-Aug-21	0 to 3 months	3,000,000	2,244
Restricted	NAB	AA	0.28%	14-Jun-21	13-Sep-21	0 to 3 months	3,000,000	2,094
Restricted	CBA	AA	0.20%	24-May-21	21-Sep-21	3 to 6 months	3,500,000	2,301
							26,000,000	**25,693**
Weighted Average Interest Rate:			**0.26%**			**Total:**	**42,500,000**	**37,560**

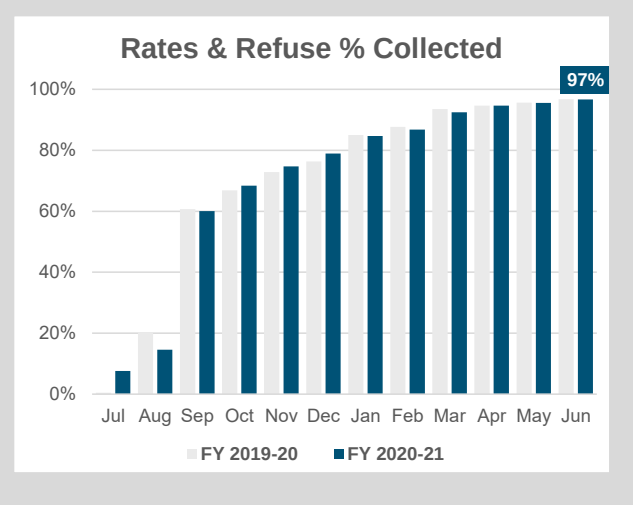


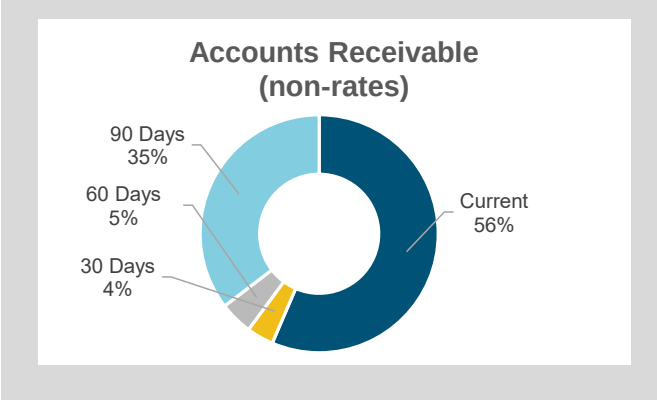
COMMENTS:

CITY OF ALBANY
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2021

NOTE 4
RECEIVABLES

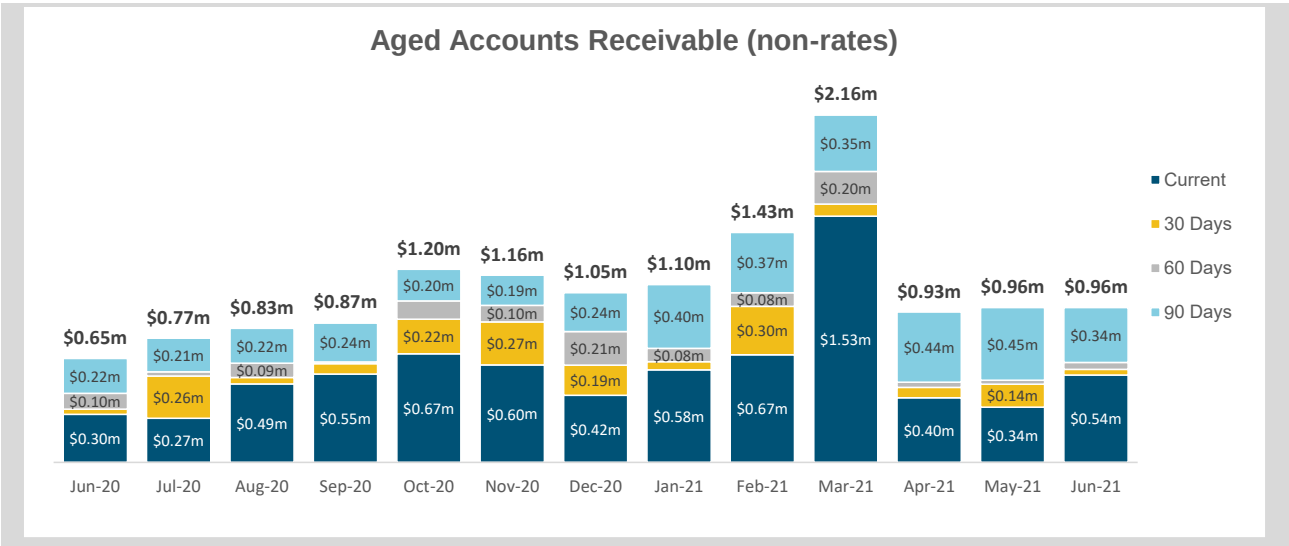
Rates & Refuse % Collected	$
Opening Arrears Previous Years	1,527,901
Rates Levied	38,810,603
Refuse Levied	6,463,284
ESL Levied	3,515,084
Other Charges Levied	263,766
Amount Levied	**50,580,638**
(Less): Collections (Prior Years)	(1,131,769)
(Less): Collections (Current Year)	(47,754,878)
Amount Collected	**(48,886,647)**
Total Rates & Charges Collectable	**1,693,991**
% Collected	*96.7%*





Accounts Receivable (non-rates)	$	%
Current	542,817	*56%*
30 Days	35,218	*4%*
60 Days	43,290	*5%*
90 Days	340,317	*35%*
	961,643	***100%***

Amounts shown above include GST (where applicable)



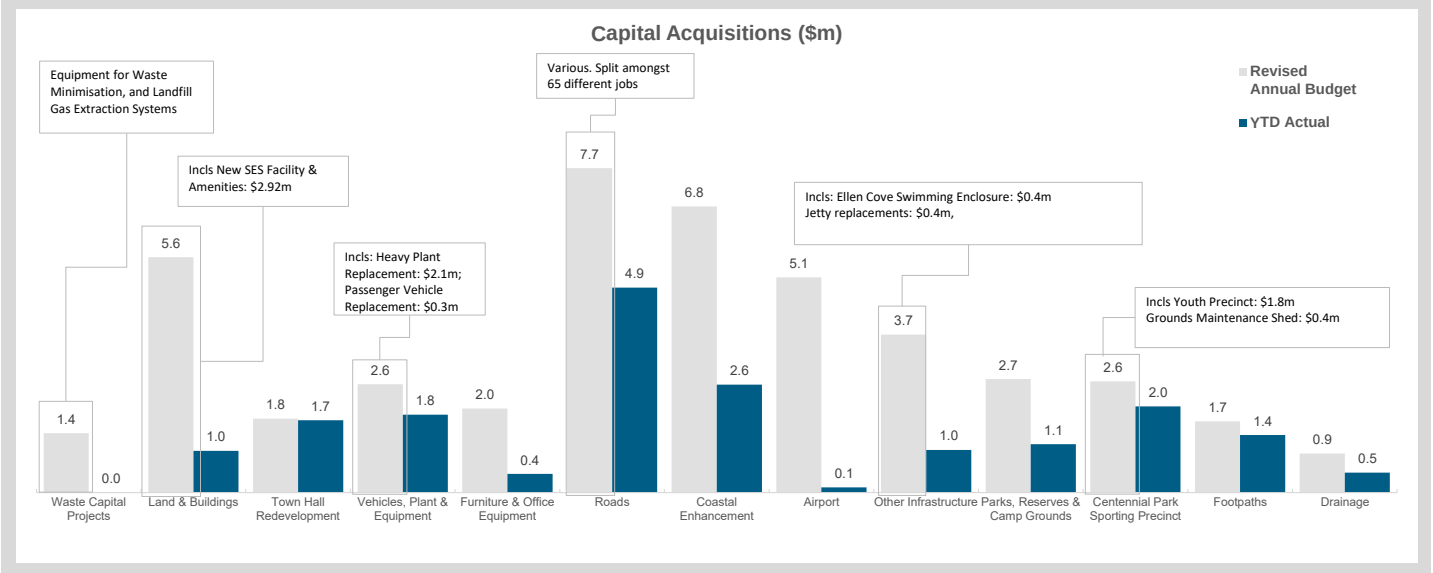
Leasing: COVID Rent Concession

Total rent concessions approved to date under the City of Albany COVID-19 Rent Concession (CCS237, SCM021) totals $214,360.80 (inc GST) for the period 1 April 2020 to 28 March 2021 (the date at which rent concessions ceased).

CITY OF ALBANY
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 30 JUNE 2021

NOTE 5
CAPITAL ACQUISITIONS

Capital Acquisitions	Category	Original Annual Budget	Revised Annual Budget	YTD Budget (a)	YTD Actual (b)	Var. $ (b)-(a)	Var. % (b)-(a)/(a)	Var.
		$	$	$	$	$	%	
Waste Capital Projects	Land and Buildings	3,407,528	1,407,528	1,407,528	**4,480**	(1,403,048)	(100%)	▼
Land & Buildings	Land and Buildings	2,322,202	5,581,580	5,581,580	**988,479**	(4,593,101)	(82%)	▼
Town Hall Redevelopment	Land and Buildings	1,388,312	1,753,532	1,753,532	**1,716,118**	(37,414)	(2%)	
Vehicles, Plant & Equipment	Furniture, Plant and Equipment	2,496,000	2,571,285	2,571,285	**1,848,290**	(722,995)	(28%)	▼
Furniture & Office Equipment	Furniture, Plant and Equipment	1,108,178	1,995,092	1,995,092	**443,000**	(1,552,092)	(78%)	▼
Roads	Infrastructure Assets - Roads	7,050,384	7,696,207	7,696,207	**4,859,548**	(2,836,660)	(37%)	▼
Coastal Enhancement	Infrastructure Assets - Coastal Enhancement	5,654,670	6,785,984	6,785,984	**2,561,717**	(4,224,267)	(62%)	▼
Airport	Infrastructure Assets - Other	5,110,482	5,105,343	5,105,343	**122,677**	(4,982,666)	(98%)	▼
Other Infrastructure	Infrastructure Assets - Other	2,105,144	3,747,335	3,747,335	**1,013,482**	(2,733,853)	(73%)	▼
Parks, Reserves & Camp Grounds	Infrastructure Assets - Other	2,052,115	2,691,331	2,691,331	**1,148,299**	(1,543,032)	(57%)	▼
Centennial Park Sporting Precinct	Infrastructure Assets - Other	2,263,453	2,638,950	2,638,950	**2,044,611**	(594,339)	(23%)	▼
Footpaths	Infrastructure Assets - Other	1,410,941	1,688,382	1,688,382	**1,364,178**	(324,204)	(19%)	▼
Drainage	Infrastructure Assets - Other	923,477	927,706	927,706	**472,511**	(455,195)	(49%)	▼
Total Capital Acquisitions		**37,292,886**	**44,590,255**	**44,590,255**	**18,587,388**	(26,002,867)	(58%)	▼



COMMENTS:

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

CREDIT CARD TRANSACTIONS

DATE	PAYEE	DESCRIPTION		AMOUNT
29/05/2021	WPMU	Replaces Licence Key Provided by Itomic	$	63.46
29/05/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	1.59
29/05/2021	MANTRA ON MURRAY	Accommodation - P Martin - Finance Conference	$	314.00
29/05/2021	MANTRA ON MURRAY	Parking - D Olde - Finance Conference	$	60.66
01/06/2021	STANDARDS AUSTRALIA	Purchase of AS ISO 31000:2018	$	124.91
04/06/2021	REZDY	Monthly Charge for Rezdy Account - Anzac Centre	$	327.80
06/06/2021	DROPBOX	Subscription for Incident Management Team (Ongoing)	$	231.00
08/06/2021	VEND POS	Monthly Charge for Vend Account - Visitors Centre	$	1.74
11/06/2021	SWIFTYPE.COM	Website Monthly Fee (USD $249) (Ongoing)	$	323.79
11/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	8.09
15/06/2021	REGIONAL EXPRESS	Flights - S Reitsema - Disaster Recovery Course	$	283.28
15/06/2021	PAYPAL	Forum - Cultural & Eco Tourism - S Williams	$	25.00
20/06/2021	REZDY	Monthly Charge for Rezdy Account - Visitors Centre	$	10.73
22/06/2021	VUESCAN SOFTWARE	Multi-User Licence for Library	$	533.80
22/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	13.35
23/06/2021	LANSWEEPER	Additional Assets Software	$	7,683.89
23/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	192.10
25/06/2021	ENVOYER	Monthly Website Change Fees	$	13.21
25/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	0.33
27/06/2021	ATRIUM RESORT	Accommodation - B Gordon - Bushfire Ready Seminar	$	278.00
28/06/2021	WPMU	Replaces Licence Key Provided By Itomic	$	64.72
28/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	1.62
29/05/2021	WIX.COM	Website Hosting	$	28.49
29/05/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	0.71
01/06/2021	CITY OF PERTH	Donation - Lord Mayor's Distress Fund - Tropical Cyclone Seroja Appeal	$	5,000.00
29/05/2021	MAJUBA BISTRO	Lunch Meeting - A Sharpe, D Wellington & A Hammond	$	141.50
01/06/2021	PAYPAL - BAREFACED	Reading Material	$	56.95
03/06/2021	AGENTUR PTY LTD	Local Government Chief Officer's Group Meeting - Delegate - To Be Refunded - Cancelled	$	812.98
04/06/2021	CROWN PERTH	Accommodation - Youth Scholarship Winners	$	463.50
05/06/2021	MAILCHIMP	Monthly Subscription Fee	$	369.07
09/06/2021	LIVE TAXI AUSTRALIA	Taxi Fares - A Sharpe & D Wellington - RCAWA Meeting	$	36.75
09/06/2021	SWAN TAXIS	Taxi Fares - A Sharpe & D Wellington - RCAWA Meeting	$	43.21
09/06/2021	YUMMY HOUSE CHINES	Meals - A Sharpe & D Wellington - RCAWA Meeting	$	58.60
13/06/2021	GOOGLE ADS	Online Advertising	$	2.68
16/06/2021	JK CAFÉ PTY LTD	Meals - A Sharpe - NAC Advisory Group Meeting	$	13.10
16/06/2021	JK CAFÉ PTY LTD	Meals - A Sharpe - NAC Advisory Group Meeting	$	8.60
16/06/2021	GM CABS PTY LTD	Taxi Fares - A Sharpe - NAC Advisory Group Meeting	$	12.92
16/06/2021	LATER.COM	Monthly - Social Media Scheduling Software	$	37.79
16/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	0.94
16/06/2021	BRUNCH STOP CAFÉ	Breakfast - Depot - Employee Wellness Program	$	395.00
16/06/2021	GARRISONS	Advertising Gift Card	$	207.38
16/06/2021	BWC PERTH	Taxi Fares - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	57.54
16/06/2021	PERTH CAFFE ITALIA	Meals - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	289.50
16/06/2021	PRINT HALL PERTH	Refreshments - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	20.32
16/06/2021	PRINT HALL PERTH	Refreshments - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	41.66
17/06/2021	LIVE TAXI AUSTRALIA	Taxi Fares - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	42.94

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

CREDIT CARD TRANSACTIONS

DATE	PAYEE	DESCRIPTION		AMOUNT
17/06/2021	GM CABS PTY LTD	Taxi Fares - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	14.49
17/06/2021	ADINA PERTH	Accommodation - R Muirhead - NAC Advisory Group Meeting	$	272.28
17/06/2021	ADINA PERTH	Accommodation - R Muirhead - NAC Advisory Group Meeting	$	249.00
20/06/2021	GM CABS PTY LTD	Taxi Fares - A Sharpe & D Wellington - NAC Advisory Group Meeting	$	25.67
20/06/2021	MANGROVE RESORT BROOME	Accommodation - A Sharpe - Regional Capitals Alliance WA	$	788.66
20/06/2021	MANGROVE RESORT BROOME	Accommodation - D Wellington - Regional Capitals Alliance WA	$	834.33
21/06/2021	CALTEX FORRESTDALE	Fuel - A Sharpe - Regional Capitals Alliance WA	$	8.47
21/06/2021	CALTEX ALBANY	Fuel - A Sharpe - Regional Capitals Alliance WA	$	57.07
27/06/2021	BUDGET RENT-A-CAR	Car Hire - A Sharpe & D Wellington - Regional Capitals Alliance WA	$	133.47
30/05/2021	CITY OF PERTH	Parking - P Camins - Institute of Company Directors Course	$	30.29
01/06/2021	CITY OF PERTH	Parking - P Camins - Institute of Company Directors Course	$	15.14
01/06/2021	LONG CHIM RESTAURANT	Meals - P Camins - Institute of Company Directors Course	$	65.78
02/06/2021	WA LOCAL GOVERNMENT ASSOCIATION	Course Fee - R March - Transport & Road Forum	$	70.00
02/06/2021	GRILL'D	Meals - P Camins - Institute of Company Directors Course	$	16.90
02/06/2021	CITY OF PERTH	Parking - P Camins - Institute of Company Directors Course	$	15.14
03/06/2021	CITY OF PERTH	Parking - P Camins - Institute of Company Directors Course	$	26.25
05/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
05/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
05/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
05/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
05/06/2021	QT HOTEL	Accommodation - P Camins - Institute of Company Directors Course	$	1,292.21
08/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
09/06/2021	MODEST MOUNTS, ADELAIDE SA	iPad - Vehicle Mount Kit	$	135.75
11/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
13/06/2021	SKYMESH	Monthly Fee for Cape Riche Internet service	$	54.95
16/06/2021	ENGINEERS AUSTRALIA	D Elliott - Membership Renewal Fee	$	290.00
16/06/2021	ENGINEERS AUSTRALIA	A Millar - Membership Renewal Fee	$	683.00
16/06/2021	MAIN ROADS WA	Special Purpose Vehicle Permits	$	25.00
21/06/2021	DEPT MINES, INDUSTRY REGULATION & SAFETY	Renewal - High Risk Work Licence	$	100.00
21/06/2021	DEPT MINES, INDUSTRY REGULATION & SAFETY	Renewal - High Risk Work Licence	$	100.00
22/06/2021	GREAT SOUTHERN SUPPLIES	Employee PPE	$	159.50
24/06/2021	DEPT MINES, INDUSTRY REGULATION & SAFETY	Renewal - High Risk Work Licence	$	53.00
30/05/2021	TRAVELODGE	Accommodation - D Theodore - Defence of Sydney Service 2021 - Australia Remembers Committee	$	626.93
04/06/2021	CROWN PERTH	Accommodation - Youth Scholarship Winners - RAAF Events	$	463.50
04/06/2021	CROWN PERTH	Accommodation - Youth Scholarship Winners - RAAF Events	$	463.50
07/06/2021	FACEBOOK	Facebook & Instagram Advertising	$	105.21
08/06/2021	SOUNDTRACK YOUR BRAND	Albany Leisure & Aquatic Centre - Monthly Subscription - Music Service	$	32.39
08/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	0.81
09/06/2021	ACCESS ALL AREAS	M Murray - Approved Managers Course Licence Premises	$	195.00
09/06/2021	SERENITY ON THE TERRACE	Accommodation - N Watson - NAC Advisory Group Meeting	$	301.13
11/06/2021	DMIRS EAST PERTH	Dangerous Goods Site Licence - Albany Leisure & Aquatic Centre	$	223.00
11/06/2021	DEPT OF RACING, GAMING	Occasional Liquor Licence - Albany Town Hall	$	235.00
11/06/2021	ACCESS ALL AREAS	T Crosby - Approved Managers Course Licence Premises	$	195.00
11/06/2021	CAFÉ ESPRESSO ONE	Meeting Refreshments	$	21.00
11/06/2021	PSA RADICAL FITNESS	Albany Leisure & Aquatic Centre - Monthly Subscription - Music Service - KIMAX	$	19.95
15/06/2021	QUAY PERTH	Accommodation - C Crane - NAC Advisory Group Meeting	$	436.08

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

CREDIT CARD TRANSACTIONS

DATE	PAYEE	DESCRIPTION		AMOUNT
16/06/2021	JK CAFÉ PTY LTD	Meals - N Watson - NAC Advisory Group Meeting	$	5.00
16/06/2021	JK CAFÉ PTY LTD	Meals - N Watson - NAC Advisory Group Meeting	$	5.00
17/06/2021	THE PENINSULA	Meals - N Watson - NAC Advisory Group Meeting	$	32.00
17/06/2021	NEUPANE	Meals - N Watson - NAC Advisory Group Meeting	$	13.00
17/06/2021	YORDAR.COM.AU	Catering - NAC Advisory Group Meeting	$	330.59
24/09/2021	RLSSWA	D McAleese - Training Requalification - Pool Lifeguard Course	$	159.00
27/06/2021	SHOPIFY	Forts Store Online - Shipping Calculator - Monthly Subscription	$	13.21
28/06/2021	COMMONWEALTH BANK LTD	International Transaction Fee	$	0.33
27/06/2021	CANVA PTY LTD	Albany Leisure & Aquatic Centre - Canva Subscription	$	164.99
			$	**28,407.17**

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

PAYROLL TRANSACTIONS

DATE	DESCRIPTION	AMOUNT
17/06/2021	Salaries	$ 661,780.23
18/06/2021	Superannuation	$ 116,176.96
30/06/2021	Salaries	$ 676,140.19
01/07/2021	Superannuation	$ 114,437.95
15/07/2021	Salaries	$ 726,793.03
	TOTAL	**$ 2,295,328.36**

CHEQUE TRANSACTIONS

CHEQUE	DATE	NAME	DESCRIPTION	AMOUNT
32677	17/06/2021	DEPARTMENT OF TRANSPORT	Amazing South Coast Number Plates	$ 270.00
32678	17/06/2021	DEPARTMENT OF TRANSPORT	Vehicle licence	$ 552.00
32681	24/06/2021	DEPARTMENT OF TRANSPORT - MARINE SAFETY	Jetty Renewal Fee - Albany Peace park	$ 42.95
32684	08/07/2021	PIVOTEL SATELLITE PTY LIMITED	Satellite Phone Charges	$ 581.00
32682	01/07/2021	TELSTRA CORPORATION LIMITED	Mobile Phone Charges	$ 13,270.32
32679	17/06/2021	TELSTRA CORPORATION LIMITED	Mobile Phone Charges	$ 18,261.59
32676	17/06/2021	WESTERN AUSTRALIA POLICE - ALBANY	Road Closure - Maritime Festival	$ 84.30
32680	24/06/2021	WESTERN AUSTRALIAN PLANNING COMMISSION	Land Amalgamation Application	$ 2,406.00
				$ 35,468.16

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151854	15/07/2021	2XU	Stock - ALAC	$	791.60
EFT151121	17/06/2021	35 DEGREES SOUTH	Survey Services	$	7,500.00
EFT151084	17/06/2021	A & M MEDICAL SERVICES	Regulator - ALAC	$	823.90
EFT151447	01/07/2021	A.B. ROOFING	Storm Damage/Repairs NAC	$	4,158.00
EFT151855	15/07/2021	A.B. ROOFING	Inspection Report Anzac Centre	$	715.00
EFT151066	17/06/2021	ABA SECURITY AND ELECTRICAL	Works/Repairs	$	125.00
EFT151446	01/07/2021	ABBEY'S EARTHMOVING SERVICES	Demolition and Sand Pad - Lowlands Beach Toilet	$	4,831.75
EFT151684	08/07/2021	ACORN TREES AND STUMPS	Chipping and Grinding Services - C19014	$	27,227.00
EFT151067	17/06/2021	AD CONTRACTORS PTY LTD	Equipment Hire - C19007	$	178,249.71
EFT151253	24/06/2021	AD CONTRACTORS PTY LTD	Equipment Hire - C19007	$	21,157.36
EFT151448	01/07/2021	AD CONTRACTORS PTY LTD	Equipment Hire - C19007	$	17,616.50
EFT151685	08/07/2021	AD CONTRACTORS PTY LTD	Equipment Hire - C19007	$	48,522.66
EFT151856	15/07/2021	AD CONTRACTORS PTY LTD	Equipment Hire - C19007	$	4,204.75
EFT151725	08/07/2021	ADRIAN CHESTER	Re-Imbursement Spare Parts Line Trimmer	$	5.00
EFT151094	17/06/2021	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Provision of Traffic Control - C17014	$	31,985.30
EFT151276	24/06/2021	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Provision of Traffic Control - C17014	$	34,886.81
EFT151482	01/07/2021	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Provision of Traffic Control - C17014	$	39,970.43
EFT151710	08/07/2021	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Provision of Traffic Control - C17014	$	22,735.38
EFT151875	15/07/2021	ADVANCED TRAFFIC MANAGEMENT WA PTY LTD	Provision of Traffic Control - C17014	$	35,117.23
EFT151254	24/06/2021	ADVERTISER PRINT	Printing Services	$	862.00
EFT151449	01/07/2021	ADVERTISER PRINT	Printing Services	$	835.00
EFT151686	08/07/2021	ADVERTISER PRINT	Printing Services	$	1,443.00
EFT151857	15/07/2021	ADVERTISER PRINT	Printing Services	$	1,935.00
EFT151159	17/06/2021	AFGRI EQUIPMENT AUSTRALIA PTY LTD	Vehicle Parts	$	153,215.74
EFT151549	01/07/2021	AFGRI EQUIPMENT AUSTRALIA PTY LTD	Vehicle Parts	$	29.22
EFT151766	08/07/2021	AFGRI EQUIPMENT AUSTRALIA PTY LTD	Vehicle Parts	$	4,940.28
EFT151925	15/07/2021	AFGRI EQUIPMENT AUSTRALIA PTY LTD	Vehicle Parts	$	732.06
EFT151450	01/07/2021	AHERN AUSTRALIA PTY LIMITED	Purchase Decal - Mobile Plant	$	114.40
EFT151280	24/06/2021	AIR BP	Fuel Supplies	$	375.65
EFT151364	24/06/2021	AIRPORT SECURITY PTY LTD	ASIC Application	$	220.00
EFT151587	01/07/2021	AIRPORT SECURITY PTY LTD	ASIC Renewal	$	220.00
EFT151568	01/07/2021	AKELINA LEMBO	Ballet Classes	$	640.00
EFT151451	01/07/2021	AKUBRA HATS PTY LTD	Stock - Forts Store	$	111.10
EFT151239	17/06/2021	ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	$	3,150.55
EFT151429	24/06/2021	ALBANY & GREAT SOUTHERN WEEKENDER	Advertising	$	19,891.00
EFT151866	15/07/2021	ALBANY ALLSOILS LANDSCAPE SUPPLIES	Landscape Supplies	$	56.00
EFT151201	17/06/2021	ALBANY ALUMINIUM FABRICATION	Hanging Rail - NAC Viewing Hall	$	1,597.00
EFT151082	17/06/2021	ALBANY APPLIANCE REPAIR	Repairs to Washing Machine	$	262.23
EFT151753	08/07/2021	ALBANY ASPHALT SERVICES	Asphalt and Kerbing Services - C18010	$	105,082.50
EFT151913	15/07/2021	ALBANY ASPHALT SERVICES	Asphalt and Kerbing Services - C18010	$	3,110.00
EFT151461	01/07/2021	ALBANY AUTO ONE	Car Parts	$	249.00
EFT151862	15/07/2021	ALBANY AUTO ONE	Car Parts	$	249.00
EFT151079	17/06/2021	ALBANY CENTRAL CABINETS PTY LTD	Carpentry Works - Nappy Change Station	$	2,799.50
EFT151260	24/06/2021	ALBANY CENTRAL CABINETS PTY LTD	Carpentry Works - Vanity Unit ALAC	$	616.00
EFT151077	17/06/2021	ALBANY CITY DANCE CLUB	COA Community Sponsorship	$	4,000.00
EFT151360	24/06/2021	ALBANY CITY MOTORS	Car Parts	$	53.35

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151574	01/07/2021	ALBANY CITY MOTORS	Car Parts	$	939.37
EFT151778	08/07/2021	ALBANY CITY MOTORS	Car Parts	$	55.03
EFT151184	17/06/2021	ALBANY COMMUNITY PHARMACY	Purchase of Aqua Nappies/First Aid Equipment	$	663.24
EFT151593	01/07/2021	ALBANY COMMUNITY PHARMACY	First Aid Equipment	$	20.50
EFT151603	01/07/2021	ALBANY CONTEMPORARY DANCE	Dance Lessons	$	800.00
EFT151521	01/07/2021	ALBANY ELITE EARTHMOVING AND DRAINAGE	Storm Repairs	$	5,350.90
EFT151743	08/07/2021	ALBANY ELITE EARTHMOVING AND DRAINAGE	Supply and Spread of Top Soil	$	1,180.00
EFT151907	15/07/2021	ALBANY ENGINEERING COMPANY	Repairs to Playground Equipment	$	350.31
EFT151525	01/07/2021	ALBANY EQUESTRIAN ASSOCIATION INC	CSRFF Small Grant Round - Rainwater	$	3,979.65
EFT151172	17/06/2021	ALBANY EVENT HIRE	Event Hire Services	$	4,237.89
EFT151909	15/07/2021	ALBANY FENCING COMPANY	Youth Challenge Park - Temporary fencing	$	1,320.00
EFT151467	01/07/2021	ALBANY FENCING COMPANY	Supply and Install Fencing	$	13,695.00
EFT151078	17/06/2021	ALBANY FORMWORK	Retaining Walls - Youth Precinct	$	39,008.20
EFT151452	01/07/2021	ALBANY HYDRAULICS	Repairs - Plant & Equipment	$	106.70
EFT151689	08/07/2021	ALBANY HYDRAULICS	Repairs - Plant & Equipment	$	790.44
EFT151859	15/07/2021	ALBANY HYDRAULICS	Repairs - Plant & Equipment	$	227.92
EFT151971	15/07/2021	ALBANY IGA	Groceries - Various	$	16.67
EFT151257	24/06/2021	ALBANY INDOOR PLANT HIRE AND SALES	Plant Hire Services	$	424.60
EFT151255	24/06/2021	ALBANY INDUSTRIAL SERVICES PTY LTD	Machinery Hire - C19007(B)	$	4,449.50
EFT151453	01/07/2021	ALBANY INDUSTRIAL SERVICES PTY LTD	Machinery Hire - C19007(B)	$	2,765.75
EFT151690	08/07/2021	ALBANY INDUSTRIAL SERVICES PTY LTD	Machinery Hire - C19007(B)	$	231.00
EFT151081	17/06/2021	ALBANY IRRIGATION & DRILLING	Irrigation Supplies	$	2,390.00
EFT151464	01/07/2021	ALBANY IRRIGATION & DRILLING	Irrigation Supplies	$	1,883.58
EFT151861	15/07/2021	ALBANY LANDSCAPE SUPPLIES	Landscape Supplies	$	414.60
EFT151223	17/06/2021	ALBANY LOCK & SECURITY	Lock Services - Various	$	141.15
EFT151651	01/07/2021	ALBANY LOCK & SECURITY	Lock Services - Various	$	18.00
EFT151831	08/07/2021	ALBANY LOCK & SECURITY	Lock Services - Various	$	481.06
EFT151970	15/07/2021	ALBANY LOCK & SECURITY	Lock Services - Various	$	202.50
EFT151080	17/06/2021	ALBANY MILK DISTRIBUTORS	Milk Supplies	$	240.74
EFT151261	24/06/2021	ALBANY MILK DISTRIBUTORS	Milk Supplies	$	226.62
EFT151698	08/07/2021	ALBANY MILK DISTRIBUTORS	Milk Supplies	$	344.52
EFT151864	15/07/2021	ALBANY MILK DISTRIBUTORS	Milk Supplies	$	267.76
EFT151182	17/06/2021	ALBANY NEWS DELIVERY	Paper Supplies	$	27.90
EFT151371	24/06/2021	ALBANY NEWS DELIVERY	Paper Supplies	$	32.17
EFT151788	08/07/2021	ALBANY NEWS DELIVERY	Paper Supplies	$	92.79
EFT151940	15/07/2021	ALBANY NEWS DELIVERY	Paper Supplies	$	25.68
EFT151958	15/07/2021	ALBANY OCEAN ADVENTURES & SILVER STAR CRUISES	Tours Sold on Rezdy	$	2,176.00
EFT151075	17/06/2021	ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies - Q20040	$	1,898.70
EFT151259	24/06/2021	ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies - Q20040	$	1,755.95
EFT151462	01/07/2021	ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies - Q20040	$	592.25
EFT151696	08/07/2021	ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies - Q20040	$	2,983.09
EFT151863	15/07/2021	ALBANY OFFICE PRODUCTS DEPOT	Stationery Supplies - Q20040	$	4,634.59
EFT151457	01/07/2021	ALBANY PANEL BEATERS AND SPRAY PAINTERS	Windscreen Repairs	$	560.00
EFT151860	15/07/2021	ALBANY PANEL BEATERS AND SPRAY PAINTERS	Insurance Excess - Repairs	$	300.00
EFT151197	17/06/2021	ALBANY PLUMBING AND GAS	Plumbing Services - C17020	$	4,498.87
EFT151383	24/06/2021	ALBANY PLUMBING AND GAS	Plumbing Services - C17020	$	12,885.87

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151611	01/07/2021	ALBANY PLUMBING AND GAS	Plumbing Services - C17020	$	12,479.55
EFT151799	08/07/2021	ALBANY PLUMBING AND GAS	Plumbing Services - C17020	$	2,105.45
EFT151948	15/07/2021	ALBANY PLUMBING AND GAS	Plumbing Services - C17020	$	2,131.00
EFT151258	24/06/2021	ALBANY POWDER COATERS	Powder Coating Services	$	649.00
EFT151456	01/07/2021	ALBANY POWDER COATERS	Powder Coating Services	$	4,675.00
EFT151697	08/07/2021	ALBANY PSYCHOLOGICAL SERVICES	EAP Services	$	275.00
EFT151463	01/07/2021	ALBANY QUALITY LAWNMOWING	Lawn Mowing Services	$	110.00
EFT151699	08/07/2021	ALBANY RECORDS MANAGEMENT	Archiving Services	$	1,141.91
EFT151865	15/07/2021	ALBANY RECORDS MANAGEMENT	Archiving Services	$	344.85
EFT151071	17/06/2021	ALBANY RETRAVISION	Electrical Goods	$	445.00
EFT151693	08/07/2021	ALBANY RETRAVISION	Electrical Goods	$	2,128.00
EFT151394	24/06/2021	ALBANY SCAFFOLD HIRE	Scaffold Hire	$	11,110.00
EFT151460	01/07/2021	ALBANY SCREENPRINTERS	Youth Advisory Committee shirts	$	8.80
EFT151250	17/06/2021	ALBANY SHANTY FEST INCORPORATED	Regional Event Sponsorship - Request for Refund Issued	$	15,000.00
EFT151117	17/06/2021	ALBANY SIGNS	Signage Services	$	44.00
EFT151503	01/07/2021	ALBANY SIGNS	Signage Services	$	2,513.50
EFT151731	08/07/2021	ALBANY SIGNS	Signage Services	$	572.00
EFT151894	15/07/2021	ALBANY SIGNS	Signage Services	$	154.00
EFT151074	17/06/2021	ALBANY SKIPS AND WASTE SERVICES PTY LTD	Skip Bin Hire	$	685.00
EFT151695	08/07/2021	ALBANY SKIPS AND WASTE SERVICES PTY LTD	Skip Bin Hire	$	1,190.00
EFT151465	01/07/2021	ALBANY SOLAR	Electrical Feed - Vehicle Charger Hub	$	38,957.00
EFT151454	01/07/2021	ALBANY SWEEP CLEAN	Sweeping Services - C18007	$	2,690.00
EFT151692	08/07/2021	ALBANY SWEEP CLEAN	Sweeping Services - C18007	$	4,385.00
EFT151068	17/06/2021	ALBANY TOYOTA	Fleet Maintenance/ Service	$	793.68
EFT151688	08/07/2021	ALBANY TOYOTA	Fleet Maintenance/ Service	$	329.41
EFT151858	15/07/2021	ALBANY TOYOTA	Fleet Maintenance/ Service	$	251.77
EFT151070	17/06/2021	ALBANY TV SERVICES	Purchase of Microphones	$	693.00
EFT151232	17/06/2021	ALBANY TYREPOWER	Repairs/Service Q21002(A)	$	6,825.85
EFT151423	24/06/2021	ALBANY TYREPOWER	Repairs/Service Q21002(A)	$	2,053.00
EFT151665	01/07/2021	ALBANY TYREPOWER	Repairs/Service Q21002(A)	$	363.35
EFT151841	08/07/2021	ALBANY TYREPOWER	Repairs/Service Q21002(A)	$	1,873.40
EFT151691	08/07/2021	ALBANY V-BELT AND RUBBER	Fleet Maintenance/ Service	$	903.82
EFT151476	01/07/2021	ALBANY VEGETABLES EXPORT GROWERS (AVEG)	Catering - Better Ageing Program	$	420.00
EFT151218	17/06/2021	ALBANY VOLUNTEER STATE EMERGENCY SERVICE UNIT INC	LGGS Operational Grant 20/21	$	11,403.18
EFT151776	08/07/2021	ALBANY WORLD OF CARS	Vehicle Components	$	104.51
EFT151263	24/06/2021	ALINTA	Gas Charges	$	1,349.45
EFT151327	24/06/2021	ALISON GOODE	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151541	01/07/2021	ALISON GOODE	Councillor Mileage	$	839.02
EFT151083	17/06/2021	ALL ASPECTS PAINTING AND DECORATING	Painting Services	$	1,931.60
EFT151867	15/07/2021	ALL EVENTS HIRE AND PRODUCTION	Hire Of Equipment	$	388.00
EFT151319	24/06/2021	ALL TRUCK REPAIRS	Service/Repairs Q19037	$	381.50
EFT151868	15/07/2021	ALLAMBIE PARK CEMETERY AND CREMATORIUM	Financial Year 2020/2021 - Cemetery Capital Works	$	60,660.00
EFT151700	08/07/2021	ALLIANCE DISTRIBUTION SERVICES	Stock - Forts Store	$	443.80
EFT151816	08/07/2021	AMCAP/SKIPPER TRANSPORT PARTS	Plant Parts	$	566.72
EFT151959	15/07/2021	AMCAP/SKIPPER TRANSPORT PARTS	Plant Parts	$	993.08
EFT151106	17/06/2021	AMPOL AUSTRALIA PETROLEUM PTY LTD	Diesel Supplies	$	28,677.28

CITY OF ALBANY
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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151491	01/07/2021	AMPOL AUSTRALIA PETROLEUM PTY LTD	Diesel Supplies	$	24,035.22
EFT151720	08/07/2021	AMPOL AUSTRALIA PETROLEUM PTY LTD	Diesel Supplies	$	18,283.58
EFT151884	15/07/2021	AMPOL LIMITED	Diesel Supplies	$	4,672.04
EFT151264	24/06/2021	ANDIMAPS	Mapping Services	$	680.00
EFT151085	17/06/2021	ANDREW HALSALL PHOTOGRAPHY	Stock - Forts Store	$	150.00
EFT151742	08/07/2021	ANGELA EDWARDS	Cleaning Services	$	1,051.00
EFT151390	24/06/2021	ANGUS RENNIE	ALAC Basketball Umpiring	$	360.00
EFT151579	01/07/2021	A MCEWAN	Staff Reimbursement	$	119.00
EFT151266	24/06/2021	ANTONIA'S DANCE STUDIO	Dancing Programme ALAC	$	450.00
EFT151267	24/06/2021	APPLIED MARKS PTY LTD	Trademark Renewal - Multiple City Units	$	12,000.00
EFT151471	01/07/2021	ARCUS WIRE GROUP PTY LTD	Art Hanging Equipment	$	1,963.28
EFT151702	08/07/2021	ARDESS NURSERY	Plants - Urban Verge Gardens	$	308.75
EFT151348	24/06/2021	ARTISTRALIA	Screening Licence for Childs Play	$	165.00
EFT151678	01/07/2021	ASHA WIEGELE	ALAC Netball Umpiring	$	120.00
EFT151472	01/07/2021	ASPHALT IN A BAG	Asphalt	$	1,718.75
EFT151087	17/06/2021	ATC WORK SMART	Casual Staff/Apprentice Fees	$	21,177.89
EFT151268	24/06/2021	ATC WORK SMART	Casual Staff/Apprentice Fees	$	10,547.01
EFT151473	01/07/2021	ATC WORK SMART	Casual Staff/Apprentice Fees	$	3,523.26
EFT151703	08/07/2021	ATC WORK SMART	Casual Staff/Apprentice Fees	$	5,871.17
EFT151870	15/07/2021	ATC WORK SMART	Casual Staff/Apprentice Fees	$	431.36
EFT151705	08/07/2021	AUSCOINSWEST	Stock - Forts Store	$	1,100.00
EFT151872	15/07/2021	AUSSIE BUILDING SPECIALISTS PTY LTD	Signage Architectural Drawings	$	770.00
EFT151871	15/07/2021	AUSTRALIA POST	Postage/Agency Fees	$	2,244.58
EFT151271	24/06/2021	AUSTRALIAN CRUISE ASSOCIATION	Silver Membership	$	2,255.00
EFT151230	17/06/2021	AUSTRALIAN REGIONAL TOURISM	Art Membership 2021/2022	$	261.00
EFT151269	24/06/2021	AUSTRALIAN TAXATION OFFICE	PAYG Withholding	$	186,255.00
EFT151474	01/07/2021	AUSTRALIAN TAXATION OFFICE	PAYG Withholding	$	193,010.00
EFT151300	24/06/2021	AWESOME ABORIGINAL CONSULTANCY	Design Concepts	$	300.00
EFT151706	08/07/2021	BADGEMATE	COA Badges	$	124.03
EFT151649	01/07/2021	BJ STOCKS	Rates Refund	$	600.00
EFT151089	17/06/2021	BAREFOOT CLOTHING MANUFACTURERS	Uniform Suppliers	$	1,441.00
EFT151478	01/07/2021	BAREFOOT CLOTHING MANUFACTURERS	Uniform Suppliers	$	293.00
EFT151707	08/07/2021	BAREFOOT CLOTHING MANUFACTURERS	Uniform Suppliers	$	1,285.00
EFT151873	15/07/2021	BAREFOOT CLOTHING MANUFACTURERS	Uniform Suppliers	$	100.00
EFT151090	17/06/2021	BARRETTS MINI EARTHMOVING & CHIPPING	Vegetation Maintenance Works C19014(B)	$	792.00
EFT151272	24/06/2021	BARRETTS MINI EARTHMOVING & CHIPPING	Vegetation Maintenance Works C19014(B)	$	1,963.50
EFT151479	01/07/2021	BARRETTS MINI EARTHMOVING & CHIPPING	Vegetation Maintenance Works C19014(B)	$	2,117.00
EFT151708	08/07/2021	BARRETTS MINI EARTHMOVING & CHIPPING	Vegetation Maintenance Works C19014(B)	$	11,995.00
EFT151874	15/07/2021	BARRETTS MINI EARTHMOVING & CHIPPING	Vegetation Maintenance Works C19014(B)	$	15,927.00
EFT151953	15/07/2021	BASKETBALL RINGLEADER	Hire of EWP	$	363.00
EFT151612	01/07/2021	BC & H POWLEY	LLY Gym Supervisor	$	900.00
EFT151092	17/06/2021	BELL ART AUSTRALIA	Stock - Visitors Centre	$	925.57
EFT151274	24/06/2021	BENARA NURSERIES	Purchase of Trees - Multiple Planting Programs	$	9,995.02
EFT151480	01/07/2021	BENARA NURSERIES	Purchase of Trees - Multiple Planting Programs	$	10,290.16
EFT151709	08/07/2021	BENARA NURSERIES	Purchase of Trees - Multiple Planting Programs	$	1,297.07
EFT151093	17/06/2021	BENNETTS BATTERIES	Battery Services	$	1,570.80

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151275	24/06/2021	BENNETTS BATTERIES	Battery Services	$	2,598.64
EFT151481	01/07/2021	BENNETTS BATTERIES	Battery Services	$	1,047.20
EFT151095	17/06/2021	BERTOLA HIRE ALBANY PTY LTD	Equipment Hire	$	896.50
EFT151278	24/06/2021	BERTOLA HIRE ALBANY PTY LTD	Equipment Hire	$	522.50
EFT151483	01/07/2021	BEST OFFICE SYSTEMS	Wide Format Printer Ink/Service	$	160.00
EFT151711	08/07/2021	BEST OFFICE SYSTEMS	New Printer - P16002	$	818.40
EFT151484	01/07/2021	BEVANS (WA) PTY LTD	Ice Bags	$	10.00
EFT151712	08/07/2021	BEVANS (WA) PTY LTD	Ice Bags	$	30.00
EFT151410	24/06/2021	BEVERLEY COLLIER - SUSTAINABLE MOTION	LLY Recovery Programme ALAC	$	200.00
EFT151652	01/07/2021	BEVERLEY COLLIER - SUSTAINABLE MOTION	LLY Recovery Programme ALAC	$	50.00
EFT151096	17/06/2021	BIBBULMUN TRACK FOUNDATION	Track Boots	$	327.40
EFT151539	01/07/2021	BILL GIBBS EXCAVATIONS	Plant & Equipment C19007(D)	$	825.00
EFT151097	17/06/2021	BLACK AND WHITE CONCRETING	Concrete Services C20015(B)	$	200,131.00
EFT151713	08/07/2021	BLACK AND WHITE CONCRETING	Concrete Services C20015(B)	$	48,752.00
EFT151876	15/07/2021	BLACK AND WHITE CONCRETING	Concrete Services C20015(B)	$	990.00
EFT151099	17/06/2021	BLOOMIN FLOWERS SPENCER PARK	Flower Arrangement	$	70.00
EFT151100	17/06/2021	BOC GASES AUSTRALIA LIMITED	Supply Gas Cylinders	$	99.76
EFT151878	15/07/2021	BOC GASES AUSTRALIA LIMITED	Supply Gas Cylinders	$	96.53
EFT151101	17/06/2021	BOOKEASY AUSTRALIA PTY LTD	Booking fees May 2021	$	1,119.69
EFT151714	08/07/2021	BOOKEASY AUSTRALIA PTY LTD	Booking fees June 2021	$	852.02
EFT151604	01/07/2021	BRAYDEN JOHN PARKER	Lawn Mowing Services	$	130.00
EFT151630	01/07/2021	BRETT SCOTT	Re-Imbursement Meeting Expenses	$	103.00
EFT151281	24/06/2021	BROCKS	Tiles and Tiling Products	$	1,004.33
EFT151370	24/06/2021	BRONWEN NEWBURY	Sale of Artwork	$	1,087.50
EFT151715	08/07/2021	BROOKS HIRE SERVICE PTY LTD	Machinery Hire	$	1,839.56
EFT151879	15/07/2021	BROOKS HIRE SERVICE PTY LTD	Machinery Hire	$	13,864.82
EFT151571	01/07/2021	BUCHER MUNICIPAL PTY LTD	Vehicle Parts/Maintenance	$	2,351.50
EFT151933	15/07/2021	BUCHER MUNICIPAL PTY LTD	Vehicle Parts/Maintenance	$	2,062.70
EFT151487	01/07/2021	BULLSEYE PLUMBING & GAS	Plumbing Services Q19042	$	1,600.00
EFT151103	17/06/2021	BUNNINGS GROUP LIMITED	Hardware Supplies	$	1,126.25
EFT151283	24/06/2021	BUNNINGS GROUP LIMITED	Hardware Supplies	$	687.91
EFT151488	01/07/2021	BUNNINGS GROUP LIMITED	Hardware Supplies	$	1,637.08
EFT151718	08/07/2021	BUNNINGS GROUP LIMITED	Hardware Supplies	$	2,339.10
EFT151880	15/07/2021	BUNNINGS GROUP LIMITED	Hardware Supplies	$	264.78
EFT151284	24/06/2021	BUNNS VINEYARD	Wine Supply - Civic Functions	$	651.00
EFT151881	15/07/2021	BUSY BLUE BUS	Tours Sold on Rezdy	$	321.30
EFT151104	17/06/2021	C&C MACHINERY CENTRE	Repairs - Plant & Equipment	$	242.25
EFT151490	01/07/2021	C&C MACHINERY CENTRE	Repairs - Plant & Equipment	$	814.80
EFT151882	15/07/2021	C&C MACHINERY CENTRE	Repairs - Plant & Equipment	$	59.00
EFT151105	17/06/2021	CABCHARGE AUSTRALIA LIMITED	Taxi Fares	$	314.73
EFT151883	15/07/2021	CABCHARGE AUSTRALIA LIMITED	Taxi Fares	$	99.12
EFT151492	01/07/2021	CAMERON CARAVANS	Extension Lead	$	22.00
EFT151108	17/06/2021	CAMLYN SPRINGS	Water Refills	$	210.00
EFT151885	15/07/2021	CAMLYN SPRINGS	Water Refills	$	294.00
EFT151107	17/06/2021	CAMTRANS ALBANY PTY LTD	Supply of Pavers	$	6,681.60
EFT151721	08/07/2021	CAMTRANS ALBANY PTY LTD	Supply of Pavers	$	6,745.20

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151285	24/06/2021	CAREY TRAINING PTY LTD	Training Course	$	2,044.44
EFT151286	24/06/2021	CARMODY ESTATE PTY LTD	Refreshments - Civic Functions	$	398.00
EFT151112	17/06/2021	CENTENNIAL STADIUM INC	Electricity Charges - City Share	$	250.77
EFT151887	15/07/2021	CENTENNIAL STADIUM INC	Electricity Charges - City Share	$	254.60
EFT151111	17/06/2021	CENTIGRADE SERVICES PTY LTD	Maintenance Works - Q20004 and C18014	$	7,517.96
EFT151495	01/07/2021	CENTIGRADE SERVICES PTY LTD	Maintenance Works - Q20004 and C18014	$	1,246.58
EFT151723	08/07/2021	CENTIGRADE SERVICES PTY LTD	Maintenance Works - Q20004 and C18014	$	869.47
EFT151289	24/06/2021	CENTRAL REGIONAL TAFE	Training Courses	$	51.24
EFT151122	17/06/2021	CGS QUALITY CLEANING	Cleaning Services - C14036	$	5,315.28
EFT151302	24/06/2021	CGS QUALITY CLEANING	Cleaning Services - C14036	$	172.60
EFT151510	01/07/2021	CGS QUALITY CLEANING	Cleaning Services - C14036	$	1,407.98
EFT151734	08/07/2021	CGS QUALITY CLEANING	Cleaning Services - C14036	$	34,842.47
EFT151897	15/07/2021	CGS QUALITY CLEANING	Cleaning Services - C14036	$	47,849.51
EFT151113	17/06/2021	CHADSON ENGINEERING PTY LTD	Machine Service/Repairs	$	369.60
EFT151724	08/07/2021	CHADSON ENGINEERING PTY LTD	Machine Service/Repairs	$	489.50
EFT151297	24/06/2021	CHARIS CRANE	Staff Reimbursement	$	47.85
EFT151292	24/06/2021	CHILDREN'S BOOK COUNCIL OF AUSTRALIA	Books - Library	$	37.00
EFT151073	17/06/2021	CHOICES FLOORING BY ALBANY INTERIORS	Floor Coverings	$	4,137.00
EFT151459	01/07/2021	CHOICES FLOORING BY ALBANY INTERIORS	Floor Coverings	$	350.00
EFT151418	24/06/2021	CHRIS THOMSON	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151726	08/07/2021	CHRISTOPHER BURNELL	Stone Works - Middleton Beach Enhancement - C20012	$	61,508.00
EFT151944	15/07/2021	CHRISTOPHER OREO	Staff Reimbursement	$	20.00
EFT151293	24/06/2021	CINEFEST OZ	Sponsorship Milestone 3	$	11,000.00
EFT151727	08/07/2021	CITY OF CANNING	LSL Obligations	$	15,296.44
EFT151800	08/07/2021	C PLUG	Refund	$	590.00
EFT151499	01/07/2021	CLARK TYRES	Wheel Alignment	$	269.00
EFT151497	01/07/2021	CLAUDIA SIMPSON	LLY Programme - ALAC	$	250.00
EFT151294	24/06/2021	CLEANAWAY PTY LIMITED	Waste Collection - P14021	$	261,013.12
EFT151500	01/07/2021	CLEANAWAY PTY LIMITED	Waste Collection - P14021	$	3,388.00
EFT151888	15/07/2021	CLEANAWAY PTY LIMITED	Waste Collection - P14021	$	186,351.87
EFT151192	17/06/2021	CLEANFLOW ENVIRONMENTAL SOLUTIONS	Camera Pipes - Works Sanford Rd	$	11,814.00
EFT151796	08/07/2021	CLEANFLOW ENVIRONMENTAL SOLUTIONS	Hydro Pipe Services	$	8,915.50
EFT151889	15/07/2021	CLEVERPATCH	Kids Activities - Festivals	$	391.24
EFT151890	15/07/2021	CLIMATECLEVER	Local Govt Partnership Programme Fee	$	935.00
EFT151891	15/07/2021	CLOUD PAYMENT GROUP	Account Setup - Debt Collection Services	$	10,103.50
EFT151072	17/06/2021	COASTAL CRANES ALBANY	Equipment Hire	$	4,163.50
EFT151694	08/07/2021	COASTAL CRANES ALBANY	Equipment Hire	$	2,120.25
EFT151683	07/07/2021	COERCO PTY LTD	Storage Tank - Young Siding Cricket Ground	$	2,698.30
EFT151296	24/06/2021	COLAB CONSTRUCTION PTY LTD	Progress Claim Southern Trails Terminus Q20043	$	24,541.69
EFT151730	08/07/2021	COLAB CONSTRUCTION PTY LTD	Progress Claim Southern Trails Terminus Q20043	$	28,298.39
EFT151114	17/06/2021	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries - Various	$	144.65
EFT151295	24/06/2021	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries - Various	$	60.87
EFT151502	01/07/2021	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries - Various	$	313.03
EFT151729	08/07/2021	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries - Various	$	130.87
EFT151892	15/07/2021	COLES SUPERMARKETS AUSTRALIA PTY LTD	Groceries - Various	$	458.83
EFT151508	01/07/2021	COLIN S DAVIES	Basketball Umpiring Fees	$	240.00

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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151719	08/07/2021	COMMERCIAL AQUATICS AUSTRALIA (WA) PTY LTD	Pool Supplies	$	528.00
EFT151893	15/07/2021	COMMON GROUND TRAILS PTY LTD	Construction of Pump Track and Jump Park C20014	$	42,817.12
EFT151115	17/06/2021	COMPRESSED AIR INSTALLATIONS WA PTY LTD	Plant Maintenance/Service	$	2,601.50
EFT151102	17/06/2021	CONSTRUCTION TRAINING FUND	CTF Levy May 2021	$	2,556.29
EFT151716	08/07/2021	CONSTRUCTION TRAINING FUND	CTF Levy June 2021	$	9,540.93
EFT151116	17/06/2021	CONSULTING GREAT SOUTHERN	Training Sessions	$	330.00
EFT151914	15/07/2021	CORPORATE FIRST AID AUSTRALIA	First Aid Training	$	270.00
EFT151895	15/07/2021	CREATIVE PLAYING	Stock - Forts Store	$	3,304.85
EFT151504	01/07/2021	CRUMPS CANVAS	Supply of Replacement Blind to Pipe Rack	$	1,500.00
EFT151119	17/06/2021	CYNERGIC INTERNET	Web Hosting	$	1,059.89
EFT151376	24/06/2021	CYNTHIA TRACEY ORR	Stock - Forts Store	$	49.44
EFT151733	08/07/2021	D & K ENGINEERING	Works on Plant Equipment	$	803.00
EFT151468	01/07/2021	DA CHRISTIE PTY LTD	Replacement of BBQ in Natural Reserves - WALGA Panel C038_17	$	21,582.00
EFT151581	01/07/2021	DAISY MCLENNAN	Netball Umpiring	$	30.00
EFT151647	01/07/2021	DAISY STEWART MORGAN	Netball Umpiring	$	90.00
EFT151301	24/06/2021	DATA #3 LIMITED	Storage Craft Renewal	$	6,575.25
EFT151167	17/06/2021	DAVID LEECH	Stock - Forts Store	$	495.00
EFT151976	15/07/2021	DAVID THEODORE	Staff Reimbursement	$	24.95
EFT151507	01/07/2021	DAVRIC AUSTRALIA	Stock - Forts Store	$	1,628.39
EFT151509	01/07/2021	DEKKER ELECTRICAL	Light Installation - VAC	$	6,517.60
EFT151123	17/06/2021	DELTAWEST HOLDINGS PTY LTD	Truck Licence Training	$	500.00
EFT151303	24/06/2021	DELTAWEST HOLDINGS PTY LTD	Truck Licence Training	$	1,100.00
EFT151898	15/07/2021	DELTAWEST HOLDINGS PTY LTD	Truck Licence Training	$	900.00
EFT151430	24/06/2021	DENNIS WELLINGTON	Mayoral Allowances and Sitting Fees	$	14,480.40
EFT151125	17/06/2021	DEPARTMENT OF BIODIVERSITY CONSERVATION AND ATTRACTIONS	National Park Sales	$	11,696.58
EFT151305	24/06/2021	DEPARTMENT OF BIODIVERSITY CONSERVATION AND ATTRACTIONS	Visitor Passes ASC Pass Sales	$	1,740.00
EFT151512	01/07/2021	DEPARTMENT OF BIODIVERSITY CONSERVATION AND ATTRACTIONS	Park Passes for Resale	$	1,687.40
EFT151532	01/07/2021	DEPARTMENT OF FIRE AND EMERGENCY SERVICES	2020/2021 ESL Qtr 4 Contribution	$	351,508.39
EFT151124	17/06/2021	DEPARTMENT OF LOCAL GOVERNMENT, SPORT AND CULTURAL INDUSTRIES	Liquor Licence Application	$	235.00
EFT151717	08/07/2021	DEPARTMENT OF MINES, INDUSTRY REGULATION AND SAFETY	BSL Levy Collected	$	17,280.16
EFT151217	17/06/2021	DEPARTMENT OF THE PREMIER & CABINET - STATE LAW PUBLISHER	Gazettal of City of Albany Jetties, Bridges, Boat Pens, and Swimming Structures	$	226.20
EFT151965	15/07/2021	DEPARTMENT OF THE PREMIER & CABINET - STATE LAW PUBLISHER	Gazettal for Planning Scheme Amendment	$	322.08
EFT151306	24/06/2021	DEPARTMENT OF TRANSPORT	DIS Fees May 2021	$	394.40
EFT151901	15/07/2021	DEPARTMENT OF TRANSPORT	DIS Fees June 2021	$	183.60
EFT151672	01/07/2021	DEPARTMENT OF WATER AND ENVIRONMENTAL REGULATION	South Stirling's Transfer Station Licence	$	324.80
EFT151337	24/06/2021	DESIGNMIND CREATIVE	Logo Design	$	200.00
EFT151765	08/07/2021	DESIGNMIND CREATIVE	Logo Design	$	315.00
EFT151365	24/06/2021	DIANA LOUISE MILLER	Stock - Forts Store	$	150.00
EFT151129	17/06/2021	DISCOVERY BAY TOURISM PRECINCT LTD	Day Entry Tickets	$	2,903.00
EFT151903	15/07/2021	DISCOVERY BAY TOURISM PRECINCT LTD	ASC Pass Sales June 2021	$	2,178.00
EFT151131	17/06/2021	DJL ELECTRICAL	Electrical Services - Q18051	$	2,862.68
EFT151308	24/06/2021	DJL ELECTRICAL	Electrical Services - Q18051	$	1,621.40
EFT151515	01/07/2021	DJL ELECTRICAL	Electrical Services - Q18051	$	574.20
EFT151737	08/07/2021	DJL ELECTRICAL	Electrical Services - Q18051	$	1,742.40
EFT151904	15/07/2021	DJL ELECTRICAL	Electrical Services - Q18051	$	1,174.80
EFT151132	17/06/2021	DOGGY DOO CLEANUPS	Animal Hygiene Services - Q19033	$	150.00

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151309	24/06/2021	DOGGY DOO CLEANUPS	Animal Hygiene Services - Q19033	$	150.00
EFT151516	01/07/2021	DOGGY DOO CLEANUPS	Animal Hygiene Services - Q19033	$	190.00
EFT151738	08/07/2021	DOGGY DOO CLEANUPS	Animal Hygiene Services - Q19033	$	150.00
EFT151905	15/07/2021	DOGGY DOO CLEANUPS	Animal Hygiene Services - Q21028	$	225.00
EFT151517	01/07/2021	DOMINO'S PIZZA	Catering - Depot	$	225.00
EFT151109	17/06/2021	DONNA CAMERON DESIGN	Town Hall Opening - Coordinator	$	8,228.00
EFT151505	01/07/2021	DOWNER EDI WORKS PTY LTD	Coldmix	$	1,133.51
EFT151896	15/07/2021	DOWNER EDI WORKS PTY LTD	Coldmix	$	551.09
EFT151133	17/06/2021	DYLANS ON THE TERRACE	Catering	$	137.00
EFT151518	01/07/2021	DYLANS ON THE TERRACE	Catering	$	821.70
EFT151739	08/07/2021	DYLANS ON THE TERRACE	Catering	$	613.90
EFT151312	24/06/2021	DYNAMIC GIFT INTERNATIONAL PTY LTD	Signage Services	$	4,509.45
EFT151519	01/07/2021	EARLY BIRD LANDSCAPING	Limestone Works - Calistemon Park Playground Upgrade	$	7,183.00
EFT151314	24/06/2021	ECLECTIC EVENTS	Maritime Festival	$	3,000.00
EFT151134	17/06/2021	ECOLOGIC TREE SERVICE	Tree Services	$	5,808.00
EFT151740	08/07/2021	ECOLOGIC TREE SERVICE	Tree Services	$	3,007.50
EFT151906	15/07/2021	ECOLOGIC TREE SERVICE	Tree Services	$	6,160.00
EFT151741	08/07/2021	EDITH COWAN UNIVERSITY (ECU)	Long Live You Population Survey Q19045	$	19,440.69
EFT151135	17/06/2021	ELITE STEEL FABRICATION	Fabricate and supply Hooklift tank	$	35,200.00
EFT151310	24/06/2021	EMMA DOUGHTY	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151146	17/06/2021	EMMA GEDDES	Staff Reimbursement	$	87.00
EFT151759	08/07/2021	EMMA GROCOTT	Staff Reimbursement	$	24.95
EFT151523	01/07/2021	EMPOWERING PLANTAGENET SENIORS INC	LLY Café Room Hire	$	660.00
EFT151524	01/07/2021	ENVIRO PIPES PTY LTD	Supply of Drainage Products C18011(B)	$	2,443.54
EFT151704	08/07/2021	ENVIRONMENTAL HEALTH AUSTRALIA (WA) INC	Foodsafe Online Annual Subscription	$	550.00
EFT151137	17/06/2021	ENVIRONMENTAL INDUSTRIES PTY LTD	Landscape Works - Middleton Beach C20021	$	67,466.65
EFT151744	08/07/2021	ENVIRONMENTAL INDUSTRIES PTY LTD	Landscape Works - Middleton Beach C20021	$	188,970.73
EFT151406	24/06/2021	ERIN LEAH SPROULE	Netball Co-Ordinator Fee	$	240.00
EFT151645	01/07/2021	ERIN LEAH SPROULE	Netball Co-Ordinator Fee	$	160.00
EFT151526	01/07/2021	ESRI AUSTRALIA PTY LTD	GIS Data Acquisition	$	20,900.00
EFT151316	24/06/2021	E-STRALIAN PTY LTD	E-Bike Lease	$	258.67
EFT151745	08/07/2021	E-STRALIAN PTY LTD	E-Bike Lease	$	258.67
EFT151746	08/07/2021	ETS VEGETATION MANAGEMENT ETS INFRASTRUCTURE MANAGMENT PTY LTD	Vegetation Works Q19036	$	16,224.00
EFT151440	24/06/2021	EVE YOUNG	Stock - Box Office	$	36.15
EFT151527	01/07/2021	EVERTRANS	Vehicle Parts / Maintenance	$	198.00
EFT151908	15/07/2021	EVERTRANS	Vehicle Parts / Maintenance	$	1,512.00
EFT151138	17/06/2021	EXTENT HERITAGE WA PTY LTD	Heritage Advisory Services Q18050 WALGA	$	1,751.75
EFT151747	08/07/2021	EXTENT HERITAGE WA PTY LTD	Heritage Advisory Services Q18050 WALGA	$	1,072.50
EFT151529	01/07/2021	EYERITE SIGNS	Signage Services	$	3,817.00
EFT151748	08/07/2021	EYERITE SIGNS	Signage Services	$	7,067.50
EFT151530	01/07/2021	FARM LIFE FITNESS	LLY Programme - ALAC	$	750.00
EFT151139	17/06/2021	FARMERS CENTRE (1978) PTY LTD	Plant Parts/Maintenance	$	146.39
EFT151531	01/07/2021	FAT CATS CARWASH	Car Wash Service	$	220.00
EFT151318	24/06/2021	FIRE & SAFETY WA	First Response Bush Fire Kits	$	13,591.50
EFT151317	24/06/2021	FIRE PROTECTION ASSOCIATION AUSTRALIA	Bushfire Attack Course	$	2,600.00
EFT151142	17/06/2021	FLICKERFEST PTY LTD	Short Film Festival	$	880.00

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151320	24/06/2021	FLIPS ELECTRICS	Electrical Services	$	2,026.10
EFT151143	17/06/2021	FORPARK AUSTRALIA	Playground Equipment	$	27,500.00
EFT151321	24/06/2021	FORPARK AUSTRALIA	Playground Equipment	$	426.80
EFT151533	01/07/2021	FORPARK AUSTRALIA	Playground Equipment	$	2,951.30
EFT151144	17/06/2021	FOUNDATION ELECTRICAL PTY LTD	Electrical Services	$	844.69
EFT151322	24/06/2021	FOXTEL MANAGEMENT PTY LTD	ALAC Subscription	$	880.00
EFT151323	24/06/2021	FRANGIPANI FLORAL STUDIO	Wreath - Beersheba Memorial	$	80.00
EFT151311	24/06/2021	FR DOUGLAS	Return of Defects Liability Bond	$	2,687.50
EFT151534	01/07/2021	FREEDOM EXERCISE PHYSIOLOGY	LLY Denmark - Pilates Programme	$	357.50
EFT151535	01/07/2021	FRESH PROMOTIONS PTY LTD	Branding Set - Up Youth Event	$	2,642.75
EFT151324	24/06/2021	FRONTLINE FIRE & RESCUE EQUIPMENT	LGGS BFB Equipment	$	15,214.06
EFT151536	01/07/2021	FRONTLINE FIRE & RESCUE EQUIPMENT	LGGS BFB Equipment	$	6,769.72
EFT151196	17/06/2021	FULTON HOGAN INDUSTRIES	Road Sealing Works	$	8,199.31
EFT151814	08/07/2021	G & L SHEETMETAL	Sheetmetal Supplies	$	110.00
EFT151127	17/06/2021	G AND M DETERGENTS AND HYGIENE SERVICES ALBANY	Cleaning Products/Sanitary Service - Q20026	$	5,972.84
EFT151307	24/06/2021	G AND M DETERGENTS AND HYGIENE SERVICES ALBANY	Cleaning Products/Sanitary Service - Q20026	$	3,663.54
EFT151513	01/07/2021	G AND M DETERGENTS AND HYGIENE SERVICES ALBANY	Cleaning Products/Sanitary Service - Q20026	$	736.22
EFT151736	08/07/2021	G AND M DETERGENTS AND HYGIENE SERVICES ALBANY	Cleaning Products/Sanitary Service - Q20026	$	1,782.14
EFT151902	15/07/2021	G AND M DETERGENTS AND HYGIENE SERVICES ALBANY	Cleaning Products/Sanitary Service - Q20026	$	26.31
EFT151145	17/06/2021	GALLERY 500	Workshop Materials	$	19.80
EFT151761	08/07/2021	GHD PTY LTD	Water Demand Analysis - Albany Waterfront	$	11,309.76
EFT151148	17/06/2021	GLASS SUPPLIERS	Glass Supplies	$	550.70
EFT151764	08/07/2021	GLEN MICHAEL HEGEDUS	Consultant - Artworks Middleton Beach	$	15,000.00
EFT151326	24/06/2021	GLOBAL INTEGRATED SOLUTIONS LIMITED	Maintenance Parking Machines	$	242.98
EFT151751	08/07/2021	GLOBAL INTEGRATED SOLUTIONS LIMITED	Parking - Card Transactions	$	23.76
EFT151912	15/07/2021	GLOBAL INTEGRATED SOLUTIONS LIMITED	Car Parking Subscription	$	242.98
EFT151540	01/07/2021	GOAD RESOURCES PTY LTD	Transport Services	$	534.60
EFT151752	08/07/2021	GOMM PARK CROQUET CLUB INC	LLY Croquet Classes	$	200.00
EFT151328	24/06/2021	GRACE REMOVALS GROUP	Removal Services	$	1,496.00
EFT151758	08/07/2021	GREAT SOUTHERN BOUNDARIES	Fencing Supplies - Wylie Crescent	$	2,497.00
EFT151151	17/06/2021	GREAT SOUTHERN PEST & WEED CONTROL / ALBANY PEST & WEED CONTROL	Pest Control Services - Q19026	$	3,339.00
EFT151544	01/07/2021	GREAT SOUTHERN PEST & WEED CONTROL / ALBANY PEST & WEED CONTROL	Pest Control Services - Q21021	$	142.10
EFT151916	15/07/2021	GREAT SOUTHERN PEST & WEED CONTROL / ALBANY PEST & WEED CONTROL	Pest Control Services - Q21021	$	121.00
EFT151330	24/06/2021	GREAT SOUTHERN SAND AND LANDSCAPING SUPPLIES	Construction Plant & Equipment C19007(F)	$	39,877.20
EFT151545	01/07/2021	GREAT SOUTHERN SAND AND LANDSCAPING SUPPLIES	Construction Plant & Equipment C19007(F)	$	40,941.45
EFT151755	08/07/2021	GREAT SOUTHERN SAND AND LANDSCAPING SUPPLIES	Construction Plant & Equipment C19007(F)	$	14,468.41
EFT151918	15/07/2021	GREAT SOUTHERN SAND AND LANDSCAPING SUPPLIES	Construction Plant & Equipment C19007(F)	$	11,966.34
EFT151153	17/06/2021	GREAT SOUTHERN SUPPLIES	Cleaning Supplies	$	2,139.20
EFT151331	24/06/2021	GREAT SOUTHERN SUPPLIES	Cleaning Supplies	$	6,054.34
EFT151546	01/07/2021	GREAT SOUTHERN SUPPLIES	Cleaning Supplies	$	1,391.20
EFT151756	08/07/2021	GREAT SOUTHERN SUPPLIES	Cleaning Supplies	$	4,402.32
EFT151919	15/07/2021	GREAT SOUTHERN SUPPLIES	Cleaning Supplies	$	2,248.35
EFT151304	24/06/2021	GREAT SOUTHERN TOURISM EVENTS	Taste Great Southern 2021 Final Report Acquittal	$	5,500.00
EFT151899	15/07/2021	GREAT SOUTHERN TOURISM EVENTS	Contribution Metro & Regional Holiday Planners	$	6,123.11
EFT151757	08/07/2021	GREAT SOUTHERN TURF	Supply and Delivery Turf Q21001	$	1,353.00
EFT151920	15/07/2021	GREEN MAN MEDIA PRODUCTIONS	League of Local Legends Cinema Ads	$	2,662.00

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151150	17/06/2021	GREEN SKILLS INCORPORATED	Maintenance Support Services C19011	$	950.42
EFT151329	24/06/2021	GREEN SKILLS INCORPORATED	Maintenance Support Services C19011	$	15,760.00
EFT151543	01/07/2021	GREEN SKILLS INCORPORATED	Maintenance Support Services C19011	$	13,066.85
EFT151754	08/07/2021	GREEN SKILLS INCORPORATED	Maintenance Support Services C19011	$	81,068.38
EFT151409	24/06/2021	GREGORY BRIAN STOCKS	Councillor Allowances and Sitting Fees	$	5,887.57
EFT151154	17/06/2021	GREYBIRD MEDIA	Event Advertising	$	1,505.00
EFT151332	24/06/2021	GSCORE - GREAT SOUTHERN CENTRE FOR OUTDOOR RECREATION	Digital Engagement Services Q20030	$	7,920.00
EFT151152	17/06/2021	GSP WORKFORCE	Gardening Maintenance - Lotteries House	$	543.00
EFT151917	15/07/2021	GSP WORKFORCE	Lotteries House Gardening - June 2021	$	284.00
EFT151760	08/07/2021	GSR LASERTOOLS	Maintenance/Repairs Plant Equip	$	1,941.50
EFT151609	01/07/2021	HANSON CONSTRUCTION MATERIALS PTY LTD	Supply of Granite Rock Spall C20003	$	12,801.85
EFT151335	24/06/2021	HAREWOOD ESTATE	Refreshments - Civic Functions	$	465.60
EFT151763	08/07/2021	HART SPORT	Purchase Gym Equipment	$	747.50
EFT151155	17/06/2021	HAVOC BUILDERS PTY LTD	Building Services C17028	$	1,457.50
EFT151547	01/07/2021	HAVOC BUILDERS PTY LTD	Building Services C17028	$	3,300.00
EFT151602	01/07/2021	H PALMER	Rates Refund	$	35.42
EFT151336	24/06/2021	HEADSETERA	Headsets	$	1,281.50
EFT151634	01/07/2021	HELEN MAREE SIMPSON	ALAC Netball Umpiring	$	120.00
EFT151378	24/06/2021	HELEN PARRY	Stock - Forts Store	$	341.25
EFT151156	17/06/2021	HEMA MAPS PTY LTD	Maps & Guide Books	$	343.48
EFT151922	15/07/2021	HEMA MAPS PTY LTD	Maps & Guide Books	$	181.87
EFT151160	17/06/2021	HHG LEGAL GROUP	Legal Services - C19009(A)	$	3,547.50
EFT151342	24/06/2021	HHG LEGAL GROUP	Legal Services - C19009(A)	$	4,792.94
EFT151550	01/07/2021	HHG LEGAL GROUP	Legal Services - C19009(A)	$	3,389.10
EFT151767	08/07/2021	HHG LEGAL GROUP	Legal Services - C19009(A)	$	990.00
EFT151338	24/06/2021	HIMAC ATTACHMENTS	Equipment/Plant Purchase	$	2,271.50
EFT151157	17/06/2021	HISTORY COUNCIL OF WESTERN AUSTRALIA	Membership Renewal 2021-2022	$	200.00
EFT151333	24/06/2021	HL GEOSPATIAL	Trimble Business Centre Software License	$	4,290.00
EFT151158	17/06/2021	HOBBS PAINTING AND DECORATING	Painting Services Q18025	$	561.00
EFT151339	24/06/2021	HOBBS PAINTING AND DECORATING	Painting Services Q18025	$	9,489.81
EFT151118	17/06/2021	HOLCIM (AUSTRALIA) PTY LTD	Concrete Supplies C19006	$	862.84
EFT151299	24/06/2021	HOLCIM (AUSTRALIA) PTY LTD	Concrete Supplies C19006	$	1,672.44
EFT151506	01/07/2021	HOLCIM (AUSTRALIA) PTY LTD	Concrete Supplies C19006	$	1,018.60
EFT151732	08/07/2021	HOLCIM (AUSTRALIA) PTY LTD	Concrete Supplies C19006	$	421.30
EFT151175	17/06/2021	IAN MCLOUGHLIN	Staff Reimbursement	$	500.81
EFT151926	15/07/2021	ICKY FINKS WAREHOUSE SALES	Supplies Maritime Festival	$	179.97
EFT151344	24/06/2021	IMPACT SERVICE PTY LTD	Platinum Sponsorship	$	500.00
EFT151343	24/06/2021	IMPULSE CYCLES	Cycle Repairs	$	240.90
EFT151554	01/07/2021	INSTANT WEIGHING	Calibration Airport Scales	$	2,200.00
EFT151161	17/06/2021	IPAR REHABILITATION PTY LTD	Skills Assessment	$	657.80
EFT151346	24/06/2021	IPAR REHABILITATION PTY LTD	Skills Assessment	$	328.90
EFT151769	08/07/2021	IPAR REHABILITATION PTY LTD	Skills Assessment	$	826.89
EFT151768	08/07/2021	IRIS CONSULTING GROUP PTY LTD	Course Fees	$	360.00
EFT151555	01/07/2021	IRRIGATION AUSTRALIA LTD	IAL Memberships	$	714.00
EFT151439	24/06/2021	ISUSHI ALBANY	Catering	$	60.00
EFT151347	24/06/2021	ITR PACIFIC PTY LTD	Vehicle Parts/Maintenance	$	196.45

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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151770	08/07/2021	ITR PACIFIC PTY LTD	Vehicle Parts/Maintenance	$	1,210.00
EFT151927	15/07/2021	ITR PACIFIC PTY LTD	Vehicle Parts/Maintenance	$	18,952.04
EFT151375	24/06/2021	IXOM	Chlorine Gas	$	3,207.52
EFT151793	08/07/2021	IXOM	Chlorine Gas	$	359.74
EFT151110	17/06/2021	J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - C19001 and C18019	$	26,645.54
EFT151287	24/06/2021	J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - C19001 and C18019	$	6,951.21
EFT151494	01/07/2021	J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - C19001 and C18019	$	45,863.73
EFT151722	08/07/2021	J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - C19001 and C18019	$	29,448.49
EFT151886	15/07/2021	J & S CASTLEHOW ELECTRICAL SERVICES	Electrical Services - C19001 and C18019	$	10,409.93
EFT151098	17/06/2021	J. BLACKWOOD & SON PTY LTD	Hardware Supplies / Tools	$	1,233.83
EFT151279	24/06/2021	J. BLACKWOOD & SON PTY LTD	Hardware Supplies / Tools	$	1,601.95
EFT151485	01/07/2021	J. BLACKWOOD & SON PTY LTD	Hardware Supplies / Tools	$	246.09
EFT151877	15/07/2021	J. BLACKWOOD & SON PTY LTD	Hardware Supplies / Tools	$	378.40
EFT151679	01/07/2021	JACK WILLIAMS & SHANNON DEKKER	Subsidy Payment - Crossover	$	366.30
EFT151654	01/07/2021	J SWANN	Rates Refund	$	1,137.77
EFT151426	24/06/2021	JAN VAN DER MESCHT	Re-Imbursement for Meeting Expenses	$	73.45
EFT151923	15/07/2021	J HESLOP	Refund	$	147.00
EFT151572	01/07/2021	JAZMIN MAHER	Consultation Design	$	600.00
EFT151556	01/07/2021	JCA CONTRACTING SERVICES	Equipment Hire C19007(G)	$	5,170.00
EFT151771	08/07/2021	JCA CONTRACTING SERVICES	Equipment Hire C19007(G)	$	7,223.50
EFT151928	15/07/2021	JCA CONTRACTING SERVICES	Equipment Hire C19007(G)	$	2,640.00
EFT151557	01/07/2021	JCB CONSTRUCTION EQUIPMENT AUSTRALIA	Supply and Delivery of Heavy Plant	$	168,520.00
EFT151911	15/07/2021	JEFFREY ALLAN GIBB	Stock - Forts Store	$	868.00
EFT151140	17/06/2021	JENNY FERRELL	Staff Reimbursement	$	24.95
EFT151489	01/07/2021	J BLYTH	Refund	$	425.00
EFT151558	01/07/2021	JJ'S HIAB SERVICES & JJ'S GREAT SOUTHERN	Pick up and Delivery Services	$	1,465.20
EFT151560	01/07/2021	JO JOES DIAL A PIZZA AND KEBAB	Catering Youth Advisory Council	$	80.00
EFT151162	17/06/2021	JOHN KINNEAR AND ASSOCIATES	Surveying Services C19016(C)	$	198.00
EFT151350	24/06/2021	JOHN KINNEAR AND ASSOCIATES	Surveying Services C19016(C)	$	3,677.44
EFT151559	01/07/2021	JOHN KINNEAR AND ASSOCIATES	Surveying Services C19016(C)	$	8,622.49
EFT151772	08/07/2021	JOHN KINNEAR AND ASSOCIATES	Surveying Services C19016(C)	$	1,978.63
EFT151396	24/06/2021	JOHN SHANHUN	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151352	24/06/2021	JUST A CALL DELIVERIES	Delivery Service Q20020	$	57.75
EFT151773	08/07/2021	JUST A CALL DELIVERIES	Delivery Service Q20020	$	1,304.82
EFT151351	24/06/2021	JUST SEW EMBROIDERY	Logos to Uniforms	$	170.50
EFT151561	01/07/2021	JUST SEW EMBROIDERY	Logos to Uniforms	$	138.60
EFT151929	15/07/2021	JUST SEW EMBROIDERY	Logos to Uniforms	$	231.00
EFT151076	17/06/2021	JW & DF WOODBURY	Stock - Forts Store	$	150.00
EFT151774	08/07/2021	KARLOCKING PTY LTD	Refund	$	171.65
EFT151498	01/07/2021	KATE CIPRIAN	LLY Yoga/Pilates Programme	$	420.00
EFT151810	08/07/2021	K ROWE	Refund	$	400.00
EFT151163	17/06/2021	KC PSYCHOLOGICAL SERVICES	EAP Services	$	185.00
EFT151930	15/07/2021	KEN STONE MOTOR TRIMMERS	Repairs Airport - Changing Rooms	$	22.00
EFT151750	08/07/2021	K FORREST	Refund	$	166.65
EFT151562	01/07/2021	KIM ANGELA TOMLINSON	EAP Counselling	$	225.00
EFT151924	15/07/2021	K STONEY	Refund	$	84.10

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151164	17/06/2021	KLB SYSTEMS	Computer Parts - C17024(A)	$	275.00
EFT151564	01/07/2021	KLB SYSTEMS	Computer Parts - C17024(A)	$	15,449.52
EFT151187	17/06/2021	KOMATSU AUSTRALIA PTY LTD	Plant Parts/Maintenance	$	1,581.31
EFT151595	01/07/2021	KOMATSU AUSTRALIA PTY LTD	Plant Parts/Maintenance	$	142.41
EFT151790	08/07/2021	KOMATSU AUSTRALIA PTY LTD	Plant Parts/Maintenance	$	341.37
EFT151565	01/07/2021	KOSTER'S OUTDOOR PTY LTD	Building Works	$	11,565.00
EFT151566	01/07/2021	KOTT GUNNING LAWYERS	Legal Services C19009(B)	$	1,780.69
EFT151354	24/06/2021	KURRAH MIA PTY LTD	Cultural Tour	$	1,540.00
EFT151340	24/06/2021	KYLE HOGG	Netball Co-Ordinator Fee	$	440.00
EFT151548	01/07/2021	KYLE HOGG	Basketball Co-Ordinator Fee	$	40.00
EFT151165	17/06/2021	LAFITTE CLOTHING PTY LTD	Stock - Forts Store	$	400.95
EFT151511	01/07/2021	LANDGATE	Aerial Imagery and Land Title Searches	$	8,568.84
EFT151735	08/07/2021	LANDGATE	Aerial Imagery and Land Title Searches	$	256.71
EFT151900	15/07/2021	LANDGATE	Aerial Imagery and Land Title Searches	$	400.50
EFT151567	01/07/2021	LEADING EDGE HI-FI ALBANY	Radio Repairs	$	115.00
EFT151166	17/06/2021	LEASEIT LIMITED	Photocopier Lease P17025	$	1,094.50
EFT151169	17/06/2021	LIBBY SHEPPARD DESIGN	Stock - Visitors Centre	$	440.00
EFT151355	24/06/2021	LIBERTY OYSTER HARBOUR	Catering	$	325.50
EFT151528	01/07/2021	LINLEY RAE EWEN	Stock - Box Office	$	29.09
EFT151170	17/06/2021	LOCHNESS LANDSCAPE SERVICES	Verge Mowing C19010	$	11,154.00
EFT151569	01/07/2021	LOCHNESS LANDSCAPE SERVICES	Verge Mowing C19010	$	7,200.00
EFT151434	24/06/2021	LORRAINE WEYMAN T/AS DIVINE BLISS	LLY Yoga Programme	$	500.00
EFT151191	17/06/2021	LOUISE PATERSON	Staff Reimbursement	$	2,352.05
EFT151379	24/06/2021	LOUISE PATERSON	Staff Reimbursement	$	126.00
EFT151795	08/07/2021	LUTZ AND SALLY PAMBERGER	EAP Services	$	495.00
EFT151120	17/06/2021	L DAWE	Refund	$	48.43
EFT151570	01/07/2021	M & A STEEL FABRICATION	Guard Railing and Posts Repairs/Supply	$	13,310.00
EFT151356	24/06/2021	M AND B SALES PTY LTD	Pine Supplies	$	52.17
EFT151777	08/07/2021	M AND B SALES PTY LTD	Pine Supplies	$	1,823.18
EFT151932	15/07/2021	M AND B SALES PTY LTD	Pine Supplies	$	35.78
EFT151573	01/07/2021	MAHSA ANDERSON	EAP Services	$	180.00
EFT151358	24/06/2021	MAIN ROADS	Refund	$	20,112.40
EFT151575	01/07/2021	MANDALAY TECHNOLOGIES PTY LTD	Operational Audit	$	3,877.50
EFT151362	24/06/2021	MANUEL JUNIOR CABALINAN DELA MERCED	Umpiring Fees Basketball	$	340.00
EFT151584	01/07/2021	MANUEL JUNIOR CABALINAN DELA MERCED	Umpiring Fees Basketball	$	110.00
EFT151779	08/07/2021	MARKETFORCE LIMITED	Advertising	$	1,019.56
EFT151577	01/07/2021	MASTEC AUSTRALIA PTY LTD	Hardware Supplies	$	533.50
EFT151277	24/06/2021	MATT BENSON-LIDHOLM JP	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151470	01/07/2021	MAYA ANNING	ALAC Netball Umpiring	$	100.00
EFT151844	08/07/2021	MB & EJ WATKINS CONTRACTORS	Supply Pavers - Medians/Roundabouts	$	869.77
EFT151173	17/06/2021	MCB CONSTRUCTION PTY LTD	Building Services Q20016	$	25,248.41
EFT151578	01/07/2021	MCB CONSTRUCTION PTY LTD	Building Services Q20016	$	37,408.25
EFT151780	08/07/2021	MCB CONSTRUCTION PTY LTD	Building Services Q20016	$	1,584.00
EFT151174	17/06/2021	MCG ARCHITECTS PTY LTD	SES Facility Design	$	7,132.27
EFT151934	15/07/2021	MCG ARCHITECTS PTY LTD	SES Facility Design	$	16,188.48
EFT151580	01/07/2021	MCGEES PROPERTY	Seabed Lease Payment	$	4,818.00

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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151781	08/07/2021	MCINTOSH AND SON	Parts	$	385.00
EFT151361	24/06/2021	MEDIA TONIC	Magazine Advertising	$	4,840.00
EFT151412	24/06/2021	MEGAN SUTTON	Umpiring Fees Basketball	$	320.00
EFT151653	01/07/2021	MEGAN SUTTON	Umpiring Fees Basketball	$	40.00
EFT151176	17/06/2021	METROLL ALBANY	Building Supplies	$	27.25
EFT151363	24/06/2021	METROLL ALBANY	Building Supplies	$	57.40
EFT151782	08/07/2021	METROLL ALBANY	Building Supplies	$	861.57
EFT151585	01/07/2021	MHW INTEGRATION PTY LTD	Service Level Agreement NAC	$	6,875.00
EFT151783	08/07/2021	MHW INTEGRATION PTY LTD	Equipment and Services	$	6,135.80
EFT151177	17/06/2021	MICROCHIPS AUSTRALIA	Animal Microchips	$	1,328.50
EFT151586	01/07/2021	MIDDLETON BEACH BOWLING AND COMMUNITY CLUB INC	Location Hire for Staff Training	$	500.00
EFT151493	01/07/2021	MIKAYLA CAMP	ALAC Netball Umpiring	$	170.00
EFT151486	01/07/2021	MILITARY SHOP	Stock - Forts Store	$	5,249.58
EFT151179	17/06/2021	MMI (WA) PTY LTD T/A LIFT DESIGN AND VERTICAL MOTION SYSTEMS	Elevator Repairs	$	2,631.20
EFT151588	01/07/2021	MODERN TEACHING AIDS PTY LTD	Toy Equipment - DCC	$	83.99
EFT151936	15/07/2021	MOKOH DESIGN	Stock - Visitors Centre	$	366.50
EFT151393	24/06/2021	MONTYS LEAP	Refreshments - Civic Functions	$	504.00
EFT151424	24/06/2021	MOORE AUSTRALIA AUDIT (WA)	2021 WALGA Tax Webinar	$	242.00
EFT151983	15/07/2021	MOORE AUSTRALIA AUDIT (WA)	2021 Nuts & Bolts Workshop	$	990.00
EFT151366	24/06/2021	MORGAN IMPORTS PTY LTD	Gym Equipment	$	2,567.52
EFT151368	24/06/2021	MULE CREATIVE	Videography Services	$	5,313.00
EFT151590	01/07/2021	MULE CREATIVE	Delivery/Implementation - Beaches of Kinjarling Project	$	2,250.00
EFT151786	08/07/2021	MULE CREATIVE	Supply of Graphics	$	569.25
EFT151939	15/07/2021	MYVIEW HOLDINGS PTY LTD	Concrete Blocks - Youth Precinct	$	770.00
EFT151789	08/07/2021	N & M PLUMBING	Plumbing - Rural Hall Upgrades	$	4,269.65
EFT151369	24/06/2021	NAPIER VOLUNTEER BUSHFIRE BRIGADE	Reimbursement Trailer Registration	$	91.05
EFT151591	01/07/2021	NEVILLES HARDWARE & BUILDING SUPPLIES	Hardware Supplies / Tools	$	38.40
EFT151787	08/07/2021	NEVILLES HARDWARE & BUILDING SUPPLIES	Hardware Supplies / Tools	$	8.60
EFT151607	01/07/2021	NICOLA PERICH	ALAC Netball Umpiring	$	170.00
EFT151183	17/06/2021	NLC PTY LTD	Novated Leases and Associated Costs	$	617.99
EFT151592	01/07/2021	NLC PTY LTD	Novated Leases and Associated Costs	$	617.99
EFT151941	15/07/2021	NLC PTY LTD	Novated Leases and Associated Costs	$	617.99
EFT151937	15/07/2021	NOEL MOSS	Staff Reimbursement	$	24.95
EFT151186	17/06/2021	NOVUS AUTOGLASS REPAIRS & REPLACEMENTS	Windscreen Repairs	$	380.00
EFT151594	01/07/2021	NOVUS AUTOGLASS REPAIRS & REPLACEMENTS	Windscreen Repairs	$	380.00
EFT151433	24/06/2021	NUTRIEN AG SOLUTIONS (LANDMARK)	Supply of Fertiliser - Q20005	$	2,563.77
EFT151845	08/07/2021	NUTRIEN AG SOLUTIONS (LANDMARK)	Supply of Fertiliser - Q20005	$	3,206.50
EFT151596	01/07/2021	OBJECTIVE CORPORATION LIMITED	Software Licence	$	1,641.26
EFT151188	17/06/2021	OFFICEWORKS SUPERSTORES PTY LTD	Stationery Supplies	$	354.31
EFT151372	24/06/2021	OFFICEWORKS SUPERSTORES PTY LTD	Stationery Supplies	$	355.42
EFT151597	01/07/2021	OFFICEWORKS SUPERSTORES PTY LTD	Stationery Supplies	$	189.95
EFT151791	08/07/2021	OFFICEWORKS SUPERSTORES PTY LTD	Stationery Supplies	$	330.47
EFT151189	17/06/2021	O'KEEFE'S PAINTS	Painting Supplies	$	29.99
EFT151373	24/06/2021	O'KEEFE'S PAINTS	Painting Supplies	$	1,961.24
EFT151792	08/07/2021	OMNICOM MEDIA GROUP AUSTRALIA	Media Service - Marketing	$	17,766.10
EFT151374	24/06/2021	OMNIGRAPHICS AUSTRALIA PTY LTD	Recyclable Bin Stickers	$	462.00

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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151282	24/06/2021	ONCOURT TENNIS	LLY Tennis Programme	$	1,000.00
EFT151943	15/07/2021	ONEMUSIC AUSTRALIA	Annual License Fee	$	1,358.04
EFT151069	17/06/2021	OPTEON (ALBANY AND GREAT SOUTHERN WA)	Valuation Services	$	2,750.00
EFT151598	01/07/2021	ORBIT HEALTH & FITNESS SOLUTIONS PTY LTD	Gym Equipment	$	955.68
EFT151190	17/06/2021	ORIGIN ENERGY	LGP Supplies C12014	$	4,406.36
EFT151599	01/07/2021	ORIGIN ENERGY	LGP Supplies C12014	$	6,644.66
EFT151407	24/06/2021	ORRCON STEEL	Steel Supplies	$	11.00
EFT151829	08/07/2021	ORRCON STEEL	Steel Supplies	$	821.63
EFT151945	15/07/2021	OTIS ELEVATOR COMPANY PTY LTD	Elevator Maintenance	$	281.26
EFT151600	01/07/2021	OUR COMMUNITY PTY LTD	Our Community Funding Centre Membership 2021/2022	$	350.00
EFT151377	24/06/2021	PALMER EARTHMOVING - PALMER CIVIL CONSTRUCTION	Plant & Equipment Hire - C19007(J)	$	45,623.04
EFT151601	01/07/2021	PALMER EARTHMOVING - PALMER CIVIL CONSTRUCTION	Plant & Equipment Hire - C19007(J)	$	4,200.22
EFT151794	08/07/2021	PALMER EARTHMOVING - PALMER CIVIL CONSTRUCTION	Plant & Equipment Hire - C19007(J)	$	8,258.86
EFT151946	15/07/2021	PALMER EARTHMOVING - PALMER CIVIL CONSTRUCTION	Plant & Equipment Hire - C19007(J)	$	56,708.51
EFT151086	17/06/2021	PAPERBARK MERCHANTS	Stock - Library	$	250.00
EFT151265	24/06/2021	PAPERBARK MERCHANTS	Stock - Library	$	104.50
EFT151469	01/07/2021	PAPERBARK MERCHANTS	Stock - Library	$	734.82
EFT151701	08/07/2021	PAPERBARK MERCHANTS	Stock - Library	$	279.90
EFT151869	15/07/2021	PAPERBARK MERCHANTS	Stock - Library	$	121.98
EFT151947	15/07/2021	PARISH LANE WINES	Refreshments - Civic Functions	$	300.00
EFT151415	24/06/2021	PAUL TERRY	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151380	24/06/2021	PAULS PET FOOD	Dog Food - Pound	$	84.40
EFT151801	08/07/2021	PCYC	Electricity Contribution	$	39.78
EFT151605	01/07/2021	PENNANT HOUSE	Supply of Flags	$	1,762.20
EFT151381	24/06/2021	PENROSE PROFESSIONAL LAWNCARE	Lawnmowing Service	$	264.00
EFT151194	17/06/2021	PERIBO PTY LTD	Books - Forts Store	$	419.90
EFT151552	01/07/2021	PERTH IAS FINE ART LOGISTICS (IAS)	Historical Mayoral Portraits	$	880.00
EFT151193	17/06/2021	PERTH SAFETY PRODUCTS PTY LTD	Safety Equipment - Bollards	$	10,615.00
EFT151382	24/06/2021	PERTH SAFETY PRODUCTS PTY LTD	Safety Equipment - Signage	$	880.00
EFT151606	01/07/2021	PERTH SAFETY PRODUCTS PTY LTD	Safety Equipment	$	957.00
EFT151797	08/07/2021	PERTH SAFETY PRODUCTS PTY LTD	Safety Equipment	$	13,761.00
EFT151949	15/07/2021	PERTH TAI CHI ACADEMY	Workshop Tuition	$	2,318.00
EFT151608	01/07/2021	PFD FOOD SERVICES PTY LTD	Office Refreshment Supplies	$	486.90
EFT151798	08/07/2021	PFD FOOD SERVICES PTY LTD	Office Refreshment Supplies	$	132.50
EFT151582	01/07/2021	PHILIP PAUL MELLON	Electrical Works - Elleker Progress Association	$	1,582.90
EFT151852	08/07/2021	PHILIP WYATT	Legal Services	$	1,100.00
EFT151195	17/06/2021	PHILLIP BEST PLUMBING PTY LTD	Plumbing Services	$	697.40
EFT151610	01/07/2021	PLASTICS PLUS	Plastic Supplies	$	95.63
EFT151802	08/07/2021	PORTSTYLE ENTERPRISES PTY LTD	Refund	$	2,701.26
EFT151384	24/06/2021	PREMIUM PUBLISHERS	Artwork Services	$	400.40
EFT151762	08/07/2021	PRIME MEDIA GROUP LTD	Advertising	$	1,844.70
EFT151921	15/07/2021	PRIME MEDIA GROUP LTD	Advertising	$	1,040.60
EFT151613	01/07/2021	PRINTSYNC BUSINESS SOLUTIONS	Photocopy Charges	$	16.84
EFT151614	01/07/2021	PRIORITY 1 FIRE & SAFETY PTY LTD	Fire Warden Training	$	4,620.00
EFT151616	01/07/2021	PRO CRACK SEAL	Provision Bitumen Crack Services P20006	$	11,063.80
EFT151198	17/06/2021	PROTECTOR FIRE SERVICES	Fire Equipment Service/Repairs C20001	$	99.00

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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151385	24/06/2021	PROTECTOR FIRE SERVICES	Fire Equipment Service/Repairs C20001	$	536.25
EFT151615	01/07/2021	PROTECTOR FIRE SERVICES	Fire Equipment Service/Repairs C20001	$	691.35
EFT151803	08/07/2021	PROTECTOR FIRE SERVICES	Fire Equipment Service/Repairs C20001	$	1,846.90
EFT151617	01/07/2021	PUBLIC TRANSPORT AUTHORITY OF WA	Contribution to New Bus Shelters	$	19,062.00
EFT151804	08/07/2021	QPEC PTY LTD	LLY Programme - ALAC	$	537.30
EFT151553	01/07/2021	QUBE LOGISTICS (WA2) PTY LTD	Gas Cylinder Supply	$	2,288.13
EFT151805	08/07/2021	QUICK SHOT COFFEE	Coffees - Community Engagement Initiative	$	45.00
EFT151180	17/06/2021	QUINTIS SANDALWOOD PTY LTD	Stock - Visitors Centre	$	443.03
EFT151618	01/07/2021	QUINTIS SANDALWOOD PTY LTD	Stock - Visitors Centre	$	1,299.69
EFT151785	08/07/2021	QUINTIS SANDALWOOD PTY LTD	Stock - Visitors Centre	$	59.80
EFT151199	17/06/2021	R & L BITUMEN SERVICE PTY LTD	Repairs C18010(B)	$	6,309.50
EFT151806	08/07/2021	R & L BITUMEN SERVICE PTY LTD	Repairs C18010(B)	$	55,918.23
EFT151091	17/06/2021	RAE BATTEN	Staff Reimbursement	$	21.00
EFT151386	24/06/2021	RAECO INTERNATIONAL PTY LTD	Door Matts - Library	$	391.45
EFT151334	24/06/2021	RAY HAMMOND	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151387	24/06/2021	R-COM INTERNATIONAL PTY LTD	SIP and WEB Services July 2021	$	170.50
EFT151950	15/07/2021	R-COM INTERNATIONAL PTY LTD	Setup & provision of SIP service & Web App	$	170.50
EFT151388	24/06/2021	RECONNECT HEALTH AND WELLBEING	EAP Services	$	528.00
EFT151619	01/07/2021	RECONNECT HEALTH AND WELLBEING	EAP Services	$	176.00
EFT151620	01/07/2021	REDMAN SOLUTIONS PTY LTD	Software Licence	$	5,220.60
EFT151622	01/07/2021	REECE PTY LTD	Plumbing and Irrigation Supplies	$	6,056.81
EFT151807	08/07/2021	REECE PTY LTD	Plumbing and Irrigation Supplies	$	294.73
EFT151952	15/07/2021	REECE PTY LTD	Plumbing and Irrigation Supplies	$	890.55
EFT151621	01/07/2021	REEVES ON CAMPBELL	Catering	$	99.00
EFT151951	15/07/2021	REEVES ON CAMPBELL	Catering	$	198.00
EFT151391	24/06/2021	REPCO AUTO PARTS	Auto Parts	$	1,607.41
EFT151624	01/07/2021	REPLAS WA	Kingfisher Seat - Albany Heritage Park	$	960.39
EFT151623	01/07/2021	REPLICA MEDALS & RIBBONS PTY LTD	Stock - Forts Store	$	273.96
EFT151808	08/07/2021	RESINATE DESIGNS	Stock - Forts Store	$	1,312.30
EFT151200	17/06/2021	R-GROUP INTERNATIONAL	Receiver Module	$	906.40
EFT151809	08/07/2021	R-GROUP INTERNATIONAL	Network/DNA Essentials	$	11,454.23
EFT151392	24/06/2021	RICOH	Printing Charges	$	10,888.35
EFT151625	01/07/2021	RMI ENGINEERING & PLASMA CUTTING	Steel Supplies	$	55.00
EFT151288	24/06/2021	ROBERT CASTIGLIONE	Creative Enterprise Grant - Final Payment	$	2,500.00
EFT151171	17/06/2021	ROBERT LESLIE MACKENZIE	Stock - Forts Store	$	510.00
EFT151411	24/06/2021	ROBERT SUTTON	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151389	24/06/2021	ROBYN RECEVEUR	Great Southern Art Awards - Prize	$	500.00
EFT151583	01/07/2021	ROSA MELINO T/A LITTLE RED APPLE PUBLISHING	Stock - Forts Store	$	16.00
EFT151551	01/07/2021	ROSE HUNTER	ALAC Netball Umpiring	$	170.00
EFT151349	24/06/2021	ROSLYN JOY JENKE	Workshop Tuition	$	420.00
EFT151627	01/07/2021	RUSS EARTHMOVING	Supply and Compaction Works	$	1,320.00
EFT151576	01/07/2021	RUTH MARCH	ALAC Netball Umpiring	$	180.00
EFT151400	24/06/2021	SANDIE SMITH	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151273	24/06/2021	S BASSETT	Refund	$	150.00
EFT151147	17/06/2021	SANDRA GILFILLAN	Ringtail Possum Monitoring	$	1,170.00
EFT151628	01/07/2021	SCARVES AUSTRALIA	Stock - Forts Store	$	600.00

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EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151629	01/07/2021	SCAVENGER SUPPLIES PTY LTD	Mesh Supply - Forts	$	9,548.00
EFT151203	17/06/2021	SCOUTS ASSOCIATION OF AUSTRALIA WA BRANCH	Community Recovery Funding	$	3,300.00
EFT151812	08/07/2021	SEA SHEPHERD AUSTRALIA LIMITED	Donation in Lieu of Payment - Beach Clean & Workshop	$	1,000.00
EFT151204	17/06/2021	SECUREPAY PTY LTD	Web Payment Fees	$	37.00
EFT151955	15/07/2021	SECUREPAY PTY LTD	Web Payment Fees	$	33.50
EFT151206	17/06/2021	SEEDESIGN STUDIO PTY LTD	Middleton Beach Foreshore Enhancement Q19020	$	7,931.00
EFT151205	17/06/2021	SEEK LIMITED	Advertising	$	313.50
EFT151395	24/06/2021	SEEK LIMITED	Advertising	$	324.50
EFT151631	01/07/2021	SEEK LIMITED	Advertising	$	627.00
EFT151813	08/07/2021	SEEK LIMITED	Advertising	$	1,050.50
EFT151956	15/07/2021	SEEK LIMITED	Advertising	$	324.50
EFT151775	08/07/2021	S KASILINGAM	Refund	$	441.00
EFT151632	01/07/2021	SHAPE URBAN PTY LTD	Engagement Framework and Delivery	$	14,580.50
EFT151357	24/06/2021	SHIRALEE MAGOR	Staff Reimbursement	$	13.00
EFT151815	08/07/2021	SHIRE OF DENMARK	Lowlands Revegetation	$	224.00
EFT151957	15/07/2021	SHIRE OF JERRAMUNGUP	Certificate of Compliance - Middleton Beach Foreshore	$	190.00
EFT151207	17/06/2021	SHIRE OF PLANTAGENET	Provision of Community Development Officer	$	311.70
EFT151397	24/06/2021	SHIRE OF PLANTAGENET	Provision of Community Development Officer	$	2,549.23
EFT151633	01/07/2021	SHIRE OF PLANTAGENET	LLY Programme - ALAC	$	630.00
EFT151398	24/06/2021	SKOOLSPORT EQUIPMENT PTY LTD T/AS BUFFALO SPORTS	Gym Equipment	$	314.70
EFT151635	01/07/2021	SLIP GUARD PTY LTD	Wet Pendulum Test & Report	$	748.00
EFT151636	01/07/2021	SMITHS ALUMINIUM AND 4WD CENTRE	Plant Maintenance/Service	$	3,115.00
EFT151817	08/07/2021	SMITHS ALUMINIUM AND 4WD CENTRE	Fabrication Works	$	345.00
EFT151208	17/06/2021	SOIL SOLUTIONS PTY LTD	Greenwaste C20019	$	38,578.68
EFT151401	24/06/2021	SOIL SOLUTIONS PTY LTD	Wood Chips C20019	$	900.00
EFT151637	01/07/2021	SOIL SOLUTIONS PTY LTD	Machinery Hire C20019	$	346.50
EFT151818	08/07/2021	SOIL SOLUTIONS PTY LTD	Wood Chips C20019	$	2,723.79
EFT151960	15/07/2021	SOIL SOLUTIONS PTY LTD	Green Waste C20019	$	29,200.30
EFT151638	01/07/2021	SONIC CIVIL PTY LTD	Progress Claim - ALAC Step Repair	$	21,517.10
EFT151563	01/07/2021	SOPHIE KIRKMAN	Crossover Subsidy	$	310.80
EFT151639	01/07/2021	SOS SWITCHED ON TO SAFETY	Annual Maintenance Fee Licence	$	3,190.00
EFT151211	17/06/2021	SOUTH CITY PAVING	Brick Paving Works - C20015(A)	$	12,793.00
EFT151641	01/07/2021	SOUTH CITY PAVING	Brick Paving Works - C20015(A)	$	5,589.10
EFT151212	17/06/2021	SOUTH COAST CRANE HIRE	Hire - Truck - Q19049	$	329.10
EFT151403	24/06/2021	SOUTH COAST CRANE HIRE	Hire - Truck - Q19049	$	1,412.98
EFT151642	01/07/2021	SOUTH COAST CRANE HIRE	Hire - Truck - Q19049	$	1,904.95
EFT151822	08/07/2021	SOUTH COAST CRANE HIRE	Hire - Crane - Q19049	$	1,617.49
EFT151962	15/07/2021	SOUTH COAST CRANE HIRE	Hire - Truck - Q19049	$	452.99
EFT151821	08/07/2021	SOUTH COAST DIVING SUPPLIES	Underwater Video - Concrete Boat Ramps Lower King	$	220.00
EFT151643	01/07/2021	SOUTH COAST ENVIRONMENTAL	Landscaping Services Q20037	$	33,628.75
EFT151823	08/07/2021	SOUTH COAST ENVIRONMENTAL	Landscaping Services Q20037	$	1,980.00
EFT151214	17/06/2021	SOUTH COAST TILT TRAY HIRE	Equipment Hire	$	253.00
EFT151359	24/06/2021	SOUTH COAST WOODWORKS GALLERY	Stock - Forts Store	$	733.70
EFT151149	17/06/2021	SOUTH REGIONAL TAFE	Course Fees	$	561.40
EFT151542	01/07/2021	SOUTH REGIONAL TAFE	Course Fees	$	5,139.30
EFT151915	15/07/2021	SOUTH REGIONAL TAFE	Course Fees	$	1,573.80

CITY OF ALBANY
TRUST, CHEQUES AND ELECTRONIC FUND TRANSFER PAYMENTS
FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151210	17/06/2021	SOUTHCOAST SECURITY SERVICE	Security Services C19018	$	169.13
EFT151820	08/07/2021	SOUTHCOAST SECURITY SERVICE	Security Services C19018	$	22,333.24
EFT151213	17/06/2021	SOUTHERN APIARIES	Stock - Forts Store	$	96.00
EFT151202	17/06/2021	SOUTHERN BUS CHARTERS	Bus Hire - Better Ageing Program	$	250.00
EFT151404	24/06/2021	SOUTHERN CROSS AUSTEREO PTY LTD	Radio Advertising	$	679.80
EFT151824	08/07/2021	SOUTHERN CROSS AUSTEREO PTY LTD	Radio Advertising	$	3,385.80
EFT151825	08/07/2021	SOUTHERN ECOLOGY	Flora Survey	$	6,646.20
EFT151458	01/07/2021	SOUTHERN PORTS	Annual Lease - Emu Point	$	11.00
EFT151209	17/06/2021	SOUTHERN TOOL AND FASTENER CO	Hardware and Tool Supplies - Various	$	230.00
EFT151402	24/06/2021	SOUTHERN TOOL AND FASTENER CO	Hardware and Tool Supplies - Various	$	279.65
EFT151640	01/07/2021	SOUTHERN TOOL AND FASTENER CO	Hardware and Tool Supplies - Various	$	944.40
EFT151819	08/07/2021	SOUTHERN TOOL AND FASTENER CO	Hardware and Tool Supplies - Various	$	224.00
EFT151961	15/07/2021	SOUTHERN TOOL AND FASTENER CO	Hardware and Tool Supplies - Various	$	1,215.03
EFT151215	17/06/2021	SPOTLIGHT PTY LTD	Art Materials	$	12.60
EFT151405	24/06/2021	SPOTLIGHT PTY LTD	Maritime Festival - Table Cloths	$	618.44
EFT151644	01/07/2021	SPOTLIGHT PTY LTD	Materials - Maritime Festival	$	32.80
EFT151826	08/07/2021	SPOTLIGHT PTY LTD	Curtains - Town Hall	$	60.00
EFT151963	15/07/2021	SPOTLIGHT PTY LTD	Materials - Maritime Festival	$	437.50
EFT151221	17/06/2021	ST JOHN AMBULANCE WESTERN AUSTRALIA LTD	First Aid Course	$	597.50
EFT151969	15/07/2021	ST JOHN AMBULANCE WESTERN AUSTRALIA LTD	First Aid Course	$	160.00
EFT151219	17/06/2021	STAGECRAFT	Stage Repairs	$	4,235.00
EFT151216	17/06/2021	STAR SALES AND SERVICE	Hardware Supplies/Tools	$	2,692.65
EFT151827	08/07/2021	STAR SALES AND SERVICE	Hardware Supplies/Tools	$	1,850.00
EFT151964	15/07/2021	STAR SALES AND SERVICE	Hardware Supplies/Tools	$	1,825.00
EFT151168	17/06/2021	STATE LIBRARY OF WESTERN AUSTRALIA	Reading Material - Library	$	1,985.50
EFT151966	15/07/2021	STATEWIDE BEARINGS	Vehicle Parts/Maintenance	$	179.31
EFT151828	08/07/2021	STATEWIDE BUILDING CERTIFICATION WA	Assessment and Issue of CDC	$	330.00
EFT151784	08/07/2021	STEPHANIE ANNE WRIGHT MORRIGAN	EAP Services	$	484.00
EFT151967	15/07/2021	STEPHEN JULIUS CESTRILLI	Exhibition Installation	$	337.50
EFT151982	15/07/2021	STEVE TRIGWELL	Re-Imbursement of Leaving Card for Staff	$	10.00
EFT151130	17/06/2021	STEVEN AND SOPHIA DITCHBURN	Crossover Subsidy	$	222.00
EFT151668	01/07/2021	STEVEN VAN NIEROP	Staff Reimbursement	$	19.95
EFT151646	01/07/2021	STEVES CABINETS	Supply & Install Shelving - Forts Store	$	2,003.80
EFT151408	24/06/2021	STEWART AND HEATON CLOTHING PTY LTD	Uniforms	$	1,644.96
EFT151220	17/06/2021	STIRLING PRINT	Printing Services	$	39.50
EFT151648	01/07/2021	STIRLING PRINT	Printing Services	$	2,299.00
EFT151830	08/07/2021	STIRLING PRINT	Printing Services	$	2,005.00
EFT151968	15/07/2021	STIRLING PRINT	Printing Services	$	1,410.00
EFT151222	17/06/2021	SUGG'S TIMBER MACHINING	Timber Supplies	$	2,730.00
EFT151650	01/07/2021	SUGG'S TIMBER MACHINING	Timber Supplies	$	85.00
EFT151185	17/06/2021	SUPA IGA NORTH ROAD	Training Supplies	$	169.39
EFT151972	15/07/2021	SUPERCHEAP AUTOS	Car Parts	$	321.00
EFT151224	17/06/2021	SYNERGY	Electricity Charges	$	12,008.79
EFT151413	24/06/2021	SYNERGY	Electricity Charges	$	32,566.38
EFT151655	01/07/2021	SYNERGY	Electricity Charges	$	36,668.31
EFT151832	08/07/2021	SYNERGY	Electricity Charges	$	2,459.18

CITY OF ALBANY
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ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151973	15/07/2021	SYNERGY	Electricity Charges	$	63,461.97
EFT151225	17/06/2021	T & C SUPPLIES PTY LTD	Hardware/Tool/Other Supplies	$	2,714.21
EFT151414	24/06/2021	T & C SUPPLIES PTY LTD	Hardware/Tool/Other Supplies	$	7,008.53
EFT151656	01/07/2021	T & C SUPPLIES PTY LTD	Hardware/Tool/Other Supplies	$	2,366.75
EFT151833	08/07/2021	T & C SUPPLIES PTY LTD	Hardware/Tool/Other Supplies	$	691.61
EFT151974	15/07/2021	T & C SUPPLIES PTY LTD	Hardware/Tool/Other Supplies	$	678.64
EFT151298	24/06/2021	TAHLI CROSBY	Staff Reimbursement	$	106.95
EFT151514	01/07/2021	TAMARA DITCHBURN	ALAC Netball Umpiring	$	90.00
EFT151942	15/07/2021	TAMARA LEE NORTH	Crossover Subsidy	$	310.80
EFT151325	24/06/2021	TANEKA GARVIN	LLY Yoga Programme	$	100.00
EFT151538	01/07/2021	TANEKA GARVIN	LLY Yoga Programme	$	100.00
EFT151975	15/07/2021	TANKMAN	Repairs to Water Tank	$	6,323.55
EFT151226	17/06/2021	TARGA WEST P/L	2021 Sponsorship - Targa Albany Sprint	$	5,000.00
EFT151834	08/07/2021	TEEDE & CO - COFFEE HOUSE & CATERING	Catering	$	300.00
EFT151136	17/06/2021	TENNEILE ELSEY	ALAC Basketball Co-Ordinator Fee	$	160.00
EFT151315	24/06/2021	TENNEILE ELSEY	ALAC Basketball Co-Ordinator Fee	$	160.00
EFT151522	01/07/2021	TENNEILE ELSEY	ALAC Basketball Umpiring	$	320.00
EFT151227	17/06/2021	THE 12 VOLT WORLD	Repairs - Plant & Equipment	$	1,615.00
EFT151659	01/07/2021	THE 12 VOLT WORLD	Repairs - Plant & Equipment	$	55.00
EFT151835	08/07/2021	THE 12 VOLT WORLD	Repairs - Plant & Equipment	$	150.00
EFT151088	17/06/2021	THE AUSTRALIAN HISTORICAL ASSOCIATION	Australian Historical Associated Affiliate Membership Renewal (1 Year)	$	170.00
EFT151290	24/06/2021	THE CHAMBER OF ARTS AND CULTURE WA INCORPORATED	Local Government Associate Membership Renewal	$	385.00
EFT151141	17/06/2021	THE FIXUPPERY	Cleaning Services - Q18036	$	380.00
EFT151749	08/07/2021	THE FIXUPPERY	Cleaning Services - Q18036	$	2,717.01
EFT151910	15/07/2021	THE FIXUPPERY	Cleaning Services - Q18036	$	176.00
EFT151537	01/07/2021	THE GARDEN GURUS	Guru Productions - Destination WA	$	2,997.50
EFT151341	24/06/2021	THE HUB MARKETING COMMUNICATIONS	Destination Marketing - Stirling Ranges Promotion	$	2,750.00
EFT151931	15/07/2021	THE LEISURE INSTITUTE OF WA (AQUATICS) INC	Conference Fee	$	545.00
EFT151181	17/06/2021	THE MUFFIN QUEEN	Catering	$	1,750.00
EFT151367	24/06/2021	THE MUFFIN QUEEN	Catering	$	2,005.00
EFT151589	01/07/2021	THE MUFFIN QUEEN	Catering	$	50.00
EFT151938	15/07/2021	THE MUFFIN QUEEN	Catering	$	730.00
EFT151626	01/07/2021	THE ROYAL LIFE SAVING SOCIETY WA INC	Swimming Certificates	$	1,478.60
EFT151811	08/07/2021	THE ROYAL LIFE SAVING SOCIETY WA INC	Requalification Course	$	477.00
EFT151954	15/07/2021	THE ROYAL WESTERN AUSTRALIAN HISTORICAL SOCIETY	Annual Subscription 2021/2022	$	95.00
EFT151837	08/07/2021	THE TOFFEE FACTORY	Stock - Forts Store	$	1,022.99
EFT151663	01/07/2021	THE TROPHY SHOP ALBANY	Plaques - Railways Football Club	$	1,400.00
EFT151666	01/07/2021	THE UNIVERSITY OF WESTERN AUSTRALIA	Stock - Forts Store & Reserves Strategic Planning Assistance	$	1,769.77
EFT151990	15/07/2021	THE WEST AUSTRALIAN NEWSPAPERS LIMITED	Advertising	$	4,286.32
EFT151416	24/06/2021	THERMAGUARD PTY LTD	Fire Equipment - Fire Burnover Blankets	$	1,826.99
EFT151658	01/07/2021	THEYER AUTOMOTIVE	Vehicle Maintenance	$	253.00
EFT151417	24/06/2021	THINKWATER ALBANY	Reticulation Supplies	$	3,690.58
EFT151836	08/07/2021	THINKWATER ALBANY	Reticulation Supplies	$	1,683.18
EFT151501	01/07/2021	THIS PAPERCUT LIFE	Stock - Forts Store	$	855.40
EFT151728	08/07/2021	THIS PAPERCUT LIFE	Stock - Maritime Festival	$	330.00
EFT151977	15/07/2021	THWAITES LIMESTONE CONSTRUCTION	Construction Work - Youth Precinct	$	1,496.00

CITY OF ALBANY
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FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151128	17/06/2021	T DEW	Refund	$	150.00
EFT151978	15/07/2021	TIM FRANKLIN ENGINEERING	HVAC Consult Fees - Library	$	1,897.50
EFT151228	17/06/2021	TIM WATERS DESIGN	Motorbike Parking Designs	$	330.00
EFT151660	01/07/2021	TOLL TRANSPORT	Courier Services	$	1,851.25
EFT151838	08/07/2021	TOLL TRANSPORT	Courier Services	$	311.36
EFT151979	15/07/2021	TOLL TRANSPORT	Courier Services	$	366.25
EFT151419	24/06/2021	TORBAY VOLUNTEER BUSH FIRE BRIDAGE	Reimbursement for Wall Linings - Torbay Fire Shed	$	2,706.74
EFT151420	24/06/2021	TOTAL GREEN RECYCLING	Removal of E-Waste Q20025	$	5,150.59
EFT151980	15/07/2021	TOTAL GREEN RECYCLING	Removal of E-Waste Q20025	$	3,192.87
EFT151839	08/07/2021	TOTALLY SPORTS AND SURF	Vouchers - ALAC	$	300.00
EFT151229	17/06/2021	TOURISM COUNCIL WESTERN AUSTRALIA	Tourism Workshops	$	480.00
EFT151421	24/06/2021	TOURISM COUNCIL WESTERN AUSTRALIA	TCWA Silver Membership Renewal	$	2,145.00
EFT151657	01/07/2021	T-QUIP	Plant Parts/Maintenance	$	74.70
EFT151399	24/06/2021	TRACY SLEEMAN	Councillor Allowances and Sitting Fees	$	3,569.37
EFT151661	01/07/2021	TRADELINK PLUMBING SUPPLIES	Plumbing Supplies	$	320.34
EFT151981	15/07/2021	TRAILBLAZERS	Giftcard - Retirement Gift	$	509.20
EFT151422	24/06/2021	TRONOX MINING AUSTRALIA LIMITED	Rates Refund	$	113.99
EFT151662	01/07/2021	TROPICAL SHADE N SAILS	Shade Sails Quote - Library	$	209.00
EFT151231	17/06/2021	TRUCKLINE	Vehicle Parts & Maintenance	$	1,052.22
EFT151840	08/07/2021	TRUCKLINE	Vehicle Parts & Maintenance	$	389.62
EFT151477	01/07/2021	TUTT BRYANT EQUIPMENT	Plant Parts/Maintenance	$	5,568.18
EFT151664	01/07/2021	TWILIGHT DREAMS	LLY Programme - ALAC	$	700.00
EFT151233	17/06/2021	UNIFORM FASHIONS	Uniform Supplies	$	586.80
EFT151667	01/07/2021	UNITED BOOK DISTRIBUTORS	Stock - Forts Store	$	531.58
EFT151842	08/07/2021	UNITED BOOK DISTRIBUTORS	Stock - Forts Store	$	19.49
EFT151234	17/06/2021	VANGUARD PRESS	Brochure Display	$	233.85
EFT151425	24/06/2021	VANGUARD PRESS	Brochure Display	$	230.00
EFT151345	24/06/2021	VASHTI INNES-BROWN	Stock - Forts Store	$	80.00
EFT151235	17/06/2021	VEND LIMITED (NZ)	Software Licence	$	8,904.00
EFT151126	17/06/2021	VERONIQUE DERSCHOW	Staff Reimbursement	$	24.95
EFT151236	17/06/2021	VINOFOOD PTY LTD	Stock - Forts Store	$	467.50
EFT151244	17/06/2021	WA HOLIDAY GUIDE PTY LTD	Booking Fees	$	691.75
EFT151237	17/06/2021	WA NATURALLY PUBLICATIONS (DEPT OF PARKS & WILDLIFE)	Trail Maps, guides & books	$	541.34
EFT151178	17/06/2021	WA RANGERS ASSOCIATION INC	Membership Fees	$	240.00
EFT151669	01/07/2021	WALCON MARINE AUSTRALIA PTY LTD	Lower King & Emu Point Boating Upgrades Progress Claim 2 C21001	$	220,629.15
EFT151843	08/07/2021	WALCON MARINE AUSTRALIA PTY LTD	Lower King & Emu Point Boating Upgrades Progress Claim 3 C21001	$	73,576.69
EFT151670	01/07/2021	WARTHOG WA	Repairs - Plant & Equipment	$	140.00
EFT151238	17/06/2021	WATER CORPORATION	Water Charges	$	967.86
EFT151427	24/06/2021	WATER CORPORATION	Water Charges	$	247.60
EFT151671	01/07/2021	WATER CORPORATION	Water Charges	$	3,831.89
EFT151984	15/07/2021	WATER CORPORATION	Water Charges	$	192.93
EFT151428	24/06/2021	WAUTERS ENTERPRISES PTY LTD	Kalgan Community Hall Works - Progress Claim Q21026	$	13,240.00
EFT151985	15/07/2021	WAUTERS ENTERPRISES PTY LTD	Kalgan Community Hall Works - Progress Claim Q21026	$	13,240.00
EFT151986	15/07/2021	WAXIWRAPS	Stock - Visitors Centre	$	313.50
EFT151673	01/07/2021	WCP CIVIL PTY LTD	Road Works - Profiling - WALGA Contract PSP009	$	14,892.35
EFT151240	17/06/2021	WELLINGTON AND REEVES	Rates Refund	$	2,012.37

CITY OF ALBANY
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FOR THE PERIOD ENDING 15 JUL 2021

ELECTRONIC FUND TRANSFER PAYMENTS

EFT	DATE	NAME	DESCRIPTION		AMOUNT
EFT151987	15/07/2021	WELLSTEAD PROGRESS ASSOCIATION	Electricity Usage for Emergency Services Shed	$	535.00
EFT151687	08/07/2021	WELLSTEAD RURAL SERVICES	Fuel Supplies	$	8.31
EFT151353	24/06/2021	W KEEN	Refund	$	150.00
EFT151248	17/06/2021	WESFARMERS LTD - WORKWEAR GROUP	Uniform Suppliers	$	462.72
EFT151438	24/06/2021	WESFARMERS LTD - WORKWEAR GROUP	Uniform Suppliers	$	127.92
EFT151681	01/07/2021	WESFARMERS LTD - WORKWEAR GROUP	Uniform Suppliers	$	934.55
EFT151850	08/07/2021	WESFARMERS LTD - WORKWEAR GROUP	Uniform Suppliers	$	500.15
EFT151992	15/07/2021	WESFARMERS LTD - WORKWEAR GROUP	Uniform Suppliers	$	698.70
EFT151677	01/07/2021	WESTBOOKS	Books - Library	$	2,081.42
EFT151431	24/06/2021	WESTERBERG PANEL BEATERS	Towing Services	$	95.00
EFT151242	17/06/2021	WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION T/A WALGA	Training Courses - Emergency Management & Governance	$	3,300.00
EFT151432	24/06/2021	WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION T/A WALGA	Classification Assessments	$	297.00
EFT151675	01/07/2021	WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION T/A WALGA	WALGA Trainer	$	1,219.00
EFT151989	15/07/2021	WESTERN AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION T/A WALGA	WALGA Subscriptions 01/07/2021 TO 30/06/2022	$	74,583.96
EFT151676	01/07/2021	WESTERN AUSTRALIAN MUSEUM	Service Agreement	$	24,475.84
EFT151252	24/06/2021	WESTERN AUSTRALIAN TREASURY CORPORATION	Loan Payment - Principal & Interest	$	156,321.77
EFT151065	15/06/2021	WESTERN AUSTRALIAN TREASURY CORPORATION	Loan Payment - Principal & Interest	$	102,988.84
EFT151442	28/06/2021	WESTERN AUSTRALIAN TREASURY CORPORATION	Loan Payment - Principal & Interest	$	685,274.49
EFT151445	30/06/2021	WESTERN AUSTRALIAN TREASURY CORPORATION	Loan Payment - Principal & Interest	$	128,890.85
EFT151243	17/06/2021	WESTERN WORK WEAR	Uniform Suppliers	$	87.90
EFT151241	17/06/2021	WESTRAC EQUIPMENT PTY LTD	Repairs - Plant & Equipment	$	10,199.73
EFT151674	01/07/2021	WESTRAC EQUIPMENT PTY LTD	Purchase Plant Equipment	$	168,424.99
EFT151988	15/07/2021	WESTRAC EQUIPMENT PTY LTD	Repairs - Plant & Equipment	$	1,247.61
EFT151846	08/07/2021	WESTSHRED DOCUMENT DISPOSAL	Shredding Services	$	402.60
EFT151245	17/06/2021	WHALE WATCH WESTERN AUSTRALIA	Tours Sold on Rezdy	$	1,694.00
EFT151246	17/06/2021	WHITFIELD ESTATE & PAWPRINT CHOCOLATE	Stock - Forts Store	$	551.21
EFT151991	15/07/2021	WIDEBAND NETWORKS PTY LTD - AUSSIE BROADBAND	NBN Data & Mobile Broadband	$	328.00
EFT151247	17/06/2021	WILD EYED PRESS PTY LTD	Stock - Visitors Centre	$	560.15
EFT151435	24/06/2021	WILDFLOWER SOCIETY OF WESTERN AUSTRALIA INCORPORATED	Coastland Brochure	$	100.00
EFT151935	15/07/2021	WILLIAM JAMES MENGLER	Crossover Subsidy	$	388.50
EFT151436	24/06/2021	WILSON INLET CATCHMENT COMMITTEE	2021 Wilson Inlet Survey	$	1,650.00
EFT151437	24/06/2021	WIN TELEVISION NETWORK PTY LTD T/A SKY NEWS	Advertising	$	101.20
EFT151848	08/07/2021	WIN TELEVISION NETWORK PTY LTD T/A SKY NEWS	Advertising	$	126.50
EFT151847	08/07/2021	WIN TELEVISION WA PTY LTD	Advertising	$	1,688.50
EFT151680	01/07/2021	WOODLANDS DISTRIBUTORS AND AGENCIES	Supply Dog Waste Bags	$	1,742.40
EFT151849	08/07/2021	WOOLWORTHS GROUP LIMITED	Day-care Food Supplies	$	2,139.88
EFT151993	15/07/2021	WREN OIL	Oil Waste Disposal	$	33.00
EFT151851	08/07/2021	WURTH AUSTRALIA PTY LTD	Vehicle Parts & Maintenance	$	362.46
EFT151249	17/06/2021	ZENITH LAUNDRY	Laundry Services	$	21.90
EFT151441	24/06/2021	ZENITH LAUNDRY	Laundry Services	$	10.53
EFT151682	01/07/2021	ZENITH LAUNDRY	Laundry Services	$	18.85
EFT151853	08/07/2021	ZENITH LAUNDRY	Laundry Services	$	144.71
EFT151994	15/07/2021	ZENITH LAUNDRY	Laundry Services	$	15.34
				$	**7,381,653.21**

Document Number	Description	Date Sent / Received
EDR21131863	Copy of Executed Document Item: N/A Re: Two properties have a property (seizure & sale order on the Certificate of Title that were lodged as part of our debt recovery process for outstanding rates. Both debts have now been paid in full so the orders must be discharged. Signature of the CEO is required on the two attached Landgate forms. Parties: N/A Signed by: Andrew Sharpe Chief Executive Officer (2 copies)	16/06/2021
EDR21131874	Copy of Executed Document Item: n/a Re: Council resolved on 27 April 2021 to adopt the amended local law Parties: N/A Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	16/06/2021
EDR21131916	Copy of Executed Document Item: N/A Re: Office of Road Safety - September 2021 long weekend fatigue campaign. $2000 in 2021-22 fatigue campaign at the opening of the youth challenge park in September 2021 Parties: office of road safety Signed by: Duncan Olde (delegate)	17/06/2021
EDR21132117	Copy of Executed Document Item: N/A Re: Funding claims - Betty's Beach, Spencer Stirling intersection - amendments Parties: Main Roads WA Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	22/06/2021
EDR21132321	Copy of Executed Document Item: N/A Re: Development Approval Application - 122 Grey Street West, Albany. Senior citizen building refurbishment. Lease area PRO438 Parties: N/A Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	25/06/2021

Document Number	Description	Date Sent / Received
EDR21132608	Copy of Executed Document Item: N/A Re: GSDC Great Southern Arts Culture and Heritage Strategy Aboriginal Engagement $5,000 GSDC and Aboriginal Leadership Network Conference $3,000 – not subject to other funding by the COA Parties: GSDC - ($8,000 plus gst) Signed by: Andrew Sharpe Chief Executive Officer (online)	30/06/2021
EDR21132625	Copy of Executed Document Item: n/a Re: MOU GSDC and the City collaboratively develop a creative concept and business case with the City of Albany for a major food and wine event in spring for Albany and surrounds. The GSDC to provide the city with $15,000 (ex gst) towards the project in 2020-2021 The City will seek to provide matched cash or in-kind funding toward the project, this will include engagement with other LGA'S Parties: GSDC and City of Albany Signed by: Andrew Sharpe Chief Executive Officer (online)	30/06/2021
EDR21132644	Copy of Executed Document Item: N/A Re: EOI for $1,000 to run two sessions @ Albany Library for digital health literacy sessions Parties: City of Albany and Libraries WA Signed by: Andrew Sharpe Chief Executive Officer (online)	30/06/2021
EDR21132646	Copy of Executed Document Item: N/A Re: Development Application for proposed Retravision signage at Centennial Stadium - 156 Lockyer Avenue, Centennial Park Signed by: Andrew Sharpe Chief Executive Officer	30/06/2021
EDR21132648	Copy of Executed Document Item: N/A Re: Development Approval Application - Old Post Office 33-39 Stirling Tce, Albany Emergency repairs due to storm damage and to prevent further or future damage	30/06/2021

Document Number	Description	Date Sent / Received
	Parties: City of Albany Signed by: Andrew Sharpe Chief Executive Officer	
EDR21133149	Copy of Executed Document Item: N/A Re: Funding claim for direct grants Parties: Main Roads WA Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	12/07/2021
EDR21133346	Copy of Executed Document Item: N/A Re: Development Application for upgrade of scoreboard and playground at Railways Football Club - 157-159 Lockyer Avenue, Centennial Park. Parties: N/A Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	15/07/2021
EDR21133347	Copy of Executed Document Item: N/A Re: June 2021 destruction schedule and memo for CEO Parties: N/A Signed by: Andrew Sharpe Chief Executive Officer (1 copy)	15/07/2021
EDR21420952	Copy of Executed Document Item: N/A Re: MOU GSDC Great Winter Arts Event The GSDC and the City collaboratively develop a creative concept and business case with the City of Albany for a major food and wine event in winter for Albany and surrounds. This business case is to be utilised to progress future funding submissions and promote tourism and trade opportunities. The GSDC to provide the shire with $20,000 (exclusive of gst) towards the project in 2020-21. The City will seek to provide matched cash or in-kind funding towards the project, this will include engagement with other LGA'S. Parties: MOU GSDC City of Albany and Shire of Denmark Signed by: Andrew Sharpe Chief Executive Officer (online)	30/06/2021
NCSR21131852	Copy of Common Seal Document Item: N/A	16/06/2021

Document Number	Description	Date Sent / Received
	Re: Renewal of Lotteries House lease under delegated authority no: 2020:019. Lease rental is $3693.60 per annum (inc. gst) Deed of lease prepared at no cost to council Parties: The Family Planning Association of WA in partnership with People 1st Programme Signed by: Andrew Sharpe, Chief Executive Officer and Dennis Wellington, Mayor (2 copies)	
NCSR21132107	Copy of Common Seal Document Item: N/A Re: Service Level Agreement - National Anzac Centre Parties: Western Australian Museum Signed by: Andrew Sharpe, Chief Executive Officer and Dennis Wellington, Mayor (2 copies)	22/06/2021
NCSR21132146	Copy of Common Seal Document Item: n/a Re: Lamd9 - Rezoning Lot 5 Lowanna Drive, Lot 16 South Coast Highway and Lots 9 and 110 George Street from the 'general agriculture zone' to the 'rural residential' zone and incorporating them within area no. RR22, as set out in schedule 14 - rural residential zone of the scheme text: and amending the scheme maps accordingly. Parties: LJ & R Spaanderman, TG Burgess, QD Knight, F&J Lombardo and Ayton Baesjou Planning. Signed by: Andrew Sharpe, Chief Executive Officer and Dennis Wellington, Mayor (2 copies)	23/06/2021
NCSR21132603	Copy of Common Seal Document Item: Re: To rezone Lot 106 Nanarup Road, Lower King from 'general agriculture' zone to 'special residential' zone SR22; and to transfer a portion of Lot 106 Nanarup Road, Lower King from 'general agriculture' zone to the 'parks and recreation' reserve. Parties: LJ and R Spaanderman, TG Burgess, QD Knight, F & J Lombardo and Ayton Baesjou planning. Signed by: Andrew Sharpe, Chief Executive Officer and Dennis Wellington, Mayor (3 copies)	30/06/2021

Document Number	Description	Date Sent / Received
NCSR21132729	Copy of Common Seal Document Item: N/A Re: Local Planning Scheme No. 1, Amendment No.38 - rezoning lot 5780 Down Road South, Drome, from 'priority agricultural' zone to 'special use - SU26' zone Parties: N/A Signed by: Andrew Sharpe, Chief Executive Officer and Dennis Wellington, Mayor (3 copies)	02/07/2021

FILE: RV.RPY.12

DELEGATED AUTHORITY

WRITE OFF RATE DEBT

Delegation: 2021:022 – Administer Rate Collection (Recover and Write Off Rate Debt, Administer Rating Exemptions)

Adopted: OCM 23/02/2021 Resolution AR089

Delegated Power:

1. Waive, grant concessions or write off any money owed to the City, pursuant to the Local Government Act 1995, s6.12(1).

2. Write off any amount of money, including rate debts 'penalty interest' where the cost of recovering the debt will be greater than the actual debt.

Condition of Delegation:

(a) Write Off Debt (monies owed):
- Maximum $10,000. Finance Officers – Rates: limited $1,500.
- The full details of the waiver, concession or write off to be recorded on the appropriate financial record and a report being provided to the Community and Corporate Services Committee on an annual basis on the exercise of this delegation.

Rate Debt Write Off balance of $2,562.33 for the period 01/07/2020 to 30/06/2021.

As per the attached list.

Duncan Olde
Executive Director Corporate & Commercial Services

22/7/2021

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A100268	1.62
A100286	0.14
A100533	1.16
A100745	0.16
A100880	0.47
A100907	0.76
A100943	0.13
A100975	0.32
A101012	1.51
A101080	0.28
A101193	0.11
A101210	3.87
A101224	1.08
A101337	0.56
A10142	0.02
A101616	2.10
A101670	0.59
A101931	0.02
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A102343	0.24
A102537	0.14
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A127252	0.75
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A54382	3.00
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A54495	0.18
A54508	1.44
A54639	0.68
A54904	0.03
A55154	0.06
A5519	1.21
A555	0.41
A55514	0.29
A5655	0.96
A5660	0.18
A5664	0.18
A5691	3.81
A5692	0.42
A5700	0.14
A5709	1.22
A5710	1.47
A5714	2.07
A5724	2.29
A5729	2.29
A5783	1.68
A5789	0.36
A5805	1.39
A5829	0.07
A5842	2.82
A587	1.93
A5887	3.70
A5888	2.28
A5907	2.62
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A5948	0.47
A5984	0.99
A5987	0.35
A5991	0.52
A6010	4.25
A6011	1.54
A6013	0.14
A6056	2.29
A6058	2.29
A6094	0.65
A6106	1.17
A6128	0.05
A6156	0.18
A6172	1.66
A6185	2.98
A6191	4.53
A6193	0.71
A6244	1.21
A6249	1.45
A6256	0.96
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A63076	0.31
A63139	0.03
A63305	8.49
A63323	2.44
A63670	0.03
A63800	0.12
A63832	1.42
A63927	0.26
A64078	1.30
A64113	0.32
A64230	1.12
A64375	0.08
A64456	0.18
A64947	0.49
A6507	0.02
A65070	0.94
A65101	3.98
A65278	0.07
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A65377	0.17
A65381	1.81
A6575	0.23
A65804	0.53
A6593	0.42
A66068	0.84
A66171	2.28
A66270	1.15
A66400	0.18
A66428	1.71
A6656	0.79
A66608	2.05

A6705	2.93
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A69244	1.70
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A70392	0.66
A70405	0.66
A70748	2.75
A70847	2.29
A71259	0.09
A71326	0.18
A71489	0.35
A71718	0.52
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A7216	0.56
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A73091	0.93
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A735	0.42
A73578	1.06
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A74679	4.28
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A75748	3.66
A75900	0.06
A75946	0.51
A76083	1.36
A76097	0.03
A76100	1.21
A76178	0.08
A76263	0.15
A76619	3.37
A76637	0.55
A76835	0.22
A76948	1.18
A77233	0.81
A77314	4.64
A77328	0.34
A77364	0.53
A77459	2.87
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A80420	0.56
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A83183	0.28
A83214	2.09
A83228	0.26
A83246	0.26
A83278	0.26
A83309	0.24
A83381	0.29
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A83507	4.94
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A83755	1.93
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A85551	0.02
A8579	0.63
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A87721	2.41
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A87898	0.31
A88147	2.88
A88246	0.37
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A88606	1.44
A88787	1.25
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A89090	4.80
A89153	2.81
A89199	1.50
A89252	4.64
A89333	4.78
A89496	2.45
A89581	0.07
A89644	1.80
A89743	2.01
A89874	0.07
A89991	4.91
A90300	0.91
A90332	0.11
A90346	0.27
A90382	4.71
A90639	0.12
A90657	4.55
A90742	0.03
A90760	0.06
A90805	0.08
A90904	2.17
A90922	1.34
A91235	0.03
A91708	0.61
A91758	3.24
A92043	1.12
A92142	1.00
A92304	0.06
A92584	0.26
A92746	1.32
A93013	0.02
A93473	0.12
A93568	3.26
A93621	1.99
A93829	0.12
A9387	1.25
A93897	3.70
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A94097	0.49
A94114	0.28
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A94411	0.40
A94619	1.10
A9490	0.09
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A9521	1.38
A95215	1.73
A95297	1.16
A95477	0.07
A95594	0.39
A95625	0.06
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A95972	0.94
A9599	0.43
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A96168	0.24
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City of Albany
DIRECTOR COMMUNITY SERVICES
ALBANY HERITAGE PARK
For the Period Ended June 2021

$	2020/21 Current Budget	2020/21 YTD Budgets	2020/21 YTD Actuals	2020/21 YTD Variance	2019/20 Actuals	2018/19 Actuals	2017/18 Actuals
TOTAL ALBANY HERITAGE PARK							
Operating Income	1,232,000	1,232,000	1,498,904	266,904	1,163,512	1,784,482	1,565,575
Purchase of Stock	(150,000)	(150,000)	(231,912)	(81,912)	(183,802)	(312,925)	(260,065)
Operating Expenditure	(862,653)	(862,653)	(749,957)	112,696	(810,092)	(808,269)	(658,290)
Net Operating Income/(Expense) before Indirect Costs	**219,347**	**219,347**	**517,035**	**297,688**	**169,618**	**663,288**	**647,220**
Indirect Costs	(774,280)	(774,280)	(723,007)	51,273	(783,790)	(795,744)	(862,675)
Net Operating Income/(Expense)	**(554,933)**	**(554,933)**	**(205,972)**	**348,961**	**(614,172)**	**(132,456)**	**(215,455)**
Capital Income	1,075	1,075	0	(1,075)	0	228,368	0
Capital Expenditure	(553,957)	(553,957)	(119,047)	434,910	(501,448)	0	(2,841)
Grand Total	**(1,107,815)**	**(1,107,815)**	**(325,020)**	**782,795**	**(1,115,621)**	**95,912**	**(218,296)**

$	2020/21 Current Budget	2020/21 YTD Budgets	2020/21 YTD Actuals	2020/21 YTD Variance	2019/20 Actuals	2018/19 Actuals	2017/18 Actuals
NATIONAL ANZAC CENTRE							
Operating Income	805,500	805,500	1,016,016	210,516	778,039	1,185,681	1,037,295
Operating Expenditure	(529,001)	(529,001)	(399,638)	129,363	(445,513)	(463,555)	(358,723)
Net Operating Income/(Expense) before Indirect Costs	**276,499**	**276,499**	**616,378**	**339,879**	**332,526**	**722,126**	**678,572**
Indirect Costs	(199,077)	(199,077)	(183,069)	16,008	(181,245)	(202,545)	(212,913)
Net Operating Income/(Expense)	**77,422**	**77,422**	**433,309**	**355,888**	**151,281**	**519,580**	**465,659**
Capital Expenditure	(492,882)	(492,882)	(119,047)	373,835	(237,118)	0	0
Total	**(415,460)**	**(415,460)**	**314,262**	**729,722**	**(85,837)**	**519,580**	**465,659**

$	2020/21 Current Budget	2020/21 YTD Budgets	2020/21 YTD Actuals	2020/21 YTD Variance	2019/20 Actuals	2018/19 Actuals	2017/18 Actuals
RETAIL							
Sales	382,500	382,500	436,752	54,252	344,636	517,603	473,006
Purchase of Stock	(150,000)	(150,000)	(231,912)	(81,912)	(183,802)	(312,925)	(260,065)
Sales less Stock	**232,500**	**232,500**	**204,840**	**(27,660)**	**160,834**	**204,678**	**212,941**
Operating Expenditure	(223,826)	(223,826)	(238,996)	(15,170)	(243,957)	(247,979)	(211,878)
Net Operating Income/(Expense) before Indirect Costs	**8,674**	**8,674**	**(34,156)**	**(42,830)**	**(83,123)**	**(43,301)**	**1,063**
Indirect Costs	(177,177)	(177,177)	(168,357)	8,820	(188,780)	(185,980)	(200,768)
Net Operating Income/(Expense)	**(168,503)**	**(168,503)**	**(202,514)**	**(34,010)**	**(271,903)**	**(229,281)**	**(199,705)**
Total	**(168,503)**	**(168,503)**	**(202,514)**	**(34,010)**	**(271,903)**	**(229,281)**	**(199,705)**

$	2020/21 Current Budget	2020/21 YTD Budgets	2020/21 YTD Actuals	2020/21 YTD Variance	2019/20 Actuals	2018/19 Actuals	2017/18 Actuals
FORTRESS							
Operating Income	3,000	3,000	5,535	2,535	9,368	19,279	11,671
Operating Expenditure	(109,826)	(109,826)	(111,322)	(1,496)	(120,622)	(96,735)	(87,689)
Net Operating Income/(Expense) before Indirect Costs	**(106,826)**	**(106,826)**	**(105,787)**	**1,039**	**(111,253)**	**(77,456)**	**(76,018)**
Indirect Costs	(198,663)	(198,663)	(185,582)	13,081	(206,382)	(203,237)	(224,179)
Net Operating Income/(Expense)	**(305,489)**	**(305,489)**	**(291,369)**	**14,119**	**(317,635)**	**(280,693)**	**(300,197)**
Capital Income	1,075	1,075	0	(1,075)	0	228,368	0
Total	**(304,414)**	**(304,414)**	**(291,369)**	**13,044**	**(317,635)**	**(52,325)**	**(300,197)**

$	2020/21 Current Budget	2020/21 YTD Budgets	2020/21 YTD Actuals	2020/21 YTD Variance	2019/20 Actuals	2018/19 Actuals	2017/18 Actuals
ALBANY HERITAGE PARK PRECINCT							
Operating Income	41,000	41,000	40,600	(400)	31,468	61,920	43,603
Operating Expenditure	0	0	0	0	0	0	0
Net Operating Income/(Expense) before Indirect Costs	**41,000**	**41,000**	**40,600**	**(400)**	**31,468**	**61,920**	**43,603**
Indirect Costs	(199,363)	(199,363)	(185,999)	13,364	(207,384)	(203,981)	(224,815)
Net Operating Income/(Expense)	**(158,363)**	**(158,363)**	**(145,399)**	**12,964**	**(175,916)**	**(142,062)**	**(181,213)**
Capital Expenditure	(61,075)	(61,075)	0	61,075	(264,330)	0	(2,841)
Total	**(219,438)**	**(219,438)**	**(145,399)**	**74,039**	**(440,246)**	**(142,062)**	**(184,053)**

NATIONAL ANZAC CENTRE



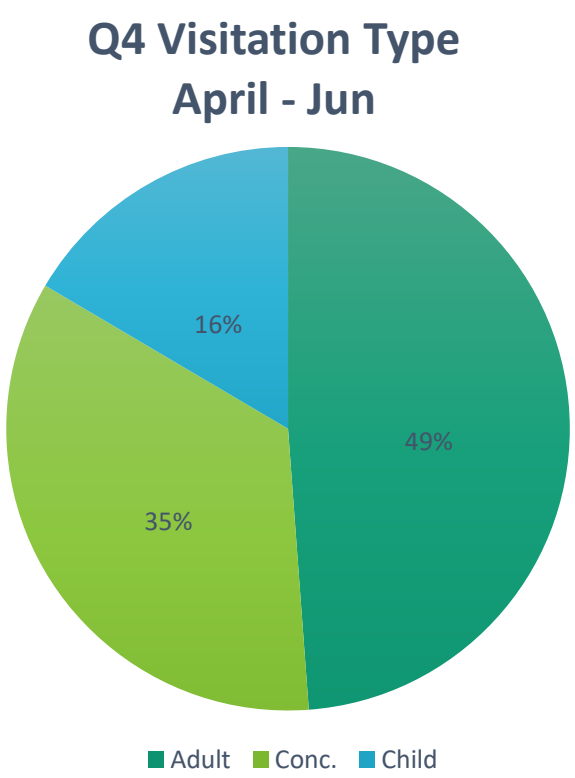
National Anzac Centre
CCS Committee
Q4 2020/21 Update

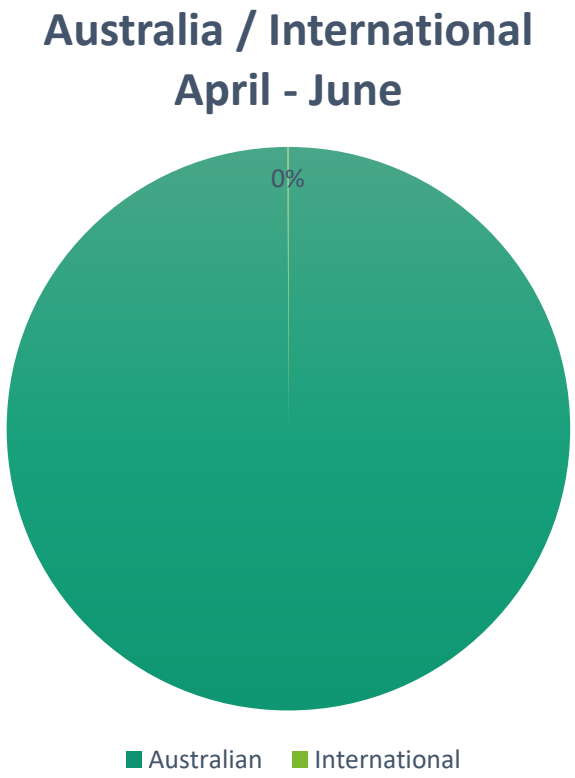
NATIONAL ANZAC CENTRE VISITATION Q4

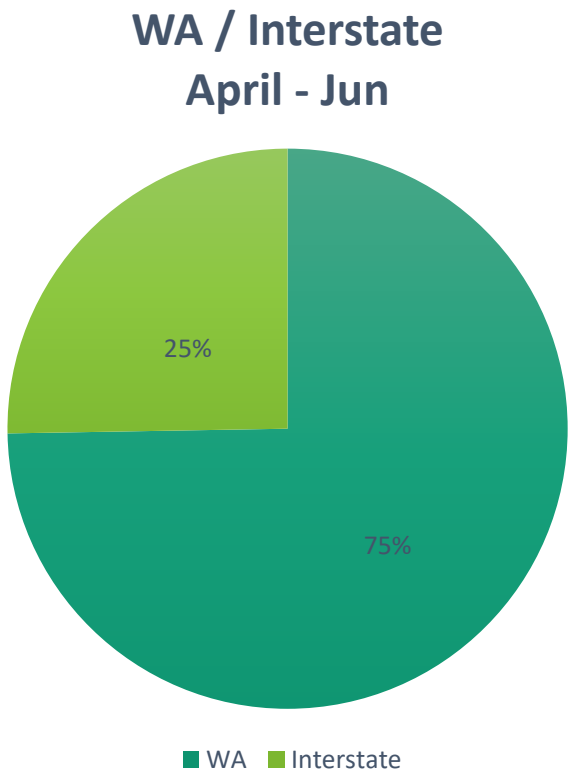
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	Totals
2014/15	0	0	0	0	10 001	6 433	9 778	5 855	8 735	11 246	5 707	3 420	**61 175**
2015/16	5 047	3 402	5 575	6 646	5 442	5 714	9 777	4 526	7 444	6 945	3 905	3 264	**67 687**
2016/17	4 300	2 928	5 616	6 016	4 440	5 123	7 639	4 192	5 751	7 534	4 143	2 952	**60 634**
2017/18	3 927	3 296	6 242	6 576	4 100	4 721	7 336	4 305	5 430	7 228	3 765	2 383	**59 309**
2018/19	3 329	2 620	5 324	6 760	4 950	4 868	8 078	5 006	8 303	10 289	3 424	2 514	**65 465**
2019/20	3 327	3 095	5 005	6 427	3 776	4 643	7 092	3 606	3 731	0	0	1 651	**42 353**
2020/21	4 798	2 795	4 592	5 914	3 840	4 974	8 199	3 213	5 171	7 426	4 226	3 400	58 548
TOTAL													**415,171**



NATIONAL ANZAC CENTRE VISITATION Q4

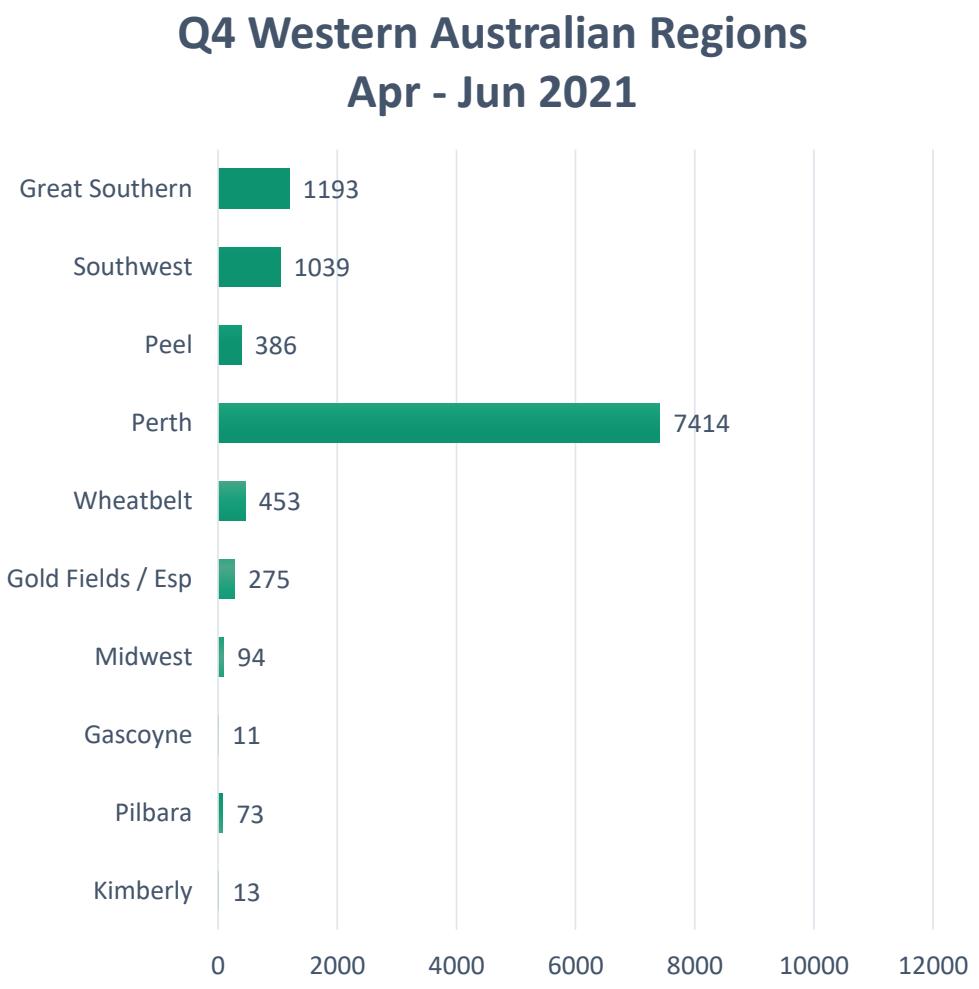


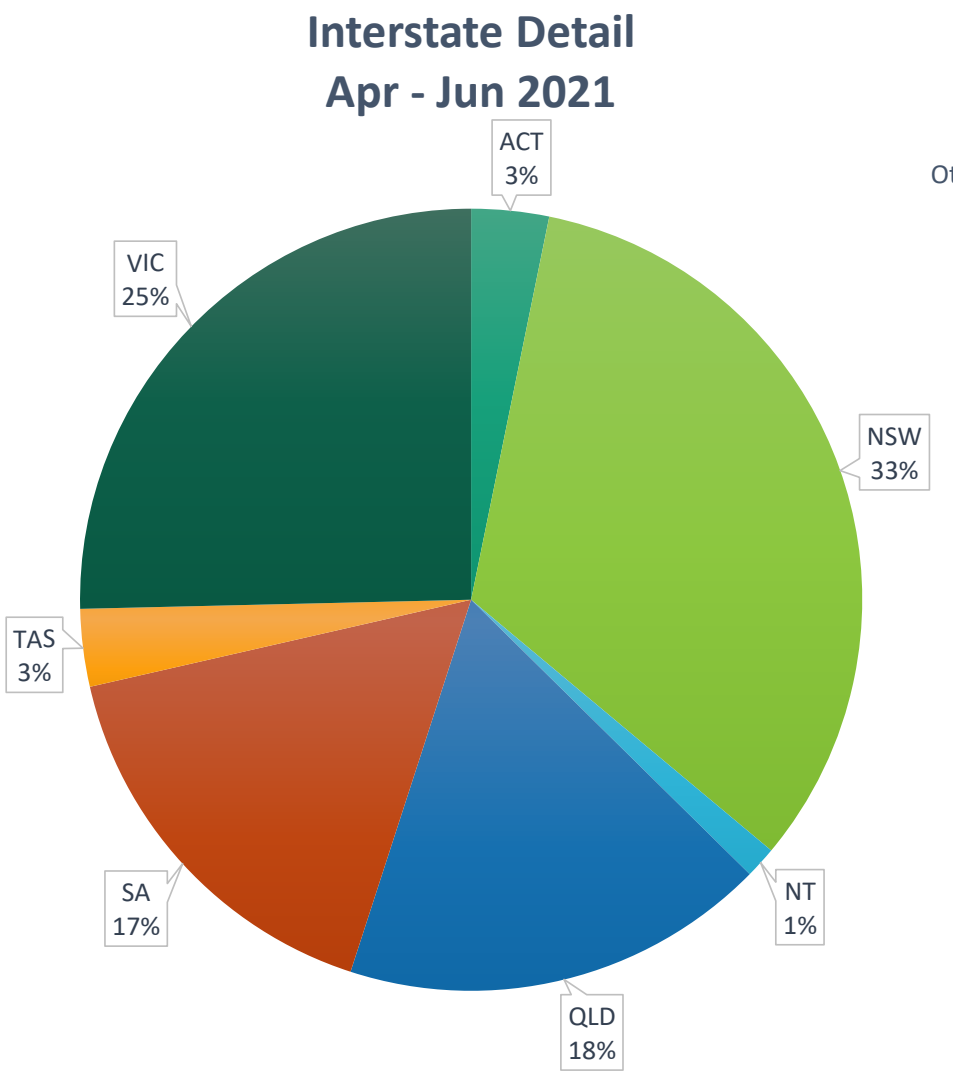


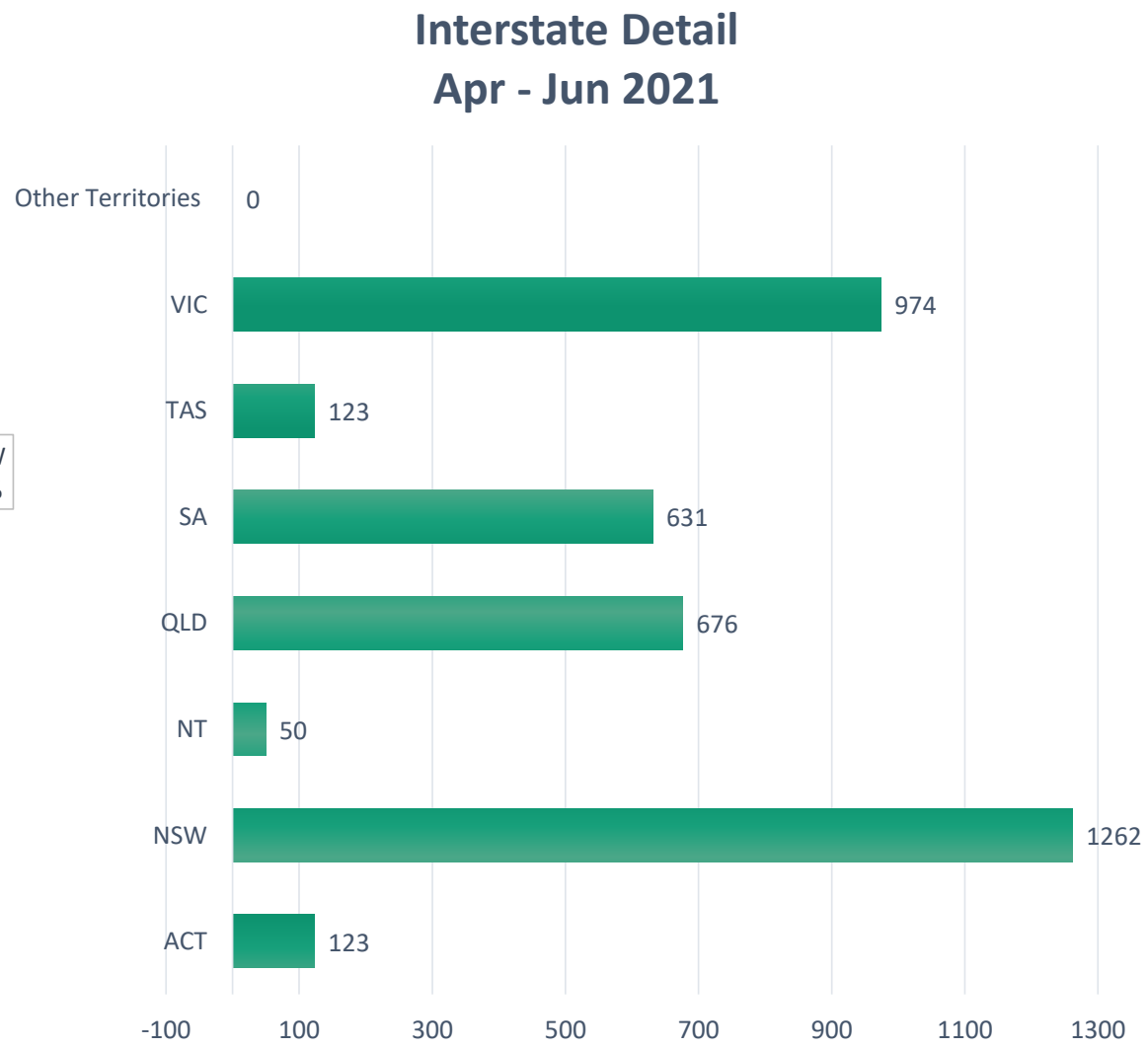


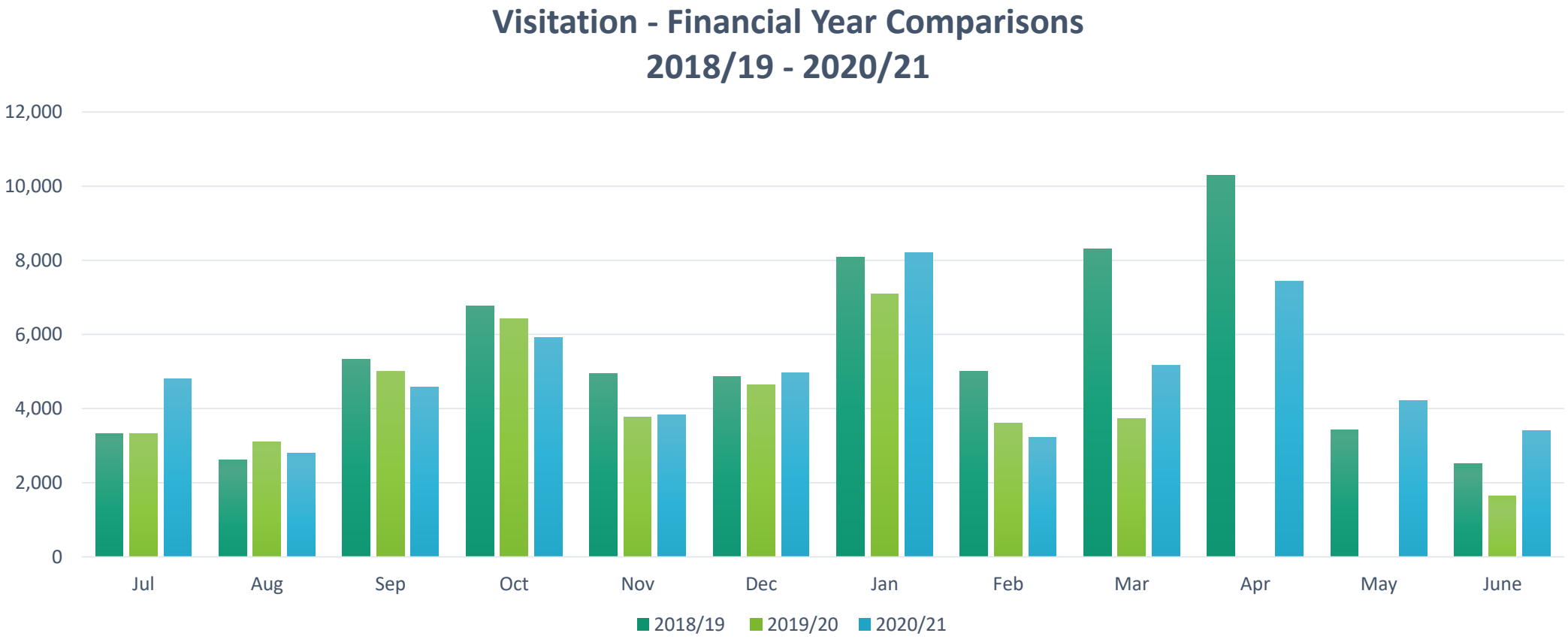
Great Southern / Rest of WA				
2020/21	April	May	June	**Total**
Great Southern	425	335	433	**1,193**
Rest of WA	5,450	2,320	1,988	**9,758**

Australian / International				
2020/21	April	May	June	**Total**
Australian	7,261	4,153	3,376	**14,790**
International	1	10	6	**17**

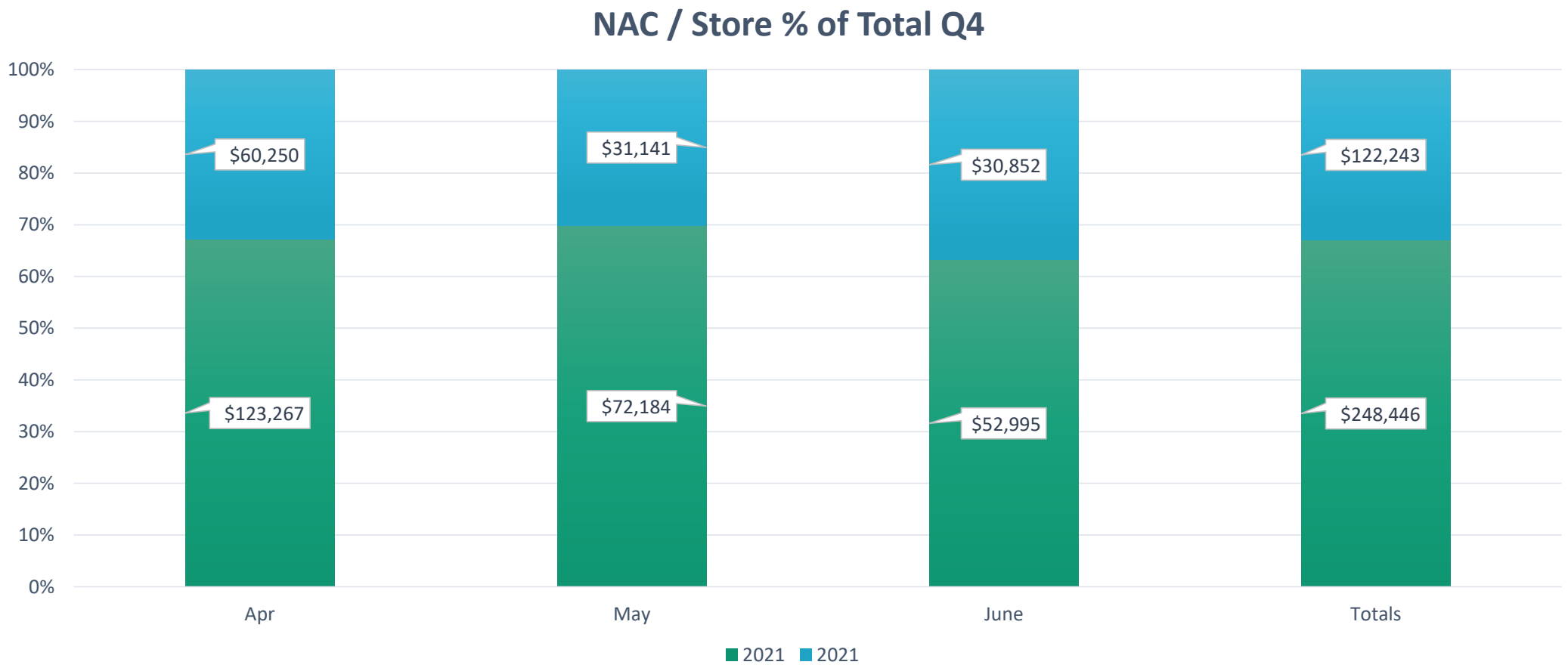



Interstate Detail
Apr - Jun 2021
ACT
3%
NSW
33%
NT
1%
QLD
18%
SA
17%
TAS
3%
VIC
25%


Interstate Detail
Apr - Jun 2021
Other Territories
0
VIC
974
TAS
123
SA
631
QLD
676
NT
50
NSW
1262
ACT
123
-100
100
300
500
700
900
1100
1300

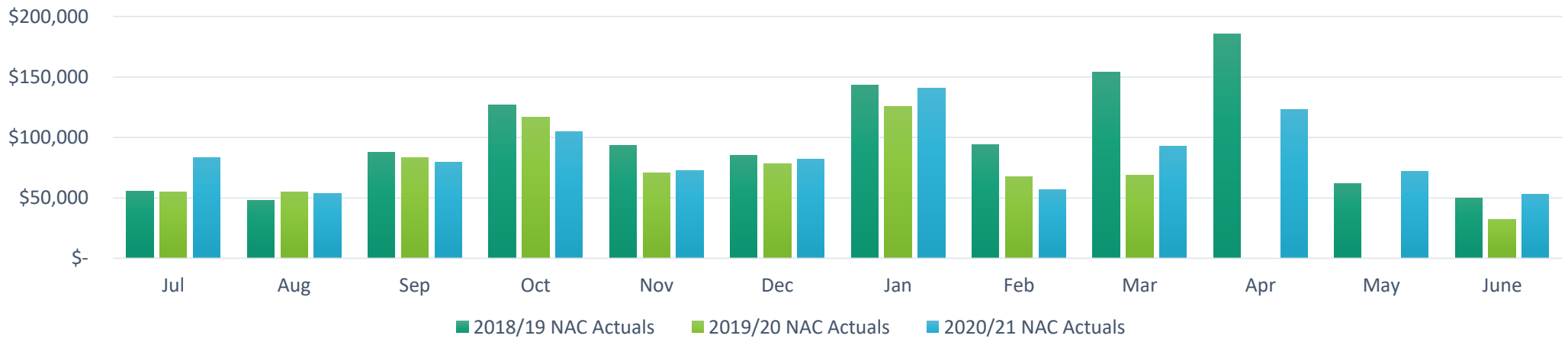

Visitation - Financial Year Comparisons
2018/19 - 2020/21
12,000
10,000
8,000
6,000
4,000
2,000
0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
June
2018/19
2019/20
2020/21


Minotaur

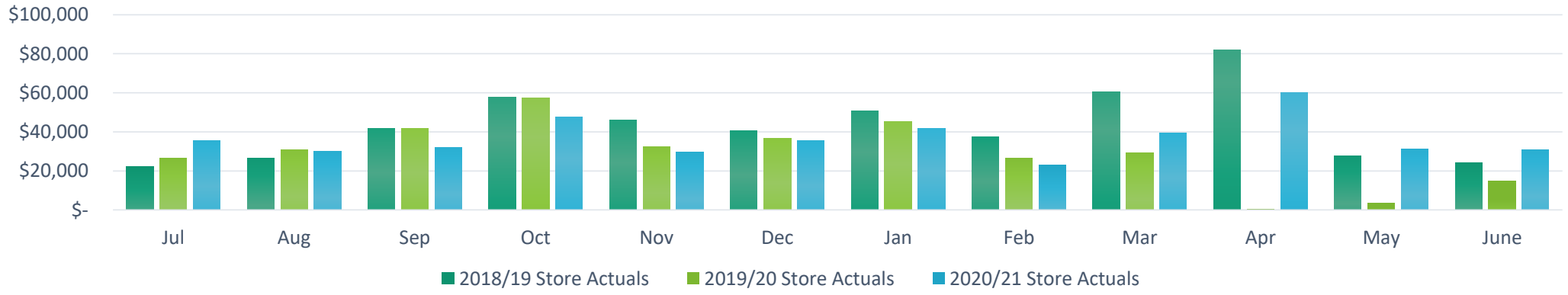

NAC / Store % of Total Q4
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
$60,250
$123,267
$31,141
$72,184
$30,852
$52,995
$122,243
$248,446
Apr
May
June
Totals
2021
2021


Minotaur

NAC Revenue - Financial Year Comparisons 2018/19 - 2020/21



Store Revenue - Financial Year Comparisons 2018/19 - 2020/21



LEAGUE OF LOCAL LEGENDS UPDATE Q4

- In August 2020 the NAC changed to new Point of Sale software – from Centaman to Vend.
- Vend counts LLL household Memberships, not individual people.
- When the LLL data was transferred over to Vend (Aug 2020), the number associated with the program changed from 5361 people to 2736 memberships (households).
- At 30 June, the LLL Program has a total of 5,311 memberships / households.
- Highest visitation by LLL attended in Q4

Visitation	Q1	Q2	Q3	Q4	Totals
	Jul - Sep 2020	Oct - Dec 2020	Jan - Mar 2021	Apr - Jun 2021	
New household Memberships	86	94	1204	1,157	2,541
Visits by a League of Local Legend	137	43	445	1,047	1,672
Accompanying paying Visitors	79	53	134	231	497



Q4 2020/21 HIGHLIGHTS

- Online NAC website ticketing – 274 transactions making up 1638 tickets sold
- Exceeded 415,171 visitors since opening.
- Local Legends program household memberships 5311
- Great Southern visitation made up 8% of overall visitation.
- 19 schools visited, consisting of 566 students.
- 352 Amazing South Coast Passes sold (3 way pass)
- Theatre space open and visitors are viewing Bayonets & Butterflies
- 910 people participated in the Princess Royal Fortress tours, facilitated by volunteers.
- 0 cruise ship visits/Gun salutes – due to COVID
- Anzac Day 2021 was the first public Gun Salute onsite since January 2020
- Significant Assessment completed on the Princess Royal Fortress Collection
- Partnership with Children's University of Western Australia, NAC joining the Learning Destination Program - activity sheets under development
- Online Shop for the Fort Store went live 11th June 2021

2018 CERTIFICATE of EXCELLENCE tripadvisor





2020/2021 Focus

- Implementation of Marketing Plan - **complete**
- Local & Intrastate advertising campaigns - **ongoing**
- Industry night for tourism and education sectors - **ongoing**
- Planning for new precinct wider interpretive technology - **ongoing**
- Fort Store online shop going live - **complete**
- Albany Heritage Park Master Planning - **ongoing**
- Completion of Phase 1 of Refresh of National Anzac Centre, in partnership with WA Museum - **complete**
- Marketing the experience visiting the NAC PRF & Forts Store - **ongoing**
- Hidden Stories of the Fortress – Linking the ANZACS Spirit, grant works – completion of Coastal Gun works
- Amazing South Coast Pass packages



NATIONAL ANZAC CENTRE



Thank you

GOVERNMENT OF WESTERN AUSTRALIA

Department of
Local Government, Sport and Cultural Industries

Office Use Only
TRIM: _____
Grant No: _____
Project Coordinator: _____

CSRFF Small Grants Application Form

For projects up to $300,000 to be acquitted by 15 June 2022

You MUST discuss your project with an officer from your nearest Department of Local Government, Sport and Cultural Industries office before completing and submitting your application. Failure to do so will render your project ineligible.
All applications MUST be submitted to your local government. Contact your local government to determine the cut-off date for the submission of applications.

DLGSC Contact: Melissa Eastough Date: 05/07/2021 Office: Great Southern Office

Applicant's Details:

Organisation Name:	Emu Point Sporting Club Inc				
Postal Address:	2 Birss St				
Suburb:	Emu Point	State	W.A.	Postcode:	6330
Street Address:	2 Birss St				
Suburb:	Emu Point	State:	W.A.	Postcode:	6330

Preferred Contact Person:
All application correspondence will be directed to this person

Name:	Simon Massina	Title:	Dr ☐ Mr X Mrs ☐ Ms ☐
Position Held:	President of Tennis Section		
Business Phone:		Facsimile:	
Mobile Phone:	0432587320	Email:	simon.massina@gmail.com

Organisation Business Details:

Does your organisation have an ABN?	Yes X	No ☐	ABN: 16 028 395 208	
Is your organisation registered for GST?	Yes X	No ☐	* Note, in order to be eligible for funding you must attach a copy of the Incorporation Certificate. LGA's exempt	
Is your organisation not-for-profit?	Yes X	No ☐		
Is your organisation incorporated?	Yes X	No ☐	Incorporation #: A0600065R *	
Bank details:	Bank: Bendigo Bank		BSB: **633-000**	A/c: **130078785**

Local Government Authority Details:

LGA:	City of Albany		
Contact:	Judith Want	Title:	Dr ☐ Mr ☐ MrsX Ms ☐
Position Held:	Club Development Officer		
Business Phone:	6820 3451	Facsimile:	
Mobile Phone:	0448876279	Email:	judithw@albany.wa.gov.au

PROJECT DETAILS

Project Title (brief and specific): The replacement of the artificial turf of 6 tennis courts as well as the replacement of the fencing of the tennis courts.

Project Description:

The removal and replacement of the existing artificial turf on the 6 tennis courts and the fencing that surrounds the courts.

How did you establish a need for your project?

The existing synthetic turf is now 13 years old and they normally have a lifetime of 10 years. Members of the club have recently looked at our courts and measured the surface as having only 3mm of wear remaining from the original 15mm. The courts are becoming too smooth to maintain good grip for our tennis players, especially when the courts are damp. Most of our players are in the older age demographic and require a good surface in order to avoid injuring themselves by slipping on the courts. We are concerned that the slippery court surface leaves us vulnerable to insurance claims due to public liability, especially when the courts are hired by visitors..

The existing fencing is 25 years old and most of the poles have badly rusted. Some poles blew over during recent wind and have been temporarily secured.

What alternatives were considered and why were they rejected (e.g cost, suitability, feasibility)?

The replacement with hard courts was never considered as our players require the more cushioning surface that synthetic turf provides. The average age of our players is 64 years with many players continuing to play into their 80's. Many of our players may be injured through playing on a hard surface.

Replacing the fencing at the same time as replacing the turf would also result in a more efficient and better quality product.

Have the full lifecycle costs of the project been considered and can you afford the ongoing costs of managing, maintaining and replacing the facility? Will a specific asset replacement fund be created?

The Emu Point Tennis Club has been budgeting for the replacement and ongoing maintenance since the last upgrade of the tennis courts in 2008. A 10 year plan to save for the replacement of the courts was set up in 2008 resulting in the club now being in a good financial situation to be able to proceed with the replacement of the courts and fencing. Through the good maintenance of the court surface by one of our members volunteering many hours cleaning and protecting the surface, the lifetime of the courts has exceeded the predicted lifetime by several years. This has given us more time to raise funds for the courts replacement. The EPTC will again continue with its budgeting fund to ensure the future replacement of the next resurfacing of the courts in about 15 years. The replacement of fencing is not expected to occur for another 20 years.

Project location:	Emu Point		
Land ownership:	Who owns the land on which your facility will be located? City of Albany Lease Expiry (if applicable): 30/06/2035		
Planning approvals	If no, provide the date it will be applied for:		Not applicable
Where applicable, has planning permission been granted? (LGA)	Yes ☐ No X	_26/07/2021_	
Aboriginal Heritage Act?	Yes ☐ No X	__/__/__	Not applicable
Department of Biodiversity, Conservation and Attractions? (Environmental, Swan River)	Yes ☐ No X	__/__/__	Not applicable
Native Vegetation Clearing Permit?	Yes ☐ No X	__/__/__	Not applicable
Please list any other approvals that are required?	Yes ☐ No X	__/__/__	nil

How will your project increase physical activity?

Having a good court surface for players will encourage more new members to join and play tennis at EPTC. Tennis played at EPTC often has players from other clubs and people who are thinking of starting to play tennis. Playing tennis on a good quality court surface and playing with the friendly and encouraging players often results in them playing more regularly and joining the EPTC. Once players join EPTC, especially if they are in an older **See document 8**

age demographic, they continue playing tennis and being socially active in the club until they become physically unable to play anymore. The club has many loyal and long standing members. There is a high degree of care and support displayed to our older players.

The EPTC conducts one major tennis tournament during the year. Many players are attracted to play tennis in the tournament in order to experience playing on such a forgiving surface. Many of the competitors would find it difficult to play for many hours on a hard court surface without risking knee or hip injuries and would be unable to finish all games in the tournament. **See document 2**

The tennis courts have a very high usage by members of the club during the week. The EPTC has currently 106 members. The EPTC uses the courts on average 21 hours a week.

Courts are also hired by members of the public by booking them through the Emu Beach Caravan Park, Rose Gardens Caravan Park as well as Havana Villas. This allows many local people, as well as large numbers of tourists to enjoy playing tennis and obtain more exercise and fitness while on holidays. This has reduced the need for the local tourist accommodation providers to build their own tennis courts for their patrons use.

Many tennis players from our club play a lot more tennis when they retire, largely due to them having more time to participate. Playing on a more cushioned surface can enable this sudden increase in physical activity by avoiding the occurrence of hip and knee injuries . Many of our players continue playing tennis and keeping mentally and physically active when they are in their 80's. This is again due to the EPTC having synthetic turf courts.

Currently EPTC has a disabled member who has been a member of our club for at least 10 years. Each Saturday, a carer drops her off to play in our regular Saturday afternoon Club Tennis. One of our members is keen to organise a regular time for people with disabilities to come to EPTC and play tennis. The EPTC is very supportive of this plan.

Do you share your facility with other groups? Yes X No ☐ If so, who:

Local tennis players, tourists and visiting players from other clubs use our courts on a regular basis. Many other clubs only have organised tennis games a few times per week. EPTC has tennis games organised on a regular basis 6 times per week. We regularly get players from other clubs attending our organised weekly tennis events. **See documents 10,11,12**

Abby Gibson will soon be using out courts for Junior Tennis Coaching for several hours during the week.

The courts are regularly hired by tourists staying at the local tourist accommodation providers. Families not from EPTC are often seen playing tennis on the courts.

List the main sport and recreation activities (maximum of 3) which will benefit from your proposal. Please indicate the approximate % usage of the facility (or part of the facility relating to this proposal).

Sport/community organisation	% use of the facility	Hours per week
ETTC	81	21
Tourists, local players	11	3
Junior Tennis Coaching	8	2

Activity/sport membership numbers over the past three years relevant to your project. For example, if a bowls project, golf members not relevant; social membership numbers not applicable.

Note: if membership is not applicable, ie recreation facility or aquatic centre, enter the number of users of the facility.

2018/19	100	**2019/20**	105	**2020/21**	106

State Sporting Associations are involved in the assessment of applications and may be able to provide valuable information when planning you project, particularly in relation to technical design issues. They should be consulted as part of the application process. A complete list of State Sporting Associations and their contact details are is available on the department's website: https://www.dlgsc.wa.gov.au/sport-and-recreation/state-sporting-associations

What is the name of the State Sporting Association for your activity/sport?

Tennis West

Have you discussed your project with your State Sporting Association? Yes X No ☐

Contact Name: Charlotte King Date of contact: 06/07/2021

PROJECT DELIVERY

Please indicate key milestones of your project. The key milestones need to be realistic and demonstrate that the project can be delivered in the timeframe.

Task	Date
Attainment of Council approvals	31/08/2021
Preparation of tender/quotes for the major works contract	20/09/2021
Issuing of tender for major works	21/12/2021
Signing of major works contract	21/12/2021
Site works commence	01/03/2022
Construction of project starts	04/03/2022
Project 50% complete	04/03/2022
Project Completed	18/05/2022
Project hand over and acquittal	19/05/2022

Are there any operational constraints that would impact on the construction phase of your project? (such as your sporting season, major annual event or inclement weather) – provide details. Projects that are delayed due to undeclared known constraints are not eligible for a deferral.

We would plan for the replacement of the court surface to occur during March/April 2022. Prior to that the use of courts at EPTC is at a maximum during the warmer/drier weather. Also the EPTC holds its annual Tennis Tournament in January.

GST

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the Australian Taxation Office (ATO). Please note depending upon the value of the project and/or grant, the ATO may require an organisation be registered for GST. If the applicant is registered for GST, the grant is grossed up with the GST amount.

PRIVACY STATEMENT AND STATEMENT OF DISCLOSURE

The Organisation acknowledges and agrees that this Application and information regarding it is subject to the *Freedom of Information Act 1992* and that the Grantor may publicly disclose information in relation to this Application, including its terms and the details of the Organisation.

Any information provided by you to DLGSC can be accessed by you during standard office hours and updated by writing to DLGSC or calling (08) 9492 9700. All information provided on this form and gathered throughout the assessment process will be stored on a database that will only be accessed by authorised departmental personnel and is subject to privacy restrictions.

DLGSC may wish to provide certain information to the media for promotional purposes. The information will only include the applicant's club name, sport, location, grant purpose and grant amount.

APPLICANT'S CERTIFICATION

I certify that the information supplied is to the best of my knowledge, true and correct.

Name: Angus Woithe

Position Held: Emu Point Sporting Club President

Signed for Angus Woithe by Kevin Shanhun (Office Manager EPSC)

Signature: 

Date: 19/07/2021

LODGEMENT OF YOUR APPLICATION

- Applications including all attachments are to be received electronically and officially submitted to csrff@dlgsc.wa.gov.au by the cut off date. A hard copy can also be provided and should be clipped at the top left-hand corner, please do not bind.
- It is recommended that you **retain your completed application form**, including attachments for your own records and future audit purposes.
- All **attachments** and supporting documentation (see next section) should be **clearly named and identified** and submitted with the application form.
- **Applications must be submitted to your Local Government Authority** by the Local Government's advertised cut-off date to ensure inclusion at the relevant Council Meeting.

The following documentation must be included with your application. Applicants may wish to supply additional RELEVANT information.

- ☐ **Application form.**
- ☐ **Incorporation Certificate.**
- ☐ **Two written quotes.**
- ☐ If your project involves the upgrade of an existing facility, include **photograph/s** of this facility.
- ☐ **Locality map, site map and building plans** (in relevant constructions projects), including where the proposed facility is located in relation to other sport and recreation infrastructure.
- ☐ **Income and expenditure statements** for the current and next financial years. (LGAs exempted).
- ☐ **Written confirmation of financial commitments** from other sources including copies of **council minutes**. (If a club is contributing financially then evidence of their cash at hand must be provided).
- ☐ For resurfacing projects, a written guarantee from the supplier of the product that clearly identifies the product's life expectancy.
- ☐ **Itemised project cost for components** and identified on the relevant quote for each (including cost escalation).
- ☐ For projects involving floodlighting, a **lighting plan** must be supplied showing lux, configuration and sufficient power supply

Your application will be considered not eligible if:

- You have not discussed your project with the Department of Local Government, Sport and Cultural Industries and your State Sporting Association.
- You do not meet the eligibility criteria for the grant category to which you are applying.
- You have not included with your application all the relevant required supporting documentation. **There is no onus on Department staff to pursue missing documentation.**
- Applicants/projects that have received a CSRFF grant in the past and have not satisfactorily acquitted that grant. In some cases this may apply to localities where other significant projects have not been progressed or have not completed a previous project in accordance with the conditions of the grant provided. An assessment will be made in October and if no physical progress has occurred, new applications may not be recommended.
- It is not on the correct application form. .
- The project for which application is made is specifically excluded from receiving CSRFF support.

PROJECT BUDGET

ESTIMATED EXPENDITURE

Please itemise the components of your project in the table below, indicating their cost and which quote or part of quote was used to estimate this. Quantity Surveyor costs will be accepted however the responsibility lies with the applicant to ensure the validity of the information. A contingency allowance is considered an acceptable component. *PLEASE ITEMISE BY COMPONENT (e.g changerooms, storage, kitchen) rather than materials (electrician, plumber, finishings).*

Project Description (detailed breakdown of project to be supplied	**$ Cost ex GST**	**$ Cost inc GST**	**Quote Used (list company name and quote no)**
Resurfacing of 6 Tennis Courts	155,735.00	**171,308.50**	**Sports Surfaces**
Accommodation & Travel Expenses	9,555.00	**10,510.50**	
Supply & erection of fence posts & wire	**44,000.00**	**48,400.00**	**Integrity Fencing and Gates**
Donated materials (Please provide cost breakdown)	**0**	**0**	
Volunteer labour (Please provide cost breakdown)	**10,070.00**	**11,077.00**	Volunteers / Cost per hour / Cost for 38 hours 9 X unskilled labour / $25 / $8550 1 X skilled labour / $40 / $1520 Total Cost contribution of labour / $10070
Sub Total	**219,360.00**	**241,296.00**	
Cost escalation	**31,393.50**	**34,532.85**	***Applied at 15% as a possibility, excluding Volunteer Labour***
a) Total project expenditure	**250,753.50**	**275,828.85**	

- At least **two written quotes** are required for each component.
- If your project includes a floodlighting installation or upgrades, please ensure that the power supply is sufficient and no upgrade will be required. If upgrade is required and not budgeted for, the grant will immediately be withdrawn. A **lighting plan** must be supplied showing lux and configuration.
- Projects that do not meet **Australian Standards** are ineligible for funding.

PROJECT FUNDING

Source of funding	$Amount ex GST	$ Amount inc GST		Funding confirmed Y / N	Comments to support claim (please attach relevant support)
Local government	30,000.00		LGA cash and in-kind	N	
Applicant cash	127,099.00		Organisation's cash	Y	
Volunteer labour	10,070.00		Cannot exceed applicant cash and LGA contribution – max $50,000		
Donated materials	0		Cannot exceed applicant cash and LGA contribution		
Other State Government funding	0				
Federal Government funding	0				
Other funding – to be listed	0		Loans, sponsorship etc		
CSRFF request (No Development Bonus)	83584.50		up to 1/3 project cost	N	
or CSRFF request (Development Bonus)	0	0	Up to ½ project cost	N	
b) Total project funding	250,753.50		*This should equal project expenditure as listed on the previous page*		

REQUIRED: If the funding approved is less than funding requested for this project, or the project is more expensive than indicated, where would the extra funds be sourced from? Is this funding confirmed? If the project scope would be reduced, which components would be revisited?
The EPSC - Tennis Section has the capacity to fund any shortfall in the approval process. If the project scope was to be reduced, then there are two (2) options : 1. Repair the current fencing now with the intention of replacing it when funds become available. 2. Defer the resurfacing of the courts to another date.

GST

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the Australian Taxation Office (ATO). Please note depending upon the value of the project and/or grant, the ATO may require an organisation be registered for GST. If the applicant is registered for GST, the grant is grossed up with the GST amount.

REPORT ITEM CCS 373 REFERS

PROJECT ASSESSMENT SHEET

This page is for the use of the relevant Local Government Authority to be used for both community and LGA projects. Please **attach copies of council minutes** relevant to the project approval.

Name of Local Government Authority: City of Albany
Name of Applicant: Emu Point Sporting Club Inc

Note: The applicant's name cannot be changed once the application is lodged at DLGSC.

Section A

The CSRFF principles have been considered and the following assessment is provided:
(Please include below your assessment of how the applicant has addressed the following criteria)

All applications

	Satisfactory	Unsatisfactory	Not relevant
Project justification	☐	☐	☐
Planned approach	☐	☐	☐
Community input	☐	☐	☐
Management planning	☐	☐	☐
Access and opportunity	☐	☐	☐
Design	☐	☐	☐
Financial viability	☐	☐	☐
Co-ordination	☐	☐	☐
Potential to increase Physical activity	☐	☐	☐
Sustainability	☐	☐	☐

Section B

Priority ranking of no of applications received ____ of ____ applications received

Is this project consistent with the ☐ Local Plan ☐ Regional Plan

Have all planning and building approvals been given for this project? ☐ Yes ☐ No

If no, what approvals are still outstanding?

Project Rating (Please tick the most appropriate box to describe the project)

A	Well planned and needed by municipality	☐
B	Well planned and needed by applicant	☐
C	Needed by municipality, more planning required	☐
D	Needed by applicant, more planning required	☐
E	Idea has merit, more planning work needed	☐
F	Not recommended	☐

Please complete the questions attached. This assessment is an important part of the CSRFF process and your answers to these questions assist the committee make their recommendations, even if you are the applicant. Please provide a summary of any attachments in your assessment, rather than referring to attachments or external documents such as Council Minutes.

1. **Please confirm your contribution to the project, whether it has been formally approved (including financial year for which it is approved) and any conditions on the funding. If no funding has been provided, why not?**
2. **A) *If a community group application:* Do you believe the project is financially viable, including the applicant's ability to provide upfront contributions, ongoing payments and contributions to an asset replacement fund. Does council commit to underwriting any shortfalls as the ultimate asset owner?** **B) *If a council application*: Is Council fully aware of the ongoing cost of operating and maintaining this facility and does your organisation have the capacity to service it into the future? How are the user groups contributing to the ongoing cost of operating the facility?**
3. **Please provide any additional comments regarding this applications merit against the assessment criteria to support your project rating and ranking.**

Signed **Position** **Date**

Applications for CSRFF funding must be submitted to the Department of Local Government, Sport and Cultural Industries by **4pm on 31 August 2021.** Late applications cannot be accepted in any circumstances.

DLGSC OFFICES

PERTH OFFICE
246 Vincent Street
Leederville WA 6007
GPO Box 8349
Perth Business Centre WA 6849
Tel: (08) 6552 9700
CSRFF@dlgsc.wa.gov.au

GASCOYNE
15 Stuart Street
PO Box 140
Carnarvon WA 6701
Tel: (08) 9941 0900
Gascoyne@dlgsc.wa.gov.au

GOLDFIELDS
Suite 1, 349-353 Hannan Street
Kalgoorlie WA 6430
PO Box 1036
Kalgoorlie WA 6430
Tel: (08) 9022 5800
goldfields@dlgsc.wa.gov.au

GREAT SOUTHERN
22 Collie Street
Albany WA 6330
Tel: (08) 9892 0100
greatsouthern@dlgsc.wa.gov.au

MID-WEST
Level 1, 268-270
Foreshore Drive
PO Box 135
Geraldton WA 6531
Tel: (08) 9956 2100
midwest@dlgsc.wa.gov.au

KIMBERLEY – Broome
Unit 2B, 23 Coghlan Street
PO Box 1476
Broome WA 6725
Telephone (08) 9195 5749
Mobile 0438 916 185
kimberley@dlgsc.wa.gov.au

KIMBERLEY – Kununurra
Kununurra Youth Hub
Rod Hodnett Drive
Kununurra WA 6743
PO Box 1476
Broome WA 6725
Telephone 08 9195 5750
kimberley@dlgsc.wa.gov.au

PEEL
Suite 94
16 Dolphin Drive
PO Box 1445
Mandurah WA 6210
Tel: (08) 9550 3100
peel@dlgsc.wa.gov.au

PILBARA
Karratha Leisureplex
Dampier Hwy, Karratha
PO Box 941
Karratha WA 6714
Tel: (08) 9182 2100
pilbara@dlgsc.wa.gov.au

SOUTH WEST
80A Blair Street
PO Box 2662
Bunbury WA 6231
Tel: (08) 9792 6900
southwest@dlgsc.wa.gov.au

WHEATBELT - Northam
298 Fitzgerald Street
PO Box 55
Northam WA 6401
Tel: (08) 9690 2400
wheatbelt@dlgsc.wa.gov.au

WHEATBELT – Narrogin
50 Clayton Road
Narrogin WA 6312
PO Box 55
Northam WA 6401
Telephone 0429 881 369
wheatbelt@dlgsc.wa.gov.au

GOVERNMENT OF WESTERN AUSTRALIA

Department of
Local Government, Sport
and Cultural Industries

Office Use Only
TRIM:
Grant No:
Project Coordinator.

CSRFF Small Grants Application Form

For projects up to $300,000 to be acquitted by 15 June 2022

You MUST discuss your project with an officer from your nearest Department of Local Government, Sport and Cultural Industries office before completing and submitting your application. Failure to do so will render your project ineligible.

All applications MUST be submitted to your local government. Contact your local government to determine the cut-off date for the submission of applications.

DLGSC Contact: Mel Eastough	Date: 9-7-21	Office: great southern

Applicant's Details:

Organisation Name:	Albany Pony club				
Postal Address:	Po box 1242				
Suburb:	Albany	State:	WA	Postcode:	6330
Street Address:	189 Roberts Road				
Suburb:	Robinson	State:	WA	Postcode:	6330

Preferred Contact Person:

All application correspondence will be directed to this person

Name:	Larissa Curtis	Title:	Dr ☐ Mr ☐ Mrs ☒ Ms ☐
Position Held:	President		
Business Phone:		Facsimile:	
Mobile Phone:	0419934994	Email:	Albanyponyclub1242@gmail.com

Organisation Business Details:

Does your organisation have an ABN?	Yes ☒ No ☐	ABN: 12801744613	
Is your organisation registered for GST?	Yes ☐ No ☒	* Note, in order to be eligible for funding you must attach a copy of the Incorporation Certificate. LGA's exempt	
Is your organisation not-for-profit?	Yes ☒ No ☐		
Is your organisation incorporated?	Yes ☒ No ☐	Incorporation #: A1000792T *	
Bank details:	Bank: commonwealth	BSB: 066-500	A/c: 00906199

Local Government Authority Details:

LGA:	City of Albany		
Contact:	Judith want	Title:	Dr ☐ Mr ☐ Mrs ☐ Ms ☐
Position Held:	Club development officer		
Business Phone:	68203451	Facsimile:	
Mobile Phone:		Email:	judithw@albany.wa.gov.au

PROJECT DETAILS

Project Title (brief and specific): secure storage facility

Project Description:

Construction of a 6 metre by 6 metre storage facility with a 6-metre lean to.

And see attached documentation.

How did you establish a need for your project?

With our club almost doubling in membership I the last two year we have outgrown the sea container in there storing our assets, primarily our show jumping equipment.

Access to sea container is limited and the ideal arrangement from a point of view off: security, safety, feed of setup (volunteer time is valuable).

The OHS principles of terms of handling heavier items pointed to a purpose build storage facility.

We have held a number of show jumping days both competition and training and proves to be well supported and popular.

A secure storage facility would assist in both fundraising and training opportunities.

It would also help in the preservation of the jump poles and wings being out in the weather and equipment not being able to be stollen.

What alternatives were considered and why were they rejected (e.g cost, suitability, feasibility)?

The grounds at the Albany equestrian centre are shared by a number of other clubs, including one club with some jumping equipment that it stored in a separate facility.

We have on previous occasions hired their jumps for competition purposes, but unlike this club we hold 11 training days a year and paying for some one else's equipment would be prohibited.

The other storage facility does not have the capacity to store any other assets.

Have the full lifecycle costs of the project been considered and can you afford the ongoing costs of managing, maintaining and replacing the facility? Will a specific asset replacement fund be created?

Yes, a percentage from our show jump competition earnings can ear marked for maintenance and replacement.

Along with other assets it will be covered by insurance.

Project location:	Albany Equestrian centre/ see plan			
Land ownership:	Who owns the land on which your facility will be located? Albany city council Lease Expiry (if applicable): ongoing			
Planning approvals		If no, provide the date it will be applied for:		
Where applicable, has planning permission been granted? (LGA)	Yes ☒	No ☐	__9_/_07__/_21_ _	
Aboriginal Heritage Act?	Yes ☐	No ☒	___/___/___	
Department of Biodiversity, Conservation and Attractions? (Environmental, Swan River)	Yes ☐	No ☒	___/___/___	
Native Vegetation Clearing Permit?	Yes ☐	No ☒	___/___/___	
Please list any other approvals that are required?	Yes ☐	No ☒	___/___/___	

How will your project increase physical activity? Yes in the right way will reduce set up times and more opportunities to hold competitions and training days.

Do you share your facility with other groups? Yes ☒ No ☐ If so, who: we share with Albany horseman's association, Albany adult riders. Southern district dressage club. Albany natural trail riders.

List the main sport and recreation activities (maximum of 3) which will benefit from your proposal. Please indicate the approximate % usage of the facility (or part of the facility relating to this proposal).

Sport/community organisation	% use of the facility	Hours per week
Albany Pony club	80%	
Albany Adult riders	10%	
Albany Equestrian	10%	

Activity/sport membership numbers over the past three years relevant to your project. For example, if a bowls project, golf members not relevant; social membership numbers not applicable.

Note: if membership is not applicable, ie recreation facility or aquatic centre, enter the number of users of the facility.

2018/19	32	**2019/20**	39	**2020/21**	56

State Sporting Associations are involved in the assessment of applications and may be able to provide valuable information when planning you project, particularly in relation to technical design issues. They should be consulted as part of the application process. A complete list of State Sporting Associations and their contact details are is available on the department's website: https://www.dlgsc.wa.gov.au/sport-and-recreation/state-sporting-associations

What is the name of the State Sporting Association for your activity/sport?			
Pony club WA inc			
Have you discussed your project with your State Sporting Association?	Yes ☒	No ☐	
Contact Name: Rick Gill	Date of contact: 21-07-2021		

PROJECT DELIVERY

Please indicate key milestones of your project. The key milestones need to be realistic and demonstrate that the project can be delivered in the timeframe.

Task	Date
Attainment of Council approvals	August 2021
Preparation of tender/quotes for the major works contract	October 2021
Issuing of tender for major works	November 2021
Signing of major works contract	December 2021
Site works commence	February 2022
Construction of project starts	February 2022
Project 50% complete	March 2022
Project Completed	April 2022
Project hand over and acquittal	May 2022

Are there any operational constraints that would impact on the construction phase of your project? (such as your sporting season, major annual event or inclement weather) – provide details. Projects that are delayed due to undeclared known constraints are not eligible for a deferral.

Pony club effectively closes over Christmas and new year, spring / summer generally good for building work

GST

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the Australian Taxation Office (ATO). Please note depending upon the value of the project and/or grant, the ATO may require an organisation be registered for GST. If the applicant is registered for GST, the grant is grossed up with the GST amount.

PRIVACY STATEMENT AND STATEMENT OF DISCLOSURE

The Organisation acknowledges and agrees that this Application and information regarding it is subject to the *Freedom of Information Act 1992* and that the Grantor may publicly disclose information in relation to this Application, including its terms and the details of the Organisation.

Any information provided by you to DLGSC can be accessed by you during standard office hours and updated by writing to DLGSC or calling (08) 9492 9700. All information provided on this form and gathered throughout the assessment process will be stored on a database that will only be accessed by authorised departmental personnel and is subject to privacy restrictions.

DLGSC may wish to provide certain information to the media for promotional purposes. The information will only include the applicant's club name, sport, location, grant purpose and grant amount.

APPLICANT'S CERTIFICATION

I certify that the information supplied is to the best of my knowledge, true and correct.

Name: Larissa Curtis

Position Held: President Albany Pony club

Signature: 

20/07/2021

PROJECT BUDGET

ESTIMATED EXPENDITURE

Please itemise the components of your project in the table below, indicating their cost and which quote or part of quote was used to estimate this. Quantity Surveyor costs will be accepted however the responsibility lies with the applicant to ensure the validity of the information. A contingency allowance is considered an acceptabl component. *PLEASE ITEMISE BY COMPONENT (e.g changerooms, storage, kitchen) rather than materials (electrician, plumber, finishings).*

Project Description (detailed breakdown of project to be supplied	**$ Cost ex GST**	**$ Cost inc GST**	**Quote Used (list company name and quote no)**
ie Electrical Works	*25,000*	*27,500*	*B & S Electrical*
Plans	$572.72		Kosters outdoor
Supply materials 6x6 metre shed	$10,500		
Supply materials 6x6 lean to	$3818.18		
Earth works	$2000		
Concrete floor	$2909.09		
Erect Shed	$6305.46		
Donated materials (Please provide cost breakdown)			
Volunteer labour (Please provide cost breakdown)			
Sub Total	$26.105.45		
Cost escalation			***Please explain amount used***
a) Total project expenditure	$28,716.00		

- At least **two written quotes** are required for each component.
- If your project includes a floodlighting installation or upgrades, please ensure that the power supply is sufficient and no upgrade will be required. If upgrade is required and not budgeted for, the grant will immediately be withdrawn. A **lighting plan** must be supplied showing lux and configuration.
- Projects that do not meet **Australian Standards** are ineligible for funding.

PROJECT FUNDING

Source of funding	$Amount ex GST	$ Amount inc GST		Funding confirmed Y / N	Comments to support claim (please attach relevant support)
Local government	$9572		LGA cash and in-kind		
Applicant cash	$9572		Organisation's cash	Yes	ODE Event Sale of seacont.
Volunteer labour			Cannot exceed applicant cash and LGA contribution – max $50,000		
Donated materials			Cannot exceed applicant cash and LGA contribution		
Other State Government funding					
Federal Government funding					
Other funding – to be listed			Loans, sponsorship etc		
CSRFF request (No Development Bonus)	$9572		up to 1/3 project cost	N	
or CSRFF request (Development Bonus)			Up to ½ project cost	N	
b) Total project funding	$28716		*This should equal project expenditure as listed on the previous page*		

REQUIRED: If the funding approved is less than funding requested for this project, or the project is more expensive than indicated, where would the extra funds be sourced from? Is this funding confirmed? If the project scope would be reduced, which components would be revisited?

GST

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the Australian Taxation Office (ATO). Please note depending upon the value of the project and/or grant, the ATO may require an organisation be registered for GST. If the applicant is registered for GST, the grant is grossed up with the GST amount.

PROJECT ASSESSMENT SHEET

This page is for the use of the relevant Local Government Authority to be used for both community and LGA projects. Please **attach copies of council minutes** relevant to the project approval.

Name of Local Government Authority:
Name of Applicant:

Note: The applicant's name cannot be changed once the application is lodged at DLGSC.

Section A

The CSRFF principles have been considered and the following assessment is provided:
(Please include below your assessment of how the applicant has addressed the following criteria)

All applications

	Satisfactory	Unsatisfactory	Not relevant
Project justification	☐	☐	☐
Planned approach	☐	☐	☐
Community input	☐	☐	☐
Management planning	☐	☐	☐
Access and opportunity	☐	☐	☐
Design	☐	☐	☐
Financial viability	☐	☐	☐
Co-ordination	☐	☐	☐
Potential to increase Physical activity	☐	☐	☐
Sustainability	☐	☐	☐

Section B

Priority ranking of no of applications received	of applications received
Is this project consistent with the	☐ Local Plan ☐ Regional Plan
Have all planning and building approvals been given for this project?	☐ Yes ☐ No
If no, what approvals are still outstanding?	

Project Rating (Please tick the most appropriate box to describe the project)

A	Well planned and needed by municipality	☐
B	Well planned and needed by applicant	☐
C	Needed by municipality, more planning required	☐
D	Needed by applicant, more planning required	☐
E	Idea has merit, more planning work needed	☐
F	Not recommended	☐

Please complete the questions attached. This assessment is an important part of the CSRFF process and your answers to these questions assist the committee make their recommendations, even if you are the applicant. Please provide a summary of any attachments in your assessment, rather than referring to attachments or external documents such as Council Minutes.

1. **Please confirm your contribution to the project, whether it has been formally approved (including financial year for which it is approved) and any conditions on the funding. If no**

2. A) *If a community group application:* Do you believe the project is financially viable, including the applicant's ability to provide upfront contributions, ongoing payments and contributions to an asset replacement fund. Does council commit to underwriting any shortfalls as the ultimate asset owner? B) *If a council application*: Is Council fully aware of the ongoing cost of operating and maintaining this facility and does your organisation have the capacity to service it into the future? How are the user groups contributing to the ongoing cost of operating the facility?
3. Please provide any additional comments regarding this applications merit against the assessment criteria to support your project rating and ranking.

Signed **Position** **Date**

Applications for CSRFF funding must be submitted to the Department of Local Government, Sport and Cultural Industries by **4pm on 31 August 2021.** Late applications cannot be accepted in any circumstances.

DLGSC OFFICES

PERTH OFFICE
246 Vincent Street
Leederville WA 6007
GPO Box 8349
Perth Business Centre WA 6849
Tel: (08) 6552 9700
CSRFF@dlgsc.wa.gov.au

GASCOYNE
15 Stuart Street
PO Box 140
Carnarvon WA 6701
Tel: (08) 9941 0900
Gascoyne@dlgsc.wa.gov.au

GOLDFIELDS
Suite 1, 349-353 Hannan Street
Kalgoorlie WA 6430
PO Box 1036
Kalgoorlie WA 6430
Tel: (08) 9022 5800
goldfields@dlgsc.wa.gov.au

GREAT SOUTHERN
22 Collie Street
Albany WA 6330
Tel: (08) 9892 0100
greatsouthern@dlgsc.wa.gov.au

MID-WEST
Level 1, 268-270
Foreshore Drive
PO Box 135
Geraldton WA 6531
Tel: (08) 9956 2100
midwest@dlgsc.wa.gov.au

KIMBERLEY – Broome
Unit 2B, 23 Coghlan Street
PO Box 1476
Broome WA 6725
Telephone (08) 9195 5749
Mobile 0438 916 185
kimberley@dlgsc.wa.gov.au

KIMBERLEY – Kununurra
Kununurra Youth Hub
Rod Hodnett Drive
Kununurra WA 6743
PO Box 1476
Broome WA 6725
Telephone 08 9195 5750
kimberley@dlgsc.wa.gov.au

PEEL
Suite 94
16 Dolphin Drive
PO Box 1445
Mandurah WA 6210
Tel: (08) 9550 3100
peel@dlgsc.wa.gov.au

PILBARA
Karratha Leisureplex
Dampier Hwy, Karratha
PO Box 941
Karratha WA 6714
Tel: (08) 9182 2100
pilbara@dlgsc.wa.gov.au

SOUTH WEST
80A Blair Street
PO Box 2662
Bunbury WA 6231
Tel: (08) 9792 6900
southwest@dlgsc.wa.gov.au

WHEATBELT - Northam
298 Fitzgerald Street
PO Box 55
Northam WA 6401
Tel: (08) 9690 2400
wheatbelt@dlgsc.wa.gov.au

WHEATBELT – Narrogin
50 Clayton Road
Narrogin WA 6312
PO Box 55
Northam WA 6401
Telephone 0429 881 369
wheatbelt@dlgsc.wa.gov.au

LODGEMENT OF YOUR APPLICATION

- Applications including all attachments are to be received electronically and officially submitted to csrff@dlgsc.wa.gov.au by the cut off date. A hard copy can also be provided and should be clipped at the top left-hand corner, please do not bind.
- It is recommended that you **retain your completed application form**, including attachments for your own records and future audit purposes.
- All **attachments** and supporting documentation (see next section) should be **clearly named and identified** and submitted with the application form.
- **Applications must be submitted to your Local Government Authority** by the Local Government's advertised cut-off date to ensure inclusion at the relevant Council Meeting.

The following documentation must be included with your application. Applicants may wish to supply additional RELEVANT information.

- ☑ **Application form.**
- ☑ **Incorporation Certificate.**
- ☑ **Two written quotes.**
- ☐ If your project involves the upgrade of an existing facility, include **photograph/s** of this facility.
- ☐ **Locality map, site map and building plans** (in relevant constructions projects), including where the proposed facility is located in relation to other sport and recreation infrastructure.
- ☐ **Income and expenditure statements** for the current and next financial years. (LGAs exempted).
- ☐ **Written confirmation of financial commitments** from other sources including copies of **council minutes**. (If a club is contributing financially then evidence of their cash at hand must be provided).
- ☐ For resurfacing projects, a written guarantee from the supplier of the product that clearly identifies the product's life expectancy.
- ☐ **Itemised project cost for components** and identified on the relevant quote for each (including cost escalation).
- ☐ For projects involving floodlighting, a **lighting plan** must be supplied showing lux, configuration and sufficient power supply

Your application will be considered not eligible if:

- You have not discussed your project with the Department of Local Government, Sport and Cultural Industries and your State Sporting Association.
- You do not meet the eligibility criteria for the grant category to which you are applying.
- You have not included with your application all the relevant required supporting documentation. **There is no onus on Department staff to pursue missing documentation.**
- Applicants/projects that have received a CSRFF grant in the past and have not satisfactorily acquitted that grant. In some cases this may apply to localities where other significant projects have not been progressed or have not completed a previous project in accordance with the conditions of the grant provided. An assessment will be made in October and if no physical progress has occurred, new applications may not be recommended.
- It is not on the correct application form.
- The project for which application is made is specifically excluded from receiving CSRFF support.

DEVELOPMENT BONUS APPLICANTS ONLY

If you applied for a CSRFF grant for more than one third of the cost of the project, please provide evidence of meeting at least one of the following criteria.

You MUST contact your local DLGSC office to determine eligibility before applying.

Category		Details
Geographical location	☐ Regional/remote location ☐ Growth local government	
Co-location	☐ New ☐ Existing	
Sustainability initiative	☐ Water saving ☐ Energy reduction ☐ Other	
Increased participation	☐ New participants ☐ Existing participants – higher level ☐ Special interest ☐ Other	

GOVERNMENT OF WESTERN AUSTRALIA

Department of
Local Government, Sport and Cultural Industries

Office Use Only
TRIM: _____
Grant No: _____
Project Coordinator._____

CSRFF Small Grants Application Form

For projects up to $300,000 to be acquitted by 15 June 2022

You MUST discuss your project with an officer from your nearest Department of Local Government, Sport and Cultural Industries office before completing and submitting your application. Failure to do so will render your project ineligible.

All applications MUST be submitted to your local government. Contact your local government to determine the cut-off date for the submission of applications.

DLGSC Contact: Chris Thompson	Date: 20/07/2021	Office: Great Southern

Applicant's Details:

Organisation Name:	City of Albany - Albany Leisure and Aquatic Centre				
Postal Address:	PO BOX 484				
Suburb:	Albany	State:	WA	Postcode:	6330
Street Address:	52-70 Baxter Road				
Suburb:	Albany	State:	WA	Postcode:	6330

Preferred Contact Person:
All application correspondence will be directed to this person

Name:	Mitchell Green	Title:	Dr ☐Mr ☒Mrs☐ Ms☐
Position Held:	Acting Manager Recreation Services		
Business Phone:	(08) 6820 3437	Facsimile:	
Mobile Phone:	+61 450 472 208	Email:	mitchell.green@albany.wa.gov.au

Organisation Business Details:

Does your organisation have an ABN?	Yes ☒ No ☐	ABN: 94 717 875 167	
Is your organisation registered for GST?	Yes ☒ No ☐	* Note, in order to be eligible for funding you must attach a copy of the Incorporation Certificate. LGA's exempt	
Is your organisation not-for-profit?	Yes ☐ No ☒		
Is your organisation incorporated?	Yes ☐ No ☒	Incorporation #: N/A - LGA appplicant *	
Bank details:	Bank: Commonwealth	BSB: 066500	A/c: 10162796

Local Government Authority Details:

LGA:	City of Albany		
Contact:	Mitchell Green	Title:	Dr ☐Mr ☐Mrs☐ Ms☐
Position Held:	Acting Manager Recreation Services		
Business Phone:	(08) 6820 3437	Facsimile:	
Mobile Phone:	+61 450 472 208	Email:	mitchell.green@albany.wa.gov.au

PROJECT DETAILS

Project Title (brief and specific): ALAC Gym and Aquatic Centre Changeroom Upgrades

Project Description:

The proposed project aims to upgrade male, female and universal access changeroom facilities in the Albany Leisure and Aquatic Centre (ALAC) gym and aquatic areas, increasing user amenity and enhancing access.

ALAC upgraded its gym access in 2020 to enable 24-hour access for members. This included a redesign and fit out front desk for 24-our service and development/distribution of key fobs and associate access locks. However, showers are located in the main ALAC facility, which is not accessible outside of normal operational hours. As such, members using the 24-hour access gym facilities cannot shower after a workout when ALAC day trading ends. Works will include adjusted entryways and partitioning, new male shower, female changeroom redevelopment to include two new showers, reduced stage area to accommodate a new/shifted universal access toilet block and new entryway to the female changerooms.

The aquatic centre and associated ablutions were constructed with the 2008 ALAC facility expansion. The current changeroom facilities are now aged and unappealing for members. The proposed project aims to redevelop male, female and universal access changeroom/ablutions blocks in the aquatic area to a modern standard, with an aim to increase member amenity.

The project is expected to encourage additional membership and participation for the after-hours gym. Member amenity enhancements in the aquatic centre will also safeguard existing members and encourage new membership.

How did you establish a need for your project?

Need has been established through feedback from existing gym and aquatic centre members.

24-hour access gym members have consistently suggested that shower facilities would improve amenity and encourage more participation during ALAC after hour periods, particularly where members are coming from or going to work after a session. New showers within close proximity to the gym will also increase amenity for day users, reducing requirements to use showers located elsewhere within the ALAC facility.

In recent years, a number of aquatic centre members have approached ALAC regarding the quality of current changerooms, suggesting that improvements would improve their willingness to renew membership on an ongoing basis. The facilities are not currently at a modern standard expected or experienced at other aquatic centres throughout the state.

What alternatives were considered and why were they rejected (e.g cost, suitability, feasibility)?

Designs have been based on addition of showers into the gym and full gut of facilities on pool side and replacement of equipment. ALAC have worked closely with a leading Albany-based architect (H+H Architects) in the development of current designs and are confident that the current options are the most suitable for development. Cost-effectiveness, quality, amenity and sustainability have all been considered during the design process. No alternative designs have been considered due to the identified need for aquatic centre changerooms and available space for the gym changerooms.

Have the full lifecycle costs of the project been considered and can you afford the ongoing costs of managing, maintaining and replacing the facility? Will a specific asset replacement fund be created?

The proposed project includes the replacement or alternation of existing facilities, and therefore will not increase current operational costs. Efficiency of design and quality of materials are likely to slightly decrease costs, for example through reduced ongoing maintenance and repair requirements (e.g. ~$40,000 in repairs has been required to ageing changeroom facilities over the last financial year). The City of Albany have robust asset management and operations plans for all assets, including ALAC, with regular schedules of maintenance and reserved budgets. Designs have been developed with strong consideration to the cost-effectiveness, quality and longevity of materials, as well as endurance of design.

Project location:	Albany Leisure and Aquatic Centre: 52-70 Baxter Road		
Land ownership:	Who owns the land on which your facility will be located? City of Albany Lease Expiry (if applicable): N/A		
Planning approvals	Not Applicable	If no, provide the date it will be applied for:	
Where applicable, has planning permission been granted? (LGA)	Yes ☐ No ☐	___/___/___	

Aboriginal Heritage Act?	Yes ☐ No ☐	___/___/___
Department of Biodiversity, Conservation and Attractions? (Environmental, Swan River)	Yes ☐ No ☐	___/___/___
Native Vegetation Clearing Permit?	Yes ☐ No ☐	___/___/___
Please list any other approvals that are required?	Yes ☐ No ☐	___/___/___

How will your project increase physical activity?

Current membership associated with the gym and aquatic facilities are spread across three areas: (i) gym & group fitness; (ii) aquatics; and (iii) long live you supervised gym programmes. In these areas, ALAC has realised an average annual growth in membership of 44% between 2017/18 and 2020/21. However, this is largely due to the Long Live You (LLY) programme which began in the 2019/20 financial year.

Gym and group fitness membership has grown at a more modest 9.8% average annual growth rate over the four years. In contrast, aquatics members have declined an average 5.6% per annum, driven by large losses between 2017/18 and 2019/20. Membership has recovered 10.4% over the last financial year, but is still down 18% on 2017/18 numbers.

With no upgrades to existing changeroom facilities, growth is expected to somewhat stagnate; projected at 1.5% annual growth for gym and group fitness and LLY (roughly in line with City of Albany population growth), and an average decline of 1% of aquatics members due to the state of current facilities. Overall membership and participation would therefore only increase by 6.4% over the next five years across all business units, or 175 new members (with a 4.9% decline in aquatics membership).

The amenity enhancements provided by the project are expected to drive membership and participation growth at 2% per annum across all three business areas. This would be particularly valuable for seniors utilising the successful Long Live You programme.

Do you share your facility with other groups? Yes ☐ No ☒ If so, who:

The City of Albany own and operate the ALAC facility as a business unit. The City run a number of internal programmes, including Aqua Splash, Aqua Deep, LLY Aqua Aerobics, Albany Swim School, gym programmes, and LLY supervised gym. However, the ALAC is also used by various sport and recreation groups (fee paid to City of Albany), including Albany Swim Club, Albany Masters Swim Club, Albany Water Polo, and the education Department.

List the main sport and recreation activities (maximum of 3) which will benefit from your proposal. Please indicate the approximate % usage of the facility (or part of the facility relating to this proposal).

Sport/community organisation	% use of the facility	Hours per week
City of Albany Aquatics Programs	32.5%	50
City of Albany Gym & Fitness Programs	32.5%	50
Albany Swim Club	15.6%	24

Activity/sport membership numbers over the past three years relevant to your project. For example, if a bowls project, golf members not relevant; social membership numbers not applicable.

Note: if membership is not applicable, ie recreation facility or aquatic centre, enter the number of users of the facility.

2018/19	1,158	**2019/20**	2,712	**2020/21**	2,735

State Sporting Associations are involved in the assessment of applications and may be able to provide valuable information when planning you project, particularly in relation to technical design issues. They should be consulted as part of the application process. A complete list of State Sporting Associations and their contact details are is available on the department's website: https://www.dlgsc.wa.gov.au/sport-and-recreation/state-sporting-associations

What is the name of the State Sporting Association for your activity/sport?

Not Applicable					
Have you discussed your project with your State Sporting Association?	Yes	☐	No	☒	
Contact Name:	Date of contact:				

PROJECT DELIVERY

Please indicate key milestones of your project. The key milestones need to be realistic and demonstrate that the project can be delivered in the timeframe.

Task	Date
Attainment of Council approvals	N/A
Preparation of tender/quotes for the major works contract	01/12/2021
Issuing of tender for major works	31/01/2022
Signing of major works contract	14/02/2022
Site works commence	01/03/2022
Construction of project starts	01/03/2022
Project 50% complete	15/05/2022
Project Completed	01/06/2022
Project hand over and acquittal	14/06/2022

Are there any operational constraints that would impact on the construction phase of your project? (such as your sporting season, major annual event or inclement weather) – provide details. Projects that are delayed due to undeclared known constraints are not eligible for a deferral.

No. Memebrs will have access to other ablution faciltiies during works at the aquatic centre and gym.

GST

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APPLICANT'S CERTIFICATION

I certify that the information supplied is to the best of my knowledge, true and correct.

Name: Mitchell Green

Position Held: Acting Manager Recreation Services

Signature:

Date:

LODGEMENT OF YOUR APPLICATION

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Geographical location	☐ Regional/remote location ☐ Growth local government	
Co-location	☐ New ☐ Existing	
Sustainability initiative	☐ Water saving ☐ Energy reduction ☐ Other	
Increased participation	☐ New participants ☐ Existing participants – higher level ☐ Special interest ☐ Other	

PROJECT BUDGET

ESTIMATED EXPENDITURE

Please itemise the components of your project in the table below, indicating their cost and which quote or part of quote was used to estimate this. Quantity Surveyor costs will be accepted however the responsibility lies with the applicant to ensure the validity of the information. A contingency allowance is considered an acceptable component. *PLEASE ITEMISE BY COMPONENT (e.g changerooms, storage, kitchen) rather than materials (electrician, plumber, finishings).*

Project Description (detailed breakdown of project to be supplied	**$ Cost ex GST**	**$ Cost inc GST**	**Quote Used (list company name and quote no)**
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Donated materials (Please provide cost breakdown)			
Volunteer labour (Please provide cost breakdown)			
Sub Total			
Cost escalation			***Please explain amount used***
a) Total project expenditure			

- At least **two written quotes** are required for each component.
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- Projects that do not meet **Australian Standards** are ineligible for funding.

PROJECT FUNDING

Source of funding	$Amount ex GST	$ Amount Inc. GST		Funding confirmed Y / N	Comments to support claim (please attach relevant support)
Local government	$150,000.00	$165,000.00	**LGA cash and in-kind**	YES	2021/22 Cap Works Budget
Applicant cash			**Organisation's cash**		
Volunteer labour			**Cannot exceed applicant cash and LGA contribution – max $50,000**		
Donated materials			**Cannot exceed applicant cash and LGA contribution**		
Other State Government funding					
Federal Government funding					
Other funding – to be listed			**Loans, sponsorship etc**		
CSRFF request (No Development Bonus)	$75,000.00	$82,500.00	**up to 1/3 project cost**	N	
***or* CSRFF request (Development Bonus)**			**Up to ½ project cost**	N	
b) Total project funding	$225,000.00	**$247,500.00**	***This should equal project expenditure as listed on the previous page***		

REQUIRED: If the funding approved is less than funding requested for this project, or the project is more expensive than indicated, where would the extra funds be sourced from? Is this funding confirmed? If the project scope would be reduced, which components would be revisited?
N/A

GST

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Name of Local Government Authority:
Name of Applicant:

Note: The applicant's name cannot be changed once the application is lodged at DLGSC.

Section A

The CSRFF principles have been considered and the following assessment is provided:
(Please include below your assessment of how the applicant has addressed the following criteria)

All applications

	Satisfactory	Unsatisfactory	Not relevant
Project justification	☐	☐	☐
Planned approach	☐	☐	☐
Community input	☐	☐	☐
Management planning	☐	☐	☐
Access and opportunity	☐	☐	☐
Design	☐	☐	☐
Financial viability	☐	☐	☐
Co-ordination	☐	☐	☐
Potential to increase Physical activity	☐	☐	☐
Sustainability	☐	☐	☐

Section B

Priority ranking of no of applications received	of applications received
Is this project consistent with the	☐ Local Plan ☐ Regional Plan
Have all planning and building approvals been given for this project?	☐ Yes ☐ No
If no, what approvals are still outstanding?	

Project Rating (Please tick the most appropriate box to describe the project)

A	Well planned and needed by municipality	☐
B	Well planned and needed by applicant	☐
C	Needed by municipality, more planning required	☐
D	Needed by applicant, more planning required	☐
E	Idea has merit, more planning work needed	☐
F	Not recommended	☐

Please complete the questions attached. This assessment is an important part of the CSRFF process and your answers to these questions assist the committee make their recommendations, even if you are the applicant. Please provide a summary of any attachments in your assessment, rather than referring to attachments or external documents such as Council Minutes.

1. **Please confirm your contribution to the project, whether it has been formally approved (including financial year for which it is approved) and any conditions on the funding. If no funding has been provided, why not?**
2. **A) *If a community group application:* Do you believe the project is financially viable, including the applicant's ability to provide upfront contributions, ongoing payments and contributions to an asset replacement fund. Does council commit to underwriting any shortfalls as the ultimate asset owner?** **B) *If a council application*: Is Council fully aware of the ongoing cost of operating and maintaining this facility and does your organisation have the capacity to service it into the future? How are the user groups contributing to the ongoing cost of operating the facility?**
3. **Please provide any additional comments regarding this applications merit against the assessment criteria to support your project rating and ranking.**

Signed **Position** **Date**

Applications for CSRFF funding must be submitted to the Department of Local Government, Sport and Cultural Industries by **4pm on 31 August 2021.** Late applications cannot be accepted in any circumstances.

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PONY CLUB
ALBANY

PO Box 1242
Albany
WA 6331

July 2021

Mr Nathan Watson
Executive Director
City of Albany
PO Box 484
Albany
WA 6331

CSRFF Small Grant Application Albany Pony Club: Secure Storage Facility

Dear Mr Watson,

Albany Pony Club would like to apply for a contribution of $9,572 through the Capital Seed Fund of the City of Albany as part of our CSRFF Small Grant Application to enable the establishment of a Secure Storage Facility. This facility will be used to store:

- Show Jump Poles
- Pole trailer
- Show Jump wings and uprights
- Show Jump planks and other fillers
- Cups (to rest the pole/planks on) including break away cups (safety requirement)
- Dressage arena/markers
- Games Equipment.

A secure storage facility will ensure that our equipment will be:

- Protected from the possibility of theft
- Protected from environmental damage - rain UV protection etc
- Readily available to set up for competitions/training events (minimum use of volunteer hours).

Albany Pony Club is one of five (5) clubs under the umbrella of the Albany Equestrian Centre. The vast majority of our competitions and training events are open to all 5 clubs. Over the last two (2) years membership of Albany Pony Club has almost doubled (now the largest Pony Club in the Great Southern Region) - to satisfy the educational and training needs of our members this has meant purchasing additional equipment. And this significant investment needs to be protected.

Yours sincerely,

Larissa Curtis
President

Emu Point Sporting Club (Inc.)
2 Birss St
Emu Point
Albany WA 6330

Tuesday, 20 July 2021

Mr Nathan Watson
Acting-Executive Director Community Services
City of Albany
PO BOX 484,
Albany WA 6331

Dear Nathan,

On behalf of Emu Point Sporting Club Inc I am writing to you regarding the Tennis Section Court Re-Surfacing and Fence Replacement Project.

As part of the application for funding for this CSRFF Project Emu Point Sporting Club Inc has provided evidence that we have funds available for our share of the project, by way of bank statements. The estimated cost has been established as a total of $250,753.50.00 (ex GST) with Emu Point Sporting Club Inc contributing $137169.00 (ex GST) by way of cash and Volunteer Labour.

The board of Emu Point Sporting Club Inc is supportive of this project and requests the City of Albany's approval for their financial contribution of $30,000.00 (ex GST).

The next step in the CSRFF Small Grants Application will be to submit this to the Department of Local Government, Sport and Cultural Industries by the due date, for their consideration.

We are very appreciative of the support demonstrated by the City of Albany in accepting this application for funding consideration.

Yours faithfully

S Massina

Simon Massina
Board Member (Emu Point Sporting Club (Inc.)
President – Tennis Section
Phone 0432 587 320
Email simon.massina@gmail.com

SHIRE OF JERRAMUNGUP

BRIEFING NOTE

TO: City of Albany	**FROM:** Martin Cuthbert
CC: Andrew Sharpe Nathan Watson Mitchell Green	**DATE:** 4 August 2021
SUBJECT: CSRFF – Independent Review	

PURPOSE

Review of the City of Albany's project ranking process and recommendations for the 2021 funding round.

REVIEW

Three applications were reviewed against the City of Albany's *Community Sports and Recreation Facilities (CSRFF) Small Grant Funding Policy* and the Department of Local Government, Sport and Cultural Industries Community Sporting and Recreation Facilities Fund *Policy and Procedures: Local government and State Sporting Associations 2022-2023 Funding Round*.

The three applications assessed were:

- Emu Point Sporting Club – Resurfacing 6 x Tennis Courts and replacing boundary fencing;
- Albany Pony Club – Construction of a Storage Shed; and
- City of Albany – ALAC Change Room refurbishment.

All three of the applications met the requirements of the City's CSRFF policy and the DLGSCI's CSRFF Policy and deemed eligible for funding.

The three applications also aligned with the City of Albany *"Albany 2030 Community Strategic Plan",* namely:

Objective 4.3: To develop and support a healthy inclusive and accessible community

Community Priorities

4.3.1 Develop a range of activities and facilities that connect people, promote a healthy community and are appropriate for all ages.

We know we are succeeding when:

Our community increasingly uses community spaces to meet and participate in healthy activities.

4.3.2 Encourage and support volunteers and community groups to grow an active volunteer base that is supported and valued.

We know we are succeeding when:

Volunteering and participation in community organisations increases.

RANKING OF PROJECTS

RANK	ORGANISATION	PROJECT DETAIL	OVERALL PROJECT RATING
1	Emu Point Sporting Club	Resurfacing 6 x Tennis Courts and replacing boundary fencing	This project has demonstrated a high level of planning and club member involvement and is strongly supported by the Emu Point Sporting Club and Emu Point Tennis Club. It is envisaged this project will have longer term outcomes by expanding recreation opportunities to the wider public and visitors to Albany. As a tourist destination, with a growing population, Albany will continue to attract new members to sporting clubs. Visitors seeking somewhere to play tennis are always welcomed and this would be lost if court surface replacement is not completed soon. The improved facilities would allow increased capacity for the tennis club to host more invitational days and competitions with 6 courts available for the purpose. There is a clear safety issue identified given many of the players are in the older age demographic. Club has a high membership base.
2	Albany Pony Club	Construction of a Storage Shed	A well thought out and planned project. The construction of purpose built, adequate storage will enable the club to safely store equipment and allow members and visitors to the facility to spend more time enjoying their sport of choice. Proper storage will increase the life of Club equipment and address OHS issues identified with the current practice of using a sea container. Club has a growing membership base.
3	City of Albany	ALAC Change Room refurbishment	A planned and needed project that will provide greater user amenity. The facility is currently well used and the upgrading of user amenities will have the desired effect of increasing patronage and user satisfaction for years to come. Expansion of gym to 24 hour access has highlighted the need to upgrade the facilities to cater to patrons outside of normal business hours.

RECOMMENDATION

As an independent reviewer of the rankings for CSRFF projects based on the CSRFF guidelines and City of Albany policies, I agree that the projects be ranked in the following order:

- **Rank 1 of 3 – Emu Point Sporting Club**
- **Rank 2 of 3 – Albany Pony Club**
- **Rank 3 of 3 – City of Albany**

If you have any questions or require further information, please don't hesitate to contact me.

Kind Regards,



Martin Cuthbert
CHIEF EXECUTIVE OFFICER

Offices: 102 North Road, Yakamia
Postal Address: PO Box 484 ALBANY 6331
Telephone: (08) 6820 3000

MEMORANDUM

TO	:	Acting Manager Recreation Services: Mitchell Green
FROM	:	Manager Finance: Steve van Nierop
DATE	:	5 August 2021
SUBJECT	:	**CSRFF Small Grant Round – Independent Review of Project Ranking Recommendations**

Dear Mitch

IN BRIEF

1. The City of Albany's ("the City") Elected Members and Executive Management Team have requested that an independent peer review be completed on the City's assessment and priority ranking of submissions made for the Community Sports and Recreation Facility Fund ("CSRFF") Small Grant Round in 2021.
2. I have been approached by yourself to provide this independent review.
3. My conclusion is that I have no concerns with the assessment and priority ranking of submissions made by City officers.

PURPOSE

4. The purpose of this memorandum is to provide to you my review of the assessment made by the City on the three (3) submissions received, being (in alphabetical order):
   a. Albany Pony Club: Construction of a storage facility
   b. City of Albany / Albany Leisure & Aquatic Centre: Changeroom Upgrades; and
   c. Emu Point Tennis Club: Replacement of artificial turf and fencing

BACKGROUND

5. The CSRFF, administered by the Department of Local Government, Sport and Cultural Industries ("DLGSCI"), recently opened its Small Grant Funding Round, with details below:
   a. The Small Grants Round targets community sport projects where the financial value of the total project is up to $300,000 and is delivered within a 12-month period.
   b. The grant round opened on 1 July 2021.
   c. Applications are due to be presented to the City of Albany Elected Members at the August Ordinary Council Meeting (scheduled for 24 August 2021).
6. The City's role in administering the CSRFF applications involves assessing all relevant applications, and DLGSCI's CSRFF grant guidelines require the local government to rank applications in priority order for the municipality.
7. Whilst there is no obligation for local government to contribute to the community sporting projects, local government is viewed as a key funding partner in supporting improved community sporting amenities.
8. The City has a CSRFF Small Grant Funding Policy to guide how it will allocate funding through its annual Capital Seed Fund towards community sporting projects applying for CSRFF funding.
9. I received the three applications, the City's CSRFF Policy, the DLGSCI's grant guidelines, and a Briefing Note from yourself on 2 August 2021.

REVIEW

10. The DLGSCI's grant guidelines provides guidelines for Local Government Authorities to assess each submission. This assessment uses the following criteria and a project rating of satisfactory/unsatisfactory or not relevant:
    a. Project justification
    b. Planned approach
    c. Community consultation
    d. Management planning
    e. Access and opportunity
    f. Design
    g. Financial viability
    h. Coordination
    i. Impact on physical activity; and
    j. Sustainability

11. The following table outlines the ranking of the submissions by City officers:

RANK	ORGANISATION	PROJECT DETAIL	OVERALL PROJECT RATING
1	Emu Point Sporting Club	Resurfacing 6x courts and replacing boundary fence	Well planned and needed by the applicant. This projects meets the criteria for the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The project is a high priority as the current surface and fencing is over 15 years old and the sporting surface supports a large membership base and high level of participation, and the project is ranked 1 of 3.
2	Albany Pony Club	Storage Shed	Well planned and needed by the applicant. This project meets the criteria for the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The project supports rather than directly relates to delivery of the Pony Club's activities, and is therefore a medium priority and is ranked 2 of 3.
3	City of Albany	ALAC Change rooms refurbishment	Well planned and needed by the applicant. This project meets the criteria for the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The project supports the social amenity of the ALAC facility, is a medium priority and is therefore ranked 3 of 3.

12. The following information was also provided in the City's briefing note on the applications:

    a. *Emu Point Sporting Club - Resurfacing 6 courts and Replacing Boundary Fence.*
        i. *The funding application is a Small Grant Application to resurface the synthetic tennis courts and replace the existing boundary fence at the Emu Point Tennis facility.*
        ii. *This will consist of replacing the 6 courts and replacing the boundary fence. The current synthetic court surface is 15 years old and the boundary fence is falling down, creating obvious safety issues.*
        iii. *Emu Point Tennis Club has 105 members. Members use the facility all year round. There are 3 social tennis days on a Wednesday, Thursday & Saturday. These are well supported by the members.*
        iv. *Current financial statement for Emu Point Tennis Club: Total of $24,476.89 as per bank statement.*
        v. *Current financial statement for Emu Point Sporting Club: Total of $191,000.00 as per bank statement.*
        vi. *The Club is contributing both cash and volunteer labour to the project.*
        vii. *The project is well planned and needed by the applicant.*
        viii. *The application, installation and project will be managed by Emu Point Tennis Club.*

ix. *Department of Local Government, Sport and Cultural Industries – Sport and Recreation Great Southern Regional Manager has indicated that the project meets the criteria and would be supported at a regional level. The priority given to this project is high.*

b. *Albany Pony Club - Storage Facility*
   i. *The funding application is a Small Grant Application for construction of an additional Storage Facility.*
   ii. *The Albany Pony Club is located just off the Robinson Rd, at the Albany Equestrian Centre.*
   iii. *The club has a membership of 56 with a mix of ages and genders participating.*
   iv. *The club is contributing both cash and volunteer labour to the project.*
   v. *Current financial statements: Total of $5,383.00 as per bank statement.*
   vi. *The project is well planned and needed by the applicant.*
   vii. *The application, installation and project will be managed by the Albany Pony Club.*
   viii. *Department of Local Government, Sport and Cultural Industries – Sport and Recreation Great Southern Regional Manager has indicated that the project meets the criteria and would be supported at a regional level. The priority given to this project is medium.*

c. *City of Albany - ALAC Change rooms*
   i. *The ALAC Change rooms are a well utilised community asset and complement all of the programming which takes place at the centre.*
   ii. *Upgrades will include the addition of shower facilities to the gym area and a refresh to the change rooms throughout the aquatics area.*
   iii. *The addition of showers to the gym space will help increase member amenity and complement the 24/7 access functionality of the ALAC Gym.*
   iv. *The aquatics change rooms were last upgraded in 2008 and they are now showing signs of wear and tear and in desperate need of a refresh.*
   v. *All upgrades will include disability access design requirements.*
   vi. *No Council Financial Support is being requested through this application process as City of Albany applications are not eligible for its Capital Seed Funding and the project already has funds allocated on budget through its Capital Works program.*
   vii. *Department of Local Government, Sport and Cultural Industries – Sport and Recreation Great Southern Regional Manager has indicated that the project meets the criteria and would be supported at a regional level. The priority given to this project is medium.*

CONCLUSION

Based on the explanations provided in the Briefing Note, the criteria outlined by the DLGSCI in assessing applications, and comparing this to the information provided in the applications received, I have no concerns with the assessment and priority ranking of submissions made by City officers.

INDEPENDENCE

13. I can confirm that I have no involvement or affiliation with the Emu Point Tennis Club.
14. I can confirm that I have no involvement or affiliation with the Albany Pony Club.
15. I can confirm that I am an employee of the City of Albany which has submitted an application for the City of Albany / Albany Leisure & Aquatic Centre Changeroom Upgrades. However, I can confirm that I do not work in the Recreation Services department or the Community Services directorate. I am also not a member of the ALAC Gym or have a membership with the Aquatic Centre. My involvement with the Aquatic Centre is that my children partake in swimming lessons held there. I don't believe this affiliation obstructs on my independence.

Kind regards,



Steve van Nierop
Manager Finance
City of Albany

From: Jarrad Gardner
To: Mitchell Green
Subject: CSRFF Comments
Date: Friday, 6 August 2021 1:42:16 PM

Hi Mitch,

My comments below:

Emu Point
Extensive project planning that features a structured approach toward funding surface replacement by the applicant. Project meets the criteria for consideration under the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The project is a high priority due to the age of the current surface and recent damage to surrounding infrastructure. The sporting surface supports a large and growing membership base, in addition to servicing ad-hoc participation through facility hire.

Project is ranked 1 of 3

Albany Leisure and Aquatic Centre
Project is well planned, requirement demonstrated, with a significant matched funding contribution. Project meets the criteria for the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The facility supports significant sporting participation across a range of sporting codes, in addition to recreational activities. Facility amenity is an important consideration in growing membership base and meeting community expectations that provide benefits to multiple Great Southern municipalities.

Project is ranked 2 of 3.

Albany Pony Club
Project is well planned and required based on membership growth. This project meets the criteria for the Community Sports and Recreation Facilities Policy and CSRFF Guidelines. The project supports rather than directly relates to delivery of the Pony Club's activities, with benefits relating to the applicant rather than a broader municipality.

Project is ranked 3 of 3

Happy to explain any of the above.

Thanks,
Jarrad

GOVERNMENT OF WESTERN AUSTRALIA

Department of
Local Government, Sport and Cultural Industries

Community Sporting and Recreation Facilities Fund



Policy and procedures

Local government and State Sporting Associations

2022—2023 Funding Round

Department of Local Government, Sport and Cultural Industries

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This report can be downloaded in PDF format from the Department of Local Government, Sport and Cultural Industries website. Alternative formats are available on request.

About DLGSC

The Department of Local Government, Sport and Cultural Industries (DLGSC) works with partners across government and within its diverse sectors to enliven the Western Australian community and economy through support for and provision of sporting, recreational, cultural and artistic policy, programs and activities for locals and visitors to the State.

The department provides regulation and support to local governments and the racing, gaming and liquor industries to maintain quality and compliance with relevant legislation, for the benefit of all Western Australians.

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Introduction

This manual has been produced as a guide for local government and State Sporting Association (SSA) personnel who are assisting applicants to prepare their application for a CSRFF grant and/or involved in the assessment process of the CSRFF program.

This manual must be read in conjunction with the current guidelines for a grant application, application forms and Key Principles of Facility Provision.

It is intended that this manual be a practical guide that can be updated as required. Updates may be provided by the Department and will overide any previous versions of the manual.

Department of Local Government, Sport and Cultural Industries regional offices

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Acronyms

ATO	Australian Taxation Office
NCC	National Construction Code
CSRFF	Community Sporting and Recreation Facilities Fund
DDA	*Disability Discrimination Act*
DLGSC	Department of Local Government, Sport and Cultural Industries
FMA	*Financial Management Act*
GST	Goods and Services Tax
LCC	Life cycle costing
RCTI	Recipient Created Tax Invoice
SSA	State Sporting Association

Definitions

Applicant/grantee

For the purpose of this manual applicants and grantees are essentially the same entity. The applicant becomes a grantee, once an offer of grant has been accepted.

Approval to commence project

(a) Minister's approval: Minister's approval to allocate the grant.

(b) Building approval: approval to proceed with construction as issued by the local government.

Capital upgrade

Improvement to existing facility not major maintenance.

Deferrals

An extension to expend the funds outside of the twelve (12) months in which they were allocated to be spent – subject to approval.

Donations

Items that are donated, e.g. materials, equipment etc.

Financial year

1 July to 30 June (grants are allocated to 15 June only).

Funding round

The year in which the grant is applied for (forward planning grants can be applied for in the funding round of 2022/23 and approved for payment in 2023/24 and 2024/25).

Funding year

The year in which the grant is allocated for payment, i.e. 2022/23 is the funding year as mentioned in funding round above.

Grant expiry date

15 June in year of offer.

Grantees cash

All grants must be matched by grantee cash, which can be made up of cash or local government (cash or kind) contribution.

Grantees contribution

All grants can be made up of cash, donations, voluntary labour, local government (cash or kind) contribution, and other grants.

Maintenance

Non capital items. Annual repairs or aggregated annual requests that have not been undertaken.

Regional

A local government listed in Schedule 1 of the *Regional Development Act 1993 (WA).*

Sinking fund

Established specifically for the replacement and major maintenance of facilities, often referred to as a building reserve fund. This requires an annual contribution equivalent to future replacement cost divided by useful life of asset.

Triennium

A period of three years.

Overview of CSRFF program

Purpose

The Community Sporting and Recreation Facilities Fund (CSRFF) exemplifies the State Government's commitment to the development of sustainable infrastructure for sport and recreation across the State.

The purpose of the program is to provide financial assistance to community groups and local government to develop basic infrastructure for sport and recreation. The program aims to maintain or increase participation in sport and recreation with an emphasis on physical activity, through rational development of good quality, well designed and utilised facilities.

Through CSRFF, the State Government will invest $12.5 million in the 2022-2023 financial year towards the development of quality physical environments in which people can enjoy sport and recreation. The maximum grant offered for standard grant applications is one third of the total estimated project cost (excluding GST) up to a maximum grant of $2 million.

DLGSC will assess the total eligible cost of your project (excluding GST) from the information provided.

Some applications will be eligible for up to one half of the project cost. This eligibility will be measured against key development principles. Applicants will have to show their eligibility through the development bonus section of the application form. Meeting development bonus criteria will not automatically ensure the applicant is eligible for 50% of the project cost. Applicants will need to return unspent funds to DLGSC in accordance with the terms of the grant agreement.

Eligibility

Applicants must either be an local government, not-for-profit sport, recreation or community organisation, incorporated under the *Associations Incorporation Bill 2014* and have an Australian Business Number (ABN).

The land on which the facility is to be developed must be one of the following:

- A Crown reserve
- Land owned by a public authority
- Municipal property
- Land held for public purposes by trustees under a valid lease, title or trust deed that adequately protects the interests of the public.

Priority consideration

CSRFF can fund new or upgraded facilities which will maintain or increase physical activity, or result in a more rational use of facilities. Priority will be given to projects that lead to facility sharing and rationalisation. Multi-purpose facilities reduce infrastructure required to meet similar needs and increase sustainability. The program is not designed to provide facilities to meet a club's ambitions to compete in a higher grade.

Examples of projects which will be considered for funding include:

- New playing surfaces e.g. ovals, courts synthetic surfaces etc.
- Floodlighting
- Change rooms and ablutions
- Sports storage
- Clubrooms including social space, kitchen, administration areas and viewing areas. Please note that these areas have a minimal impact on physical activity and would be considered a lower priority.
- Resurfacing of existing sports surfaces. It is expected that facility managers will budget for these items as part of the ongoing operation of the facility, frequently over 7 to 10 years. Resurfacing projects are a low priority and where the applicant has previously been funded through CSRFF, the project is likely to attract reduced funding of 16.66%. In competitive rounds it is unlikely that these projects will receive funding.

Planning

Applicants must discuss individual projects with DLGSC prior to lodging an application. The emphasis of the assessment factors is on a planned approach to facility provision and will require the applicant to demonstrate need and feasibility/sustainability and to consider planning, design, and management issues to meet that need.

Officers assessing applications will provide a rating against the level of project consultation. Where no consultation has occurred, the rating will be zero.

Close liaison with DLGSC officers must occur throughout the planning process. Applicants should also liaise with their local government and relevant SSA even if they will not be contributing financially to the project.

The Key Principles of Facility Provision explains in depth the principles against which applications for CSRFF funding will be assessed.

Level of funding

An amount of $12.5 million will be allocated in the 2022-2023 financial year. Applicants requesting a forward planning grant in the first year of the triennium must have all planning completed prior to lodgement of the application. This is necessary for the project to commence once approval has been given. Failure to obtain appropriate planning approvals will result in the grant being withdrawn.

The maximum grant offered for standard grant applications is one third of the total estimated project cost (excluding GST) up to a maximum grant of $2 million. DLGSC will assess the total eligible cost of your project (excluding GST) from the information provided. Any ineligible items shown as eligible will be deducted from the eligible project cost. This may result in the funding eligible for your project being less than the amount you have requested.

Some applications will be eligible for up to one half of the project cost. This eligibility will be measured against key development principles. Applicants will have to show their eligibility in the application form. Meeting development bonus criteria will not automatically ensure the applicant is eligible for 50% of the project cost or the maximum grant.

In terms of total project cost, you should make an allowance for cost increases over the period of the project as it is not possible to receive additional funding to meet that cost once the project has been approved. Cost increases can be based on the Building Cost Index (BCI) over the last two to three years. Applicants must also factor regional loading into the total project cost.

DLGSC does not guarantee you will receive the full amount of financial assistance requested or the maximum level of funding. The level of financial assistance offered will be based on the overall significance of the proposed project, including the benefits provided to the community.

Receiving financial assistance under this program does not guarantee future stages of your project will be funded.

There is no obligation on your local government to make a contribution to a community group project however a contribution from all stakeholders (local government or community club/group) in a project that meets local needs will be viewed more favourably.

Applicants are expected to secure commitments and provide evidence for the balance of funds to meet the total cost of their project at the time of application. If these cannot be demonstrated it is unlikely that a grant will be approved. Applicants will be required to complete their project within an agreed time frame.

Local governments should make a firm commitment to fund or not to fund a project before the application is submitted to DLGSC. Applicants will need to return unspent funds to DLGSC in accordance with the terms of the grant agreement.

Grant categories

Small grants

A grant of between $2,500–$100,000 will be allocated to projects involving a basic level of planning. Up to one third of the total project cost can be awarded. The total project cost for small grants must not exceed $300,000. Grants given in this category must be claimed in the financial year following the date of approval.

Projects with a total project cost of below $7,500 will be ineligible for funding as it is expected that the applicant should be able to fully fund these.

Annual grants

A grant of up to $166,666 will be allocated to projects with a planning and construction process that will be complete within 12 months. Up to one third of the total project cost can be awarded. The total project cost for annual grants is between $300,001 and $500,000. Grants given in this category must be claimed in the financial year following the date of approval.

Forward planning grants

A grant of between $166,667–$2,000,000 will be allocated to the large scale projects where the total project cost exceeds $500,000 and may require an implementation period of between one and three years. Up to one third of the total project cost can be awarded. Grants given in this category may be allocated in one or a combination of the years in the triennium.

Note: Maximum grant for small and annual grants may increase if a development bonus is approved.

Special initiatives

There is funding allocated from within the $12.5 million for special initiatives. This funding will be allocated should sufficient eligible applications be received within the funding round.

Female facility improvements

$1 million is allocated within the $12.5 million available to projects that improve the usability of facilities for female participants. To encourage female participation funding has been set aside in the funding round for projects that support female participation.

Projects that address this issue, such as the upgrade of change rooms to cater for females including lockable, individual showers and more toilet cubicles in lieu of urinals, will be a priority. Facility audits will also be considered for funding so that a future project can be appropriately scoped and designed.

Aboriginal projects

$500,000 is notionally allocated within the $12.5 million available to projects that provide sport and recreation infrastructure to remote Aboriginal communities and regional communities with a significant Aboriginal population. Remote aboriginal communities may be eligible for up to 100% of the project cost for high priority projects. Potential applicants must contact their Regional Manager to discuss eligibility.

Organisations apply for these grants using the annual and forward planning or small grant application forms. If the Department receives eligible applications in excess of the allocated amount for either category, these applications will still be considered for funding from the remaining CSRFF funds.

Assessment factors

The Key Principles of Facility Provision explains in depth the principles against which applications for CSRFF funding will be assessed. All applicants are required to address the questions in the application form. Principles relate to aspects of:

- Project justification
- Planned approach
- Community consultation
- Management planning
- Access and opportunity
- Design
- Financial viability
- Coordination
- Impact on physical activity
- Sustainability.

All projects will be assessed against these key principles, although the information required will vary depending upon the size and type of project. Simple annual projects are required to give information that will allow for an assessor to gain a clear understanding of the project and the justification for doing it.

Development bonus assessment factors

In order to receive more than one third funding (up to a maximum of one half) or the maximum grant of the project cost, applicants must demonstrate that their project satisfies at least one of four key areas:

1. Location – regional, remote or growth areas
2. Co-location of sports and/or sporting facilities
3. Sustainability initiatives – e.g. water saving, energy reduction
4. Increase participation – new participants, increase participation of existing users, special interest groups participation.

Applicants must complete the development bonus section of the application form to demonstrate that they are eligible for up to 50% funding.

It is essential that applicants requesting a development bonus discuss their eligibility with DLGSC before applying. Failure to do so will result in your application being unsuccessful.

Life cycle cost guidelines

An important part of the funding process is to make sure the community can bear the true cost of running and maintaining a facility well into the future.

Developing a life cycle cost approach when considering your project's parameters will provide you with a solid and informed base from which to make the most effective financial, economic and operationally sustainable decisions. This life cycle assessment should be undertaken in the planning of any project so all parties have an understanding of the upfront, ongoing and replacement costs over the life of the project.

A life cycle cost analysis must be provided for projects with a total cost over $500,000.

The Department will undertake spot audits of funded projects over their life cycle to ensure than grantees are meeting the obligations they outline in their grant application. Local Governments are encouraged to outline in their project assessments how they will monitor their sporting groups and provide advice to the department on an ongoing basis.

Please refer to DLGSC's Life Cycle Cost Guidelines **www.dlgsc.wa.gov.au/csrff** or by contacting the Department at **csrff@dlgsc.wa.gov.au**.

Sinking fund

A sinking fund is established by setting aside revenue over a period of time to meet future capital expenses. The annual amount to be set aside is determined by the expected life of the asset using the formula

$$\frac{\text{Expected cost of replacement (including inflation)}}{\text{Expected number of years before replacement}}$$

e.g. A club may set aside $15,000 from club revenue each year to replace a $150,000 synthetic surface in 10 years' time.

The responsibility for maintaining and operating a facility rests with the local government, the club or a combination of both. It is important that CSRFF applicants can demonstrate they can maintain the facility by developing a sinking fund for asset replacement. Local governments, as the asset owner, are expected to ensure that part of their assessment of a project includes confirmation they will underwrite any shortfalls.

Resurfacing of existing sporting surfaces is an example of a project where a sinking fund will be required following a successful application. Typically, synthetic sporting surfaces have a life of 7–10 years over which a facility owner/manager is expected to budget for the operation and replacement of the surface at the end of life via the development of a sinking fund and an annual contribution to the fund.

It should be noted that resurfacing projects are a low priority and where the applicant has previously been funded through CSRFF, the project is likely to attract reduced funding of 16.66%. In competitive rounds it is unlikely that these projects will receive funding.

Exclusions from the fund

Funds will not be available for:

- Projects that commence before approvals are announced.
- Development of privately owned facilities.
- Arts, music, craft and non-physical recreation facilities.
- Facilities considered to be a full State Government responsibility proposed by either government departments, schools or parents and citizen associations, unless there is demonstrated community sporting and recreation need/benefit commensurate with the funding request.
- Recurring maintenance or operating costs of existing facilities.
- Purchase of land, landscaping, carparks and access roads.
- Playgrounds.
- Bikeways or pathways.
- Non land-based facilities, e.g. boat launching ramps, ocean pools and marinas.
- Non-fixed equipment.
- Fixed sports specific equipment (e.g. electronic targets, scoreboards).
- Facilities or fixtures for the express purpose of serving alcohol.
- Projects that do not meet Australian Standards and National Construction Code.
- Projects that have already received a CSRFF grant and are seeking an additional grant to meet cost increases.
- Applicants/projects that have received a CSRFF grant in the past and have not satisfactorily acquitted that grant. In some cases this may apply to localities where other significant projects have not been progressed or have not completed a previous project in accordance with the conditions of the grant provided. An assessment will be made and if no physical progress has occurred, new applications may not be recommended.
- Projects that have State Government funding in excess of 66.66% of the total project cost.
- Local government overheads, project administration and project management (unless expressly approved in the grant agreement).

Funding may be available from other government departments and agencies for projects that are excluded from the CSRFF program or for components of projects considered ineligible.

Applications

Receipt of an application does not in any way imply that a grant will be approved. Results of applications are expected to be announced as follows:

Annual/forward planning grants: January in the calendar year following lodgement of the application.

Small grants: June for applications lodged in February of the same year. November for applications lodged in August of the same year

Procedures for applicants

Contacting DLGSC and accessing information

- All applicants must contact their nearest DLGSC office to discuss the project and its eligibility for funding.
- In regional WA, guidelines for a grant application and application forms are available from your nearest DLGSC regional office. See page 4 for a list of DLGSC regional offices.
- In the metropolitan area, guidelines for a grant application and application forms are available from your local government.

Contacting local governments and SSAs

- If the project is eligible, applicants must contact their local government to discuss the project with recreation/community service/planned works personnel and applicants should also discuss the date by which their application must be submitted. These vary dependent on local processes and council meeting dates.
- Applicants should contact their SSA to discuss the project. SSAs are able to provide advice on issues related to technical specifications.
- Throughout the planning process the applicant must liaise with DLGSC staff to ensure that they address the key principles adequately.

Submitting an application

- Applications must be lodged with their local government irrespective of whether the local government is contributing to their project. The CSRFF application form must be completed, ensuring that all the questions are answered and supporting documents provided as required. DLGSC will assist applicants to understand what is required.
- Completed applications are to be returned to their relevant local government by the end of August 2021 (or relevant CSRFF small grants deadline).
- Applications to DLGSC from local governments close on 30 September 2021 (or relevant CSRFF small grants deadline).

All applications submitted to DLGSC must have been presented to the local government and endorsed by council, otherwise they will be ineligible for consideration.

Assessment and approval of application

- Applications are assessed by the relevant local government, DLGSC and SSA. These assessments are provided to the CSRFF Advisory Committee, which considers all applications and provides funding recommendations to the Minister for Sport and Recreation.

Acceptance of grant

- Successful applicants will be required to complete a grant agreement and comply with any conditions of approval.

Acquittal of grant

- Applicants are now able to claim 25% of their grant upon the signing of a major works contract. 50% of the grant may then be claimed once expenditure has reached 50%. The final 25% of the grant is to be claimed upon the completion of the project. Grantees are required to demonstrate that the expenditure of funds has occurred prior to submitting a claim for payment.

- CSRFF small grants applicants can receive an upfront grant payment upon the signing of a works contract (copy of signed contract to be provided to the Department) or where no formal works contract exists, payment will be determined on a case by case basis in consultation with the applicant. Upon completion of a project the applicant will be required to acquit the grant by providing the CSRFF claim forms and sufficient evidence of expenditure. If the project is delivered under budget, then grant monies not expended will need to be returned to the Department.

Change of purpose

Once a project is approved, it cannot change scope or location without consultation and written approval from DLGSC. Ministerial approval is required for any change of purpose to the originally approved grant.

Applicant/grantee name

Once an application has been approved, it is not possible to change the name of the applicant. If a local government is likely to manage a project, then the local government must ensure that they are the applicant registered on the application form. Once the grant has been approved, payments can only be made to the approved applicant and not to a third party, i.e. the local government who may have managed the project.



Australian Standards and National Construction Code

All projects must comply with the Australian Standards and National Construction Code relevant to their project. For example, lighting projects are to adhere to the Australian Standards for sports lighting. Universal access is mandatory.

Please refer to DLGSC's Asset Management Guide, **www.dlgsc.wa.gov.au/csrff** or by contacting the Department at **csrff@dlgsc.wa.gov.au** for a list of common standards and note that projects that do not meet Australian Design Standards are ineligible for funding. This list may not be complete and applicants must ensure they consult with their local government for any other relevant requirements.

Funding categories

Only work commenced after announcement of approval is eligible for claim. Refer to Guidelines for Grant Application and small grants application form.

Small grants

Small grants will be awarded to projects involving a basic level of planning. The total project cost for small grants must not exceed $300,000. Grants given in this category must be claimed by 15 June in the relevant financial year. Please see page 19 for an overview of the small grants application process.

Examples of small grant projects:

- Cricket pitch and practice wickets
- Storage upgrades
- Changerooms refurbishments
- Safety fences for sport and recreation facilities, i.e. ballistic sports
- Small floodlighting projects
- Court resurfacing or upgrades
- Large scale dams, water collection systems and pipelines for distribution (maximum grant offered is $60,000)
- Various planning studies to a maximum grant amount of $25,000.

Value of total project	$7,500–$300,000, exclusive of GST
Value of grant	Minimum grant of $2,500 Maximum grant of $100,000 Note: the maximum grant may increase to 50% funding if a development bonus is approved.
Management	Generally, small grant projects will not require a facility manager to be assigned to the project.
Planning process	The skills required to plan a project supported by a small grant will be simple and generally readily accessible to the local community.
Impact on the community	Projects are generally local in scale.
Grant funds	Grant funds for small projects must be claimed by 15 June in the relevant financial year. Under the CSRFF small grants program applicants can receive an upfront grant payment upon the signing of a works contract (copy of signed contract to be provided to the department) or where no formal works contract exists, payment will be determined on a case by case basis in consultation with the applicant. Upon completion of a project the applicant will be required to acquit the grant by providing the CSRFF claim forms and sufficient evidence of expenditure. If the project is delivered under budget, then grant monies not expended will need to be returned to the department.

Annual grants

Annual grants will be awarded to projects with a planning and construction process that will be complete within 12 months and have a total project cost (exclusive of GST) of $300,001–$500,000. Grants given in this category must be claimed by 15 June in the next financial year.

Note: Where the grant requested is $166,666 or less but the total project cost is over $500,000, applicants are to follow the criteria for a forward planning grant but will be funded as an annual grant.

Examples of annual projects:

- Upgrades to clubrooms/pavilions
- Large floodlighting projects
- Court or bowling green construction
- Reticulation system for a grassed playing field.

Value of total project	$300,001–$500,000, exclusive of GST
Value of grant	Maximum grant of $166,666 Note: the maximum grant may increase to 50% funding if a development bonus is approved.
Management	Generally, annual projects will not require a facility manager to be assigned to the project
Planning process	The skills required to plan a project supported by an annual grant will be simple and generally readily accessible to the local community. Some fundamental research and planning may be required. Applicants for annual grants are required to address the questions in the application form. Consultation with DLGSC will assist in understanding what is required.
Impact on the community	Projects are generally neighbourhood to district level in scale.
Grant funds	Grant funds for annual projects must be claimed in the next financial year.



Forward planning grants

Forward planning grants will be given to the more complex projects that require a planning period of between one and three years. Grants in this category will have a total project cost (exclusive of GST) of over $500,000 and may be allocated in one or a combination of the years in the next triennium.

CSRFF is a reimbursement system. Only work commenced after announcement of approval is eligible for claim. Refer to Guidelines for Grant Application and application form.

Examples of forward planning grant projects:

- Multipurpose leisure/recreation centre
- Swimming pool – new or major upgrade including heating to allow increased use
- Construction of large synthetic fields
- Playing field construction
- Clubroom – new or major upgrade
- Large ablution block/change rooms.

Funding availability

Funding availability	Most applicants request funding in the first year but few achieve any physical progress. Major projects require time to prepare and for appropriate processes to be followed. Applicants are given the opportunity to indicate their preferred year(s) of claim on the application form, however, as funds are limited, there is no guarantee that their preferred year (s) of claim will coincide with the year of offer. It may also be necessary to allocate funding to some larger projects over two or three financial years. Most projects will have funding allocated in Years 2 or 3 of the triennium. Where applicants request funding in Year 1, all planning documentation must be in place to allow such progress to occur, e.g. architectural drawings, building approvals, other funding.
Value of total project	$500,001 and over, exclusive of GST.
Value of grant	Minimum grant of $166,667. Maximum grant of $2,000,000.
Management	Projects will usually require a full-time or part-time manager to be assigned to the facility in order to control usage and maintenance.
Planning process	The skills required to plan this type of project will be highly developed in a technical and/or administrative sense – some expertise may need to be obtained from outside the local community. Applicants are required to address the questions in the application form. Comprehensive research and planning will be required It is anticipated that forward planning projects will require between one and three years to complete from start to finish. Projects of regional significance should have been identified within a regional sport and recreation facilities plan and are supported by a range of local governments.
Impact on the community	Projects will generally be of either district or regional level.

Note: A development bonus will not impact the grant category that you are eligible for. The project cost should determine the category you will apply for.

Emergency relief funding

There is scope in the CSRFF program for funding to be allocated outside of the normal timeline to projects that reinstate facilities for sport and recreation that are extensively damaged as a result of unforeseen circumstances.

Emergency relief funding is not intended to minimise the requirement of community groups and local governments to adequately maintain their assets. The policy is not intended to negate the need for facility owners to have adequate insurance.

Applicants must be able to demonstrate that the damage to facilities has resulted from an occurrence that could not have reasonably been foreseen. Such occurrences include cyclones, flooding, bushfire, earthquakes, etc. An unforeseen event contained to a particular facility, e.g. building fire, does not qualify for emergency relief. Applicants must provide evidence that they have adequate insurance to protect their asset.

Projects ineligible for emergency relief funding

Projects that commence before applicants are advised of the outcome of their submission are ineligible. Funding will not be considered for projects that have resulted from occurrences that could have reasonably been anticipated. The availability of emergency relief funding in no way minimises the need for community groups and local governments to develop effective asset preservation strategies, or plan for future facility upgrades. In particular, local governments should not assume they are eligible to apply for emergency relief funding should essential, immediate, remedial works to aquatic facilities be required.

Emergency relief funding is not available to assist with capital upgrades. The intent of the funding is to reinstate facilities to a serviceable level. Only in exceptional circumstances will emergency relief funding be provided to improve the standard of facility provision.

Grants application process

Overview of annual and forward planning grants application process





June 2021	• Advertising in The West Australian and regional newspapers. • Application forms available from local government (metro area only) and DLGSC offices (regional WA only).
August 2021	• Applications to be lodged at local government by the end of August 2021. Applicants should check the closing date with their local government, as they do vary.
September 2021	• Applications are assessed by local government staff and recommendations prepared. Local governments are required to rate and rank all applications they receive in order of priority. • Applications presented at local government council meeting. • Applications must be lodged at DLGSC regional offices by 4pm on 30 September 2021.
October / November 2021	• Applications are assessed by DLGSC regional managers. • Applications are assessed by State Sporting Associations.
December 2021 / January 2022	• CSRFF Advisory Committee considers applications and makes recommendations to the Minister. • Minister for Sport and Recreation considers recommendations and grants approvals. • Successful/unsuccessful applicants notified.
1 July 2022	• Funds available.
15 June 2023	• Grant must be acquitted (except forward planning grants that have approval to expend the funds in the second and third year of funding).

Overview small grants application process

Winter	Summer
February 2022	**July 2022**
• Advertising in *The West Australian* and regional newspapers. • Application forms available from local government (metro only) and DLGSC offices (regional WA only). • Applications to be lodged at local government by the end of the month. Applicants should check the closing date with their local government, as they do vary.	
March 2022	**August 2022**
• Applications are assessed by local government staff and recommendations prepared. Local governments are required to rate and rank all applications they receive in order of priority. • Applications presented at local government council meeting. • Applications must be lodged at DLGSC regional offices by 4pm on the last working day of the month.	
April 2022	**September 2022**
• Applications are assessed by DLGSC regional managers.	
May/June 2022	**October/November 2022**
• Small Grants Committee considers applications and makes recommendations to the Minister. • Minister for Sport and Recreation considers recommendations and approves grants. • Successful/unsuccessful applicants notified.	
15 June 2023	**15 June 2023**
• Grant must be acquitted.	

Documentation information required for small grants and annual grants

Minimum requirements are noted below. Applicants may wish to supply additional relevant information.

Grants $2,500–$166,666 where the total project cost (GST exclusive) is $500,000 or less:

- Application form including responses to questions and the development bonus section if applicable.
- Incorporation certificate.
- Two written quotes. Quantity surveyor costs will be accepted however the responsibility lies with the applicant to ensure the validity of the information. DLGSC accepts no responsibility for cost variations to projects that were provided grants based on quantity surveyor costs. In remote isolated areas one quote may be considered but this must be discussed with DLGSC. Please note this does not remove the requirement to undertake the appropriate procurement process when undertaking the project.
- If your project involves the upgrade of an existing facility, include a photograph of this facility.
- Locality map, site map and building plans (in relevant constructions projects).
- Site and locality maps outlining where proposed facility is located in relation to other sport and recreation infrastructure (where applicable).
- Income and expenditure statement for the current and next financial years (local governments exempted). If applicable, provide a detailed breakdown of who, where, qualifications and cost of voluntary labour and donated materials.
- Itemised project cost of components including the relevant quote for each.
- Written confirmation of financial commitments from other sources including local government. This can be in the form of council minutes. Approval of other funding that is conditional upon CSRFF funding is not acceptable.
- For resurfacing projects, a written guarantee from the supplier of the product that clearly identifies the product's life expectancy.
- If your project is a floodlighting installation or upgrades, please ensure that the power supply is sufficient and no upgrade will be required. If upgrade is required and not budgeted for, the grant will immediately be withdrawn. A lighting plan must be supplied showing lux and configuration.

Additional documentation information required for forward planning projects

Grants $166,667–$2 million, where the total project cost (exclusive of GST) exceeds $500,000:

All of the above and:

- Needs analysis
- Concept design
- Locality map, site map and building plans (in relevant constructions projects) in A3 format
- Feasibility study
- Management plan
- Life cycle cost analysis.

Closing date

Planning for facility development and provision should be occurring over the long term. The submission period provides time to gather information into a format suitable for assessment. However, planning of the project must commence much earlier.

The closing date for submissions to the local government for annual and forward planning grants is likely to be the end of August. This gives applicants approximately three months to complete and submit their application from the time the round opens. The actual date may vary – please contact your local government to check the date. However, DLGSC must be allowed adequate time to make assessments.

The closing dates for submissions to the local government for small grants is the last working day of February

and July. Please contact your local government to verify the date.

The timetable allows one full month for the local government to process and assess all applications by the appropriate officer, and to be considered at a council meeting of that authority. Contact your local government to confirm this process.

DLGSC regional offices must receive local government assessed annual and forward planning grant applications, with council endorsement, no later than 4pm on 30 September 2021. The deadline for small grants is the last working day of March and August.

Late submissions or submissions made direct to DLGSC will not be considered for funding in that round.

Funding contributions from local governments and other funding agencies

Local governments should make a firm commitment to fund or not to fund a project before the application is submitted.

There is no obligation on local governments to make any contribution to a community group project. However, the State does take this into consideration when assessing the local government's support for the project. Lodging an application does not imply that a local government will provide funding assistance. Applicants must negotiate with local governments if they wish funding. Written confirmation of funding from a local government must be included with the application form. This can be in the form of council minutes.

The maximum CSRFF contribution will be up to one-third of the total eligible (GST exclusive) cost of a project, or the relevant development bonus percentage (up to a maximum of one half) up to a maximum grant of $2 million.

Any local government cash/labour/machinery/materials is to be costed as part of the applicant's cash contribution. However, certain services are considered to be part of the local governments normal function, i.e. shire engineers, administration or finance staff, and costs associated will not be recognised. Local governments will not be funded for planning projects which are undertaken by council staff.

Other State Government contributions i.e. Department of Education, Lotterywest and development commissions etc can be sourced and will be considered as part of the remaining project costs. The local community is expected to make a contribution for a project to meet local needs.

This policy facilitates the joint development of community facilities supported by a combination of State Government departments/agencies, e.g. a smaller community with limited cash resources may now plan for a dual use/joint provision facility using CSRFF, Department of Education and Lotterywest funding with the applicant funding the remainder.

State Government funding must not exceed 66.66% of the total project cost.

Private land

The Minister will not normally approve a grant towards a project to be established on privately owned land.

Note: In special circumstances, such as rural communities, a local landowner may donate a portion of their property for the sole purpose of public access to a sport and recreation facility. In this instance, evidence of the owner's agreement to public access onto the property for a period not less than the useful life of the investment is required in the form of a formal lease document. Evidence of approval from the local government is also required. Any such agreement must safeguard and return an appropriate level of funding to the State should public access cease.

Clubs that are exclusive (prohibitive membership costs) by definition if membership or use of the club's facilities is restrictive in any way will not be considered for funding. The onus is on the applicant to demonstrate that membership of the club is available to any member of the public.

It is unlikely that facilities will be developed on land owned by private education institutions.

Voluntary labour

Voluntary labour is work undertaken by people, without compensation or reward.

The value of work undertaken by volunteers can be included in the applicant's contribution. Voluntary labour is allowable up to $50,000 in value, however the grantee's cash contribution must match any non-cash contribution to the project.

Administration of projects, preparation of applications, claim forms, documentation, etc, is not recognised as a claimable item. In general local government staff hours will not be recognised.

Voluntary labour can be classified as follows:

Unskilled

General work is being undertaken where no recognised qualification is required. This includes work that is supervised by a skilled person and labourers.

Skilled

A person with a recognised qualification specific to the work to be undertaken, i.e. trades person, grader driver, truck driver, etc.

Professional

A person with a formal tertiary qualification specific to the work to be undertaken, i.e. architectural, legal, engineering, surveying work or similar.

Charge-out rates

- Unskilled voluntary labour is calculated at a rate no greater than $25 per hour.
- Skilled voluntary labour is calculated at a rate of up to $40 per hour.
- Professional voluntary labour is calculated at a rate of up to $60 per hour.
- Voluntary labour must be recorded on a Schedule of Voluntary Labour, which must be endorsed by the local government. This can be included as part of the overall project cost when making a claim.

Donated materials

Donated materials can be recognised as part of an applicant's contribution (see examples at the end of this section). Donated materials must be recorded on a Schedule of Donated Materials, which must be endorsed by the local government.

There is no limit on donated materials, however the applicant's non-cash contribution cannot exceed the applicant's cash contribution to the project.

Any local government cash/labour/machinery/materials is to be costed as part of the applicant's cash contribution, not as voluntary labour or donated materials. However, certain services are considered to be part of the local governments normal function, i.e. shire engineers and administration/finance staff, and costs associated will not be recognised.

Donated materials may not be recognised where:

- The donor is the supplier or contractor involved in the project. It is essential that the applicant completes a valid tender process before considering donations or discounts related to suppliers and contractors.

Note: If the supplier or contractor provides materials at the wholesale price or lower, then the difference between the retail price and the wholesale price may be recognised as a donation, (i.e. it has to be demonstrated that the donor is foregoing their profit component in favour of the applicant/project).

- The intent is to prevent suppliers or contractors simply scaling up components or project costs to secure a greater level of grant.
- The applicant is to provide satisfactory supporting evidence to establish the value of donated material, e.g. a letter or an invoice from the supplier stating the value of the donation and how or on what basis the valuation was made.
- Cash donations form part of a grantee's cash contribution.
- Donated land – neither a local government nor an applicant can claim donated land as part of their contribution.
- Land purchased by the applicant – the funds spent by an applicant on purchasing the land for the facility is not allowable as part of the applicants contribution.
- The donation is a sponsorship.

Examples of voluntary labour/donated materials

There are a variety of voluntary labour and/or donated materials combinations possible. Applicants must first estimate the total cost of the project and then work backwards to see if the method by which they intend to fund the project is allowable. The most important rules are:

1. CSRFF contribution will not exceed half of the GST exclusive project cost (or the percentage of funding approved as per application).
2. The applicant's non-cash contribution must be matched by the applicant's cash contribution. Local government donations in cash or kind are treated as cash contributions by the applicant.
3. Voluntary labour cannot exceed $50,000.

Use of private machinery

Contributions through the use of privately owned machinery such as trucks and loaders can be recognised as part of an applicant's contribution. In kind donations of such machinery must be recorded on a Schedule of Private Machinery Use, which must be endorsed by the local government.

There is no financial limit of the contribution of machinery towards a project, however, the applicant's non-cash contribution cannot exceed the applicant's cash contribution to the project.

Any local government machinery is to be costed as part of the applicant's cash contribution, not as private machinery use.

Private machinery contributions should be calculated at the local government rate applicable to the use of that machinery. Where no local government rate exists, grantees should liaise with DLGSC to determine an appropriate rate.

Requirements of the fund

For all grants, applicants are required to invite the relevant DLGSC regional manager to sit on any project management committee established. DLGSC shall have the right to request voting rights on any such committee.

Grant recipients agree to the establishment of continuing partnerships with DLGSC and shall assist government departments with any research, evaluation, promotion and usage of the project as requested.

All grant recipients are required to display signage in their project supported by DLGSC funding. See section on acknowledgement of State Government contribution on page 27.

Common questions on eligible items

In reference to the construction of new buildings or the extension of existing facilities it should be noted that:

i. Fixed equipment can only be funded when it is deemed to be part of the plant (e.g. pool filter or pool pump).

ii. Parks and playgrounds are not eligible for funding.

iii. Project management costs will not be recognised as a volunteer labour expense. This may be considered when an external consultant has been appointed and it has been identified in the original application.

Access on a short term and casual basis

Clubs must demonstrate equitable access to the public on a short term and casual basis.

The intention of this policy requirement is to ensure that State Government support through CSRFF is used to maximise participation and increase physical activity by the public in sport and recreation activities.

To that end, preference will be given to CSRFF applications which have well developed programs that provide entry level training for the respective activity both for seniors and juniors.

Participation in these training programs should not be dependent on membership of the club or association applying for the grant support.

Preference will also be given to clubs and associations that make CSRFF supported facilities available to non-club members (the general public).

It is the responsibility of the applicant to provide evidence of all such arrangements at the time of application. This may be in the form of an extract from the club constitution, and promotional material for courses, services, facility and equipment hire.

CSRFF and schools and tertiary institutions

DLGSC strongly supports the principles of joint provision and shared use of infrastructure for sport and recreation. As such, rational joint provision between local governments and schools will be considered. Public tertiary institutions are also eligible to apply for CSRFF support for the development of facilities for sport and recreation where it can be demonstrated that:

- Access to the facility, and for the serviceable life of the facility, is equitable for all members of the community, whether associated with the applicant organisation or not. (ie. Tertiary institution students, staff or graduates should not benefit from preferential pricing structures.).
- The project will increase broad based community participation and physical activity.
- The primary intent of the project is not to increase an institution's marketability to full fee paying students.
- The project for which application is made is consistent with the overall intent of the CSRFF program and conforms to CSRFF policy.

Onus of responsibility for demonstrating compliance with these requirements rests solely with the applicant organisation. DLGSC, at its absolute discretion, will determine the extent to which these requirements are addressed within any application for financial support.

Applications for developments on land owned by private schools are unlikely to be funded. In the rare event that such an approval was given, the security of public funding for the foreseeable life of the facility would need to be guaranteed.

DLGSC encourages applicants to review and utilise the Shared Use Guide available at **www.dlgsc.wa.gov.au/csrff**

Assessment process

Local government involvement in the assessment process

- The CSRFF application form must be submitted through the local government in which the project is located.
- Notwithstanding the difficulties associated with undertaking an assessment, the local government is also required to rate all applications received high, high/medium, medium, medium/low, and low or not recommended. This rating should reflect how worthwhile the project is and indicate its importance on its actual need and benefit to the community.
- The local government project assessment sheet is included in the application form.
- The local government is required to rank, in order of priority, all applications received from within its boundaries.
- The most important application is to be ranked priority number one. Two projects may not be equally ranked. All projects must be given a ranking priority.
- Where council does not wish to endorse a project or is of the opinion that an application has not satisfactorily addressed the key principles of facility provision, they should recommend that the project not be funded, or that it be resubmitted in a later funding round. The local government should state their reasons for the recommendation in the comments section on the project assessment sheet. Their comments are to be precise, relevant and presented as strongly as possible.
- No distinction should be made, in the ranking, between local governments, applicants, forward planning or annual projects.
- All local government rankings and ratings must be endorsed by council unless otherwise approved by DLGSC. A copy of council minutes confirming financial contribution (if any) must be included with the application form.
- Once the local government project assessment sheet is completed for each application, forward all information to the nearest DLGSC regional office by 4pm on 30 September 2021 for processing (or relevant CSRFF small grants deadline).

GST issues

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the Australian Taxation Office (ATO). Please note depending upon the value of the project and/or grant, the ATO may require than an organisation be registered for GST.

If the applicant is registered for GST, the grant is grossed up with the GST amount.

State Sporting Associations' involvement in assessment process

The SSAs will be approached to assess relevant application(s) and provide feedback to the Senior Project Manager – Community Investment.

- Notwithstanding the difficulties associated with undertaking an assessment, the SSA is required to rate all applications either high, high/medium, medium, medium/low, low or not recommended on the SSA project assessment sheet. This rating should reflect how worthwhile the project is and indicate its importance to the development of the sport/activity.
- Where the SSA is of the opinion that an application has not satisfactorily addressed the key principles of facility provision, they should recommend that the project not be funded, or that it be resubmitted in a later funding round. The SSA should state their reasons for not recommending the project in the comments section on the project assessment sheet.
- The SSA comments section on the SSA project assessment sheet allows their views to be presented as strongly as possible, be precise and relevant in your comments, e.g. "The project directly benefits junior hockey and softball –senior hockey and softball – senior cricket", or "Even though the facility is called a football pavilion, other groups such as women's aerobics and kindy-gym will have access to it accordingly a crèche or child minding facility has been incorporated in the plans."
- The SSA should pay particular attention to the technical specification outlined in the application to ensure that what is proposed complies with all current Australian Standards, conforms to the National Construction Code and code requirements for that sport/activity, represents good value for money and is appropriate.
- Where an applicant is a non-affiliated club the CSRFF Advisory Committee have requested strongly that comment and grading from the SSA are still completed. The SSA must comment on how they work with the applicant towards affiliation if relevant.
- A SSA list of priorities is also required. No distinction should be made, in the list, between local governments, applicants, forward planning or annual projects.
- The most important application is to be ranked priority number one. Two projects may not be equally ranked. All projects must be given a ranking priority.

CSRFF Advisory Committee

The Minister for Sport and Recreation appoints the CSRFF Annual and Forward Planning Advisory Committee each year. The committee consists of a broad range of sport and recreation stakeholders. The CSRFF Advisory Committee deliberations are expected to take one day.

The CSRFF Advisory Committee recommends to whom grants should be given, however, the final decision rests with the Minister. The CSRFF Advisory Committee through the Senior Project Manager – Community Investment may comment and/or suggest conditions related to why it wasn't funded, proportionally funded or fully funded.

The CSRFF Advisory Committee, after considering all available project assessments/ratings finalises a recommended schedule of grant offers which most effectively meet the CSRFF objectives. This schedule is then forwarded to the Minister to finalise grant offers.

Post-approval procedures

Local government involvement in post-approval procedures

- Local government successful projects to accept the grant agreement for each grant and forward to the nearest DLGSC office by the due date. Providing you agree to the conditions, and to avoid the possibility of forfeiting the grant, the grant agreement must be completed and returned to the nearest DLGSC office by the due date.
- Ensure that a building permit and/or certificate of occupancy is provided to grantees to allow them to acquit their grant.

Commencement of projects

Projects may commence as soon as the Minister/Premier has announced approvals, the grant agreement has been received by DLGSC regional office and all appropriate conditions have been met.

If a forward planning project has met all conditions it may commence before the year(s) in which the funds have been allocated, however funding is not guaranteed until the year of allocation. Past experience has demonstrated that early completion is unlikely.

Before calling for tenders or signing contracts, one copy of the final plans must be submitted to the nearest DLGSC regional office, together with any required supporting documentation, if the project has materially changed since the time of application. If it is not provided, DLGSC will assume that the funded project is consistent with the original submission. Any subsequent alterations or significant change of plans or specifications must also be submitted to DLGSC for approval from the Minister.

Procurement requirements for grants

To protect the State Government's investment in infrastructure associated with sport and recreation, and align the CSRFF with the State Government's strategic asset management principles, the following thresholds apply:

- Projects up to $50,000 must have been awarded on the basis that the Recipient obtained at least three (3) verbal quotes;
- Projects over $50,000 up to $250,000 must have been awarded on the basis that the Recipient obtained at least three (3) written quotes; and
- Projects over $250,000 must have been awarded after a public tendering process, and the Recipient must not "contract split" to avoid this requirement.

Claims and payments

Grantees are required to demonstrate that they have expended the funds equivalent to the full cost of project before CSRFF grants can be paid in full. CSRFF grants are paid to the grantee only. Applicants will need to ensure they are able to carry the full cost of the project for the period between project completion and CSRFF grant payment. Grants must be claimed by 15 June in the year of offer.

A grant may be claimed in full when the project is 100% completed, all payments have been acquitted and evidence of project completion has been forwarded to DLGSC, as appropriate.

or

Applicants are now able to claim 25% of their grant upon the signing of a major works contract. 50% of the grant may then be claimed once expenditure has reached 50%. The final 25% of the grant is to be claimed upon the completion of the project. It is important to note that the CSRFF program still primarily operates on a reimbursement basis. Grantees are required to demonstrate that the expenditure of funds has occurred prior to submitting a claim for payment.

or

Under the CSRFF Small Grants program applicants can receive an upfront grant payment upon the signing of a works contract (copy of signed contract to be provided to the department) or where no formal works contract exists, payment will be determined on a case by case basis in consultation with the applicant. Upon completion of a project the applicant will be required to acquit the grant by providing the CSRFF claim forms and sufficient evidence of expenditure. If the project is delivered under budget, then grant monies not expended will need to be returned to the Department.

or

Forward Planning Grants may arrange staged payments when at least three times the stage claim has been expended.

Claim requirements

- Work will only be recognised as part of the grant if it commences after the Minister's approval of CSRFF funds.
- Claims for payment will need to be supported with details (receipts) that satisfy audit requirements. This can be in the form of remittance advices, paid invoices, financial project management costings or bank statements. Refer to local government involvement in claims and payments on page 28. It is preferred if this information is provided to the department electronically via email **csrff@dlgsc.wa.gov.au**
- CSRFF grant paid will be up to a third of total project costs (or the funded development bonus percentage – the remaining costs may be a combination of payments to contractors and suppliers, volunteer labour and donated materials). The percentage of project cost eligible will be determined at the application stage.
- A claim form, schedule of voluntary labour and schedule of donated materials will be provided. Claims can only be made if you have accepted the terms and conditions of the grant. Voluntary labour cannot exceed $50,000. Refer to section on voluntary labour on pages 21 and 22.
- Grant payments will be made to the grant recipient only.
- Grant recipients are required to retain financial acquittal statements for at least three years following the date of final claim. The completed project may be randomly audited by DLGSC or the Office of the Auditor General and recipients agree to assist government departments with any research, evaluation, promotion and usage of the project as requested. Refer to the section local government involvement in claims and payments on page 28.
- Recognition of the State Government's contribution to the project is mandatory and appropriate display material will be supplied by the CSRFF program. Refer to the section acknowledgement of State Government contribution on page 30.
- Early claims for grants may be accepted subject to CSRFF cashflows and ministerial approval.
- Once a project is approved, it cannot change scope or location without consultation and written approval from DLGSC. Ministerial approval is required for any change of purpose to the originally approved grant.

Goods and Services Tax (GST)

Where the applicant organisation is an incorporated community group or a local government and is registered for GST, CSRFF grant payments will be grossed up by 10% of the grant amount. The Department will issue the grantee with a Recipient Created Tax Invoice (RCTI) with the grant payment.

Where the applicant organisation is an incorporated community group and is not registered for GST, CSRFF grant payments will not be grossed up by 10% of the grant amount.

Grant payments are payable to the applicant/grantee only. This may have taxation implications for grantees. If grantees wish specific advice relating to their grant, this can be obtained from the ATO. Please note depending upon the value of the project and/or grant, the ATO may require that an organisation be registered for GST.

Recipient Created Tax Invoices

With regard to Recipient Created Tax Invoices (RCTI), under the grant agreement, DLGSC and the grantee agree that:

1. The recipient can issue tax invoices in respect of the supplies.
2. The supplier will not issue tax invoices in respect of the supplies.
3. The supplier acknowledges that it is registered for GST when it enters into the agreement and that it will notify the recipient if it ceases to be registered.
4. The recipient acknowledges that it is registered when it enters into the agreement and that it will notify the supplier if it ceases to be registered for GST or if it ceases to satisfy any of the requirements of the Commissioner's determination of the classes of invoices that recipients may issue.
5. The recipient must not issue a document that would otherwise be a RCTI, on or after that date when the recipient or the supplier has failed to comply with any of the requirements of the Commissioner's

determination of the classes of invoices that recipients may issue.

Please note that depending on the value of the project and/or grant the ATO may require an organisation be registered for GST. Contact the ATO for further details.

Local government involvement in claims and payments

Grantee claims for payment must be endorsed by an authorised officer from the local government. This endorsement is to ensure that the applicant has completed the work described, for which the grant was approved, and where appropriate, complies with the local government's standards and by-laws.

Where voluntary labour or donated materials are involved, a Schedule of Voluntary Labour and/or Schedule of Donated Materials are also to be endorsed by that authorised officer. The endorsement confirms the council certifies that these schedules to be a fair and reasonable account of the value of the work performed and/or materials supplied.

Any local government cash/labour/machinery/materials is to be costed as part of the applicant's cash contribution, not as voluntary labour or donated materials. However, certain services are considered to be part of the local government's normal function, i.e. shire engineers and administration/finance staff, and costs associated will not be recognised. Only time worked in addition to standard local government worker hours will be eligible to be claimed. Any local government staff labour or materials must be clearly identified in the original application form to be eligible.

Unskilled voluntary labour should be calculated at a rate no greater than $25 per hour. Skilled labour can be calculated at a rate of up to $40 per hour, and labour donated by a professional can be calculated at a rate of up to $60 per hour. Voluntary labour must be recorded on a Schedule of Voluntary Labour, which must be endorsed by the local government.

A CSRFF grant will not exceed one-third of the completed cost of the project (or relevant development bonus percentage), or the maximum grant offered, whichever is the lesser. Payments will be paid to the grantee only via an EFT payment.

All technical aspects of the project will need to be checked and approved on the claim form by the local government to ensure that the project complies with standards outlined in the National Construction Code, industry standards, government regulations and local by-laws. Where applicable, local government's are required to forward a copy of their building permit and/or certificate of occupancy with the claims for payment.

For example, access for a person with a disability must be provided as per the National Construction Code (NCC). The *Disability Discrimination Act* (DDA) requires that people with disabilities be able to access any building that the public is entitled to enter and use, and access any services and facilities provided in those buildings. The DDA applies to commonwealth, State, and local government as well as the private sector, clubs and other entities.

The claim form and all supporting documentation is forwarded to the nearest DLGSC regional office. Local governments may also be requested to report on project benefits including jobs created, use of local content and actual project impact on physical activity.

Deferral of approved grant

Funds are allocated for a set period, after which the approval expires. Grantees have applied for money in a certain period and the onus is on them to complete the project within the set period.

Deferral is not automatic. Expiry of the grant offer is most likely to occur. Failure to adequately manage previous grants is part of assessment by DLGSC. A grantee is better to relinquish a grant early in the financial year and reapply in the next funding round than to allow expiry and involve DLGSC in protracted discussions.

The financial year in which funds are to be claimed should not be varied. In extraordinary circumstances, by consultation with the regional manager, an extension may be possible. A detailed explanation of circumstances is required. Grantees are expected to nominate a date by which the project will be completed or they will relinquish all claims to the grant. New project milestones need to be provided. A realistic finalisation date will be negotiated. Funds, which are not claimed within this time frame, may be withdrawn. Deferral is subject to approval by either the Senior Project Manager – Community Investment, the Director Infrastructure – Planning and Investment or the Minister.

Given the significant impact deferrals can have on the management of the fund, there is no guarantee that any deferral will be approved.

Deferral is not appropriate where the project has been completed and the grantee has simply not submitted claims and the necessary paperwork.

Deferral categories

The four (4) standard conditions for deferrals are:

1. The grantee has received substantially less than the grant applied for. A standard 12 month deferral on request may be permitted in these circumstances to allow for additional planning to take place (example $385,000 requested, $250,000 approved).
2. A natural occurrence (fire, flood, drought or like event) has rendered the project untenable in the year that funding was approved.
3. A significant change to a project which results in a far greater benefit to the community is proposed by the grantee (the onus is on the grantee to demonstrate the benefit. DLGSC can approve a deferral but not a change in purpose, a change in purpose requires Ministerial approval).
4. The project has been delayed but is commenced within the original year and will be completed early in the following year (a project should be substantially underway i.e. 50% or near 50% complete. Please include some detail as to the reason for the delay).

When a deferral is requested the following information must be provided in an email:

1. Details outlining the reasons for the delay and a request to defer funding.
2. Confirmation and approval of the final design of the facility.
3. A firm project timeline including a revised completion date which must be adhered to.
4. Confirmation that all planning and funding approvals have been obtained allowing the project to progress.

Acknowledgement of State Government contribution

The State Government, through DLGSC, provides a significant contribution to the sustainability and development of the sport and recreation industry. This is achieved through financial assistance and the provision of expertise, advice and services. It is important that successful grant applicants recognise the State Government during the funding relationship.

All successful grant applicants are required to abide by the grant acknowledgement requirements issued by DLGSC.

All material must contain the wording:

GOVERNMENT OF WESTERN AUSTRALIA Department of **Local Government, Sport and Cultural Industries**	**This community project was supported by the State Government through the Department of Local Government, Sport and Cultural Industries.**

Freedom of Information

DLGSC will adhere to the provisions of the *Freedom of Information Act 1992* in relation to requests for information originating in the Department. Information not originating in the Department but provided to the Department will not be released without prior consultation with the relevant organisation.

Privacy Act

All information provided to DLGSC and gathered during the grant assessment process will be stored on a database that will only be accessed by authorised department personnel. The database is subject to privacy restrictions in accordance with the *Privacy Act 1998* (Commonwealth) and the *Freedom of Information Act 1992*.

Planned approach to facility provision

Decision-making Guide for Community Facilities and Services

This decision making tool has been prepared to assist in determining the need for and feasibility of community and recreation services. It has been developed so that it can be used by planners or user groups with a range of skills and experiences.

Local and regional recreation plans, facility planning studies and physical activity strategy plans

CSRFF funding is available up to a maximum of $25,000 for facility planning studies, the development of local and regional recreation plans, and physical activity strategy plans. Local and regional planning exercises will essentially identify the recreation needs of the community, what opportunities exist in the community and what action is necessary to meet the needs identified. Ideally, local and regional plans will have been prepared prior to any detailed planning of a specific facility.

Community needs assessment

A community needs assessment is the vital first step in the facility planning process and it should be undertaken to determine:

- The potential need for a project which has been proposed or is being discussed within the community.
- To assess the sport and recreation needs of the community within a particular area.

Essentially, a needs assessment asks where we are now, where do we want to be and how do we get there.

Feasibility study

Depending on the complexity of the project, a feasibility study will be required. The maximum level of CSRFF funding for feasibility studies is $25,000. DLGSC funding for feasibility studies will be conditional on the DLGSC Regional Manager's participation on the project management committee and approval of the final study brief.

Costs for specific testing, as part of studies on particular types of facilities such as pools, specifically core testing of the pool bowl, will be included up to a maximum of $5,000. You must discuss these costs with your DLGSC Regional Manager to ensure they will be considered eligible.

No part of a CSRFF grant can be used to pay for development of an application for a CSRFF grant.

List of DLGSC publications

The following publications are available to assist you on the Department's website **www.dlgsc.wa.gov.au/csrff** or by contacting the department at **csrff@dlgsc.wa.gov.au.**

- Management Plan Guide
- Feasibility Study Guide
- Facility Planning Guide
- Life Cycle Cost Guidelines
- Asset Management Guide
- Decision Making Guide
- Needs Assessment Guide
- Case Studies
- Focus Papers
- Synthetic surfaces

GOVERNMENT OF WESTERN AUSTRALIA

Department of
Local Government, Sport and Cultural Industries

Department of Local Government, Sport and Cultural Industries

Perth office

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140 William Street
Perth WA 6000

Leederville office

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Community Sports & Recreation Facilities (CSRFF)
Small Grant Funding Policy

Objective

The objectives of this policy are to:

- Provide an equitable and transparent framework for the assessment and ranking of Grants in line with the Department of Local Government, Sporting and Cultural Industries (DLGSCI) CSRFF Small Grant Funding guidelines.
- Ensure all Capital Seed grant applications are considered as part of a strategic process to ensure the delivery of quality, sustainable facilities which align with the Councils strategic objectives.
- Provide a framework for the allocation of the Capital Seed Funds to assist with leveraging other funding opportunities and maximising the outcomes for the community.
- Provide a framework for the allocation of the Capital Seed Funds should an applicant be unsuccessful in their application to DLGSCI Small Grant Funding programs.
- Establish an assessment process that may be used to assess other project funding requests.
- Limit the City of Albany's contribution to grant eligible projects to 33% of the total project cost.

Policy Statements

The City of Albany recognises the importance of providing or facilitating physical activity opportunities through accessible, safe and affordable facilities that meet the identified needs of the community.

The City of Albany will encourage and promote physical activity through:

- The provision or facilitation of reserves and facilities for structured community sport and recreation.
- Providing support to sporting clubs.
- Promotion of joint provision of shared and multi-use community facilities.

The City of Albany's Capital Seed Fund aligns with the DLGSCI CSRFF Small Grant Funding guidelines by:

- Developing basic infrastructure for sport and recreation.
- Supporting an increase in participation in sport and recreation with an emphasis on physical activity, through rational development of good quality, well-designed and well-utilised facilities.
- Supporting joint provision and shared use of facilities.

A. Eligibility

Applicants for CSRFF Small Grant Funding programs must:

- Be either a Local Government Authority (LGA) or not for profit sport, recreation or community organisation.
- Be incorporated under the *Associations Incorporation Act 1987* (WA).
- Have an Australian Business Number (ABN).

Applicants for Capital Seed Funding must:

- Be a not for profit sport and recreation community organisation within the boundaries of the City of Albany municipality.
- Be incorporated under the *Associations Incorporation Act 1987* (WA).
- Have an ABN.
- Be applying for the DLGSCI Small Grants Round.
- Have discussed their project with the City's Recreation Services staff.

As per the CSRFF Guidelines the types of projects which will be strongly supported for Capital Seed Funds include:

- Upgrades and additions to existing facilities.
- Construction of new facilities to meet sport and active recreation needs.

- Lighting projects.
- Projects which are 'shovel ready'.

Priority will also be given to projects:

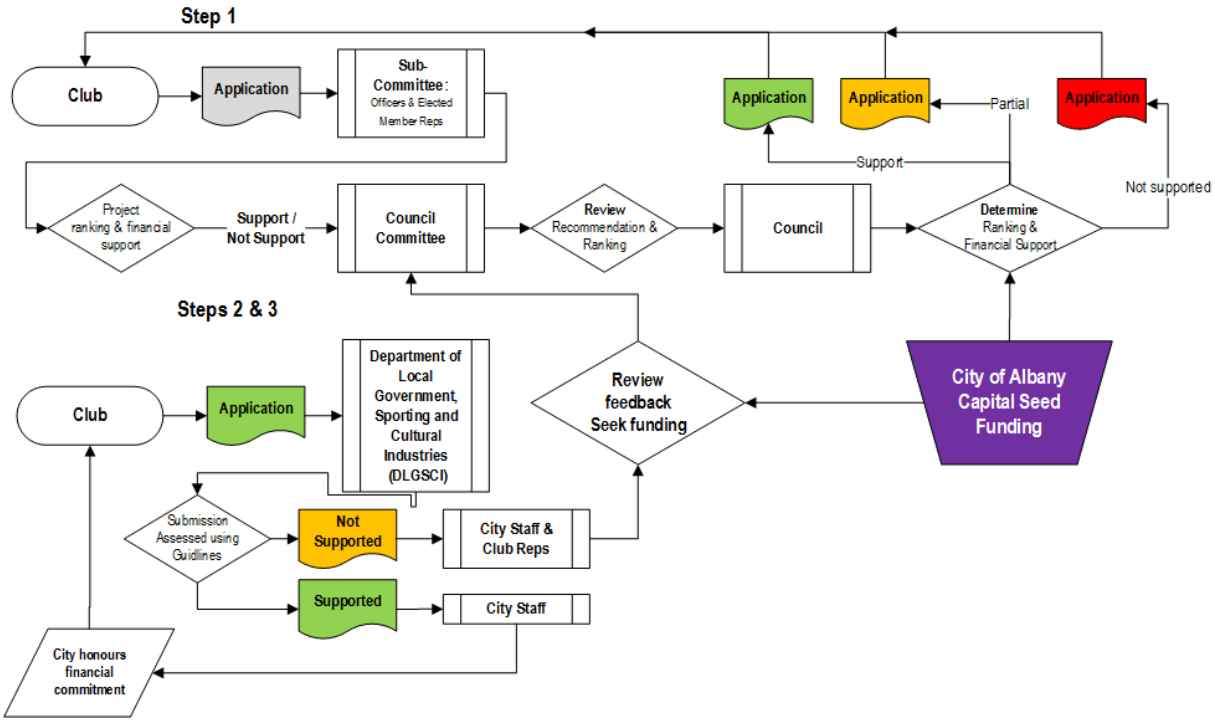
- Which lead to contemporary models of joint provision, facility sharing and rationalisation; and
- That clearly demonstrate that the project can be delivered and meets the CSRFF guidelines, clubs and communities expectations.

B. Financial Contribution

Local government is not obliged to contribute to any successful CSRFF grant.

Request for the Capital Seed Fund may be considered with the following conditions: Capital Seed Fund will only be awarded in support of successful CSRFF applications.

- Capital Seed Funding of a maximum of one third of the total estimated project costs (excluding GST), may be awarded to unsuccessful applicants providing that the applicant is able to source the remaining two thirds of the total estimated project costs (excluding GST) to enable completion of the project.
- The City's contribution will not exceed a maximum of one third of the total estimated project costs (excluding GST).
- If quotes are inaccurate applicants are responsible for sourcing additional costs.
- Applicants are responsible for understanding and managing the GST component of their grant application.
- Applicants must make at least one attempt to leverage CSRFF funding, and demonstrate that other alternate funding opportunities have been explored.



Application Process Map

D. Budget Allocation and Timeframe

The total Capital Seed Funds budget to be allocated each financial year to be determined on an annual basis by Council.

Unallocated Capital Seed Funds to be carried forward to the following financial year.

E. Out of Scope

It is not the intent of this policy to reference, influence or impact other funding or financial assistance programs delivered by the City, through City Business Units or other programs that may be delivered from time to time, however the assessment process may be used to assess other project funding categories (refer to: Definitions).

Legislative and Strategic Context

The CSRFF and Capital Seed Funds for community sport and recreation groups directly relate to the City of Albany Community Strategic Plan (As amended) as outlined in table below:

Strategic Plan Theme	Objective	Community Priorities
Health & Participation	*To develop and support a healthy inclusive and accessible community*	*Develop a range of activities and facilities that connect people, promote a healthy community and are appropriate for all ages.* *Community Sporting Infrastructure Support Programs (Capital Seed Funds).*

Responsibility and Policy Custodian Review Position and Date

Oversight and delivery of activity generated by this Policy is within the Community Services Directorate.

This policy and procedure is to be reviewed by the document owner every two years.

This forms part of the future Sport and Recreation Futures Plan suite of documents (2015 – 2030).

Associated Documents

All following documents relate to this policy:

- Sport and Recreation Futures Plan (2015 – 2030) – Working Draft
- DLGSCI CSRFF Guidelines and Application Form
- DLGSCI Project Assessment Sheet
- City of Albany Public Health Plan

Acronyms

CSRFF	Community Sport and Recreation Facility Fund
DLGSCI	Department of Local government, Sporting and Cultural Industries
SSA	State Sporting Association
LGA	Local Government Authority

Definitions: [1]

- **Health:** the World Health Organisation defines health as 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.' Health and wellbeing take into account the places people live and the policies that shape their lives, as well as the individual lifestyles people pursue.
- **Organised Sport and Recreation:** involves participation in fixtured sporting events (e.g. netball/hockey/football) or activities which require the supervision or expertise of an instructor (e.g. aerobics)
- **Sport Spaces:** provide a setting for formal structured activities. Sport spaces provide a venue for formal structured sporting activities such as team competitions, physical skill development and training. Sport spaces are designed to accommodate playing surface, buffer zones and infrastructure requirements of specific or general sporting activity. Players and spectators attend with the express purpose of engaging in organised sporting activity, training, and competition or watch the game. Most sport spaces can be accessed by community members for informal sport and recreation
- **Recreation:** an activity of leisure for free time often done for enjoyment and can be considered healthy, fun and social
- **Recreation Spaces:** Provide a setting for informal play and physical activity, relaxation and social interaction. Recreation spaces can be accessed by all to play, socialise, exercise, celebrate or participate in other activities that provide personal satisfaction or intrinsic reward.
- **Active Public Open Space:** typically provides for more formal recreational pursuits and organised sporting activities (e.g. ovals, soccer pitches, netball courts). Active spaces within parks may also be hard non-green spaces, such as basketball and tennis courts which are important facilities for physical activity and exercise
- **Incidental Activity:** includes active play and recreation, for example walking the dog, swimming, walking and cycling for recreation, walking for public transport.
- **Open Space Classification (from DLGSCI):** based on the function and catchment hierarchy. The function of the space refers to its primary use and expected activities:
    - Recreation spaces – provide a setting for informal play and physical activity, relaxation and social interaction
    - Sport spaces – provide a setting for formal structured sporting activities
- **Nature spaces:** provide a setting where people can enjoy nearby nature and protect local biodiversity and natural area values
- **Co-Location:** Locating/integrating two or more facilities on the same or adjacent sites
- **Facility Sharing:** Locating/integrating two or more groups which utilise the same facility and operate under a shared management structure.
- **Categorisation of Projects:**
    - **Small Grant Projects:** Value of total projects **up to $300,000**. Projects of this scale are usually local in scale, planning is generally simple and does not require a project/facility manager. The annual and forward planning grants are more complex, require greater planning and consideration through the annual budget process. The financial total project costs for these types of grants are beyond the budget allocation and scope of the capital seed funding policy.
    - **Annual Grants Projects:** Value of total project costs of between **$300,000 to $500,000**. Beyond the scope of the financial support provided through the Capital Seed Funding Allocation. Projects of this scale are usually of a district level, require significant planning and project management skills. Clubs engage more closely with local government authorities. Annual Grants Projects are usually considered during the Council budget process. Examples – Large floodlighting projects, clubroom upgrades, reticulation systems, and new playing services.
    - **Forward Planning Category**: Are complex projects with total project costs **over $500,000**. Complex projects of this nature are usually considered during the Council budget process. Example: Swimming pool, large synthetic fields, new clubrooms, and leisure/recreation centres.

[1] Healthy Active by Design www.healthyactivebydesign.com.au/

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City of Albany

STRATEGIC COMMUNITY PLAN 2032

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Back page: Lee Griffith

INTRODUCTION

Welcome to the City of Albany Strategic Community Plan 2032.

This plan has been developed with more than 1,400 community members and key partners to consider:

- Where are we now?
- Where do we want to be?
- How do we get there?

It follows the Integrated Planning and Reporting Framework guidelines and satisfies a legislative requirement for all local governments to have a plan to shape the future.

This plan describes:

- A future vision for the City of Albany
- How the City will achieve and resource its objectives
- How success will be measured and reported



The City of Albany respectfully acknowledges the Menang Noongar people as the traditional custodians of the land on which the city conducts its business, and pays respect to elders past and present.

Executive Message

We live in the best place in the world. There can be no doubt about that given the challenges we've faced and outcomes we've achieved as a community over the past four years.

When we undertook the last major review of our Strategic Community Plan in 2017, we could not have imagined the world as it is now. A global COVID-19 pandemic has tested our community's resilience, but also made us stronger.

While we have been very fortunate to avoid a serious outbreak of the virus here, our community's health and wellbeing has relied on following health advice and enduring lockdowns and restrictions that have kept us isolated from friends and loved ones, and the wider world.

But we've come together. We've supported each other. In true Albany community spirit, we've had each other's back, and that's minimised the pandemic's impact on us. We have had the health and wellbeing of our community front of mind, and as a local government, we've managed the impact of this crisis as well as anyone. It has given Albany a renewed sense of confidence and collective purpose.

The community confirmed this with feedback through the 2021 MARKYT® Community Scorecard, with over 1,400 survey participants ranking the City of Albany as the highest performing regional local government in Western Australia, and equal second of all 43 participating Western Australian local governments. That is an outstanding achievement for our City, but one of many.

We've led engagement with our Menang-Noongar community to achieve greater cultural acknowledgement and education by identifying 66 places of significance for dual-naming and progressing a submission to Landgate to formally recognise the names for the places that come under the City's management.

We've also collaborated with our local youth to adopt a 'Climate Change Action Declaration', acknowledging this issue is critical to our community's future and committing to a range of practical initiatives the City can do to reduce its carbon footprint.

The $38-plus million redevelopment of the Centennial Sporting Precinct has provided the region with state-of-the-art facilities to support sport and recreation participation and growth now and into the future.

Our 133-year-old Town Hall has been restored, with works returning parts of this iconic building to its former glory while also bringing it into the 21st century to allow the community to reconnect with this architectural masterpiece and serve as an arts and cultural hub within our city centre.

These just touch the surface of what we've achieved with our community over the past four years, and we want to continue that journey over the next four as we approach the 2026 Bicentenary – slated to be one of the City's biggest events yet.

Our community is inspired. Our Council is inspired. Our staff are inspired. Together we can continue to design the future of Albany, and this Strategic Community Plan is the roadmap toward that future.

Thank you to everyone that has contributed to the development of this new strategy. Your input and guidance will help us continue to achieve big things and be a community ***where anything is possible.***



Dennis Wellington
Mayor



Andrew Sharpe
Chief Executive Officer

ALBANY AT A GLANCE

Albany is situated on the south coast of WA in Noongar country, traditionally owned and occupied by the Menang People for more than 50,000 years.

Overlooking one of the world's most majestic and unique natural harbours, Albany is Western Australia's first European settlement. It is steeped in history, retaining strong connection to culture and heritage.

It has a unique chapter in the Anzac story as the place where more than 40,000 Anzacs gathered to sail for the battlefronts of World War I.

Buildings of historical significance can be found on almost every corner, such as the Town Hall (1888), Old Gaol (1852), Vancouver Arts Centre which was formerly a hospital (1887), Earl of Spencer Inn (1850), and St John's Church (1848).

With an estimated population of 38,296 people and growing, Albany is the administrative and service hub of the Great Southern region. By value added in 2019/20, the largest industries were 1) health care and social assistance, 2) agriculture, forestry and fishing, and 3) retail. In the 2016 ABS Census, most jobs were in health care and social assistance (15%), retail (14%), construction (10%), and education (9%).

The City of Albany covers a land area of 4,312 square kilometres and offers both urban and rural lifestyles. The City manages more than 1,600kms of road, 250kms of pathways, 438kms of roadside kerbing, and 35 hectares of irrigation in 360 gardens, playgrounds and sporting fields.

Diverse facilities such as a library, leisure and aquatic centre, airport, day care and visitor centre provide a broad range of services to the community.

The region's world-recognised biodiversity, combined with an award-winning National Anzac Centre, one of Australia's most important cultural destinations, boutique food and wine, whale watching, fishing, surfing and a range of engaging community events provide an envious lifestyle for locals and unique experiences for visitors.

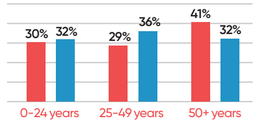
Population



37,285 → 38,296

Age Profile

(2016)



Median house price

(2020)



$411,949

WA: $465,312

Gross Regional Product

(June 2020)



$2.15 Billion

Annual change: +0.7%

Highest value industries

(2019/20)



Health care and social assistance

$226.9M



Agriculture, forestry and fishing

$157.9M



Retail

$139.6M

No. of businesses

(2020)



3,488

2017: 3,391
+1.03% growth

Unemployment rate

(Dec 2020)



3.6%

WA: 6.7%



Rated by the community as:

Top performing regional council

Source: 2021 MARKYT® Community Scorecard

Best performing services



Library

+



Sport and Recreation

+



History and Heritage

+



Parks and reserves

PRIORITIES

Priorities shift over time in response to what's happening locally and globally. To provide quality of life outcomes, the City of Albany must stay abreast of and adapt to changes in the political, environmental, social, technological, economic and legal landscape. We must also respond to changing community expectations.

Global Priorities

The United Nations Sustainable Development Goals (SDGs) have been politically committed to on the global stage by the Australian Government. Alignment and adoption by Local Governments is of great benefit as all levels of government have a shared responsibility in working towards the goals. This plan shows how the City of Albany's outcomes are aligned with 17 SDGs. Learn more about these goals at https://sdgs.un.org/goals.

	People	Planet	Place	Prosperity	Leadership
SUSTAINABLE DEVELOPMENT GOALS					

State Priorities

In 2020, the COVID-19 pandemic exposed worldwide vulnerabilities, drawing attention to the need for healthy communities and resilient economies. The State Government of Western Australia responded with a WA Recovery Plan. Learn more about the Government of Western Australia's priorities at www.wa.gov.au/government/wa-recovery.



People

- Supporting our most vulnerable
- Putting patients first

Planet

- Investing in renewable energy and new technologies
- Green jobs and environmental protection

Place

- Building infrastructure
- Maintenance blitz
- Major road construction
- Building community infrastructure
- Housing construction

Prosperity

- Driving industry development
- Unlocking future mining opportunities
- Revitalising culture and the arts
- Supporting small businesses
- Buying local
- Growing WA's food industries
- Investing in our tourism sector
- Boosting local manufacturing
- Rebuilding TAFE and reskilling our workforce
- Building schools for the future
- Unlocking barriers to investment

Learn more about the Government of Western Australia's priorities at www.wa.gov.au/government/wa-recovery.

Local Priorities

To understand local needs and priorities, the City of Albany commissioned an independent review. In March 2021, 1,429 community members completed a MARKYT* Community Scorecard.



* Kaizen = provide continuous improvement

People

1 Youth services and facilities
2 Family and children's services
3 Seniors' services, facilities and care
4 Disability access and inclusion
5 Aboriginal recognition and respect
6 Volunteer support and recognition
7 Community safety, crime prevention
8 Access to housing
9 Health and community services
10 Public health and wellbeing programs
11 Community buildings and halls
12 Public toilets
13 Sport and recreation
14 Playgrounds, parks and reserves
15 Library services
16 Festivals, events, art and culture
17 History and heritage
18 Animal management

Planet

19 Sustainability and climate action
20 Conservation and environment
21 Coastal and foreshore areas
22 Waste collection services
23 Natural disaster management

Place

24 Responsible growth and development
25 City centre development and activation
26 Traffic management
27 Parking management
28 Lighting of streets and public places
29 Sealed roads
30 Unsealed roads
31 Streetscapes, trees and verges
32 Footpaths and cycleways
33 Access to public transport
34 Marine facilities

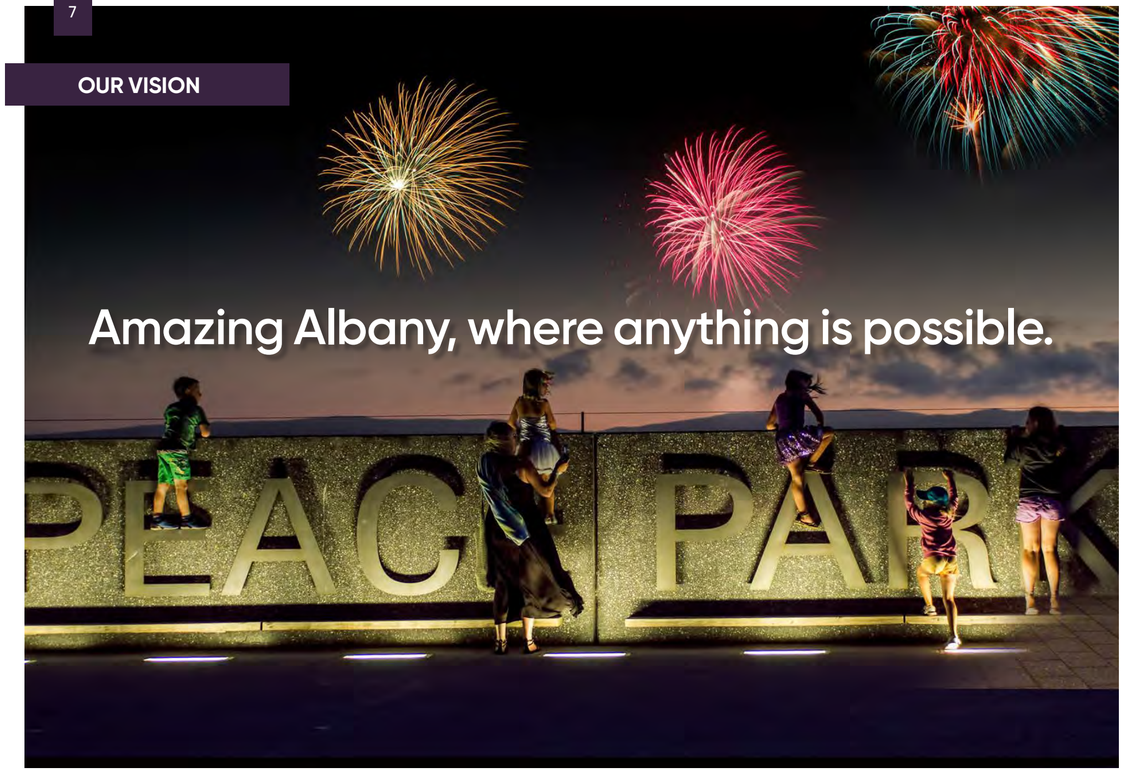
Prosperity

35 Economic development
36 Developing agricultural industries
37 Education and training opportunities
38 Tourism attractions and marketing

Leadership

39 Council's leadership
40 Advocacy and lobbying
41 Consultation
42 Communication
43 Customer service

OUR VISION



CITY OF ALBANY'S ROLE

The City of Albany is committed to working towards the vision and will do this by taking on six key roles. Driven by the situation, this will range from advocacy through to regulation. In instances where the City's sphere of influence is limited, the City will provide an advocacy role. Where the City is legally obligated to perform a certain function, it will fill a regulatory role. When a requirement is both within the City's remit and sufficient resources are available, the City will provide services, facilities and activities to meet community needs.

The City's role is clearly shown throughout the Strategic Community Plan and Corporate Business Plan with the first word of each action describing the City's role. A full list of supporting actions is provided in the Corporate Business Plan.

Advocate
We are a voice for the local community, promoting local interests in relation to environmental management, climate action, health, education, safety, public transport and more.

Facilitate
We help to make it possible or easier to meet community needs.

Fund
We help fund organisations to deliver essential community services.

Partner
We form strategic alliances in the interests of the community.

Provide
We provide a range of services and facilities to meet community needs, including town planning services, parks and gardens, playgrounds, sport and recreation facilities, library services, CCTV, lighting of streets and public places, ranger services, roads, paths and trails, environmental management, and much more.

Regulate
We regulate compliance with legislation and local laws related to town planning, animal management, public health, litter, noise, pollution, signage, parking, and much more.

Image Credit: Warren Bellette



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HOW TO READ THIS PLAN

Pillar. There are five pillars in the City of Albany - People, Planet, Place, Prosperity and Leadership.

PEOPLE

A welcoming, healthy and inclusive community, with pride in our rich history and heritage.

The **aspiration statement** describes a desired state that is important to and valued by the community.

Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
1 A diverse and inclusive community.	1.1 Provide facilities and services to meet the needs of families and young children. 1.2 Provide and promote services and programs that positively engage with and develop young people (12-25 years). 1.3 Provide and promote services and programs that support independence, connection, and quality of life for older people. 1.4 Improve access and inclusion for people with disability. 1.5 Grow recognition and respect for local Indigenous cultures.	
2 A happy, healthy and resilient community.	2.1 Improve access to quality health facilities, services and programs to achieve good general and mental health in the community. 2.2 Improve access to sport, recreation and fitness facilities and programs. 2.3 Grow participation in art, culture and community events. 2.4 Grow community capacity and belonging through volunteering.	
3 A safe community.	3.1 Encourage responsible animal management.	

Outcomes describe the desirable result or benefits to the community from delivering services, facilities, activities and projects.

Sustainable Development Goals help guide the City in identifying and achieving global sustainability outcomes at a local level.

Actions describe specific projects the City will undertake with consideration for community needs and resourcing constraints. A full list of actions is included in the Corporate Business Plan.

Performance Measures, current performance levels and target zones are provided in the MARKYT® Community Scorecard (see page 34).



PEOPLE

A welcoming, healthy and inclusive community, with pride in our rich history and heritage.

Current situation

The City of Albany is a recognised leader in recognising and respecting Aboriginal cultures and heritage, library services, community buildings, and public health and wellbeing programs.

Customer experiences are generally positive and have been improving over recent years. The areas attracting the highest ratings are the library, sport and recreation, playgrounds, parks and reserves, and how local history and heritage is preserved and promoted.

To address local needs, the community would like the City to focus on youth activities, seniors' services, sport and recreation, community safety, and public toilets. Concerns extend to homelessness, mental health, anti-social behaviour, and how to engage and retain volunteers in an ageing population. COVID-19 risks also remain top of mind.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the People aspiration and outcomes, including:

- Services and facilities for youth
- Services and facilities for children and families
- Services and facilities for seniors
- Disability access and inclusion
- Sport and recreation services
- Public health and wellbeing programs
- Albany Leisure and Aquatic Centre
- Albany Regional Day Care
- Festivals, events, art and culture
- Albany Public Library
- Vancouver Arts Centre
- National Anzac Centre
- Albany Heritage Park
- Volunteer support services
- Community safety and crime prevention
- Animal management

Recent highlights

Restoring Menang Noongar Boodja Place Names
The City of Albany partnered with the local Menang Noongar community and secured a Lotterywest grant to dual-name many landmarks with traditional Noongar place names.

#albanyinthistogether
The City launched the #albanyinthistogether website in response to COVID-19 to maintain community connection, sustain physical and mental health, and support local business. In the first year, the site attracted 9,178 unique visitors.

Youth Challenge Park
Nearing completion of the youth precinct with construction of a new pump track, skills park, dirt jumps, skate plaza, bowl and activity areas for all users and abilities.

Albany Town Hall Relaunch Festival
Showcased the refurbished town hall, supported local artists and connected community with two weeks of live music, visual art, dance, literature and theatre.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos









Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
1 **A diverse and inclusive community.**	1.1 Provide facilities and services to meet the needs of families and young children. 1.2 Provide and promote services and programs that positively engage with and develop young people (12-25 years). 1.3 Provide and promote services and programs that support independence, connection, and quality of life for older people. 1.4 Improve access and inclusion for people with disability. 1.5 Grow recognition and respect for local Indigenous cultures.	
2 **A happy, healthy and resilient community.**	2.1 Improve access to quality health facilities, services and programs to achieve good general and mental health in the community. 2.2 Improve access to sport, recreation and fitness facilities and programs. 2.3 Grow participation in art, culture and community events. 2.4 Grow community capacity and belonging through volunteering.	
3 **A safe community.**	3.1 Improve community safety. 3.2 Encourage responsible animal management.	

What we will do

Each year, the Council considers community needs and budget constraints and agrees on priority actions to complete. The City has an extensive list of actions and special projects in the Corporate Business Plan available at www.albany.wa.gov.au. Here's a sample of current commitments:

Advocate for more youth employment opportunities, including work experience, traineeships, apprenticeships, career development and business mentoring.

Advocate for affordable retirement accommodation in close proximity to activity centres and the CBD.

Advocate for a Centre for Art, Culture and Story to promote improved knowledge, understanding and respect for local Indigenous cultures and country.

Provide improved street lighting in priority areas.

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Image credit: Lee Griffith

PLANET

We are leaders in sustainability with a shared commitment to climate action and protecting our beautiful, natural environment.

Current situation

The City has nearly 19,000 hectares of open space that require responsible management for biodiversity, scenic beauty, local and visitor enjoyment, research, education and health.

Local risks and challenges include coastal erosion, extreme weather events, water supply, and increased pressure on natural assets from population and visitor growth. Community members are concerned about impacts from 4WDs, trail bikes, mountain bikes, horse-riding and hikers on nature reserves. They would like greater focus on conservation and environmental management.

Climate action is the top priority for the community. They would like greater promotion and adoption of sustainable practices, such as eco-building, solar panels, rain tanks, wave energy, electric vehicles, e-bikes, reduction in single use plastics, and more.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Planet aspiration and outcomes, including:

- Emergency services
- Environmental health
- Waste collection
- Hanrahan Waste Depot
- Sustainability and climate action
- Reserve management

Recent highlights

Climate Change Action Declaration
Developed and endorsed a Climate Change Action Declaration in partnership with Albany Youth Advisory Council which committed to actions such as developing emission reduction targets, transitioning the City's assets to 100% renewable energy, and developing a communications strategy that empowers the community to undertake climate change actions.

Waterwise
Saved 130,810 kLa of water in 2020 through promotion of water saving initiatives like the Shower Head Swap Program. The City was endorsed as a Gold Waterwise Council.

Circular economy
Saved 245 tonnes of waste from landfill by reselling unwanted goods at Fossicker's Tip Shop.

FOGO roll-out
Commenced Food Organics & Garden Organics residential bin collection system with the roll out of kitchen caddies, waste education and Australian standard bin lids. FOGO is expected to recover an additional 2,400 tonnes of organics for composting each year, in pursuit of the goal to divert 55% of Albany's waste from landfill by 2030.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.









Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
4 Sustainable management of natural areas; balancing conservation with responsible access and enjoyment.	4.1 Conserve and enhance the region's natural reserves. 4.2 Provide sustainable protection, adaption and enhancement of the coastline, rivers, floodplains, wetlands and estuaries.	
5 Shared responsibility for climate action.	5.1 Reduce water usage. 5.2 Work towards net zero greenhouse gas emissions. 5.3 Develop a sustainable, low waste, circular economy.	
6 A resilient community that can withstand, adapt to, and recover from natural disasters.	6.1 Increase community readiness and resilience to bushfires and floods.	

What we will do

Each year, the Council considers community needs and budget constraints and agrees on priority actions to complete. The City has an extensive list of actions and special projects in the Corporate Business Plan available at www.albany.wa.gov.au. Here's a sample of current commitments:

Provide a review of reserves that are suitable for recreational uses and how trails and parks may safely accommodate mixed uses.

Provide a Corporate Energy Plan to transition City assets to 100% renewable energy sources by 2030.

Partner with neighbouring local governments to work collaboratively on waste matters.

Facilitate promotion and adoption of Waterwise initiatives by the City and across the local community.

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PLACE

A responsibly planned city that is attractive, vibrant and well connected.

Current situation

Albany is characterised by low density residential development. The places where people live, work, shop and recreate are far from one another to the extent that public transport, walking and cycling are largely impractical. This is of concern to the community.

Local roads, footpaths and cycleways are high priority areas in the community's eyes. More funding is needed to address concerns with safety, connectivity and asset management. Integrated streetscape planning is needed to improve the function and appearance of local streets.

The community is also concerned with parking and access to public transport. More parking is wanted in the CBD and at the hospital, and there is need for more frequent bus services.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Place aspiration and outcomes, including:

- Town planning
- Asset management
- City centre development and activation
- Planning and building approvals
- Traffic management
- Parking management
- Roads
- Lighting
- Streetscapes, trees and verges
- Footpaths and cycleways
- Marine facilities

Recent highlights

Town centre enhancements
Completed extensive works on the Town Hall, Town Square, Library, Visitor Centre and Alison Hartman Gardens.

National Anzac Centre
Refreshed the National Anzac Centre including construction of a theatre and multimedia touch table. Received a TripAdvisor travellers' choice award in 2019 and in 2020 recognising it as being in the top 10% of all TripAdvisor listed properties.

Centennial Park Eastern Precinct
Opened the Eastern Precinct of Centennial Park which includes a major sports stadium equipped to host AFL fixtures.

Middleton Beach redevelopment
Progressed Middleton Beach redevelopment plans including construction of a swimming enclosure, building foreshore protection, and advancing plans for sustainable foreshore housing.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos









Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
7 Responsible growth, development and urban renewal.	7.1 Plan a compact city with diverse land, housing and development opportunities. 7.2 Plan for adequate utilities to support responsible growth.	
8 Interesting, vibrant and welcoming places.	8.1 Create vibrant, attractive and welcoming towns and activity centres. 8.2 Provide attractive, well maintained streetscapes, verges and trees. 8.3 Provide attractive and sustainable parks, playgrounds and reserves.	
9 Local history, heritage and character is valued and preserved.	9.1 Identify, preserve and showcase significant local history and heritage.	
10 A safe, sustainable and efficient transport network.	10.1 Improve road safety, connectivity and traffic flow. 10.2 Provide sufficient and affordable access to parking for residents, workers, visitors and ACROD permit holders. 10.3 Encourage more people to use active transport (walking and cycling). 10.4 Increase community and visitor use of public transport. 10.5 Improve access to marine, rail and aviation transport to support population growth, tourism and economic development.	

What we will do

Each year, the Council considers community needs and budget constraints and agrees on priority actions to complete. The City has an extensive list of actions and special projects in the Corporate Business Plan available at www.albany.wa.gov.au. Here's a sample of current commitments:

Facilitate the development of structure plans for strategic locations, including Centennial Park.

Provide a Public Open Space Strategy, addressing community needs for modern, imaginative, inclusive, all ages playgrounds and better facilities.

Advocate for funding and an upgrade of Albany Highway, Chester Pass and South Coast Highway, post completion of the Ring Road project.

Provide implementation of key actions arising from the City's Parking Strategy.

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PROSPERITY

A thriving city with an abundance of opportunities.

Current situation

7 in 10 local businesses consider Albany a good or excellent place to own or operate a business.

More work is needed to grow the local economy, attract and retain a diverse range of businesses, and manage the impacts of online shopping.

There is interest in positioning and growing Albany as a university town, with a diverse range of courses, student accommodation and youth employment opportunities.

Albany's majestic landscapes and rich history and heritage provide a strong and compelling offer to attract visitors. Albany is one point behind the industry leader for tourism, and 19 points clear of the industry average in the MARKYT® Community Scorecard.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Prosperity aspiration and outcomes, including:

- Economic development
- Albany Visitor Centre
- Albany Regional Airport
- Tourism attractions and marketing
- Education and training opportunities

Recent highlights

Film Friendly
The Council endorsed Albany as a Film Friendly City making it easier for Albany to be utilised as a filming location. 'H is for Happiness' and the children's television series 'Itch' and 'Itch 2' were filmed in Albany.

Regional airport
Secured state and federal government funding, and committed matched funding by the City, to commence necessary upgrades for the Albany Regional Airport.

Albany Visitor Centre
The Visitor Centre received 121,205 visitors in 2019, was a finalist in the 2019 Perth Airport WA Tourism Award for Visitor Information Services, and won silver at WA's Top tourism Town Awards.

Business Support
Developed a marketing campaign featuring local business owners to encourage residents to shop locally.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos









Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
11 A strong, diverse and resilient economy with work opportunities for everyone.	11.1 Attract, retain and support a diverse range of businesses and industries to grow the economy and create more local jobs. 11.2 Facilitate access to quality education, training and work opportunities.	
12 A highly sought-after tourist destination.	12.1 Create a competitive and sustainable tourism offer.	

What we will do

Each year, the Council considers community needs and budget constraints and agrees on priority actions to complete. The City has an extensive list of actions and special projects in the Corporate Business Plan available at www.albany.wa.gov.au. Here's a sample of current commitments:

Facilitate development of a regional economic development strategy in partnership with key stakeholders.

Partner with mining companies to position and promote Albany as an ideal location for FIFO workers and their families to live.

Facilitate positioning and promotion of Albany as a university town, with access to affordable student housing to attract and retain youth in Albany.

Image credits Top left and top right: Frances Andrijich, Australia's South West, Bottom left: Lee Griffith, Bottom right: UWA



LEADERSHIP

A well governed city that uses resources wisely to meet local needs.

Current situation

The City of Albany is well regarded as a governing organisation, scoring 62/100, up 7 points since 2019 and 7 points ahead of the industry average.

Council's leadership score is 56/100. Also up 7 points since 2019, and now 6 points ahead of the industry average.

Perceptions of value for money have improved 9 points, now 49/100 and 5 points ahead of the industry average.

To improve further, the community would like a strong and clear vision, and improved consultation and communication on key issues. People want to feel involved, listened to, and respected when decisions are made that impact their lives.

Risks and challenges to be addressed include digital transformation, managing social media, attracting good candidates for local elections, and balancing diverse community needs.

Services and facilities

The City will continue to develop its people and its culture to support achievement of Leadership outcomes:

- Council's leadership
- Advocacy and lobbying
- Governance
- Strategy and risk management
- Financial management
- Information technology
- Human resource management
- Work health and safety
- Community engagement
- Marketing and communications
- Customer service

Recent highlights

Strong results in MARKYT® benchmark program
The City is recognised as a local government leader in six performance areas and was the top performing regional council overall. We improved performance in 33 service areas between 2019 and 2021.

Customer Service Charter
Adopted a new Customer Service Charter with a commitment to complete business with customers during first contact, attend to in-person customers within five minutes, and call back customers within one working day.

Financial relief for those impacted by COVID-19
No rates increase for the 2019/20 financial year, rent concessions provided on City leased premises, and rate deferrals allowed for community members experiencing financial hardship to minimise the impacts of COVID-19.

Award winning communication
The "Your City" campaign introduced the City's workers and what they do for the community as workers and volunteers. The campaign won a *Best Communications Campaign Award* in 2020 from the Rural Media Association.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.









Our plan for the future

Outcomes	Objectives	SUSTAINABLE DEVELOPMENT GOALS
13 Proactive, visionary leaders who are aligned with community needs and values.	13.1 Provide strong, accountable leadership.	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 17 PARTNERSHIPS FOR THE GOALS
14 Strong workplace culture and performance.	14.1 Embrace innovation and best practice to improve business efficiencies and the customer experience. 14.2 Provide cost effective financial management and value for money. 14.3 Foster employee engagement and a positive workplace culture.	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
15 A well informed and engaged community.	15.1 Grow awareness, understanding and engagement in City projects, activities and decisions.	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

What we will do

Each year, the Council considers community needs and budget constraints and agrees on priority actions to complete. The City has an extensive list of actions and special projects in the Corporate Business Plan available at www.albany.wa.gov.au. Here's a sample of current commitments:

Provide a campaign to communicate a clear vision for Albany with regular progress reports on major projects.

Facilitate engagement with socially and culturally diverse groups to inform Council decisions.

Provide an evaluation framework and communication tools to demonstrate value for money from rates.

Fund an independent, biennial community survey to monitor changing community priorities, benchmark performance levels and identify service gaps.

Image credits Top left and bottom left: Lee Griffith, Top right: Krysta Guille

RESOURCING THE PLAN

Strong commitment to value

City services, facilities and special projects are funded through various revenue streams. This includes grants from Federal and State Government, funding from bodies such as Lotterywest, rates, fees and charges, and cash reserves. Long term financial planning and annual budgeting is undertaken to responsibly manage expenditure.

An effective workforce

With 335 employees and many contractors, the City is one of Albany's largest employers. The City has a strong focus on being inclusive and diverse. About 48% of the workforce is male and 52% female. The median age of the workforce is 46 years, with 5% aged 24 years or younger, and 38% aged 50 years or older. About 3% of workers are Indigenous people.

A large number of casual staff and volunteers contribute to making Albany amazing. We have hundreds of volunteer firefighters and people who help with local community events at Albany Heritage Park, Albany Public Library and more.

Learn more about our people and what they do by viewing the Your City videos at www.albany.wa.gov.au.

Directorate	Full time	Part Time	Total
Office of the CEO	9	1	10
Community Services	39	60	99
Infrastructure, Development and Environment	139	15	154
Corporate and Commercial Services	54	18	72
Total employees	**241**	**94**	**335**

Managing risk

Risk management is an essential process for avoiding unnecessary loss and service disruption, realising opportunities, and facilitating continuous improvement. The City of Albany's Risk and Opportunity Framework is aligned with the Australian Standard for Risk (AS/NZA ISO: 31000:2018). It details how risks are managed, including risk identification, mitigation, and reporting. Risks are reported to Council on a quarterly basis through the Audit and Risk Committee.

The City's current risks centre on:

1. Ensuring adequate Pandemic Response and Business Continuity Plans.
2. Promoting workplace health and safety, including continued access to Employee Assistance Programs.
3. Developing regional economic partnerships to improve outcomes for local producers and businesses.
4. Preserving and renewing critical infrastructure in a cost-effective manner.

Over the next two years, the focus for the City's Risk Management Team will be on consolidating the City's risk management processes into an enterprise-wide system, and educating risk practitioners on the process and benefits of organisational coordination through the Framework.



Image credit: Lex Porebski, GasgasLex Photos

DEVELOPING AND REPORTING

The Local Government Act 1995 requires all local governments to plan for the future. Council must adopt a Strategic Community Plan, Corporate Business Plan and Annual Budget. Planning must be integrated with asset management, workforce planning and long-term financial planning.

This Strategic Community Plan will have a minor review in two years, and a major review in four years. The Corporate Business Plan is reviewed annually.

When developing its plans, the City considers the Integrated Planning and Reporting Framework and Guidelines, as well as various informing strategies. Informing strategies cover asset management, workforce planning, financial planning, and specific areas of need and concern in the local community

In 2021, the City embraced the FUTYR® approach to strategic planning. This is a community-led, integrated and streamlined approach designed specifically for local government.



Community Engagement

The City expresses its deepest thanks to over 1,400 community members who helped review and develop the Strategic Community Plan and Corporate Business Plan. We heard from a diverse cross section of the community, including youth, families, seniors, people with disability, local businesses owners and managers, and representatives from local community organisations.

MARKYT® Community Scorecard
1,429 Community members

MARKYT® Community VoiceBank
88,147 Word count of ideas and suggestions

FUTYR® Community Workshop
78 Participants

In the 2021 MARKYT® Community Scorecard, the City of Albany moved up from middle of the range to equal second place for overall performance, and was the highest performing regional council.

MARKYT® Community Scorecard

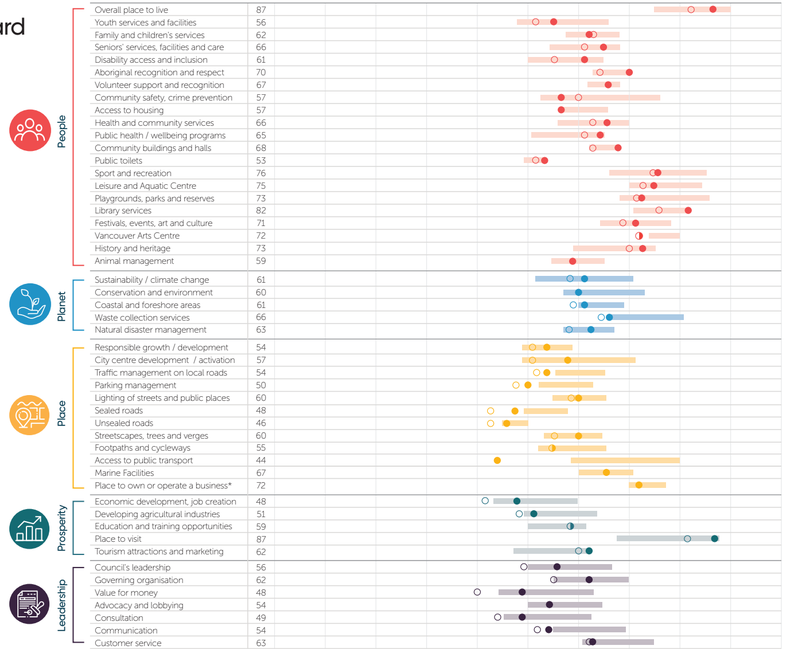
The City of Albany aims to participate in an independent study to monitor and benchmark performance every two years.

The City aims to be above the MARKYT® industry average and strives to be the industry leader in all areas.

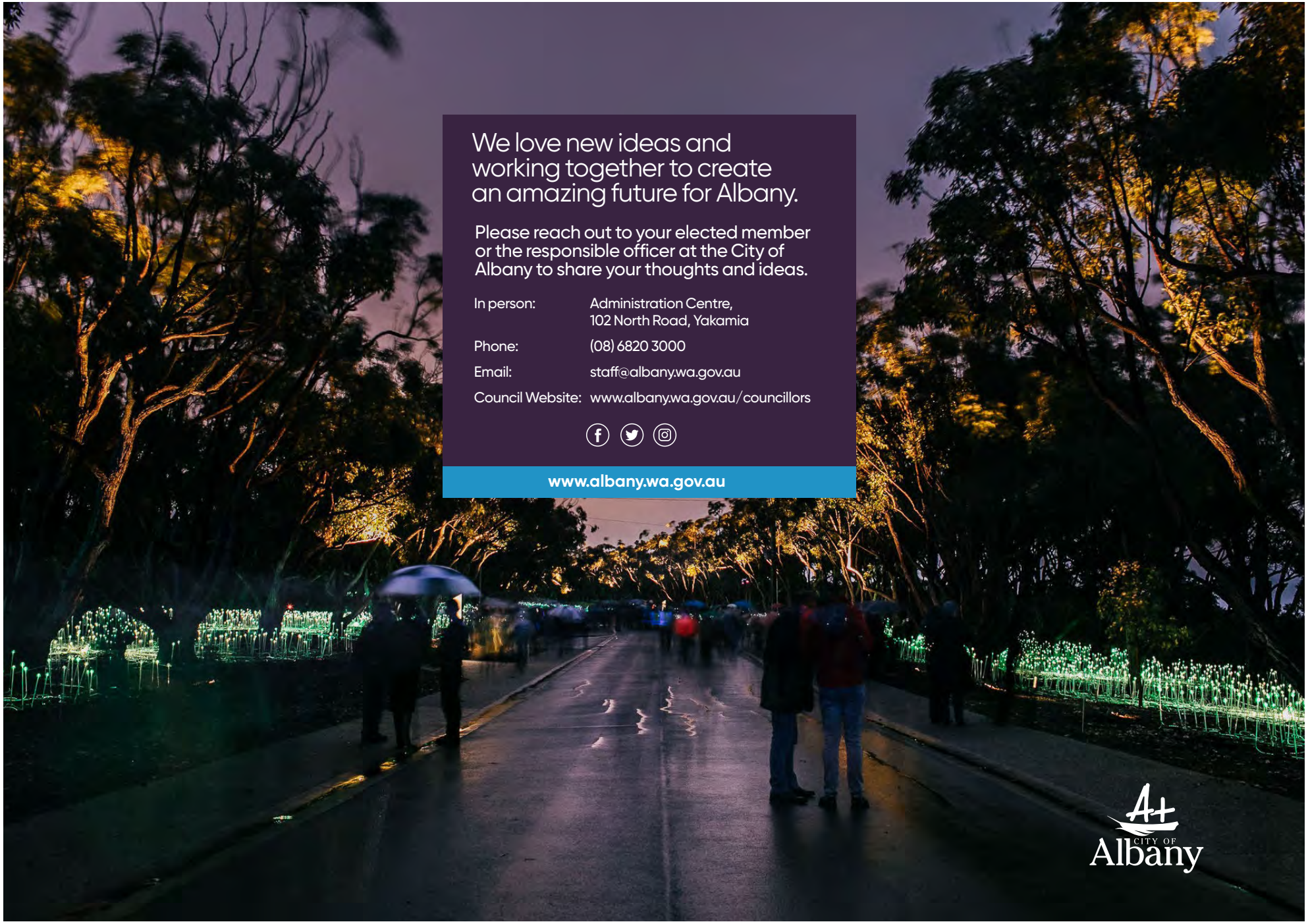
This chart shows the City's Performance Index Score out of 100 compared to the MARKYT® Industry Standards. The preferred target zone is shown as coloured bars.

LEGEND
- City of Albany 2021 performance score
- City of Albany 2019 performance score
- No change in performance from 2019 to 2021
- Target Zone. Shading shows industry average to industry high from MARKYT® Community Scorecard. For further information, visit www.catalyse.com.au/markyt.

2021 Performance Measures



*Based on responses from business owners and managers


We love new ideas and working together to create an amazing future for Albany.
Please reach out to your elected member or the responsible officer at the City of Albany to share your thoughts and ideas.
In person: Administration Centre, 102 North Road, Yakamia
Phone: (08) 6820 3000
Email: staff@albany.wa.gov.au
Council Website: www.albany.wa.gov.au/councillors
www.albany.wa.gov.au
CITY OF Albany



City of Albany

CORPORATE BUSINESS PLAN 2021-25

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Back page: Lee Griffith

INTRODUCTION

Welcome to the City of Albany Corporate Business Plan 2021-25.

This plan has been developed with more than 1,400 community members and key partners to consider:

- Where are we now?
- Where do we want to be?
- How do we get there?

It follows the Integrated Planning and Reporting Framework guidelines and satisfies a legislative requirement for all local governments to have a plan to shape the future.

This plan describes:

- A future vision for the City of Albany
- How the City will achieve and resource its objectives
- How success will be measured and reported



The City of Albany respectfully acknowledges the Menang Noongar people as the traditional custodians of the land on which the city conducts its business, and pays respect to elders past and present.

Executive Message

We live in the best place in the world. There can be no doubt about that given the challenges we've faced and outcomes we've achieved as a community over the past four years.

When we undertook the last major review of our Strategic Community Plan in 2017, we could not have imagined the world as it is now. A global COVID-19 pandemic has tested our community's resilience, but also made us stronger.

While we have been very fortunate to avoid a serious outbreak of the virus here, our community's health and wellbeing has relied on following health advice and enduring lockdowns and restrictions that have kept us isolated from friends and loved ones, and the wider world.

But we've come together. We've supported each other. In true Albany community spirit, we've had each other's back, and that's minimised the pandemic's impact on us. We have had the health and wellbeing of our community front of mind, and as a local government, we've managed the impact of this crisis as well as anyone. It has given Albany a renewed sense of confidence and collective purpose.

The community confirmed this with feedback through the 2021 MARKYT® Community Scorecard, with over 1,400 survey participants ranking the City of Albany as the highest performing regional local government in Western Australia, and equal second of all 43 participating Western Australian local governments. That is an outstanding achievement for our City, but one of many.

We've led engagement with our Menang-Noongar community to achieve greater cultural acknowledgement and education by identifying 66 places of significance for dual-naming and progressing a submission to Landgate to formally recognise the names for the places that come under the City's management.

We've also collaborated with our local youth to adopt a 'Climate Change Action Declaration', acknowledging this issue is critical to our community's future and committing to a range of practical initiatives the City can do to reduce its carbon footprint.

The $38-plus million redevelopment of the Centennial Sporting Precinct has provided the region with state-of-the-art facilities to support sport and recreation participation and growth now and into the future.

Our 133-year-old Town Hall has been restored, with works returning parts of this iconic building to its former glory while also bringing it into the 21st century to allow the community to reconnect with this architectural masterpiece and serve as an arts and cultural hub within our city centre.

These just touch the surface of what we've achieved with our community over the past four years, and we want to continue that journey over the next four as we approach the 2026 Bicentenary – slated to be one of the City's biggest events yet.

Our community is inspired. Our Council is inspired. Our staff are inspired. Together we can continue to design the future of Albany, and the Strategic Community Plan and Corporate Business Plan are the roadmap toward that future.

Thank you to everyone that has contributed to the development of these new plans. Your input and guidance will help us continue to achieve big things and be a community ***where anything is possible.***



Dennis Wellington
Mayor



Andrew Sharpe
Chief Executive Officer

ALBANY AT A GLANCE

Albany is situated on the south coast of WA in Noongar country, traditionally owned and occupied by the Menang People for more than 50,000 years.

Overlooking one of the world's most majestic and unique natural harbours, Albany is Western Australia's first European settlement. It is steeped in history, retaining strong connection to culture and heritage.

It has a unique chapter in the Anzac story as the place where more than 40,000 Anzacs gathered to sail for the battlefronts of World War I.

Buildings of historical significance can be found on almost every corner, such as the Town Hall (1888), Old Gaol (1852), Vancouver Arts Centre which was formerly a hospital (1887), Earl of Spencer Inn (1850), and St John's Church (1848).

With an estimated population of 38,296 people and growing, Albany is the administrative and service hub of the Great Southern region. By value added in 2019/20, the largest industries were 1) health care and social assistance, 2) agriculture, forestry and fishing, and 3) retail. In the 2016 ABS Census, most jobs were in health care and social assistance (15%), retail (14%), construction (10%), and education (9%).

The City of Albany covers a land area of 4,312 square kilometres and offers both urban and rural lifestyles. The City manages more than 1,600kms of road, 250kms of pathways, 438kms of roadside kerbing, and 35 hectares of irrigation in 360 gardens, playgrounds and sporting fields.

Diverse facilities such as a library, leisure and aquatic centre, airport, day care and visitor centre provide a broad range of services to the community.

The region's world-recognised biodiversity, combined with an award-winning National Anzac Centre, one of Australia's most important cultural destinations, boutique food and wine, whale watching, fishing, surfing and a range of engaging community events provide an envious lifestyle for locals and unique experiences for visitors.

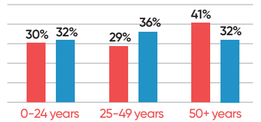
Population



37,285 → 38,296

Age Profile

(2016)



Median house price

(2020)



$411,949

WA: $465,312

Gross Regional Product

(June 2020)



$2.15 Billion

Annual change: +0.7%

Highest value industries

(2019/20)



Health care and social assistance	Agriculture, forestry and fishing	Retail
$226.9M	**$157.9M**	**$139.6M**

No. of businesses

(2020)



3,488

2017: 3,391
+1.03% growth

Unemployment rate

(Dec 2020)



3.6%

WA: 6.7%



Rated by the community as:

Top performing regional council

Source: 2021 MARKYT® Community Scorecard

Best performing services



PRIORITIES

Priorities shift over time in response to what's happening locally and globally. To provide quality of life outcomes, the City of Albany must stay abreast of and adapt to changes in the political, environmental, social, technological, economic and legal landscape. We must also respond to changing community expectations.

Global Priorities

The United Nations Sustainable Development Goals (SDGs) have been politically committed to on the global stage by the Australian Government. Alignment and adoption by Local Governments is of great benefit as all levels of government have a shared responsibility in working towards the goals. This plan shows how the City of Albany's outcomes are aligned with 17 SDGs. Learn more about these goals at https://sdgs.un.org/goals.

	People	Planet	Place	Prosperity	Leadership
SUSTAINABLE DEVELOPMENT GOALS					

State Priorities

In 2020, the COVID-19 pandemic exposed worldwide vulnerabilities, drawing attention to the need for healthy communities and resilient economies. The State Government of Western Australia responded with a WA Recovery Plan. Learn more about the Government of Western Australia's priorities at www.wa.gov.au/government/wa-recovery.



People

- Supporting our most vulnerable
- Putting patients first

Planet

- Investing in renewable energy and new technologies
- Green jobs and environmental protection

Place

- Building infrastructure
- Maintenance blitz
- Major road construction
- Building community infrastructure
- Housing construction

Prosperity

- Driving industry development
- Unlocking future mining opportunities
- Revitalising culture and the arts
- Supporting small businesses
- Buying local
- Growing WA's food industries
- Investing in our tourism sector
- Boosting local manufacturing
- Rebuilding TAFE and reskilling our workforce
- Building schools for the future
- Unlocking barriers to investment

Learn more about the Government of Western Australia's priorities at www.wa.gov.au/government/wa-recovery.

Local Priorities

To understand local needs and priorities, the City of Albany commissioned an independent review. In March 2021, 1,429 community members completed a MARKYT* Community Scorecard.



* Kaizen = provide continuous improvement

People

1 Youth services and facilities
2 Family and children's services
3 Seniors' services, facilities and care
4 Disability access and inclusion
5 Aboriginal recognition and respect
6 Volunteer support and recognition
7 Community safety, crime prevention
8 Access to housing
9 Health and community services
10 Public health and wellbeing programs
11 Community buildings and halls
12 Public toilets
13 Sport and recreation
14 Playgrounds, parks and reserves
15 Library services
16 Festivals, events, art and culture
17 History and heritage
18 Animal management

Planet

19 Sustainability and climate action
20 Conservation and environment
21 Coastal and foreshore areas
22 Waste collection services
23 Natural disaster management

Place

24 Responsible growth and development
25 City centre development and activation
26 Traffic management
27 Parking management
28 Lighting of streets and public places
29 Sealed roads
30 Unsealed roads
31 Streetscapes, trees and verges
32 Footpaths and cycleways
33 Access to public transport
34 Marine facilities

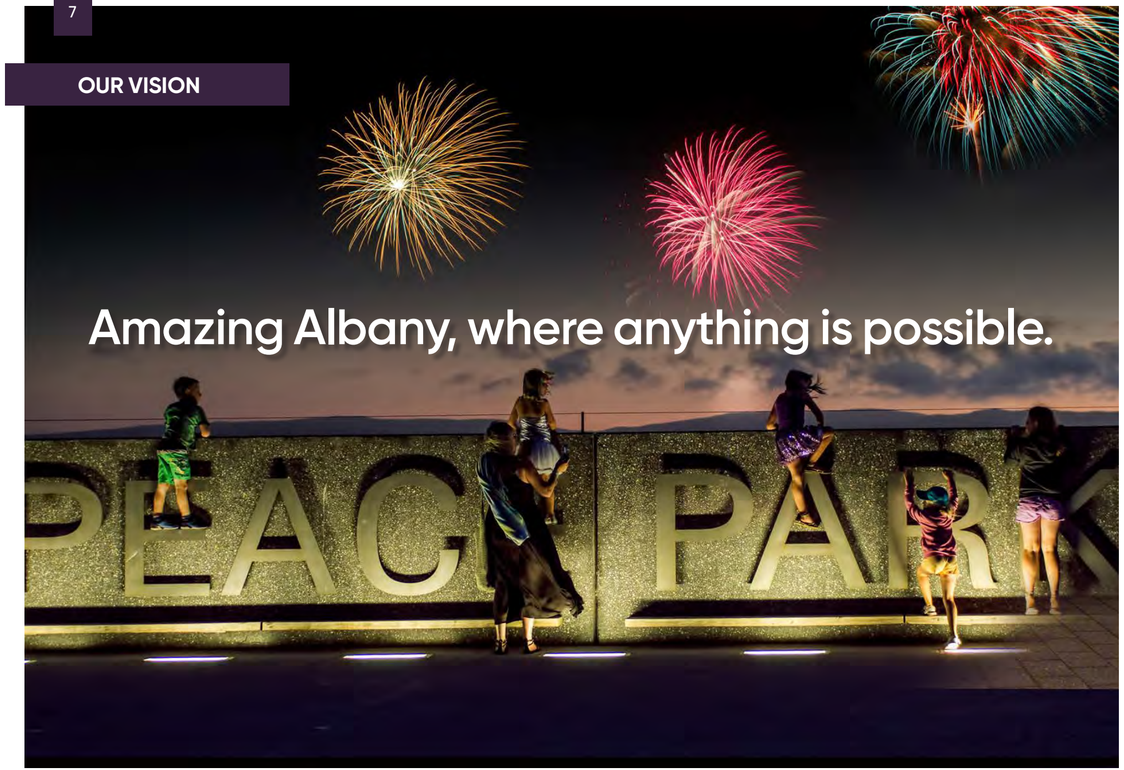
Prosperity

35 Economic development
36 Developing agricultural industries
37 Education and training opportunities
38 Tourism attractions and marketing

Leadership

39 Council's leadership
40 Advocacy and lobbying
41 Consultation
42 Communication
43 Customer service

OUR VISION



CITY OF ALBANY'S ROLE

The City of Albany is committed to working towards the vision and will do this by taking on six key roles. Driven by the situation, this will range from advocacy through to regulation. In instances where the City's sphere of influence is limited, the City will provide an advocacy role. Where the City is legally obligated to perform a certain function, it will fill a regulatory role. When a requirement is both within the City's remit and sufficient resources are available, the City will provide services, facilities and activities to meet community needs.

The City's role is clearly shown throughout the Strategic Community Plan and Corporate Business Plan with the first word of each action describing the City's role. A full list of supporting actions is provided in the Corporate Business Plan.

Advocate
We are a voice for the local community, promoting local interests in relation to environmental management, climate action, health, education, safety, public transport and more.

Facilitate
We help to make it possible or easier to meet community needs.

Fund
We help fund organisations to deliver essential community services.

Partner
We form strategic alliances in the interests of the community.

Provide
We provide a range of services and facilities to meet community needs, including town planning services, parks and gardens, playgrounds, sport and recreation facilities, library services, CCTV, lighting of streets and public places, ranger services, roads, paths and trails, environmental management, and much more.

Regulate
We regulate compliance with legislation and local laws related to town planning, animal management, public health, litter, noise, pollution, signage, parking, and much more.

Image Credit: Warren Bellette



Image credit: Lex Porelbski, GasgasLex Photos

HOW TO READ THIS PLAN

Pillar. There are five pillars in the City of Albany - People, Planet, Place, Prosperity and Leadership.

Outcomes describe the desirable result or benefits to the community from delivering services, facilities, activities and projects.

PEOPLE

A welcoming, healthy and inclusive community, with pride in our rich history and heritage.

The **aspiration statement** describes a desired state that is important to and valued by the community.

Sustainable Development Goals help guide the City in identifying and achieving global sustainability outcomes at a local level.

Our plan for the future

Outcome 1 - A diverse and inclusive community.

Objectives	Actions	Linked Strategies	Responsible	Timing 21-22	22-23	23-24	24-25
1.1 Provide facilities and services to meet the needs of families and young children.	1.1.1 **Advocate** for greater support, accommodation and services for families experiencing separation, disputes, domestic violence and homelessness.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
	1.1.2 **Facilitate** improved access to child development, care and support programs for families.	Public Health Plan	Manager Facilities	●	●	●	●
1.2 Provide and promote services and programs that positively engage with and develop young people (12-25 years).	1.2.1 **Facilitate** development of youth hang-out spaces in the City that are safe and cater to a diverse range of ages and interests.		Manager Community Relations	○	○	○	○
	1.2.2 **Partner** with Albany Youth Support Association, Headspace and other youth service providers to attract funding to extend youth services.		Manager Community Relations	●	●	●	●
	1.2.3 **Advocate** for youth agencies and local schools to collaborate to improve access to support programs for at-risk youth.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
	1.2.4 **Partner** with youth agencies and young people to fund and deliver activities and events for young people.	Youth Friendly Albany Strategy	Manager Community Relations	○	○	○	○
	1.2.5 **Partner** with service providers to deliver an expanded program of free and affordable after school and school holiday activities for children and young people.		Manager Recreation Services	○	○	○	○
	1.2.6 **Advocate** for more youth employment opportunities, including work experience, traineeships, apprenticeships, career development and business mentoring.	People Strategy; Youth Friendly Albany Strategy	Manager Community Relations	●	●	●	●
	1.2.7 **Partner** with community groups to provide youth-focused music and film development opportunities.		Manager Arts and Culture	●	○	○	○

Objectives describe what the City will strive to attain to support achievement of the outcome.

Actions describe specific projects the City will undertake with consideration for community needs and resourcing constraints.

Linked strategies provide further information about how objectives and actions will be achieved.

Responsible indicates the position that is responsible for action.

Timing shows when an action is planned to take place. A closed circle means the action is fully resourced. An open circle means additional funding is required.



PEOPLE

A welcoming, healthy and inclusive community, with pride in our rich history and heritage.

Current situation

The City of Albany is a recognised leader in recognising and respecting Aboriginal cultures and heritage, library services, community buildings, and public health and wellbeing programs.

Customer experiences are generally positive and have been improving over recent years. The areas attracting the highest ratings are the library, sport and recreation, playgrounds, parks and reserves, and how local history and heritage is preserved and promoted.

To address local needs, the community would like the City to focus on youth activities, seniors' services, sport and recreation, community safety, and public toilets. Concerns extend to homelessness, mental health, anti-social behaviour, and how to engage and retain volunteers in an ageing population. COVID-19 risks also remain top of mind.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the People aspiration and outcomes, including:

- Services and facilities for youth
- Services and facilities for children and families
- Services and facilities for seniors
- Disability access and inclusion
- Sport and recreation services
- Public health and wellbeing programs
- Albany Leisure and Aquatic Centre
- Albany Regional Day Care
- Festivals, events, art and culture
- Albany Public Library
- Vancouver Arts Centre
- National Anzac Centre
- Albany Heritage Park
- Volunteer support services
- Community safety and crime prevention
- Animal management

Recent highlights

Restoring Menang Noongar Boodja Place Names
The City of Albany partnered with the local Menang Noongar community and secured a Lotterywest grant to dual-name many landmarks with traditional Noongar place names.

#albanyinthistogether
The City launched the #albanyinthistogether website in response to COVID-19 to maintain community connection, sustain physical and mental health, and support local business. In the first year, the site attracted 9,178 unique visitors.

Youth Challenge Park
Nearing completion of the youth precinct with construction of a new pump track, skills park, dirt jumps, skate plaza, bowl and activity areas for all users and abilities.

Albany Town Hall Relaunch Festival
Showcased the refurbished town hall, supported local artists and connected community with two weeks of live music, visual art, dance, literature and theatre.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos

Our plan for the future

Outcome 1 - A diverse and inclusive community.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
1.1 Provide facilities and services to meet the needs of families and young children.	1.1.1 **Advocate** for greater support, accommodation and services for families experiencing separation, disputes, domestic violence and homelessness.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
	1.1.2 **Facilitate** improved access to child development, care and support programs for families.	Public Health Plan	Manager Facilities	●	●	●	●
1.2 Provide and promote services and programs that positively engage with and develop young people (12-25 years).	1.2.1 **Facilitate** development of youth hang-out spaces in the City that are safe and cater to a diverse range of ages and interests.		Manager Community Relations	○	○	○	○
	1.2.2 **Partner** with Albany Youth Support Association, Headspace and other youth service providers to attract funding to extend youth services.		Manager Community Relations	●	●	●	●
	1.2.3 **Advocate** for youth agencies and local schools to collaborate to improve access to support programs for at-risk youth.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
	1.2.4 **Partner** with youth agencies and young people to fund and deliver activities and events for young people.	Youth Friendly Albany Strategy	Manager Community Relations	○	○	○	○
	1.2.5 **Partner** with service providers to deliver an expanded program of free and affordable after school and school holiday activities for children and young people.		Manager Recreation Services	○	○	○	○
	1.2.6 **Advocate** for more youth employment opportunities, including work experience, traineeships, apprenticeships, career development and business mentoring.	People Strategy; Youth Friendly Albany Strategy	Manager Community Relations	●	●	●	●
	1.2.7 **Partner** with community groups to provide youth-focused music and film development opportunities.		Manager Arts and Culture	●	○	○	○

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 1 - A diverse and inclusive community (continued).

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
1.3 Provide and promote services and programs that support independence, connection, and quality of life for older people.	1.3.1 **Facilitate** affordable retirement accommodation in close proximity to activity centres and the CBD.	Age Friendly Albany	Manager Planning and Building Services	●	●	●	●
	1.3.2 **Advocate** for aged care programs, including Alzheimer's care, respite, and in-home care.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
	1.3.3 **Facilitate** the creation and promotion of seniors' clubs and programs to improve access to affordable activities.	Age Friendly Albany	Manager Recreation Services	●	●	●	●
	1.3.4 **Advocate** for better public transport to improve senior access to the city centre.	Age Friendly Albany	Manager Community Relations	●	●	●	●
1.4 Improve access and inclusion for people with disability.	1.4.1 **Advocate** for the development of specialist disability housing and care services.		Manager Community Relations	●	●	●	●
	1.4.2 **Advocate** for improved access to services, places and facilities for people with a disability.	Access & Inclusion Plan	Manager Community Relations	●	●	●	●
	1.4.3 **Advocate** for more support for carers.	Compassionate Albany Charter	Manager Community Relations	●	●	●	●
1.5 Grow recognition and respect for local Indigenous cultures.	1.5.1 **Advocate** for a Centre for Art, Culture and Story to promote improved knowledge, understanding and respect for local Indigenous cultures and country.		Executive Director Community Services	●	●	●	●
	1.5.2 **Facilitate** promotion of Noongar culture and language by providing name replacements or dual naming, and cultural interpretative signage in significant landmarks.	Natural Reserves Strategy & Action Plan	Manager Community Relations	○	○	○	
	1.5.3 **Facilitate** engagement with the Noongar community to identify key projects as part of the Bicentennial Project.		Manager Community Relations	○	○	○	○
	1.5.4 **Facilitate** artwork that depicts local Aboriginal culture.		Manager Arts and Culture	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 2 - A happy, healthy and resilient community.



Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
2.1 Improve access to quality health facilities, services and programs to achieve good general and mental health in the community.	2.1.1 **Advocate** for improved health services.	Compassionate Albany Charter	Mayor and Councillors	●	●	●	●
2.2 Improve access to sport, recreation and fitness facilities and programs.	2.2.1 **Advocate** for State Government funding and development of a Tennis Centre.		Manager Recreation Services	●			
	2.2.2 **Provide** a feasibility study for Albany Leisure and Aquatic Centre upgrades.		Manager Recreation Services	●			
	2.2.3 **Facilitate** Albany Motorsports Park.	Albany Local Planning Strategy	Manager Major Projects	○	○		
	2.2.4 **Advocate** for an artificial surf reef.	Albany Artificial Surf Reef Executive Business Case	Manager Major Projects		○	○	
	2.2.5 **Partner** with community groups and stakeholders to provide outdoor recreation programs that are inclusive and respond to participation barriers.	Recreation Planning Strategy: Great Southern Outdoor Recreation Strategy	Manager Recreation Services	●	○	○	○
	2.2.6 **Partner** with community groups and services to provide social inclusion programs that are inclusive and respond to participation barriers.		Manager Arts and Culture	●	○	○	○
2.3 Grow participation in art, culture and community events.	2.3.1 **Provide** support for rural communities to upgrade and activate rural halls and reserves.	Community Development Strategy	Manager Community Relations	●	●	●	●
	2.3.2 **Provide** access to art and cultural activities through outreach programs or in alternative formats.		Manager Arts and Culture	○	○	○	○
2.4 Grow community capacity and belonging through volunteering.	2.4.1 **Facilitate** networking between community groups and organisations in need of volunteers to grow volunteering.		Manager Community Relations	●	●	●	●
	2.4.2 **Facilitate** an incentives program to attract and retain volunteers.		Manager Community Relations	●	●	●	●

Outcome 3 - A safe community.



Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
3.1 Improve community safety.	3.1.1 **Advocate** for State Government funding to address community safety issues.	Safer Albany Plan	Mayor and Councillors	●	●	●	●
	3.1.2 **Provide** improved street lighting in priority areas. Priority areas for consideration include: CBD, Middleton Beach, Frenchman Bay Road, Lockyer, Emu Point, other outer suburbs, South Coast Hwy, carparks, and around business and commercial areas.		Manager Engineering and Sustainability	●	●	●	
	3.1.3 **Provide** a communications campaign to manage perceptions of community safety and raise awareness of crime prevention initiatives.	Safer Albany Plan	Manager Community Relations	●	●	●	●
3.2 Encourage responsible animal management.	3.2.1 **Facilitate** a reduction in nuisance dogs through responsible owner education, improved signage, easier reporting of complaints, more timely investigation of complaints, fines, etc.		Manager Public Health and Safety	●	●	●	●
	3.2.2 **Facilitate** a reduction in stray and wandering cats through responsible owner education, cat registrations, cat trapping, more timely investigation of complaints, fines, etc.		Manager Public Health and Safety	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)



Image credit: Lee Griffith

PLANET

We are leaders in sustainability with a shared commitment to climate action and protecting our beautiful, natural environment.

Current situation

The City has nearly 19,000 hectares of open space that require responsible management for biodiversity, scenic beauty, local and visitor enjoyment, research, education and health.

Local risks and challenges include coastal erosion, extreme weather events, water supply, and increased pressure on natural assets from population and visitor growth. Community members are concerned about impacts from 4WDs, trail bikes, mountain bikes, horse-riding and hikers on nature reserves. They would like greater focus on conservation and environmental management.

Climate action is the top priority for the community. They would like greater promotion and adoption of sustainable practices, such as eco-building, solar panels, rain tanks, wave energy, electric vehicles, e-bikes, reduction in single use plastics, and more.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Planet aspiration and outcomes, including:

- Emergency services
- Environmental health
- Waste collection
- Hanrahan Waste Depot
- Sustainability and climate action
- Reserve management

Recent highlights

Climate Change Action Declaration
Developed and endorsed a Climate Change Action Declaration in partnership with Albany Youth Advisory Council which committed to actions such as developing emission reduction targets, transitioning the City's assets to 100% renewable energy, and developing a communications strategy that empowers the community to undertake climate change actions.

Waterwise
Saved 130,810 kLa of water in 2020 through promotion of water saving initiatives like the Shower Head Swap Program. The City was endorsed as a Gold Waterwise Council.

Circular economy
Saved 245 tonnes of waste from landfill by reselling unwanted goods at Fossicker's Tip Shop.

FOGO roll-out
Commenced Food Organics & Garden Organics residential bin collection system with the roll out of kitchen caddies, waste education and Australian standard bin lids. FOGO is expected to recover an additional 2,400 tonnes of organics for composting each year, in pursuit of the goal to divert 55% of Albany's waste from landfill by 2030.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.









Our plan for the future

Outcome 4 - Sustainable management of natural areas; balancing conservation with responsible access and enjoyment.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
4.1 Conserve and enhance the region's natural reserves.	4.1.1 **Provide** a review of reserves that are suitable for recreational uses and how trails and parks may safely accommodate mixed uses. Update Local Laws and the Local Planning Scheme, accordingly, to assist with sustainable land management and conservation.	Albany Local Planning Strategy; Natural Reserves Strategy & Action Plan	Manager City Reserves	●	●		
	4.1.2 **Partner** with key stakeholders to implement the Great Southern Regional Trails Master Plan.		Manager Major Projects	○	○		
	4.1.3 **Provide** a Trails Hub Centre at the Albany Visitor Centre.	Trails Hub Strategy	Manager Major Projects	●			
	4.1.4 **Provide** trail construction and improvements at Poikeclerup, subject to grant funding.	Trails Hub Strategy	Manager Major Projects	○	○		
	4.1.5 **Provide** an upgrade to facilities at Mutton Bird reserve, subject to needs analysis and grant funding.	Natural Reserves Strategy & Action Plan	Manager City Reserves	●			
	4.1.6 **Provide** trail construction and upgrades at Lake Seppings, subject to needs analysis and grant funding.	Natural Reserves Strategy & Action Plan	Manager City Reserves	●			
	4.1.7 **Provide** implementation of the Mounts Master Plan, including the Regional Botanical Gardens.	The Mounts Master Plan	Manager Major Projects	○	○	○	○
	4.1.8 **Facilitate** development of a trail connecting Mt Adelaide to Middleton Beach.		Manager Major Projects	●	●	●	
	4.1.9 **Facilitate** a review of horse friendly exercise areas.	Trails Hub Strategy	Manager Recreation Services	●			
	4.1.10 **Facilitate** community education around safe and responsible use of shared trails and paths.		Manager City Reserves	●	●	●	●
4.2 Provide sustainable protection and enhancement of the coastline, rivers, floodplains, wetlands and estuaries.	4.2.1 **Provide** implementation of the Emu Beach Foreshore Management Plan.	Emu Point to Middleton Beach Coastal Hazard Risk Management Adaption Plan; Strategic Asset Management Plans (Transport, Building, Stormwater, Managed Space)	Manager Major Projects	○	○	○	○
	4.2.2 **Facilitate** access to funding to develop, and implement, Coastal Hazard Risk Management Adaptation Plans for priority areas, including Princess Royal Harbour, Oyster Harbour, Goode Beach and the Whaling Station area.	Albany Local Planning Strategy	Manager Building and Planning Services		○	○	○
	4.2.3 **Regualate** the use of vehicles on beaches to protect coastal areas, with more ranger patrols.		Manager Public Health and Safety	●	●	●	●
	4.2.4 **Provide** community and visitor education to encourage the safe, responsible and sustainable use of reserves, beaches and other natural environments.		Manager City Reserves	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Image credits Top left and top right: Frances Andrijich, Australia's South West, Bottom left: Alex Gott-Cumbers

Outcome 5 - Shared responsibility for climate action.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
5.1 Reduce water usage.	5.1.1 **Provide** a Water Management Plan.	Carbon Footprint Reduction Strategy, Stormwater Strategy	Manager Engineering and Sustainability	●	●		
	5.1.2 **Facilitate** promotion and adoption of Waterwise initiatives by the City and across the local community.	Carbon Footprint Reduction Strategy	Manager Engineering and Sustainability	●	●	●	●
	5.1.3 **Provide** water tanks on City buildings, where possible.	Carbon Footprint Reduction Strategy	Manager Engineering and Sustainability			○	○
5.2 Work towards net zero greenhouse gas emissions.	5.2.1 **Advocate** to State and Federal Government to implement key climate change actions in line with international agreements to access regionally specific opportunities.	City of Albany Climate Change Action Declaration	Mayor and Councillors	●	●	●	●
	5.2.2 **Provide** a review of the Climate Change Action Declaration every two years.	City of Albany Climate Change Action Declaration	Manager Community Relations		●		●
	5.2.3 **Facilitate** the adoption of low carbon initiatives by community members, businesses and developers through advocacy, policy, education, incentives and regulation.	Carbon Footprint Reduction Strategy	Manager Engineering and Sustainability	●	●	●	●
	5.2.4 **Provide** a climate change communication plan to effectively engage, encourage and empower the community on climate change actions.	City of Albany Climate Change Action Declaration	Manager Community Relations	●	●		
	5.2.5 **Provide** a Corporate Energy Plan to transition City assets to 100% renewable energy sources by 2030.	City of Albany Climate Change Action Declaration; Carbon Footprint Reduction Strategy	Manager Engineering and Sustainability	●			
	5.2.6 **Provide** measures and report on corporate and community greenhouse gas emissions against established reduction targets.	City of Albany Climate Change Action Plan; Carbon Footprint Reduction Strategy	Manager Engineering and Sustainability	○	○	○	○

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 5 - Shared responsibility for climate action (continued).

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
5.3 Develop a sustainable, low waste, circular economy.	5.3.1 **Partner** with neighbouring local governments to work collaboratively on waste matters.	Carbon Footprint Reduction Strategy; Community Waste Resource Strategy	Manager Engineering and Sustainability	●	●	●	●
	5.3.2 **Provide** a review of the lifespan of Hanrahan Landfill Facility and future options for landfill, and implement the Hanrahan Landfill Closure Plan, once endorsed.	Community Waste Resource Strategy	Manager Engineering and Sustainability	●	●	●	●
	5.3.3 **Facilitate** promotion and adoption of sustainable waste behaviours.	Carbon Footprint Reduction Strategy; Community Waste Resource Strategy	Manager Engineering and Sustainability	●	●	●	●
	5.3.4 **Investigate** options for waste minimisation and future options for landfill operations.		Manager City Operations	●	●	●	●

Outcome 6 - A resilient community that can withstand, adapt to, and recover from natural disasters.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
6.1 Increase community readiness and resilience to bushfires and floods.	6.1.1 **Facilitate** implementation of Fuel Management Plans for priority, City managed natural reserves.	Natural Reserves Strategy & Action Plan	Manager City Reserves	●	●	●	●
	6.1.2 **Advocate** for utility companies to protect their critical infrastructure at risk due to climate change.		Executive Director Infrastructure, Development and Environment	●	●	●	●
	6.1.3 **Facilitate** an annual audit of volunteer fire fighters, supported with training and recruitment, to plan for sufficient numbers of suitably trained and experienced fire fighters.	Strategic Bush Fire Plan	Manager Public Health and Safety	●	●	●	●
	6.1.4 **Facilitate** delivery of fire education and risk mitigation programs to assist residents, businesses and visitors to prepare, withstand and respond to bushfire emergencies.	Safer Albany Plan; Strategic Bush Fire Plan	Manager Public Health and Safety	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)



PLACE

A responsibly planned city that is attractive, vibrant and well connected.

Current situation

Albany is characterised by low density residential development. The places where people live, work, shop and recreate are far from one another to the extent that public transport, walking and cycling are largely impractical. This is of concern to the community.

Local roads, footpaths and cycleways are high priority areas in the community's eyes. More funding is needed to address concerns with safety, connectivity and asset management. Integrated streetscape planning is needed to improve the function and appearance of local streets.

The community is also concerned with parking and access to public transport. More parking is wanted in the CBD and at the hospital, and there is need for more frequent bus services.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Place aspiration and outcomes, including:

- Town planning
- Asset management
- City centre development and activation
- Planning and building approvals
- Traffic management
- Parking management
- Roads
- Lighting
- Streetscapes, trees and verges
- Footpaths and cycleways
- Marine facilities

Recent highlights

Town centre enhancements
Completed extensive works on the Town Hall, Town Square, Library, Visitor Centre and Alison Hartman Gardens.

National Anzac Centre
Refreshed the National Anzac Centre including construction of a theatre and multimedia touch table. Received a TripAdvisor travellers' choice award in 2019 and in 2020 recognising it as being in the top 10% of all TripAdvisor listed properties.

Centennial Park Eastern Precinct
Opened the Eastern Precinct of Centennial Park which includes a major sports stadium equipped to host AFL fixtures.

Middleton Beach redevelopment
Progressed Middleton Beach redevelopment plans including construction of a swimming enclosure, building foreshore protection, and advancing plans for sustainable foreshore housing.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos

Our plan for the future

Outcome 7 - Responsible growth, development and urban renewal.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
7.1 Plan a compact city with diverse land, housing, and development opportunities.	7.1.1 **Advocate** for the State Government, private sector and non-government organisations to help meet demand for diverse housing needs, including affordable housing, social housing, short-stay accommodation, crisis accommodation, and tourist accommodation.	Albany Local Planning Strategy; Albany Central Area Masterplan	Manager Building and Planning Services	●	●	●	●
	7.1.2 **Advocate** for the State Government and the Great Southern Development Commission to develop Spencer Park.	Albany Local Planning Strategy	Manager Building and Planning Services	●	●	●	●
	7.1.3 **Facilitate** development of structure plans for strategic locations, including Centennial Park, the Woollen Mills and various lots.	Albany Local Planning Strategy	Manager Building and Planning Services	●	●	●	●
7.2 Plan for adequate utilities to support responsible growth.	7.2.1 **Advocate** for funding through the Water Corporation's Infill Sewerage Program or facilitate public-private partnerships for the provision of reticulated sewerage in priority areas.	Albany Local Planning Strategy	Manager Building and Planning Services	●	●	●	●
	7.2.2 **Advocate** for improved telecommunications.		Manager Building and Planning Services	●	●	●	●

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Outcome 8 - Interesting, vibrant and welcoming places.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
8.1 Create vibrant, attractive and welcoming towns and activity centres.	8.1.1 **Facilitate** activation of a cultural and civic precinct in the CBD, including York St, Stirling Tce, Town Square, Alison Hartman Gardens, Mokare Burial Site and Dog Rock.		Manager Major Projects	○	○	○	○
	8.1.2 **Facilitate** improved connection between significant precincts such as the waterfront, CBD, museum, Middleton Beach and the Mounts.		Manager Major Projects	○	○	○	○
8.2 Provide attractive, well maintained streetscapes, verges and trees.	8.2.1 **Provide** integrated streetscape planning, in consultation with the community, for the integrated design and development of key routes and building upgrades.		Executive Director Infrastructure, Development and Environment		●	●	●
	8.2.2 **Facilitate** improved maintenance and beautification of residential verges with an incentive program.		Manager City Reserves	●	●	●	●
8.3 Provide attractive and sustainable parks, playgrounds and reserves.	8.3.1 **Provide** a Public Open Space Strategy, addressing community needs for modern, imaginative, inclusive, all-ages playgrounds and better facilities.	Public Health Plan	Manager City Reserves	●			

Outcome 9 - Local history, heritage and character is valued and preserved.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
9.1 Identify, preserve and showcase significant local history and heritage.	9.1.1 **Provide** a master plan for Mt Melville and adjacent areas.		Manager Major Projects	○	○	○	
	9.1.2 **Partner** with local governments and other stakeholders to develop the Great Southern Arts, Culture and Heritage Strategy.	Great Southern Arts, Culture and Heritage Strategy	Manager Arts and Culture	●			
	9.1.3 **Provide** access to local history information and services and facilitate ongoing preservation of physical and digital historical material and collections.		Manager Arts and Culture	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 10- A safe, sustainable and efficient transport network.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
10.1 Improve road safety, connectivity and traffic flow.	10.1.1 **Advocate** for Main Roads to improve main roads.		Manager Engineering and Sustainability	●	●	●	●
	10.1.2 **Provide** long-term planning to improve road design, safety and traffic flow.		Manager Engineering and Sustainability	●	●	●	●
	10.1.3 **Advocate** for funding and an upgrade of Albany Highway, Chester Pass and South Coast Highway, post completion of the Ring Road project.		Manager Engineering and Sustainability	●	●	●	●
	10.1.4 **Advocate** for funding to construct Range Road.		Manager Engineering and Sustainability	●	●	●	●
	10.1.5 **Provide** a "Maintenance Manual" that details tasks performed on roads, kerbs, drainage and paths and how they should be performed, specific to the region's methods and materials used.	Strategic Asset Management Plans	Manager City Operations		○	○	
10.2 Provide sufficient and affordable access to parking for residents, workers, visitors and ACROD permit holders.	10.2.1 **Provide** implementation of key actions arising from the City's Parking Strategy.	City of Albany Parking Strategy	Manager Engineering and Sustainability	●	●	●	●
	10.2.2 **Facilitate** promotion of destinations and attractions that are within a 5 minute walk of parking facilities, and vice versa, promote parking options that are located within a 5 minute walk of key destinations and attractions.		Manager Engineering and Sustainability	●	●	●	●
10.3 Encourage more people to use active transport.	10.3.1 **Provide** a review of the Cycle City Albany Strategy, in conjunction with the State Government's Cycle Strategy.	Cycle City Albany Strategy	Manager Recreation Services		●		
	10.3.2 **Advocate** for funding to develop active transport corridors.		Manager Engineering and Sustainability	●	●	●	●
	10.3.3 **Provide** construction of priority paths.		Manager Engineering and Sustainability		○	○	○

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 10- A safe, sustainable and efficient transport network (continued).

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
10.4 Increase community and visitor use of public transport.	10.4.1 **Advocate** for a review of existing public transport services to better meet urban and rural travel needs.	Albany Local Planning Strategy; Albany Central Area Masterplan; Age Friendly Albany	Manager Engineering and Sustainability	●	●	●	●
	10.4.2 **Provide** a feasibility study to introduce low cost, community transport.	Age Friendly Albany	Manager Engineering and Sustainability			○	
10.5 Improve access to marine, rail and aviation transport to support population growth, tourism and economic development.	10.5.1 **Advocate** for improved rail transport for grain.	Albany Local Planning Strategy	Manager Engineering and Sustainability	●	●	●	●
	10.5.2 **Advocate** for funding to improve boating and fishing facilities.		Manager Engineering and Sustainability	●	●	●	●
	10.5.3 **Provide** implementation of outstanding projects in the Black Swan Point Management Plan and Cheynes Beach Improvement Plan.	Natural Reserves Strategy & Action Plan	Manager City Reserves	●	●		

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)



PROSPERITY

A thriving city with an abundance of opportunities.

Current situation

7 in 10 local businesses consider Albany a good or excellent place to own or operate a business.

More work is needed to grow the local economy, attract and retain a diverse range of businesses, and manage the impacts of online shopping.

There is interest in positioning and growing Albany as a university town, with a diverse range of courses, student accommodation and youth employment opportunities.

Albany's majestic landscapes and rich history and heritage provide a strong and compelling offer to attract visitors. Albany is one point behind the industry leader for tourism, and 19 points clear of the industry average in the MARKYT® Community Scorecard.

Services and facilities

The City will deliver and continuously improve services and facilities that support the achievement of the Prosperity aspiration and outcomes, including:

- Economic development
- Albany Visitor Centre
- Albany Regional Airport
- Tourism attractions and marketing
- Education and training opportunities

Recent highlights

Film Friendly
The Council endorsed Albany as a Film Friendly City making it easier for Albany to be utilised as a filming location. 'H is for Happiness' and the children's television series 'Itch' and 'Itch 2' were filmed in Albany.

Regional airport
Secured state and federal government funding, and committed matched funding by the City, to commence necessary upgrades for the Albany Regional Airport.

Albany Visitor Centre
The Visitor Centre received 121,205 visitors in 2019, was a finalist in the 2019 Perth Airport WA Tourism Award for Visitor Information Services, and won silver at WA's Top tourism Town Awards.

Business Support
Developed a marketing campaign featuring local business owners to encourage residents to shop locally.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Image credit: Lex Porebski, GasgasLex Photos









Our plan for the future

Outcome 11 - A strong, diverse and resilient economy with work opportunities for everyone.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
11.1 Attract, retain and support a diverse range of businesses and industries to grow the economy and create more local jobs.	11.1.1 **Advocate** for the development of a regional economic development strategy in partnership with key stakeholders, including South Coast Alliance, Great Southern Development Commission, Albany Chamber of Commerce and Industry, and other local governments.	South Coast Alliance: Sub-regional Economic Development Plan	Executive Director Corporate and Commercial Services	●	●	●	●
	11.1.2 **Advocate** in partnership with key stakeholders for growth and development in the agricultural sector.		Mayor and Councillors	●	●	●	●
	11.1.3 **Advocate** for growth and development in the technology sector.		Mayor and Councillors	●	●	●	●
	11.1.4 **Advocate** in partnership with key stakeholders for the State Government to provide more decentralised Government hubs and public sector jobs in Albany.		Mayor and Councillors	●	●	●	●
	11.1.5 **Partner** with mining companies to position and promote Albany as an ideal location for FIFO workers and their families to live.		Executive Director Corporate and Commercial Services	●	●	●	●
	11.1.6 **Partner** with relevant stakeholders to position and promote Albany as a preferred location to hold conferences and training events.		Executive Director Corporate and Commercial Services	○	○	○	○
11.2 Facilitate access to quality education, training and work opportunities.	11.2.1 **Advocate** for universities and TAFE to offer more courses and improved facilities in the City of Albany.		Mayor and Councillors	●	●	●	●
	11.2.2 **Facilitate** positioning and promotion of Albany as a university town, with access to affordable student housing to attract and retain youth in Albany.		Executive Director Corporate and Commercial Services	●	●	●	●

Outcome 12 - A highly sought-after tourist destination.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
12.1 Create a competitive and sustainable tourism offer.	12.1.1 **Facilitate** development of a regional tourism strategy in partnership with key stakeholders, including the Great Southern Development Commission, South Coast Alliance and other local governments.		Mayor and Councillors	●	●	●	●

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Image credits Top left and top right: Frances Andrijich, Australia's South West, Bottom left: Lee Griffith, Bottom right: UWA



LEADERSHIP

A well governed city that uses resources wisely to meet local needs.

Current situation

The City of Albany is well regarded as a governing organisation, scoring 62/100, up 7 points since 2019 and 7 points ahead of the industry average.

Council's leadership score is 56/100. Also up 7 points since 2019, and now 6 points ahead of the industry average.

Perceptions of value for money have improved 9 points, now 49/100 and 5 points ahead of the industry average.

To improve further, the community would like a strong and clear vision, and improved consultation and communication on key issues. People want to feel involved, listened to, and respected when decisions are made that impact their lives.

Risks and challenges to be addressed include digital transformation, managing social media, attracting good candidates for local elections, and balancing diverse community needs.

Services and facilities

The City will continue to develop its people and its culture to support achievement of Leadership outcomes:

- Council's leadership
- Advocacy and lobbying
- Governance
- Strategy and risk management
- Financial management
- Information technology
- Human resource management
- Work health and safety
- Community engagement
- Marketing and communications
- Customer service

Recent highlights

Strong results in MARKYT® benchmark program
The City is recognised as a local government leader in six performance areas and was the top performing regional council overall. We improved performance in 33 service areas between 2019 and 2021.

Customer Service Charter
Adopted a new Customer Service Charter with a commitment to complete business with customers during first contact, attend to in-person customers within five minutes, and call back customers within one working day.

Financial relief for those impacted by COVID-19
No rates increase for the 2019/20 financial year, rent concessions provided on City leased premises, and rate deferrals allowed for community members experiencing financial hardship to minimise the impacts of COVID-19.

Award winning communication
The "Your City" campaign introduced the City's workers and what they do for the community as workers and volunteers. The campaign won a *Best Communications Campaign Award* in 2020 from the Rural Media Association.

For more highlights, please see the City's latest Annual Report available at www.albany.wa.gov.au.

Our plan for the future

Outcome 13 - Proactive, visionary leaders who are aligned with community needs and values.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
13.1 Provide strong, accountable leadership.	13.1.1 **Provide** a campaign to communicate a clear vision for Albany with regular progress reports on major projects.		Manager Community Relations	●	●		
	13.1.2 **Provide** Elected Member training.		Manager Governance	●	●	●	●
	13.1.3 **Provide** a review of all City risk management processes and consolidate into a single, integrated risk reporting system.	Risk & Opportunity Framework	Manager Governance	○			
	13.1.4 **Facilitate** engagement with socially and culturally diverse groups to inform Council decisions, including younger people, people with disability, local Menang Noongar People and other cultural groups.		Manager Community Relations	●	●	●	●

Outcome 14 - Strong workplace culture and performance.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
14.1 Embrace innovation and best practice to improve business efficiencies and the customer experience.	14.1.1 **Provide** major and minor reviews of the Strategic Community Plan.	Integrated Planning and Reporting Framework	Manager People & Culture		●		●
	14.1.2 **Provide** an annual review of the Corporate Business Plan.	Integrated Planning and Reporting Framework	Manager People & Culture	●	●	●	●
	14.1.3 **Provide** an annual business unit plans for all service delivery teams.		Manager People & Culture	●	●	●	●
	14.1.4 **Provide** business unit reviews to improve internal and external customer experiences and business efficiencies.		Manager People & Culture	●	●	●	●
	14.1.5 **Provide** an Information and Communications Technology (ICT) Strategy		Manager ICT	●			

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

Outcome 14 - Strong workplace culture and performance (continued).

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
14.2 Provide cost effective financial management and value for money.	14.2.1 **Provide** an evaluation framework and communication tools to demonstrate value for money from rates.		Manager Finance		●	●	
	14.2.2 **Provide** a sustainable procurement and investment framework to ensure financial processes and service contracts are aligned with the City's social, economic and environmental outcomes.	City of Albany Climate Change Action Declaration	Manager Finance		●	●	
14.3 Foster employee engagement and a positive workplace culture.	14.3.1 **Provide** and implement a Workforce Plan to support achievement of outcomes in the Strategic Community Plan.	People Strategy	Manager People & Culture	●			
	14.3.2 **Provide** a regular employee survey to monitor workplace culture and identify actions for improvement.	People Strategy	Manager People & Culture		●		●
	14.3.3 **Provide** and implement an Employee Safety Management Plan.	Safety Management Plan	Manager People & Culture	●	●		

Outcome 15 - A well informed and engaged community.

Objectives	Actions	Linked Strategies	Responsible	Timing			
				21-22	22-23	23-24	24-25
15.1 Grow awareness, understanding and engagement in City projects, activities and decisions.	15.1.1 **Provide** an independent community survey, once every two years, to monitor changing community priorities, benchmark performance levels and identify service gaps.		Manager People & Culture		●		●
	15.1.2 **Provide** an annual communications content calendar that specifies what needs to be communicated, when, how and to who, in order to meet the community's information needs and the City's strategic objectives.		Manager Community Relations	●			
	15.1.3 **Provide** an extension to the 'Your City' campaign to build community understanding about the City of Albany's role, services and processes.	Communications and Engagement Strategy	Manager Community Relations	●	●		

● Currently fully resourced
○ Not currently fully resourced (i.e. requires additional funding from partners)

RESOURCING THE PLAN

Strong commitment to value

City services, facilities and special projects are funded through various revenue streams. This includes grants from Federal and State Government, funding from bodies such as Lotterywest, rates, fees and charges, and cash reserves. Long term financial planning and annual budgeting is undertaken to responsibly manage expenditure.

An effective workforce

With 335 employees and many contractors, the City is one of Albany's largest employers. The City has a strong focus on being inclusive and diverse. About 48% of the workforce is male and 52% female. The median age of the workforce is 46 years, with 5% aged 24 years or younger, and 38% aged 50 years or older. About 3% of workers are Indigenous people.

A large number of casual staff and volunteers contribute to making Albany amazing. We have hundreds of volunteer firefighters and people who help with local community events at Albany Heritage Park, Albany Public Library and more.

Learn more about our people and what they do by viewing the Your City videos at www.albany.wa.gov.au.

Directorate	Full time	Part Time	Total
Office of the CEO	9	1	10
Community Services	39	60	99
Infrastructure, Development and Environment	139	15	154
Corporate and Commercial Services	54	18	72
Total employees	**241**	**94**	**335**

Managing risk

Risk management is an essential process for avoiding unnecessary loss and service disruption, realising opportunities, and facilitating continuous improvement. The City of Albany's Risk and Opportunity Framework is aligned with the Australian Standard for Risk (AS/NZA ISO: 31000:2018). It details how risks are managed, including risk identification, mitigation, and reporting. Risks are reported to Council on a quarterly basis through the Audit and Risk Committee.

The City's current risks centre on:

1. Ensuring adequate Pandemic Response and Business Continuity Plans.
2. Promoting workplace health and safety, including continued access to Employee Assistance Programs.
3. Developing regional economic partnerships to improve outcomes for local producers and businesses.
4. Preserving and renewing critical infrastructure in a cost-effective manner.

Over the next two years, the focus for the City's Risk Management Team will be on consolidating the City's risk management processes into an enterprise-wide system, and educating risk practitioners on the process and benefits of organisational coordination through the Framework.

Image credit: Lex Porebski, GasgasLex Photos



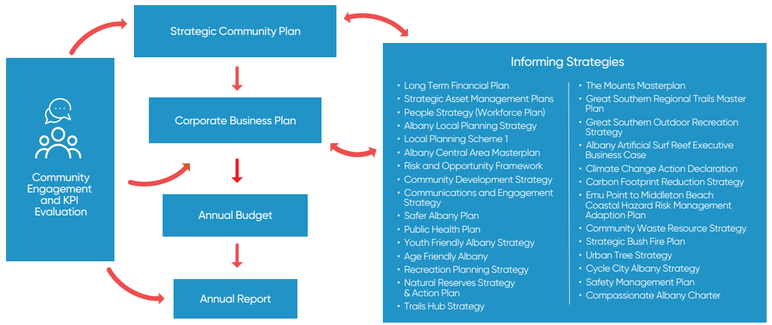
DEVELOPING AND REPORTING

The Local Government Act 1995 requires all local governments to plan for the future. Council must adopt a Strategic Community Plan, Corporate Business Plan and Annual Budget. Planning must be integrated with asset management, workforce planning and long-term financial planning.

The Strategic Community Plan will have a minor review in two years, and a major review in four years. The Corporate Business Plan is reviewed annually.

When developing its plans, the City considers the Integrated Planning and Reporting Framework and Guidelines, as well as various informing strategies. Informing strategies cover asset management, workforce planning, financial planning, and specific areas of need and concern in the local community

In 2021, the City embraced the FUTYR® approach to strategic planning. This is a community-led, integrated and streamlined approach designed specifically for local government.



Community Engagement

The City expresses its deepest thanks to over 1,400 community members who helped review and develop the Strategic Community Plan and Corporate Business Plan. We heard from a diverse cross section of the community, including youth, families, seniors, people with disability, local businesses owners and managers, and representatives from local community organisations.

MARKYT® Community Scorecard
1,429 Community members

MARKYT® Community VoiceBank
88,147 Word count of ideas and suggestions

FUTYR® Community Workshop
78 Participants

In the 2021 MARKYT® Community Scorecard, the City of Albany moved up from middle of the range to equal second place for overall performance, and was the highest performing regional council.

Image credits Top left and bottom left: Lee Griffith, Top right: Krysta Guille

















MARKYT®

Community Scorecard

The City of Albany aims to participate in an independent study to monitor and benchmark performance every two years.

The City aims to be above the MARKYT® industry average and strives to be the industry leader in all areas.

This chart shows the City's Performance Index Score out of 100 compared to the MARKYT® Industry Standards. The preferred target zone is shown as coloured bars.

LEGEND

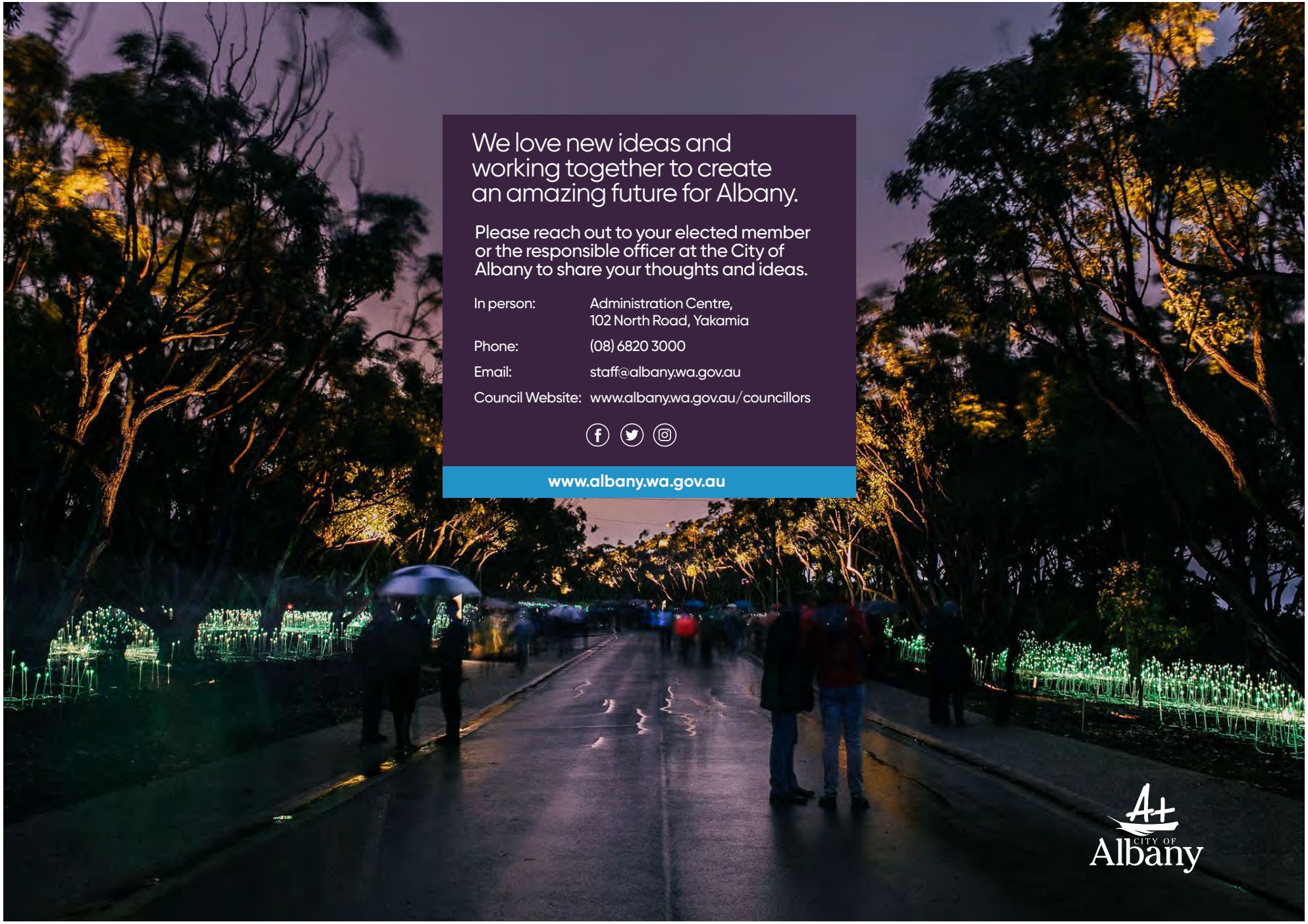
- City of Albany 2021 performance score
- City of Albany 2019 performance score
- No change in performance from 2019 to 2021
- Target Zone. Shading shows industry average to industry high from MARKYT® Community Scorecard. For further information, visit www.catalyse.com.au/markyt.

Image credits Top left: Lee Griffith, Top right: Krysta Guille, Bottom left: GasgasLex Images, Bottom right: Alex Gott-Cumbers

2021 Performance Measures

People	Overall place to live	87
	Youth services and facilities	56
	Family and children's services	62
	Seniors' services, facilities and care	66
	Disability access and inclusion	61
	Aboriginal recognition and respect	70
	Volunteer support and recognition	67
	Community safety, crime prevention	57
	Access to housing	57
	Health and community services	66
	Public health / wellbeing programs	65
	Community buildings and halls	68
	Public toilets	53
	Sport and recreation	76
	Leisure and Aquatic Centre	75
	Playgrounds, parks and reserves	73
	Library services	82
	Festivals, events, art and culture	71
	Vancouver Arts Centre	72
	History and heritage	73
	Animal management	59
Planet	Sustainability / climate change	61
	Conservation and environment	60
	Coastal and foreshore areas	61
	Waste collection services	66
	Natural disaster management	63
Place	Responsible growth / development	54
	City centre development / activation	57
	Traffic management on local roads	54
	Parking management	50
	Lighting of streets and public places	60
	Sealed roads	48
	Unsealed roads	46
	Streetscapes, trees and verges	60
	Footpaths and cycleways	55
	Access to public transport	44
	Marine Facilities	67
	Place to own or operate a business*	72
Prosperity	Economic development, job creation	48
	Developing agricultural industries	51
	Education and training opportunities	59
	Place to visit	87
	Tourism attractions and marketing	62
Leadership	Council's leadership	56
	Governing organisation	62
	Value for money	48
	Advocacy and lobbying	54
	Consultation	49
	Communication	54
	Customer service	63

*Based on responses from business owners and managers


We love new ideas and working together to create an amazing future for Albany.
Please reach out to your elected member or the responsible officer at the City of Albany to share your thoughts and ideas.
In person: Administration Centre, 102 North Road, Yakamia
Phone: (08) 6820 3000
Email: staff@albany.wa.gov.au
Council Website: www.albany.wa.gov.au/councillors
www.albany.wa.gov.au
CITY OF Albany

Mayor Wellington
City of Albany
102 North Road, Yakamia, WA 6330

27 July 2021

Dear Mayor Wellington,

Re: Requesting Ex Officio member on the Museum of the Great Southern Advisory Committee

The Museum of the Great Southern is requesting a representative from City of Albany to sit on our Advisory Committee. The City of Albany is seen as a key stakeholder and major partner for the Museum of the Great Southern and as such having an ex- officio representative from the City of Albany sitting on the committee would be of great value to us.

Ex officio positions do not have fixed terms of appointment and as such can withdraw their availability at any time.

I have approached Councillor John Shanhun to gage his possible interest in sitting as the ex – officio on the Advisory Committee, he indicated informally that he was interested.

So therefore, I am formally requesting council's endorsement to formalise his appointment to the Museum of the Great Southern's Advisory Committee.

The primary role of the Advisory Committee is to link the Museum with the community it serves. This is "two-way" liaison: representing the community to the Museum and acting as an advocate for the Museum in the community.

The committee is an advisory body only and has no delegated powers. For this reason, it does not have a fixed list of "powers and functions" (i.e., under the *Museum Act 1969*) and therefore considers and advises the Museum on a broad range of matters.

Thank you for your attention to our request.

Yours Faithfully,

CSalmaggi

Catherine Salmaggi
Regional Manager

Activity-Based Costing (methodology Benefits and Drivers)

What Is Activity-Based Costing (ABC)?

Activity-based costing (ABC) is a costing method that assigns overhead and indirect costs to related products and services. This accounting method of costing recognises the relationship between costs, overhead activities, services and assigning indirect costs to services which is less erratic than traditional costing methods. However, some indirect costs, such as management and office staff salaries, can be difficult to assign to a service.

Statutory Obligations

WA local government accounting manual section 05:

All administration overheads are to be assigned to the programs. The amount allocated to other programs should be shown as a reduction of the expenditure on the activity involved set out in program Other Property and Services.

Benefits

Activity-based costing provides a more accurate method of product/service costing, leading to more accurate business decisions.

Which administrative overheads use this method of cost allocation.

501 Community Services (ED)
(Direction and support given to managers within the directorate based on prior years experience and Governance support)

502 Communications Unit
(Usage of - media monitoring, social media, publications, news letters, web site content and members support)

505 Infrastructure, Development & Environment (ED)
(Direction and support given to managers within the directorate based on prior years experience and Governance support)

508 Corporate and Commercial Services (ED)
(Direction and support given to managers within the directorate based on prior years experience and Governance support)

510 Customer Service
(Counter enquires, cash receipting and switchboard enquiry)

511 Accounting and Payroll Service Fee
(See example below)

513 Records Service Fee
(Documentation research, opening and registering, information storage allocation and archive requests)

514 Information System Support
(Mainframe usage, helpdesk requests, server and network needs speciality software renewals and other equipment support)

515 Building Rental
(Allocation of all building expenses by occupied floor space)

518 People and Culture Service Delivery
(Allocation by full time equivalents and community strategic plan delivery)

520 Depot and Fleet Management Operating Costs
(Allocation of depot costs including administration to public works overheads and asset management activities based on support requirements and fleet management allocated by vehicle)

522 Mercer Road Office Accommodation
(Allocation of all building expenses by occupied floor space)

The example on the following pages has been extracted for the 2021/22 Budget and is based on the Financial Services Department:

Using the Finance Department as an example, how is this ABC calculated.

1/ Know the total expenses within a business unit you are required to allocate

Finance Management Report :

General Ledger		Original Budget 2020/2021 $	Revised Budget 2020/2021 $	2021/2022 Budget $
	FINANCE MANAGEMENT			
	Operating Expenditure			
	Manage Employee Costs			
18402.200	Salaries	680,504	680,504	733,382
18402.202	Superannuation	88,981	88,981	97,234
18402.203	A/L and L/S/L Provision Accrual	98,696	98,696	98,917
18402.204	Workers Compensation Insurance	14,007	14,007	15,095
18402.210	Training and Education	11,439	11,439	11,330
18402.216	Conference Expenses	850	850	850
	Manage Departmental Costs			
38472.223	Minor Asset Purchases < $5,000	1,800	1,800	500
38472.227	Office Supplies and Printing	2,523	2,523	2,525
38472.230	Professional Services	55,000	55,000	30,000
38472.231	Advertising and Public Relations	1,500	1,500	1,500
38472.233	Audit Fees	105,000	105,000	105,000
38472.235	Legal Services	6,500	6,500	-
38472.236	Software Licenses Fees	15,000	15,000	25,000
38472.240	Bank Fees	25,000	25,000	25,000
38472.244	Telephone - Mobiles and Portable Computing	2,000	2,000	3,000
38472.255	Accommodation, Travel and Meals	4,000	4,000	4,000
38472.376	Memberships and Subscriptions	4,700	4,700	4,000
38472.382	Refunds and Write Offs	1,000	1,000	100
	Sub Total	1,118,500	1,118,500	1,157,433
	Internal Service Delivery			
56267.502	Communications Unit	13,548	13,548	16,425
56267.508	Corporate Services	18,400	18,400	20,278
56267.510	Customer Service Fee	28,267	28,267	27,123
56267.513	Records Service Fee	17,336	17,336	15,958
56267.514	Information System Support	212,827	212,827	214,198
56267.515	Building Rental	39,961	39,961	36,961
56267.518	People and Culture Service Delivery	35,750	35,750	41,473
	Total Departmental Overheads	1,484,589	1,484,589	1,529,849
66267.511	Less Allocated To Other Works	- 1,484,589	- 1,484,589	- 1,529,849
	Total Operating Unallocated	-	-	-

2/ Define your cost allocation **Drivers** and use a weighting on the demand other departments use your services.

ACCOUNTING SERVICES 23/07/2021 13:58	LONG TERM FINANCIAL 10 YR PLAN	ANNUAL BUDGET & REVIEWS	ANNUAL FINANCIAL REPORT	MANAGEMENT REPORTING & STATUTORY REPORTING	RATING	DEBTORS CREDITORS	PAYROLL	ACCOUNTING B/REVIEW STOCK ASSET TAXATION	ONLINE BANKING & AGENCY FEES	COST TO BE ALLOCATED
	130,000	180,000	140,000	200,000	30,000	150,000	300,000	334,843	65,000	1,523,843
RATES				1.00		2.0	3	1.00	50	50,194
MEMBERS				8.00		4.0		5.00		68,906
OTHER GOVERNANCE	1	1	1	2.00				10.00		513,441
STAKEHOLDER RELATIONS				1.00			1			5,034
FIRE PREVENTION										-
ANIMAL CONTROL				1.00		4.0	6	1.00	5	25,922
OTHER LAW, ORDER & PUBLIC SAFETY				1.00			6			10,207
COMMUNITY SERVICES				1.00		1.0	4	1.00		15,828
PREV SERVICES HEALTH ADMIN & INSPECTION				1.00		2.0	7	1.00		20,478
PREV SERVICES HEALTH PEST CONTROL										-
HEALTH OTHER										-
OTHER EDUCATION										-
COMMUNITY SERVICES EM				1.00		1.0	2	1.00		13,759
HOUSING										-
SANITATION GENERAL REFUSE				1.00	1	1.0	13	3.00	30	87,739
WASTE SUSTAINABILITY				1.00			3	1.00		13,247
TOWN PLANNING				1.00		2.0	13	0.50	5	26,939
RECREATION DEVELOPMENT				1.00			3	0.50		10,175
COMMUNICATIONS UNIT				1.00			2	0.50		9,141
VANCOUVER ARTS CENTRE				1.00		0.5	4	0.50		11,983
FORTS				1.00			3			13,310
ADMINISTERING PARKS & RESERVES										-
ASSET MANAGEMENT				1.00			7	2.00		23,530
ALBANY LIBRARY				1.00		2.5	12	1.00		26,424
DAY CARE				1.00		0.5	15	0.50		23,362
PARKING										-
ROADS MAINTENANCE & CONSTRUCTION (PWO)				1.00		26.5	51	1.00		103,882
ENGINEERING SERVICES				3.00		6.0		1.00		27,422
PLANNING DESIGN & SURVEY				1.00			7	2.00		23,530
BUILDING SERVICES				1.00		2.0	7	2.00	5	30,008
ECONOMIC SERVICES							3			3,103
VIC				1.00		15.0	5	2.00		44,656
AERODROMES				1.00		2.0	4	1.00		17,375
TRADES				1.00		2.0	4	1.00		17,375
PARKS & GARDENS (PWO)				3.00		10.0	35	3.00		82,103
SANITATION TIP SITE				1.00						4,000
DEPOT				1.00		10.0	3	10.00		84,008
HR & PAYROLL				1.00			5			9,172
INFORMATION SYSTEM SUPPORT				1.00			7			11,241
RECORDS				1.00			4			8,138
COUNCIL BUILDING MAINTENANCE										-
CUSTOMER SERVICE				1.00			4			8,138
CEO'S OFFICE				1.00			3			7,104
CITY DEVELOPMENT										-
CITY SERVICES PROGRAM				1.00			2	1.00		12,213
MARKETING IMAGE DEVELOPMENT										-
EVENTS CO ORDINATOR							4			4,138
MAJOR PROJECTS				1.00			5			9,172
ALAC				2.00		3.0	25	1.00	1	45,322
RISK							2			2,069
										-
	1.00	1.00	1.00	50.00	1.00	97.0	230.00	54.50	96.00	1,523,853.82

3/ Allocate costs ensuring you're your allocation code (IE CODE in this example 511) equates to zero.

Sub Function	2019/20 Total Actuals	Original Budget	YTD Actuals	Next Year Budget
Grand Total	0	0	0	0
21. CHIEF EXECUTIVE OFFICER	6,185	7,336	7,336	7,104
22. PEOPLE AND CULTURE	9,324	9,448	9,448	9,172
23. COMMUNICATIONS	7,551	9,091	9,091	9,141
26. COMMUNITY ENGAGEMENT	4,397	5,223	5,224	5,034
30. EVENTS	3,596	4,225	4,225	4,138
31C. DIRECTOR COMMUNITY SERVICES	11,280	13,627	13,627	13,759
31D. RECREATION SERVICES	8,455	10,147	10,147	10,175
42A. COMMUNITY DEVELOPMENT - GENERAL	13,078	15,739	15,739	15,828
45. DAY CARE CENTRE	19,961	23,685	23,686	23,362
46. LIBRARY	22,447	26,776	26,776	26,424
51. ALBANY HERITAGE PARK	11,578	13,674	13,674	13,310
52. VANCOUVER ARTS CENTRE	10,078	12,066	12,066	11,983
79. ALAC ADMINISTRATION	38,926	46,214	46,214	45,322
100. CORPORATE GOVERNANCE ELECTED MEMBERS	493,952	582,911	582,911	588,347
24. ECONOMIC DEVELOPMENT	2,692	3,169	3,169	3,103
27A. CORPORATE GOVERNANCE	1,798	2,113	2,113	2,069
28. RECORDS MANAGEMENT	7,089	8,392	8,392	8,138
33. CUSTOMER SERVICES	7,089	8,392	8,392	8,138
39. INFORMATION TECHNOLOGY	11,424	11,561	11,561	11,241
44. FINANCE	(1,263,801)	(1,484,589)	(1,484,592)	(1,529,849)
44A. RATING SERVICES	42,614	50,261	50,261	50,194
48. AVC OPERATING	38,926	46,557	46,558	44,656
57D. HEALTH	17,228	20,632	20,632	20,478
58. EMERGENCY MANAGEMENT	8,886	10,505	10,505	10,207
59. ANIMAL CONTROL	22,149	26,410	26,410	25,922
64. AIRPORT	14,537	17,463	17,464	17,375
55. DEVELOPMENT MANAGEMENT	11,280	0	0	0
29. MAJOR PROJECTS	7,982	9,448	9,448	9,172
56A. PLANNING	23,249	27,544	27,544	26,999
57C. BUILDING	24,656	29,641	29,641	30,008
61. INFRASTRUCTURE AND ENVIRONMENT DEPARTMENT (EM)	9,821	11,902	11,902	12,213
62. CITY ASSETS	60,715	73,767	73,768	50,952
62A. CITY DESIGN	18,841	22,807	22,807	23,530
67A. RESERVES OVERHEADS	70,095	83,583	83,584	82,103
68A. TRADES OVERHEADS	14,537	17,463	17,464	17,375
69. DEPOT	0	0	0	84,008
72. WASTE MINIMISATION	73,290	86,805	86,806	87,739
72A. WASTE OPERATIONS	3,493	4,167	4,168	4,000
72B. WASTE MANAGEMENT AND SUSTAINABILITY	0	0	0	13,248
85. WORKS OVERHEADS	110,603	131,845	131,845	103,882

Using the IT Department as an example, costs factored include:

Synergy Software Costs
Microsoft Office Licences
Help Desk Costs
Server & Network Costs
Other equipment & support

1. POLICY

The Risk & Opportunity Framework details how risk is managed at the City of Albany (the City).

The Council acknowledges that the effectiveness of risk management depends on its integration into the governance of the City, including decision-making.

Risk assessments will be carried out using the risk management process of the Australian Standard for Risk AS/NZS ISO: 31000:2018 Risk Management - Principles and Guideline.

The Council expects full support from all stakeholders, particularly the City's Executive and Management Teams.

2. RISK MANAGEMENT FRAMEWORK BENEFITS

This framework provides a consistent process that enables continual improvement in decision making, and insight into organisational risks and their impacts.

3. DEFINITIONS (AS/NZS ISO 31000:2018)

Risk management: culture, processes and structures directed towards realising potential opportunities whilst managing adverse effects.

- **Risk**: effect of uncertainty on objectives, noting future uncertain events may have a positive or negative impact.
- **Likelihood**: chance/probability/frequency of an event occurring.
- **Consequence**: outcome of an event and has an effect on objectives.
- **Hazard:** the source of the risk.
- **Risk analysis**: systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
- **Risk Treatments**: the provision of policies, standards and procedures or actions to eliminate or minimise adverse risks.
- **Residual risk**: remaining level of risk after risk treatment.
- **Risk tolerance**: level of risk/residual risk that the City is willing to accept for every day work, projects or events.

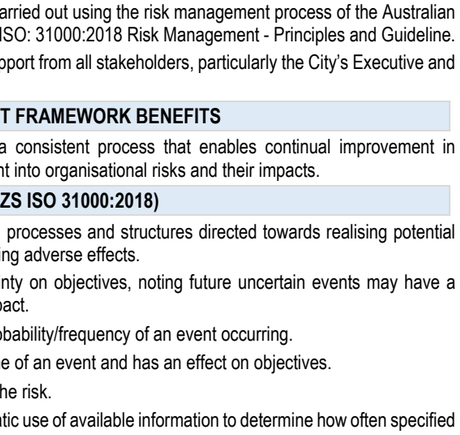
4. STAKEHOLDER RESPONSIBILITIES

The City of Albany's Risk & Opportunity Management Policy identifies the following responsibilities for all staff:

- Ensuring that risks in the work area are identified and managed.
- Proactively working with supervisors in reducing risk in your work area.
- Escalating risk where necessary.
- Monitoring, Reviewing, Reporting and Recording actions.

5. RISK MANAGEMENT PROCESS

As part of preparing to undertake daily business tasks, planning and implementing projects and events or coordinating the delivery of business unit services, it is imperative that all stakeholders recognise risks that may impact their deliverables to both internal and external stakeholders.



A - Communicate and Consult: Provide, share and obtain information with internal and external stakeholders during all stages of the risk management process.

B - Establish the Context: Define both internal and external factors to the City that may have an effect on the risk management process such as risk source and risk type.

C - Identify Risks: Recognise and adequately describe risks in their day-to-day business routines.

D – Analyse Risks: More detail is provided at Section 6. ANALYSE RISK PROCESS.



Analyse Risk Process

E – Evaluate Risks: Evaluate the risk by taking into account the City's risk tolerance rating and the return on investment in managing the risk, using the Risk Acceptance Criteria:

RISK ACCEPTANCE CRITERIA
*** From the risk's rating, are you willing to accept this risk?**
*** Who will be responsible for accepting the level of risk? * Refer to the table below and Risk Register**

Level of Risk	Description	When is the risk acceptable?	Who is responsible*	Timeframe for Action
LOW (1-4)	Acceptable	Risk acceptable with adequate controls, managed by routine procedures.	Responsible Officer	Review controls every 6 months
MEDIUM (5–9)	Monitor	Risk acceptable by observing, assessing and improving current controls and Council procedures.	Responsible Officer	Review controls every 3 months or As per risk register
HIGH (10 –16)	Urgent Attention Required	Risk acceptable by establishing and implementing new controls.	Executive & CEO	Controls implemented within two weeks of reporting Review controls every month
EXTREME (17-25)	Unacceptable	Risk only acceptable with excellent controls and all treatment plans to be explored and implemented where possible, managed by highest level of authority.	Audit & Risk Committee & Council	Controls implemented within 1 week of reporting Review of controls every 2 weeks

F – Treat Risks: Introduce the appropriate risk control measure.

Risk treatment options: For example: for people, health and safety use the hierarchy of controls below:

- **Eliminate the Hazard:** Engage specialist contractor for large tree pruning.
- **Substitute the Hazard:** Replace ladder with scissor lift, substitute solvent based paint with water based paint.
- **Engineering Controls:** Reverse alarms/lights fitted to plant, exhaust ventilation to remove fumes.
- **Administrative Controls**: Job rotation, work instructions, safety inspections.
- **Personal Protective Equipment (PPE):** Hearing protection devices, respirators, hard hats.

When considering an **opportunity risk (positive outcome)** there are four main categories that can be used. A positive outcome presents an opportunity which can be defined as *"a favourable or advantageous circumstance or combination of circumstances"*.

- **Accept (or tolerate):** The accepting of an opportunity is used in the same manner as accepting risk.
- **Improve:** Current resources are allocated to increase the likelihood of being in a position to realise an opportunity.
  Exploit: Additional resources are allocated to ensure that the opportunity becomes a certainty. *Example: The preparation of a business plan to lobby for external funding.*
- **Transfer:** Transfer the opportunity to a more specialised team and/or organisation that will ensure potential is maximised.

G – Monitor & Review: Clearly define responsibilities and assign. This stage of the process will assess the implemented treatments to ascertain their effectiveness and alignment to the City's risk tolerance ratings.

The results of monitoring and review are to be incorporated throughout the City's performance management, measurement and reporting activities.

H –Report & Record: The risk management process and its outcomes are to be documented and reported through appropriate mechanisms. The review may be in the form of self-assessments of risk registers and treatment plans and internal quality assurance audit of the risk management process.

6. ANALYSE RISK PROCESS

A – Consequences:

Risk Category / Level	Insignificant	Minor	Moderate	Major	Severe
Service Delivery Interruption *(Business Continuity Plan)*	Less than 2 hours, No material service interruption.	2 to 4 hours, Short term, temporary interruption, backlog cleared < 1 day.	5 to 10 hours, medium term, temporary interruption, backlog cleared by additional resources.	11 to 24 hours, prolonged interruption of services, additional resources, and performance affected.	More than 24 hours, indeterminate prolonged interruption of services, non – performance.
Community	Little or no disruption to the community.	Minor disruptions to the nearby community.	Significant disruption to the nearby community.	Substantiated disruptions to the wider spread community.	Major/multiple disruptions to the widespread community.
Environment	Little impact on environment.	Minor impact to the environment.	Environmental damage requiring restitution or internal clean-up.	Significant breach of legislation/significant contamination or damage requiring third party	Major breach of legislation or extensive environmental damage requiring third party investigation.
Financial	**Less than $5,000**	**$5,000 to $20,000**	**$20,000 to $50,000**	**$50,000 to $150,000**	**More than $150,000**
Legal & Compliance	Minor regulation breach.	Minor legal implications, non-compliance and breach of regulations.	Serious breach of regulations, with investigation and report by 3rd party. Prosecution and fines	Major litigation & class action against Council and responsible officers. Prosecution and fines imposed.	Custodial sentencing for responsible officers, multiple class actions and high end penalties.
Operational	Small impact on City deliverables.	Inconvenient delays in achieving deliverables.	Significant delays to achieving deliverables.	Non-achievement of major organisation deliverables.	Non-achievement of all organisations deliverables.
People Health & Safety	No injuries or injuries but not requiring first aid treatment, no leave taken.	First aid treatment required by first aid officer, sick leave, short term impact, recovery 1 to 3 weeks.	Onsite medical treatment by ambulance personnel longer term illness, recovery 1 to 6 months.	Extensive injuries requiring hospital admission, severe trauma, extended incapacity.	Death(s) or severe permanent injuries, mass hospitalisation, Post-traumatic Stress Disorder.
Property	Inconsequential or no damage to property.	Localised damage rectified by internal arrangements.	Localised damage rectified by internal and external	Significant property damage requiring external resources.	Extensive property damage resulting in prolonged period of recovery.
Reputation	Unsubstantiated, low impact, low profile, no news item.	Substantiated low impact, low news profile.	Substantiated public embarrassment, moderate impact, and moderate news	Substantiated public embarrassment, high impact news profile, third party actions.	Substantiated public embarrassment, very high multiple impacts, high widespread multiple news profile.

B – Likelihood Ratings:

Level	Description	Context	Operational Frequency	Project Frequency
A	**Almost Certain**	Expected to occur in most circumstances	More than once in 12 months	**Greater than 90%** chance of occurrence
B	**Likely**	Will probably occur in most circumstances	At least once in 12 months	**60% - 90% chance** of occurrence
C	**Possible**	Should occur at some time	At least once in three years.	**40% - 60% chance** of occurrence
D	**Unlikely**	Could occur at some time	At least once in ten years	**10% - 40% chance** of occurrence
E	**Rare**	May occur, only in exceptional circumstances	Less than once in fifteen years.	**Less than 10%** chance of occurrence

Likelihood Rating Table

C – Risk Rating Matrix:

LIKELIHOOD		CONSEQUENCES				
		Insignificant	Minor	Moderate	Major	Severe
		1	2	3	4	5
Almost Certain	5	Medium (5)	High (10)	High (15)	Extreme (20)	Extreme (25)
Likely	4	Low (4)	Medium (8)	High (12)	High (16)	Extreme (20)
Possible	3	Low (3)	Medium (6)	Medium (9)	High (12)	High (15)
Unlikely	2	Low (2)	Low (4)	Medium (6)	Medium (8)	High (10)
Rare	1	Low (1)	Low (2)	Low (3)	Low (4)	Medium (5)

D – Risk Categories: The City of Albany has defined its critical success factors and consequences in terms of impact on delivering the City's strategic, operational and project functions:

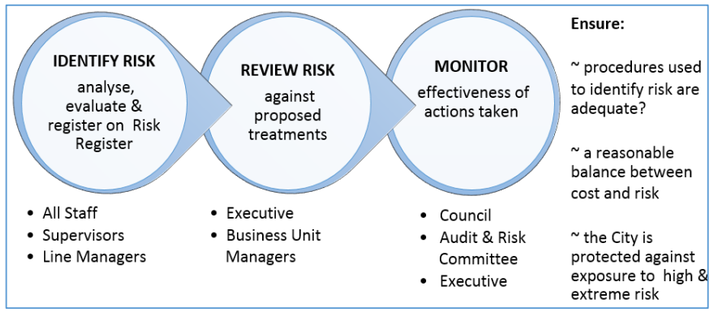
- **Service Delivery Interruption:** The interruption and non-performance of functions by the Council.
- **Community:** Community risk arises from inadequate or unclear communications of Council activities and plans to the local community members or a lack of consultation between Council and ratepayers.
- **Environment:** Environmental risks arise from poor or inadequate practices and systems when working in the environment.
- **Finance:** Financial and Budgetary risks arise from the misuse and/or poor management of annual budget, government grants and funding.
- **Legal and Compliance:** Legal implications and breaches, including fines and custodial sentencing and compliance with legislation and Local Laws.
- **Operational:** Operational, which includes resourcing risks arise from failed day-to-day business practices, processes, systems and personnel.
- **People Health and Safety:** Occupational Safety and Health (OSH) of our own staff and that of our contractors, volunteers and members of the public. These risks arise from failing to adhere to the City's OSH Policy and failure to report and manage known hazards.
- **Property:** Damage to Council property arising from mismanagement, vandalism and lack of security.

E – Level of Impact: The definitions below relate to the consequence table:

- **Insignificant:** Possible impact at a business unit or project level but no impact on organisation.
- **Minor:** Minimal impact on business unit or project and minor impact on organisation.
- **Moderate:** Considerable loss to project, business unit and/or and moderate impact on the organisation.
- **Major:** Significant impact on both project and/or organisation operations.
- **Severe:** Project or business unit failure with significant or catastrophic impact on organisation.

7. RISK REVIEW & REPORTING STRUCTURE

Risk reporting demonstrates that key risks are effectively managed and controlled to either mitigate their impact or exploit their outcomes as opportunities for growth.



A – Risk Reporting Categories: Reporting of risks in the City of Albany will come under two main organisational functions.

- **Strategic:** Risks that effect the achievement of the Organisation vision and objectives in the Strategic Plan.
- **Operational:** Risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

B – Risk Review Time Line:

- **Monthly:** Managers report to their respective Executive Director.
- **Monthly:** Executive Directors report **high** and **extreme** operational & strategic risks to the Executive Management Team (EMT).
- **Quarterly:** The Executive report **high** and **extreme strategic risks** to the Audit & Risk Committee by exception.

8. FURTHER RESOURCES

For further information email: staff@albany.wa.gov.au

9. VERSION CONTROL

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Risk & Opportunity Management Framework

28 July 2021

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Compare Results

Old File:		New File:
current-risk-framework.pdf	versus	**proposed-risk-framework.pdf**
2 pages (385 KB)		**2 pages (361 KB)**
20/06/2019 3:45:54 PM		28/07/2021 5:03:45 PM

Total Changes

118

Text only comparison

Content

16 Replacements

51 Insertions

51 Deletions

Styling and Annotations

0 Styling

0 Annotations

Go to First Change (page 1)

1. POLICY

The Risk & Opportunity Framework details how risk is managed at the City of Albany (the City).

The Council acknowledges that the effectiveness of risk management depends on its integration into the governance of the City, including decision-making.

Risk assessments will be carried out using the risk management process of the Australian Standard for Risk AS/NZS ISO: 31000:2018 Risk Management - Principles and Guideline.

The Council expects full support from all stakeholders, particularly the City's Executive and Management Teams.

2. RISK MANAGEMENT FRAMEWORK BENEFITS

This framework provides a consistent process that enables continual improvement in decision making, and insight into organisational risks and their impacts.

3. DEFINITIONS (AS/NZS ISO 31000:2018)

Risk management: culture, processes and structures directed towards realising potential opportunities whilst managing adverse effects.

- **Risk**: effect of uncertainty on objectives, noting future uncertain events may have a positive or negative impact.
- **Likelihood**: chance/probability/frequency of an event occurring.
- **Consequence**: outcome of an event and has an effect on objectives.
- **Hazard:** the source of the risk.
- **Risk analysis**: systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
- **Risk Treatments**: the provision of policies, standards and procedures or actions to eliminate or minimise adverse risks.
- **Residual risk**: remaining level of risk after risk treatment.
- **Risk tolerance**: level of risk/residual risk that the City is willing to accept for every day work, projects or events.

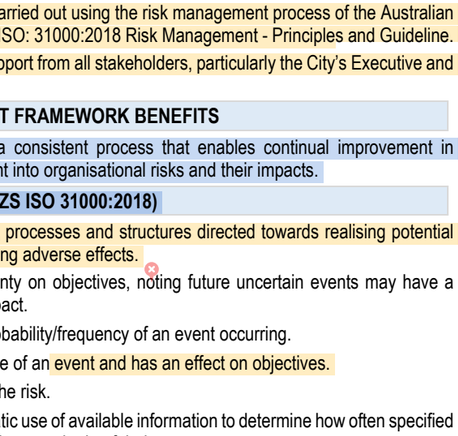
4. STAKEHOLDER RESPONSIBILITIES

The City of Albany's Risk & Opportunity Management Policy identifies the following responsibilities for all staff:

- Ensuring that risks in the work area are identified and managed.
- Proactively working with supervisors in reducing risk in your work area.
- Escalating risk where necessary.
- Monitoring, Reviewing, Reporting and Recording actions.

5. RISK MANAGEMENT PROCESS

As part of preparing to undertake daily business tasks, planning and implementing projects and events or coordinating the delivery of business unit services, it is imperative that all stakeholders recognise risks that may impact their deliverables to both internal and external stakeholders.



A - Communicate and Consult: Provide, share and obtain information with internal and external stakeholders during all stages of the risk management process.

B - Establish the Context: Define both internal and external factors to the City that may have an effect on the risk management process such as risk source and risk type.

C - Identify Risks: Recognise and adequately describe risks in their day-to-day business routines.

D – Analyse Risks: More detail is provided at Section 6. ANALYSE RISK PROCESS.



Analyse Risk Process

E – Evaluate Risks: Evaluate the risk by taking into account the City's risk tolerance rating and the return on investment in managing the risk, using the Risk Acceptance Criteria:

RISK ACCEPTANCE CRITERIA
* From the risk's rating, are you willing to accept this risk?
* Who will be responsible for accepting the level of risk? * Refer to the table below and Risk Register

Level of Risk	Description	When is the risk acceptable?	Who is responsible*	Timeframe for Action
LOW (1-4)	Acceptable	Risk acceptable with adequate controls, managed by routine procedures.	Responsible Officer	Review controls every 6 months
MEDIUM (5–9)	Monitor	Risk acceptable by observing, assessing and improving current controls and Council procedures.	Responsible Officer	Review controls every 3 months or As per risk register
HIGH (10 –16)	Urgent Attention Required	Risk acceptable by establishing and implementing new controls.	Executive & CEO	Controls implemented within two weeks of reporting Review controls every month
EXTREME (17-25)	Unacceptable	Risk only acceptable with excellent controls and all treatment plans to be explored and implemented where possible, managed by highest level of authority.	Audit & Risk Committee & Council	Controls implemented within 1 week of reporting Review of controls every 2 weeks

F – Treat Risks: Introduce the appropriate risk control measure.

Risk treatment options: For example: for people, health and safety use the hierarchy of controls below:

- **Eliminate the Hazard:** Engage specialist contractor for large tree pruning.
- **Substitute the Hazard:** Replace ladder with scissor lift, substitute solvent based paint with water based paint.
- **Engineering Controls:** Reverse alarms/lights fitted to plant, exhaust ventilation to remove fumes.
- **Administrative Controls**: Job rotation, work instructions, safety inspections.
- **Personal Protective Equipment (PPE):** Hearing protection devices, respirators, hard hats.

When considering an **opportunity risk (positive outcome)** there are four main categories that can be used. A positive outcome presents an opportunity which can be defined as *"a favourable or advantageous circumstance or combination of circumstances".*

- **Accept (or tolerate):** The accepting of an opportunity is used in the same manner as accepting risk.
- **Improve:** Current resources are allocated to increase the likelihood of being in a position to realise an opportunity.
  Exploit: Additional resources are allocated to ensure that the opportunity becomes a certainty. *Example: The preparation of a business plan to lobby for external funding.*
- **Transfer:** Transfer the opportunity to a more specialised team and/or organisation that will ensure potential is maximised.

G – Monitor & Review: Clearly define responsibilities and assign. This stage of the process will assess the implemented treatments to ascertain their effectiveness and alignment to the City's risk tolerance ratings.

The results of monitoring and review are to be incorporated throughout the City's performance management, measurement and reporting activities.

H –Report & Record: The risk management process and its outcomes are to be documented and reported through appropriate mechanisms. The review may be in the form of self-assessments of risk registers and treatment plans and internal quality assurance audit of the risk management process.

6. ANALYSE RISK PROCESS

A – Consequences:

Risk Category / Level	Insignificant	Minor	Moderate	Major	Severe
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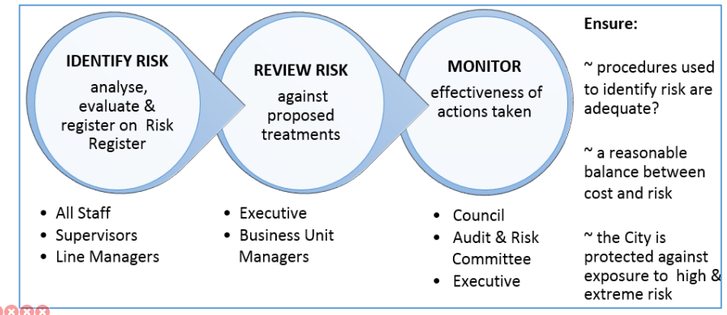
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CITY OF Albany

Risk & Opportunity Management Framework

28 July 2021

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Risk & Opportunity Management Policy

Objective

Seek to:

- ensure that as far as reasonably practicable, City of Albany (the City) operations do not place people, property, or the environment at unacceptable levels of risk or harm;
- add value to all the activities of the City;
- assist in achieving the Council's goals and deliver programs and services within a tolerable level of risk;
- embed risk and opportunity management into all management activities, critical business systems and processes; and
- ensure all risks are consistently assessed and managed within the City's Risk & Opportunity Management Framework.

Scope (Roles & Responsibility)

Risk Management falls on all levels of the organisation, which includes the Council as the governing body, the Chief Executive Officer and members of the Executive, staff and persons who perform functions and/or deliver services on behalf of the City.

All persons are responsible for:

- ensuring risk management action results in a movement from an endurable (negative) risk treatment towards a pleasing (positive) risk treatment;
- applying risk management practices in their area of work;
- ensuring effective communication of risk to others;
- that other persons (stakeholders) are aware of identified risks associated risk management and mitigation plans; and
- escalating risk where necessary.

Policy Statements

A: Council recognises that risk management is an integral part of all Council activities.

B: Council is committed to effective risk and opportunity management to:

- improve its ability to deliver community priorities, service delivery and outcomes for the City;
- maximise opportunities and minimise the impact and likelihood of risk;
- protect its employees, assets, liabilities and its community by avoiding or mitigating losses; and
- provide greater certainty for our employees, residents, stakeholders and the community in which we operate by understanding and managing our risks.

C: Council's commitment is demonstrated by:

- adopting a strategic, consistent and structured approach to risk management;
- clearing articulating its expectation that an appropriate balance between realising opportunities and mitigating losses be demonstrated; and
- upholding the International Standard on Risk Management (ISO 31000) which provides the overall framework for risk management.

Assigned Responsibility:

- **Council**, as the governing body of the City is responsible for determining the City's risk tolerance and commitment to risk management.

- The **Audit & Risk Committee**, working with the Executive Management Team is responsible for providing compliance oversight.

- The **Chief Executive Officer, Executive** and **designated persons** are accountable for the implementation and maintenance of risk management policies and processes across the organisation.

  Persons with assigned responsibility (i.e. **Risk Owners**) are ultimately responsible for ensuring that strategic and operational risks are regularly reviewed.

Under delegation from the Chief Executive Officer:

- The **Executive Management Team** (EMT) is accountable for ensuring risk management processes are embedded into their directorate work practices and **Risk Ownership** assigned.

  This includes ensuring that risks are identified, managed, reviewed, recorded and acceptable risk treatments are monitored.

- **All persons** (which includes staff, contractors and volunteers) are responsible for the implementation of risk management processes within their particular areas of responsibility.

- The **Governance & Risk Team, working with the People & Culture Team** is responsible for enabling the Executive through the provision of consultation and training resources.

Monitoring, evaluation and review

Risk assessment will be guided by the risk management processes detailed in the Standard.

The Risk & Opportunity Framework informs how risk is managed at the City of Albany.

Internal Auditing. An annual internal auditing program is to be established which will test the controls set in place by each directorate and be assessed against the key performance indictors set by the Executive and reported to Council.

External Auditing. Any external auditing will be undertaken routinely, in accordance with the *Local Government (Financial Management) Regulations 1996*.

Training and continuous improvement

Education and further professional development in the areas of risk management will be supported.

All staff who perform functions or deliver services on behalf of the City are expected to:

- attend risk & opportunity management induction;
- attend regular refresher training; and
- participate and contribute to the outcomes of training.

Consultation and Communication

Effective and open communication and consultation with internal and external stakeholders during all stages of the risk management process is crucial, as each stakeholder will have a varying perception of risk and their decisions will be based on this.

All staff of the City are to ensure stakeholders impacted by decisions have had sufficient chance to comment and provide feedback prior to implementation.

Legislative and Strategic Context

There is no legislative provision that specifically requires Councils to implement risk management.

However, there are references within the *Local Government Act 1995* ("the Act") that require Councils to adopt appropriate policies, practices and procedures that ensure their assets are protected through sound administrative management.

In addition, each Council's Audit Committee is responsible for 'reviewing the adequacy of accounting, internal control, reporting and other financial management systems and practices of the Council on a regular basis.

Specifically, under Regulation 17 of the Local Government (Audit) Regulations 1996 it is a responsibility of the Audit & Risk Committee to receive the CEO reviews conducted on the appropriateness of systems and procedures in relation to risk management, internal control and legislative compliance.

Strategic Context

This policy relates to the following elements of the City of Albany Strategic Community Plan or Corporate Business Plan informing plans or strategies:

- **Theme:** Leadership.
- **Objective:** To establish and maintain sound business and governance structures.
- **Community Priority:** Provide informed and transparent decision making that is consistent with our strategic direction, meets our legal obligations, reflects the level of associated risk and is adequately explained to the community.

Review Position and Date

This policy and procedure is to be reviewed by the document owner every two years.

Associated Documents

Documents that have a bearing on this policy and that may be useful reference material for users of this policy, follow:

- Risk Management Standard: AS/ISO 31000:2018
- Risk & Opportunity Management Framework
- Risk Management Handbook
- Health & Safety Manual
- Worksafe Resources:
    - Occupational Safety and Health Act and Regulations
    - Codes and Guidance Material

Definitions

Key terms and acronyms used and that apply to this policy position and subsidiary supporting documents (i.e. directives, guidelines, procedures, processes etc.) and their definitions:

Term	Meaning
Communication and consultation	Communication and consultation is a dialogue between an organisation and its stakeholders. This dialogue is both continual and iterative. It is a two-way process that involves both sharing and receiving information about the management of risk. However, this is not joint decision making. Once communication and consultation is finished, decisions are made and directions are set by the organisation, not by stakeholders. Discussions could be about risks, their nature, form, likelihood, and significance, as well as whether or not risks are acceptable or should be treated, and what treatment options should be considered.
Consequence	A consequence is the outcome of an event and has an effect on objectives. A single event can generate a range of consequences which can have both positive and negative effects on objectives. Initial consequences can also escalate through cascading and cumulative effects.
Context	To establish the context means to define the external and internal parameters that organisations must consider when they manage risk. An organisation's external context includes its external stakeholders, its local, national, and international environment, as well as any external factors that influence its objectives. An organisation's internal context includes its internal stakeholders, its approach to governance, its contractual relationships, and its capabilities, culture, and standards.
Control	A control is any measure or action that modifies or regulates risk. Controls include any policy, procedure, practice, process, technology, technique, method, or device that modifies or regulates risk. Risk treatments become controls, or modify existing controls, once they are implemented.
Event	An event could be one occurrence, several occurrences, or even a non-occurrence (when something doesn't actually happen that should have happened). It can also be a change in circumstances. Events always have causes and usually have consequences. Events without consequences are referred to as near-misses, near-hits, close-calls, or incidents.

External context	An organisation's external context includes all of the external environmental parameters and factors that influence how it manages risk and how it tries to achieve its objectives. It includes its external stakeholders, its local, national, and international environment, as well as key drivers and important trends that influence its objectives. It also includes stakeholder values, perceptions, and relationships, as well as its social, cultural, political, legal, regulatory, technological, economic, natural, and competitive environment.
Internal context	An organisation's internal context includes all of the internal environmental parameters and factors that influence how it manages risk and tries to achieve objectives. It includes its internal stakeholders, its approach to governance, its contractual relationships, and its capabilities, culture, and standards. Governance includes the organisation's structure, policies, objectives, roles, accountabilities, and decision making process, and capabilities include its knowledge and human, technological, capital, and systemic resources.
Level of risk	The level of risk is its magnitude. It is estimated by considering and combining consequences and likelihoods. A level of risk can be assigned to a single risk or to a combination of risks. Common level of risk categories includes the following: extreme risk, high risk, moderate risk, and low risk. Of course, you need to define each category so that everyone is using the same terminology in the same way.
Likelihood	Likelihood is the chance that something might happen. Likelihood can be defined, determined, or measured objectively or subjectively and can be expressed either qualitatively or quantitatively (using mathematics).
Monitoring	To monitor means to supervise and to continually check and critically observe. It means to determine the current status and to assess whether or not required or expected performance levels are being achieved.
Residual risk	Residual risk is the risk left over after you've implemented a risk treatment option. It's the risk remaining after you've reduced the risk, removed the source of the risk, modified the consequences, changed the probabilities, transferred the risk, or retained the risk.
Review	A review is an activity. Review activities are carried out in order to determine whether something is a suitable, adequate, and effective way of achieving established objectives. In general, ISO 31000 2018 expects you to review your risk management framework and your risk management process. It specifically expects you to review your risk management policy and plans as well as your risks, risk criteria, risk treatments, risk management controls, residual risks, and your risk assessment process.

Risk	According to ISO 31000, risk is the “effect of uncertainty on objectives” and an effect is a positive or negative deviation from what is expected. The following will explain what this means. ISO 31000 recognizes that all of us operate in an uncertain world. Whenever we try to achieve an objective, there’s always the chance that things will not go according to plan. Every step has an element of risk that needs to be managed and every outcome is uncertain. Whenever we try to achieve an objective, we don't always get the results we expect. Sometimes we get positive results and sometimes we get negative results and occasionally we get both. The traditional definition of risk combines three elements: it starts with a potential event and then combines its probability with its potential severity. A high risk event would have a high likelihood of occurring and a severe impact if it actually occurred. While ISO 31000 defines risk in a new and unusual way, the old and the new definitions are largely compatible. Both definitions talk about the same phenomena but from two different perspectives. ISO thinks of risk in goal-oriented terms while the traditional definition thinks of risk in event-oriented terms. These two definitions can and do co-exist. They’re two different ways of talking about the same phenomena. ISO provides a conceptual definition of risk while the traditional formulation operationalizes this general definition: it explains how to quantify risk. It argues that the amount or level of risk can be calculated by combining probability and severity.
Risk analysis	Risk analysis is a process that is used to understand the nature, sources, and causes of the risks that you have identified and to estimate the level of risk. It is also used to study impacts and consequences and to examine the controls that currently exist. How detailed your risk analysis ought to be will depend upon the risk, the purpose of the analysis, the information you have, and the resources available.
Risk assessment	Risk assessment is a process that is made up of three separate processes: risk identification, risk analysis, and risk evaluation. Risk identification is a process that is used to find, recognize, and describe the risks that could affect the achievement of objectives. Risk analysis is a process that is used to understand the nature, sources, and causes of the risks that you have identified and to estimate the level of risk. It is also used to study impacts and consequences and to examine the controls that exist. Risk evaluation is a process that is used to compare risk analysis results with risk criteria in order to determine whether or not a specified level of risk is acceptable or tolerable.

Risk attitude	An organisation's risk attitude defines its general approach to risk. An organisation's risk attitude (and its risk criteria) influence how risks are assessed and addressed. An organisation's attitude towards risk affects whether or not risks are taken, tolerated, retained, shared, reduced, or avoided, and whether or not treatments are implemented or postponed.
Risk criteria	Risk criteria are terms of reference and are used to evaluate the significance or importance of your organisation's risks. They are used to determine whether a specified level of risk is acceptable or tolerable. Risk criteria should reflect your organisation's values, policies, and objectives, should be based on its external and internal context, should consider the views of stakeholders, and should be derived from standards, laws, policies, and other requirements.
Risk evaluation	Risk evaluation is a process that is used to compare risk analysis results with risk criteria in order to determine whether or not a specified level of risk is acceptable or tolerable.
Risk identification	Risk identification is a process that involves finding, recognizing, and describing the risks that could influence the achievement of objectives. It is used to identify possible sources of risk in addition to the events and circumstances that could influence the achievement of objectives. It also includes the identification of possible causes and potential consequences. You can use historical data, theoretical analysis, informed opinions, expert advice, and stakeholder input to identify your organisation's risks.
Risk management	Risk management refers to a coordinated set of activities and methods that is used to direct an organisation and to control the many risks that can affect its ability to achieve objectives. The term risk management also refers to the programme that is used to manage risk. This programme includes risk management principles, a risk management framework, and a risk management process. Risk & Opportunity Management in a project context: • **Risk Management:** Risk management can be described as the process of proactively working with stakeholders to minimise the risks and maximise the opportunity associated with project decisions. • **Opportunity Management:** Opportunity management is the process that converts the chance to decisiveness and is increasingly becoming embedded in the culture of organisations as they mature and broaden their understanding of the value that managing uncertainty can bring. For positive risk or opportunity management to be effective in creating or protecting value it must be an integral part of the management processes, be embedded in the culture and practices of the organisation, be tailored to the business process of the organisation, and comply with the risk management principles outlined in ISO 31000. Where risk management seeks to understand what might go badly in a project, opportunity management looks for what might go better.
Risk management framework	According to ISO 31000, a risk management framework is a set of components that support and sustain risk management throughout an organisation. There are two types of components: foundations and arrangements. Foundations include your risk management policy, objectives, mandate, and commitment. And arrangements include the plans, relationships, accountabilities, resources, processes, and activities you use to manage your organisation's risk.

Risk management plan	An organisation's risk management plan describes how it intends to manage risk. It describes the management components, the approach, and the resources that are used to manage risk. Typical management components include procedures, practices, responsibilities, and activities (including their sequence and timing). Risk management plans can be applied to products, processes, and projects, or to an entire organisation or to any part of it.
Risk management policy	A policy statement defines a general commitment, direction, or intention. A risk management policy statement expresses an organisation's commitment to risk management and clarifies its general direction or intention.
Risk management process	According to ISO 31000, a risk management process systematically applies management policies, procedures, and practices to a set of activities intended to establish the context, communicate and consult with stakeholders, and identify, analyze, evaluate, treat, monitor, record, report, and review risk.
Risk owner	A risk owner is a person or entity that has been given the authority to manage a particular risk and is accountable for doing so.
Risk profile	A risk profile is a written description of a set of risks. A risk profile can include the risks that the entire organisation must manage or only those that a particular function or part of the organisation must address.
Risk source	A risk source has the intrinsic potential to give rise to risk. A risk source is where a risk originates. It's where it comes from. Potential sources of risk include at least the following: commercial relationships and obligations, legal expectations and liabilities, economic shifts and circumstances, technological innovations and upheavals, political changes and trends, natural events and forces, human frailties and tendencies, and management shortcomings and excesses. All of these things could generate a risk that must be managed.
Risk treatment	Risk treatment is a risk modification process. It involves selecting and implementing one or more treatment options. Once a treatment has been implemented, it becomes a control or it modifies existing controls. You have many treatment options. You can avoid the risk, you can reduce the risk, you can remove the source of the risk, you can modify the consequences, you can change the probabilities, you can share the risk with others, you can simply retain the risk, or you can even increase the risk in order to pursue an opportunity.
Stakeholder	A stakeholder is a person or an organisation that can affect or be affected by a decision or an activity. Stakeholders also include those who have the perception that a decision or an activity can affect them. ISO 31000 2018 distinguishes between external and internal stakeholders.
Strategic Risk	Strategic risks are risks that could affect the achievement of the organisations vision and strategic objectives.
Operational Risk	Operational risks are those which could impact on the organisations effectiveness and efficiency.

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2.0	MGR	Adopted by Council on 28 June 2016, Resolution AR021. Document Reference: NP1223761.	05/07/2016
2.1	MGR	Revised OCM 23/05/2017 Resolution CCCS028. Document Reference: NP1767024	20/06/2017
2.2	MGR	Fully revised and prepared for Audit & Risk Committee and Council review, to reflect changes to standard from (AS/NZS ISO 31000:2009 to AS/ISO 31000:2018).	27/07/2021

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Compare Results

Old File:		New File:
current risk policy.pdf	versus	**proposed risk policy.pdf**
4 pages (336 KB)		**9 pages (167 KB)**
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Total Changes

89

Text only comparison

Content

51 Replacements

26 Insertions

12 Deletions

Styling and Annotations

0 Styling

0 Annotations

Go to First Change (page 1)

Risk & Opportunity Management Policy

Objective

Seek to:

- ensure that as far as reasonably practicable, City of Albany (the City) operations do not place people, property, or the environment at unacceptable levels of risk or harm;
- add value to all the activities of the City;
- assist in achieving the Council's goals and deliver programs and services within a tolerable level of risk;
- embed risk and opportunity management into all management activities, critical business systems and processes; and
- ensure all risks are consistently assessed and managed within the City's Risk & Opportunity Management Framework.

Scope (Roles & Responsibility)

Risk Management falls on all levels of the organisation, which includes the Council as the governing body, the Chief Executive Officer and members of the Executive, staff and persons who perform functions and/or deliver services on behalf of the City.

All persons are responsible for:

- ensuring risk management action results in a movement from an endurable (negative) risk treatment towards a pleasing (positive) risk treatment;
- applying risk management practices in their area of work;
- ensuring effective communication of risk to others;
- that other persons (stakeholders) are aware of identified risks associated risk management and mitigation plans; and
- escalating risk where necessary.

Policy Statements

A: Council recognises that risk management is an integral part of all Council activities.

B: Council is committed to effective risk and opportunity management to:

- improve its ability to deliver community priorities, service delivery and outcomes for the City;
- maximise opportunities and minimise the impact and likelihood of risk;
- protect its employees, assets, liabilities and its community by avoiding or mitigating losses; and
- provide greater certainty for our employees, residents, stakeholders and the community in which we operate by understanding and managing our risks.

C: Council's commitment is demonstrated by:

- adopting a strategic, consistent and structured approach to risk management;
- clearing articulating its expectation that an appropriate balance between realising opportunities and mitigating losses be demonstrated; and
- upholding the International Standard on Risk Management (ISO 31000) which provides the overall framework for risk management.

Assigned Responsibility:

- **Council**, as the governing body of the City is responsible for determining the City's risk tolerance and commitment to risk management.

- The **Audit & Risk Committee**, working with the Executive Management Team is responsible for providing compliance oversight.

- The **Chief Executive Officer, Executive** and **designated persons** are accountable for the implementation and maintenance of risk management policies and processes across the organisation.

  Persons with assigned responsibility (i.e. **Risk Owners**) are ultimately responsible for ensuring that strategic and operational risks are regularly reviewed.

Under delegation from the Chief Executive Officer:

- The **Executive Management Team** (EMT) is accountable for ensuring risk management processes are embedded into their directorate work practices and **Risk Ownership** assigned.

  This includes ensuring that risks are identified, managed, reviewed, recorded and acceptable risk treatments are monitored.

- **All persons** (which includes staff, contractors and volunteers) are responsible for the implementation of risk management processes within their particular areas of responsibility.

- The **Governance & Risk Team, working with the People & Culture Team** is responsible for enabling the Executive through the provision of consultation and training resources.

Monitoring, evaluation and review

Risk assessment will be guided by the risk management processes detailed in the Standard.

The Risk & Opportunity Framework informs how risk is managed at the City of Albany.

Internal Auditing. An annual internal auditing program is to be established which will test the controls set in place by each directorate and be assessed against the key performance indictors set by the Executive and reported to Council.

External Auditing. Any external auditing will be undertaken routinely, in accordance with the *Local Government (Financial Management) Regulations 1996*.

Training and continuous improvement

Education and further professional development in the areas of risk management will be supported.

All staff who perform functions or deliver services on behalf of the City are expected to:

- attend risk & opportunity management induction;
- attend regular refresher training; and
- participate and contribute to the outcomes of training.

Consultation and Communication

Effective and open communication and consultation with internal and external stakeholders during all stages of the risk management process is crucial, as each stakeholder will have a varying perception of risk and their decisions will be based on this.

All staff of the City are to ensure stakeholders impacted by decisions have had sufficient chance to comment and provide feedback prior to implementation.

Legislative and Strategic Context

There is no legislative provision that specifically requires Councils to implement risk management.

However, there are references within the *Local Government Act 1995* ("the Act") that require Councils to adopt appropriate policies, practices and procedures that ensure their assets are protected through sound administrative management.

In addition, each Council's Audit Committee is responsible for 'reviewing the adequacy of accounting, internal control, reporting and other financial management systems and practices of the Council on a regular basis.

Specifically, under Regulation 17 of the Local Government (Audit) Regulations 1996 it is a responsibility of the Audit & Risk Committee to receive the CEO reviews conducted on the appropriateness of systems and procedures in relation to risk management, internal control and legislative compliance.

Strategic Context

This policy relates to the following elements of the City of Albany Strategic Community Plan or Corporate Business Plan informing plans or strategies:

- **Theme:** Leadership.
- **Objective:** To establish and maintain sound business and governance structures.
- **Community Priority:** Provide informed and transparent decision making that is consistent with our strategic direction, meets our legal obligations, reflects the level of associated risk and is adequately explained to the community.

Review Position and Date

This policy and procedure is to be reviewed by the document owner every two years.

Associated Documents

Documents that have a bearing on this policy and that may be useful reference material for users of this policy, follow:

- Risk Management Standard: AS/ISO 31000:2018
- Risk & Opportunity Management Framework
- Risk Management Handbook
- Health & Safety Manual
- Worksafe Resources:
  - Occupational Safety and Health Act and Regulations
  - Codes and Guidance Material

Definitions

Key terms and acronyms used and that apply to this policy position and subsidiary supporting documents (i.e. directives, guidelines, procedures, processes etc.) and their definitions:

Term	Meaning
Communication and consultation	Communication and consultation is a dialogue between an organisation and its stakeholders. This dialogue is both continual and iterative. It is a two-way process that involves both sharing and receiving information about the management of risk. However, this is not joint decision making. Once communication and consultation is finished, decisions are made and directions are set by the organisation, not by stakeholders. Discussions could be about risks, their nature, form, likelihood, and significance, as well as whether or not risks are acceptable or should be treated, and what treatment options should be considered.
Consequence	A consequence is the outcome of an event and has an effect on objectives. A single event can generate a range of consequences which can have both positive and negative effects on objectives. Initial consequences can also escalate through cascading and cumulative effects.
Context	To establish the context means to define the external and internal parameters that organisations must consider when they manage risk. An organisation's external context includes its external stakeholders, its local, national, and international environment, as well as any external factors that influence its objectives. An organisation's internal context includes its internal stakeholders, its approach to governance, its contractual relationships, and its capabilities, culture, and standards.
Control	A control is any measure or action that modifies or regulates risk. Controls include any policy, procedure, practice, process, technology, technique, method, or device that modifies or regulates risk. Risk treatments become controls, or modify existing controls, once they are implemented.
Event	An event could be one occurrence, several occurrences, or even a non-occurrence (when something doesn't actually happen that should have happened). It can also be a change in circumstances. Events always have causes and usually have consequences. Events without consequences are referred to as near-misses, near-hits, close-calls, or incidents.

External context	An organisation's external context includes all of the external environmental parameters and factors that influence how it manages risk and how it tries to achieve its objectives. It includes its external stakeholders, its local, national, and international environment, as well as key drivers and important trends that influence its objectives. It also includes stakeholder values, perceptions, and relationships, as well as its social, cultural, political, legal, regulatory, technological, economic, natural, and competitive environment.
Internal context	An organisation's internal context includes all of the internal environmental parameters and factors that influence how it manages risk and tries to achieve objectives. It includes its internal stakeholders, its approach to governance, its contractual relationships, and its capabilities, culture, and standards. Governance includes the organisation's structure, policies, objectives, roles, accountabilities, and decision making process, and capabilities include its knowledge and human, technological, capital, and systemic resources.
Level of risk	The level of risk is its magnitude. It is estimated by considering and combining consequences and likelihoods. A level of risk can be assigned to a single risk or to a combination of risks. Common level of risk categories includes the following: extreme risk, high risk, moderate risk, and low risk. Of course, you need to define each category so that everyone is using the same terminology in the same way.
Likelihood	Likelihood is the chance that something might happen. Likelihood can be defined, determined, or measured objectively or subjectively and can be expressed either qualitatively or quantitatively (using mathematics).
Monitoring	To monitor means to supervise and to continually check and critically observe. It means to determine the current status and to assess whether or not required or expected performance levels are being achieved.
Residual risk	Residual risk is the risk left over after you've implemented a risk treatment option. It's the risk remaining after you've reduced the risk, removed the source of the risk, modified the consequences, changed the probabilities, transferred the risk, or retained the risk.
Review	A review is an activity. Review activities are carried out in order to determine whether something is a suitable, adequate, and effective way of achieving established objectives. In general, ISO 31000 2018 expects you to review your risk management framework and your risk management process. It specifically expects you to review your risk management policy and plans as well as your risks, risk criteria, risk treatments, risk management controls, residual risks, and your risk assessment process.

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Risk analysis	Risk analysis is a process that is used to understand the nature, sources, and causes of the risks that you have identified and to estimate the level of risk. It is also used to study impacts and consequences and to examine the controls that currently exist. How detailed your risk analysis ought to be will depend upon the risk, the purpose of the analysis, the information you have, and the resources available.
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Risk owner	A risk owner is a person or entity that has been given the authority to manage a particular risk and is accountable for doing so.
Risk profile	A risk profile is a written description of a set of risks. A risk profile can include the risks that the entire organisation must manage or only those that a particular function or part of the organisation must address.
Risk source	A risk source has the intrinsic potential to give rise to risk. A risk source is where a risk originates. It's where it comes from. Potential sources of risk include at least the following: commercial relationships and obligations, legal expectations and liabilities, economic shifts and circumstances, technological innovations and upheavals, political changes and trends, natural events and forces, human frailties and tendencies, and management shortcomings and excesses. All of these things could generate a risk that must be managed.
Risk treatment	Risk treatment is a risk modification process. It involves selecting and implementing one or more treatment options. Once a treatment has been implemented, it becomes a control or it modifies existing controls. You have many treatment options. You can avoid the risk, you can reduce the risk, you can remove the source of the risk, you can modify the consequences, you can change the probabilities, you can share the risk with others, you can simply retain the risk, or you can even increase the risk in order to pursue an opportunity.
Stakeholder	A stakeholder is a person or an organisation that can affect or be affected by a decision or an activity. Stakeholders also include those who have the perception that a decision or an activity can affect them. ISO 31000 2018 distinguishes between external and internal stakeholders.
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Manager Governance & Risk (MGR)	Executive Director Corporate & Commercial Services (EDCCS)

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Lake Mullocullup
Reserve 16367

Post-Gazettal
Environmental Monitoring Report



Lake Mullocullup – Warriup Swamp

Prepared By: Vanessa Jackson
Reserves Officer

Date: May 2021

File Reference: EM.MON.10

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INTRODUCTION

Lake Mullocullup also known as Warriup Lake is a City managed Reserve located on Warriup Rd in Green Range. The lake is an inland freshwater wetland which has significant environmental and cultural values and has been registered as an Aboriginal Site for mythological reasons.

This report provides the data and details from the monitoring undertaken from 2020-2021 to determine any significant impacts on the environmental or cultural values.

BACKGROUND

Council supported the gazettal of Lake Mullocullup by Department of Transport in October 2018: Following the gazettal an annual monitoring program commenced which has included:

1. Regular field site assessments by City staff to determine any impacts such as use, litter, presence of algae and vegetation damage;
2. Traffic Data Logger Monitoring to determine visitation.
3. Water Quality Monitoring to measure Hydro Carbon (PAH) levels in the lake and at least one other in a similar lake nearby (Swan Lake) that has no history of Water Skiing; and
4. Annual bird surveys.

FINDINGS

FIELD SITE ASSESSMENTS

Environmental monitoring at Lake Mullocullup has been undertaken in the form of field visit assessments by City of Albany staff over a three-year period (03/12/2018 to 22/4/2021). Field visits were conducted on a monthly basis throughout this time, increasing to fortnightly assessments over the summer months, alternating mid-week and weekend times from December to March. In the 2020/21 period a total of 10 field visits were conducted, with type of impacts assessed including: recreational activities (number of people sited, number of vehicles, boats, recreational activities being undertaken) and environmental issues (illegal camping, litter, vandalism, firewood collection and water quality).

The Reserves team did not observe any recreational activities taking place between August 2020 and May 2021. There was evidence of vehicle tracks to the water's edge indicating boat/kayak launching activity; there was also some evidence of litter and vandalism. There was no clearly observable degradation or environmental impacts from visitation.

Findings are summarised in the following table:

Table 1 Results from City of Albany Reserves Inspections August to April

	2019/2020 RESULTS	2020/2021 RESULTS
TOTAL VISITS	**(22)** Monthly visits throughout the year 2019; fortnightly over summer months alternating mid-week and weekends from December to March 2020 Mid-week visits = 18; Weekend visits = 4	**(10**) Monthly visits throughout the year 2020/21; fortnightly over summer months alternating mid-week and weekends from August 2020 to April 2021 Mid-week visits = 8; Weekend visits = 2

VEHICLES	3 Sightings; total of 4 vehicles Numerous evidence of vehicle tracks (4WD, cars, quad bikes and motorbikes) undertaking boat launching (kayaks and motorised craft) to water's edge - usually over weekends	0 Sightings; 1 Abandoned Vehicle reported Numerous vehicle tracks with no actual vehicle observations (4WD, cars, quad bikes and motorbikes) undertaking boat launching (kayaks or motorised craft).
PEOPLE	4 Sightings; total of 14 people, 12 adults and 2 children - 7 x undertaking 2 separate cultural activities; 2 x DoT sign installation; 5 x multigenerational family undertaking swimming and kayaking Evidence of people utilising area for boat launching, also of children due to sandcastles present	Nil Sightings; Evidence of people utilising area for boat launching, however there was rubbish present around launch area.
BOATS	1 sighting - kayak	Nil Sightings; 2 Reports of Illegal jet skiers- September 2020 and January 2021
CAMPING	No sightings, but one report of evidence of camping in cleared area opposite boat launching site	No sightings; evidence of vehicles and use of camping area.
RECREATION	1 sighting of multi-generational family of 5 undertaking swimming and kayaking Numerous evidence of boat launching; evidence of children due to sandcastles	Evidence of boat launching;
CULTURAL	2 sightings of cultural activities; one group of 3 undertaking research UWA; 4 people including 3 indigenous trainees undertaking seed collection	NIL
OTHER	3 reports of Evidence of signage installation from DoT and CoA; 2 reports of evidence of dogs	NIL
BIRD LIFE	7 sightings of abundant bird life on lake; frogs; dragonflies; fish	Multiple sightings of abundant bird life on lake; frogs; dragonflies; fish.
LITTER	9 sightings of small amount of litter including: twine, bottle cap, used toilet paper, chocolate wrapper	Evidence of small amount of litter including: beer bottles, bottle caps, used toilet paper and chocolate wrappers.
VANDALISM	2 reports of evidence of vandalism: one removal of temporary blue-green algae health warning sign; one of trampling of vegetation adjacent to boat launching area	2 reports of evidence of vandalism: Hacking back of vegetation adjacent to boat launching area, branches had to be dragged away from launch area.
WATER QUALITY	11 sightings of green scum on surface and water's edge; water sampling has confirmed Cyanobacteria blue-green algae on at least 2 separate occasions *Coelosphaerium spp.* and *Nodularia spumigena*	2 sightings of green scum on surface and water's edge; 8 visits where water quality was clear.

Comparison and Considerations

There was much less visitation and recreational usage primarily due to South Coast Highway being closed for a six-month period from early January to July, with Main Roads restricting access to the site. Historically, data indicates that January tends to be the busiest period.

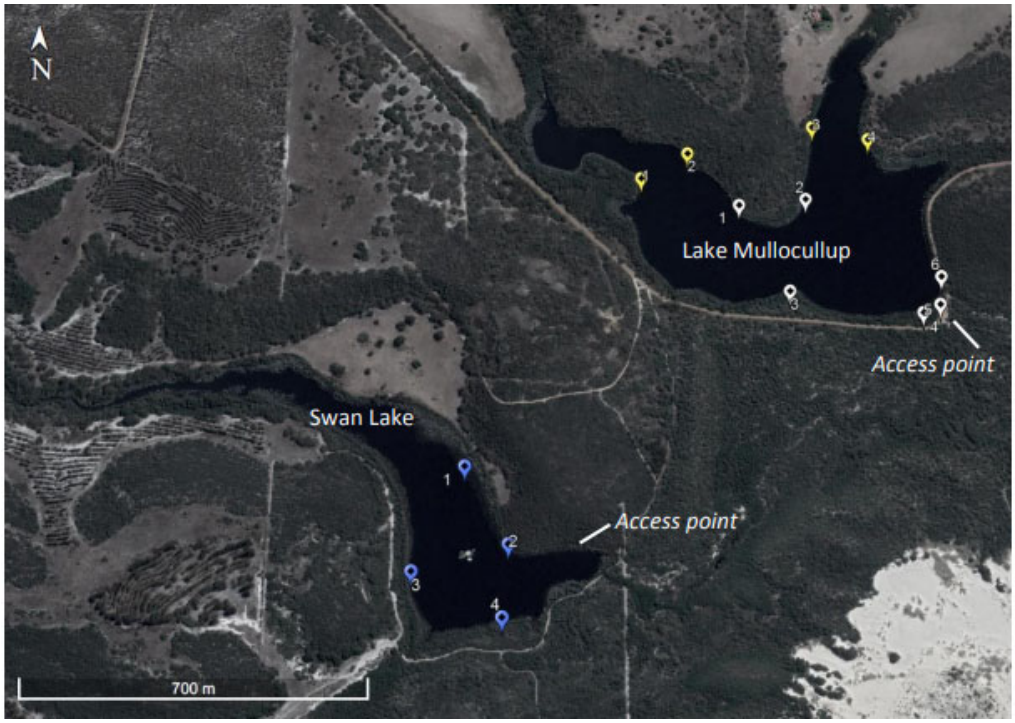
The water quality was better in 2021 with no Blue Green Algae observed over the inspection period and there was also a reduction of green scum observed during inspections. There were no significant changes in litter and vandalism recorded.

TRAFFIC DATA LOGGER MONITORING

The traffic data logger was installed adjacent to the boat launching access track, however there was a system failure and no data was recorded. There is no data comparison available between previous years.

WATER QUALITY MONITORING:

Monitoring was undertaken in April 2021 comprising again of the fourteen sampling locations across six experimental transects, and four control transects at Lake Mullocullup, with an additional four transects at the control site at adjacent Swan Lake. The measured parameters included a combination of physical, biological and chemical elements to test various aspects of water quality encompassing: pH, turbidity, dissolved oxygen, conductivity, temperature, Chlorophyll A, as well as chemical contaminants polycyclic aromatic hydrocarbons (PAH's) found in the lake sediments.



Water Quality Monitoring Study Area Transect Sites at Lake Mullocullup and Swan Lake.

Overall report recommendations included:

1. As the gazettal of Lake Mullocullup could increase the number of people accessing the area, it would be worthwhile to continue monitoring the level of use.

2. Sediment should be monitored for the accumulation of PAHs over time.

3. Water quality monitoring should continue, particularly during summer months, including efforts to detect harmful blue-green algal species such as *Microcystis flos-aquae*. Blooms of such species could reduce the viability of the lake for water skiing due to human health concerns, so appropriate signage should be installed and maintained.

4. The CoA should continue monitoring conditions in the area. In particular, it would be useful to*:*

(i) document the nature, frequency and extent of visitor activities;
(ii) monitor for evidence of camp-fire use; and
(iii) establish photo-points or quadrats to monitor gradual retreat of vegetation caused by increased use.

The findings can be referred to in the *Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from Baseline Monitoring in November 2018*, the *Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from March 2020, Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from March 2021* by Justin Benson - Centre of Excellence in Natural Resource Management UWA.

Control Site

The adjacent lake colloquially known as Swan Lake was used as a control site for comparison between lakes with and without the activity of water skiing, on all water quality sampling dates in November 2018, March 2020 and April 2021.

BIRD SURVEY

Bird surveys was conducted at Lake Mullocullup in February 2019 and again in February 2021 by ornithologist Anne Bondin. In the most recent survey a total of 47 species were recorded at the site, of which 21 were waterbirds with a total of 478 individuals counted. This was up on previous observations of which recorded nineteen species of waterbirds recorded with a total of 210 individuals counted. Due to the ephemeral nature of many wetlands the majority of Australian waterbirds is highly nomadic, opportunistically seeking out habitat suitable for both feeding and breeding.

No threatened species under the *Biodiversity Conservation Act 2016* or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded at the reserve during this survey.

The findings can be referred to in the *Avian Fauna Survey at Mullocullup Nature Reserve (February 2021)* by Anne Bondin.

CONCLUSION

The results of the environmental monitoring - encompassing field assessment monitoring, traffic logger data, water quality monitoring, fish and avian surveys – when comparing pre and post gazettal data indicates no significant increased activity, change or adverse environmental impacts sustained at Lake Mullocullup since the gazettal by Department of Transport allowing recreational speed-boating activities in October 2018.

RECOMMEDATIONS

1. Bi-annual site inspections to monitor the vegetation and use of the launch and camping areas (September and March).
2. The continued use of the track counter over the summer period to gather data and a greater understanding of when and how the area is being used.

Water monitoring and bird surveys are only to occur on an as required basis, as there have been no significant impacts on the values of Lake Mullocullup identified in the annual monitoring undertaken since the gazettal.

REFERENCE DOCUMENTS

- *Lake Mullocullup Field Visit Assessment Spreadsheet and Summary (April 2021)*
- *Lake Mullocullup Trafx Report (April 2020)*
- *Avian Fauna Survey at Mullocullup Nature Reserve (February 2019)* by Anne Bondin
- *Avian Fauna Survey at Mullocullup Nature Reserve (February 2021)* by Anne Bondin
- *Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from Baseline Monitoring in November 2018* by Justin Benson - The Centre of Excellence in Natural Resource Management UWA School of Agriculture and Environment
- *Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from March 2020* by Justin Benson - The Centre of Excellence in Natural Resource Management UWA School of Agriculture and Environment (April 2020)
- *Lake Mullocullup Waterski Zone Monitoring Report: Summary of Results from April 2021* by Justin Benson - The Centre of Excellence in Natural Resource Management UWA School of Agriculture and Environment (April 2021)
- *Results of Noongar Community Consultation Regarding Recreational Use at Lake Mullocullup (Warriup Swamp)* by Dr Myles B. Mitchell (February 2018)

All Reference documents are available on request.

Avian Fauna survey at Lake Mullocullop Nature Reserve

February 2021

by

Anne Bondin



At the request of the City of Albany a half-day survey was conducted to obtain further information about the birdlife using the lake contained within Mullocullop Nature Reserve. The survey which was conducted on 24 February will provide a further snapshot of the lake's bird life at a time when other wetlands may be drying up.

A total of 47 species were recorded at the reserve. Twenty-one of those were waterbirds with a total of 478 individuals counted. Waterbird numbers were more than twice as high compared to the surveys conducted in February 2016 when 215 waterbirds were recorded and February 2019 when 210 waterfowl were seen at the lake. The number of species recorded on the lake was also higher.

As is the case with the majority of Australian lakes, waterbird numbers on Mullocullop lake will show constant variations, as will the number of species present. Due to the ephemeral nature of many wetlands the majority of Australian waterbirds is highly nomadic, opportunistically seeking out habitat suitable for both feeding and breeding.

No threatened species protected under the *Biodiversity Conservation Act 2016* or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded at the reserve during this survey. Migratory species protected under international agreements were not encountered.

Species list for Mullocullop Nature Reserve
(based on BirdLife Australia's latest working bird list with up-to-date taxonomy)

ANSERIFORMES

Anatidae

Oxyura australis	Blue-billed Duck (79)
Biziura lobata	Musk Duck (80)
Malacorhynchus membranaceus	Pink-eared Duck (18)
Cygnus atratus	Black Swan (2)
Tadorna tadornoides	Australian Shelduck (6)
Chenonetta jubata	Australian Wood Duck (6)
Anas rhynchotis	Australasian Shoveler (8)
Anas superciliosa	Pacific Black Duck (24)
Anas gracilis	Grey Teal (15)

PODICIPEDIFORMES

Podicipedidae

Tachybaptus novaehollandiae	Australasian Grebe (1)
Poliocephalus poliocephalus	Hoary-headed Grebe (142)
Podiceps cristatus	Great Crested Grebe (1)

COLUMBIFORMES

Columbidae

Phaps chalcoptera	Common Bronzewing

GRUIFORMES

Rallidae

Porzana tabuensis	Spotless Crake (3)
Porphyrio porphyrio	Purple Swamphen (2)
Fulica atra	Eurasian Coot (57)

CICONIIFORMES

Threskiornithidae

Threskiornis molucca	Australian White Ibis (5)

Ardeidae

Ardea alba	Great Egret (1)
Egretta novaehollandiae	White-faced Heron (1)

PHALACROCORACIFORMES

Phalacrocoracidae

Microcarbo melanoleucos	Little Pied Cormorant (12)
Phalacrocorax sulcirostris	Little Black Cormorant (15)
Phalacrocorax varius	Great Pied Cormorant (1) (Pied Cormorant)

CORACIIFORMES

Alcedinidae

Todiramphus sanctus	Sacred Kingfisher

PSITTACIFORMES

Cacatuidae

Eolophus roseicapillus	Galah

Psittaculidae

Barnardius zonarius	Australian Ringneck

PASSERIFORMES

Maluridae:

Malurus splendens	Splendid Fairy-wren
Malurus elegans	Red-winged Fairy-wren

Meliphagidae

Phylidonyris novaehollandiae	New Holland Honeyeater
Lichmera indistincta	Brown Honeyeater
Melithreptus chloropsis	Gilbert's Honeyeater (White-naped Honeyeater)
Acanthorhynchus superciliosus	Western Spinebill
Anthochaera lunulata	Western Wattlebird
Anthochaera carnunculata	Red Wattlebird

Acanthizidae

Gerygone fusca	Western Gerygone
Smicrornis brevirostris	Weebill
Sericornis frontalis	White-browed Scrubwren
Acanthiza apicalis	Inland Thornbill

Neosittidae

Daphoenositta chrysoptera	Varied Sittella

Pachycephalidae

Pachycephala pectoralis	Golden Whistler

Artamidae

Strepera versicolor	Grey Currawong
Cracticus tibicen	Australian Magpie
Cracticus torquatus	Grey Butcherbird
Artamus cyanopterus	Dusky Woodswallow

Ripiduridae

Rhipidura leucophrys	Willie Wagtail
Rhipidura albiscapa	Grey Fantail

Corvidae

Corvus coronoides	Australian Raven

Zosteropidae

Zosterops lateralis	Silvereye

Notes

The survey was carried out on 24 February between the hours of 7:50am and 12:30pm. Being a daytime survey the opportunity to record species active at night, such as owls, was limited.

A total of 47 species of birds were recorded (21 waterbirds / 26 bushbirds)

The number of individual waterbirds recorded is shown in brackets. A total of 478 waterbirds was recorded.

Some name changes have occurred. The old name appears in brackets.

LAKE MULLOCULLUP WATER-SKI ZONE MONITORING REPORT: SUMMARY OF RESULTS FROM APRIL 2021

REPORT NO. CENRM2021-3



Prepared for:

City of Albany

Prepared by:

Centre for Natural Resource Management,

The University of Western Australia, Albany Campus

May 2021

Centre for Natural Resource Management, the University of Western Australia, Albany Campus.

TITLE Lake Mullocullup water-ski zone monitoring report: summary of results from April 2021

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DATE May 2021

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Executive summary

With the recent gazettal of Lake Mullocullup for water skiing, concerns were raised over potential impacts on the ecological, recreational, and cultural values of the area. Assessment of ecological values was undertaken in November 2018 (Report: CENRM152) and March 2020 (Report: CENRM2020-1). These monitoring efforts established suitable locations for experimental and control sites, and collected environmental data to monitor the effects of water skiing. This document reports on subsequent monitoring conducted in April 2021. The objectives were to (1) repeat the original protocol in order to facilitate comparison with previous reports, and (2) to discuss these results and provide recommendations for ongoing management.

As with the previous monitoring efforts, fourteen locations were sampled in total, comprising six experimental transects within the skiing area of Lake Mullocullup, four control transects within the no-skiing area, and four control transects in nearby Swan Lake. The measured parameters included physical and biological aspects of water quality, as well as chemical contaminants (polycyclic aromatic hydrocarbons (PAHs)) in the lake sediment.

The primary finding of this report is that, as with previous rounds of sampling, all of the sixteen selected PAHs were below detectable limits in the lake sediments. This suggests that water skiing has historically caused no significant contamination of lake sediments, nor has there been any significant impact since gazettal.

Chlorophyll-a levels (a measure of algal abundance) were low once again in 2021 after rising in the previous round of sampling. There was a slight film of algae on water surface at Lake Mullocullup, as well as suspended particles in the water column, although this was not as pronounced as the previous round of sampling (March 2020). The water column in Swan Lake was very clear. The obvious decrease in surface algae likely relates to higher rainfall conditions in 2021, including in the lead up to sampling, which would help to prevent stagnant conditions. The Mullocullup no-ski zone sites had the highest chlorophyll-a levels but this appears to have been due to wind-driven accumulation in those parts of the lake, rather than any localized difference in water quality. Continued monitoring of algal blooms is recommended, as they could pose health concerns for people swimming and boating in the lake. This should include sampling for toxic algal species.

Introduction

Lake Mullocullup is one of the largest lakes within the municipal boundary of the City of Albany, and is one of only a handful of large lakes in the area between Two Peoples Bay Nature Reserve and the Pallinup River (CoA Report, 2016). It is an important aquatic habitat and refuge for many native animals, including macroinvertebrates, turtles, and a range of native water birds (SCWMP, 2008; CoA Report, 2016). Many other animal species inhabit the surrounding Nature Reserve, which contains diverse vegetation complexes (CoA Report, 2016). The Lake has significant cultural values for the local Noongar people, and recently became one of 41 registered Aboriginal sites in the Albany area (GSW, 2018a). Since European settlement, the lake has also become an important social and recreational area for rural families, and although not formally permitted, it has been used for powered-boating and water-skiing for decades (AA, 2018; GSW, 2018b). In 2018, the council voted in support of formally gazetting the lake for water skiing, however there is public concern over the potential impacts on the environment and historical Noongar cultural values (AA, 2018; GSW, 2018ab). Given the significant recreational, cultural and ecological values of Lake Mullocullup, it is important that the effect of water skiing on the Lake be monitored, and that the area is appropriately managed and maintained.

Recreational boating and water-skiing promote an active lifestyle and provide a social outlet for rural communities; however, there is the potential for negative impacts on the surrounding environment. These impacts include bank erosion, the spread of weeds and pests, and disturbance of ecological communities by boats and onlookers (Mosisch and Arthington, 1998, 2004; Burgin and Hardiman, 2011). In addition, the re-suspension of nutrients by boat propellers can cause algal blooms, decreasing water quality and creating human health issues (Hadwen and Bunn, 2004). Fuel spillage from powered vessels can also cause polycyclic aromatic hydrocarbons (PAH) to accumulate in aquatic sediments (Mastran et al. 1994), as well as the bioaccumulation of lead and other heavy metal levels in wetland plants and animals (Whitfield and Becker, 2014).

This study was commissioned by the City of Albany in order to identify potential negative impacts of water-skiing on Lake Mullocullup. This document reports on field sampling undertaken in April 2021, following on from previous monitoring conducted in November 2018 and March 2020. The objectives were to (1) compare the present condition of Lake Mullocullup to that found in the previous reports, and (2) to discuss these results and provide recommendations for ongoing monitoring.

Methods

Sampling locations and environmental parameters were selected in November 2018 as outlined in the first report (CENRM152). In short, it was decided to focus on measuring water quality parameters (physical water quality, and algae as chlorophyll-a) and benthic sediment quality (PAHs). The study area was divided into three parts: firstly, an experimental area in the southern half of Lake Mullocullup, which is zoned for skiing; secondly, a within-lake control area in the western and northern wings of Lake Mullocullup where skiing will remain prohibited; and thirdly, a separate control area in nearby Swan Lake (Figure 1). Swan Lake was chosen as a control site because it is located approximately 500m from Lake Mullocullup and shares similar site characteristics and condition (e.g. size, climate, land use, fringing vegetation). There are no obvious access points for large powered boats at Swan Lake, so it is assumed that water-skiing does not occur there.

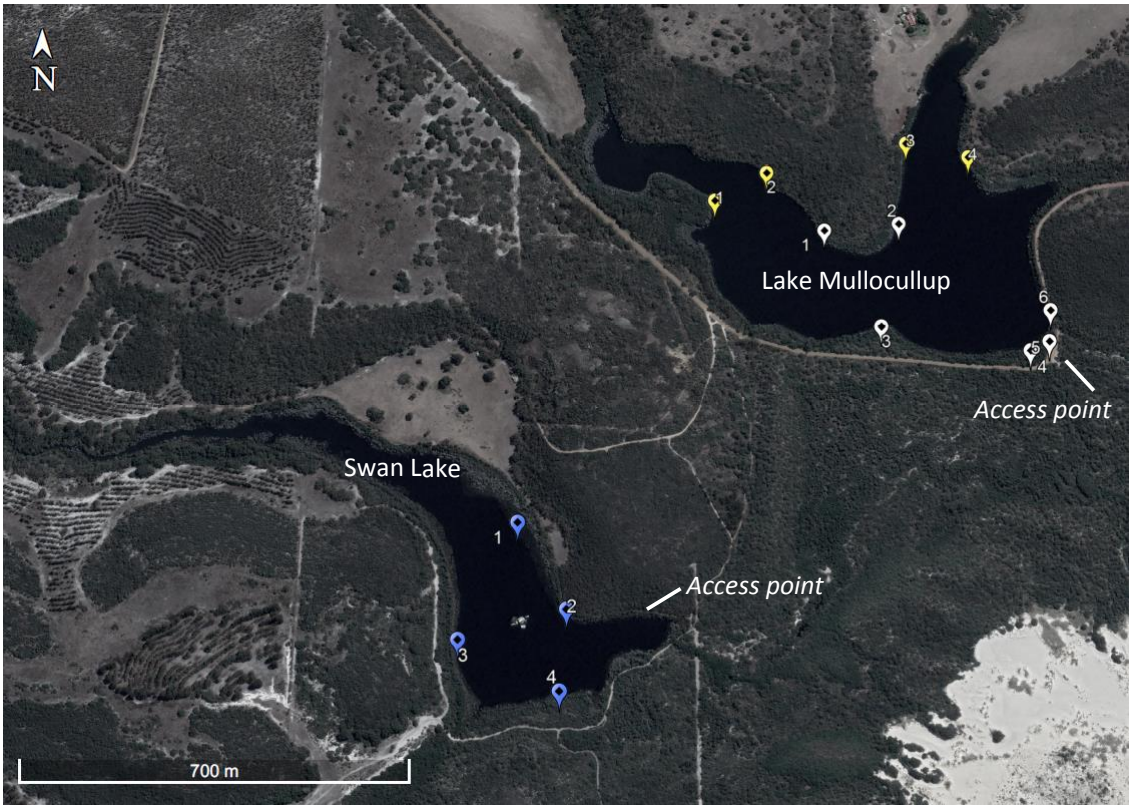


Figure 1: Study area for the monitoring of effects of water-skiing at Mullocullup Nature Reserve. Markers indicate the shoreward end of transects, which extend perpendicularly into the water. White markers depict experimental transects within the ski-zone, yellow markers depict control transects within the non-skiing zone of Lake Mullocullup, and blue transects depict controls in nearby Swan Lake.

Sampling:

Sampling was undertaken via kayak on the 26th and 27th of April 2021. The same fourteen locations were sampled as in the previous surveys, covering the expanse of the study area. This comprised six locations within the proposed ski area (ME1-6), four control locations within the no-skiing zone (MC1-4), and four additional control locations in Swan Lake (SLC1-4; Figure 1). At each location, samples were collected along a transect perpendicular to the shore line, consisting of three sampling stations (approximately 5m, 20m, and 40m from the shore). This spacing was chosen because skiing is not permitted within 30m of the shore, so each transect provided a sampling station on either side of that boundary, as well as one sampling station near the shore.

At each station, we collected water quality variables using a Hanna multi-parameter probe by suspending the probe at ~300mm depth. Turbidity was measured using a turbidity tube. Lake sediment was collected at each station using an Eckman grab, and a 100g sample was stored in an individual glass jar on ice in a cooler. Chlorophyll-a samples were collected by taking a 1L water sample at the middle-station of each transect. Chlorophyll-a and sediment samples were stored on ice before being transported to laboratories in Perth for analysis.

Analysis:

Sediment samples were sent to ChemCentre for analysis of PAHs, focusing on combustion-derived PAH assemblages because they have a higher molecular weight than petroleum-derived PAHs, and are therefore likely to be present in higher concentrations. In total, sixteen PAHs were measured. Chlorophyll-a samples were analysed at Murdoch University's Marine and Freshwater Laboratory on a spectrophotometer using standard procedures with acid correction for phaeophytin-a. The raw data for chlorophyll-a are provided in a separate Microsoft Excel document.

Results and discussion

Water samples

Chlorophyll-a concentrations were far lower in 2021 at all sites, after rising dramatically in 2020 (Figure 2). Measurements at most sites were also below the 2018 baseline measurements. There was a slight film of algae at Lake Mullocullup, as well as suspended particles in the water column, although this was not as pronounced as the previous round of sampling. In comparison, Swan Lake was very clear. The obvious decrease in surface algae likely relates to cooler conditions and higher rainfall in 2021 in the lead up to sampling, which would help to prevent stagnation. The Mullocullup control sites had the highest chlorophyll-a levels but this appeared to be due to accumulation in the northern and western parts of the lake due to the wind direction, rather than any localised difference in water quality.

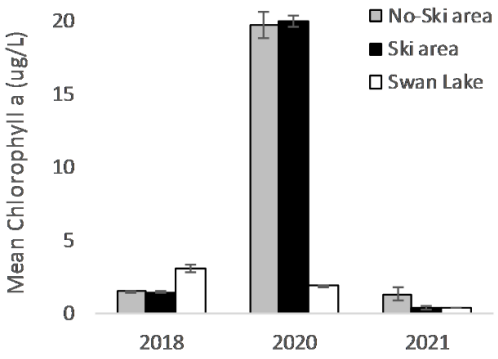


Figure 2: Mean and SE for chlorophyll-a collected from the no skiing area (grey), the skiing area (black), and Swan Lake (white) during the three sampling events (2018, 2020, and 2021).

While algal blooms can result from re-suspension of nutrients by boat propellers (Hadwen and Bunn, 2004), fluctuations in algae detected here could reflect seasonal changes related to temperature and flow. The suitability of the lake for water skiing and other activities depends on the quality of the water body. Continued monitoring of algae is recommended, as algal blooms could pose health concerns for users of the lake. This should include sampling of blue-green algae (Cyanobacteria). Blue-green algae was not assessed here, but should be monitored in future to ensure the safety of the community, and appropriate signage should be installed and maintained if it is detected.

Physical water quality measurements are presented in Figure 3. Conductivity was once again lower in Swan Lake. This likely reflects differences in freshwater inputs into the two lakes from surrounding creeks and runoff from farmland. The pH levels were consistent with previous years. Nearshore oxygen levels in Lake Mullocullup were uniform in 2021 after being highly variable in 2020. This may reflect the lower levels of algae, which would reduce oxygen consumption associated with photosynthesis. Turbidity was below detection limits at all sites. There was little variation within any of the measured parameters in 2021 (note SE values in Figure 3). The raw data for each site are provided along with this report (Microsoft Excel).

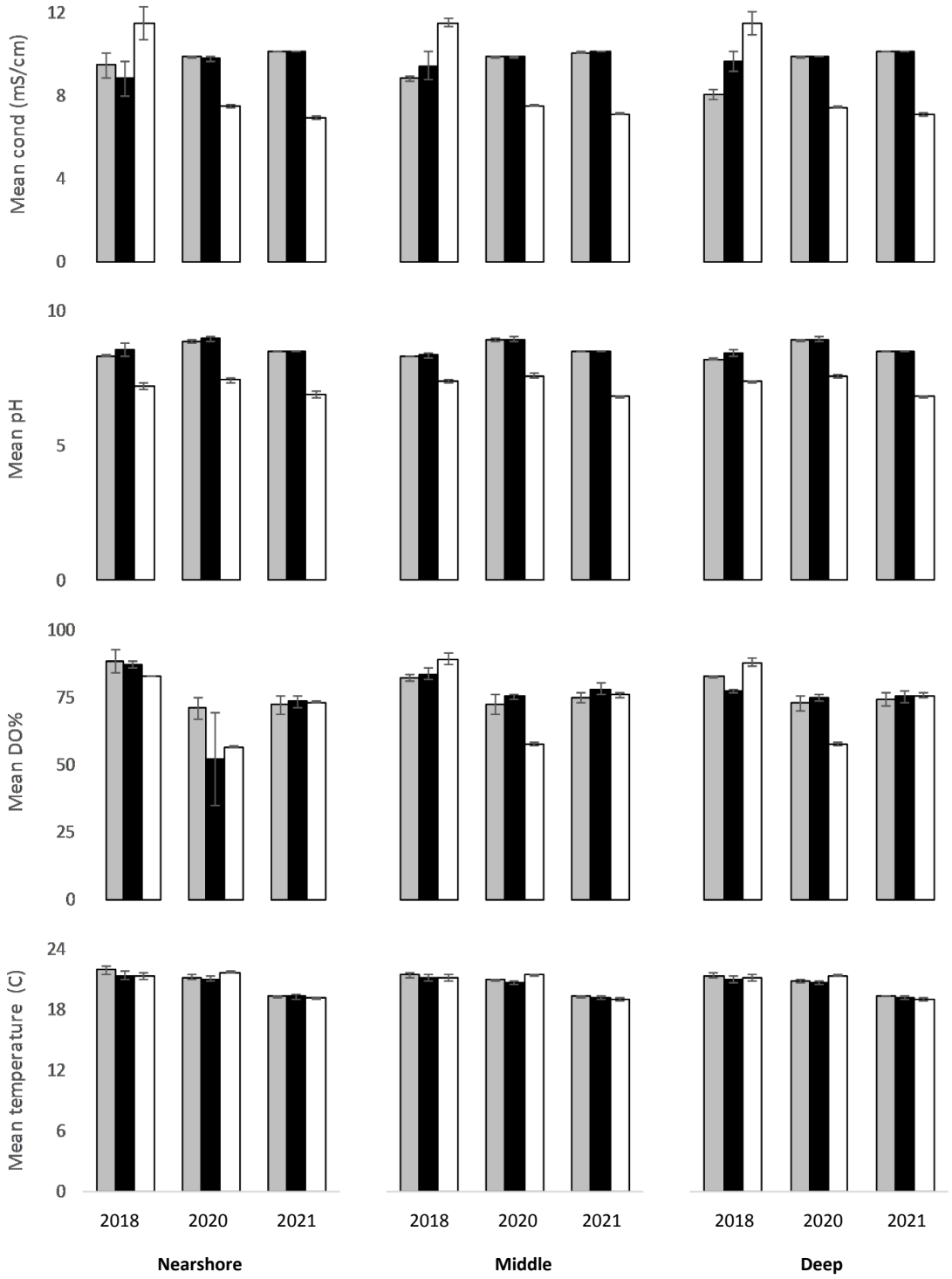


Figure 3: Mean and SE for various water quality parameters collected from the no skiing area (grey), the skiing area (black), and Swan Lake (white) during the three sampling events (2018, 2020, and 2021). Samples were collected at each of three distances from the shore (arranged from left to right on the x-axis: 5m [Nearshore], 20m [Middle], and 40m [Deep]).

Sediment samples

Similar to 2018 and 2020, all of the targeted PAHs were below detectable limits in all samples in both lakes, and so well below the recommended acceptable combined weight for those compounds (1700 µg/kg in Australian inland waters; ANZECC, 2000). Similar to previous sampling rounds, there were trace levels of Perylene (pers. comm. Ibrahim Jambol – ChemCentre). Unlike the other PAHs tested, Perylene is biogenic, forming from natural processes in the environment (Neff et al., 2005). Biogenic PAHs generally contribute very little to overall PAH mass in sediments that have been exposed to other anthropogenic sources (e.g. from boat fuel) (Neff et al., 2005). Overall, these results suggest that historical use of powered boats at Mullocullup has had little or no impact on the lake sediment, and that there has been no additional impact since 2018.

Recommendations

Monitoring in 2018 and 2020-21 found that water-skiing has had no detectable impact on the measured parameters in Lake Mullocullup. This provides a useful baseline for assessing any future change, particularly in sediment PAH levels. The recommendations of this report are as follows:

1. Water quality monitoring should continue, particularly during summer months, including efforts to detect harmful blue-green algal species such as *Microcystis flos-aquae.* Blooms of such species could reduce the viability of the lake for water skiing due to human health concerns, so appropriately signage should be installed and maintained.
2. As the gazettal of Lake Mullocullup could increase the number of people accessing the area, it would be worthwhile to continue monitoring the level of use.
3. Sediment should be monitored annually or bi-annually for the accumulation of PAHs.
4. The CoA should continue monitoring conditions in the area. In particular, it would be useful to: (i) document the nature, frequency and extent of visitor activities; (ii) monitor for evidence of campfire use; and (iii) establish photo-points or quadrats to monitor gradual retreat of vegetation caused by increased use.

Limitations

As noted in the baseline report, conditions in Lake Mullocullup are likely to change significantly with season. Some of the changes in site conditions shown in this report are likely to reflect this fact rather than of any impact of recreational activities at the lake.

Chlorophyll-a levels in this report only provide a measure of the abundance of algae, and do not describe the species present.

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Appendix

Chlorophyll-a and PAH data are presented below, and are also provided along with physical water quality data in an attached Excel document:

ChemCentre

Scientific Services Division

Report of Examination

Accredited for compliance with ISO/IEC 17025 - Testing, Accreditation No. 8

Purchase Order: 1820000592
ChemCentre Reference: 20S4442 R0

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UWA Albany Campus
UWA Science Building
level 3 33-35 Stirling Tce
Albany WA 6330

Attention: Justin Benson

Report on: 42 samples received on 28/04/2021

LAB ID	Material	Client ID and Description
20S4442 / 001	sediment	ME1a
20S4442 / 002	sediment	ME1b
20S4442 / 003	sediment	ME1c
20S4442 / 004	sediment	ME2a
20S4442 / 005	sediment	ME2b
20S4442 / 006	sediment	ME2c
20S4442 / 007	sediment	ME3a
20S4442 / 008	sediment	ME3b
20S4442 / 009	sediment	ME3c
20S4442 / 010	sediment	ME4a
20S4442 / 011	sediment	ME4b
20S4442 / 012	sediment	ME4c
20S4442 / 013	sediment	ME5a
20S4442 / 014	sediment	ME5b
20S4442 / 015	sediment	ME5c
20S4442 / 016	sediment	ME6a
20S4442 / 017	sediment	ME6b
20S4442 / 018	sediment	ME6c
20S4442 / 019	sediment	MC1a
20S4442 / 020	sediment	MC1b
20S4442 / 021	sediment	MC1c
20S4442 / 022	sediment	MC2a
20S4442 / 023	sediment	MC2b
20S4442 / 024	sediment	MC2c
20S4442 / 025	sediment	MC3a
20S4442 / 026	sediment	MC3b
20S4442 / 027	sediment	MC3c
20S4442 / 028	sediment	MC4a
20S4442 / 029	sediment	MC4b
20S4442 / 030	sediment	MC4c
20S4442 / 031	sediment	SLC1a
20S4442 / 032	sediment	SLC1b
20S4442 / 033	sediment	SLC1c
20S4442 / 034	sediment	SLC2a
20S4442 / 035	sediment	SLC2b
20S4442 / 036	sediment	SLC2c
20S4442 / 037	sediment	SLC3a

LAB ID	Material	Client ID and Description
20S4442 / 038	sediment	SLC3b
20S4442 / 039	sediment	SLC3c
20S4442 / 040	sediment	SLC4a
20S4442 / 041	sediment	SLC4b
20S4442 / 042	sediment	SLC4c

LAB ID				001	002	003	004
Client ID				ME1a	ME1b	ME1c	ME2a
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				005	006	007	008
Client ID				ME2b	ME2c	ME3a	ME3b
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				009	010	011	012
Client ID				ME3c	ME4a	ME4b	ME4c
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				013	014	015	016
Client ID				ME5a	ME5b	ME5c	ME6a
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				017	018	019	020
Client ID				ME6b	ME6c	MC1a	MC1b
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				017	018	019	020
Client ID				ME6b	ME6c	MC1a	MC1b
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				021	022	023	024
Client ID				MC1c	MC2a	MC2b	MC2c
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				025	026	027	028
Client ID				MC3a	MC3b	MC3c	MC4a
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				025	026	027	028
Client ID				MC3a	MC3b	MC3c	MC4a
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				029	030	031	032
Client ID				MC4b	MC4c	SLC1a	SLC1b
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				033	034	035	036
Client ID				SLC1c	SLC2a	SLC2b	SLC2c
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				033	034	035	036
Client ID				SLC1c	SLC2a	SLC2b	SLC2c
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				037	038	039	040
Client ID				SLC3a	SLC3b	SLC3c	SLC4a
Sampled				26/04/2021	26/04/2021	26/04/2021	26/04/2021
Analyte	Method	LOR	Unit				
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10	<0.10	<0.10

LAB ID				041	042
Client ID				SLC4b	SLC4c
Sampled				26/04/2021	26/04/2021
Analyte	Method	LOR	Unit		
Acenaphthene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Acenaphthylene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Benz(a)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Benzo(a)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Benzo(b)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Benzo(g,h,i)perylene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Benzo(k)fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Chrysene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Dibenzo(a,h)anthracene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Fluoranthene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Fluorene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Indeno(1,2,3-cd)pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Naphthalene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Phenanthrene	ORG100SM	0.1	mg/kg	<0.10	<0.10
Pyrene	ORG100SM	0.1	mg/kg	<0.10	<0.10

Method	Method Description
ORG100SM	PAHs in soil GC-MS, SIM, MRM. Medium level

"<" signifies a result is less than the limit of quantitation for the method.

Results are reported on a dry matter basis.

Results may not be reproduced except in full.

Unless requested otherwise, sample(s) will be disposed of after 30 days of the issue of this report.

*Analysis not covered by scope of ChemCentre's NATA accreditation.



Ibrahim Jambol
Team Leader
SSD Organic Chemistry
11-May-2021

Marine and Freshwater
Research Laboratory
Environmental Science
Tel: 08 93602907 Address: 90 South St, Murdoch, WA, 6150

Accreditation Number: 10603
Accredited for compliance with ISO/IEC 17025 - Testing.
The results of the tests, calibrations and/or
measurements included is this document are traceable
to Australian/national standards.

Murdoch UNIVERSITY

WATER QUALITY DATA

Contact: David Tunbridge
Customer: UWA Albany
Address: 31-35 Stirling Terrace, Albany, WA 6330

Date of Issue: 29/04/2021
Date Received: 28/04/2021
Our Reference: UWA21-1

METHOD SAMPLE CODE	Sampling Date	3000 CHLOROPHYLL'a' µg/L	3000 PHAEOPHYTIN'a' µg/L
Reporting Limit		<0.1	<0.2
Analysis Date		29/04/2021	
File		21042901	
ME1	27/04/2021	0.5	0.4
ME2	27/04/2021	0.5	0.5
ME3	27/04/2021	0.1	0.3
ME4	27/04/2021	0.7	0.5
MC1	27/04/2021	1.4	0.3
MC2	27/04/2021	0.3	0.4
MC3	27/04/2021	2.5	0.5
MC4	27/04/2021	1.1	0.6
SL1	27/04/2021	0.3	0.4
SL2	27/04/2021	0.5	0.3
SL3	27/04/2021	0.4	0.3
SL4	27/04/2021	0.4	0.2

Note: For results for compliance purposes uncertainity of measurement (MU) will sometimes affect the interpretation whether the result passes or fails the compliance limit.
Tables for measurement uncertainity are available online at www.mafrl.murdoch.edu.au

Signatory: Jamie Woodward
Date: 29/04/2021

The results only apply to the sample as received and to the sample tested.
Spare test items will be held for two months unless otherwise requested.

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Vehicles on Beaches – Proposed Determination
Schedule of Submissions

Submissions in support

Proposed Beach Determination	Submission:	Officer Comment
Nanarup Beach (West) In summary support for vehicle access to Nanarup Beach (West).	Document Reference: EF21423614 Submitted by email. [redacted] Submission: I am writing in support of the opening of vehicle access to the western end of Nanarup Beach. As an avid surfer, member of the [redacted], we attend the beach for surfing and fishing activities regularly and my car is loaded to the brim with equipment. One of the huge benefits of living on this stretch of the WA coastline is the accessibility to it and in most instances the ability to be able to park in front of the desired part of the beach on any given day, making it easy to unload the numerous surfboards, body boards, skim boards and sand boards. When we are able to park in front of our surf break it gives us a greater sense of safety in case of an emergency especially when we are attending a remote beach such as this which is nearly 30 minutes from town. From my experience surfers know that need to let their tyres down when travelling along the beaches in Albany and as a result there is less chance of damage to the beach. They are also mindful of their surroundings and travel at an appropriate speed given that the beach is shared with many people and animals. Nanarup Beach is special to many people in Albany as well as visitors to our town. Please allow access to this part of the beach so more people can continue to enjoy it.	Noted
Nanarup Beach (West) In summary support for vehicle access to Nanarup Beach (West	**Document Reference**: **EF21424618** Submitted by email. [redacted] Australian Recreational Motorists Association (ARMA) **Submission:** I am contacting you on behalf of the Australian Recreational Motorists Association (ARMA) and our member clubs, one of which is the Southwest 4WD club whose members are from your part of WA. ARMA is a national peak body with membership open up to all types of activities that require a motor vehicle in which to pursue this. This means a lot of activities that use beaches such as surfers, kite surfers, fisher-people, 4WDrivers etc. We have entered our second full year of operation and membership is beginning to climb. In fact, we have just had nearly 10 WA 4WD Clubs join us this year. One of our active portfolios is our Land Management, of which I am the Chair, hence my contacting you.	Noted

Proposed Beach Determination	Submission:	Officer Comment
	We were thrilled to hear the news that there is a plan to open Nanarup beach to 4WDrivers. All too often we are faced with the opposite and have to work hard to keep our public spaces open. However, having seen the GWN7 news clip with the announcement, there has obviously been some concern raised about some users failing to adhere to an accepted code of practice and embarking on antisocial and dangerous activities. It is these type of actions that put the rest of the 4WD community in a bad light and we become tarred with the same brush plus the potential to have the beach closed down. Recently South Ballina Council and Crown Lands NSW made the decision to close access to 4WDs on the South Ballina Beach because of some unruly behaviour from a minority of 4WD users. Prior to this decision I was in contact with both the council and Crown Lands and proposed a number of ways in which they could manage this behaviour so the beach could remain open, however, I believe they had already made their minds up and were swayed by a minority of ratepayers. ARMA would be disappointed if this were to become the case at Nanarup, as I feel there will inevitably be some unruly behaviour, just like there is on our state roads. ARMA would be interested in working with the council to develop: A Beach Driving Code of Practice which every user would be expected to adhere to. To also develop sand driving tips for the users, since we cannot expect all users to be experienced sand drivers. To propose rules and regulations for users To develop a policing, infringement and penalty system for the transgressors I believe, if council is armed with this, they will be in a better situation to deal with any future antisocial behaviour and not jeopardise the beach access to other users. I would be interested in your comments and suggestions.	

Submissions opposing

Proposed Beach Determination	Submission:	Officer Comment
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference**: **EF21422010.** Submitted by email. [redacted] **Submission:** I am concerned with regards the above proposal to allow vehicles to access the beach at Nanarup West. This is a sensitive and special part of our diverse coast which provides a good surf training area and the lagoon. There are few sites that can offer either with reasonable access for non-4WD vehicles. Nanarup West has long been favoured by families wanting a peaceful and safe location for a day out, offering the tranquil and protected waters of the lagoon and the opportunity for young people to learn to surf on a relatively safe break. I have watched over the past few years as more and more people have ignored the closure of this section of the beach to vehicles. The behaviour of many of the drivers is unsafe for any public area. Those who choose to ignore the access limitation are not likely to be compliant in other regards. I am disappointed that I have never seen any policing of the access limitation by the Council. I ask you, as my councillor to support retention of the existing bylaw that prohibits vehicle access and also to voice support for increased policing of the area to deal with infringers.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21422196.** Submitted by email. [redacted] I am writing to ask that the City does NOT change the by-law but works harder to enforce the current law that prohibits 4WD access at Nanarup Beach West. As a Kalgan resident my family used to enjoy accessing the lagoon on foot safe from vehicles and has found that over the past few years the area has changed with vehicles now accessing the west end near the lagoon. There used to be a sign but we have not seen this for a while which makes it hard for people to realise they are not meant to be accessing the west end by vehicle, many people are not familiar with the no vehicle by-law. I ask that we keep the current NO vehicle access to the west end and replace the missing sign providing information as to why it is important to leave this part of the beach vehicle free.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Proposed Beach Determination	Submission:	Officer Comment
	The beach already allows vehicle access to the East end, by keeping the west end vehicle free it creates a win-win for all beach goers. Those who want to take their vehicles - head east and those who want a more tranquil experience they can park and walk west, the lagoon is perfect for families with small children and without vehicles it makes it safer for everyone allowing kids to run free and people to sit and walk on the beach without worrying about vehicles driving by. This will also help protect the dunes from degradation, protect vegetation, habitats, ecosystems and encourage birdlife. Please consider my submission.	
ALL BEACHES In summary opposed vehicle access to all beaches.	**Document Reference: EF21422764.** Submitted by email: [redacted] **Submission**: I object to the proposed allowance of vehicles on beaches, other than for boat launching. I have witnessed vehicle access and destruction/disturbance of beaches and possible bird dune nests. I say keep vehicles off beaches.	Noted
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21422091.** Submitted by email: [redacted] **Submission:** In response to your advert in the Weekender, I am writing to object to vehicles being permitted on Nanarup beach west (from the inlet to the sheltered lagoon). I used to use this area frequently, for swimming and snorkelling and would always take visitors to the lagoon. More recently I avoid the area, as it has become a race track and car park. Instead of being used by family groups it has become taken over by a few vehicles, with gazebos and everything else a vehicle can carry. People now occupy the area as if it's their personal property, preventing others accessing the area. In my experience and opinion, the area would be used by more people if it was vehicle free, it would be safer, more pleasant and a far greater tourism attraction. I understand rangers cannot police the area all the time, but the public can help with this, and dob in offenders easily by taking photographs of offending vehicles. Enforcement is a consideration, but should not determine whether vehicles should be permitted or not. 4 wheel drivers can and do access all other parts of the beach, and it is not unreasonable to have a small area protected from vehicles.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Proposed Beach Determination	Submission:	Officer Comment
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: ICR21422256** Submitted by Letter [redacted] **Submission:** I am writing in response to the accessing of vehicles onto the beach at Nanarup. Where vehicles have been driving along to the lagoon and churning up the sand, thus making it difficult to walk in between the ruts. Also the 4WDs have taken over the lagoon area and children only have that area of beach where they can swim. On some days, Nanarup is more like a highway, and the lagoon area a car park. So I am against allowing vehicles being given free reign on this beach.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21422331** Submitted by email: [redacted] **Submission:** I strongly object to the determination to allow vehicles being permitted onto Nanarup Beach (West). Since people with 4 wheel drives have ignored or destroyed the signage prohibiting vehicles driving into the corner we have stopped going there. It has turned a beautiful spot to take the grand-kids into a noisy and dangerous car park. Rewarding people for breaking the law will set a precedent for more beaches to be damaged and erosion to hasten. No consideration was given for the fragile ecosystems this stretch of beach supports, over and above its use as a safe place to swim and snorkel. There are many scientific studies, both here and overseas, that make clear that the ocean shoreline is both crucial and fragile and needs protecting for all of us. It is past time that council made decisions like this based on self-interested lobby groups, without undertaking crucial environmental research.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21422565** Submitted by email: [redacted] **Submission:** I wish to lodge an objection re Vehicles accessing Nanarup Beach West I am very disappointed that the council has let this become a four-wheel drive car park You have some very selfish councillors who have done nothing about preventing vehicle access because they obviously feel that they have the right to drive up to the lagoon As a pedestrian this is what I have to put up with. 1. The beach is always churned up and difficult to walk on	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Proposed Beach Determination	Submission:	Officer Comment
	2. Vehicles have no consideration for pedestrians They seem to think that they have right of way and will not divert around you 3. If a vehicle comes from behind, it will creep along behind you until you get out of their way 4. If a vehicle comes towards you, it will stop and wait for you to walk around them 5. These inconsiderate drivers who won't give way to walkers always give way politely to each other 6. The beach is unsafe for children as one has to be constantly watching for vehicles and constantly be aware that there is a chance that their child might be run over 7. The lagoon area has now become a four-wheel drive car park 8. Unsafe for walkers, swimming and picnics 9. So if you walk to the lagoon you can basically have a swim and then have to leave again because the vehicles have taken up all the space and if you are lucky you might find a big of wet sand to sit on We can no longer take a picnic and stay for the day because each vehicle has a parking space and the same amount of space for their picnic area 10. If you are lucky enough to find somewhere to sit it is then you that has to pick up your belongings and move out of the way if a vehicle wants to leave or come and park 11. If a pedestrian is lucky enough to have a vehicle leave while they are there we can then sit on dry but churned up sand This area should be accessible to all, not just to vehicles Why should they have right of way over other people? Please show some consideration and take note of the objections and let this area return to what it was before large four-wheel drive vehicles took it over, and let us all be able to enjoy it again	

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21422699** Submitted by email: [redacted] **Submission:** I write as a ratepayer to oppose vehicles having access to the western beach at Nanarup. I am opposed primarily because of safety concerns and the loss of enjoyment for those walking on this beach. There are a number of beaches in the Albany district available for those who feel the need to beach drive. As Albany grows bigger in population the congestion (read "dangers") will become worse. The inlet and pool area at Nanarup contributes to the beauty of our area, attracting locals and visitors. It needs a measure of protection against what can be a procession of 4wd vehicles coming in and out. I am hopeful that Council will have the foresight to ban vehicles from this beach.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423148** Submitted by email: [redacted] **Submission:** I wish to submit my objection to vehicles being allowed to the West part of Nanarup beach. SAFETY is the main reason. We have seen many instances of four-wheel drive vehicles speeding past families causing dangerous situations. The wheel ruts from them make walking difficult, especially for older people. Up to 100 vehicles end up parked along the beach and packed at the pool. It becomes a car park which is not a safe place for children to play. The beauty of this pristine little bay is lost with all the cars. A family walking to the pool was recently tooted to make room for a vehicle to go there! A lot of people, including us, don't go there on weekends or after 8am during the week as it becomes so unpleasant. HOW MANY COUNCILLORS HAVE ACTUALLY BEEN TO THE BEACH ON ANY HOLIDAY WEEKEND? If a Councillor votes on an item, they need to be familiar with what actually happens on this beach. Emu Point beach was closed to vehicles for the same reasons that many people wish to see Nanarup beach west closed. With increasing population and increasing traffic, the pressure on this area will be greater every year. The Council has a Duty of Care and when an accident happens, and it will, the Council will be liable. I look forward to a reconsideration by the Councillors that voted for the beach to be an unsafe, and unpleasant experience to make a change in their vote.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423150** Submitted by letter [redacted] **Submission:** I have recently become aware of the potential for local government legislative changes allowing for 4WD beach access to the western Islet section and sheltered pool of Nanarup beach. My concern is for the safety of beach goers, it is becoming a dangerous place to go and an accident in the making. Over Easter weekend with my family we decided to spend the day at Nanarup beach and as was our custom we planned to park up near the sign at the edge of the inlet/the bar and carry our swimming clothes, boards and provisions for the day to the western end of the beach in the shelter of the islet. We were quite surprised to discovered there were already several 4WD vehicles parked in the area and others driving up and down the beach to and from the pool. We were under the impression still that it was still prohibited to go up there with vehicles. So we hoped that perhaps the ranger would soon move people. Despite our disappointment we did not want to waste the day so we walked about two thirds of the way up the beach and managed to find a flattish spot just above the 4WD drive tracks in the soft sand and not quite onto the dune itself. After settling down for about 15-20 minutes while the kids went for a surf we had a close encounter with a Land cruiser heading at speed towards the east that slipped off the wheel ruts into the area we were relaxing in. The driver was more focused on another vehicle traveling on the ocean side heading in the opposite direction with dogs running alongside. We were forced to leap out the way in the nick of time. The driver had no idea or care on how close he had come to running us over. So we pushed up higher on the dune, where we were now forced to sit as it was no longer possible to lay down. We spent a little longer on the beach as we got frustrated watching the constant flow of 4WDs up and down. Sometime later we were informed that there was a sign somewhere at the beach asking people to state their views on the opening up 4WD access to the beach. If we had been aware of this, then we would have made our feelings known. The idea of, and the experience of enjoying this special part of Albany is no longer. Also, what sort of independent feedback is it to put sign up on the beach asking 4WDrivers whether they think it is a good idea. It is a bit like asking Eagles supporters if they think their team will win the next Derby. It needs to be unbiased and respectful of all the beachgoers at Nanarup. There is plenty of space for 4WDs on the eastern end and other beaches in the area. Perhaps the City can consider evaluating community's aspirations in a more consultative, transparent and independent way. The Albany UWA campus might be interested in supervising students to do this as part of a social science research project.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

	Despite my concerns about the lack of 'true community consultation', I am particularly concerned about the potential for a serious accident and injury.	
All Beaches in particular Nanarup Beach (West) In summary opposed vehicle access to all beaches and particularly Nanarup Beach (West).	**Document Reference: EF21423293** Submitted by email. [redacted] **Submission:** I am writing in regards to proposed changes to 4WD laws on many of our local beaches. I personally am against access by non-emergency vehicles to any beaches; it is a selfish, indulgent human leisure pursuit that comes at the expense of the fragile environments these areas support. In particular, however, I would like to specifically object to the proposal to allow 4WD access to Nanarup Beach West. In addition to wishing to protect the unique environment of this lagoon, I also visit the calm area frequently with my young family. Small, excited, children at the beach DO NOT mix well with vehicles. Allowing vehicles to access this part of Nanarup beach will put an end to peaceful, worry free, family days out - Precisely the kind of outings families are encouraged to undertake with their children to help promote activity, exercise and respect and fascination for the natural environment. I support and reiterate below the comments that have been generated by others in my local community. "An overwhelming amount of unauthorised vehicles accessing the area" should not be reason for the council to support changes to current 4WD laws...this is totally non-sensical. We have laws (of all sorts) for a reason - if they're being broken frequently, it's a compliance / policing issue, not an issue with the law in the first place. Nanarup Beach West For generations families and individuals have left vehicles parked at the inlet and taken the walk to the lagoon. A tranquil, protected location for swimming, picnics, fishing, birdlife and away from vehicle traffic. Surfers and swimmers could leave towels and and personal items on the beach, children could dig holes, play safely in the sand and at the water's edge. Many people now ignore the no vehicles by-law resulting in the beach and lagoon being a place where beach goers must be on alert for moving vehicles and an increase in anti-social behaviour. The rocks on the SW side of the lagoon are being vandalised and the dune between the islet and the mainland is being accessed by vehicles. According to a City Officer, the proposal to change the law has been in response to the overwhelming amount of unauthorised vehicle activity on the beach leading to the lagoon and the difficulty enforcing compliance. The City is also of the view if drivers want to use the beach in this way, it has merit. Because it is our Councillors who will vote and decide on the change it is important for community members to make contact with Councillors to discuss their concerns or views. Environmental Considerations *The lagoon is a unique location remote from roads and traffic	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required.

	*Protect dunes from degradation *Protect vegetation, habitats, ecosystems, birdlife, dune nesting fauna. *Retain peace and tranquillity. *Safety for people *Safety and respect for nature loving and environmentally responsible people. *Traffic management compliance	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423315** Submitted by email. [redacted] **Submission**: I am a resident of Kalgan, and a land owner at Nanarup [redacted] I am would like to make you aware of my thoughts on the proposed changes to permit 4WDs west of Nanarup inlet - I disagree with the proposal in its entirety and believe that the way to make our region better is to promote sustainable land use practices. At heart, permitting 4WDs to access the lagoon is unsustainable. They destroy the dune systems, and destroy the ambiance which people seek when they visit lagoon. The dunes are destroyed through reckless driving practices. The ambiance is destroyed though antisocial behaviour. Whilst walking back to my car after a surf, (parked at Nanarup Beach East) I have almost been run over through careless/dangerous drivers on two occasions. On one particular occasion, the hoons did not see me until the last minute, swerved out of the way and almost rolled their 4wd into the surf. These anecdotes highlight a key issue: - families wanting to access the lagoon will walk from Nanarup Beach East or the car park and leave a light footprint on the environment - antisocial types who don't care about the nature beauty or fellow land users will do stupid things at the expense of ruining the experience and the environment for everyone Ultimately, the council should be making plans about land use that enhance sustainability, rather than accelerate the rate of land damage. The way to achieve sustainability is to upgrade the benign neglect shown to Nanarup Beach West and help land users understand why it needs to remain free from 4WDing.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required.

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423316** Submitted by email. [redacted] **Submission**: In response to the City's call for comment re 4WD access to Nanarup Beach West I believe 4WD access should not be allowed on the western end (Lagoon) of Nanarup Beach. This part of the beach is the only area suitable for children to swim at this beach and I believe 4WD access to the lagoon is a hazard to children and has over the years caused degradation to the beach on the way to the lagoon. There is plenty of opportunity to 4WD on the rest of Nanarup beach. 4W Drivers (even though I am one) are becoming increasingly disrespectful of pedestrians and I believe we need to create safe zones and 'peace' zones free from noisy and dangerous traffic. Having said this, I also believe that if vehicle access to the lagoon is not physically blocked and policed, this discussion /ruling is a waste of time. The rules will be ignored if there are no consequences to ignoring signage.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423763** Submitted by email. [redacted] **Submission**: I have concerns about the proposed 4WD changes to Nanarup Beach West. This is a beautiful place, beloved by families and beachgoers. I've witnessed changes in behaviour recently at this beach, which is disappointing and concerning. Your 1999 management plan spells this out clearly: The City's duty of care to provide a safe environment Sustainable environmental management Use of the area for recreation and commercial fishing I do not feel that "people are doing it anyway; it's hard to police" is an appropriate or valid reason to change the no-vehicle by-law. This law is upheld by most law-abiding citizens, with only a few that flout it. With recently proposed changes to this by-law, I have witnessed a significant increase in 4WD activity at the west side of the inlet, presumably because people feel they now have "permission". This change has been detrimental, to say the least. There are two parts to this: 1) Environmental considerations - "Sustainable environmental management" The lagoon is a special place from an environmental perspective, and has enjoyed the benefits of being a fair walk from the nearest carpark or road. It is unspoilt, and one of Albany's special beautiful spots. With the rise in 4WD traffic, there has been an increase in litter, and in people who do not respect the natural environment of the lagoon. There is little protection for dunes or vegetation, all of which are directly impacted by traffic.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required.

	Not only is there direct damage from the vehicles, but there have been vandals damaging the rocks. 2) Community respect and safety - "The City's duty of care to provide a safe environment", and "use of the area for recreation". Beach four-wheel driving is a fun and enjoyable activity for many people. There is a significant stretch of beach on the east part of Nanarup that is used for this. I do not see any reason to extend this to Nanarup Beach West, which serves a very different function for many members of the community. There is a lack of respect for many of the families and beachgoers who enjoy this area by allowing 4WD traffic here. I would like to share some examples with you: I've had to limit my trips there on Saturday or Sunday afternoons. I've witnessed a few times the lagoon turning into a carpark, with several cars parked together, with barbeques and tents all hauled out. A far cry from the serene and peaceful beach, where you carry in what you need, and carry it out again. The cars take up most of the space where one previously could sit and reflect, and they bring with them antisocial behaviour. Restrictions on family activities. I enjoy sharing the beach with young families, where their children can feel safe running around on the sand, and exploring the rocks and relative safety of the sheltered lagoon waters. I've witnessed the change in the mood for everyone at the beach when one or two 4WDs hoon through into the lagoon, with disappointed parents keeping their frustrated children close, and many opting to leave. Increase in antisocial behaviour: from hooning around with limited regard for playing children or beachgoer belongings, destruction to the environment, and vandalism. I was also surprised some months back after descending the rocky steps at the side of the lagoon, and finding a couple having intercourse in the back of their 4WD. It was 3pm on a Friday. I think we were equally surprised and unhappy upon seeing each-other. I'm just glad it wasn't a family with small children. I urge you to think of the future. We should be stewards of this land, and protect it for future generations. We already have climate change bearing down on us - let's not add needlessly to the incoming environmental damage.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21423787** Submitted by email. [redacted] **Submission:** The City of Albany is currently proposing changes to 4WD laws on many of our beaches. Of particular concern is the changing of law at Nanarup Beach West to permit 4WD vehicle traffic. Currently 4WD access to Nanarup Beach West and the lagoon is prohibited except for acrod registered people. Nanarup Beach West For generations families and individuals have left vehicles parked at the inlet and taken the walk to the lagoon. A tranquil, protected location for swimming, picnics, fishing, birdlife and away from vehicle traffic. Surfers and swimmers could leave towels and and personal items on the beach, children could dig holes, play safely in the sand and at the water's edge.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required.

	Many people now ignore the no vehicles by-law resulting in the beach and lagoon being a place where beach goers must be on alert for moving vehicles and an increase in anti-social behaviour. The rocks on the SW side of the lagoon are being vandalised and the dune between the islet and the mainland is being accessed by vehicles. According to a City Officer, the proposal to change the law has been in response to the overwhelming amount of unauthorised vehicle activity on the beach leading to the lagoon and the difficulty enforcing compliance. The City is also of the view if drivers want to use the beach in this way, it has merit. Because it is our Councillors who will vote and decide on the change it is important for community members to make contact with Councillors to discuss their concerns or views. Environmental Considerations *The lagoon is a unique location remote from roads and traffic *Protect dunes from degradation *Protect vegetation, habitats, ecosystems, birdlife, dune nesting fauna. *Retain peace and tranquility. *Safety for people *Safety and respect for nature loving and environmentally responsible people. *Traffic management compliance The voice and values of nature lovers and those who care about this unique environment are being lost in the push for authorised 4WD recreation. Please do not let this change occur and be ruined by 4WD's.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424103** Submitted by email. [redacted] **Submission:** I strongly oppose the proposal from the City of Albany to change the gazetted law to allow vehicle access to Nanarup Beach West and the lagoon. As a long-term local resident 1999-2016 of Lower Kalgan and current frequent Nanarup beach user my family and I have witnessed and been impacted by the decrease in compliance enforcement and the increase in illegal and anti-social activity degrading this beach. Nanarup Beach West is gazetted as a recreation area for people. 21 years ago, submissions from the public and the wisdom of Councillors and City Officers recognised and respected the lagoon and its beach access as a place to protect. At that time 4WD and motorbike activity on the beach was a problem and in conflict with beach users. It was considered that this conflict would only increase in future years. In 1999, the City of Albany Councillors voted unanimously to prohibit vehicles and designate this beach for swimmers and walkers. (see Minutes of Ordinary Council Meeting Tuesday 14 December 1999)	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

	https://www.albany.wa.gov.au/council-meetings/ordinary-council-meeting/ordinary-council-meeting-14-december-1999/296/documents/ocm_minutes_dec99-1.pdf See page 49 item 15.1.4 The current proposed use as an access route for vehicles to the lagoon is in direct conflict with this designated use. The reason for the current proposed change, according to the City Officer is because enforcing compliance is too difficult for the existing management and because the amount of illegal vehicle use has merit for changing the law. In 2021, this proposal is an outrageously backward step for any coastal location to change the status quo from 4WD prohibited to 4WD permitted. No environmental management plan has been offered in accordance with this proposal according to the City Officer. Environmental considerations have not been presented to voting Councillors. Signage with a suggested code of conduct will be the guide for users. This will not address environmental degradation, protection of beach users and the destruction of the wilderness quality of this location. Councillors are to vote on this proposal based on the results of a public preference consultation. There is much more to consider. Environmental Considerations • The City of Albany administration must put the same value on remote fragile environments as it does on the Emu Point salt marsh ecosystem. • Risk to dune nesting bird species including the plover and fairy tern is well documented. See https://www.abc.net.au/news/2021-06-30/save-the-fairy-tern/100256828 • Destruction of vegetation and the erosion of sand being repeatedly broken up by tyres at high tide and with rising sea level. • Compaction of sand impacts on sand dwelling organisms. Sandy beaches have an ecological link between the dunes and the surf zone, providing a constant interchange of sand, organic matter and nutrients. • It may seem that sandy beaches are home to only the odd bird or crab, but in fact there are countless species of tiny animals that stay buried and hidden under the sand – protected from predators, the drying sun, extreme temperature changes and salinity. Read Off Road Vehicle Impact on the Australian Environment. • https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=reports/1977/1977_pp31.pdf • Vehicle disturbance, noise, speed, reckless presence greatly impacts the tranquillity and of this unique natural setting for people, birds and fauna. Safety Considerations • Real danger for people using the beach • Vehicles moving fast through soft sand assume right of way.	

	• Drivers who like to test their abilities and machines can be careless with personal safety. • What laws define safe driving in a dual use area? • What enforcement and monitoring will there be for unsafe driving? Cultural Respect Considerations • For generations those who value Nanarup beach and lagoon have walked to the lagoon capably carrying what was necessary for an enjoyable day at this idyllic location. The existing by law permitting vehicle access only to transfer those with mobility restrictions. Keeping it a safe place for all people with calm waters and sheltered aspect. • Anti-social and inconsiderate behaviour of many 4W drivers and motorbike riders is in direct conflict with the enjoyment and safety of others. • The soft rocks at the south west side of the lagoon have been increasingly defaced and vandalised. This copy-cat behaviour has increased erosion and detracted from their natural formation. The fragile limestone shoreline of the islet is also under increased pressure and damage from numerous people. Allowing vehicle access greatly increases the human impact on this location. It is a fair assumption that restricting vehicle access has a self- monitoring characteristic in that people who care to walk to the lagoon, respect and care for the lagoon. To change the law to permit vehicles on Nanarup Beach West to access the lagoon is not in the interests of coastal conservation, environmental protection or improving community recreation. It is a contradiction to the City of Albany Natural Reserves Strategy and Action Plan. Page 7 The proposal is the response of City of Albany to complaints from the community about unauthorised and unsafe driver behaviour on this beach. Because compliance of the current law has not been enforced, no fines issued, the law is ignored and 4WD activities now dominate. It is absurd to consider the solution is to authorise the problem activities. I recommend City Officers and Councillors read and consider the Minutes of Ordinary Meeting Tuesday 14 December 1999 (Page 49 onwards) to get a broader understanding of what is be considered when deciding on this issue. Please consider the 'Guiding Principles of Natural Reserve Management' page 8 of the City of Albany in particular 'The Challenges and Opportunities' page 10 to make sure your decision protects this location for future generations. https://www.albany.wa.gov.au/documents/246/natural-reserves-strategy-and-action-plan-2017-to-2021 Strong leadership does not sit back and let the 'might is right' mentality dictate law enforcement. Strong leadership steps up to make and maintain law and order based on well considered policy, philosophy and vision.	

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424148** Submitted by email. [redacted] **Submission**: I have a 4WD, but choose to obey the signage and park my vehicle and walk. I feel unsafe walking along the narrow section of beach between the lagoon and islet pool. 4WD vehicle seem to think they own the beach and pedestrians should walk in the water. At the islet pool, 4WD vehicles last summer hogged every available bit of sand, greatly reducing the enjoyment of this wonderful natural feature. In the last few years the environmental damage on the beach has increased greatly. I am also concerned that with lack of management, people are increasingly lighting fires on the beach. I have found hot coals from these fires in the morning. There is a chance of a fire escaping into the nearby vegetation. The frequency of fires at the beach has increased over the past few summers. A summer hot fire in this fragile coastal vegetation would cause a lot of environmental damage. I see lots of donut spins on the hard lagoon sand. Occasionally the donuts are on the sand up at the eyelet pool end. The donut spins have recently increased. It would appear that the donut spins are extending from the beach to Mt Richard Rd. Mornings when the beach is badly cut up are frequently mornings that Mt Richard Rd is also cut up. To help the environment and reduce the associated damage on Mt Richard Road. I hope the council can allocate resource to police the damage to the beach.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424138** Submitted by email. [redacted] **Submission**: We are regular users of nanurrup beach and walk up to Islet pool for a swim. We have a 4WD, but choose to obey the signage and park and walk. In the last few years the anti-social and dangerous behaviour on the beach has increased greatly. In the past, council policed the beach and anti-social behaviour was only occasional. Even prior to the recent beach erosion, some 4WD vehicles fail to deflate their tyres and drove along this narrow stretch of beach fast to avoid bogging. Since the erosion and even with Taylor Inlet open, people are still driving to the islet pool. I find myself constantly checking behind to ensure we are not going to be run down by a fast moving 4WD.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

	Basically the beach is not wide enough for both 4WD and pedestrians. In recent years, un-managed vehicle access has led to large overnight parties a couple of times each summer. Each year after these parties, we and the local community collect the rubbish and burry the hot coals. When the beach was managed, this unsocial behaviour happened, but was very rare. Please manage the beach before some unsuspecting kid stands in hot coals or cuts themselves on broken glass. The line up of 4WDs around the inlet pool the last few summer was ugly and left little room for people who had walked and hence unable to stake a claim to some beach to relax. When the beach was managed, we would have occasional 4WD at the point surf break, but not hogging the islet pool. The lack of vehicle management at the beach has led to lot dune damage. For some un known reason, vehicles want to try and see how high they can drive up a vertical dune. With some management, the dune damage hopefully will be reduced. We see lots of donut spins on the hard lagoon sand. To my complete astonishment, in broad day light and with people present at islet pool, a 4WD proceeded to do donuts at the pool. The cutting up of the hard sand at the lagoon has increased in the last few years and is now extending to the islet pool. I am hopeful that council will allocate sufficient resources to once again manage the beach so that we can safely walk to islet pool and enjoy this wonderful bit of nature.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424275** Submitted by email. [redacted] **Submission**: I do not agree with allowing cars on the beach at Nanarup. It is amazing that no one has been injured or killed. It is sickening to see the number of vehicles that drive along the beach and at a speed which is dangerous to those who are using it. Its unfathomable to think the Council thinks this is acceptable to place the lives of children and elderly at risk. Would the council expect it was acceptable to allow children to play on a busy street and dodge cars for their safety. The Council has duty of care to those who use our beaches and to allow cars to use it as a road so as to access parts of the beach that can be reached by simply walking is unbelievable. Each year the number of cars on the beach has increased. What number will the Council consider safe for families to have to dodge the oncoming traffic to be safe?	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424337** Submitted by email. [redacted] **Submission**: Thank you for taking your time to consider this serious issue. The main concern [redacted] is the anti-social behavior happening at the lagoon by allowing unlimited access to everyone. We now have 4wds tearing up and down the beach through all hours of the night spotlighting [redacted] with total disregard for the people staying. [redacted] having the enjoyment of all the Great Southern has to offer with our beautiful coastline and pristine beaches. These weekend warriors in their 4wds have done so much to destroy the peacefulness and the entire ecosystem of the beach. I have personally witnessed more than 50 cars attending the lagoon on long weekends and school holidays, with some just families having a good time but whilst this was all happening you had your idiots and tools doing burnout donuts in front of everyone with young children running everywhere, this should be major concern for council. Dogs off leads with the height of visitors are also a problem as they are fighting [redacted], also another public concern. I [redacted] have had many run ins with the public who do not read trespassing signs [redacted] Their excuse is we just wanted to have a look [redacted] they plant their faces on windows but also on a number of occasions have attempted to break in. Vandalism is also a current and ongoing threat. We had an attempted theft [redacted] regarding [redacted] over on the beach side. I have been abused and physically threatened from these beach goers entering our property. This is not what we want to portray to visit our region but to allow such behavior and have it not policed will result sadly in death or serious injury. **Document Reference: EF21424566** [redacted] In the relatively short duration of my tenure, it has become apparent that the lack of a management and policing of predominantly 4WD's on the beach has developed into a significant problem.	Continue to monitor and address anti-social activities as required Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.

	Particularly over long weekends and summer months, 4WD's can be observed (and heard) driving along the beach at speed, often exhibiting dangerous behaviour which puts unsuspecting family beachgoers at risk. These offenders display no respect for the unique environment, driving over natural habitat which is leading to gradual degradation. This practice is destroying plants, which is allowing the sand to be dispersed by the wind, contributing to erosion. Our natural beach surrounds, moreover, are not only a beautiful feature, they also provide environs for a number of animal and plant species, some of which are threatened. From a tourism stance, these visitors create an unwelcome atmosphere on our stunning beach. Their vehicles, many a time, narrowly missing other patrons. Drivers and their passengers occasionally illegally camp overnight, lighting fires and displaying drunken, loutish behaviour which has been commented on by my guests. [redacted] we have encountered beach campers on numerous occasions. Two instances immediately spring to mind: The first involves a group of men who harassed a young lady [redacted] one morning, making crude comments and demanding a shower. On another occasion I arrived home from work to be confronted by two gentlemen (I use the term loosely) driving back down my long private dirt driveway at speed, claiming they were sleeping rough on the beach and thought my driveway lead to a 4wd track to their camp. The toothless, heavily tattooed passenger resembled an 'after' picture warning against the use of A class drugs. The incident certainly unnerved me. These 4WD visitors/ tourists bring nothing to our gorgeous corner of the Great Southern. They seemingly are not spending money on accommodation or dining as brought out by their free camping/camp fire cookout practices. They are, however, deterring tourists from visiting Nanarup Beach and contributing to paying visitors with holiday dollars to spend perhaps investigating safer sightseeing options further afield. The only contribution these people bring and leave in their wake is damage to our environment and tourism reputation and a multitude of rubbish. In conclusion, protecting Nanarup Beach and surrounds via ranger patrols, and enforcing fines where applicable, would not only protect the beach and Albany's reputation as a family orientated tourist hub, but also produce additional revenue for the city. A win/win situation.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: ICR21424296** Submitted by email. [redacted] **Submission**: We are local residents of Kalgan and very frequent visitors and beach users of Nanarup, we are quite disheartened to hear that the beach west of Taylors Inlet would be open to vehicles. The cove and lagoon is a peaceful place which should be a protected space for recreation without vehicles. The beach access to this area is quite narrow and many near misses through inconsiderate 4WD owners/ oncoming traffic and pedestrians have occurred. Many	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

	of the 4WD vehicles & motor bikes that journey up to the Lagoon bring antisocial, unwanted behaviours and cause massive sand ruts making walking difficult. The destruction of the dunes with 4WD and human misuse is apparent and affecting the vegetation and nesting areas for birds such as Plovers & Sooty Oystercatchers. Many residents including ourselves and the elderly continue to park at the met and walk to the Lagoon, as they have done for many years, this combined with permanent signage will help deter people from driving to the Lagoon. We understand "policing" or "enforcing compliance" of such a closure can be a burden to the City both financially and in time, but surely with the 'Report It" facility on the website, unauthorized vehicles can be reported and fined through leaving enough citizen evidence. The majority of people do the right thing - it is always a few that will ruin it for others. Photos were provided of Australia Day 2019- to note how little beach there is for 4WD access and many small children present. A very dangerous place during the holiday period, on long weekends and special event days. We urge you to re consider this potential opening to vehicles and to make the decision to ban all vehicles west of Taylors inlet. Kind regards	Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.
Nanarup Beach (West) and Betty's Beach North. In summary opposed vehicle access to Nanarup Beach (West) and Betty's Beach North.	**Document Reference: EF21134054** Submitted by email. [redacted] **Submission**: I thank the City for the opportunity to comment on the proposed vehicles on beaches determination. I trust that City staff will give the submission that follows their active consideration. I request that the submission be **published in full** in attachments to the agenda for upcoming Development and Infrastructure Services (DIS) committee and Ordinary Council meetings (OCMs) at which the determination will be considered by the City's elected members. **1. BACKGROUND** This submission addresses the policy development process for the proposed vehicles on beaches determination, and two of the 19 beaches covered by the draft determination, namely Nanarup Beach West and Bettys Beach North. In the DIS committee and OCM debates that non-unanimously endorsed the current round of public consultation pursuant to which this submission is made, the proposed determination was contentious for only two of the 19 beaches – Nanarup Beach West and Bettys Beach North. It is for that reason that this submission specifically addresses only those two beaches. The proposed determination considers vehicular access to the 19 beaches as one omnibus consideration. In contrast, an officer's report unanimously endorsed by elected members two decades ago, in 1999, focused entirely on just one of these beaches – Nanarup. That report, Item 15.1.4 at https://www.albany.wa.gov.au/council-meetings/ordinary-council-meeting/ordinary-council-meeting-14-december-1999/296/documents/ocm_minutes_dec99-1.pdf, provided nuanced consideration of vehicles on this one sensitive beach and deserves further consideration today. In preparing the 1999 report, officers also developed, in close consultation with the Albany – and specifically Nanarup – community, the *Nanarup Beach Management Plan* (Price, M., Giles, D., and Davies, J., City of Albany), which was cited in a coastal planning and management manual produced by the State Government (*Coastal Planning and Management Manual*, WA Planning Commission, 2003). I have not seen the *Nanarup Beach*	Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Monitor beach use at Betty's and undertake measures to protect the environmental values as required.

	Management Plan but it was apparently once available at: https://www.albany.wa.gov.au/download/795/3098_Nanarup_Beach_MP_Final.pdf . More recently, a scientific study conducted across eight Albany beaches (including Nanarup), and published in the prestigious international *Nature* journal, highlighted "that even low-level vehicular traffic negatively impacts the physical beach environment and consequently the ability of many species to survive in this habitat in the face of this disturbance". That study – Davies, R., Speldewinde, P. & Stewart, B. *Low level off-road vehicle (ORV) traffic negatively impacts macroinvertebrate assemblages at sandy beaches in south-western Australia. Sci Rep* 6, 24899, 2016, at https://www.nature.com/articles/srep24899, is an instructive resource for developing the proposed determination. Detailed consideration of the above points, and recommendations for the policy development process from here to completion of the proposed determination, follow. **2. COUNCIL DEBATES TO DATE** At both the June 2021 DIS committee and OCM meetings, two City councillors respectively familiar with each beach raised respective concerns about: ▯ the width of Nanarup Beach West and whether it was possible to achieve a balance between vehicular and pedestrian use of the beach; and ▯ the narrowness and fragility of the vehicular access point to Bettys Beach North. Having inspected both beaches, and in no way criticising the resolutions made at those two meetings, I must say that I share the two councillors' concerns. Again, with no criticism intended, I am concerned too that some elected members may never have been to either or both of Nanarup Beach West or Bettys Beach North. It is my firm belief that to make an informed decision about vehicular access to these beaches, all elected members must be given the opportunity to inspect the beaches first-hand. **3. OMNIBUS VERSUS FOCUSED CONSIDERATION** As noted above, the proposed determination addresses the future of the 19 beaches together in omnibus fashion, whereas a 1999 officer's report focused entirely on just one of these beaches – Nanarup. This submission considers that because both Nanarup Beach West and Bettys Beach North have specific and serious access issues, and would both be blighted by vehicular traffic, they need special, focused consideration, such as provided in 1999 for Nanarup Beach. **4. 1999 OFFICER'S REPORT, NANARUP BEACH AND THE MANAGEMENT PLAN** An important part of the policy development process for the 1999 officer's report, which focused exclusively on Nanarup, was the *Nanarup Beach Management Plan*, produced in close consultation with the Albany, and especially Nanarup, community. This highly-considered community-City collaboration resulted in prohibition of vehicles at Nanarup Beach West, including the lagoon area, while permitting vehicle use at Nanarup Beach East. According to the 1999 report, the community and the City's then Strategic Planning team had worked together to develop a management plan that reflected: 1. the City's duty of care to provide a safe environment; 2. sustainable environmental management; and 3. use of the area for recreation and commercial fishing. Coastwatch Coastcare provided a grant to prepare the management plan and for some implementation. In what appears to be a holistic and constructive approach, the plan considered pedestrian and vehicle access, signs, dune rehabilitation, provision of facilities, and funding opportunities.	

	The City's Strategic Planning team sought to strike a balance between the previously unlimited use of vehicles at Nanarup and the need to have an area dedicated to pedestrians and swimmers only. This was done by prohibiting vehicles to the west of the inlet. Licensed vehicles were allowed to use the beach to the east of the inlet. In special cases, such as for the commercial fishermen and visitors with disabilities, a permit could be sought from the City for vehicular use at Nanarup Beach West. The 1999 officer's report noted that policing undesirable behaviour at Nanarup had been a problem in the past. It stressed that compliance to vehicle access designations was important to success of the management plan. The report further noted that rangers would need to be available should there be complaints at Nanarup Beach West. The report further highlighted that the process of developing the plan had already led to improvements at the beach in terms of dune rehabilitation. This submission observes that vehicular access at Nanarup Beach West has been prohibited by statute since 1999. To overturn the long-standing status quo, the City will need to seek State Government approval, thereby elongating uncertainty over what has already been a long decision-making process for Nanarup Beach West. **5. BETTYS BEACH NORTH** This submission further observes that in the development of the proposed determination, the proposal for Bettys Beach North, prior to a previous round of consultation, was that vehicles be prohibited. Presumably, this original, pre-consultation proposal was made for sound policy reasons. **6. 2016 SCIENTIFIC STUDY** The above-mentioned study (Davies, R., Speldewinde, P. & Stewart, B. *Low level off-road vehicle (ORV) traffic negatively impacts macroinvertebrate assemblages at sandy beaches in south-western Australia*. *Sci Rep* 6**,** 24899, 2016), based on field observations in Albany, highlighted "that even low-level vehicular traffic negatively impacts the physical beach environment and consequently, the ability of many species to survive in this habitat in the face of this disturbance". The study compared the impact on macroinvertebrates at four Albany beaches where vehicles were permitted (Nanarup, Cheyne, Muttonbird and Gull Rock) and at four where they were not (Little Beach, Cosy Corner, Ledge Beach and Middleton Beach). It stated that "off-road vehicle use is arguably one of the most environmentally damaging human activities undertaken on sandy beaches worldwide". Participating scientists found that "even low-level vehicle traffic negatively impacts the physical beach environment, and consequently, the ability of many species to survive in this habitat in the face of this disturbance". The study observed "compaction, rutting and displacement of the sand matrix … over a large area, resulting in significant decreases in species diversity and density, and measurable shifts in community structure on beaches that experienced offroad vehicle traffic". The study noted that beaches in south-western Australia (including Albany) were generally narrower than beaches previously studied in Queensland, and that "restricting access on narrower beaches may be more important than on wide beaches, as the wider beaches allow more [vehicle] use of the lower parts of the beach". The scientists suggested that "given a choice between either reducing traffic volumes, or excluding off-road vehicle traffic from beaches, … that the latter would be more appropriate when the retention of ecological integrity is the objective". In any case, the study observed that "while completely excluding off-road vehicle traffic from beaches may not be feasible on all beaches, some alternative management options are available such as restricting off-road vehicle	

	use on stable beaches while allowing them on more dynamic beaches, having closed seasons on beaches to allow time for recovery and directing off-road-vehicle use to low sections of the beach which are more dynamic rather than the higher sections which are more stable". It is unclear from officer reports to Council to date what, if any, of these non-binary (open beach/close beach) options have been considered. **7. RECOMMENDATIONS** From the above observations, readings and reflections, it is recommended that: 1. The City's Elected Members be offered the opportunity to visit, in the company of senior City staff, to both Nanarup Beach West and Bettys Beach North to examine conditions at both beaches first-hand. In making this recommendation I note that accessing both beaches may be difficult, but request that every effort be made to arrange a visit nonetheless; 2. Detailed consideration of the above-mentioned scientific study be incorporated into the officer's report to the DIS Committee and Council; 3. Systematic desktop research be conducted to determine if there are any further expert studies into the impact of vehicles on beaches and on adjacent environments, and if so, to incorporate consideration of these studies into the officer's next report to the DIS Committee and Council; 4. In their next report to the DIS Committee and Council, officers provide background on the 1999 Council decision and the contents and status of the *Nanarup Beach Management Plan*, including a copy of the management plan itself; and **5.** In that next report, officers provide options for how compliance with closure of Nanarup Beach West and/or Betty's Beach North might be achieved in the event that the Council decides either or both measure to be a desirable course of action.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424384** Submitted by email. [redacted] **Submission:** As Albany ratepayers we do not wish for vehicles to have any access to the lagoon or west end of Nanarup beach. My reasons are in relation to beach safety. On a good weather day, the lagoon area is filled with families many with small children. Combine this variable with the beach traffic driving along the deep sand to the lagoon, parking and then the odd hoon, thinking its ok to leave this area at speed and under a cloud of sand; there is a clear recipe for disaster. It is only a matter of time before a child and a vehicle collide, should the current shared use of the lagoon continues. Years ago the fishing rocks at the Nanarup lagoon were closed due to the hazardous nature of the area, it was a hard decision but the right one – no doubt saving lives/injury and of course litigation against the city. This decision has parallels that can be drawn to the current situation at the lagoon. Safety, for all beach users must be considered as the highest priority and not to be seen to be benefitting the few who believe it is their right to drive unsafely, churning up the sand and leaving their rubbish for others to remove.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

	Nanarup beach is enormous, vehicles can and do have access to the northerly aspect too – to fish, surf and to drive along, this really should be enough for this sector of society. Vehicles do not need to have unlimited and uncontrolled access to the lagoon too, leave this area just for pedestrians, their families and dogs too.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424386** Submitted by email. [redacted] **Submission**: **I strongly oppose vehicles being permitted on Nanarup Beach West and the Lagoon.** 1. Safety As a regular patron of this world-class beach, I've watched in horror from the water as someone drove very fast within a metre of my child who was lying on the beach gazing at the sky. Is it really supposed to be a roadway? I've watched my sister (60) stand on the beach as an SUV drove at speed within less than a metre from her travelling at about 60km/hr through the thick, boggy sand. 2. Hooliganism - inducing fear in the community I have been frightened at the lagoon - again with my young kids - as I held their hands on one beautiful afternoon there - whilst we watched two circling SUVs loaded with teenagers (all seemed drunk) jumping up and down to make the vehicle bob up and down whilst the drivers were doing donuts in the sand. I'm fine with people taking their picnics and alcoholic drinks to enjoy a good time out there - maybe it would be better for all if people could only take as much alcohol as they can carry in their hand (rather than on the tray of their ute). People should be encouraged to respect the pristine beauty, rather than allowed to drive all over it and leave their debris behind - which they do. 3. World-class beach and learn-to-surf location The location is world-class and often shown in photography promoting the region (minus the vehicles). It should be upheld as such. Nanarup Beach West and the Lagoon are worth the walk. It is a superb place for learning to surf - picturesque, sometimes with dolphins, great for the whole family to come and enjoy at the same time. Once a year, the Albany Surf Club have a day out there and I think on that day, they can be permitted to drive out the trolley of surf-boards to the beach in order to conduct the event. In allowing vehicles on there all the time, the City of Albany is failing to acknowledge, preserve, nor take advantage of the world-class quality of the location. Instead appears to be regarding it as a rather third-rate backwater. Instead, I suggest getting the best minds in to design beautiful, minimalist infrastructure (like at The Gap) and lead the right behaviour, the right experience.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

Nanarup Beach (West) and Betty's Beach North. In summary opposed vehicle access to Nanarup Beach (West) and Betty's Beach North.	**Document Reference: EF21424464** Submitted by email. [redacted] **Submission**: We are concerned about the proposed changes regarding vehicle access to Nanarup Beach (west) and Bettys Beach (north) and recommend that these beaches continue to remain free of vehicles to help protect vulnerable Hooded Plovers. Hooded Plovers are beach-nesting birds which are very susceptible to human disturbance. With the ever increasing recreational use of beaches their numbers have decreased significantly and the species is now listed as threatened in several states. In Albany these shorebirds have disappeared from most beaches but are still regularly found on a few of the beaches between Cheynes Beach and Nanarup. Permitting yet more vehicle traffic on beaches in the area is bound to have a negative impact on the species. Given that the City of Albany has committed to preserving wildlife habitat values and the management of their threats we feel those beaches should continue to remain vehicle-free to protect these shorebirds. Apart from impacting on wildlife, vehicles on beaches also reduce the enjoyment of the natural environment for human beach users. Due to the fact that a large part of Nanarup Beach is already available to users of 4WDs, one should be able to expect that other recreational beach users can use a stretch of the beach without being disturbed by vehicles. We would hope that the City of Albany will continue to look after the interests of all its citizens rather than support the wishes of a noisy minority.	Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424500** Submitted by email. [redacted] **Submission**: I would like to comment on the City of Albany proposal to opening up of the Islet and lagoon area on the Western end of Nanarup Beach to vehicles. This area has been, and should remain a safe and peaceful location for families to enjoy. The argument that it is difficult to police should not be a reason to stop. The signage needs to be installed on the beach (edge of the dunes), where everyone driving down onto the beach can clearly see, so it is clearly visible and robust to withstand the weather and vandalism. This way there is no excuse that no one can see it. Then there needs to be regular ranger visits, particularly on public holidays and during the summer holidays to check compliance. Keep this beach safe and for everyone to enjoy.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424500** Submitted by email. [redacted] **Submission**: I wish to state my objection to the proposal to allow vehicle access to the west side of Taylors inlet at Nanarup beach and ask you to consider my following points when making your decision. Nanarup beach is a unique natural environment that requires the community protection, not the damage this proposal will cause. When deciding on the proposal please consider The City of Albany Community Strategic Plan objective to be 'Clean, Green and Sustainable'. Over recent years the impact of increased 4WD activity on the beach and surrounding dunes has significantly degraded the Nanarup beach area. This degradation can be visualised through a comparison of aerial photographs at the Western Australia's land information authority website, Landgate.https://map-viewer-plus.app.landgate.wa.gov.au/index.html No obvious attempt to manage the increasing number of vehicle access points from the City of Albany managed beach area to the surrounding dunes has contributed to the dune degradation. If vehicle access is allowed to the western end of Nanarup, the damage vehicles cause to the environment will result in the loss of this fragile ecosystem. This negative impact caused by 4WD was recently recognised by the City of Albany at the Emu Point salt marsh, as reported in the Weekender on July 8 2021. The article titled Saving the Emu Point saltmarsh, states "The coastal saltmarsh near Emu Point has been severely damaged by un-restricted vehicle access, with large amounts of tyre tracks evident in aerial footage." The City of Albany has erected barriers at this site to restrict access. The Nanarup beach and inlet ecosystem is suffering from the same negative impact due to unrestricted vehicle access and should be protected in a similar manner. The City of Albany goes to great effort to protect freshwater turtle species, when they inhabit areas close to town. Stating on its website "illegally taking or disturbing this species will cost you $50,000 and a permanent criminal record". The Cities proposal to allow vehicles to drive over the fragile Nanarup ecosystem will damage the habitat of the protected turtle species endemic to this ecosystem. Please consider the *City of Albany Natural Reserves Strategy & Action Plan | 2017-2021*	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.

	https://www.albany.wa.gov.au/documents/246/natural-reserves-strategy-and-action-plan-2017-to-2021 when making a decision on this proposal. The vision of this adopted plan is "To protect and enhance the City's world-class natural reserves today and into the future." A decision to allow vehicles to drive over the Nanarup ecosystem is neither protecting nor enhancing. The first Strategic Goal of this plan is to preserve and increase the ecological values of our natural reserves. Driving over fragile beach vegetation kills the stabilising plant life within the incipient dune area of the beach. This vegetation cover is a critical element to protect the fortune from the damage of winter storms as is occurring now. As a regular Nanarup beach walker the vast majority of 4WDs I observe using the beach are not idyllic families driving sedately. Since becoming common knowledge Nanarup beach is unpatrolled by City Rangers the majority of 4WD are young adults driving vehicles at high speed. This speed and the loss of control due to driving within wheel ruts is a dangerous situation for walkers to the lagoon. During the high tide, the limited beach area between the water and steep foredune puts walkers and 4WD into the same limited unsafe space. As stated in the City of Albany "Safer Albany Plan 2020 - 2023" https://www.albany.wa.gov.au/documents/793/safer-albany-plan-2020-2023 *The City of Albany plays a pivotal role in community safety in Albany. City planning and approvals, management and maintenance of public spaces, enforcement* *of local laws and the provision of a wide range of services to businesses, residents, ratepayers, and visitors, all contribute to public safety.* This proposal will force walkers and moving vehicles onto an unsafe position, the opposite to the stated objective of the City's adopted Safer Albany Plan. Throughout the consultative phase of this proposal the City has not indicated that this change will be guided by an environmental management plan. Has the City of Albany investigated the number of vehicles accessing the Lagoon area currently, while its prohibited? Does the City have an indication of the number of vehicles likely to access the area if it becomes allowed? What will be the consequences of overuse on the unique area? Has the City investigated successful solutions to unauthorised 4WD access implemented by other councils? This proposal gives the community the impression that if a council rule such as driving west of the inlet is difficult to enforce and time consuming for City Rangers then changing the rule is the solution to the problem. The Cities	

	Natural Reserves Strategy and Action Plan states (Strategic Goal 3.1) is to provide recreational facilities that minimise impact on the natural environment and (3.1.5) to Ensure compliance officers/ rangers presence in 'hotspots' to ensure sustainable recreational activities in reserves. Please consider the results of the public consultation process. The A4 laminated sheet asking for feedback on the proposal at Nanarup was located at the 4WD beach access, where observant drivers would notice the sign. Walkers entering the beach at the raised walkway would not have noticed this sign on the other side of the car park. The results from the consultation process represent the opinion of the specific beach users the City has informed on the change, not all the beach users. Please consider all beach users when assessing this proposal. Currently, vehicles have access to the majority of Nanarup beach managed by the City of Albany with only the area west of the inlet available for use without the disruption and danger from 4WDs. If this proposal goes ahead the entire beach managed by the City of Albany will be dedicated to one group of beach users only. Pictures provided	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424502** Submitted by email. [redacted] **Submission**: As a long time user and having spent much of my life enjoying Nanarup Beach I was extremely surprised to learn of the content of the PROPOSED VEHICLES ON BEACHES DETERMINATION from the City of Albany and reverse the protection of Nanarup Beach west and its users from vehicle traffic. I would like to bring to the City's attention a number of considerations from the PROPOSED VEHICLES ON BEACHES DETERMINATION which based on the current information available appear to be overlooked and I expect a detailed response from the City addressing these items before the proposal is taken any further. Specific concerns relate the proposed changes to Nanarup Beach (west) as follows; Lack of management plans available for this changed access and how the following risks will be managed o Rescue- in the event of an incident how is the City facilitating emergency access give the greater volumes of people now access the area and the increased personnel vehicle interaction? o How safe access is being ensured for pedestrians especially at times of high tide or large seas where the beach can be as little as a single lane width? o Recovery for vehicles may become stuck trapping other users at time where it is unsafe for to pass each other?	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.

	o How the council will manage the opening of the inlet to the sea which is subject to natural forces and could result in vehicle entrapment on the west side of inlet. o Environment damage caused by vehicles operating on that section of beach especially related to erosion caused to sand dunes and damage to native flora as a result of the unrestricted vehicle access There is no information available on any environmental studies which have been undertaken nor risk assessments as to the possibility of adverse outcomes from these proposed changes. The lack of expert consideration or advice raises questions of the decision-making process undertaken in regards to these changes and who the responsibility would remain with were and incident to occur. I would expect these considerations to have been assessed and risks managed or mitigated before proceeding with the proposal as the change could leave parties liable for damages if in the case of an incident. Aside from these considerations Nanarup Beach west is a very small section of a much larger area which is available to vehicle use and I am perplexed as to why the City feels the need to reverse the current status and increase the likelihood of an incident. I look forward to detailed responses to the above points and hope the decision is reconsidered given the considerable risk for little community gain.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424503** Submitted by email. [redacted] **Submission**: Dear City of Albany staff I am opposed to the City of Albany proposal to open up the western end of Nanarup Beach Islet and the natural pool family swimming area to vehicles and in particular 4WDs. This has been a regular swimming place all my life and now too as a young adult being a regular surfer at the Islet point. I have always respected the signage and rules about access to this part of the beach and although there was the occasional vehicle breach of the law, slipping through to the beach, nowadays it is a horrific free-for-all. So often I find the beach congested with vehicles and when they are passing in both directions it gets scary, there is often hardly any room for even one vehicle. I worry while I am surfing about personal security and leaving gear and car keys on the beach. It is a simple case of reminding people of the law as it stands, make people aware with signs and media and carry out regular compliance. Please consider the needs of the silent majority.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Nanarup Beach (West) and Betty's Beach North. In summary opposed vehicle access to Nanarup Beach (West) and Betty's Beach North	**Document Reference: EF21424504** Submitted by email. [redacted] **Submission**: [redacted] requests that vehicles not be permitted on beaches at the following proposed locations: Bettys Beach (north) – R52825 Nanarup Beach (West) – R45631 Pairs of adult Hooded Plovers are frequently sighted on these 2 beaches during the breeding season in summer where they very likely breed. This is also the time when vehicle activity on beaches is highest. Hooded Plovers are listed as 'Vulnerable' under the federal Environment Protection and Biodiversity Conservation Act and have undergone declines due to their highly vulnerable breeding strategy. They lay and incubate eggs in scrapes of sand on the beach above the high tide mark, where their sand-coloured eggs are well camouflaged. The chicks once they hatch cannot fly for 5 weeks and spend much of their time on the water's edge feeding and run between here and the dunes where they seek shelter. Adult birds, chicks and eggs are all small and well camouflaged (for protection against predators) and as such are not visible to 4WD drivers. [redacted] studies in SA and Victoria clearly show that vehicle access on beaches is a major threat to successful breeding for this species, disturbing nests, crushing eggs and impacting and causing direct mortality of chicks (which cannot fly out of the way). Bettys Beach and Nanarup Beach provide habitat for this vulnerable species and allowing vehicle access is incompatible with suitable management of this habitat for their conservation.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: ICR21424428** Submitted by letter. [redacted] **Submission**: Regarding the lagoon, west of Nanarup Beach, this unique crown in the jewel for Albany. I personally have been going to this pool for 70 years and for nearly 40 years, I was at the beach-pool every day, rain, hail or shine. So I feel I can give an account of the place which the City should listen to. My family's great grandfather was the first person to live at the inlet where he built a house 160 years ago. From 1980 – 2000 in that period when the Shire controlled access to cars west of the inlet by having bollards and a gate which the local Shire Ranger kept watch on vehicles and animals. Unfortunate heavy seas when City amalgamated was not maintained. The City needs to place a big stone barrier with an emergency gate. Cars / people take no notice of signs at toilets. In the last 3 – 4 years, the cars and dogs have increased 20 fold. Any long weekend or holiday, you will see	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

	15 - 60 cars parked from the beach inlet to the pool. As easterly winds bring ocean wash high up the beach. This makes cars go at high speed in soft sand near sand hills. The cars are all parked high up from the inlet to the pool. It creates a very dangerous situation with very little children. I have seen very near misses, with parents rushing to recover children. This is apart from many cars also have a large dog. I have seen dogs several times knock over small children. If the City does not reinstate large rocks or bollards with an emergency gates, there will be a serious accident or death. As always, cars and dogs have used the beach to the east for fishing and surfing. I hope the City Councillors have some understanding of the seriousness of the current situation. Before, people walked and enjoyed the pool. Stop the vehicles.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424549** Submitted by email. [redacted] **Submission**: I am a regular visitor to Albany, usually staying in the Emu Point area. Nanarup beach is where we go to enjoy the coast and look for some surfing waves. I am totally opposed to vehicle access west of the inlet. On previous visits, 4wd vehicles have passed me at speed in the soft sand as I have been walking up the beach. It is dangerous, especially as there are often children playing on this beach. Invariably, these vehicles back into the dune causing even more erosion, so they can get a downhill run to drive back up the beach. The distance from the inlet to the end of the beach to the west is short, only taking a few minutes to walk. In my opinion there can be no justification permitting vehicles on this section of Nanarup beach. If we take Nanarup beach as a whole, this is nesting habitat for the threatened Hooded Plover. Vehicles on beaches destroy this habitat. The least we can do is protect the western end of Nanarup beach. Part of the pleasure of walking up the beach is the peace and quiet of the beach and the surf. Please dont spoil this for visitors like myself and my family, do not permit vehicles on Nanarup beach west of the inlet.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424586** Submitted by email. [redacted] **Submission**: I am writing to you to express my concerns regarding the increased safety risks from unauthorised vehicle use on the Nanarup beach west section. I am a resident of Nanarup for the past 2 years and Albany for 15 years. The increased traffic to this area has become very observable through the deeply rutted sand from the inlet to Islet point which at times resembles a race track for 4WDs, motorbikes and dogs. At times when I have requested people slow down or put dogs on lead, I have been responded to with aggressive gestures or one occasion from a trail motorbike, verbal abuse. I park and walk to the lagoon and took my parents from interstate to enjoy the wonderful place, who commented what a pity it was that vehicles were on the beach at such a unique spot, especially since it was relatively narrow and they felt it made the experience unpleasant and unsafe. It is a major risk for pedestrians, who like myself are abiding by the signs, which could be enlarged, updated and placed in more prominent positions as some people not from the Great Southern were unaware of the traffic compliance. This piece of beach is less than 400 metres long. It has a narrow beach front and should be maintained as no vehicle access except for ACROD registered people, which would have difficulty getting near the water's edge on a summer's day due to the line up of cars with eskies and gazebos taking up all the room. To the east there are kilometres of beach for 4WD equipped vehicles to enjoy. The council represents the entire community and we have been patient and tolerant of the increased incorrect use of this area, regularly cleaning up after a long weekend. We need to ensure safety to the area and respect for locals who act responsibly.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424598** Submitted by email. [redacted] **Submission**: 1. I strongly oppose the City of Albany (CoA) Council's resolution and proposal to amend the City of Albany Property Local Law 2011 (CoA PLL 2011) to permit vehicles on Nanarup Beach (West) Reserve 45631 (R45631) which is a Reserve for the purposes of 2. A former resident of Albany, I am now a regular visitor to the Albany region and a recreational beach user at Nanarup Beach (West) and lagoon. I support the protection of this foreshore Reserve under its current purpose (see Point 3 below). 3. Reserve 45631 (R45631) CURRENT PURPOSE - RECREATION AND FORESHORE PROTECTION CURRENT LAND USE - RECREATION CONSERVATION FORESHORE PROTECTION https://land-enquiry.app.landgate.wa.gov.au/SVProperty/reserves/45631#reserveDetails	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

	4. In 1999 Albany Council resolved to prohibit vehicles on R45631 and the Minutes (link below) record the sound rationale for Council's decision https://www.albany.wa.gov.au/council-meetings/ordinary-council-meeting/ordinary-council-meeting-14-december-1999/296/documents/ocm_minutes_dec99-1.pdf 5. Vehicles that typically frequent beaches and dunes include four-wheel-drives (4WDs), trail bikes and quad bikes. I have witnessed all three of these vehicle types on R45631 and the term "vehicles" used in my comments includes all of these. 6. I understand that (as per CoA Officers) the enforcement of compliance with the prohibition of vehicles as per the CoA PLL2011 on R45631 is an ongoing and unresolved issue. This defeatist rationale should not provide a basis for the proposal to amend CoA PLL2011 to permit vehicles on R45631. 7. An effective public education program in conjunction with penalties for infringing vehicle owners will lead to behavioural change. This has been an effective approach use by other (more responsible, informed and progressive) local governments such as City of Wanneroo. 8. Public access to the coast is highly valued in Australia and, in my view, this should continue to be upheld. However public access to R45631 should be only via pedestrian access (no vehicle access) as the historic and current presence of vehicles on this foreshore has resulted in visible and measurable adverse impacts. 9. Vehicles have a greater impact on beaches when compared to pedestrians due to the weight of the vehicle; the engine power transferred to wheels; speed; the greater range of vehicles; noise generated; and the safety impact on other beach uses. 10. The current unlawful and regular presence of vehicles on R45631 encourages antisocial behaviour with its associated negative impacts of increased litter, the lighting of fires and drunkenness. Vehicles facilitate these behaviours be enabling the easy transportation of people and resources (alcohol, wood, gas bottles etc). I have witnessed such antisocial behaviours which have adversely impacted the beach experience of my family and other pedestrian beach visitors. 11. The presence of vehicles on R45631 increases the risk of fire, especially during dry summer periods. 12. The driving of vehicles on R45631 causes visible habitat degradation, including beach erosion and damage to dune vegetation is caused by tyre tracks and hooning behaviour. Habitat fragmentation is also visible. 13. Dune ecosystems are fragile and it takes many decades of costly rehabilitation to restore the coastal vegetation that serves to stabilise the foreshore. Concerted, labour intensive and costly rehabilitation programs are never able to fully restore a damaged foreshore to its original state. 14. Vehicles on beaches exacerbate the existing invasive weed problem through the transportation of weed species material and seeds and fungal plant diseases. 15. The increasing effects of climate change greatly impact R45631. The impacts of rising sea levels and increased storm surge are already being realised along this coast and the current unlawful use of vehicles on R45631 visibly exacerbates these issues. 16. The high visual landscape values of the R45631 coastline are greatly diminished by the presence and use of vehicles in this area. Some years ago I took overseas visitors to Nanarup Beach and they were appalled at the presence of vehicles. This area is a popular tourist attraction which is degraded by the presence of vehicles on the beach. 17. The current unlawful presence and use of vehicles on R45631 causes conflict between vehicle users and pedestrian beach users, and I have witnessed	

	- vehicles driving between pedestrians (often children) - cars towing plastic (legless) chairs with people seated in them at high speeds across the sand - regular incidences of dangerous driving - hooning - the erratic and unpredictable course of powered vehicles through soft sand - underage and presumable unlicensed drivers (ie children driving) - excessive vehicle noise - verbal abuse between vehicle drivers and pedestrians, witnessed by children who were upset and disturbed by such adult behaviour. 18. Apart from detracting from the overall beach experience of beach users, these vehicle-related activities present an observable safety hazard to beach goers and shorebirds. 19. I put the CoA Officers, all Councillors and the State Government on notice regarding the pubic liability of safety on R45631. In my view, it is only a matter of time before a serious injury or death occurs due to the unsafe mix of vehicles and pedestrians. If the Minister approves the proposed amendment to permit vehicles on R45631 then they are complicit in any such injury or death. 20. The presence of vehicles on R45631 has had an observable and measurable negative impact on bird life in the area. Shorebirds such as gulls, terns, sandpipers, oystercatchers, dotterels and plovers (many species of which are threatened) feed on the sandy beaches along this coastline. The feeding (and sometimes nesting) activities of these species are greatly disrupted by vehicles and bird productivity (destruction of nests, eggs and chicks) is measurable. Birds stressed by the presence of vehicles are less productive. 21. The presence and use of vehicles on R45631 has increased the human impact on the fragile rocks on the south west side of the lagoon. They have been defaced and vandalised resulting in a degradation of this natural formation. Without vehicular access, many people would not bother walking to the western end of the beach and the incidence of defacement would be reduced. 22. In considering this proposed amendment to CoA PLL2011, the CoA, Council and the Minister should give due regard to • all relevant State Planning Policies https://www.dplh.wa.gov.au/policy-and-legislation/state-planning-framework/state-planning-policies • CoA Natural Reserves Strategy & Action Plan 2017-2021 https://www.albany.wa.gov.au/documents/246/natural-reserves-strategy-and-action-plan- 2017-to-2021 • CoA 2030 Community Strategic Plan https://www.albany.wa.gov.au/documents/201/community-strategic-plan-albany-2030-(as-amended) • CoA Local Planning Scheme https://www.dplh.wa.gov.au/albany 23. For all the above reasons I strongly oppose the proposed amendment to CoA PLL 2011 to permit vehicles on R45631 and trust that the Minister will uphold best practice planning principles in the interests of the environmental sustainability and the public's recreational use of this precious coastal Reserve.	

Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424600** Submitted by email. [redacted] **Submission**: I am writing to you as a resident of Nanarup, an Albany rate payer and local user of the Nanarup beach after reading the local media reports regarding the change to vehicle access to the west section of Taylor's Inlet at Nanarup beach. After reading the article in the Advertiser on Thursday 24th June, I felt compelled to write to you with concerns regarding safety, environmental considerations and the joy that this peaceful place gives people. I [redacted] enjoy the beach, the inlet and the lagoon on a regular basis. It has become less enjoyable and an obstacle course in dodging 4WDs, motorbikes and dogs, on occasions, chasing these vehicles. The result is the deep ruts left behind by the speed in which they travel and the repetitive up and down to the toilets located at the carpark. It is also frustrating to see when vehicles get bogged with their tyres fully inflated and the additional damage they do attempting to get out. The sections have been greatly impacted and on occasions, deterred people from walking to the lagoon due to not feeling confident to safely navigate the ruts or the traffic. At the lagoon they park close to the water's edge vying for the best position with their large vehicles, often in groups which can make it very difficult to get to the water. Some vehicles have leaked oil or other mechanical oils whilst being parked for long periods and in this environment with its sheltered waters can cause environmental issues with high tides. The other issue is the attempt to drive up and down the sand dunes at the Islet point end. I would like to know if an environmental/ marine study will be conducted to collect data on the vegetation, flora, fauna, ecosystem and marine life of the area? It has been protected for many years with pedestrian use only and its remoteness and I fear what the current vehicle impact will do or in the future if it continues. It would be devastating to learn too late the damage that could have been prevented. This needs to be greatly considered with the unique ecosystems and the wonderful work and successes that are being achieved in the Great Southern region around flora and fauna regrowth and repopulation. The rest of the beach can be accessed by 4WD and if they are after safer swimming spots, we are blessed with plenty of beaches to choose from in the Great Southern region. Their use of the Islet pool/ point is for pleasure with no consideration of the environmental damage. I have collected rubbish on many occasions in this area and along the beach which highlights that they are not promoting environmentally sound or law-abiding behaviours. This about community wants but environmental needs are greater and on most occasions the damage is irreversible. [redacted] we can view Taylor's inlet, and there have been occasions when we can see vehicles or lights from vehicles in the distance going around and around doing 'donuts' and the next day witnessing the damage caused to the beach and inlet. I have thoughts on contacting the police, with limited information due to distance and consider if this is the best option of police resources. Any school holidays or particularly public holidays has become	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

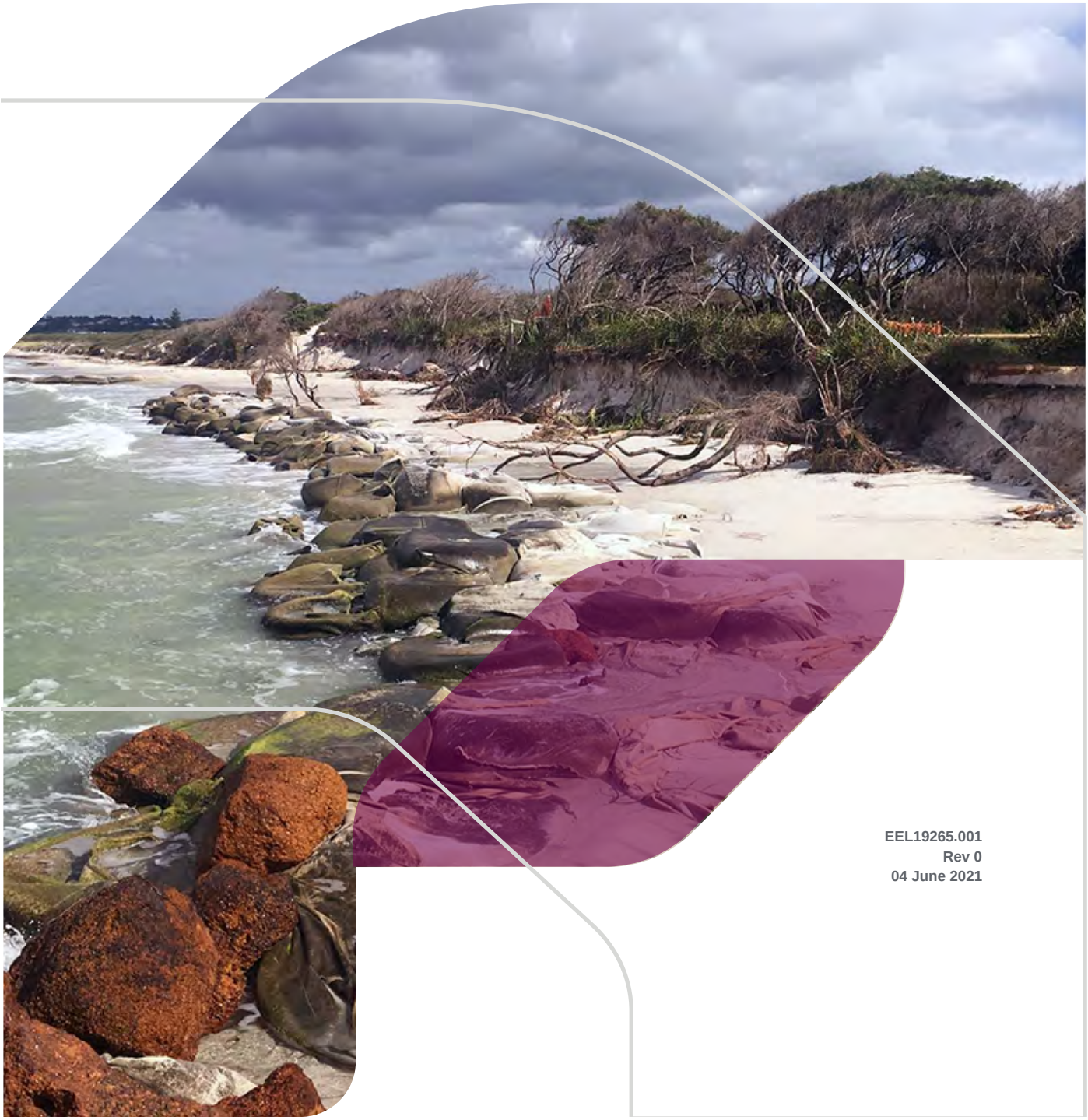
	a time when we cannot bear visiting the beach due to the large number of vehicles on the beach and the anti-social behaviour often exacerbated with alcohol. I particularly feel for the paying guests at Fisherman's Lodge or Maitraya who must listen to the revving of engines up and down the west section of the beach or to observe the 'donuts' near Taylor's Inlet. These guests have paid good money to visit and stay in the region and it does not promote the accommodation or region well when they have to experience these behaviours. The newspaper articles states that the community wants it open, but I am not one of them and the people who I regularly encounter fishing or walking at the beach also do not want it open to vehicle access as it not used responsibly. I have faith that the councillors will collect information necessary to determine the environmental and safety risk of this area and what the consequences may be if vehicle access is allowed to the west section on Nanarup beach and make a considered decision.	
Beaches in Albany Region	**Document Reference: EF21424604** Submitted by email. [redacted] **Submission**: [redacted] is writing to express our concern in relation to the proposed changes regarding the permission of vehicle access to beaches in the Albany region. Beach driving of any kind can be the cause of serious environmental damage, including compaction of marine sediments, erosion of coastal dunes, and disturbance to the wildlife using the beach, in particular nesting birds. Allowing more vehicles to access the beach leads to the potential for increased disturbance for the birdlife using the beaches in the Albany region. Migratory shorebirds, terns and resident beach nesting birds rely on these beaches to feed, roost and breed. Increased vehicle traffic has a direct and negative impact on the survival of these species, including direct mortality of adult birds, the crushing of eggs and flightless chicks, as well as disturbance to critical behaviours that will determine the birds survival during migration and capacity to protect and thermo-regulate their young. Shorebirds and terns have been known to abandon sites altogether due to increased human use, in particular, by vehicles. In many areas it has taken decades to restore habitats through the removal of vehicles, to see the return of these species to their important breeding and roosting sites. The submissions and recommendations from a recent parliamentary enquiry in South Australia into off-road vehicles are worth accessing for exposure to the large suite of impacts of beach-driving. We are particularly concerned about the impact that vehicle access will have on the remaining populations of Hooded Plover, a species nationally listed as vulnerable. Hooded Plovers in the south-west have experienced considerable decline and now can only be found on a few of the beaches in the Albany region. Allowing vehicle access on these beaches will likely be the final straw for these remaining populations and could lead to their local extinction.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan.

	Of the proposed changes, Normans and Nanarup Beach have the largest remaining numbers of Hooded Plover and would stand to lose the most by allowing more vehicles to access the beach. We consider allowing the permission of driving on these beaches to be a backward step for conservation of coastal habitats in Western Australia and as leaders of shorebird conservation recovery programs across the country, hope that the council will review the science-based evidence to dismiss the inclusion of these sites from the current plan. [redacted] can provide a range of scientific, peer-reviewed publications and educational resources to assist council with best practice decision making.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424664** Submitted by email. [redacted] **Submission**: I am aware that City of Albany is currently considering management options for Nanarup Beach. As long-term residents in the Kalgan River area our family are regular visitors to Nanarup Beach and in particular, to Islet Pool at the west end of the beach. While we have a 4WD vehicle we typically park at the point where Taylor Inlet meets the beach and walk the 300m up the beach (to west) to Islet Pool, this complying with the signage. Have visited regularly over the last 10-15 years we are aware that a few years ago the sign on a large pole at the point where Taylor Inlet meets the beach was removed by vandals. This sign had informed the public that vehicle access to the west and to Islet Pool was prohibited. The removal of the sign seemed to "open the floodgates" to people in 4WDs driving up the beach to Islet Pool. As time has gone by this increasing and unmanaged 4WD usage has: • Created unsafe conditions for compliant beach users (walking to Islet Pool) with 4 WDs driving past with little separation to people walking to Islet Pool, including family with children. I regularly accompany my 91-year-old mother along the beach to Islet Pool as it is one of the few places in the Albany area where it is safe for her to swim and with easy access/egress to the calm water in the pool. At many times of the year the beach is not wide enough for both 4WD and pedestrians and hence it is unsafe. • Increased erosion of the beach and foredune area. • Led to the small beach at the lovely Islet Pool area essentially becoming a parking lot jammed with 4WDs on summer days. The 4WDs leave little room for people who had walked to the pool and hence unable to stake a claim to some beach to relax. It changes the aesthetic value of Islet Pool from a lovely tranquil location to one resembling a parking lot. • Led to large overnight parties (and sometimes with antisocial behaviour) resulting in the local community having to collect rubbish and bury the hot coals the next day. As part of my work as an Environmental Scientist in the coastal/marine field I have been involved with developing coastal management plans and am aware of their overall objectives of balancing various human uses with the aesthetic and environmental values of coastlines. The City of Albany should consider the management of Nanarup Beach with these objectives in mind. I believe that such a balance could be achieved by re-implementing (and resourcing appropriately) the following management of Nanarup Beach:	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon. Undertake review of the Nanarup Beach Management Plan 1999 and develop a Dune Protection Plan. Continue to monitor and address anti-social activities as required

	• 4WD access permitted on beach areas east of Taylor Inlet. • 4WD access prohibited on beach areas west of Taylor Inlet, including Islet Pool. • Camping and lighting of fires prohibited at Islet Pool. Islet Pool is a rare and iconic location on the Albany coastline and there are only a few other locations of similar value (e.g. Little Beach). The City of Albany should consider the management of Nanarup Beach with this mind and whether the public and tourist perceptions and memories of visiting Islet Pool are of a tranquil and pristine pool/beach suitable for families and people of all ages or one more resembling a car park and the associated safety problems.	
Nanarup Beach (West) In summary opposed vehicle access to Nanarup Beach (West).	**Document Reference: EF21424977** Submitted by email. [redacted] **Submission**: Hi there I am emailing my concerns on allowing vehicle access to the west side of nanarup inlet. I for one have walked that side of the beach in summer time with four wheel drives tearing past me, the beach isn't very wide there, which when I hear a vehicle approaching I turn around to make sure I don't have to jump out of their way. It totally ruins the atmosphere of the beach. Not only is it an eye sore when there's cars side by side all the way up to the lagoon but it also causes corrosion to the beach and safety concerns. Please consider not allowing four-wheel drive access west of the inlet, there's plenty of room for vehicles around the inlet and up the east end of the beach. I feel like at least one small part of Nanarup can be left unspoilt by traffic.	Install Code of Conduct signage and provide clear information and education. Investigate options to install barriers to vehicles at the lagoon.

FOREHORE MANAGEMENT PLAN

Emu Beach



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Rev 0
04 June 2021

REPORT

Document status					
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CERTIFICATION

This Foreshore Management Plan has been prepared to accord with State Planning Policy 2.6: State Coastal Planning Policy.

IT IS CERTIFIED THAT THIS FORESHORE MANAGEMENT PLAN WAS ENDORSED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

Signed for and on behalf of the Western Australian Planning Commission:

_____

an officer of the Commission duly authorised by the Commission pursuant to Section 16 of the *Planning and Development Act 2005* for that purpose, in the presence of:

_____

Witness signature

_____

Print name

_____

Date

ACKNOWLEDGEMENTS

This Foreshore Management Plan has been prepared in collaboration with the City of Albany and has been informed by the following key studies:

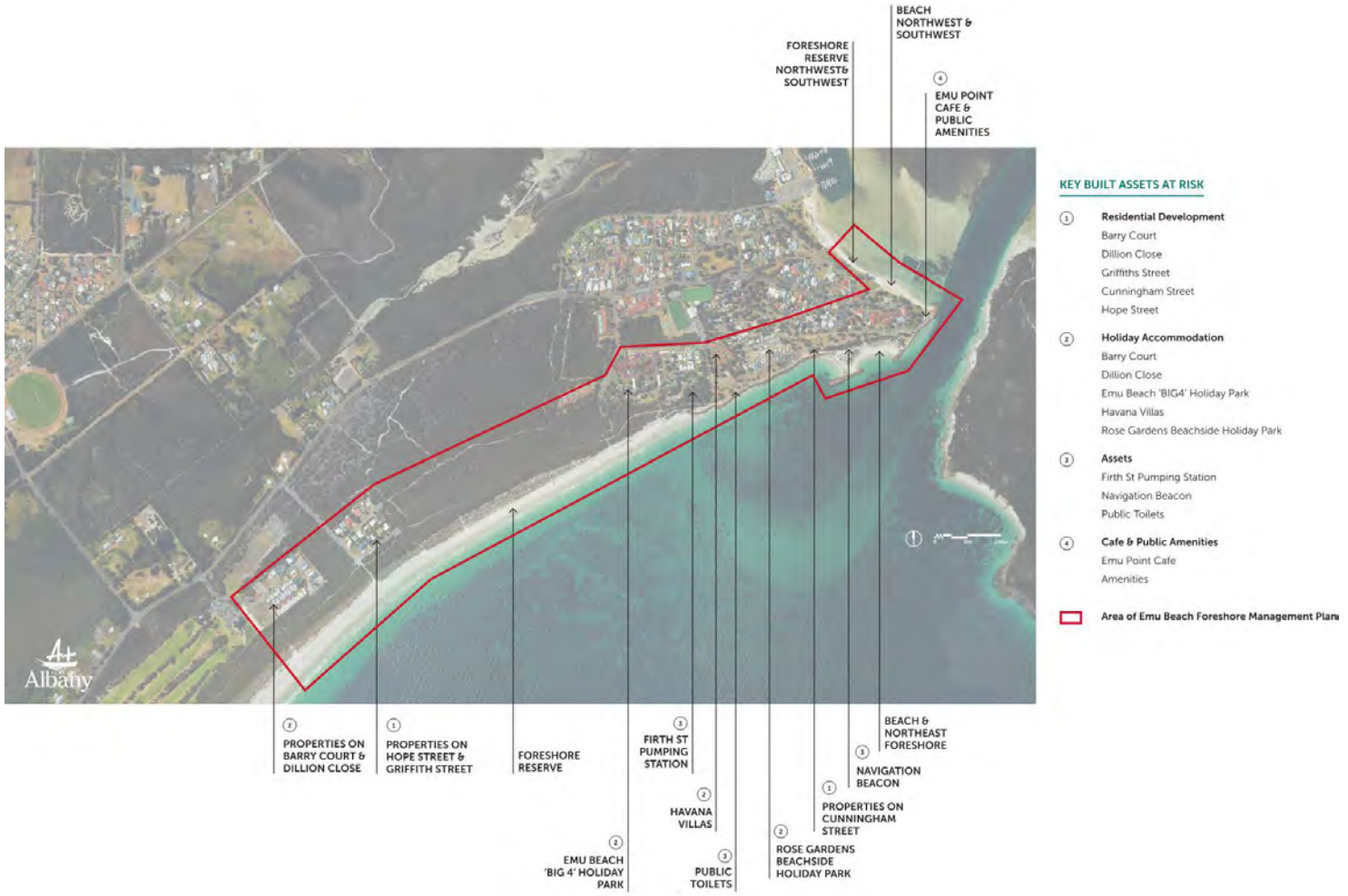
1. Landscape Master Plan prepared by SeeDesign Studio
2. Technical coastal engineering studies including the preliminary Basis of Design of coastal adaptation options prepared by Bluecoast Consulting Engineers.

SUMMARY

Background

This Emu Beach Foreshore Management Plan (FMP) is an important guiding document for the management of coastal erosion and hazards between the Albany Golf Club and Emu Point. The FMP area is a significant tourism attraction and previous stakeholder engagement has repeatedly shown that the local community strongly values its social and recreational amenity.

This FMP represents the logical next step from the completion of the endorsed Emu Point to Middleton Beach Coastal Hazard Risk Management and Adaptation Plan (CHRMAP), which recognises the ongoing coastal erosion impacts on community assets, the natural environment, properties and the future tourism economy. The key assets within the FMP area are presented in Figure 1.



Source: City of Albany

Figure 1: Emu Beach FMP key assets

The FMP area continues to experience storm events and subsequent erosion, hence the need for the City of Albany (CoA) to act has become increasingly urgent.

Emu Beach foreshore management plan

This FMP is consistent with State Planning Policy 2.6 - State Coastal Planning Policy and the endorsed CHRMAP. Whilst the CHRMAP makes broad recommendations about what to do to manage the coast over the long-term, this FMP essentially details the how – identifying a series of key management actions.

To support the FMP implementation, a Landscape Master Plan (SeeDesign Studio 2021; Appendix A) has been prepared to provide the foreshore vision and proposed infrastructure for the Emu Beach and Emu Point localities and includes a range of practical management requirements. The FMP also includes a basis of design for the identified coastal adaptation options (Bluecoast Consulting Engineers 2021; Appendix B) and a life cycle costing of foreshore assets (Appendix C), including key maintenance.

The FMP was prepared in conjunction with several key government, cultural, community and natural resource management stakeholders, and can now be used as the basis for well-informed, evidence-based decision making to deliver a positive outcome for the community, a more secure tourism economy and a more sustainable coastline.

Key management actions

This FMP details key infrastructure and governance management actions to be implemented over the short term (zero to five years) and medium term (five to ten years) planning horizons (Table 1).

Table 1: Emu Beach FMP key management actions

FMP management action	Planning horizon
Infrastructure	
1. Undertake the capital works for the Landscape Master Plan and granite boulder groyne field establishment	Short term[1]
2. Undertake sand nourishment in Emu Beach and Oyster Harbour	Short term[2]
3. Undertake the capital works for the upgrades to the existing coastal protection structures, including the Emu Point rock revetment	Medium term[12]
Governance	
1. Approve the advertisement of the Emu Beach FMP for the purpose of advertising / public consultation	Short term
2. Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone (the modelled hazard area to 2120) in a Special Control Area	Short term
3. Updated lease arrangement for the southern portion of the Emu Beach 'BIG4' Holiday Park	Medium term
4. Investigate the opportunity to acquire at risk land as it becomes available on the public market	Medium term[2]

Budget considerations

To deliver on the FMP's key management actions, the CoA requires approximately $11.5 million (ex. GST), which is a considerable amount in the context of the City's overall annual budget. This includes approximately $6 million for landscape elements and approximately $5.5 million for coastal protection works.

This budget commitment will provide significant social and recreational benefits to the Albany community, and substantial support to its tourism industry and, in turn, local jobs and economic growth of the region.

[1] Implementation of capital works will be dependent upon when the external government funding is realised.

[2] Action will be commenced when the trigger value is reached.

1 INTRODUCTION

1.1 Background

The Emu Beach Foreshore Management Plan project area (FMP area) is located approximately 8.5 kilometres (km) from the Albany town site, within the City of Albany's (CoA) local government area (Figure A).

Historically, the Emu Beach shoreline has been subject to coastal erosion. The endorsed Emu Point to Middleton Beach Coastal Hazard Risk Management and Adaptation Plan (CHRMAP; Aurora Environmental 2019a) identified Emu Beach as being at risk of future erosion and inundation due to storm events and predicted sea level rise in the short term. This is important context as the FMP area is a highly valued residential and tourist destination, particularly during the summer months. Stakeholder engagement has shown that the local community strongly values the social and recreational amenity of the FMP area. This includes the retention of the character of the coastal zone between Emu Point and Middleton Beach as primarily residential, natural and recreational. As a result, the FMP area requires a considered management approach to protect and maintain its important social, environmental and economic values.

1.1.1 Emu Point to Middleton Beach coastal hazard risk management and adaptation plan

The CHRMAP considers the impacts of the coastal hazards of erosion and ocean flooding (inundation) in the Emu Point to Middleton Beach study area over a 100-year time frame and provides strategic guidance on coordinated, integrated and sustainable planning and management for the area's key coastal assets.

The CHRMAP study area is divided into five discrete management units (Figure B):

1. MU1. Ellen Cove
2. MU2. Surfers and Golf Course
3. MU3. Emu Point Beach
4. MU4. Emu Point
5. MU5. Oyster Harbour Southeast Beach.

The FMP area comprises the MU3. Emu Point Beach, MU4. Emu Point and a portion of MU5. Oyster Harbour Southeast Beach management units (Figure B). A brief overview of these management units has been provided in Sections 1.1.1.1, 1.1.1.2 and 1.1.1.3 is based on the information provided in the CHRMAP and CHRMAP Implementation Plan (Aurora Environmental 2019b).

The recommended coastal hazard adaptation options for the MU3. Emu Point Beach, MU4. Emu Point and a portion of MU5. Oyster Harbour Southeast Beach management units (i.e. Recommendations 14–20 in the CHRMAP) underpin the coastal engineering and landscaping responses within the FMP area.

1.1.1.1 MU3. Emu Point Beach

Key coastal features, risks and recommendations of the MU3. Emu Point Beach area include:

- Transitions from a stable accreting shoreline to the eroded area adjacent to the Emu Point revetment. Shoreline is relatively sheltered from normal storm events. However, it can be subject to significant erosion during less frequent storms with a more south-easterly aspect
- Existing assets include residential properties, Emu Beach 'BIG4' Holiday Park, foreshore reserve and beach. The foreshore reserve has been identified as a part of an ecological corridor providing habitat for western ringtail possum, orchids and other flora and fauna species
- Existing coastal protection structures are trial geotextile sand container (GSC) groynes and GSC revetment
- High to extreme coastal vulnerability in the short term, with vulnerable assets identified as the foreshore reserve and residential properties
- Recommended coastal hazard adaptation options are:

- Managed retreat and relocation of residential properties on Griffiths Street (Recommendation 14 in the CHRMAP)
- Managed retreat of assets in the southern portion of the Emu Beach 'BIG4' Holiday Park (Recommendation 15 in the CHRMAP)
- Renovation /expansion of GSC groynes (Recommendation 16 in the CHRMAP)
- Upgrade to existing protection structures (Recommendation 17 in the CHRMAP).

1.1.1.2 MU4. Emu Point

Key coastal features, risks and recommendations of the MU4. Emu Point area include:

- Shoreline is defined by the existing coastal protection structures and extends through the mouth into Oyster Harbour. Shoreline is controlled by the structures and the risk to assets is dependent on the structures' integrity
- Existing assets include residential properties, Rose Gardens Beachside Holiday Park, a pumping station, toilets, navigational beacon, foreshore reserve and beach
- Existing coastal protection structures include rock revetment, detached breakwater, southern groyne and training wall
- Extreme coastal vulnerability short term, with the foreshore reserve identified as the asset at risk
- Recommended coastal hazard adaptation options are:
  - Seagrass replenishment program to be continued and enhanced (Recommendation 18 in the CHRMAP)
  - Revetment to be upgraded along with the redevelopment of the foreshore park and removal of sandbag revetment (Recommendation 19 in the CHRMAP).

1.1.1.3 MU5. Oyster Harbour Southeast Beach

Key coastal features, risks and recommendations of the MU5. Oyster Harbour Southeast Beach area include:

- Shoreline is sheltered from the ocean storms and is a low energy environment. Shoreline is controlled by locally generated waves. The presence of the swimming facility causes wave sheltering resulting in a bulge in the shoreline and adjacent erosion requiring periodic sand management to maintain a stable beach profile. The beach is backed by a grouted rock wall
- Existing assets include Emu Point café, toilets, foreshore reserve and beach
- Existing coastal protection structures include training wall and northern groyne
- Extreme coastal vulnerability short term, with the beach identified as the asset at risk
- Recommended coastal hazard adaptation options are:
  - Sand nourishment (Recommendation 20 in the CHRMAP).

1.2 FMP area

1.2.1 Location, site description and tenure

The FMP area is an approximately 59.25 hectare (ha) parcel of coastal land and includes the existing coastal foreshore reserve to the east of the Albany Golf Club stretching north to Emu Point (Figure A).

The existing coastal reserve is comprised of Reserves 14789 and 22698. These reserves are managed by the CoA for the purpose of "Recreation" and "Business Areas / Recreation", respectively (CoA 2010).

The FMP area also includes the following key built assets:

- Residential development along Barry Court and Dillion Close (Figure B, Asset ID 20), Griffiths Street (Figure B, Asset ID 21) and Cunningham Street (Figure B, Asset ID 27)
- Holiday accommodation including
  - Along Barry Court and Dillion Close (Figure B, Asset ID 20)
  - Emu Beach 'BIG4' Holiday Park (Figure B, Asset ID 17)
  - Havana Villas (Figure B, Asset ID 25)
  - Rose Gardens Beachside Holiday Park (Figure B, Asset ID 28)
- Firth St pumping station (Figure B, Asset ID 29), navigation beacon (Figure B, Asset ID 26) and toilets (Figure B, Asset ID 30)
- Emu Point Café (Figure B, Asset ID 31) and toilets (Figure B, Asset ID 31).

The location of the FMP area's natural features (e.g. Emu Point Beach Foreshore, Asset ID 18; Emu Point Foreshore, Asset ID 23) is also identified in Figure B.

DevelopmentWA's Emu Point residential estate is also proposed to be located on Lots 1523 and 3000 Emu Point Drive (Figure A; Figures H and I). The Emu Point residential estate's development footprint is zoned "Future Urban" under the CoA's Local Planning Scheme (LPS) No. 1 (Figure C).

1.3 Purpose

This FMP has been prepared to provide the management framework for the implementation of the coastal adaption responses in the Emu Point Beach and Emu Point localities, consistent with State Planning Policy (SPP) 2.6: State Coastal Planning Policy (Western Australian Planning Commission 2013) and the endorsed CHRMAP.

This FMP also includes:

- Landscape master plan (Appendix A; SeeDesign Studio 2021) provides the CoA and local communities long-term vision and proposed infrastructure for the Emu Point Beach and Emu Point localities, details of the key structural elements of the foreshore design and has been developed having regard for the foreshore's local and regional context, social and environmental characteristics, and a range of practical management requirements (e.g. access, vegetation retention)
- Basis of design (Appendix B; Bluecoast Consulting Engineers 2021) outlines the future requirements for the management of the coast within the FMP area and provides the preliminary basis of design for the identified coastal adaptation options
- Long-term management plan (Appendix C) provides life cycle and cost of foreshore assets framework, inclusive of key maintenance milestones and costings, which commits to implementation of coastal hazard reduction actions over the next 100 years on a staged basis.

1.4 Aims

The overall aims of this FMP are to retain and enhance the key recreational and amenity values of the Emu Point Beach and Emu Point foreshore environments and provide the detailed implementation framework for the key recommendations of the endorsed CHRMAP in these localities.

1.5 Objectives

Aligned with the identified aim, the following key objectives have been established by the CoA:

- FMP is consistent with the endorsed CHRMAP and that coastal adaptation requirements are met for at least 50 years (noting the implementation of coastal adaption measures may be staged)
- Guidance is provided for the future development and management of the foreshore reserve
- High quality community / tourist amenity will be provided that improves on the dilapidated and increasingly unsafe foreshore

- Developed in conjunction with the community and key stakeholders
- Acceptable uses, facilities, structures and land management practices within the foreshore reserve are defined
- Preliminary level of design for adaptation strategies is provided
- Overall landscape master plan including perspectives, levels, transitions and materials provided
- Order of cost/opinion of probable cost is defined for future implementation concepts
- Comprehensive, consolidated document able to be used for potential future external funding applications for detailed design and implementation purposes is delivered
- Key stakeholders and local community are meaningfully engaged and kept informed throughout the process.

1.6 Key issues

This FMP guides management actions and outlines the proposed design response to address the following key issues within the Emu Point Beach and Emu Point foreshore environments:

- Coastal inundation and erosion hazards
- Pedestrian access to beach environments and facilitating beach recreational uses
- Vegetation retention and environmental rehabilitation.

1.7 Structure

The FMP in addressing the above issues has been set out in the following sections:

- Statutory planning and policy context (Section 2)
- FMP area context (Section 3)
- Existing environment (Section 4)
- Foreshore design and function (Section 5)
- Coastal hazard risk management and adaptation (Section 6)
- Foreshore rehabilitation (Section 7)
- Implementation and responsibility (Section 8).

2 STATUTORY PLANNING AND POLICY CONTEXT

A range of plans, strategies and policies provide the context for the future conservation, development and use of the FMP area. This section provides a summary of those statutory and policy mechanisms applicable to this FMP.

2.1 Local Planning Scheme No. 1

The CoA's LPS No.1 sets out the way land is to be used and developed, classifies areas for land use and include provisions to coordinate infrastructure and development within the City's local government area. The CoA's LPS No.1 zonings and reservations for the FMP area are shown in Figure C.

Land use and future development within the FMP area will be subject to the controlling provisions set out in the CoA's LPS No. 1.

2.2 Local Planning Strategy

The CoA's Local Planning Strategy (CoA 2019) provides strategic direction which, over the long-term, will deliver a more compact city where residents will live closer to local shops, services and employment with easy access to public transport and greater ability to walk or cycle.

The objectives of the CoA's Local Planning Strategy are to:

- Contain urban development and rural living within the existing supply of land zoned and planned for settlement growth.
- Promote urban consolidation by making better use of existing zoned land and infrastructure through urban renewal and infill residential and rural living development.
- Facilitate the growth of sustainable rural villages to support agriculture and hinterland communities.
- Plan for a variety of housing types in close proximity to services and facilities, in particular affordable housing and one and two bedroom units that meet the needs of young people, retirees and the elderly.
- Provide an appropriate level of community facilities and services in existing and planned settlement areas.
- Enable people to make healthy choices through effective planning and urban design.
- Conserve places and areas of aboriginal and historic heritage significance.
- Incorporate recognition of native title rights and interests in planning determinations.
- Facilitate accessibility to services and facilities through integrated public transport linkages and cycle and pedestrian-friendly environments.

The CoA's Local Planning Strategy provides the high-level strategy for the future development of the FMP area. Relevant considerations specific to the Emu Point locality addressed by the CoA's Local Planning Strategy include activity centre, coastal planning and management and investigation areas.

2.2.1 Activity centre

Emu Point is designated as a Local Centre in the CoA's Activity Centre network hierarchy. The function of local centres is to provide for some daily and weekly household shopping, community facilities and a small range of other convenience services. Local centres typically comprise of convenience retail, personal services, local offices and community purpose land uses (CoA 2019).

2.2.2 Coastal planning and management

To ensure that planning proposals on the coast will not be impacted by coastal processes the following key management actions are identified by CoA (2019):

1. Require that coastal planning strategies or foreshore management plans are carried out as early as possible in the planning processes. Foreshore management plans are to determine suitable setbacks and land required to be ceded for public foreshore reserves by an assessment of coastal processes in accordance with SPP 2.6
2. Pursue funding and progressively undertake Coastal Hazard Risk Management Adaptation Plans for priority areas, including Princess Royal Harbour, Oyster Harbour, Goode Beach and the Whaling Station area
3. Implement the recommendations of the CHRMAP for the Emu Point to Middleton Beach area.

2.3 Albany Regional Vegetation Survey

The Albany Regional Vegetation Survey (ARVS) (Sandiford and Barrett 2010) provides a local and regional overview of the native vegetation of the greater Albany area to assist land use and conservation planning in the region by describing mapping and assessing the conservation status of the vegetation.

Assessments of the extent, rarity, diversity and reservation status of vegetation units, their status as wetland/ streamline/estuarine or coastal dune vegetation and threats to vegetation units are provided to assist in determining the local and regional conservation significance of the vegetation (Environmental Protection Authority 2010).

The ARVS identified the FMP area is comprised of the following vegetation associations:

- Beach Herbland / Grassland
- Peppermint Low Forest mosaic
- Limestone Coastal Heath.

The ARVS has been referenced in Section 4.5 to provide an overview of the vegetation associations within the FMP area.

2.4 Council Management Plan, Middleton Beach

The Council Management Plan, Middleton Beach (including Emu Point Foreshore) (CoA 2010) outlines the background and issues relevant to the Middleton Beach and Emu Point Reserves and provides the framework for sustainability and environmental protection outcomes for the foreshore area from Ellen Cove, continuing east long Middleton Beach and Emu Point to the boat marina at the end of Swarbrick Street.

Threats to conservation values are listed with proposed management strategies to address them. Key identified threatening processes include:

- Physical disturbances including trampling and track creation
- Environmental weeds.

Recommendations for management include constructing a formal pathway and conducting weed control programs in conjunction with rehabilitation programs.

The foreshore rehabilitation program identified in Section 7 addresses the key identified threatening processes within the FMP area.

2.5 State planning policy 2.6: State coastal planning policy

The purpose of SPP 2.6 is to provide guidance for decision-making within the coastal zone including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values. Specifically, SPP 2.6:

- Informs and guides decision making by WAPC and its committees
- Integrates and coordinates the activities of state agencies that influence the use and development of land in the coastal zone
- Guides local government, state government agencies, State Administrative Tribunal and the state government in aspects of state planning policy concerning the coastal zone that should be taken into account in planning and decision making.

The objectives of SPP 2.6 are to:

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.
4. Protect, conserve and enhance coastal zone values, particularly in areas of landscape, biodiversity and ecosystem integrity, indigenous and cultural significance.

SPP 2.6 provides guidance for the assessment of coastal processes through consideration of the following key components over a 100-year planning time frame:

- S1 Erosion: Allowance for the current risk of storm erosion
- S2 Erosion: Allowance for historic shoreline movement trends
- S3 Erosion: Allowance for erosion caused by future sea level rise
- S4 Inundation: Allowance for the current risk of storm surge inundation.

The Coastal Vulnerability Study and Hazard Mapping (Royal Haskoning DHV 2017) provides coastal hazard mapping across a 100-year time frame, using interim planning horizons of 2017, 2030, 2050, 2070, and 2120 consistent with the SPP 2.6 requirements. The coastal hazard mapping presented in Royal Haskoning DHV (2017) underpinned the potential erosion and inundation extents identified in the endorsed CHRMAP.

This FMP has been prepared to provide the management framework for the implementation of the coastal adaption responses in the Emu Point Beach and Emu Point localities, consistent with SPP 2.6 and the endorsed CHRMAP.

2.6 Coastal Parks Enhancement Plan

The Coastal Parks Enhancement Plan (Syrinx Environmental and Place Laboratory 2014) provides strategic guidance and direction for the staged improvements of Emu Point, Surfers Beach, Middleton Beach and Ellen Cove and Eyre Park localities from 2014 until the end of 2023–2024 financial year.

With specific reference to the Emu Point foreshore environment, the Coastal Parks Enhancement Plan identifies:

- Existing condition and key issues
- Design principles
- Recommendations for improvement.

The Coastal Parks Enhancement Plan Emu Point foreshore environment context has been incorporated into the Landscape Master Plan (Appendix A; SeeDesign Studio 2021).

2.7 FMP approval process

It is anticipated that the approvals process for this FMP would generally include:

1. Draft FMP prepared by CoA for the purpose of advertising / public consultation
2. Commencement of the advertising / public consultation period
3. Review and respond to any submissions received by the CoA
4. FMP to be updated (this stage would be undertaken on an ‘as required’ basis)
5. Final adoption of the FMP by CoA
6. Submission of FMP to WAPC for approval.

2.8 Future planning and environmental approvals

Development works within the FMP area will be subject to the following planning and environmental controls:

- Development application (CoA)
- Engineering / landscape construction design drawings (CoA)
- Agreement between tenant and Minister of Lands for changes to lease agreements. Surveyed plan for any changes to lease agreements to be provided to Landgate
- Purpose Permit clearing application approval (DWER) for removal terrestrial vegetation and marine seagrass.

3 FMP AREA CONTEXT

Emu Point is one of Albany's most popular swimming and recreational areas. The surrounding Emu Point suburb comprises a mixture of primary residences as well as including an assortment of holiday accommodation, ranging from caravan parks to motels and independent 'bed and breakfasts' and private holiday houses. The Emu Point foreshore serves as a popular destination for Albany's local and broader communities, whilst functioning as a tourism destination for visitors to the Great Southern region.

The social, environmental, personal and economic value of the Emu Point Beach to Emu Point coastline has been considered by the CoA's Study of Coastal Values and Character Emu Point to Middleton Beach (Greenskills 2013) and more recently by the CHRMAP. These documents identify that the Emu Point Beach to Emu Point coastal environment is highly valued by the local community for walking, swimming, visiting the commercial area, sitting and reading.



Plate 1: Emu Point beach

The planned upgrades to the FMP area will maintain and enhance the existing social and environmental values and deliver a contemporary foreshore precinct for Albany's local and broader communities.

3.1 Stakeholder consultation

3.1.1 Key stakeholders

The key stakeholders in the FMP include CoA; Department of Transport (DoT); Department of Planning, Lands and Heritage (DPLH); Southern Ports Authority; Department of Biodiversity Conservation and Attractions (DBCA); Department of Water and Environmental Regulation; Department of Primary Industry and Regional Development; South Coast Natural Resource Management; Minang-Noongar Elder; and Emu Point and Middleton Beach Friends groups.

The FMP Steering Group has been formed to provide strategic advice and guidance to the CoA in relation to developing the marine and foreshore environments within the Emu Beach and Emu Point localities. The development of this FMP has occurred across four distinct stages, with distinct hold points established at 30%, 50% and 90% complete stages to allow for review and comment by the CoA, FMP Steering Group and engagement with the local community.

There are numerous other stakeholders that have be considered in communicating the FMP including:

- Government departments
- Marine recreational groups including recreational fishers
- Environmental groups
- Educational institutions
- Disability groups
- Local organisations and business within the FMP area
- Hospitality businesses
- Interested community members
- Local residents.

3.1.2 Stakeholder engagement

As part of developing this FMP the following stakeholder engagement activities were undertaken to ensure that all relevant issues were identified and addressed:

- Delivery of presentation to FMP Steering Group on 26 February 2020 of draft FMP (30% complete) outcomes, including site walk over. Draft FMP (30% complete) was reviewed by FMP Steering Group members with opportunity for comment provided by the CoA
- Meeting with owners of Emu Beach 'BIG4' Holiday Park to review current and future lease arrangements was undertaken by the CoA on 10 March 2020
- Meeting with DoT and DPLH to review the coastal adaptation options for the MU3. Emu Point Beach area on 22 July 2020
- Public consultation was undertaken by the CoA from July through to October 2020 which included:
  - Publication of on the CoA's website and Facebook page, including:
    - Community update
    - Project information
    - Electronic copies of the information boards
    - Video overview
    - Feedback form
  - Advertisement in local newspaper
  - Targeted printed letters to local residents and electronic mail to:
    - Relevant user/community groups
    - People previously involved in CHRMAP feedback
    - Key stakeholders / FMP Steering Group
  - Placement of information boards at the Emu Point barbecue enclosure (opposite the café) and the CoA's North Road office
  - Community consultation session held at Emu Point Sporting Club on 23 September 2020 and was attended by approximately 85 people.

4 EXISTING ENVIRONMENT

4.1 Topography

The FMP area primarily consists of a sandy beach with a series of parabolic and nested parabolic dunes, belonging to the Quindalup dune system, located directly to the north of the beach.

The beach is generally flat with limited variation, ranging in elevation from a maximum height of approximately 4.0 metres Australian Height Datum (m AHD) to 0 m AHD along the shoreline. The natural topography of vegetated dunes is slightly more undulating ranging from a maximum height of approximately 10 m AHD, between Griffiths Street in the west and the Emu Beach 'BIG4' Holiday Park in the east, through to 4.0 m AHD adjacent to the beach (Figure D).

4.2 Geology

4.2.1 Terrestrial geology

The 1:50,000 Environmental Geology Series identified the FMP area consists predominantly of S13 (SAND) – white, medium-grained rounded quartz and shell debris, with S2 (SAND) - white, medium to coarse-grained, moderately well sorted, quartz and shell debris primarily underlying the beach and adjacent foreshore area of MU3. Emu Point Beach (Figure E).

4.2.1.1 Acid sulfate soils

DWER's acid sulfate soil (ASS) risk mapping indicates that the FMP area is primarily not at risk of ASS occurring within 3.0 metres of the natural soil surface. However, a small portion of project area's eastern marine extent is mapped as high to moderate risk of ASS occurring within 3.0 metres of the natural soil surface (Figure F).

4.2.2 Marine sediments

The marine sediments and water movement adjacent to the FMP area have been subject to detailed studies including:

- Sediment sampling from Emu Point to Middleton Beach, including Emu Point channel and Lockyer Shoal
- Sediment and water movement around the permanently open mouth of an estuary: Emu Point, on the south coast of Western Australia (University of Western Australia 2015).

These studies generally found that the physical processes which influence marine sediment movement proximate to the FMP area are shear, tidal overflows, wave formation, wave progression, counter currents and reflection from the rock walls (University of Western Australia 2015).

4.3 Surface water

There are no major surface watercourses or water bodies, including wetlands, located within the FMP area. The FMP area is not within the catchment of any ground or surface water supply areas.

A flood plain, which drains in a north-eastly direction into Oyster Harbour, is situated approximately 500 m to the north-west of the FMP area within Lot 555 Swarbrick Street / Reserve 15879. Lake Seppings, a south-coast significant wetland, is located approximately 1 km to the south-west of the FMP area.

The dominant hydrological process for the FMP area is rainfall infiltration, with run-off accumulating in the inter-dunal swales and infiltrating into the highly permeable sand aquifer. Any run-off adjacent to existing roads (e.g. Barry Court and Dillion Close, Griffiths and Hope streets, and Cunningham Street) would likely be intercepted by the CoA's stormwater system.

4.4 Groundwater

Groundwater level and quality monitoring undertaken for the Emu Point residential estate indicates that groundwater underlying the FMP area is likely to:

- Flow in a south-easterly direction towards the coast (Strategen 2007)
- Be relatively shallow. Depths varied from approximately two to six metres below ground level for the Emu Point residential estate in 2006 (GHD 2010)
- Be mostly fresh, with salinity increasing with proximity to the coast (Strategen 2007).

4.5 Flora and vegetation

4.5.1 Regional vegetation mapping

4.5.1.1 Interim Biogeographical Regionalisation of Australia

The Interim Biogeographic Regionalisation for Australia (IBRA) divides Australia into bioregions based on major biological and geographical/geological attributes (Thackway and Cresswell 1995). The IBRA currently recognises 89 bioregions and 419 biological subregions in Australia. The FMP area is situated within the IBRA region of Jarrah Forest and the subregion of Southern Jarrah Forest (Environment Australia 2000).

The Southern Jarrah Forest subregion is broadly described as:

> Duricrusted plateau of Yilgarn Craton characterised by Jarrah-Marri forest on laterite gravels and, in the eastern part, by Wandoo – Marri woodlands on clayey soils with eluvial and alluvial deposits supporting Agonis shrublands
>
> (Hearn et al. 2002)

4.5.1.2 South Coast Macro Corridor Network

The 5.4 million ha South Coast Macro Corridor Network project area lies on the central south coast of Western Australia and includes the catchments of all southerly flowing rivers from Walpole in the west to Cape Arid National Park, approximately 700 km to the east (Wilkins et al. 2006). Twenty-one potential vegetation corridors of regional nature conservation significance and strategic spatial significance within the South Coast region were broadly identified within the project area.

The FMP area is included within the coastal corridor, which spans approximately 500 km of coastal land from Walpole to Cape Arid. The coastal corridor is generally protected to some degree either as DBCA managed estate, local government reserve or unallocated Crown land (Wilkins et al. 2006). The coastal corridor is a very high priority linkage as it links two high nature conservation value protected areas (Two Peoples Bay Nature Reserve and the Fitzgerald River National Park) and numerous other protected areas (Waychinicup National Park/Mt. Manypeaks Nature Reserve, Stokes National Park, Cape Le Grand National Park and Cape Arid National Park) (Wilkins et al. 2006).

4.5.1.3 Shepherd vegetation association mapping

Most of the FMP area is mapped as Shepherd's vegetation association 423 – Shrublands; Acacia scrub-heath (unknown spp.) (Figure G). Vegetation association 423 is widespread and well reserved in the Southern Jarrah Forest subregion with approximately 62.6% of its pre-European extent remaining, of which 45.2% is present in secure tenure (Shepherd et al. 2002).

A minor eastern portion of the FMP area is mapped as Shepherd's vegetation association 51 – Sedgeland; reed swamps, occasionally with heath (Figure G). Vegetation association 51 is widespread and well reserved in the Southern Jarrah Forest subregion with approximately 51.7% of its pre-European extent remaining, of which 69.4% is present in secure tenure (Shepherd et al. 2002).

4.5.1.4 Albany Regional Vegetation Survey

The ARVS identified the FMP area is comprised of the following vegetation associations:

- Beach Herbland/Grassland vegetation association
  - A colonising unit that occurs on beaches above the high-water mark and on some foredunes. This unit is transitional, subject to erosion by storm wave action or invasion by secondary successional species and changing to Coastal Limestone Heath. The unit varies from an open herbland to a closed grassland with most species present introduced. Common species include *Spinifex hirsutus*, *Lepidosperma gladiatum*, **Spinifex sericeus*, **Ammophila arenaria*, **Lagurus ovatus*, *Ficinia nodosa*, **Cakile maritima*, **Arctotheca calendula*, *Carpobrotus* sp., **Pelargonium capitatum* and **Euphorbia paralias*. Occasional, shrubs may be present. Species present are salt tolerant and many were only recorded in this unit (Sandiford and Barrett 2010)
  - The ARVS notes that this vegetation association has high numbers of introduced species and is widespread along beaches in south-west Western Australia (Sandiford and Barrett 2010).
- Peppermint Low Forest mosaic
  - Is restricted to the coastal dune system where it commonly occurs in swales and flats. A dense canopy of *Agonis flexuosa* (peppermint) is characteristic of this unit with the structure varying from a closed heath on exposed coastal slopes to a low closed forest in swales with shrub species often sub or codominant in exposed areas. A tall shrubland of *Spyridium globulosum*, *Adenanthos sericeus*, *Bossiaea linophylla* and *Leucopogon obovatus* is usually present over an open or closed sedgeland with *Rhagodia baccata, Hardenbergia comptoniana* and *Clematis pubescens* common (Sandiford and Barrett 2010)
  - The ARVS notes that this vegetation association has many infestations of **Acacia longifolia* and is generally common along the south-west coastline, though in instances where *Adenanthos sericeus* comprises the understorey are restricted to areas around Albany as this species only occurs from the Nullaki Peninsula to Waychinicup with an outlying population at Warriup (Sandiford and Barrett 2010).
- Limestone Coastal Heath
  - Is a heterogeneous group that is restricted to yellow-grey and light grey alkaline sands and limestone soils of the coastal fringe. Several sub-units are described with exposure, soil depth, rock cover and time since fire factors influencing the structure and floristic composition of these sub-units. *Scaevola striata* and *Acacia littorea are* often very prominent in the first few years after fire. (Sandiford and Barrett 2010)
  - The ARVS notes that this vegetation association is naturally restricted to the coastal fringe with most occurrences on the Meerup landform unit (Sandiford and Barrett 2010). Heaths occurring on coastal limestone and alkaline sands are common along the southern Western Australian coast however two species sometimes dominant in this unit: *Adenanthos sericeus* and *Banksia praemorsa* are largely restricted to the ARVS context area (Sandiford and Barrett 2010).

4.5.2 Flora and vegetation review

A flora and vegetation survey (Hickman 2005) was previously undertaken for the Emu Point residential estate and includes a portion of the FMP area (i.e. portion of Lots 3000 and 1523 north-east of Griffiths and Hope streets) within its survey extent (Figure H). An orchid survey of the development site was undertaken by local orchid expert, Keith Smith, in 2006 to inform the environmental scoping document (as reported in Strategen 2007). GHD undertook a further reconnaissance field Vegetation and Flora Assessment to review the vegetation condition assessment undertaken by Hickman (2005) and noted the presence of any species not identified in the Hickman (2005) survey, as part of the Public Environmental Review of the development site (GHD 2010). Additionally, the flora and vegetation and fauna review undertaken for the Middleton Beach Activity Centre (RPS 2015), included the FMP area within its database search area.

These desktop resources have been reviewed to provide a high-level overview of the FMP area's flora and vegetation context. A site walk over of the FMP area was undertaken by RPS on 26 February 2020 to confirm the vegetation association mapping and validate the findings of the desktop review.

4.5.2.1 Vegetation association mapping

Of the four vegetation associations identified by Hickman (2005), the peppermint Thicket and Littoral Zone vegetation associations closely aligns with the FMP area. A minor extent of the peppermint heath vegetation association also intersects the FMP area (Figure H).

The peppermint Thicket vegetation association is comprised of two subcategories that run parallel to each other and to the beach:

1. Thicket of *Agonis flexuosa* over tall open scrub of *Acacia littorea* and *Spyridium globulosum* over shrubland of *Acacia cochlearis*, *Hibbertia cuneformis* and *Leucopogon parviflorus* over sedgeland of *Desmocladus flexuosus* and *Lepidosperma costale*
2. Thicket of *Agonis flexuosa* over tall open scrub of *Acacia littorea* and *Spyridium globulosum* over shrubland of *Hibbertia cuneformis*, *Leucopogon parviflorus* and *Phyllanthus calycina* over sedgeland of *Lepidosperma gladiatum*.

The Littoral Zone vegetation association runs in a thin strip along the beach. It is classified as closed low heath of **Euphorbia paralias* and **Pelargonium capitatum* over very open grassland of *Spinifex hirsutus* and *Ammophila arenaria*.

The peppermint heath vegetation association is a mosaic of four sub-categories:

1. Tall shrubland of *Agonis flexuosa* and *Banksia ilicifolia* over shrubland of *Bossiaea linophylla*, *Jacksonia horrida* and *Melaleuca striata* over open low heath of *Dasypogon bromeliifolius*, *Leucopogon* spp. and *Pimelea rosea* over very open mixed herbland
2. Very open tall shrubland of *Agonis flexuosa* over open heath of *Jacksonia horrida*, *Leucopogon revolutus* and *Melaleuca thymoides* over open low heath of *Dasypogon bromeliifolius*
3. Tall shrubland of *Agonis flexuosa* and *Banksia attenutata* over tall open shrubland of *Adenanthos cuneatus*, *Hakea oleifolia* and *Spyridium globulosum* over open heath *Acacia cochlearis*, *Jacksonia horrida* and *Leucopogon revolutus* over low open shrubland of *Adenanthos cuneatus* and *Pimelea rosea* over very open mixed herbs over open sedgeland *Desmocladus flexuosus*, *Lepidosperma squamata* and *Lyginia barbata*
4. Very open tall shrubland of *Agonis flexuosa* over open shrubland of *Melaleuca thymoides* over open low heath of *Lysinema cilataum* and *Dasypogon bromeliifolius* over sedgeland of *Lepidosperma squamata* and *Lyginia barbata*.

The vegetation condition within the portion of the FMP area assessed by Hickman (2005) and GHD (2010) was primarily “Excellent”. Figure H presents the Hickman (2005) vegetation association mapping in relation to the FMP area.

These vegetation associations extend beyond the Hickman (2005) survey area running parallel with the coast in both directions where they have not been cleared for development (Strategen 2007). This finding is supported by the fauna habitat assessment undertaken for the Emu Point residential estate by ATA Environmental in 2006, which primarily mapped the native vegetations extents to the south and north of the Hickman (2005) survey area as ‘Closed peppermint (*Agonis flexuosa*) thicket over sedgeland.’

4.5.2.1.1 Key outcomes of site walk over

The site walk over confirmed the findings of Strategen (2007), and ATA Environmental (2006), that the peppermint thicket vegetation extends to the southern border of the FMP area (Plate 2) and to the north of the Hickman (2005) survey area to Firth Street (Figure H). The Littoral zone vegetation was also found to extend to the southern border of the FMP area (Plate 2) and approximately 150 m to the north of the Hickman (2005) survey area (Figure H).



Plate 2: Peppermint Thicket and Littoral zone vegetation associations in the south of the FMP area

The foreshore area north of Firth Street was found to be characterised by a 'parkland' cleared environment characterised by remnant peppermint (*Agonis flexuosa*) trees over an understorey primarily comprised of introduced grass and weed species (Figure H). Consolidated understorey patches mostly comprised of remnant sedges (*Lepidosperma* sp) are also scattered throughout the foreshore area to the north of Firth Street.

The Littoral Zone vegetation at Emu Point Beach and the fringing peppermint trees to the north of the beach have been subject to rehabilitation efforts (Plate 3; Figure H). Ongoing weed management is required to control introduced species, including sea spurge (**Euphorbia paralias*), within the rehabilitation areas. Section 7 identifies the approach to be implemented in rehabilitating Emu Point Beach foreshore environment.



Plate 3: Rehabilitation of Littoral zone vegetation association at Emu Point beach

4.5.2.2 Threatened and Priority flora

No threated flora species were recorded by Hickman (2005), Strategen (2007) or GHD (2010) within the FMP area. None of the DBCA-listed Priority species recorded by Hickman (2005) and GHD (2010) were situated within the FMP area.

Five DBCA-listed *Adenanthos x cunninghamii* (Priority 4)[3] plants were recorded in the peppermint Thicket (two plants), Sheoak Woodland (two plants) and Open peppermint Heath (one plant) vegetation associations by Hickman (2005) outside of the FMP area.

DBCA-listed *Andersonia depressa* (Priority 3) was recorded by GHD (2010) within the Sheoak Woodland and Open peppermint heath vegetation associations immediately north of the FMP area.

DBCA-listed *Poa billardierei* (Priority 3) was recorded within the Middleton Beach foreshore reserve, whilst *Stylidium articulatum* (Priority 2) was recorded in the Albany Golf Course by RPS (2015). These records are approximately 1.6 km to the south-west of the FMP area.

4.5.2.3 Threatened and Priority ecological communities

No threatened ecological communities (TECs) or Priority ecological communities (PECs) were recorded by Hickman (2005). The following two TECs, listed under the EPBC Act, were recorded within 5 km of the FMP area by RPS (2015):

1. Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia
2. Subtroprical and temperate Coastal Saltmarsh.

[3] *Adenanthos x cunninghamii* was removed from the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) list of threatened species on 18 August 2006.

The key diagnostic characteristics of these TECs are not representative of the peppermint Thicket or Littoral zone vegetation associations described by Hickman (2005).

4.5.2.4 Weed species

No Declared plant species were identified by Hickman (2005). Common non-aggressive weed species present within the survey area included ursinia (*Ursinia anthemoides*) and flatweed (*Hypochaeris glabra*). Regarding the FMP area, Hickman (2005) notes the presence of garden escape species, particularly kikuyu (*Pennisetum clandestinum*), around the boundary of the Griffiths and Hope streets residential development.

4.5.2.5 Phytophthora dieback

A small pocket of Phytophthora dieback was detected by Hickman (2005) within Sheoak Woodland vegetation association adjacent to Emu Point Drive. Additional Phytophthora dieback mapping of the development site was undertaken by GHD (2010), which identified the peppermint Thicket vegetation association as uninterpretable due to an absence of susceptible species.

4.6 Terrestrial fauna

4.6.1 Terrestrial fauna review

A fauna habitat assessment, inclusive of a western ringtail possum survey and an assessment of adjacent areas to assess the available fauna habitats, (ATA Environmental 2006) was previously undertaken for the Emu Point residential estate to inform the environmental scoping document (as reported in Strategen 2007). Opportunistic fauna observations were also recorded by Hickman (2005). A further targeted western ringtail possum survey was undertaken by Green Iguana in 2007 and Coffey undertook a desktop and field vertebrate fauna assessment for the development site and two comparison sites in the Albany area in 2009 to inform the Public Environmental Review (as reported in GHD 2010). Additionally, the flora and vegetation and fauna review undertaken for the Middleton Beach Activity Centre (RPS 2015), included the FMP area within its database search area.

These desktop resources have been reviewed to provide a high-level overview of FMP area's fauna context. A site walk over of the FMP area was undertaken by RPS on 26 February 2020 to validate the findings of the desktop review.

4.6.2 Fauna habitat mapping

The findings of the ATA Environmental (2006) fauna habitat assessment were generally consistent with the vegetation assessment conducted by Hickman (2005). With respect to the FMP area, the key fauna habitat types identified were:

- Closed peppermint (*Agonis flexuosa*) thicket over sedgeland
- Open Heathland and Grassland within the swales of dunes
- Open peppermint (*Agonis flexuosa*) / *Banksia attenuata* woodland over *Adenanthos* sp./ *Spyridium globulosum* shrubland over closed heathland.

Figure I presents the ATA Environmental (2006) fauna habitat mapping in relation to the FMP area.

4.6.2.1 Threatened and Priority fauna

The key threatened and priority fauna species reported within the Emu Point residential estate by the various surveys were:

- Western ringtail possum
- White-tailed black cockatoos (Carnaby's black cockatoo and Baudin's black cockatoo)
- Southern brown bandicoot.

4.6.2.1.1 Western ringtail possum

Western ringtail possum (*Pseudocheirus occidentalis*), as listed under the *Biodiversity Conservation Act 2016* (BC Act) and EPBC Act, occurrence within the Emu Point residential estate was recorded as follows:

- Thirty-two dreys and 13 western ringtail possums were identified by ATA Environmental in 2006, which included one possum and two dreys that were identified outside of the survey area (Strategen 2007).
- Ninety-two dreys, of which 78 were considered to be potentially active, and 23 western ringtail possums were identified by Green Iguana in 2007 (GHD 2010)
- Twenty-nine dreys and 23 western ringtail possums were identified by Coffey in 2009 (GHD 2010).

The key western ringtail possum habitat type within the development site is the closed peppermint (*Agonis flexuosa*) thicket over sedgeland (Plate 4), which dominates the FMP area (Figure I). The site walk over confirmed the extent of the key western ringtail possum habitat (i.e. peppermint Thicket vegetation) is consistent with the ATA Environmental (2006) fauna habitat mapping (Figure I).



Plate 4: Closed peppermint (*Agonis flexuosa*) thicket over sedgeland habitat

4.6.2.1.2 White-tailed black cockatoos

A flock of 30 white-tailed black cockatoos (Carnaby's or Baudin's), as listed under the BC and EPBC Acts, were recorded in 2006 by ATA Environmental feeding on *Banksia* sp. within the open peppermint (*Agonis flexuosa*) / *Banksia attenuata* woodland over *Adenanthos* sp./ *Spyridium globulosum* shrubland over closed heathland (Strategen 2007). The Open peppermint (*Agonis flexuosa*) / *Banksia attenuata* woodland over *Adenanthos* sp./ *Spyridium globulosum* shrubland over closed heathland habitat type, which provides foraging habitat for these species, comprises only a minor portion of the FMP area (Figure I).

4.6.2.1.3 Southern brown bandicoot

One DBCA-listed southern brown bandicoot (*Isoodon obesulus* subsp. *Fusciventer*; Priority 5) was identified within the Open peppermint (*Agonis flexuosa)* / *Banksia attenuata* woodland over *Adenanthos* sp./ *Spyridium globulosum* shrubland over closed heathland habitat type by Coffey, however this species is likely to occur

throughout the development site particularly in the Closed peppermint (*Agonis flexuosa*) thicket over sedgeland (GHD 2010). Hickman (2005) observed bandicoots in the peppermint Thicket and reported diggings across the survey area.

4.6.2.2 Migratory and marine fauna

Various migratory and marine shorebird species listed under the EPBC Act were recorded proximate to the FMP area by RPS (2015), including common sandpiper (*Actitis hypoleucos*), sharp-tailed sandpiper (*Caldris acuminata*), red-necked stint (*Calidris ruficollos*), red knot (*Calidris canutus*), great knot (*Calidris tenuirostris),* bar-tailed godwit (*Limos lapponica*), grey plover (*Pluvialis squatarola*), common greenshank (*Tringa nebularia*) and marsh sandpiper (*Tringa stagnatilis*). These species are generally recorded in coastal habitats, such as large intertidal sand flats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays, and are likely to be infrequent visitors to the Emu Point Beach coastal and Oyster Harbour estuary environments (RPS 2015).

The EPBC Act-listed, white-bellied sea eagle (*Haliaeetus leucogaster*) and BC Act-listed peregrine falcon (*Falco peregrinus*) may be infrequently observed flying over the FMP area (RPS 2015). EPBC and BC Act-listed sea-lion, seal and marine turtle species could also be infrequently sighted in the ocean proximate to FMP area (RPS 2015).

4.7 Coastal processes

The potential future vulnerability of the coastline and the subsequent risk to the community, economy and the environment, needs to be considered for the FMP area. Temporal changes to the risk profile need to be understood to ensure that appropriate decisions can be made, and steps taken, to respond to this changing risk – particularly in response to potential climate induced change.

Effective management of coastal processes requires assessment of the asset specific risk exposure, identification of risks that require management and development of suitable management practices and adaptation techniques that the management authority considers to be acceptable in response to the present and future risks.

4.7.1 Coastal hazard risk management and adaptation plan

The CHRMAP assesses the coastal processes potentially affecting the MU3. Emu Point Beach, MU4. Emu Point and MU5. Oyster Harbour Southeast Beach management units over a 100-year planning period in accordance with SPP 2.6 requirements.

This work has identified the coastal processes hazard lines using interim planning horizons of 2017, 2030, 2050, 2070, 2090 and 2120, to provide an understanding of potential coastal hazard risk over the 100 year planning period. The detailed outcomes of the CHRMAP coastal processes assessment are presented in Table 2 for the MU3. Emu Point Beach management unit; in Table 3 for MU4. Emu Point; and in Table 4 for MU5. Oyster Harbour Southeast Beach.

The erosion extent at each of the time frames identified in Tables 2, 3 and 4 is estimated as the sum of the following factors:

- Allowance for the current risk of storm erosion (S1)
- Allowance for historic shoreline movement trends (S2)
- Allowance for erosion caused by future sea level rise (S3).

The inundation extent is estimated as the sum of the following factors:

- Allowance for the current risk of storm surge inundation (S4)
- Future sea level rise.

Table 2: Coastal processes summary for MU3. Emu Point Beach

Planning horizon	S1 – severe storm erosion (m)	S2 - historic shoreline movement (m)	S3 – climate change (m)	Safety factor	Total coastal processes allowance
2017	40	0	0	0	40
2030	40	0	6	3	49
2050	40	0	19	7	66
2070	40	0	38	11	89
2090	40	0	61	15	116
2120	40	0	97	21	158

(Source: Royal Haskoning DHV 2017)

Table 3: Coastal processes summary for MU4. Emu Point

Planning horizon	S1 – severe storm erosion (m)		S2 - historic shoreline movement (m)		S3 – climate change (m)		Safety factor		Total coastal processes allowance	
	With hard structures	Without hard structures	With hard structures	Without hard structures	With hard structures	Without hard structures	With hard structures	Without hard structures	With hard structures	Without hard structures
2017	0	20	0	0	0	0	0	0	0	20
2030	0	20	0	0	0	6	0	3	0	29
2050	0	20	0	0	0	19	0	7	0	46
2070	0	20	0	0	0	38	0	11	0	69
2090	0	20	0	0	0	61	0	15	0	96
2120	0	20	0	0	0	97	0	21	0	138

(Source: Royal Haskoning DHV 2017)

Table 4: Coastal processes summary for MU5. Oyster Harbour Southeast Beach

Planning horizon	S1 – severe storm erosion (m)	S2 - historic shoreline movement (m)	S3 – climate change (m)	Safety factor	Total coastal processes allowance
2017	5	0	0	0	5
2030	5	3	6	3	17
2050	5	7	19	7	38
2070	5	11	38	11	65
2090	5	15	61	15	96
2120	5	21	97	21	144

(Source: Royal Haskoning DHV 2017)

The CHRMAP identifies that coastal erosion presents as the key risk to the existing foreshore reserves and key built assets within the FMP area over the next 50 years. The risk of coastal inundation impacting the existing foreshore reserves over the 100 year time frame was assessed to be low by the CHRMAP.

The CHRMAP identifies that it is possible for the Emu Point Beach and Emu Point foreshores, properties on Griffiths Street and toilets in front of the Rose Gardens Beachside Holiday Park to be at risk from coastal processes by 2030 (Figure 2).

Further the properties on Barry Court and Dillion Close, the Firth Street pumping station, toilets and properties on Cunningham Street are all at risk from coastal processes by 2070, should no prior management action(s) be implemented to mitigate this risk (Figure 2). Coastal processes can be successfully mitigated in the MU4. Emu Point management unit (i.e. the developed eastern portion of the FMP area) through the implementation of coastal protection structures (Figure 3).

The coastal hazard adaption recommendations identified by the CHRMAP for the FMP area were:

1. Managed retreat and relocation of residential properties on Griffiths Street (Recommendation 14 in the CHRMAP)
2. Managed retreat of assets in the southern portion of the Emu Beach ‘BIG4’ Holiday Park (Recommendation 15 in the CHRMAP)
3. Renovation /expansion of GSC groynes (Recommendation 16 in the CHRMAP)
4. Upgrade to existing protection structures (Recommendation 17 in the CHRMAP)
5. Seagrass replenishment program to be continued and enhanced (Recommendation 18 in the CHRMAP)
6. Revetment to be upgraded along with the redevelopment of the foreshore park and removal of sandbag revetment (Recommendation 19 in the CHRMAP)
7. Sand nourishment (Recommendation 20 in the CHRMAP).

The long-term coastal processes and implementation of the CHRMAP recommendations are considered further in Section 6.0 of this FMP, having regard for existing and proposed community infrastructure and the risk management approach to be employed.

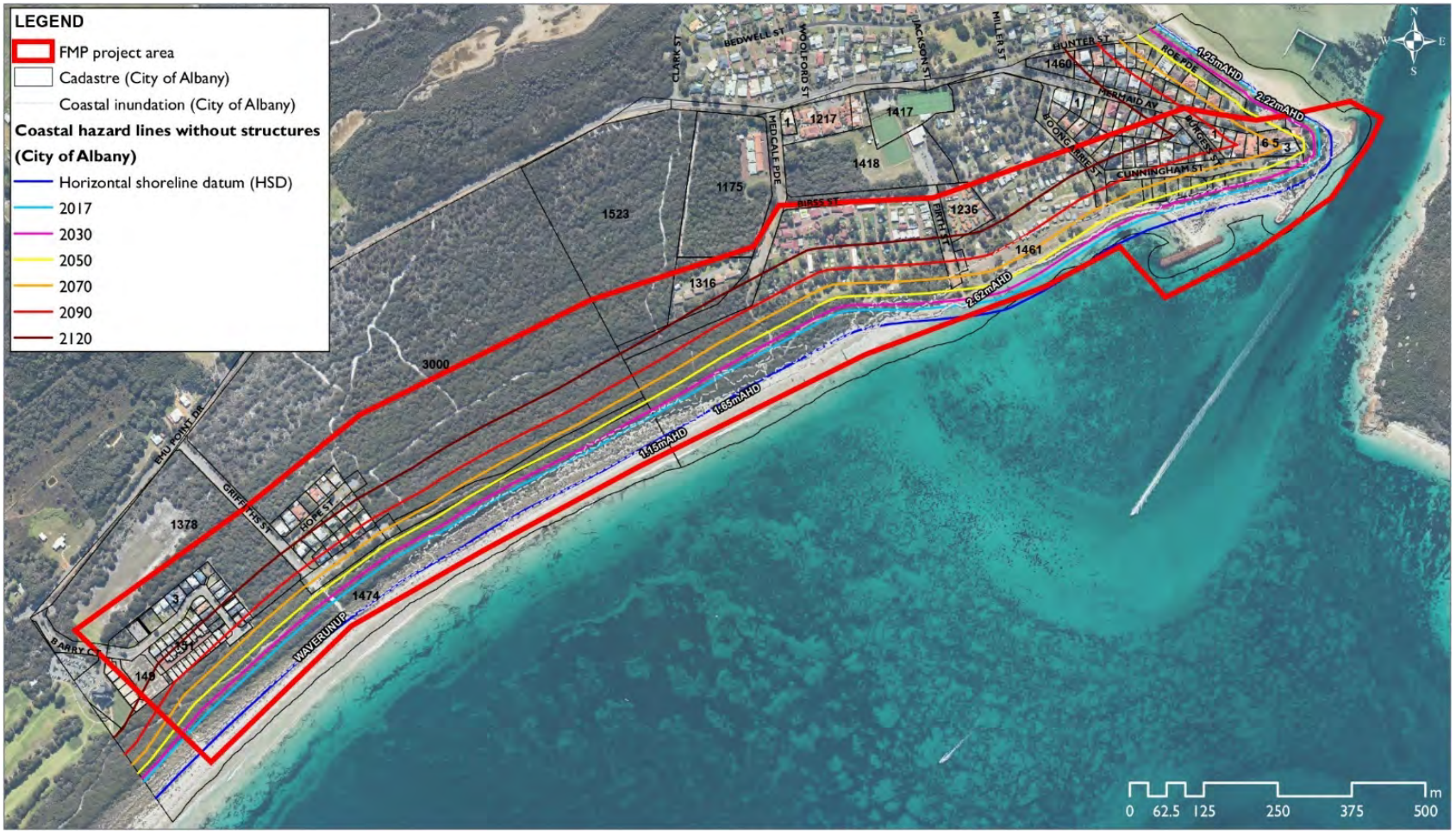


Figure 2: Coastal hazard risk for the FMP area over the 100 year planning period without coastal structures



Figure 3: Coastal hazard risk for the FMP area over the 100 year planning period with coastal structures

4.8 Land use

A review of the historical aerial images reveals that the FMP area has remained relatively consistent in its land use since at least 1954. The early development of Emu Point is visible from 1954 with the construction of the present-day alignment of Cunningham Street, Griffiths Street and the Rose Garden Beachside Holiday Park occurring prior to 1961. The Emu Beach 'BIG4' Holiday Park along with the existing Emu Point development footprint was largely constructed prior to 1977, with the Barry Court and Dillion Close development under construction in 2001.

4.8.1 Existing leases

The CoA holds long-term lease agreements with operators of holiday accommodation for use of land within the coastal foreshore area including:

- Emu Beach 'BIG4' Holiday Park
- Havana Villas
- Rose Gardens Beachside Holiday Park.

The spatial extent of the existing leases is presented in Figure 4. An overview of the potential impacts to these lease areas from coastal processes over the 100 year time frame and proposed mitigation actions are discussed further in Section 6. A more detailed review is provided by the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report.

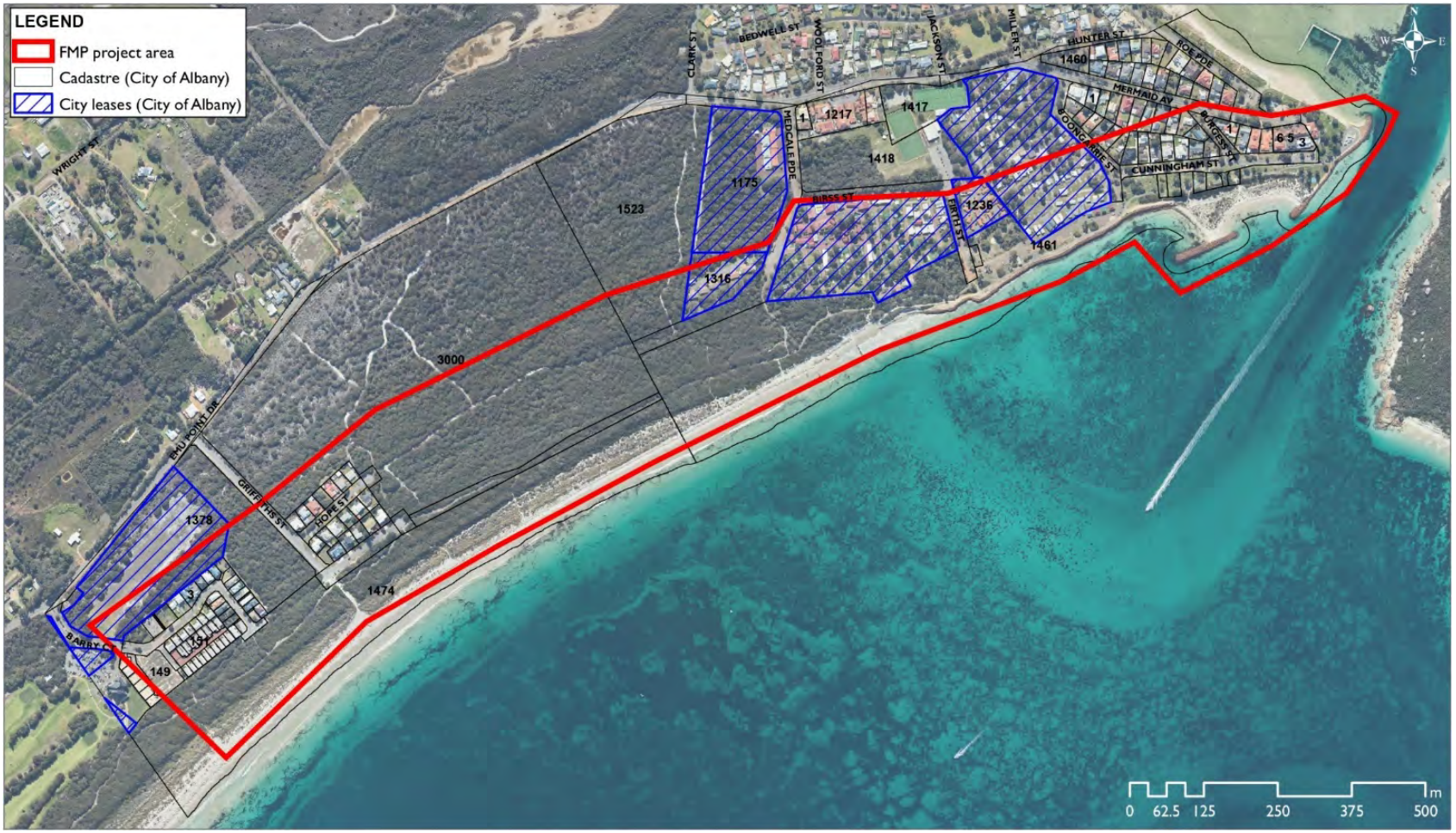


Figure 4: Existing CoA leases

4.8.2 Heritage

4.8.2.1 Aboriginal heritage and culture

The DPLH's Aboriginal Heritage Inquiry System identified that no Registered Heritage Sites or additional Other Heritage Places are located within the FMP area.

4.8.2.2 Natural and historic heritage

A search of the State Heritage Office's inHerit database undertaken on 11 February 2020 identified that no state registered heritage places are located within the FMP area.

4.8.3 Potential contamination

A search of DWER's Contaminated Sites Database undertaken on 11 February 2020 identified no known contaminated sites are located within the FMP area.

Due to the timing of development commencement at Emu Point (i.e. circa 1954) asbestos containing materials could have been used as a building material. This is of relevance in situations where the original buildings have been demolished and the land use change has occurred. For instance, the site of an original building which has previously been demolished has subsequently been included in the foreshore reserve.

A preliminary site investigation will be undertaken by the CoA if areas previously or presently containing original buildings in the foreshore reserve are proposed to be developed as part of the implementation of the Landscape Master Plan (Appendix A; SeeDesign Studio 2021).

4.9 Bushfire

A search of the Department of Fire and Emergency Services' Map of Bushfire Prone Areas identified that most of the FMP area is mapped as a Bushfire Prone Area, with only the more developed portion of the FMP area to the east of the Rose Gardens Beachside Holiday Park not mapped as being bushfire prone (Figure J).

The reconfiguration of land uses within Reserve 22698 will result in the loss of existing vehicular access between Firth and Cunningham streets. The existing trafficable surface between Firth and Cunningham streets, known as Boongarrie Street, forms part of Reserve 22698 (i.e. Boongarrie Street is not a formally gazetted Local Road in LPS No. 1). The Landscape Master Plan (Appendix A; SeeDesign Studio 2021) maintains access for fire / emergency vehicles through realignment of the dual use path to connect to the new Firth and Boongarrie street car parks.

Additional bushfire management provisions incorporated into the Landscape Master Plan (Appendix A; SeeDesign Studio 2021) include realigning the dual use foreshore path to accord with existing firebreaks and providing access to a cleared area of parkland via the Boongarrie Street car park.

5 FORESHORE DESIGN AND FUNCTION

The Landscape Master Plan (Appendix A; SeeDesign Studio 2021) has been completed to ensure the Emu Beach foreshore provides the required level of amenity for Albany's local and broader communities. In particular, the Landscape Master Plan has also sought to address existing issues that are currently experienced with the foreshore through improving pedestrian access to the foreshore and beach environments, restricting pedestrian access to the existing costal protection structures, addressing bushfire management and providing relief from sun, rain and prevailing winds.

The overall aim of the Landscape Master Plan is to retain and enhance the key recreational and amenity values of the Emu Point Beach and Emu Point foreshore environments, whilst ensuring its ongoing protection from coastal hazards.

The CoA will be responsible for the implementation of the Landscape Master Plan which is expected to cost at least $5.91 million (ex. GST) excluding civil/roads and earthwork costs.

5.1 Design principles

Six strategic values critical to the enhancement of the CoA's coastal parks, including Emu Beach and Emu Point, were identified in the Coastal Parks Enhancement Plan (Syrinx Environmental and Place Laboratory 2014):

1. Coastal identity
2. Environmental quality
3. Destination development
4. Connections
5. Facilities and amenities
6. A place for everyone.

These core values have provided thematic context to the landscape design principles embedded in the Landscape Master Plan.

5.1.1 Landscape design principles

- Accessibility – Ensuring that the landscape is accessible to people of all abilities will result in repeat patronage and ensure an inviting place for all.
- Local – Emu Point should look and feel like a place that is itself. By using local materials and leaning on local vernacular to retain the landscape character across the FMP area.
- Amenity – Establish varied and numerous amenities for public use to allow year round activation. Upgrading or extending the play and exercise spaces will attract families and non-beachgoers to ensure an activated, vibrant foreshore.
- Comfort – Providing protection from both sun, rain and prevailing winds through the precinct with both vegetation and structures ensures people can utilise and activate the space at all times of days in comfort.
- Destination – Strengthen and enhance the existing qualities of Emu Beach landscape and create a hierarchy of various activities.
- Connectivity – Enhance existing connections to the pedestrian/cycle network with the creation of nodes along the length of the waterfront with wayfinding, interpretation and shelter to provide linkage across the FMP area.
- Enhanced environment - Through the protection and rehabilitation of remnant vegetation key wildlife corridors can be maintained to support various endemic species. Whilst assisting in mitigating coastal erosion and increasing shade.

- Robust – The use of robust, well-engineered materials within the coastal conditions allows the creation of a landscape that remains viable for many years to come.
- Vehicle management – Prioritise pedestrians where possible and formalise parking to increase capacity and improve use of recreational spaces.

5.2 Landscape Master Plan

The overall Landscape Master Plan divides the FMP area into two distinct parts, Barry Court to Medcalf Parade and Medcalf Parade to Emu Point, with detailed plans prepared for Emu Point, Boongarrie Street and Firth Street localities to provide additional site context.

The overall Landscape Master Plan and detailed locality plans are provided in the Landscape Master Plan (Appendix A; SeeDesign Studio 2021).

6 COASTAL HAZARD RISK MANAGEMENT AND ADAPTATION PLAN IMPLEMENTATION

6.1 Coastal hazard risk

The CHRMAP assesses the coastal processes potentially affecting the MU3. Emu Point Beach, MU4. Emu Point and MU5. Oyster Harbour Southeast Beach management units over a 100 year planning period in accordance with SPP 2.6 requirements.

This work has identified the coastal processes hazard lines using interim planning horizons of 2017, 2030, 2050, 2070, 2090 and 2120, to provide an understanding of potential coastal hazard risk over the 100 year planning period. The detailed outcomes of the CHRMAP coastal processes assessment for the three management units is summarised in Table 5.

Table 5: Coastal processes summary for the MU3. Emu Point Beach, MU4. Emu Point and MU5. Oyster Harbour Southeast Beach management units

Planning horizon	Total coastal processes allowance			
	MU3. Emu Point Beach	MU4. Emu Point		MU5. Oyster Harbour Southeast Beach
		With hard structures	Without hard structures	
2017	40	0	20	5
2030	49	0	29	17
2050	66	0	46	38
2070	89	0	69	65
2090	116	0	96	96
2120	158	0	138	144

(Source: Royal Haskoning DHV 2017)

The projected long-term coastal hazard, at each planning horizon, is illustrated with respect to the FMP area in Figure 2 (without coastal structures) and Figure 3 (with coastal structures).

6.1.1 Consideration of State Planning Policy 2.6: State Coastal Planning Policy

SPP 2.6 incorporates a justifiably conservative methodology to ensure that the siting of future development or assets is cognisant of potential future hazards, even those with a very low likelihood of occurrence. As a result, it is important to understand that the coastal hazard lines provided in Royal Haskoning DHV (2017) are not predictions of the future shoreline location. In this regard, the full requirements for maintaining the coastal reserve will need to be informed by ongoing coastal monitoring.

This coastal monitoring will inform both the requirements for the maintenance of the existing Emu Point and Oyster Harbour beaches and the requirements of the ongoing protection of the landscaped foreshore area behind the existing coastal protection structures.

6.2 Management and adaptation planning

SPP 2.6 outlines a hierarchy of risk management measures and adaptation options available in the coastal planning process. There are four broad categories of management/adaptation approaches, generally described as follows:

- Avoid – locating development to avoid coastal hazards and risks. Planned or Managed Retreat – locating low-cost / sacrificial public infrastructure within the physical processes allowance area, which can be removed/demolished as they become at risk of coastal hazards over time.
- Retreat – the relocation or removal of assets within an area identified likely to be subject to intolerable risk of damage from coastal hazards.

- Accommodate – the use of regulatory tools (notifications, easements on title), evacuation plans and/or a variety of physical measures to best accommodate physical processes on privately owned properties.
- Protect – the use of hard infrastructure/physical works (e.g. sea walls, groynes) to defend and protect public/private land from physical processes.

6.3 Coastal hazard risk management and adaptation plan implementation framework

In consideration of the identified coastal hazard risk, the CoA, as the authority responsible for the current and future management of the foreshore reserves, has undertaken an assessment of the future requirements for the FMP area. This assessment highlighted that the foreshore reserves within the FMP area represents a significant community asset within an important coastal precinct within the greater Albany area. In recognition of these above key factors, the CoA has determined that the significant recreational and amenity values of the foreshore reserves require a comprehensive planning response to address the identified coastal hazard risk.

This FMP provides the detailed implementation framework for the key recommendations of the endorsed CHRMAP within the FMP area:

1. Managed retreat and relocation of residential properties on Griffiths Street (Recommendation 14 in the CHRMAP)
2. Managed retreat of assets in the southern portion of the Emu Beach ‘BIG4’ Holiday Park (Recommendation 15 in the CHRMAP)
3. Renovation /expansion of GSC groynes (Recommendation 16 in the CHRMAP)
4. Upgrade to existing protection structures (Recommendation 17 in the CHRMAP)
5. Seagrass replenishment program to be continued and enhanced (Recommendation 18 in the CHRMAP)
6. Revetment to be upgraded along with the redevelopment of the foreshore park and removal of sandbag revetment (Recommendation 19 in the CHRMAP)
7. Sand nourishment (Recommendation 20 in the CHRMAP).

6.3.1 Consultation with Department of Transport and Department of Planning, Lands and Heritage

The preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report was provided to the DoT and DPLH in June 2020 at 50% complete stage for review.

The DoT’s key concern was that the design life for the proposed upgrade the trial GSC groynes was not consistent with the FMP objective of meeting coastal adaptation requires for at least 50 years. A teleconference was held between the CoA, DoT and DPLH on 22 July 2020 to discuss the proposed approach for the GSC groynes. The following outcomes were agreed from the teleconference:

- FMP to be a consolidated document integrating the coastal adaptation recommendations from the CHRMAP with landscape upgrade and environmental considerations
- Coastal protection strategies to meet a 50 year planning horizon, noting that the GSC groynes form only part of the coastal protection framework proposed within the MU4. Emu Point management unit
- Order of magnitude cost estimates for the coastal protection structures to be provided
- Approach to staging of the implementation of coastal protection structures works, construction and monitoring to be included.

The preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report was updated for the 90% complete stage to address the agreed teleconference outcomes and additional comments from the DoT and CoA. The 90% complete document was subsequently provided to the DoT in January 2021. In March 2021 the DoT advised that the updated 90% complete document contained sufficient context on the proposed coastal adaptation options to inform the FMP. The DoT also noted that the CoA has agreed to undertake more detailed coastal engineering investigations to define the specific engineering requirements for the groynes and proposed Emu Beach sand nourishment.

6.4 Coastal hazard risk management actions

This section provides a summary of the CoA's approach to addressing the key recommendations of the endorsed CHRMAP. A more detailed review is provided by the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report.

6.4.1 MU3. Emu Point Beach

6.4.1.1 Managed retreat and relocation of residential properties on Griffiths Street

The CHRMAP identifies that it is possible for front row of properties on Griffiths Street to be at risk from coastal processes by 2030. This is due to the access road itself being at risk[4] due to proximity to the ocean and an absence of any hard coastal protection structures.

The front row of properties on Griffiths Street are slightly more at risk than adjacent properties on Barry Court and Dillion Close. Although these properties have longer term access and short term alternatives available the same managed retreat framework proposed for the Griffiths Street properties will also be applied to the Barry Court and Dillion Close properties.

The preferred options for the Griffiths Street properties identified by the CHRMAP are:

- Short term: Sand nourishment and continued monitoring
- Medium term: Managed retreat, to be initiated by a coastal response trigger value.

In this location, the trigger value for the implementation of managed retreat is when the Horizontal Shoreline Datum (HSD) is less than 40 m from Griffiths Street. Monitoring should be undertaken every two years in spring and after any significant storm erosion event to understand increased likelihood of risk and determine if more expeditious relocation is required. Consideration for the Barry Court and Dillion Close properties will be included as part of the monitoring framework.

A recent topographic survey (March 2019) established the 40 m trigger line landward of the foredune and at an approximate distance of 70m to HSD (Figure 5). Signs of long-term beach accretion in this location have been documented in Royal Haskoning DHV (2017). The trigger point is considered unlikely to be activated in a 1 in 100 year event (Bluecoast Consulting Engineers 2021). However should this occur, sand nourishment will be undertaken and monitored to ensure the long-term accretionary trend continues along this part of the beach (Bluecoast Consulting Engineers 2021).

[4] When the road and services are damaged, legal access to the lots will be affected and the properties will be impacted (Aurora Environmental 2019b)



(Source: Bluecoast Consulting Engineers 2021)

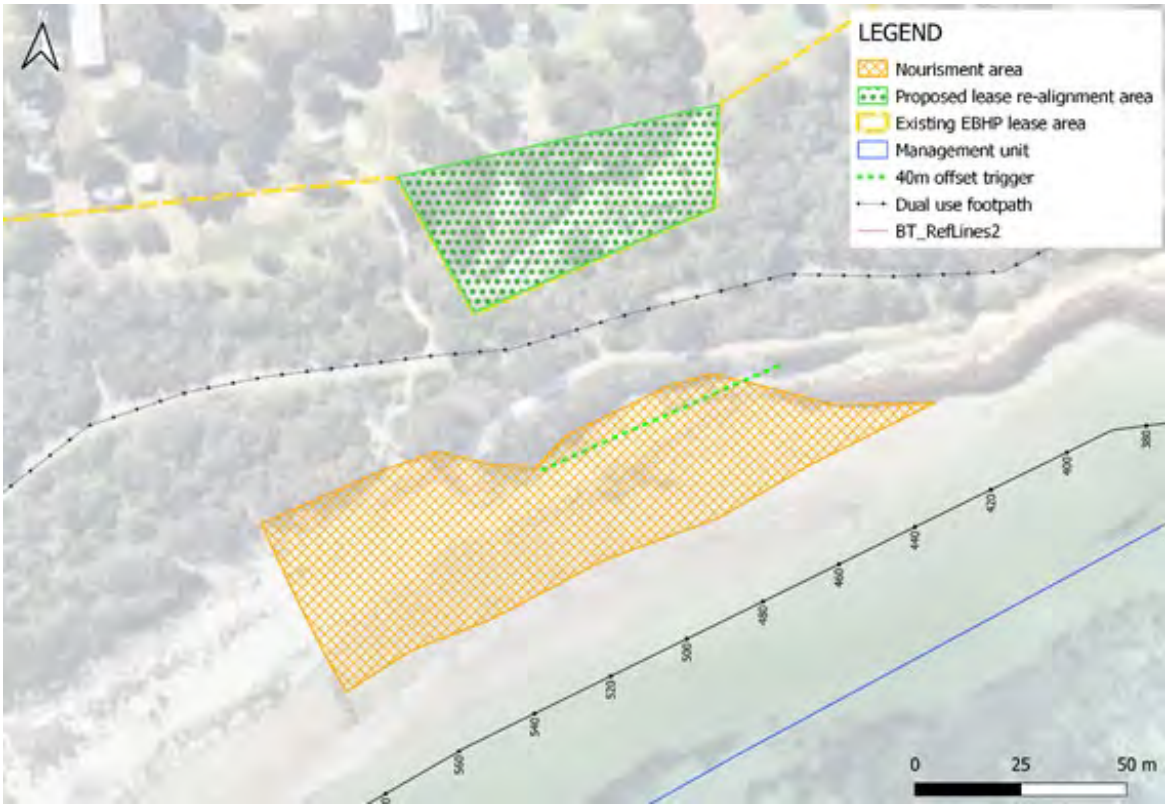
Figure 5: Topographic survey (March 2019) of the Griffiths Street foreshore and 40 m trigger value

The CoA's Local Planning Strategy (CoA 2019) recognises the implementation CHRMAP as Investigation Area 12. This outcome addresses Recommendation 1 in the CHRMAP (Aurora Environmental 2019a). The following overarching recommendations of the CHRMAP will be actioned by the CoA to facilitate managed retreat:

- LPS Special Control Area (Recommendation 2 in the CHRMAP)
  - Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone (the modelled hazard area to 2120) in a Special Control Area. It is proposed that the Special Control Area will alert existing and future landowners to seek information from the CoA and enable notification to landowners if they seek a development approval.
- Purchase of Property Investigation (Recommendation 8 in the CHRMAP). The CoA to investigate the opportunity to acquire at risk land as it becomes available on the public market.

6.4.1.2 Managed retreat of assets in the southern portion of the Emu Beach 'BIG4' Holiday Park

Like the planned managed retreat for the Griffith Street properties (Section 6.4.1.1), managed retreat of assets in the southern portion of the Emu Beach 'BIG4' Holiday Park has also been recommended by the CHRMAP. Consistent with the Griffith Street properties, the trigger value for the implementation of managed retreat is when the HSD is less than 40 m from the Emu Beach 'BIG4' Holiday Park lease area (Figure 6). The trigger value is close to being initiated, with approximately 25 m between the HSD and the 40 m trigger line (Bluecoast Consulting Engineers 2021). Resultantly, the CoA has been working closely with the leaseholder to plan for staged retreat of assets within the southern portion of the Emu Beach 'BIG4' Holiday Park and has commenced discussions around the realignment of the current lease boundary.



(Source: Bluecoast Consulting Engineers 2021)

Figure 6: Emu Beach 'BIG4' Holiday Park southern lease area and 40 m trigger value

Based on the implementation of the remaining CHRMAP recommendations in the MU3. Emu Point Beach management area (Section 6.4.1.3), it is anticipated that the managed retreat trigger value is unlikely to be initiated for some time (Bluecoast Consulting Engineers 2021).

It is also anticipated that the proposed upgrade works will provide a beach with a greater appeal to users. With a widened and a greater protected foreshore, there exists an opportunity to continue to allow accommodation within the southern portion of the current Emu Beach 'BIG4' Holiday Park lease area through the provision of less permanent assets/uses such as unpowered camp sites and parklands on the foreshore area, provided there is an appropriate emergency management plan for responding to extreme storm activity.

The CoA and the leaseholder should continue to work toward an agreed level of risk for the southern portion of the Emu Beach 'BIG4' Holiday Park, steering the discussions around future lease agreements, to further reduce the risk to assets presented by coastal hazards.

6.4.1.3 Renovation/expansion of GSC groynes and upgrade to existing protection structures

The GSC groynes were installed in 2014 as a trial to assess protection of Emu Point Beach (Figure 7). The GSC groynes have shown to be of benefit in the retention of sand, however due to their exposure to cyclic wave action and UV the condition of the groynes has deteriorated and now present as a risk to public safety (Bluecoast Consulting Engineers 2021).



(Source: Bluecoast Consulting Engineers 2021)

Figure 7: As-constructed drawings of the GSC groynes

The original design intention of the GSC groynes as a trial has now passed, with the impact on the coastline being understood from the CoA's ongoing coastal monitoring program. To ensure that the coastal adaptation requirements are met for at least the next 50 years a groyne field comprising granite boulders will be established in the current location of the GSC groynes. A third granite boulder groyne is also proposed to be established to the west of the two existing GSC groynes as part of the groyne field.

The CoA will be responsible for the implementation of the upgrades to the GSC groynes, including the establishment of a third granite boulder groyne, and the sand nourishment (Section 6.4.1.3.1), which is expected to cost at least $2.03 million (ex. GST) excluding monitoring and maintenance.

Preliminary information on groyne design, permeability, length, spacing orientation, crest level / width and scour level for the proposed upgrades is provided in the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report. This context has informed a detailed study currently being undertaken by the CoA to assess the most suitable layout (size and orientation) and number of structures required to facilitate the upgrade of the GSCs to suitably sized and locally sourced granite boulders.

The proposed upgrades to the rock revetment are addressed in Section 6.4.1.2.

6.4.1.3.1 Sand nourishment

A large erosion scarp has formed on the beach immediately to the west of the Emu Beach 'BIG4' Holiday Park between the Emu Point rock revetment and GSC groynes. A GSC revetment has been established in this location and subsequently damaged, primarily due to cyclic wave action (Plate 5).



(Source: Bluecoast Consulting Engineers 2021)

Plate 5: Large erosion scarp and GSC revetment

Sand nourishment in this location will be undertaken following the construction of the granite boulder groyne field to re-establish the beach. The indicative location of the sand nourishment area is shown in Figure 6.

Preliminary information on nourishment design, sediment source, overfill ratio, machinery and delivery method for the proposed sand nourishment in the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report identifies that:

- Opportunistic sand nourishment could be implemented should coastal or dredging works be commenced along the beaches or upper dunes from Ellen Cove to Oyster Harbour within King George Sound, Oyster and Royal Princess harbours, and any excess sediment generated be assessed suitable for sand nourishment. Excess sediment could also be used for sand nourishment in the western lee of the detached breakwater in the MU4. Emu Point management unit.
- Appropriate reinstatement actions (e.g. sand nourishment or scraping) should be undertaken if beach access becomes dangerous due to high (>1 m) vertical dune scarps.

This context will be used by the CoA to inform the implementation of the sand nourishment works.

6.4.2 MU4. Emu Point

6.4.2.1 Seagrass replenishment program be continued and enhanced

Preliminary shoreline modelling undertaken for the CHRMAP by Royal Haskoning DHV (2017) identified the formation of a circulation cell in the lee of Lockyer Shoal that feeds the ebb current jetting out of Oyster Harbour. Sediment transported within the easterly current would be deposited at the edge of the Oyster Harbour stream, feeding the Lockyer Shoal. During flood currents this sediment would be deposited within Oyster Harbour or within the channel, to be redistributed to the shoal on the subsequent outgoing tide due to the ebb-dominated asymmetry in tidal current velocities (Bluecoast Consulting Engineers 2021).

This finding implies that any additional sediment placed on the erosion-affected Emu Beach shoreline as part of the sand nourishment works (Section 6.4.1.3.1) has the propensity to travel east into the circulation cell to feed the growth of Lockyer Shoal thereby assisting to meet the intent of this recommendation.

6.4.2.2 Revetment to be upgraded along with redevelopment of Foreshore Park and removal of sandbag revetment

The condition of the existing coastal protection structures (i.e. rock revetment and detached breakwater) immediately adjacent to and east of the Emu Beach 'BIG4' Holiday Park within the MU4. Emu Point management unit was assessed as part of the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report. The condition assessment identified that:

- The rock revetment and detached breakwater range from "Good" to "Poor" condition.
- They are meeting their functional objective of protecting the coastal assets in their lee and preventing overtopping and inundation.
- The rock revetment and detached breakwater present as a safety hazard, should public access be permitted[5].

Bluecoast Consulting Engineers (2021) identifies that the trigger value for the implementation of upgrades to the existing coastal protection structures to be either of the following:

- Condition assessment rating of "Very Poor" for any section of rock revetment. Condition assessments should be undertaken every three years using a standardised assessment methodology
- Greater than three overtopping events of rock revetment within a 12-month period, where the overtopping event is determined to reach the overtopping limit for damage to grass covered areas.

The CHRMAP identifies that the rock revetment requires detailed redesign. Preliminary information on the rock revetment alignment, rock type, crest height, rock size, grading, filtration and revetment slope for the proposed upgrades is provided in the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report. This context will be used by the CoA to inform the detailed design of the future rock revetment upgrades.

The CoA will be responsible for the implementation of the required upgrades to the rock revetment, which are anticipated cost at least $3.5 million (ex. GST) excluding monitoring and maintenance.

The foreshore park is proposed to be significantly redeveloped in accordance with the Landscape Master Plan (Appendix A; SeeDesign Studio 2021) concurrently with rock revetment upgrades. The damaged GSC revetment is proposed to be removed (Section 6.4.1.3.1).

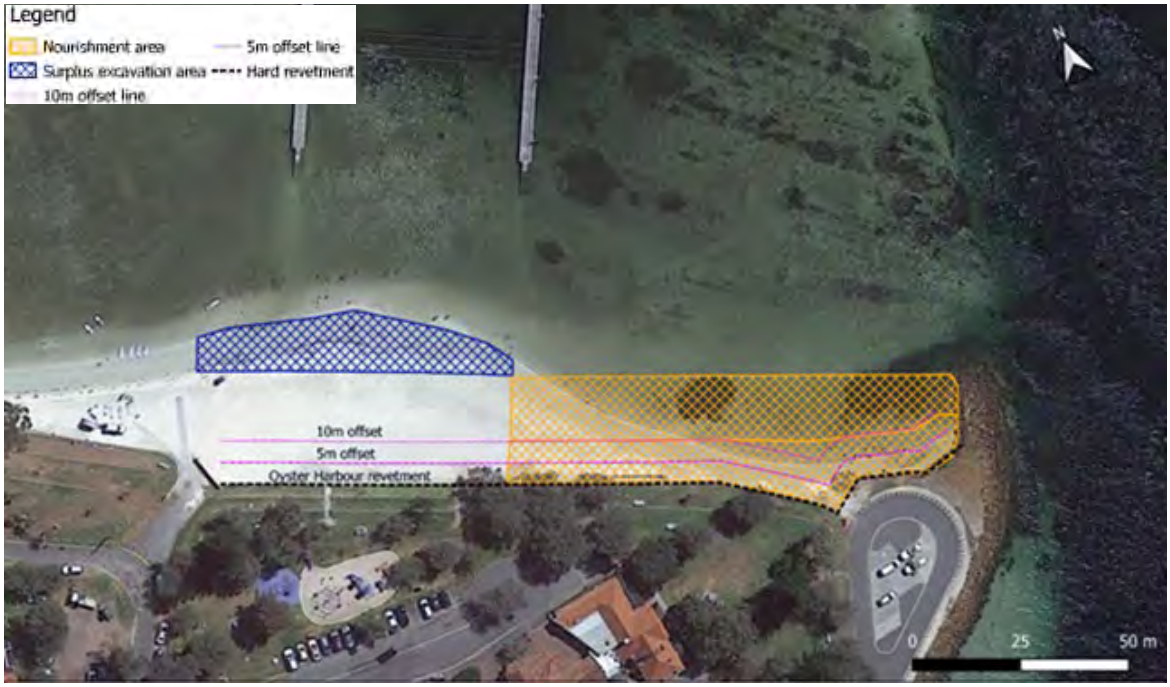
6.4.3 MU5. Oyster Harbour Southeast Beach

6.4.3.1 Sand nourishment

The MU5. Oyster Harbour Southeast Beach management unit is markedly different from the MU3. Emu Point Beach and MU4. Emu Point management units as it is a low energy estuarine environment with shallow water depths and different coastal processes. The shoreline is already managed by a grouted rock wall and the swimming structure also behaves somewhat like an offshore breakwater without the same effectiveness (Aurora Environmental 2019b). The eastern corner of the Oyster Harbour Beach, adjacent to the northern groyne, is most prone to seasonal erosion reducing recreational amenity.

The preferred option identified by the CHRMAP to manage erosion at Oyster Harbour Beach is sand nourishment. Sand is generally able to be sourced within Oyster Harbour due to the seasonal sand movement along the beach. Alternatively, clean beach sand is also able to be sourced from Middleton Beach and Ellen Cove.

[5] The Landscape Master Plan (Appendix A; SeeDesign Studio 2021) addresses public access to the existing coastal protection structures.



(Source: Bluecoast Consulting Engineers 2021)

Figure 8: Oyster Harbour beach sand nourishment

The trigger for sand nourishment to be implemented in the eastern corner of the Oyster Harbour Beach is when there is less than 5 m between the HSD and the northern groyne/ grouted rock wall. Sand is proposed to be placed at a height of +1. 5 m AHD from the northern groyne / grouted rock wall to an offshore distance of 10 m (Figure 8). The placed sand will then be graded down to 0 m AHD to the length of the northern groyne / grouted rock wall (Bluecoast Consulting Engineers 2021).

The CoA will be responsible for the implementation of the Oyster Harbour Beach sand nourishment works, which is expected cost at least $10, 000 (ex. GST) excluding any contingencies and maintenance.

7 FORSHORE REHABILITATION

7.1 Revegetation strategy

The revegetation strategy has been based on the Albany Regional Vegetation Survey (Sandiford and Barrett 2010) and will be implemented by the CoA. The indicative Emu Point Beach Rehabilitation Area is identified in Figure H and is shown as 'Dune revegetation' in the SeeDesign Studio Concept Plan (within the Landscape Master Plan – Appendix A).

7.1.1 Weed management

Weed management is an important component for the establishment of native vegetation. However in some locations, weeds are also providing stabilisation functions, and selective management will be required to balance site stability with revegetation. In other sections, weed control will be achieved through herbicide application. Herbicides will be selected for the target species, considering the surrounding environment and the constraints this may present. Amongst remnant native vegetation, selective herbicides (i.e. grass or broadleaf-specific) will be favoured over general knockdown herbicides, to keep off-target damage to a minimum. To ensure that off-target damage is minimised, herbicide spraying operators will only be engaged if they:

- Are appropriately qualified and licensed in herbicide application
- Have demonstrated experience in the ability to identify, and distinguish between, native and weed species
- Are familiar with the most appropriate control measures, timing, herbicides, and application rates for the target species.

The approach to controlling the weed species which may be encountered in the Emu Point Beach Rehabilitation Area is provided in Appendix D.

7.1.2 Revegetation

7.1.2.1 Species selection

Seedling planting will be the primary revegetation method employed within the Emu Point Beach Rehabilitation Area. Selection of appropriate species is the key to reaching a successful outcome for the revegetation works. Revegetation species have been carefully selected based on the existing floristic community type, topography and hydrology to ensure species are located in the areas in which they are most likely to survive in both short and long-term.

The revegetation species proposed for the Emu Point Beach Rehabilitation Area are primarily beach herbland/ grassland species, which have been classified into the following categories:

a. Beach grasses and herbaceous species adopted for the most exposed locations

b. Semi-stable dune colonisers adapted to partially protected areas

c. Set back / less-exposed dune situations and swales.

The revegetation species proposed for the Emu Point Beach Rehabilitation Area are listed in Appendix E.

7.1.2.2 Planting method

Seedlings will be directly planted using planting tubes, which negates the need for repeated bending for excavation of planting holes. Seedlings will be watered before delivery to site on the day of planting to reduce the potential for transplant shock, and provided the soil is moist no other watering is considered necessary.

7.1.3 Scheduling

Planting will be carried out from May–July when the soil moisture content is high enough for optimum seedling growth, without irrigation, and after the existing weeds have germinated and have been sprayed. Tube stock will be planted with a plastic guard to prevent rabbits feeding on plant stock and to protect from strong winds (as required). Tube stock planting density will be in accordance with the Landscape Master Plan (Appendix A; SeeDesign Studio 2021).

7.1.4 Site and plant protection

Brushing and/or matting will be installed over the surface of any eroded areas (as required) to stabilise the Emu Point Beach Rehabilitation Area prior to planting. All planted seedlings will be initially protected with corflute tree guards held in place with hardwood stakes. Once the plants are large enough to survive without the guards, they will be removed.

7.1.5 Post-instalment management

7.1.5.1 Completion criteria and success targets

The key actions / target completion criteria to monitor the success of the revegetation efforts are specified in Table 6. Revegetation efforts will be undertaken and monitored for a period of two years from the commencement of the revegetation plantings. If the completion criteria are not met, further action will be undertaken to improve the condition to the required standards.

Table 6: Revegetation and weed management key actions

Year after planting	Year 1	Year 2
Survival of planted seedlings	75%	90%
Minimum plant diversity (% of original number of planted species in project area that have survived)	70%	70%
Plant coverage (% area of visual ground cover measured by a botanist/revegetation consultant)	25%	50%
Weeds coverage	20% cover	10% cover

7.1.5.2 Vegetation monitoring and performance criteria

The Emu Point Beach Rehabilitation Area will be formally monitored biannually (includes weed monitoring) each spring and autumn, for a two year period after installation by the CoA. The season has been nominated rather than a specific month, as the timing of these assessments should be related to plant growth cycles, which in turn is influenced by the weather conditions at the time.

One monitoring plot of 5 m × 5 m will be established per revegetation area as well as one permanent photograph reference point at each monitoring plot. Photographic records will be captured prior to construction and annually to qualitatively assess density, diversity and weed cover. The first assessment in spring will assess the developing threats, the stabilisation of each area and the short term survival of the seedlings and weed cover. Any problems will be identified early so that comprehensive treatment(s) of the issue can be undertaken and additional seedlings propagated if required. The second assessment in the following autumn will determine if there are any losses over the dry summer period, and this will form the basis for the maintenance winter program. The first summer is the expected period of greatest mortality, and plants that survive this period are generally hardy and more likely to survive in the longer term. The emergence of summer weeds will also be assessed, so that control can be scheduled as required.

After the third and subsequent assessments, the long-term success of the revegetation operation will be indicated. This will determine whether any further remedial works are required. This may include:

- Additional revegetation works
- Weed management
- Other general maintenance activities
- Additional monitoring requirements.

Informal assessments will also be undertaken between formal assessments. The purpose of these assessments is to visually monitor progress, and to identify and counter emerging issues before they have a chance to become significant. Timing of the assessments will be adjusted to the appropriate stages of plant growth, which are influenced by annual weather conditions. The results of each monitoring assessment will be compared to determine germination and establishment rates and provide a quantitative measure of progress. The final monitoring inspection will be held to certify that the completion criteria have been met.

7.1.6 Site maintenance

If planting success falls below 90% of original numbers in two consecutive monitoring events, contingency measures will be implemented to increase the success of the revegetation program. The monitoring program will identify issues to any plant success rates so they can be dealt with in an appropriate and timely manner.

Maintenance activities may include:

- Brushing and/or matting over the surface of any eroded areas (as required)
- Ongoing weed management
- Replanting in areas
- Tree guard repair / replacement
- Undertake fence, sign and pathway maintenance (as required).

All the contingency measures listed in Table 7 will be reviewed if the target completion criteria fall below 90% in two consecutive events.

Table 7: Revegetation and weed management contingency measures

Plants	Plant death, storm/wind damage, vandalism	Plant additional tube stock in subsequent plantings
Weeds	Excessive weeds in revegetation areas	Undertake weed control measures. e.g. weed spraying.
Erosion	Erosion, storm damage	Apply brushing and/or matting over the surface of any eroded areas.
Revegetation success	Plant survival does not meet completion criteria	Replant seedlings and replace plant guards.

8 IMPLEMENTATION AND RESPONSIBILITY

Life cycle/asset management indicative cost estimate for the works proposed in this FMP have been provided in Appendix C, whilst Appendix A indicates the spatial extent of the various maintenance elements.

8.1 Implementation

The implementation of the Landscape Master Plan and coastal hazard risk management actions will be undertaken across short term (zero to five years) and medium term (five to ten years) planning horizons:

- Short term actions (zero to five years):
  - CoA to approve the advertisement of the Emu Beach FMP for the purpose of advertising / public consultation
  - CoA to implement sand nourishment in the eastern corner of the Oyster Harbour Beach when there is less than 5 m between the HSD and the northern groyne / grouted rock wall[6]
  - Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone (the modelled hazard area to 2120) in a Special Control Area within five years
  - CoA to seek state and federal funds to undertake the capital works for the Landscape Master Plan and granite boulder groyne field establishment within five years[7]
  - CoA to commence Emu Beach sand nourishment:
    - Opportunistically
    - If beach access becomes dangerous due to high (>1 m) vertical dune scarps
    - After establishment of the groyne field.
- Medium term actions (five to ten years):
  - CoA and the Emu Beach 'BIG4' Holiday Park leaseholder to agree on updated lease arrangement for the southern portion of the park
  - CoA to investigate the opportunity to acquire at risk land as it becomes available on the public market when the HSD is less than 40 m from Griffiths Street[6]
  - CoA to seek state and federal funds to undertake the capital works for the upgrades to the existing coastal protection structures, including the Emu Point rock revetment[67], when:
    - Any section of rock revetment is assessed to be in "Very Poor" condition; or
    - More than three overtopping events of a rock revetment structure are recorded within a 12-month period.

An implementation schedule, which includes pre-, during and post-construction actions, is provided in Table 8.

8.2 Responsibility

The CoA will be responsible for the implementation of this FMP, including the Landscape Master Plan (Appendix A; SeeDesign Studio 2021) and coastal protection works identified by the preliminary Basis of Design (Appendix B; Bluecoast Consulting Engineers 2021) report.

The FMP budget (approximately $11.45 million (ex. GST)), which is comprised of the Landscape Master Plan (approximately $5.91 million (ex. GST) civil/roads and earthwork costs) and coastal protection works (approximately $5.54 million (ex. GST) excluding monitoring and maintenance requirements), is planned to be sourced by the CoA from state and Commonwealth governments.

[6] Action will be commenced when the trigger value is reached.

[7] Implementation of capital works will be dependent upon when the external government funding is realised.

Table 8: Implementation schedule

Objective / Parameter	Description	Pre-construction implementation	Construction implementation	Post-construction implementation
Statutory planning and policy context				
Comply with the purpose of the reserve under the LPS No. 1		• Preparation of a detailed FMP that reflects the objectives of the "Parks and Recreation" reservation under the LPS No. 1. • Development Applications to demonstrate design life of the Landscape Master Plan's key assets.	Installation approved Landscape Master Plan key assets in accordance with approved Development Applications.	• Monitoring and reporting on Revegetation Strategy. • Review integrity of the Landscape Master Plan key assets as per the Development Application approval. • Implement coastal hazard risk management actions including: – Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone in a Special Control Area – Updated lease arrangement for the southern portion of the Emu Beach 'BIG4' Holiday Park – Investigate the opportunity to acquire at risk land as it becomes available on the public market – Undertake granite boulder groyne field establishment, Emu Beach sand nourishment, upgrades to the Emu Point rock revetment and Oyster Harbour Beach sand nourishment.
Comply with the objectives and requirements of SPP 2.6		• Preparation of a detailed FMP that reflects the CHRMAP and requirements of the requirements of the State Coastal Policy, SPP 2.6. • Development Applications to demonstrate design life of the Landscape Master Plan's key assets.	• Installation approved Landscape Master Plan key assets in accordance with approved Development Applications. • Implement Revegetation Strategy.	• Monitoring and reporting on Revegetation Strategy. • Review integrity of Landscape Master Plan key assets as per the Development Application approval. • Implement coastal hazard risk management actions including: – Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone in a Special Control Area – Updated lease arrangement for the southern portion of the Emu Beach 'BIG4' Holiday Park – Investigate the opportunity to acquire at risk land as it becomes available on the public market – Undertake granite boulder groyne field establishment, Emu Beach sand nourishment, upgrades to the Emu Point rock revetment and Oyster Harbour Beach sand nourishment. • CoA to continue with the current Emu Beach and Oyster Harbour Beach monitoring programs and undertake any additional FMP monitoring requirements to assess managed retreat and sand nourishment trigger values. • CoA to monitor and maintain all coastal protection structures.
Foreshore design and function				
Support public recreational uses of the foreshore	• Improve public facilities and recreational amenity. • Provide facilities to support public recreational uses for all ages. • Provide for safe visitor experiences.	• Master planning and detailed design stages will ensure design for a range of recreational activities including zones for active sports and play, event spaces, beach vistas and lookouts, picnic and barbecue areas, and facilities for beach users. • Development Applications to demonstrate design life of the Landscape Master Plan's key assets. • Civil engineer to implement Construction Management Measures to the satisfaction of the CoA. • Construction fencing of the foreshore subject to the engineering works areas. • Signage to ensure pedestrians are warned not to enter the construction areas.	Installation approved Landscape Master Plan key assets in accordance with approved Development Applications.	Ensure that construction fencing and signs are removed.
Access management	• Provide safe, user friendly and controlled access to and across the foreshore. • Provide appropriate signage in accordance with CoA requirements.	• Establish safe beach access pathways to the beach for the duration of the construction period. The access pathways are to be focused on using existing cleared tracks. • Development Applications to demonstrate design life of the Landscape Master Plan's key assets. • Civil engineer to implement Construction Management Measures to the satisfaction of the CoA. • Construction fencing around the area subject to the engineering works. • Signage to ensure pedestrians are warned not to enter the construction area.	• Installation approved Landscape Master Plan key assets in accordance with approved Development Applications. • Regularly inspect signage. Replace signage if vandalised or removed. • Place appropriate signs at key beach access points.	Ensure that construction fencing and signs are removed.

Objective / Parameter	Description	Pre-construction implementation	Construction implementation	Post-construction implementation
Coastal hazard risk management				
Coastal hazards	Design foreshore redevelopment so assets are not at risk of coastal hazards over their design life.	The CHRMAP assesses the risks to coastal assets from coastal hazards and proposes suitable management responses. This FMP has been developed in accordance with the CHRMAP.	Installation approved Landscape Master Plan key assets in accordance with approved Development Applications.	• Implement coastal hazard risk management actions including: – Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone in a Special Control Area – Updated lease arrangement for the southern portion of the Emu Beach 'BIG4' Holiday Park – Investigate the opportunity to acquire at risk land as it becomes available on the public market – Undertake granite boulder groyne field establishment, Emu Beach sand nourishment, upgrades to the Emu Point rock revetment and Oyster Harbour Beach sand nourishment. • CoA to continue with the current Emu Beach and Oyster Harbour Beach monitoring programs and undertake any additional FMP monitoring requirements to assess managed retreat and sand nourishment trigger values. • CoA to monitor and maintain all coastal protection structures.
Stabilisation and erosion control	Stabilisation of foreshore areas requiring restoration to limit wind-blown sand and degradation of the foreshore area.	• Establish rehabilitation and weed management areas in the FMP area to inform the preparation of the Revegetation Strategy. • Establish safe beach access pathways to the beach for the duration of the construction period. The access pathways are to be focused on using existing cleared tracks.	• Installation Landscape Master Plan key assets in accordance with approved Development Applications. • Revegetation will be undertaken as detailed in the Revegetation Strategy.	• CoA to continue with the current Emu Beach and Oyster Harbour Beach monitoring programs and undertake any additional FMP monitoring requirements to assess managed retreat and sand nourishment trigger values. • CoA to monitor and maintain all coastal protection structures. • Revegetation and monitoring will be undertaken as detailed in the Revegetation Strategy.
Foreshore rehabilitation				
Revegetation	Restore vegetation condition in defined areas of foreshore.	Map the revegetation and weed management areas.	Revegetation will be undertaken as detailed in the Revegetation Strategy.	Revegetation and monitoring will be undertaken as detailed in the Revegetation Strategy.
Weed management	Manage the introduction, spread and concentration of weed species.	Weed management will be undertaken as part of revegetation activities.	Weed management will be detailed in the Revegetation Strategy.	Revegetation and weed monitoring will be undertaken as detailed in the Revegetation Strategy.

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Figures



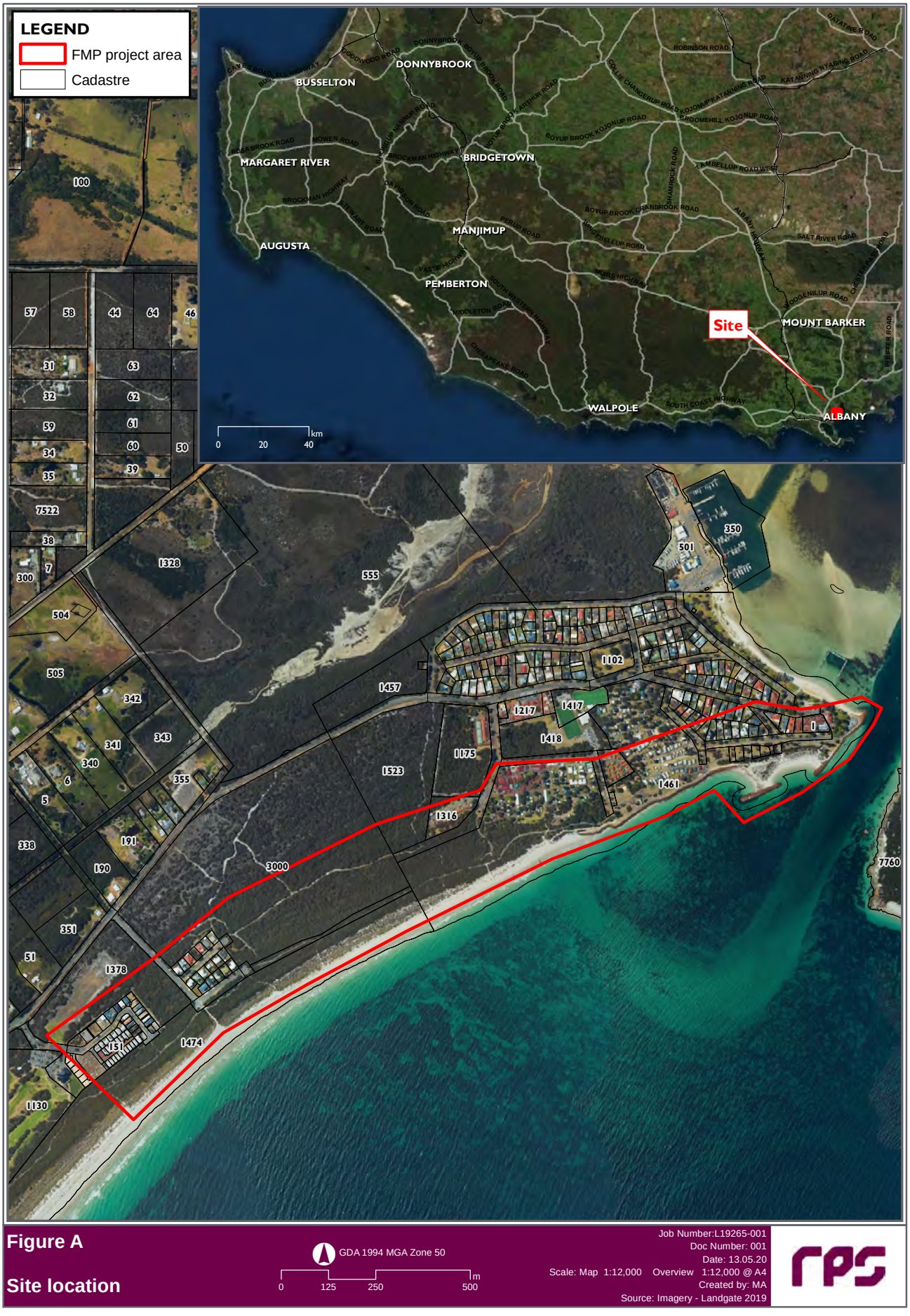


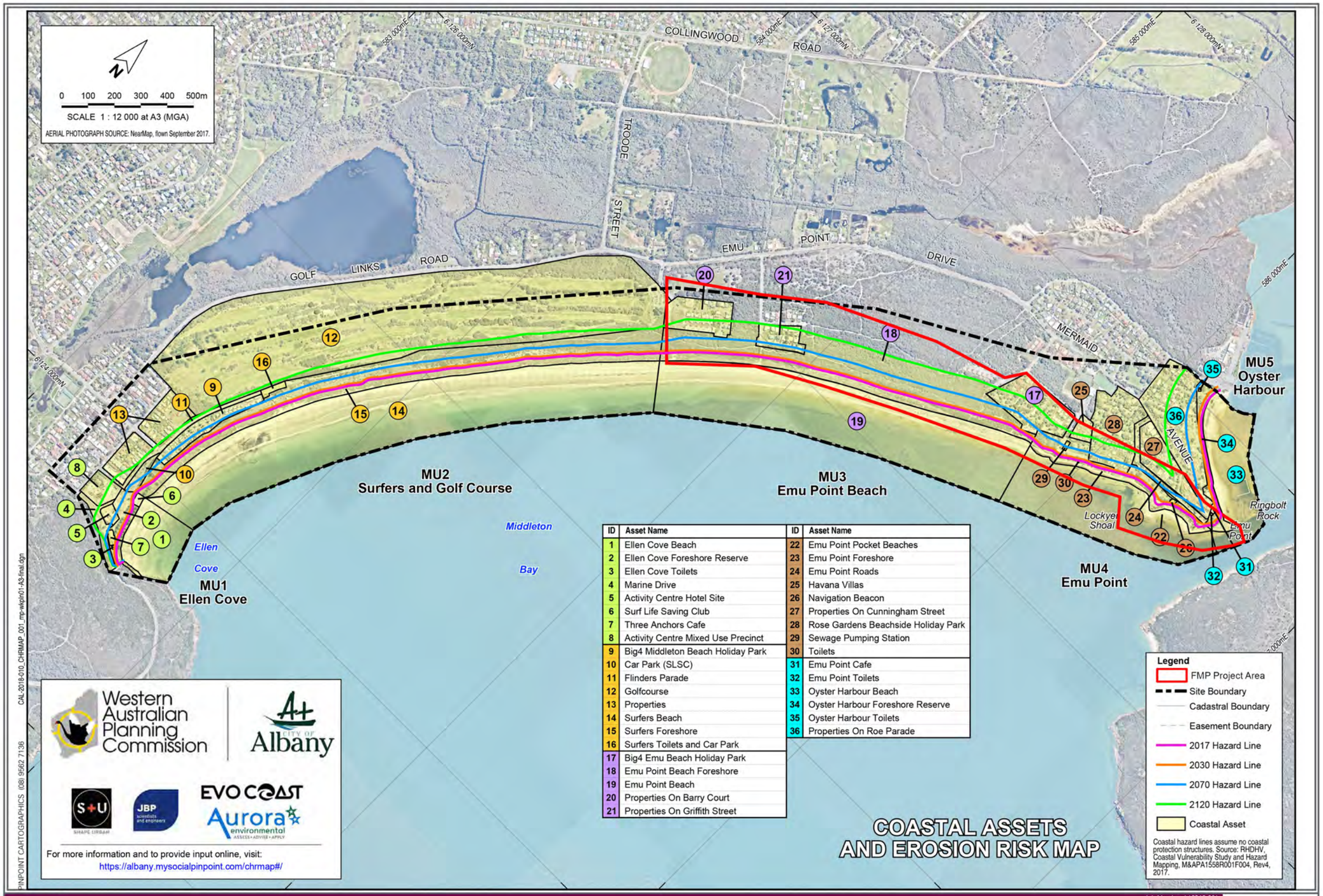
Figure A

Site location

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Doc Number: 001
Date: 13.05.20
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Created by: MA
Source: Imagery - Landgate 2019



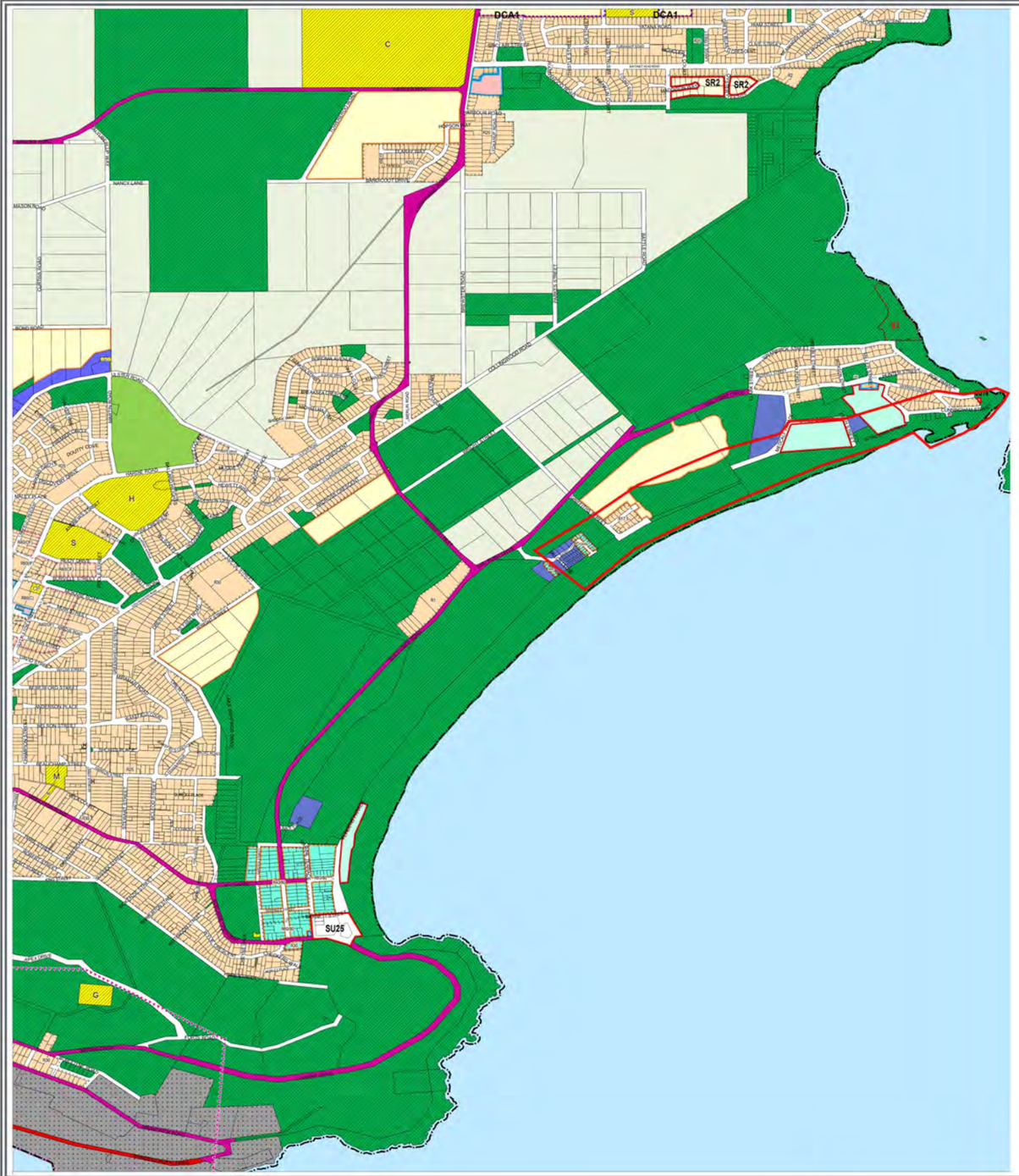
ID	Asset Name
1	Ellen Cove Beach
2	Ellen Cove Foreshore Reserve
3	Ellen Cove Toilets
4	Marine Drive
5	Activity Centre Hotel Site
6	Surf Life Saving Club
7	Three Anchors Cafe
8	Activity Centre Mixed Use Precinct
9	Big4 Middleton Beach Holiday Park
10	Car Park (SLSC)
11	Flinders Parade
12	Golfcourse
13	Properties
14	Surfers Beach
15	Surfers Foreshore
16	Surfers Toilets and Car Park
17	Big4 Emu Beach Holiday Park
18	Emu Point Beach Foreshore
19	Emu Point Beach
20	Properties On Barry Court
21	Properties On Griffith Street

ID	Asset Name
22	Emu Point Pocket Beaches
23	Emu Point Foreshore
24	Emu Point Roads
25	Havana Villas
26	Navigation Beacon
27	Properties On Cunningham Street
28	Rose Gardens Beachside Holiday Park
29	Sewage Pumping Station
30	Toilets
31	Emu Point Cafe
32	Emu Point Toilets
33	Oyster Harbour Beach
34	Oyster Harbour Foreshore Reserve
35	Oyster Harbour Toilets
36	Properties On Roe Parade

Figure B

CHRMAP management units

Job Number: L19265-001
Doc Number: 002
Date: 13.05.20
Scale: NTS @ A3
Created by: MA
Source: RPS, 2020



LEGEND

FMP Project Area

LOCAL SCHEME RESERVES

- Local Road
- Major Road
- Parks and Recreation
- Priority Road
- Public Use
- A Public Use : Airport
- C Public Use : Cemetery
- CI Public Use : Communication
- CP Public Use : Community Purpose
- CFF Public Use : Conservation of Flora and Fauna
- G Public Use : Government
- H Public Use : Hospital
- M Public Use : Museum
- PU Public Use : Public Utility
- R Public Use : Refuse
- S Public Use : School
- T Public Use : Technical College
- WC Public Use : Water Corporation
- Rail

LOCAL SCHEME ZONES

- Caravan and Camping
- Clubs and Institutions
- Conservation
- Future Urban
- General Agriculture
- General Industry
- Highway Commercial
- Hotel / Motel
- Light Industry
- Local Centre
- Neighbourhood Centre
- Port Industry
- Priority Agriculture
- Regional Centre
- Regional Centre Mixed Business
- Regional Centre Mixed Use
- Residential
- Rural Residential
- Rural Small Lot Holdings
- Rural Village
- Special Residential
- Special Use
- Tourist Residential
- Yakamia Creek

OTHER CATEGORIES

(see scheme text for additional information)

- Scheme Area Boundary
- Local Government Boundary
- R20 R Codes
- A1 Additional Uses
- R1 Restricted Uses
- **RR1** Rural Residential Area
- **RSH** Rural Small Lot Holdings
- **SR1** Special Residential Area
- **RV1** Rural Village
- **SU1** Special Use Area
- Albany Airport Special Control Area (see c.6.2)
- Albany Port Special Control Area (see c.6.4)
- Albany Speedway Noise Special Control Area (see c.6.5)
- **CZ1** Conservation Zone Area
- **DCA1** Development Contribution Area
- **IA2** Industrial Area
- **IA4BA** Industrial Buffer Area
- Public Drinking Water Sources Special Control Areas (see c.6.3)
- Spencer Park Improvement Special Control Area (see c.6.7)
- Water Corporation Waste Water Treatment Plant Odour Buffer Special Control Area (see c.6.6)
- H Places of Heritage Value - Buildings

- No Zone
- Waterbodies

Figure C
City of Albany
Local Planning Scheme No. 1 mapping

Job Number: L19265-001
Doc Number: 003
Date: 20.01.20
Scale: NTS @ A3
Created by: MA
Source: RPS, 2020



Figure D

Topography

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Job Number: L19265-001
Doc Number: 004
Date: 13.05.20
Scale: 1:6,000 @ A3
Created by: MA

Source: Cadastre - Landgate, 2019 Orthophoto - Landgate, 2019 Contours derived from SRTM DEM.

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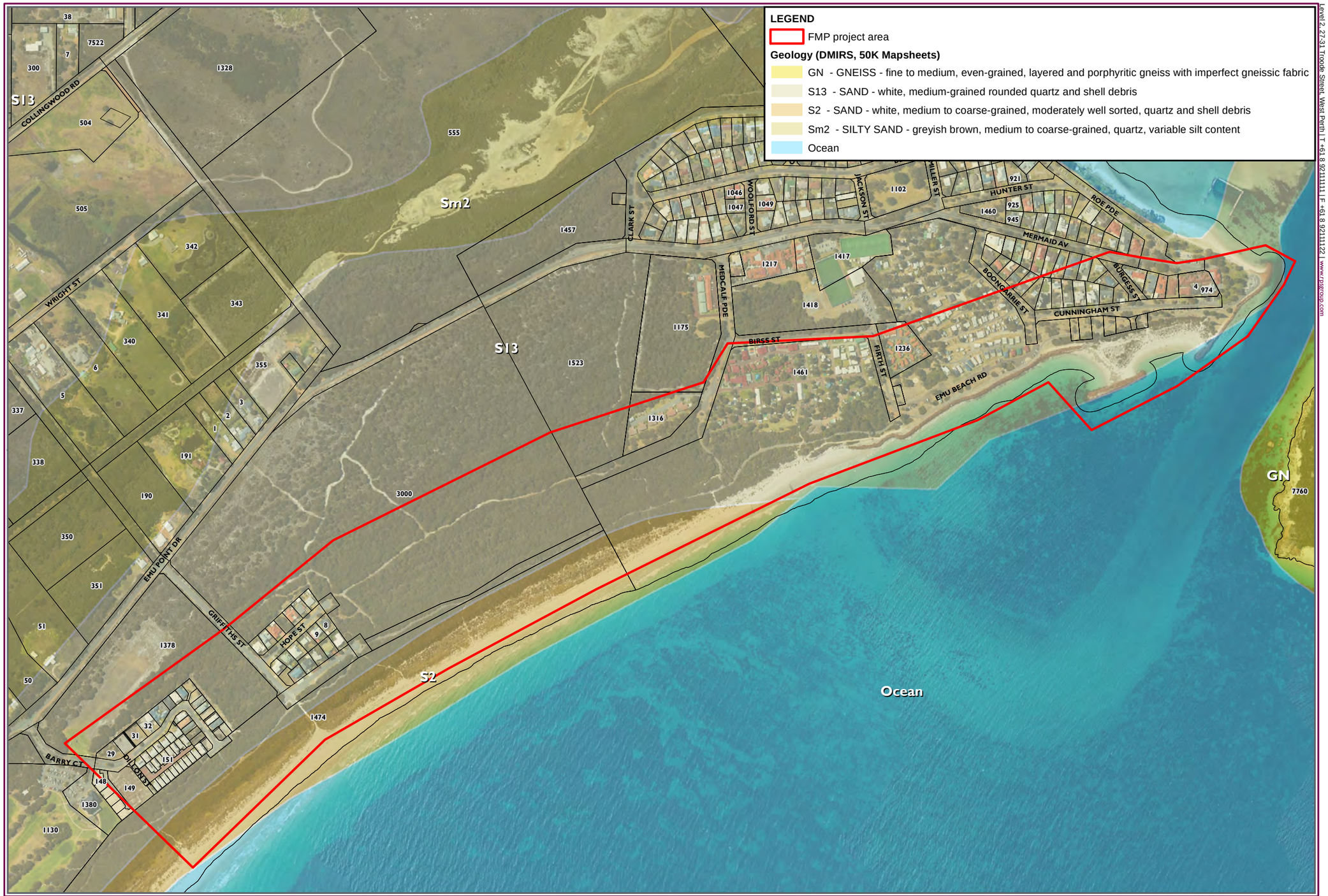


Figure E

Geology

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Doc Number: 005
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Created by: MA

Source: Cadastre - Landgate, 2019 Orthophoto - Landgate, 2019

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Figure F

Acid sulfate soil risk mapping

GDA 1994 MGA Zone 50

0 75 150 300 m

Job Number: L19265-001
Doc Number: 006
Date: 13.05.20
Scale: 1:6,000 @ A3
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Source: Cadastre - Landgate, 2019 Orthophoto - Landgate, 2019

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Figure G

Shepherd vegetation association mapping

GDA 1994 MGA Zone 50

0 75 150 300 m

Job Number: L19265-001
Doc Number: 007
Date: 13.05.20
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Created by: RL

Source: Cadastre - Landgate, 2019 Orthophoto - Landgate, 2019

Document Path: G:\Jobs\L_Jobs\L19265 - CoA Emu Beach FMP\Figures L19265-001\L19265-001_G_007_FigG_Shepherd vegetation association_200513.mxd

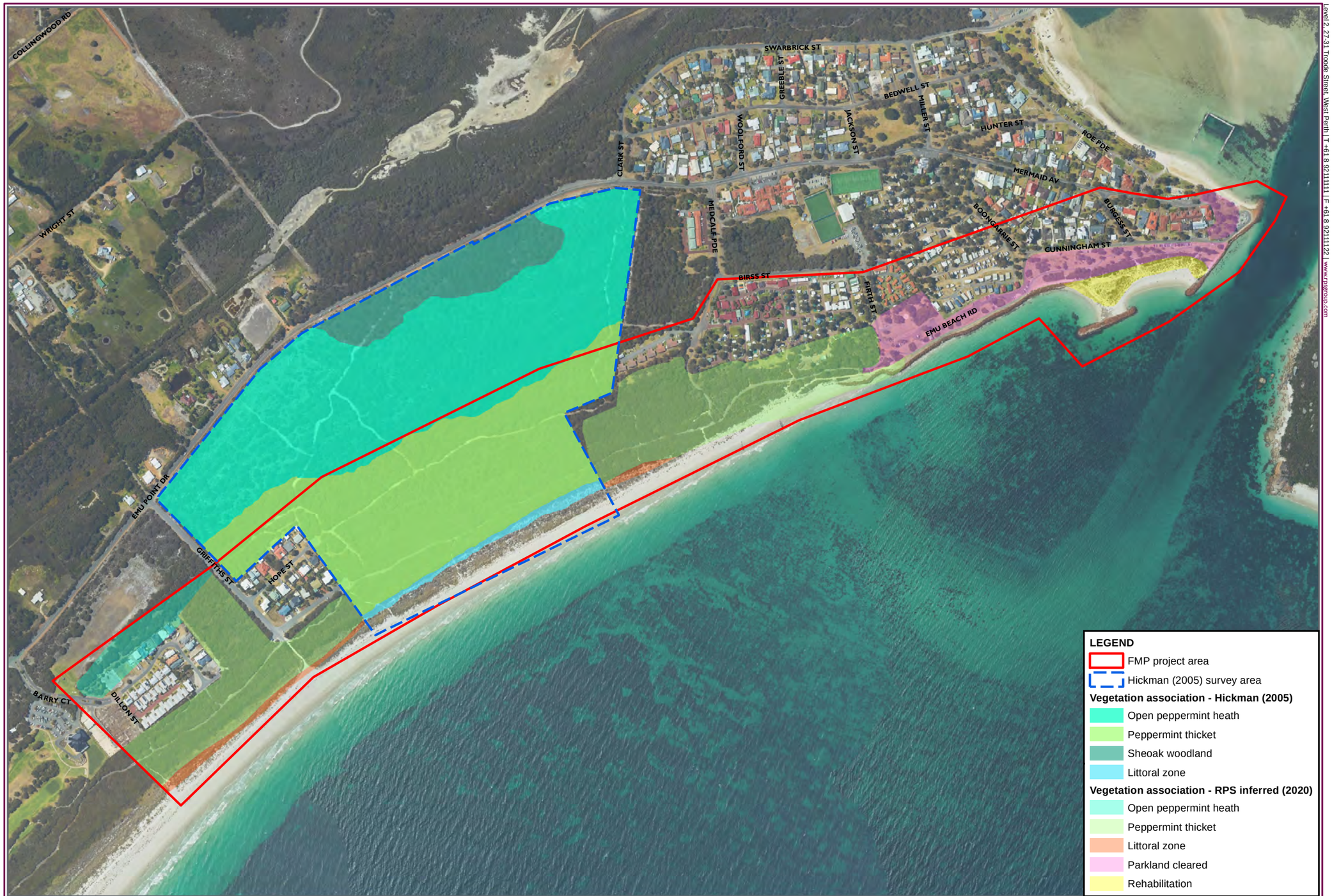


Figure H

Flora and vegetation survey for the Emu Point residential estate

GDA 1994 MGA Zone 50

0 70 140 280 m

Job Number: L19265-001
Doc Number: 008
Date: 13.05.20
Scale: 1:6,000 @ A3
Created by: RL

Source: Cadastre & Orthophoto - Landgate, 2019 Veg Association - Landcorp, Oct 2005 and RPS indicative 2020.

Document Path: G:\Jobs\L_Jobs\L19265 - CoA Emu Beach FMP\Figures L19265-001\L19265-001_G_008_FigH_Flora and vegetation survey_200513.mxd

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LEGEND

- FMP project area
- Cadastre

Fauna habitat mapping

- AfH - Open Peppermint (*Agonis flexuosa*)/ *Banksia attenuata* Woodland over *Adenanthos sp./ Spyridium globulosum* Shrubland over Closed Heathland
- AfT - Closed Peppermint (*Agonis flexuosa*) Thicket over Sedgeland
- AfW - Open Sheoak (*Allocasuarina fraseriana*) / *Banksia attenuata* Woodland with occasional Peppermints (*Agonis flexuosa*) over Open Heathland
- MsAfW - Peppermint (*Agnonis flexuosa*)/ *Melaleuca sp.* Woodland over Heathland and Sedgeland
- OH - Open Heathland and Grassland
- SH - Sedgeland with isolated patches of Heathland

Figure I

Fauna habitat mapping for the Emu Point residential estate

GDA 1994 MGA Zone 50

0 75 150 300 m

Source: Cadastre & Orthophoto - Landgate, 2019 Fauna habitat mapping - ATA Environmental - Fauna Habitat Assessment Fig 7, 05.12.06

Job Number: L19265-001
Doc Number: 009
Date: 13.05.20
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Created by: RL

Document Path: G:\Jobs\L_Jobs\L19265 - CoA Emu Beach FMP\Figures L19265-001\L19265-001_G_009_Figl_Fauna habitat mapping_200513.mxd

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Figure J

Bushfire prone area mapping

GDA 1994 MGA Zone 50

0 75 150 300 m

Source: Cadastre & Orthophoto - Landgate, 2019 Fauna habitat mapping - ATA Environmental - Fauna Habitat Assessment Fig 7, 05.12.06

Job Number: L19265-001
Doc Number: 012
Date: 13.05.20
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Created by: RL

Document Path: G:\Jobs\L_Jobs\L19265 - CoA Emu Beach FMP\Figures L19265-001\L19265-001_G_012_FigJ_Bushfire prone areas_200513.mxd

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Appendix A
Landscape master plan



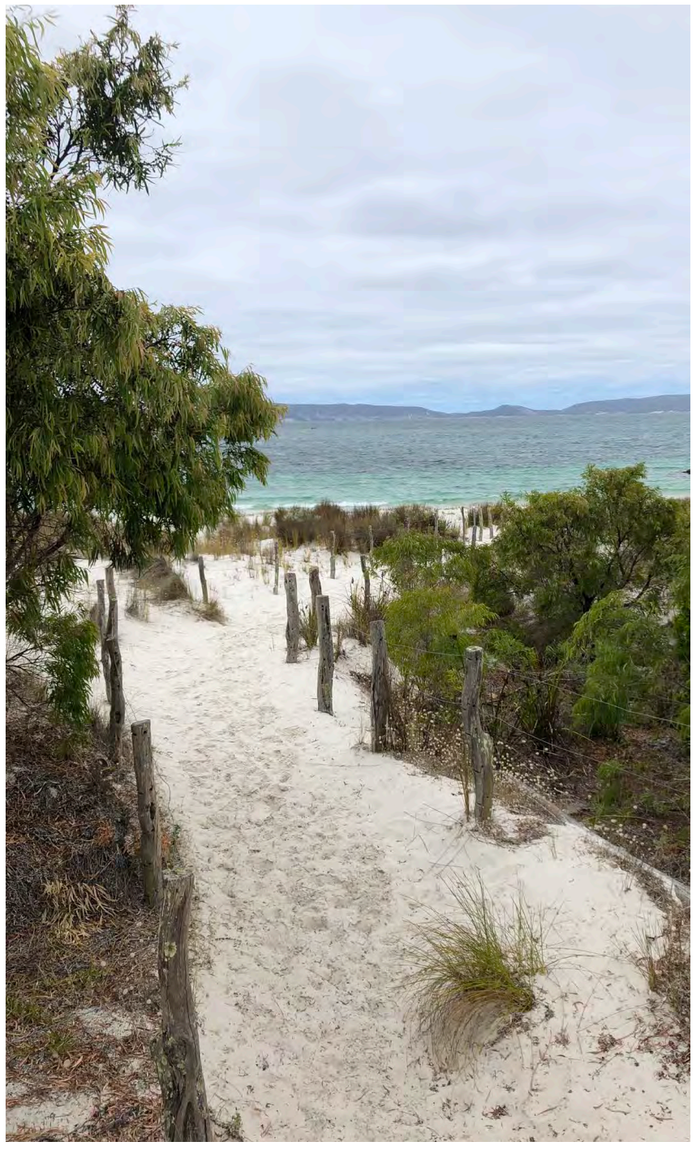
EMU BEACH FORESHORE MANAGEMENT PLAN LANDSCAPE MASTER PLAN

Final Landscape Architecture Report



SEE DESIGN

WWW.SEEDESIGNSTUDIO.COM.AU



Contents

01. Introduction

02. Site Context

03. Design Principles

04. Overall Landscape Master Plan

05. Design Palette

06. Opinion of Costs

07. Appendices

A_ Site Analysis

01. Introduction

The Emu Beach Foreshore Management plan and accompanying Landscape Master Plan has been initiated by the City of Albany for the implementation of the coastal adaption responses in Emu Point Beach and Emu Point localities, consistent with State Planning Policy (SPP) 2.6: State Coastal Planning Policy (WAPC 2013a) and the endorsed Emu Point to Middleton Beach Coastal Hazard Risk Management and Adaptation Plan (CHRMAP; Aurora Environmental 2019a).

PURPOSE

The Landscape Master Plan provides the CoA's long term vision and proposed infrastructure for the Emu Point Beach and Emu Point localities, details of the key structural elements of the foreshore design and has been developed having regard for the foreshore's local and regional context, social and environmental characteristics, and a range of practical management requirements (e.g. access, vegetation retention).

OBJECTIVES

The overall aim of the Landscape Master Plan is to retain and enhance the key recreational and amenity values of the Emu Point Beach and Emu Point foreshore environments, whilst ensuring its ongoing protection from coastal hazards.



1. Existing coastal structure



2. Site walk with key stakeholders



3. Dual use coastal path

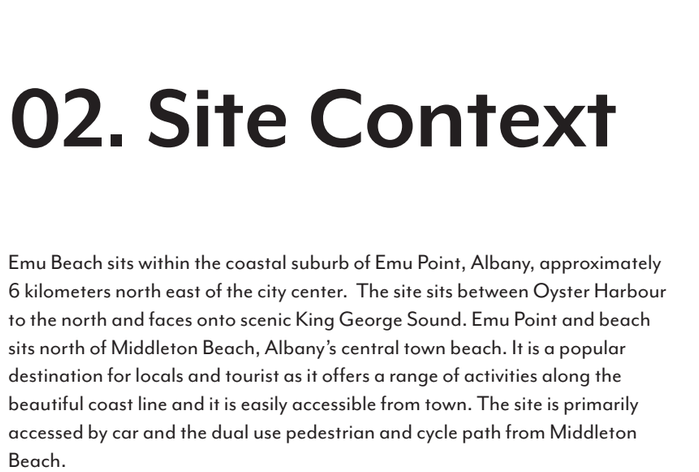


4. Emu Beach park and adjacent cafe

02. Site Context

Emu Beach sits within the coastal suburb of Emu Point, Albany, approximately 6 kilometers north east of the city center. The site sits between Oyster Harbour to the north and faces onto scenic King George Sound. Emu Point and beach sits north of Middleton Beach, Albany's central town beach. It is a popular destination for locals and tourist as it offers a range of activities along the beautiful coast line and it is easily accessible from town. The site is primarily accessed by car and the dual use pedestrian and cycle path from Middleton Beach.

The site extends from the northern edge of the Middleton Beach golf course in the south to Emu Point Cafe and surrounding parkland in the north. It is characterised by an expansive white sandy beach which backs onto native coastal vegetation with coastal structures on the northern end of the beach. There are pockets of residential housing around Griffiths Street, Bayside Links Estate and the suburb of Emu Point connected by road and footpath into the town.



Dual use cycle and pedestrian path

Major roads to Emu Beach



03. Design Principles

The City of Albany has previously conducted community surveys as part of the Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy (2013) along with the Coastal Parks Enhancement Plan (2014) to determine key principles and values which includes the Emu beach site.

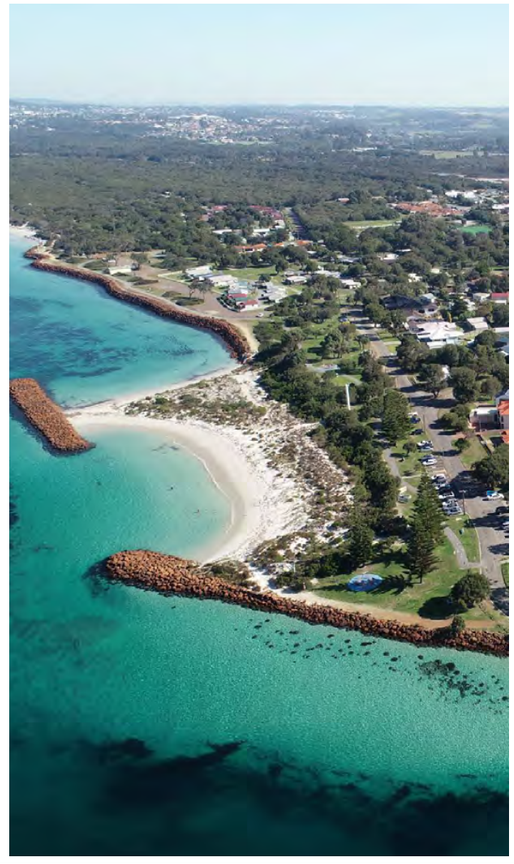
Several significant values determined throughout the work shops included;

"The naturalness of the environment with areas of wilderness, large setback/ foreshore reserves, wide active beaches and shady quiet beaches were seen as in character. The safety, cleanliness, vistas across the ocean and the beach were highly valued."

"The scenic quality, sense of place, and natural ecosystem. The open, wide expanse of the beaches, their natural, pristine state, sense of peace, relaxation and natural vistas are noted as key to the identity."

As part of the Parks Enhancement plan further workshops and consultation was undertaken to determine key values for the various coastal parkland's and to consider how to enhance and meet the community needs.

Six strategic values critical to the enhancement of the Coastal Parks including Emu Beach and its surrounds were determined. These identified themes and values will form the key principles to the landscape design outcome for Emu Beach.



Design Outcome

Retain and enhance the key recreational, landscape and amenity values of the Emu Point Beach and Emu Point foreshore environments.

Design Principles

_Coastal Identity
_Environmental Quality
_Destination Development
_Connections
_Facilities and Amenities
_A place for Everyone

LANDSCAPE DESIGN PRINCIPLES

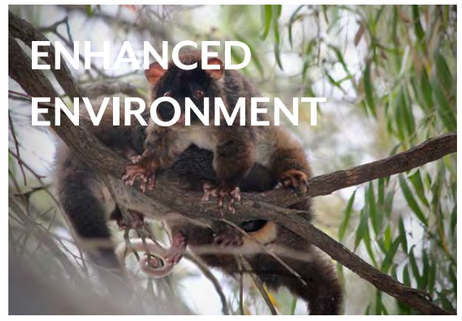
The following enhance and align to the key design principles including previous studies undertaken by the CoA, Coastal Park Enhancement Plan (2014)



Ensuring that the landscape is accessible to people of all abilities will result in repeated patronage. Ensuring an inviting place for all.



Providing protection from both sun, rain and prevailing winds throughout the precinct with both vegetation and structures ensures people can utilise and activate the space at all times of days in comfort.



Through the protection and rehabilitation of remnant vegetation key wildlife corridors can be maintained to support various endemic species. Whilst assisting in mitigating coastal erosion and increasing shade.



Emu point should look and feel like a place that is itself. By using local materials and leaning on local vernacular to retain the landscape character across the site.



Strengthen and enhance the existing qualities of Emu Beach landscape and create a hierarchy of various of activities.



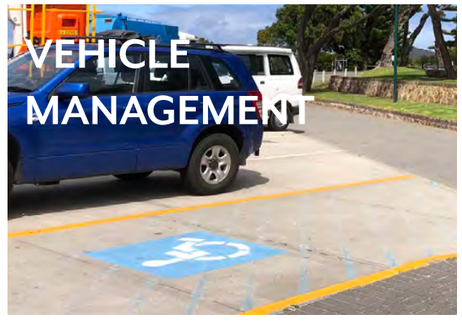
The use of robust, well engineered materials within the coastal conditions allows the creation of a landscape that remains viable for many years to come.



Establish varied and numerous amenities for public use to allow year round activation. Upgrading or extending the play and exercise spaces will attract families and non beach goers to ensure an activated, vibrant foreshore.



Enhance existing connections to the pedestrian/cycle network with the creation of nodes along the length of the waterfront with wayfinding, interpretation and shelter from the weather to provide linkage across the site.



Prioritising pedestrians where possible and formalising parking nodes to improve the use of recreational spaces and movement through them.

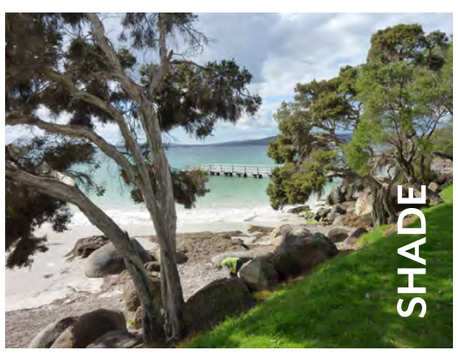
DESIGN CONSIDERATION

The following design considerations align with the overall design principles indicating a possible direction for the Emu Beach landscape. Imagery focuses on both activation and potential direction of materiality.









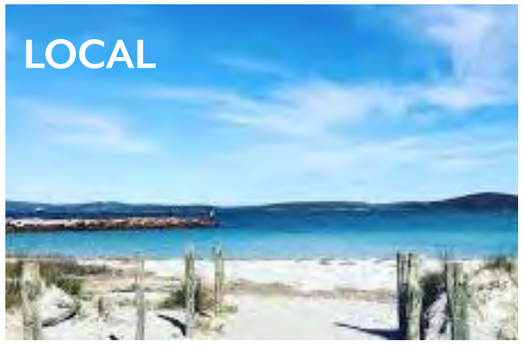






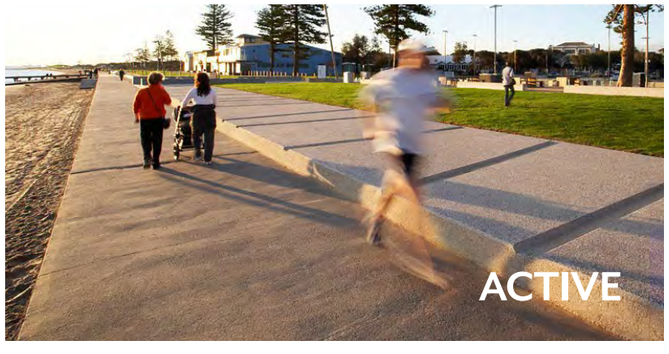




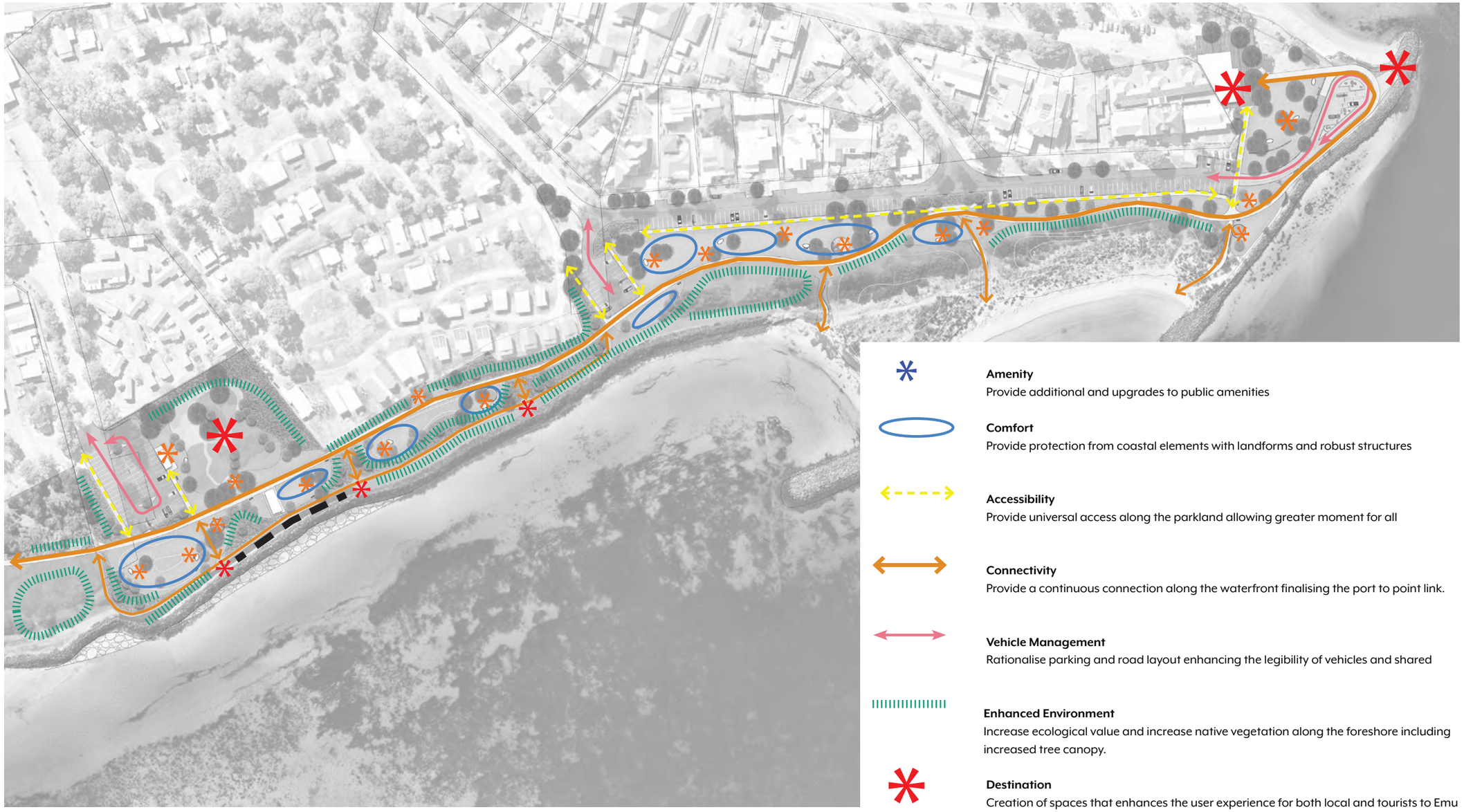








LANDSCAPE DESIGN PRINCIPLES PLAN



Amenity
Provide additional and upgrades to public amenities

Comfort
Provide protection from coastal elements with landforms and robust structures

Accessibility
Provide universal access along the parkland allowing greater moment for all

Connectivity
Provide a continuous connection along the waterfront finalising the port to point link.

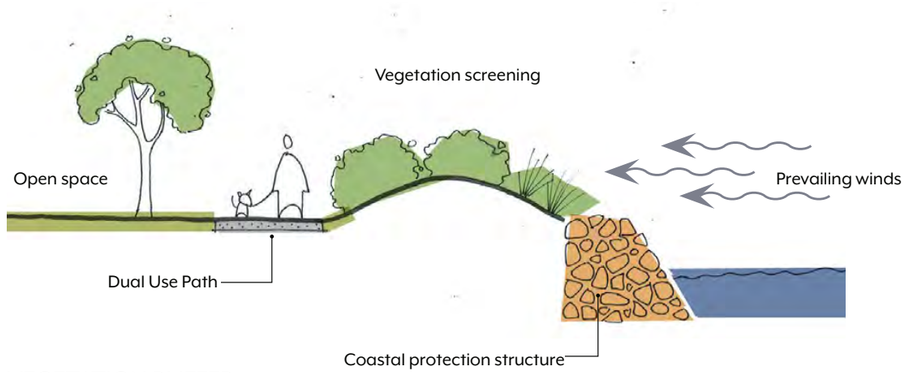
Vehicle Management
Rationalise parking and road layout enhancing the legibility of vehicles and shared

Enhanced Environment
Increase ecological value and increase native vegetation along the foreshore including increased tree canopy.

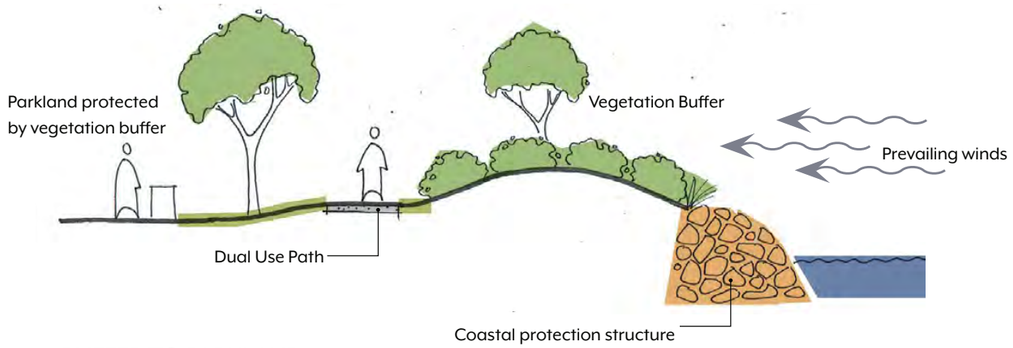
Destination
Creation of spaces that enhances the user experience for both local and tourists to Emu Beach

LANDSCAPE DESIGN PRINCIPLE SECTIONS

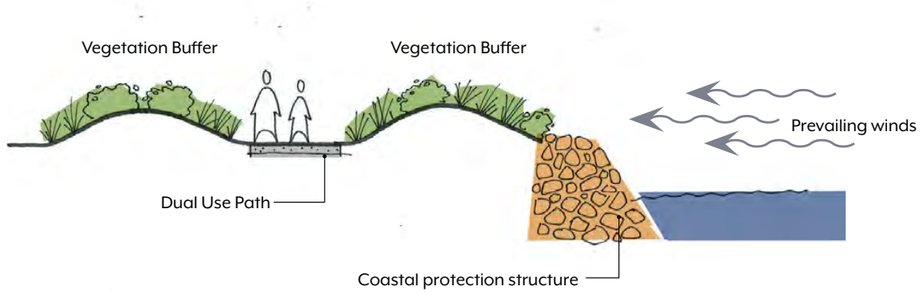
The following design considerations enhance and align to the key design principles, improving the comfort and amenity along the waterfront whilst offering multiple connection opportunities.



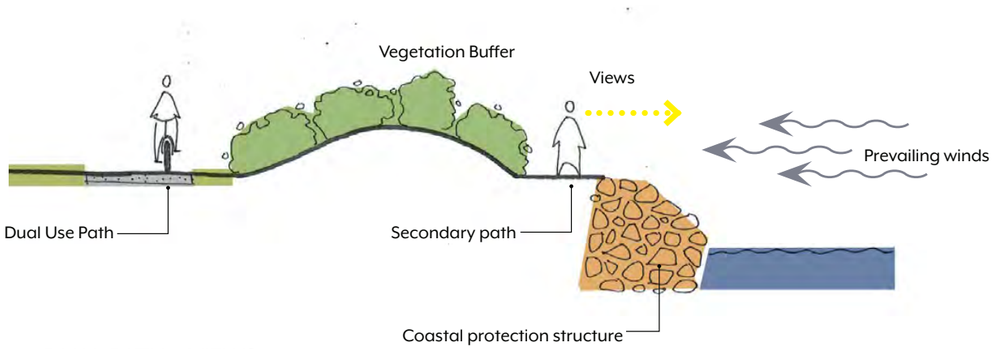
VEGETATION BUFFER



BUFFER TO PARKLAND



DUAL VEGETATION BUFFER



DUAL PATH + VIEWS

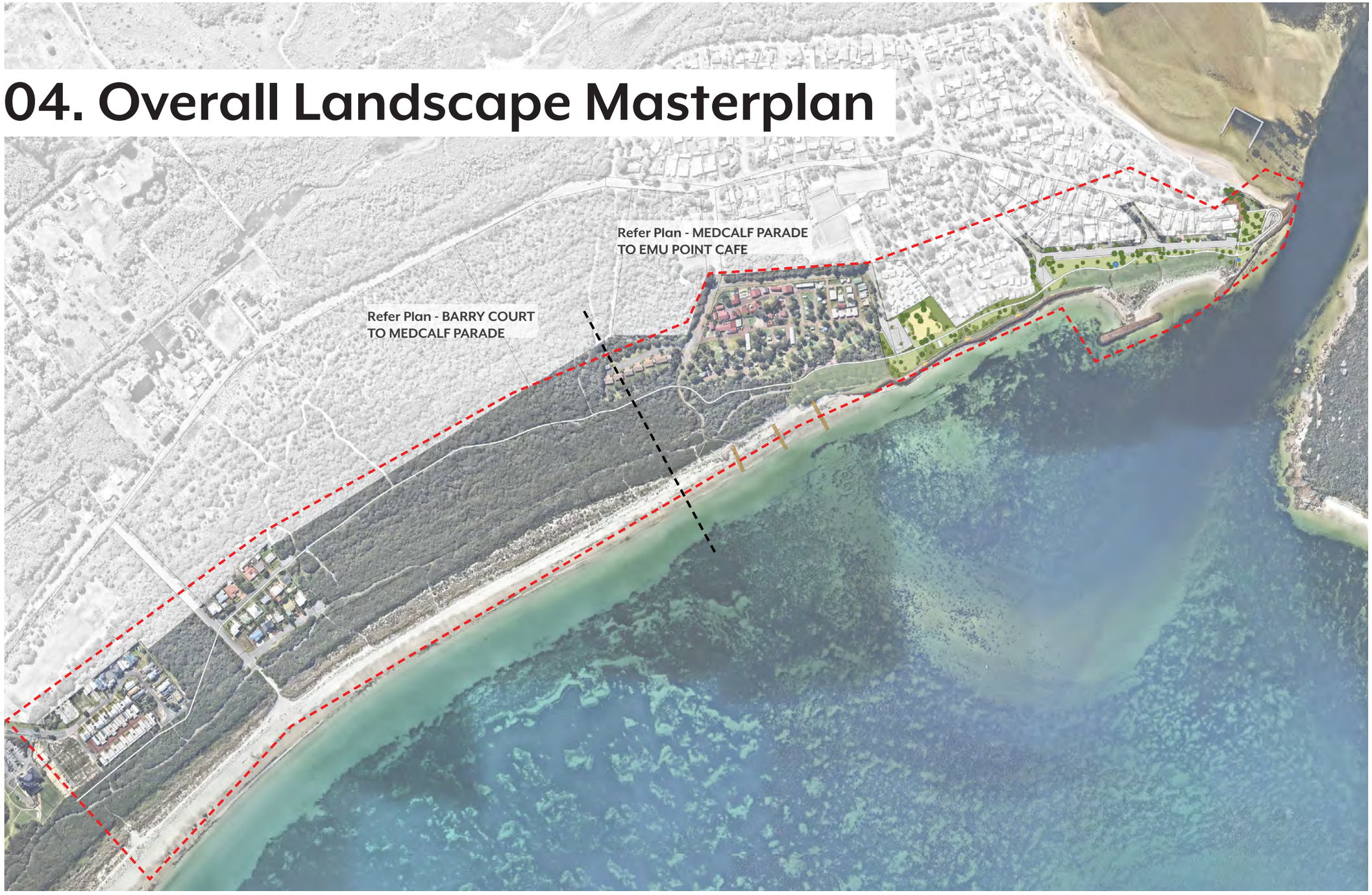
OVERALL ACTIVITIES PLAN



N

1:1000@ A3

04. Overall Landscape Masterplan



BARRY COURT TO MEDCALF PARADE

LEGEND

1. Realignment of dual use path. Location to follow existing fire brake and cleared vegetation areas where possible. Dual path to accommodate both cyclists and pedestrians. Seating and viewing platforms to be located along length of path.
2. Existing dual use path to be re vegetated following end of life. All existing donated memorial seating to be relocated following coordination with applicants.
3.Re-vegetation to existing informal beach access.
4. Griffith street formalised with new parking and vehicle turnaround.
5. Existing Griffith street and houses located within coastal risk zone
6. Realigned access to beach to limit wind driven sand including barrier fencing to protect dune vegetation.
7. Future dual use path connection.

COASTAL HAZARD LEGEND

Current HSD

Present day (2017)

2030

2050

2070

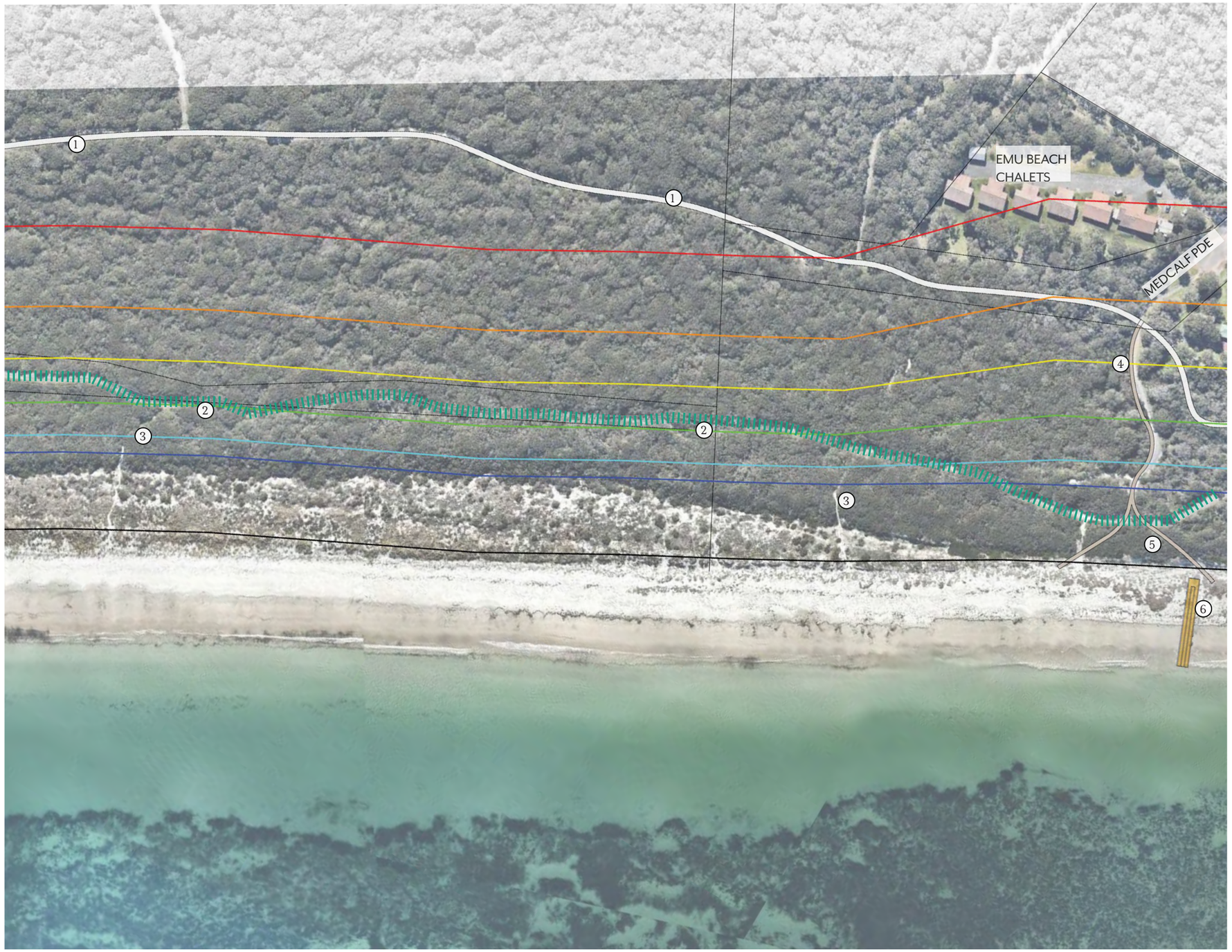
2090

2120



N

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LEGEND

1. Realignment of dual use path. Location to follow existing fire brake and cleared vegetation areas where possible. Dual path to accommodate both cyclists and pedestrians. Seating and viewing platforms to be located along length of path.
2. Existing dual use path to be re vegetated following end of life. All existing donated memorial seating to be relocated following coordination with applicants.
3.Re-vegetation to existing informal beach access.
4. Upgrade to existing access to end of Medcalf Parade to allow for vehicle/maintenance access to beach and proposed coastal structures. Pedestrian access including timber viewing platforms.
5.Pedestrian and maintenance access to coastal structures and beach. Aligned to limit wind driven sand.
6.Coastal structure and re-vegetation to coast line

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120

MEDCALF PARADE TO EMU POINT CAFE

LEGEND

1. Realignment of dual use path. Dual path to accommodate both cyclists and pedestrians. Seating and viewing platforms to be located along length of path.
2. Upgrade to existing access to end of Medcalf Parade to allow for vehicle/maintenance access to beach and proposed coastal structures. Pedestrian access including timber viewing platforms.
3. Existing dual use path to be re vegetated following end of life and creation of new dual path. All existing donated memorial seating to be relocated following coordination with applicants.
4. Coastal structure and re-vegetation to coast line
5. Proposed realignment of lease boundary. (under review) Re-vegetation and new dual use path access
6. Proposed lease realignment (under review)
7. Access to beach and adjacent dual use path and caravan park
8. Formalised car park to end of Firth street
9. Proposed play space
10. Upgrade to existing coastal structures.
11. New park land to foreshore including shelters, picnic facilities, exercise equipment, open turf areas, shade trees and coastal planting.
12. New realignment of dual use path
13. Secondary coastal path and ocean view/seating opportunities.

COASTAL HAZARD LEGEND

Current HSD

Present day (2017)

2030

2050

2070

2090

2120

N

1:2000@ A3





LEGEND

1. Upgraded dual use path to accommodate both cyclists and pedestrians. Seating and to be located along length of path.
2. Upgrade to existing coastal structures including coastal planting.
3. Secondary coastal path and ocean view/seating opportunities.
4. Closure of Boongarrie street and the formalisation of parking bays and footpaths.
5. Fire/emergency and maintenance access.
6.New park land to foreshore including shelters, picnic facilities, exercise equipment, open turf areas, shade trees and coastal planting.
7. Formalised parking bays including footpath to Cunningham street
8. Re-vegetation to existing dune
9. Upgrade to existing parkland including shelters, picnic facilities, exercise equipment, open turf areas, shade trees and coastal planting.
10. Upgrade to existing beach access.
11. Upgrade to existing car park including new pavement for creation of a shared space.
12.Dual use path connection to Emu Point and cafe
13. Upgrade to existing parkland including shelters, picnic facilities, exercise equipment, open turf areas and shade trees.

COASTAL HAZARD LEGEND

Current HSD

Present day (2017)

2030

2050

2070

2090

2120

N

1:2000@ A3

EMU POINT_DETAIL PLAN

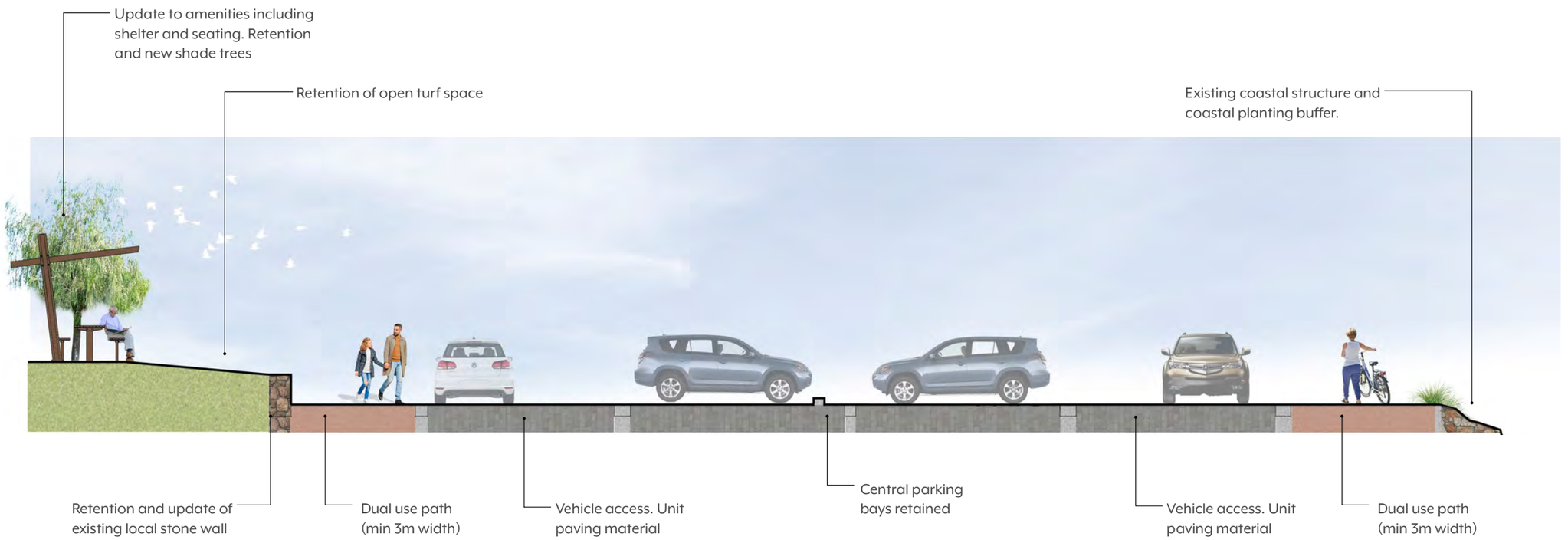




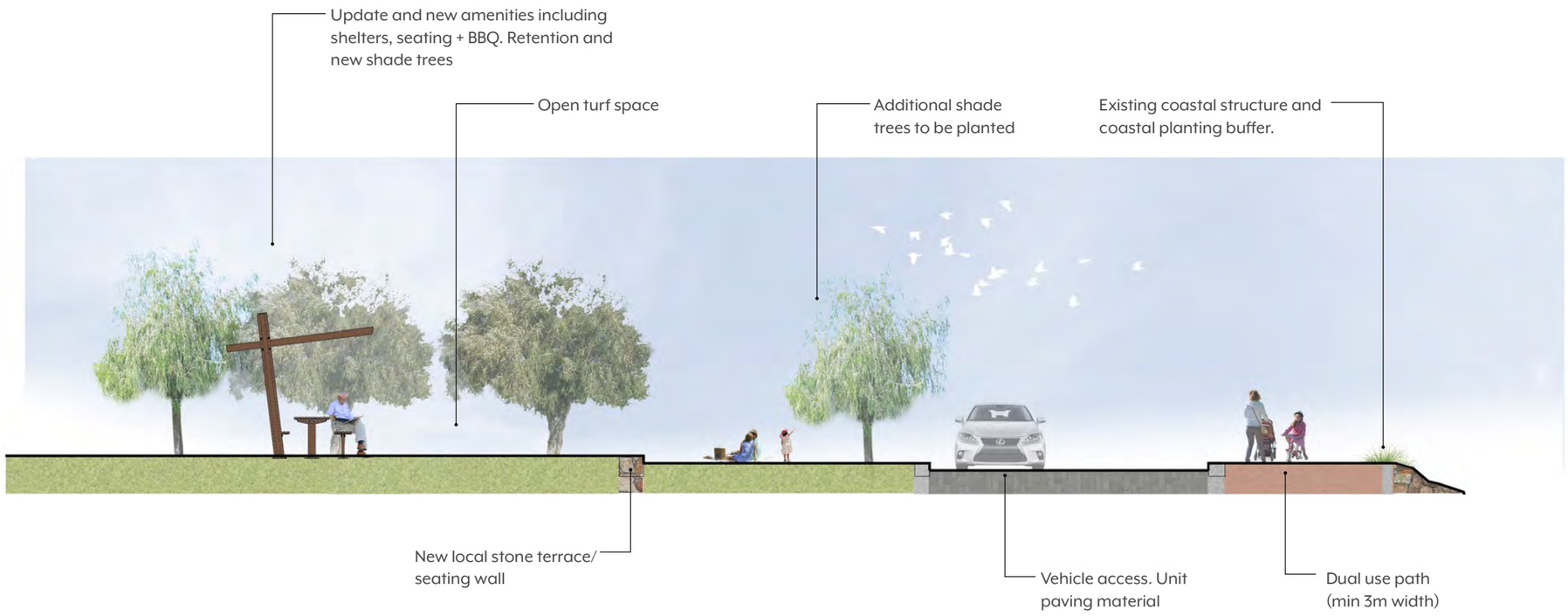
LEGEND
1. Emu Point plaza and public realm to existing cafe and public toilets including the retention of existing shade trees.
2. Dual use path (3m)
3. Dual use path termination - Port to Point connection. Flexible event space and disables access to platform
4. Accessible fishing platform
5. Dual use path
6. Formalised parking and shared space. Paved surface treatment.
7. Open turf space including updated amenities. (Shelters, BBQ, + Seating)
8. Existing and new local stone terrace seating walls
9. Car park entrance and change in surface treatment, allowance for car park to be closed for events.
10. Pedestrian access to Emu Point plaza
11. Exercise and beach node, including exercise equipment + Showers
12. Secondary footpath access to car bays
13. Formalised car bays to Cunningham street
14. Beach access to Emu Beach including dune fence protection
15. Re-vegetation to existing coastal dune including fence protection.
16. Open turf space including updated amenities. (Shelters, BBQ, + Seating)
17. Existing coastal dune.
18. Coastal planting to base of existing coastal structure
19. Streetscape coastal planting

TYPICAL SECTIONS

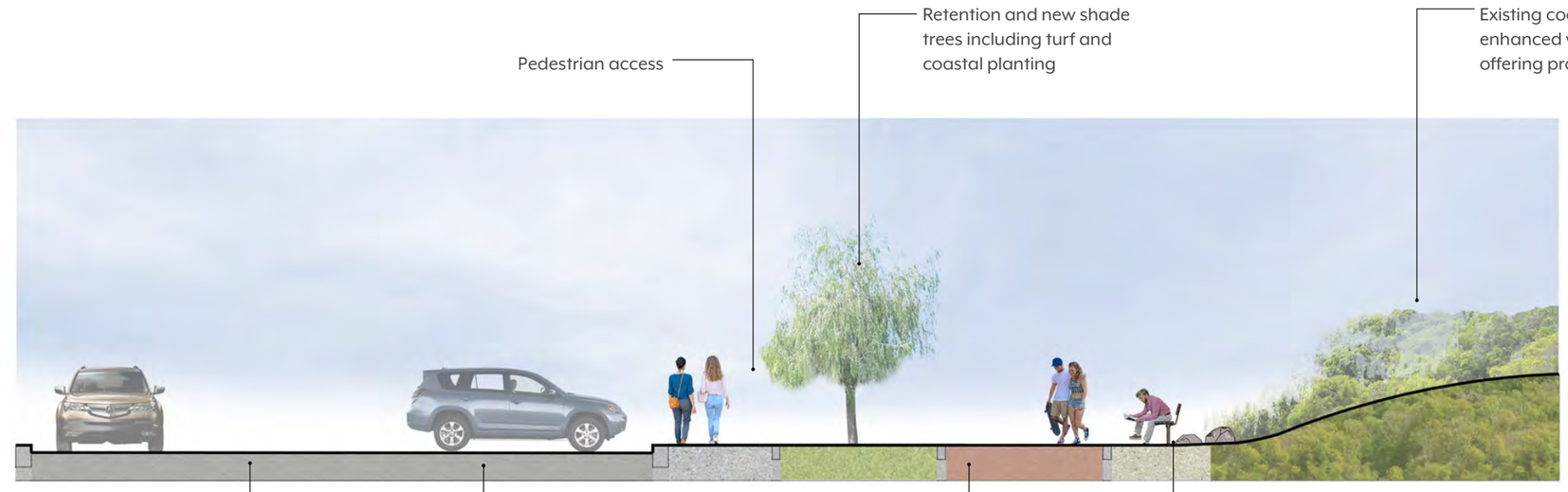







Update and new amenities including shelters, seating + BBQ. Retention and new shade trees
Open turf space
Additional shade trees to be planted
Existing coastal structure and coastal planting buffer.
New local stone terrace/ seating wall
Vehicle access. Unit paving material
Dual use path (min 3m width)




Pedestrian access
Retention and new shade trees including turf and coastal planting
Existing coastal vegetation retained and enhanced with re-vegetation as required offering protection form prevailing winds
Cunningham Street
Formalised parking bays
Dual use path
Dual use path (min 3m width)
Typical seating options located along dual use path

3

BOONGARRIE STREET DETAIL PLAN

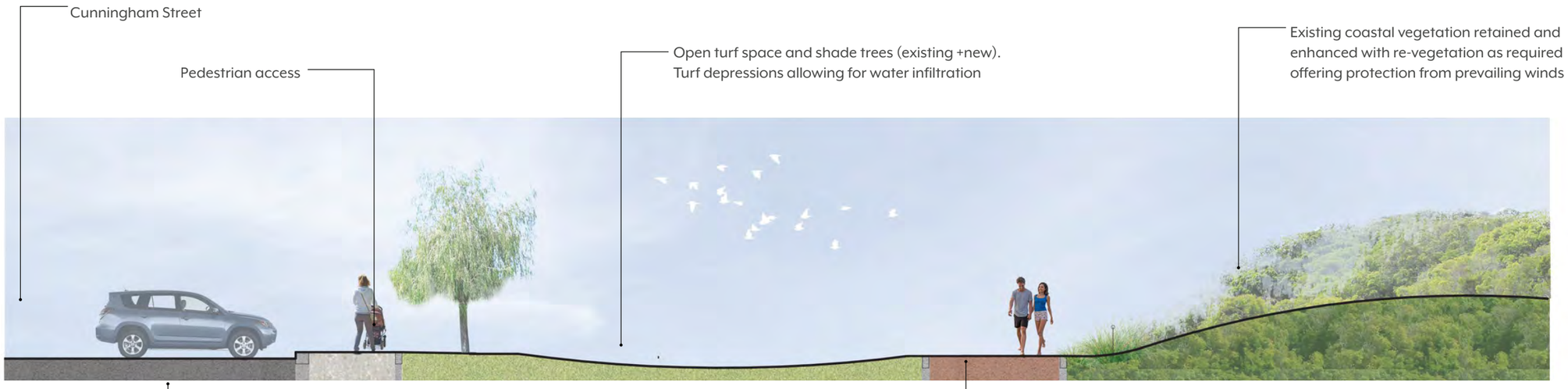




LEGEND
1. Dual use path (3m) including seating opportunities.
2. Exercise node, including exercise equipment + seating and drinking fountains
3. Open turf space including updated amenities. (Shelters, BBQ, + Seating) Turf depressions to assist with protection of prevailing winds.
4. Re-vegetation to existing coastal dune including fence protection.
5. Beach access to Emu Beach including dune fence protection
6. Formalised parking to Cunningham street
7. Secondary footpath access to car bays.
8. Streetscape coastal planting
9. New Car park and termination of Boongarrie Street
10. Fire and maintenance access to parkland via new car park.
11. Mounded coastal vegetation offering protection from prevailing winds
12. Secondary coastal pedestrian path offering coastal connection
13. Destination zone offering seating and coastal views
14. Coastal planting to base of existing coastal structure
15. Re-vegetation to existing beach access and coastal structure including fence protection.
16. Open turf offering emergency vehicle access and turnaround

TYPICAL SECTIONS







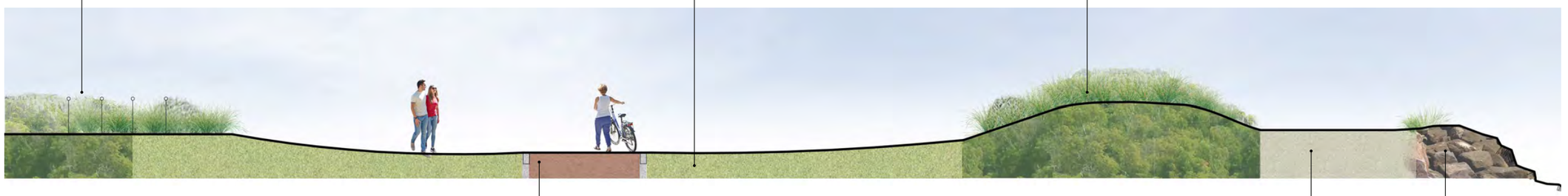

Mounding coastal vegetation enhancing the environmental connection along the waterfront
Mounding coastal vegetation offering protection from prevailing winds and an optional pedestrian route.
Dual use path (min 3m width)
Secondary pedestrian path offering views along the coast. Flexible material (gravel) to limit maintenance in the event of over topping of the coastal structure.
Existing coastal structure and coastal planting buffer.



Mounding coastal vegetation enhancing the environmental connection along the waterfront

Open turf space and shade trees (existing +new). Turf depressions allowing for water infiltration and assist with “bunkering” from the prevailing winds

Mounding coastal vegetation offering protection from prevailing winds buffer from coastal protection wall



Dual use path
(min 3m width)

Secondary pedestrian path offering views along the coast. Flexible material (gravel) to limit maintenance in the event of over topping of the coastal structure.

Existing coastal structure and coastal planting buffer.

FIRTH STREET DETAIL PLAN



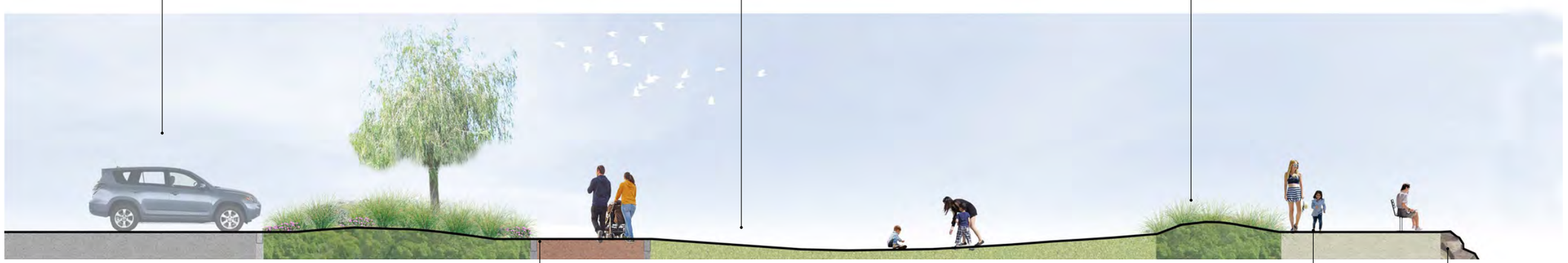


LEGEND

1. Realigned dual use path (3m) including seating opportunities.
2. Exercise node, including exercise equipment + seating and drinking fountains
3. Open turf space including updated amenities. (Shelters, BBQ, + Seating) Turf depressions to assist with protection of prevailing winds.
4. Existing coastal structure including coastal planting to base
5. Additional coastal structure rock work
6. Termination and formal parking bays to Firth Street. Parking bays overlooking coast line including emergency and maintenance vehicle access. New bays offering access to proposed play area, new parkland and ablution amenities
7. Re-vegetation to existing paths and vehicle access to back of coastal structure
8. Existing dual use path to be removed and re-Vegetated.
9. Proposed lease realignment (under review)
10. Mounded coastal vegetation offering protection from prevailing winds
11. Secondary coastal pedestrian path offering coastal connection
12. Destination zone offering seating and coastal views
13. Existing ablution block to be retained. New facilities to be located to future parking area
14. New ablution amenities
15. All ages play space area. To consist of various play elements/options including; nature based, sports, all ages and adventure theme
16. Exiting and new vegetation offering screening to adjoining properties.

TYPICAL SECTIONS





PROPOSED PARKING

The below diagram indicates the proposed formalised parking numbers and locations along Emu Beach.

Formal parking bays	**210**
Retained parking bays	**9**
TOTAL	21**9**



05. Design Palette

COASTAL MATERIAL PALETTE

The Emu Beach material palette will require selections to offer the following; robustness, long term sustainability and create a sense of place.

Extreme coastal conditions along the south coast including Emu beach will require materials to be resilient and tough. Constant salt winds and moisture along with frequent public use will require materials to be hard wearing whilst reducing overall maintenance requirements for the City.

A palette with a strong sense of place will play an important role in ensuring Emu Beach maintains it uniqueness while creating a memorable experience. The material palette reflects the local colours and textures whilst including materials currently used by the City of Albany.

SURFACE TREATMENTS

Limiting the number of surface treatments along Emu Beach assists in enhancing the visual amenity whilst maintaining the sites local character.

With the use of surface treatments public spaces can be defined and a hierarchy of spaces. Along the Emu Beach site key nodes and public spaces are to be defined with the use of 'Higher' specified elements with the cost effect surfaces nominated to large transitional spaces.

All pavements to meet the required Australian Standards and be readily available.

VERTICAL TREATMENTS

Emu Beach is well known by locals and visitors for its granite terrace walling, these walls are to be enhanced and protected where required with the addition of new walling where deemed appropriate.

The use of readily available and robust materials is recommended in areas where new walling may be required. These material to be utilised are to ensure the local granite is enhanced within the key public spaces.



1. Exposed aggregate concrete - Sandstone Pebble



2. Asphalt



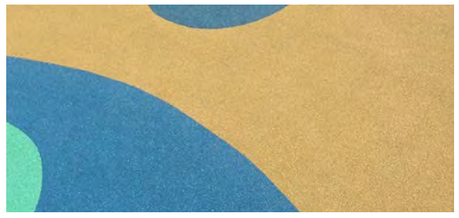
3. Composite deck



4. Unit Paver



5. Stabilised local granitic/gravel fines



6. Softfall



1. Local stone walling



2. Off-form concrete



3. Block Work Walling

FURNITURE AND FIXTURES PALETTE

All furniture and fixtures are required to withstand the coastal conditions of Emu beach and assist the city with low maintenance requirements. Consideration is required in relation to the balance of initial capital cost and the longevity of the materials and products to be installed.

Where required all steel elements to be of a marine grade finish. Whilst new elements to align with the City of Albany furniture suite to assist in maintenance (e.g. Bins, drinking fountain, BBQ).



1. Bench seating



2. Picnic Setting



3. CoA approved Shelter Large GZ24



3. CoA approved Shelter Small GZ39



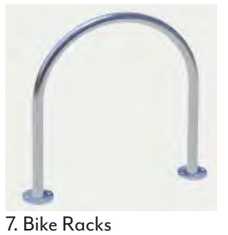
4. Barbecue



5. Bins



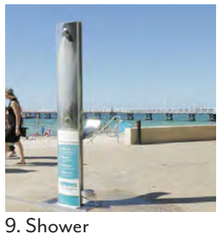
6. Exercise equipment



7. Bike Racks



8. Drinking Fountain



9. Shower



10. Bollards



11. Fencing



12. Way finding + interpretation

PLAY SPACE

A destination play space creates the opportunity to bring together both the local community and visitors to the region.

The inclusion of various play options ensures that all members of the community are catered for. With the opportunity to include intergenerational play elements with a range of activities including; multi use courts, nature based play, pump track and an all ages/ assessable playground.

Pump track - a multi use track for all ages offering locals and visitors year round entertainment and exercise

Nature play - responding to the surrounding natural coastal environment and encouraging children of all ages to explore and interact with 'nature'

All ages/all assessable - a play space designed to cater for all ages and disabilities. With the added benefit of proximity to both parking and ablution facilitates

Multi-use courts - various courts offering individual and group exercise opportunities for both local and visitors to the region staying within the Emu Beach accommodation zone





PUMP TRACK





NATURE PLAY





ALL AGES





MULTI USE COURTS

COASTAL PLANT PALETTE

Emu Beach foreshore, parkland and street scape has the opportunity to utilise both local and West Australian coastal species. Many of the species are available commercially allowing planting to enhance the local material palette whilst ensuring low water use and maintenance.

Low level planting is nominated to maintain site lines in key open public spaces with the inclusion of larger coastal shrubs to offer protection and buffer the strong prevailing coastal winds.
Native trees to be selected to offer shade along the parkland whilst ensuring the species are adaptable in the harsh coastal conditions.

LOW PLANTING


Spinifex hirsutus


Carpobrotus virescens


Westringia dampierii


Myoporum insulare


Kennedia coccinea


Scaevola nitida


Leucophyta brownii


Pimelea ferruginea


Banksia repens


Hibbertia racemosa


Lepidosperma gladiatum


Adenanthos cuneatus


Hardenbergia comptoniana


Ficinia nodosa


Atriplex cinerea


Hemiandra pungens


Conostylis candicans


Olearia axillaris

SHRUBS - WIND BREAK/BUFFER


Adenanthos sericeus


Melaleuca lanceolata


Templetonia retusa


Scaevola crassifolia


Acacia cyclops

TREES


Allocasuarina fraseriana


Agonis flexuosa


Eucalyptus gomphocephala


Eucalyptus utilis

RE-VEGETATION PALETTE

Rehabilitation and re-vegetation of the emu beach foreshore is critical to ensure the future of the key wildlife corridor increasing biodiversity whilst improving user experience. The below palette offers a typical selection for the foreshore rehabilitation and re-vegetation zone through seed collection obtained from site and/or the use of local native planting.

Works to the area shall be required to ensure weed and disease free soil including weed matting or mulch to minimize erosion and weed encroachment. The installation of both temporary and permanent fencing shall be required in some rehabilitation areas to ensure minimal disturbance from the public.



Allocasuarina fraseriana



Adenanthos sericeus



Spyridium globulosum



Eutaxia obovata



Jacksonia horrida



Leucopogon revolutus



Acacia pulchella



Adenanthos cuneatus



Dasypogon bromeliifolius



Agonis flexuosa



Banksia attenuata



Melaleuca striata



Pimelea rosea



Lysinema ciliatum



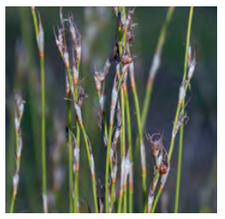
Melaleuca thymoides



Desmocladus flexuosa



Lepidosperma squamate



Lyginia barbata



Acacia littorea



Pimelea ferruginea



Hibbertia cuneformis



Lepidosperma costale



Lepidosperma gladiatum



Phyllanthus calycina



Rhagodia baccata



Spinifex hirsutus



Ammophila arenaria

07. Appendices

A_ Site Analysis

CHARACTER ZONES

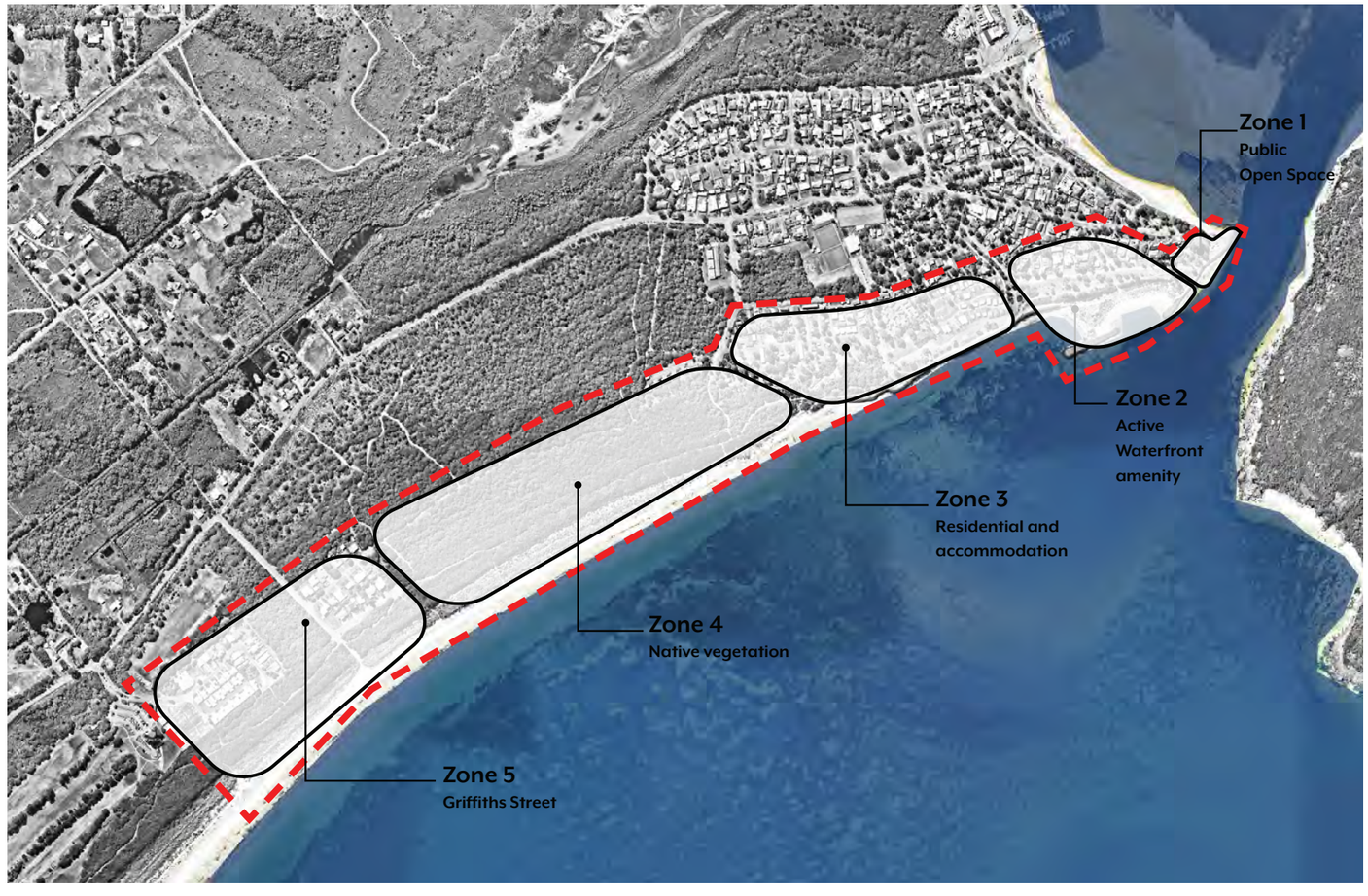
Zone 1:
Is characterised by its well-utilised park and large shady grassed picnic areas with established trees. Locals and tourists are attracted to the site due to its proximity to its beaches, fishing, parking, cafe and public toilets.

Zone 2:
A busy zone for active and passive recreation with close access to the nearby cafe and parking. This area contains popular spots for fishing and swimming due to the sheltered beaches formed by coastal structures and dune vegetation and grassed respite areas that are shaded by trees. Vegetation runs adjacent to the road and path, creating protected spots for picnics, play, exercise and barbecues. A residential suburb fronts onto the public open space and beach front.

Zone 3:
Tourist accommodation characterises the zone in this area. The road/car park and the dual-use path that run along the oceanfront is a key access and circulation route. However, the rock revetment limits direct access to the ocean in this area but provides fishing opportunities and coastal views. This zone identifies as a key transition point between the existing natural reserve and the managed parklands of Emu Beach

Zone 4:
Native remnant bushland makes up the majority of this zone. The dual use path runs parallel to the beach. This landscape is key in connecting Emu Beach and with the coastal cycle path.

Zone 5:
Two small pockets of residential development separated by remnant bushland sit at the south end of the site. Griffiths Street is a key beach access point for visitors to the site.



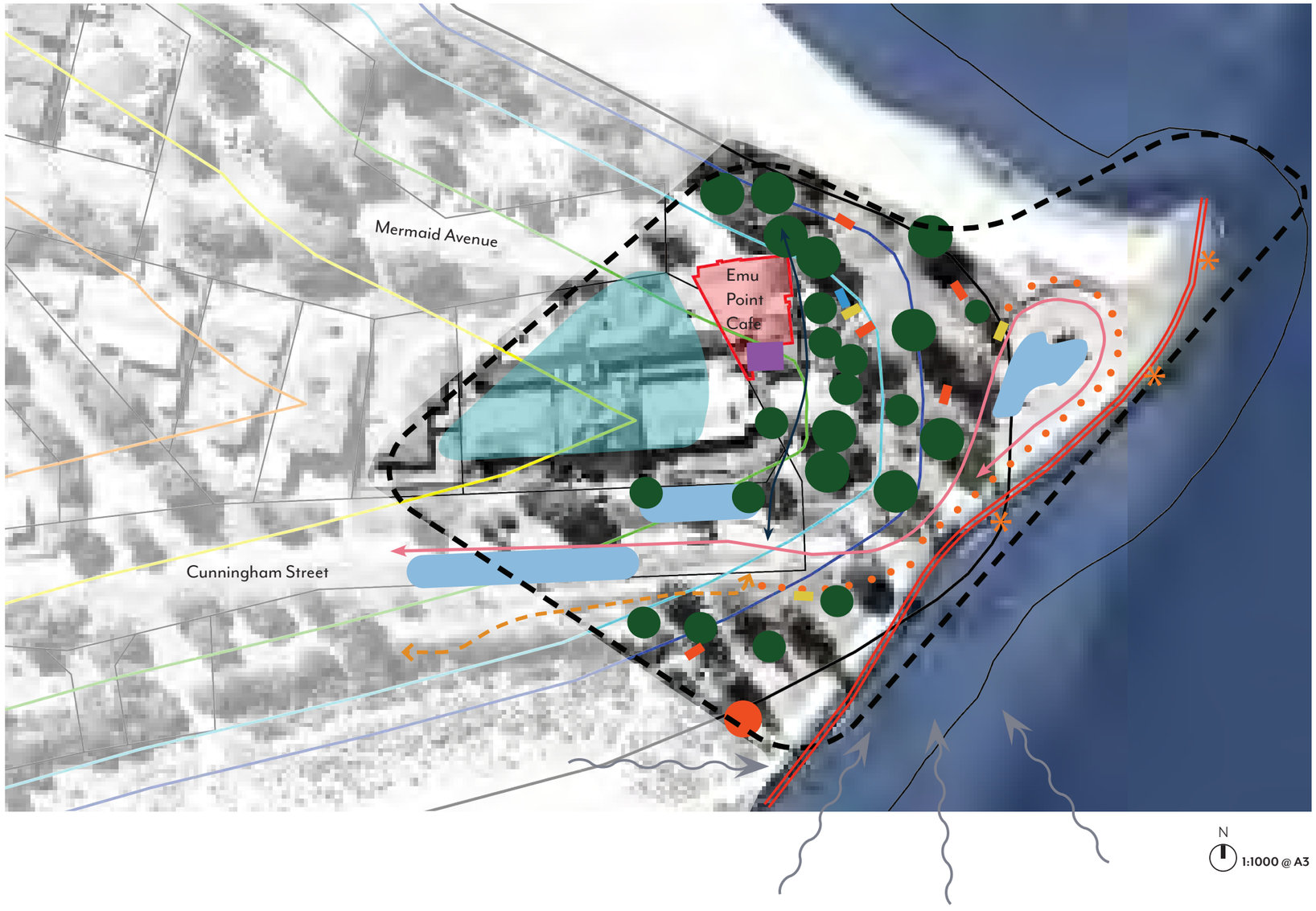
ZONE 1 ANALYSIS

LEGEND

- Barbecue
- Bins
- Furniture (shelter/seat)
- Fence
- Exercise space
- Existing Trees/Shade
- Vehicle access
- Pedestrian path
- Pedestrian and cycle path
- Coastal Protection Structures
- Fishing spot
- Prevailing Winds
- Car parking (asphalt)
- Public Toilet
- Residential Zone
- Cadastral boundary
- CoA lease

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120



ZONE 1 LANDSCAPE CHARACTER

1. Vehicle access and car park adjacent coastal structure. Vehicles given priority whilst separating park land and waterfront.

2. Connection to public toilets and cafe adjacent residential lots. Public toilets limited and often at capacity during peak times

3. Minimal existing public amenities including limited weather protection.

4. Car park and vehicle turn around. (Minimal bays x 8)

5. Minimal pedestrian access through park with pedestrians required to navigate various level changes. Dual use path terminates abruptly.

6. Existing terracing and level changes (limited universal access). Existing shade trees key feature through out parkland.


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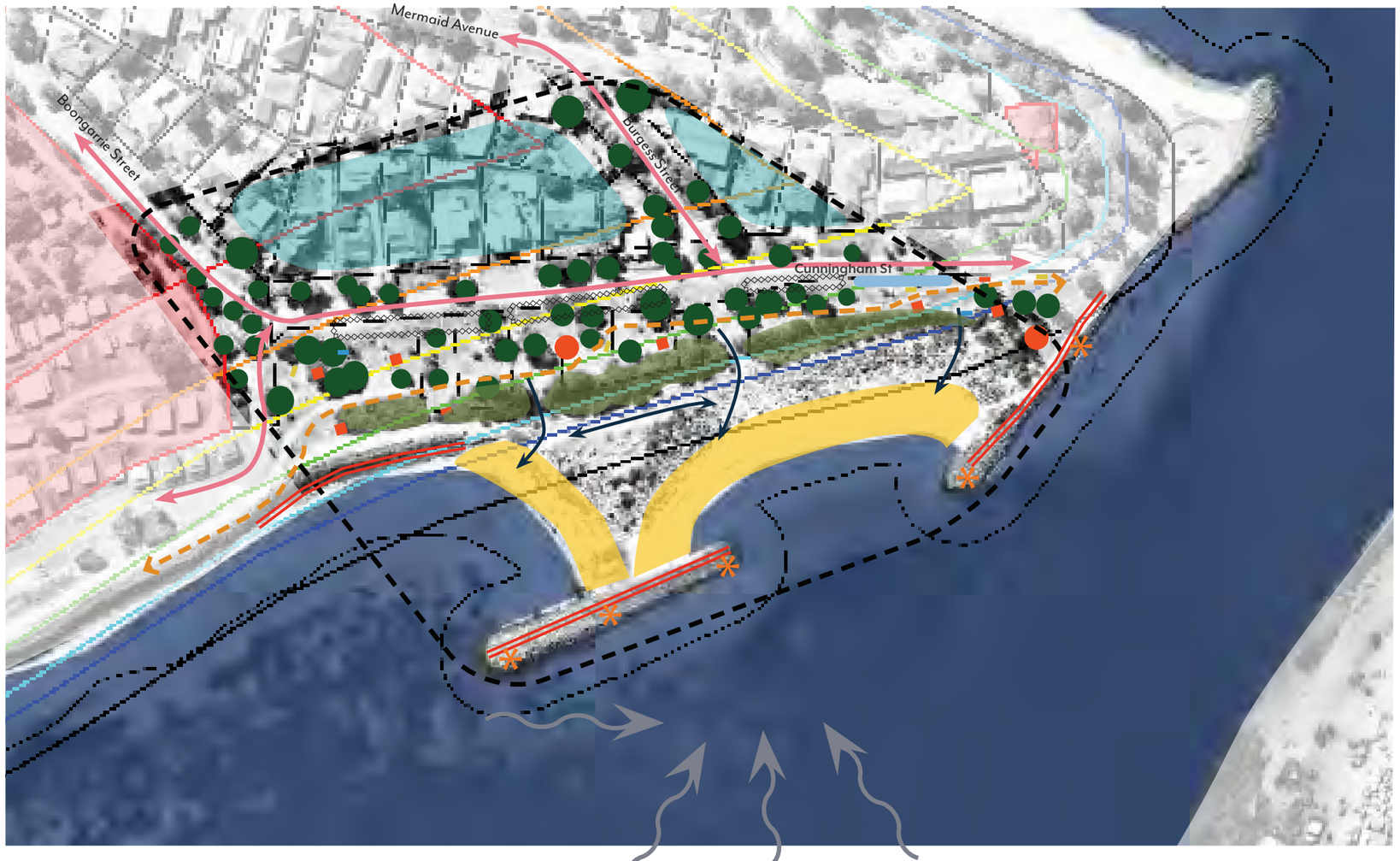
ZONE 2 ANALYSIS

Legend

- Barbecue
- Bins
- Street Furniture (shelter/seat)
- Fence
- Play space/Exercise
- Existing Trees/Shade
- Remnant vegetation
- Vehicle access
- Access to beach via dunes
- Pedestrian and cycle path
- Residential Zone
- Active Beach Zone
- Coastal Protection Structures
- Fishing spot
- Prevailing Winds
- Car parking (asphalt)
- Car parking (turf/gravel)
- Public Toilet
- Cadastral boundary
- CoA lease

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120



ZONE 2 LANDSCAPE CHARACTER

1. Informal and limited access path ways to beaches and public amenities.

2. Existing amenities with limited weather protection, however utilising existing vegetation buffers for protection from prevailing winds.

3. Dual use path coastal path starts/ends adjacent existing car parking. Potential to formalise parking along Cunningham street (south side) and extend dual use path and include formalised pedestrian access

4. Limited and aging public amenities

5. Informal and limited access path ways to swimming beaches

6. Existing public exercise equipment/ limited bike amenities noted across the site



1



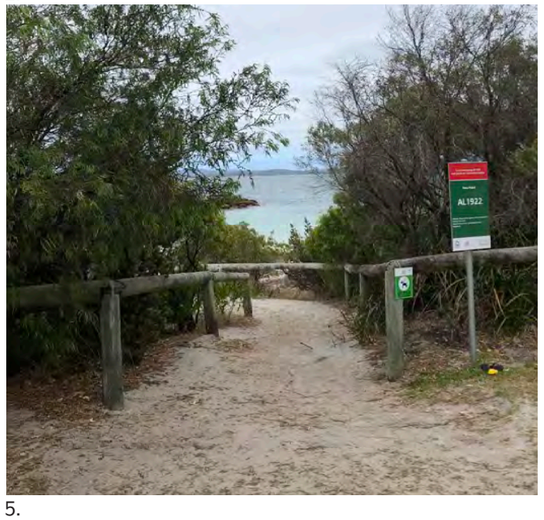
2.



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ZONE 3 ANALYSIS

Legend

- Barbecue
- Bins
- Street Furniture (shelter/seat)
- Fence
- Play space/Exercise
- Existing Trees/Shade
- Remnant vegetation
- Vehicle access
- Vehicle access (car park)
- Access to beach via dunes
- Pedestrian and cycle path
- Accommodation Zone
- Active Beach Zone
- Coastal Protection Structures
- Fishing spot
- Prevailing Winds
- Car parking (asphalt)
- Public Toilet
- Cadastral boundary
- CoA lease

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120



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ZONE 3 LANDSCAPE CHARACTER

1. Key viewing opportunities along the waterfront, although minimal protection from sun and prevailing winds

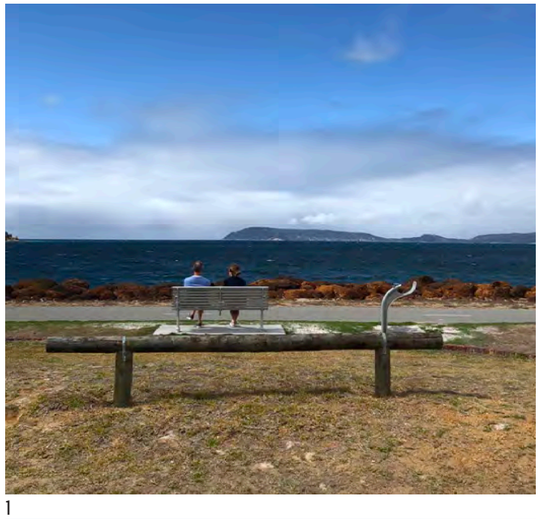
2. Inconsistent materiality across the site including hardscape, furniture and fixtures.

3. Large areas of hardscape (asphalt) offering minimal infiltration opportunities.

4. Current laterite coastal protection a stark contrast against the Emu Beach natural landscape. If required landscape measures required to assist in 'hiding' from view where possible.

5. Large portions of zone 3 consists of in formal roads and car parking adjacent parkland and waterfront.

6. Underutilised existing public park



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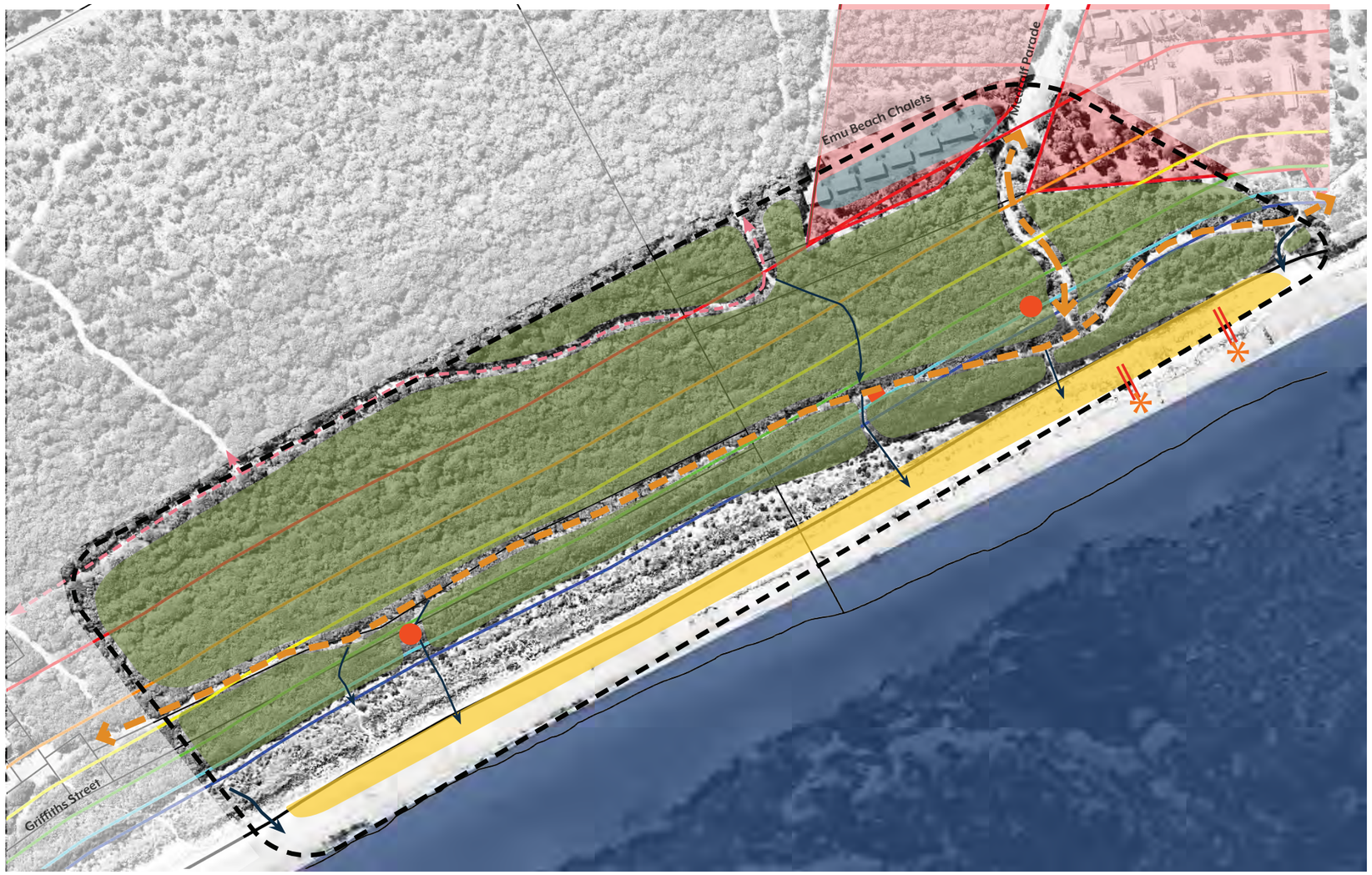
ZONE 4 ANALYSIS

Legend

- Barbecue
- Bins
- Furniture (shelter/seat)
- Fence
- Look out
- Remnant vegetation
- Coastal Protection Structures (Trial)
- Vehicle access (fire break)
- Access to beach via dunes
- Pedestrian and cycle path
- Accommodation Zone
- Active Beach Zone
- Fishing spot
- Prevailing Winds
- Car parking (asphalt)
- Cadastral boundary
- CoA lease

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120



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1:3000@ A3

ZONE 4 LANDSCAPE CHARACTER

1. Existing coastal dual use path. Seating opportunities minimal with replacement required. (Note; many furniture elements 'commemorative/ donated')

2. Inconsistent beach access, generally closer to adjacent accommodation sites

3. Access through vegetation to adjacent accommodation sites (CoA lease titles)

4. Signage and way finding inconsistent. Entry to remnant native vegetation area offers a key opportunity to educate the public regarding the site.

5. Issues regarding movement/access of public through fragile existing and re-vegetation areas.

6. Existing coastal structure trials (groynes) and current erosion to coast line.



1



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6.

ZONE 5 ANALYSIS



Legend

- Barbecue
- Bins
- Furniture (shelter/seat)
- Fence
- Accommodation/Residential Zone
- Active beach zone (including dog/horse exercise)
- Remnant vegetation
- Vehicle access (fire break)
- Access to beach via dunes
- Pedestrian and cycle path
- Prevailing Winds
- Car parking (asphalt)
- Cadastral boundary
- CoA lease

COASTAL HAZARD LEGEND

- Current HSD
- Present day (2017)
- 2030
- 2050
- 2070
- 2090
- 2120

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1:3000@ A3

ZONE 5 LANDSCAPE CHARACTER

1. Existing Griffith's Street car park. Access to Horse exercise area (limited hours). Possible retreat of car park required due to CHRMAP recommendations.

2. Large areas of remnant vegetation lines the coastal dual use path. Possible retreat of Dual path in some areas required due to CHRMAP recommendations.

3. Barry Court road termination. Residential estate

4. Existing CoA infrastructure. Treated pine look out point.

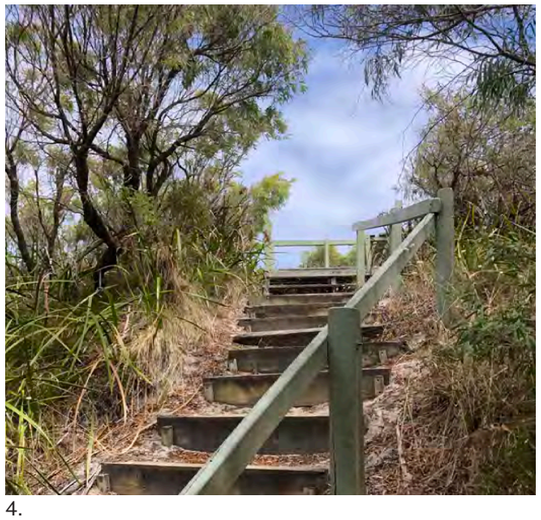
5. Informal vehicle barriers along Griffith's st car park and informal tracks through bushland. Existing tracks/fire breaks noted as possible future dual use path locations to limit existing vegetation disturbance.

6. Seating opportunities minimal with replacement required. (Note; many furniture elements 'commemorative/donated')


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COASTAL STRUCTURE HISTORY

The following diagram indicates the time line and location of the various coastal structures along the Emu beach waterfront.



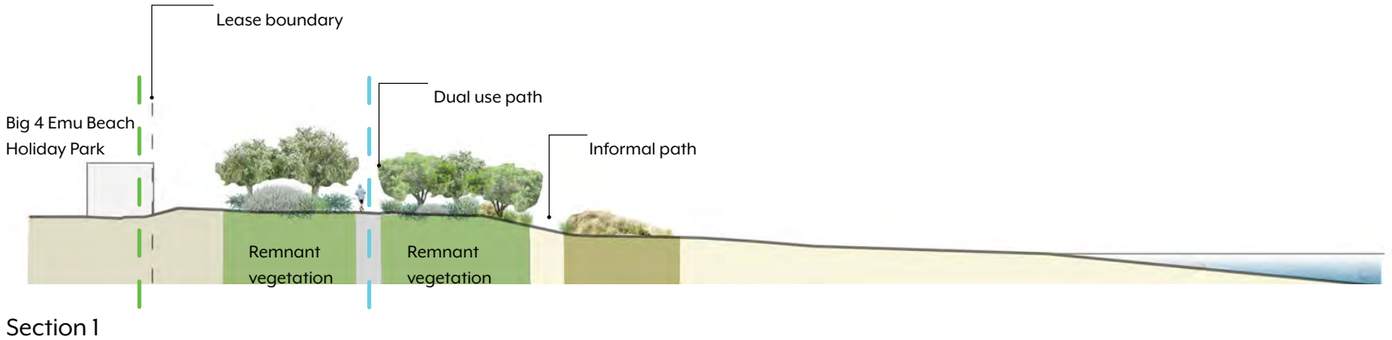
Legend

1. Training Wall (mid 1980's)
2. Southern groyne + sand re-nourishment (1989)
3. Northern groyne (1991)
4. Detached breakwater headland + sand Re-nourishment (1995)
5. Original 'Emergency' rock revetment (1999)
6. Rock revetment extension (2001)
7. Rock revetment extension (2005)
8. Sandbag revetment (2011)
9. Trial GSC groynes (2014)

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EXISTING SITE SECTIONS



Section 1



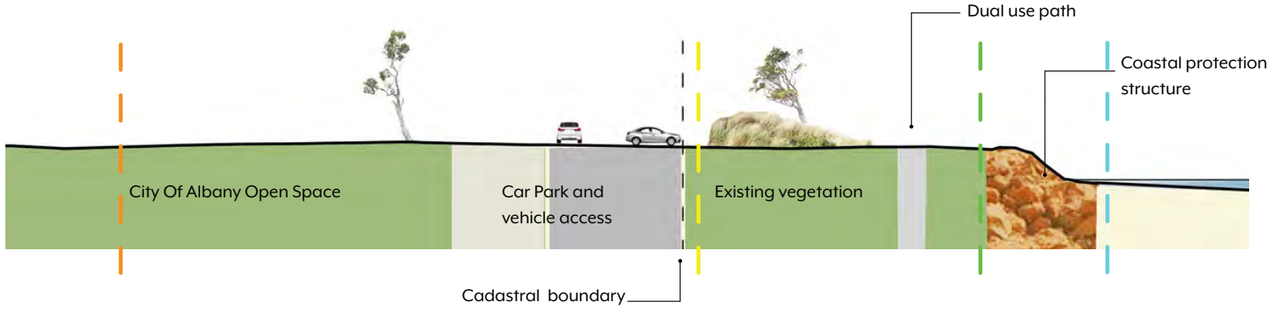
COASTAL HAZARD LEGEND

2030

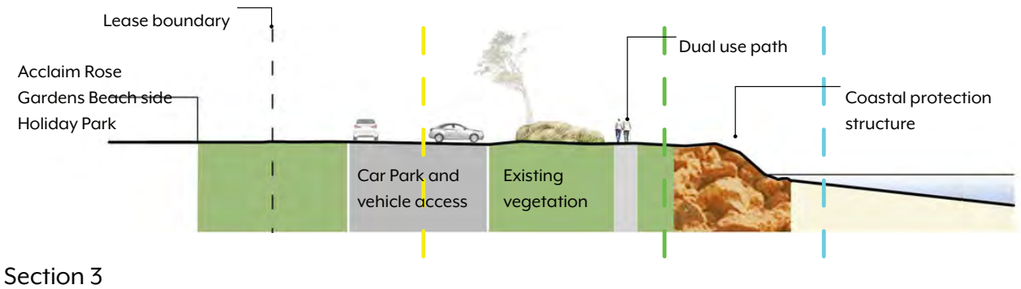
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Section 2



Section 3



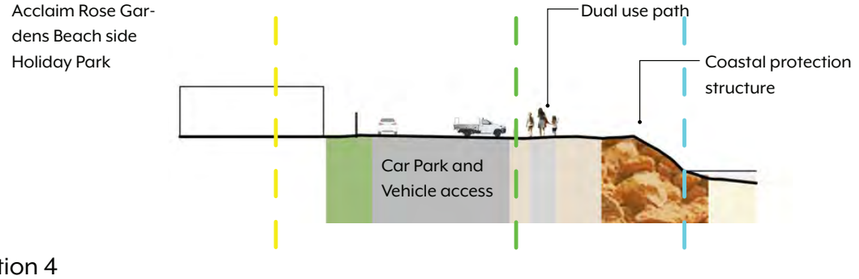
COASTAL HAZARD LEGEND

2030

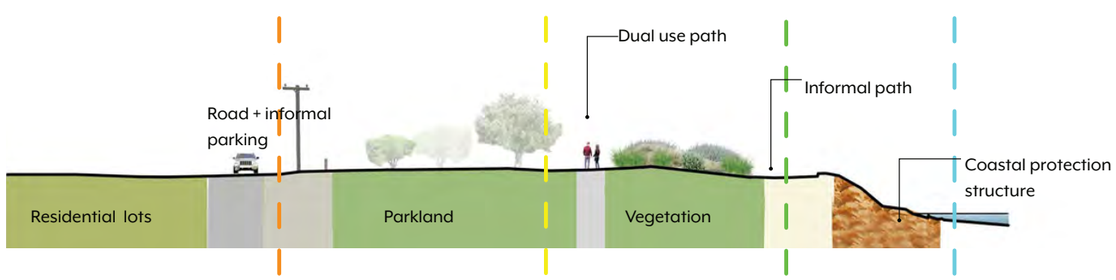
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Section 4



Section 5



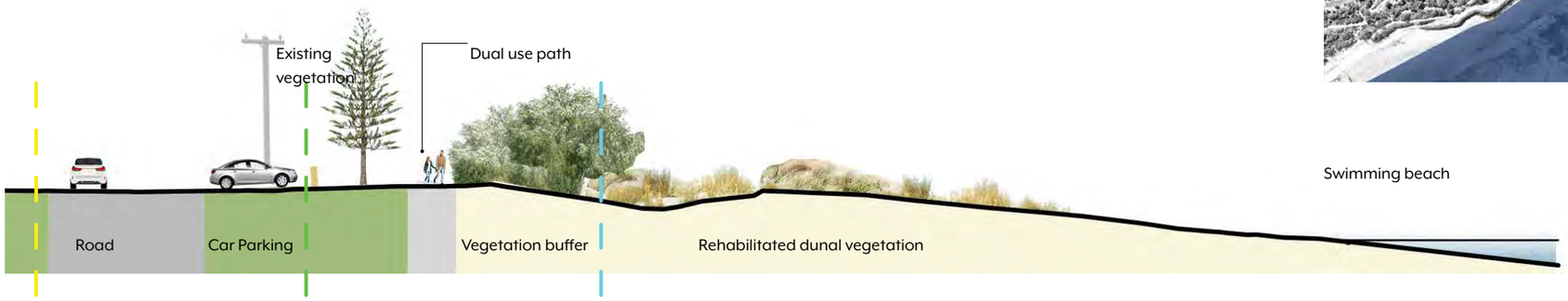
Section 6



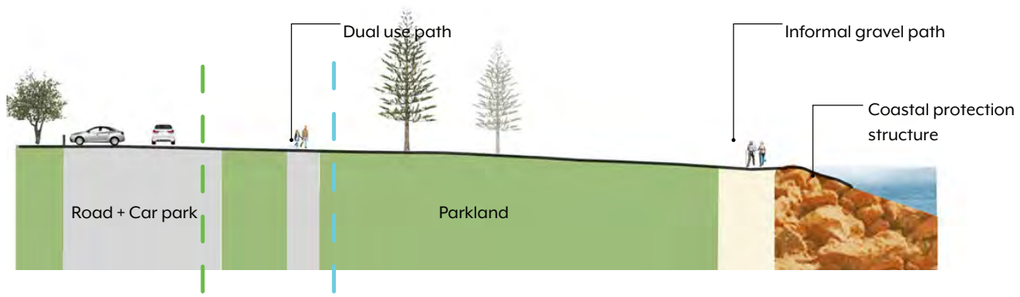
COASTAL HAZARD LEGEND

2030
2050
2070
2090

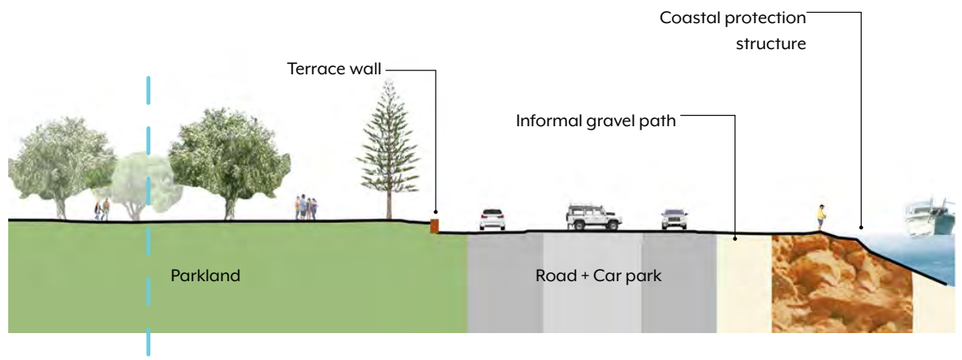
Swimming beach



Section 7



Section 8



Section 9

EXISTING PARKING

The following diagram indicates the existing parking numbers and locations along Emu Beach. In peak periods vehicles are often located on informal verge treatments with limited formal path access including minimal disabled access.

Formal parking bays	**90**
Informal parking bays	**76** (approx)
Disabled bays	**3**



EXISTING ACTIVITIES

The following diagrams indicates the various locations and spread of existing activities along the Emu Beach site. These will assist the overall landscape masterplan to not only enhance but also increase the opportunities for new activities across the site.

- Dog exercise area
- Horse exercise area
- Swimming
- Kayaking
- Jogging/exercise
- Cycling
- Parking
- Holiday/caravan park
- Boating
- Barbecue
- Picnic area
- Play area
- Fishing



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SEE DESIGN

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Appendix B
Basis of design



City of Albany

Emu Beach Foreshore Management Plan

Basis of Design

4 June 2021

Report No: P19027-BOD-R4.00



Version	Date	Author	Reviewer(s)	Status	Signature
1.0	17/12/20	J. Lewis, H. Loehr	E. Watterson	50%	
3.0	29/03/21	J. Lewis, H. Loehr	E. Watterson	90%	
4.0	04/06/21	J. Lewis		100%	

Executive Summary

This Basis of Design (BoD) outlines the key features and assumptions that underpin the design development of the coastal adaptation options recommended as part of the Emu Point to Middleton Beach Coastal Hazard Risk Management Adaptation Plan (CHRMAP). The CHRMAP has been adopted by the City of Albany (the City) and will be used to inform the Emu Beach Foreshore Management Plan (FMP). The CHRMAP Aurora (2019) has identified several highly valued coastal assets in Management Units MU3, MU4 and MU5 that require protection out to the 50year panning horizon and have made the following recommendations.

- Recommendation 14 MU3: Properties on Griffiths Street - Managed Retreat. Relocate properties from Griffiths Street.
- Recommendation 15 MU3: Emu Beach Holiday Park - Managed Retreat of assets in the southern portion.
- Recommendation 16 MU3: Emu Beach Holiday Park - Renovation/Expansion of Groynes (geotextile sand container).
- Recommendation 17 MU3: Emu Beach Holiday Park - Upgrade existing protection structures.
- Recommendation 18 MU4: Foreshore Reserve - Seagrass replenishment program be continued and enhanced to include offshore placement of sand
- Recommendation 19 MU4: Foreshore Reserve - Revetment be upgraded along with redevelopment of Foreshore park and removal of sandbag revetment
- Recommendation 20 MU5: Oyster Harbour Beach - Sand Nourishment

In consultation with the City, stakeholders (including the WA Department of Transport and the WAPC) as well as community groups and using this BoD for design guidance, the following coastal adaptation options have been recommended as part of the FMP:

- Managed retreat of first line of houses along Griffiths Street (MU3) in the long term (10+ years).
- A change to less permanent assets/uses in southern lease boundary of the Emu Beach Holiday Park, with the City and the leaseholder working toward an agreed level of risk within this area, steering the discussions around future lease agreements in the short term (0-5years).
- Upgrade of the groyne field at Emu Beach (MU4) to rock structures including the addition of a third eastern groyne and a beach nourishment exercise in the short term (0-5years)
- Upgrade of the rock revetment from Emu Beach to Emu Point (MU4) to modern designs, including the use of local granite rock and a realignment in the medium to long term (10+ years).
- Sand nourishment to be placed in the eastern corner of Oyster Harbour (MU5) between the spur groyne and the eastern arm of the swimming enclosure following periods of erosion.

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1. Introduction

This preliminary Basis of Design (BoD) outlines the key features and assumptions that underpin the design development of the coastal adaptation options recommended as part of the Emu Point to Middleton Beach Coastal Hazard Risk Management and Adaptation Plan (CHRMAP). The CHRMAP has been adopted by the City of Albany (the City) and will be used to inform the Emu Beach Foreshore Management Plan (FMP). The CHRMAP is based upon a risk management approach developed by the Western Australian Planning Commission (WAPC) guideline document (WAPC, 2014) and deals with forecast impacts from coastal hazards.

The CHRMAP divided the beaches from Middleton Beach through Emu Point and Oyster Harbour into five distinct Management Units (MUs), this BoD is specifically concerned with the recommendations made in the CHRMAP Implementation Plan (Aurora, 2019) for MU3, MU4 and MU5: Emu Beach and Emu Point as seen in Figure 1. A map showing the existing coastal structures in the project area is presented in Figure 2. Aurora (2019) has identified several highly valued coastal assets in MU3, MU4 and MU5 that require protection in the short term (0-10 years) and have made the following recommendations.

- Recommendation 16 MU3: Emu Beach Holiday Park - Renovation/Expansion of Groynes (geotextile sand container).
- Recommendation 17 MU3: Emu Beach Holiday Park - Upgrade existing protection structures.
- Recommendation 19 MU4: Foreshore Reserve - Revetment be upgraded along with redevelopment of Foreshore Park and removal of sandbag revetment
- Recommendation 20 MU5: Oyster Harbour Beach - Sand Nourishment

A schematic of these recommendations can be seen in Figure 3 to Figure 7. Although not an engineered option directly involved with the design or upgrade of physical infrastructure, the following coastal adaptation recommendation was also presented:

- Recommendation 18 MU4: Foreshore Reserve - Seagrass replenishment program be continued and enhanced to include offshore placement of sand

The CHRMAP makes the following recommendations not directly involved with the design or upgrade of physical infrastructure or coastal/ foreshore redevelopment:

- Recommendation 14 MU3: Properties on Griffiths Street - Managed Retreat. Relocate properties from Griffiths Street.

- Recommendation 15 MU3: Emu Beach Holiday Park - Managed Retreat of assets in the southern portion.

In these locations, these recommendations can be considered to be longer-term (10+ years) and will be implemented upon the initiation of a trigger value, when the distance from the Horizontal Shoreline Datum (HSD) from an asset is 40m or less.

This technical note outlines the development and intent of the engineered designs, design standards, design life, planning horizons and design parameters based on site conditions as well as the proposed general alignment, extent, quantities and a high-level costing of each structure.



Figure 1: Emu Beach and Management Unit 3, 4, 5 (MU3,4,5) as defined in the CHRMAP (Aurora, 2019).

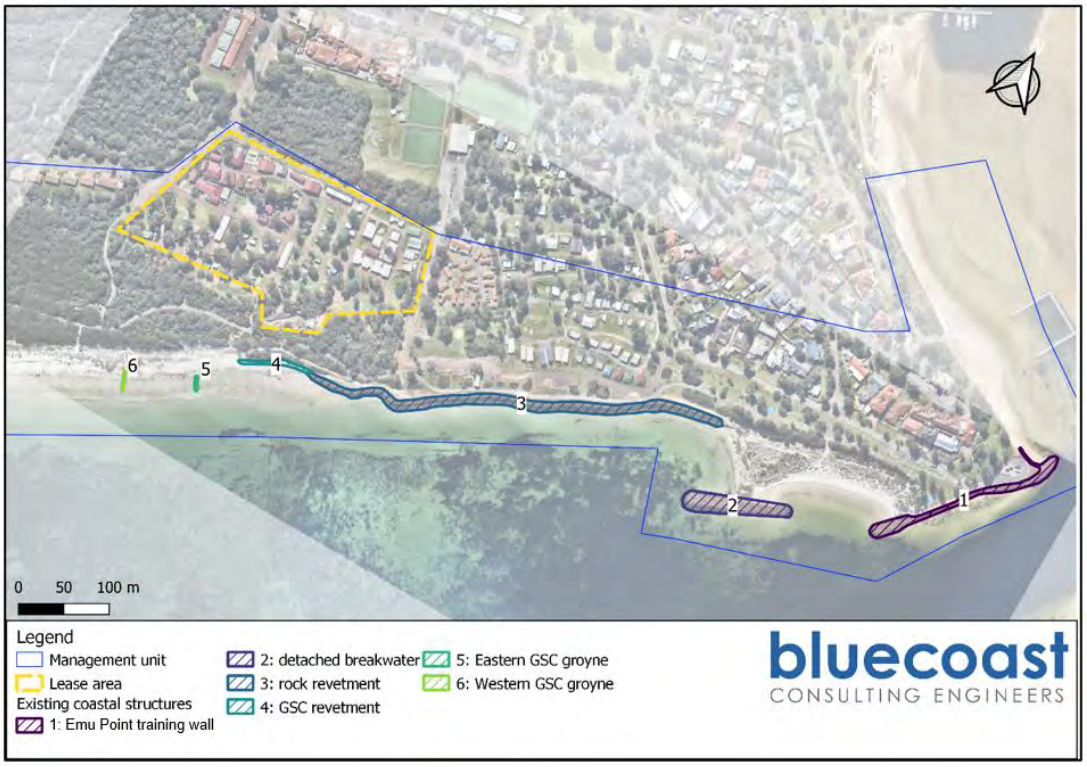


Figure 2: Existing coastal structure locations within MU3, MU4 and MU5.



Figure 3: MU3 Griffiths Street Recommended Adaptation Option: Managed Retreat. Relocate properties from Griffiths Street



Figure 4: MU4 Emu Point Caravan Park CHRMAP recommendations 15: Emu Beach Holiday Park - Managed Retreat of assets in the southern portion and expansion of groynes (source: Aurora, 2019).



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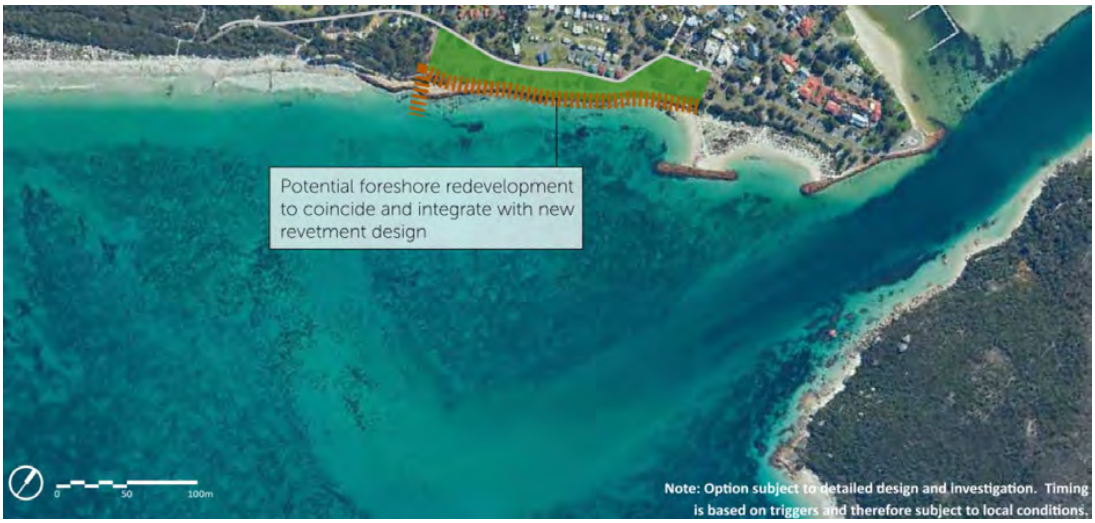


Figure 6: MU4 Foreshore Reserve CHRMAP recommendation19: Foreshore Reserve - Revetment be upgraded along with redevelopment of Foreshore park and removal of sandbag revetment (source: Aurora, 2019).



Figure 7: Recommendation 20: MU5 Oyster Harbour Beach - Sand Nourishment Eastern Oyster Harbour Beach (source: Aurora, 2019).

2. Functional requirements

The Foreshore Management Plan aims to develop coastal adaptation options such that:

- high quality community amenity will be provided that improves on the dilapidated and increasingly unsafe foreshore.
- they are developed in conjunction with the community and key stakeholders.

- acceptable uses, facilities, structures and land management practices within the foreshore reserve are defined.
- preliminary level of design for adaptation strategies is provided.
- overall landscape Master Plan including perspectives, levels, transitions and materials provided.
- an order of cost/opinion of probable cost is defined for future implementation concepts.
- key stakeholders and local community are meaningfully engaged and kept informed throughout the process.

The WAPC's Coastal Planning and Management Manual (WAPC, 2003) states that engineering structures and facilities need to be located and designed to take account of natural coastal trends, such as whether stretches of coast are eroding or building up over time, erosion of steep or rocky coastline, and dune formation and movement. With the following key principles to be adhered to during the design and implementation:

- Avoid locating facilities too close to an eroding shoreline or on the eroding side of a groyne where there is a risk of damage or loss. If structures must be located where they are prone to damage, for example fencing or signs, they may need to be designed to be easy to relocate, or their likely loss is factored into cost and maintenance schedules.
- Avoid building coastal structures which may induce shoreline erosion or dune movement, for example rock walls, solid boat ramps, concrete paths and steps onto the beach or closely spaced timber slat fencing at the base of dunes.
- Avoid locating solid structures in exposed locations where sand may scour or accumulate around them. Stabilise adjacent exposed sand through planting or mulching the surface.
- Ensure that sealed car parks and paved areas do not drain directly onto adjacent beach access paths, as path edges may become eroded. Instead, hard surfaces may be drained into adjacent vegetated areas. Ensure that sealed paths are properly contoured and drained, to avoid soil erosion along their edges.

3. Design standards and guidelines

Table 1: presents a summary of relevant design standards for both the “hard” rock coastal revetment and “soft” geotextile container structures recommended as part of the CHRMAP Implementation Plan at Emu Beach and Emu Point (Aurora, 2019).

Table 1: Compliance, industry standards, relevant acts, guidelines and policies for the design and construction of coastal engineering structures at Emu Beach.

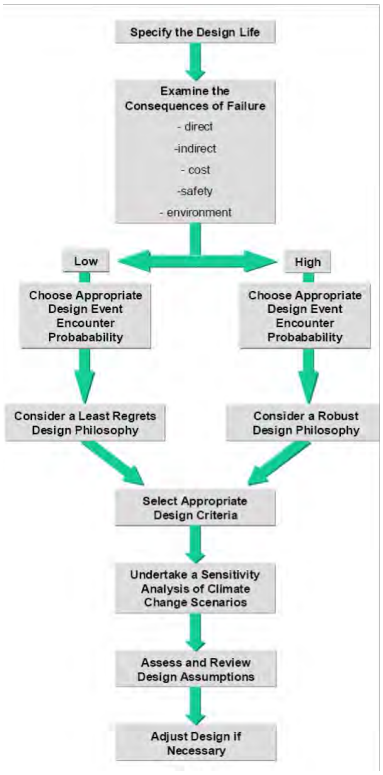
Australian Standards			
ID	**Standard name**		
AS 1726	Geotechnical site investigations		
AS 2758.6	Aggregates and rock for engineering purposes Part 6: Guidelines for the specification of armour stone		
AS 4497	Guidelines for the design of maritime structures		
Other standards and procedures			
Coastal engineering guidelines for working with the Australian coastline in an ecologically sustainable way. Prepared by the National Committee on Coastal and Ocean Engineering, Engineers Australia. Nov 2004.			
Engineering design guidelines			
ID	**Document name**	**Source**	**Date**
CERC, 1984	Shore Protection Manual	Coastal Engineering Research Centre (CERC)	1984
EurOtop, 2018	Manual on wave overtopping of sea defences and related structures	EurOtop	2018
CIRIA, CUR, CETMEF 2007	The Rock Manual; the Use of Rock in Hydraulic Engineering	Construction Industry Research and Information Association (CIRIA)	2007
USACE, 2008	Coastal Engineering Manual (CEM), Engineer Manual 1110-2-1100	United states Army Corps of Engineers (USACE)	2008
Governmental acts, regulations and policies			
EPA 1986. The Western Australian Environmental Protection (EP) Act 1986			
EPBCA 1999. The Australian Environmental Protection and Biodiversity Conservation Act 1999			
EPSD 1981. Environmental Protection (Sea Dumping) Act 1981			
WCA 1976. Waterways Conservation Act 1976			

WCR 1981. Waterways Conservation Regulations 1981
BA 2015. Biosecurity Act 2015
AHA 1972. Aboriginal Heritage Act 1972
EPA 2016d. Technical Guidance - Protection of Benthic Communities and Habitats
EPA 2016e. Technical Guideline - Coastal Processes
EPA 2016g. Technical Guidance - Protecting the Quality of Western Australia's Marine Environment
Western Australian Marine Act 1982
Western Australian Planning and Development Act 2005 State Planning Policy no. 2.6 (SPP2.6)

4. Designers and construction risk assessment

4.1. Background

In assessing design standards, the coastal hazard risk assessment recommended by The National Committee of Coastal and Ocean Engineering of Engineers Australia (as shown to the right) should be followed. Given the uncertainties of factors affecting coastal engineering, particularly regarding the impact of climate change, the approach is one of combined risk and sensitivity analysis. The steps in the procedure are outlined in the following sections.



4.2. Specify the design life or planning horizon

The design life of the structure includes its performance over that period as well as the provision of future maintenance requirements. The design needs to recognise the accessibility and mobilisation of construction equipment required for maintenance.

4.3. Examine the consequences of failure

The impact of possible "failure" of the structure because of a large storm could have both direct and indirect consequences and needs to be assessed in terms of primary risk outcomes as issues of cost, safety, environment, downdrift erosion impacts and damage to public/private infrastructure. A 100-year damage coefficient for the structure needs to be selected based on minimum standards and acceptable damage levels.

4.4. Select the design event encounter probability

This quantifies the acceptable risk of "failure" of the facility for the duration of the chosen design life or planning horizon and needs to be based on the assessed consequences of failure. The CIRIA Rock Manual 2007, BS 6349-1:2000 (Maritime Structures, Part 1 Code of

practice for general criteria, BSI 07-2000) and AS 4997-2005 (Guidelines for the design of maritime structures) are widely used for the selection of the most appropriate design event.

The key design parameters for the BoD are based on existing information. Sensitivity analysis to these parameters needs to be examined to assess the sensitivity of the design at this initial concept design development stage including uncertainty related to climate change projections.

4.5. Consequences of failure

The importance of the rock revetment structures along MU3 and MU4 at Emu Point and Emu Beach was identified in the CHRMAP Hazard Mapping process (RHDV, 2017). The CHRMAP hazard lines both with and without the rock revetment is seen in Figure 8. This structure can be seen as the last line of defence for the private and public infrastructure landward of it, in terms of inundation and coastal flooding. As such, appropriate design of any upgrade or realignment of these structures is required to ensure the risk of failure is minimised through to the selected planning horizon.

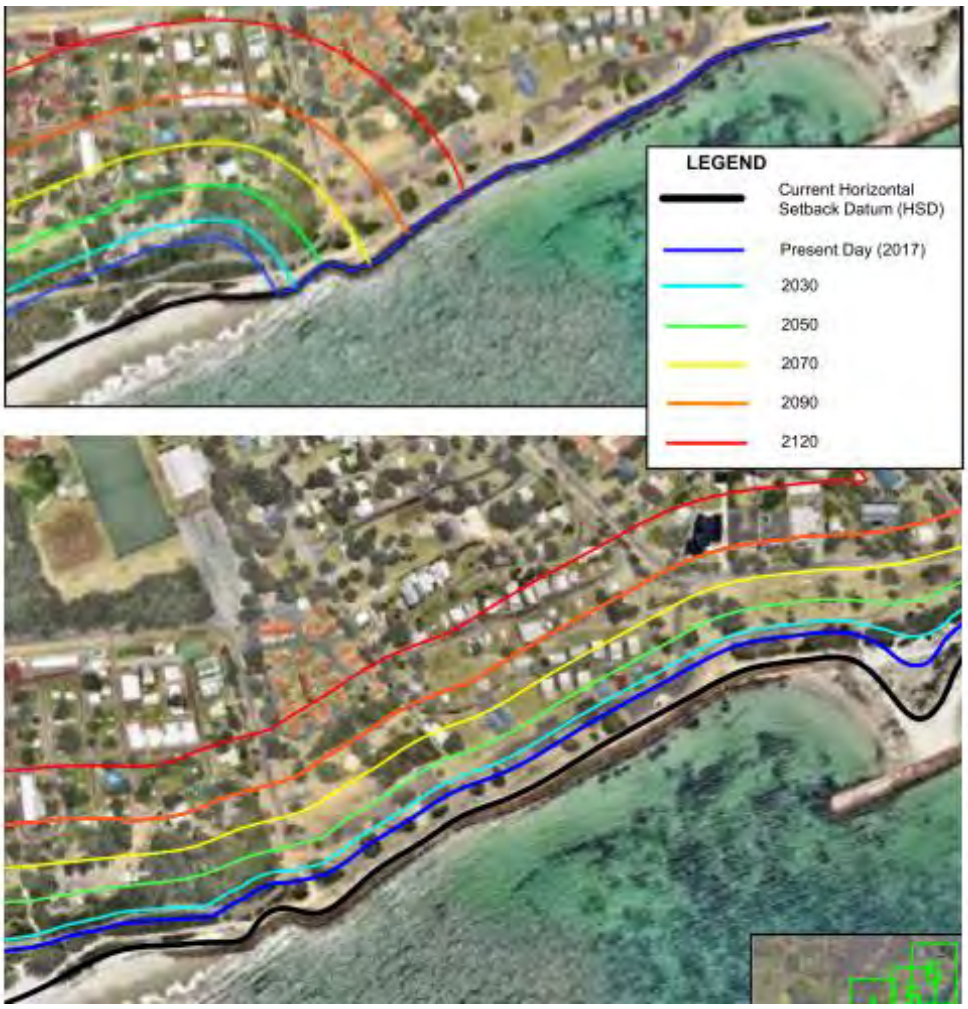


Figure 8: MU4 Hazard Map with existing structures (top) without existing structures (bottom). (Source: RHDHV, 2017).

4.6. Accessibility and cost of repairs

Land-backed revetments are relatively easy to access for repair or upgrade. The costs of repairs to the rock revetment along Emu Point will be influenced predominantly by availability and cost of suitably sized machinery and supply and availability of suitable rock (size, quality and type). As a result, damage to the structure may remain unrepaired for some time if funds, equipment and material are not readily available for its repair/upgrade.

The condition assessment (Bluecoast, 2020a) has shown that although the structure is in generally poor condition it is a result of the quality of the rock and filtering design and not the ability of the revetment to withstand wave attack and overtopping. Due to the relatively low likelihood of failure from a design event (or succession of near-design events) it is assumed that this is fairly low risk to the project and all precautions be made during the funding and detailed design process that the potential for failure is minimised.

5. Design criteria

5.1. Design life

Australian Standard AS4997 Guidelines for the design of maritime structures recommends a design life of 25 years or more for all maritime structures other than temporary works and 50 years or more for anything other than small craft facilities.

5.2. Design events

Currently Western Australia do not have state-wide legislation with specific engineering design standards for coastal works. For Western Australia, the most relevant document available that sets out the State Governments strategy towards coastal planning, management and protection is the Coastal Zone Strategy for Western Australia 2017. In addition, the WA Sate Planning Policy SPP2.6 provides statutory guidance and informs matters related to sustainable coastal land use and development.

Generally, in Western Australia the management of coastal lands and assets (whether natural or built) on public land is the responsibility of the organisation with management authority, vesting or tenure of the area known as the local coastal manager – in this case the City of Albany. The Western Australia Department of Transport (DoT) provide technical advice and funding assistance through the administration of the Coastal Adaptation and Protection (CAP) grants. Technical advice in this instance will also extend to reviewing the design of coastal engineering structures.

For comparison, in Queensland, the Department of Environment and Heritage Protection's Operational Policy (DEHP, 2013), Coastal Protection and Management Act 1995, specifies building and engineering standards for tidal works. These standards provide the following advice for the design of revetments:

- Revetments (private or other than private) must be designed to withstand wave and water level conditions corresponding to the 2% Annual Exceedance Probability (AEP) event, which is equivalent to the 50-year ARI.

- The revetment is to be designed to not suffer major damage in this event, the proportion of armour units dislodged should not exceed 5%.

As a guide, if utilising these standards; for a 50-year design life and following the DEHP policy, the probability that the Emu Beach coastal structures will encounter the following design events over the design life is:

- 64% for a 50-year ARI event
- 40% for a 100-year ARI event.

WRL (2015) states that any coastal structure needs to be considered as a component of the overall risk within a project. Structures which are designed for a short/frequent Average Recurrence Interval (ARI) event, or which are retained in excess of their design life will incur substantial costs, which may be in the form of maintenance, repairs, consequential damage or political consequences. Structures which are designed for high/rare ARI events will have low maintenance costs and/or costs due to the risk of failure but will involve high upfront capital costs.

Design parameters for the proposed rock foreshore protection include ocean wave and water level conditions and the expected scour level at the toe of the structure. The toe scour level determines the required penetration of the structure to prevent undermining. The design water level and bathymetry at the toe of the structure influence the maximum depth limited breaking wave height that can physically impact the structure. In turn, the design wave and water level conditions at the structure affect the hydraulic performance (wave runup and overtopping) and stability of the structure which have a direct effect on the capital and maintenance costs. The values adopted for the design of the coastal protection works at Emu Point are:

Structure	Design Life	Design Event
Rock groyne	50 years	100-year ARI
Rock revetment	50 years	100-year ARI

This takes into consideration the use of a suitably sourced, natural hard rock material for any proposed rock structures, which should result in a more solid, stable structure with very little breakdown and fracturing of individual rock and, hence, little degradation of the structure over its lifetime. As such, we would expect the structure to last well beyond its design life, subject to the response to the selected design event(s).

The following sub-sections undertake a preliminary investigation into the determination of an appropriate design event for the engineered adaptation structures at Emu Beach and Emu Point recommended as part of the CHRMAP Implementation Plan (Aurora, 2019).

5.2.1. Design water level

King George Sound and the study site experience a semidiurnal, micro-tidal regime with a spring tidal range of 0.6m, calculated tidal planes and design water levels taken from the

Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy (RHDHV, 2017) and can be seen in Figure 9.

Tidal plane parameter	Water level m MSL
Highest recorded	1.13
HAT	0.74
MHWS	0.34
MSL	0.00
MLWS	-0.26
LAT	-0.66
Lowest recorded	-0.90

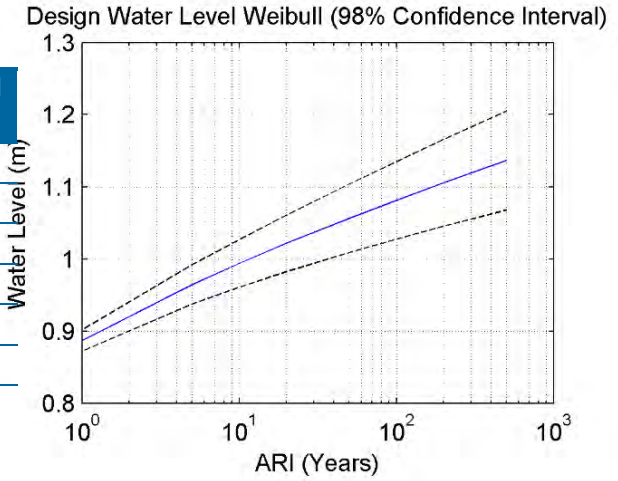


Figure 9: (left) Calculated tidal planes (relative to MSL) based on a harmonic analysis of a 28-year recorded water level signal within Princess Royal Harbour. (right) Annual Return Interval (ARI) for recorded water level (m MSL) based on a 30-year tidal dataset recorded at Princess Royal Harbour, Albany. (Source: RHDHV, 2017).

Sensitivity to Climate Change

In 2010 the magnitude of sea level rise (SLR) recommended for coastal setback planning in Western Australia was updated in SPP2.6 for planning periods up to 100 years. For the 100-year planning timeframe (2010 to 2110) DoT recommended a vertical SLR of 0.9m be adopted and found 0.3m for the 50-year planning timeframe appropriate (DoT, 2010). The recommended sea level rise scenario until the year 2070 is 0.4m from the baseline date of 2010 as presented in Figure 10: . SLR from 2020 to 2070 (50-year design life) is approximately 0.37m.

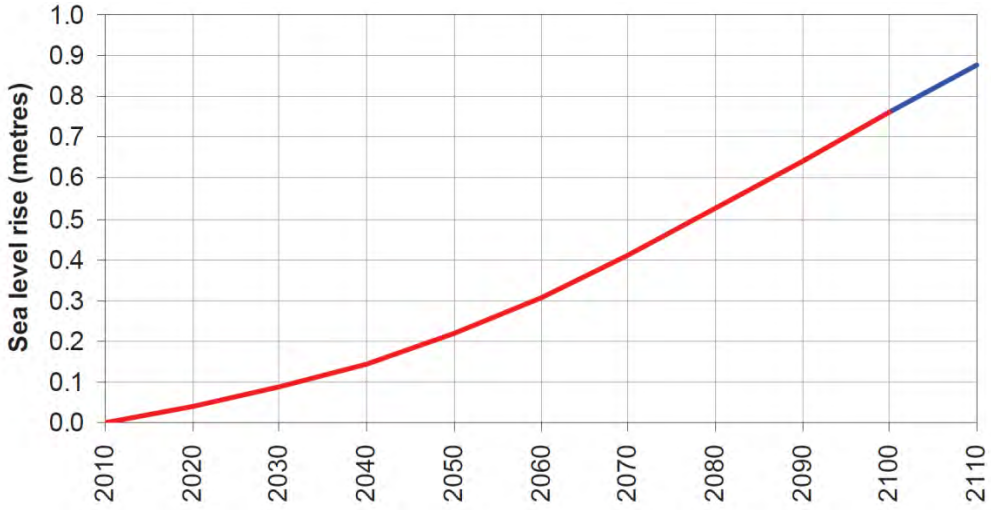


Figure 10: Recommended sea level rise (SLR) allowance for WA coast (source: DoT, 2010).

5.2.2. Design wave event

Although the design life of the structures has been selected as 50-years, the possibility of the structures encountering a 100-year ARI event is 40%. As such structural elements should be designed to an event of (at least) this magnitude. The following sections detail the methodology to determine the 100-year ARI design event that may be encountered at the proposed structure locations.

A detailed analysis has been undertaken of the nearshore wave climate at Emu Point in Appendix C. A 41year wave hindcast model was calibrated for King George Sound, driven by offshore wave parameters produced by the Collaboration for Australian Weather and Climate Research (CAWCR) regional hindcast model. Statistical and design wave parameters have been determined for a point 150m offshore of the Emu Point rock revetment (P2) and are provided in **Table 2** and Figure 12. The wave extraction points, and historical beach survey transects can be seen in Figure 11.

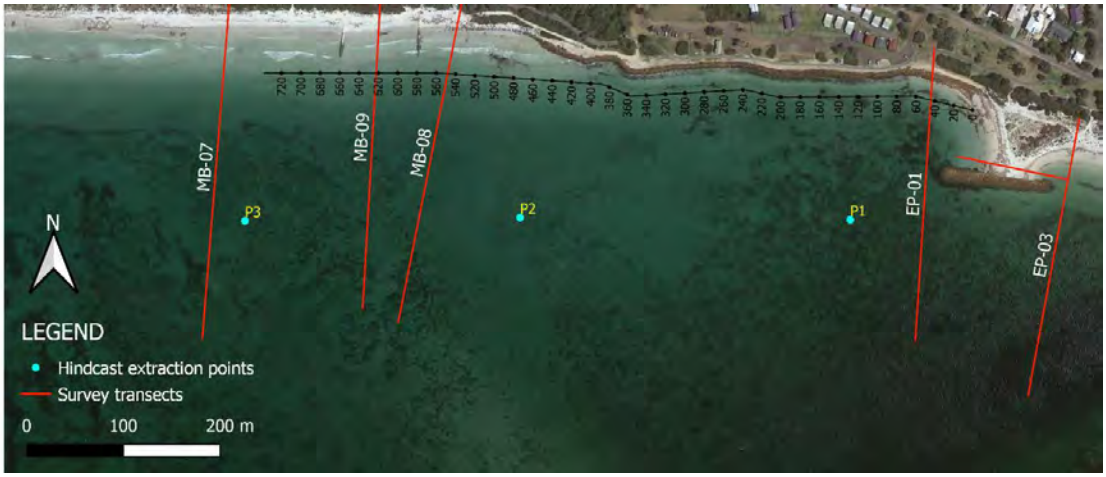
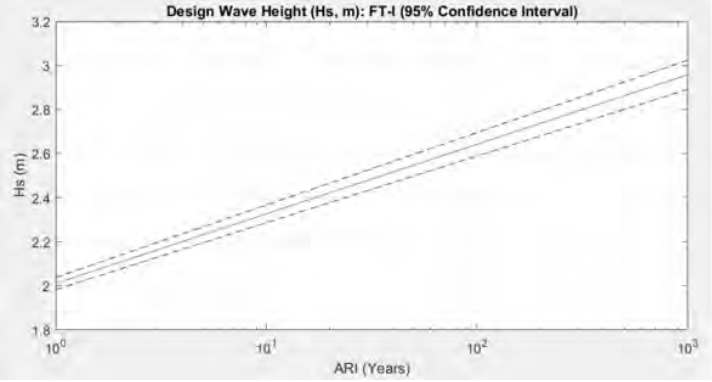


Figure 11: Emu Point beach transects and hindcast wave model extraction points

Table 2: Wave statistics taken from the central model extraction point (P2), 150m offshore of the Emu Point rock revetment from the 41 year hindcast wave model.

Parameter	Statistic	41-year hindcast record				
		Long Term Average	Summer	Winter	Autumn	Spring
Significant wave height (Hs) [m]	**Mean**	0.56	0.54	0.59	0.56	0.56
	99%ile	1.26	1.22	1.33	1.25	1.23
	Max	2.33	2.21	2.33	2.16	1.99

Parameter	Statistic	41-year hindcast record				
		Long Term Average	Summer	Winter	Autumn	Spring
Peak wave period (Tp) [s]	Mean	13.2	12.4	13.9	13.3	13.2
	% of time sea (Tp < 8s)	2%	4%	1%	2%	3%
	% of time swell (Tp > 8s)	98%	96%	99%	98%	97%
Peak Wave Direction (Dp) [˚TN]	Weighted Average	119	121	119	119	119
	Average	119	121	118	119	119
	St. Dev.	4	4	4	4	4



ARI (year)	Hs (m)	Hs (98% Confidence Intervals)
5	2.23	2.20 – 2.27
50	2.55	2.50 - 2.60
100	2.64	2.59 – 2.70
500	2.86	2.80 – 2.93

Figure 12: Design wave heights (H_s) from the central model extraction point (P2) from the 41 year hindcast wave model

5.2.3. Joint probability of water level and waves

Analysis of the joint occurrence of observed significant wave heights and observed water levels at Emu Point was undertaken to determine design levels of each. The observed water level includes the still water level components of wind setup and inverted barometric setup but exclude any wave-driven contributions. The observed joint occurrences of the two parameters is shown in Figure 13 suggests that there is a slight positive bias between the

observed wave heights and water levels, i.e. larger wave heights often coincide with higher water levels.

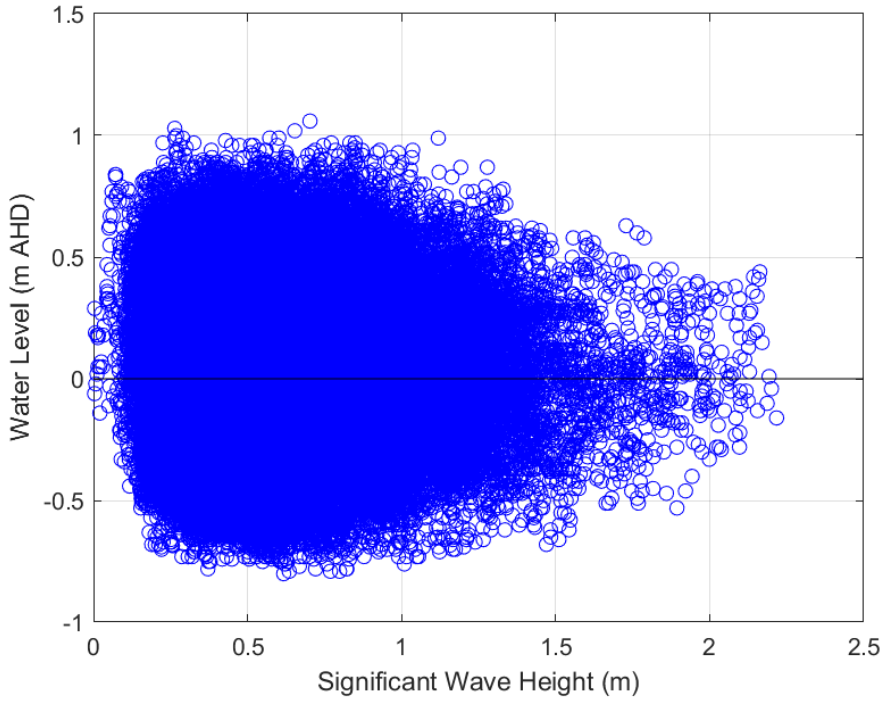


Figure 13: Joint occurrence of significant wave heights at the central model extraction point (P2) from the hindcast wave model and water levels recorded at Port of Albany since 1987 (33-year record).

The joint probability (or return period) of extreme still water level and significant wave heights (or coincidence of the two) was calculated using a multivariate copula analysis. Copulas are mathematical functions that characterise the correlation structure among multiple time-independent random variables. Using significant wave heights calculated at the central model extraction point (P2) from the hindcast wave model and water levels recorded at Port of Albany, the joint probability was calculated using independent extreme wave events (peak significant wave heights) as the primary variable and corresponding maximum water levels within a three hour period before or after the peak wave event (see Figure 14).The analysis estimated the joint 100-year ARI values as:

- Significant wave height of 2.2m
- Total still water level of 1.06m above AHD

These values have been adopted for the design of the coastal structures at Emu Point.

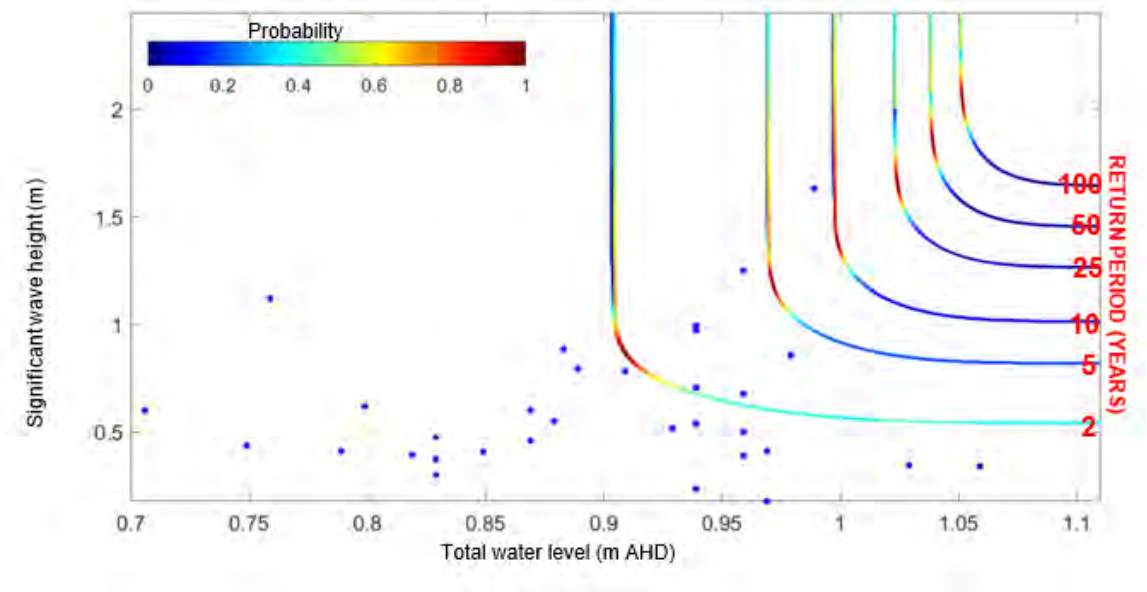


Figure 14: Bivariate return periods (RP) of water level and significant wave height.

5.2.4. Adopted design wave and water level

A summary of the joint 100-year ARI (i.e., ~1% AEP) wave conditions and water levels adopted for the preliminary design of coastal structures at Emu Point is presented in Table 3. Peak wave period has been determined from joint frequency analysis of significant wave height and peak wave period at the central model extraction point (P2) from the 41year hindcast wave model.

Table 3: Overview of adopted joint wave and water level scenarios for the design of coastal structures

Planning period	Still water level (m AHD)	Significant wave height (m)	Peak wave period (sec)
Present day (2020)	1.06	2.2	15
50year (2070)	1.43	2.2	15

5.3. Scour depth

Figure 16 illustrates the variability in bed level directly offshore of the structure (at approximately 45m from the landward survey point), providing an indication of the lowest measured profile elevation at the structure toe. Scour depth is important to understand when determining the design water levels and depth-limited wave height at the structure and is a determining factor as to the level and design of the structures toe.

A range of empirical methods have been employed regarding the determination of the design scour level; historical engineering “rules of thumb”, erosion modelling and published data on profile change. It is expected that scour levels at the structure will be primarily

dominated by wave forces (and wave-wave interactions), whereas the discharge from Oyster Harbour is a minor component.

5.3.1. Rule of thumb

In NSW, the scour level of approximately -1.0 m AHD is commonly adopted as an engineering rule of thumb for rigid coastal structures located at the back of the active beach area with -2 m AHD frequently adopted for vertical coastal structures due to increased wave reflections. This is based on stratigraphic evidence of historical scour levels and observed scour levels occurring during major storms in front of existing permeable and non-permeable revetments along the NSW coast (Nielsen et al. 1992; Foster et al. 1975). It should be noted that the open coast wave climate along the NSW coast is more energetic than Middleton Beach.

5.3.2. Erosion modelling

SBEACH modelling was undertaken as part of RHDHV (2017) for Emu Point in order to determine the S1 Storm Erosion allowance as per the WA SPP2.6 Guidelines. The SBEACH model is a two-dimensional numerical cross-shore sediment transport and profile change model developed by the United States Army Corps of Engineers, Coastal Engineering Research Center. The results of the SBEACH modelling at Emu Point (assuming a pre-structures profile) can be seen in Figure 15, showing an approximate -1m AHD scour level in the nearshore.

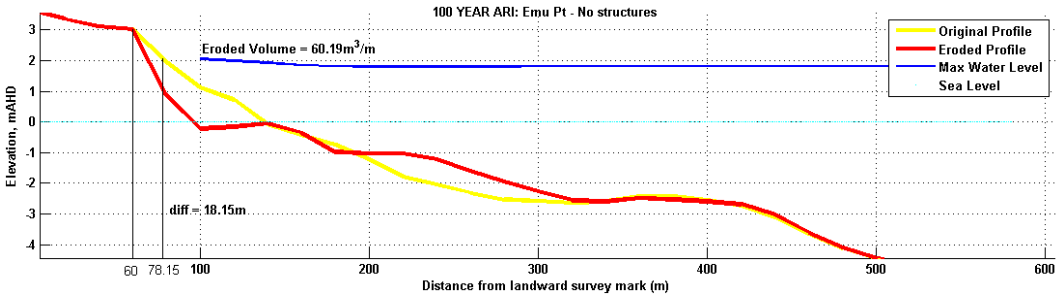


Figure 15 SBEACH storm erosion – 100year ARI at Emu Point (source: RHDHV, 2017).

5.3.3. Published data

Gordon (1987) published the expected range of vertical change in front of a revetment on the NSW coast as a function of average sand levels at the foot of the wall. Chapman and Smith (1983) introduced the concept of a “swept prism” based on approximately 9 years of ongoing measurements on the Gold Coast. Results from these methods are shown in Table 4. At Emu Point it can be assumed that there is approximately +0.00m AHD of sand at the toe of the structure, as such the maximum expected scour level at the structure derived from the three published methods is -2.75 m AHD.

Table 4 Vertical change of reference elevations due to scour from published field measurements.

Vertical Change from Reference				
Average sand level (m AHD)	Gordon (1987) High Demand (m)	Gordon (1987) Low Demand (m)	Chapman and Smith (1983) (m)	**Minimum estimated sand level from all references (m AHD)**
0	+/- 2.25	+/- 1.8	+/- 2.75	-2.75

5.3.4. Historical analysis

The closest surveyed beach transect to the rock revetment is EP-01, located just to the west of the detached breakwater, as seen in Figure 11. The lowest historical bed level recorded at the toe of the rock revetment (Aug 2020, at approximately chainage 36) chainage is seen to be around -1m AHD. The as-constructed drawings of the rock revetment (Figure 17) show that the toe design has been excavated to a depth of approximately -1.75m AHD.

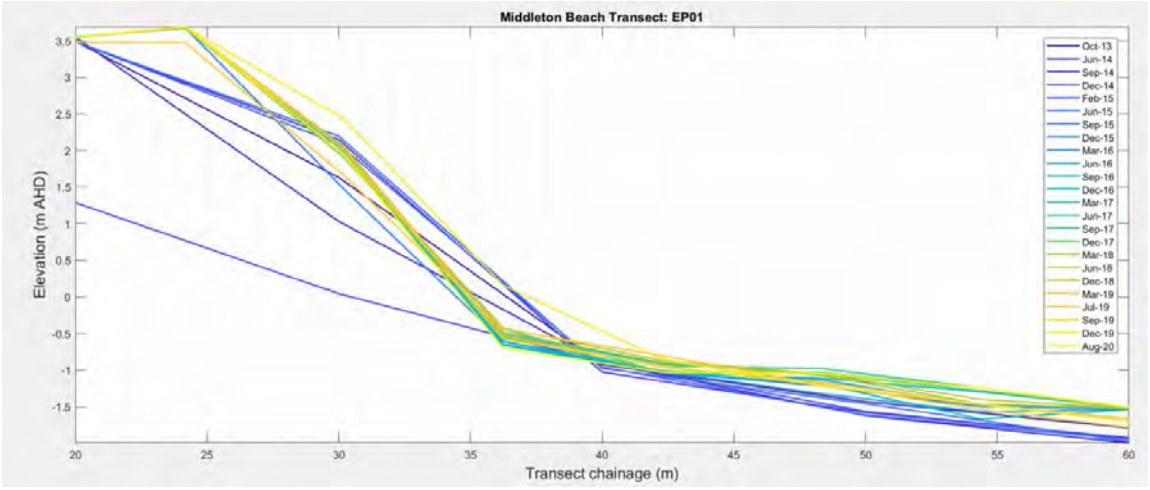


Figure 16: Transect EP-01 at Emu Point between October 2013 and August 2020.

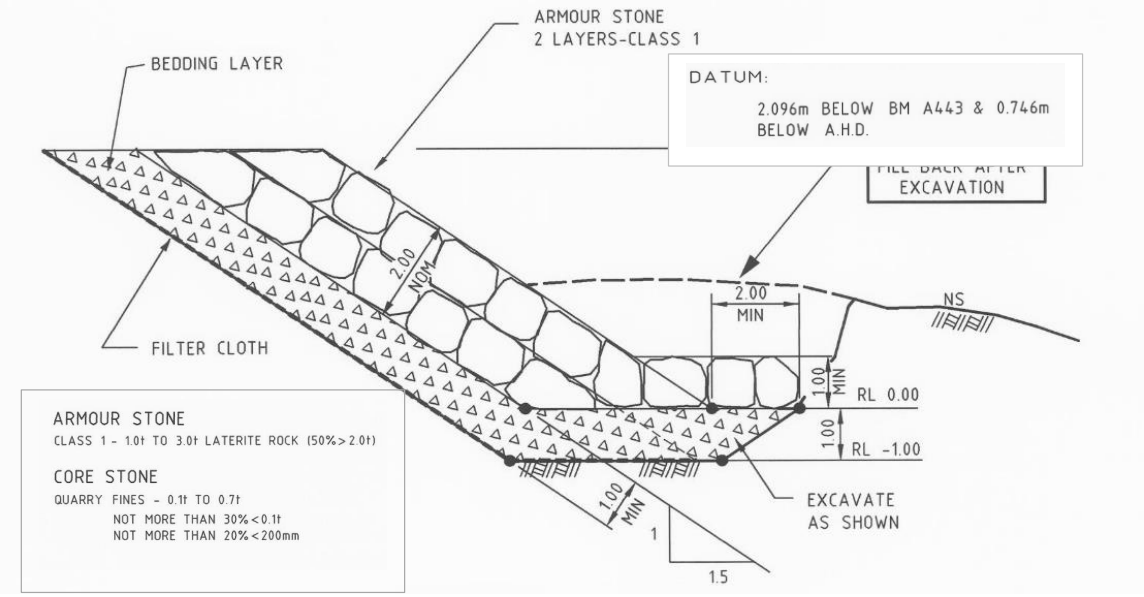


Figure 17: Emu Point Foreshore stabilisation revetment typical cross-section, May 2007 (Source: DoT, DWG 452-12-2)

5.3.5. Adopted scour depth

A comparison of all the scour depth calculations can be seen in Table 5. It is recommended that, as a minimum, the adopted design scour depth should be to the same depth as the current design (-1.75m AHD). This level is recommended as the current structure was not seen to be exposed in the condition assessment (Appendix A), with no sections of the wall seen to have significant scour. Given the importance of this parameter to the design, it is suggested that this be determined through a more detailed analysis as part of the detailed design process. When the trigger values identified in the CHRMAP implementation Plan for the revetment upgrade have been reached, an analysis of recent bathymetric trends and updated numerical modelling should be undertaken.

Table 5: Estimate of scour levels at toe of structure.

Method of Approximation	Scour Level (m AHD)
Rule of thumb	-2.00
SBEACH	-1.00
Gordon (1987)	-2.25
Chapman and Smith (1983)	-2.75
Existing design	-1.75

6. Coastal protection recommendations

Figure 4 to Figure 7 provide the recommended engineered adaptation options as part of the CHRMAP Implementation Plan (Aurora, 2019). The report offers three engineered concept layouts with the note that these designs are to be confirmed and developed further within the Foreshore Management Plan and refined in the detailed design phase. The design development and consideration of the layout and extent of the proposed engineered adaptation structures through MU3 and MU4 are described below.

The CHRMAP, Aurora (2019), RHDHV (2017) and PRDW (2013) identified the following key design constraints which relate to the present and future management of MU3, MU4 and MU5:

- The rock revetment in its current location is critical to the preservation of important coastal assets.
- The current Emu Beach Holiday Park lease area (a recognised important City asset) is at an increased risk of inundation due to its proximity to the active beach in that area.
- The first row of houses on Griffiths are vulnerable due to the access road's proximity to the foreshore when the road and services are damaged, legal access to the lots will be affected and the properties will be impacted.
- There is some evidence that the trial GSC groyne structures may retain sediment between them but due to their reduced length and lowered profile allow excess sediment to bypass.
- The shared path and foreshore reserve at the western end of the rock revetment is at an increased risk of inundation due to its proximity to the active beach in that area.
- Eastern Oyster Harbour Beach is subject to seasonal erosion which limits the amount of useable beach in this area.

Observing the above design constraints and incorporating the three recommended CHRMAP options (Figure 3 to Figure 6), the following adaptation option has been developed. Coastal Adaption Option 1 consists of a triggered upgrade to the existing rock revetment as well as extension, upgrade and continuation of the GSC trial groynes with a targeted beach nourishment campaign between the eastern GSC groyne (Coastal Structure B) and the western extent of the rock revetment. The adaptation option incorporates the following key design elements:

- Upgraded rock revetment following upgraded alignment (coastal structure A).
- Trial GSC groyne field be upgraded, as follows:

The groynes to be rebuilt using locally sourced granite, incorporating the current GSC as core material.

Another groyne be added to the east (towards Emu Point) at a maximum distance of 80m from the eastern groyne (structure 5, Figure 2). The addition of this groyne is aimed at retaining an aerial beach between the new groyne and rock revetment (Coastal Structure A).

The length of the groynes be extended at a maximum distance equal to the seaward location of the rock revetment, (an approximate extension of 10-15m further seaward). All groynes to be extended landward and buried to the location of the 3m MSL beach contour (existing vegetation line).

- Beach nourishment campaign to infill a beach between the eastern GSC groyne (Coastal Structure B) and the western extent of the upgraded rock revetment (Coastal Structure A). The nourishment will be graded and profiled over the dry beach (between 7m MSL and MHWS contour) to match as close to possible the natural profile of Middleton Beach to the west.
- Triggered beach nourishment in the eastern corner of Oyster Harbour between the spur groyne and the eastern arm of the swimming enclosure.
- Opportunistic beach nourishment placed on Emu Point and Emu Beach to be sourced from coastal works between Ellen Cove and Oyster Harbour or dredging works within King George Sound, Oyster and Royal Princess Harbours. Sand sourced from these activities is to be cleaned and placed on either:

The upper beach between the eastern GSC groyne (Coastal Structure B) and the western extent of the upgraded rock revetment (Coastal Structure A) between the 7m and MHWS contours, or the western lee of the detached breakwater.

Timing and trigger points for each of these options are described further in the following sections.



Figure 18: Coastal adaptation recommendations: rock revetment upgrade, upgrade of GSC trial groynes with beach nourishment and amendment of Big4 lease boundary.

6.1. MU3

6.1.1. Planned retreat

The CHRMAP Implementation Plan (Aurora, 2019) makes two recommendations around the planned retreat of assets within the MU3/MU4 management units:

- Recommendation 14: MU3 Properties on Griffiths Street - Managed Retreat. Relocate properties from Griffiths Street
- Recommendation 15: MU3 Emu Beach Holiday Park - Managed Retreat of assets in the southern portion.

Griffiths Street

As seen in Figure 19, the first row of houses on Griffiths Street are the most vulnerable private property to coastal inundation within MU3 as they are located furthest seaward without any 'hard' coastal protection. This row of houses is approximately 120m to the current 0m AHD shoreline (Horizontal Shoreline Datum, HSD) with the natural foreshore berm (with a height of approximately +9m AHD), the dual use footpath and the access road (Griffiths Street) between the properties and HSD.

Griffiths Street is currently the only access to the properties and as such should the road and services be damaged, legal access to the lots will be affected and the properties will be

impacted. Aurora (2019) stated that the preferred option for the Griffiths Street assets is as follows:

- Short term (0-10 year): Sand nourishment and continued monitoring
- Long-term (10+ years): Managed Retreat, to be initiated by a coastal response Trigger Value.

The Trigger Value for the long-term coastal adaptation (Managed Retreat) is stated as when HSD is less than 40m from the road (Griffiths Street). Monitoring should be undertaken every two years in spring and after any significant storm erosion event to understand increased likelihood of risk and determine if more expeditious relocation is required. The March 2019 survey puts the 40m trigger line landward of the established foredune and at a distance of approximately 70m to HSD.

RHDHV (2017) has shown that this area is seen to be accreting. Figure 20 supports this theory, with beach transects taken along the nearby profile MB-05 showing accretion offshore (depths less than -4m AHD) as well as growth to the incipient dune face (between 0 – 4m AHD). Historically, the last time that the foredune was exposed is believed to be the storm of August 1984, as seen in Figure 20. This storm was approximated to be a 1 in 100-year event (RHDHV, 2017). Following this event, the beach has shown long-term accretion.

Although the trigger point is not expected to be activated in a subsequent event of similar magnitude as that of 1984, it is recommended that should this occur, in the first instance sand nourishment be undertaken and monitored to ensure the long-term accretionary trend continues along this part of the beach. In the meantime, the recommendations of Aurora (2019) to put in place strategies to facilitate managed retreat should be commenced.

The CoA's Local Planning Strategy (CoA, 2019) recognises the implementation of the CHRMAP as Investigation Area 12 and addresses CHRMAP Recommendation 1 (managed retreat). The following overarching recommendations of the CHRMAP will be actioned by the CoA to facilitate managed retreat:

- LPS Special Control Area (Recommendation 2 in the CHRMAP)
    - Complete the CoA's LPS No.1 review, which is currently being progressed, to include the vulnerable zone (the modelled hazard area to 2120) in a Special Control Area. It is proposed that the Special Control Area will alert existing and future landowners to seek information from the CoA and enable notification to landowners if they seek a development approval.
- Recommendation 8: Purchase of Property Investigation: Investigate the opportunity to acquire land as it become available on the public market

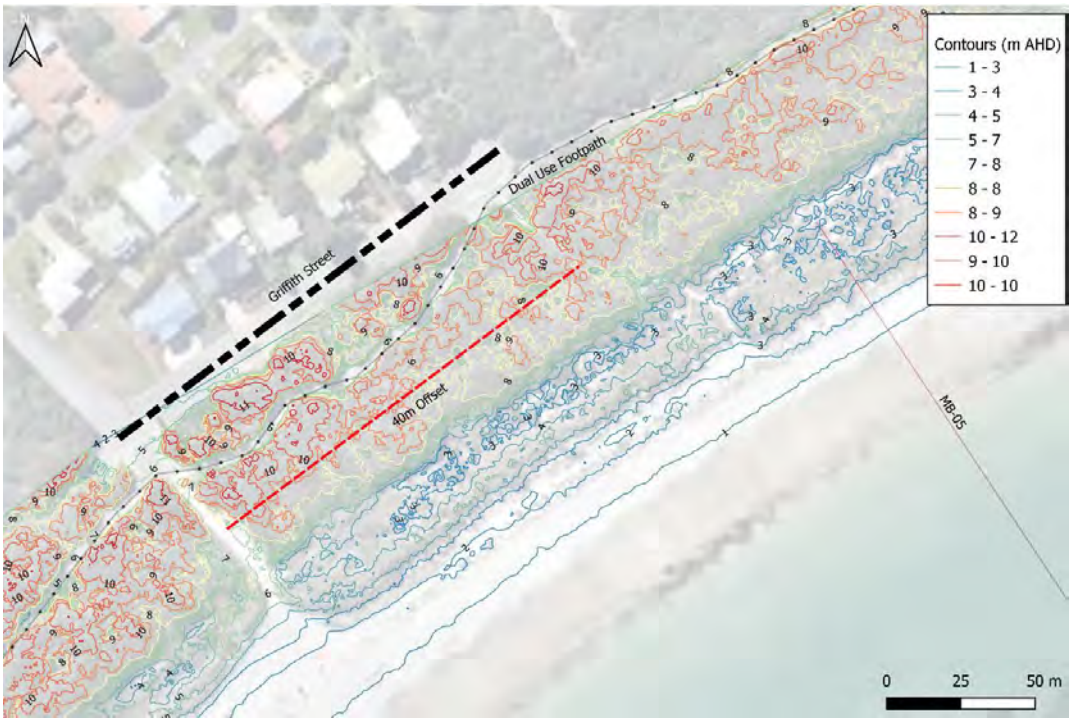


Figure 19: Contour map of the Griffiths Street foreshore from March 2019 showing the 40m seaward offset Coastal Adaptation Trigger Point and long-term beach transect MB-05
Note: These contours are taken form the March 2019 survey where contour heights within heavily vegetated areas represent the top of the vegetation.

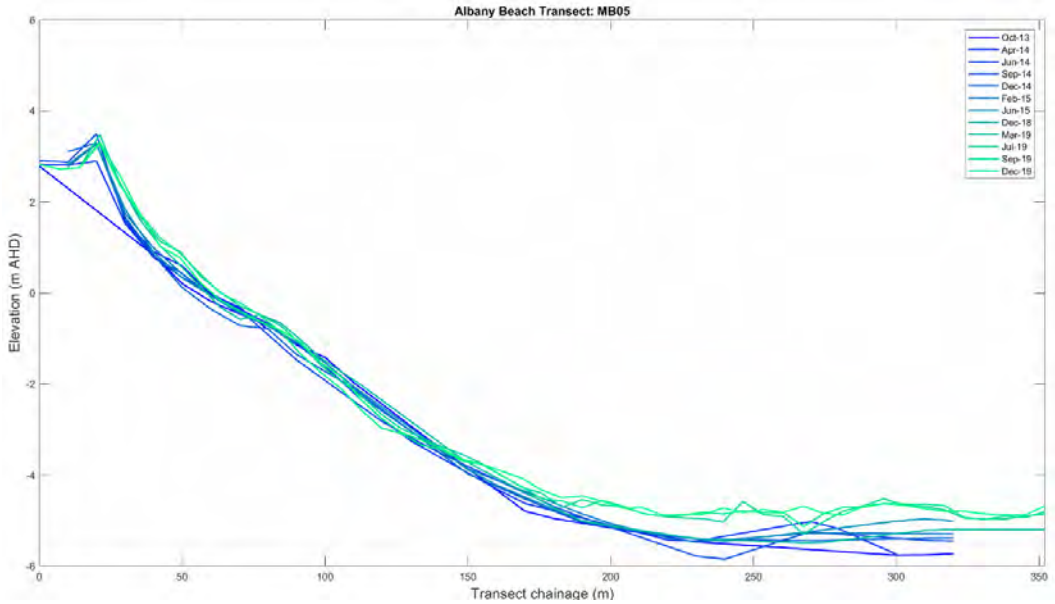


Figure 20: Beach transect MB-05 comparison plot between October 2013 and December 2019.
Note: MB-05 is the closest long term measured transect to Griffiths St



Figure 21: Photographs of erosion scarp following August 1984 storm event. (source: Briss family as reported in URS 2012).

6.2. MU4

6.2.1. Planned retreat

Similarly, to the Griffiths Street managed retreat, Recommendation 15 calls for the managed retreat of vulnerable assets within the Emu Beach Holiday Park (EBHP) southern lease area. The same trigger value of 40m (of EBHP assets to HSD) has been recommended at this site. As seen, in Figure 22 this trigger value is close to being initiated with the beach in its current eroded state, with a distance of approximately 25m to HSD. As a result, the City has been working with the leaseholder to plan for staged retreat of assets within the southern portion of the site as well as commence discussions around the re-alignment of the current lease boundary as seen in Figure 22.

Following the proposed nourishment, upgrade of GSC groynes and rock revetment (detailed in the following sections and seen in Figure 22) it is expected that the trigger value for managed retreat of EBHP assets will not be initiated for some time. It is also expected that the upgrade works will provide a beach with a greater appeal to users. With a widened and a greater protected foreshore, there exists an opportunity to continue to allow accommodation within the southern portion of the current site through the provision of less permanent assets/uses such as unpowered camp sites and parklands on the foreshore area, provided there is an appropriate emergency management plan for responding to extreme storm activity. It is recommended that the City and the leaseholder work toward an agreed level of risk within this area, steering the discussions around future lease agreements.

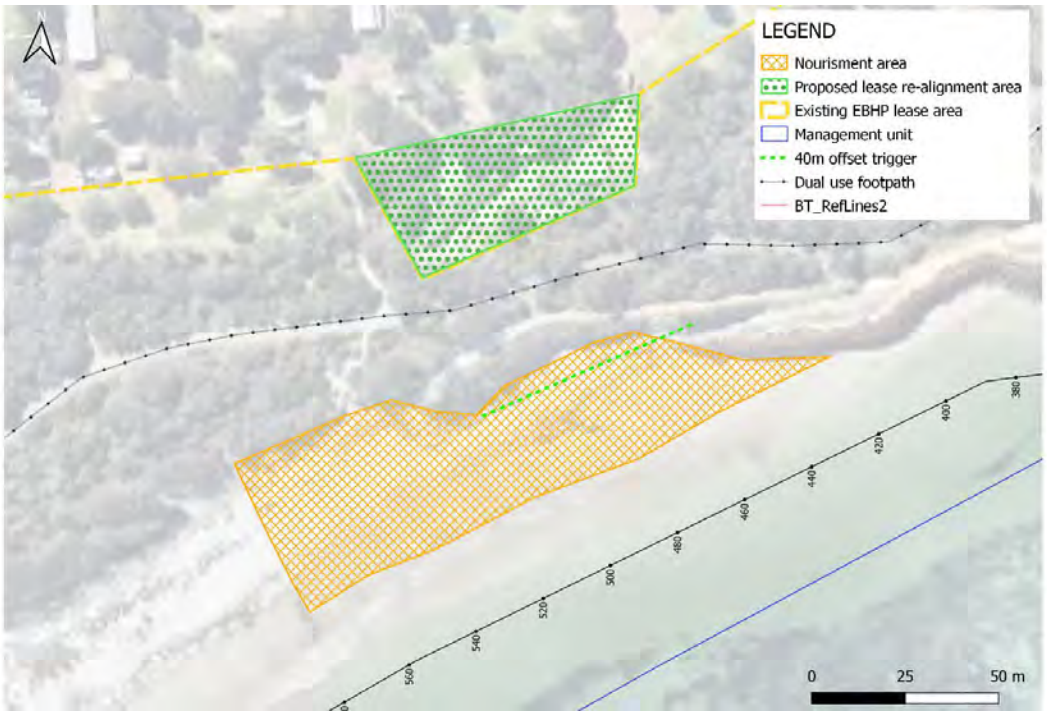


Figure 22: Emu Beach Holiday Park southern lease area and 40m offset trigger value

6.2.2. Rock revetment

The rock revetment structures are reported to be in poor condition; EvoCoast (2017) and Bluecoast (2020). Similarly, Aurora (2019) state that the condition of these structures is critical to the safety of the coastal assets inland of the revetment, stating:

- Camping grounds, caravan sites and out-buildings may be impacted in the short term if renovations to the revetment are limited to the original construction locations. Further structures and infrastructure landward of the Central Road are vulnerable from 2070.
- Emu Point Rock Revetment - based on current condition the structure is expected to mitigate the immediate likelihood of erosion. After this period, a retrofit of the coastal protection could provide protection for the ensuing period.

The shoreline is controlled by the structures and the risk to assets is dependent on the structures' integrity. An updated condition assessment of the coastal protection structures (including the GSC trial groynes) can be seen in **Appendix A.** The assessment shows that although the structures are generally in poor condition, they are meeting their functional objective of protecting the coastal assets in their lee and preventing overtopping and inundation. The structures, however, are seen to pose a safety hazard should the public be permitted to access them. With this in mind, the following recommendations concerning their upgrade are made:

1. The landscaping component of the FMP should include measures to discourage public access to the coastal protection structures; both the rock revetment and the GSC trial groynes.

A condition assessment of the coastal protection structures following a standardised and agreed method should be undertaken, as a minimum every 3 years.

The trigger value for the upgrade of the rock revetment structures should be, either of the following:

A condition assessment rating of 'Very Poor' resulting from the standardised assessment (or less than 1.5 in Appendix A) for any section of the structure.

Greater than three (3) overtopping events of the structure within a 12-month period where the overtopping event is determined by a coastal engineer as reaching the overtopping limit for damage to grass covered areas (after EurOtop 2018), described in Table 6.

Table 6: Limits for wave overtopping for structural design of revetments with grass covered crest and leeward slope (adapted from: EurOtop (2018), table 3.1)

Wave height at structure, Hm0 (m)	Mean discharge, q (l/s/m)
1 – 3	5
< 1	5-10
<0.3	>10

Alignment

The alignment of the rock revetment structure, although generally straight can be seen to have a number of turns or 'kinks', most notably the 90° landward turn at Firth Street (Figure 23 and Figure 24) which is believed to be due to the piecemeal nature of its implementation. The most eastern section of the structure was originally developed in response to the storm event of 1999 and was subsequently extended towards the west as further erosion was realised. A full summary of the structure's history can be found in the Condition Assessment (Appendix A) and in RHDHV (2017).

Prior to the engineering interventions along Emu Point, the shoreline generally reacted to the size, shape, depth and orientation of Lockyer Shoal. An historic vegetation line analysis undertaken by the Department of Transport (DoT, 2012) can be seen in Figure 23. The shoreline is seen to have an approximate 30-40m variation in beach width between the commencement of the analysis in 1943 and the last recorded vegetation line in 2012. The historic vegetation lines all appear to follow the same gentle crenulate shape commencing in the east reaching their most seaward protuberance around Firth Street before turning inland on a deeper curvature to the west, this shoreline was observed both prior to and following the implementation of any rock revetment works.

Generally, the rock revetment structure follows the alignment of the most landward vegetation line of 1943, the only deviations being the two 90° landward 'kinks'; the most

easterly being in the vicinity of the public toilet block and the more pronounced kink at Firth Street. These kinks were subsequent extensions to the revetment as erosional end-effects were being experienced at the termination of each revetment. These ‘kinks would link the new western structure to the older eastern structure as the shoreline at the time of construction in this area would have moved further inland.

It is recommended that the upgraded revetment follow the general alignment of the historic vegetation lines, eliminating any of these kinks. Generally, it is recommended that the revetment not be moved further seaward of its current location as it is contradictory to the managed retreat ethos. A seaward relocation may also invoke further approvals and an extension to the seabed lease granted by Southern Ports Albany (SPA) for the current structure. A conceptual alignment for the proposed upgrade of Coastal Structure A can be seen in Figure 24, here the dashed red line represents the structure toe.

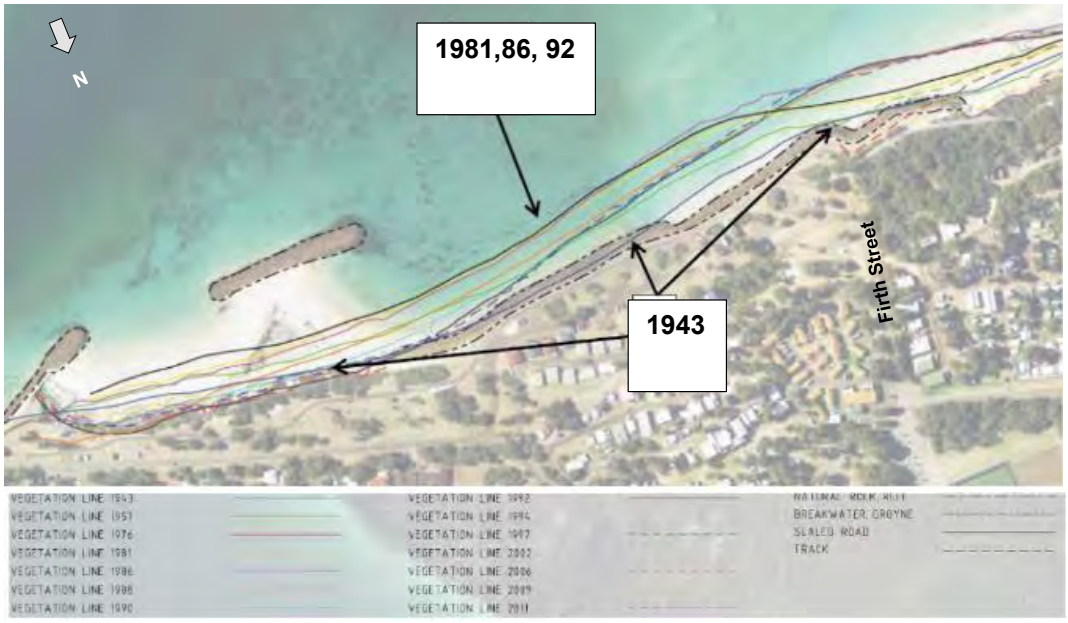


Figure 23: Analysis of aerial photography using vegetation lines (source: DoT, 2012)



Figure 24: Current and proposed alignment of Coastal Structure A. The dotted red line represents the alignment of the rock revetment toe.

Rock type

It is recommended that the upgraded revetment be constructed with locally sourced granite, to a design guided by this BoD as part of the FMP and further specified in the detailed design. Although more expensive, granite is proven to be a more durable material than that of laterite (being used currently), with chipping, cracking and degradation of the rock much less likely, reducing the risk of contamination to the receiving water and sediment. Granite rock is in good supply in the region with a few potential sources that will promote competition among suppliers. Granite matches the natural environment of Emu Beach and Emu Point and does not contrast with the vistas through to Mount Martin across Oyster Harbour. In addition, the higher density of granite means that individual armour rock sizes will be smaller. Smaller armour units will increase stability and will have a small improvement in reducing wave reflections.

Crest height

The current crest height of the rock structures attained from the As-Constructed drawings and verified through the recent Condition Assessment (Appendix A) is seen to be between 2.9-3.6m above AHD. This equates to a height of 2.2-2.9m above Highest Astronomical Tide (HAT). In comparison, the crest of the ‘wave deflector’ wall at Ellen Cove was designed to a height of 2.55m AHD (or approximately 1.8m above HAT). This wall, however, is buried deep in the upper dune area, not currently exposed to waves as is the case at Emu Point.

It is expected as sea level rises and the condition of the laterite rock revetment continues to deteriorate, the trigger values for update of the rock revetment will be initiated. It is

recommended at this stage; a detailed design of the proposed rock revetment be undertaken, and that crest level is calculated with updated values based on sea level rise projections, scour depth and design wave heights at that time. Detailed designs undertaken at the time of construction will also include updated modelling, including overtopping calculations. As a preliminary estimate (for costing purposes) it is sufficient to estimate a similar design crest height of the current revetment design. The current height of the structure is seen to maintain the setback of the CHRMAP hazard line to the revetment alignment even to the 2120 horizon, Figure 8 (top).

Rock size, grading, filtration and revetment slope design

Rock sizing of the current laterite structure can be seen in Figure 25. As the condition assessment (Appendix A) has shown little movement or damage to the armour rock, a similar rock sizing can be assumed at this stage in order to inform preliminary concept designs and costing. As the upgraded structure is proposed to be built from granite (of a higher density than laterite), changes to the approximate sizing of the armour and core can be seen in Table 7

The condition assessment (Appendix A) showed that parts of Coastal Structure A exhibited bridging of the armour rock suggesting loss of the core material. This failure may be attributed to a number of causes, however, is most likely due to the lack of (or failure of existing) geotextile base layer and/or incorrect filter design and the loss of finer material through these voids. To prevent loss of the foundation or fine material

it is recommended to incorporate an underlying geo-synthetic textile (geotextile) layer to ensure longevity of the design. Alternatively, a filter design could be considered but a properly designed and constructed geotextile underlay design is likely to be more cost efficient.

The slope of the existing revetment is approximately 1V:1.5H (Appendix A and Figure 25). This steep revetment induces significant wave reflections. A large scour hole exists offshore of Coastal Structure A and is expected to be exacerbated by the wave reflections from the wall. A reduction in the slope of the revetment should be considered, say to 1V:3H, this may reduce the amount of wave reflections from the wall.

A preliminary concept of the rock revetment can be seen in Appendix B. If feasible at the time of implementation, it is recommended that beach nourishment in front of the structure be undertaken, burying the toe of the wall (to at least HAT) in the hopes of returning a natural beach to this location.

Table 7: Rock size conversions between laterite and granite for rock revetment based on DoT's concept design for comparison of rock sizes.

Rock Class	Material	Density	Approximate size (nominal diameter)
Class 1: Armour	Laterite	1.6 t/m^3	1.0t = 1.02m 2.0t (M50) = 1.1m

1.0t – 3.0t			3.0t = 1.47m
D50: 2.0t	Granite	2.65t/m^3	1.0t = 0.86m
			2.0t (M50) = 0.91m
			3.0t = 1.24m
Class 2: Core	Laterite	1.6 t/m^3	0.1t = 0.47m
0.1t – 0.7t			0.7t = 0.90m
	Granite	2.65t/m^3	0.1t = 0.40m
			0.7t = 0.76m

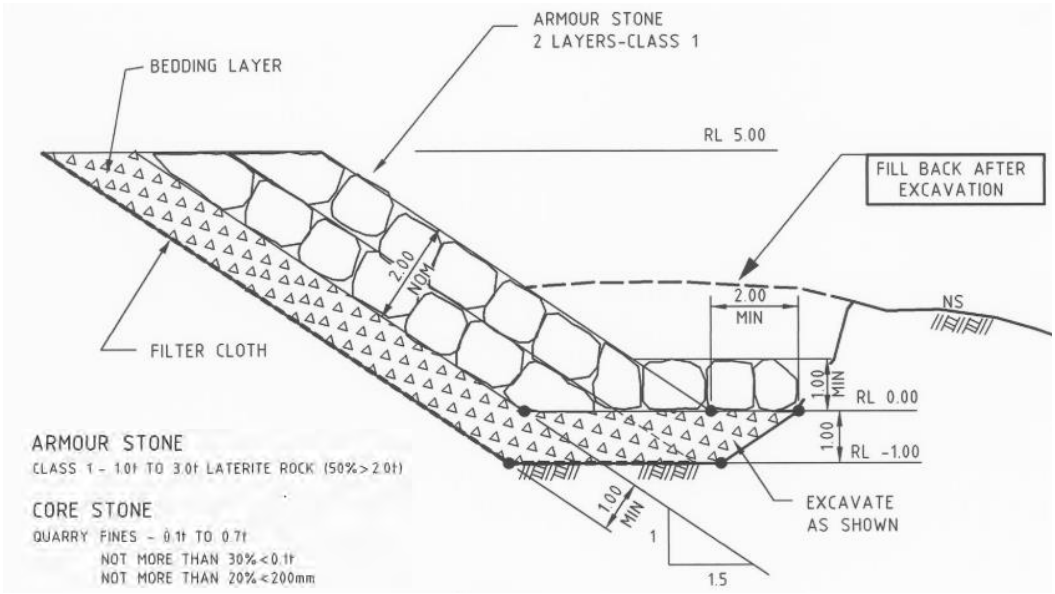


Figure 25: Design profile of Coastal Structure A (sourced from: DoT, 2007)

6.2.3. Groynes

In April 2014, the City installed two trial groynes to the west of the rock revetment at Emu Point. During construction, the area around the groynes was nourished with approximately 10,000m^3 of sand. The extent and layout of the GSC groynes can be seen in the as-constructed drawings in Figure 26. The groynes were installed as a trial to assess what the effect would be of a shore perpendicular structure with the aim of maintaining a beach in this area preserving the nourishment and to provide a natural buffer during storm events.

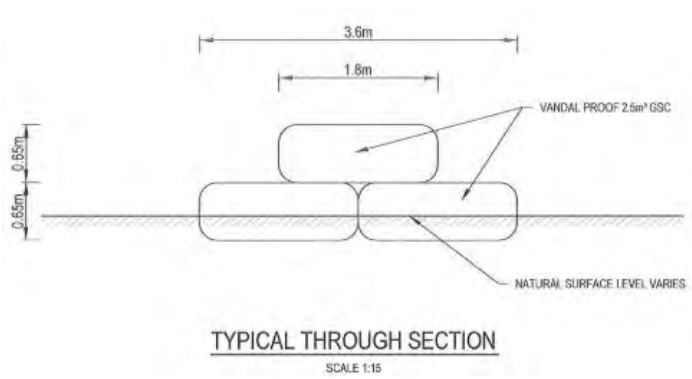
It has been six years since the commencement of the trial GSC groynes and due to their exposure to cyclic wave action and UV, their condition is beginning to deteriorate rapidly. More concerning is the threat to overall public safety if access to the structures is continued.

A performance review of the current structures is provided in Appendix C, building upon prior reviews undertaken by PRWD (2015c) and RHDHV (2017). The key findings of the performance review have been used to inform the upgraded design; these are:

- Minor erosion to the west of the two groynes indicates a low rate of net westerly longshore sediment transport.
- Due to the relatively short length (and low-profile) of the groynes, sand can bypass the structures.
- The beach monitoring transect MB-09 is located between the two groynes. It is seen to have the most stable (dry) beach since the introduction of the groynes, with all contours above 0m AHD retaining their seaward position even during the recent storm event of August 2020.
- The long-term comparison of the beach along the MB-09 transect prior to and following construction of the GSC groynes has shown a slight accretion of the dry beach (i.e., seaward movement). Whereas the two directly adjacent transects (MB-07, MB-08) have shown net recession.
- The stability of the dry beach between the two groynes provides evidence of their efficiency in retaining the upper beach. Stability in the upper beach is most likely related to the short distance between the two groynes.

Both condition assessments of the GSC groynes has shown deterioration which has resulted in repair and replacement of individual units. The original design intention of the groynes as "trial" structures has now passed, with the impact on the coastline being understood from the coastal monitoring program. It is recommended that a groyne field in this current location be upgraded to ensure coastal adaptation requirements are met for at least 50 years. This should be done by assessing the most suitable layout (size and orientation) and number of structures required and to upgrade the GSCs to suitably sized, locally sourced granite boulders.





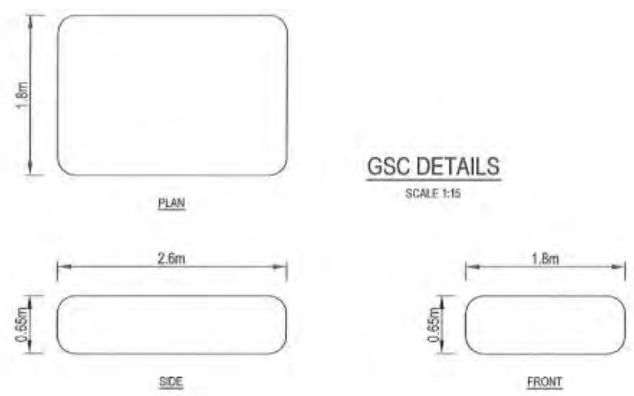


Figure 26: As-constructed drawings of the trial GSC groynes at Emu Beach (source: City of Albany)

Design development

Groynes are structures that extend from the shore into the active zone of longshore sediment transport (LST) and control the natural movement of beach material. They are analogous to natural headlands. They alter the orientation of the beach to be more in line with incident wave crests and intercept longshore currents, reducing LST and promoting sediment accretion on their updrift side with corresponding erosion on the downdrift side. Groynes do not directly counter erosion and recession but provide assistance in developing a more stable shoreline and sand buffer, or transfer the processes to other locations (WRL, 2013).

Functional groyne design includes the following key design parameters; length, width, crest level, spacing, permeability, orientation, location, water depth - these are represented in Figure 27. The best indication of how a proposed structure will perform is the performance of a similar structure in a similar physical environment. The most suitable comparisons for the material and stability can be made of the rock revetment structure at Emu Point. Evaluation of length, location and spacing can be made from the trial groynes. A condition assessment and performance review of each of these structures is provided in Appendix A and Appendix C.

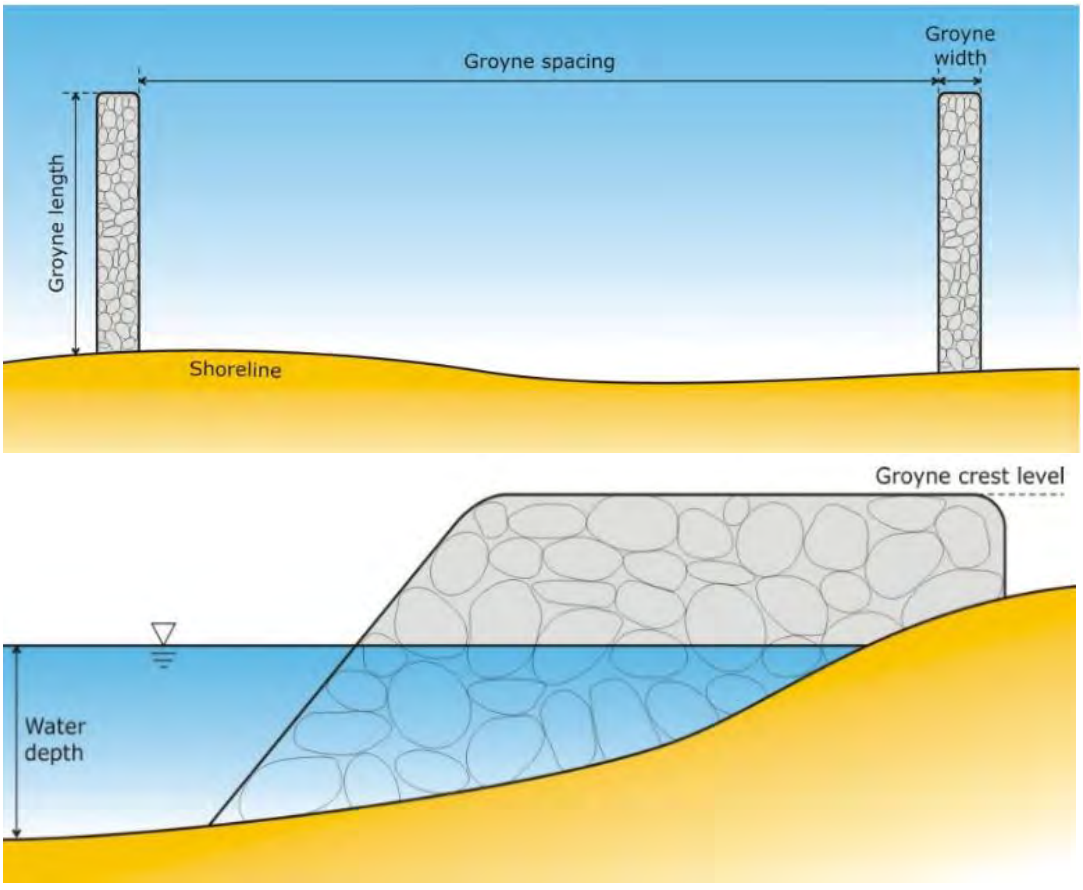


Figure 27: Groyne field design parameters, plan (above) and profile views (below). (Source: WRL, 2013).

Groyne permeability

Groyne permeability relates to the structures ability to block the nearshore current, interrupting the LST over the entire groyne length. Permeable groynes act differently to traditional groynes as they do not directly catch and trap sand. Instead, permeable groynes work by slowing the longshore current and decreasing the capacity of the current to transport sand. They may also reduce the downdrift erosion/recession associated with impermeable groyne design under certain conditions (WRL, 2013).

Permeable groynes are suited to shores with low-medium wave and current exposure. Impermeable type groynes were selected for the concept groyne design. This selection was made on the basis that there are no long-lasting permeable groynes on marine coastlines in Australia and that there are problems associated with damage to these structures from wave impacts.

Groyne length

Beach stabilisation using groynes is generally feasible in areas characterised by a dominant direction of LST. There has been four previous studies SKM (1993), MP Rogers (2003), PRDW (2013) and RHDHV (2017) investigating the net LST regime at Emu Point. There is contention as to the mechanism inducing the net LST along Emu Point. However, the consensus is that east of Boongarie St, sediment moves east to west (towards Ellen Cove) at a rate of between 10-11,000m^3/year. SKM (1993) hypothesized net transport along the western portion of Emu Beach was in the opposite direction from west to east (i.e., towards Oyster Harbour) at around 8,000m^3/yr. An investigation into LST potential was also undertaken in Appendix C using wave parameters extracted from a 40 year hindcast model 150m offshore of the trial GSC groynes. The CERC equation (Shore Protection Manual, US Army Corps of Engineers, 1984) was utilised to verify the rates of LST proposed in the previous studies. The calculations showed that LST does move in both directions, with an overall east to west net transport in the order of magnitude found in the previous studies. The net deposition inside Oyster Harbour and the growth of Lockyer Shoal provides evidence of gross transport also moving in an easterly (as well as cross-shore) direction.

The length of the trial GSC groynes are shown to extend seaward to a distance where the lower (toe) layer of GSC's lie at approximately -1m AHD (Figure 26). The beach is stable between the two trial groynes as well as the lower GSC layer (see Condition Assessment Report). It is recommended that the length of the groynes be extended at a maximum distance equal to the seaward location of the rock revetment, (an approximate extension of 10-15m further seaward) in the hopes of extending and maintaining a dry beach following a (recommended) corresponding beach nourishment campaign.

Groyne spacing

There are several engineering 'rules of thumb' for the determination of the most effective spacing between groynes. Spacings are generally expressed as a ratio of groyne spacing to groyne length. Published design values can be seen in

Table 8.

Table 8: Published design values of groyne spacing to groyne length ratio

Source	Groyne spacing length ratio	comments
Kraus et al (1994)	**2-4**	For groynes on sandy beaches
Fleming (1993)	**0.8-2.7**	Survey of (wave reflecting) timber groynes across the UK
SPM (1984)	**2-3**	Shore Protection Manual
USACE (2006)	**2-4**	Coastal Engineering Manual
Silvester (1992)	**2-14**	As a function of the incident wave angle. No field or laboratory data was cited to support this method.

The effectiveness of a groyne field at retaining a beach is maximised by reducing the spacing between adjacent groynes (WRL, 2013). The spacing between the two GSC groynes at Emu Point is approximately 80m which yields a groyne spacing to length ratio of 2 (as approximately 10m of the 50m groyne length is buried). As the performance analysis has shown (Appendix C), for these groynes to be effective at maintaining a beach between them, it is recommended that an additional groyne be added to the east (towards Emu Point) at a maximum distance of 80m from the eastern groyne (structure 5, Figure 2). The addition of this groyne is aimed at retaining an aerial beach between the new groyne and the start of the rock revetment. The new groyne is designed to retain a beach updrift of the existing groyne field.

Groyne orientation

In line with the SPM (1984) a groyne orientation perpendicular to the shoreline is recommended. If groynes are angled slightly downdrift, more curvature of the beach in the shadow zone can develop due to enhanced diffractive effects around the groyne. However, angling of groynes downdrift to the long-term average LST can cause exacerbated erosion during events in which the drift direction is reversed. This can occur at Emu Point due to the bi-modal flow regime.

Groyne crest level and width

The crest level of each of the proposed groynes is influenced by several factors which will minimise the amount of construction materials used, control sand movement over the top of the groynes and accommodate land-based construction equipment that might operate directly on the structures. As the trial of the GSC groynes has now completed, more permanent structures are proposed. In line with the material proposed for the revetment at Emu Point, it is recommended that the new groynes be built from suitably sourced local, granite boulders.

For practical construction and to minimize additional material being transported, it is recommended that the existing GSC groynes be used as the core material for the proposed rock groynes. As such, it is recommended the existing crest level of 1m AHD be adopted for core material along the full length of each groyne. Two layers of secondary and primary armour of the size noted in Table 7 be used to cap the structure.

The increased crest height may limit pedestrian access around the structures, which is currently provided by walking over the GSC groynes. It is anticipated that by burying the landward extent of the groynes and by re-establishing the dune system through a beach nourishment campaign, that access will be provided around the landward end of the groynes.

Design scour level

An extension of 15m of each of the groynes places the seaward end of the structures at approximately the 100m chainage mark along MB-09, as seen in Figure 37 (Appendix C). The lowest historical bed level recorded at this chainage is seen to be around -1m AHD. Design scour level for these structures should be, as a minimum -1.75m AHD. This level approximates the original toe design level of the rock revetment of -1.75m AHD.

Constructability of the groynes will be more difficult given the extension into the surf zone and the toe design level being below sea level. It is expected that beach nourishment would be undertaken in conjunction with the groyne upgrades and will be strategically placed to assist with construction activities with the formation of temporary working platforms.

6.2.4. Beach nourishment

The state of the beach directly to the west of the rock revetment can be seen in Figure 28. A large erosion scarp is present on the back beach, overtopping of the damaged GSC revetment and deterioration of the GSC groynes can also be seen. On higher tides, swash is seen to pass over and around both the landward and seaward ends of both groynes. Following the upgrade of the groynes, it is recommended that a beach nourishment campaign be undertaken in order to re-establish a beach in this location.



Figure 28: Erosion and state of the beach and GSC trial groynes and GSC revetment at Emu Beach, taken 26th February 2020 (top) and August 2020 (bottom).

Nourishment design

When determining an appropriate beach nourishment design, it is essential to determine whether the nourishment is to be placed for coastal protection or beach amenity. Aurora (2019) states that managed retreat is the most suitable option for this section of coast. Community consultation as part of the CHRMAP process showed that the main activities for visitors to Emu Point include walking, swimming and sitting on the beach all of which are conducive to the provision of beach amenity and a suitably wide sandy beach. As such, any nourishment design in this area should be undertaken with the aim of improving beach amenity, currently noted as being poor.

It is unrealistic to expect an acceptable beach width during or following an extreme storm event. Realistic criteria should be set regarding acceptable beach width to assist with project design and/or to establish triggers for more action (Carley & Cox, 2017). The performance review of the GSC trial groynes and sand nourishment (Appendix C) showed overall stability exhibited between the two trial structures (as seen in the historical beach transect analysis of MB-09). In contrast, to the east of the two GSC groynes, the beach has experienced

intermittent erosion events, both seasonal and event based. During these events, access to the beach from the dual-use footpath becomes dangerous due to steep escarpments and scattered remnants of the GSC revetment are seen on the dune face. As such, an appropriate beach width criterion could include:

- After a 1-year ARI erosion event, there is a minimum 10m wide dry beach on a mean high-water spring tide under average wave conditions (above say 1m AHD).
- Should beach access become dangerous due to high (>1m) vertical dune scarps, suitable reinstatement activities (nourishment or beach scraping) should be undertaken.

Carley & Cox (2017) state that the required sand volume on a beach needs consideration of the following factors (as a minimum):

- Storm erosion.
- The sediment budget, including ongoing underlying recession, littoral drift and headland bypassing
- Future recession due to sea level rise
- Wave runup
- Actual composition of borrowed sand and its loss rate when emplaced
- Borrow area volumes available
- Availability of suitable plant for renourishment.

From the findings of the Performance Review (Appendix C) and adhering to the proposed beach width criteria above, the stability seen between the two GSC groynes would be desirable between the three proposed (upgraded) groynes extending to the rock revetment in the east. The nourishment is to be graded and profiled over the dry beach above MHWS to the top of the beach scarp (this height varies but is on-average at the 7m dune contour) and is to match as close to possible the natural profile of Middleton Beach to the west to re-establish the natural profile. Care should be taken not to cover healthy vegetation with sand. Prior to placement of sand, it is recommended to remove any dead vegetation and fill beach to the top of scarp (elevation varies). Care should be taken when placing fill on subaerial beach above 2mAHD. Generally, slopes in this area should be reduced as much as possible and should scarps develop between 2m to 7m AHD they should also be reprofiled and blended to natural beach profile to reduce risk of falls on vertical dune scarps.

Figure 29 shows the extent of the proposed nourishment campaign, representative beach profiles through the proposed area as well as an ‘idealised’ extracted profile further to the west (at chainage 700). A comparison of the idealised profile as well as the three extracted profiles within the nourishment area (Big4_W, Big4_E and Big4_Mid) can be seen in the lower part of Figure 29. The profile analysis shows steep (1V:0.5H) escarpments at each of the representative profiles on the upper dune face from approximately 7m AHD, in comparison to the gentler slope (1V:3H) seen in the idealised profile further to the west. Using the idealised profile as a template for the re-nourishment program from the 7m AHD upper dune to the MHWS contour places an estimated beach nourishment volume at approximately 6,000m^3 over the 190m distance between the upgraded western groyne and

the rock revetment (Coastal Structure A). Nourishment placed below a height of 2m AHD should be profiled to resemble as much as possible that seen in the lower portions of MB-09. This will reduce the severity of scarps occurring immediately following the nourishment works as profiles will match those that have shown long-term stability. It is recommended that a nourishment campaign of this magnitude (minimum 6,000m^3) be undertaken during the groyne upgrade works in the short-term: 0-5 years.

Reprofiling of the proposed area to the idealised profile will provide a more natural looking beach that blends with that to the west and reduce the likelihood of sudden erosion scarps following the placement of the nourishment. It is recommended that following the removal of damaged GSC units, the current GSC revetment be buried in the nourishment program and that subsequent dune vegetation promptly follow re-establishment of the beach. Please note that the placement of nourishment on the beach is not to cover healthy vegetation. Wrack may be placed in the upper dune areas (higher than 3m AHD) prior to covering with clean fill.

The performance analysis undertaken in **Appendix C** shows a relatively small net longshore transport to the west. As such, depending on the shoreline position and beach state at the time of construction a small amount of source fill should be used to fill the beach directly to the west of proposed groyne C to facilitate westerly transport around the structures and into the western portion of Emu Beach.

The historical transect analysis (Appendix C) provides evidence that the nourishment should be undertaken in summer. The ideal time would be the month of November when the transition from winter westerlies (winds) to summer easterlies occur and prior to the school holiday period when there will be a high number of beach users.

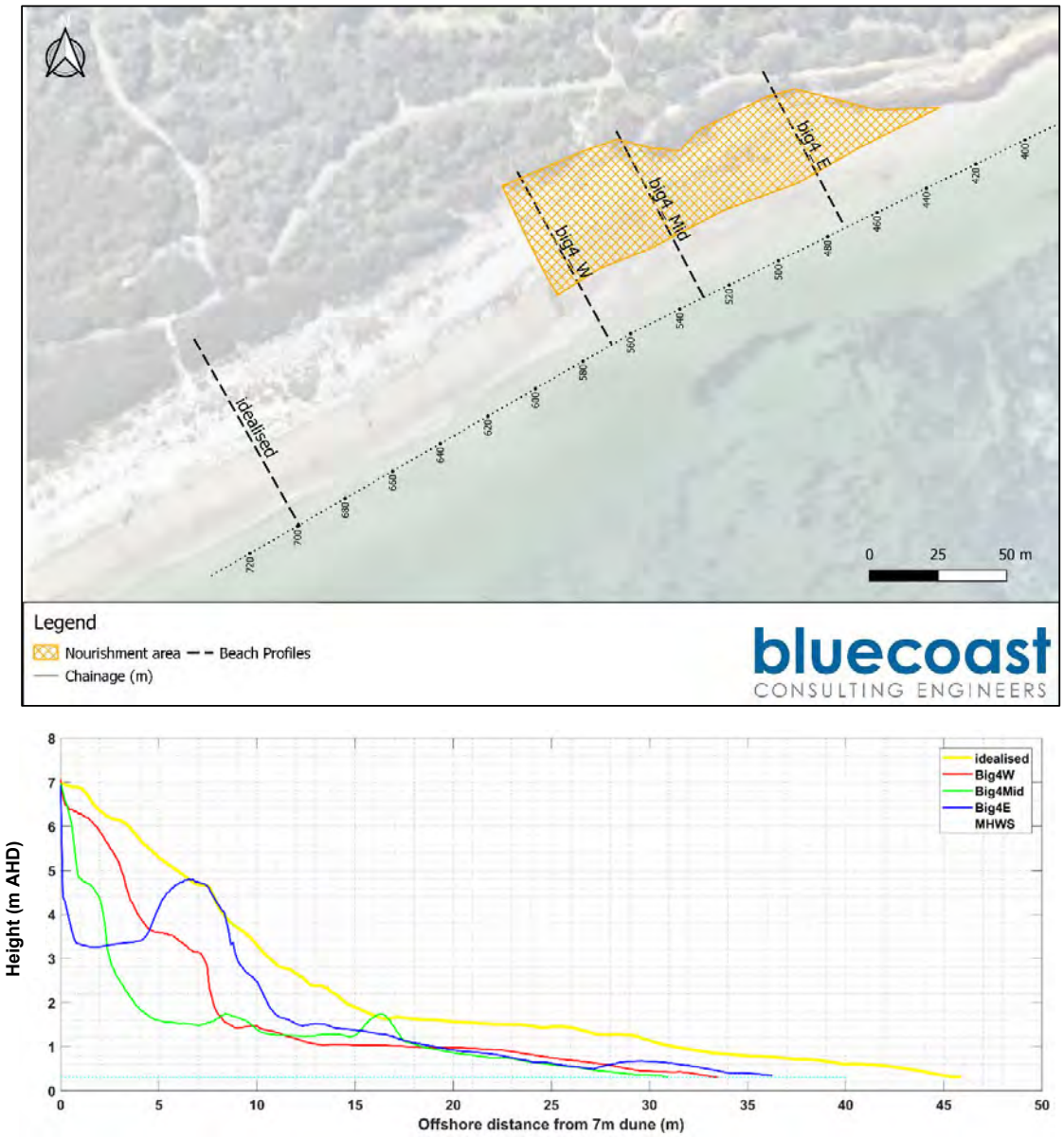


Figure 29: Proposed beach nourishment area (top) and analysis of existing beach profiles (below) taken from December 2018 beach survey

Sediment source

There are several sources of sand that may be suitable for use for the beach nourishment design:

- Within Middleton Beach embayment, most suitably from the western extent from the Golf Course towards Ellen Cove: D50 = 200-250µm, imported at a cost of $4-$7/m3 (PRDW, 2017)

- Great Southern Sands (GSS) a landscaping supply store approximately 10km from the site by road: D50 = 400-450µm, imported at a cost of $15-$25/m3 (PRDW, 2017)
- Opportunistic dredge spoil from Oyster and Princess Royal Harbour (PSD, volume and cost unknown)
- Whale World accreted beach area (PSD, volume and cost unknown)

From a coastal engineering perspective, the coarser GSS sand would have greater placement longevity due to the larger particle size having a higher propensity to withstanding mobilisation. However, as the beach has been designed for amenity as the primary objective, properties such as colour and homogeneity with the existing beach sediment are more important to the nourishment design. In addition, the overwhelming price difference to mobilise material to site points in favour of sediment coming from within the Middleton Beach embayment. The approximate 6,000m^3 volume ideally should be sourced in the vicinity of MB03, MB04 and MB05. The layer to be removed should not exceed 0.2m. Assuming sand is taken over a 30m wide stretch of beach, the sand must be sourced over approximately 1,050 m length of beach. Exceeding the 0.2m depth excavation limit at any location is not desirable, as this exceeds the natural rate of sand accretion.

It is also recommended that opportunistic beach nourishment be undertaken into the future. Should coastal works be commenced along the beaches or upper dunes from Ellen Cove to Oyster Harbour or dredging works within King George Sound, Oyster and Royal Princess Harbours, any sediments should be stockpiled for nourishment. Sand sourced from these activities is to be assessed as being suitable for use as beach nourishment (i.e., PSD analysis and quality). Should the sourced sediment be shown to be similar in terms of grain size (or slightly coarser), composition, angularity and colour than that at Emu Point, then it is recommended to be placed in the following locations:

On the upper beach between the eastern GSC groyne (Coastal Structure B) and the western extent of the upgraded rock revetment (Coastal Structure A) between the 7m and MHWS contours, or the western lee of the detached breakwater.

Proposed beach nourishment locations can be seen in Figure 16.

Overfill ratio

Typically, borrow material will not exactly match the native beach (unless sourced within the direct vicinity as recommended above or as seen in backpassing design). If there is a large difference in sediment size between imported material being used for nourishment and the native beach sand the shoreline profile will respond accordingly:

- Borrow material that is finer will result in a flatter equilibrium beach profile than the natural profile and significantly more borrow sand is required to meet target nourishment volumes (compared with the requirements for nourishment with matching borrow and native sand). Use of material finer than the native material should be avoided, if possible, but such material still may be suitable. CEM (2006) recommends against using finer material that may result in a gentler beach slope adjacent to groynes intended to block the longshore movement of sand.
- Borrow material that is coarser than the native material will produce a beach which is at least as stable as the native beach. Fills with coarser material (such as those imported from GSS, above) provide improved resistance to storm-induced erosion. A

lesser volume of coarser fill will be required to create a beach of a given width, compared to the volume of native beach sand that would be needed, however a noticeably steeper beach may form. A steeper beach and different texture of the coarser fill may also provide an amenity issue.

It is recommended that due to the difference in size between the GSS material and the native sediment size, that sand is sourced from within the Middleton Beach embayment or Oyster Harbour. Sediment sampling undertaken in 2013 by CoA has shown that swash zone sediments between MB-08 to MB-02 has a maximum PSD range of D_{50} = 0.215-0.23mm. It is recommended, however that prior to the nourishment campaign it is recommended that updated PSD samples are taken at the both the nourishment and source sites as well as updated survey to determine volumes required.

Should the source sediment prove to be finer than the native site, an overfill ratio will be used to calculate exact volumes of source material required. The overfill ratio R_A is a factor for the required volume of imported sand to make up an equivalent volume of native sand. CEM (2006, p V-4-24) recommends an overfill ratio of 1.0 to 1.05, or a range of D_{50} of ±0.02 mm for the sand size seen at the project site.

Machinery and delivery method

CoA have CAT 623 and 615 Scrapers available to transport sand along the beach, the turning circles of these scrapers is 11m. If the nourishment work is to be undertaken by the CoA, these turning circles should be considered in the project workflow, noting that access to Emu Point may become only viable along the beach front due to the steep back beach adjacent to the rock revetment. It is also expected that these works will generally be undertaken during low tide only.

It is recommended that these works are undertaken in times that the number of beach users are at a minimum. In addition, both the source and project areas must be suitably fenced off from public access during construction times to ensure there is sufficient separation of sand feed from amenity issues. Any access points along the project site, including the source sites and haulage routes should also be restricted to the public and monitored for safety issues.

6.3. MU5

6.3.1. Eastern Oyster Harbour beach

The eastern section of Oyster Harbour Beach is prone to seasonal erosion reducing recreational amenity due to the point of no useable beach. Aurora (2019) recommends sand nourishment to maintain beach widths. Sand for the nourishment can usually be sourced within Oyster Harbour due to the seasonal sand movement along the beach. The area most prone to erosion is the eastern corner of the beach adjacent to the Emu Point spur groyne, as seen in Figure 30.

The trigger for sand nourishment has been stated in Aurora (2019) as; when a dry sandy beach width of less than approximately 10m from the erosion scarp or high-water line to the retaining wall at the widest section of the beach. Due to the vulnerability of the eastern end of the beach, it is expected that this trigger is generally activated for most of the year and as such an alternate trigger value may need to be employed. Figure 31 and Figure 32 show historic beach transects OH-01, located in the eastern corner of Oyster Harbour and OH-02

to the west of the swimming enclosure respectively. It can be seen that there is very rarely a dry beach (between the hard revetment wall and HSD) wider than 10m at OH-01. Whereas at OH-02 this distance is seen to be in the order of 25-30m for all historical transects surveyed.

It is recommended that should HSD at OH-01 be surveyed at less than 5m (or the distance of two people walking abreast) from the hard revetment that sand nourishment be placed in this compartment as follows:

Sand nourishment is to be placed in the eastern corner of Oyster Harbour between the spur groyne and the eastern arm of the swimming enclosure.

The sand is to be placed at a height of +1.5m AHD from the hard revetment to an offshore distance of 10m.

The sand is then to be graded down to 0m AHD to the length of the spur groyne.

This placement pattern can be seen in Figure 33. Sand should be sourced from locations within Oyster Harbour in the first instance such as at the western extent (adjacent to the boat pens) or from the tombolo in the lee of the swimming enclosure. If there is not sufficient sediment from these locations, clean beach sand is then to be sourced from locations along Middleton Beach and Ellen Cove.



Figure 30: Contour map of eastern Oyster Harbour Beach. Beach transects OH-01 and OH-02 can be seen in red with the back beach hard revetment depicted by the black dashed line.

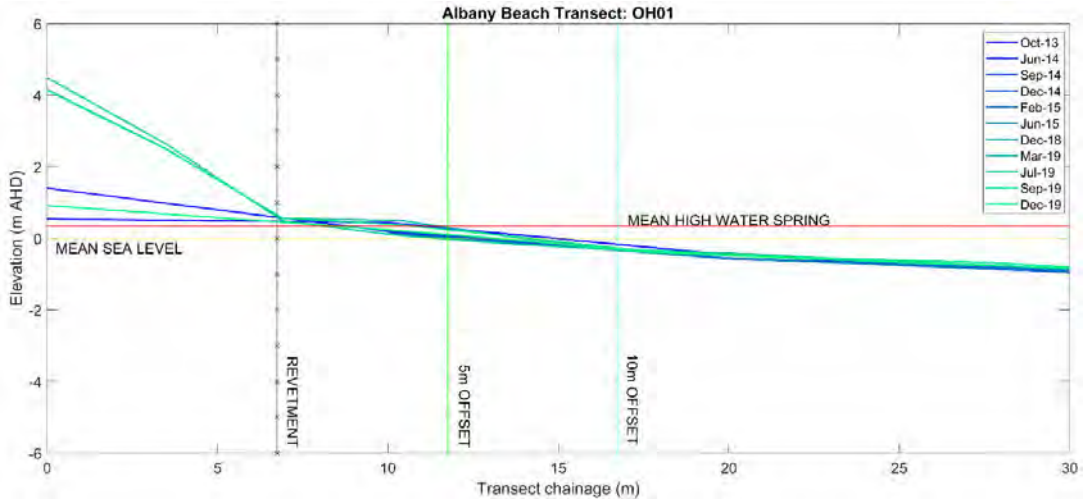


Figure 31: Albany Beach Transect OH-01 between October 2013 to December 2019

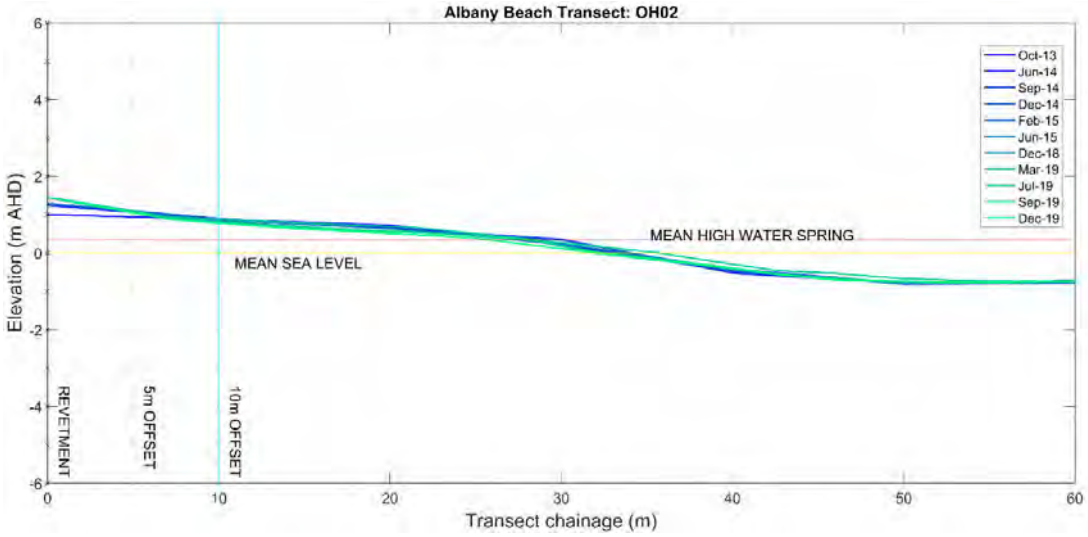


Figure 32: Albany Beach Transect OH-01 between October 2013 to December 2019.

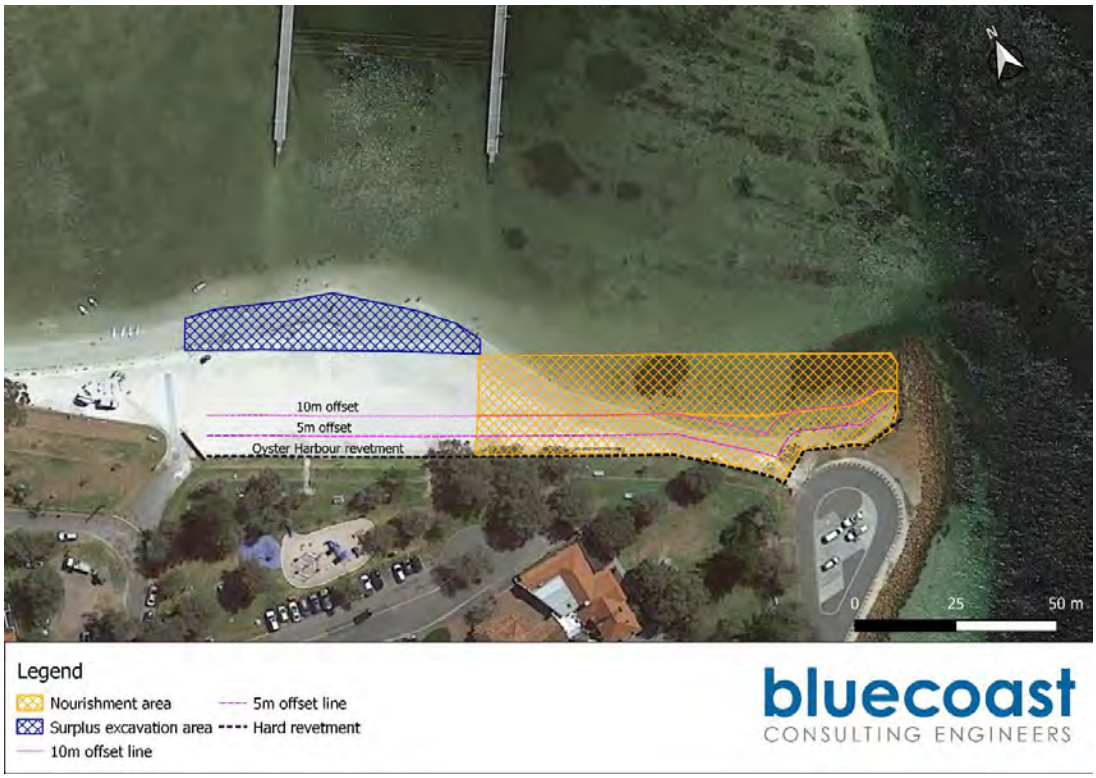


Figure 33: Eastern Oyster Harbour beach adaptation option.

6.4. Predicted coastal response

Preliminary shoreline modelling was undertaken as part of the CHRMAP hazard mapping study (RHDHV, 2017). Figure 34 shows typical ebb flow circulation patterns (and sediment transport potential) on 2016 bathymetry in the vicinity of Emu Point. RHDHV (2017) stated that the formation of a circulation cell in the lee of Lockyer Shoal was seen to feed the ebb current jetting out of Oyster Harbour.

Sediment transported within the easterly current would be deposited at the edge of the Oyster Harbour stream, feeding the Lockyer Shoal. During flood currents this sediment would be deposited within Oyster Harbour or within the channel, to be redistributed to the shoal on the subsequent outgoing tide due to the ebb-dominated asymmetry in tidal current velocities. (RHDHV, 2017)

This implies that any additional sediment placed along Emu Point has the propensity to travel east into the circulation cell to feed the growth of Lockyer Shoal. In this sense the placement of sand on the erosion-affected shoreline at Emu Point will not only improve amenity for a period of time but will also assist in meeting Recommendation 18 of the CHRMAP:

Recommendation 18 MU4: Foreshore Reserve - Seagrass replenishment program be continued and enhanced to include offshore placement of sand.

The performance review of previous beach nourshment (Appendix C) reaffrims the seasonal and bi-modal sediment transport regime in this area, with an overall net westery transport of around 11,000m^3/year. Following the introduction of the third groyne to the west, it is expected that the beach should remain stable as seen between the two trial GSC groynes.

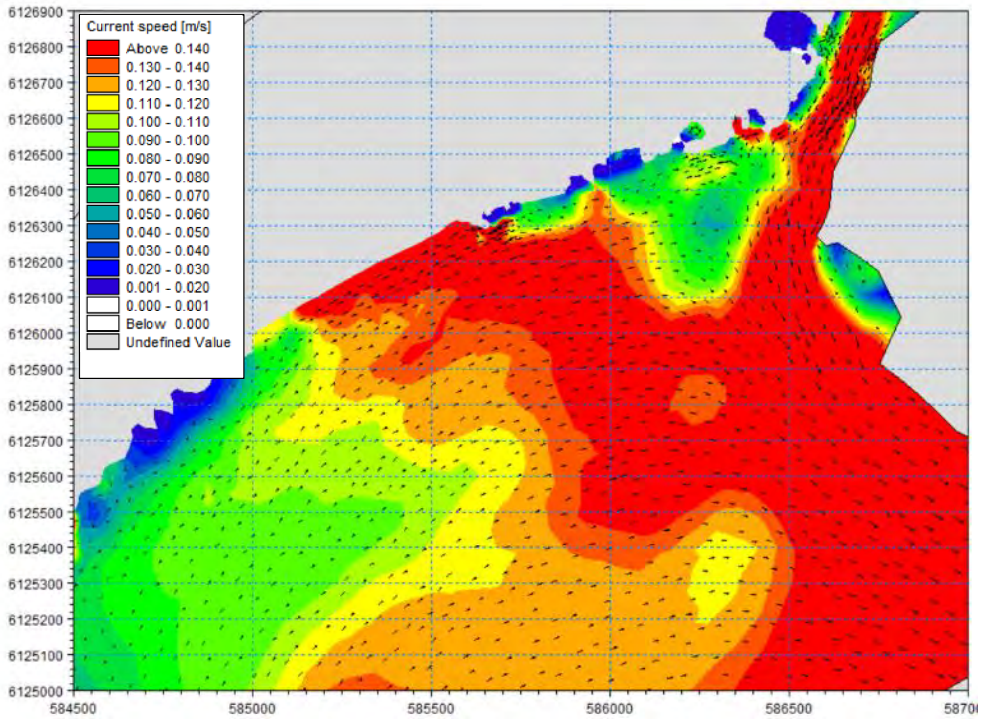


Figure 34: Current speed and direction modelled through "calm" wave conditions during a typical ebb tide period on the 2016 bathymetry. (Source: RHDHV, 2017)

7. Coastal adaptation pathway

Management Unit	Coastal trigger	Expected timeline	Coastal adaptation measure
MU4 Groynes	Design life exceeded/failure of GSC trial groynes	Short term (0-5 years)	Upgrade of the groyne field to rock structures including the addition of a third eastern groyne
MU4 Beach width	Any coastal works undertaken along the beaches or upper dunes from Ellen Cove to Oyster Harbour or dredging works within King George Sound, Oyster and Royal Princess Harbours.	Short term (0-5 years)	Sediment gained through these works should be stockpiled. Opportunistic beach nourishment to be undertaken on the upper beach between the eastern GSC groyne and rock revetment and in the western lee of the detached breakwater.
MU4 **Beach width**	Beach access at Emu Point becomes dangerous due to high (>1m) vertical dune scarps.	Short term (0-5 years)	Suitable reinstatement activities (nourishment or beach scraping) should be undertaken.
MU5 Beach width	A dry sandy beach width of less than approximately 10m from the erosion scarp or high-water line to the retaining wall at Eastern Oyster Harbour to the widest section of the beach.	Short term (0-5 years)	Sand nourishment is to be placed in the eastern corner of Oyster Harbour between the spur groyne and the eastern arm of the swimming enclosure.
MU4 Rock revetment	A condition assessment rating of 'Very Poor' or more than three (3) overtopping events of the Emu Point rock revetment within a 12-month period.	Long term 10+ years	Upgrade of the rock revetment to modern designs, including the use of local granite rock and realignment.
MU3 Beach width	Horizontal Shoreline Datum (HSD) is less than 40m from the road (Griffiths Street).	Long term 10+ years	Managed retreat of first line of houses along Griffiths Street
MU4 Beach width	Horizontal Shoreline Datum (HSD) is less than 40m from the Emu Beach Holiday Park	Long term 10+ years	Change to less permanent assets/uses in southern lease boundary of (EBHP). The City and the leaseholder work toward an agreed level of risk within this area, steering the discussions around future lease agreements.

8. Summary

This Basis of Design (BoD) has been developed to outline the physical characteristics, coastal processes and design assumptions that will be used to underpin the design development of the seven coastal adaptation options recommended as part of the CHRMAP (Aurora, 2019) for management units MU3-MU5. In consultation with the City, stakeholders (including the WA Department of Transport and the WAPC) as well as community groups and using this BoD for design guidance, the following coastal adaptation options have been recommended as part of the FMP:

- Managed retreat of first line of houses along Griffiths Street (MU3) in the long term (10+ years).
- A change to less permanent assets/uses in southern lease boundary of the Emu Beach Holiday Park, with the City and the leaseholder working toward an agreed level of risk within this area, steering the discussions around future lease agreements in the short term (0-5years).
- Upgrade of the groyne field at Emu Beach (MU4) to rock structures including the addition of a third eastern groyne and a beach nourishment exercise in the short term (0-5years)
- Upgrade of the rock revetment from Emu Beach to Emu Point (MU4) to modern designs, including the use of local granite rock and a realignment in the medium to long term (10+ years).
- Sand nourishment to be placed in the eastern corner of Oyster Harbour (MU5) between the spur groyne and the eastern arm of the swimming enclosure following periods of erosion.

The key design characteristics determined through this BoD process for coastal structures and management are as follows:

Coastal structure / management	Design parameter	Value
Rock groyne (MU4)	Design life	50years
	Design event	100years
	SWL (2020)	1.06 m AHD
	SWL (2070)	1.43m AHD
	Hs	2.2 m
	Tp	15 sec
	Scour depth	-1.75m AHD
	Rock type	Locally sourced granite, density (2.65t/m^3)
	Rock size	Class 1 Armour: 1.0t – 3.0t

Coastal structure / management	Design parameter	Value
		Class 2 Core: 1t – 0.7t
	Groyne length	+10-15m current length
	Groyne spacing	80m
Rock revetment (MU4 - MU5)	Design life	50years
	Design event	100years
	SWL (2020)	1.06 m AHD
	SWL (2070)	1.43m AHD
	Hs	2.2 m
	Tp	15 sec
	Scour depth	-1.75m AHD
	Rock type	Locally sourced granite, density (2.65t/m3)
	Rock size	Class 1 Armour: 1.0t – 3.0t
		Class 2 Core: 1t – 0.7t
Nourishment (MU4, MU5)	Sediment source	Within Middleton Beach embayment (for MU4) or Oyster Harbour (for (MU5)
	D50	200-250µm
	Overfill ratio	1.0 to 1.05 (D50 of ±0.02 mm)

9. References

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2Tweed Shire Council (TSC), Murwillumbah, NSW

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Appendix A: Condition assessment of coastal protection structures at Emu Beach and Emu Point

Technical Note

To:	Giles Glasson (RPS Group),
From:	James Lewis and Evan Watterson
Copy:	Anthony McEwan (City of Albany), Emma Evans (City of Albany)
Reference:	P19027TN02.1.DOCX
Date:	13 January 2021
Subject:	Emu Beach Foreshore Management Plan – Condition assessment of coastal protection structures at Emu Beach and Emu Point

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Introduction

This technical note presents the findings of a coastal engineering condition assessment undertaken on the coastal protection structures at Emu Point and Emu Beach by Bluecoast Consulting Engineers (Bluecoast) as part of the Emu Beach Foreshore Management Plan (FMP). The condition assessment encompasses the following structures within the project area:

- approximately 460m of laterite rock revetment
- a 40m long detached rock breakwater made from laterite
- two shore-normal geotextile sand container (GSC) trial groynes of varying length
- approximately 80m of GSC revetment

The objective of this coastal engineering condition assessment is to define the current structural characteristics of the structures through visual inspection complimented with reference to ‘for construction’ or as-constructed drawings which have been provided in Append A for reference.

Background

The southern foreshore of Emu Point has been heavily engineered since a significant storm event impacted the area in 1984. The storm deepened the ebb-tide delta offshore of Emu Point known as Lockyer Shoal. In addition to the deepening of the shoal, the storm event also removed a large seagrass meadow in its lee. Lockyer Shoal and the seagrass meadows previously provided natural protection to the shoreline. Following their removal, private and public infrastructure became at risk from coastal erosion and inundation hazards. A series of coastal protection works were undertaken in the proceeding years beginning with the training of the Oyster Harbour entrance and subsequent westward progression of coastal

protection structures. RHDHV (2017) provides a timeline of coastal protection works from Ellen cove to Oyster Harbour. A brief historical summary of the structures investigated in the condition assessment is provided in Figure 1.

In 2018, EvoCoast undertook a condition assessment of coastal protection structures across the City and their findings have been referenced herein where relevant.



Figure 1: History of construction of coastal structures at Emu Point (source: RHDHV, 2017)

Methodology

Following review of previous condition assessments, drawings and historical information relating to the coastal protection structures at Emu Point and Emu Beach the approach used for the condition assessment of the current state of the structure involved:

- visual inspection; and
- interrogation of drone survey and historical drawings.

Assessment criteria and ratings

Three criteria were assessed:

1. Structural condition.
2. Safety risk.
3. Functional performance.

A rating scale from one to five was adopted for each category as outlined in Table 1.

Table 1: *Condition assessment rating scale.*

Rating	Assessment criteria		
	Structural	**Safety risk**	**Function performance**
5 (Excellent)	None or very little damage	None	No loss of function
4 (Good)	Minor damage	Minor	Minor loss of function
3 (Fair)	Moderate damage	Moderate	Moderate loss of function
2 (Poor)	High level of damage	High	Major loss of function
1 (Failed)	Very high level of damage.	Very high	Complete loss of function

Based on guidelines provided in the CIRIA Rock Manual (CIRIA, 2007) and Oliver et al. (1998) the following defect categories were considered for the detailed assessment of structural condition:

- Loss of crest elevation, which is primarily due to settlement of the revetment or groyne or its foundation.
- Core exposure/loss, which occurs when underlayer or core is removed from the structure by waves passing through openings in the armour layer.
- Armour displacement typically occurs as a result of damage by large waves (i.e. erosion of the armour rocks) a sign of undersized units.
- Armour settling, which may occur along or transverse to the armour slope due to the consolidation or settlement of underlayer, core or foundation soils.
- Bridging, which is a form of armour loss that may apply to the side slopes or crest and occurs when the underlayers settle but the top armour layer remains in position.
- Loss of interlocking means armour is more susceptible to movement and can be unstable.
- Drifters, which is a single piece of armour dislodged from the structure.
- Slope steepening, which occurs when the slope of a structure settles on soft ground.
- Slope sliding, which is due to settlement or scour at the toe that can cause the armour layer to move downwards.

Visual inspection

The visual inspection of the coastal protection structures was undertaken on the 26th February 2020 by one of Bluecoast's senior coastal engineers. Prior to the inspection the structures were divided into eleven (11) separate elements based on the structure type, orientation or construction history. A chainage system was also developed along the structures crest, see Figure 2. Photos from the inspections are shown in Figure 3.

Using a field tablet, scores for the relevant structural defect categories across each of the predefined segments were entered directly into an online database. The overall structural condition rating for each segment was then rounded down to the average of the individual defect ratings.

Safety and functional rating were based on a single score assessed by the inspecting coastal engineer based on visual inspection and the assumed design intent of the structure to serve as coastal protection against coastal erosion and inundation.

Dimensions of a randomly selected 3m swath of armour rocks across each segment were estimated and used to determine an approximate rock diameter. Defects and other observations made during the inspection were noted and photos were gathered by segment.

The rock quality was assessed in accordance with the CIRIA Rock Manual (2007), with attention placed on the quality of and damage to individual armour rocks. This quality assessment was used to approximate how much damage or deterioration has occurred.

Drone survey

Concurrent to the on-ground condition assessment two drone surveys were undertaken in December 2018 and March 2019 as part of the Albany coastal Monitoring program. Using the results of the drone survey the crest level and revetment slope for each section was calculated. Aerial photographs captured using the drone were also reviewed to assist in defining defects and condition ratings.



Figure 2: Structure segments and crest chainage system defined for the existing structure as well as structural condition rating for structure based on visual and drone inspection on 26th February 2020.



Figure 3: Fieldwork photographs; from left Coastal Structure C, CS-A5, CS-A6, CS-A1.

Results

The scores for the condition assessment have been placed on an online database accessible via this link:

https://bluecoast-ce.github.io/EmuPointConditionAssessment/

Each scoring category can be viewed individually, as well as the final score, which is also labelled on the image in Figure 2. Observations made during the inspection are presented in addition to photos of each segment against relevant modes of failure. Figure 1 presents the overall structural condition rating spatially. All scores are available in the above online database

Table 2 presents a summary of the structural characteristics based on the condition assessment results. Table 3 presents the structural, safety and functional ratings along with main comments identified from the inspection.

Table 2: Structural characteristic of Emu Point and Emu Beach Coastal Structure based on condition assessment results.

Name	Chainage	Material	Crest elevation (m AHD)	Slope	Armour grading (D50 in mm)
Detached Breakwater	-20 - 20	Rock	3.3	1V:0H	1000-1250
Coastal Structure A1	0 - 50	Rock	1.6	1V:1.2H	500-1000
Coastal Structure A2	50 - 130	Rock	2.3	1V:1.1H	1000-1250
Coastal Structure A3	130 -230	Rock	2.1	1V:1H	500-1000
Coastal Structure A4	230 - 360	Rock	2.8	1V:1H	500-1000
Coastal Structure A5	360 - 410	Rock	3.0	1V:1H	1000-1250
Coastal Structure A6	410 - 460	Rock	2.9	1V:1H	500-1000
GSC Revetment	460 - 540	GSC	1.6	1V:1.5H	600
Remnant GSC	495	GSC	1.0	-	600

Coastal Structure B	580	GSC	1.5	1V:1.5H	600
Coastal Structure C	660	GSC	1.7	1V:1.5H	600

Table 3: Overview of Emu Point coastal structures condition assessment results

Segment ID Name	Condition rating (1 = failed, 5 = excellent)			Comments
	Structural	Safety	Functional	
Detached Breakwater Chainage: -20 to 20m	3.3	3	4	Laterite detached breakwater with connected tombolo that shows signs of intermittent wash through. There is a 20m setback to established vegetation from the structure. The laterite shows signs of cracking and crumbling rock. Bridging is evident atop the structure. Large voids are present in the structure, reflected waves can be seen, however there are no signs of scour at toe or slumping. There is no evidence of geotextile underlay. Seaweed can be seen growing on seaward face.
Coastal Structure A1 Chainage: 0 to 50m	1.6	1.5	3	Scour and end effects are evident on beach, with public beach access closed for safety reasons. Signs of revegetation and sand nourishment are present on beach. Armour rock shows signs of cracking and crumbling. There are no signs of significant overtopping with established vegetation in crest, any overtopping is due to small amount of sea-spray and onshore winds. There are no obvious signs of scour at toe. Large voids in structure and signs of smaller rock slumping at toe. There are some signs of geotextile underlay on eastern extent.
Coastal Structure A2 Chainage: 50 – 130m	2.3	1.5	3	Armour showing signs of cracking and crumbling. There are no signs of significant overtopping with sparse vegetation in crest, however, there is a small depression behind crest most probably caused by high amount of sea-spray overtopping structure from waves and strong onshore wind. There are no signs of scour at toe but large voids in structure. No signs of slumping and no evidence of geotextile underlay.
Coastal Structure A3 Chainage: 130 -230m	2.1	1.5	3	There are signs of armour rock cracking and crumbling. No signs of significant overtopping, however there is no vegetation in crest and high amount of sea-spray overtopping structure from waves and wind. There are no signs of scour at toe and no signs of slumping. Some evidence of geotextile underlay in crest.
Coastal Structure A4	2.8	2	3	Armour showing signs of cracking and crumbling. As with CS-A3, there are no signs of significant

Segment ID Name	Condition rating (1 = failed, 5 = excellent)			Comments
	Structural	Safety	Functional	
Chainage: 230 – 360m				overtopping with sparse vegetation in crest, however there is a small depression behind crest most probably caused by high amount of sea-spray overtopping structure from larger waves and strong onshore wind. There are no signs of scour at toe but large voids in structure. No signs of slumping and no evidence of geotextile underlay.
Coastal Structure A5 Chainage: 360 – 410m	3	2	4	This section was constructed later than the eastern segments, there is a 90° landward turn in the revetment alignment which causes confused wave action at toe of wall. There is a high volume of sea spray overtopping although wave run up is only on the lower 25% of the structure. There is no evidence of significant overtopping with sparse vegetation visible on landward edge of crest. Armour shows signs of cracking and there are large voids in structure. There are no signs of scour at toe or slumping and no evidence of geotextile underlay.
Coastal Structure A6 Chainage: 410 – 460m	2.9	2	3	This is the most western extent of the rock revetment, starting at a similar height to the eastern sections, the crest tapers down to beach level terminating into the GSC revetment. Armour shows signs of cracking and there are large voids in structure. There are no signs of overtopping with vegetation in crest. There are no signs of scour, slumping and no geotextile underlay is evident.
GSC revetment Chainage: 460 – 540m	1.6	1	3	GSC revetment with 2+2+1 layout (2 layers of 2 bags side-by-side + 1 single width crest layer). Revetment shows extensive damage with displaced units. Subsequent repairs have been made to sections of the groyne with newer bags placed atop failed units. Units have evidence of vandalism and subsequent repair. The revetment has been overtopped repeatedly with scouring on landward side and dune erosion present with vegetation loss. The western extent is showing seawall end effects with large landward erosion scarp. The in-tact section of revetment shows signs of functionality in retaining a shoreline.

Segment ID Name	Condition rating (1 = failed, 5 = excellent)			Comments
	Structural	Safety	Functional	
Remnant GSC Chainage: 495m	1	1	1	One 2.5m^3 GSC bag found submerged offshore of GSC revetment. It is understood that this GSC was strategically placed when surplus units were left following constriction of the GSC revetment. This individual unit has no coastal protection function and poses a safety risk to public access.
Coastal Structure B 580m	1.5	1	2	GSC "trial" groyne structure consisting of 2.5m^3 geotextile bags. Groyne is 12 units long (unburied section) with: - 2+2+1 stacking for offshore section (7 long) - 1+1 stacking for landward section (5 long) Top layer of bags has been renewed and randomly placed. There are signs of bag displacement in both the top and underlayers. There is also evidence of vandalism. Scouring can be seen to -500mm below bed level on western seaward bags (5th bag on).
Coastal Structure C 660m	1.7	1	2	GSC "trial" groyne structure consisting of 2.5m^3 geotextile bags. Groyne is 9 units long (unburied section) with: - 2+2+1 stacking for offshore section (5 long) - 1+1 stacking for landward section (4 long) Top layer of bags has been renewed and randomly placed. There are signs of bag displacement in both the top and underlayers. There is also evidence of vandalism. Scouring can be seen to -500mm below bed level on western seaward bags.

Comparison to previous condition assessment

In June 2017, EvoCoast undertook a condition assessment of the coastal structures at Emu Point as part of the City's Asset Management Framework, this is provided in Appendix B as reference. The assessment rated the structures on five (5) levels: very good, good, moderate, poor, and very poor. Table 4 provides a comparison of the EvoCoast (2017) to the 2020 condition assessment. It should be noted EvoCoast (2017) rated Coast Structure A (CS-A1 to CS-A6) over its entirety noting that also noted that the condition of the structure varied over its length, with some sections in worse condition than others and that the lowest rating identified has been applied to the entire structure.

The comparison of the two condition assessments has shown very similar evaluations of the coastal protection structures, except for the condition of the GSC groynes with the latest assessment providing a much lower assessment rating.

Table 4: Comparison of 2017 EvoCoast and 2020 condition assessment of Emu Point coastal structures

Structure name	EvoCoast (2017) rating	2020 rating
Detached Breakwater	Very Good	3.3 (Fair to Good
Coastal structure A	Poor	1.6-2.9 (Poor to Fair)
GSC Revetment	Very Poor	1 (Failed)
Coastal Structure B	Moderate	1.5 (very poor)
Coastal Structure C	Moderate	1.7 (very poor)

Summary

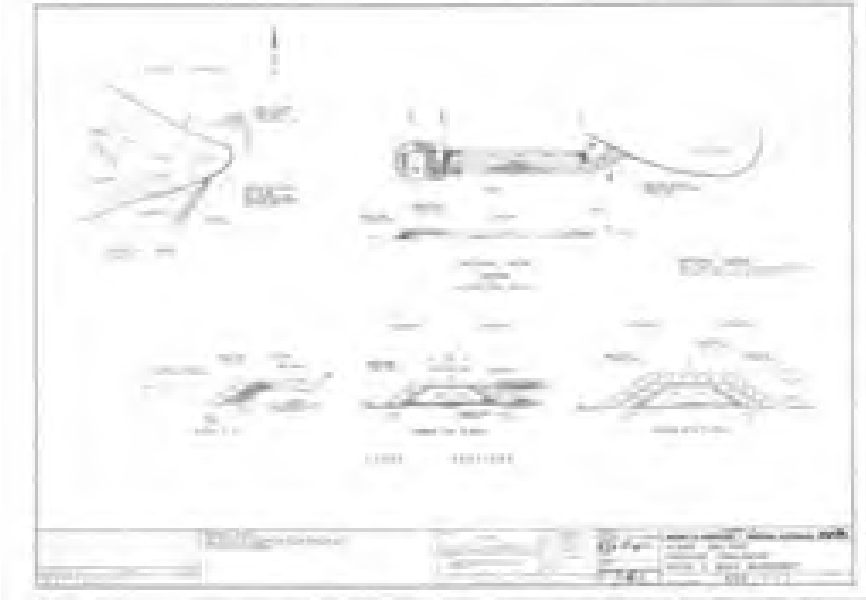
The visual inspection of the coastal protection structures at Emu Point and Emu Beach was undertaken on the 26th February 2020. The visual inspection as well as interrogation of design drawings and drone surveys was used to rate the structural, safety and functional condition of the structures. Overall, the rock structures were rated as **fair** to **good,** whereas the GSC structures were generally rated as **poor**.

Future maintenance or upgrade works of the structures, should consider the following:

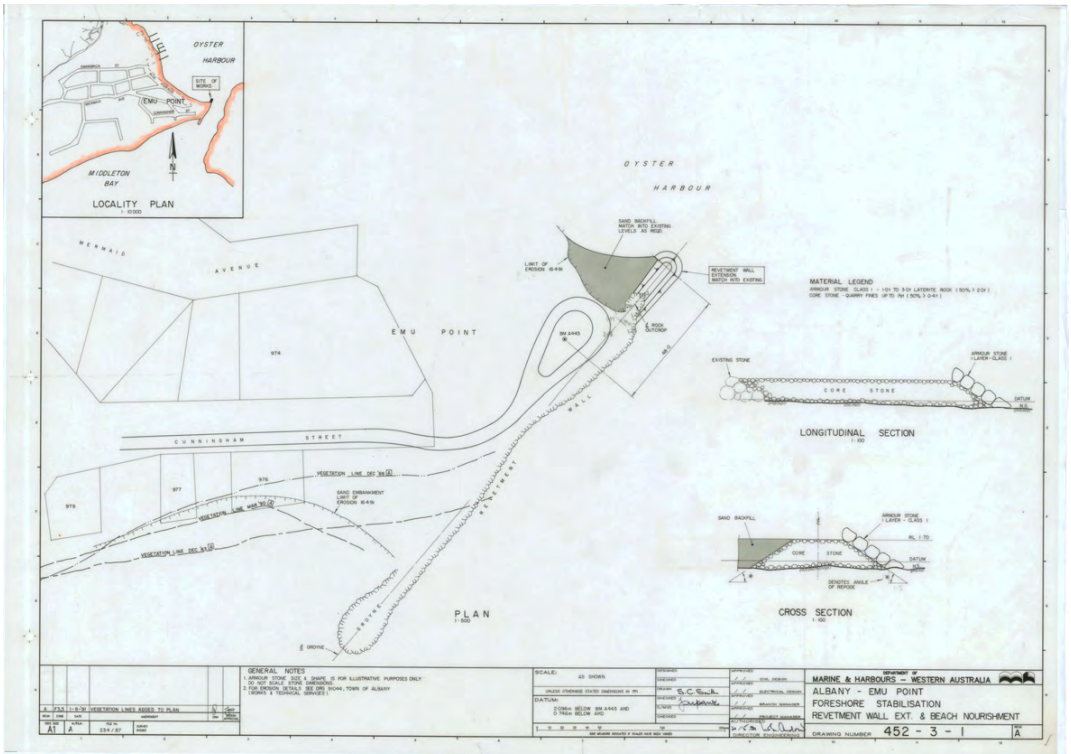
- The quality of the armour rock layer was generally seen to be fair but there were isolated areas of poor-quality armour with significant degradation, crumbling and cracking. Granite should be used if a re-build of the revetment is to be undertaken.
- The quality of the original construction was not to contemporary standards for rock revetments. Future upgrades should include a sufficient thickness of filter material (sand) and geotextile underlay.
- It is recommended that any upgrades of the seawall endeavours to minimise the amount of wave reflections off the structure. This could be undertaken by creating a milder sloped structure, creating a berm type profile or by burying the lower (wave-exposed) portion.
- Both the GSC and rock structures are openly accessible to the public which may cause safety issues. It is recommended that upgrades to the foreshore be made that separate these structures from the natural thoroughfare of the public.
- All the GSC structures are seen to be in a degraded state and currently pose a safety hazard to the public.
- There is a significant amount of erosion of the beach between Coastal Structure A and B. The GSC revetment although in a state of disrepair and frequent overtopping has been seen to offer some stabilisation of the shoreline in this location.
- RHDHV (2017) showed some evidence as to the effectiveness of the GSC trial groynes at retaining a beach on their eastern side, although very little. This is due to the seaward structure length and height, as sediment can pass over and/or around the structures. Future upgrades of these structures should incorporate an increase in both seaward length and height (of at least to Coastal Structure B).
- Visual inspection of the structure confirms, as suggested by the construction history, that rock has been progressively added to the revetment in a westerly direction. This implies that end-effects have been caused by each structure that has been built which have subsequently attempted to be remedied by the construction pf additional structures. This is an important factor to note especially in terms of public perception of the coastal protection structures built in this area.

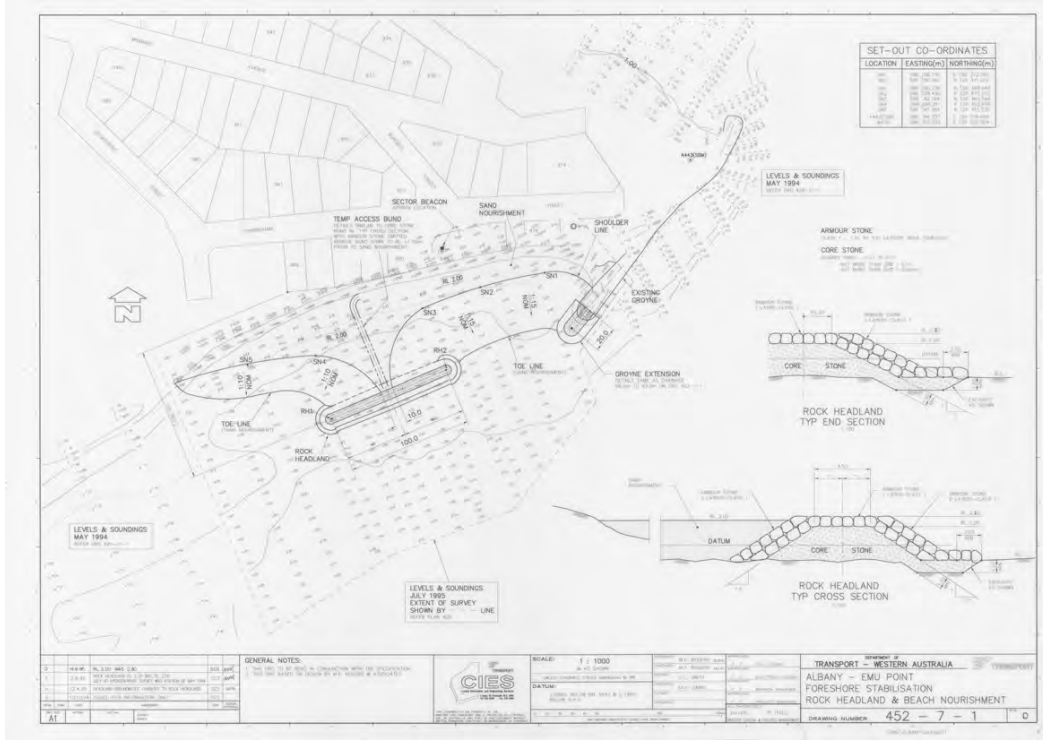
Appendix A: As-constructed drawings

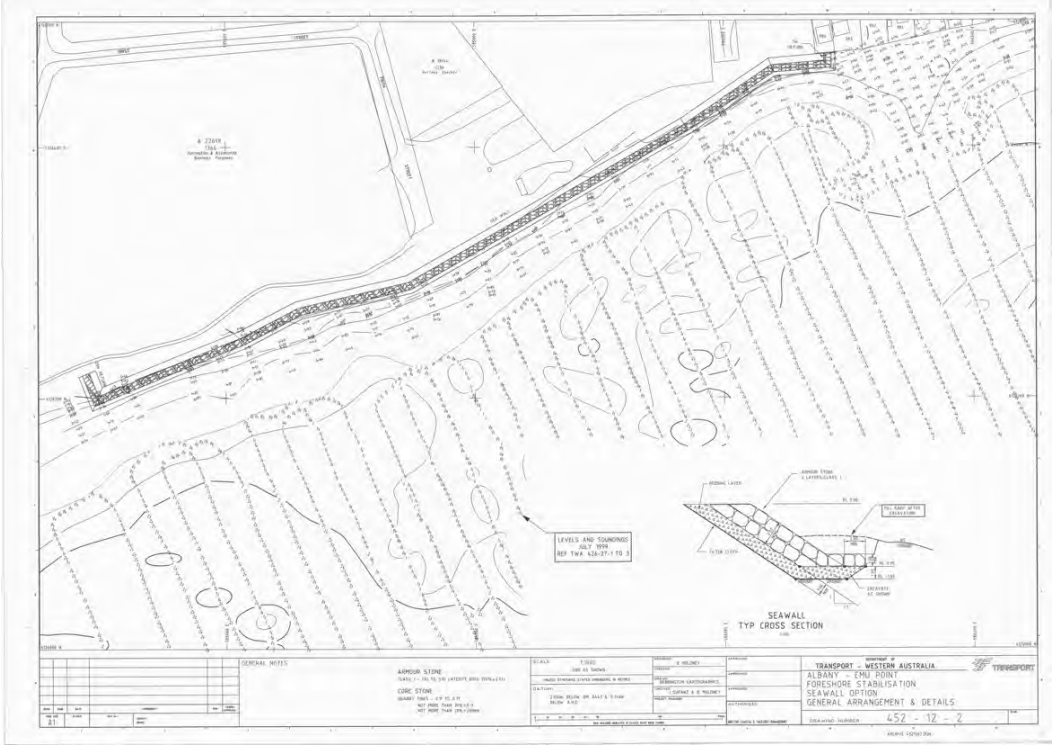
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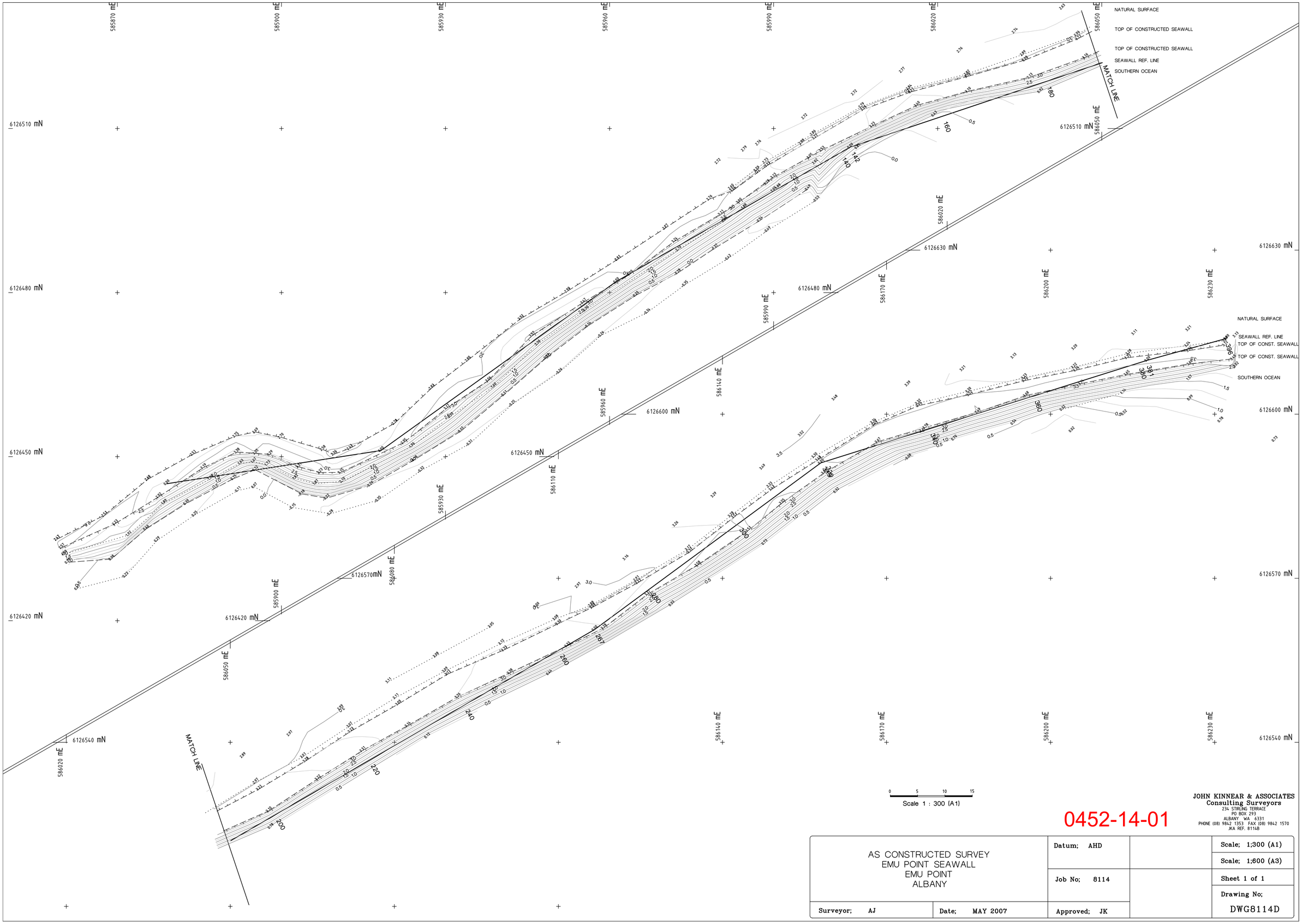


496


OYSTER HARBOUR
SITE OF WORKS
EMU POINT
MIDDLETON BAY
LOCALITY PLAN
OYSTER HARBOUR
WENNAIS AVENUE
EMU POINT
974
CUNNINGHAM STREET
975
976
977
979
VEGETATION LINE DEF 94 (2)
VEGETATION LINE DEF 94 (1)
VEGETATION LINE REC 94 (2)
SAND EMBANKMENT ABOVE EROSION RL 4·9
SAND BACKFILL MATCH INTO EXISTING LEVELS AS REQD
LIMIT OF EROSION RL 4·9
REVETMENT WALL EXTENSION MATCH INTO EXISTING
ROCK OUTCROP
BM 6443
WALL
REVETMENT
GROYNE
PLAN
1:500
MATERIAL LEGEND
ARMOUR STONE CLASS 1 - 1·0T TO 3·0T LATERITE ROCK (50%) 2·0T)
CORE STONE - QUARRY FINES (UP TO 1M (50%) 3·0 kt)
EXISTING STONE
ARMOUR STONE 1 LAYER - CLASS 1
CORE STONE
DATUM
LONGITUDINAL SECTION
1:100
SAND BACKFILL
ARMOUR STONE 1 LAYER - CLASS 1
CORE STONE
DATUM
DENOTES ANGLE OF REPOSE
CROSS SECTION
1:100
GENERAL NOTES
1. ARMOUR STONE SIZE & SHAPE IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT SCALE STONE DIMENSIONS
2. FOR EROSION DETAILS SEE DRG 91044, TOWN OF ALBANY (WORKS & TECHNICAL SERVICES)
SCALE: AS SHOWN
UNLESS OTHERWISE STATED DIMENSIONS IN m
DATUM: 0·706m BELOW BM A443 AND 0·746m BELOW AHD
DRAWN: S.C.G.H.
DESIGNED
CHECKED
APPROVED
CIVIL DESIGN
ELECTRICAL DESIGN
BRANCH MANAGER
PROJECT MANAGER
DIRECTOR ENGINEERING
DEPARTMENT OF MARINE & HARBOURS — WESTERN AUSTRALIA
ALBANY - EMU POINT
FORESHORE STABILISATION
REVETMENT WALL EXT. & BEACH NOURISHMENT
DRAWING NUMBER 452 - 3 - 1
REV A
A1 A
234/87


SET-OUT CO-ORDINATES
LOCATION
EASTING(m)
NORTHING(m)
LEVELS & SOUNDINGS MAY 1994
SECTOR BEACON
SAND NOURISHMENT
TEMP ACCESS BUND
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GROYNE EXTENSION
TOE LINE
ROCK HEADLAND
ARMOUR STONE
CORE STONE
ROCK HEADLAND TYP END SECTION
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LEVELS & SOUNDINGS JULY 1995 EXTENT OF SURVEY SHOWN BY ---- LINE
GENERAL NOTES:
SCALE: 1 : 1000
DATUM:
TRANSPORT – WESTERN AUSTRALIA
ALBANY – EMU POINT
FORESHORE STABILISATION
ROCK HEADLAND & BEACH NOURISHMENT
DRAWING NUMBER 452 – 7 – 1
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LEVELS AND SOUNDINGS
JULY 1999
REF TWA 426-27-1 TO 3
SEAWALL
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GENERAL NOTES
ARMOUR STONE
CORE STONE
TRANSPORT — WESTERN AUSTRALIA
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FORESHORE STABILISATION
SEAWALL OPTION
GENERAL ARRANGEMENT & DETAILS
452 - 12 - 2



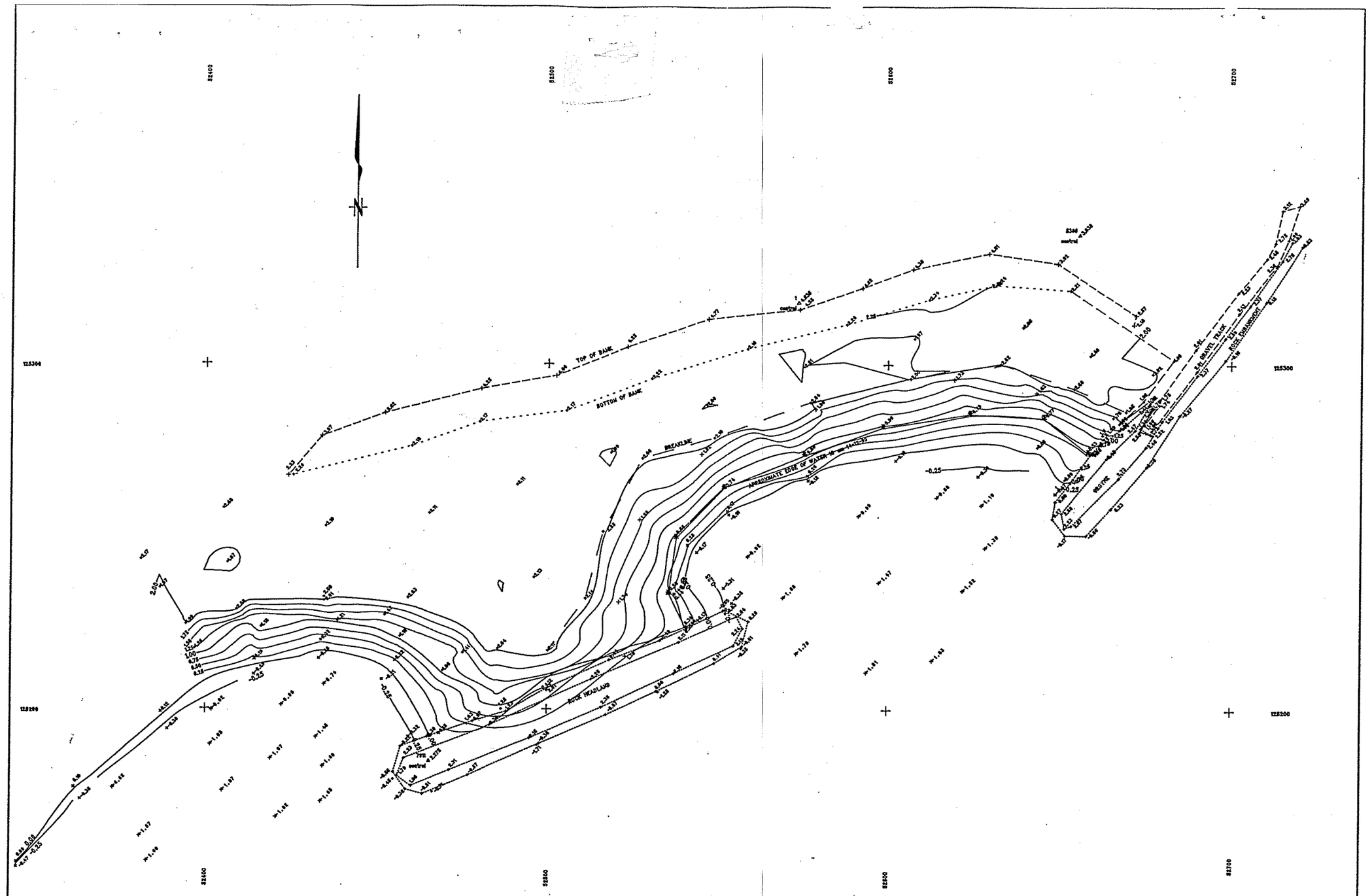
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JKA REF. 8114B

0452-14-01

AS CONSTRUCTED SURVEY
EMU POINT SEAWALL
EMU POINT
ALBANY

Datum; AHD			Scale; 1;300 (A1)
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Job No; 8114			Sheet 1 of 1
			Drawing No; DWG8114D
Surveyor; AJ	Date; MAY 2007	Approved; JK	



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Parent Data Set: 10194AA2		A	ADDITIONAL LEVELS- TOE LINE TO -1.5m DEPTH	19-1-96
Primary Data Set: 10194AA2				
Job Directory Name:	Issued To			

EMU POINT GROYNE

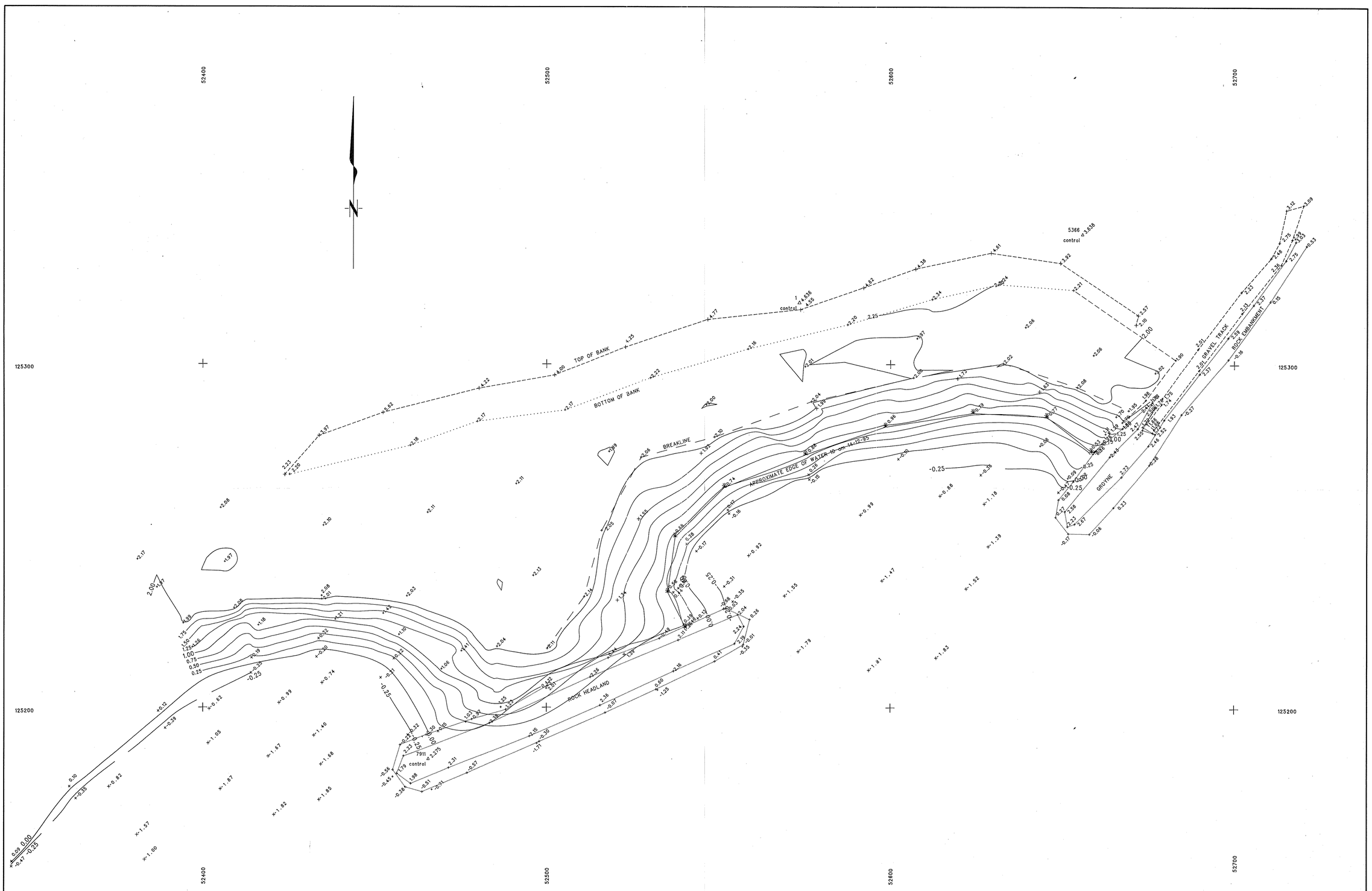
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Survey	KAH/SJB 14-12-95
Drawn	SJB 19 JAN 96
Checked	
Level Datum	AHD
Horiz Datum	

LEVELS OVER AS CONSTUCTED ROCK HEADLAND, GROYNE AND BEACH EMU POINT-ALBANY
FOR AD CONTRACTORS

HARLEY, HEDDERWICK & WEBBER PTY LTD
CONSULTING LICENSED SURVEYORS
P.O. BOX 5267
118 ALBANY ROAD
ALBANY W.A. Phone (098) 417 333
A.C.N. 008 191 798
MEMBER CSWA

DRAWING No 10194-03
REV'N A

93106



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10194AA2.G02		A	ADDITIONAL LEVELS- TOE LINE TO -1.5m DEPTH	19-1-96
Parent Data Set 10194AA2				
Primary Data Set 10194AA2				
Job Directory Name	Issued To			

EMU POINT GROYNE

Scale	1:500
APPLICABLE TO ORIG. DRAWING ONLY	
Survey	EAH/SJB 14-12-95
Drawn	SJB 19 JAN 96
Checked	
Level Datum	AHD
Horiz Datum	

LEVELS OVER AS CONSTUCTED ROCK HEADLAND, GROYNE AND BEACH EMU POINT-ALBANY

FOR AD CONTRACTORS

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ALBANY W.A. Phone (098) 417 333

MEMBER CSWA

DRAWING No 10194-02 REV'N A

93106

SET–OUT CO–ORDINATES		
LOCATION	EASTING(m)	NORTHING(m)
RH1	586 108.730	6 126 372.565
RH2	586 200.960	6 126 411.212
SN1	586 280.236	6 126 488.949
SN2	586 228.490	6 126 477.522
SN3	586 182.164	6 126 460.594
SN4	586 096.211	6 126 422.676
SN5	586 041.384	6 126 415.330
A443(SSM)	586 396.307	6 126 576.666
JM150	586 303.592	6 126 525.924

MERMAID AVENUE
BOONGARRIE STREET
BURGESS STREET
CUNNINGHAM STREET
941 934 946 935 937 936 969 951 955 970 965 974 961 957 984 980 976

A443(SSM)
JM150

LEVELS & SOUNDINGS
MAY 1994
REFER DRG 426–21–1

SECTOR BEACON
APPROX LOCATION

SAND NOURISHMENT

TEMP ACCESS BUND
DETAILS SIMILAR TO CORE STONE BUND IN "TYP CROSS SECTION" WITH ARMOUR STONE OMITTED.
REMOVE BUND DOWN TO RL +1.00m PRIOR TO SAND NOURISHMENT.

SHOULDER LINE

EXISTING GROYNE

RL 2.00

SN1 SN2 SN3 SN4 SN5 RH1 RH2

1:15 NOM.
1:10 NOM.
1:10 NOM.

20.0

TOE LINE (SAND NOURISHMENT)

GROYNE EXTENSION
DETAILS SAME AS CHAINAGE 68.0m TO 83.0m ON DRG 452–1–1

10.0

100.0

ROCK HEADLAND

TOE LINE (SAND NOURISHMENT)

109 (REF)

LEVELS & SOUNDINGS
MAY 1994
REFER DRG 426–21–1

LEVELS & SOUNDINGS
JULY 1995
EXTENT OF SURVEY
SHOWN BY — — — LINE
REFER PLAN 426

---- Denotes Groyne portion at AHD level position shown on Harley Heddenwicke Webber Plan 10134-03

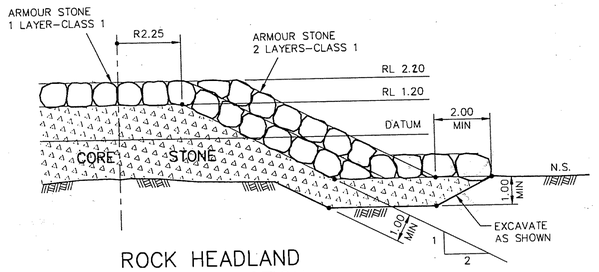
——— Denotes top of groyne wall

Levels in red are on A.H.D.

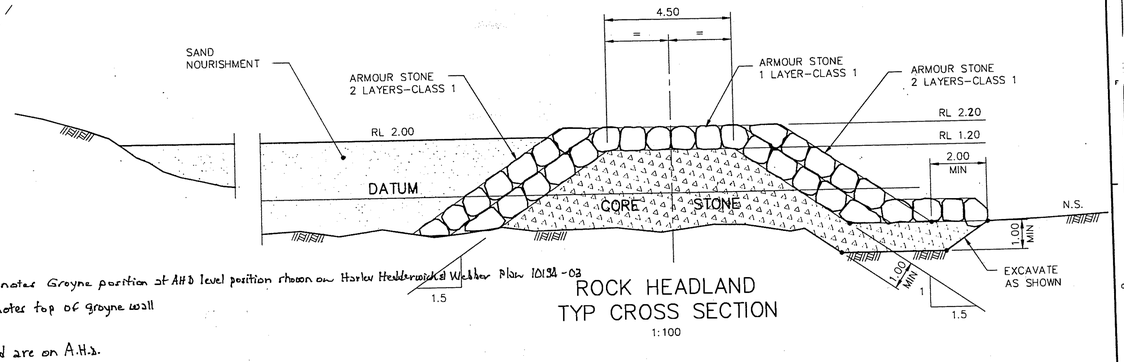
E.A. HARLEY Lic. Surv. 29.1.96.

ARMOUR STONE
CLASS 1 – 1.0t TO 3.0t LATERITE ROCK (50%>2.0t)

CORE STONE
QUARRY FINES – 0.1t TO 0.7t
NOT MORE THAN 30% < 0.1t
NOT MORE THAN 20% < 200mm



ROCK HEADLAND
TYP END SECTION
1:100



ROCK HEADLAND
TYP CROSS SECTION
1:100

REVN	ZONE	DATE	AMENDMENT	DRN	DESIGN APPROVAL
D		14.8.95	RL 2.20 WAS 2.30	SCS	MPR
C		2.8.95	ROCK HEADLAND RL 2.30 WAS RL 2.00 JULY 95 HYDROGRAPHIC SURVEY WAS PORTION OF MAY 1994	SCS	MPR
B		12.4.95	HEADLAND BREAKWATER CHANGED TO ROCK HEADLAND	SCS	MPR
A		10.10.94	ISSUED FOR INFORMATION ONLY	SCS	

DRG SIZE A1 | M/FILM | FILE No | SURVEY BOOKS

GENERAL NOTES:
1. THIS DRG TO BE READ IN CONJUNCTION WITH THE SPECIFICATION
2. THIS DRG BASED ON DESIGN BY M.P. ROGERS & ASSOCIATES

TRANSPORT
CIES
Coastal Information and Engineering Services
1 Essex St Fremantle W.A. 6160
Tel 335 0838 Fax 335 3886

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SCALE: 1 : 1000 & AS SHOWN
UNLESS OTHERWISE STATED DIMENSIONS IN m
DATUM: 2.096m BELOW BM A443 & 0.746m BELOW A.H.D.

DESIGNED	M.P. ROGERS 10.10.94	APPROVED / / CIVIL DESIGN
CHECKED	M.P. ROGERS 24.4.95	APPROVED / / ELECTRICAL DESIGN
DRAWN	S.C. SMITH	APPROVED / / BRANCH MANAGER
CHECKED	M.R. BAIRD	APPROVED / / PROJECT MANAGER
D/MOD		AUTHORISED 24/4/95 M. PAUL DIRECTOR COASTAL & FACILITIES MANAGEMENT
CHECKED		

0 10 20 30 40 50 100 150mm
BAR MEASURE INDICATES IF SCALES HAVE BEEN VARIED

DEPARTMENT OF TRANSPORT – WESTERN AUSTRALIA
TRANSPORT

ALBANY – EMU POINT FORESHORE STABILISATION ROCK HEADLAND & BEACH NOURISHMENT

DRAWING NUMBER 452 – 7 – 1 REVN D

\DWG\ALBANY\AL452071

93106

Appendix B: EvoCoast condition assessment 2017

EVO COAST

simple solutions for complex coastal problems

Att: Emma Evans, Rhys Skipper
City of Albany
PO BOX 484
Albany, WA, 6331

Our Ref: EVO-AL-002-L-001-A
Your Ref: PO 90181 & 90768

Date: 21st June 2017

Sent by email: emmae@albany.wa.gov.au; rhyss@albany.wa.gov.au

Dear Emma & Rhys,

Coastal Structures Asset Management

EvoCoast was commissioned by the City of Albany (City) to assist in adding coastal protection structures into the City's asset management framework. This letter memo summarises the work undertaken and provides supporting information to the digital GIS shape-files.

The objective of this study was to collect sufficient information to add each of the identified structures into the City's asset management database. Information was collected in accordance with the City's specifications for digital spatial data, namely:

- Spatial Data Specification (Draft Version 1 2017)
- Built Specification (Draft Version 1 2017) Table 2.3 "retaining walls"

Study Area

The following nineteen structures have been included in this assessment:

- Oyster Harbour wall;
- Emu Point structures – north groyne; rock training wall; south groyne; detached breakwater; rock revetment; sandbag revetment; sandbag groyne one, and; sandbag groyne two.
- Ellen Cove wall;
- Peace Park – rock revetment;
- Frenchman Bay Road – rock revetment;
- Lower King structures – four Lower King Bridge abutment rock revetments; rock foreshore structure, and; two timber foreshore walls. Please note the timber structures adjacent to the Lower King Bridge abutment rock revetments (directly under the bridge) are not part of this scope and have not been inspected.

Condition Rating Scale

A condition rating scale suitable for the assessment of coastal structures was developed for the City's inclusion in the Built Specification, and is included in the attached Table A-1. The proposed condition rating scale is based on the five (5) levels: very good, good, moderate, poor, and very poor.

The condition rating scale is based on a simplified version of the US Army Corps of Engineers' technical report *Condition and Performance Rating Procedures for Rubble Breakwaters and Jetties* (Oliver et al 1998) and the UK Environmental Agency *Managing Flood Risk – Condition Assessment Manual* (EA 2006). Where possible wording and terminologies have been further modified to be consistent with the City's existing specifications.

Methodology

Below is a summary of the key steps and assumptions undertaken to collect and analyse the information on each of the structures for the completion of the GIS shape-file attributes:

a. Visual land-based condition inspections were undertaken by EvoCoast staff on 9th, 10th March and 30th May.
b. Accurate feature survey by professional surveyor (John Kinnear & Associates) was undertaken on 30th May.
c. A review of previous condition inspection reports was undertaken where they were available.
d. A shape-file for each of the structures was produced in accordance with the City's specifications and is provided as an attachment to this letter.
e. Each shape-file includes an attribute table summarising the information for each structure, along with a statement of the structure's condition, remaining design life and replacement cost.
f. In accordance with the City's specifications three structures (Oyster Harbour Wall, Ellen Cove Wall and the Peace Park Revetment) were split into subsections during surveying, due to interruptions by other structures (such as steps, ramps etc.) or significant changes in dimensions. In these instances, all attributes except for Height and Width are common across all structure sections. For example, replacement cost in a table for a structure section indicates the cost for the whole structure, not just that section.
g. The condition of many of the structures varies over their length, with some sections in worse condition than others. For the purpose of this assessment the lowest rating identified has been applied to the entire structure.
h. If information was not available estimates have been made where it seemed reasonable to do so, based on our prior knowledge of the structures and observations during the site inspections. If no reasonable estimates were available the fields have been left blank.

Expected life

The expected life of each structure has been estimated assuming a starting design life of 25 years as corresponding to very good condition. This is a common design life for coastal structures in Western Australia and assumes no or very limited maintenance will be undertaken over the life of the structure. Structures in very poor condition are considered to have failed and have an effective expected life of zero. Condition ratings in between these two ratings have corresponding expected life of less than 25 years. For coastal structures

the expected design life diminishes more rapidly as the condition level falls. The assumed remaining life relative to the condition is as follows:

- Very good – remaining life 100% or 25 yrs;
- Good – remaining life 90% or ~ 22 yrs;
- Moderate – remaining life 60% or ~ 15 yrs;
- Poor – remaining life 20% or ~ 5yrs
- Very poor – remaining life 0% or 0 yrs

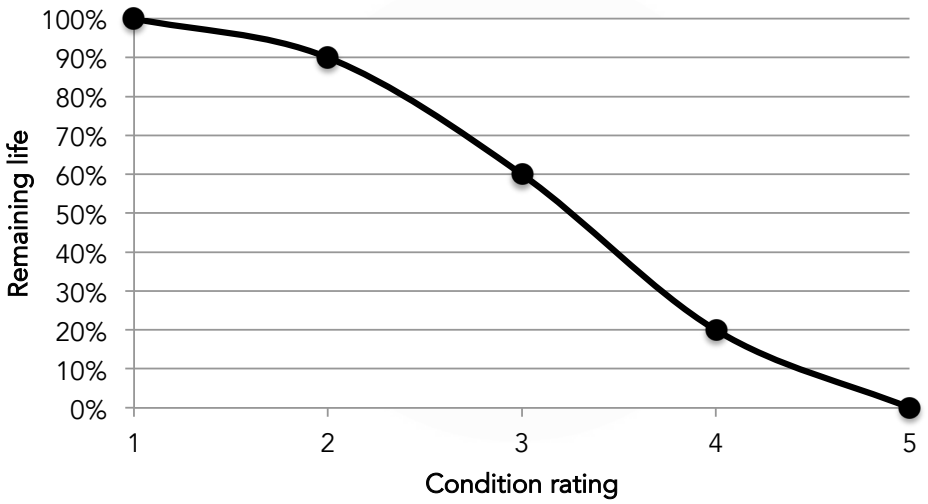


Figure 1. Remaining life relative to condition rating (1. very good, 2. good, 3, moderate, 4. poor, 5. very poor)

Where available, other factors have also been considered when estimating the expected life of individual structures, including the characteristics of the structure, comparison to design records (if available), its defects, and any previous condition inspections to take deterioration rates into consideration.

Replacement costs

Replacement costs have been calculated as a fair value estimate, based on rebuilding structures, using per metre rates for typical sections. Design and as-constructed information and drawings were sourced from the City and Department of Transport where available. The following assumptions were also made:

a. Structure characteristics (e.g. armour layer width, toe depth) were assumed when actual information was not available.
b. Representative armour sizes were sourced from measuring rocks on site.
c. Estimates of armour layer width assumed as three times nominal armour dimensions.
d. Estimates of filter layer width assumed as half the armour layer width.
e. Cross sectional areas of armour and core were estimated and factored by assuming 25% voids for armour and 15% for filter.
f. Standard densities of 2.5 T and 2.65 T per cubic metre were used for laterite and granite respectively.
g. Sloping rock structures assumed basic design of shaped fill, with geofabric layer and then core/filter layer and then two layers of rock armour.

h. Complex design features were approximated by modifying some characteristics of structure design.
i. Rock groynes and breakwaters are assumed to be two-sided revetments.
j. For vertical walls cost estimates have quantified materials, labour and machinery required to estimate per metre rates for standard sections.
k. For sandbag structures estimates are based on costs per sandbag and utilise recent maintenance cost information as a guide.
l. Allowance has been included for design, project management, preliminaries, mobilisation and demobilisation as a factor of 20%.
m. Allowance has been included for contingency as a factor of 30%.

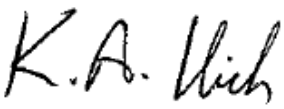
Condition summary & recommendations

A summary of the inspected structures is as follows:

- five structures are in **very good** or **good** condition and require no immediate action;
- eight structures are in **moderate** condition with defects which require regular monitoring and should be scheduled for routine maintenance;
- six are in **poor** or **very poor** condition with significant defects which require repairs that would be considered greater than routine maintenance. These structures require future investigation into the cause of failure, recommended re-build design and urgency of repairs.

Table A-2 attached provides a simple summary of the structures inspected, their function, a representative photo, condition rating, and defects summary. Although prioritisation has not been given to these structures it is recommended that immediate attention be given to the Lower King Bridge - southeast abutment rock revetment. This structure is in very poor condition and has failed. Some immediate repairs are required to prevent undermining of the road.

Kind Regards



Karl Ilich
Coastal Engineer and Project Manager
EvoCoast Pty Ltd
0411 324 494
karl@evocoast.com.au

Attachments:

a. Table A-1 – Coastal Structures Condition Rating
b. Table A-2 - Summary of structures inspected, their function, condition and defects.
c. Digital GIS shape-files
d. Submission metadata file (text file)

Table A-1. Coastal Structures Condition Rating

Rating	Condition	Example	Description
1	Very Good		No defects, or very minor defects that will have no effect on performance. No repairs required.
2	Good		Minor defects that will not reduce overall performance of the asset. Structural integrity is not likely to be threatened, even if condition should deteriorate somewhat. Repairs can be deferred but should be scheduled for out years as routine maintenance.
3	Moderate		Defects that could reduce performance of the asset. Structural integrity is likely to be threatened if condition should deteriorate. Repairs are required now or soon in order to prevent accelerated deterioration. Defects should be regularly monitored as condition may be unstable or subject to rapid change.
4	Poor		Defects that would significantly reduce performance of the asset. Further investigations may be needed. Structural integrity may be threatened. Repairs are required now to prevent accelerated deterioration and/or loss of

			structural integrity. Repairs may exceed routine maintenance and require partial rebuild.
5	Very Poor		Severe defects resulting in complete performance failure. Structure may have completely or partially failed. Repairs are now overdue and would no longer be considered routine maintenance. Partial or total rebuild is likely to be required. Design and performance requirements should be reviewed.
0	Not rated		Asset has not been rated

EVO COAST

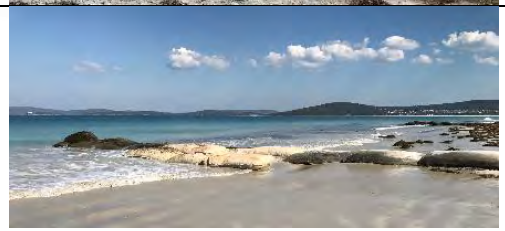
simple solutions for complex coastal problems

Table A-2. Summary of structures inspected, their condition and recommendations

Structure name	Description & function	Photo	Condition	Condition notes
Oyster harbour wall	Vertical grouted rock wall that stabilises/retains foreshore area		Moderate	Some defects in older portion of structure – grouting missing in places, cracking, evidence of piping of fill material through holes in structure face
Emu Point - north groyne	Rock groyne connected to training wall that stabilises western side of Emu Point channel and protects foreshore area from erosion		Moderate	Some defects – loss of crest elevation; unstable rocks on main structure; tie in to back of beach wall has slope steepening and loss of interlocking

Structure name	Description & function	Photo	Condition	Condition notes
Emu Point - training wall	Sloping rock seawall that stabilises western side of Emu Point channel and protects foreshore area from erosion		Moderate	Some defects – loss of crest elevation; loss of interlocking with some slumping probably due to loss of core/filter
Emu Point - south groyne	Rock groyne connected to training wall that stabilises western side of Emu Point channel and protects foreshore area from erosion		Good	No significant defects

Structure name	Description & function	Photo	Condition	Condition notes
Emu Point - detached breakwater	Sloping rock breakwater that shelters the beach behind it by protecting from incoming waves. Provides sheltered beach front and protects foreshore area from erosion		Very good	No significant defects
Emu Point - rock revetment	Sloping rock seawall that protects foreshore area from erosion		Poor	Some significant defects – significant slope steepening in some sections, likely due to settlement of toe, causing loss of interlocking between armour rocks and filter exposure; crest washout holes, likely due to overtopping

Structure name	Description & function	Photo	Condition	Condition notes
GSC revetment	Sloping sandbag seawall that provides some protection of foreshore area from erosion		Very poor	Structure has failed – bags have split open and washed away; significant reduction in crest height; overtopping has eroded foreshore behind structure
Sandbag groyne 1 (east)	Trial sandbag beach groyne which helps to stabilise beach and limit impact of erosion scour at end of seawall structures		Moderate	Some defects - Several sandbags have holes and several are deflated in size Note: Maintenance undertaken in Autumn 2017 to add bags to crest of structure
Sandbag groyne 2 (west)	Trial sandbag beach groyne which helps to stabilise beach and limit impact of erosion scour at end of seawall structures		Moderate	Some defects - Several sandbags have holes and several are deflated in size Note: Maintenance undertaken in Autumn 2017 to add bags to crest of structure

Structure name	Description & function	Photo	Condition	Condition notes
Ellen cove wall	Vertical grouted rock wall that stabilises/retains foreshore area and separates from beach		Moderate	Some defects – grouting missing in places; rocks missing from crest of structure; some concrete panels tilting
Frenchman Bay Road revetment	Sloping rock seawall that protects foreshore area and path and road from erosion		Good	Minor defects include some slumping, armour range too wide and some small/core rock placed on top of armour

Structure name	Description & function	Photo	Condition	Condition notes
Peace Park revetment	Sloping rock seawall that protects foreshore area from erosion		Very good	Minor defects – Loss of interlocking in isolated sections, and; toe rocks disconnected from structure
Lower King - foreshore rock structure	Layer of rock which stabilises the tidal zone to support reed planting		Good	Minor defect – several rocks located outside of structure footprint towards water

Structure name	Description & function	Photo	Condition	Condition notes
Lower King - timber wall 1	Function is unclear - may have historically stabilised foreshore reserve for landscaping		Very poor	Structure has failed - timber sections missing; connecting bolts rusted through; structure no longer retaining sand
Lower King - timber wall 2	Function is unclear - may have historically stabilised foreshore reserve for landscaping		Very poor	Structure has failed - timber sections missing; connecting bolts rusted through; structure no longer retaining sand

Structure name	Description & function	Photo	Condition	Condition notes
Lower King Bridge - NW abutment rock revetment	Sloping rock seawall that protects bridge abutment and road from erosion		Very poor	Structure has failed - slope steepening, likely caused by slumping of toe; significant exposed core and fill; significant armour loss from slope
Lower King Bridge - SW abutment rock revetment (aka causeway)	Sloping rock seawall that protects bridge abutment and road from erosion		Moderate	Some defects - loss of interlocking at top of slope, likely due to settlement of toe; slope steepening; some washout at crest; large armour size range

Structure name	Description & function	Photo	Condition	Condition notes
Lower King Bridge - SE abutment rock revetment (aka causeway)	Sloping rock seawall that protects bridge abutment and road from erosion		Very poor	Structure has failed - majority of armour lost; large sections of core and fill exposed
Lower King Bridge - NE abutment rock revetment	Sloping rock seawall that protects bridge abutment and road from erosion		Moderate	Some defects - grouted section of structure has slumped ~50mm; slope steepening; displaced toe rocks; exposure of core and fill

Appendix B: Coastal protection concept designs, preliminary bill of quantities and costing

10.1. Emu Point rock revetment upgrade concept design

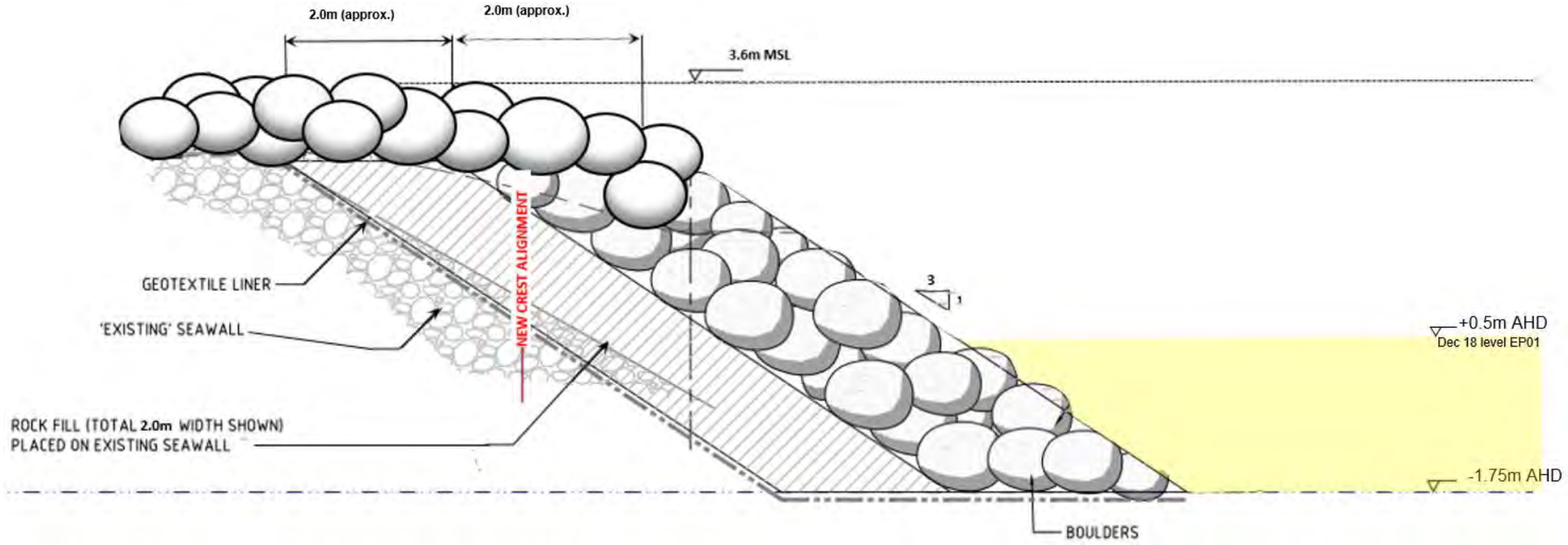


Figure 35: Coastal Adaptation Option 1: Rock revetment (Coastal Structure A) upgrade concept design. Please note all dimensions and levels are approximate and are to be confirmed during detailed design

Material	Size	Approximate cross-sectional area (m^2)	Approximate volume for 460m length of wall (m^3)	Approximate tonnage for 460m length of wall (t)	Approximate rate for deliver and build (2020 AU$)	Estimated cost for upgrade (2020 AU$)	Source of quote and estimated error
Armour Rock	D50: 2.0t	18.3	8,418	13,680	$121.50 / t	$1,662,120	LandCorp quote K1265/2 for Middleton Beach revetment, July 2016. Rates have been marked up with CPI from 2016 to 2020 based on construction industry values for WA from Rawlinson's (2020)
Filter layer	0.27t	6.2	2,852	5,297	$179.50 / m^3	$511,934	
Geotextile layer	1200R	26m	12,580m^2		$7/m2	$88,060	
					Total	$2,262,114	

10.2. Emu Beach groyne field upgrade concept design

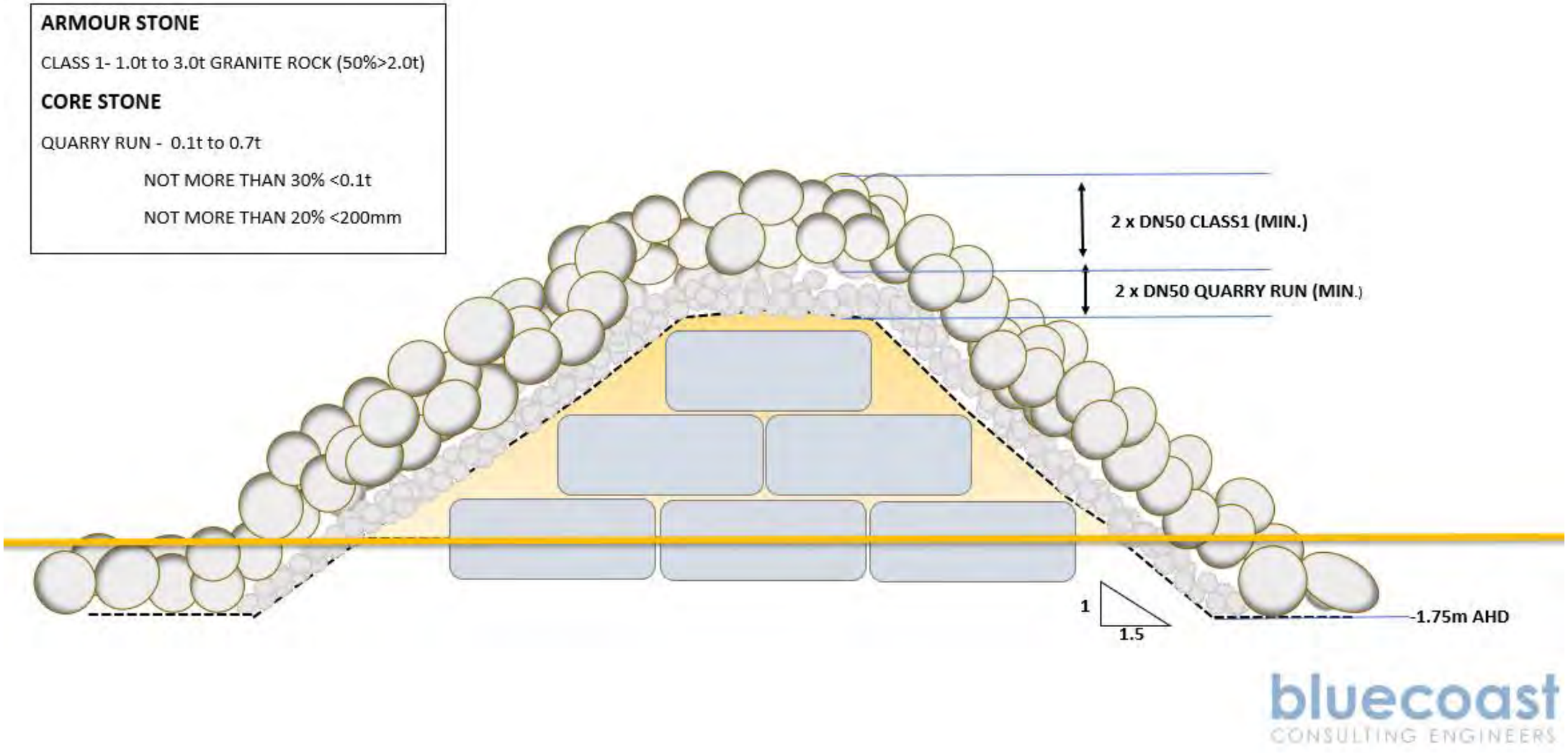


Figure 36: Coastal Adaptation Option: GSC Groyne upgrade concept



Figure 37: Coastal Adaptation Option: Groyne upgrade concept, Plan View

Structure ID	Fill volume (m^3)	Geotextile (m^2)	Quarry run volume	Class 1 volume	Estimated cost for upgrade (2020 AU$)	Source of quote and estimated error
Coastal Structure B	215	795	650m^3 / 105t	1800m^3 / 2880t	$ 468,100.00	LandCorp quote K1265/2 for Middleton Beach revetment, July 2016. Rates have been marked up with CPI from 2016 to 2020 based on construction industry values for WA from Rawlinson's (2020). Beach Nourishment quote is highest value for Middleton-sourced sediment PRDW (2017).
Coastal Structure C	215	795	650m^3 / 105t	1800m^3 / 2880t	$ 468,100.00	
Coastal Structure D	585	795	650m^3 / 105t	1800m^3 / 2880t	$ 470,690.00	
TOTAL	1015	2385	1950m^3 / 315t	5400m^3 / 8640t	$ 1,406,890.00	

Appendix C: Review of existing coastal protection measures at Emu Point

11.1. Introduction

This technical note has been written with the aim of providing a performance review of the existing coastal protection measures at Emu Point. Following the conclusion of the CHRMAP Implementation Plan (Aurora, 2019), additional coastal monitoring data has been collected at Emu Point as well as further detailed numerical modelling undertaken through the Albany Artificial Surf Reef (ASR) Project. In addition, further degradation of the existing coastal protection structures and a large storm event in August 2020 has renewed interest in revisiting the coastal protection recommendations made in the implementation plan by examining the efficiency of the existing structures.

Figure 38 shows a map with the locations of available location of available metocean data used in the design process of the ASR, it also provides a preliminary indication of Albany ASR site and Emu Point.

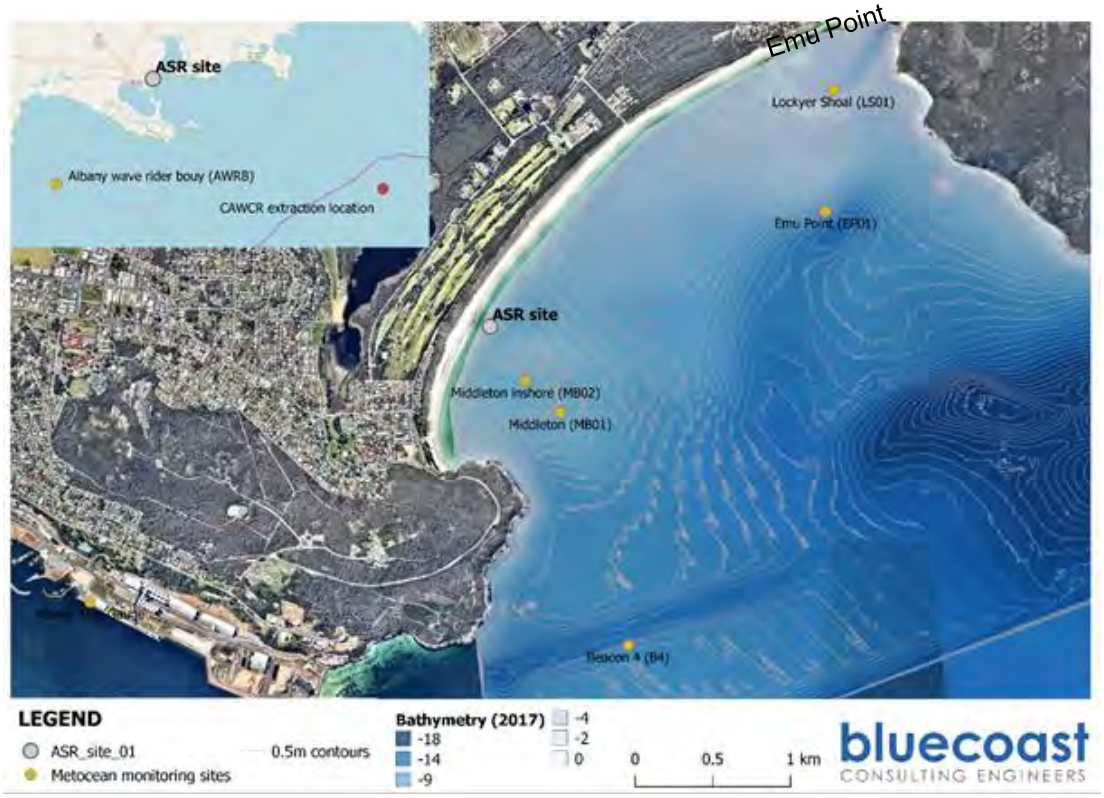


Figure 38*:* Metocean data locations in relation to Emu Point and the Albany ASR site.

11.2. Emu Point nearshore wave climate

The Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy: Coastal Vulnerability Study and Hazard Mapping (RHDHV, 2017) undertook a detailed 38-year hindcast wave modelling exercise of King George Sound. The model was calibrated to wave

measurements collected by an Acoustic Wave and Currents (AWAC) instrument deployed in 8m offshore of Emu Point by DoT. A subsequent hindcast wave model was calibrated to this data in 2020 with additional boundary data used to bring the duration of this simulation to 41 years (1979-2020) as part of the design studies for the Albany Artificial Surf Reef project (Bluecoast, 2020). To improve calibration and ensure precision, the model resolution was increased in the nearshore and further validation was undertaken against newly recorded data from an AWAC device placed in the lee of Lockyer Shoal, see Figure 40.

In order to gain an understanding of the wave climate in the nearshore at Emu Point to inform coastal protection activities, hindcast wave data was extracted from this model at three locations approximately 150m offshore of the rock revetment and trial GSC groynes at Emu Point, 250m apart from each other shown in Figure 40. A summary of the nearshore wave climate at each point can be seen in

Table 4. The weighted average wave directions were calculated based upon the wave energy of each reading, as follows:

Dp weighted = (Hs^2 x Tp x Dp) / sum (Hs^2 x Tp)

The nearshore wave climate at Emu Point can be defined as follows:

- Offshore wave direction (seaward of King George Sound) generally has very little influence on the directionality of nearshore waves at Emu Point due to the ‘funnelling’ effects of the Sound and the long distance the incoming waves must travel across a relatively uniform bathymetry. Following this passage, incoming swells are basically aligned to the orientation of the bathymetry/shoreline prior to reaching the shoreline.
- Near Emu Point, Lockyer Shoal has the biggest effect on the transformation of waves prior to reaching the shoreline. Waves refract around the western edge of the shoal, with wave directions at P1 and P2 seen to be between 119°N-120°N all year round with very little variation (max standard deviation of 4°). These wave directions are not perpendicular to the shoreline.
- Wave directions at P3 appear to be less influenced by the shoal as wave directions are generally aligned perpendicular to the shore. It is assumed that there is some refraction around the eastern extent of the shoal experienced at this location, see Figure 42: .
- There is very little variation in seasonal wave heights and the sites are dominated by swells (wave periods greater than 8 seconds). The more exposed sites at Middleton Beach experience a greater proportion of wind waves (wave periods less than 8 seconds) in the Summer months due to the fetch that is set up across the Sound during the Summer easterlies. The location of Emu Point on the eastern extent of the Sound means these fetches are significantly reduced.

Design wave conditions have been calculated at the central extraction point (P2) based on the results of the 41-year wave hindcast. The independent event peak storm significant wave heights were subjected to an extreme value analysis using the maximum likelihood method, fitting to the Weibull distribution. Design wave conditions in terms of significant wave height are presented in Figure 41 for a range of Annual Recurrence Intervals (ARI). Figure 41 presents the

recommended design wave conditions at P2 for wave events with an ARI of 5, 50 and 100 years. It should be noted that this location is in approximately 3-4m of water, approximately 150m offshore of the structures at the project site. Due to the shallow water depth at the extraction location it is expected that waves will be depth-limited, and that Lockyer Shoal will reduce a significant proportion of the wave energy in larger events. Figure 39 shows the Q-Q plots for the calibration of the hindcast model. The model is seen to slightly over-estimate larger wave heights, meaning design wave heights provided in Figure 41 are conservative.

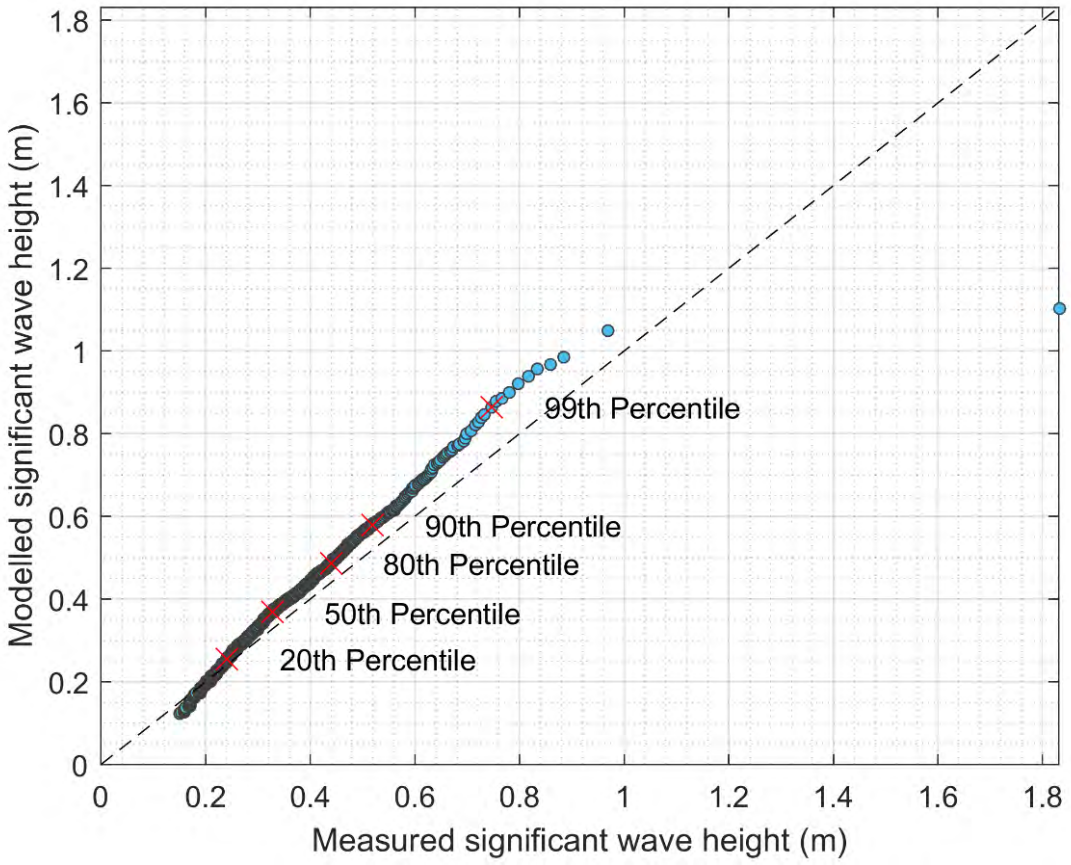


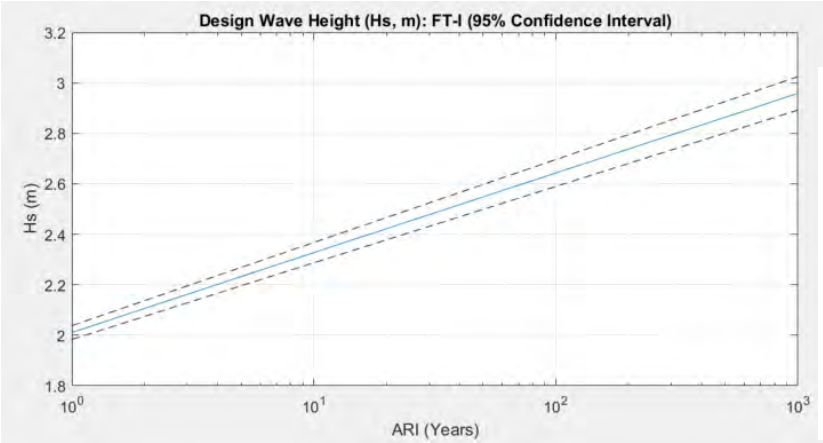
Figure 39: Calibration (Q_Q) plots of modelled waves heights against measured wave heights at the Emu Point and Lockyer Shoal AWAC devices (DoT) from the 41-year wave hindcast model.



Figure 40: Emu point monitoring locations and hindcast model extraction location

Table 9: Operational wave climate for points P1, P2, P3 extracted offshore of Emu Point from the transformed 41year wave hindcast

Parameter	Statistic	41-year hindcast record														
		LTA			Summer			Winter			Autumn			Spring		
Significant wave height (Hs) [m]	Point	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P2	P3	P1	P2	P3
	Mean	0.39	0.56	0.43	0.39	0.54	0.48	0.39	0.59	0.38	0.39	0.56	0.43	0.38	0.56	0.41
	99%ile	0.60	1.26	1.24	0.59	1.22	1.35	0.62	1.33	1.14	0.60	1.25	1.22	0.59	1.23	1.21
	Max	2.03	2.33	2.68	1.76	2.21	2.68	2.03	2.33	2.63	1.78	2.16	2.59	1.54	1.99	2.45
Peak wave period (Tp) [s]	Mean	13.1	13.2	13.2	12.3	12.4	12.3	13.8	13.9	13.8	13.3	13.3	13.3	13.1	13.2	13.2
	% of time sea (Tp < 8s)	3%	2%	3%	4%	4%	4%	1%	1%	1%	3%	2%	3%	3%	3%	3%
	% of time swell (Tp > 8s)	97%	98%	97%	96%	96%	96%	99%	99%	99%	97%	98%	97%	97%	97%	97%
Peak Wave Direction (Dp) [˚TN]	Weighted Average	120	119	145	12	121	146	120	119	145	120	119	145	120	119	145
	Average	120	119	145	121	121	145	119	118	145	120	119	145	120	119	145
	St. Dev.	2	4	1	2	4	1	2	4	0	2	4	1	2	4	1



ARI (year)	Hs (m)	Hs (98% Confidence Intervals)
5	2.23	2.20 – 2.27
50	2.55	2.50 - 2.60
100	2.64	2.59 – 2.70

Figure 41: Design wave heights (H_s) of the central model extraction point (P2) from the 41 year hindcast wave model

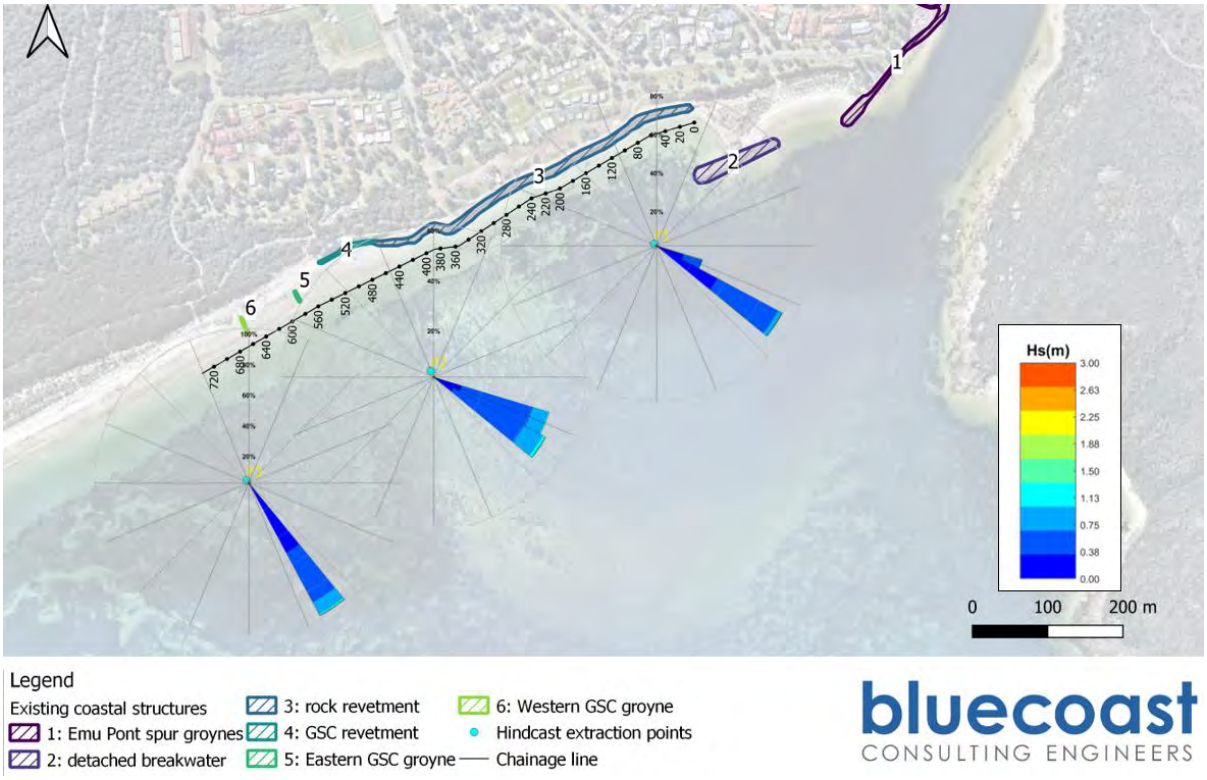


Figure 42: Long-term average wave roses from the three-model extraction point (P1, P2, P3) from the 41 year hindcast wave mode

11.3. Emu Point morphological change

The Emu Point to Middleton Beach Coastal Adaptation and Protection Strategy: Coastal Vulnerability Study and Hazard Mapping (RHDHV, 2017) undertook a detailed investigation into coastal processes along the whole embayment, utilising past reports, metocean and survey data and numerical modelling. A summary of the findings for Emu Point from this report as well as updated information from subsequent monitoring is provided below:

- The erosion observed at Emu Point and over the Lockyer Shoal is due to the complex balance between tidal, wave driven and fluvial forces
- The loss of seagrass meadows and the major storm event that occurred in August 1984 were key factors in the subsequent erosion.
- The introduction of coastal structures at Emu Point in response to the erosion of 1984 have modified the natural sediment transport pathways.
- Construction of the training wall and groynes at Emu Point has resulted in a disconnection of the Emu Point and Oyster Harbour sediment cells. That is, the net addition of sediment to the Emu Point cell has ceased (PRDW, 2013a).
- There has been a disruption of the clockwise sediment circulation cell that operated between Emu Point, Emu Point Channel and Lockyer Shoal due to training and coastal structures that changed the flow regime of Emu Point Channel (PRDW, 2013a).
- Wave energy reflected from the rock revetment has resulted in scour and a general lowering of the seabed in front of the revetment (URS, 2012 and PRDW, 2013a).
- Erosion of Lockyer Shoal has resulted in reduced nearshore wave refraction and a subsequent straitening of the shoreline around the Firth Street salient (MP Rogers, 2003).

The City has been undertaking beach monitoring through the seasonal collection of beach transect data along Middleton Beach, Emu Point and Oyster Harbour since October 2013. Historic beach transect evolution at the four main survey locations within the project area (MB-07, MB-08, MB-09, EP-01) can be seen in Figure 40.

Analysis of the historical transects show that since October 2013, there has been:

- A general shallowing of all locations in the offshore portion of the transect (below -3m AHD) by up to 1m, representing accumulation of Lockyer Shoal.
- The greatest erosion of the upper beach face (above 0m AHD) occurred during the most recent survey in August 2020 as a result of the large storm event at that time.
- The 0m AHD shoreline location can vary by up to 50m across transects MB-07, MB-08 and MB-09.
- MB-08 and MB-09 have very steep upper dune faces (between 1m AHD to 4m AHD) which has shown a small amount of landward movement

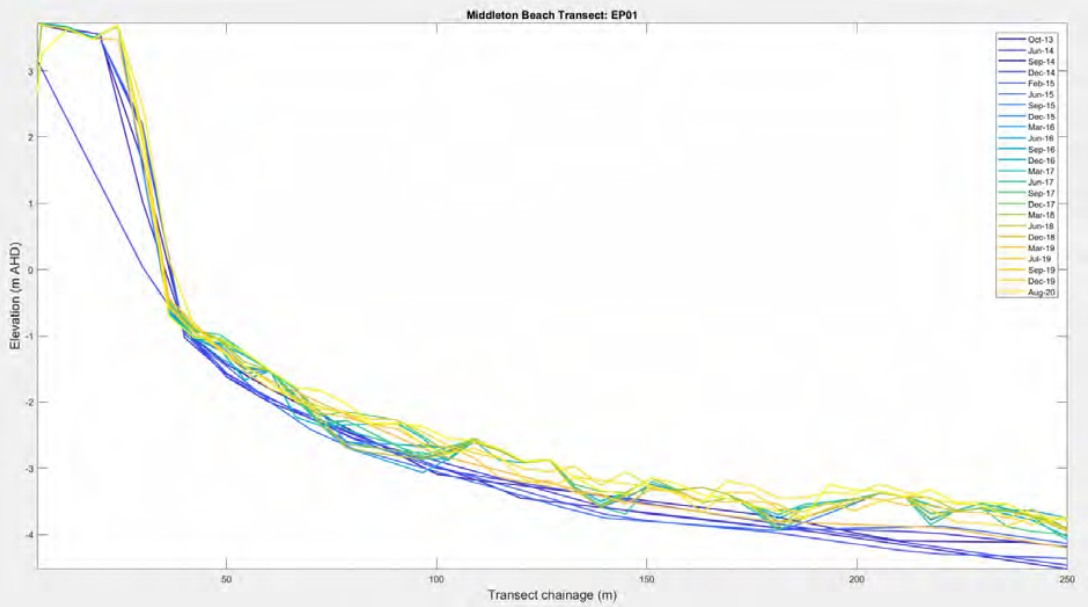


Figure 43: Seasonal beach transect data from October 2013 to August 2020 at transect EP-01

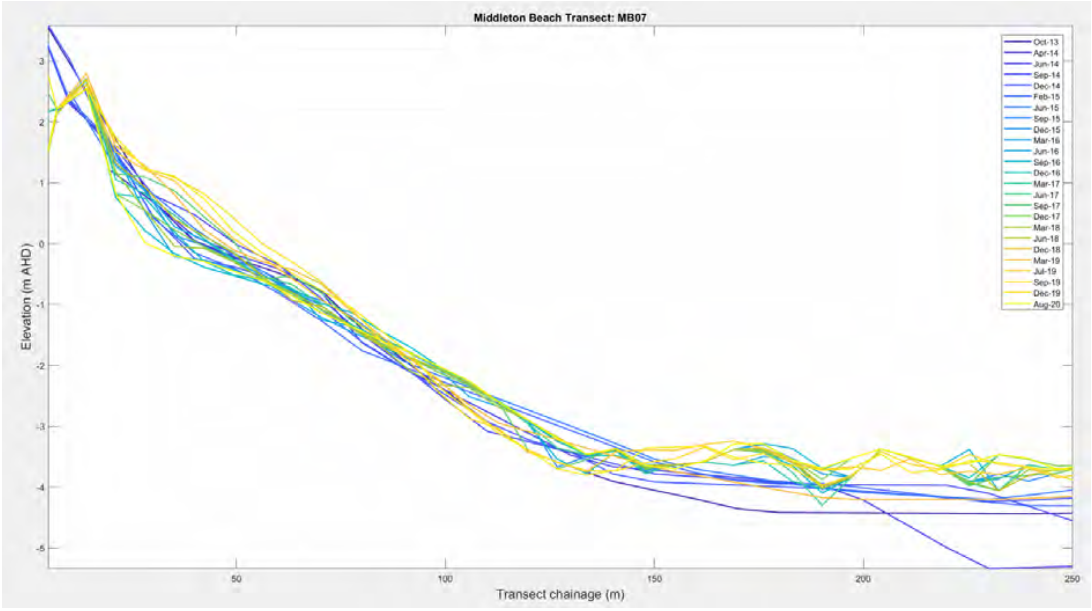


Figure 44: Seasonal beach transect data from October 2013 to August 2020 at transect MB-07

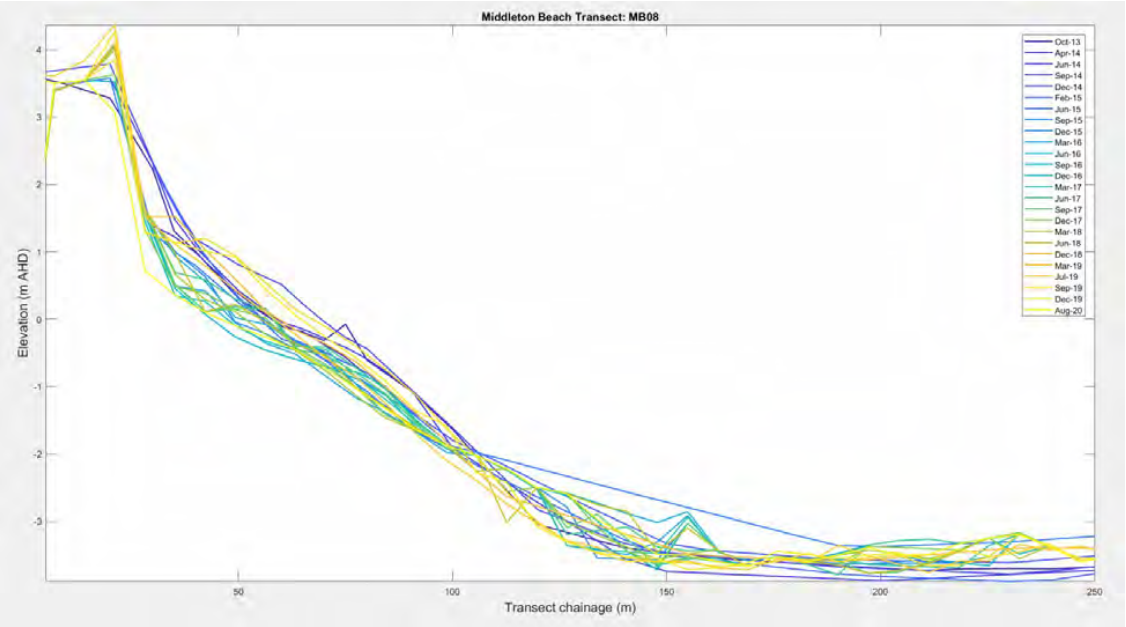


Figure 45: Seasonal beach transect data from October 2013 to August 2020 at transect MB-08

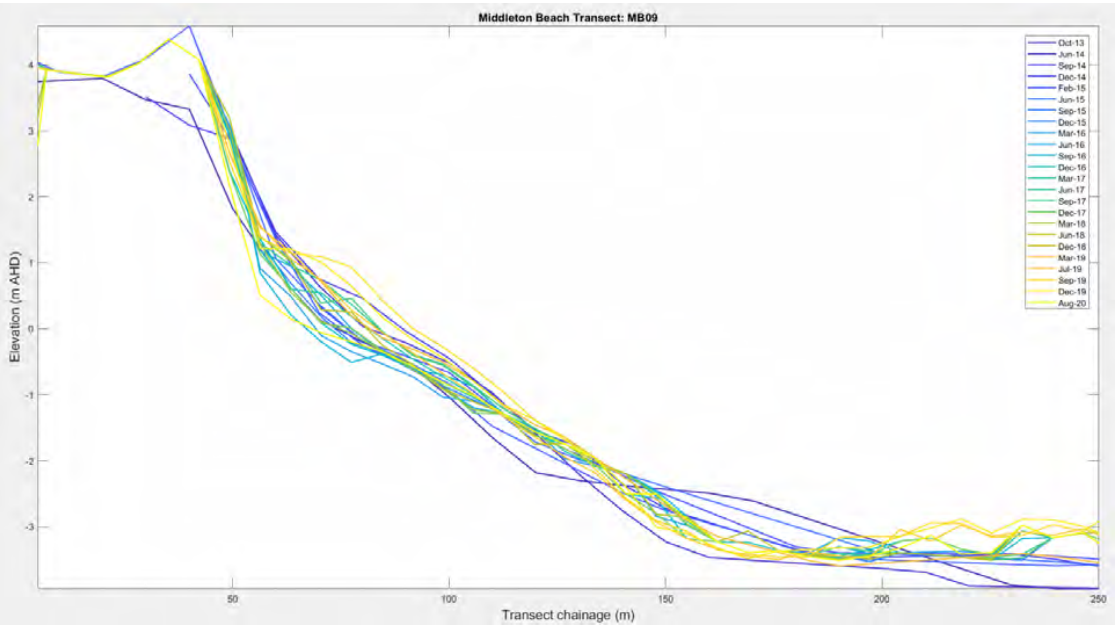


Figure 46: Seasonal beach transect data from October 2013 to August 2020 at transect MB-09

11.4. Emu Point sediment transport

As seen in the historical beach transect data, there is a clear short-term cross-shore response to storms, where sand is removed from the upper beach face and deposited into the deeper parts of the profile. However, as far as longshore transport, RHDHV (2017) has shown that there has been net erosion in the Emu Point area since the introduction of coastal protection structures. Whilst at the same time, the eastern portion of Middleton Beach from Ellen Cove to the Golf Course has shown a net accretionary trend, suggesting net longshore transport towards the west.

There has been four previous studies SKM (1993), MP Rogers (2003), PRDW (2013) and RHDHV (2017) investigating the net LST regime at Emu Point. There is contention as to the mechanism inducing the net longshore transport along Emu Point. However, the consensus is that east of Boongarie St, sediment moves east to west (towards Ellen Cove) at a rate of between 10-11,000m^3/year. SKM (1993) also hypothesized net transport along the western portion of Emu Beach was in the opposite direction from west to east (i.e., towards Oyster Harbour) at around 8,000m3/yr. Numerical modelling undertaken as part of RHDHV (2017) has shown complex 2D circulation processes associated with Lockyer Shoal, Oyster Harbour inlet as well as the wave transformation processes associated with the shoal and interplay of established seagrass beds.

The most widely used formula for longshore transport (LST) is commonly known as the CERC equation (Shore Protection Manual, US Army Corps of Engineers, 1984). This method is based on the principle that the longshore transport rate (LST, incl. bed load and suspended load) is proportional to longshore wave power (P) per unit length of beach. The CERC formula has been calibrated using field data from sand beaches. This formula has been used to get an estimate of sediment transport potential at each of the hindcast wave extraction points (P1, P2, P3). The formula was applied to the extracted wave parameter timeseries from 2001 to 2020, the approximate period since the last (major) extension of the revetment at Emu Point. The mean monthly LST potential and mean monthly wave parameters at each hindcast extraction point are presented in Figure 47 to Figure 49.

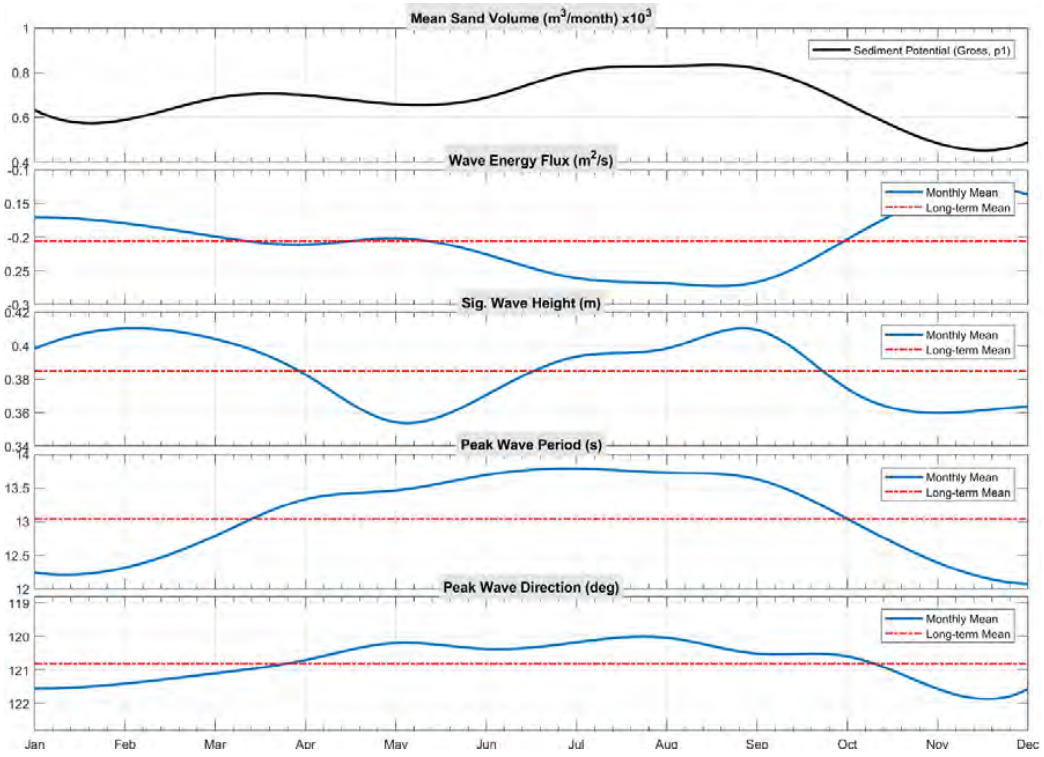


Figure 47: Mean longshore sediment transport potential at hindcast extraction point P1 after CERC (1984)

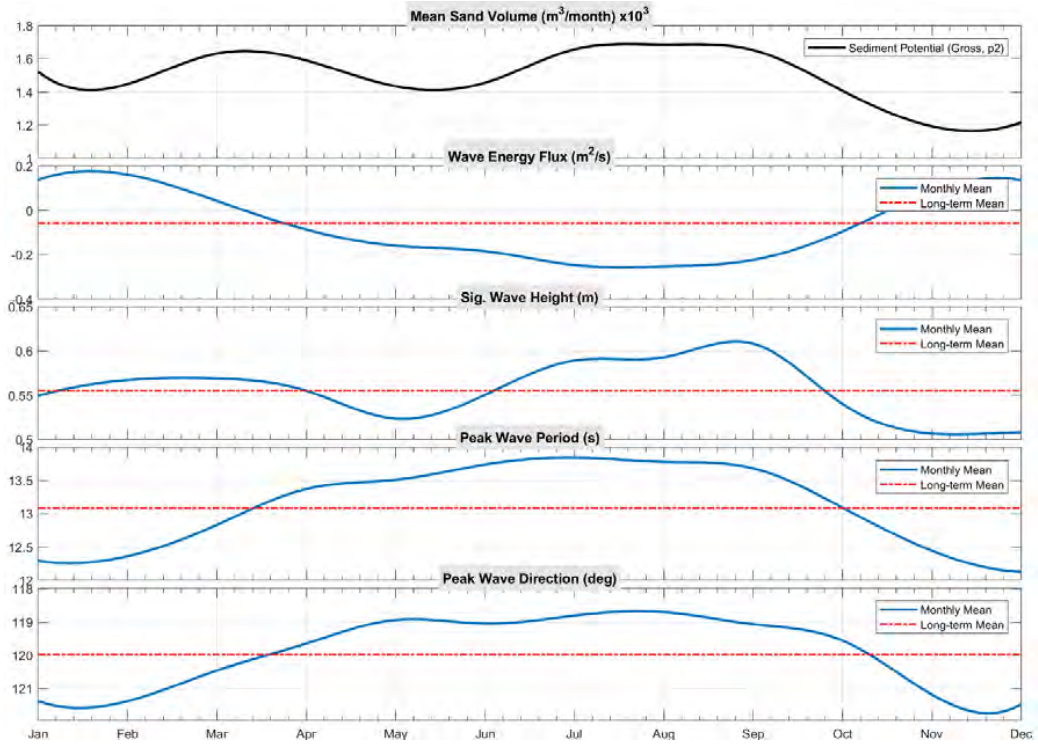


Figure 48: Mean longshore sediment transport potential at hindcast extraction point P2 after CERC (1984)

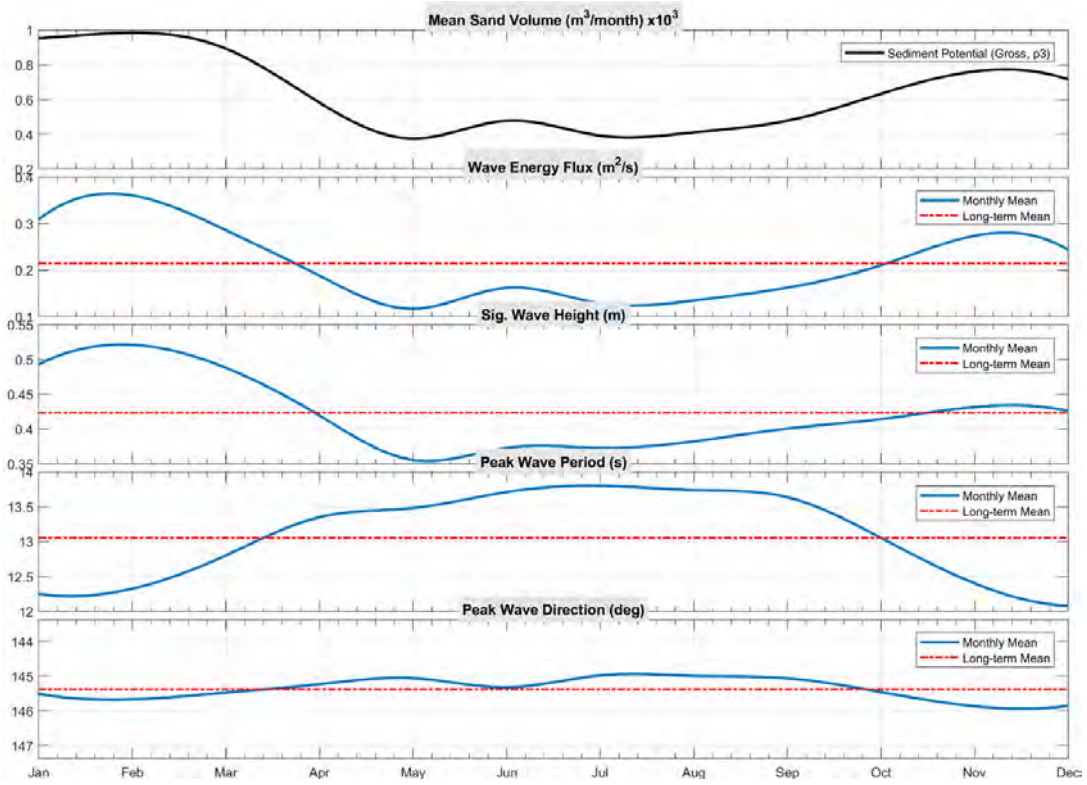


Figure 49: Mean longshore sediment transport potential at hindcast extraction point P3 after CERC (1984)

11.5. Performance review: geotextile synthetic container (GSC) groynes

In April 2014, the City installed two trial groynes to the west of the rock revetment at Emu Point. During construction, the area around the groynes was nourished with approximately 10,000m^3 of sand. The extent and layout of the trial GSC groynes can be seen in the as-constructed drawings in Figure 26. The groynes were installed as a trial to assess what the effect would be of a shore perpendicular structure with the aim of maintaining a beach in this area preserving the nourishment and to provide a natural buffer during storm events.

PRWD (2015c) and RHDHV (2017) undertook reviews of the groynes by comparing aerial photographs taken before and after the trial groynes were installed. The reviews showed the following:

- There was no indication of a major build-up of sand by the two groynes.
- There is evidence of minor erosion to the west of the groynes indicating net longshore transport direction is directed this way. Due to the magnitude of the erosion, this is believed to be small.
- There is evidence that the groynes have influenced the shape of the coastline with a measured 2° difference in coastline orientation around the groynes
- Sand is bypassing the end of the short trial groynes.

- There are indications that the erosion occurring prior to groyne installation has stabilised.

Following the PRWD (2015c) and RHDHV (2017) review of the trial GSC groynes, further performance review work is set out herein. The performance review is aimed at assessing the structures' ability to retaining sand and utilises the latest beach monitoring data. Figure 51 to Figure 53 shows the seaward location of different aerial beach contours (0m, 1m, 2m AHD) from a static landward control point along beach transects MB-07, MB-08 and MB-09. Table 10 summarises the horizontal movement seaward (indicating accretion) or landward (erosion) of the three transect lines on Emu Beach as well as two adjacent transects to the west (MB-05 and MB-06). The horizontal movement has been calculated by finding the difference between the location of each contour prior to the implementation of the GSC trial groynes (October 2013) and the mean location of each contour following construction (April 2014 to August 2020).

A major storm event occurred in August 2020 causing significant erosion across all transects. This event was thought to have skewed the mean contour locations (since April 2014), so a sensitivity test was undertaken whereby this event was removed when calculating mean contour location. The sensitivity test showed a maximum difference in mean contour location of 0.4m across all transects and contours and as such this data point has been left in the calculation of the mean contour locations post-GSC implementation. The following key findings have been inferred from the analysis:

- An erosive trend across all transects was seen to have occurred between January 2015 to January 2018. A subsequent accretionary can be seen to follow this until the storm event of August 2020.
- MB-08, the eastern most transect, is seen to experience erosion or landward movement of all aerial beach contours examined since October 2013.
- The highest erosion that can be seen across all transects is a 20m landward movement of the 2m AHD contour along MB-08. It is expected that this may also be caused by the end-effects associated with the rock revetment.
- MB-07, has seen relative stability in the 2m contour, whilst the 0m and 1m contours show seasonal trends with accretion happening following the winter months and erosion at the end of Summer. The 0m and 1m has shown a net recession over the monitoring period.
- MB-05, the most western transect (located in the Middleton Beach sediment cell) has shown net accretion.
- MB-06, which may be more representative of the trial GSC groyne site (or status quo), has shown relative stability since the trial GSC groynes were implemented, with only small variations in movement of the contours.
- Net sediment transport trends were estimated by calculating the landward or seaward movement of the 1m contour at each transect between successive transect surveys. An approximate m^3/m value was determined by calculating the area between successive transects.
- Between 2013 and 2014 (when the GSC groynes were constructed) there was seen to be an average loss of -2.5 m^3/m between MB-06 and MB-07, equating to an approximate 750m^3 above the 300m stretch of beach.

- Following implementation of the groynes (2014 to 2019) there has seen a net average accretion of around +0.2 m^3/m over the 780m stretch between MB-05 and MB-08 or approximately 156 m^3. Conversely in the 2020 event the same stretch was seen to experience a net erosion of 195 m^3.

The most stable transect in the analysis is seen to be MB-09 which is located between the two trial GSC groynes. All contours have retained their seaward position even during the storm event of August 2020. The long-term comparison shows a slight widening of the subaerial beach (i.e., seaward movement). Whereas the two directly adjacent transects (MB-07, MB-08) have shown net recession. The stability of the subaerial beach between the two groynes provides evidence of their efficiency and is most likely related to the short distance between the two groynes.

Both condition assessments of the GSC groynes has shown deterioration which has resulted in repair and replacement of individual units. The original design intention of the groynes as "trial" structures has now passed, with the impact on the coastline being understood from the coastal monitoring program. It is recommended that a groyne field in this current location be upgraded to ensure coastal adaptation requirements are met for at least 50 years. This should be done by assessing the most suitable layout (size and orientation) and number of structures required and to upgrade the GSCs to suitably sized, locally sourced granite boulders.

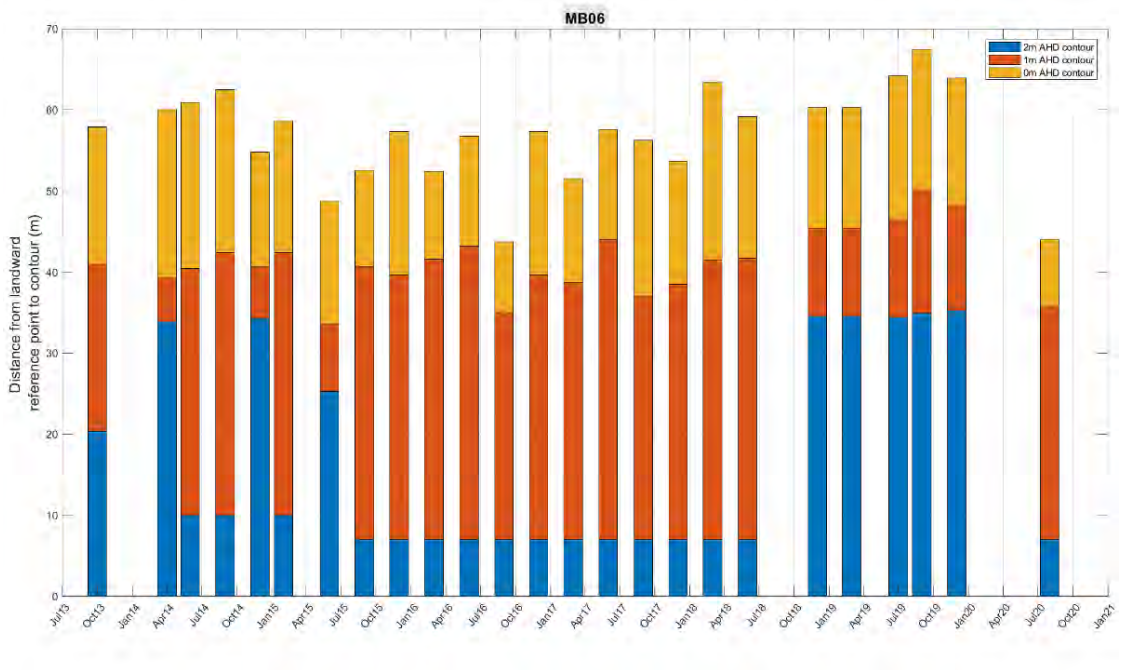


Figure 50: Seaward location of different aerial beach contours (0m, 1m, 2m AHD) from a static landward control point along beach transect MB-06.

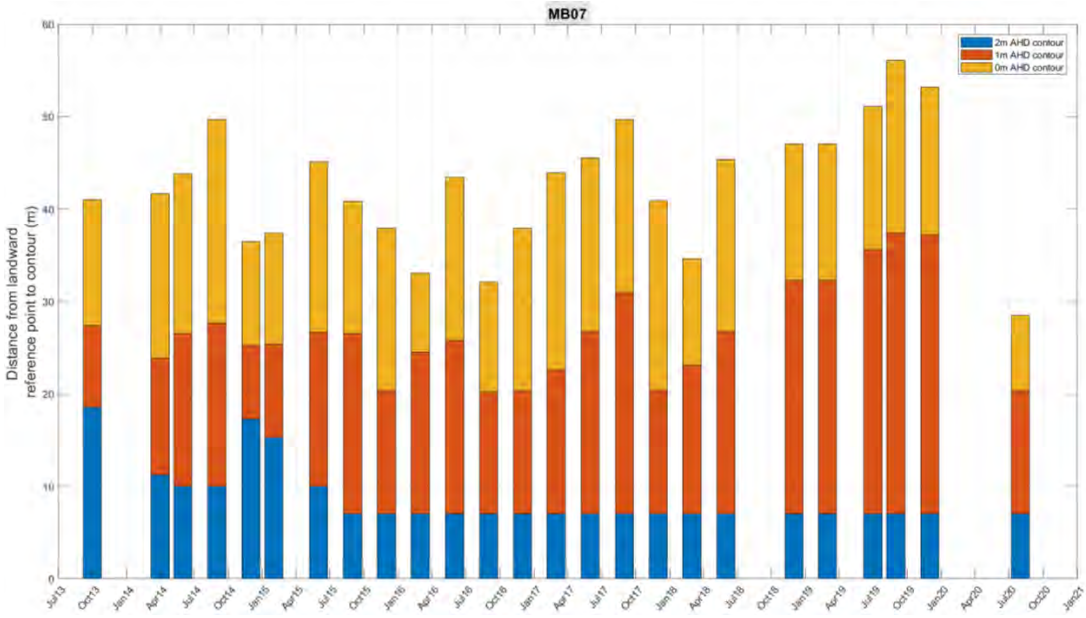


Figure 51: Seaward location of different aerial beach contours (0m, 1m, 2m AHD) from a static landward control point along beach transect MB-07.

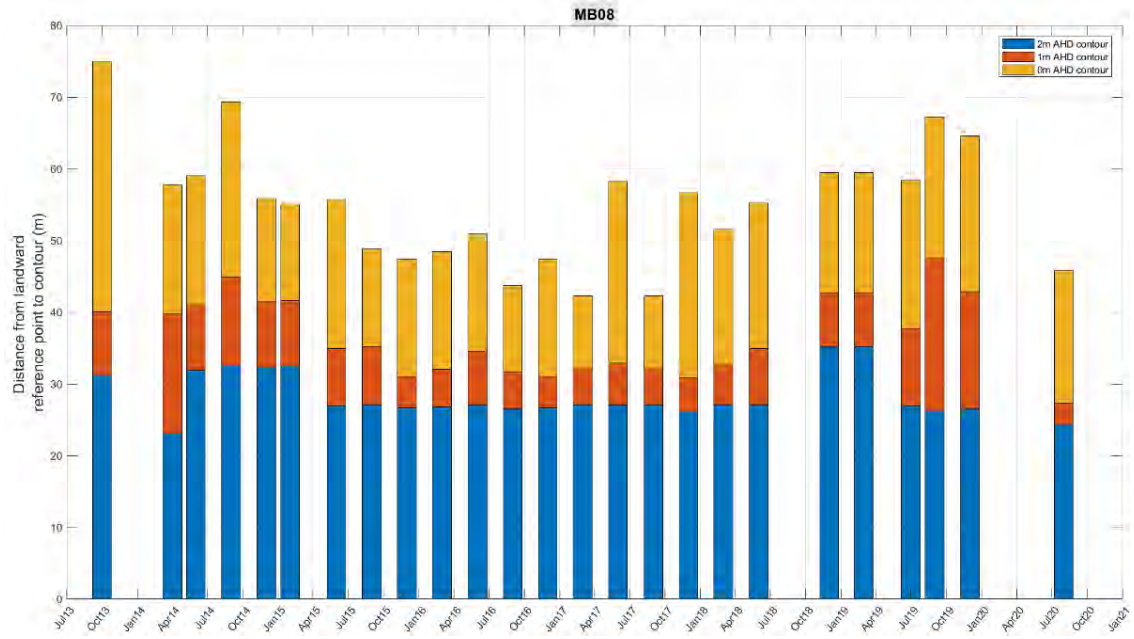


Figure 52: Seaward location of different aerial beach contours (0m, 1m, 2m AHD) from a static landward control point along beach transect MB-08.

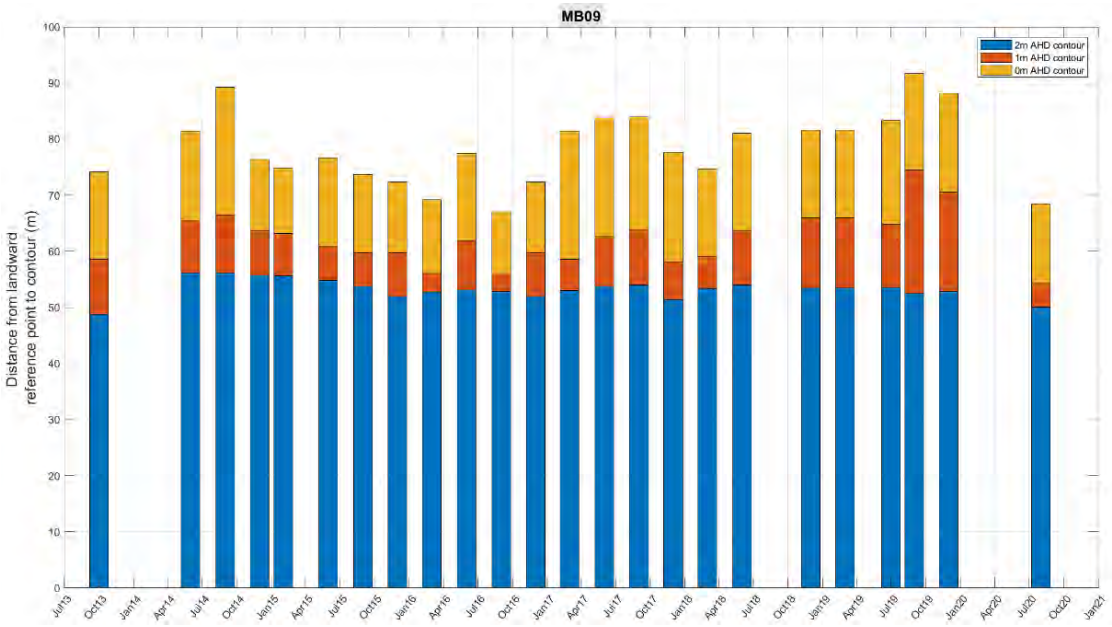


Figure 53: Seaward location of different aerial beach contours (0m, 1m, 2m AHD) from a static landward control point along beach transect MB-09.

Table 10: Horizontal movement of mean 0m, 1m, 2m AHD contour locations compared to contour locations prior to the construction of the trial GSC groynes and nourishment in April 2014, reference map below.

Transect (East-West)	Horizontal movement of mean contour location post GSC trial groynes (m) -ve is erosion, +ve is accretion		
	2m AHD contour	1m AHD contour	0m AHD contour (shoreline)
MB-05	1.1	3.2	13.8
MB-06	-0.9	0.4	-4.2
MB-07	1.6	-0.7	-10.2
MB-09	4.5	3.8	4.7
MB-08	-20.8	-3.5	-3

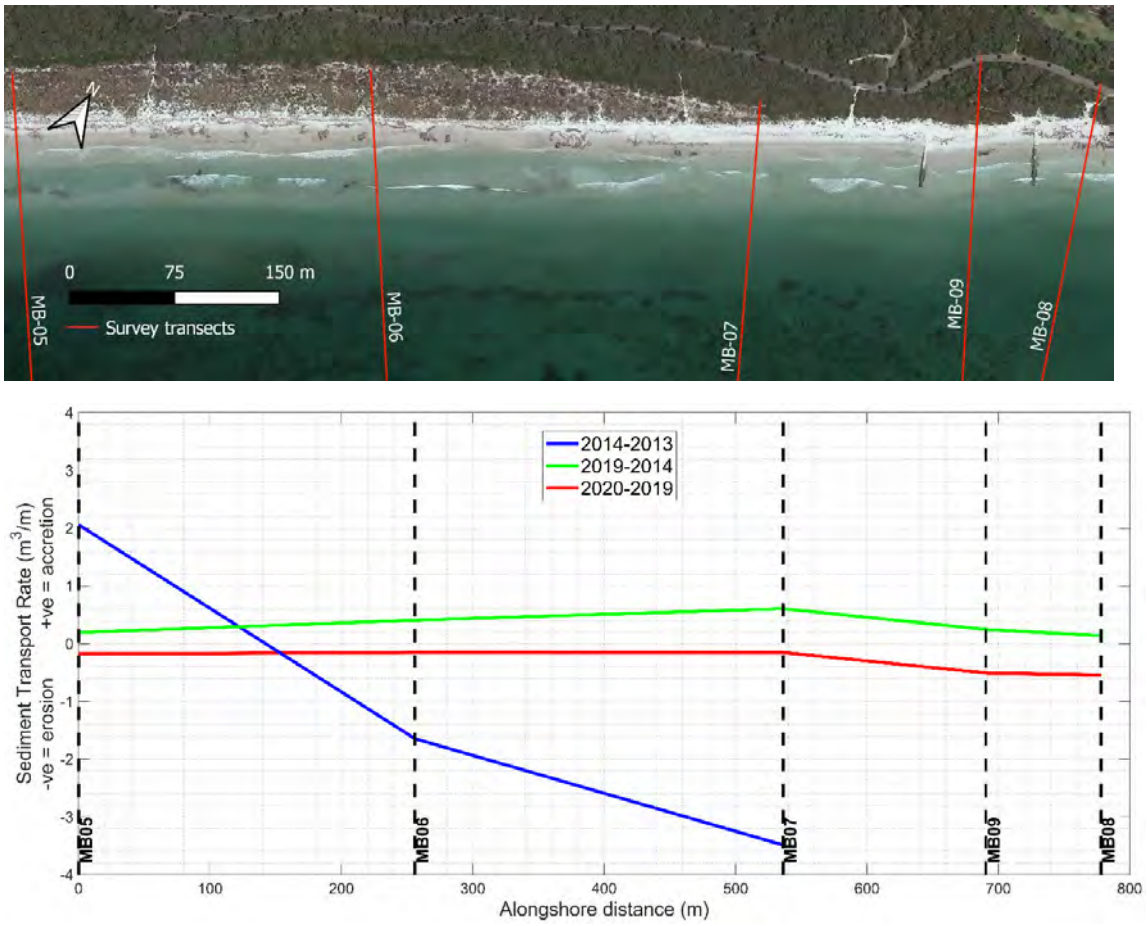


Figure 54: Sediment transport rates (m^3/m) between MB-05 and MB-08 for the periods 2013 to 2014, 2014 to 2019 and 2019 to 2020. Note: erosion is negative.

11.6. Performance review: sand nourishment

In April 2014, CoA installed two trial groynes to the west of the rock revetment at Emu Point. During construction, the area around the groynes was nourished with approximately 10,000m^3 of sand trucked from Ellen Cove. Subsequent nourishment of Emu Point has only been undertaken to replace lost and damaged GSC's:

- In 2016, sand was imported from an external (unknown) source to fill replacement GSCs at a cost of $15,616 (quantity unknown)
- In 2017, sand was imported from an external (unknown) source to fill replacement GSCs at a cost of $31,825 (quantity unknown)

The previous section showed the stability of the beach between the two GSC groynes since their construction. The exact volume of nourishment delivered to this section of the beach is unknown. However, from the City-supplied construction drawings of the GSC groynes (Figure 55) the proportion of fill area between the two GSC groynes (and the upper beach) accounts for approximately 34% of the nourished area in the design. This equates to approximately 3,400m3

of sand which has been successfully maintained between the groynes over the 7 years since construction.

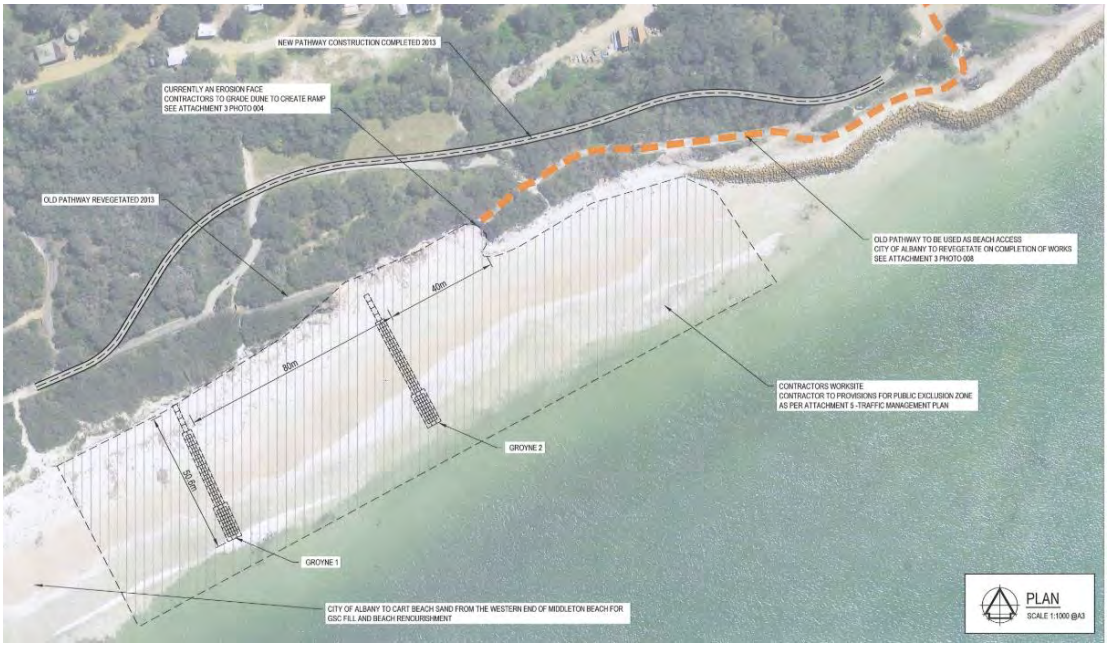


Figure 55: Geotextile and container groyne construction drawings, 07 April 2014 (Source: City of Albany)

11.7. Performance review: rock revetment

A condition assessment was undertaken to inform the FMP of the rock revetment structures at Emu Point and is provided in Appendix A. The condition assessment builds on the previous assessment undertaken by EvoCoast in 2017. Both assessments showed the revetment to be in a generally poor condition, posing a safety hazard to public access. The structures, however, were seen to still be operative and performing their coastal protection functionality.

The central section of the rock revetment built in 2007 was designed to have a 50-year design life and although are in poor condition have had no reported maintenance undertaken in the 13 years since construction. Over-topping events have also not been reported and there has been no evidence of undermining of the structure toe due to scour or failure of the structure. The poor quality of the structure detailed in the two condition assessments is primarily associated with the degradation of the laterite rock used for construction. It is recommended that any upgrades to the rock structures at Emu Point utilise local granite not only for the increased durability of this material, but also the higher density resulting in smaller rock sizes, as well as the general aesthetics and ability to blend with surrounding areas.

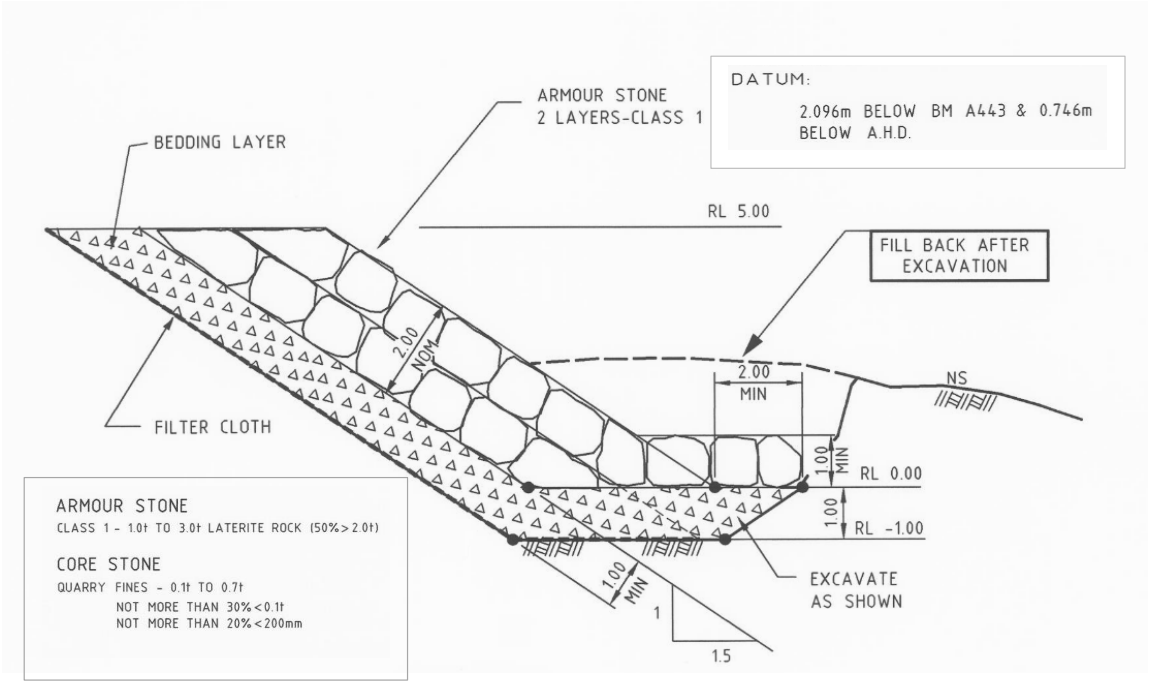


Figure 56: Emu Point Foreshore stabilisation revetment typical cross-section, May 2007 (Source: DoT, DWG 452-12-2)

Appendix C
Long-term management plan



APPENDIX C: LONG-TERM MANAGEMENT PLAN

Table C-1: Life cycle and cost of foreshore assets

Asset type	Structural lifespan	Asset value (excl. GST)	Low/ med/ high value	Key maintenance milestones and costings	Proposed location (refer to foreshore concept plan)	Proximity to coastal vulnerability (years)	Adaptation plan (i.e. asset will be relocated to location × in approximately 25–30 years)
Paving types							
Exposed aggregate concrete paving	35 years	$190,000	Med	High pressure clean and replace cracked/heaved panels every five years ($10,000)	As shown	100+	
Unit paving – feature plaza	35 years	$150,000	Med	High pressure clean and replace cracked/heaved panels every five years ($5,000)	As shown	100+	
Unit paving – trafficable car park/shared space	35 years	$225,000	Med	High pressure clean and replace cracked/heaved panels every five years ($5,000)	As shown	100+	
Dual use path red asphalt (3 m)	25 years	$500,000	High	High pressure clean and resurface cracked pavement every five years ($5,000)	As shown		Asset will be reinstated/ relocated as required following severe erosion events
Interpretive banding paving and TGSIs	35 years	$10,000	Med	Replace cracked/heaved panels every five years ($1,000)	As shown	100+	
Broomed concrete paving	35 years	$100,000	Low	High pressure clean and replace cracked/ heaved panels every five years ($4,000)	As shown	100+	
Stabilised gravel coastal paths	5 years	$85,000	Low	Infill all holes and stabilise loose surfaces every year (one year) ($4,000)	As shown	100+	
Decking (composite fishing platform)	25 years	$175,000	High	High pressure clean and replace boards as required. Oil every two years ($8,000)	As shown	100+	
Play surface sand	1 year	$5,000	Low	Replenish and sift every six months ($600)	As shown	100+	
Play surface rubber	5 years	$45,000	Med	High pressure clean and repair cracks every five years ($1,000)	As shown	100+	
Wall, stairs and fences							
Local granite terrace retaining walls	50 years	$150,000	High	High pressure clean, graffiti coating and repair cracks every ten years ($1,300)	As shown	100+	
Dune revegetation fence	50 years	$55,000	Med	Remove marks as required ($100)	As shown	100+	
Concrete stairs	35 years	$25,000	Med	High pressure clean and replace cracked/ heaved panels every five years ($500)	As shown	100+	
Granite boulders	1000 years	$20,000	Med	Remove marks as required ($100)	As shown	100+	
Furniture / facilities							
Picnic tables	20 years	$255,000	Med	Remove marks annually ($500)			
Bench seats	10 years	$60,000	Med	Remove marks annually ($500)	As shown	100+	
Bike racks	20 years	$20,000	Med	Remove marks annually ($500)	As shown	100+	
Beach shower and foot washer	10 years	$35,000	High	Remove sand fortnightly and repair plumbing as required ($200) to manufacturer's warranty and specification	As shown	100+	
Drinking fountains	20 years	$35,000	High	Remove marks annually and repair plumbing as required ($500) to manufacturer's warranty and specification. Same as product used in town square development, with integrated dog water bowl.	As shown	100+	
Rubbish bins	20 years	$60,000	Med	Remove marks annually ($500)	As shown	100+	
Bollards	30 years	$6,000	Med	Remove marks annually and repair as required ($500)	As shown	100+	
Shelter	30 years	$350,000	High	Repair and oil timberwork and paint steelwork annually ($1,500)	As shown	100+	
Barbecue – electrical	20 years	$160,000	High	Annual maintenance and repair as required ($500) to manufacturer's warranty and specification. Cleaning required weekly dependent on time of year and usage	As shown	100+	
Exercise equipment	20 years	$55,000	High	Annual maintenance and repair as required to manufacturer's warranty and specification	As shown	100+	
Playground and equipment	20 years	$850,000	High	Annual maintenance and repair as required to manufacturer's warranty and specification	As shown	100+	
Ablution block	20 years	$250,000	High	Annual maintenance and repair as required ($5,000)	As shown	100+	
Lighting – all energy efficient and products to be consistent with concurrent COA developments							
Park lights on poles	50 years	$190,000	High	Annual maintenance and repair as required to manufacturer's warranty and specification ($1,000)	As shown	100+	
Streetlights on poles	50 years	$300,000	High	Non-standard Western Power standard lighting to be on separate circuit for metered supply ($1,000)	As shown	100+	
Up-lighting	20 years	$100,000	High	Annual maintenance and repair as required to manufacturer's warranty and specification ($1,000)	As shown	100+	
Events power outlets	30 years	$50,000	High	Annual maintenance and repair as required to manufacturer's warranty and specification ($1,000)	As shown	100+	
Parklands							
Proposed tree 45L–1,000 L	200 years	$100,000	Med	Prune and stake annually ($5,000)	As shown	100+	

Asset type	Structural lifespan	Asset value (excl. GST)	Low/ med/ high value	Key maintenance milestones and costings	Proposed location (refer to foreshore concept plan)	Proximity to coastal vulnerability (years)	Adaptation plan (i.e. asset will be relocated to location × in approximately 25–30 years)
Roll-on turf	10 Years	$450,000	Med	Mowing fortnightly ($1,000), Easily accessible surrounds are preferable for mowing and maintenance	As shown	100+	
Mass planting	5 years	$300,000	Low	Weed control quarterly ($5,000)	As shown	100+	
Irrigation to parkland soft works (turf and planting)	5 years	$150,000	Med	Repair as required annually ($10,000)	Co-located with mass planting and turf areas. Rehabilitation areas would not be irrigated.	100+	
Mulching	1 year	$150,000	Low	Top up annually ($5,000)	As shown for planting areas	100+	
Rehabilitation planting	10 Years	$250,000	Med	Weed control quarterly ($5,000)	As shown	25+	Asset will be reinstated as required following severe erosion events
Subtotal		$5,911,000					
Coastal engineering							
Emu Point rock revetment	50 years	$3.5 million (does not include associated foreshore upgrade and infrastructure)	High	Annual coastal structures monitoring by the CoA – $1,000 per annum) Allowance for additional more detailed inspection of structures – $5,000 per decade Allowance for maintenance of rock armoured section at years 30 and 40 (~5% of capital cost for rock armoured section per occurrence) – $50,000 per occurrence	General alignment of current seawall with ‘smoothed’ sections where current ‘kinks’ occur	100+ years	Asset likely to require upgrades in the medium to longer term, with timing dependant upon the condition of the rock revetment
Emu Beach groyne field + nourishment	50 years	$2.03 million (high level estimate of material and construction costs)	High	Annual coastal structures monitoring by the CoA – $1,000 per annum) Allowance for additional more detailed inspection of structures – $5,000 per decade Allowance for maintenance of rock armoured section at years 30 and 40 (~5% of capital cost for rock armoured section per occurrence) – $50,000 per occurrence	Emu Beach where existing trial GSC groyne field is	25+ years	Asset will be constructed in the short term (0–5 years)
Oyster Harbour sand nourishment	5 years	$10,000 (high level estimate of material and scraping costs)	Med	Annual coastal monitoring by the CoA – $1,000 per annum for Oyster Harbour)	Eastern Oyster Harbour landward of swimming enclosure	25+ years	Will be undertaken in the short term (0–5 years)
Subtotal		$5,540,000					
Total		**$11,451,000**					

Appendix D
Weed control methods



APPENDIX D: WEED CONTROL METHODS

Table D-1: Approach to controlling weed species

Weed species	Control method		Optimal control time										
Scientific name	**Herbicide**	**Manual**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Carpobrotus edulis			Naturalised stabiliser (keep)											
Tetragonia decumbens			Naturalised stabiliser (keep)											
Asparagus aethiopicus	Spray 0.2 g metsulfuron methyl + Pulse® in 15 L water (or 2.5 - 5g/ha + Pulse®). Best results when flowering.								J	A				
Trachyandra divaricata	Wipe with 50% glyphosate solution before flowering. For dense infestations in degraded areas spot spray 0.4 g chlorosulfuron plus 25 ml wetting agent in 10 L of water when plants actively growing.	Manually remove isolated or small infestations prior to flowering.						J	J	A				
Conyza sumatrensis	Most susceptible to glyphosate at early development of rosette stage. Apply 25 ml/10L glyphosate after stem elongation and before flowering in late spring to summer each year when the plants are actively growing. A mixture of 50% glyphosate can be used to wipe the stems of plants. Lontrel® 4 g/10 L (200 g/ha) + wetting agent can be spot sprayed for fairly selective control.	Hand pulling of small and/or isolated infestations after stem elongation prior to seed set is effective on loose soils, but difficult on heavier soils. Mowing is ineffective.						J	J	A	S	O	N	
Senecio elegans	Apply Lontrel® at 10 ml/10 L + wetting agent before stem elongation in late spring.	Hand remove isolated/small populations.										O	N	
Sonchus asper	Apply Lontrel® at 10 ml/10 L + wetting agent preferably when plants are at the rosette stage.	Slashing is often ineffective as plants can continue producing flowers and seed. Remove small and/or isolated populations manually prior to seed set.						J	J					
Crassula glomerata	Cut down close to ground and then immediately paint stump with straight Roundup®.	Be careful to remove all pieces of plant, as fragments easily resprout.							J	A	S			
Euphorbia paralias	When actively growing, spray with 50 mL glyphosate (360 g/L) + 0.2 g metsulfuron + Pulse® in 10 L water.	Hand remove small isolated infestations, ensuring use of appropriate personal protective equipment and safety guidelines. Consider possible dune erosion.	J								S	O	N	D
Medicago polymorpha	Lontrel® at 10 ml/10 L + wetting agent provides effective control in early winter. Otherwise metsulfuron methyl 0.1 g/10 L + wetting agent or 1 g/10 L of Logran® applied in early winter provides reasonably selective control. Repeat annually for several years.	Relatively tolerant to glyphosate, grazing and mowing. Hand pull isolated plants in winter before flowering.						J	J	A				
Melilotus albus	2,4-D, MCPA, MCPB, 2,4-DB, dicamba, chlorsulfuron, clopyralid, triclopyr	Conn and Seefeldt (2009) suggest that a combination of a range of herbicides and non-chemical methods may be most effective in the long term.	J	F	M								N	D
Trifolium angustifolium	Spot spray with 1% glyphosate before flowering, otherwise spot spray Lontrel® 3 ml/10 L (150 ml/ha) up to the six leaf stage.								J	A	S			
Trifolium tomentosum	Spot spray with 1% glyphosate before flowering, otherwise spot spray Lontrel® 3 ml/10 L (150 ml/ha) up to six leaf stage.								J	A				
Pelargonium capitatum			Naturalised stabiliser (keep)											
Orobanche minor	Soil fumigation to kill seeds (methyl bromide or metham sodium) Selective control through very low rates of glyphosate applied to hosts, which concentrates in attached broomrapes. Selective control through growth of host crops with tolerance to Group B herbicides. Host denial through maintaining broadleaf weed free cereals, grass pastures.						J	J	A	S	O	N		
Ehrharta longiflora	Alternatively spray with Fusilade Forte® 30 ml/10 L or 1.6 L/ha (based on 500 L water/ha) + wetting agent or for generic fluazifop-p (212 g/L active ingredient) 18 ml/10 L or 1 L/ha + wetting agent before flowering stem emerges, or at 3–5 leaf stage. Secondary seedling flush often occurs, repeat treatment if necessary.	Hand remove small infestations.								A	S	O		
Ehrharta villosa	Spray with Verdict 520® 10 ml/10 L (500 ml/ha) or glyphosate 1% + penetrant. Several sequential applications will likely be required.		J	F	M	A						O	N	D
Lagurus ovatus	In selective situations spray with 16 ml/10 L (800 ml/ha) Fusilade® Forte + spray oil or for generic fluazifop-p (212 g/L active ingredient) 10 ml/10 L or 500 ml/ha + spray oil any time before flowering. A lower rate of 13 ml/10 L Fusilade® Forte or for generic fluazifop-p (212 g/L active ingredient) 8ml/10 L can be used in winter at the 2–8 leaf stage before stem elongation.	Prevent seed set. Hand remove small isolated infestations.						J	J	A				
Lolium rigidum	Spray with grass selective herbicide such as Fusilade® Forte in winter 4–6 weeks after opening rains. For larger plants up to flowering, increase rates of grass selective herbicide three to four fold. In agricultural areas, populations may be resistant to these herbicides and glyphosate may be needed. Spray 10 ml/10 L glyphosate when plants are vegetative up to when seed heads are emerging. Late season applications of herbicide can reduce the numbers of seeds produced, viability and seedling fitness.	Prevent seed set. Hand pull.						J	J	A	S	O		
Dischisma arenarium	Spot spray 0.2% glyphosate.								J	A	S			
Spinifex sericeus			Naturalised stabiliser (keep)											
Ammophila arenaria	Spray with 1% glyphosate + penetrant. Grass selective herbicides are less effective. Requires ongoing manual removal and/or treatment of regrowth. Fire may provide an effective window for control, as it removes thatch and stimulates regrowth, creating ideal conditions for effective herbicide uptake.	Dig out small infestations. Consider staggering removal to manage erosion and allow native species to re-establish.									S	O	N	
Cakile maritima	Fairly selective control can be achieved by spot spraying Logran® at 0.5 g/10 L. Wick application with 50% glyphosate or foliar spraying with 1% glyphosate provides reasonable control and can be used at flowering to reduce seed set.	Assess carefully whether it is displacing native taxa or possibly having other impacts at the site prior to considering any control program. Manual removal is effective but must be done at least every eight to ten weeks. Ensure material is removed off site, as once pods are formed, seed will often mature if plants have been uprooted.						J	J	A	S	O	N	
Arctotheca calendula	For large infestations apply Lontrel® 6 ml/10 L (300 ml/ha) in early growth stages. Glyphosate at 0.2% will provide some selective control if the plants are young or at the budding stage, otherwise spot spraying glyphosate at 10 ml/L will control capeweed at all growth stages.	Chip out small infestations, ensuring root is severed well below ground level to prevent re-sprouting from the crown. A combination of chemical and physical control with follow up treatment provides optimal control.						J	J	A	S	O	N	

Appendix E
Revegetation species



APPENDIX E: REVEGETATION SPECIES

Table E-1: Beach herbland / grassland revegetation species

Life form	Scientific name
Beach grasses and herbaceous species adopted for the most exposed locations	
Shrub <3 m	*Leucopogon parviflorus*
Shrub <3 m	*Atriplex isatidea*
Shrub <3 m	*Rhagodia baccata*
Shrub <3 m	*Scaevola nitida*
Sedge/ rush	*Ficinia nodosa*
Herb	*Carpobrotus virescens*
Herb	*Tetragonia implexicoma*
Herb	*Tetragonia tetragonoides*
Herb	*Lyginia barbata*
Semi-stable dune colonisers adapted to partially protected	
Shrub <5 m	*Acacia cyclops*
Shrub <5 m	*Spyridium globulosum*
Shrub <3 m	*Olearia axillaris*
Shrub <3 m	*Allocasuarina humilis*
Shrub <3 m	*Leucopogon parviflorus*
Shrub <3 m	*Atriplex isatidea*
Shrub <3 m	*Rhagodia baccata*
Shrub <3 m	*Hibbertia furfuracea*
Shrub <3 m	*Acacia cochlearis*
Shrub <3 m	*Acacia littorea*
Shrub <3 m	*Scaevola nitida*
Shrub <1 m	*Dampiera fasciculata*
Shrub <1 m	*Opercularia hispidula*
Sedge/ rush	*Ficinia nodosa*
Sedge/ rush	*Lepidosperma gladiatum*
Herb	*Carpobrotus virescens*
Herb	*Tetragonia implexicoma*
Herb	*Tetragonia tetragonoides*
Herb	*Lyginia barbata*
Set back / less-exposed dune situations and swales	
Tree	*Agonis flexuosa*
Shrub <3 m	*Olearia axillaris*
Shrub <3 m	*Allocasuarina humilis*
Shrub <3 m	*Hibbertia cuneiformis*
Shrub <3 m	*Hibbertia furfuracea*
Shrub <3 m	*Acacia cochlearis*
Shrub <3 m	*Acacia littorea*
Shrub <1 m	*Chorizema ilicifolium*
Shrub <1 m	*Eutaxia parvifolia*
Shrub <1 m	*Gompholobium tomentosum*
Shrub <1 m	*Dampiera fasciculata*
Shrub <1 m	*Opercularia hispidula*
Sedge/ rush	*Ficinia nodosa*
Sedge/ rush	*Lepidosperma gladiatum*
Climber	*Billardiera fusiformis*
Herb	*Lyginia barbata*

EMU BEACH FORESHORE MANAGEMENT PLAN (FMP)
PUBLIC SUBMISSIONS
Public Comment Period 22/06/2021 to 14/07/2021

No.	Government Agency/Public Summary of Submission(s)	Officer Comment and Recommendation
1	Public/Land Owner Owner of property in Griffiths Street which is identified as an area subject to Managed Retreat in the future. Wants a better understanding of what this means and will there be a guarantee of home value or compensation / assistance?	No change to FMP. Managed Retreat of Griffiths St was the recommended management option following completion of the Coastal Hazard Risk Management and Adaptation Plan (CHRMAP). The mechanism for this is yet to be decided.
2	Public Implement an artificial surf reef, not more groynes	No change to FMP. An artificial reef was investigated as an option during the preparation of the Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) for this area. IT was deemed less effective and most expensive than the recommended groynes.
3	Public Proposed recommendation to address erosion at Emu Beach.	No change to FMP. This submission was not received as part of the formal Public Comment Period for the FMP. This recommendation has been received previously and has been assessed by engineers and deemed not the
4	Public Erosion at Emu Beach is accelerating. What are the plans to manage this erosion?	No change to FMP. This submission was not received as part of the formal Public Comment Period for the FMP.
5	Public Specialist Input and Community Engagement required in regards to erosion at Emu Point.	No change to FMP. This submission was not received as part of the formal Public Comment Period for the FMP. This submission has also been received by Department of Transport as a Ministerial and the City will work with Department of Transport on a response.

City of Albany Local Planning Scheme No. 1
Scheme Amendment No. 38



Lots 33, 35, 37 & 121 Cockburn Road and Lots 100 & 122 Prior Street, Centennial Park

Prepared by Edge Planning & Property for Great Southern Endeavour Projects
www.edgeplanning.com.au
May 2021

PLANNING AND DEVELOPMENT ACT 2005

RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME

CITY OF ALBANY LOCAL PLANNING SCHEME NO. 1

AMENDMENT No. 38

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amends the above local planning scheme by:

1. Adding objectives for the Mixed Use zone to clause 3.2.24.

2. Adding provisions applicable to the Mixed Use zone to clause 4.5.20.

3. Adding clause 4.6.2(g) for variation to R-Codes.

4. Amending Table 2 – Zoning Table by adding a new column and symbols of permissibility for the Mixed Use zone.

5. Adding Mixed Use zone to the Scheme Map legend.

6. Rezoning Lots 33, 35, 37 and 121 Cockburn Road and Lots 100 and 122 Prior Street, Centennial Park from 'Light Industry' to 'Mixed Use' and allocating an R-Code density of R60 in accordance with the Scheme Amendment Map.

The Amendment is standard under the provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* for the following reasons:

A) An amendment that is consistent with a local planning strategy for the scheme that has been endorsed by the Commission;
B) The amendment would have minimal impact on land in the scheme area that is not the subject of the amendment; and
C) The amendment does not result in any significant environmental, social, economic or governance impacts on land in the scheme area.

Dated this …….. day of ……..…….. 20……..

……..
CHIEF EXECUTIVE OFFICER

CONTENTS

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Attachments		
1	Location Plan	
2	Context Plan	
3	Amendment Site Plan	
4	City of Albany Local Planning Strategy – Figure 2: Urban	
5	Development Plans – Lot 121 Cockburn Road	
6	Acoustic Consultant Advice	

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

1. LOCAL GOVERNMENT: City of Albany

2. DESCRIPTION OF LOCAL PLANING SCHEME: Local Planning Scheme No. 1

3. TYPE OF SCHEME: District Scheme

4. SERIAL NUMBER OF AMENDMENT: 38

5. PROPOSAL:

1. Adding objectives for the Mixed Use zone to clause 3.2.24.

2. Adding provisions applicable to the Mixed Use zone to clause 4.5.20.

3. Adding clause 4.6.2(g) for variation to R-Codes.

4. Amending Table 2 – Zoning Table by adding a new column and symbols of permissibility for the Mixed Use zone.

5. Adding Mixed Use zone to the Scheme Map legend.

6. Rezoning Lots 33, 35, 37 and 121 Cockburn Road and Lots 100 and 122 Prior Street, Centennial Park from 'Light Industry' to 'Mixed Use' and allocating an R-Code density of R60 in accordance with the Scheme Amendment Map.

REPORT BY THE CITY OF ALBANY

1. INTRODUCTION

The City of Albany seeks the support of the Western Australian Planning Commission (WAPC) and the approval of the Hon. Minister for Planning to:

- Introduce the Mixed Use zone in accordance with the Model Scheme Text from the *Planning and Development (Local Planning Schemes) Regulations 2015*;
- Add objectives and provisions for the Mixed Use zone;
- Amend the Zoning Table by adding a new column and symbols of permissibility for the Mixed Use zone; and
- Rezone Lots 33, 35, 37 and 121 Cockburn Road and Lots 100 and 122 Prior Street, Centennial Park (the site) from 'Light Industry' to 'Mixed Use' and allocate an R-Code density of R60 in accordance with the Scheme Amendment Map.

The purpose of this report and associated plans are to explain the proposal and set out the planning merits of introducing the Mixed Use zone into the *City of Albany Local Planning Scheme No. 1* (LPS1) and rezoning the site to Mixed Use. In particular, the report:

- Describes the characteristics of the site, the site's context and the proposed development on Lot 121 Cockburn Road;
- Assesses the proposal against the State, regional and local planning framework; and
- Considers key planning issues and sets out planning justification for the proposal.

The Amendment in part implements various planning policies and strategies including a component of the *City of Albany Local Planning Strategy* (LPS) which identifies Centennial Park for urban renewal. The LPS envisages Centennial Park will achieve outcomes that:

- Transition to mixed use, to a more diverse range of land uses;
- Provide for a range of residential densities in the order of R40 to RAC;
- Better utilise available land;
- Deliver land use and housing diversity and choice;
- Increase employment opportunities;
- Improve community services and facilities;
- Enhance the townscape, urban amenity and attractiveness of the area;
- Increase social and cultural capital; and
- Reduce the need for people to travel by car.

The LPS also promotes a variety of housing types in close proximity to services and facilities, in particular affordable housing and units, that meet the needs of young people, retirees and the elderly.

Centennial Park is strategically located within Albany. The site forms part of an activity centre and is close to the Albany retail core and wide ranging facilities (Attachment 1).

A number of important outcomes can be achieved through approval and implementation of the Amendment. This includes facilitating infill development and promoting mixed use development. Construction of grouped dwellings, aimed for people on the National Disability Insurance Scheme (NDIS) on Lot 121 Cockburn Road will provide much-needed fit-for-purpose housing.

Approval of the Amendment will support transforming the area to enable mixed use development and facilitate a new future.

2. BACKGROUND

2.1 Cadastral details

Cadastral details for the site are summarised below:

Table 1: Legal Description					
Street No.	Lot	Plan	Volume	Folio	Area
93 Cockburn Road, Centennial Park	33	D17786	1164	593	915m^2
95 Cockburn Road, Centennial Park	121	DP30397	3	268A	933m^2
97 Cockburn Road, Centennial Park	35	D18959	1295	316	921m^2
99 Cockburn Road, Centennial Park	37	D30556	1297	622	924m^2
26 Prior Street, Centennial Park	122	DP30397	148	35A	936m^2
30 Prior Street, Centennial Park	100	DP409480	2911	907	1831m^2

2.2 Regional context

The site is located in the City of Albany which is located 409 kilometres south-east of Perth. Albany is the regional centre for the Great Southern Region. The city provides a wide range of services and facilities to residents and visitors.

2.3 Local context

The site is located in Centennial Park which forms part of the Albany Regional Centre (activity centre).

The site is located approximately 400 metres north of the retail core (see Attachment 1). The site adjoins and is surrounded by a wide range of uses including commercial businesses, community and residential (see Attachment 2).

The LPS1 zonings surrounding the site are shown in the existing zoning map.

Land to the north of the site is showgrounds and sporting fields. Land along Cockburn Road has a mix of zonings including Light Industry, Regional Centre Mixed Business, Regional Centre Mixed Use and Residential. Based on the LPS, the intent of the area is for mixed use development which includes residential development such as grouped and multiple dwellings.

From a spatial and geographical perspective, the site provides a logical location for mixed use development including residential and employment uses.

Centennial Park is an important component of the City's local economy and offers important infill residential development opportunities.

2.4 Physical characteristics

The site has the following characteristics and features:

- It contains a number of buildings used for light industrial, commercial, office, community and residential uses;
- It has a combined area of 6460m^2;
- Lot 121 contains an old asbestos dwelling that does not lend itself to refurbishment. Lot 121 also contains an asbestos outbuilding in the south-east section;
- It has previously been cleared of remnant native vegetation and it contains no environmental assets;
- The site is flat to gently sloping with an elevation of approximately 19 metres AHD;
- It is underlain by bedrock, comprising gneiss, metamorphic rock and granatoid in the Nornalup Complex of the Albany-Fraser Orogen;
- The soil types generally comprise light brownish grey fine sand topsoils

generally with lateritic gravel subsoils overlying sand and silty sand; and
- It is not classified as a contaminated site.

The Amendment site is shown in Attachment 3.

The site's physical features present no constraints for mixed use development.

2.5 Existing services

2.5.1 Roads

Vehicular access is via Cockburn Road and Prior Street which are both sealed.

A dual use path adjoins the site on the Cockburn Road frontage.

2.5.2 Drainage

The site is connected to the City's stormwater (drainage) network.

2.5.3 Water supply

The site is connected to the reticulated water system operated by Water Corporation.

2.5.4 Wastewater disposal

The site is connected to the reticulated sewerage operated by Water Corporation.

2.5.5 Power and telecommunications

Power and telephone services are connected to the site.

2.6 Heritage

The Department of Planning, Lands and Heritage Aboriginal Heritage Inquiry System shows no known sites of Aboriginal significance on the site. The *Aboriginal Heritage Act 1972* provides for the protection and preservation of Aboriginal heritage and culture throughout Western Australia, including places and objects that are of significance to Aboriginal people.

The site does not contain any structure or place of heritage significance on the *City of Albany Municipal Heritage Inventory* (heritage survey) or on the City's Heritage List.

3. PLANNING FRAMEWORK

3.1 Overview

The following section will outline how the Amendment is consistent with the State, regional and local planning framework. In summary, the Amendment is consistent with the planning framework.

The site and proposed Mixed Use zoning are subject to a range of State Planning Policies, WAPC policies and bulletins, WAPC regional strategies, along with Environmental Protection Authority (EPA) guidance statements, various City strategies and policies, along with LPS1.

3.2 State and regional planning framework

The Amendment is consistent with the State and regional planning framework including:

- *State Planning Strategy 2050;*
- *State Planning Policy 1 State Planning Framework Policy (Variation No. 2);*
- *State Planning Policy 2 Environment and Natural Resources Policy*;
- *State Planning Policy No. 2.9 Water Resources*;
- *State Planning Policy No. 3 Urban Growth and Settlement;*
- *State Planning Policy 3.7 Planning in Bushfire Prone Areas*;
- *State Planning Policy 4.1 State Industrial Buffer Policy*;
- *State Planning Policy 7.0 Design of the Built Environment;*
- *Liveable Neighbourhoods;*
- *Guidelines for Planning in Bushfire Prone Areas;*
- *EPA Guidance Statement No 3 Separation Distances Between Industrial and Sensitive Land Uses*;
- *Lower Great Southern Strategy*; and
- *Great Southern Regional Planning and Infrastructure Framework*.

Further details of key documents are outlined in this report including how the Amendment addresses the planning framework.

3.3 Local planning framework

The Amendment is consistent with:

- *City of Albany Local Planning Strategy;*
- *City of Albany Local Planning Scheme No. 1;*
- *City of Albany Activity Centre Planning Strategy;*
- *Albany Industrial Land Strategy;*
- *Albany Central Area Masterplan;*
- *Centennial Park Redevelopment Area – Local Planning Policy;* and
- *City of Albany Community Strategic Plan.*

3.4 Assessment of Amendment against planning framework

The following outlines key planning documents and sets out how the Amendment is consistent with the planning document and the implications for the Amendment.



Photo 1: Existing dwelling at Lot 121

Table 2: Assessment of Amendment against planning framework	
Planning document	**Consistency with planning document and implications for Amendment**
State Planning Strategy 2050 The Strategy classifies Albany as a regional centre. The Strategy encourages urban intensification, residential infill and economic development. The vision (page 20) is: 'Sustained growth and prosperity The vision of sustained growth and prosperity envisages a future where Western Australians enjoy high standards of living, improved public health and an excellent quality of life for present and future generations.' The Strategy (page 20) seeks the following: 'By 2050, Western Australia will have a diverse range of interconnected and vibrant local communities and regional centres. The people in these communities will be healthy, resilient, active, prosperous, respectful of cultural difference and participate in the public domain. A 'can do' attitude will prevail, inspiring new ways of thinking and working, which will deliver optimal outcomes for the economy and communities of Western Australia.'	The Amendment is consistent with the Strategy given it promotes mixed use development including residential and employment, is centrally located and is in a regional centre. The Amendment supports sustained growth and prosperity through promoting mixed use development. This enables increased flexibility for businesses, residents and the community to locate in an activity centre and to adapt to changes over time.
State Planning Policy No. 3 – Urban Growth and Settlement This Policy sets out the principles and considerations which apply for urban growth and settlement in Western Australia. The Policy promotes a sustainable settlement pattern, supports building on existing communities, using land efficiently, the provision of a wide variety and choice of housing, and seeks convenient access to employment and services. Sustainable communities include a strong and diversified economy, sufficient and suitable serviced land in the right locations for employment and coordinating land use, transportation and infrastructure planning.	The Amendment is consistent with SPP3 given the site: • Is within an activity centre area, it promotes mixed-use development and it is an infill site; • Provides opportunities for housing and employment; • Adds to housing choice; • Can enhance the provision of services to the local community; • Is highly accessible by walking, cycling, public transport and car; and • Promotes a sustainable settlement pattern.
State Planning Policy 3.7 Planning in Bushfire Prone Areas	Consistent. The site is located outside of the Bushfire Prone Area.
State Planning Policy 4.1 State Industrial Buffer Policy The purpose of the Policy is to provide a consistent approach for the protection and long-term security of industrial zones and special uses. It provides for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by	Generally consistent, with proposed Amendment provisions and future design of new development able to mitigate impacts to ensure land use compatibility. The Amendment provisions will:

residual emissions and risk. The Policy establishes objectives and principles and how the principles should be applied to define and secure buffer areas. It references EPA buffer/separation distance guidance.	• Provide for the safety and amenity of land uses surrounding light industry, infrastructure and special uses; • Protect existing nearby light industry; and • Recognise the interests of existing landowners within separate distance areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by encroaching land uses.
State Planning Policy 7.0 Design of the Built Environment Sets out design principles including amenity and community. The Policy sets out 'New development should offer a range of uses and activities that contribute to the vitality of the place at different times of the day and week and provides choices of housing, shopping, employment and entertainment' (page 10)	Consistent. Attachment 5 outlines high quality designs for Lot 121 Cockburn Road which significantly enhances the area compared to the current old asbestos dwelling.
Liveable Neighbourhoods While mainly relevant to greenfield development, it provides principles for established/brownfield areas including in the elements of community design and activity centres and employment. The document promotes the concept of 'walkable catchments'.	Consistent. The Amendment: • Promotes mix use development and residential density including that 'Medium or high density housing should be located in and nearby all mixed-use centres' (page 10, Element 7); • Provides a variety of housing types to cater for diverse housing needs at housing densities that support provision of businesses and services; • Fosters a sense of community, place and local identity; • Supports the public transport system through higher residential densities in an activity centre near the established city centre; • Facilitates walking and cycling; and • Promotes uses appropriate for the site's context and setting. The site forms part of an activity centre and is within 400 metres (equivalent of 5 minutes walking time) to the retail core and it adjoins a public transport route on Lockyer Avenue.
EPA Guidance Statement No. 3 – Separation Distances between Industrial and Sensitive Land Uses Guidance Statement 3 sets out recommended separation distances between various industrial/rural land uses and sensitive land uses. Appendix 1 sets out separation distances between industrial and sensitive land uses. This includes: • Bakeries: 100 – 200m depending on size, with impacts of noise and odour; • Metal coating – industrial and spray painting: 200m, with impacts of noise, dust and odour.	Generally consistent, with proposed Amendment provisions and future new development design able to mitigate impacts to ensure land use compatibility. As outlined in Attachment 2 of this Amendment proposal, there are a range of nearby uses. Nearly all uses, within 500 metres of the site, are commercial/showroom, light industry (which are low-key uses which contain their impacts on the their own property), recreation, community or residential. Nearby businesses which may create impacts on the site are Royale Patisserie (97 Cockburn Road) and Westerberg Panel Beaters and Towing (Vine Street/Douglas Street).

	It is noted that Royale Patisserie forms part of the Amendment site. Royale Patisserie's operations are boutique in scale to large operations in the Perth metropolitan region. The impacts are accordingly modest. As noted in Attachment 6, future grouped dwellings on adjoining Lot 121 Cockburn Road can be designed to address the Noise Regulations. Future development on Lot 121 Cockburn Road is approximately 100 metres from Westerberg's operations. Westerberg's have effectively managed their operations for decades and co-exist with residential properties which are located closer than proposed on Lot 121 Cockburn Road. The Amendment provisions will: • Provide for the safety and amenity of land uses surrounding industrial uses; • Protect existing nearby light industry; and • Recognise the interests of existing landowners within separate distance areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by new sensitive land uses.
Lower Great Southern Strategy Albany is classified as a regional centre which offers a wide range of services, facilities and employment opportunities. There is a preference to build on existing communities. Supports infill development and preventing sprawl.	Consistent. The proponent plans to construct housing for NDIS residents on this inner city and infill site.
Great Southern Regional Planning and Infrastructure Framework The Framework identifies Albany as a regional centre. It promotes a growing population, a more compact form of land use and a diversity of housing.	Consistent
City of Albany Local Planning Strategy The LPS identifies Centennial Park for urban renewal. Figure 2: Urban (set out in Attachment 4) allocates Centennial Park as 'Regional Centre'. The LPS envisages that Centennial Park achieve outcomes that: • Transition to mixed use, to a more diverse range of land uses; • Provide for a range of residential densities in the order of R40 to RAC; • Better utilise available land; • Deliver land use and housing diversity and choice; • Increase employment opportunities; • Improve community services and facilities; • Enhance the townscape, urban amenity and attractiveness of the area;	Consistent through promoting mixed use development, a wider range of housing and transforming Centennial Park. The site is highly accessible including to those on the NDIS, the elderly and other impaired people, as it is serviced by a bus route and is near services and facilities which promotes access by walking or cycling. Based on discussions with the City and DPLH, the Structure Plan for Centennial Park has not been funded. Realistically, it could be years away from being finalised. It is suggested that approval of the Amendment will not compromise the Structure Plan. The alternative, it that transformational change for the Amendment site will be years away in awaiting the funding and completion of technical studies, the Structure

• Increase social and cultural capital; and • Reduce the need for people to travel by car. The LPS promotes a variety of housing types in close proximity to services and facilities, in particular affordable housing and units that meet the needs of young people, retirees and the elderly. The LPS proposes a Structure Plan for Centennial Park.	Plan and a scheme amendment before a development application and building permit can be issued. This is considered an unacceptable outcome for Albany in general, and in particular for Centennial Park and for landowners on the site.
City of Albany Local Planning Scheme No. 1 The site is zoned 'Light Industry'. Clause 1.9 sets out aims including: (a) Implement the findings of the Albany Local Planning Strategy (ALPS) within the City. (k) Provide for increased population growth within the City by establishing controls for the co-ordinated planning and development of land to be used for residential purposes allowing for complimentary uses to provide a range of services to meet the needs of the local residents.	Consistent. The Amendment introduces the Mixed Use zone from the Model Scheme Text.
City of Albany Activity Centres Planning Strategy The site forms part of an activity centre. In particular: • The Activity Centre Map (Figure 36) identifies Centennial Park as 'Central Business District Outer'; • Figure 37 includes Centennial Park as 'Regional Centre'; • Figure 39 identifies the site within the 'Mixed Business' Precinct; • Centennial Park is identified as 'Albany Regional Centre – Light Industry/Mixed Business Precinct' in Figure 39. It notes 'There are aspirations for this part of Albany Regional Centre to mature and evolve beyond the current functions to accommodate higher quality employment and more intense commercial or residential development' (page 74); and • Figure 41 outlines aspirations for conversion of light industrial to commercial/retail/residential and a key challenge is 'Zoning restrictions are prohibiting development' (page 74).	Consistent. The Amendment introduces a greater mix and range of uses within this inner city area. The Amendment assists to implement the Strategy and assists to address the known challenge of zoning restrictions.
City of Albany Industrial Land Strategy The Strategy states 'There is support from Council for the transition to mixed commercial. Existing local planning policies promote transitioning of areas to mixed use' (page 32). Page 54 states 'The transition to residential, mixed use and mixed business is likely to continue and should be reflected through planning controls.'	Consistent. The Amendment seeks to implement the Strategy.

Albany Central Area Masterplan Identifies the site is within the 'area of influence'. Promotes mixed use development and urban consolidation including greater diversity of housing.	Consistent
Centennial Park Redevelopment Area – Local Planning Policy Objectives include 'To provide a mechanism to manage the orderly transition of land use within the locality' and 'To broaden the range of housing available within close proximity to the town centre'. In relation to residential development, the Policy states 'A transition of land uses shall be encouraged, with developments staged to ensure an appropriate living environment is established for long term residential and mixed use developments, without curtailing the shorter term operational requirements of existing industries.'	Consistent, including through broadening land uses and the range of housing. The Amendment also introduces provisions to protect the operations of existing light industry and the amenity of future residents.
City of Albany Community Strategic Plan The City's vision is 'To be Western Australia's most sought-after and unique regional City to work, live and visit'. Key themes include 'Smart, Prosperous & Growing', 'Clean Green & Sustainable', 'A Connected Built Environment' and 'A Sense of Community'.	Consistent including that it supports job creation, there are no environmental or landscape impacts, it promotes a safe and connected transport network and it creates a sense of community.

3.5 Planning context implications for Amendment

Common themes of the planning framework and their implications for the Amendment include:

- Albany will remain the regional centre and a focus for employment and population growth;
- The site is identified as Regional Centre in the LPS and suitable for mixed use development in the LPS and other documents;
- Promoting mixed use and infill development in appropriate locations;
- Appropriate servicing;
- Given Lot 102 is currently used for residential purposes, the Amendment will not harm the viability of the Albany retail core but will rather support the local community and local economy;
- Facilitating a wider range of housing;
- Addressing land use compatibility; and
- Supporting economic development, economic diversification and job creation.

Based on the above, the Amendment is consistent with the planning framework.

The following sections will further consider matters arising from the planning framework and consider key planning issues and justification for the proposal.

4. AMENDMENT PROPOSAL

4.1 Proposed Amendment

The Amendment proposes the following:

1. Adding objectives for the Mixed Use zone to clause 3.2.24.

2. Adding provisions applicable to the Mixed Use zone to clause 4.5.20.

3. Adding clause 4.6.2(g) for variation to R-Codes.

4. Amending Table 2 – Zoning Table by adding a new column and symbols of permissibility for the Mixed Use zone.

5. Adding Mixed Use zone to the Scheme Map legend.

6. Rezoning Lots 33, 35, 37 and 121 Cockburn Road and Lots 100 and 122 Prior Street, Centennial Park from 'Light Industry' to 'Mixed Use' and allocating an R-Code density of R60 in accordance with the Scheme Amendment Map.

The Amendment proposes to introduce the Mixed Use zone from the Model provisions for local planning schemes from the *Planning and Development (Local Planning Schemes) Regulations 2015.*

The Mixed Use zoning assists to ensure that LPS1 is consistent with contemporary planning requirements and assists to facilitate mixed use development and encourage the transformation of Centennial Park.

The Amendment seeks to implement components of the LPS along with implementing a number of other documents that have long identified Centennial Park for mixed use development.

The Amendment will facilitate mixed use development and for a range of various uses to be considered on their merits through future Development Applications in the Mixed Use zone.

The Amendment proposes additional uses, adds provisions and addresses land use compatibility. The Amendment promotes increased flexibility, promotes feasibility and will enhance activation/vibrancy for the site.

The Amendment proposes a flexible range of uses within the Mixed Use zone. This includes grouped dwelling and multiple dwelling as a 'D' (discretionary) land use in the Mixed Use zone.

The Amendment responds to the site's context within an activity centre, the trend of a flexible approach to land use planning and to support viability.

The Amendment seeks to provide for the orderly and proper planning of the site in terms of land use, design and addressing land use compatibility.

The intent of the Amendment is to facilitate mixed use development in a portion of Centennial Park which will accommodate a wider range of appropriate uses. The Mixed Use Zone will provide a suitable transition from light industry to support increased additional uses including residential.

4.2 Scheme provisions

The Amendment introduces the Mixed Use zone.

The Amendment will introduce provisions into LPS1 to guide and control development. This will provide statutory backing which will ensure that development appropriately addresses relevant planning considerations.

Future development and land use will be controlled by LPS1 provisions including those introduced through this Amendment.

The proposed Scheme provisions address development considerations including amenity and design.

The Amendment provides appropriate land use permissibility and controls for the Mixed Use zone.

4.3 Lot 121 Cockburn Road

The landowner of Lot 121 Cockburn Road is committed to completing a high standard of mixed use development on the site.

Attachment 5 outlines preliminary elevations and floor plans. The proposed grouped dwellings on Lot 121 Cockburn Road suitably addresses the site's context and frontage to Cockburn Road. The project architects have carefully considered the design to address the site's context to produce a high quality design that will enhance the area.

To support the Amendment, a specialist acoustic consultant has addressed noise impacts (see Attachment 6).



Photo 2: Example of nearby commercial

5. PLANNING CONSIDERATIONS AND PLANNING JUSTIFICATION

5.1 Overview

This section brings together an assessment of the site's attributes and the planning framework in considering key planning matters and justifying the requested Amendment.

The buildings on Lot 121 Cockburn Road are currently old and in need of replacement. Redevelopment to a light industrial use is not economic given the changes in commercial viability with online shopping. Lot 121 is not achieving full use in its present capacity and the site is not financially viable for commercial development. Given the construction (asbestos clad timber frame) and advanced age and restriction on residential use, the owners cannot expand the current use and cannot improve into commercial.

The Amendment sets a framework for the site to transition to mixed use development. It is proposed that mixed use development occur on the site which includes facilitating grouped dwellings on Lot 121 Cockburn Road.

The Amendment proposes to introduce the Mixed Use zone and increase the range of land uses for the site which are suitable for the site's context, opportunities and constraints along with addressing feasibility considerations. This is to deliver quality mixed use development which will include facilitating additional residents living in Centennial Park.

Major influences of the Amendment include:

- Design principles in *Liveable Neighbourhoods*;
- Investigations and recommendations from the Acoustic Consultant (see Attachment 6);
- Feasibility considerations;
- Promoting mixed-use developments;
- Providing employment and expanding economic development;
- Providing a new form of housing which contributes to a greater housing choice; and
- The planning framework.

5.2 Context and other land use constraints and opportunities

The site forms part of an activity centre and is located approximately 400 metres from the retail core. The site adjoins and is near various uses including commercial, light industry, residential, recreation and community uses. The site's context is outlined in Attachment 2.

The site is within Centennial Park which is intended to provide mixed use development.

Centennial Park is strategically significant to Albany given it adjoins the established retail core. Development of the site will create jobs, provide new forms of housing, a wider range of commercial development and it will further activate the area.

The Amendment proposes an increased range of uses to facilitate planned mixed use development in Centennial Park. The Amendment supports the feasibility of existing commercial development through increased residential development.

There is an opportunity for mixed-use development that appropriately addresses its context including addressing noise impacts.

The acoustic assessment (Attachment 6) confirms that the future grouped dwellings on Lot 121 Cockburn Road can address the Noise Regulations and have suitable amenity.

The Amendment has considered the site's context, including adjoining and nearby land uses, and considered the compatibility of future development.

5.3 Suitability of the site for Mixed Use zoning

Further details relating to the site's suitability for mixed use development are outlined in this section and summarised in Table 3.

The site is considered suitable for the requested Mixed Use zoning, with particular application to disabled accommodation (NDIS) units, for reasons including:

- The use is consistent with the planning framework;
- Lot 121 is currently used for residential purposes. Continued residential use will provide the owners an opportunity to capitalise on the site. It would improve the amenity of the area, as well as providing much needed NDIS accommodation and provide considerable employment both during construction and post construction by disabled support workers;
- Mixed use development in this inner city location is a necessary component of planning for city growth. Providing for NDIS accommodation close to the retail core ensures cost effective management for clients. It will be a pleasant location for residents. There will also be increased economic activity for surrounding businesses;
- The site is well located for the proposed land uses;
- The proposed uses are compatible with adjoining and nearby land uses/development and there are appropriate separation distances to light industrial uses;
- The planning framework supports residential uses in mixed use development. This includes group dwellings which reflect the planning framework objectives for activity centres, mixed use development and creating vibrant places;
- The site is gently sloping to facilitate use by people with disabilities;
- The site is centrally located and has high levels of accessibility from throughout Albany;
- The site is located on an existing bus route (Lockyer Avenue);
- The site contains no environmental assets and the Amendment will not create adverse environmental impacts;
- The site is not subject to heritage or landscape constraints;
- The site is appropriately serviced;
- Traffic impacts are manageable and car parking can be contained on-site;
- Development of the site will create employment and economic activity both during construction and on-going operations; and
- It will assist to activate the area and facilitate feasible development.

The requested zoning is consistent with the principles of orderly and proper planning.

5.4 Compatibility with adjoining and nearby land uses

A key planning requirement is separating potentially conflicting land uses.

EPA *Guidance Statement No. 3 – Separation Distances between Industrial and Sensitive Land Uses* sets out recommended separation distances between various industrial and rural land uses and sensitive land uses. Appendix 1 sets out separation distances between industrial and sensitive land uses. This includes:

- Bakeries: 100 – 200m depending on size, with impacts of noise and odour;
- Metal coating – industrial and spray painting: 200m, with impacts of noise, dust and odour.

As outlined in Attachment 2, there are a range of nearby uses including commercial/showroom, light industry (which are low-key uses which generally contain their impacts on the their own

property), recreation, community or residential.
Nearby businesses which may create impacts on the site are Royale Patisserie (97 Cockburn Road) and Westerberg Panel Beaters and Towing (Vine Street/Douglas Street).

It is noted that Royale Patisserie forms part of the Amendment site. Royale Patisserie's operations are boutique in scale to large operations in the Perth metropolitan region. The impacts are accordingly modest. As noted in Attachment 6, future grouped dwellings on adjoining Lot 121 Cockburn Road can be designed to address the Noise Regulations.

Future development on Lot 121 Cockburn Road is approximately 100 metres from Westerberg's operations. There is also existing development/buildings between Lot 121 Cockburn Road and Westerberg's. Westerberg's have effectively managed their operations for decades and co-exist with residential properties which are located closer than proposed on Lot 121 Cockburn Road.

The metal coating/spray painting uses at Westerberg's is suggested to be at the lower end of the spectrum, with likely separation distances of around 100 metres considered suitable.

The proposed uses set out for the Mixed Use zone are considered compatible with adjoining and nearby land uses/development. It is noted:

- The Amendment site landowners are not aware of any complaints from neighbours regarding noise or other impacts in the precinct. It is noted that Royal Patisseries and Westerberg's have operated for many years without issue;
- All anticipated impacts associated with future uses can be contained on the Amendment site;
- There is considered to be minimal risk of land use conflict resulting from residential development use on Lot 121, including that it will need to adopt 'quiet home' principles; and
- LPS1 provisions provide appropriate statutory land use planning controls.

The mixed use (grouped dwelling) development on Lot 121 Cockburn Road is compatible with adjoining and nearby land uses/development given:

- The acoustic report findings and recommendations;
- The grouped dwellings will be built to high acoustic standards to address noise from off-site; and
- Proposed notifications on title.

There is a need to address compatibility between residents and non-residential uses to reasonably safeguard amenity and ensure existing lawful operations can continue. This is proposed to be addressed in more detail at the Development Application stage.

Development Applications in the Mixed Use zone will be required to demonstrate they are compatible with adjoining/nearby uses. This includes through noise attenuation measures.

At the Development Application stage, applicants will provide detailed designs and other supporting information that demonstrates the extent to which physical measures have been introduced (in addition to those required by the Residential Design Codes). These will satisfactorily address matters including achieving and maintaining adequate levels of privacy, amenity and noise mitigation measures.

The construction of the mixed use development is required to be in keeping with the relevant Building Code of Australia standards. Combined with the provisions set by this Amendment, this will ensure there are high acoustic standards.

The City will have regard to Environmental Protection Authority *Guidance Statement 3 – Separation*

Distances between Industrial and Sensitive Land Uses in determining uses and development.

Conditions imposed by the City through development approvals can also assist to control the impacts of light industrial and associated uses.

The Amendment provisions and future design are able to mitigate impacts to ensure land use compatibility.

The Amendment provisions will provide for the safety and amenity of land uses and protect existing nearby light industry.

There is also a requirement for industrial operators to appropriately manage their operation and control their impacts on their own property in accordance with standard practice and legal principles. As stated on Page 2 of the EPA's Guidance Statement No. 3:

> 'In line with the requirements of the EP Act, it is necessary for individual industrial developers to take all reasonable and practicable measures to prevent or minimise emissions from their premises. It is generally expected that, through appropriate site layout, design of facilities, and the implementation of engineering and process controls, emissions from an individual industrial land use can be prevented from causing an adverse environmental impact beyond the boundaries of the particular site or beyond the boundaries of an industrial estate.'

The proposed Mixed Use zoning will retain and/or enhance the area's character and amenity given there is existing residential development on Lot 121. Accordingly, it is considered that the Amendment represents a logical and sound planning outcome for the site.

5.5 Managing noise

The *Environmental Protection (Noise) Regulations 1997* are the principal statutory means of controlling noise emissions. Under these Regulations the assigned outdoor noise levels for the noise received at any noise sensitive premises (i.e. a house) during various times of day is determined by the calculation of an influencing factor, which is then added to base levels.

Background details are in Attachment 6.

In relation to the Amendment, noise impacts can be managed through the separation distances, appropriate design, appropriate management and notifications on the title.

To complement the acoustic assessment, the Amendment sets out that proposed residential development in the Mixed Use zone adopt Quiet House Design and a Section 70A notification may be placed on the Certificate of Title, noting that the property may be impacted by noise.

5.6 Environmental impact

It is expected that the Amendment will have negligible environmental impacts. The reasons include:

- The site contains existing development and there is no remnant native vegetation;
- The site is connected to the reticulated sewerage system and the City's stormwater system;
- The site is close to the retail core limiting the need for motorised transport and providing opportunities for journeys to be made by cycling and walking;
- It is not a contaminated site;
- Is not within a floodplain and is well setback from watercourses; and
- Proposed development will be subject to conditions.

5.7 Water management

The site is modest in area and contains existing development much of which was constructed in the last 10 – 20 years. Accordingly, there will be minimal

development and implications on water resources.

The site is not impacted by surface water.

There are no known groundwater or surface water constraints to development.

While no groundwater testing has occurred, it is expected the groundwater level is near the surface in late winter. Groundwater, as evidenced by adjoining development, is not however considered a constraint to future development.

It is not expected that development will result in any changes to groundwater flows, levels or quality. There will be no adverse impacts on the function and environmental values of the site.

Future new development will be filled, stabilised and drained to facilitate development.

The following provides a framework for stormwater management:

- Adopt a water sensitive design which manages, detains and slows down peak flows that especially address the 'first flush' run off. This will promote stormwater harvesting, manage runoff and promote appropriate infiltration on the proposed lots for minor rainfall events;
- More significant storm events will be conveyed via existing roads and access ways to downstream receiving waters;
- Filling for buildings to increase heights above the ground level to avoid localised drainage impacts;
- Stormwater will be managed through on-site reuse, detention and connection to the local government's drainage system; and
- Stormwater management will be effectively designed, constructed and maintained with details provided at the Development Application stage.

There are opportunities for various water conservation initiatives as part of future development.

5.8 Landform and soils

The site is flat. Subject to suitable fill and drainage, the site is suitable for building construction and opportunities for on-site stormwater detention.

5.9 Bushfire hazard

The site is not located within a bushfire prone area.

5.10 Movement network

The most recent traffic counts on Cockburn Road was taken between Symers Street and Lockyer Avenue on 11 September 2009 which had a count of 2417 vehicles per day (7 day average). For Prior Street, a count was taken between 6 – 20 February 2019 for a count of 1104 vehicles per day.

It is noted:

- Compared to existing traffic on Cockburn Road and Prior Street, the traffic generation from a change of use and/or development on the site will be modest;
- Traffic generation is expected to be similar for mixed use as per the what is possible with the Light Industry zoning. For instance, traffic volumes are expected to be lower for a grouped residential development than for light industrial or commercial development;
- Both Cockburn Road and Prior Street and nearby intersections can readily accommodate the expected traffic generated by a change of use and/or development on the site; and
- Vehicular access to each lot is appropriate and complies with sight distance standards which will facilitate safety for road users.

Vehicle parking and manoeuvring areas will be contained on site and all vehicles will enter and leave the site in a forward gear. Vehicular access, parking and manoeuvring areas will be constructed, drained and sealed to the satisfaction of the City.

As outlined in Attachment 5, on-site car parking will be provided for grouped dwellings on Lot 121 Cockburn Road. The car parking will be sealed and vehicular access to the site will be via a sealed crossover.

The site is highly accessible by road with convenient access to the Albany retail core and the Albany urban area.

A dual use path adjoins the site in Cockburn Road. The site's location and the existing paths provide considerable opportunities for walking and cycling including to recreation facilities.

5.11 Servicing

The site is appropriately serviced and connected to reticulated water, reticulated sewer, power and telecommunications. It is not envisaged that upgrading of services is required to facilitate the alternative uses on the site.

5.12 Public open space

The site is opposite Albany's premier sporting and recreation facility.

No public open space is provided on the site. The Amendment does not generate the need for additional public open space.

5.13 Group and multiple dwellings

The need for a greater range of housing and urban infill is a key objective of the LPS and the planning framework.

Albany has limited accommodation suitable for people with disabilities.

The Amendment proposes to facilitate a mix of housing types which are not provided in Albany. In particular, to provide housing for those on the NDIS.

The Amendment introduces provisions and permissibility for the City to consider grouped dwellings and multiple dwellings as a discretionary 'D' use on their merits in the Mixed Use zone.

Noting that the site is within an activity centre, it is proposed that residential development is R60.

Having additional residents in Centennial Park will foster a sense of community, place and local identity.

Increasing population near the established retail core adds to its overall viability, vitality and prosperity and the range of services that can be sustained.

5.14 Building design

As outlined in Attachment 5, the proposed development on Lot 121 Cockburn Road will enhance and assist to transform the area. The new grouped dwellings will be a significant improvement compared to the existing asbestos dwelling.

The proposed grouped dwellings will enhance passive surveillance and safety in the area.

5.15 Supporting the local economy

The Amendment will have various economic benefits including:

- Supporting and growing employment, supporting services and strengthening the economy which is consistent with the planning framework;
- Contributing to job creation (direct and indirect jobs) through the construction phase and ongoing through assisting in the growth and diversify of the City's economic base

and add to the overall vitality and prosperity of Albany;
- Supporting a growing and more diverse housing sector (including for people with disabilities) which will provide an important foundation for the future economic growth of Albany;
- Creating employment close to where people live in a high accessible central location;
- Assisting with employment self-sufficiency in the district; and
- Encouraging upgrading and additional investment on Lot 121 Cockburn Road and assisting in creating a positive catalyst for change.

The Amendment adds opportunities for other appropriate employment uses for the Mixed Use zone.

The Amendment is consistent with State, regional and local planning objectives for the provision of mixed-use activity centres that cater for the needs of residents and provide employment opportunities.

5.16 Supporting social and community development

The Amendment will have a number of positive benefits for the community. This includes providing much required social/NDIS housing.

5.17 Planning justification

The Amendment seeks to implement the LPS. Accordingly, the Amendment responds to the site's context, opportunities and constraints, the planning framework and market realities. The rationale behind the Amendment includes to:

- Establish a new vision for the site;
- Expand the range of discretionary uses for a site located within an activity centre;
- Address land use compatibility with adjoining/nearby uses; and
- Promote high standards of design and amenity.

The planning justification for the Amendment is summarised below in Table 3.

Table 3: Summarised planning justification for Amendment				
Strategic	Land Use Planning	Environment and Landscape	Transport and Servicing	Economic and Community
The proposal is consistent with the State, regional and local planning framework. The Mixed Use zoning will promote positive social, economic, environmental and design outcomes. Promotes a sustainable settlement pattern, using land efficiently, the provision of a wide variety and choice of housing in an activity centre and promotes walkable neighbourhoods. The site forms part of an activity centre. Mixed use development, including residential uses, are promoted in activity centres. This is in keeping with sustainability principles of creating a walkable community, a reduction of car use and implementing urban consolidation strategies. Promotes a range of people living in and near the city centre.	The site is well located for mixed use development and it will be compatible with adjoining and nearby uses. The site is suitable and capable of accommodating mixed use development. Development will be effectively controlled through existing and proposed LPS1 provisions. It will support diverse, liveable, connected development, promote walking and cycling and foster a strong local identity. The development will improve the diversity of land uses in Centennial Park. It provides a new form of housing which contributes to a greater housing choice. It is consistent with the principles of orderly and proper planning.	The site has been previously cleared so there is no impact on native vegetation. The site contains no environmental assets and will not create adverse environmental impacts. The site is not subject to heritage or landscape constraints. Residential development will be designed to ensure it addresses quiet home noise standards.	The site is conveniently located and has high accessibility to Albany. Traffic impacts can be readily accommodated on local roads. Parking and vehicle manoeuvring will be contained on-site. The development will be appropriately serviced. It is located near public transport services.	It will promote job creation which is consistent with the planning framework. It supports housing choice and promotes liveability. It will support local employment and will have various economic benefits. Additional residents within Centennial Park will assist to support the sustainability, viability and vitality of the commercial outlets in Centennial Park. It will build onto an existing urban community with established facilities, services and infrastructure. It offers the potential to provide a variety of housing, on a flat site ideally suited for a range of people with disabilities and less mobile residents. The proposal will assist to meet the demand for housing for people with disabilities in a planned, orderly and sustainable manner.

In view of the above, the Amendment is consistent with the planning framework and the principles of orderly and proper planning.

A flexible planning framework, promoting mixed use development, will create the conditions for a new future for Centennial Park and enable associated investment.

6. CONCLUSION

This report confirms that the Amendment is consistent with the planning framework and the site is both suitable and capable of accommodating mixed use development.

The Amendment seeks to implement the LPS and other planning documents to transition Centennial Park from light industry to mixed use development, including grouped dwellings.

Implementation of the Amendment will facilitate a new future for the site and be a catalyst for positive change in Centennial Park as proposed by the LPS. Such an approach is consistent with the planning framework for Centennial Park.

Introducing the Mixed Use zone assists to ensure that LPS1 is consistent with contemporary planning requirements and to facilitate wide ranging and appropriate uses.

The Amendment will establish the appropriate zoning for the site and future development. Existing and proposed LPS1 provisions will ensure that development will be effectively controlled.

The support of the WAPC and the Hon. Minister for Planning is requested to approve the Amendment.



Photo 3: Royal Patisserie (neighbouring property)

PLANNING AND DEVELOPMENT ACT 2005

CITY OF ALBANY

LOCAL PLANNING SCHEME No. 1

AMENDMENT No. 38

The City of Albany under and by virtue of the powers conferred upon it in that behalf by the *Planning and Development Act 2005* hereby amends the above local planning scheme by:

1. Adding objectives for the Mixed Use zone to clause 3.2.24, from the Model Scheme Text as follows:

   Mixed Use Zone

   (a) To provide for a wide variety of active uses on street level which are compatible with residential and other non-active uses on upper levels.
   (b) To allow for the development of a mix of varied but compatible land uses such as housing, offices, showrooms, amusement centres, eating establishments and appropriate industrial activities which do not generate nuisances detrimental to the amenity of the district or to the health, welfare and safety of its residents.

2. Adding provisions applicable to the Mixed Use zone to clause 4.5.20.

   Mixed Use Zone

   4.5.20.1 Development should incorporate design elements and materials which break down the bulk of development, and provide visual interest through the articulation of the built form.

   4.5.20.2 Articulated building facades that provide increased surveillance of streets, balconies and terraces will be encouraged.

   4.5.20.3 Prior to the issue of development approval for an application involving residential accommodation in the Mixed Use zone, Local Government may require the applicant to:

   (a) Provide a legal mechanism to notify the owner, their heirs and successors in title, of the possible loss of amenity from adjoining land uses;
   (b) Undertake a land use, acoustic and traffic analysis; and
   (c) Design the residential building and provide a site layout responsive to the analysis.

   4.5.20.4 Quiet house design requirements may be required to apply where considered appropriate by the Local Government.

   4.5.20.5 While lawful operating industrial uses remain within a 300 metre radius of the application site, the Local Government will require, at subdivision and/or development stage, the landowner/developer to undertake and implement all noise attenuation measures necessary to ensure indoor noise levels for proposed residential or short stay development comply

with the relevant 'satisfactory' design sound level specified by *AS 2107:20016 Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors* (or any updates) to ensure compliance with *Environmental Protection (Noise) Regulations 1997*.

4.5.20.6 Noise attenuation measures may include but are not limited to:

(a) Lodgement of an acoustic report specific to the proposed development design;
(b) Detailed design guidelines and method of implementation;
(c) Design and construction requirements;
(d) Notification to prospective purchasers and on all Certificates of Title advising of the potential noise impacts and the requirement for appropriate noise attenuation measures.

3. Adding clause 4.6.2(g) for variation to R-Codes.

Mixed Use zone

The following variations to the R-Codes apply to land zoned Mixed Use:

(i) The Category C of the R-codes may be used to determine the maximum building heights, subject to any commercial activity being located on the ground floor;
(ii) The Residential Code density of R60 applies.

4. Amending Table 2 – Zoning Table by adding a new column and symbols of permissibility for the Mixed Use zone.

Land Use	Mixed Use
Aged or Dependent Persons' Dwellings	D
Aged Persons' Village	A
Agriculture – Extensive	X
Agriculture – Intensive	X
Agroforestry	X
Amusement Parlour	A
Ancillary Dwelling	P
Animal Establishment	X
Animal Husbandry – Intensive	X
Aquaculture	X
Bed and Breakfast/Farmstay	A
Betting Agency	X
Boarding/Guest/Lodging House	A
Camping Ground	X
Car Park	D
Caravan Park	X
Caretaker's Dwelling	D
Chalet/Cottage Units	X
Child Care Premises	D
Cinema/Theatre	X
Civic Use	D

Club Premises	D
Community Purpose	D
Consulting Rooms	D
Convenience Store	A
Display Home	D
Dry Cleaning Premises	A
Educational Establishment	A
Exhibition Centre	D
Family Day Care	D
Farm Workers Accommodation	X
Fast Food Outlet	X
Fuel Depot	X
Garden Centre	D
Grouped Dwelling	D
Holiday Accommodation	D
Holiday House	D
Home Business	D
Home Occupation	P
Home Office	P
Home Store	A
Hotel	X
Industry – Cottage	D
Industry – Extractive	X
Industry – General	X
Industry - Light	D
Industry – Mining	X
Industry – Rural	X
Industry – Service	D
Live/Work Units	D
Lunch Bar	D
Marine Filling Station	X
Market	D
Medical Centre	D
Motel	A
Motor Vehicle, Boat or Caravan Sales	A
Motor Vehicle/Boat Repair	D
Motor Vehicle Wash	A
Multiple Dwelling	D
Night Club	X
Nursing Home	A
Office	D
Panel Beating/Spray Painting	X
Park Home Park	A
Place of Worship	A
Public Utility	D
Port Facilities	X
Port Services	X
Port Works	X

Reception Centre	A
Recreation – Private	D
Residential Building	D
Restaurant	D
Restricted Premises	X
Rural Pursuit	X
Service Station	X
Shop	X
Showroom	D
Single Bedroom Dwelling	D
Single House	P
Small Bar	D
Storage	D
Tavern	X
Telecommunications Infrastructure	D
Trade Display	D
Transport Depot	X
Tree Plantation	X
Veterinary Centre	D
Warehouse	D
Wind Farm	X
Winery	X
Zoo	X

5. Adding Mixed Use zone to the Scheme Map legend.

6. Rezoning Lots 33, 35, 37 and 121 Cockburn Road and Lots 100 and 122 Prior Street, Centennial Park from 'Light Industry' to 'Mixed Use' and allocating an R-Code density of R60 in accordance with the Scheme Amendment Map.



EXISTING SCHEME MAP

Legend

- Cadastre with Lot number
- Public use

LPS Zones

- Light industry
- Regional centre mixed business

LPS Reserves

- Local road
- Parks and recreation
- Priority road

Department of Planning, Lands and Heritage

GOVERNMENT OF WESTERN AUSTRALIA

Produced by Geospatial Research and Modelling, Department of Planning, Lands and Heritage, Perth WA
Base Information supplied by Western Australian Land Information Authority SLIP 1096-2018-1

City of Albany

Local Planning Scheme No. 1

Amendment No. 38

N

0 25 50 75 100

metres



PROPOSED SCHEME AMENDMENT MAP

Legend

Cadastre with Lot number

R Code amendments

LPS Zones and Reserves Amendments

Mixed use

Department of Planning, Lands and Heritage

GOVERNMENT OF WESTERN AUSTRALIA

Produced by Geospatial Research and Modelling, Department of Planning, Lands and Heritage, Perth WA
Base Information supplied by Western Australian Land Information Authority SLIP 1096-2018-1

City of Albany

Local Planning Scheme No. 1

Amendment No. 38

N

0 25 50 75 100

metres

COUNCIL ADOPTION FOR ADVERTISING

This Standard Amendment was adopted for advertising by resolution of the Council of the City of Albany at the Ordinary Meeting of the Council held on the ..... day of .....2021.

.....

MAYOR

.....
CHIEF EXECUTIVE OFFICER

COUNCIL RECOMMENDED/SUBMITTED FOR APPROVAL

This Standard Amendment was supported for submission to the Minister for Planning for approval by resolution of the City of Albany at the Ordinary Meeting of the Council held on the ..... and the Common Seal of the City of Albany was hereunto affixed by the authority of a resolution of the Council in the presence of:

.....

MAYOR

.....
CHIEF EXECUTIVE OFFICER

WAPC RECOMMENDED/SUBMITTED FOR APPROVAL

.....
DELEGATED UNDER S.16 OF THE
PLANNING AND DEVELOPMENT ACT 2005

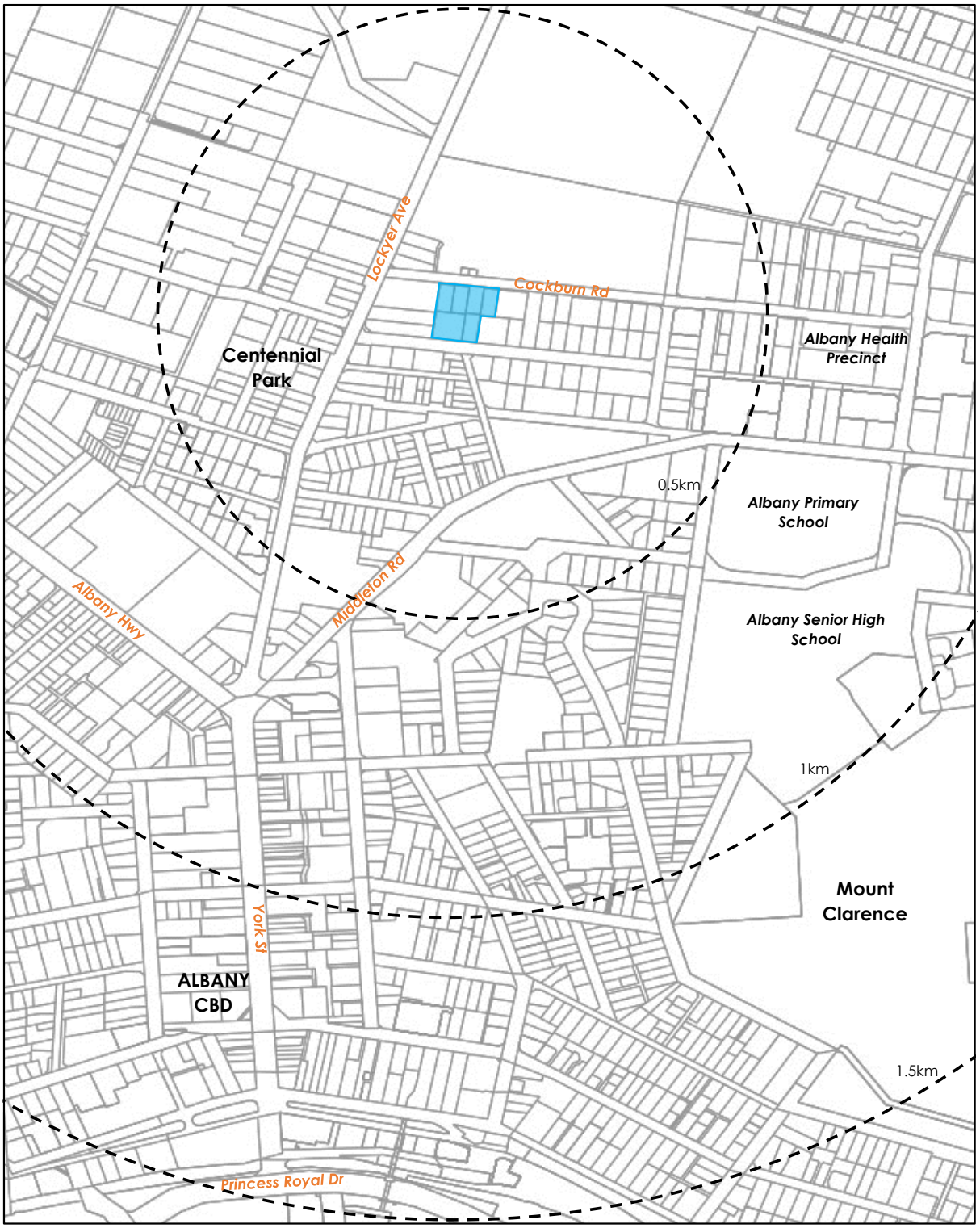
DATE…….....

APPROVAL GRANTED

.....
MINISTER FOR PLANNING
S.87 OF THE *PLANNING AND DEVELOPMENT ACT 2005*

DATE…….....

ATTACHMENT 1



LOCATION PLAN

Lots 33, 35, 37 & 121 Cockburn Road
Lots 100 & 122 Prior Street
Centennial Park

City of Albany

0 125m 250m 500m

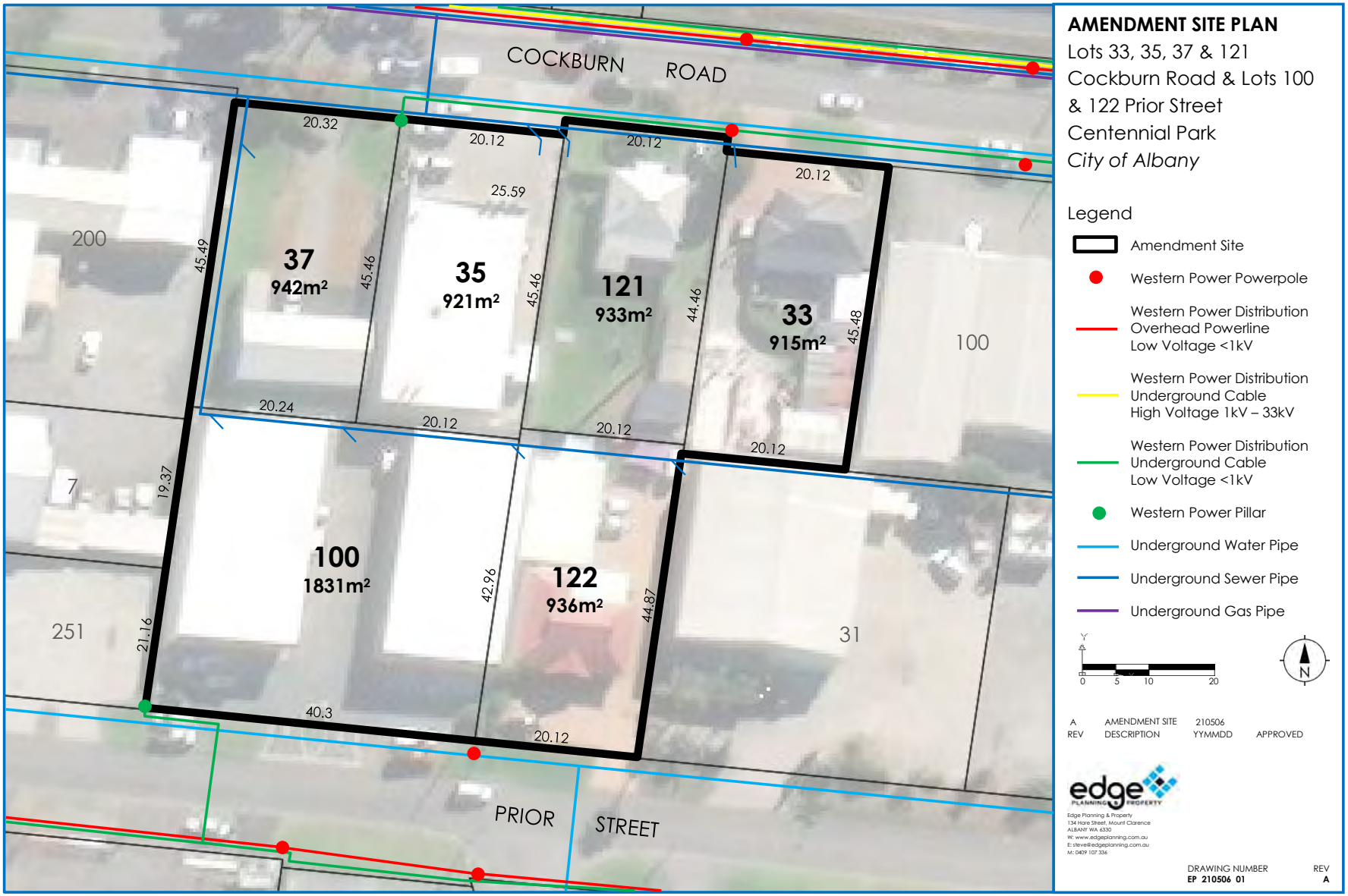
N

Edge Planning & Property
134 Hare Street, Mount Clarence
ALBANY WA 6330
W: www.edgeplanning.com.au
E: steve@edgeplanning.com.au
M: 0409 107 336

ATTACHMENT 2


ALBERT STREET
LOCKYER AVENUE
Centennial Park & Pavillions
COCKBURN ROAD
MINNA STREET
PRIOR STREET
SYMERS STREET
ORCHARD STREET
LOCKYER AVENUE
DOUGLAS STREET
VINE STREET
VINE STREET
STEAD ROAD
TASMAN STREET
Albany Cemetery
MIDDLETON ROAD
CONTEXT PLAN
Lots 33, 35, 37 & 121 Cockburn Road & Lots 100 & 122 Prior Street Centennial Park
City of Albany
Legend
Amendment Site
Residential
Commercial
Light Industry
Community
Vacant Land
Recreation
N
0
25
50
100
A
REV
CONTEXT PLAN
DESCRIPTION
APPROVED
210506
YYMMDD
edge
PLANNING & PROPERTY
Edge Planning & Property
134 Hare Street, Mount Clarence
ALBANY WA 6330
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M: 0409 107 336
DRAWING NUMBER
EP 210506 02
REV
A

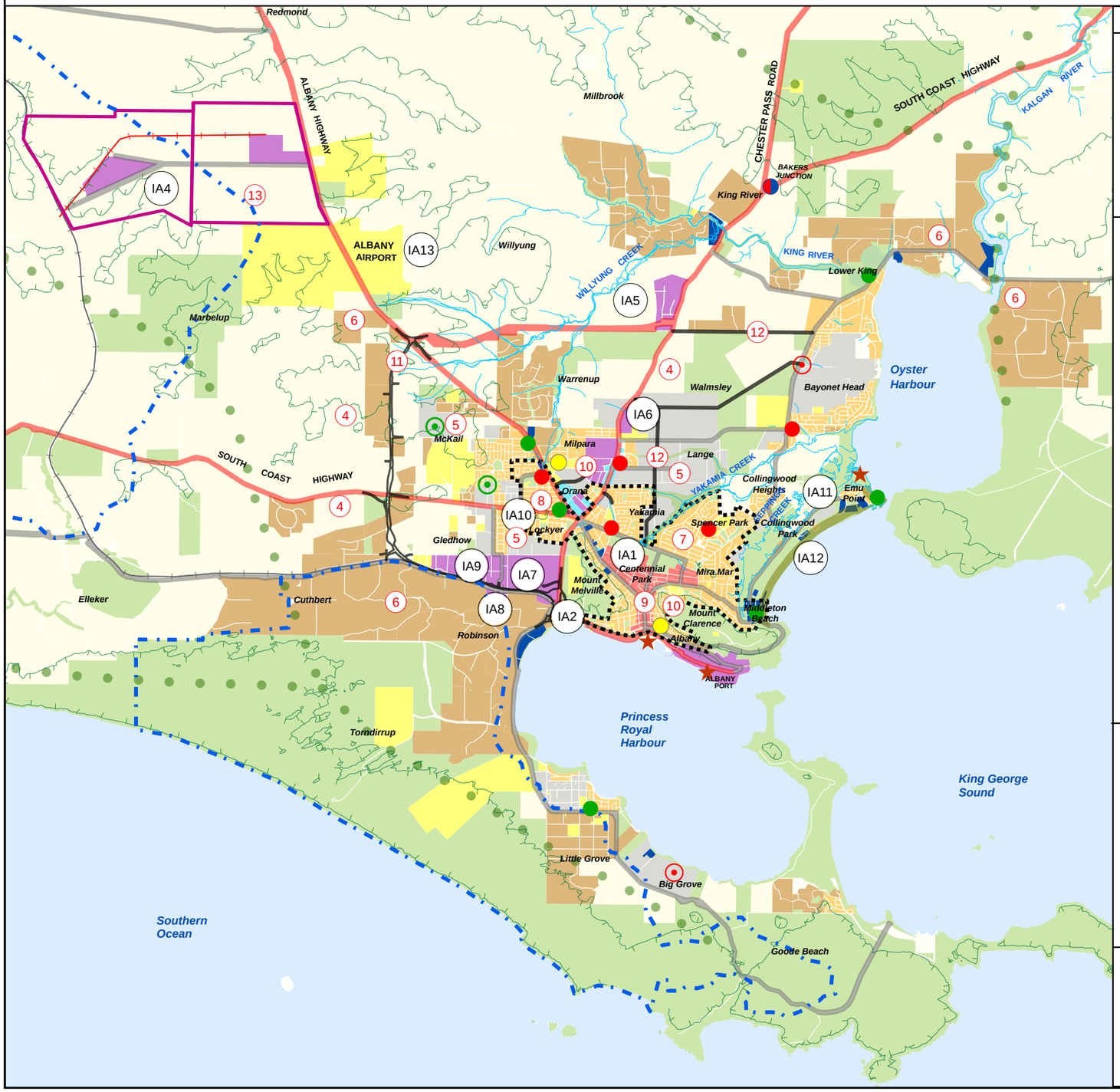
ATTACHMENT 3


COCKBURN ROAD
PRIOR STREET
37
942m²
35
921m²
121
933m²
33
915m²
100
1831m²
122
936m²
200
100
7
251
31
20.32
20.12
20.12
20.12
25.59
45.49
45.46
45.46
44.46
45.48
20.24
20.12
20.12
20.12
19.37
42.96
44.87
21.16
40.3
20.12
AMENDMENT SITE PLAN
Lots 33, 35, 37 & 121
Cockburn Road & Lots 100
& 122 Prior Street
Centennial Park
City of Albany
Legend
Amendment Site
Western Power Powerpole
Western Power Distribution
Overhead Powerline
Low Voltage <1kV
Western Power Distribution
Underground Cable
High Voltage 1kV – 33kV
Western Power Distribution
Underground Cable
Low Voltage <1kV
Western Power Pillar
Underground Water Pipe
Underground Sewer Pipe
Underground Gas Pipe
0
5
10
20
N
A
REV
AMENDMENT SITE
DESCRIPTION
210506
YYMMDD
APPROVED
edge
PLANNING & PROPERTY
Edge Planning & Property
134 Hare Street, Mount Clarence
ALBANY WA 6330
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M: 0409 107 336
DRAWING NUMBER
EP 210506 01
REV
A

ATTACHMENT 4

Local Planning Strategy 2019

Figure 2: Urban



Legend

Designation

- Rural
- Parks and Recreation
- Rural Living
- Urban
- Existing Tourism Accommodation Sites
- Commercial
- Industry
- Public Use
- Regional Centre
- Urban Growth
- Neighbourhood Centre
- Future Neighbourhood Centre
- Local Centre
- Future Local Centre
- Rural Enterprise

Strategic Direction/Action

4	Protect agricultural land from urban sprawl and inappropriate development
5	Direct urban settlement growth of Albany to areas designated as 'urban growth'
6	Direct rural living settlement of Albany to areas designated as 'rural living'
7	Support the collaboration between the City and State government in the redevelopment of the Spencer Park Urban Renewal Area
8	Identify localities or precincts in the City suitable to increase residential densities (infill development) based on accessibility to services and facilities, utility infrastructure, heritage, character and amenity, and land capability
9	Continue to protect the primacy of the regional centre, identify its unique identity and build upon this, facilitate new mixed-use commercial development, increase the density and diversification of housing within and surrounding the regional centre, protect and enhance the heritage character, improve public realm with universal access, improve public transport, walkability and bikeability, diversify users - residents (age and cultural diversity), workers and visitors that engage with the regional centre and attract the location of regional facilities
10	Identify education precincts in conjunction with activity centres and support diversification of housing and land uses to cater for accommodation, entertainment and shopping needs of students
11	Advocate for the completion of the Ring Road
12	Facilitate the planning and construction of key link roads
13	Advocate for development of industry in Mirambeena

IA1	Investigation Area 1 - Centennial Park Urban Renewal Area
IA2	Investigation Area 2 - Wool Stores
IA3	Investigation Area 3 – Neighbourhood and Local Centres
IA4	Investigation Area 4 – Mirambeena Strategic Industrial Area
IA5	Investigation Area 5 – Pendeen Expansion Area
IA6	Investigation Area 6 – Proposed Ardess Estate Light Industrial Area
IA7	Investigation Area 7 – Lot 2 Hanrahan Road (CSBP Fertiliser Depot)
IA8	Investigation Area 8 – Robinson Industrial Area
IA9	Investigation Area 9 – Gledhow Industrial Area
IA10	Investigation Area 10 – Mueller Road
IA11	Investigation Area 11 - Protection of Yakamia Creek and Lake Seppings
IA12	Investigation Area 12 - Implementation of the Emu Point to Middleton Beach Coastal Hazard Risk Management Adaptation Plan
IA13	Investigation Area 13 - Potential Airport Business Area

Other

- Rail
- Indicative Rail Spur Extension
- Primary Road
- District Road
- Significant waterway
- Strategic Important Road Extensions
- Investigation Area 4 – Mirambeena Strategic Industrial Area
- Investigation Area 12 - Emu Point to Middleton Beach CHRMAP
- Macro-corridors
- Landscape Protection Areas
- SCA PDWSA
- Housing Strategy
- Education Precinct
- Strategic Infrastructure

1 0.5 0 Kilometers

1:100,000

SCALE @ A3

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MXD: X:\Planning_&_Development\Planning_Services\Strategic_Planner\ALPS_Review\new ALPS\MXD's_&_shapefiles\Fig 2 Urban.aprx Date Printed: 19/11/2019

ATTACHMENT 5

Proposed Two Storey Residence

SKETCH DESIGN
for
NISUS GROUP
at
Lot 121 COCKBURN ROAD, ALBANY

A00 - COVER SHEET & GENERAL NOTES

A01 - EXISTING SURVEY PLAN - 1:200

A02 - PROPOSED SITE PLAN - 1:200

A03 - GROUND FLOOR PLAN - 1:100

A04 - FIRST FLOOR PLAN - 1:100

A05 - ELEVATIONS - 1:100

NOTES

1 GENERAL

1.01.01 STANDARDS
ALL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE. USE REFERENCED AUSTRALIAN OR OTHER STANDARDS (INCLUDING AMENDMENTS) WHICH ARE CURRENT ONE MONTH BEFORE THE DATE OF THE CONTRACT EXCEPT WHERE OTHER EDITIONS OR AMENDMENTS ARE REQUIRED.

1.01.02 VERIFICATION
THE OWNER/BUILDER SUBCONTRACTOR SHALL: VERIFY ALL DIMENSIONS, LEVELS, SETBACKS AND SPECIFICATIONS PRIOR TO COMMENCING WORKS OR ORDERING MATERIALS. THE OWNER/BUILDER SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BUILDING WORKS CONFORM TO THE BUILDING CODE OF AUSTRALIA, CURRENT AUSTRALIAN STANDARDS, BUILDING REGULATIONS AND TOWN PLANNING REQUIREMENTS.

1.01.03 RESPONSIBILITY
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURE DURING ERECTION AND SHALL PROVIDE ADEQUATE PROPPING AND SUPPORT. KEEP THE SITE IN A CLEAN AND TIDY CONDITION THROUGHOUT CONSTRUCTION & AT THE COMPLETION OF WORK REMOVE ALL LITTER & DEBRIS TO THE SATISFACTION OF THE PRINCIPAL.

1.01.04 READING
THESE PLANS SHALL BE READ IN CONJUNCTION WITH ANY OTHER CONSULTANTS REFERED TO WITHIN INCLUDING STRUCTURAL AND CIVIL ENGINEERING SPECIFICATIONS AND DRAWINGS

1.01.05 CONSULTANTS
ENGINEERS OR RELEVANT SUB-CONSULTANT DRAWINGS AND SPECIFICATIONS SHALL PRECEED THESE DRAWINGS. REPORT ANY DISCPREPANCIES TO THIS OFFICE.

1.02.01 TERMITE MANAGEMENT SYSTEM
A TERMITE MANAGEMENT SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH AS3660.1

1.02.04 CERTIFICATION
PROVIDE CERTIFICATION ON COMPLETION AND INSTALL A DURABLE SIGN IN THE METER BOX.

2 SITE PREPARATION

2.01.01 COMPLIANCE
ALL GROUNDWORKS FOR SLABS AND FOOTINGS SHALL COMPLY WITH AS 3798 & AS 2870.

2.04.01 ENVIRONMENTAL PROTECTION
PROVIDE EROSION, CONTAMINATION, AND SEDIMENTATION PROTECTION OF THE SITE, SURROUNDING AREAS, AND DRAINAGE SYSTEMS. KEEP THE SITE FREE OF WATER AND PREVENT WATER FLOWOVER NEW WORK.

2.07.01 SURFACE PREPARATION
BEFORE PLACING FILL, COMPACT THE GROUND TO ACHIEVE THE REQUIRED DENSITY.

2.08.01 SAND BED LAYER UNDER SLABS.
NOMINALLY 50MM THICK ONCE COMPACTED. WET DOWN BEFORE LAYING VAPOUR BARRIER.

3 CONCRETE CONSTRUCTION

3.01.01 STANDARDS
ALL SLABS AND FOOTINGS SHALL BE CONSTRUCTED TO COMPLY WITH THE REQUIREMENTS OF AS 2870 - 2011

3.01.02 CONCRETE
SHALL BE IN ACCORDANCE WITH AS 3600. GRADE N25/20. MAINTAIN SLAB THICKNESS & FOOTING DEPTH AT SETDOWNS-REFER ENGINEERS DETAILS

3.01.06 COMPACTED FILL
SHALL NOT EXCEED 400MM IN DEPTH UNLESS IT IS CERTIFIED.

3.01.07 SLAB CONCRETE COVER
INTERNAL - 30MM. EXTERNAL - 40MM

4 TIMBER & STEEL CONSTRUCTION

4.01.01 STANDARDS
ALL STRUCTURAL STEELWORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 4100 - SSA STEEL STRUCTURAL CODE AND ASSOCIATED AUSTRALIAN STANDARDS. TIMBER FRAMING TO BE IN ACCORDANCE WITH AS1684 TIMBER FRAMING CONSTRUCTION.

4.01.04 TIMBER
STRUCTURAL TIMBER SHALL BE MINIMUM MPG10 (UNO) IN ACCORDANCE WITH AS 1720.

4.04.01 CORROSION PROTECTION OF STEEL MEMBERS
CORROSION PROTECTION OF STEEL IN MASONRY CONSTRUCTION TO BE IN ACCORDANCE WITH AS3700 & AS4773. CORROSION PROTECTION OF STEEL IN CONTACT WITH CONCRETE TO BE IN ACCORDANCE WITH AS4100, AS4600 & NASH.

4.07.01 TIMBER ROOF TRUSSES
INSTALLED IN ACCORDANCE WITH MANUFACTERERS SPECIFICATIONS AND AS 1720.5

4.08.01 LINTEL BEAM
PROVIDE SUITABLE LINTELS OVER OPENINGS AS PER ENGINEERS DOCUMENTATION. ALL EXTERNAL STEEL LINTELS TO BE HOT DIPPED GALVANISED.

5 BRICK CONSTRUCTION

5.01.01 MASONRY & ACCESSORIES
WORKS TO COMPLY WITH AS3700 MASONRY STRUCTURES OR AS4773 MASONRY FOR SMALL BUILDINGS PARTS 1 & 2.

5.02.01 MASONRY
USE GP GRADE BRICKS WHERE SURF COAST IS MORE THAN 1KM AND EXP GRADE WHERE SURF COAST IS WITHIN 1KM OR SITE IS SUSCEPTIBLE TO HIGH SALT CONDITIONS.

8 DOORS & WINDOWS

8.01.01 STANDARDS
ALL WINDOW AND SLIDING DOOR FRAMES, GLAZING, FIXINGS AND INSTALLATION TO BE DESIGNED AND CERTIFIED BY THE MANUFACTURER AS COMPLYING WITH AS 1288 & AS2047

8.01.02 DIMENSIONING
DIMENSIONS SHOWN NOMINAL SIZE. THE FABRICATOR SHALL ALLOW FOR TOLERANCES TO THE DOOR AND WINDOW FRAMES.

8.01.03 DOORS AND WINDOWS AS SCHEDULED
COMPONENTS AND FINISHES AS LISTED

16 PLUMBING & DRAINAGE

16.01.01 STANDARDS
ALL SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL PLUMBING AND DRAINAGE CODE AS/NZS.3500, THE CONTRACT DOCUMENTS, THE SPECIFICATION, SAA.MP52 AND THE STANDARD DRAWINGS OF THE WATER CORPORATION.

16.01.03 CONNECTION POINT
CONTRACTOR SHALL LIAISE WITH THE WATER CORPORATION FOR CONNECTIONS TO MAINS SERVICES PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING SERVICE & ESTABLISH DEPTH OF DRAINAGE CONNECTION POINT TO ENSURE ADEQUATE DEPTH IS AVAILABLE PRIOR TO ANY EXCAVATION OR INSTALLATION OF PIPES.

16.01.06 SITE DRAINAGE
GROUND ADJACENT TO BUILDING SHALL BE GRADED AWAY TO FALL AT LEAST 50MM OVER 1 METRE WIDTH TO SATISFY BCA CLAUSE 3.1.2.3 - SURFACE WATER DRAINAGE. NOTE HEIGHT REQUIREMENTS FOR ORG AND LOWEST PLUMBING FIXTURE, I.E SHOWER OR FLOORWASTE.

16.04.01 MAINS CONNECTION
SHALL NOT BE MADE TO EXISTING SEWER UNTIL THE WHOLE OF THE NEW WORKS HAS BEEN INSPECTED, TESTED TO WATER CORPORATIONS REQUIREMENTS

21 BAL RATING
PLEASE NOTE: THE INFORMATION BELOW IS A BRIEF SUMMARY OF THE CONSTRUCTION
REQUIREMENTS AND IS NOT INTENDED AS A DESIGN OR CONSTRUCTION GUIDE. CONSULT THE LATEST STANDARDS AND AMENDMENTS ISSUED FOR THE FULL TECHNICAL DETAILS.

21.03 BAL 19

0.15 SUB FLOOR SUPPORTS
NO SPECIAL CONSTRUCTION REQUIREMENT

0.16 FLOORS
NO SPECIAL CONSTRUCTION REQUIREMENT

0.17 EXTERNAL WALLS
PARTS LESS THAN 400MM ABOVE GROUND OR DECKS ETC. TO BE OF NON-COMBUSTIBLE MATERIAL, 6MM FIBRE CEMENT CLAD OR BUSHFIRE RESISTANT/NATURALLY FIRE RESISTANT TIMBER.

0.18 EXTERNAL WINDOWS
PROTECTED BY BUSHFIRE SHUTTER, COMPLETELY SCREENED WITH STEEL, BRONZE OR ALUMINIUM MESH OR 5MM TOUGHENED GLASS OR GLASS BLOCKS WITHIN 400MM OF GROUND, DECK ETC. OPENABLE PORTION TO BE METAL SCREENED WITH FRAME OR METAL OR METAL REINFORCED PVC-U OR BUSHFIRE RESISTING TIMBER.

0.19 EXTERNAL DOORS
PROTECTED BY BUSHFIRE SHUTTER, OR SCREENED WITH STEEL, BRONZE OR ALUMINIUM MESH OR GLAZED WITH 5MM TOUGHENED GLASS, NON-COMBUSTIBLE OR 35MM SOLID TIMBER FOR 400MM ABOVE THRESHOLD, METAL OR BUSHFIRE RESISTING TIMBER FRAMED FOR 400MM ABOVE GROUND, DECKING ETC. TIGHT-FITTING WITH WEATHER STRIPS AT BASE.

0.20 ROOFS
NON-COMBUSTIBLE COVERING. ROOF/WALL JUNCTION SEALED. OPENINGS FITTED WITH NON-COMBUSTIBLE EMBER GUARDS. ROOF TO BE FULLY SARKED

0.21 VERANDAHS/DECKS
ENCLOSED SUB-FLOOR SPACE - NO SPECIAL REQUIREMENT FOR MATERIALS EXCEPT WITHIN 400MM OF GROUND. NO SPECIAL REQUIREMENTS FOR SUPPORTS OR FRAMING. DECKING TO BE NON-COMBUSTIBLE OR BUSHFIRE RESISTANT WITHIN 300MM HORIZONTALLY AND 400MM VERTICALLY FROM GLAZED ELEMENT.

concept building design

Perth Office:
Unit 1/310 Lord St, Highgate
WA 6003

Albany Office:
338 Middleton Loop, Albany
WA 6330

PH: 9227 0500

PH: 9842 1157
FAX: 9842 5157
admin@cbdd.com
www.cbdd.com.au

MEMBERS OF BUILDING DESIGNERS ASSOCIATION

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Project:
Proposed Two Storey Residence
Client:
NISUS GROUP

Address:
Lot 121 COCKBURN ROAD, ALBANY

Rev.	Date	Description	Issued To
A	24/09/19	ISSUED FOR COMMENT	CLIENT

Drawn: DT	Date: 26/9/19	Drawing Number: A00 of A13	Job No.: C-1780-19
Checked: XX	Scale: AS SHOWN	PAGE SIZE: A2	Stage / Revision: SK-A

NO BOUNDARY
PEGS FOUND
RESURVEY
RECOMMENDED

NOTE
This is a site survey and the boundaries shown should be used as a reference only as they have not been re-established as part of this survey.

Areas & dimensions are subject to final survey.

Station heights are assumed, TBM = 10.0m.

Sewer information is as supplied by the Water Corporation of W.A. and has not been surveyed on site.

KERB - semi mountable (good condition)

SEWER - yes
WATER - yes
POWER - yes
TELSTRA - yes
GAS - no

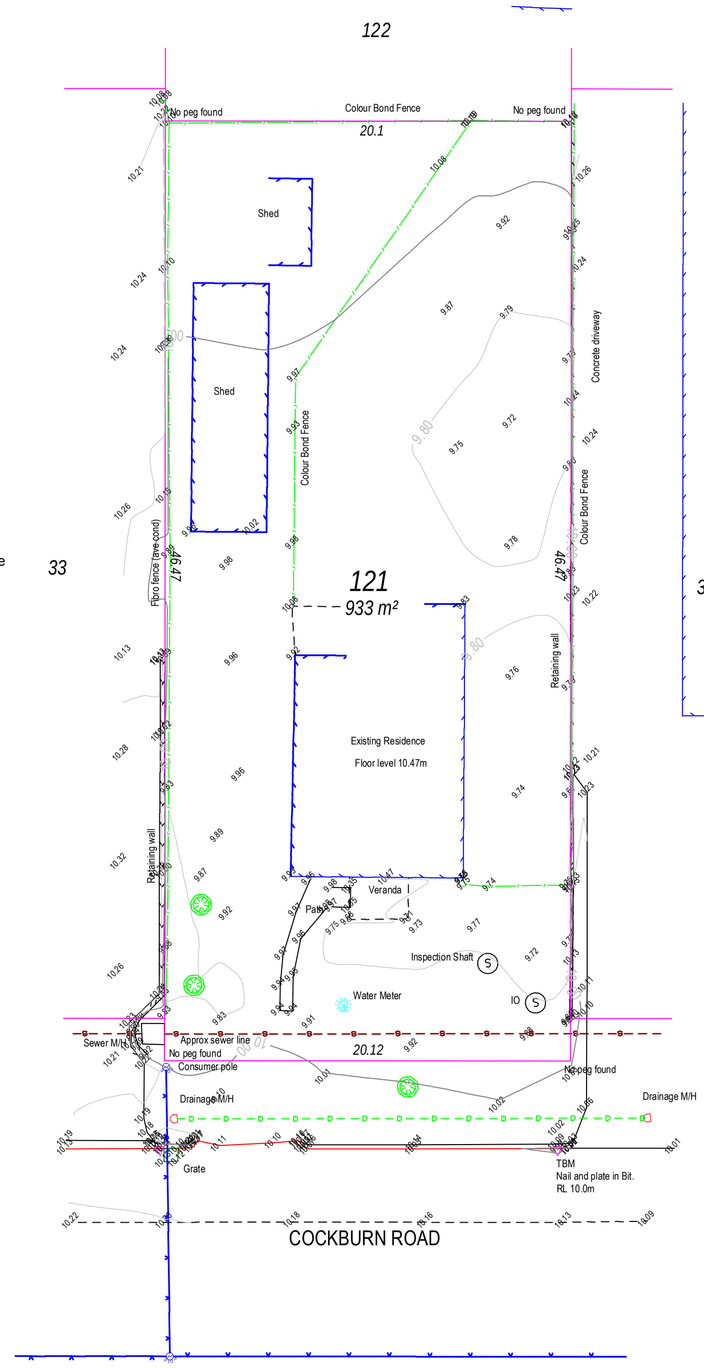
LEGEND

- FENCE
- TOP OF BANK
- BOTTOM OF BANK
- OVERHEAD POWERLINE
- ROAD CENTRELINE
- WATER METER/CONNECTION
- POWER DOME
- SEWER CONNECTION
- SURVEY CONTROL

0 2 4 6 8 10

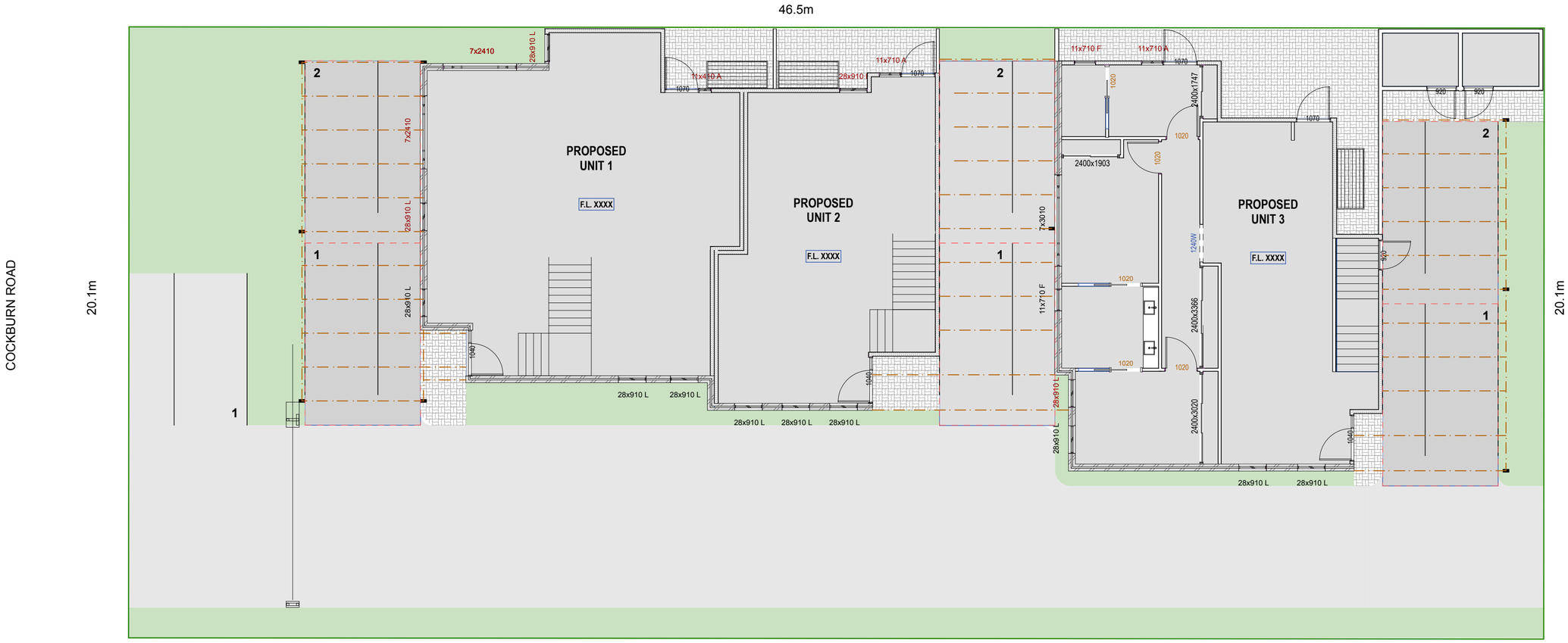
Scale 1:200 (A3)

JOHN KINNEAR & ASSOCIATES
Consulting Surveyors
45 COLLIE STREET
PO BOX 293
ALBANY WA 6331
PHONE (08) 9842 1353 FAX (08) 9842 1570
JKA REF. d809 - Sitey A3P



CLIENT: E & R MCLEAN		LOT: 121 COCKBURN ROAD, CENTENNIAL PARK, ALBANY	
PLAN: DP 30397	C/T Vol/Fol: 3-368A	AUTHORITY: CITY OF ALBANY	SHEET 1 OF 1
SCALE: 1:200 (A3)	MAP REF: SEE SMARTPLAN	JOB NUMBER: D809 SHEET SIZE A3	SURVEY DATE: 1/9/2015

BUILDING AREAS	
GROUND FLOOR AREAS	
---	---
CARPORT UNIT 1	45.59
CARPORT UNIT 2	45.59
CARPORT UNIT 3	45.59
GROUND LIVING	100.00
GROUND LIVING UNIT 1	107.45
GROUND LIVING UNIT 2	70.44
GROUND LIVING UNIT 3	119.73
GROUND STORE	100.00
STORAGE UNIT 1	4.39
STORAGE UNIT 2	4.37
STORAGE UNIT 3	6.84
	649.99 m²
FIRST FLOOR AREAS	
BALCONY UNIT 1	8.68
BALCONY UNIT 2	25.85
BALCONY UNIT 3	24.69
FIRST LIVING	100.00
FIRST LIVING UNIT 1	46.58
FIRST LIVING UNIT 2	90.84
FIRST LIVING UNIT 3	45.74
FIRST STORE	100.00
	442.38 m²
TOTAL LIVING AREA	**780.78 m²**
TOTAL BUILDING AREA	**1,292.37 m²**



N NE E SE S SW W NW

0 1 2 3 4 5 6 7 8 9 10

PROPOSED SITE PLAN
Scale 1:100

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Proposed Two Storey Residence
Client:
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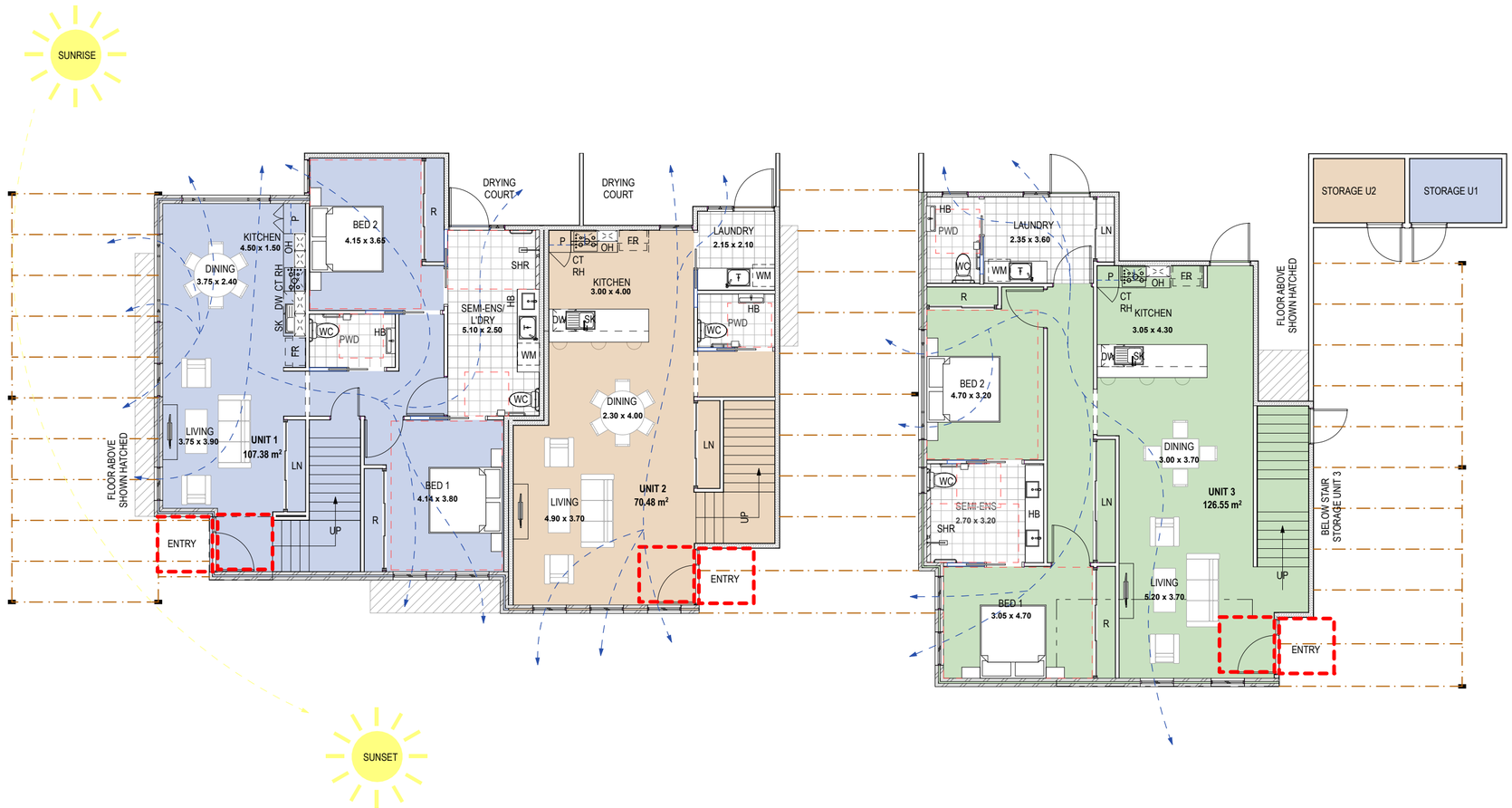
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DT	26/9/19	A02 of A13	C-1780-19
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NOTES

16	**PLUMBING & DRAINAGE**
HB	HAND BASIN
SK	SINK SINGLE BOWL/DOUBLE BOWL/SINGLE DRAINER
T	TROUGH
WC	WATER CLOSET
23	**LEGEND**
CT	COOKTOP AS SELECTED BY CLIENT.
DW	DISHWASHER RECESS
FR	FRIDGE SPACE
LN	LINEN CUPBOARD
OH	OVERHEAD CUPBOARD
P	PANTRY
R	ROBE
RH	RANGE HOOD CANOPY/UNDERMOUNT/SLIDE-OUT
SHR	SHOWER
WM	WASHING MACHINE SPACE



E02 A05 E01 A05

N NE E SE S SW W NW

0 1 2 3 4 5 6 7 8 9 10

GROUND FLOOR PLAN
Scale 1:100

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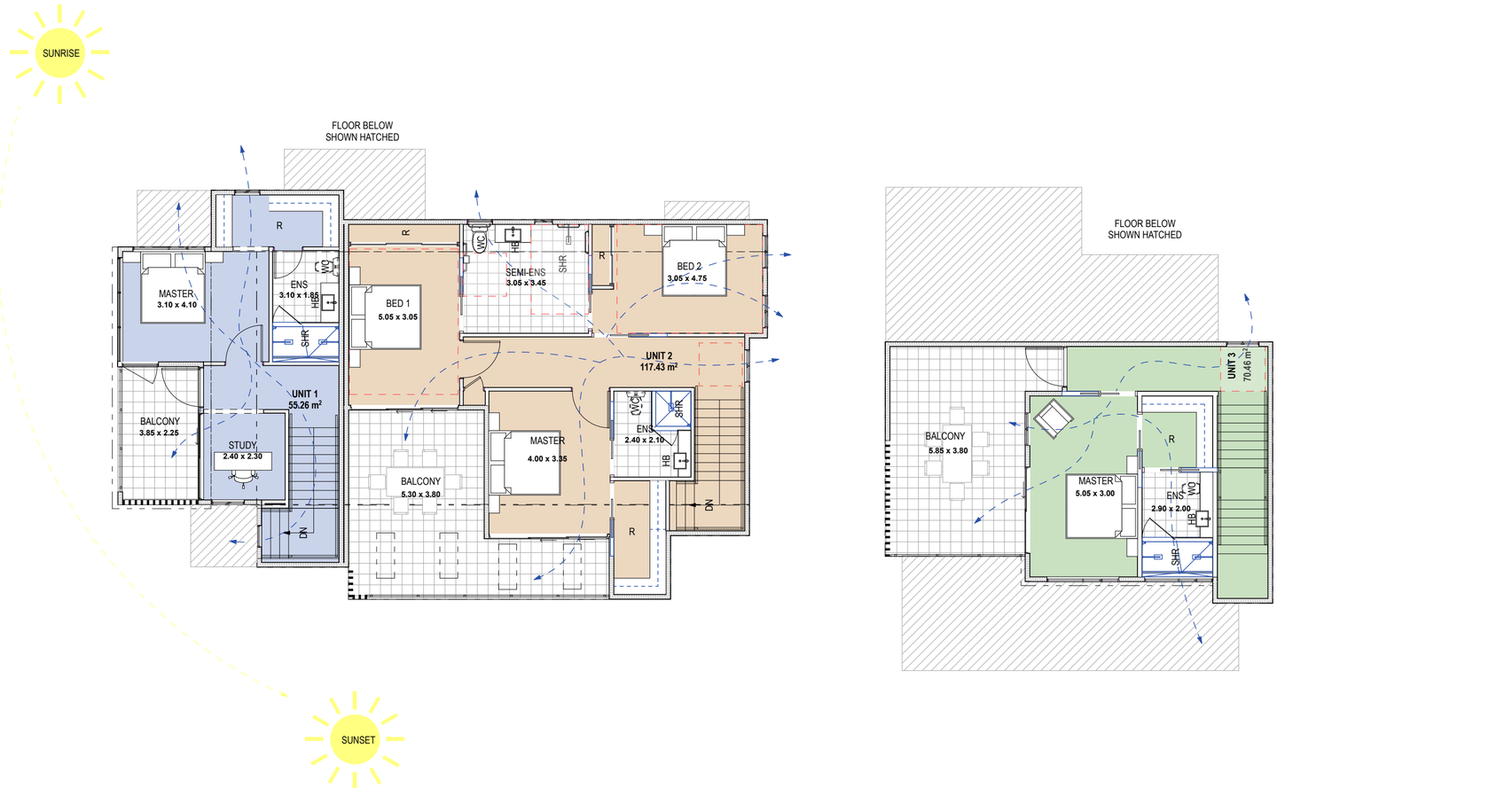
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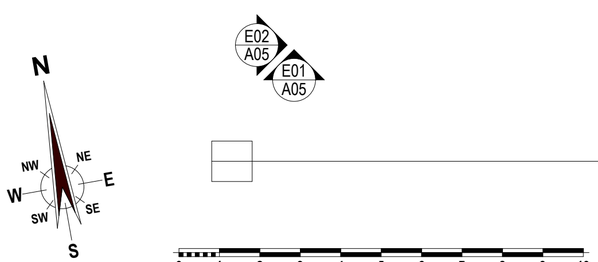
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NOTES

16	**PLUMBING & DRAINAGE**
HB	HAND BASIN
WC	WATER CLOSET
23	**LEGEND**
R	ROBE
SHR	SHOWER





FIRST FLOOR PLAN
Scale 1:100

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Address:
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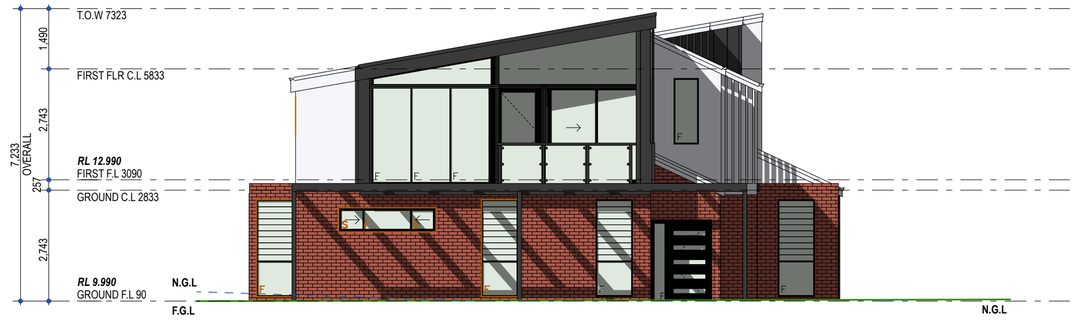
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E01

ELEVATION - EAST
Scale 1:100



E02

ELEVATION - SOUTH
Scale 1:100

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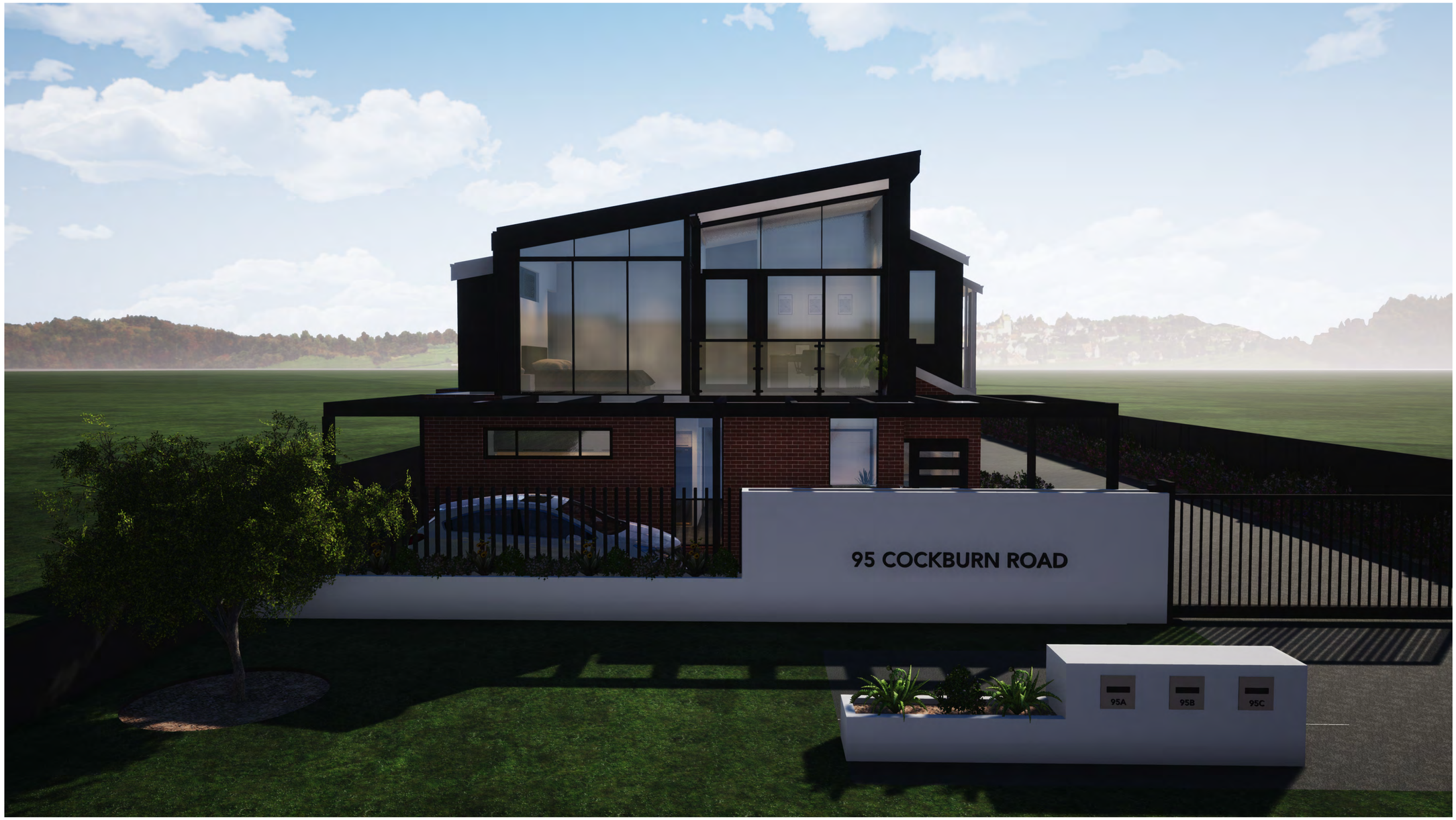
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Client:
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Address:
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Client:
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ATTACHMENT 6

HERRING STORER ACOUSTICS

Our ref: 27093-2-20296

22 February 2021

Edge Planning and Property
134 Hare Street
Mount Clarence, Albany 6330

Attention: Steve Thompson
Email: steve@edgeplanning.com.au

Dear Steve,

LOT 121 COCKBURN ROAD, ALBANY RESIDENTIAL DEVELOPMENT
REVIEW OF CONSTRUCTION REQUIREMENTS FOR UNITS 1, 2 AND 3

As requested, we have undertaken a review of the noise that would be received within the above proposed development from the surrounding locale.

The proposed residential development comprises three units, being two storeys per unit.

The development is situated in an area, which based on information provided, is undergoing a review as to the proposed usage (Local Government Zoning). However, for the purpose of this assessment, the impact of noise onto the residential development has been based on the current zoning, which is light industrial. Based on ground usage for the current businesses, the light industry comprises of commercial retail, a patisserie and panel beaters. It is noted that as a part of the rezoning application, the adjoining Lots will be included in the change of use to residential.

Therefore, noise emissions for the surrounding lots have been considered as being industrial in usage with quiet house design recommendations for the proposed development considering the level of noise light industry can produce. This would be considered conservative, as it is the maximum noise levels the surrounding industry can produce in accordance with the regulatory criteria.

As this is an application for zoning change, this letter supports the planning process by providing information inn regards to any noise attenuation required to the proposed residential buildings. This would ensure compliance with internal noise levels for the highest noise levels considered. Expectations are that a further, more detailed noise study of the area would be undertaken as a part of the development application. This study would provide noise monitoring of the existing acoustic environment, which will be used to confirm any quiet house design requirements.

Based on preliminary design provided, we have assessed the construction requirements to achieve acceptable internal noise levels for the residential buildings. For comparative purposes, this design is generally in line with Package B/C quiet house design requirements contained in State Planning Policy 5.4.

CRITERIA

Internal Noise Levels

Acceptable noise levels within occupied spaces has been attained from AS2107:2016.

This standard recommends a noise level of 35 dB(A) within bedrooms and 40 dB(A) within living areas.

It is noted that this level is for the space unoccupied, but ready for habitation, which was the case in this instance.

External Noise Levels

The allowable noise level at the surrounding locales is prescribed by the *Environmental Protection (Noise) Regulations 1997*.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Industrial and Utility Premises	All Hours	65	80	90

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

Based on the above, the allowable noise levels one industrial premise can make onto another industrial premise is 65 dB(A). Notwithstanding the requirements for compliance in regards to the usage of the premise, i.e. if the receiver of the noise is industrial, commercial, or residential, the maximum allowable noise for that land use would be 65 dB(A). Therefore, this would be the considered the highest noise level at each façade for the proposed residential, with design considerations being based around this level.

ASSESSMENT

Calculations were carried out for internal noise levels based on an external noise level of 65 dB(A). As explained in the previous section, this external level represents the highset noise level at each façade of the proposed residential development.

Based on the above external noise level, the required R_W ratings (transmission loss) for the different building elements to achieve acceptable internal noise levels to comply with the AS 2107. This calculation was based on the element size as per the plans provided.

For information purposes, Table 1 below shows general advice on glazing performance as a reference for any upgraded glazing requirements. Other building components as noted, would be suitable.

TABLE 2 - MINIMUM ACOUSTIC RATING OF SELECTED EXTERNAL BUILDING ELEMENTS

Building Element	Type	Airborne weighted sound reduction rating with traffic correction R_w+C_{tr}, dB	Building Element Type Airborne weighted sound
Window, uPVC, aluminium or timber frame	Sliding or double hung opening	23	• 4mm monolithic glass
		26	• Single pane glazing to R_w 33dB • 6mm monolithic or laminated glass • 6mm toughened safety glass • '6-12-6' double insulated glass unit (IGU)
		29	• Single pane glazing to Rw 36dB • 10mm monolithic (aka float) glass • 10mm laminated or toughened safety glass • 6mm-12mm-10mm double insulating
	Fixed sash, awning or casement type opening	26	• 4mm monolithic glass
		31	• Single pane glazing to R_w 33dB • 6mm monolithic or laminated glass • 6mm toughened safety glass • '6-12-6' double insulated glass unit (IGU)
		34	• Single pane glazing to R_w 36dB • 10mm monolithic (a.k.a. float) glass • 10mm laminated or toughened safety glass • 6mm-12mm-10mm double insulated glass unit (IGU)
Single external door, aluminium uPVC or timber frame	Fully glazed sliding door	24	• 6mm monolithic or laminated • 5 or 6mm toughened safety glass
		27	• 10mm monolithic or laminated • 10mm toughened safety glass
	Fully glazed hinged door	28	• Certified R_w 31dB acoustically rated door and frame including seals • 6mm monolithic or laminated • 5 or 6mm toughened safety glass
		31	• Certified R_w 34dB acoustically rated door and frame including seals • 10mm monolithic or laminated • 10mm toughened safety glass
	Solid core timber frame, side hinged	26	• Certified R_w 28dB acoustically rated door and frame system including seals • 35mm solid core timber
		30	• Certified R_w 32dB acoustically rated door and frame system including seals • 40mm solid core timber without glass insert • 40mm solid core timber with not less than 6mm

Yours faithfully,
For **HERRING STORER ACOUSTICS**

Paul Daly

Att.

HERRING STORER ACOUSTICS

Unit 1				
Internal Use	**Building Component**	**Total Area m^2**	**Ratio Window to Floor**	**Required R_w**
Bedroom Master	Ceiling	12.7	43%	39
	Windows	5.5		35
	External Walls	14.9		39
Bedroom 1	Ceiling	15.7	28%	39
	Windows	4.4		33
	External Walls	9.1		36
Bedroom 2	Ceiling	15.1	14%	39
	Windows	2.2		30
	External Walls	11.2		37
Study	Ceiling	5.5	68%	34
	Windows	3.7		3
	External Walls	5.8		34
Dining / Living /Kitchen	Ceiling	30.4	24%	34
	Windows	7.3		27
	External Walls	27.4		33
Bathroom (Ground Floor)	Ceiling	12.8	3%	34
	Windows	0.4		18
	External Walls	6.0		30
Ensuite	Ceiling	5.7	0%	34
	Windows	0.0		-
	External Walls	0.0		-
Walk in Robe	Ceiling	7.2	16%	34
	Windows	1.2		26
	External Walls	9.6		35
Stair / Hall	Ceiling	15.4	25%	34
	Windows	3.9		28
	External Walls	7.2		30

HERRING STORER ACOUSTICS

Unit 2				
Internal Use	**Building Component**	**Total Area m^2**	**Ratio Window to Floor**	**Required R_w**
Bedroom Master	Ceiling	13.4	48%	39
	Windows	6.4		35
	External Walls	17.6		40
Bedroom 1	Ceiling	15.4	41%	39
	Windows	6.4		35
	External Walls	7.3		35
Bedroom 2	Ceiling	14.5	19%	39
	Windows	2.7		31
	External Walls	18.7		40
Dining / Living /Kitchen	Ceiling	39.3	22%	34
	Windows	8.7		27
	External Walls	16.1		30
Laundry	Ceiling	4.5	15%	34
	Windows	0.7		25
	External Walls	10.2		37
Bathroom	Ceiling	10.5	8%	35
	Windows	0.8		23
	External Walls	8.3		33
Ensuite	Ceiling	5.0	0%	34
	Windows	0.0		-
	External Walls	0.0		-
Stairs / Hall	Ceiling	12.2	11%	35
	Windows	1.4		24
	External Walls	14.4		34

HERRING STORER ACOUSTICS

Unit 3				
Internal Use	**Building Component**	**Total Area m^2**	**Ratio Window to Floor**	**Required R_w**
Bedroom Master	Ceiling	15.2		39
	Windows	11.2	74%	37
	External Walls	19.3		40
Bedroom 1	Ceiling	14.3		39
	Windows	2.2	15%	30
	External Walls	18.6		40
Bedroom 2	Ceiling	15.0		39
	Windows	1.8	12%	29
	External Walls	11.3		37
Dining / Living /Kitchen	Ceiling	43.5		34
	Windows	4.4	10%	24
	External Walls	26.5		31
Laundry	Ceiling	8.5		34
	Windows	0.7	8%	23
	External Walls	11.9		35
Ensuite	Ceiling	5.8		34
	Windows	0.8	15%	25
	External Walls	4.8		33

COVERING LETTER
DEVELOPMENT APPLICATION

Barry Whyatt and Belinda Goode
1387 Lower Denmark Road, Elleker

12TH NOVEMBER 2020

TO: THE CITY OF ALBANY

It is our intention to build luxury dog boarding kennels at 1387 Lower Denmark Road, Elleker, where we reside. The area of our property is 25 acres and zoned special agricultural.

We have had site plans drawn up, which have been included with this application. The plan is to build a 36.922m shed structure with provision for 30 dog kennels. There will also be a storage room, kitchen area and reception/office area with staff toilet, all under the same roofline. Kitchen will have stainless steel benches and storage cupboards. There will be a fridge in the kitchen. The storage area will have a washing machine to ensure all bedding, towels etc are kept washed and clean. The entire shed structure will be insulated to help with noise reduction. Each kennel will have its own exercise yard and there will be a communal play area.

We have done our research and concluded that Albany could really benefit from having new, well-designed luxury dog boarding kennels. The current dog boarding kennels in Albany are run-down and there is often more demand than places for owners wishing to leave their dogs whilst they are away. Our decision to construct the kennels is in part a commercial venture but also paired with our love of dogs and desire to see them well cared for.

The building will be timber frame construction with colorbond heritage green roof and walls. Walls and ceiling will have cement sheeting. The floor will be concrete with plastic drains which will be washed out daily. All septics will be according to council guidelines. The office/reception/storage areas will be gyprocked. The kennel enclosures will consist of steel fencing. The entire site will be fenced with steel linkmesh fencing with the best possible snake proofing.

Business opening hours will be from 7.30am to 10.30am and again from 3.30pm to 5.30pm 7 days a week for dog drop-offs and pick-ups. Obviously the kennels will operate all day 7 days per week as there will always be plenty to do. Dogs will be exercised daily and locked up in their kennels at night. With the position of the kennels we do not have neighbours close by. The entire shed will be insulated to help with noise reduction. Each kennel will have its own exercise yard and there will be a communal play area. We will have a commercial dog wash and dogs will be washed on arrival. Vaccination records will be required for all dogs before they can be admitted. We have a vet close by at Youngs Siding and she is totally on board with the proposal.

At this stage there will only be 2 staff, being both owners who reside on the premises. Should the business do really well we will employ staff as the need arises.

There will be parking bays for people dropping their dogs off including as disabled parking bay.

We trust that you will give our proposal favourable consideration.

Sincerely

BARRY & BELINDA

RESPONSE TO OBJECTION FOR DOG BOARDING KENNEL PROPOSAL AT 1387 LOWER DENMARK ROAD ELLEKER

AMENITY NOISE

The noise from barking dogs will be controlled in the following ways:

There will be soundproofing panels on the walls and ceiling inside the kennel enclosure so there is minimal barking noise affecting neighbours at night. This is a very effective means of dampening the sound. This is because sound waves reduce in decibels as they pass through mass. So, for example, if a dog bark is 80dB on the one side of the wall, and you hear 30dB on the other side of the wall, the sound wave lost 50dB as it passed through. By adding mass you can reduce the noise that moves between the inside of the kennel enclosure and the outside of the enclosure. We will use the highest rating Bradford Soundscreen Accoustic Insulation Batts, which can effectively reduce noise by up to 85%. The Batts have a R3.1 rating, and are 110mm thick. We have done lots of research into soundproofing the kennels and the soundproofing we have chosen will result in very effective dampening of noise.

There will also be R2.1 rating 'normal' insulation batts in the walls and ceiling cavity which will have a twofold benefit; keeping the kennels cool in Summer and warm in Winter and also further helping with noise absorption due to mass.

It is our intention to plant lots of trees along our boundary fence bordering the kennels as well as around the proposed kennel area as soon as we are granted a kennel license which will help to dampen any noise. We will consult a horticulturist and plan to get quick growing, well established trees to create a hedge effect.

Additionally, we will have soothing music playing at night inside kennel enclosure to help calm the dogs.

During the day the dogs will be exercised and we will have activities for the dogs so they are occupied. We live on the premises and so there will always be someone with the dogs. If the dogs are active, they are less likely to bark. We will pay particular attention to anxious dogs and those who suffer from separation anxiety.

CONCERNS BUFFER IS NOT SUFFICIENT

The 500m buffer is the recommended buffer under the EPA Guidance for the Assessment of Environmental Factors Separation Distances between Industrial and Sensitive Land Uses No 3 (2005). Majority of properties in our area are more than 500m away.

From November to March the winds predominantly blow in an easterly direction. The closest neighbours to the east are all on board with kennel establishment and see it as a positive adjunct to their B&B business. Their view is that people coming from Perth or other

areas to stay at their B&B can bring their dogs and leave them next door at our kennels. For neighbours further east there is plenty of bush and trees to buffer any noise.

When the SW winds blow in Winter it will not affect people in Elleker because the wind does not blow in that direction.

ZONING

The zoning is set by council and when we moved to the property we approached council about the possibility of having dog boarding kennels at our property. We were told that our zoning was 'special agricultural' and dog boarding kennels were permitted. The 'intent' of the zone should not come into it.

ENVIRONMENTAL CONCERNS

There have been concerns raised about waste management. We have complied with all council regulations with respect to this issue. We will install leach drains and septic tanks for sewerage.

There is more chance of Elleker township septic systems contaminating drinking water than where we live. There is also more chance of cattle and sheep waste affecting drinking water than our situation where we have leach drains and septics specifically for waste management.

DECREASE IN PROPERTY VALUES

This a purely speculative concern. We do not believe that property values will be affected, especially if we effectively control any noise from barking dogs.

SUMMARY

We are wholeheartedly committed to doing our very best to address any concerns/complaints neighbours might have. We live on the property and will be here 24/7 to address complaints as they arise. We are happy for neighbours to contact us directly at any time.

Please give us the opportunity to realise our dream. Albany needs good quality dog boarding kennels and these will be of the highest quality. We both love dogs and will spend time with them to settle and calm them and give them affection. If the dogs are well cared for and not lacking in attention, have plenty of exercise and activities there is less likely to be a problem or complaints from neighbours.

City of Albany Records
oc No: ICR20398353
ile: A214368
ate: 01 DEC 2020
fficer: PLAN19

CITY OF ALBANY
- 1 DEC 2020
RECORDS OFFICE

TO: JESSICA ANDERSON (PLANNING OFFICER)

FROM: BELINDA GOODE

RE: **PROPOSED DOG BOARDING KENNELS - 1387 LOWER DENMARK ROAD ELLEKER**
EF20220059 – A214368 – P2200615

Hi Jess

In response to your queries regarding the dog boarding kennels application for 1387 Lower Denmark Road, Elleker, we provide the following information.

We have attached the aerial pictures you included and marked the neighbours' houses and our dwelling.

Car parking and access have already been given to you and should be on existing site plans which were handed in with our original application.

MANAGEMENT PLAN

WASTE

Dog pooh will be picked up every day, both morning and late afternoon and disposed of in septic tank (there will be 2 tanks) which will have a special lid for easy access. There will be drains across the entire length of the kennels which will be washed out every day. Any kitchen waste will be put into garbage bags and taken to the tip with our weekly tip run.

HYGIENE

Kennels will be cleaned/hosed down every day. Bedding will be washed weekly. Stainless Steel dog bowls will be washed daily using boiling water and detergent. The kitchen area will have Stainless Steel sinks and benchtops. There will be cupboards for storage to prevent clutter and help with cleanliness. The kitchen will be cleaned daily; floors swept and mopped and all stainless steel benchtops and sinks disinfected.

We propose to have a dog wash which will only be used for dogs staying at the kennels. All dogs will be washed on arrival, with owner's approval, to prevent spread of fleas and keep kennels clean. This will be a free service.

COMPLAINTS

All complaints will be treated with seriousness and dealt with promptly. We will be available 24/7 to deal with any complaints that arise. We reside on the premises, 20m from proposed kennels so this also ensures that any issues can be remedied as soon as possible.

To help with noise reduction the entire kennel enclosure will be insulated. This will also help with temperature regulation. The building will be locked up at night to help with any noise and also provide a level of security. There will be ceiling fans and ceiling ventilation inside the building and there are windows.

Should neighbours' wish to contact us with any issues we can be contacted on the phone numbers below :

BARRY WHYATT 0428416886

BELINDA GOODE 0428679696

ADDITIONAL INFO

With regard to the 'grooming room'; we have changed our mind and will not offer this service. The existing 'grooming room' on site plan will now be used as a storage room.

If you need any additional information please do not hesitate to contact us.

Kind Regards

Belinda Goode

O - our dwelling

City of Albany



11/25/2020, 1:33:18 PM

Cadastre

Tenure

Our dwelling is 20m from proposed kennel site

1:1,128

0 0.01 0.02 0.04 mi

0 0.02 0.04 0.07 km

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, LANDGATE/SLIP, Landgate / SLIP

City of Albany

0 - Neighbours' Houses



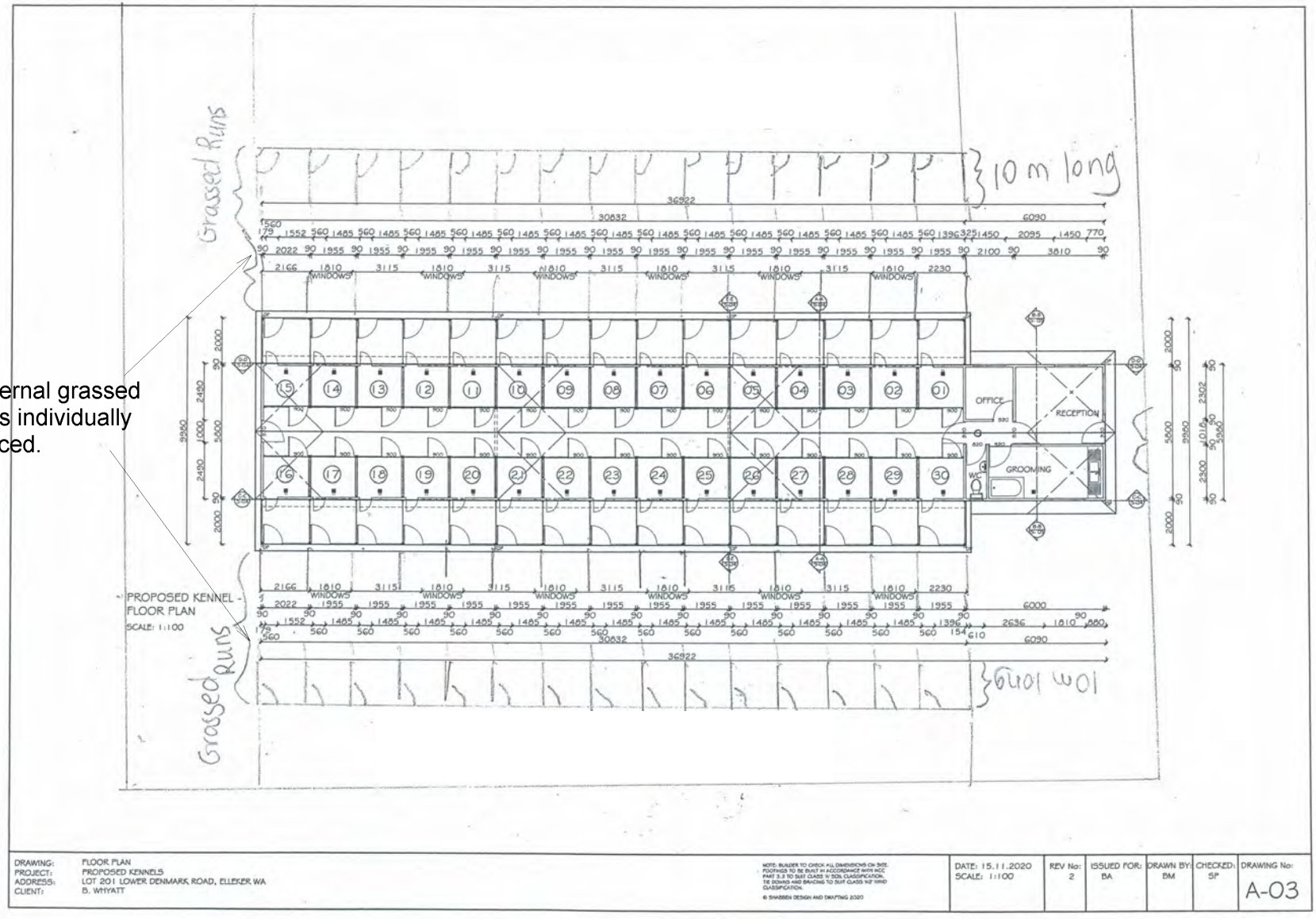
500m buffer shown shaded

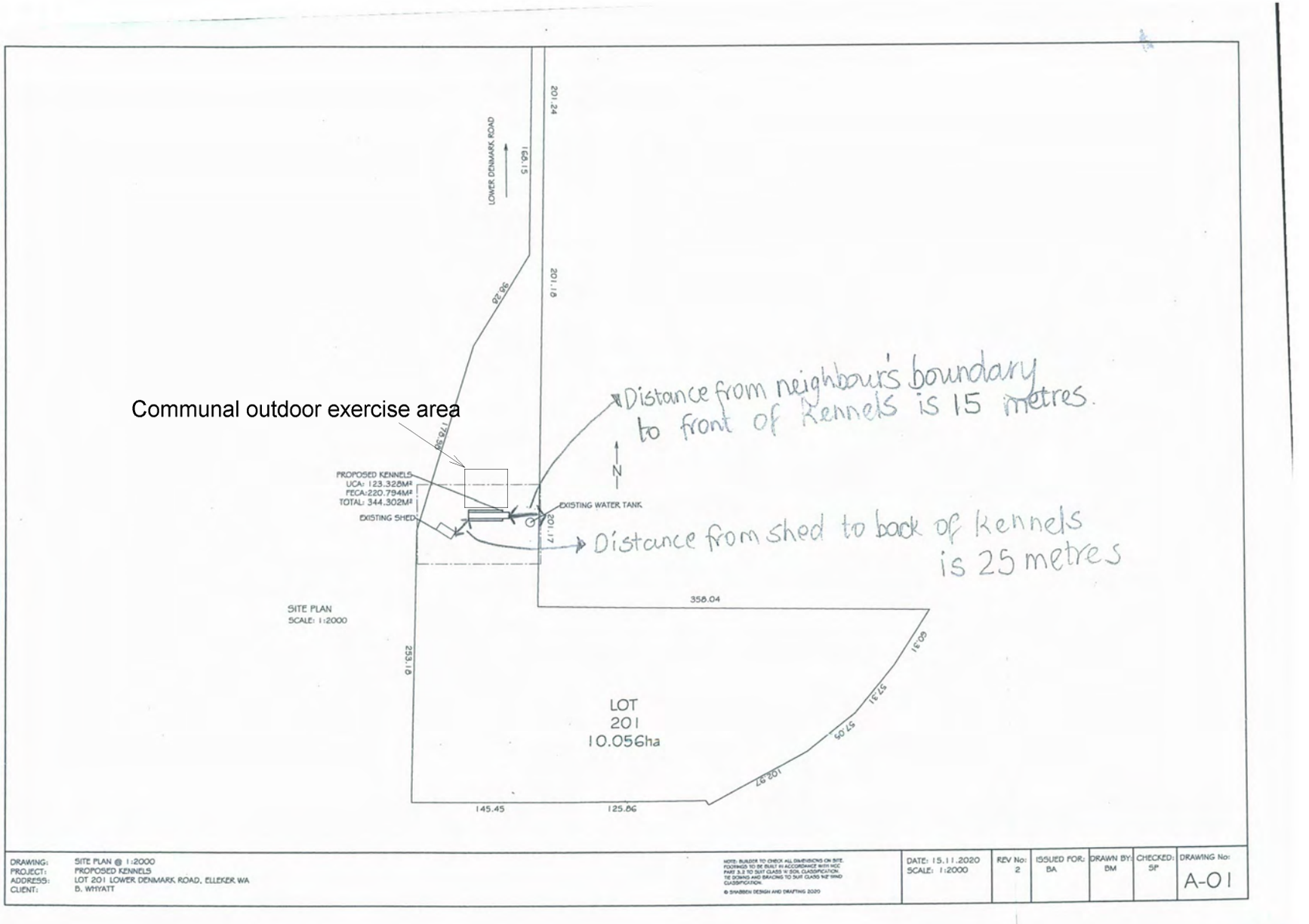
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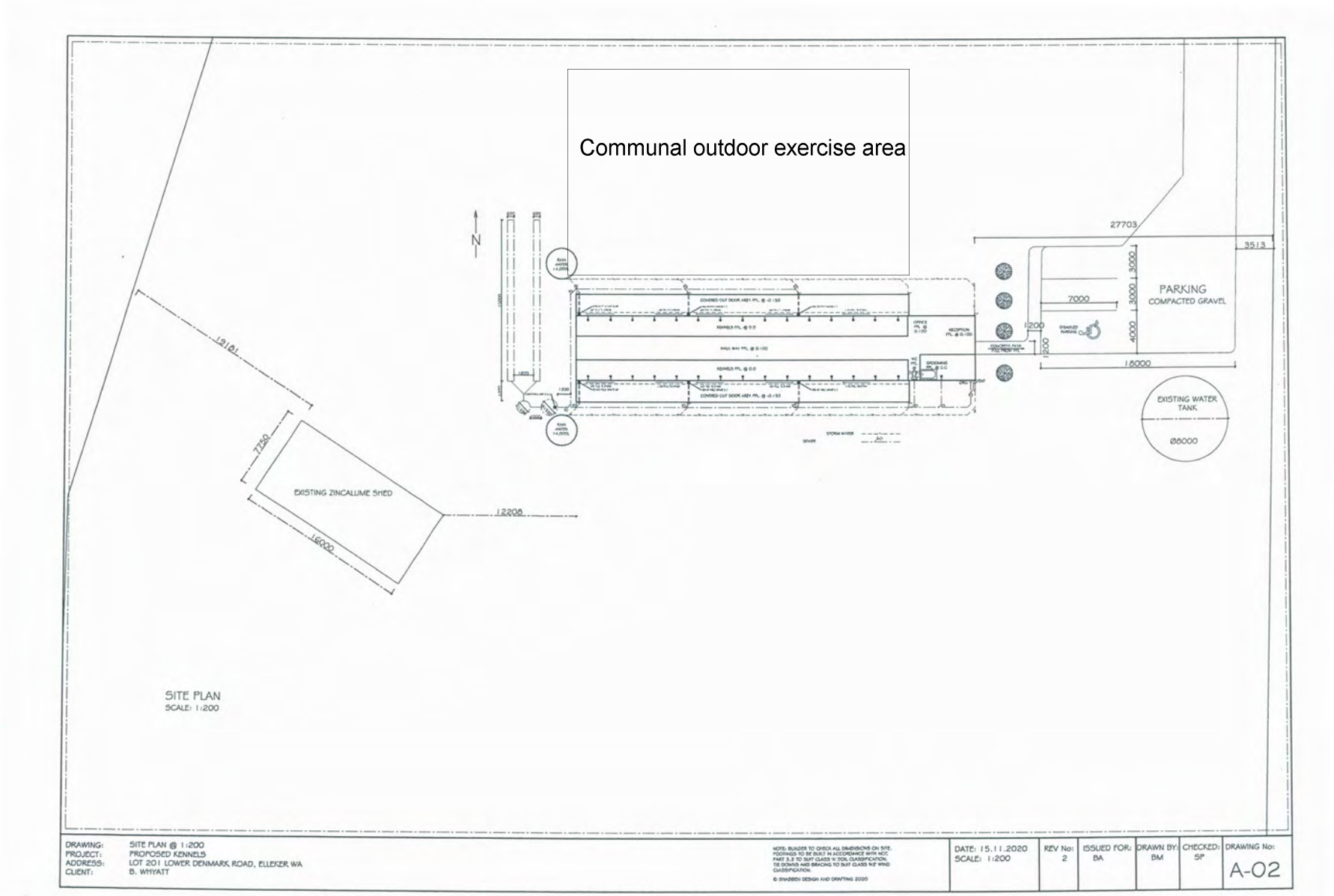
0 0.07 0.15 0.3 mi

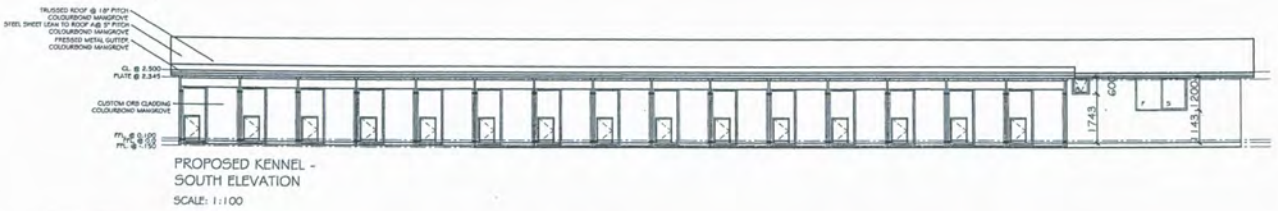
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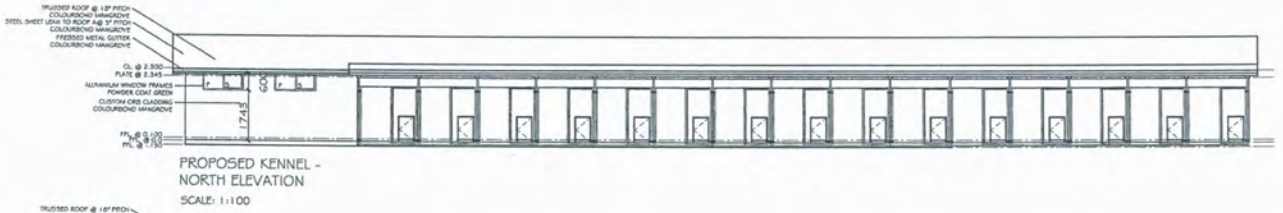
External grassed runs individually fenced.

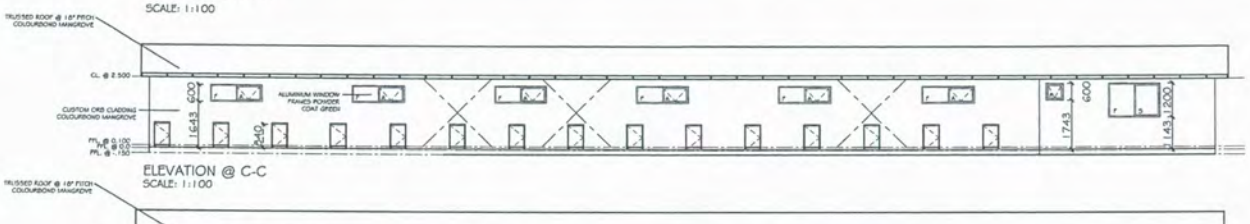


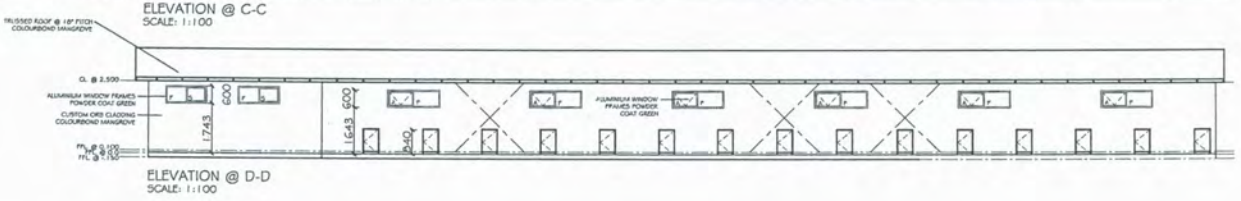

Communal outdoor exercise area
LOWER DENMARK ROAD
165.15
201.24
201.18
96.28
178.52
PROPOSED KENNELS
UCA: 123.328M²
FECA:220.794M²
TOTAL: 344.302M²
EXISTING SHED
EXISTING WATER TANK
201.17
N
Distance from neighbour's boundary to front of Kennels is 15 metres.
Distance from shed to back of kennels is 25 metres
SITE PLAN
SCALE: 1:2000
358.04
293.16
60.31
57.31
57.09
102.97
LOT
201
10.056ha
145.45
125.86
DRAWING: SITE PLAN @ 1:2000
PROJECT: PROPOSED KENNELS
ADDRESS: LOT 201 LOWER DENMARK ROAD, ELLEKER WA
CLIENT: B. WHYATT
NOTE: BUILDER TO CHECK ALL DIMENSIONS ON SITE. FOOTINGS TO BE BUILT IN ACCORDANCE WITH NCC PART 3.2 TO SUIT CLASS 'H' SOIL CLASSIFICATION. TIE DOWNS AND BRACING TO SUIT CLASS 'N3' WIND CLASSIFICATION.
© SHABBEN DESIGN AND DRAFTING 2020
DATE: 15.11.2020
SCALE: 1:2000
REV No: 2
ISSUED FOR: BA
DRAWN BY: BM
CHECKED: SP
DRAWING No: A-01

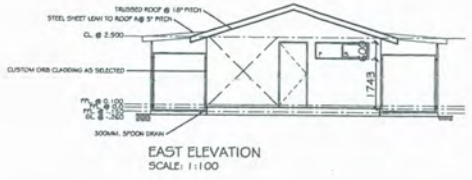

Communal outdoor exercise area
N
27703
3513
PARKING
COMPACTED GRAVEL
7000
3000
3000
4000
1200
1200
16000
EXISTING WATER TANK
Ø6000
19101
7250
EXISTING ZINCALUME SHED
12206
16000
SITE PLAN
SCALE: 1:200
DRAWING: SITE PLAN @ 1:200
PROJECT: PROPOSED KENNELS
ADDRESS: LOT 201 LOWER DENMARK ROAD, ELLEKER WA
CLIENT: B. WHYATT
DATE: 15.11.2020
SCALE: 1:200
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DRAWN BY: BM
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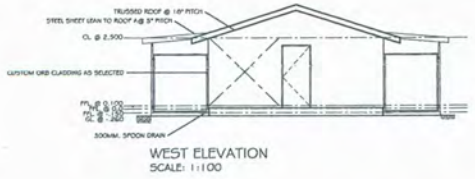




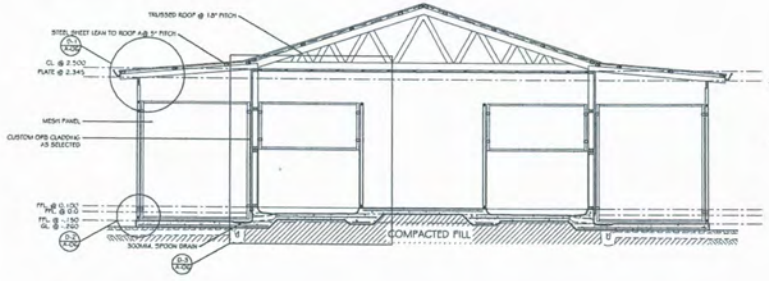




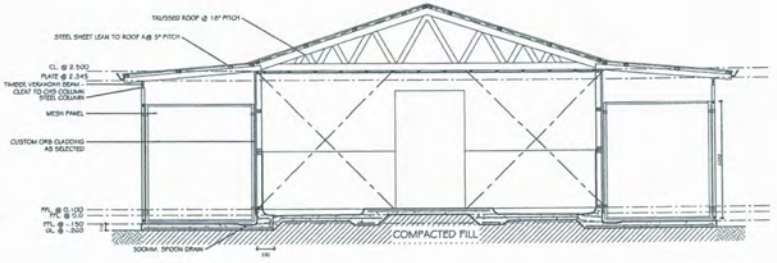




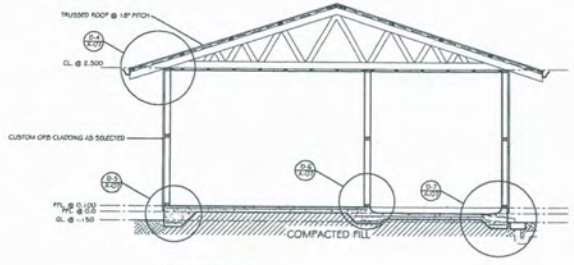
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SECTION A-A
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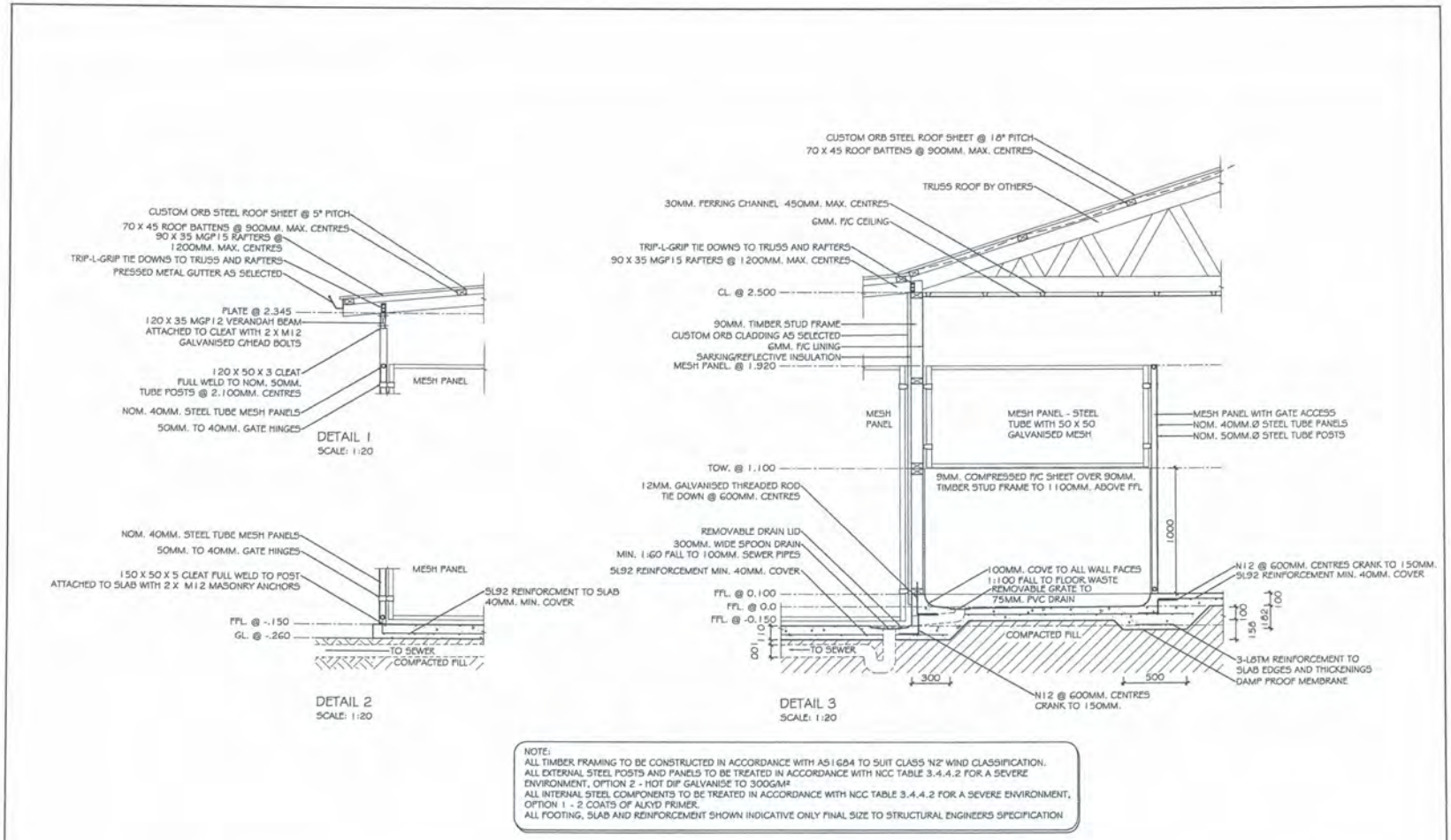


SECTION E-E
SCALE: 1:50



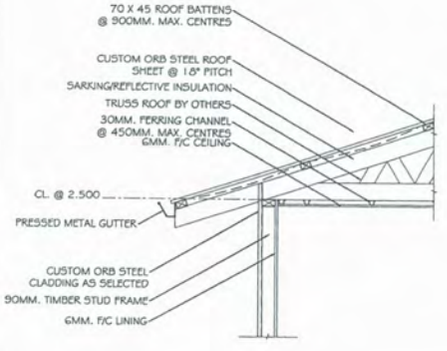
SECTION B-B
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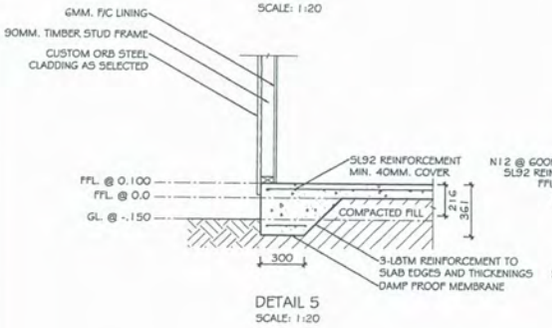
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ALL EXTERNAL STEEL POSTS AND PANELS TO BE TREATED IN ACCORDANCE WITH NCC TABLE 3.4.4.2 FOR A SEVERE ENVIRONMENT, OPTION 2 - HOT DIP GALVANISE TO 300G/M²
ALL INTERNAL STEEL COMPONENTS TO BE TREATED IN ACCORDANCE WITH NCC TABLE 3.4.4.2 FOR A SEVERE ENVIRONMENT, OPTION 1 - 2 COATS OF ALKYD PRIMER.
ALL FOOTING, SLAB AND REINFORCEMENT SHOWN INDICATIVE ONLY FINAL SIZE TO STRUCTURAL ENGINEERS SPECIFICATION

DRAWING: DETAILS PROJECT: PROPOSED KENNELS ADDRESS: LOT 201 LOWER DENMARK ROAD, ELLEKER WA CLIENT: B. WHYATT	NOTE: BUILDER TO CHECK ALL DIMENSIONS ON SITE. FOOTINGS TO BE BUILT IN ACCORDANCE WITH NCC PART 3.2 TO SUIT CLASS 'N' SOIL CLASSIFICATION. TIE DOWNS AND BRACING TO SUIT CLASS 'N2' WIND CLASSIFICATION. © SHADDEN DESIGN AND DRAFTING 2020	DATE: 15.11.2020 SCALE: 1:20	REV No: 2	ISSUED FOR: BA	DRAWN BY: BM	CHECKED: SP	DRAWING No: A-06

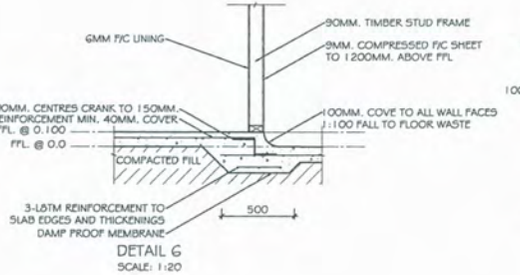


DETAIL 4
SCALE: 1:20

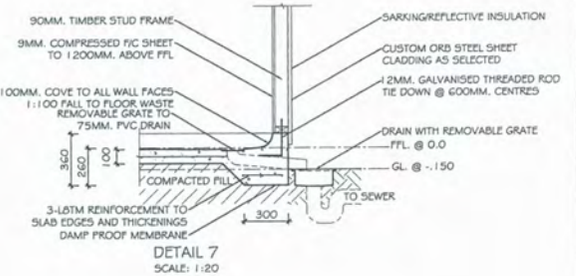
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ALL INTERNAL STEEL COMPONENTS TO BE TREATED IN ACCORDANCE WITH NCC TABLE 3.4.4.2 FOR A SEVERE ENVIRONMENT, OPTION 1 - 2 COATS OF ALKYD PRIMER.
ALL FOOTING, SLAB AND REINFORCEMENT SHOWN INDICATIVE ONLY FINAL SIZE TO STRUCTURAL ENGINEERS SPECIFICATION



DETAIL 5
SCALE: 1:20



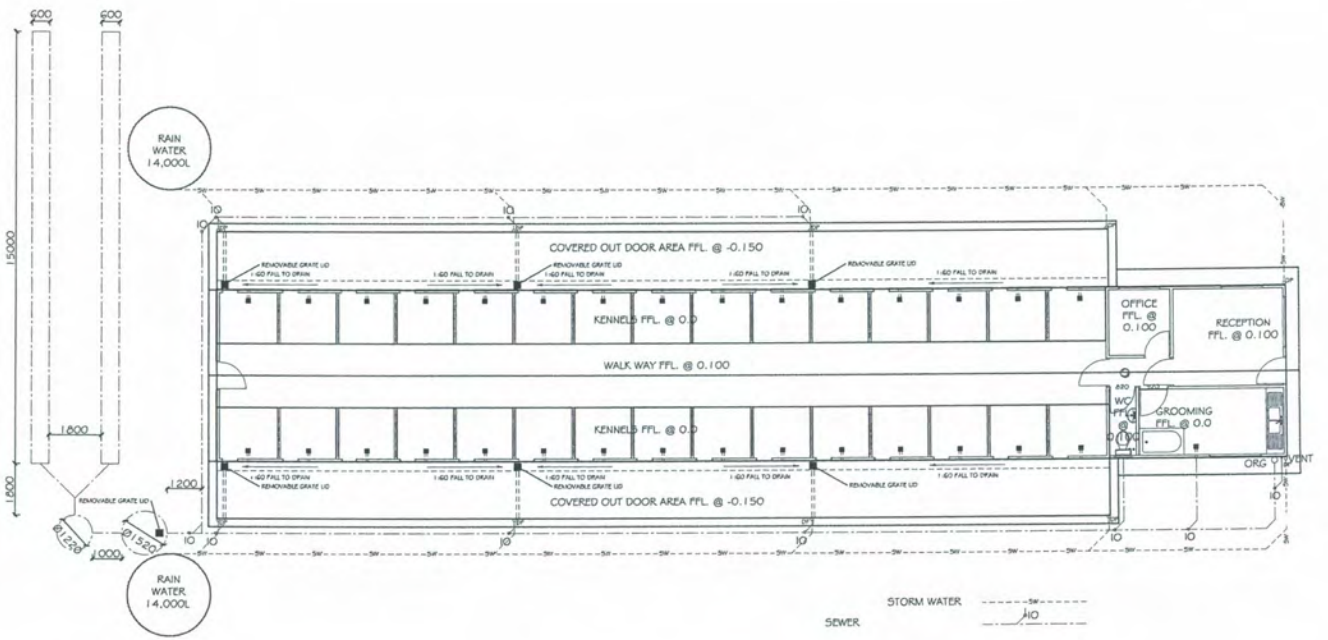
DETAIL 6
SCALE: 1:20



DETAIL 7
SCALE: 1:20

DRAWING: DETAILS PROJECT: PROPOSED KENNELS ADDRESS: LOT 201 LOWER DENMARK ROAD, ELLEKER WA CLIENT: B. WHYATT	NOTE: BUILDER TO CHECK ALL DIMENSIONS ON SITE. FOOTINGS TO BE BUILT IN ACCORDANCE WITH NCC PART 3.2.3 TO SUIT CLASS 'A' SOIL CLASSIFICATION. TIE DOWNS AND BRACING TO SUIT CLASS 'N2' WIND CLASSIFICATION.	DATE: 15.11.2020 SCALE: 1:20	REV No: 2	ISSUED FOR: DA	DRAWN BY: BM	CHECKED: SP	DRAWING No: A-07

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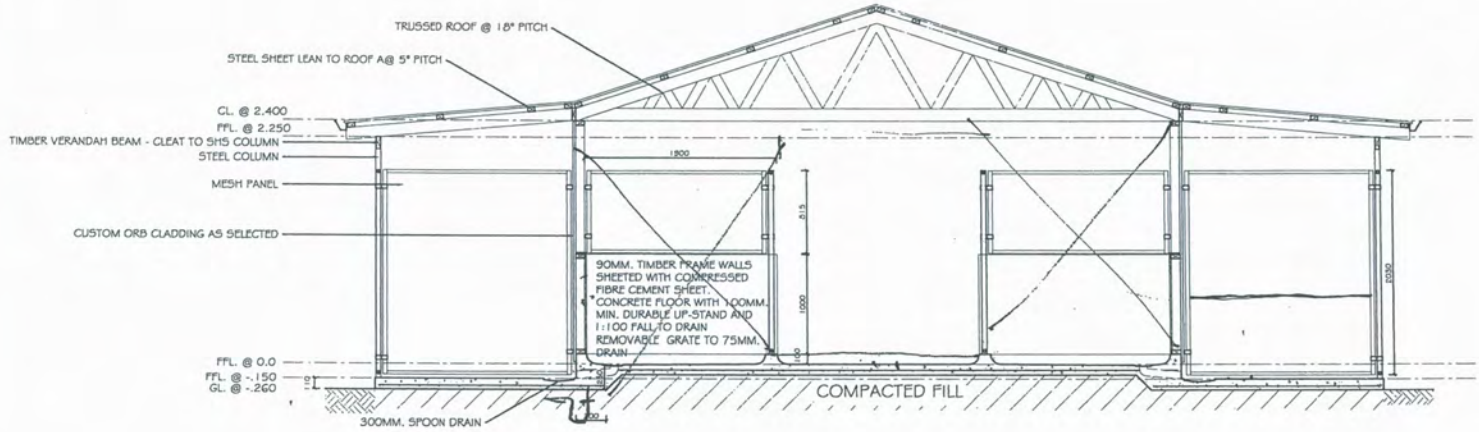


PROPOSED KENNEL - DRAINAGE PLAN

SCALE: NTS

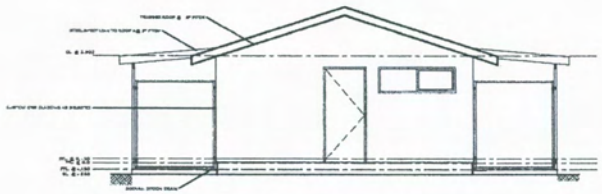
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- Site classification
- Site plan - certificate of title - (done)
-



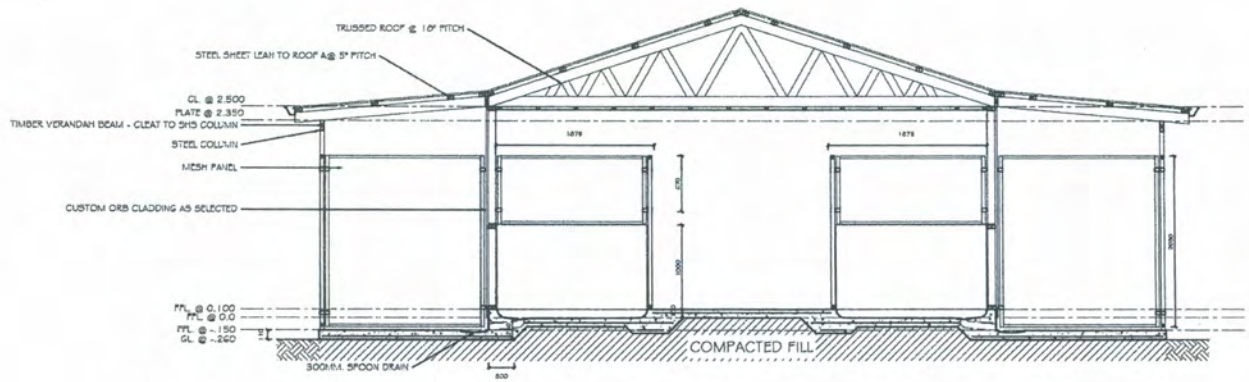
SECTION A-A
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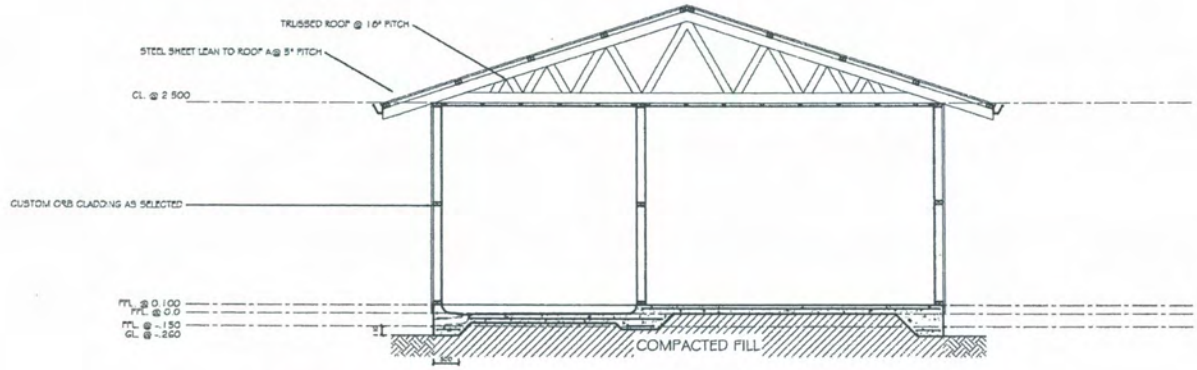
FRONT ELEVATION
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DRAWING: CONCEPT ELEVATIONS PROJECT: PROPOSED KENNELS ADDRESS: LOT X CLIENT: B. WHYATT	NOTE: BUILDER TO CHECK ALL DIMENSIONS ON SITE. FOOTINGS TO BE BUILT IN ACCORDANCE WITH NCC PART 3.2 TO SUIT CLASS 'A' SOIL CLASSIFICATION. TIE DOWNS AND BRACING TO SUIT CLASS 'N' WIND CLASSIFICATION. © SHABBEN DESIGN AND DRAFTING 2020	DATE: 05.09.2020 SCALE: 1:100	REV No: 1	ISSUED FOR: CONCEPT	DRAWN BY: BM	CHECKED: SP	DRAWING No: A-03



SECTION A-A
SCALE: 1:50

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SECTION B-B
SCALE: 1:50

DRAWING: CONCEPT SECTION B-B PROJECT: PROPOSED KENNELS ADDRESS: LOT X CLIENT: B. WHYATT	NOTE: BUILDER TO CHECK ALL DIMENSIONS ON SITE. FOOTINGS TO BE BUILT IN ACCORDANCE WITH NCC PART 3.2 TO SUIT CLASS 'A' SOIL CLASSIFICATION. TIE DOWNS AND BRACING TO SUIT CLASS 'F' WIND CLASSIFICATION. © SHABBEN DESIGN AND DRAFTING 2020	DATE: 05.09.2020 SCALE: 1:50	REV No: 1	ISSUED FOR: CONCEPT	DRAWN BY: BM	CHECKED: SP	DRAWING No: A-05

DATE:	11 June 2021
FROM:	Sean Flaherty Acoustics Consultants Australia – Director
TO:	Belinda Goodge
SUBJECT:	**NOISE ASSESSMENT, PROPOSED KENNEL, 1387 LOWER DEN ROAD, ELLEKER**
REFERENCE:	ACA 10.00278-1L

Dear Belinda,

This report presents the findings of a noise assessment conducted by Acoustics Consultants Australia (ACA) for the proposed dog boarding kennels located at 1387 Lower Den Road, Elleker (the Site).

The assessment has been undertaken to evaluate the potential noise impacts on the closest neighbouring residences. This has included a desktop review of the site and nearest sensitive receivers and noise predictions using a 3D environmental noise prediction model. The assessment was prepared in accordance with the WA Environmental Protection (Noise) Regulations 1997 (EPNR).

Based on review of the proposed kennel construction details, proposed operations and the assessment results, it would be expected that noise from the dogs would be adequately contained, such that the EPNR criteria would be achieved when the dogs are housed within the kennels. The predictions identify the potential for minor (approximate 1 dB) exceedance of the EPNR daytime criteria, when dogs are exercised in the proposed outdoor areas. Though this is conservatively based on all dogs barking during exercise, which would be expected to be managed by the staff as far as practicable.

It is recommended that minor modifications of the internal surfaces of the kennel building be included to minimise reverberant noise levels within the kennels and the commensurate noise breakout.

Noise from the premises will be most effectively managed by the operator of the premises. A number of measures have been identified that would be expected to reduce the potential for exceedances occurring and ensure that satisfactory off-site noise levels are achieved.

Details of the recommendations and the detailed assessment are provided in the following report.

Sincerely,



Sean Flaherty

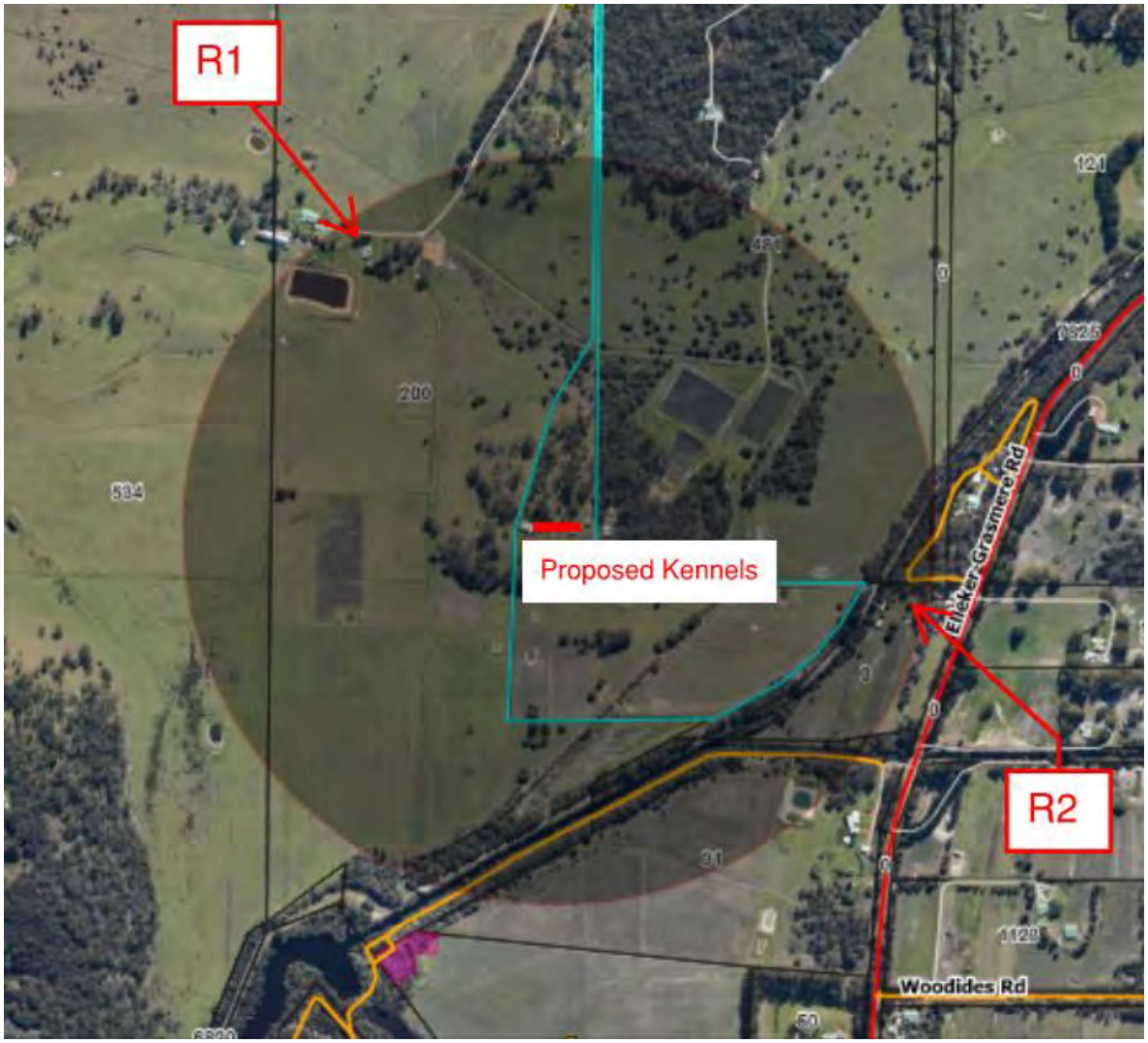
ACOUSTICS – DIRECTOR

acoustics consultants AUSTRALIA

1. The Site and Surrounding Area

The location of the site and closest noise sensitive receivers are shown in **Figure 1**.

Figure 1 Site and Nearest Sensitive Receivers – Shaded Area Denotes 500m Buffer



As indicated in **Figure 1**, there are two noise sensitive receivers within 500 m of the site, these being:

- R1 – White Dog Lane Cottage Farm Stay (approximately 430m to the north-west of the proposed kennels); and
- R2 – 104 Elleker-Grassmere Road (approximately 490m to the east of the proposed kennels).

Further scattered rural residential receivers are located beyond the 500m buffer in all directions, with Elleker township dwellings commencing approximately 1 km away to the north-east.

2. Project Description

The proposal is for a dog kennels facility with a capacity for up to 30 dogs.

The kennels are proposed to operate 24/7 throughout the year, however check-ins would only occur during daytime hours, between 7.30am and 9.30am and again from 3.30pm to 5.00pm.

It is anticipated that dog numbers would fluctuate throughout the year, with perhaps 10-20 dogs per day during quieter months and up to full capacity (30 dogs) during holiday periods.

Between the hours of 5.30pm and 7.00am the dogs would be housed inside their kennels with no access to the external runs. Free access to the external kennel area is proposed between 7.00am and 5.30pm.

A dog exercise area is proposed and would be located adjacent to the kennels to the north, within approximately 30 m from the kennels. The dogs would be exercised daily within the exercise area, in small groups of no more than four dogs between the hours 10.00am and 3.00pm.

3. Kennels Construction

Figures 2 to **4** below show the proposed kennel floorplan, elevations and section details.

The individual kennels would comprise internal sleeping quarters and external areas separated by slide-up doggy doors. To provide a high degree of noise and thermal insulation, the kennels would be constructed with the following elements:

Roof – Custom Orb Colorbond pitched roof over battens and timber trusses, with 6mm fibre cement ceilings mounted on furring channels and insulation batts included in the ceiling cavity.

External Walls - Custom Orb Colorbond cladding on 90mm timber stud framing, with 6mm fibre cement internal linings and insulation batts included in the wall cavity.

External Doors – Solid timber (40mm thickness) provided with acoustic compression seals to all sides, including drop down bottom seals.

Windows – 6 mm glass sliders in aluminium frames, with rubber seals.

External Runs – The lower walls of the runs separating the adjoining kennel runs will be constructed from 9mm compressed fibre cement panels over timber studs, as per **Figure 4** below. These will provide a visual screen from the adjoining kennels which would assist with minimising barking and will also provide acoustic shielding.

Mechanical Services – Heating and cooling would be provided by a large reverse cycle air conditioner. The mechanical services units would be specified and/or located or acoustically treated to ensure the services noise does not contribute to any infringements on the EPNR noise criteria.

Figure 2 **Proposed Kennel Floorplan**

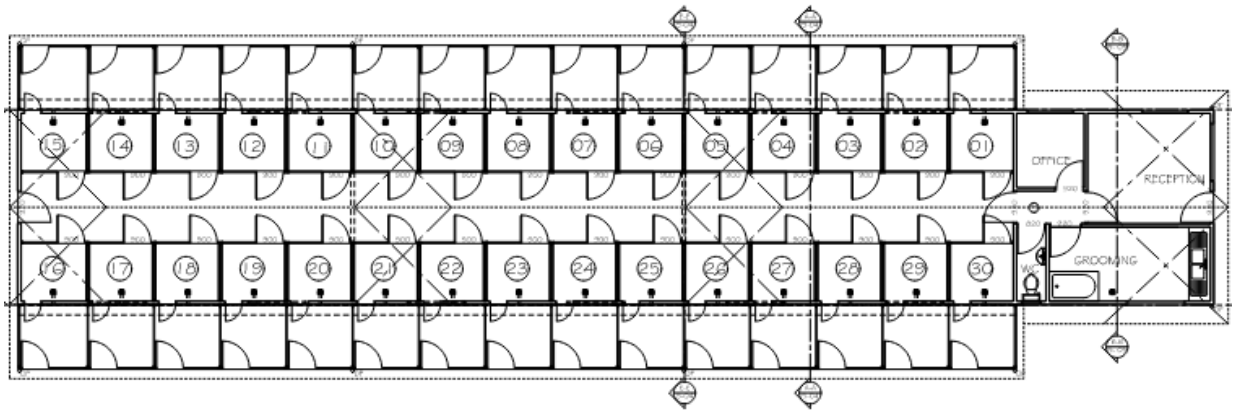
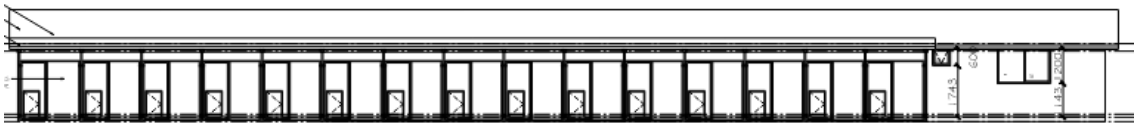


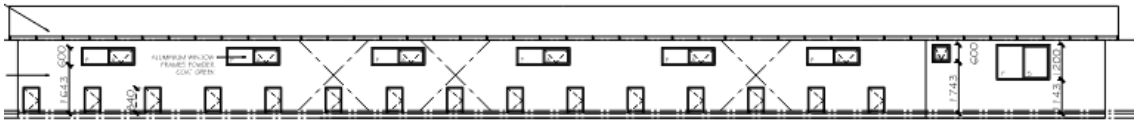
Figure 3 **Proposed Kennel Elevations**



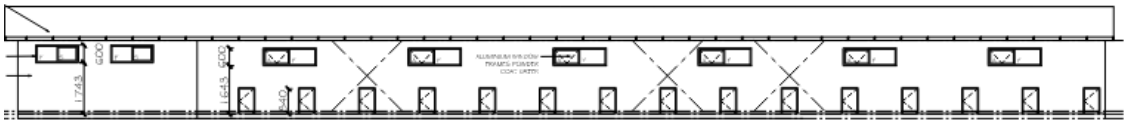
PROPOSED KENNEL -
SOUTH ELEVATION
SCALE: 1:100



PROPOSED KENNEL -
NORTH ELEVATION
SCALE: 1:100



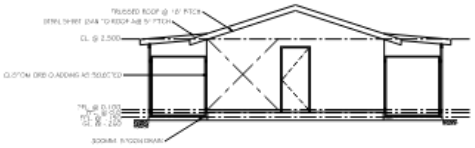
ELEVATION @ C-C
SCALE: 1:100



ELEVATION @ D-D
SCALE: 1:100

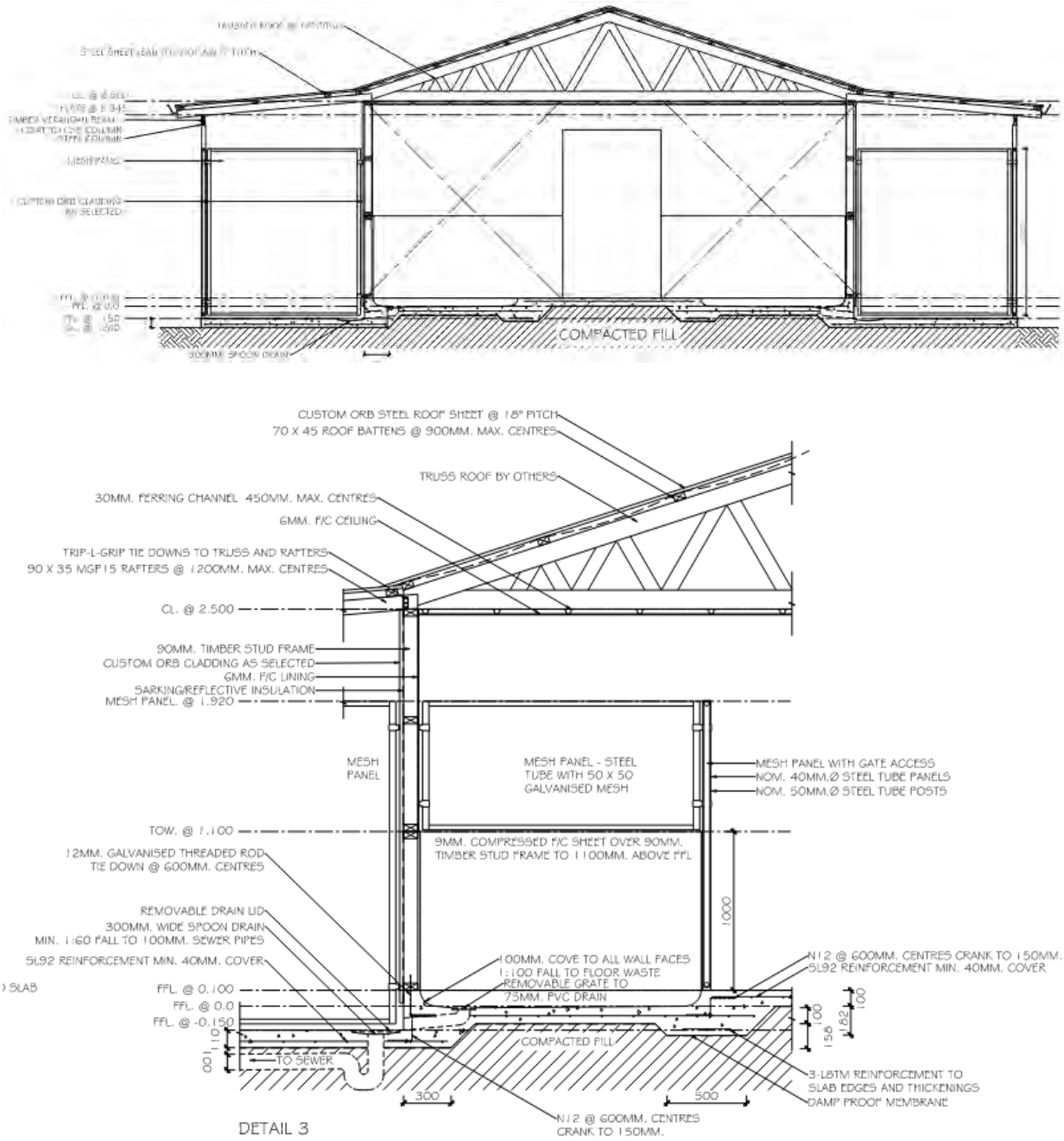


EAST ELEVATION



WEST ELEVATION

Figure 4 Proposed Kennel Sections Details

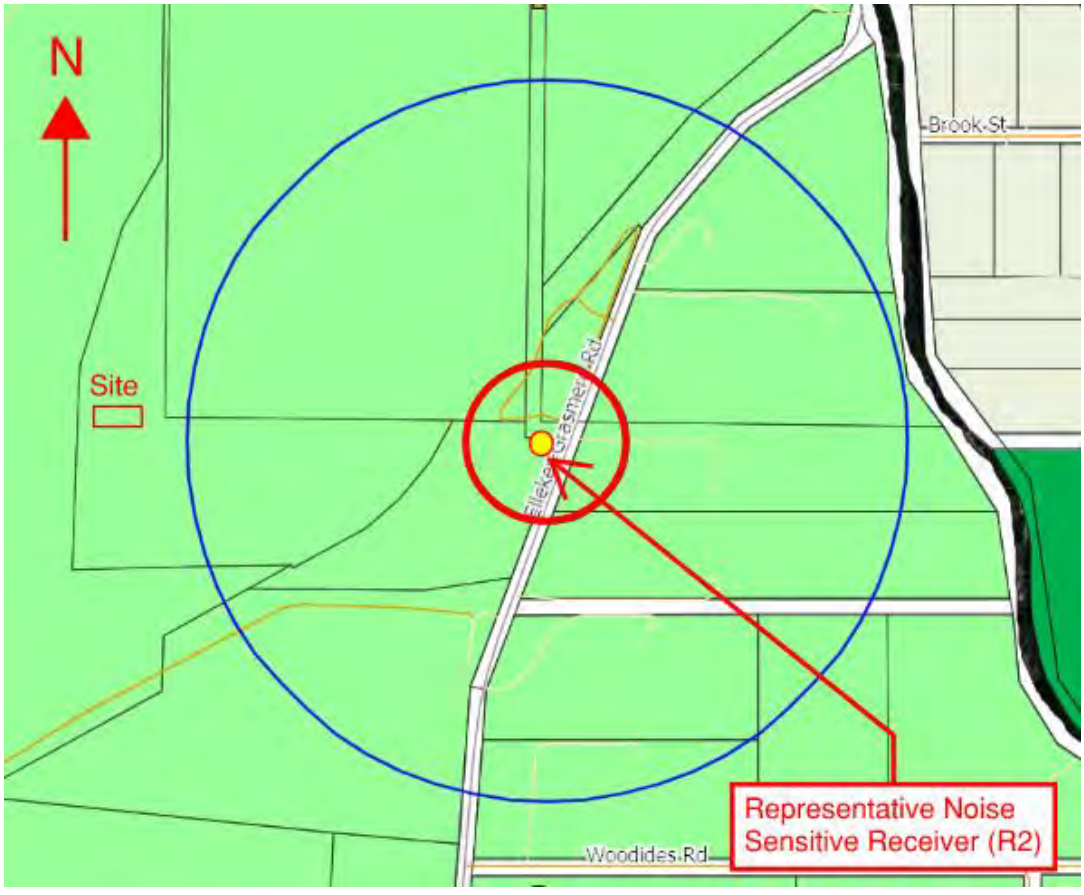


4. Noise Criteria: WA Environmental Protection (Noise) Regulations 1997

Noise emissions from commercial premises that may potentially impact nearby noise sensitive properties are regulated by State noise policy in the form of the Western Australia Environmental Protection (Noise) Regulations of 1997 (EPNR). To achieve compliance with this Policy, noise levels at nearby residential areas are not to exceed defined limits. These limits are determined from consideration of prevailing background noise levels and 'influencing factors' that consider the level of commercial and industrial zoning in the locality.

The influencing factor considers zoning and road traffic volumes around the sensitive receiver of interest, within a 100 and 450 m radius. **Figure 3** shows the 100 and 450 m radius with respect to the nearest receiver to the east, R2 (104 Elleker-Grassmere Road).

Figure 3 Influencing Factor Map



The resulting influencing factor is 0 dB as the surrounding land within 450m from the site is entirely rural (not commercial) and the nearest roads do not carry significant vehicle volumes. A summary of the relevant EPNR noise criteria is provided in **Table 1**.

Table 1 WA EPNR Assigned Noise Levels

Type of premises receiving noise	Time of day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area	0700 to 1900 hours Monday to Saturday	45	55	65
	0900 to 1900 hours Sunday and public holidays	40	50	65
	1900 to 2200 hours All days	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays	35	45	55
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80

A series of adjustments must be added to the noise source levels if noise received at the sensitive premises cannot reasonably be free of intrusive characteristics of tonality, modulation and impulsiveness, and the adjusted level must comply with the assigned level. Definition of impulsiveness etc. is set out by Regulation 9(1) of the EPNR.

Table 2 summarises the adjustments, as defined by the Regulations.

Table 2 Noise Character Adjustments

Adjustment where noise emission is not music		
Where tonality is present	**Where modulation is present**	**Where impulsiveness is present**
+ 5 dB	+5 dB	+10 dB

From analysis of dog kennel noise data, it has been determined that tonality can sometimes occur and therefore, adjustment for this noise character has been considered by this assessment.

5. Assessment of Noise Effects

With consideration to the proposed kennels operations as discussed in **Section 2**, for the purposes of assessment, the following scenarios have been considered:

- Scenario 1: Group of 4 dogs in outside exercise area during the day (all 4 dogs barking), plus 26 dogs within their kennels/runs (50% of these barking).
- Scenario 2: 30 dogs inside the kennel during the evening (50% barking).
- Scenario 3: 30 dogs inside the kennel during the night (50% barking).

Noise levels calculated at receivers have been predicted based on typical noise data for kennels. These are presented in **Table 3**. The levels shown in **Table 3** are representative of one dog, however, the numbers of dogs assumed to be barking as identified above has been considered by this assessment.

Table 3 Noise Source Levels (dB re 20µPa).

1/3 Octave Band Sound Level – dB																											
Metric	31.5 Hz	40 Hz	50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1000 Hz	1250 Hz	1600 Hz	2000 Hz	2500 Hz	3150 Hz	4000 Hz	5000 Hz	6300 Hz	8000 Hz	10000 Hz	dBA
Dog Kennels - Average Sound Power Levels																											
L_{10}	51	53	57	60	61	63	64	66	67	74	85	91	92	92	93	93	91	87	80	76	73	73	70	64	61	51	**100**
L_{1*}	60	64	66	70	73	74	76	77	79	80	87	98	104	105	105	106	106	104	100	93	89	86	86	83	77	74	**113**
L_{max}	62	66	68	72	75	76	78	79	81	82	89	100	106	107	107	108	108	106	102	95	91	88	88	85	79	76	**115**

* The L_{A1} levels are estimated to be approximately 2 dB less than the L_{Amax} levels.

Operational noise emissions from the site that may arise external to sensitive receivers have been assessed using a model created with the SoundPLAN environmental noise prediction software (Version 8.2), implementing the *ISO 9613:1996 (Acoustics – Attenuation of sound during propagation outdoors)* calculation algorithm.

The area surrounding the kennels is predominantly grassland, accordingly a ground absorption factor of G=0.6 has been applied in the modelling. Additionally, the surrounding topographical features have been included in the noise propagation calculations.

The predicted noise levels (sound pressure levels) at the nearest receiver locations are compared against the EPNR criteria in **Tables 3** to **6**.

Table 3 Daytime Noise Predictions at Nearest Affected Receivers and Assessment

Receiver	Metric	Daytime Assigned Noise Level dB	Predicted Noise Level	Daytime Assessment
R1	L_{A10}	45	41	Compliant
	L_{A1}	55	48	Compliant
	L_{Amax}	65	50	Compliant
R2	L_{A10}	45	40	Compliant
	L_{A1}	55	47	Compliant
	L_{Amax}	65	49	Compliant
Other	L_{A10}	45	<41	Compliant
	L_{A1}	55	<48	Compliant
	L_{Amax}	65	<50	Compliant

Table 4 Daytime (Sundays/Public Holidays) Noise Predictions at Nearest Affected Receivers

Receiver	Metric	Daytime Assigned Noise Level dB	Predicted Noise Level	Daytime (Sundays/Public Holidays) Assessment
R1	L_{A10}	40	**41**	Minor Exceedance
	L_{A1}	50	48	Compliant
	L_{Amax}	65	50	Compliant
R2	L_{A10}	40	40	Compliant
	L_{A1}	50	47	Compliant
	L_{Amax}	65	49	Compliant
Other	L_{A10}	40	<41	Compliant
	L_{A1}	50	<48	Compliant
	L_{Amax}	65	<50	Compliant

Table 5 Evening Noise Predictions at Nearest Affected Receivers and Assessment

Receiver	Metric	Evening Assigned Noise Level dB	Predicted Noise Level	Evening Assessment
R1	L_{A10}	40	<30	Compliant
	L_{A1}	50	<35	Compliant
	L_{Amax}	55	<40	Compliant
R2	L_{A10}	40	<30	Compliant
	L_{A1}	50	<35	Compliant
	L_{Amax}	55	<40	Compliant
Other	L_{A10}	40	<30	Compliant
	L_{A1}	50	<35	Compliant
	L_{Amax}	55	<40	Compliant

Table 6 Night Noise Predictions at Nearest Affected Receivers and Assessment

Receiver	Metric	Night Assigned Noise Level dB	Predicted Noise Level	Night Assessment
R1	L_{A10}	35	<30	Compliant
	L_{A1}	45	<35	Compliant
	L_{Amax}	55	<40	Compliant
R2	L_{A10}	35	<30	Compliant
	L_{A1}	45	<35	Compliant
	L_{Amax}	55	<40	Compliant
Other	L_{A10}	35	<30	Compliant
	L_{A1}	45	<35	Compliant
	L_{Amax}	55	<40	Compliant

Appendix A shows the noise contours generated from the modelled scenarios, without penalty adjustment or mitigation.

6. Discussion and Recommendations

This assessment has predicted that general compliance with the EPNR may be achieved. A minor 1 dB exceedance has been predicted at the R1, though this would likely occur only during the daytime (based on the Sunday/Public holiday L_{A10} criterion) and it is expected that this marginal exceedance may be appropriately managed with the mitigation measures set out below. It should be noted that compliance with the EPNR does not require complete inaudibility to be achieved, but that noise levels are controlled to generally satisfactory levels for most people.

To reduce the potential for exceedances occurring, the following noise mitigation measures would be implemented:

- Noise from the premises will be most effectively managed by the operator of the premises. Management will address any particularly noisy dogs through a proactive management approach, tending to the particular dog's needs with the aim of modifying the dog's behaviour. In particular:
  - Staff will closely monitor the dogs, particularly during exercise in the outdoor exercise area. The proponents live on site, so there will always be someone from Management with the dogs.
  - Staff will provide activities for the dogs so they are occupied during exercise times. When active the dogs are less likely to bark.
  - Staff to pay particular attention to anxious dogs and those that may suffer from separation anxiety.

- The kennels will be constructed as describe in **Section 2**. Careful attention should be given to joins and junctions between materials, door frames and window frames to minimise any gaps, sealing any small gaps airtight with non-hardening mastic compound. Additionally, the following measures are recommended:

- To reduce reverberant noise build-up within the kennels, line the kennel building internally (upper walls and ceilings) with foil insulation with a minimum recommended density of 11 kg/m^3 (e.g. Anticon 80 or similar). Alternately, if preferred the walls may be internally lined with Autex Quietspace 50mm panels attached to the walls (or similar product with acoustic rating NRC 0.8 - 1.0). These panels may be fitted with e.g. Autex Etch decorative fabric, to suit colour and/or pattern. Note, this recommendation is in addition to the insulation within the wall and ceiling cavities.
- Maintain kennel doors normally closed while dogs are kept indoors.
- Treat all mechanical, hydraulic and electrical services penetrations to avoid significant openings within the building envelope. If the kennel is to be naturally ventilated (i.e. no mechanical ventilation); ensure all openings are acoustically treated.
- Mechanical services units to be specified and/or located or acoustically treated to ensure the services noise does not contribute to any infringements on the EPNR noise criteria. It is recommended to site any external mechanical services to exploit the acoustic shielding of the kennels building. Lines of sight between noise generating mechanical services plant and the closest receivers should be avoided, as far as practicable.

- Day Time Noise Minimisation Measures to include:
  - External exercise areas to be used only between the hours of 10.00am and 3.00pm.
  - No more than four dogs are to occupy the exercise area at any time.
  - Free access to the external kennel runs to be restricted to between 7.00am and 5.30pm Monday to Saturday and between 9.00am and 5.30pm on Sundays. Outside these times, the dogs would be housed inside their kennels with no access to the external runs.
  - Daily checks to ensure that screening is intact between the runs where required.
  - No customers, visitors, neighbours, etc. or any persons other than staff administrators are to access the dog kennel facility without the express authority of the owner, as this can disturb the dogs which in turn can cause them to bark.
  - Ensure as little as possible external stimulation including when moving around the kennel facility such as at feeding time.

- Night Time Noise Minimisation Measures to include:
  - The dog kennel building is acoustically designed to minimise noise. This is achieved by ensuring doors and hatches are closed and the dogs are housed individually within their internal rooms.
  - Ensure all dogs are secured within their “internal” enclosures – i.e. within the kennel building between the hours 5.00pm to 7.00am Monday to Saturday and between 5.00pm to 9.00am Sundays.
  - Ensure all sliding hatches are closed within the kennel building and dogs secure internally.
  - Ensure all external doors to the kennel building are closed after access and egress.
  - Ensure A/C is on.
  - Turn lights off in the kennel building at night.
  - Ensure security lighting does not shine directly into the kennel building door windows.
  - During the night – monitor for unusual noise and barking and investigate its cause and take immediate action to remove the cause of the stimulation.

With the adoption of the measures above, it is expected that the dog boarding facility may operate without undue noise impacts on the surrounding areas.

APPENDIX A

PREDICTED NOISE CONTOURS

Figure A1 **Predicted Daytime Noise Contours - L_{A10} Noise Levels (dBA)**

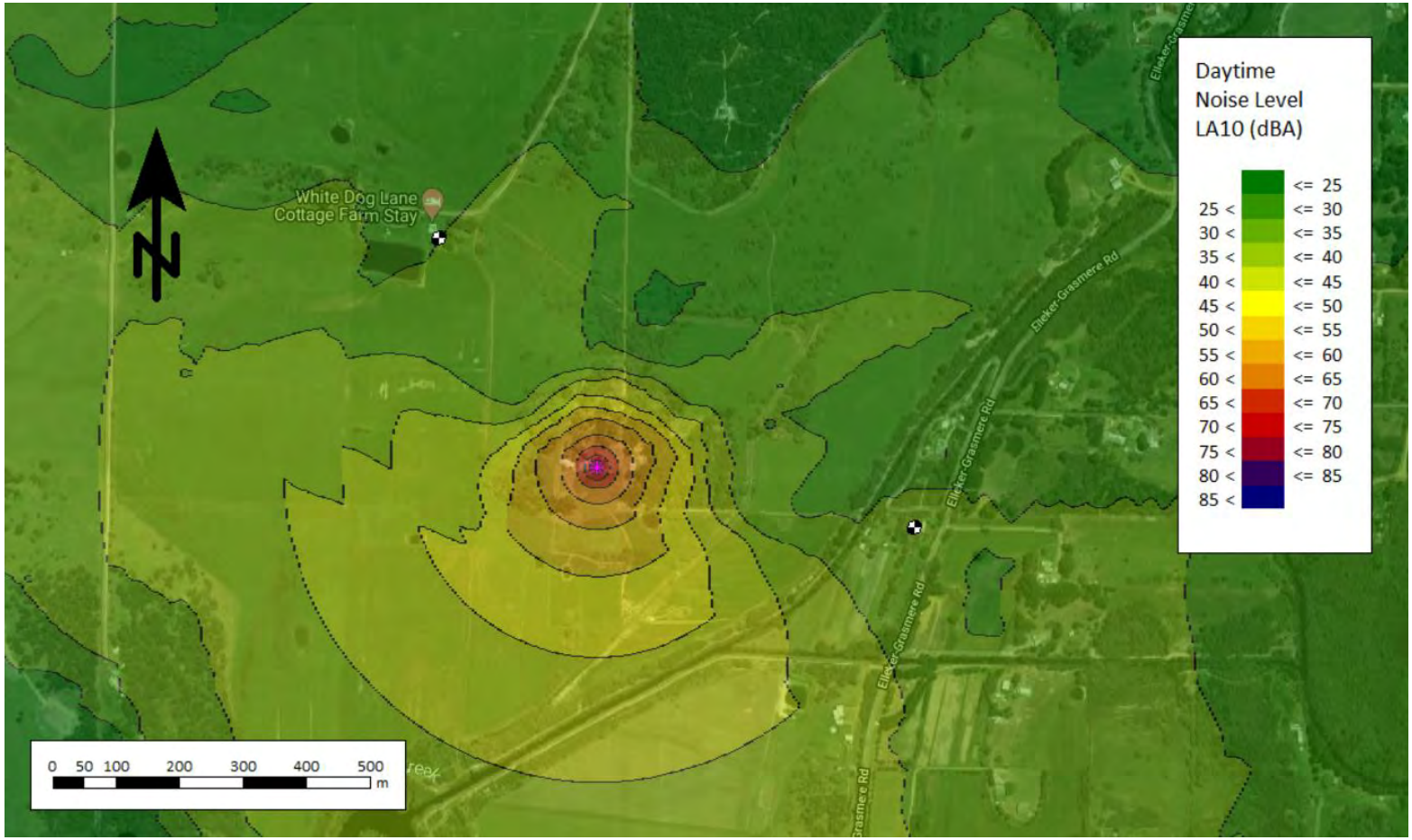
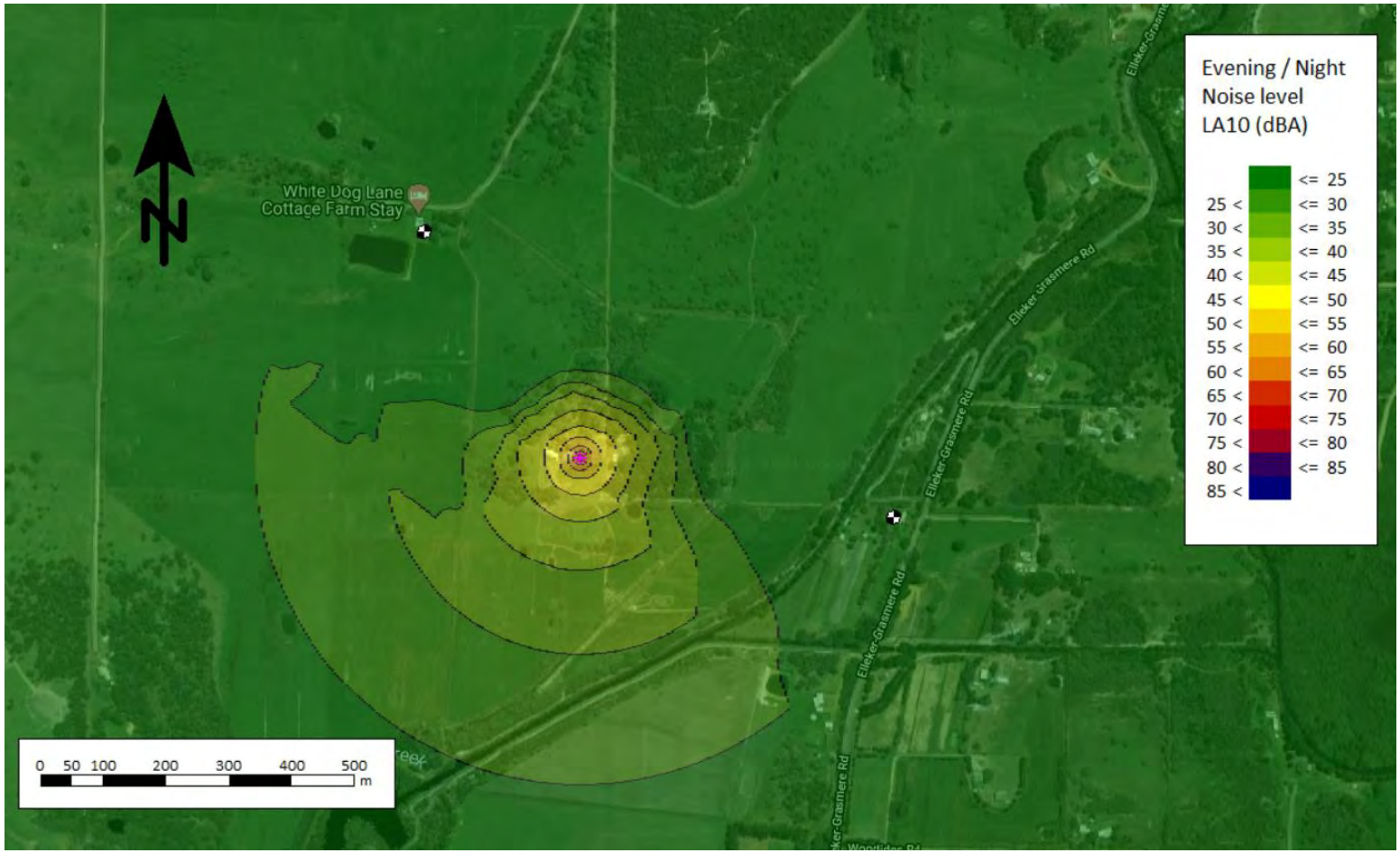


Figure A2 **Predicted Evening & Night Time Noise Contours - L_{A10} Noise Levels (dBA)**



CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Animal Establishment (Dog Kennels) – 1387 Lower Denmark Rd, Elleker P2200615

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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

Summary of submission.	**Officer Comment**
Three (3) submissions raising concerns in relation to the proposal	
Amenity (Noise) – excessive barking and concerns the 500m EPA buffer is not sufficient or accurate • Concerns regarding noise from excessive barking • Dogs bark more when they are away from their owners • Area is a natural amphitheatre - Can often hear barking from Elleker Townsite which is 900m • Barking will affect sleep, lifestyle and ability to work from home • Buffer – questions whether the 500m buffer is accurate and sufficient • Subject site is elevated and with southern westerly winds noise will carry further than 500m	1. The *EPA Separation Distances between Industrial and Sensitive Land Uses 2005 Guidelines* for Dog Kennels stipulates a buffer distance of 500m between this type of use and sensitive land uses, such as dwellings. This buffer is intended as providing guidance only in the absence of site specific studies. 2. The closest dwellings measured from the kennel enclosure are approximately 500m to the north-west, 500m to the east and 535m to the south-east. All other dwellings are in excess of 700m. 3. The closest dwellings measured from the outdoor exercise area are 430m to the north-west and 490m to the east. 4. The proposal was referred to nearby landowners and Department of Water and Environmental Regulation (DWER). DWER have no objections to the proposal, however did recommend an Acoustic Report be obtained to ensure that the proposed noise mitigation measures would be sufficient in compliance with the EPNR.

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Animal Establishment (Dog Kennels) – 1387 Lower Denmark Rd, Elleker P2200615

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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

Summary of submission.	Officer Comment
	5. An Acoustic Report was obtained by the applicant. The Acoustic Report confirmed that based on the proposed noise mitigation measures, that general compliance with the Environmental Protection Noise Regulations (EPNR) may be achieved. The assessment also however predicted that there may be a minor exceedance of the daytime level by 1 dB during daytime exercise times for receptor 1 (Bed and Breakfast) to the north-west (based on the Sunday/Public Holiday criterion). It is expected that this marginal exceedance may be appropriately managed with the proposed management measures, as follows: o Staff will closely monitor the dogs, particularly during exercise in the outdoor exercise area. The proponents live on site, so there will always be someone from Management with the dogs. o Staff will provide activities for the dogs so they are occupied during exercise times. When active the dogs are less likely to bark. o Staff to pay particular attention to anxious dogs and those that may suffer from separation anxiety. 6. The Acoustic Report further noted that compliance with EPNR does not require complete inaudibility to be achieved, but that noise levels are controlled to generally satisfactory levels for most people.

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Animal Establishment (Dog Kennels) – 1387 Lower Denmark Rd, Elleker P2200615

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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

Summary of submission.	Officer Comment
Zoning • Zoned priority agriculture and doesn't feel domestic animals fit within the intent of the zone.	7. The subject site is zoned Priority Agriculture. City of Albany LPS1 classifies an Animal Establishment (Dog Kennels) as a use that can be considered within this zone. 8. The objectives of the Priority Agriculture zone are as follows: (a) Identify agricultural land resources that are considered to be of local, State and/or regional significance; (b) Provide for a diversity of sustainable intensive and extensive agriculture activities or rural industries that do not impact upon agricultural activities and protect those land uses from incompatible developments; (c) Manage in a sustainable manner the soil and water resources available in the zone; (d) Prevent land uses and development within the zone that may adversely impact on the continued use of the zone for a diversity of agricultural purposes; and (e) Provide for value-adding opportunities to agricultural and rural products on-site.

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Animal Establishment (Dog Kennels) – 1387 Lower Denmark Rd, Elleker P2200615

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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

Summary of submission.	Officer Comment
	9. The objectives of the Priority Agriculture zone are as follows: Staff consider the proposed Animal Establishment (Dog Kennels) to be a form of rural activity. Given that the proposed use is clustered with the existing dwelling on-site, in addition to the proposed separation distances to the neighbouring dwellings, it is considered that the proposal will not conflict with farming interests, nor the amenity of the area. Given that the proposal is unlikely to hinder agricultural production, and staff are satisfied that the proposal is consistent with the objectives of the zone.
<u>Environmental concerns</u> • Concerns the waste management isn't sufficient given that they are located within the Marbelup catchment priority drinking water area.	10. The subject site falls outside of the Marbelup Catchment Priority Drinking Water Area, however the proposal was referred to the Department of Water and Environmental Regulation who have no objections to the proposal. 11. The applicant is proposing to provide appropriate drainage surrounding the kennels to enable the concrete floor to be cleaned/mopped daily. The applicant is proposing that all effluent is disposed of within the proposed septic system. 12. It is considered that the proposed on-site waste management plan will mitigate the concerns and the proposed use will not detrimentally affect the amenity of the area.

CITY OF ALBANY LOCAL PLANNING SCHEME No. 1

Animal Establishment (Dog Kennels) – 1387 Lower Denmark Rd, Elleker P2200615

SCHEDULE OF SUBMISSIONS AND MODIFICATIONS

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

Summary of submission.	**Officer Comment**
Property value • Concerns it will decrease property value	13. Property value is not a matter to be considered under the Planning Regulations 2015.

Stage 1a Terrace Housing Development

Middleton Beach

Planning report to support Development Application for six (6) Single Attached Dwellings



Prepared for DevelopmentWA
Prepared by Taylor Burrell Barnett
April 2021

Revision	Reviewer	Date Issued
20/027/0	MB	April 2021

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1.0 Introduction

Taylor Burrell Barnett, on behalf of DevelopmentWA, has prepared this report in support of a development application for Single Attached Dwellings on part of Lot 9001 Flinders Parade, Middleton Beach.

The development will facilitate construction of six (6) Single Attached Dwellings. The development application has been prepared in accordance with the provisions of the City of Albany Local Planning Scheme No. 1 (LPS 1).

1.1 Description of Proposal

The proposal is situated on a portion of Lot 9001 Flinders Parade, at the intersection of Adelaide Crescent and Marine Terrace.

The development application has been carefully considered and prepared in collaboration with DevelopmentWA and its project team, the City of Albany, and the Department of Planning, Lands and Heritage.

This report contains the justification for the proposed development application, as summarised in Table 1. This planning report is intended to complement the Context & Site Analysis and the Concept Design Reports, prepared by PTX Architects.

1.2 Background

The land previously contained the old Esplanade Hotel which was acquired and demolished in 2007, prior to the global financial crisis in 2008. The State Government used Royalties for Regions funds in 2014 to buy the site. Since that time, several iterations on the design have been considered by the City of Albany.

On 24 January 2017, Scheme Amendment 1 was gazetted to rezone the land to 'Special Use 25' zone, and added the land use definition 'single attached dwelling' to the scheme.

More recently, the Government has announced that a buyer has secured the hotel site.

DevelopmentWA has announced the "Duettes: Innovation through Demonstration" project in Middleton Beach, for medium density terrace homes that offer true flexibility and adaptability to cater for work/life opportunities. This is considered to be wholly consistent with the scheme provisions and structure plan.

Table 1 Development Details

Proposal	Details
LPS 1 – Land Use Definition	Single Attached Dwelling 'D' (*3*) (*3*) means that the use is prohibited where it fronts the street at pedestrian level within the 'Primary Active Frontage' area as depicted on the Precinct Plan
Zoning Table – Land Use Permissibility	'D' use in Schedule 4 of Special Use zones, for SU25
Land Details	Lot 9001 Flinders Parade, Middleton Beach
Construction timeframe	Approximately 12-24 months
Development Details	**Summary**
Building height in metres and storeys	6.7 metres (ground floor level to max height); 2 storeys
Plot Ratio	Total for 6 dwellings: 1.0
Number and mix of dwellings	Six (6) single attached dwellings
Number of parking spaces	2 bays per dwelling; 7 public bays in proposed mews
Indicative percentage of apartments receiving minimum level of cross ventilation and daylight access	100% of single attached dwellings meet design criteria

1.3 Pre-Lodgement Consultation

During 2019 and 2020, DevelopmentWA and its project consultant team undertook pre-lodgement consultation in respect of the development opportunities for that whole portion of Lot 9001 situated west of the Flinders Parade road reserve. The hotel site was deliberately omitted from this, as it was already subject to a subdivision approval and was in negotiation with prospective purchasers.

The pre-lodgement consultation has been undertaken with the City of Albany (both Elected Members and Administration Staff), the Great Southern Development Commission, the Department of Primary Industries and Regional Development (DPIRD), and the Department of Planning, Lands and Heritage (DPLH) has been undertaken to ensure relevant stakeholders and the Albany community have been involved with the progression of this important and unique development opportunity.

Pre-lodgement consultation has included:

- Investigations and consultation in respect of the ability to undertake subdivision and development;
- A concept design review process with the Department of Planning, Lands and Heritage and the City of Albany;
- A design review exercise encompassing architectural, planning, landscape and engineering disciplines. The outcomes were presented to the City of Albany in January 2020. The concept design was acknowledged to depart from the configuration in the Middleton Beach Activity Centre Plan.
- Further consultation with the Department of Planning, Lands and Heritage and the City of Albany occurred during April and May 2020, which considered further engineering and design influences on the development concept. The Department of Planning, Lands and Heritage and the City of Albany provided in-principle support for the concept design (refer Figure 1); and
- Subsequent presentations have been undertaken by DevelopmentWA and the project team in August 2020, December 2020 and February 2021 in respect of the detailed design concepts. These have informed the lot layout and public domain design.

The project has been presented to the Design Review Panel in:

- December 2020; and
- March 2021.

1.4 Development Application Package

This development application is prepared as a package including:

- Application for Development Approval, Development Application Checklist and A6 Checklist from the Design Guidelines (refer **Appendix A**);
- Certificate of Title (refer **Appendix B**);
- Development Application Plans and Elevations (refer **Appendix C**);
- Design Compliance Review and Design Review Panel report (refer **Appendix D**);
- Context & Site Analysis Report and Concept Design Review report (refer **Appendix E**);
- Bushfire Management Plan (refer **Appendix F**);
- Sustainability Strategy Report (refer **Appendix G**);
- Landscape Masterplan (refer **Appendix H**); and
- Waste Management Plan (refer **Appendix I**).

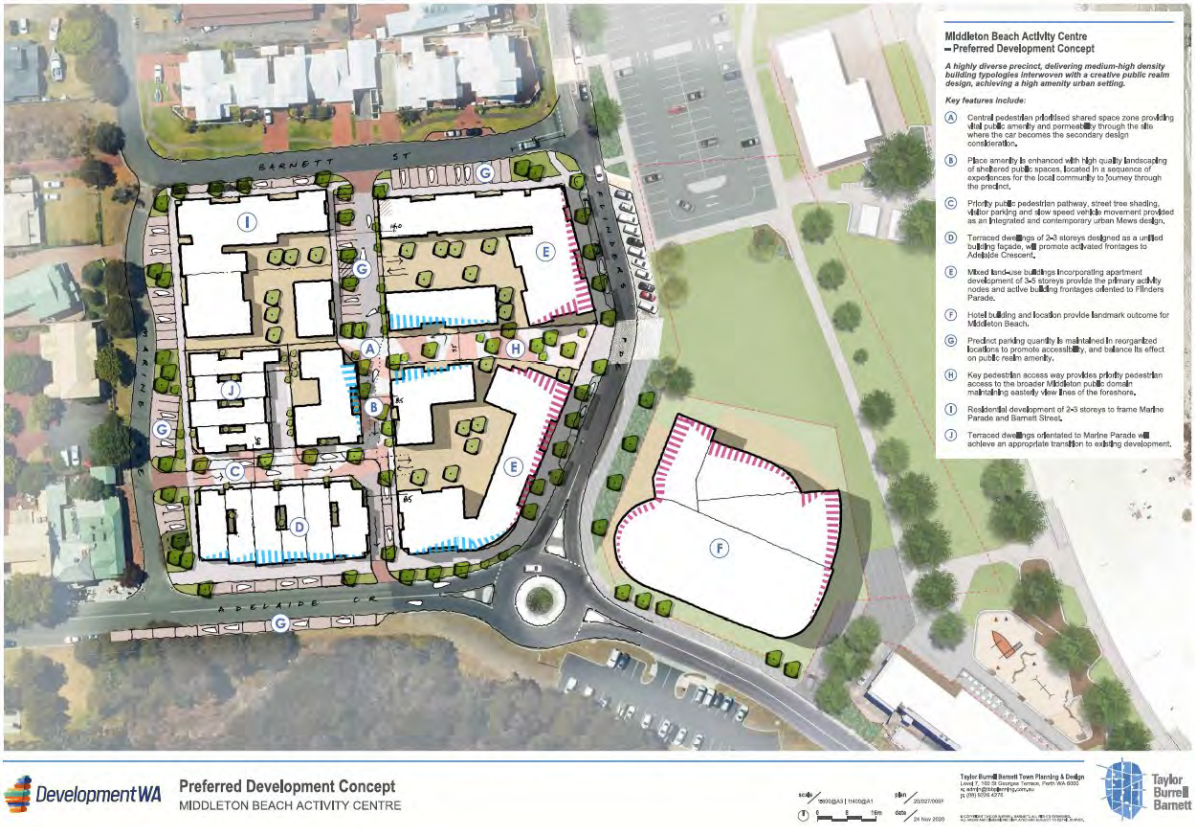


Figure 1 Preferred Design Concept

2.0 Site & Context

2.1 Legal Description

The development application is located in the south-western portion of Lot 9001, No. 1 Flinders Parade, Middleton Beach. The site is within the City of Albany local government area. Table 2 provides the property details and a copy of the Certificate of Title is provided in **Appendix A**.

The subject site is bounded by Flinders Parade to the east, Barnett Street to the north, Marine Terrace to the west and Adelaide Crescent to the south. This development application proposes dwellings within the south-western corner of Marine Terrace and Adelaide Crescent.

Two easements are on the Certificate of Title as follows:

1. Easement to the Water Corporation for existing sewer infrastructure; and
2. Easement to the Western Power for the electricity transformer fronting Marine Terrace.

These easements protect existing infrastructure that is proposed to be decommissioned, and the easements lifted.

Table 2 Legal Lot Description

Lot No.	Volume/Folio	Plan	Tenure	Lot Area	Proprietor
9001, No. 1 Flinders Parade, Middleton Beach	2984/245	413972	Freehold	1.2926 ha (Landgate)	Western Australian Land Authority



3.0 Development Proposal

3.1 Development Overview

The proposed Single Attached Dwellings are proposed as terrace houses with dual key pedestrian access via Adelaide Crescent.

Vehicle access is proposed from the north, via a proposed mews. This assists in fostering a high-quality pedestrian environment along the frontage to Adelaide Crescent, whilst ensuring suitable vehicle access and parking on-site.

The dwellings have regard to the mixed-use nature of the precinct. The design of the dwellings allows for adaptability at the Adelaide Crescent frontage for other compatible non-residential land uses. The proposal contemplates such uses could include, but not be limited to:

- Lot 1 – contemplated for a small café / consulting room;
- Lots 2-6 – contemplated for opportunities such as short-stay accommodation, home office, small consulting room; and
- For all six lots, these ground floor areas could also be used from time to time as bedrooms or other habitable rooms as part of the dwelling itself.

Importantly, the design of the dwellings has been carefully considered in context of a subdivision application (WAPC ref: 160524) that is submitted for determination.

The subdivision application provides the lot structure and public domain elements that will contribute to the overall success of the Middleton Beach activity centre, including the proposed mews, and pedestrian network.

3.2 Access, Circulation and Parking

3.2.1 Site Access

Garages are proposed with access taken from the mews, separating the vehicle traffic from the pedestrian friendly frontage to Adelaide Crescent. Existing vehicle movements along Marine Terrace and Adelaide Crescent will still provide for accessibility within the neighbourhood.

The proposal provides for two car parking spaces on each individual site. In addition, parking bays are proposed within the verges of the mews and alterations will be undertaken in Marine Terrace and Adelaide Crescent to improve the supply of street parking. This parking strategy formed part of the negotiations and consultation in relation to the preferred concept (refer to section 1.3, and Figure 2).

3.2.2 Circulation

The proposed mews has one-way traffic, which emphasises its priority use for access to the dwellings. It is intentionally designed to discourage through-traffic.

Adelaide Crescent and Marine Terrace will be retained as two-way traffic routes.

Given that bins are proposed to be collected from Adelaide Crescent, waste vehicles will not need to manoeuvre within the mews.

3.2.3 Car Parking

Car parking is proposed as follows:

- Two car bays are proposed per dwelling, consistent with the typical requirements under the R-Codes;
- Six parallel parking bays are indicated in the Adelaide Crescent road reserve (refer Figure 2);
- Three perpendicular parking bays and bicycle racks are indicated in the Marine Terrace road reserve (refer Figure 2); and
- Seven parallel parking bays are indicated in the proposed mews (refer Figure 2).

The City's LPS 1 does not specify a particular parking requirement for Single Attached Dwellings. The land use is not contained in Table 6 – car and bicycle parking requirements in clause 4.8.5 Parking Requirements of LPS 1. Under SU25, car parking for single attached dwelling is as determined by the local government.

Under SU 25, no visitor car parking for permanent residential developments is required.

Under SU 25, retail requires 1 bay per 40m^2 NLA. If all six houses had retail at the ground floor level, the cumulative floor space would be 158m^2, which equates to four parking bays.

In this regard, on-site parking is sufficient for residents, and the additional parking on the periphery would address any commercial parking requirements and the intentions of the Middleton Beach Activity Centre Plan.



Figure 2 Parking Opportunities

3.2.4 Bicycle Parking

Under SU 25, one bicycle parking space is required per residential dwelling, and 1 bicycle parking space per 10 dwellings for residential visitors.

Each dwelling is capable of parking a bicycle within the garage areas. These are clearly identified on the plans, refer to **Appendix E**.

Public bicycle racks are integrated into the landscape design on the corner of Adelaide Crescent and Marine Terrace.

In this regard, bicycle parking is sufficient for residents and visitors.

3.3 Site Works

Earthworks and civil works will be undertaken in order to address relevant conditions of subdivision approval (lodged with the WAPC), and to ensure the design levels of the sites are achieved to facilitate construction.

The design will ensure a seamless integration for vehicular access from the mews to the garages. The level interface achieved from this frontage will achieve universal access.

In order to accommodate the necessary earthworks levels and stormwater design, the proposed dwelling ground floor levels will be stepped up above the street footpath level (maximum 450mm) of Adelaide Crescent.

3.4 Essential Services

Services will be undertaken in accordance with the subdivision design and in order to address relevant conditions of subdivision approval (lodged with the WAPC).

3.5 Landscaping

The landscape masterplan outlines the careful attention to the public domain and context for the design details within this application, refer **Appendix H**.

Planting selection has been based on the specific climatic conditions throughout the proposed development. Both native and exotic waterwise species are proposed to ensure both low water usage and minimal maintenance, creating an inviting landscape for the future residents. Varied tree species (both existing and proposed) will create tree canopies increasing shade across the site allowing for the creation of new micro-climates.

4.0 Planning Framework

4.1 City of Albany Local Planning Scheme No. 1 (LPS 1)

4.1.1 Zoning

The subject land is zoned 'Special Use 25' (SU 25) under the City of Albany Local Planning Scheme No. 1 (LPS 1), refer Figure 3.

SU 25 refers to the Middleton Beach Activity Centre Structure Plan (MBAC SP) as a planning instrument of due regard. The MBAC SP contains specific provisions for land use permissibility and conditions against which all development will be assessed. These are addressed further, refer sections 4.1.2 and 4.1.4.

The following sections demonstrate compliance for the land use and development, having regard to the SU 25.

4.1.2 Land use permissibility

SU25 refers to the MBAC SP in relation to land use permissibility and provides several conditions for land use permissibility.

Within the SU 25 zone, single attached dwelling was inserted via Scheme Amendment 1 as a 'D' (3) use.

This land use is defined in LPS 1 as "***single attached dwelling*** *means one of a group of two or more attached dwellings each being separated by a common wall and may include a row house, terrace house or town house, not located above or below another dwelling*."

The proposal is consistent with the single attached dwelling land use, and is capable of being favourably considered.

The proposed floor plans identify the street frontages that are designed to provide multi-use dual key spaces to provide for small start-up venture opportunities. The front spaces at ground level are self-contained with opportunity for provision for a kitchenette, a bathroom and external siting to accommodate work/life, or short-stay accommodation, or multi-generational families.

The ground floor plans identify such opportunities as follows, and they are compared against the LPS 1 land use definitions and permissibility within the Mixed Use Precinct in SU 25:

Description on Plans	Permissibility in LPS 1
Short-stay accommodation	'P' use as 'holiday accommodation'
Home office	'D' use as 'office'
Bedrooms as part of a dwelling	'D' use as 'single attached dwelling'
Small café	'D' use as 'restaurant'
Small consulting room	'D' use as 'consulting rooms'
Juice bar / retail	'D' use as 'shop'

Condition (3) states that "*the use is prohibited where it fronts the street at pedestrian level within the 'Primary Active Frontage' area as depicted on the Precinct Plan*." As Adelaide Crescent is not a 'Primary Active Frontage', the use remains as a discretionary land use.

4.1.3 Precinct Plan

The Precinct Plan is embedded into the LPS 1 scheme text itself. The Precinct Plan is shown at Figure 4.

The Precinct Plan identifies that Adelaide Crescent frontage as a 'secondary active frontage'. As such, a single attached dwelling is capable of being proposed fronting the street.

4.1.4 Compliance with SU 25 conditions

The SU 25 conditions are structured as follows:

- Performance Criteria numbered 1 and then conditions 2-4;
- Foreshore Protection and Management condition numbered 5;
- Bushfire Management conditions numbered 6-7;
- Development Requirements numbered 8-14;
- Mixed Use precinct requirements; and
- Active Frontage requirements.

Table 3 has been prepared to demonstrate compliance with conditions 1-14, the Mixed Use Precinct requirements, and the Active Frontage requirements.



Figure 3 Extract of LPS 1 Scheme Map



Figure 4 Middleton Beach Activity Centre Precinct Plan, extract from the City's LPS 1

Table 3 Compliance Table against SU 25 conditions

SU 25 conditions	Proposed development
1. *All development within the Middleton Beach Activity Centre Special Use zone shall comply with the following performance criteria:*	**Compliant**. Refer below.
(a) The Middleton Beach Activity Centre is developed in a coordinated manner, recognising its significance for local recreation, organised sporting and cultural events and as a tourist destination;	**Compliant**. The preferred concept plan for the whole of Lot 9001 Flinders Parade has been based upon the lot layout and public domain indicated on the Precinct Plan. Through a detailed and comprehensive design review, the configuration and placement of the lots has been modified in a manner that further enhances the coordination of the road and pedestrian network, whilst achieving the outcomes desired in the MBAC SP.
(b) High quality built form and public place design is provided across the Special Use zone and public foreshore reserve interfaces recognise the iconic location and significance of the site to the community;	**Compliant**. The design of the built form is prepared by qualified local architects and subject to extensive consultation with local and State government, and the Design Review Panel. The design of the public places and new roads have been prepared in collaboration with the project engineers and landscape architects, to deliver an integrated development outcome.
(c) The development of public and private land is integrated to establish a safe, vibrant mixed-use centre with an active beach front and urban edge that includes but is not limited to: local and tourist facilities; restaurants, cafes and shops; holiday and short stay accommodation; together with a range of permanent residential uses but excludes detached houses;	**Compliant**. • The 'Duette' design orientates each terrace house with dual key pedestrian access via Adelaide Crescent. Vehicle access is provided from the northern Mews, reducing the impact on pedestrian foot-traffic. • The design has thoughtfully contemplated the requirements of the live/work opportunities that can be presented in Middleton Beach. The adaptability of the multi-use ground floor plate is demonstrated whereby the buildings could provide floorspace for local and tourist facilities, cafés, small shops or offices, and short-stay accommodation. • The design aims to minimise overshadowing of neighbouring properties and the public realm, and buildings are setback from Adelaide Crescent to minimise the impacts on sightlines through to the beach. Upon completion the development will have a moderate bushfire hazard level and the development areas will have a BAL-29 or less rating, refer to **Appendix F**.
(d) An effective, efficient, integrated and safe transport network that prioritises pedestrians, cyclists and public transport users is provided;	**Compliant**. • The desired outcome is to create a mews providing vehicle access to the rear of the proposed dwellings. The scale of the dwellings at two storeys promotes passive surveillance of the mews through location of upper level terraces. • The incorporation of a pedestrian path on the southern frontage along Adelaide Crescent, and within the mews, together with parallel parking, fosters use and activity, promoting human activity and presence which in turn can promote a safe urban environment with an emphasis on pedestrians and cyclists. • It is noted that a bus stop is located on the eastern side of Flinders Parade, adjacent to the future hotel site.
(e) Vehicle parking is efficient and promotes the establishment of shared, reciprocal and common use facilities;	**Compliant**. • The proposal is self-sufficient in relation to parking provision. • The overall design concept for Lot 9001 Flinders Parade has worked to maximise the provision of public parking, to ensure as much parking as possible is available for the general community. This in turn will promote reciprocity and common usage, together with parking management by the local government.

SU 25 conditions	Proposed development
(f) Developments incorporate sustainable technologies and design including best practice with regard to energy efficiency, water sensitive urban design and fire safety requirements; and	**Compliant**. A Sustainability Strategy Report has been completed and is appended to the development application refer **Appendix G**.
(g) Opportunities for investment and development are facilitated.	**Compliant**. The project has been independently assessed and it is a clear example of how a demonstration project for innovative design can also deliver a sound investment and development viability.
2. Due regard shall be given to the Activity Centre Structure Plan in accordance with the relevant clauses within the deemed provisions for Local Planning Schemes.	**Completed.** Due regard has been given to the MBAC SP, refer to section 4.2.
3. Development will be compliant with design guidelines that have been prepared, referred to the State Design Review Panel for its advice and recommendations, and adopted by the City of Albany prior to development of the site.	**Completed.** The development has been prepared having regard to the Design Guidelines, and has been reviewed by the Design Review Panel.
4. Notwithstanding that a use is not specifically listed in this schedule, the Local Government may consider the proposed use on its merits as an 'A' use where that use, and development complies with the performance criteria set out in Condition 1 and other relevant conditions in this schedule and is compatible with the listed uses in the designated precinct.	**Noted**. It is considered that the local government can assess the proposal under its classification as 'single attached dwelling' as a 'D' discretionary land use.
Foreshore Protection and Management *5. Development within the Hotel/Mixed Use Precinct and/or creation of the Hotel/Mixed Use Lot will be subject to satisfactory arrangements for the implementation and ongoing management of coastal adaptation and protection measures consistent with State Planning Policy 2.6, including but not limited to:* • *Public advertising, adoption and implementation of a Foreshore Management Plan that includes the existing foreshore reserve adjacent to the Special Use zone, prepared in conjunction with the City of Albany in accordance with SPP2.6 Sub-Clause 5.10 Coastal Strategies and Management Plans and endorsed by the WAPC; and* • *Notification on Title stating that the lot is within a Vulnerable Coastal Area.*	**Not applicable**. The development application does not relate to the Hotel/Mixed Use precinct or the creation of the Hotel/Mixed Use lot.
Bushfire Management *6. The Middleton Beach Activity Centre has been identified as a bushfire prone area and development and use of the site shall comply with the provisions of the approved Bushfire Management Plan and the Scheme.*	**Addressed**. A Bushfire Management Plan has been prepared and accompanies the development application, refer **Appendix F**.
7. All residential buildings and, as far as is practicable, non-residential developments, are to incorporate the bushfire resistant construction requirements of the Building Code, including as appropriate the provisions of AS3959 Construction of Buildings in Bushfire Prone Areas (as amended), commensurate with the bushfire attack level (BAL) established for the relevant portion of the site.	**Addressed**. The Bushfire Management Plan contains relevant construction requirements for the development application. The dwellings have been setback to achieve a BAL-29 rating or less, refer **Appendix F**.
Development Requirements *8. Before commencing or carrying out any development on land within the Special Use zone, the developer must:* • *demonstrate that the proposal aligns with the principles of any relevant State Planning Policy for design of the built environment;*	**Addressed**. The design has been carefully considered in relation to SPP 7 *Design for the Built Environment* and the ten principles of good design, refer section 4.4.2.

SU 25 conditions	Proposed development
• *comply with the requirements of the design guidelines referred to in Condition (3) above; and* • *incorporate the recommendations of an appointed design review panel, where available.*	The Design Guidelines are addressed as per the Tables accompanying this development application and in the Concept Design Report, refer **Appendix E**. The Design Review Panel recommendations are incorporated, refer **Appendix D**.
9. *Notwithstanding the permissibility of the proposed use, any works proposed to be undertaken within the Special Use zone shall require the development approval of Local government following advertising of the proposal in accordance with clause 64(3) of the Deemed Provisions unless exempted by the provisions of Schedule 2, Cl 61 (1) of the Deemed Provisions to the Planning and Development Regulations 2015.*	**Noted**. It is understood that the local government will process the development application in accordance with the provisions of LPS 1 and the Deemed Provisions.
10. *Applications for development approval are to demonstrate appropriate design and management controls to minimise conflict between permanent & short term residential, tourism and mixed uses and, in particular, night time hospitality and entertainment.*	**Addressed**. The proposed design is for Single Attached Dwellings with adaptable ground floor levels fronting Adelaide Crescent. The proposed uses indicate that the work/life divide is capable of being seamlessly managed within each dwelling.
11. *Any approved development is to be constructed to plate height prior to the submission of any diagram or plan of survey (deposited plan) for subdivision of the parent lot to create individual lot(s) for the development(s).*	**Noted**. The proposed lots for the Single Attached Dwellings are included in a subdivision application lodged with the Western Australian Planning Commission. The lodgement timeframe for titles will be reliant on the development being implemented in accordance with a development approval and reaching plate height.
12. *Basement car parking shall be integrated into the built form and screened from view, such that the car parking area is not directly visible from the street or other public spaces. Car parking areas shall be accessed from a laneway or secondary street where available.*	**Addressed**. Basement parking is not proposed. The dwellings are proposed with at-grade car parking in the form of garages that are proposed to be accessed from a new mews that will be constructed.
13. *Car parking shall be provided in accordance with the provisions of the Scheme unless otherwise stated below.*	**Addressed**. Two car bays are proposed per dwelling.
14. *The following development requirements specifically apply to the following precincts as identified on the Middleton Beach Activity Centre Precinct Plan:*	**Addressed**. Refer below.
Mixed Use Precinct	
<u>*Building Height*</u> • *2 storey (11 metres) minimum / 3 storey (14.5 metres) maximum between Barnett Street and the Public Access Way.* • *2 storey (11 metres) minimum / 4 storey (18 metres) maximum for development fronting the southern extent of the Public Access Way;* • *2 storey (11 metres) minimum / 5 storey (21.5 metres) maximum for development south of the Public Access Way, fronting Adelaide Crescent or Flinders Parade.*	**Compliant**. Two storey development is proposed to a height of 6.7 metres, measured from ground floor level to maximum height for development fronting Adelaide Crescent. The 11 metre minimum height limit is not workable for a two-storey terrace house typology. The 11-metre measurement is taken from the MBAC SP, which anticipates for multiple dwellings. The MBAC SP heights were based on the calculation outlined in section 4.2.1 of the structure plan, being a floor height of 4.5m (ground floor) plus 3.5m floor height (first floor) plus a 1.5m height for a subterranean protrusion for parking, plus 1.5m for a roof projection. This equals the 11m minimum. In this regard, the proposed development does not require subterranean parking and is proposed with a contemporary flat roof. Given the number of assumptions built into the 11m minimum, it is considered that the building height should be only considered for 2-storeys. This approach is consistent with SPP 7.3 R-Codes Volume 2, which says in planning guidance PG2.2.2 that "***building*** *heights should typically be expressed in* ***storeys*** *to allow flexibility of design solutions at ground and roof levels, promote generous floor to ceiling heights and provide for future building adaptability*".

SU 25 conditions	Proposed development
	This proposal delivers upon this flexibility in its design and ensures ground levels are adaptable. Clause 4.2 and its subclauses 4.2.1-4.2.3 state that if a development does not comply with a standard or requirement under the scheme, the local government may consider the variation. In this regard, it is considered the variation to the minimum height limit is addressed by proposing two-storeys, without the building needing to achieve an 11m height. This item has also been discussed in detail with the Design Review Panel and the above interpretation and justification have been supported by the panel for the design of the proposal.
Setbacks: *Generally nil street and side setbacks.*	**Compliant**. Nil setbacks are proposed for internal side boundaries. Setbacks are proposed to the laneway, side boundaries adjoining public domain, and to Adelaide Crescent to achieve articulation to the building form and interest to the public realm.
Car Parking: • *Single attached dwelling - resident parking as determined by Local government.* • *No visitor car parking requirement for permanent residential developments.* • *Retail – 1 bay per 40m^2 NLA.*	**Compliant**. On-site parking is proposed to provide two car bays per dwelling. Visitor car parking, whilst not required, is proposed within the rear mews. Retail is not provided, however the dwelling on the corner of Marine Terrace and Adelaide Crescent is proposed with an adaptable floor area of 27 square metres which could be potentially used for food & beverage or retail use.
Bicycle Parking: • *1 bicycle parking space per residential dwelling and 1 bicycle parking space per 10 dwellings for residential visitors.*	**Compliant**. Secure bicycle storage is provided for each dwelling. In addition, public bicycle racks are integrated into the landscape architecture on the corner of Adelaide Crescent and Marine Terrace.
Active Frontages	
Areas marked as 'Active Frontage' on the Precinct Plan encourage a range of active uses at the pedestrian level. Specifically, this shall be achieved by: • *Residential uses at the pedestrian level in areas delineated as 'Primary Active Frontage' are prohibited.* • *Areas delineated as either 'Primary Active Frontage' or 'Secondary Active Frontage shall demonstrate measures have been undertaken to build adaptability into the development at ground floor level.*	**Compliant**. Adelaide Crescent is marked as 'Secondary Active Frontage'. The design of the dwellings sufficiently demonstrates measures for future adaptability of the ground level with proposed Lot 1 depicting a commercial tenancy for food and beverage; and proposed Lots 2-6 were designed having regard to potential for home office or short-stay accommodation at ground level. These uses (best defined as 'office' and 'holiday accommodation' in the Mixed Use Precinct in SU 25, refer Schedule 4 of LPS 1) are 'D' discretionary uses.

4.2 Middleton Beach Activity Centre Structure Plan

The Middleton Beach Activity Centre Structure Plan (MBAC SP) was approved by the Western Australian Planning Commission (WAPC) on 4 January 2017 (WAPC ref: ALB-2016-1). The development application is shown as 'Mixed Use', refer Figure 4.

The MBAC SP identifies that the Mixed Use precinct can provide for small, low-scale retail uses and incorporate medium density residential development.

The development application proposes dwellings that would be consistent with medium density development. The dwellings align with a broader concept design for the proposed road and public domain network that is derived from the Structure Plan. Importantly, the dwellings are designed specifically to be adaptable for non-residential land uses along the Adelaide Crescent street frontage.

4.3 Middleton Beach Activity Centre Design Guidelines

The Design Guidelines adopt the principles of design excellence and establish the urban design framework and process for design review. The DGs integrate the SPP 7 10 principles of good design (refer section 4.4.2).

The DGs utilise a performance-based structure and are complemented by specific measurable standards where appropriate for some elements.

The DGs are set up with:

- Objectives – which outline the overall design intent and explain the desired outcomes;
- Primary Controls – referencing the provisions of LPS 1 SU 25, and managing these in the context of the future character of the area and moderating impacts on neighbouring properties; and
- Design Guidance – suggested means of achieving the desired outcomes.

Consistent with the development application process described in section 1.8 of the DGs, the proposal has been:

- Subjected to initial design discussions with the Estate Architect and the City of Albany;
- The design has been submitted to the Estate Architect for design compliance review; and
- The proposal has been presented to the Design Review Panel in December 2020 and March 2021.

These steps in the design review process have informed the development application plans and information. Several comments made by the DRP had been addressed and are outlined further in Table 4.

Table 4 Design Review Report – response to DRP comments

Middleton Beach Activity Centre Local Design Review Panel – Meeting Minutes		
Weaknesses of the proposal	**Design Review Panel Comments**	**Applicant Comments**
	The breeze blocks to the front of the dwellings causes concern for what this area may be used for, potentially a dumping ground or rubbish trap.	The space behind the breeze blocks has been widened and changed into a paved area including a bike rack. The gap is now easier to access and maintain.
	Signage needs more consideration and thought into how this can be managed to not take away from the amenity of the building.	Refer PTX Architects Concept Design Report - Section 16.
	Public art/shade canopy doesn't appear to meet the requirements for rain/shade protection that is required for the climate and there is potential for issues arising in the future with lack of cover for the proposed business and patrons.	Refer Development Application Plans – DA10 (East elevation) - 650mm deep L-shaped awning/fin.
	East and west elevations have significant glass, more consideration needs to be put into these in terms of energy efficiency and shading.	Refer Development Application Plans – DA10 for altered design to upper level windows, vertical window profile can be shaded through external vertical shading devices appropriate for east and west elevations.
	Proposal lacks information on the elevator component, would like to see more information on this at the development application stage.	Refer PTX Architects Concept Design Report - Section 14.
Suggested improvements to the proposal:	**Design Review Panel Comments**	**Applicant Comments**
	Consider the landscaping and what may happen if this doesn't thrive.	Refer TBB Development Application Report - Section 3.5, and Refer PTX Architects Concept Design Report - Section 23.
	What will the breeze block or other aspects of the design will look like with the landscaping into the future, consider how the design aspects and landscaping will be maintained, will the onus be on the residents or someone else?	Ideally the landscaping is maintained by the owner in alignment with an overarching development approach/ guideline. The highly articulated façade elements to all elevations also assist in reducing the building's impact. Street trees will be vital to carry some of the load of greening the precinct.
	Look at including a few different options of the shade canopy and make less of an emphasis on it being public art (for the application stage to not have the public focus on this part) and ensure it has more coverage for weather protection when it is designed. A condition could be put on the development application for this component to address these matters.	Refer Development Application Plans, artists impressions and Landscape Masterplan detailing a mature Chinese Elm as a key feature element for this corner landmark. Proposed Awning/shade canopy to lot 1 has been increased in size to enhance weather protection for this proposed land use.
	Place further consideration into installation of air conditioning units in the future and where these can be installed, ensure siting is	Refer PTX Architects Concept Design Report - Section 11 and 21.

Middleton Beach Activity Centre Local Design Review Panel – Meeting Minutes		
	addressed in relation to both functional and design aspects, coordinating location to maintain minimal visibility to the street, and that condensers are not located in outdoor seating/living areas or other outdoor habitable spaces. Garage is a good location but further information to demonstrate how/where this will function.	
	Develop a place holder or design guidelines surrounding signage for future business owners to follow and also other elements that may take away from the image such as window tinting.	Refer PTX Architects Concept Design Report - Section 16.
	Further consideration required on the storerooms to Lots 1 and 6 and how these will work for these lots, especially in regards to bin storage, ease of access, functionality.	Refer Development Application Plans – DA05. Improved functionality and accessibility through inclusion of outward opening double doors.
	Further consideration to be given to the breeze blocks, and how these can address designing out crime aspects and not become a dumping area/rubbish trap.	The space behind the breeze blocks has been widened and changed into a paved area including a bike rack. The gap is now easier to access and maintain. For added security the lighting concept will include up-lights to the breezeblocks to be installed in the gap.
	Greater focus required on the contribution of the public art as part of the whole precinct, not just at each individual stage. Look at exploring options tying them in together and ensuring a cohesive approach. Also needs to recognise landmark/wayfinding corner location.	Refer PTX Architects Concept Design Report - Section 17. In addition - The importance of a cohesive public art approach for the Activity Centre as a whole is understood and is proposed to be prepared separate to this Development Application. The potential outcome for a public realm element in the landmark corner that integrates with the wider precinct will be explored further. The forthcoming landscape masterplan and approvals may be an appropriate instrument for this.

4.3.1 Proposal Response to the DGs

The MBAC DGs Part 2 is addressed below in section 4.3.2 and Table 5 on the following page.

4.3.2 Part 2 – Primary Controls

The MBAC SP defined four precincts based on character, activity and land use. This proposal is within the Mixed Use precinct.

The DGs provide a Primary Controls Table which outline the SU 25 provisions. The Primary Controls Table provide details regarding land use permissibility, building heights, and building setbacks as shown below in Figure 5.

The proposal complies with the primary controls, refer to Table 5 for detailed justification.

4.3.3 Part 3 – Siting the Building

Refer to separate PTX Architects report *Concept Design Report*.

4.3.4 Part 4 – Designing the Building

Refer to separate PTX Architects report *Concept Design Report*.

PRIMARY CONTROLS TABLE

MIXED USE PRECINCT LOT 3, 4, 5			
	"P" USES	"D" USES	"A" USES
PERMITTED LAND USES	• Holiday Accommodation • Multiple Dwelling (3)	• Car Park • Consulting Rooms • Convenience Store • Hotel • Market • Office • Public Utility • Restaurant • Shop • Single Attached Dwelling (3)	• Exhibition Centre • Recreation-Private • Small Bar • Tavern

BUILDING HEIGHT	
Refer Figure 2 Structure Plan	• 2 storey (11m) minimum / 3 storey (14.5m) maximum between Barnett Street and PAW. • 2 storey (11m) minimum / 4 storey (18m) maximum fronting the southern extent of PAW. • 2 storey (11m) minimum / 5 storey (21.5m) maximum south of PAW, fronting Adelaide Crescent or Flinders Parade.

SETBACKS	
Barnett Street	Generally nil
Flinders Parade	Generally nil
Adelaide Crescent	Generally nil
New North-South Road	Generally nil
Public Access Way (PAW)	Generally nil

Source: Provisions from the Local Planning Scheme No. 1 (LPS) for Special Use Zone No. 25

Figure 5 Mixed Use Primary Controls Table

Table 5 Demonstrated Compliance with the Mixed Use Precinct Primary Controls Table

Primary Controls	DG Requirements	Proposal
Permitted Land Uses	Holiday Accommodation 'P' Multiple Dwelling 'P' Car Park 'D' Consulting Rooms 'D' Convenience Store 'D' Hotel 'D' Market 'D' Office 'D' Public Utility 'D' Restaurant 'D' Shop 'D' Single Attached Dwelling 'D' Exhibition Centre 'A' Recreation-Private 'A' Small Bar 'A' Tavern 'A'	The proposal is consistent with Single Attached Dwelling definition in LPS 1. The proposal is a 'D' discretionary land use. Further details are outlined in section 4.1.2.
Building Height	2 storey (11m) minimum / 3 storey (14.5m) maximum between Barnett Street and PAW. 2 storey (11m) minimum /4 storey (18m) maximum fronting the southern extent of PAW. 2 storey (11m) minimum / 5 storey (21.5) maximum south of PAW, fronting Adelaide Crescent or Flinders Parade.	Two storey development is proposed to a height of 6.7 metres, measured from ground floor level to maximum height for development fronting Adelaide Crescent. The 11-metre minimum height limit is not workable for a two-storey terrace house typology. The 11-metre measurement is taken from the MBAC SP, which anticipates for multiple dwellings. The MBAC SP heights were based on the calculation outlined in section 4.2.1 of the structure plan, being a floor height of 4.5m (ground floor) plus 3.5m floor height (first floor) plus a 1.5m height for a subterranean protrusion for parking, plus 1.5m for a roof projection. This equals the 11m minimum. In this regard, the proposed development does not require subterranean parking and is proposed with a contemporary flat roof. Given the number of assumptions built into the 11m minimum, it is considered that the building height should be only considered for 2-storeys. This approach is consistent with SPP 7.3 R-Codes Volume 2, planning guidance PG2.2.2 states that "*building heights should typically be expressed in storeys to allow flexibility of design solutions at ground and roof levels, promote generous floor to ceiling heights and provide for future building adaptability*". This proposal delivers upon this flexibility in its design and ensures ground levels are adaptable. Clause 4.2 and its subclauses 4.2.1-4.2.3 state that if a development does not comply with a standard or requirement under the scheme, the local government may consider the variation. In this regard, it is considered the variation to the minimum height limit is addressed by proposing two-storeys, without the building needing to achieve an 11m height. This item has also been discussed in detail with the Design Review Panel and the above interpretation and justification have been supported by the panel for the design of the proposal.

Primary Controls	DG Requirements	Proposal
Setbacks	Generally nil	Minor setbacks are proposed. The Design Guidelines encourage minor variations to ground and first floor setbacks for building articulation to enhance amenity and the human scale of the street (2.1.2). The setbacks in this proposal contribute to the future adaptability of the built form, and assists with a landscape setting to create an identity and interest to the development. The DRP have considered the built form approach and streetscaping, which was determined to be appealing and in keeping with the Design Guidelines.

4.4 State Planning Policies

4.4.1 State Planning Policy 3.7 Planning in Bushfire Prone Areas

SPP 3.7 assists in reducing the risk of bushfire to people, property, and infrastructure by encouraging a conservative approach to strategic planning, subdivision, development, and other planning decisions proposed in bushfire-prone areas. SPP 3.7 applies to all land which has been designated as bushfire prone by the Fire and Emergency Services (FES) Commissioner as identified on the Map of Bush Fire Prone Areas.

The site is within an identified Bush Fire Prone Area (refer Figure 6).



Figure 6 Map of Bush Fire Prone Areas (DFES 2021)

A Bushfire Management Plan (BMP) is prepared and accompanies the development application, refer to **Appendix F**. The Bushfire Attack Level (BAL) assessment recognises that, with a 1m setback from the existing Lot 9001 southern boundary, all of the proposed lots will have a BAL-29 rating. The associated subdivision application (WAPC ref: 160524) details the necessary 1m road widening to Adelaide Crescent in order to achieve the BMP requirements.

The BMP addresses the requirements of the SPP 3.7 and the Guidelines for Planning in Bushfire Prone Areas.

If required, future use of the land for tourism activity, including short-stay accommodation, may warrant the preparation of Bushfire Emergency Evacuation Plans as part of the operational management of specific tourism land uses.

4.4.2 State Planning Policy 7.0 Design of the Built Environment

SPP 7.0 seeks to address the design quality and built form outcomes in Western Australia, and seeks to deliver the broad economic, environmental, social and cultural benefits that derive from good design outcomes. The policy includes the following 10 principles for good design:

1. ***Context and character*** *Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*
2. ***Landscape quality*** *Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.*
3. ***Built form and scale*** *Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*
4. ***Functionality and build quality*** *Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.*
5. ***Sustainability*** *Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.*
6. ***Amenity*** *Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*
7. ***Legibility*** *Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.*
8. ***Safety*** *Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.*
9. ***Community*** *Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.*

10. ***Aesthetics*** *Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.*

The design principles have informed the detailed design of the proposed development, and this is addressed in detail within the complementary reports prepared by the project architect, refer **Appendix E**.

The proposal has considered comments raised by the DRP, and minor changes were undertaken to improve the design's response to those matters. The changes between what was presented to DRP and what has been lodged, is outlined in section 4.3 and Table 4.

4.4.3 State Planning Policy 7.3 Residential Design Codes

The R-Codes do not apply to the subject land. As such, the proposal has been considered solely against the LPS 1 and the SU 25 provisions, the MBAC SP and the DGs.

Pursuant to clause 4.8.7 of the LPS 1, Table 8 Site Requirements refers to Schedule 4 of the Scheme. Schedule 4 contains the SU 25 provisions. The SU 25 has no reference to R-Codes density on the scheme map nor in the Schedule 4 SU 25 provisions.

Pursuant to clause 25(3) of the Deemed Provisions, the R-Codes apply if an R-Code density coding is superimposed on the Scheme Map, or a provision of the Scheme provides that the R-Codes apply to that area.

The R-Codes do not apply to the subject land as:

- there is no R-Code shown on the Scheme Map for the SU 25 zoned area, and
- there is no R-Code referenced in the SU 25 provisions.

APPENDIX A

Form and Checklists

Document Reference: IF15194907_1
Version: 10/08/2017

Application for Development Approval

Please note that payment must be made before processing this application

Owner Details

Name: Western Australian Land Authority t/a DevelopmentWA
ABN (if applicable): 34 868 192 835
Address: Locked Bag 5, Perth Business Centre, PERTH WA Postcode 6849

Phone:	Fax:	Email:
Work: 08 9226 4276 Home: Mobile: 0439 925 649	08 9481 0861	mark.cornish@developmentwa.com.au

Contact person for correspondence: Mark Cornish, Development Manager

Signature: Date: 29/3/2021
Signature: Date: 29/3/2021

The signature of the owner(s) is required on all applications. This application will not proceed without that signature. For the purposes of signing this application an owner includes the persons referred to in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 clause 62(2)

Applicant details (if different from owner)

Name: Taylor Burrell Barnett
Address: PO Box 7130, Cloisters Square, PERTH WA Postcode 6850

Phone:	Fax:	Email:
Work: 08 9226 4276 Home: Mobile: 0419 937 349		admin@tbbplanning.com.au

Contact person for correspondence: Mark Bancroft - Principal

The information and plans provided with this application may be made available by the local government for public viewing in connection with the application. ☑ Yes ☐ No

Signature: Date: 31/03/2021

Property details

Lot No: 9001	House/Street No: 1	Location No: -
Diagram or Plan No: 413972	Certificate of Title Volume: 2984	Folio: 245

Title encumbrances (e.g. easements, restrictive covenants):
Easement to Water Authority E704461; Easement to Western Power

Street name: Flinders Parade Suburb: Middleton Beach

Nearest street intersection: Marine Terrace and Adelaide Crescent

Proposed development

Nature of development:

- ☐ Works
- ☐ Use
- ☑ Works and use

Is an exemption from development claimed for part of the development? ☐ Yes ☑ No

If yes, is the exemption for:

- ☐ Works
- ☐ Use

Description of proposed works and/or land use:

Six (6) Single Attached Dwellings

Description of exemption claimed (if relevant):

None

Nature of any existing buildings and/or land use:

Vacant land

Approximate cost of proposed development:

$3,800,000

Estimated time of completion:

12-18 months

Office Use Only

TPS No:_____ Zone:_____ Other:_____

Use Type: _____

Description: _____

_____

_____

Assessment No:_____ Building Licence No: _____

Acceptance Officer's initials: Date received:

Local government reference no:

Cashier

Application No:_____

Receipt No:_____

Amount:_____

Signature:_____

Date:_____

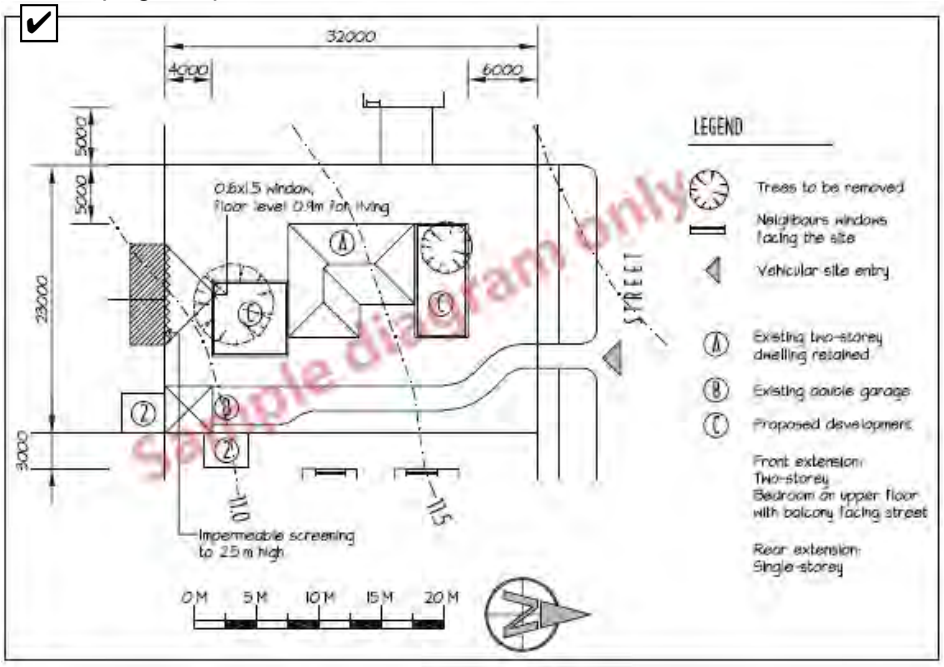
RECEPTION RECEIVAL STAMP

Development Application Checklist

1. Site Plan (One Copy to scale)

☐ The location of the property including street names, lot number(s), north point and the dimensions of the site;
☐ T[✔]e of all existing and proposed structures with clear indication of the distance from the pr[✔]perty boundaries to the proposed building(s), including all existing structures and v[✔]tation proposed to be removed;
☐ Existing and proposed means of access for pedestrians and vehicles to and from the site;
☐ L[✔]tion, number, dimensions and layout of all car parking spaces intended to be pr[✔]ided;
☐ S[✔]m water disposal details if known, location of existing septic system and leach drains (l[✔]th and distance from other buildings etc); and
☐ L[✔]ndscaping if required

[✔]



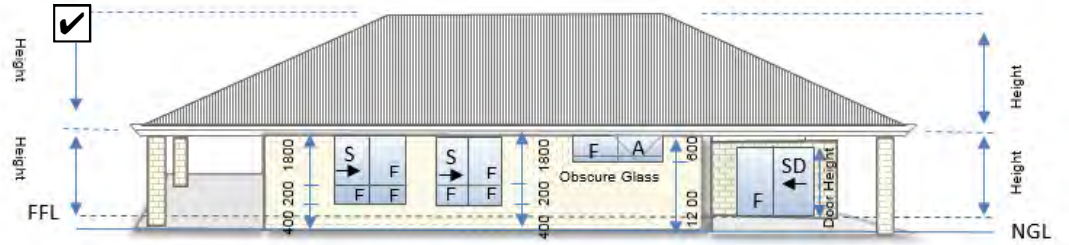
This is an example of a Site Plan
Source: *Residential Design Codes of Western Australia*

2. F[✔]r Plans (One copy to scale)

[✔]
[✔]
☐ A[✔]mensions of proposed new buildings and/ or additions;
☐ Ir[ ]nal Layout, including room names and sunken areas;
☐ L[✔]tion and dimensions of windows and doors;
☐ Smoke detector location(s) (essential for Bed & Breakfast and Holiday House/Accommodation proposals); and
☐ Ridge, valley, eaves line and downpipe locations.

3. Elevations (One copy to scale - Appropriately labeled eg; North, South, East and West)

☐ Front rear and side views of proposed new buildings or existing buildings if additions are proposed;
☐ Location and dimensions of windows and doors (including window sill heights from finished floor level and direction of opening eg: fixed, sliding, awning);
☐ Wall and roof heights;
☐ Existing ground level;
☐ Finished floor levels of any proposed new buildings or existing buildings if additions are proposed; and
☐ Include details of any proposed cut or fill and retaining walls.



Rear Elevation Example

4. Bushfire Attack Level (BAL) assessment

☐ Check the Department of Fire and Emergency Services website to see if the property is located in a Bushfire prone area www.dfes.wa.gov.au. If yes;
☐ Contact the City of Albany Development Services to check if a Bushfire Attack Level (BAL) assessment is required with your application.

5. Covering Letter

☐ The existing and proposed use of the site and buildings to be erected on the site;
☐ Justification of the nature of proposed development or use;
☐ The and colours of building materials; and
☐ For proposed business also include hours of operation, number of staff and parking provided.

6. Adjoining Owners Comments

☐ Check with City of Albany Development Services to see if required

Please Note: Depending on the nature of your application additional information may be requested.

Your plans and covering letter should show as much information as possible, otherwise delays in processing times may occur. If you need help deciding what information you should provide please contact the City of Albany's Development Services via phone (08) 6820 3040 or email planning@albany.wa.gov.au.

A6 – DEVELOPMENT APPLICATION CHECKLIST (1/2)

This checklist assists proponents when formulating the appropriate materials when submitting a development application. Check with the relevant local authority if there are any additional materials required.

DOCUMENTATION	REQUIRED INFORMATION	PROVIDED?	
		YES	NO
Development Details	A summary document that provides the key details of the development proposal. It contains information such as the: + plot ratio of the development + number, mix, size and accessibility of dwellings + number of car parking spaces for use (residential, retail, accessible, visitor etc.) + percentage of apartments meeting cross ventilation and daylight design criteria.	✓	
Site Analysis	[Prepared at earlier stage of design development in A3 Site analysis checklist]	✓	
Design Statement	An explanation of how the design relates to the design principles in State Planning Policy 7 – Design of the Built Environment. An explanation of how the proposed development achieves the relevant objectives of this policy in A7 Objectives checklist.	✓	
Site Plan	A scale drawing showing: + any proposed site amalgamation or subdivision + location of any proposed buildings or works in relation to setbacks, building envelope controls and building separation dimensions + proposed finished levels of land in relation to existing and proposed buildings and roads + pedestrian and vehicular site entries and access + interface of the ground floor plan with the public domain and open spaces within the site + areas of communal open space and private open space + indicative locations of planting and deep soil areas including retained or proposed significant trees.	✓	

DOCUMENTATION	REQUIRED INFORMATION	PROVIDED?	
		YES	NO
Landscape Plan	A scale drawing showing: + the building footprint of the proposal including pedestrian, vehicle and service access + trees to be removed shown dotted + trees to remain with their tree protection areas (relative to the proposed development) + deep soil areas and associated tree planting + areas of planting on structure and soil depth + proposed planting including species and size + details of public space, communal open space and private open space + external ramps, stairs and retaining wall levels + security features and access points + built landscape elements (fences, pergolas, walls, planters and water features) + ground surface treatment with indicative materials and finishes + site lighting + water management and irrigation concept design.	✓	
Floor Plans	A scale drawing showing: + all levels of the building including roof plan + layout of entries, circulation areas, lifts and stairs, communal spaces, and service rooms with key dimensions and Real Level (RL) heights shown + dwelling plans with dwelling numbers and areas, all fenestration, typical furniture layouts for each dwelling type, room dimensions and intended use and private open space dimensions + accessibility clearance templates for accessible units and common spaces. + visual privacy separation shown and dimensions where necessary. + vehicle and service access, circulation and parking storage areas.	✓	

DOCUMENTATION	REQUIRED INFORMATION	PROVIDED?	
		YES	NO
Elevations	A scale drawing showing: + proposed building height and RL lines + building height control + setbacks or envelope outline + building length and articulation + the detail and features of the façade and roof design + any existing buildings on the site + building entries (pedestrian, vehicular or service) + profile of buildings on adjacent properties or for 50m in each direction, whichever is most appropriate. – Currently not shown but can be provided if requested.	✓	
Sections	A scale drawing showing: + proposed building height and RL lines + building height control + setbacks or envelope outline + adjacent buildings – The nearest existing buildings are a large distance away on the other side of Marine Terrace and do not get picked up in the scale of the sections. + building circulation + the relationship of the proposal to the ground plane, the street and open spaces particularly at thresholds + the location and treatment of car parking + the location of deep soil and soil depth allowance for planting on structure (where applicable) + building separation within the development and between neighbouring buildings + ceiling heights throughout the development + detailed sections of the proposed facades.	✓	

DOCUMENTATION	REQUIRED INFORMATION	PROVIDED?	
		YES	NO
Building performance diagrams	A solar diagram (where required) at the winter solstice (21 June) at a minimum of hourly intervals showing: + number of hours of solar access to the principal communal open space + number of hours of solar access to units within the proposal and tabulation of results + overshadowing of existing adjacent properties and overshadowing of future potential development where neighbouring sites are planned for higher density + elevation shadows if likely to fall on neighbouring windows, openings or solar panels + a ventilation diagram (where required) showing unobstructed path of air movements through dual aspect apartments and tabulation of results.	✓	
Material/finishes board	+ A sample of proposed external materials, finishes and colours of the proposal, keyed to elevations – Materials are annotated on the elevations with material selections shown on accompanying pages.	✓	
Illustrative views	+ Photo montages or similar rendering or perspective drawings illustrating the proposal in the context of surrounding development. Note: Illustrative views need to be prepared using a perspective that relates to the human eye. Where a photo montage is prepared, it should use a photo taken by a full frame camera with a 50mm lens and 46-degree angle of view.	✓	
Models	+ A three-dimensional computer-generated model showing views of the development from adjacent streets and buildings. + A physical model for a large or contentious development (if required by the consent authority).	N/A	

APPENDIX B

Certificate of Title

REGISTER NUMBER	
9001/DP413972	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	**N/A**

WESTERN AUSTRALIA

VOLUME **2984** FOLIO **245**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

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

BGRoberts

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 9001 ON DEPOSITED PLAN 413972

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

WESTERN AUSTRALIAN LAND AUTHORITY OF LEVEL 6 40 THE ESPLANADE PERTH WA 6000
(AF O420148) REGISTERED 5/6/2020

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

1. *EASEMENT BURDEN CREATED UNDER SECTION 27A OF T. P. & D. ACT - SEE DEPOSITED PLAN 413972 AS CREATED ON DIAGRAM 72667.
2. *E708461 EASEMENT TO THE WATER AUTHORITY OF WESTERN AUSTRALIA SEE SKETCH ON DEPOSITED PLAN 413972. REGISTERED 24/9/1991.
3. *EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR UNDERGROUND ELECTRICITY PURPOSES TO ELECTRICITY NETWORKS CORPORATION SEE DEPOSITED PLAN 413972.

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

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

STATEMENTS:

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

SKETCH OF LAND:	DP413972
PREVIOUS TITLE:	2957-114
PROPERTY STREET ADDRESS:	1 FLINDERS PDE, MIDDLETON BEACH.
LOCAL GOVERNMENT AUTHORITY:	CITY OF ALBANY
RESPONSIBLE AGENCY:	WESTERN AUSTRALIAN LAND AUTHORITY

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING O005798.

LANDGATE COPY OF ORIGINAL NOT TO SCALE 18/12/2020 10:23 AM Request number: 61416402

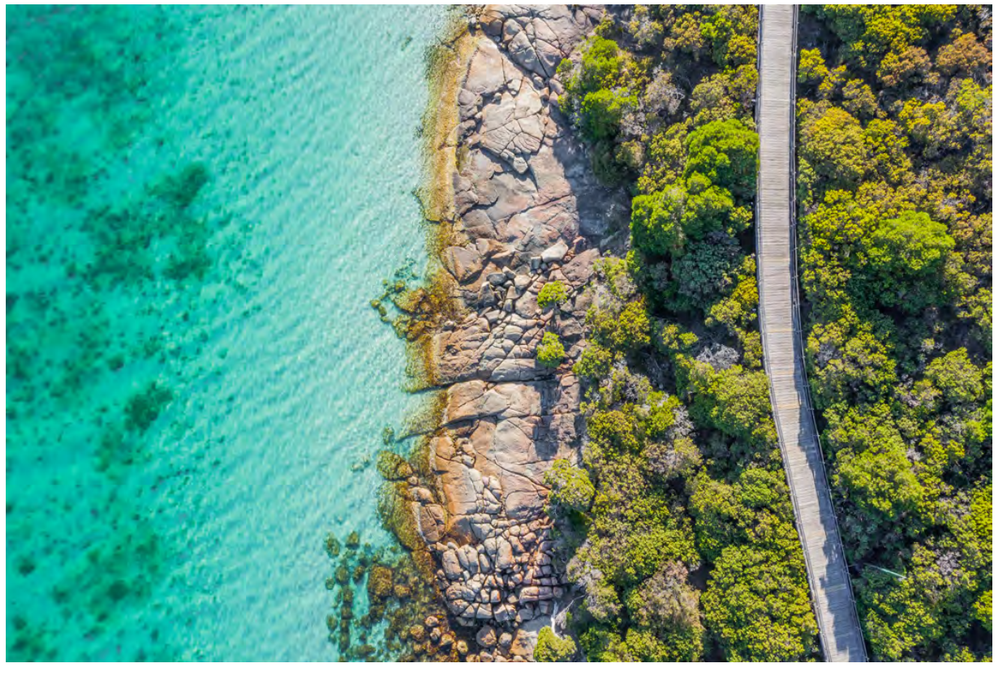
Landgate
www.landgate.wa.gov.au

APPENDIX C

Plans and Elevations

MIDDLETON BEACH

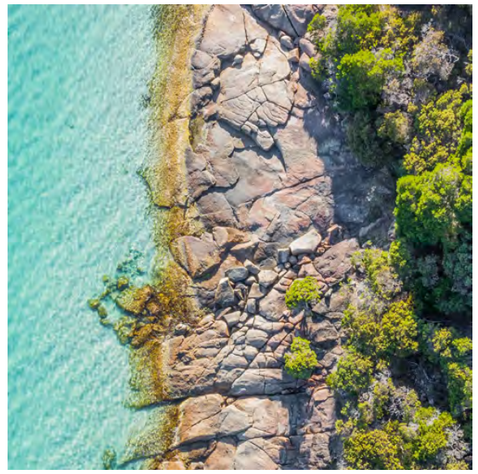
STAGE 1A TERRACE HOUSING DEVELOPMENT



DEVELOPMENT APPROVAL

March 2021

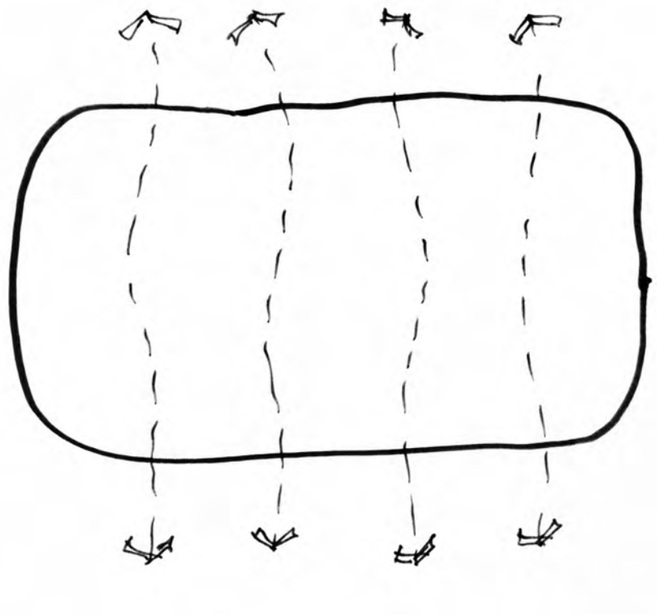
Revision E



Swimming, jumping and diving off the rocks as the favorite activity for children



Collecting, cooking and eating Periwinkles under the Peppermint trees



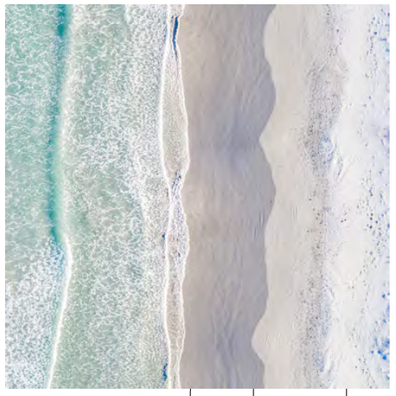
“ The connection of the two aspects of the site - northern sun & southern vegetated mountain - is enveloped by a notion of softness and calm stemming from the indigenous heritage of a playful yet restful beach environment ”



Soft & shady Peppermint trees provided restful picnic places



Iridescent Christmas Beetles present in the Peppermint grove were chaught and admired before let go again

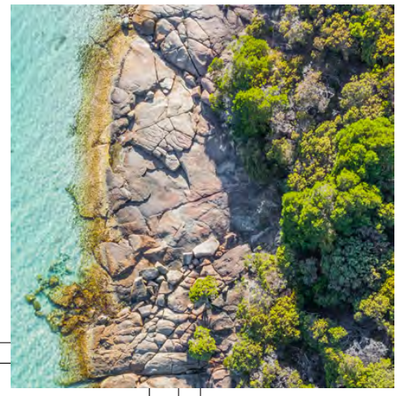


Light sand &
off whites



Simple coastal structures

Light silvered
timber;
earthy tones



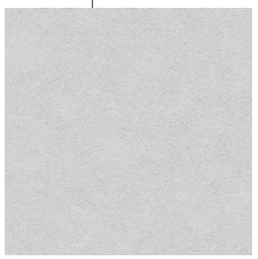
Coastal granite, lush
native vegatation,
tourquise clear water





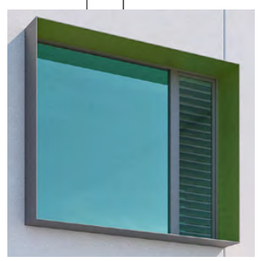
Shades of olive/ green
referencing local Periwinkles
and Christmas Beetles



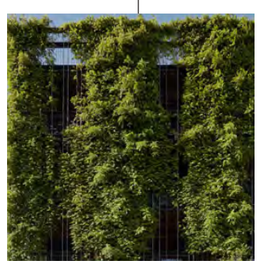












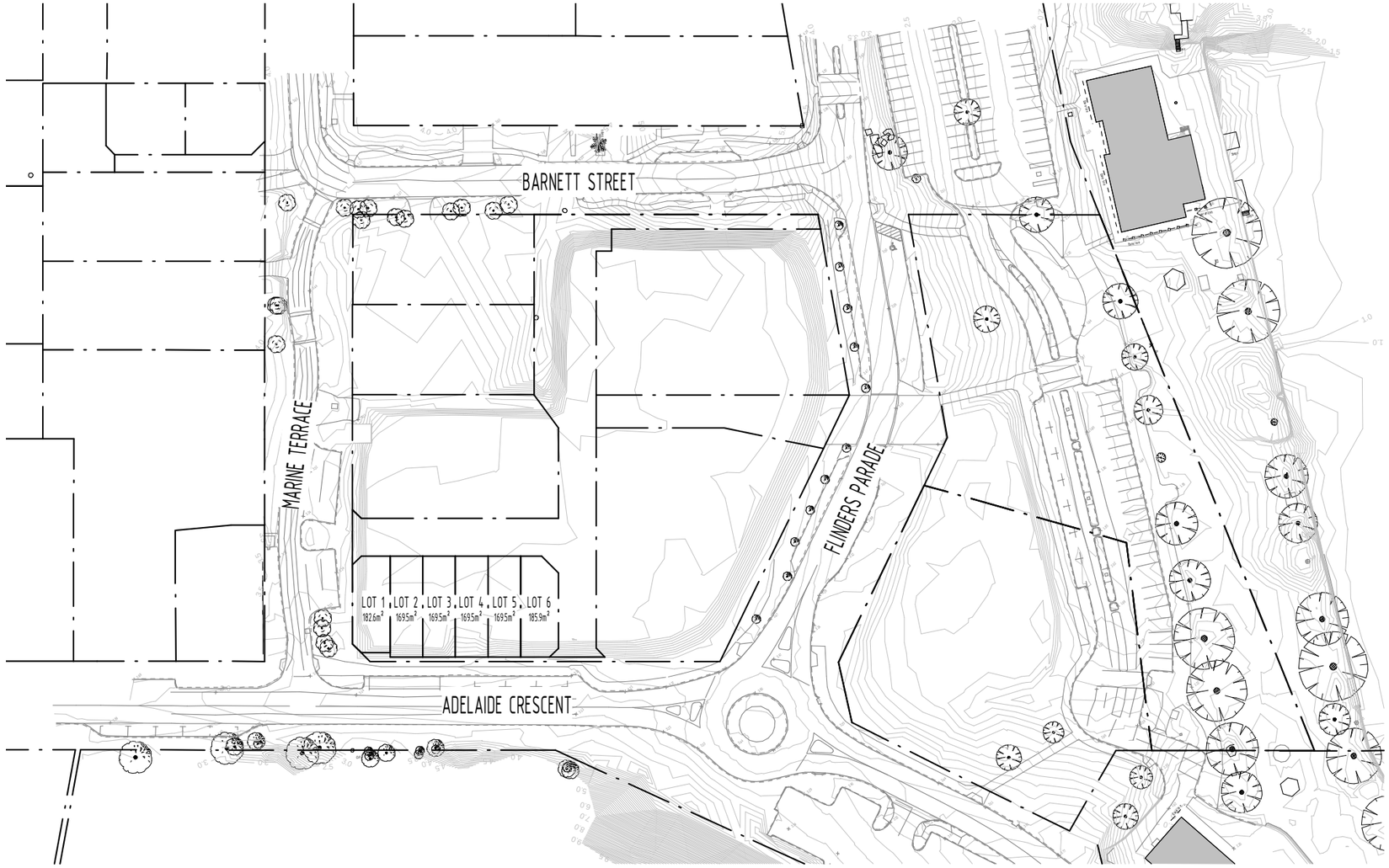


DevelopmentWA

CONTEXT RELATIONSHIP
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.02	rev
29/03/2021	E

ptx architects



1 01 EXISTING SITE PLAN
SCALE 1 : 1000 @ A3

EXISTING SITE PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.03	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE



1 PROPOSED SITE PLAN
SCALE 1 : 1000 @ A3

PROPOSED SITE PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.04	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE

LOT 1 AREAS:
SITE AREA: 183m²
GF FECA: 65m²
FF FECA: 103m²
TOTAL FECA: 168m²
CARPARKING: 49m²
TERRACE: 12m²
GROSS FLOOR AREA: 229m²

LOT 2 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 97m²
TOTAL FECA: 182m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 218m²

LOT 3 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 4 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 5 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 6 AREAS:
SITE AREA: 186m²
GF FECA: 57m²
FF FECA: 104m²
TOTAL FECA: 161m²
CARPARKING & SITTING: 57m²
TERRACE: 12m²
GROSS FLOOR AREA: 230m²

BIN PRESENTATION AREAS FOR LOT 1, 2 & 3

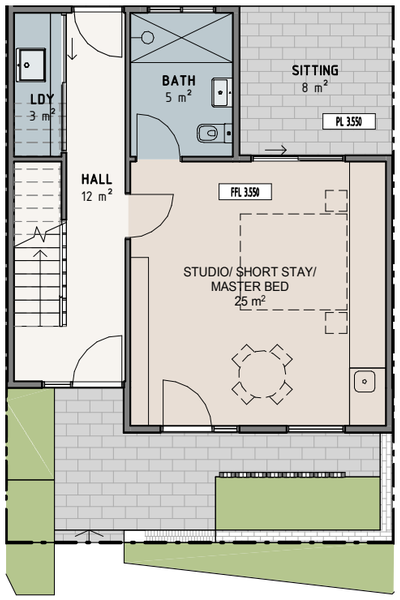
FLUSH MOUNTED KERBS FOR STEP & HAZARD FREE ACCESS TO BIN PRESENTATION AREAS



1 PROPOSED GROUND FLOOR PLAN
SCALE 1 : 200 @ A3

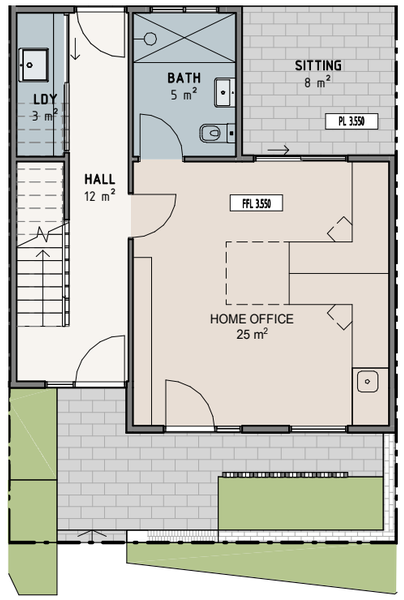
PROPOSED GROUND FLOOR PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.05	rev
29/03/2021	E



1 MULTI-USE (LOT 2) - STUDIO/ SHORT STAY/ MASTER BED

SCALE 1 : 100 @ A3



2 MULTI-USE (LOT 2) - HOME OFFICE

SCALE 1 : 100 @ A3

3 MULTI-USE (LOT 1) - SMALL CAFE/ JUICE BAR

SCALE 1 : 100 @ A3

4 MULTI-USE (LOT 1) - SMALL CONSULTING

SCALE 1 : 100 @ A3

MULTI-USE LAYOUTS

2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.06	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE

LOT 1 AREAS:
SITE AREA: 183m²
GF FECA: 65m²
FF FECA: 103m²
TOTAL FECA: 168m²
CARPARKING: 49m²
TERRACE: 12m²
GROSS FLOOR AREA: 229m²

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LOT 3 AREAS:
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GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 4 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 5 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 6 AREAS:
SITE AREA: 186m²
GF FECA: 57m²
FF FECA: 104m²
TOTAL FECA: 161m²
CARPARKING & SITTING: 57m²
TERRACE: 12m²
GROSS FLOOR AREA: 230m²

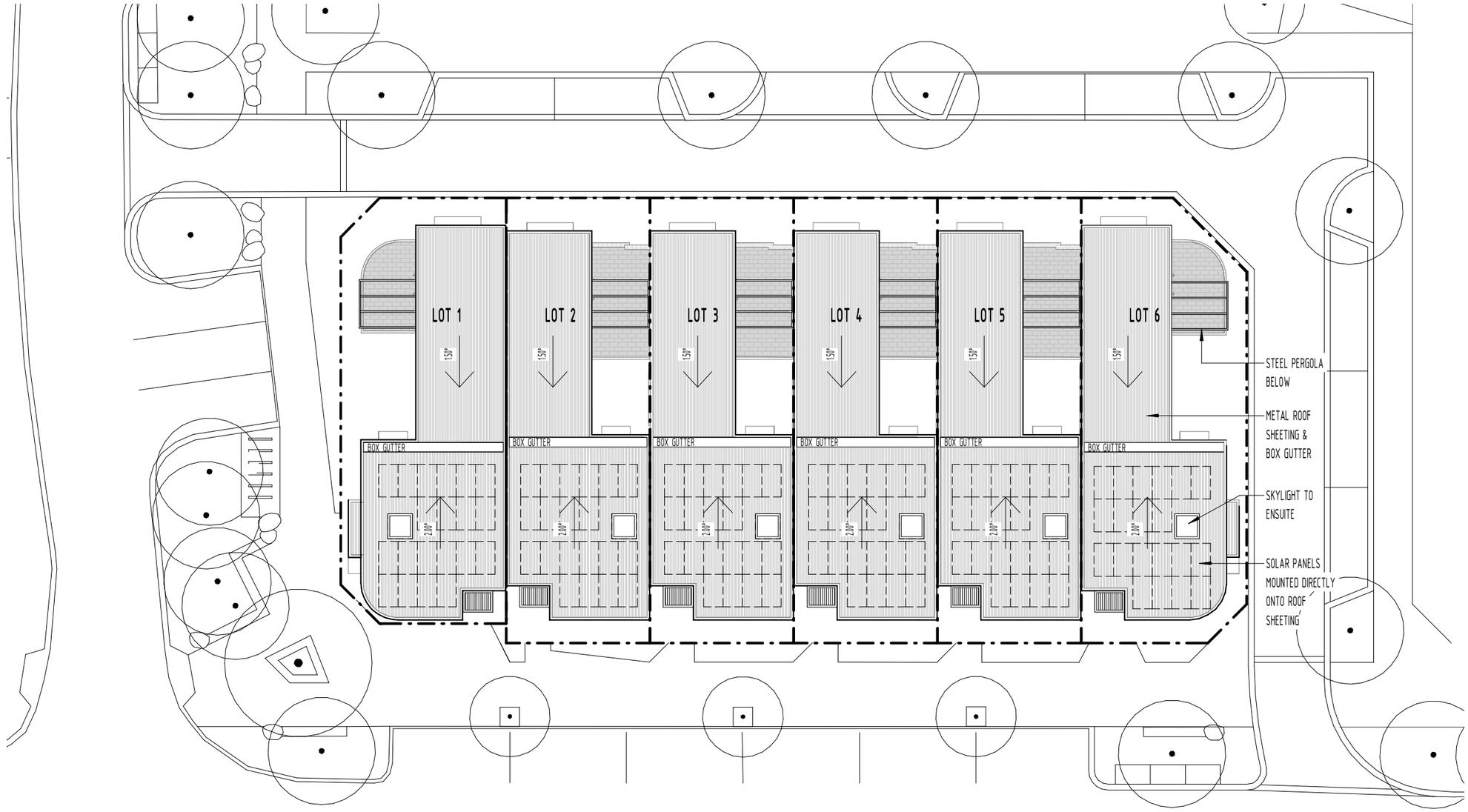


1 PROPOSED FIRST FLOOR PLAN
SCALE 1 : 200 @ A3

PROPOSED FIRST FLOOR PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.07	rev
29/03/2021	E

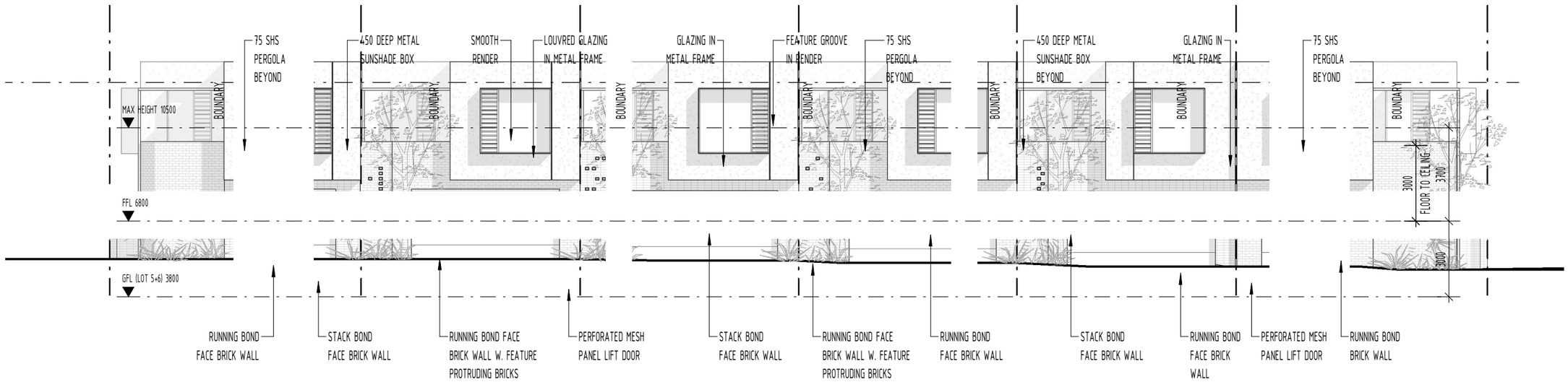
NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE



1 PROPOSED ROOF PLAN
SCALE 1 : 200 @ A3

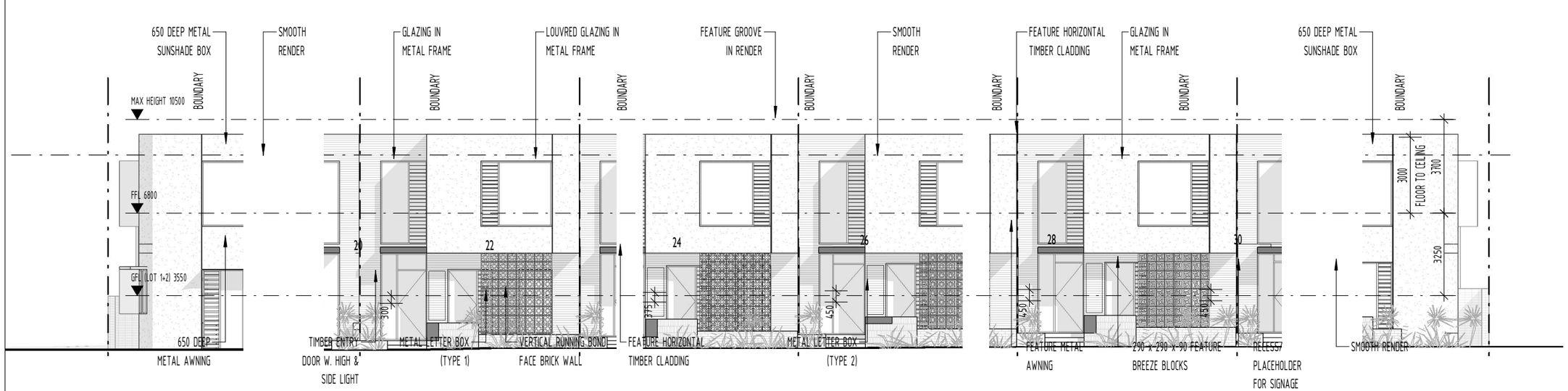
PROPOSED ROOF PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.08	rev
29/03/2021	E



1 NORTH ELEVATION

SCALE 1 : 150 @ A3



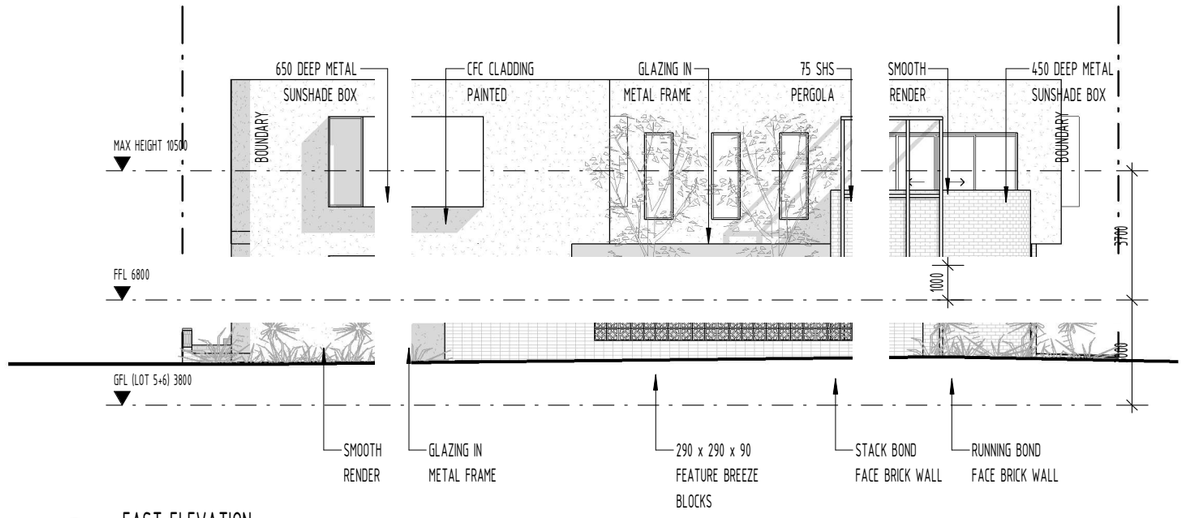
2 SOUTH ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS NORTH & SOUTH

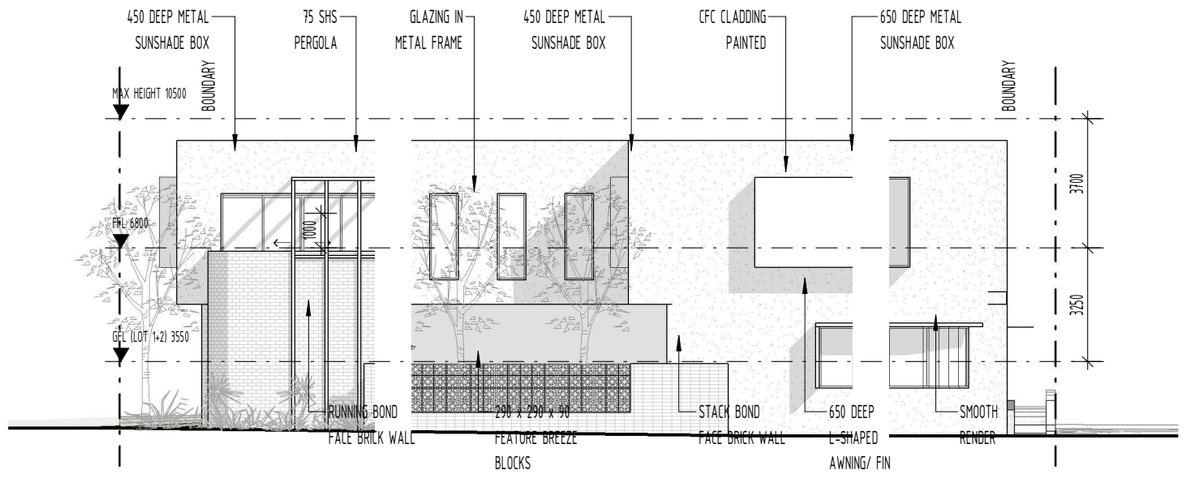
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.09	rev
29/03/2021	E



1 EAST ELEVATION

SCALE 1 : 150 @ A3



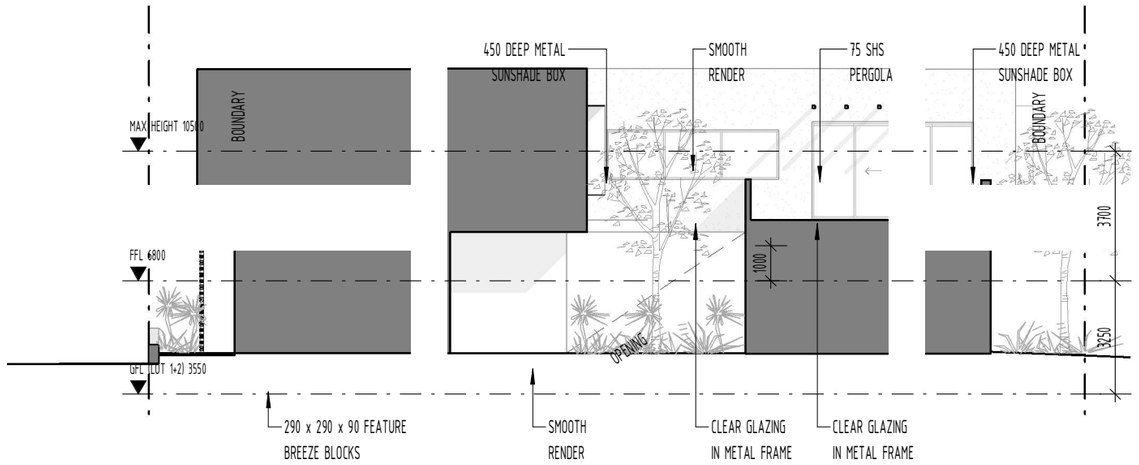
2 WEST ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS EAST & WEST

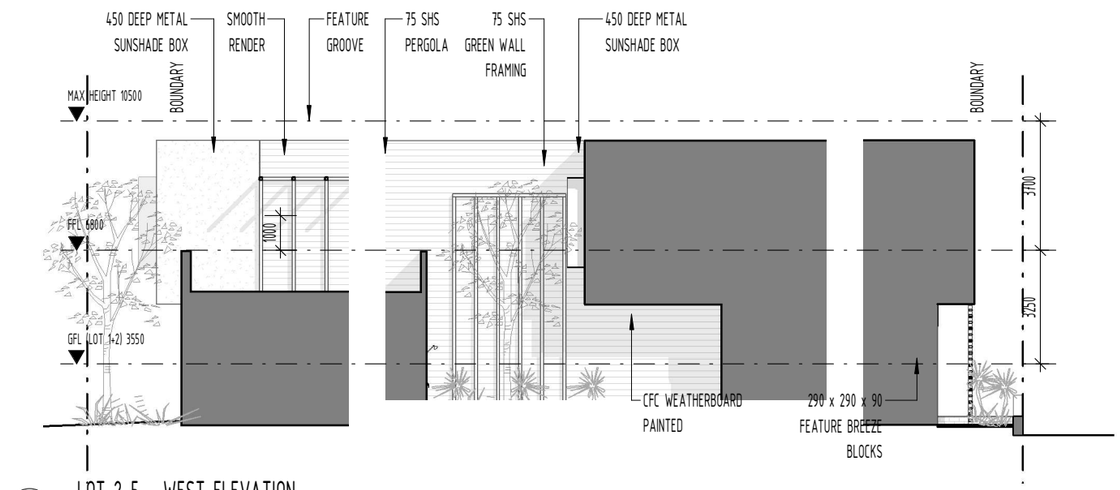
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.10	rev
29/03/2021	E



1 LOT 2-5 - EAST ELEVATION

SCALE 1 : 150 @ A3



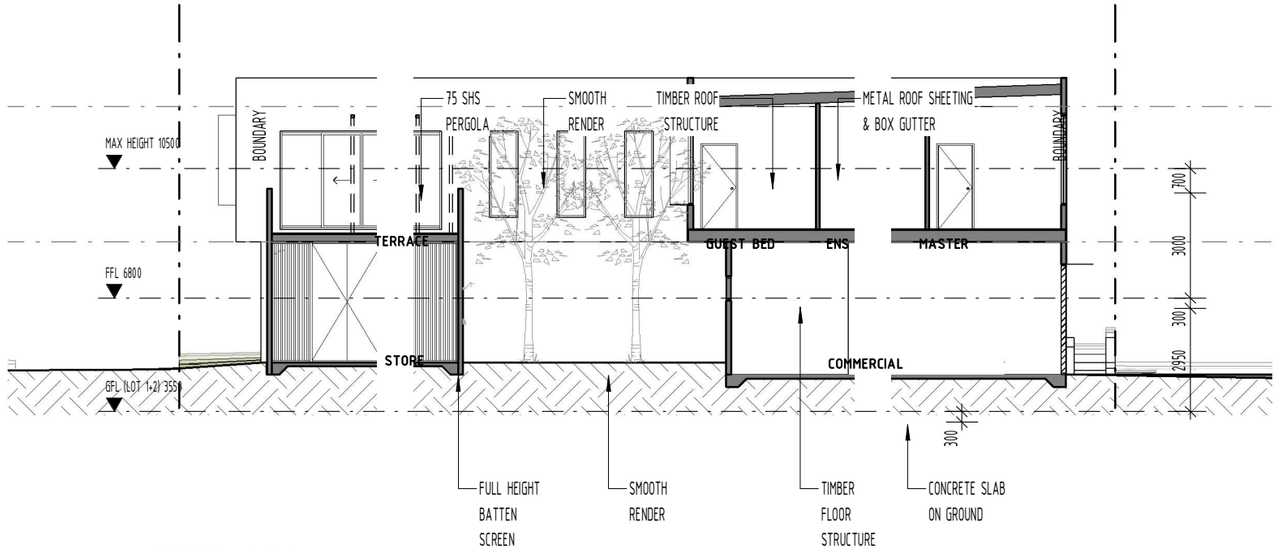
2 LOT 2-5 - WEST ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS EAST & WEST INTERNAL

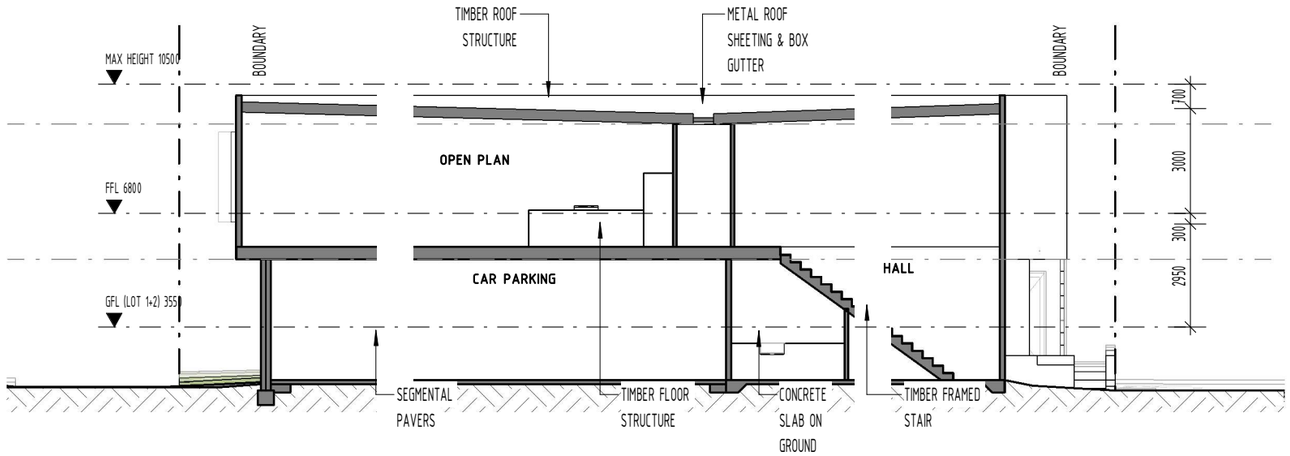
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.11	rev
29/03/2021	E



1 SECTION A - LOT 1

SCALE 1 : 150 @ A3



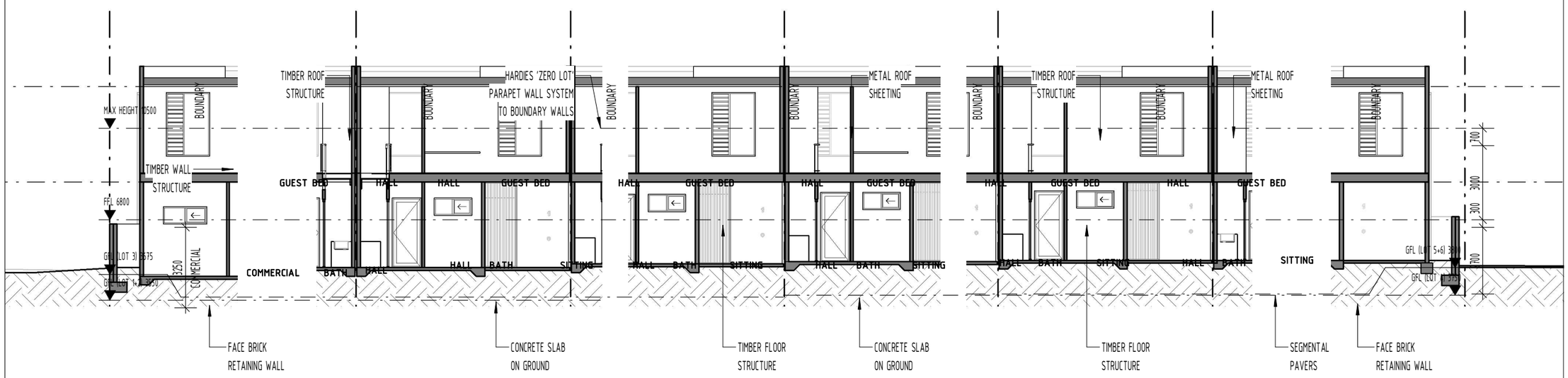
2 SECTION B - LOT 1

SCALE 1 : 150 @ A3

SHORT SECTIONS

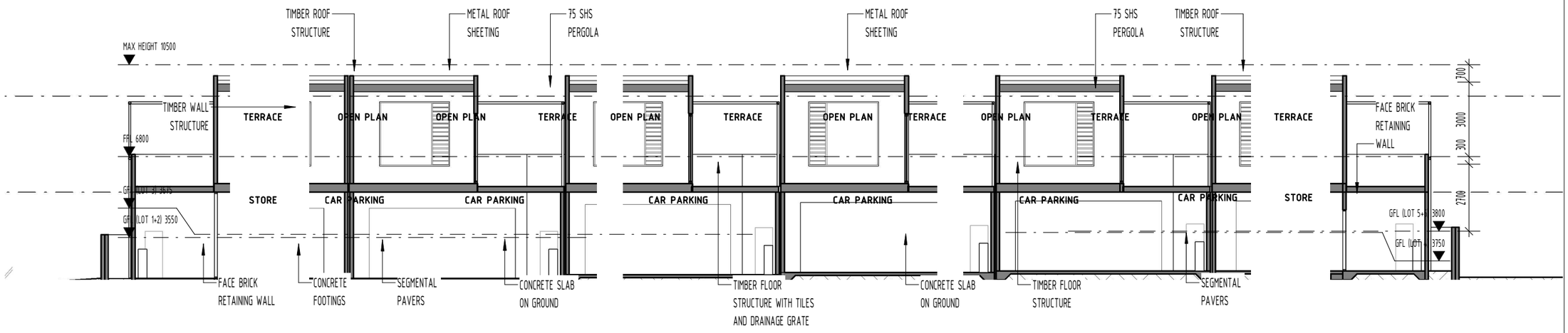
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.12	rev
29/03/2021	E



1 SECTION C - LOT 1 TO 6

SCALE 1 : 150 @ A3



2 SECTION D - LOT 1 TO 6

SCALE 1 : 150 @ A3

LONG SECTIONS

2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.13	rev
29/03/2021	E

1 WALL FINISHES
NTS



RE-01

Rendered Polystyrene Cladding
Masterwall 50mm
Finish: Trowel on Acrylic Render
Colour: Off White



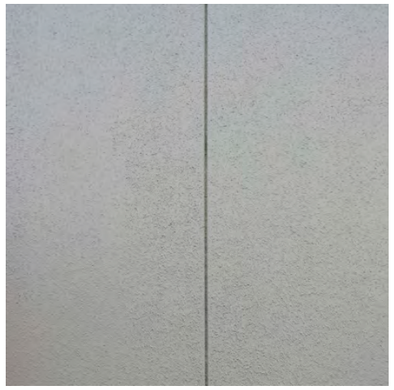
RE-02

Rendered Fibre Cement Cladding
James Hardie HardieTex System
Finish: Trowel on Acrylic Render
Colour: Off White



WB-01

Fibre Cement Weatherboard Cladding
James Hardie Linea Weatherboard
Finish: Painted
Colour: Warm Grey



FC-01

Fibre Cement Flat Panel Cladding
James Hardie EasyLap Panel
Finish: Painted
Colour: Warm Grey



BR-01

Face Brick
Brikmakers Toolonga
Grout: TBA
Bond: Running & Stack

2 GLAZING
NTS



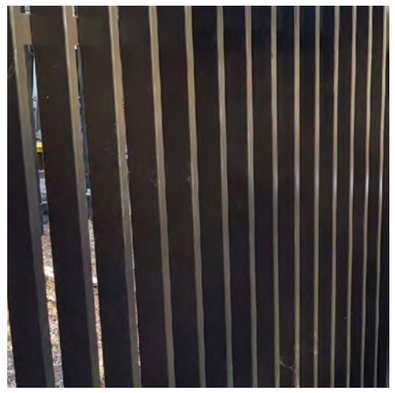
BR-02

Breeze Blocks
Cubic Products Custom
Type: Custom
Colour: Off White



TMB-01

Timber Cladding
Tallowwood or Spotted Gum BAL 29
Finish: Pre Finish Timber Preservative
Colour: Weathered Silver



TMB-02

Timber Screen & Gates
90 x 45mm CCA
Finish: Painted
Colour: Charcoal



WINDOWS & DOORS

Tinted Double Glazing
Powder coated Aluminium Framing
Colour: Colorbond Basalt

3 ROOF SHEETING
NTS



ME-01

Metal Roof Sheeting
Lysaght Colorbond Steel
Profile: Klip-Lok Classic 700
Colour: Shale Grey

DevelopmentWA

MATERIAL SELECTIONS
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.14	rev
29/03/2021	E

ptx architects

1 PAVING FINISHES
NTS



PA-01

Brikmakers Geo Collection
Size: Vistapave 60
Colour: Gem

2 LANDSCAPE ELEMENTS
NTS



VERTICAL PLANTING

TBA



TERRACE PERGOLAS

Steel SHS Framing with Coastal Vines
Finish: Galvanised & Painted



COURTYARD GREEN WALL

TBA



STREET TREES

Agonis Fexuosa
- WA Peppermint Tree

3 ARCHITECTURAL ELEMENTS
NTS



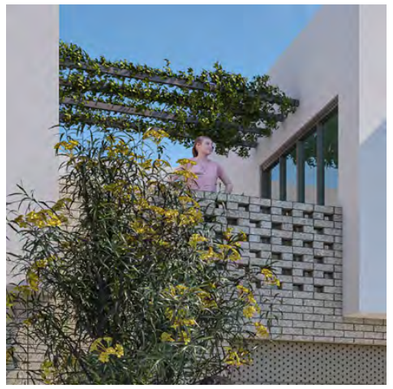
GARAGE DOORS

Custom Panel Lift Doors
TBA
Material: Perforated Aluminium
Colour: Warm Grey



ENTRY CANOPIES & LETTERBOXES

Metal Canopies & Letterboxes
Finish: Powdercoated
Colour: Mix of Local Greens



TERRACE BALUSTRADES

Hit and Miss Face Brick
Brikmakers Toolonga
Grout: TBA
Bond: Running



WINDOW HOODS

Aluminium Window Hoods
Heka Hoods 300mm & 450mm
Finish: Powdercoated w. Painted Reveals
Colour: Basalt & Olive Greens



1 VIEW FROM SW CORNER
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 01
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.16	rev
29/03/2021	E

ptx architects



1 VIEW OF SW CORNER
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 02
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.17	rev
29/03/2021	E

ptx architects



1 ADELAIDE CRESCENT FACADE
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 03
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.18	rev
29/03/2021	E

ptx architects



1 THE MEWS
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 04
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.19	rev
29/03/2021	E

ptx architects



1 MARINE TERRACE FACADE
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 05
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.20	rev
29/03/2021	E

ptx architects

APPENDIX D

Design Compliance Review and Design Review Panel report

APPENDIX 7 - MIDDLETON BEACH ACTIVITY CENTRE DESIGN GUIDELINES OBJECTIVES ASSESSMENT - PART 3.0 and PART 4.0 OBJECTIVES

This checklist assists proponents to explain and assess the development against the objectives listed in this policy.

OBJECTIVE	Proponents Appraisal Meets objectives Deviation to objectives Objectives cannot be met	PROPONENTS RESPONSE	Estate Architects Assessment/Compliance Meets objectives Rethink for improvement Not adequately addressed	ESTATE ARCHITECTS RESPONSE
DESIGN GUIDELINES PART 3.0 - SITING THE BUILDING				
3.1. Response to Context				
+ Respond to the coastal and natural aspects of Middleton Beach as a highly valued community and tourist place.		+ The extensive cultural heritage and natural aspects of the site were researched in the site and context analysis report. Opportunities were identified and embedded into the design creating a site and context responsive design. The process of how this is achieved is identified in more detail in the Concept Design report.		+ The concept and site analysis included in the DRP package shows a thorough understanding and high level of respect and research undertaken. A comprehensive analysis of cultural heritage, geographical conditions, and extensive research into local demographic and market has been undertaken prior to beginning concept design.
+ Ensure access and enjoyment of the foreshore for all users recognizing the diverse needs and activities of all ages and cultures.	+ Not Applicable	+ The public domain and street network design within Lot 9001 Flinders Parade is subject to separate engineering design.	+ Not Applicable / meets objectives	+ The proposed development does not fall within the public domain interface of the foreshore. However, the proposed site is carefully considered and integrated with public domain and common footpaths. This shows an understanding of the site context, topography and opportunities for connectivity between the residential typology and Middleton beach foreshore.
+ Respond to the existing built form, as well as natural features, to interpret rather than replicate existing features.		+ The scale of the two storey townhouses is in keeping with the 2-3 storey surrounding neighbourhood. + The proposed coastal material palette of off-white render, weathered timber and sand-coloured bricks reference the neighbourhood character and natural environment. + Green walls and extensive endemic planting create a continuing connection to the leafy character of the Middleton Beach neighbourhood and vegetation of Mt Adelaide to the south.		+ The proposed development responds to existing context and sets a high standard for the MBAC. The contemporary approach responds to the existing language of the area, as well as introducing a contemporary, high quality aesthetic to the neighbourhood, responding well to the local coastal site.
+ Develop Flinders Parade as the 'Beach Strip'- comprising restaurants, cafés, tourist accommodation and residential dwellings.	+ Not Applicable	+ Not part of this proposed development.	+ Not Applicable	+ The proponent's application does not fall within this precinct.
+ Develop Adelaide Crescent as a mixed- use street with occasional small cafés and other local facilities.		+ The proposal includes a duette residential design with flexible spaces on the ground floor for a mixed range of uses including home office and short term accommodation (Lots 2-6), a small café, juice bar or small consultancy (Lot 1)		+ The flexible arrangements proposed to the ground floor plans offer flexibility and a future proof offering for the end user to accommodate short stay accommodation, office, café or retail.
3.2. Orientation				
+ Respond to the streetscape and foreshore as a legible urban environment while optimising solar access within the development.		+ Dwelling major openings at ground and upper-level frame the adjacent public realm enhancing activation and legibility of the adjacent streetscapes + Central courtyards, northern terraces and large glazing enable northern sunlight to penetrate deep into each townhouse		+ All dwellings orientate living areas to northern aspect, and generous access to natural light is evident across the northern and southern facades. The introduction of the central courtyard also allows additional natural light to bedrooms.
+ Preserve clear sight lines and key views to landmarks, the foreshore, other public places and optimise views and outlook from within buildings.		+ Large glazing to the south and a flowing first floor plan creates a clear line of sight through each townhouse to Mt Adelaide beyond		+ Elevations and 3D imagery provided show generous glazing to the north and south of the central lots, with additional glazing provided to provide sightlines to Mount Adelaide and surround suburb.
+ Minimise overshadowing of neighbouring properties and the public domain through building orientation.		+ Overshadowing of the public domain is minimised by the two-storey scale and flat roofs of the development. + Preliminary shadow modelling indicates neighbouring lots will not be overshadowed at the winter solstice.		+ Due to the nature of a townhouse development, overshadowing of adjacent neighbours is unavoidable. The two storey design and stepping of parapet roofs reduces overshadowing to the public domain during winter periods.
+ Respond to the micro-climate of Middleton Beach, with particular attention to winter solar access and protection from strong and cool easterly winds in the design of buildings and open spaces to optimize year-round enjoyment of public and private spaces.		+ Winter solar access is maximised through large northern glazing, the deep courtyard and northern terrace spaces + The first-floor terrace and courtyards of Lots 1-5 are protected from the easterly winds by the building mass of the neighbouring townhouse. Lot 6's courtyard is protected by a 1800mm high landscaping wall and the terrace is protected by 1800mm high screening panels.		+ The proponent has provided a thorough understanding and analysis of ESD building design, with additional attention directed to winter solar access and strong prevalent winds in the area. The fences shown at 1800mm high are satisfactory to provide protection from typical climatic conditions evident in the context analysis.
3.3. Public Domain Interface				
+ Achieve a distinct, locally recognisable cultural and environmental experience through the integrated		+ The architectural forms and material choice draw on cultural narratives and the local natural environment.		+ The proponent's response to context, narrative and site are clearly expressed through the high level quality of built form and material

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design of building façades and adjacent public spaces.		+ The local street corners have been emphasised through responsive building design and provide a sense of place and identity to the precinct. + This design approach continues within the broader landscaping design through complimentary hard and soft landscaping material palettes and species.		selections, and responds to the existing design guidelines and wider civic masterplan.
+ Provide a well-designed transition between the private and public domain with clear way- finding, and without compromising access.		+ The external fine grain elements of the dwellings, particularly at their boundaries, create a definition to the public/private realm interface. Pedestrian and vehicle access has been carefully considered to not inhibit the public domain functionality.		+ Universal access has been addressed between residential entrances and the public domain. Access points and wayfinding are highlighted through changes in materiality, texture and colour and respond well to the masterplan.
+ Promote safety and security and casual surveillance between buildings and the public domain.		+ Large glazing on all facades promotes streetscape surveillance. This is further enhanced by the first-floor terraces overlooking the northern and eastern laneway mews and Marine Terrace to the west. + Multi-use dual key spaces proposed along Adelaide Crescent achieve active frontages further enhancing surveillance through activity.		+ Building orientation to main street and mews provide clear outlook for passive surveillance between residents and neighbours. Active frontages along Adelaide crescent encourage additional activation along building frontages during business hours.
+ Provide for pedestrian comfort in different weather conditions.		+ Tree canopies to the north, south, east and west provide shading to the pedestrian footpaths and Laneway Mews. + Additional ground level landscaping to the perimeter of the site will mitigate urban heat island effect and enhance the pedestrian experience. + A public art canopy provides further shading and shelter to the Cnr of Adelaide Crescent and Marine Terrace.		+ Public art addition to the south west ground floor plan will provide additional comfort for residents and visitors to the activated corner site. + A generous landscaping proposal is shown in 3D imagery and drawings which responds well to the overarching landscaping masterplan. Trees located within dwelling courtyards and along perimeters will provide additional shade and comfort to east and westerly weather conditions
+ Minimise conflict between permanent and short stay residential, tourism and mixed uses and in particular night time hospitality and entertainment.		+ Proposed dwelling design provide flexibility for multi-use dual key spaces that are appropriately accessed with separate entries, noise and fire rated to facilitate an appropriate land use mix.		+ The established entryways for the proposed dwellings allow flexibility for a variety of uses. The proposed dwellings are not intended for night-time hospitality or entertainment use, with main functionality limited to day time activation.
+ Reduce impact of services, plant and bin collection areas on the public domain.		+ Separate discreet areas are provided for each dwelling to contain all services, plant and individual waste bins (3 bin system) from public view, accessed from their garages.		+ Bin services and locations are highlighted in plans and through report, and screened from public realm within garage spaces. Services are to be located and collected from the secondary carriageway along the mews.
3.4. Mixed Use				
+ Provide mixed use development in appropriate locations with active street frontages.		+ The proposal provides a mixed land use outcome through adaptable development design along its Adelaide Crescent secondary active frontage + Lots 2-6 include dual offerings of residential and home office/ short term accommodation + Lot 1 includes a mixed use of residential and commercial tenancies		+ The flexible arrangements within the proposed dwellings are noted to be commercial daytime activations, but also include options for short stay accommodation (subject to further approval by the City). Separate access is provided for the ground floor space to Adelaide crescent for ease of passage and clearly defined separation of building use.
+ Minimise conflict between different land uses, in particular residential and night time hospitality and entertainment.	+ Not Applicable	+ Not part of this proposed development	+ Not Applicable	+ The proposal contains no elements or reference to night time hospitality, entertainment or activation.
+ Provide a range of tenancy sizes and configurations to encourage local businesses and including tenancies appropriate for small start- up ventures		+ Lots 2-5 offer unique flexibility of use for home owners with small business or start-up ventures as well as the opportunity to supplement income through short term accommodation + Lot 1 offers mixed use commercial flexibility such as a small café, juice bar or small consultancy + These adaptable spaces are highly functional and appropriate for their intended purpose without being configured at 10m in depth as per DG design guidance.		+ Several typologies are included within the proposal for flexible options and uses. Flexibility in the range of sizes from 25 – 33m2 allow for a range of possible options – with scenarios included in the design report.
+ Provide the opportunity for a range of mixed uses that contributes to the activation and vitality of the precinct.		+ The design and configuration of the dual key spaces provide significant flexibility to adapt to many land uses over the life cycle of the building. + The location and configuration of these spaces has been well considered to complement the overall Activity Centre vibrancy and success.		+ The proposal shows a series of example scenarios for the multi-use room located on ground floor. + The open plan designs and consideration for ageing in place and mixed use format provide a future-proofing to the series of dwellings and will enhance the longevity of the development and its integration with the future Activity Centre.
3.5. Landscape Design				
+ Capture and enhance the sense of place and landscape character of Middleton Beach in a viable and sustainable way.		+ The P.A.W and streetscapes reinforce a 'mount to dune' thematic response to the development and more broadly to the precinct enhancements associated to Middleton Beach. Landscape identity has been an important driver in establishing a unique story for the development, with high quality local		+ The proponent has provided an extensive context analysis of the site, and included a carefully considered architectural and landscape concept that responds to the various climatic and landscaped conditions of Middleton Beach and Mount Adelaide.

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		materials and a highly endemic plant palette contributing to a sustainable and exemplary development		
+ Respect view corridors through the development to key landmarks and natural features.		+ The strong east to west, and north to south connections through the development make for clear visual and physical access to key landmarks such as Middleton Beach to the east, Mount Clarence to the south.		+ The proponent has respectfully retained visual connections to the surrounding natural landscape, including Middleton Beach and Mount Clarence.
+ Reduce storm water run-off and assist in reducing the urban heat island effect.		+ Endemic (majority) and exotic trees (minority) lining all proposed streets will assist in the urban heat island effect, and make for a more comfortable passage by pedestrians throughout the site. Trees throughout the PAW again assist with this. + Permeable paving surfaces in car bays help to recharge the ground, and the inclusion of bio retention gardens assist with site water run-off. + Planted courtyards with green walls further reduce storm water run-off whilst providing private green space to each dwelling		+ The proponent has provided a thorough response to local context and site through the selections of outdoor materials and choice of landscaping
+ Improve and soften the transition between development and the foreshore including green linkages to the foreshore.		+ The inclusion of a 'green spine' in the P.A.W greatly improves the transition between the sea and the development. Natural grass, endemic shrub planting, a significant number of trees, and ample seating and gathering spaces ensures the P.A.W can be a welcoming, habitable space independent of the beach, but has a strong connection to it nonetheless.		+ Landscaping selections through the development respond well to the masterplan and proposed future PAW through the central precinct.
+ Consider Albany's local climate and select endemic and established exotic tree species.		+ Majority of species selected are endemic species already established in the region. Suggested exotic trees have been based on what has been successful throughout Middleton Beach.		+ Landscaping response includes inclusion of bio retention gardens, green walls and robust, and water wise planting selections that resonate with the existing context of Middleton Beach.
+ Mitigate the effects of cold and strong winds.		+ Landscape intervention (other than inclusion of trees) will have little impact on prevailing winds.		+ The combinations of tree canopy, perimeter planting and screening will assist in mitigating any strong winds impacting the proposed development
+ Contribute to the quality and amenity of communal and public open space		+ High quality, robust, local materials are generally proposed to assist with achieving a strong sense of place. + Local tree and shrub species will again assist in creating a local feel		+ A strong, high quality material palette and landscaping plan is proposed, with both resonating closely with the context analysis of Middleton Beach.
+ Provide for resident and visitor amenity and recreation.		+ The P.A.W is intended to be more of a passive space rather than highly recreational. The P.A.W does achieve a high-quality pedestrian access route which links into established pedestrian routes and exercise paths more broadly. + Connections from private residences onto the streets and P.A.W will ensure for a safe and welcoming space.		+ Generous walkways and connections between the proposed dwellings and public realm are provided for residents and visitors. The additional PAW proposed will allow for safe passage of pedestrians and encourage lower speeds from vehicles on surrounding roads.
3.6. Communal Open Space				
+ Enhance residential and visitor amenity and provide opportunities for soft landscape through provision of communal open space.	+ Not Applicable	+ Whilst communal open space is not applicable to this form of development, appropriate open space areas have been configured for each dwelling. This incorporates high amenity, outdoor landscaped areas incorporating planting and useable paved courtyards.	+ Not applicable	+ Communal open space is not applicable to this development. + A generous amount of resident amenity is provided through the inclusion of ground and first floor courtyards for residents.
+ Design safe, attractive and inviting communal open space that allows for a range of activities and responds to site conditions.	+ Not Applicable	+ Significant open space and outdoor living areas at ground level and upper-level terraces are oriented to the north and directly accessible from living areas to maximise their useability and attraction	+ Not applicable	+ Communal open space is not applicable to this development.
3.7. Visual Privacy				
+ Balance privacy with outlook and views from habitable rooms and private open space.		+ The internal courtyards are screened from public views. + The terraces and views to Mt Adelaide from the first floor are not visible from passing pedestrian and vehicle sightlines + Flexible use ground floor rooms fronting Adelaide Crescent are screened by breezeblocks and vertical planting		+ Screening is provided for each dwelling through the use of battens and breezeblocks. There is additional privacy considered for landscaping to grow up and on to built form to provide privacy for the resident.
+ Achieve reasonable levels of external and internal visual privacy by providing adequate building separation distances shared equitably between neighbouring sites.		+ Privacy between dwellings is achieved by boundary walls. + The distance from the first-floor terraces to neighbouring living areas is well beyond 7.5m required by the R-Codes		+ Due to the nature of the development, the "shared" boundary walls provide sufficient privacy between adjacent buildings. + Proposed drawings show significant setbacks from neighbouring properties – on both existing and future sites.
+ Increase privacy without compromising access to light and air.		+ The deep courtyards and first floor terraces maximise the dwellings access to light and air without compromising privacy		+ A centrally located courtyard on ground floor provides a private space for residents to entertain and relax. Additional, the terraces on first floor provide access to the outdoors without losing privacy and outlook.
3.8. Pedestrian Access and Entries				

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+ Prioritise pedestrian comfort and safety in an integrated movement network.		+ The building design prioritises separate pedestrian and vehicle entries to maximise safety and comfort and legibility is enhanced through extensive landscaping		+ Safety in design is emphasised with the location of primary dwelling entrances located along Adelaide crescent. Vehicular access is located to the northern boundary along a one-way mew – this civic design also encourages slow traffic movement and a pedestrian prioritised environment.
+ Provide building entries and pathways that connect to and address the public domain and are easy to identify.		+ Principal building entries on Adelaide Crescent are clearly identified by large entry doors, coloured entry awning and defined through landscaping that integrates with the public domain		+ Wayfinding and dwelling identification is highlighted through the use of materiality, height and textural changes, as well as landscaping design.
3.9. Vehicle Access				
+ Provide vehicle access points that are designed and located to minimise streetscape impacts and avoid conflicts between pedestrians and vehicles.		+ Vehicle access to each townhouse is via the rear mews and not from the primary streets of Adelaide Crescent and Marine Terrace + The garage crossovers are specifically located separate to the pedestrian pathway to remove conflict points. + Additionally, the garage facades are setback into the building design to reduce their dominance on the public ream aesthetic		+ Vehicle access is provided via double width garage to lots 2 – 5 and via tandem single width to lots 1 and 6. This encourages clear, visible sightlines for promotes a safer, shared use scenario along the mews by pedestrians, private vehicles and service vehicles.
3.10. Car and Bicycle Parking				
+ Provide parking and facilities for all modes of transport.		+ Each townhouse provides secure carparking for two vehicles and bike storage + Public bike stands are also provided on the Corner of Adelaide Crescent and Marine Terrace		+ Adequate and flexible space is provided for multiple modes of travel – be it vehicle, bicycle, or recreational use. + Additional public bicycle racks are noted to the corner of lot 1
+ Ensure safety and security for car and bicycle parking users is optimised.		+ All vehicle and bicycle parking are secured within a lockable garage		+ Safe storage is provided along the mews for cars and bicycles. The proposed perforated material for the garage doors provides a considered, softened interface to the public realm.
+ Minimise visual and environmental impacts of car parking.		+ All parking is integrated into the built form and screened from view from the public realm. Further, the garage structure has been incorporated into the architectural design to minimise its visual impact		+ Upper level built form has been integrated over garage locations and blends well into the streetscape.
+ Reduce car use by prioritising the use of alternate transport modes.		+ The developments 'duette' design presents the opportunity for home office or small start-up-ventures providing residents with opportunities for live-work-play outcomes within the precinct and limiting reliance on car use		+ The proposed flexible spaces to the townhouses seeks to encourage uses to consider future flexible uses for internal uses and parking spaces, and with close proximity to a future activity centre – potentially reducing the necessity for use of vehicles.
DESIGN GUIDELINES PART 4.0 - DESIGNING THE BUILDING				
4.1. Solar and Daylight Access				
+ Optimise the number of dwellings receiving sunlight to habitable rooms, primary window and private open space.		+ Orientating the open plan living spaces and terraces to the north maximises the access to sunlight to living areas + Preliminary modelling indicates these spaces will receive 8-9 hours of direct sunlight at the winter solstice + In addition, all bedrooms have access to sunlight through northern glazing or in the case of the master bedroom a roof skylight		+ Main living areas are orientated to the north, with all main habitable rooms receiving a generous amount of natural light. Large windows are shown to proposed dwellings.
+ Optimise daylight access and solar gain for habitable rooms.		+ Al habitable rooms will receive a large amount of daylight with a preliminary daylight assessment simulation returning a result of 98% of the open plan living area receiving a daylight threshold factor greater than 1.		+ Daylight analysis provided in the design report shows a satisfactory result for daylight access. The proponent has integrated passive design principles throughout the development, assisting with the reduction of heavy energy demands through peak summer and winter periods.
+ Incorporate shading and glare control, particularly for warmer months.		+ Shading devices are incorporated with the northern windows with depths designed to maximise solar gain and winter and minimise solar penetration in summer + East and west windows on Lots 1 & 6 include vertical sun shading devices to assist in reducing early morning and late afternoon solar gain in summer. + Planted pergolas on the first-floor terraces provide shading in the summer months. + Weatherboard cladding and vertical planting in the courtyards will reduce glare in the summer months to habitable rooms		+ Consideration for screening, dado boxes and shading to terraces and courtyards to assist with harsh summer sun and glare
+ Optimise the number of dwellings that have outdoor areas or balconies with a northerly aspect.		+ Each dwelling has a northern terrace on the first floor		+ The proposed dwelling layouts include upper level terraces located to the northern boundary.
4.2. Natural Ventilation				

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+ Maximise the number of dwellings with natural and, where possible cross ventilation to create a comfortable indoor environment for residents.		+ Natural cross ventilation in provided through louvred windows located to access the eastern summer sea breeze. + Breeze paths are provided to each habitable room and do not exceed 15m in length		+ Drawings and design report provided show adequate positioning of windows and openings through habitable rooms to provide cross ventilation, reducing the reliance on mechanical cooling.
4.3. Ceiling Heights				
+ Provide for well-proportioned spaces and facilitate natural ventilation and daylight access.		+ Ceiling heights of 3m to the living spaces and first floor bedrooms provides generous spatial amenity + Ceiling heights of 2.7m-3m to the ground floor multi-use spaces are appropriate for the intended use + A ceiling height of 3.25m for the ground floor commercial space of Lot 1 enables flexibility of use + A large two volume space at the Adelaide Crescent entry to each dwelling enhances the generous feeling of space		+ Generous heights are provided to all habitable rooms, allowing flexible use and amenity.
+ Allow for the safe use of ceiling fans for cooling.	+ For discussion with DRP	+ No ceiling fans are provided as preliminary modelling indicates heating in winter will be the priority and the good access to the strong summer sea breeze will provide adequate passive cooling		+ Ceiling heights provided allow for future inclusion of ceiling fans if preferred by the resident. Consider service requirements and allowances for future retro-fitting - to be discussed with DRP.
4.4. Dwelling Size and Layout				
+ Provide a room layout within a dwelling that is functional, well-organised and provides a high standard of amenity.		+ The simple layout of each dwelling with the flowing first floor open plan living provides a high standard of natural amenity + Overall sizes of each dwelling are between 167m2 and 181m2 FECA and 218m2 and 228m2 GFA which exceeds the SPP7.3 minimum standard of 100m2 for a 3x2 apartment with 3 bathrooms.		+ Through careful planning and arrangement of spaces, the proposed dwellings show a considered layout which allows for a number of flexible arrangements of the two storeys.
+ Provide appropriately proportioned rooms and layouts to support the environmental performance of the dwelling.		+ Each habitable room has been designed to be generous in size, with good access to sunlight, daylight and natural ventilation minimising the reliance on active heating and cooling systems		+ All proposed rooms show generous amenity and access to daylight and ventilation.
4.5. Dwelling Mix				
+ Encourage adaptability and flexibility in the use of the buildings over time.		+ The ground floor multi-use spaces with separate entries enables a flexibility of use and adaptability over time including working from home and short-term accommodation + In addition, lot 1 will have a NCC commercial class enabling the potential for a mix of commercial uses		+ The proposed dwelling sits as a 3x3 format, with a flexible ground floor footprint and multiple bedrooms upstairs that allow a multitude of arrangements for the resident. The allowance for future lifts also provides consideration for ageing in place
+ Provide a range and variety of dwelling sizes and price points to cater for a diverse range of household types and income levels.	+ For discussion with DRP	+ Although only one dwelling size and type is on offer, the unique 'duette' approach provides the ability to supplement household incomes with renting the multi-use space for short term accommodation and in the case of Lot 1 for commercial use. + This 'duette' design approach also maximises flexibility for the household composition to alter over time and have a dwelling design that can respond to those demands.		+ Due to the small nature and repetitive series of lot sizes, the proponent has provided an acceptable mix of dwellings that optimise the site footprint, whilst still providing a flexible spatial offering for a range of household types.
4.6. Ground Floor Dwellings				
+ Enhance street frontage activity and surveillance through location and design of ground level buildings.		+ Adelaide Crescent has dual entries to each dwelling activating the street frontage. This is enhanced by the heavily articulate design of the facade		+ Locating the multi-use space on the ground floor along Adelaide crescent provides a passive outlook for pedestrians and occupants.
+ Deliver amenity and safety for residents in ground floor dwellings.		+ Access to natural amenity on the ground floor is provided through a central courtyard + Privacy to the multi-use spaces of lots 2-5 is provided by a breeze block screen wall with vertical planting + Low height landscaping walls and planting provide separation of the public and private realm		+ A centrally located courtyard within each dwelling provides a sheltered and considered outdoor amenity for the resident or ground floor – multi use occupant.
4.7. Private Open Space and Balconies				
+ Provide appropriately sized private open space and balconies to enhance residential amenity.		+ Each dwelling has a first-floor terrace of between 12m2-17m2 and a private ground floor courtyard		+ The inclusion of a ground floor courtyard and first floor terrace provides flexible open space for each dwelling.
+ Locate and orientate primary private open spaces and balconies to enhance liveability for residents.		+ Each first-floor terrace is orientated to the north maximising sunlight access and connectivity with the pedestrian friendly Mews		+ The north facing terrace and central courtyard provide comfortable spaces for the resident and engage the mews streetscape.

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+ Ensure private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building.		+ Each terrace punctuates the Mews façade helping to minimise the impact of the buildings form. + Planted pergolas on each terrace enhance the connection to natural vegetation		+ The high quality of built form and landscaping shows a considered approach to integrating the balconies and open spaces into the streetscape and proposed dwelling mass.
4.8. Circulation and Common Spaces				
+ Achieve good amenity and properly service all dwellings via common circulation spaces.	+ Not Applicable	+ Common open spaces not applicable to this form of development	+ Not applicable	
+ Promote safety and provide for social interaction between residents.	+ Not Applicable	+ Common open spaces not applicable to this form of development	+ Not applicable	
4.9. Storage				
+ Provide adequately-sized and well-designed storage for each dwelling.		+ 5m2 of internal storage and 12m2 of fully enclosed storage separate to the dwelling is provided exceeding the SPP7.3 minimum standard of 5m2.		+ Lots 1 and 6 have clearly defined, generous storerooms + Lots 2 – 5 show integrated storage spaces within the car parking area. Despite being narrower, an adequate amount of space is shown for flexible resident storage needs
+ Additional storage is conveniently located, accessible and nominated for individual dwellings.		+ All storage including the understair storage is easily accessible from within each dwelling or through the undercover parking/ garage areas		+ Additional storage is not clear on drawings. Recommend noting or marking storage area under the stair for clarity.
4.10. Acoustic Privacy				
+ Minimise noise transfer within and outside buildings through the siting, layout and detailing of buildings.		+ The inside and outside living spaces on the first floor are located adjacent to the Mews with minimal vehicle noise + High performance double glazing, high levels of bulk insulation with a dual control layer to the building envelope will minimise noise entering each dwelling		+ The design report and sustainability strategy prepared show a high level of consideration for acoustics and proposed specified products
+ Reduce internal noise transfer between dwellings within a building through layout and acoustic treatments.		+ Noise transfer between dwellings is minimised by a 60mm airgap + Noise transfer between floors is minimised through bulk acoustic insulation and an insulated dual layer flooring system to minimise 'stepping' sounds		+ The sustainability strategy shows proposed treatments to alleviate noise transfer
4.11. Noise and Pollution				
+ Minimise the impacts of external noise and pollution through the careful siting and layout of buildings and location of uses.		+ All services are located in fully enclosed garages and storerooms minimising the impact on neighbouring dwellings and the public realm		+ Location of services have been considered and noted on drawings + For discussion: ventilation requirements for the air conditioning condensers in store rooms
+ Ensure that the noise challenges associated with mixed use precincts and buildings are mitigated to safeguard occupant amenity.		+ The commercial class multi-use space of Lot 1 is located on the corner of Adelaide Crescent and Marine Terrace minimising the impact on the residential dwellings		+ Corner siting is ideal for amenity and anticipated noise produced by commercial use and visitors
4.12. Facades				
+ Reflect the unique environment of the South Coast through the articulation of design elements, such as colour, building form and materials, working together to create a distinctive local character.		+ The architecture is a direct response to the opportunities identified in the context and site analysis. The curved components of the building form reference the broader coastal landscape of Menang Koort – King George Sound – heart of the whale. Elements such as the coloured entry awnings, custom breeze blocks and perforated metal garage doors and screens reference the cultural narratives of the place. The material choice of brick, render and timber cladding relates to the natural and built history of the place. The colour scheme of off white render, sand coloured brickwork, weathered timber cladding and green/blue tinted glazing is taken from the local natural environment. The integration of vertical planting on the facades and in the courtyards further embeds the built form into its natural surroundings.		+ The proponent's understand of the sites cultural and historical context is shown throughout the design report. Expression of built form, choice of materials, and landscape response all meet the objectives and present a contemporary approach and response to the local character in MBAC
+ Clearly defined ground floors which carefully address the street and utilise finer details and tactile materials, providing visual interest and human scale along the street.		+ The ground floors are heavily articulated with elements that bring a human scale to the streetscape such as the variously bonded brick landscaping walls, the custom breeze block screening, the vertical planting and the perforated metal garage doors to the Mews. + The first floor cantilevers over the ground to the north and the south creating a shadow line clearly defining the ground floor from the floor above.		+ The proposed material palette is complimentary to the MBAC masterplan, proposed built form and provides an interesting, tactile ground floor plane.
+ Provide an appropriate response to the specific qualities of each street and varying environmental conditions.		+ The northern façades include first floor terraces for outdoor living and large glazing to the indoor living area maximising winter solar gain. The glazing includes projecting hoods to prevent solar penetration in summer.		+ Built form has been carefully considered to each street-facing lot, responding to the varied conditions along the mews, Adelaide crescent, and Marine Terrace.

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		+ The east and west facades include landscaping walls to provide privacy and wind protection to the ground floor courtyards. Perforated metal screening provides wind protection to the first floor terraces. Windows are orientated vertically on the facades and have hoods to minimise solar penetration from low sun angles in summer + The southern façade includes large vertical glazing to the circulation space and first floor bedrooms maximising the views of Mt Adelaide. The glazing features operable louvred sections to maximise breeze paths from the summer sea breeze to enable passive cooling of the buildings. The buildings form and materiality is heavily articulated to the south to create an active street frontage to Adelaide Crescent		+ Strong first design principles are evident through the proposal.
+ Limit adverse micro-climate impacts such as wind tunnelling and down drafts.		+ The unified approach of the townhouse designs minimises the effects of wind tunnelling and down drafts from the prevailing winds as each dwelling has been considered in relationship to its neighbouring building. +		+ The drawings and design report show that the nature of the grouped dwelling in combination of built form response in scale, bulk and articulation seek to reduce onset of strong winds and other climatic conditions
4.13. Roof Design				
+ Ensure the roof form is integrated and complementary to the overall urban character.		+ The contemporary parapeted roof form has one eye on the future commercial development of the mixed-use precinct. This is in keeping with recent contemporary developments in the area. +		+ The proposal's rooflines provide a contemporary look and feel and softens sightlines, as well as concealing services from view.
+ Integrate roof form and treatments into the building design and positively respond to the streetscape and adjoining development.		+ The flat roof form is an extension of the contemporary form of the façade. Rain water is directed to the courtyards with no unsightly rainwater pipes and guttering visible from the public realm. This approach enables rainwater storage and reuse possibilities in the courtyard landscaping design. + The flat roof form with minimal roof pitch minimises overshadowing and access to solar amenity to the public realm		+ The roof form has been well considered and compliments built form, materiality and design aesthetic, providing a contemporary, high quality look and feel to the streetscape.
+ Maximise opportunities to use roof space for residential accommodation and open space.		+ First floor terraces above the garage and storage spaces create an outdoor living space connecting to the open plan living space		+ First floor terraces are identified and provide additional private outdoor space
4.14. Accessible Design				
+ Provide access to all areas for all users in a dignified way.		+ Access via the Mews into all areas of the ground floors of Lots 2-5 is provided to Liveable Homes universal access standards. + Access via the Mews to the ground floor of Lot 1 is provided to Liveable Homes universal access standards with universal access to the commercial class multi-use space is achieved via Adelaide Crescent. + Provision for a future accessible lift in the circulation area and the installation of grab rails to the ground floor bathroom is included in the design of all of the dwellings + Each dwelling meets the Essential Design Features Checklist according to the WA Liveable Homes universal design standards		+ The proponent's understanding and inclusion of universal access design is highlighted in the design report, and the design response promotes a dignified shared use of space + Additional consideration for a lift provision provides flexible options for the resident and encourages adaptability and ageing in place.
+ Provide a variety of dwelling types with flexibility to accommodate diverse lifestyles and resident needs.	+ For discussion with DRP	+ The duette offerings provide flexible/adaptable spaces on the ground floor for a variety of uses including residential, short term accommodation, home office and the case of Lots 1 and 6 small commercial tenancies		+ The development is proposed as a series of town homes – despite this being a singular dwelling typology, each lot seeks to provide a range of offerings that provide flexibility for the resident and accommodate a diverse lifestyle for potential users. Future sites adjacent to the proposal are identified as alternative dwelling types – which will offset and provide a varied range of accommodation across the MBAC for future residents.
4.15. Awnings and Shading Devices				
+ Provide pedestrian shelter along active streets	+ For discussion with DRP	+ A large 'public art' canopy is proposed for the active Cnr of Adelaide Crescent and Marine Terrace + The Design Guidelines identity the requirement for awnings over footpaths of Secondary Active Frontages – however this requirement was not deemed appropriate for this proposal (in the initial DRP meeting) given the specifics of the attached dwelling design approach.		+ The location of the public art canopy adjacent to lot 1 is shown to be an appropriate location due to the proposed nature of the ground floor operation (café / to-go space) + The hierarchy of the MBAC precinct shows the primary heavy pedestrian corridors moving north-south and east-west through the higher density areas. + The estate architects agree with the nature of the proposed development, that the deviation away from the objective to provide awnings along secondary frontages is appropriate for this grouped style of residential development.

OBJECTIVE	Proponents Appraisal Meets objectives Deviation to objectives Objectives cannot be met	PROPONENTS RESPONSE	Estate Architects Assessment/Compliance Meets objectives Rethink for improvement Not adequately addressed	ESTATE ARCHITECTS RESPONSE
+ Provide awnings that complement and integrate with the building design.		+ The art canopy is envisaged as drawing on the cultural narratives embedded into the building design. + Discrete awnings in keeping with the contemporary building form are proposed for the principal building entries on Adelaide Crescent		+ Awnings (wear shown) are shown to be carefully considered and integrated into built form.
+ Reduce the impact of long horizontal bands of awnings.		+ A traditional long horizontal awning is not proposed for this development		+ Due to the residential nature of the proposal, the proponent has addressed awnings in shorter elements, integrated into the built form and providing shelter to dwelling entries in lieu of larger street mall style awnings.
4.16. Signage				
+ Provide signage that responds to the context, improves legibility of and does not visually clutter the public domain.	+ Not Applicable - for discussion/confirmation with DRP	+ No physical signage is proposed at this time given the flexible ground floor spaces. At the appropriate time, the signage requirements of the design guidelines will be applied to signage design and placement.	+ Not applicable	+ Due to the nature of the development being classed as residential, signage is not considered a requirement for this proposal. + Consideration / discussion with the DRP is recommended for how the proponent seeks to future proof any signage guidelines for the ground floor multi-use tenancies (for commercial use).
+ Provide clear wayfinding and a natural hierarchy of information and advertising.	+ Not Applicable	+ As above	+ Not applicable	+ -
+ Integrate signage into the building design.	+ Not Applicable	+ As above	+ For discussion / not applicable	+ For discussion – future use of ground floor tenancies, and if guidelines are recommended for any externally applied signage to compliment the MBAC design guidelines
+ Ensure commercial signage is complementary to the development and the streetscape.	+ Not Applicable	+ As above	+ For discussion / not applicable	+ For discussion – future use of ground floor tenancies, and if guidelines are recommended for any externally applied signage
4.17. Public Art				
+ Ensure public art that reflects and/or complements the unique character, history and context of the MBAC is an integral part of all developments through integration of artwork and/or stand-alone installations.		+ The pedestrian canopy proposed at the corner of Adelaide Crescent and Marine Terrace is intended to celebrate this south-western gateway through a locally commissioned public art piece reflecting MBAC values and character.		+ The proposed location for the public art outcome is well-considered and will assist in identifying and highlighting the corner site. + Opportunities are proposed to connect elements of the public art proposal into the built form.
+ Develop and promote community identity within the City of Albany by requiring commissioned public art works as part of private development projects within the City of Albany.		+ As above		+ The proponent has mentioned additional opportunities to further integrate public art collaboration into the built form elements of the proposal, strengthening the connections between the private and public realm and providing a more holistic design response.
+ Public art should contribute to the sense of place at MBAC.		+ The art canopy proposed for the Cnr of Adelaide Crescent and Marine Terrace will draw on the cultural narratives embedded into the building design It is envisaged all public art throughout the precinct would incorporate this approach.		+ The current concept imagery reflects the narrative and compliments the proposed building material palette – which draws a strong connection to the MBAC as described in the design report.
4.18. Lighting				
+ Create a safe and attractive night time environment.	+ For discussion with DRP	+ A lighting strategy in keeping with the architectural and landscape design will be prepared in detail by a specialised lighting consultant during the architectural design documentation stages		+ Proposed lighting to be discussed with DRP, to be confirmed and included in building permit set.
+ Limit light spill and other impacts of lighting on for dwellings and short stay rooms.	+ For discussion with DRP	+ In general, lighting will face downwards to minimise the impact on upper-level habitable rooms. Feature lighting to trees and architectural elements will be located away from habitable spaces.		+ Lighting statement included in Design Report, and sustainability statement mentions LED lighting to indoor and outdoor areas. + Proposed lighting to be discussed with DRP, to be confirmed and included in building permit set.
4.19. Drying Areas				
+ Ensure drying areas have good natural ventilation and minimal visual impact on the public realm.		+ Undercover drying areas provided in the courtyards are fully screened from public view		+ The proponent has located the drying courts in a private outdoor areas. + Drying areas to lots 1 and 6 are screened by landscaping and boundary fencing.
4.20. Fences and Balustrades				
+ Ensure fencing, screening and balustrade design complements the building design.		+ The fencing to the east and west and the landscaping walls and screening to the south are comprised of sand brickwork and breeze blocks in keeping with the building design		+ The architectural language proposed to the east and western lot boundaries provide a contemporary, soft approach to the streetscape and enhance the quality of the built form and landscaping
+ Ensure fencing and balustrades mitigate the effects of strong breezes whilst enabling surveillance of footpaths and other public areas.		+ The permeability of the breeze block screening to the south creates a level of wind protection whilst not blocking breeze paths and visual surveillance of the Adelaide Crescent footpath		+ High quality materials are proposed for fencing, screening and balustrading, whilst maintaining visual privacy, surveillance and minimising climate impacts on the individual dwellings.

OBJECTIVE	Proponents Appraisal Meets objectives Deviation to objectives Objectives cannot be met	PROPONENTS RESPONSE	Estate Architects Assessment/Compliance Meets objectives Rethink for improvement Not adequately addressed	ESTATE ARCHITECTS RESPONSE
4.21. Building Services				
+ Integrate building services into the design of buildings and places to minimise their impact on amenity.		+ Power supply domes are integrated into the Mews landscaping areas to remove conflict with vehicles + NBN communication pits are integrated into the footpath in the Mews + Water meters are integrated into the landscaping on Adelaide Crescent + Solar PV cells will be installed flat to the roof without the need for unsightly framing + All hot water systems, A/C units and battery storage units are located in fully enclosed store rooms/ garages and not visible for the public +		+ All services are located close to the mews or out of site to minimise impact and improve design aesthetic to the built form and streetscape
4.22. Energy Efficiency				
+ Establish appropriate energy efficiency commitments in the development application stage.		+ 6kW Solar PV energy system with battery storage + Heat pump hot water system with 95% or more efficiency + Electric cooking appliances and a gas free development + Indoor LED lighting with maximum illumination power density 20% less than NCC requirements + Highly efficient A/C units to supplement passive heating and colling with minimum 5-star rating + Dual building envelope control system to minimise air leakages with an air change rate if maximum 3 ACH		+ Passive design outcomes, strong first design principles and energy efficient strategies are clearly shown throughout the design report and accompanying documents
+ Minimise energy use and emissions through passive strategies, supported by active systems.		+ Passive strategies are an integrated part of the Design including + large areas of northern glazing with sunshading devices + high performance thermally broken double-glazing systems throughout + louvred windows for natural ventilation + high levels of insulation above minimum standards + under slab insulation + dual building envelope control layers to minimise air leakages and build-up of condensation +		+ Passive design outcomes, strong first design principles and energy efficient strategies are clearly shown throughout the design report and accompanying documents
4.23. Water Management and Conservation				
+ Establish appropriate water management and conservation commitments at the development approval stage.		+ Water management and conservation responses will be in accordance with Approved Urban Water Management Plan (RPS)		+ Through the proponent's approach to ESD and passive design principles, the estate architect is satisfied that is objective will be achieved and continued to be addressed through documentation and building permit
+ Minimise scheme water consumption throughout the development.		+ Water efficient appliances are part of the proposed sustainability strategy + Hot water is provided by a highly efficient heat pump HWU		+ Landscape concepts show water wise plants to sites + Hot water units shown in storage areas + Sustainability strategy proposes water efficient appliances
+ Manage stormwater on-site in accordance with the adopted Urban Water Management Plan (UWMP).		+ Runoff from road pavement surfaces to be directed to vegetated biofilters. Runoff from impervious surfaces within lots to be directed soakwells, with piped overflow to street system as requested by the City of Albany. Major events flood routed through road reserves, public open space. + Stormwater from the roof and terraces of each dwelling is directed through a planted courtyard with potential rainwater tank for storage and sumps for retention		+ Satisfied that is objective will be achieved with civil works and through documentation.
+ Ensure that flooding impacts will be minimal for occupants, buildings and the environment.		+ Overland flows (in excess of the capacity of the piped network) will be directed along road reserves and public open space to approved receiving waters (as agreed with the City of Albany).		+ Satisfied that is objective will be achieved with civil works and through documentation.
4.24. Waste Management				
+ Design waste storage facilities to minimise impacts on the streetscape, building entry and amenity of residents.		+ Separate storage areas are provided for each dwelling to contain their individual waste bins (3 bin system) screened from public view. These areas are secure and highly accessible by the residents of each dwelling. + Waste collection locations and a collection management plan details these locations as per the consultation and in-principle support from the City of Albany		+ Proponent has located a bin storage area within residential stores located close to the proposed collection points along the Mews. Storage out of site in the residential store will ensure bins are screen from public view
+ Minimise domestic waste by providing safe and convenient source separation and recycling.		+ The City's 'FOGO' system arrangements will be applicable to this development with separate bin allocations to each of the 6 dwellings.		+ Drawings show the CoA's 3 bin system is included in spatial consideration

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MIDDLETON BEACH ACTIVITY CENTRE
LOCAL DESIGN REVIEW PANEL
MEETING MINUTES

Meeting Date: Friday 8 March 2021
Meeting Time: 9.00am
Venue: Margaret Coates Boardroom, City of Albany
Project: Stage 1a Terrace Housing Development

1. Opening of Meeting, Welcome and Acknowledgement

2. Attendance

Panel Members

Anthony McEwan (Panel Chair - City of Albany)
Philip Gresley (Gresley Abas) – via Zoom
Jess Beaver (Estate Architect – MJA Studio) – via Zoom
James Thompson (Estate Architect – MJA Studio) – via Zoom

City Officers

Jan van der Mescht
Joanne Wardell-Johnson

Minute Secretary

Ashton James (City of Albany)

Applicants – Item 1

DevelopmentWA - Mark Cornish & Anna Evangelisti
PTX Architects - David Gibson & Melanie Hoessle
TBB - Mark Bancroft

3. Apologies

Nil

4. Declarations of Due Consideration

Nil

5. Disclosure of Interests

Philip Gresley declared he had an impartiality interest regarding the proposal, as he has previously worked and will most likely work on future projects with Mark Bancroft from TBB. Mark is a secondary member of the applicant team for the proposal. Philip had submitted a Disclosure of Interest form to the City outlining the nature and extent of the interest.

The Chair noted the declared interest and indicated he was satisfied with the assurances by Philip that this would not affect his ability to make impartial and unbiased recommendations as a member of the Panel.

6. Item 1 – Middleton Beach Stage 1a Terrace Housing (Pre-Lodgement)

Two Storey Mixed Use Development – Stage 1a Lot B Middleton Beach Activity Centre

6.1. Item introduction by Estate Architect

Jess briefly spoke about their experience with working with PTX Architects and that it all appeared to meet the guidelines and James confirmed it's been a great collaboration and good process to be a part of.

6.2. Proponent Presentation – to commence approx. 9.20am, maximum 20min

The applicants David and Melanie from PTX Architects and Mark from DevelopmentWA presented this item to the DPR concentrating on the design elements and how they meet the *Middleton Beach Design Activity Centre Design Guidelines.*

representative using the "objectives assessment" and with due regards to the Middleton Beach Activity Centre. The objectives assessment include but are not limited to – Response to Context, Orientation, Public Domain Interface, Mixed Use, Landscape Design, Visual Privacy, Pedestrian Access and Entries, Vehicle Access, Natural Ventilation, Ceiling Heights, Dwelling Size and Layout, Dwelling Mix, Storage, Facades, Accessible Deign, Awning and Shade Devices, Signage, Public Art, Lighting, Energy Efficiency and Waste Management.

The Panel provided commentary and posed questions to the applicants regarding the elements of design that are supported and those that would benefit from further consideration.

(a) Strengths of the proposal

- The proposal shows a thorough understanding and high level of respect and research into the cultural heritage, geographical conditions and local demographic market of Albany.
- Context and character of how this development fits into Albany, the contemporary approach responds to the existing language of the area as well as introducing a contemporary, high quality aesthetic to the neighbourhood, responding well to the local coastal site.
- The typology that has been developed is really successful in its consideration to aging-in-in place, adaptability and future proofing.
- Direction of lighting is good, further progress these ideas.
- Deviation from car parking approach – agree it works better than the prior plan.
- Front elevation working really well - the breeze blocks and creating identity of each dwelling are positive outcomes.
- Confirm the idea of a café/coffee shop that's a grab and go style is preferred or another type of retail shop, that these meet the mixed use component of the precinct.
- Strong scheme, built form approach and streetscape is appealing and in keeping with the guidelines.
- Landscaping plan is good and the combination of larger trees and climbing plants is visually pleasing.

(b) Weaknesses of the proposal

- The breeze blocks to the front of the dwellings causes concern for what this area may be used for, potentially a dumping ground or rubbish trap.

- Signage needs more consideration and thought into how this can be managed to not take away from the amenity of the building.
- Public art/shade canopy doesn't appear to meet the requirements for rain/shade protection that is required for the climate and there is potential for issues arising in the future with lack of cover for the proposed business and patrons.
- East and west elevations have significant glass, more consideration needs to be put into these in terms of energy efficiency and shading.
- Proposal lacks information on the elevator component, would like to see more information on this at the development application stage.

(c) Suggested improvements to the proposal

- Consider the landscaping and what may happen if this doesn't thrive,
- What will the breeze block or other aspects of the design will look like with the landscaping into the future, consider how the design aspects and landscaping will be maintained, will the onus be on the residents or someone else?
- Look at including a few different options of the shade canopy and make less of an emphasis on it being public art (for the application stage to not have the public focus on this part) and ensure it has more coverage for weather protection when it is designed. A condition could be put on the development application for this component to address these matters.
- Place further consideration into installation of air conditioning units in the future and where these can be installed, ensure siting is addressed in relation to both functional and design aspects, coordinating location to maintain minimal visibility to the street, and that condensers are not located in outdoor seating/living areas or other outdoor habitable spaces. Garage is a good location but further information to demonstrate how/where this will function.
- Develop a place holder or design guidelines surrounding signage for future business owners to follow and also other elements that may take away from the image such as window tinting.
- Further consideration required on the storerooms to Lots 1 and 6 and how these will work for these lots, especially in regards to bin storage, ease of access, functionality.
- Further consideration to be given to the breeze blocks, and how these can address designing out crime aspects and not become a dumping area/rubbish trap.
- Greater focus required on the contribution of the public art as part of the whole precinct, not just at each individual stage. Look at exploring options tying them in together and ensuring a cohesive approach. Also needs to recognise landmark/wayfinding corner location.

6.3 Recommendation(s) and Conclusion

- Recommendation: the applicant to resolve the weaknesses outlined under 6.2 (b) above and incorporate the suggested improvements outlined under (c) above, as part of the formal development application proposal, with the revised proposal distributed to the panel members for consideration and comment, in lieu of a formal panel meeting.
- Conclusion: that the Applicants submission has been received, assessed and deemed to be acceptable subject to the recommendation above.

7. Meeting closure – 10.35am

APPENDIX E

Context & Site Analysis report
Concept Design Review report

ptx architects



MIDDLETON BEACH

Stage 1a Terrace Housing Development

CONCEPT & SITE ANALYSIS

February 2021: Revision B

DevelopmentWA

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A. INTRODUCTION

The Stage 1A Terrace housing development is the first stage of the Middleton Beach project in Albany Western Australia which is located on the former Esplanade Hotel site. Since the land purchased in November 2014 the project has been progressed by DevelopmentWA in close collaboration with the City of Albany, the Great Southern Development Commission, the Department of Primary Industries and Regional Development, the Department of Planning, Lands and Heritage and the Albany Community.

The Structure Plan developed by Hames Sharley in 2016 outlines a vision for mixed-use development with a shorefront hotel site created through the realignment of Flinders Parade. The intention is for Stage 1A to set a design standard for medium density urban living that will extend to the rest of the development.

This context and site analysis has been prepared by PTX Architects as the Architect for the Stage 1A development. It builds on the extensive documentation already prepared for the Middleton Beach development by DevelopmentWA and its consultants. Its focus is on the architectural potential for a medium density mixed use design .

Throughout this document opportunities are identified in blue and constraints in red which will be used by the design team to inform the development of design concepts and the detailed architectural design for the project.

PHOTOGRAPHY BY VICKY FUNSTON - FAR PHOTOGRAPHY

N•3

B. CONTEXT

1. LOCATION

Kinjarling/ Albany has been an important place for Menang people for millenia. Founded in 1826 as a military outpost, the city is also the site of Western Australia's oldest colonial settlement. Today it is a regional centre with a population of around 30,000 and an increasing focus on toursim due to its pristine natural surroundings.

The site is located in Middleton Beach which is approximately 4km from the town centre. It is a unique place with a relaxed coastal lifestyle. The beach being protected from the southern ocean swells is the main swimming beach in Albany and a popular destination for locals and holiday makers alike.

The current subdivision approval includes Lot A and Lot B as part of the Middleton Beach Activity Centre (MBAC) structure plan with a vision of creating a village atmosphere with beach connectivity. The MBAC was adopted by the City of Albany in 2017.

The MBAC area sits on the former Esplanade Hotel site. Since the first Esplanade Hotel opened in 1898 it has been the site of numerous hotels with the last demolished in 2007.

The total land area of the MBAC is 3.29ha and consists of a new shorefront hotel site created through the realignment of Flinders Parade and mixed-use site. The Structure Plan[1] developed in 2016 outlines a vision for mixed-use developments with commercial activation on the ground floor, pedestrian permeability through a Pedestrian Access Way and a focus of activity along Flinders Parade.

The Stage 1a Terrace Housing Development is located in the south west corner of Lot B fronting Adelaide Crescent to the south and Marine Terrace to the west. It is approximately 200-250m from Middleton Beach to the East and a short distance to a small commercial hub on Adelaide Crescent to the West.

1 Hames Sharley, MBAC Structure Plan, December 2016



N•4





Legend

1. Albany Town Hall
2. Stirling Terrace Precinct
3. Albany Entertainment Centre
4. Mt Clarence War Memorial
5. ANZAC Centre & Fortress
6. Strawberry Hill
7. Lake Seppings
8. Middleton Beach
9. Ellen Cove Jetty
10. King George Sound
11. Princess Royal Harbour
12. Middleton Point Camp
13. King Point

- Primary Vehicle Route
- Public Transport
- Bus Stop
- Pedestrian Pathway
- Commercial Tenancy
- Stage 1a Site
- Subdivision Approval Boundary
- Aboriginal Heritage Site
- State Heritage Site

N

2. TOWN PLANNING

Middleton Beach is predominantly zoned Tourist Residential and reserved for Parks and Recreation. There are small pockets of commercial tenancies on Adelaide Terrace and on Flinders Parade as well as the 3 Anchors restaurant on the beachfront. The City of Albany envisage the MBAC as part of a broader Middleton Beach Tourist Precinct planning policy.

The performance criteria for the MBAC subdivision outlined in the City of Albany Local Planning Scheme[1], are as follows;

a. The Middleton Beach Activity Centre is developed in a co-ordinated manner, recognising its significance for local recreation, organised sporting and cultural events and as a tourist destination;
b. High quality built form and public place design is provided across the Special Use zone and public foreshore reserve interfaces recognise the iconic location and significance of the site to the community;
c. The development of public and private land is integrated to establish a safe, vibrant mixed-use centre with an active beach front and urban edge that includes but is not limited to: local and tourist facilities; restaurants, cafes and shops; holiday and short stay accommodation; together with a range of permanent residential uses but excludes detached houses;
d. An effective, efficient, integrated and safe transport network that prioritises pedestrians, cyclists and public transport users is provided;
e. Vehicle parking is efficient and promotes the establishment of shared, reciprocal and common use facilities;
f. Developments incorporate sustainable technologies and design including best practice with regard to energy efficiency, water sensitive urban design and fire safety requirements; and
g. Opportunities for investment and development are facilitated.

Other conditions of the scheme relevant to the architectural design of Stage 1a include the following outlined for the Mixed Use Precinct;

1 City of Albany, Local Planning Scheme 1, 28/04/2014

Building Height

» *2 storey (11 metres) minimum / 5 storey (21.5 metres) maximum for development south of the Public Access Way, fronting Adelaide Crescent or Flinders Parade.*

Setbacks

» Generally nil street and side setbacks.

Car Parking

» Single attached dwelling - resident parking as determined by Local government.
» No visitor car parking requirement for permanent residential developments.
» Retail – 1 bay per 40m2 NLA.

Bicycle Parking

» 1 bicycle parking space per residential dwelling and 1 bicycle parking space per 10 dwellings for residential visitors.

Active Frontages

» Areas marked as ‘Active Frontage’ on the Precinct Plan encourage a range of active uses at the pedestrian level. Specifically, this shall be achieved by:
» Areas delineated as either ‘Primary Active Frontage’ or ‘Secondary Active Frontage shall demonstrate measures have been undertaken to build adaptability into the development at ground floor level.

A Preferred Development Concept plan prepared by Taylor Burrell Barnett[2] identifies the site of Stage 1a as terraced dwellings of 2-3 storeys designed as a unified building facade which will promote activated frontages to Adelaide Crescent.

2 Taylor Burrell Barnett, Preferred Development Concept, 18/09/2020



Middleton Beach Activity Centre
STRUCTURE PLAN

LANDCORP

0 50
Scale: 1:1000 @ A3

© Hames Sharley

North:

Project Number: 43460
Drawing Number: SP001
Revision: C
Date: 13.12.2016

Hames Sharley



DevelopmentWA

Preferred Development Concept
MIDDLETON BEACH ACTIVITY CENTRE

scale 1:1000@A3 | 1:500@A1
plan 20127-005F
date 24 Nov 2020

Taylor Burrell Barnett Town Planning & Design
Level 7, 160 St Georges Terrace, Perth WA 6000

Taylor Burrell Barnett

N•7

3. CULTURAL HERITAGE

Kinjarling-Kincinnup[1] (Albany), *the place of plenty*, has long been inhabited by Indigenous people. Menang people occupied this site and hunted further north seasonally. Other Aboriginal groups belonging to the coastal Noongar — Indigenous peoples of the South-Western region of Australia — also visited the area. Binalup - Middleton Beach, *the place of first light*, is located within the broader landscape of Menang Koort (King George Sound), *the heart of the whale*.

While Aboriginal people used the whole of the biosphere archaelogical research suggests areas like Binalup such as '*woodlands, the coastline, rivers, estuaries and lakes were preferred locations that were frequently visited and where major camp sites were located*'[2]. Preserved fish traps found in the estuaries in and around Albany indicate that the area supported a significant population of Aboriginal people. The fish traps were used to collect fish coming in at a high tide and trapped by the outgoing tide and are an important part of local Menang history.

South Coast Noongar people hold that the health of the natural world is of vital importance to the preservation and continuance of their culture. Without a healthy natural world – including the region‘s rivers, lakes, wetlands, springs and inlets – Noongar people believe they will forfeit their identity as traditional owners of the land. For Noongars, *'to block the flow of water is to starve the country (fish, animals, trees) and to reduce or stop the flow of water would kill the country.'*[3]

Registered Aboriginal Heritage Sites nearby include Middleton Point Camp (lodged) which was a historical fishing camp used during the salmon season, and Barmup-Strawberry Hill which is a historical and traditional camp of cultural significance. In 1827 Barmup-Strawberry Hill became the site of the oldest european farm in WA. It is recognised on the highest level on the State Heritage Register and is managed by the National Trust of WA.

It is important to acknowledge that Aboriginal culture is based on an oral language system which is part of what UNESCO calls intangible cultural heritage[4] which is defined broadly in terms;

'of oral traditions, expressive culture, the social practices, ephemeral aesthetic manifestations, and forms of knowledge carried and transmitted within cultural communities. Intangible cultural heritage, is transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity.'

Early in our engagement, Traditional Owner, Vernice Gillies[5] , shared the following oral stories about Binalup-Middleton Beach;

- The landscape is very interconnected with Barmup connected to Binalup through the watercourses that flow into the freshwater lake system a short distance inland from the beach
- Water is very significant, and all life is created by the Wagyl (creation snake) who lives in water
- Don't change water courses - they will find their own way to flow
- The landscape is a balance of the east-west water courses and the north-south beach. This was also reflected in its use as a place of activity - fishing, swimming, playing and as a place of rest
- Vernice's early memories of the site is of groves of peppermint trees and Christmas beetles with iridescent colours
- Vernice and her family would spend all day at Middleton beach, swimming and gathering perry winkles to eat, she describes it as heaven
- It is a place of the whale. They stopped coming whilst the whaling station operated but came back after it closed. Mums would come into the sound with their babies and a midwife whilst the bulls would stay out beyond the drop-off. They would call each other and the sounds would

1 Note: A number of Noongar Menang names exist for Albany showing the diversity in the area. B.McInnes, Noongar Place Names, 2016, p6

2 Goode B, 'Kinjarling', The Place of Rain, 2005, p1

3 David Guilfoyle, Cultural Heritage Management Plan for Southern Section of Kwoorabup Beelia, 2011, p33

4 Builth H, Intangible Heritage of Indigenous Australians: A Victorian Example, 2006

5 Vernice Gillies, Menang Elder, Site Meeting, 30/09/20





Above Left: John Sykes, Camp at Little Grove Albany, 1791 - Courtesy of the Art Gallery of WA
Above Right: Traditional Mia Albany, 1858 - Courtesy National Trust of WA
Below: Louis de Sainson, Nouvelle Hollande, 1826 - Courtesy of the National Library of Australia



resonate through the Binalup-Middleton Beach landscape. The mums would use the shallow sand to remove barnacles whilst they rested with their babies.

» For Vernice, the place is soft, female and nurturing, like the mother whales, and this should be reflected in the built form through curves and flow.

Traditional Owner, Mark Colbung[1], also shared the following oral stories about Binalup-Middleton Beach;

» In an early encounter with the French, around 1818-1821, local Menang Noongar swapped 100 spears, 300 woomeras and 150 knifes for biscuits. Historians, such as Malcolm Trust, currently think this encounter likely happened at Binalup-Middleton Beach rather than elsewhere in the sound as previously thought.

» Mark explained that Menang people see places as part of a flowing interconnected landscape. Binalup is part of a travelling route that continues down the coast to Waychinnicup and beyond. Any artist interpretation of the landscape needs to understand this. For instrance dot paintings and the like describe linear narratives that are not as meaningful for Menang people.

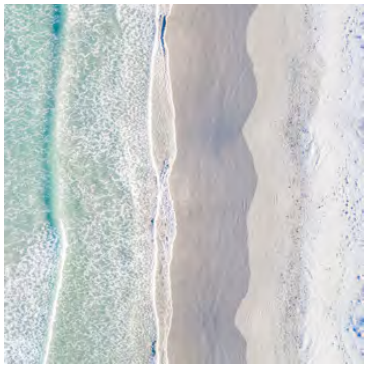
» Mark's grandparents would tell stories that during salmon season, people would stand on the rocks of Ellen Cove and clap to bring in the dolphins who would shepherdthe salmon into the shallow waters of Binalup where people as young as children would catch them with their hands. For him, it is a place with plenty of food in abundance.

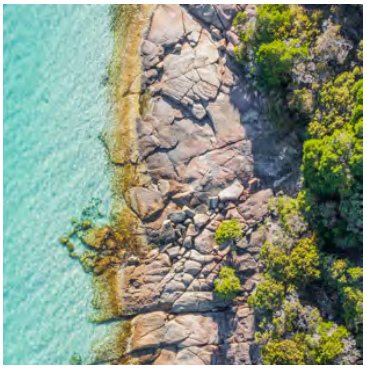
» The six Noongar seasons is something Mark thought could be represented in the built form. Local plants and animals relevant to each season, such as the Christmas Tree for the current season, could be represented in an abstract way through colour or form. For Mark it is very important the way they are represented has local meaning to Menang people.

» *There is an opportunity to embed the oral histories and narratives into the architectural response through softness of forms and flowing spaces*

» *Themes and narratives can be further development through a formal consultation process becoming integral parts of the built form and landscape design for the broader MBCA precinct*

1 Mark Colbung, Menang Elder, Site Meeting, 08/12/20





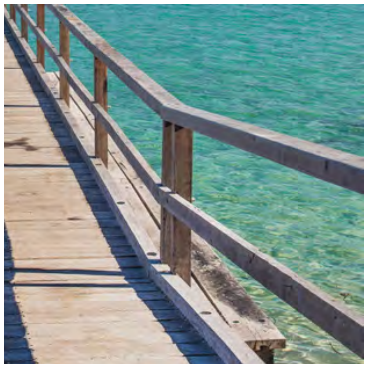









SIX SEASONS
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
BIRAK
Dry and hot. Also known as Season of the Young.
BUNURU
Hottest part of the year. Also known as Season of Adolescence.
DJERAN
Cooler weather begins. Also known as Season of Adulthood.
MAKURU
Coldest and wettest time of the year; more frequent gales and storms. Also known as Fertility Season.
DJILBA
Mixture of wet days with increasing number of clear, cold nights and pleasant warmer days. Also known as Season of Conception.
KAMBARANG
Longer dry periods. Also known as Season of Birth.





N•11

The early european settlement at Kinjarling/ Albany centred around Parade St in the Town Centre and at Strawberry Hill with a track heading out to the Middleton Beach area. The first record of a building at Middleton Beach is from 1836 built by Sir Richard Spencer which was later used as a school for Aboriginal children[1] and a police station. Remnants still exist of this house at 1 Wylie Crescent a short distance from the site although it has had many alterations and additions to the heritage fabric. It is listed as Category C on the City of Albany Municipal Heritage Inventory but it is not on the State Register.

Also listed on the Municipal Inventory (Category B) but not on the Register is a House at 2/18 Golf Links Rd. It is a good example of Federation style c 1890-1915.

The Ellen Cove Jetty built in 1899 and completed in 1901 played a significant role in the transport of goods and people in Albany. It has been rebuilt a number of times and is listed on the Municipal Inventory (Category B) along with the Norfolk Island Pine trees.

The first hotel was built at Middleton Beach in 1898 and was rebuilt in 1911 after it burnt to the ground. Both were timber buildings in Federation style. In 1964 it was demolished and rebuilt by the Swan Brewery as a motel in a modernist style typical of the era. The last hotel was built in 1991 by Albany businessman John Terry in a resort style. The site included a seperate imposing shed like building, the Extravaganza, which housed a collection of classic cars and art works.

The first tea rooms built on the beach appear to have been W E Bevilaquas around 1915. Bathing sheds can be seen in photos from as early as 1910.

» *Understanding the historic fabric of Middleton Beach enables opportunities to reference the relaxed coastal lifestyle within the scale, function and form of the architectural response*

The historic photos overleaf have primarily been sourced from the State Library of Western Australia.

» *The first photo depicts the first Esplanade Hotel c.1908 followed by a series of photos from 1910 to 1915 including the first Middleton Beach Tea Tooms.*
» *The second Esplanade Hotel is depicted in two B/W photos from the 1940's and 1950's*
» *The panoramic photo is c.1952 and shows the original caravan park.*
» *The historic federation style house c.1890-1915 is a recent photo from the Municipal Inventory.*
» *The Swan Brewery Esplanade Hotel is c.1964*
» *The last two photos are of the 1991 built Esplanade Hotel and Extravaganza demolished in 2007.*

1 Murray Arnold, Middleton Beach Place of First Light, 2018

























N•13

4. CHARACTER

Walking the streets of the site's neighbourhood a few themes are recurring.

The relaxed feel of shaded streets and paths is lined with an eclectic mix of coastal built form.

Spashes of colour are sprinkled in areas of activity and some create a focus for holiday accommodation mainly referencing the water with different shades of blue. Some quirkier elements are wall murals and ocean themed signage that appear to be signs of earlier advertising concepts.

The back streets are one to two storey dwellings with a mix of materials mainly consisting of painted weatherboard and feature trims. Some masonry/ brick elements can be found incorporated into the built fabric, however a lighter tone in colours is predominantly evident.

Towards the beach the residences become tall in scale and are predominantly two to three storeys The material palette for this section is based around rendered surfaces with different hues of sand and cream.

The vegetation along the beach features the Norfolk Island Pine extensively which provide a welcome line for orientation in the precinct.

The back streets feature large amount of Peppermint trees and grassy verges. The scale of the vegetation seems to mimic the scale of the built form and vice versa. The beach front stretching tall and strong in their presence whereas the back streets allow for softer lower level forms and quiet secluded spaces.

In summary we note the mix of light,rendered surfaces and painted weatherboard in also light hues. Where there is activity the paint palette changes to vibrant splashes of colour as well as some recycled brick. The mature Peppermint trees are significant elements in the streetscape that provide a calm and gentle sense of place.






















N•15

5. MARKET

A Snapshot from the 2016 census[1] reveal the following for the Middleton Beach locality in relation to other urban living hot spots (high/medium density sales) in Albany;

Demographic

- Similar age & household size profiles
- Higher median weekly incomes
- Median mortgage repayments highest and on par with Albany central locality
- Highest ratio of unoccupied dwellings highlighting the tourism & holiday character

Sales

- Sale value considerably higher (noted limited volume)
- Considerably more sales in localities with lower median prices indicating demand for affordable housing options
- Growth Rates remained steady compared to other localities

Size

- Medium density sales were low in most suburbs
- 1 bedroom sales particularly low in all suburbs
- More than half sold in all suburbs had 3 bedrooms
- Unit sales stronger than house sales
- Middleton Beach not a significant player in the medium density market

Price

- No sales achieved for 1 bedroom units
- For 2 and 3 bedroom houses Middleton Beach sales were considerably higher than other suburbs reinforcing its premium market

An interview[2] with Rob Mason from Mason Reality outlined the following thoughts on the projects market potential;

- Potential for younger professional market than older demographic indicated in existing sales volumes
- Professional demographic include medical specialists who already service Albany on a regular basis - currently there are minimal offerings for this market
- Flexibility with dual key offering would enable small office/ consulting rooms and holiday renting opportunity through platforms such as Airbnb
- Professionals preference for high quality new build rather than adapting existing historic homes in Albany central locality
- Older farmer market potential who traditionally invest $1m plus on Middleton Beach Hill but would prefer flat site in lieu of views
- Local medium residential units such as Monet's on Adelaide and Balneaire are very popular but biggest selling constraint is tourist zoning indicating market for similar long term alternatives
- 2 x 1 viable particularly for affordable young professional holiday home market.
- 3 x 2 would be suitable for young professionals with small families and older farmers/ professionals
- Need for small local 'CNR shop' food and essentials outlet in locality - refer to Clifton & Central development in Mt Lawley
- Potential reasons for the unsuccessful 'The Middleton' townhouse development was off the plan sales, 18 month timeframe and lack of completion date - too long for buyers to wait who are looking for immediate lifestyle change

- *Potential opportunity for high quality permanent housing options for young professional and older farmer/ professional market.*

- *Middleton Beach is currently not a significant locality for medium density housing. It will require innovation to maximise this potential.*

1 MarketPlace, Market Insights Middleton Beach Activity Centre, 2018, p8-13

2 Rob Mason, Mason Reality, Interview 01/10/2020

Demographics (high level)						
Locality	**Median Age**	**Average Household Size**	**Occupied Dwellings**	**Unoccupied Dwellings**	**Median Weekly Income**	**Median Monthly Mortgage Repayment**
Albany	53	2.00	79%	21%	$1,243	$1,730
Centennial Pk	53	2.00	80%	20%	$738	$1,300
Mira Mar	43	2.00	78%	22%	$1,203	$1,600
Spencer Park	46	2.00	86%	14%	$944	$1,400
Yakamia	46	2.00	86%	14%	$1,101	$1,517
Middleton Bh	53	2.00	66%	34%	$1,419	$1,798

Sales Volumes, Median Prices & Growth						
Locality	**Houses**		**Units**		**Total**	**Growth (1 year)**
	Sales	**Median Price**	**Sales**	**Median Price**		
Albany	20	$502,500	5	$375,000	25 (13%)	-5.6%
Centennial Pk	7	$370,000	6	$226,250	13 (7%)	4.2%
Mira Mar	36	$402,500	9	$270,000	45 (23%)	5.8%
Spencer Park	55	$305,000	4	$287,500	59 (30%)	-10.8%
Yakamia	36	$378,000	2	$228,500	38 (19%)	3.6%
Middleton Bh	14	$680,000	1	$685,000	15 (8%)	0.0%
Total	168 (86%)		27 (14%)		195 (100%)	

Sales by Bedroom Type							
Suburb	**1 Bed**		**2 Bed**		**3 Bed**		**Total**
	House	**Unit**	**House**	**Unit**	**House**	**Unit**	
Albany	1	0	1	5	0	1	8 (9%)
Centennial Pk	0	5	2	6	5	7	25 (29%)
Mira Mar	0	1	3	9	9	15	37 (42%)
Spencer Park	0	0	0	2	0	3	5 (6%)
Yakamia	0	0	2	1	3	0	6 (7%)
Middleton Bh	0	0	1	2	2	1	6 (7%)
Total	7 (8%)		34 (39%)		46 (53%)		87 (100%)

Price Comparisons (3 Bed)						
Suburb	**Lowest Price**		**Highest Price**		**Median Price**	
	House	**Unit**	**House**	**Unit**	**House**	**Unit**
Albany	N/A	$430,000	N/A	$430,000	N/A	$430,000
Centennial Pk	$235,000	$60,000 (?)	$455,000	$305,000	$361,000	$250,000
Mira Mar	$240,000	$235,000	$450,000	$420,000	$343,000	$330,000
Spencer Park	N/A	$259,000	N/A	$340,000	N/A	$290,000
Yakamia	$215,000	N/A	$345,000	N/A	$330,000	N/A
Middleton Bh	$329,000	$685,000	$1,050,000	$685,000	$689,000	$685,000

C. SITE

1. CLIMATE

The graphs on this page display data taken from the three main weather stations in the South West of WA.

The temperature graphs indicate the cooler climate on the South Coast in comparison to Perth and Busselton. Maximum temperatures are within a comfort range (18-28) throughout the year except for the peak of winter. Minimum temperatures are below the comfort range throughout the year. Sub surface soil temperature can be below the comfort zone and insulating under any ground floor concrete slab may increase thermal performance.

There are moderate daily temperature swings throughout the year which if effectively harnessed can be used to passively cool the building through natural ventilation combined with thermal mass storage and high levels of insulation.

The number of clear days in Albany are relatively small compared to Perth and Busselton. Combined with the cooler climate this indicates the capturing of sunlight particularly in winter as a priority.

The overall rainfall is higher than Perth and Busselton. This is primarily evident in summer, spring and autumn which gives good opportunities for rainwater harvesting throughout the year.

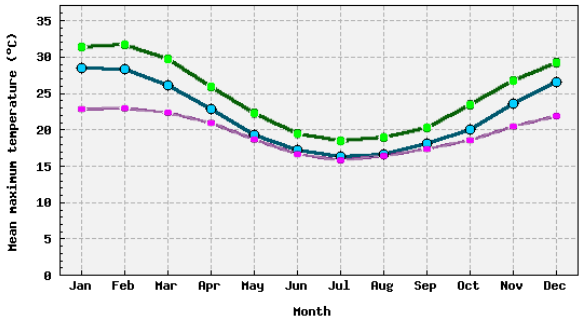
The historical yearly relative humidity is 76.7% and much higher than Perth. As a rule of thumb a humidity level no higher than 50% is considered optimal for thermal comfort. In the case of Albany, a relative humidity higher than 50% is recorded for 93.5% of the year. This will require good passive ventilation for thermal comfort and a breathable building envelope to reduce the risk of condensation.

Albany Climate Summary

- Climate Zone 6: Mild Temperate, warm summers & cool winters
- Mean Rainfall: 925mm
- Mean Clear Days: 45
- Mean Cloudy Days: 182

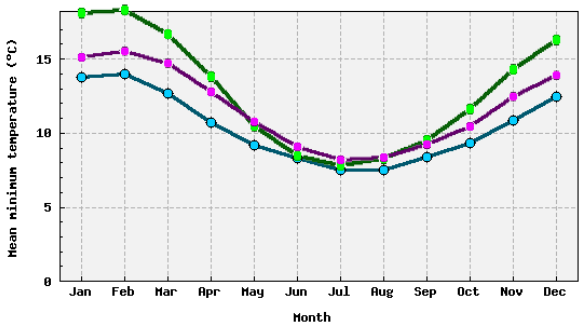
- *Temperature profile suggests active cooling system may not be required in summer*
- *Daily temp swings provide passive cooling opportunities*
- *Relatively high rainfall provides rainwater harvesting opportunities*
- *Concentrate thermal mass on the middle of the day in all seasons and look for opportunities to circulate the heat stored. Use carpet or rugs where no thermal gain is likely.*
- *Insulating the edges and underneath concrete slabs on ground are likely to improve thermal performance*

- *Temperature profile suggests active heating system may be required in winter*
- *Limited amount of clear days will limit winter solar gain potential. Capturing northern sunlight should be a priority*
- *Humidity generally above optimum thermal comfort level (50%) with risk of condensation build up. Requires appropriate building envelope control layers with breath ability a priority*

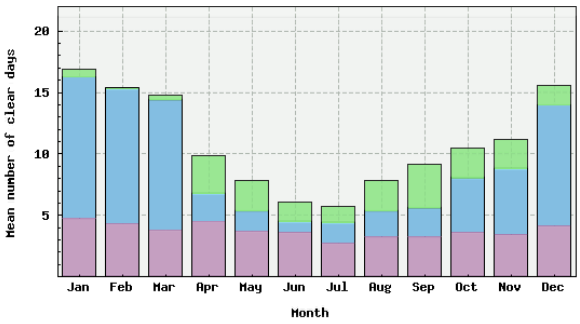


Mean Max Temp

Temperature

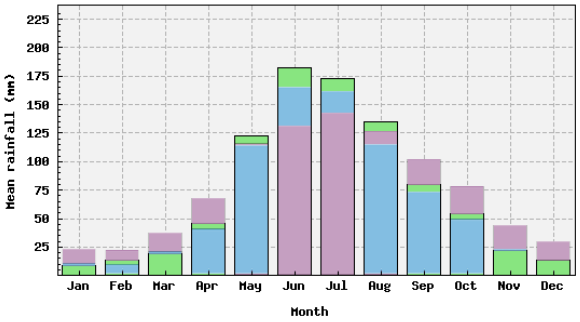


Mean Min Temp

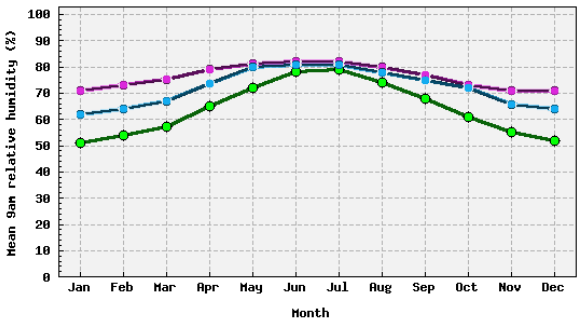


Mean No. Clear Days

Sunshine & Rainfall

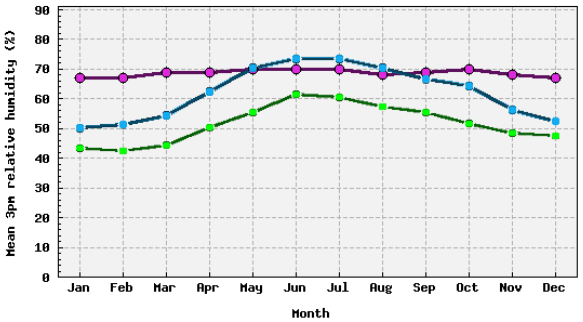


Mean Rainfall



Mean 9am Relative Humidity

Humidity



Mean 3pm Relative Humidity

Perth Busselton Albany

N•19

2. SUN

The site has good exposure to sunlight. However in general the overuse of glazing should be avoided as it is thermally inefficient. Glazing should be carefully located to maximise passive solar heating in winter whilst minimising access in summer.

Generally high SHGC (solar heat gain) and low U-value (heat transfer) glazing should be used. Double glazing should be mandatory and thermally broken or timber framing used if budget allows.

Window treatments (blinds) should be considered throughout for maximum solar control. External blinds provide optimal performance. Northern overhangs or deep reveals that respond to the summer and winter solstice angles essential. All East and West glazing should be shaded in summer.

Summer Solstice

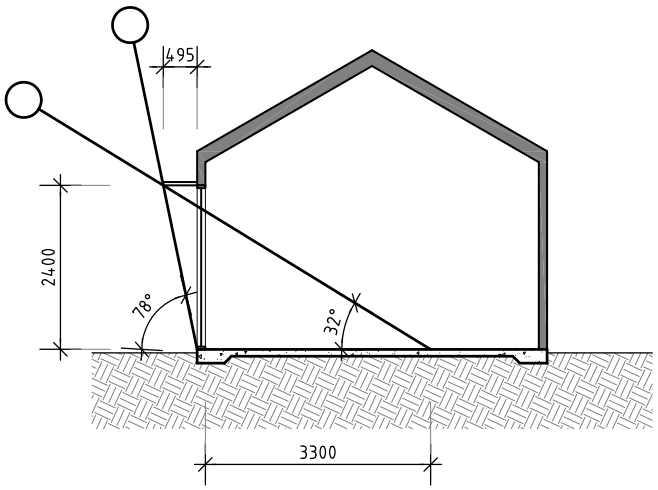
- Rise 04.51
- Set 19.22
- Sun Azimuth 7.18°
- Sun Altitude 78.33°

Winter Solstice

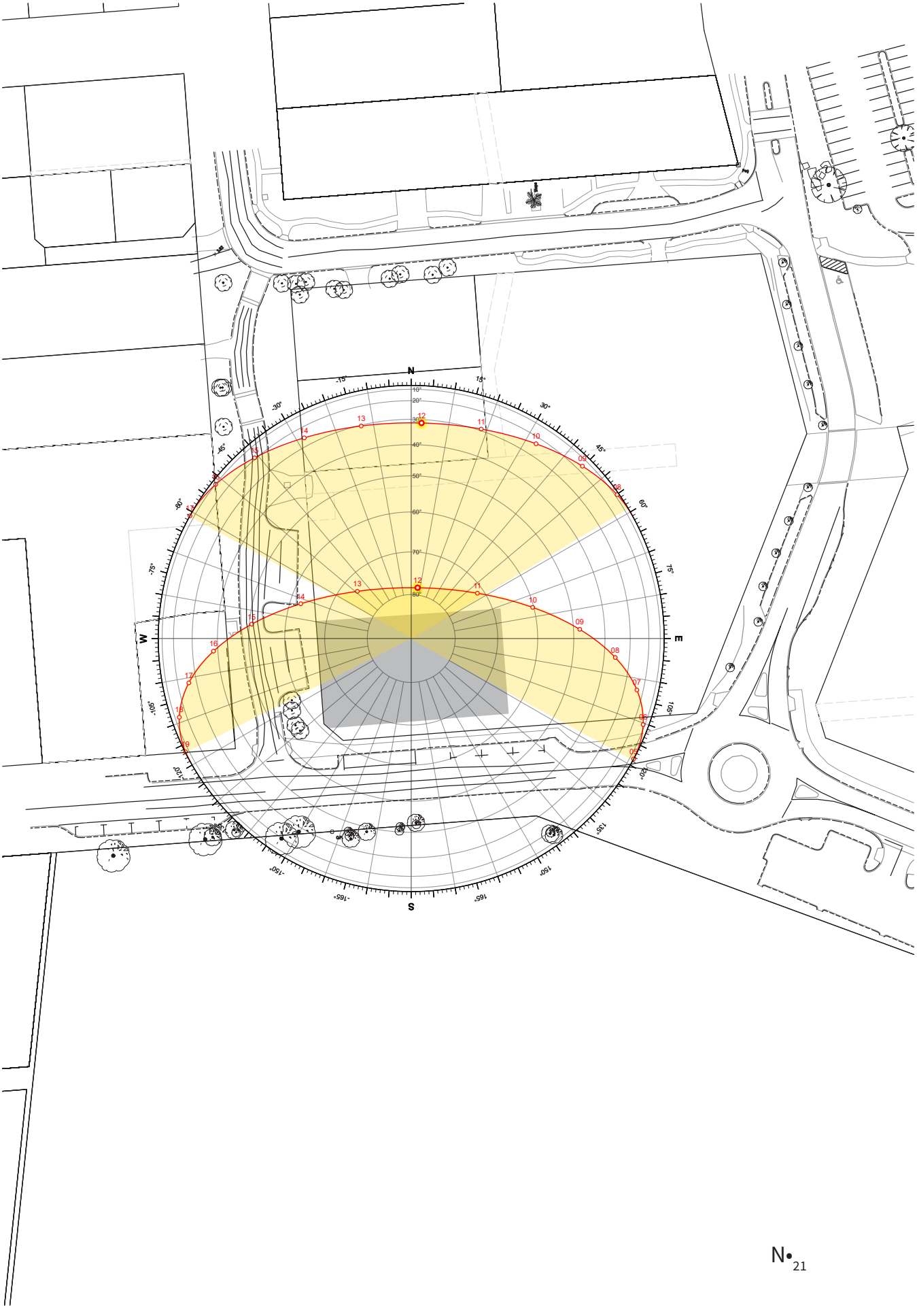
- Rise 07.16
- Set 17.04
- Sun Azimuth 2.75°
- Sun Altitude 31.52°

- *The site has good northern exposure to capture winter solar gain albeit limited due to available sunshine hours.*
- *Focus should be on high levels of insulation and thermal control layers minimising energy required for heating.*

- *Solar will supplement heating but is unlikely to be the only source required.*
- *Potential overshadowing from future development to the north depending on heights*
- *Northern exposure requires external shading elements for summer solar prevention*



N•20


N
S
E
W
N•21

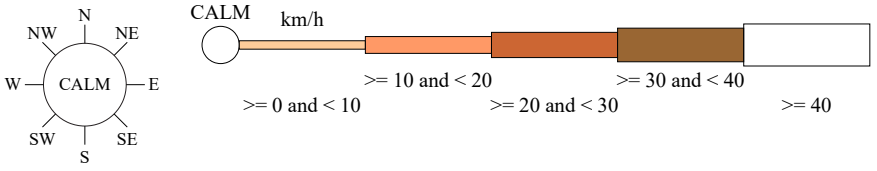
3. WIND

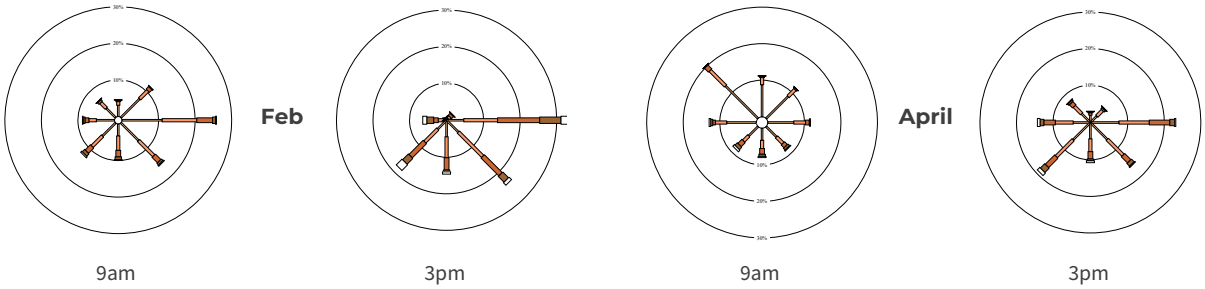
The prevailing winds in summer are from the East -South East. Combine windows in this direction with windows to the West to create breeze paths through the buildings for summer cooling. Displaced ventilation is possible through high level glazing. Night purging will provide optimal performance. The strength of the wind from the east in summer means areas of external protection will be required.

The prevailing winds in winter are from the North West. This is the direction the winter storms first hit bringing the majority of the rain. As the storms pass they swing around to the South/ South West. This is also the prevailing direction of the wind in spring. External areas facing these directions should be screened and ideally undercover for optimal protection. Windows and doors facing these directions should have robust weather seals.

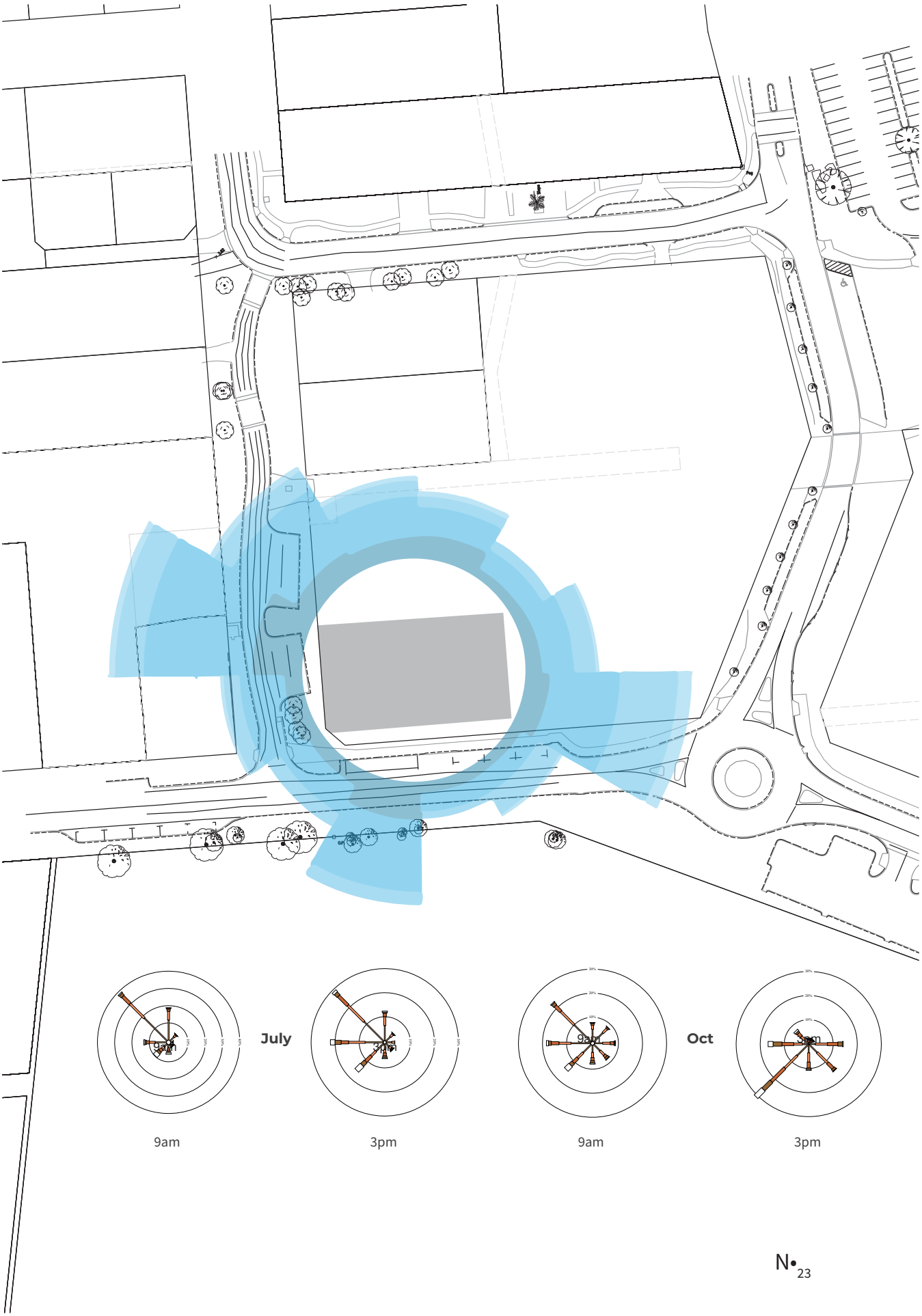
- *Passive ventilation, displacement ventilation and night purging opportunities in summer for passive cooling*
- *The wind data suggests the site is favourable for localised wind generation such as vertical access wind turbines.*

- *Exposure to prevailing East/ South East summer sea breeze requires protected outdoor areas*
- *Exposure to prevailing North West/ West winter storms require undercover/ protected outdoor areas in winter*
- *Maximum wind speeds may result in a high N3 wind rating to AS 4055-2012*
- *The site is located 200-250m east from the ocean and directly exposed to strong summer sea breezes which may result in a category D-High or E-Very High atmospheric corrosivity rating to AS/ NZS 2312-2002*





N•22


July
Oct
9am
3pm
9am
3pm
N
23

4. VIEWS

Outlooks from the site can be summarised as follows;

- *Views to the East are towards the Middleton Beach foreshore and ocean beyond. Although this is currently an attractive outlook it will be compromised by future development.*
- *Views to the north are currently towards single storey and two storey residential/ holiday developments. These views are likely to be further compromised by future development.*
- *Views to the west are towards a single storey commercial shop front on the corner of Adelaide terrace and two storey residential/ holiday accommodation along Marine terrace*
- *Views to the south are towards the natural vegetation of Mt Adelaide. There is an opportunity to capture these views from a first floor above street level.*



View looking East



View looking North

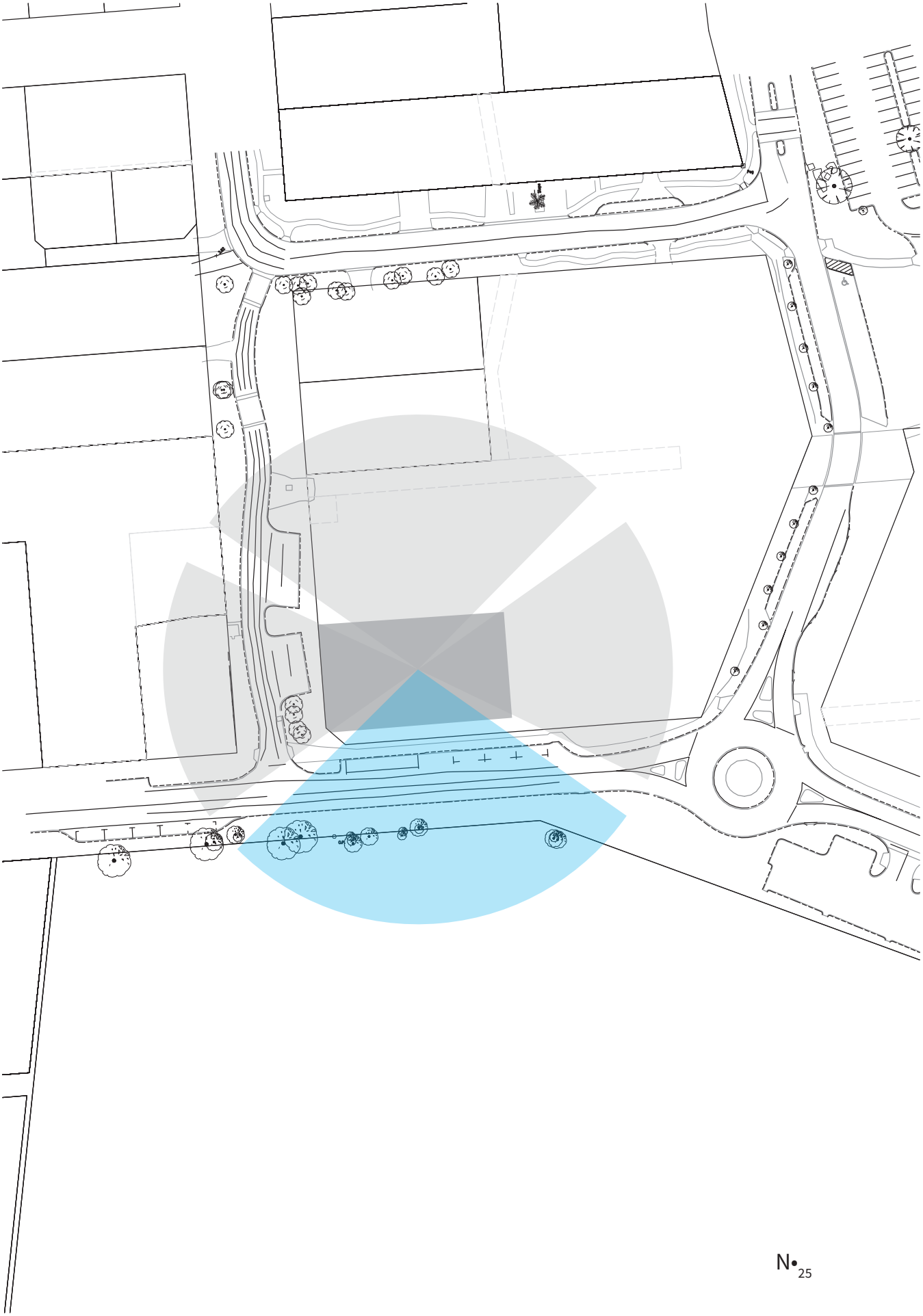


View looking West



View looking South

N•24


N
25

5. TOPOGRAPHY

The site is cleared and flat with levels between 2.3m and 3.4m Australian Height Datum (AHD) at the top of the of the embankment to Marine Terrace. Mt Adelaide to the south rises sharply to a height of 177 m AHD at the top of Mt Clarence.

6. STORMWATER

The following is a summary of Wood & Grieves (now Stantec) Stormwater Management report[1] relevant to the architectural services.

Any roadworks will need to be flood routed to either Adelaide Terrace of Flinders Parade with a maximum of approximately 1.2m of additional fill.

The report recommends a Finished Floor Level (FFL) of 3.5m AHD with a base of infiltration infrastructure to be 1.0m above the ground water level

- *FFL to be 3.5m AHD requiring additional fill depth of approximately 1.2m across the Stage 1a site.*

7. GEOTECHNICAL

The following is a summary of Golder Associates Geotechnical report[2] relevant to the architectural services.

The geotechnical investigation encountered medium dense to dense sand. The site is classified 'Class A' to AS 2870-2011 - predominately sand with little or no movement. Shallow footings are likely to be the most suitable foundation option to support the proposed structure with raft foundations and piles also suitable.

Ground water was measured to be around 1m AHD and as shallow as 1.2m below the current ground surface depending on the tide and season. The site is suitable for the disposal of storm water by infiltration through soak wells which should not be positioned within 3m of building footings.

The stormwater may require treatment as it is likely to discharge into the ocean. Alternatively stormwater can be discharged into the sewer system on Water Corporation approval.

Dewatering is likely to be required for basements, footing preparation and isolated deeper excavations such as lift pits. The exact dewatering requirements will depend on the time of the year of the construction work and further ground water monitoring is recommended. Where dewatering is required a Dewatering Management Plan will be required.

Acid Sulphate Soils (ASS) are identified across the site from about 1.5m below the current ground water surface. Where disturbance cannot be avoided further sampling may be required and an ASS Management Plan developed.

- *Class A classification supports shallow footings as the most suitable foundation design*
- *Disposal of stormwater by soak wells is suitable*

- *Stormwater may require treatment prior to disposal*
- *Dewatering is likely to be required for basements and deep excavations.*

1 Wood & Grieve Engineers, Stormwater Management, 12/05/2015

2 Golder & Associates, Geotechnical Investigation, August 1015



Note: *The Lot boundaries displayed on this feature and contour survey do not reflect current subdivsion*

8. ENVIRONMENT

- *There is an opportunity to incorporate the existing peppermint trees on the CNR of Adelaide Crescent and Marine TCE and new peppermint trees into the landscape architecture enhancing the connection to place*
- *Key findings from the RPS Environment and Planning Ltd1 report indicate that environmental factors are unlikely to present constraints to future development.*

9. BUSHFIRE

The site is located within a Bushfire Prone Area identified on the Department of Fire and Emergency Services (DFES) map. This requires compliance with State Planning Policy 3.7 Planning in Bushfire Prone Areas and the requirements of AS 3959 Construction of Buildings in Bushfire Prone Areas. A key requirement of AS 3959 is the undertaking of an assessment of a Bushfire Attack level (BAL) and the preparation a BAL Contour Map by a BPAD accredited practitioner.

Condition 15 of the WA Planning Commissions subdivision approval states *'No habitable buildings are to be erected within areas identified as BAL-40 or BAL-Flame Zone.' (Local Government)'.*

A Bushfire Management Plan was prepared in November 2015 by Calibre Consulting[2] and an updated BAL assessment undertaken in August 2018 by Lush Fire and Planning[3] . These reports identify a BAL 29 rating to the southern edge of the Stage 1a site.

BAL 29 is described as '*Increasing levels of ember attack and burning debris ignited by wind borne embers together with increasing heat flux.'* A summary of the main construction requirements are as follows;

- *Sub floors are to be enclosed by non combustible materials or to be of non combustible structure*
- *Wall cladding is to be non-combustible materials (Masonry or Fibre Cement Sheeting) or BAL 29 rated timber cladding (limited and expensive)*
- *All wall vents and weep holes are to be screened*
- *Windows & doors are to be framed in non combustible materials (metal) and operable parts screened according to the code or fitted with bushfire shutters. Alternatively the glazing systems are to be BAL 29 rated - generally higher performance including thickness and sealing*
- *Roof sheeting is to be fully sarked with BAL 29 rated sarking and all roof penetrations screened*
- *All eaves are to be lined with non combustible materials*
- *Decked areas are to be enclosed with non-combustible materials or of non-combustible structure.*
- *Decking is to be made from non-combustible materials. Handrails within 125mm of glazing are to be non -combustible.*
- *Exposed service pipework is to be metal.*

10. COASTAL RISK

The site is located within the coastal zone and is required to comply with State Planning Policy 2.6 Coastal Planning. A key requirement of the policy is the implementation of a Coastal Hazard Risk Management and Adaption Plan (CHRMAP).

The CHRMAP prepared by M P Rogers & Associates[4] identifies the proposed Hotel site as the only part of the overall development that is vulnerable to coastal hazards within a 100 year planning horizon.

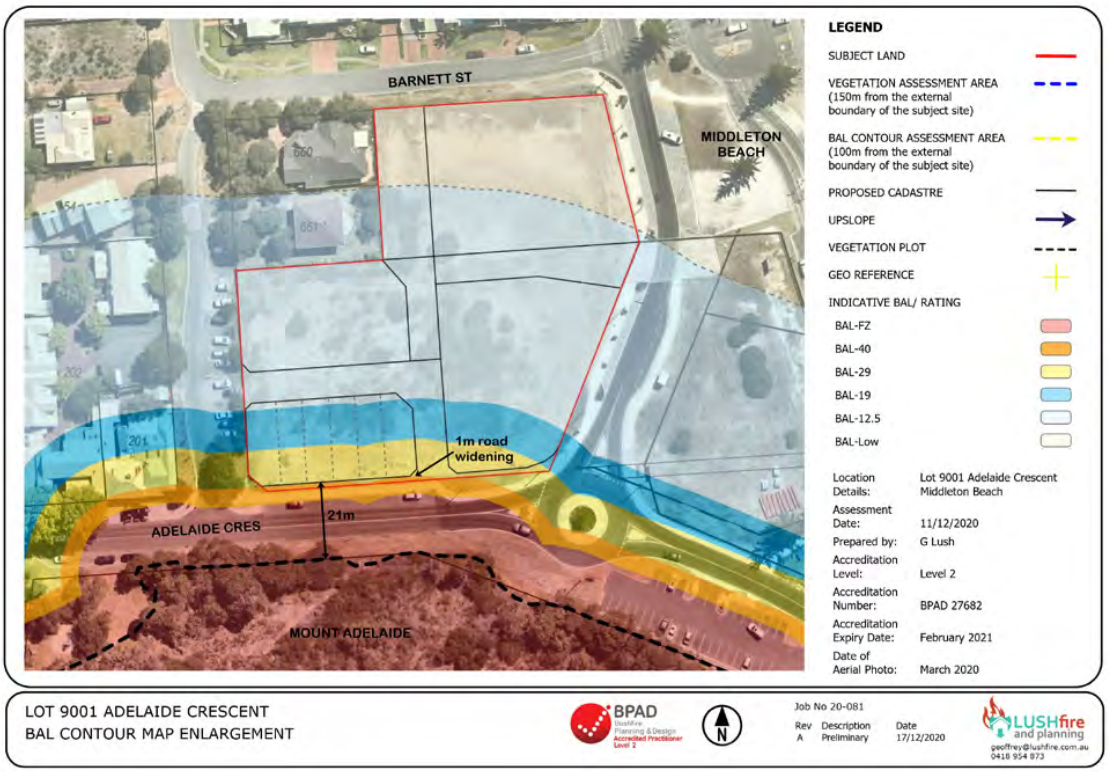
- *There are no CHRMAP implications for the site of Stage 1a*

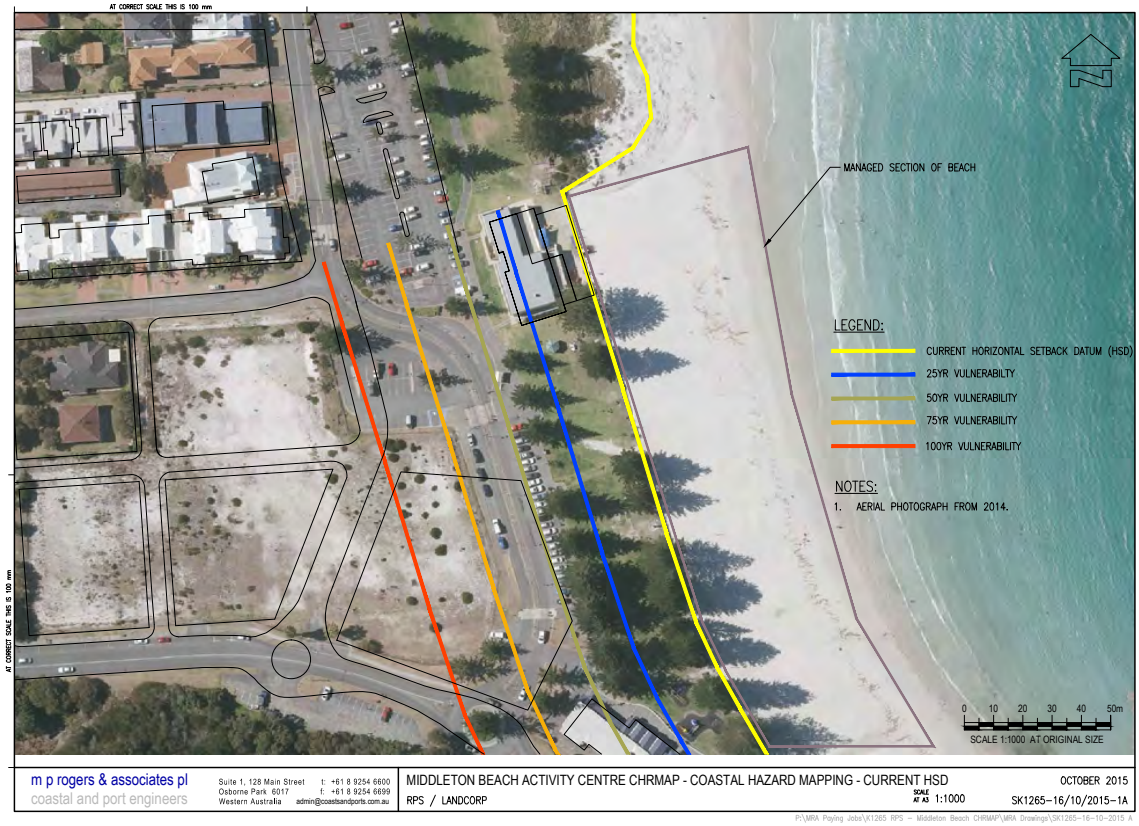
1 RPS Environment & Planning Ltd, Flora & Vegetation and Fauna Review, November 2015

2 Calibre Consulting, Bushfire Management Plan, November 2015

3 Lush Fire & Planning, BAL Contour Report, 8th August 2018

4 M P Rogers and Associates, CHRMAP, November 2015


BARNETT ST
MIDDLETON BEACH
1m road widening
21m
ADELAIDE CRES
MOUNT ADELAIDE
LEGEND
SUBJECT LAND
VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject site)
BAL CONTOUR ASSESSMENT AREA (100m from the external boundary of the subject site)
PROPOSED CADASTRE
UPSLOPE
VEGETATION PLOT
GEO REFERENCE
INDICATIVE BAL/ RATING
BAL-FZ
BAL-40
BAL-29
BAL-19
BAL-12.5
BAL-Low
Location Details: Lot 9001 Adelaide Crescent Middleton Beach
Assessment Date: 11/12/2020
Prepared by: G Lush
Accreditation Level: Level 2
Accreditation Number: BPAD 27682
Accreditation Expiry Date: February 2021
Date of Aerial Photo: March 2020
LOT 9001 ADELAIDE CRESCENT
BAL CONTOUR MAP ENLARGEMENT
BPAD
Job No 20-081
Rev A Description Preliminary Date 17/12/2020
LUSHfire and planning
geoffrey@lushfire.com.au
0418 954 873


AT CORRECT SCALE THIS IS 100 mm
MANAGED SECTION OF BEACH
LEGEND:
CURRENT HORIZONTAL SETBACK DATUM (HSD)
25YR VULNERABILITY
50YR VULNERABILITY
75YR VULNERABILITY
100YR VULNERABILITY
NOTES:
1. AERIAL PHOTOGRAPH FROM 2014.
0 10 20 30 40 50m
SCALE 1:1000 AT ORIGINAL SIZE
m p rogers & associates pl
coastal and port engineers
Suite 1, 128 Main Street
Osborne Park 6017
Western Australia
t: +61 8 9254 6600
f: +61 8 9254 6699
admin@coastsandports.com.au
MIDDLETON BEACH ACTIVITY CENTRE CHRMAP - COASTAL HAZARD MAPPING - CURRENT HSD
RPS / LANDCORP
SCALE AT A3 1:1000
OCTOBER 2015
SK1265-16/10/2015-1A

N•29

11. SERVICES

Stantec Engineers (formerly Wood and Grieve Engineers[1]) have prepared an overview of the existing services and future requirements summarised as follows.

Sewer Reticulation
The Stage 1a site is currently served by an existing 150 diameter gravity sewer system running along Marine Terrace and Adelaide Crescent and grading back to a waste water pumping station on Garden Street.

Water Reticulation
The existing water supply system surrounding the site is old and small is diameter. It is anticipated that any development would require the upgrading of the old mains to 100 dia UPVC as a minimum.

Water Corporations has advised the following implications for the site;

- *Additional demands from development of this site will have no significant impact on water distribution mains supplying this area.*

- *There will be an impact on the local reticulation network surrounding the development, particularly the 80CI in Adelaide Crescent, between Golf Links Road and Marine Terrace*
- *The Stage 1a site will require an upgrade of the existing 80CI main in Adelaide Crescent, from existing 100AC in Golf Links Drive.*
- *The 100 P-12 extension in Flinders Dr and Adelaide Crescent will likely need to be undertaken at the time of Stage 1a.*

1 Wood & Grieve Engineers, Updated Preliminary Servicing Report, 13th July 2015

Power
The site is currently serviced by means of a district transformer, located within an easement on the Western end of the site north of Stage 1a. Although it will not affect Stage 1a it is proposed to relocate this transformer to a location on Lot 9001 Flinders Parade, towards Barnett Street..

To provide underground power to the site, assumes that supply to the development will come from the adjoining infrastructure. Wood & Grieve have advised that this cannot be confirmed until the development formally proceeds and a request for a Design Information Package is made to Western Power.

Communications
In accordance with the recently legislated National Broadband Network (NBN), developers are required to fund the design and installation of “pit and pipe” infrastructure suitable for handover to NBN Co, for their installation of an optic fibre network. This would be carried out with the underground power design and installation. Confirmation is required as to whether this development qualifies for the NBN program.

Gas
Existing gas mains surround the site on all roads and are capable of servicing Stage 1a.


Legend
Electrical
Communications
Water
Sewer
Stormwater
Gas
N
31



Should you require any further clarification regarding the information in this report please contact the project Architect;

David Gibson
Principal Architect

t 08 9848 3894
m 0417 395 186
e david@ptxarchitects.com.au
w www.ptxarchitects.com.au

N•32

ptx architects



MIDDLETON BEACH

Stage 1a Terrace Housing Development

CONCEPT DESIGN REPORT

March 2021: Revision B

DevelopmentWA

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N•$_2$



A. INTRODUCTION

The Stage 1A Terrace housing development is the first stage of the Middleton Beach project in Albany Western Australia which is located on the former Esplanade Hotel site. Since the land purchased in November 2014 the project has been progressed by DevelopmentWA in close collaboration with the City of Albany, the Great Southern Development Commission, the Department of Primary Industries and Regional Development, the Department of Planning, Lands and Heritage and the Albany Community.

The Context and Site Analysis report prepared by PTX Architects identified numerous opportunities for the Stage 1A development to be site and context sensitive *'establishing a contemporary and richly textured development character'*[1] desired in the MBAC Design Guidelines.

This document draws on the Context and Site Analysis report and outlines the key components of the architectural response in relation to Part 3 - Siting the Building and Part 4 - Designing the Building of the MBAC Design Guidelines prepared by Hames Sharley. This report is accompanied by the A7 Objectives Checklist.

Part 2 of the Design Guidelines relates to the Primary Controls Table for each precinct, providing a framework for the form and scale of development. The planning report for the development application will demonstrate compliance with the Primary Controls Table.

Referenced throughout this document is State Planning Policy 7.3 Apartment Design (SPP7.3) which although aimed at high density apartment design serves as a guiding document to the Stage 1A Terrace Housing design.

1 Hames Sharley, MBAC Design Guidelines, September 2018, p32

PHOTOGRAPHY BY VICKY FUNSTON - FAR PHOTOGRAPHY

3.0 SITING THE BUILDING

1. RESPONSE TO CONTEXT

Menang Koort - King George Sound - *heart of the whale* is intrinsically linked with the whale migration along the southern coast from late May to early October. Traditional Owners tell stories of mothers bringing their calfs into Middleton Beach and calling out to the bulls in deeper waters with the sound resonating throughout the landscape. This powerful connection has been alluded to in a soft envelope and calm form.

Binalup - Middleton Beach - *the place of morning light* is an expansive natural environment of lush coastal vegetation and a freshwater lake system. Mt Adelaide - Irrerup - *elevated place* is a prominent natural landmark to the south. A sequence of interconnected internal spaces connects northern light to the southern mountain drawing on traditional notions of not blocking flow in the natural landscape.

External spaces punctuate the building mass from the north enabling light to penetrate deep into each townhouse. Building mass to the east and west provides protection from the prevailing winds creating comfortable outdoor living spaces synonomous with a coastal lifestyle.

A heavily articulated southern facade creates human scale in the built form and an active street frontage to Adelaide Crescent. Connectivity with the Mews is enhanced by northern terraces.

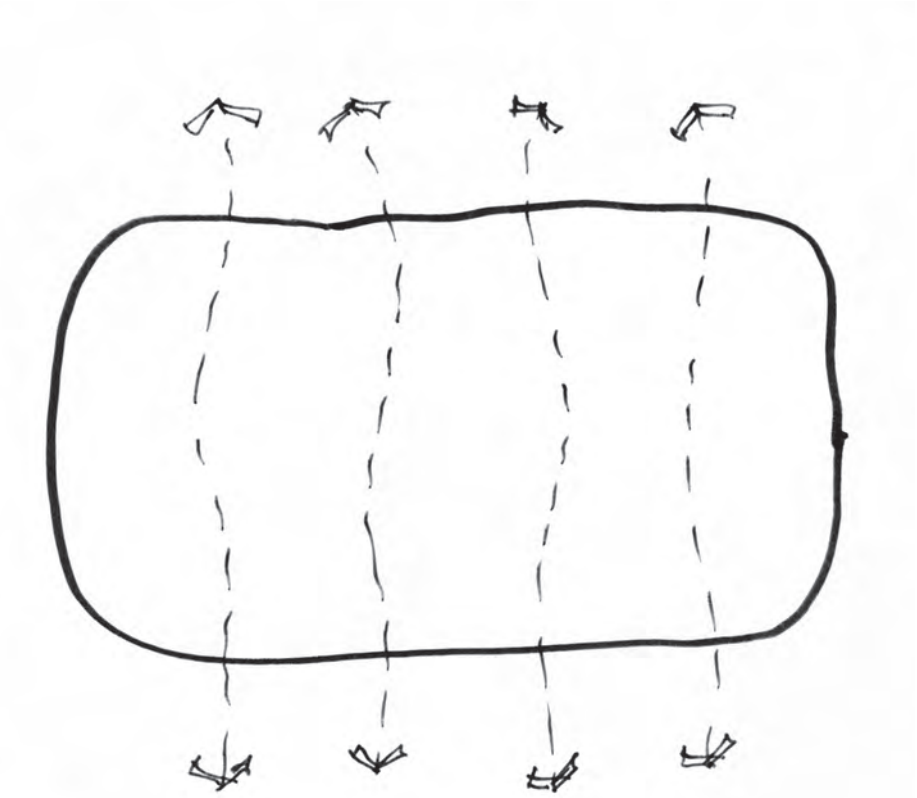
A reference to the original Esplanade Hotel is created through the use of timber weatherboard cladding. A material palette of sand coloured bricks, off white rendered cladding and tinted glazing takes cues from the surrounding natural environment. The built form is further embedded into place through the use of vertical planting on all four elevations and extensive endemic landscaping throughout.



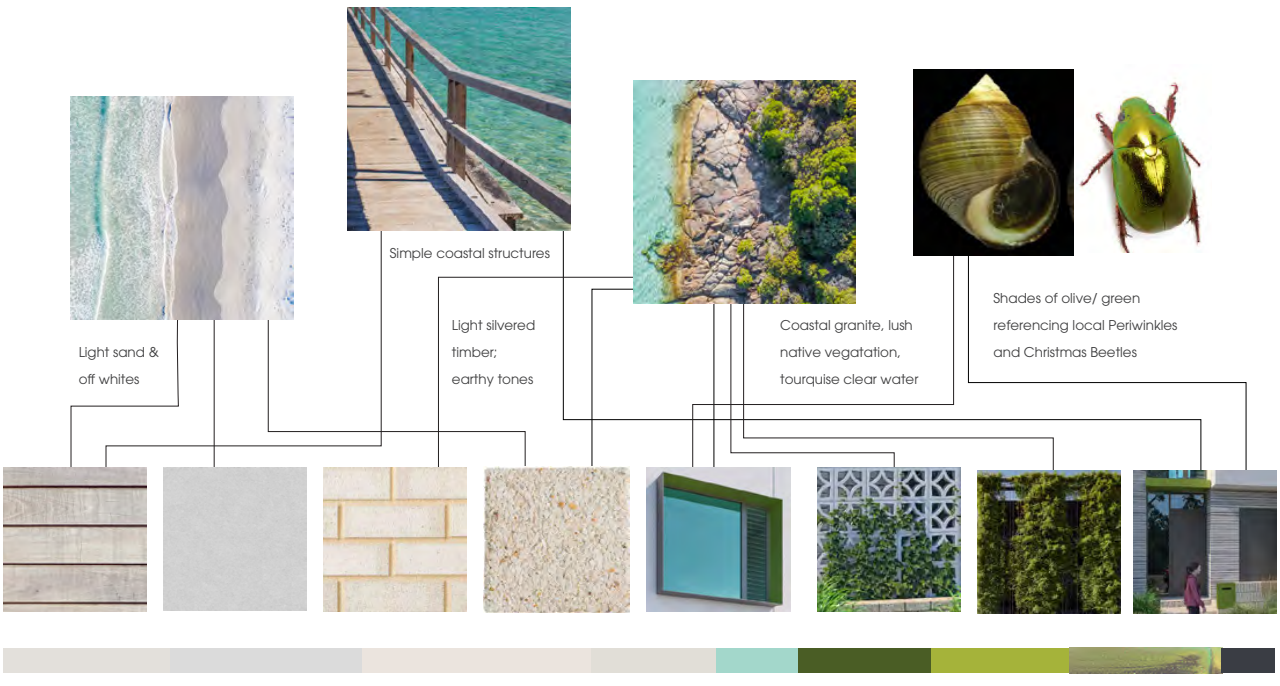




TOP: Great Southern Right Whale, Matt Blakers, 2018
MIDDLE: Louis de Sainson, Nouvelle Hollande, 1826 - Courtesy of the National Library of Australia
BELOW: Esplanade Hotel, 1908 - Courtesy of the State Library of Western Australia



“ The connection of the two aspects of the site - northern sun & southern vegetated mountain - is enveloped by a notion of softness and calm stemming from the indigenous cultural heritage of a playful yet restful beach environment ”



N•5

2. ORIENTATION

The 'Duette' design orientates each terrace house with dual key pedestrian access to each townhouse through Adelaide Crescent, the primary pedestrian route down to the beach. Vehicle access is provided from the north through the Mews reducing the impact on public pedestrian foot traffic.

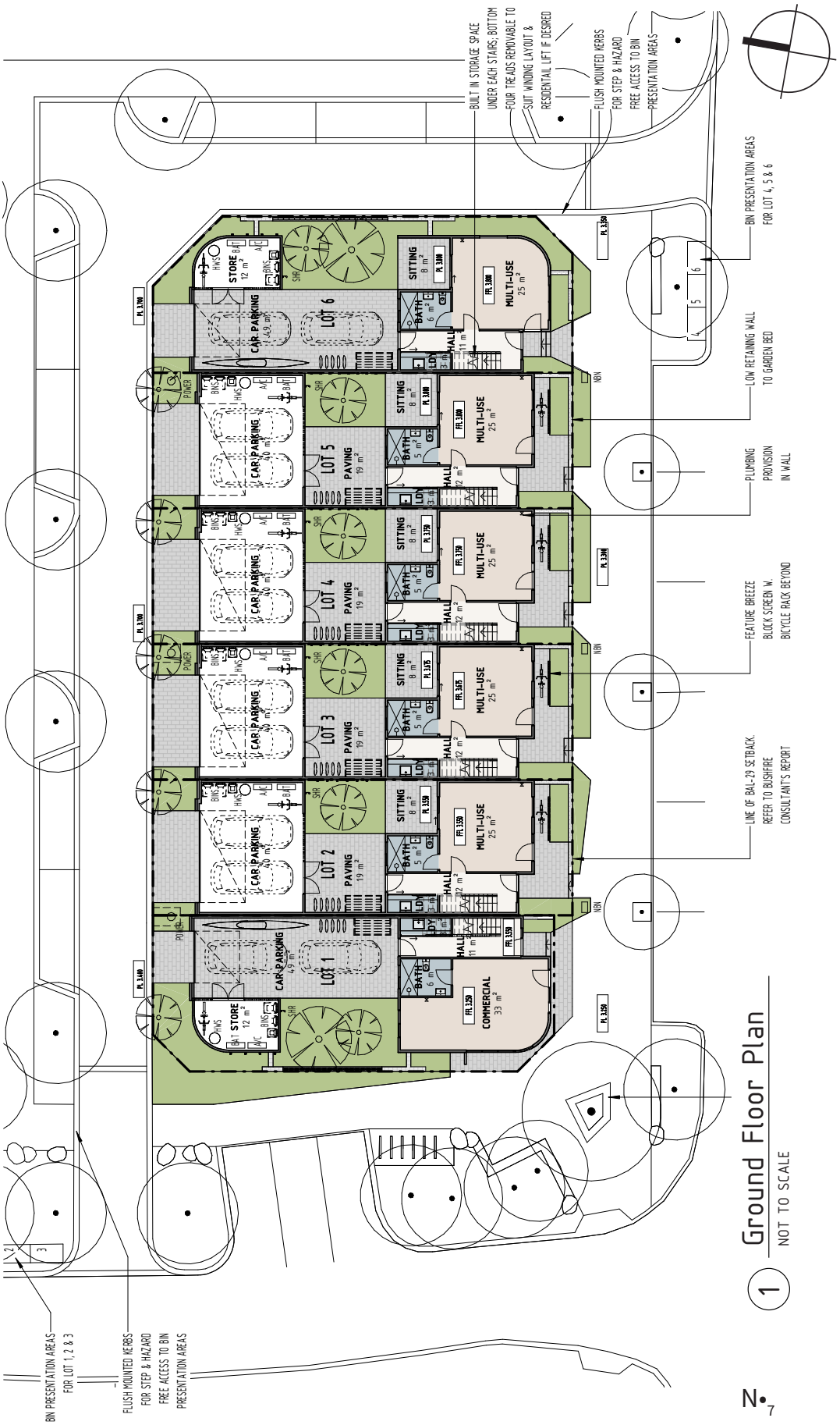
The central courtyards and first floor terraces create light wells that enable sunlight and natural light to penetrate deep into the indoor and outdoor living spaces of each townhouse. This approach maximises solar gain in winter minimising the reliance on active heating systems. In summer decidious trees lining the Mews to the north, perogolas with vines over the first floor terraces and appropriately sized window hoods minimise sun penetration through the northern, eastern and western glazing.

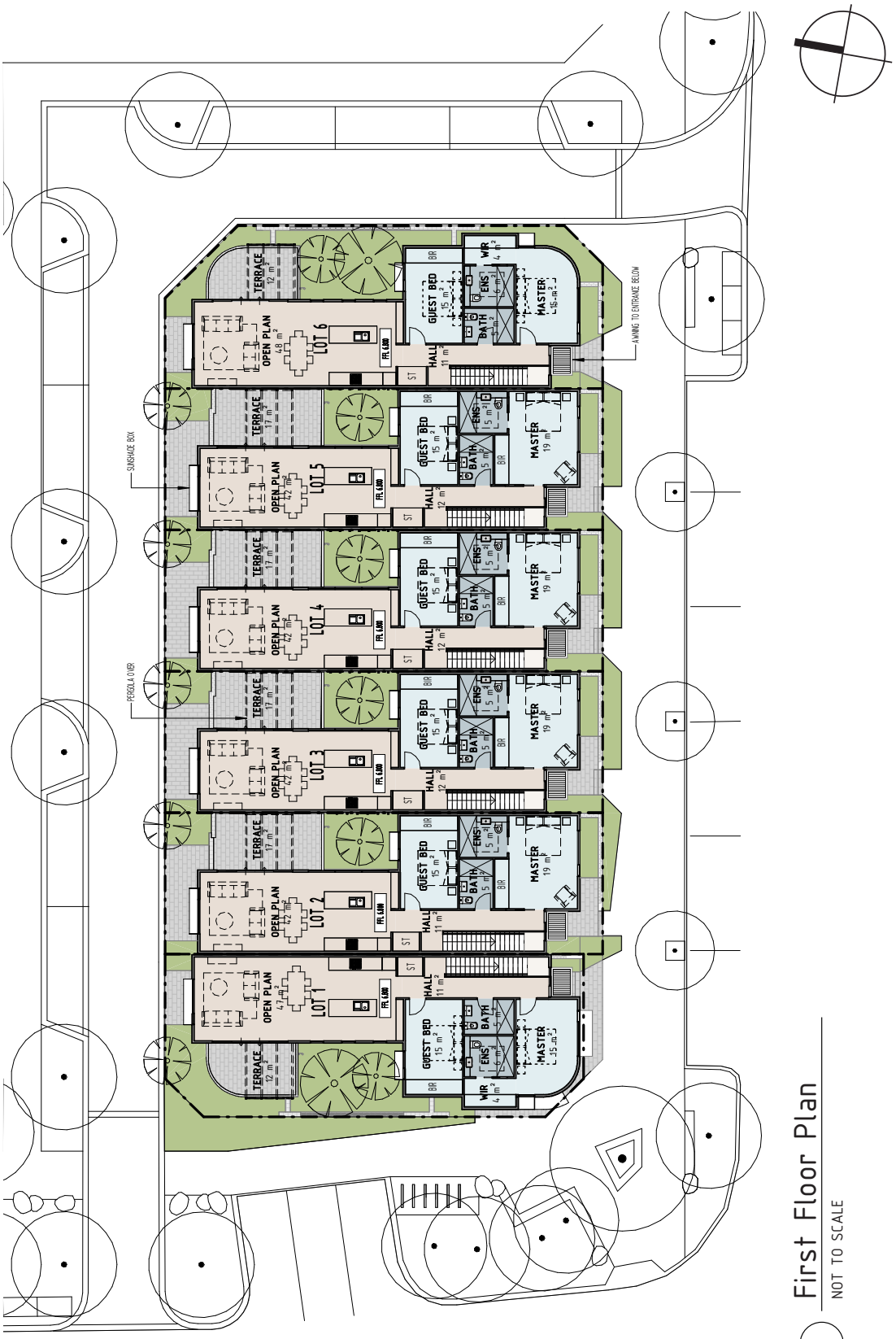
The outdoor living spaces of Lot 2-5 are protected from the prevailing easterly winds in summer and westerly storms in winter by the building mass of the neighbouring townhouses. Lots 1 and 6 include courtyards on the ground floor with wind protection provided by landscaping walls. The first floor terraces on these lots have wind protection provided by perforated screening panels.

Overshadowing of the neighbouring properties and the public realm is minimised by the modest two storey height of the development. The townhouses are set back to the south to minimise the impact on sightlines through to the beach down Adelaide Crescent. Uninterrupted views through to Mt Adelaide are provided from the first floor through the flowing open plan design of the living spaces.



N•6


BUILT IN STORAGE SPACE UNDER EACH STAIRS; BOTTOM FOUR TREADS REMOVABLE TO SUIT WINDING LAYOUT & RESIDENTIAL LIFT IF DESIRED
FLUSH MOUNTED KERBS FOR STEP & HAZARD FREE ACCESS TO BIN PRESENTATION AREAS
BIN PRESENTATION AREAS FOR LOT 4, 5 & 6
LOW RETAINING WALL TO GARDEN BED
PLUMBING PROVISION IN WALL
FEATURE BREEZE BLOCK SCREEN W. BICYCLE RACK BEYOND
LINE OF BAL-29 SETBACK. REFER TO BUSHFIRE CONSULTANT'S REPORT
BIN PRESENTATION AREAS FOR LOT 1, 2 & 3
FLUSH MOUNTED KERBS FOR STEP & HAZARD FREE ACCESS TO BIN PRESENTATION AREAS
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
COMMERCIAL 33 m²
MULTI-USE 25 m²
CAR PARKING 40 m²
PAVING 19 m²
STORE 12 m²
SITTING 8 m²
BATH 6 m²
HALL 11 m²
LDY 3 m²
FR.339
FR.349
FR.359
FR.369
FR.379
FR.389
R.339
R.349
R.359
R.369
R.379
R.389
R.399
R.339
R.339
R.339



1 First Floor Plan
NOT TO SCALE

N•8

3. PUBLIC DOMAIN INTERFACE

The curved facades of each corner softens the interface between the private terrace houses and the pedestrian footpaths. The interface is further softened at the ground level by extensive landscaping with endemic and vertical planting that punctuates the built form.

Along Adelaide Crescent the transition from the public realm to the private residences is defined by low height masonry walls and breeze block screening with vertical planting. Each principal building entry is highlighted by coloured awnings and building signage integrated into the facades. The proposed ground floor levels of step up from the street level to accomodate the civil engineers stormwater design and are a maximum 450mm above the footpath level. The commercial space of Lot 1 has a level entry with the footpath.

Shade is provided to pedestrian footpaths by existing and proposed Agonis Flexuosa - WA Peppermint Trees. The corner of Adelaide Crescent and Marine Terrace features a large shade tree with bench seating to create a parklet environment.

Street surveillance is provided from large glazing overlooking each pedestrian footpath. The first floor terraces orientated towards the Mews further promote security and safety in the public realm.

The commercial space proposed for the corner of Adelaide Cresent and Marine Terrace creates a connection to the existing commercial tenancies west of Marine Terrace. The multi-use dual key spaces proposed along Adelaide Crescent are adaptable to a variety of uses and will promote a low key secondary active street frontage as a transition to the future commercial uses along Flinders Parade.

Services, plant and bin storage areas are screened from view in the garages fronting the Mews. Exterior lighting is proposed to be in keeping with the mixed use development to CPTED safety guidelines.

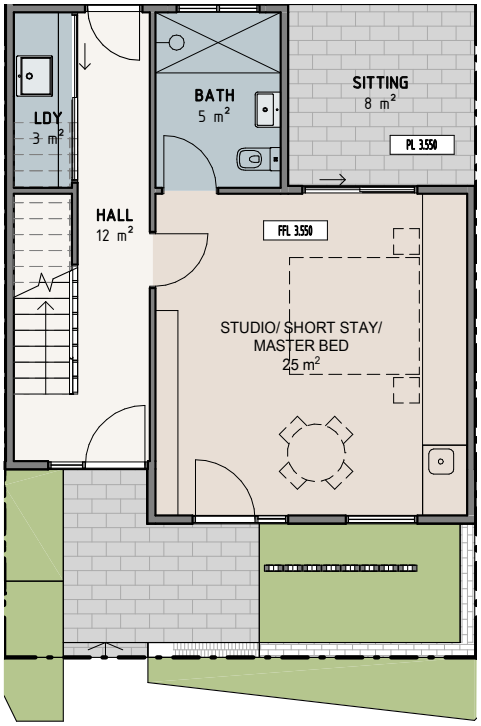


4. MIXED USE

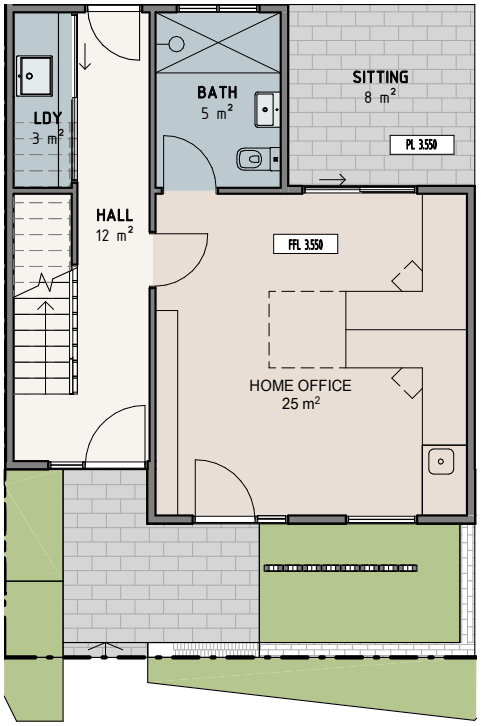
The 'Duette' design is a unique proposition catering to contemporary needs in high demand with the shift towards working from home. The multi-use dual key spaces offered on the ground floor create home office or small start up venture opportunities. Completely self contained with a bathroom, external sitting area and plumbing for a kitchenette they support the seperation of work and home environments.

The provision of universal access from the Mews, the ability to retrofit a domestic lift and install grab rails to the ground floor bathroom supports aging in place and enables each dwelling to accomodate a multi-generational family.

The flexible design also enables owners to supplement their income by renting the ground floor space as short stay accomodation in keeping with the tourist nature of Middleton Beach. In addition, Lot 1 features the added flexibility of a NCC commercial use classification including universal access from Adelaide Crescent. This allows for the setup of a small 'hole in the wall' type cafe, juice bar, small consultancy or the like. Although a 10m depth for commercial spaces is not provided as per the guidelines, this adaptable space is highly functional and appropriate for its intended purpose .



1 Multi-Use - Short Stay
NOT TO SCALE



2 Multi-Use - Home Office
NOT TO SCALE

N•10

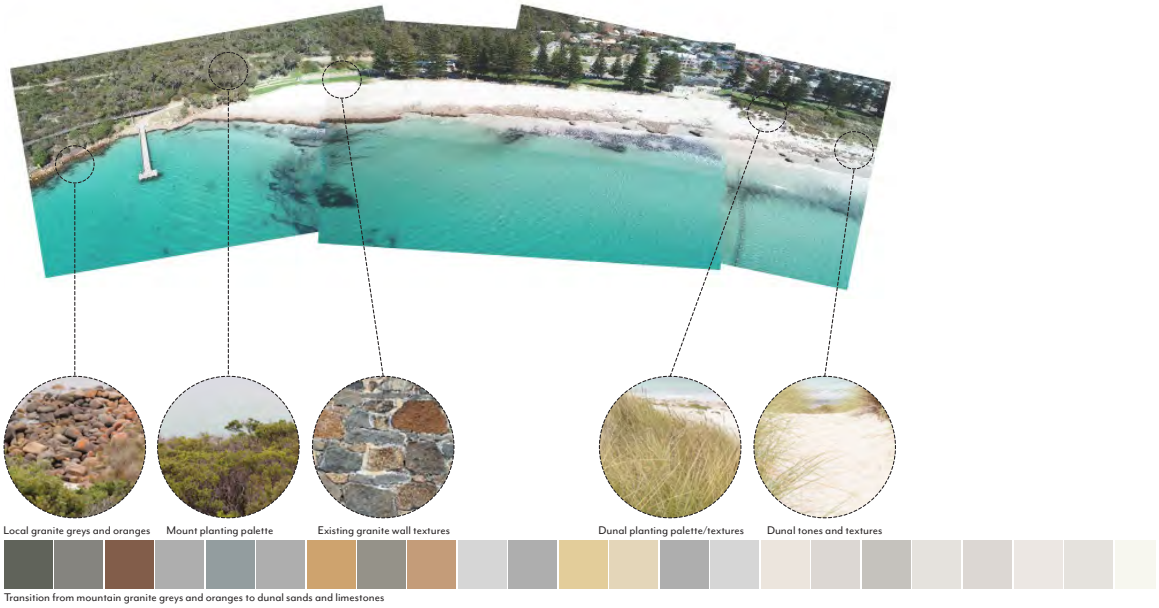
5. LANDSCAPE DESIGN

Landscape Architects SeeDesign have designed the public realm within the Middleton Beach Activity centre to reference the textures, tones, materiality, and planting directly from the surrounding coastal and mount landscape.

Middleton beach and surrounding landscape is characterised by the steep terrain and woodland vegetation along the mount (earthy/warm tones)

down to the coastal dunes and granite outcrops across the waterfront (lighter/softer tones). The planting palette is diverse and vastly different ranging form the dense mount vegetation to the coastal palette of the dunes.

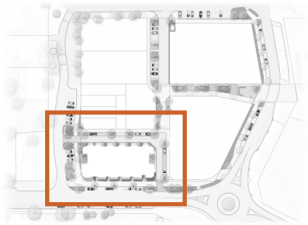
SeeDesign intend to reflect the natural condition of the site through the use of both materials, textures, vegetation and colour tones.



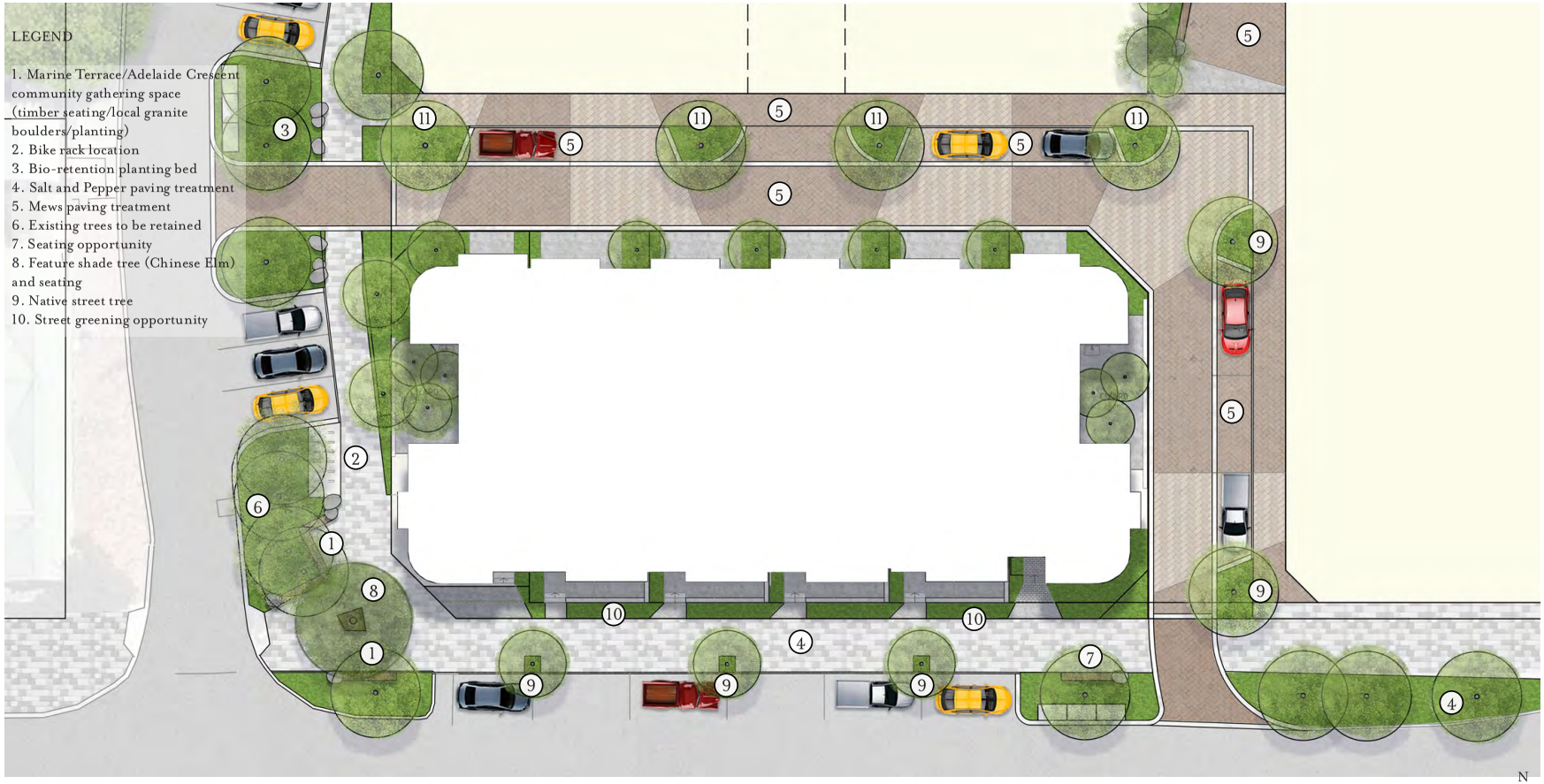


N•11

04. Stage 1 Detail Plan



N.12



1:250 @ A3

763

REPORT ITEM DIS 270 REFERS

6. COMMUNAL OPEN SPACE

Not applicable for this type of development.

7. VISUAL PRIVACY

The multi-use spaces on the ground floor are screened from the pedestrian footpath along Adelaide Crescent through a mix of breeze blocks , vertical planting and low height landscape walls. The internal courtyards and first floor terraces provide private open space to each townhouse without compromising access to light and air. Privacy between dwellings is provided by boundary walls. The distances of the first floor terraces to neighbouring outdoor living areas are much greater than the minimum privacy setbacks of the R-Codes.

8. PEDESTRIAN ACCESS AND ENTRIES

Entries to each townhouse on Adelaide Crescent and the Mews are identified with street lettering. Individual coloured canopies and letterboxes and large timber entry doors define dwelling entries. Garage doors on the Mews provide separate entries for vehicles and bicycle. Passive surveillance is provided through large glazing that overlook both the pedestrian and vehicle access points.

9. VEHICLE ACCESS

The crossover and vehicle access way through the Mews is 4m and each townhouse has a 2m wide driveway creating a 6m reversing circle. The garages on the Mews facade are punctuated by garden beds and trees reducing their visual impact. Garage doors consisting of custom patterned perforated metal pannelling continue the connection with local cultural narratives.

10.CAR & BICYCLE PARKING

Secure undercover car parking and bicycle storage is provided for each dwelling. Public bicycle racks are integrated into the landscape architecture on the corner of Adelaide Crescent and Marine Terrace. Visitor parking is provided throughout the MBAC precinct - refer to the Town Planning consultants drawings for further detail.







N•13



4.0 DESIGNING THE BUILDING

1. SOLAR AND DAYLIGHT ACCESS

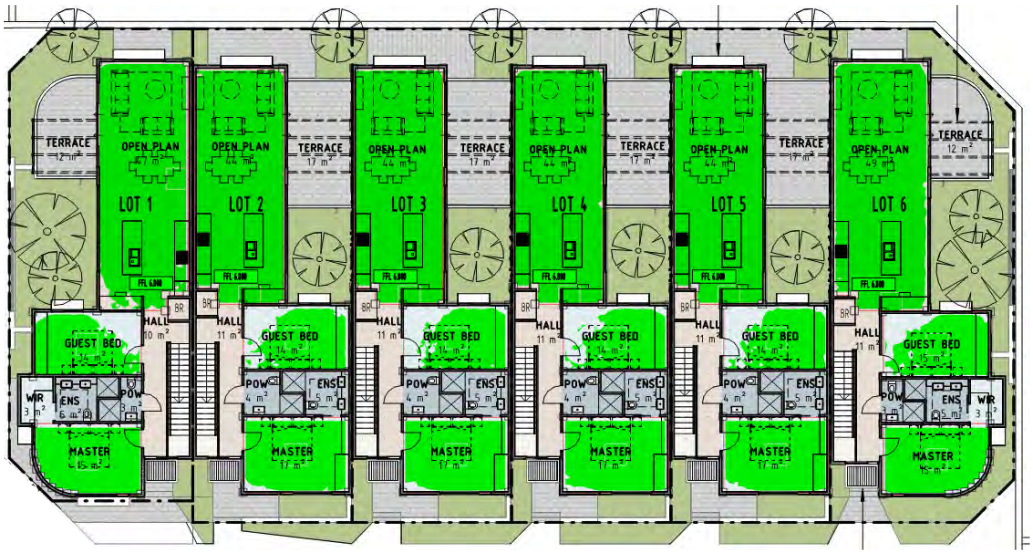
Each terrace house includes a first floor terrace and ground floor courtyard that enables northern light to penetrate deep into the building.

Preliminary modelling by the ESD consultant Sustainable Built Environments (SBE) indicates the open plan living areas will receive between 8-9 hours of direct sunlight at the winter solstice. Preliminary shadow modelling indicates minimal impact on neighbouring properties at the winter solstice.

A daylight assessment simulation by SBE returned a result of 98% of the living area achieves a daylight factor of ≥1. This threshold, which provides building occupants ample access to natural light, is considered best practice by a number of local government authorities in Victoria as part of their Planning Scheme.

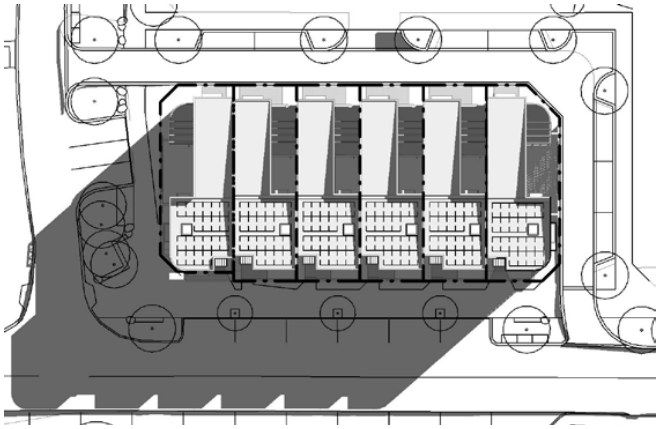
Each habitable room will have a total minimum glass area above 10% of the floor area with the open space living area greatly exceeding this.

The integration of passive design throughout will minimise the reliance on the active heating and cooling systems with preliminary modelling by SBE indicating an average energy demand of 21.8kWh/m2 per annum.



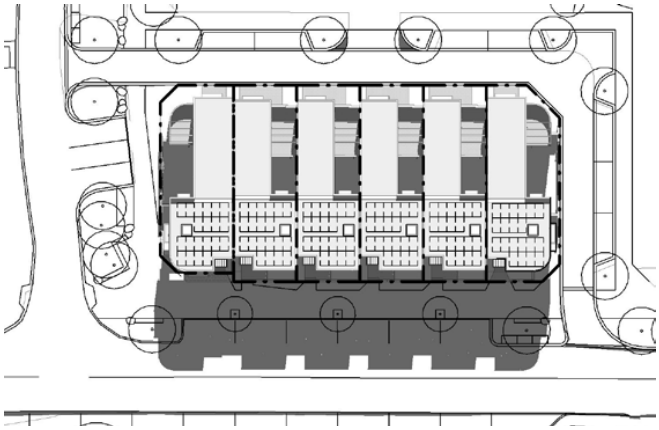
1 First Floor - Daylight Analysis
NOT TO SCALE

N•15



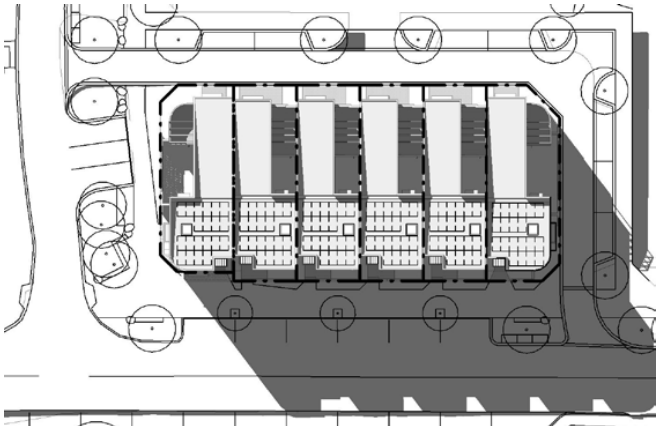
1 Shadows - Winter Solstice - 9am

NOT TO SCALE



2 Shadows - Winter Solstice - 12pm

NOT TO SCALE



3 Shadows - Winter Solstice - 3pm

NOT TO SCALE

N•16

2. NATURAL VENTILATION

High performance louvred windows on the north and south elevations optimise natural cross ventilation in each townhouse by harnessing the cooling summer sea breeze from the south east. Primary breeze paths to habitable spaces are no greater than 15m.

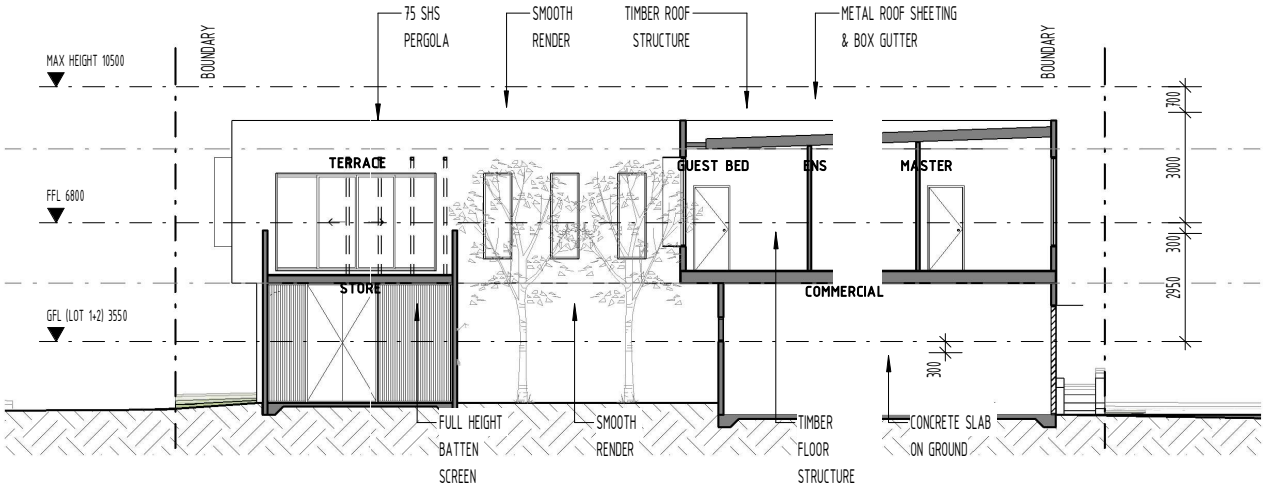
3. CEILING HEIGHTS

First floor ceiling heights in habitable rooms are 3m creating a generous feeling of space with high levels of access to daylight and natural ventilation. A two storey volume at the Adelaide Crescent townhouse entries further enhances the feeling of space.

Ceiling heights in the ground floor multi-use spaces vary from 2.7m - 3m which fits with their potential use of self contained studio's, short term accomodation or home offices.

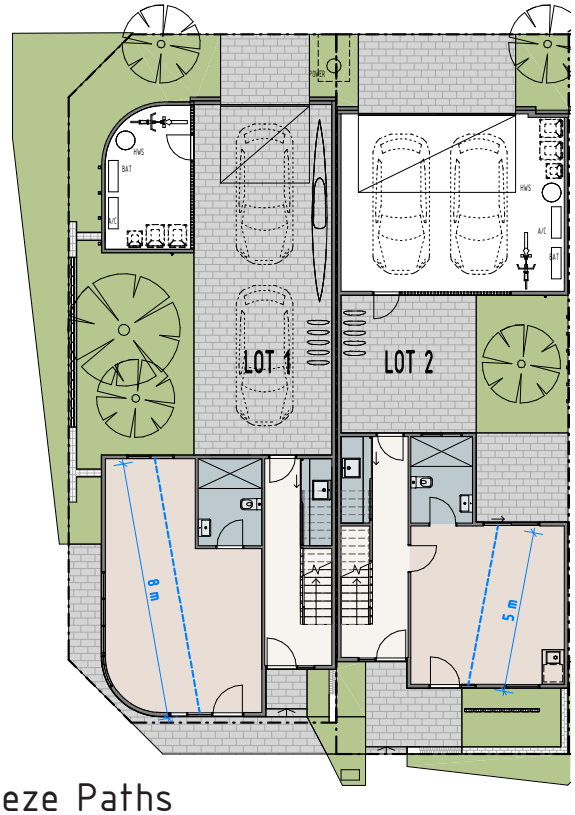
The commercial space on Lot 1 has an increased floor to ceiling height of 3.25m allowing for flexibility in use as a small cafe, consultancy room or small office.





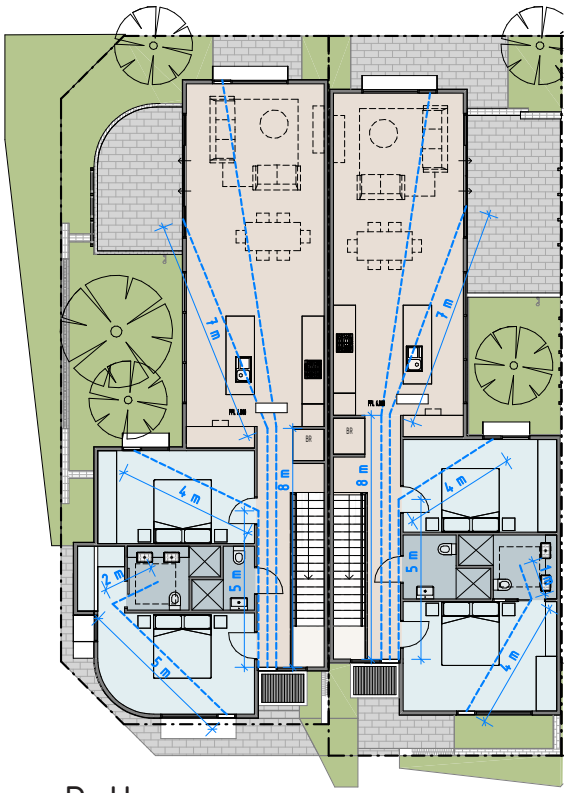
1 Lot 1 North-South Section
NOT TO SCALE

N•17



1 GF Breeze Paths

NOT TO SCALE



2 FF Breeze Paths

NOT TO SCALE

N•18

4. DWELLING SIZE & LAYOUT

Lot 1 and 6 have a Fully Enclosed Covered Area (FECA) of 167m² and a Gross Floor Area (GFA) including the carparking, terrace and sitting area of 228m². Lots 2 to 5 are 182m² FECA and 218m² GFA including the garages, undercover area, sitting area and terraces. This greatly exceeding the SPP7.3 standard of 100m2 for a 3 bedroom apartment.

The maximum room depth of the bedrooms is 3.5m equating to 1.2 x the ceiling height of 3m well within the SPP7.3 maximum depth of 3 x the ceiling height. The maximum depth of the open plan living areas is 4.4m compared to the SPP7.3 standard of 8m.

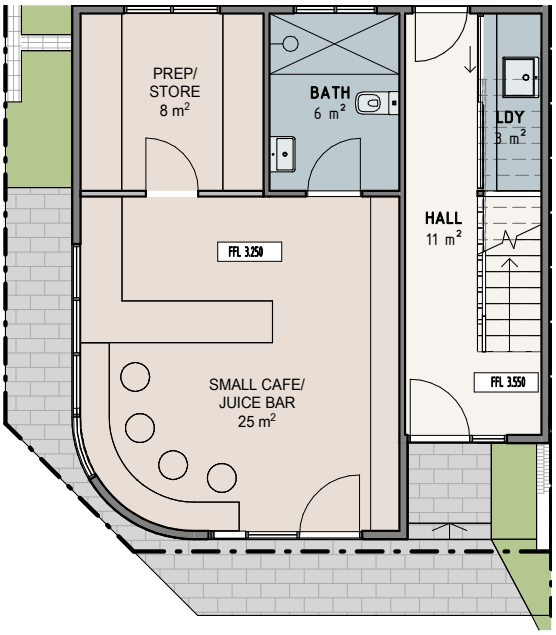
Each room layout has been highly considered combining optimal function, a high standard of amenity and maximum passive design environmental performance.

5. DWELLING MIX

The 'Duette' design approach incorporating multi-use spaces to the ground floor of each terrace house encourages adaptability and flexibility of use over time. This is enhanced with the ground floor of Lot 1 having the ability to be used for a variety of commercial uses. Furthermore, the tandem undercover car parking in Lots 1 & 6 creates outdoor flexibility of use for owners who only want to own one vehicle.

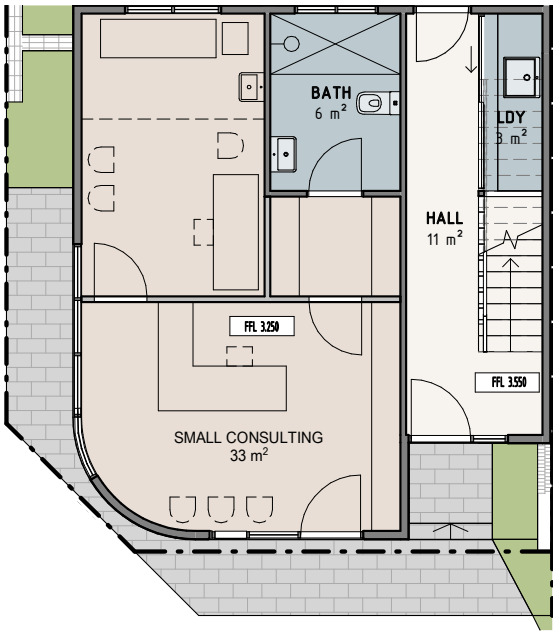
The multi-use spaces have dual key accessibility with a seperate entrance fronting Adelaide Crescent. They include provision for kitchenettes, a bathroom and an external sitting area with direct access to northern daylight. This enables these spaces to be used in a variety of ways and to be adaptable over time.

Setup as a large dedicated home office the owner can comfortably work from home for large periods undertaking office tasks such as meetings without encroaching on their private life. As a self contained studio with a seperate external entrance the owner can supplement their income by renting the space as short term accomodation. As a self contained studio with a universally accessible internal entrance and with the ability of the bathroom to be fitted with grab rails, owners can create a multi-generation residence which accomodates the needs of elderly parents or family members with a disability.



1 Multi-Use - Cafe/ Juice Bar

NOT TO SCALE



2 Multi-Use - Consulting

NOT TO SCALE

N 19

6. GROUND FLOOR DWELLINGS

A heavily articulated facade to Adelaide Crescent enhances the street frontage activity on the ground floor. Lot 1 is designed for commercial use on the ground floor helping to activate the corner of Adelaide Crescent and Marine Terrace .

Large glazing to all facades enhances street surveillance improving amenity and safety for the residents and the public. Visual privacy to the multi-use spaces on the ground floor is provided by breeze block screening and vertical planting.

A central courtyard including a large green wall provides access to daylight and private landscaping amenity on the ground floor.



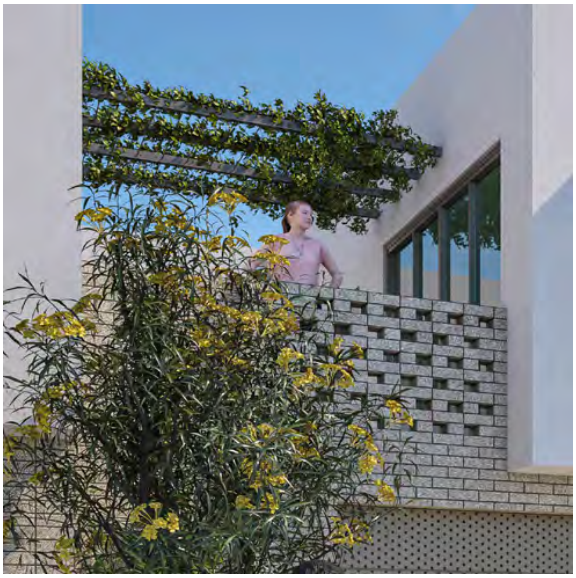


N•20

7. PRIVATE OPEN SPACE & BALCONIES

Each terrace house includes large terraces on the first floor with direct access to northern sunlight throughout the year. The terraces range in size from 12m2 to 17m^2 compared to the minimum area of SPP7.3 of 12m2. They are directly accessible from the open plan living area through a large glazed sliding door that enhances indoor-outdoor living. The terraces are shaded in summer by a pergola structure with vine planting. The incorporation of removable roof sheeting is to be explored during documentation.

In addition, each terrace house have private courtyatds directly accessible from multiple undercover areas for flexibility of use.



8. CIRCULATION AND COMMON SPACES

Not applicable for this type of development.

9. STORAGE

In addition to storage in the kitchens, bathrooms and bedrooms, 5m2 of internal storage and 12m2 of fully enclosed storage seperate to the dwelling is provided. This greatly exceeds the minimum standard of 5m2 for a 3 bedroom apartment set out in SPP7.3 and is achieved in part through an efficient use of the under stair space.



10.ACOUSTIC PRIVACY

The timber framed building envelope contains high levels of thermal and acoustic insulation and high performance double glazing to minimise the sound transfer inside from the surrounding environment. A 60mm airgap between lot boundaries minimises sound transfer between buildings.

Internal walls contain acoustic insulation minimising sound transfer between rooms. Acoustic bulk insulation to the first floor combined with a dual layered floor with an acoustic felt underlay for 'stepping sound' will minimise sound transfer between floors.

N•21

11.NOISE & POLLUTION

The lightweight timber construction method minimises the need for large heavyweight machinery and the effects of noise on the surrounding neighbourhood during construction. Furthermore specialised attentuation and shielding techniques will be undertaken by the contractor where required.

The air conditioning condenser units, heat pump hot water system and battery storage system for each townhouse are located in a fully enclosed storage area separate to the dwelling.

The proposed commercial use area of Lot 1 is appropriately located on the corner of Adelaide Crescent and Marine Terrace adjacent to the existing Rats Bar and Bay Merchant Cafe minimising sound transfer to the predominately residential neighbourhood.

12.FACADES

The facade design is inspired by the natural environment and cultural heritage of Binalup/ Middleton Beach. Referencing the soft forms of the whales in the sound, the waves that wrap around the headland and the periwinkles attached to the rocks, each facade is bookended by curved forms. The two storey form to both Adelaide Crescent corners presents a built form presence to the public realm.

Facade materials are a mix of sand render, weathered timber and sandy brickwork in keeping with the local coastal vernacular. The weathered timber cladding and weatherboard cladding is a reference to the first Middleton Beach hotel and the historic jetty and boardwalk.

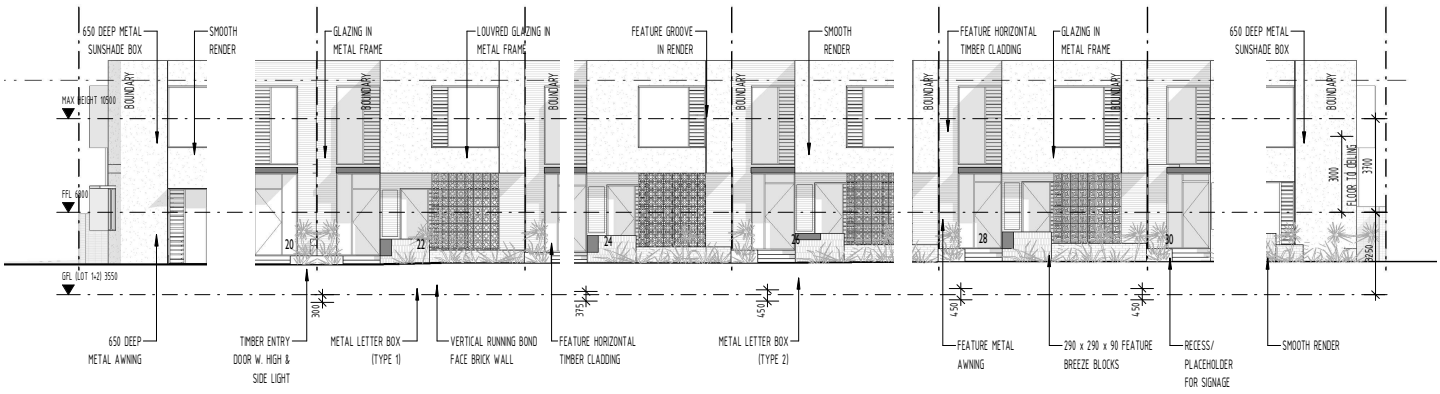
Colours are taken directly from the natural environment with a mix of off whites and sand coloured hues. The glazed components are lightly tinted to reflect the tourquise colours of the crystal clear waters of Ellen Cove. Each terrace house is adorned with a unique vibrant colour on the awnings, letterboxes and window reveals creating subtle individual identities. These colours are taken directly from the cultural narrative of the local christmas beatles shared by Traditional Owners.

All of the facades include vertical planting to embed the built form into the lushly vegetated neignbourhood. The patterns of the breeze blocks, perforated garage doors and screening elements further reference cultural narratives shared by Traditional Owners.

Adelaide Crescent is addressed with a heavily articulated facade whose form steps in and out in plan. Cantilevered bedrooms on the first floors create depth and shadow whilst a mix of weathered timber and rendered cladding creates rhythm and texture. Two storey glazing to the main entries highlights a vertical expression of form. Masonry landscaping walls of varying heights and bonds provides subtle seperation between the public and private realm. Individually patterned breeze block walls provide screening and privacy to the streetscape whilst creating texture and detail at a human scale.

The setback of the first floors on the Western and Eastern facades creates a gentle transition from the active streetscape of Adelaide Crescent to the residential streetscape of Marine Terrace and the Mews. Masonry boundary walls incorporating breeze block elements screen private courtyards beyond. First floor terraces encourage interaction with the residential streetscape. The first floor facades are broken up by glazing elements and a mixture of face brick, render and timber/ weatherboard cladding.

Vehicle access is via the Mews with a mix of single width and double width garage doors punctuated by planted landscaping and trees. The cantilevered first floor living spaces, large northern windows with expressed sunshade hoods and the recessed brickwork with expressed brick details break up the continuous facade. First floor terraces further interupt the form and as with the eastern and western facades encourage interaction with the pedestrian friendly Mews streetscape.



1 Adelaide Crescent Elevation

NOT TO SCALE



N•23





N•24

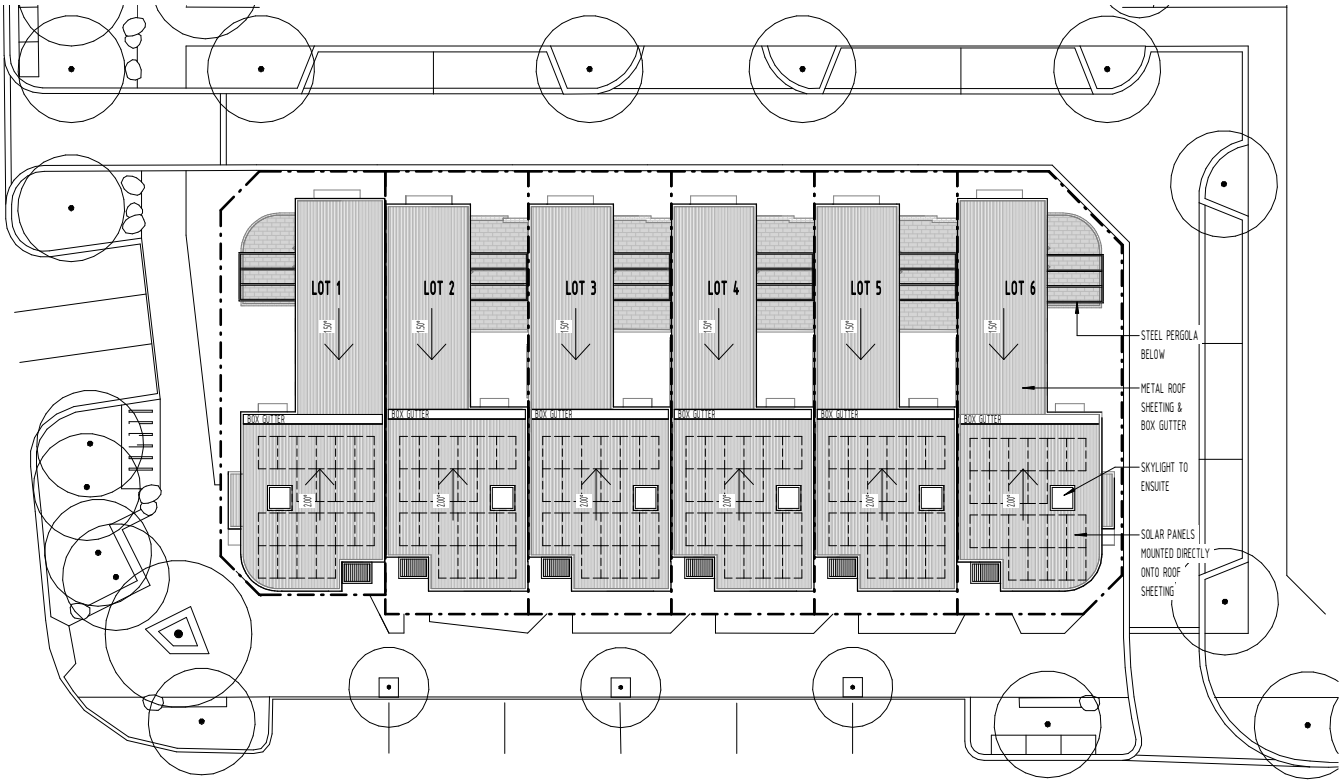
13.ROOF DESIGN

The simplicity of the roof design with a large width central box gutter enables rainwater to be directed into the courtyard through external rainheads and downpipes. This creates the opportunity for rainwater storage and reuse for watering the courtyard greenwall and planting.

The minimal pitch roof parapet design acknowledges the contemporary mixed use nature of the future stages of the MBAC precinct. This approach allows a reduction in building height minimising the impact of views and access to sunlight to the public realm.

Although older style developments in the neighbourhood use a mix of traditional hipped and gable roof styles newer developments such as the Albany Surf Lifesaving Club and housing on Wylie Crescent, Garden Street and Hare Street favour a contemporary minimal pitch approach.

Concealed fixed colorbond steel ultra roof sheeting provides robustness required for the coastal environment. A non reflective light roof colour is in keeping with the developments passive design approach.



1 Roof Plan
NOT TO SCALE

N

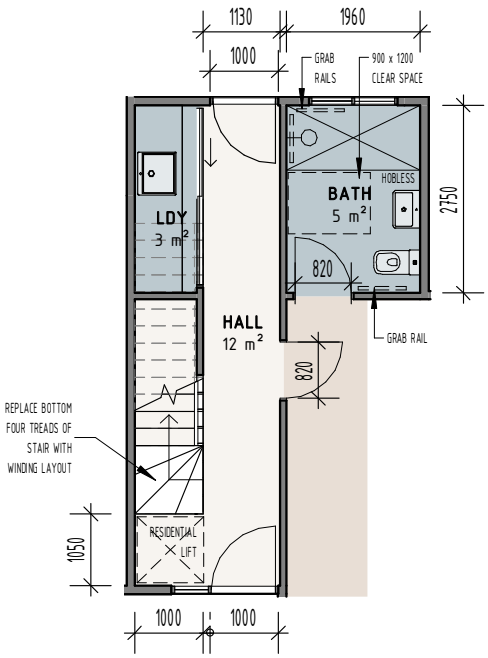
14. ACCESSIBLE DESIGN

Each dwelling adheres to the guidelines set out in SPP7.3 Apartment Design, Section 4.16 Universal Design and comply with the Liveable Homes essential design features checklist. Large bathrooms on the ground floor have been designed to be retrofitted with grab rails in line with the accessible standards.

Lot 1 will be a mix of residential and commercial classes. Universal access off Adelaide Crescent will be provided to the commercial space and via the Mews to the residential dwelling.

Lots 2-6 will be residential class dwellings. This will permit the multi-use spaces to be used as home offices and short term accomodation. Universal access will be provided to these dwellings via the Mews.

In addition, ageing in place has been considered with the provision to retrofit a domestic lift into the hallway.



1 GF Residential Lift
1:100 @ A4

N 26

ESSENTIAL DESIGN FEATURES CHECKLIST

Flat level walkway to entrance
- ✓ 1000mm minimum path
- ✓ 1200mm x 1200mm land area to entrance door

Wide entrance doorway
- ✓ Flush entry
- ✓ 820mm door clear width

Minimum of one accessible toilet on entry level
- ✓ 900mm x 1200mm (Clear of swinging door).
- ✓ If located in bathroom, toilet to be located in corner to enable installation of grab rails.

Minimum of one accessible shower on entry level
- ✓ Hobless.
- ✓ Located in corner of room to enable installation of grab rails if required.

Reinforced walls in bathroom and toilet
- ✓ Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grab rails.



15. AWNING AND SHADING DEVICES

Northern windows are protected by 450mm deep sunshading hoods designed to maximise winter sun gain whilst minimising summer sun penetration.

East and west windows are protected by internal louvred blinds and in the case of Lots 1 & 6 external vertical sunshading devices. The large glazed sliding doors and first floor terrace are shaded in summer by a pergola with decidious vines or a 'Vergola' type system.

Coloured canopies along Adelaide Crescent define each townhouse entry and create individual identities.

Shading to the footpaths along Adelaide Crescent and Marine Terrace and to the pedestrian friendly Mews is provided by proposed and existing endemic trees.

16. SIGNAGE

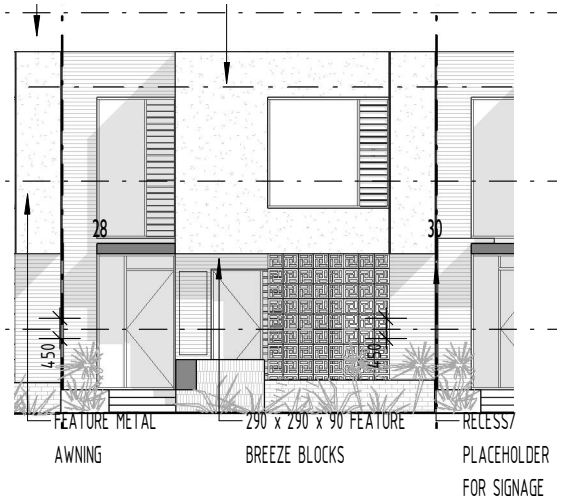
Clearly legible street numbers are provided at the entrance to each terrace house as part of a larger signage place holder design. The place holder is to be a removable portion of the wall cladding and is defined by a 10mm negative detail. This enables the street frontage to be consistent even in the case of a mix of numbers and larger signs being installed. A space for signage to the commercial space on lot 1 is provided in the same way adjacent to the entry door. All commercial signage is to be designed by the tenant in conjunction with the City of Albany's Signs Policy.

17. PUBLIC ART

The Adelaide Crescent and Marine Terrace corner feature tree seating is to be designed in collaboration with an artist and is to reference the cultural narratives identified in the context and site analysis. There is opportunity to incorporate artist input into the patterns of the breeze block screening walls and perforated metal garage doors.







N•27

18.LIGHTING

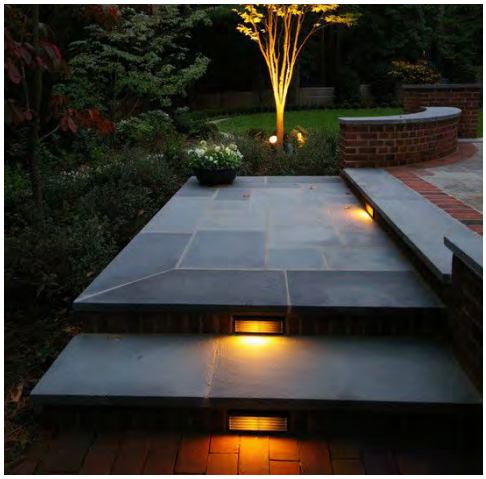
An external lighting strategy will be developed during the documentation stage by a specialist lighting consultant. It will aim to highlight landscaping and architectural features such as streetscape trees and the breeze block screening walls.

The lighting will be designed to minimise the impact on the habitable spaces of each dwelling with lights. Generally lights will be directed downwards with up-lighting on feature trees located away from bedrooms and short stay accomodation areas.

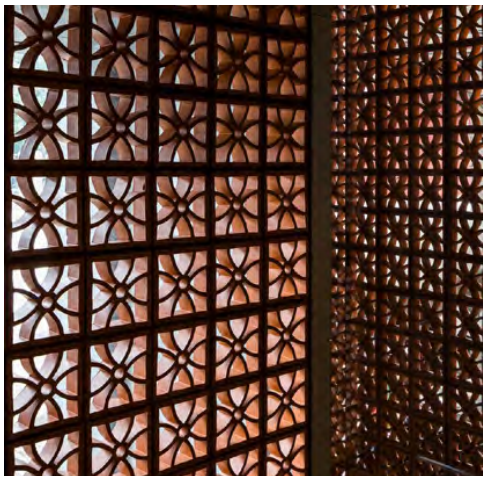
Discrete step lighting will provide safey to the changes of levels on Adelaide Crescent. Entry canopy and wall lights at the Adelaide Crescent entries and security lights in the garages in the Mews will be controlled via a timed motion sensor with a manual over-ride.

The feature seating on the corner of Adelaide Crescent and Marine Terrace is to include built-in LED lighting to illuminate the tree.









19. DRYING AREAS

External undercover drying areas are provided to each terrace house with good ventilation. They are not visible from public view.

20. FENCING, SCREENING & BALUSTRADES

1.8m high boundary fences to Marine Terrace and the eastern Mews include integrated breeze blocks that complement the Adelaide Crescent facade. These fences provide protection from the prevailing winds whilst enabling visual connection to the street.

Low height landscaping walls along Adelaide Crescent define the public and private threshold. Breeze block walls with vertical planting creates privacy to the multi-use space without compromising visual connection.

The 1m high first floor terrace balustrades include a hit and miss face brick design to enable visual permeability to the streetscape.

21. BUILDING SERVICES

Dedicated enclosed service and storage areas concealed from public view for bins, meter boxes, hot water systems, battery storage systems and air conditioning systems are provided to each terrace house. The Solar PV system will be integrated into the roof design without the requirement of a separate unslightly frame.







22. ENERGY EFFICIENCY

A number of initiatives have been included in order to increase the energy efficiency performance of the development supporting the passive design strategies, including:

- Space heating and cooling shall be provided by reverse cycle air conditioning with a minimum 5 star energy rating. Further, the rated capacity of the air conditioning equipment shall not exceed the design heating capacity by more than 20% and the design cooling capacity by more than 10%.
- A heat pump hot water system will be installed with an efficiency of more or equal to 95%, or be rated 6 stars minimum.
- All cooking appliances are to be electric in order to allow the development to be gas-free.
- All indoor lighting shall be LED technology and the maximum illumination power density shall be at least 20% less than specified by the NCC.
- All outdoor lighting shall be LED technology and be controlled by a combination of motion and daylight sensors.
- A 6kW solar PV array with battery storage is envisaged to be provided for each dwelling.
- The development will be detailed and constructed in order to minimise air leakages and achieve an air change rate of maximum 3 ACH. This includes a dual building envelope membrane system in line with Passiv Haus standard specifications.

Further, the insulation and window selections exceed minimum standards with R-values of 3.10 for the floor, 5.00 for the roof, 3.10 (min) for the external walls, and 2.50 (x2) for the boundary walls between dwellings, while windows have a U-value of less then 2.7.







23. WATER MANAGEMENT & CONSERVATION

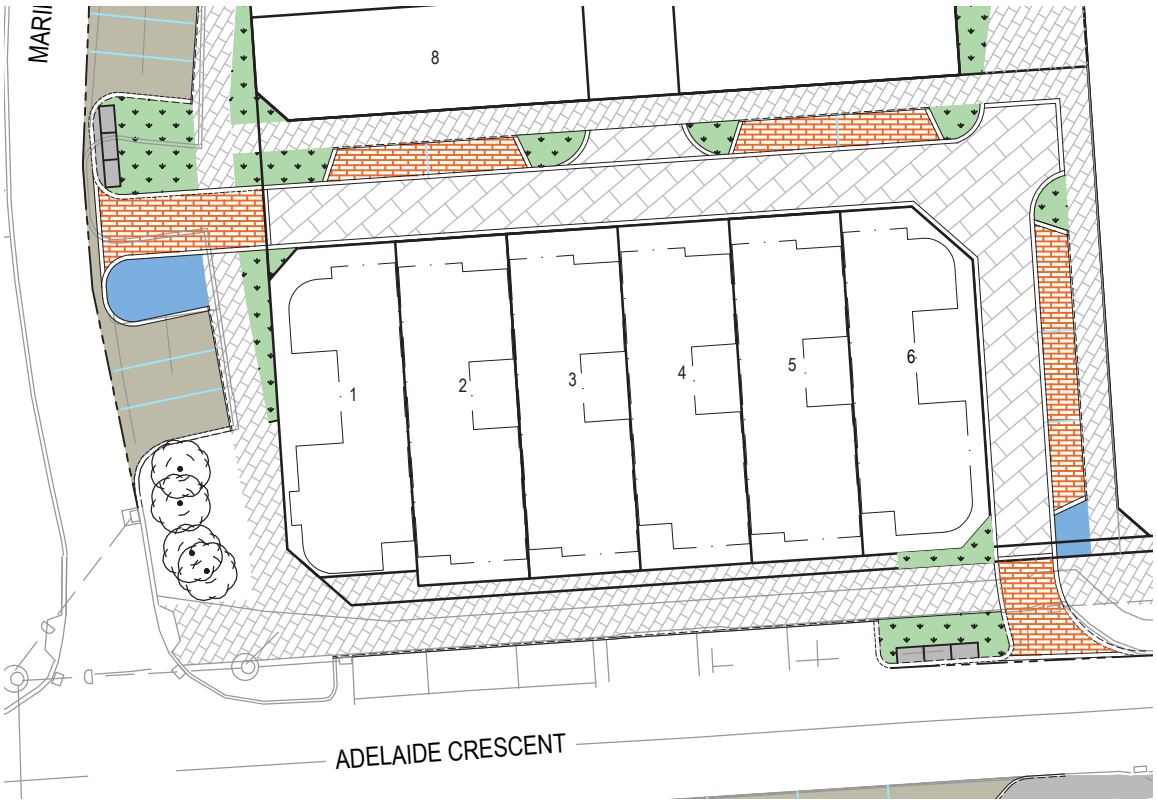
Water management and conservation responses will be in accordance with Approved Urban Water Management Plan (RPS). Runoff from road pavement surfaces is to be directed to vegetated biofilters. Runoff from impervious surfaces within lots to be directed soakwells, with piped overflow to street system as requested by the City of Albany. Major events flood routed through road reserves, public open space. Overland flows (in excess of the capacity of the piped network) will be directed along road reserves and public open space to approved receiving waters (as agreed with the City of Albany).

Planted courtyards with green walls reduce storm water run off whilst providing private green space to each dwelling. These may include slimline rainwater tanks for water reuse. Permeable paving surfaces for car bays in the Mews help to recharge the ground, and the inclusion of bio retention gardens assist with site water run-off.

24. WASTE MANAGEMENT

The development proposal provides individual storage areas for each dwelling to contain their individual waste bins (3 bin system) screened from public view. These areas are secure and highly accessible by the dwellings residents to maximise useability and functionality. The City's 'FOGO' system arrangements will be applicable to this development and the appropriate area has been provided to accommodate these separate bin allocations to each of the 6 dwellings

The bins will be collected via the City of Albany's typical residential collection arrangements from prescribed locations in the adjacent public street network. These locations and full collection strategy are detailed in the attached Waste Management Plan (by Encycle Consultants) that has been prepared in consultation with the City of Albany.



N•31



Should you require any further clarification regarding the information in this report please contact the project Architect;

David Gibson
Principal Architect

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m 0417 395 186
e david@ptxarchitects.com.au
w www.ptxarchitects.com.au

N•32

APPENDIX F

Bushfire Management Plan

Bushfire Management Plan

Lot 9001 Flinders Parade Middleton Beach

Ref 20-081
Ver A
February 2021

LUSHFIRE & PLANNING
3 Paterson Rd
Pinjarra WA 6208
0418 954 873
ABN 74 232 678 543

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference:	Lot 9001 DP413972 Flinders Parade				
Suburb:	Middleton Beach	**State:**	WA	**P/code:**	6330
Local government area:	Albany				
Description of the planning proposal:	Mixed Use subdivision				
BMP Plan / Reference Number:	20-081	**Version:**	A	**Date of Issue:**	21/02/2021
Client / Business Name:	Development WA				

Reason for referral to DFES	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 BPC elements)?	☐	☒

Is the proposal any of the following special development types (see SPP 3.7 for definitions)?

Unavoidable development (in BAL-40 or BAL-FZ)	☐	☒
Strategic planning proposal (including rezoning applications)	☐	☒
Minor development (in BAL-40 or BAL-FZ)	☐	☒
High risk land-use	☐	☒
Vulnerable land-use	☐	☒

If the development is a special development as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

The proposed temporary emergency access way does not comply with AS3.6. Any high risk land uses will be subject to a separate development application, Bushfire Management Plan and risk assessment.

Note: The decision maker (e.g. the local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Geoffrey Lush	Level 2	BPAD 27682	28/02/2022
Company		**Contact No.**	
Lush Fire & Planning		0418 954 873	

I declare that the information provided in this bushfire management plan is to the best of my knowledge true and correct.

Signature of Practitioner  **Date** 21/02/2021

The subject land has an area of 1.2926 hectares and is situated on the corner of Flinders Parade and Adelaide Terrace. A portion of the subject land is located on the eastern side of Flinders Parade.

The subject land is vacant with minimal vegetation. The surrounding land has been developed for a variety of purposes including for public recreation, residential dwellings, holiday accommodation units and commercial uses. Mount Adelaide is to the south of the site and Middleton Beach to the east.

A large portion of the subject of the subject land is designated as being bushfire prone land.

The subject land is included in Special Use Zone No 25 under the City of Albany Local Planning Scheme No 1. It is subject to the Middleton Beach Activity Centre Structure Plan (2017) and associated Design Guidelines.

The primary vegetation is located on the slopes of Mount Adelaide (Reserve 27068). The dominant vegetation types are mixed eucalypt areas with a dense mixed scrub understory and coastal heathlands near King George Sound. Fragmented open heaths are associated near the fringes of massive granite outcrops, while dense heathland including stunted eucalypts occurs on shallow soils. Along the frontage to Adelaide Crescent there are more prominent Peppermints.

The proposed subdivision plan will create ten (10) lots of various sizes. Six of these will be for single attached dwellings along Adelaide Crescent. The other three lots on the western side of Flinders Parade are future mixed use development. Proposed lot 10 on the eastern side Flinders Parade is for a future hotel development.

A BAL Contour Map has been prepared and all of the lots will have a BAL-29 or lower rating.

While the subject land does not contain any bushfire prone vegetation it is located within the 100m bushfire prone buffer to the Mount Adelaide reserve. This reserve is the major local hazard area and contains significant areas of remnant vegetation with high fuel loads and steep slopes.

The proposed subdivision complies with the objectives of State Planning Policy 3.7 as:

1. **It avoids any increase in the threat of bushfire to people, property and infrastructure.**
   The proposed subdivision design does not increase the bushfire threat as the proposed development areas will have a BAL-29 or lower rating.
2. **It reduces vulnerability to bushfire through the identification and consideration of bushfire risks in the design of the development and the decision-making process.**
   The bushfire hazard and risks have been identified and assessed in this report.
3. **The design of the subdivision and the development takes into account bushfire protection requirements and includes specific bushfire protection measures.**
   The proposed subdivision complies with the Bushfire Protection Criteria as contained in Version 1.3 of the Guidelines for Planning in Bushfire Prone Areas (Dec 2017).
4. **Achieves an appropriate balance between bushfire risk management measures and biodiversity, conservation values, and environmental protection.**
   There is only a small area of scrub vegetation which has regenerated on the site that is proposed to be cleared for development and this has no conservation values.

Document Control

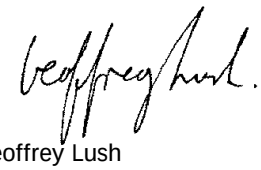
Street No	Lot No	Plan	Street Name		
1	9001	413972	Flinders Parade		
Locality	Middleton Beach		**State** WA	**Postcode**	6330
Local Government Area	Albany				
Project Description	Mixed use subdivision				
Prepared for	Development WA				

Ref No	Revision	Date	Purpose
20-081	A	21 February 2021	Preliminary

Name	Geoffrey Lush	Company	Lushfire & Planning
BPAD	Level 2 Practitioner	Accreditation No Expiry	27682 February 2022

Disclaimer

The measures contained in this report do not guarantee that a building will not be damaged in a bushfire. The ultimate level of protection will be dependent upon the design and construction of the dwelling and the level of fire preparedness and maintenance under taken by the landowner. The severity of a bushfire will depend upon the vegetation fuel loadings; the prevailing weather conditions and the implementation of appropriate fire management measures.



Geoffrey Lush
21 February 2021
geoffrey@lushfire.com.au

BPAD
Bushfire
Planning & Design
Accredited Practitioner
Level 2

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1.0 Proposal Details

1.1 Introduction

This bushfire management plan is prepared for the proposed subdivision and development of Lot 9001 Flinders Parade, Middleton Beach. The subject land is located approximately 3km east of the Albany city centre. The property details are documented in Table 1.

The aim of this Report is to demonstrate that the proposed subdivision will comply with State Planning Policy SPP3.7 Planning in Bushfire Prone Areas; the associated Guidelines and Bushfire Protection Criteria. It will document how the hazard level will be reduced and maintained for the life of the development.

A previous Bushfire Management Plan was prepared for the Middleton Beach Activity Centre by Calibre Consulting in 2015 (Ref 15204 Ver C).

The Western Australian Planning Commission approved the subdivision of the subject land (Ref 154637) in March 2017. Condition 14 required that as far as is practicable, non-residential developments are to incorporate the bushfire resistant construction requirements of the Building Code, including as appropriate the provisions of AS3959 Construction of Buildings in Bushfire Prone Areas.

Condition 15 required that plan is to be provided to identify areas of the proposed lot(s) that have been assessed as BAL-40 or BAL-Flame Zone. The associated Advice Note stated that in regard to Conditions 14 and 15, a revised/updated BAL contour plan will be required at any future development stage, showing the updated lot layout and configuration. The updated BAL contour plan was subsequently prepared and is dated the 8th August 2018.

Table 1 Land Details

No	Lot	Plan	Vol	Folio	Registered Proprietor
1	9001	413972	2984	245	Western Australian Land Authority

1.2 Existing Conditions

The existing site conditions are shown in Figure 1. The subject land has an area of 1.2926 hectares and is situated on the corner of Flinders Parade and Adelaide Terrace. A portion of the subject land is located on the eastern side of Flinders Parade. The site also has secondary frontages to Marine Terrace and Barnett Street.

The subject land is vacant with minimal vegetation. The surrounding land has been developed for a variety of purposes including for public recreation, residential dwellings, holiday accommodation units and commercial uses.

The site is over looked by Mount Adelaide which is a high profile community landmark of historic, ecological and social importance. Mount Adelaide and the adjacent Mount Clarence are prominent exposed granite outcrops with very steep slopes, fringed by areas of broken granite and steep wooded slopes. Tourism attractions are concentrated near the peak of Mount Clarence and Mount Adelaide and along the ridge between both peaks. Mount Adelaide contains the Princess Royal Fortress and National Anzac Centre. There is also important infrastructure including communications and water supplies.

Access to the site is from Flinders Parade, Adelaide Crescent and Marine Terrace. Marine terrace is a designated tourist route following the coast line back to Albany Port and the City Centre.

The site has normal reticulated services including water and power.

The site has been excavated but is relatively flat with an elevation of between 2 and 3m AHD. South of Adelaide Terrace the land slopes steeply upwards in the Mount Adelaide reserve.



LEGEND

- SUBJECT LAND
- VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject site)
- GEO REFERENCE
- WATER MAIN & HYDRANT

FIGURE 1
EXISTING CONDITIONS

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

N

Job No 20-081

Rev	Description	Date
A	Preliminary	02/12/2021

LUSHfire and planning
geoffrey@lushfire.com.au
0418 954 873

1.3 Bushfire Prone Land

A significant portion of the subject of the subject land is designated as being bushfire prone land as shown in Figure 2. The designation of bushfire prone areas triggers:

- The application of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas under the Building Code of Australia;
- The provisions of the Planning and Development (Local Planning Schemes) Regulations 2015; and
- The application of State Planning Policy SPP3.7 Planning in Bushfire Prone Areas.

State Planning Policy SPP3.7 Planning in Bushfire Prone Areas requires that any subdivision application must be accompanied by a bushfire management plan which includes:

a) a Bushfire Attack Level (BAL) Assessment or a BAL Contour Map to show the expected BAL ratings for the developed site. The BAL Contour Map shows the proposed BAL ratings based upon any clearing or landscaping;

b) the identification of any bushfire hazard issues arising from the BAL Contour Map or the BAL assessment; and

c) an assessment against the bushfire protection criteria requirements contained within the Guidelines demonstrating compliance within the boundary of the development site.

1.4 Town Planning

The subject land is included in Special Use Zone No 25 under the City of Albany Local Planning Scheme No 1.

The zone provides for the development of a mixed use precinct, including a hotel, residential and commercial uses. The provisions for this as contained in Schedule 4 of the Scheme include:

2 Due regard shall be given to the Activity Centre Structure Plan in accordance with the relevant clauses within the deemed provisions for Local Planning Schemes.

3 Development will be compliant with design guidelines that have been prepared.

6 The Middleton Beach Activity Centre has been identified as a bushfire prone area and development and use of the site shall comply with the provisions of the approved Bushfire Management Plan and the Scheme.

7 All residential buildings and, as far as is practicable, non-residential developments, are to incorporate the bushfire resistant construction requirements of the Building Code, including as appropriate the provisions of AS3959 Construction of Buildings in Bushfire Prone Areas (as amended), commensurate with the bushfire attack level (BAL) established for the relevant portion of the site.

The Middleton Beach Activity Centre Structure Plan is contained in Appendix 1 and this was endorsed by the Western Australian Planning Commission in January 2017.

The City of Albany adopted the Middleton Beach Design Guidelines Policy on the 23 October 2018.

The Design Guidelines have been prepared to guide development and built form within the Middleton Beach Activity Centre Precinct.



FIGURE 2
BUSHFIRE PRONE LAND

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A	Preliminary	02/12/2021

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1.5 Fire Management Notice

The 2020 / 2021 Fire Management Notice stipulates that land with an area of 4,000m^2 or less is to comply with:

- ❖ Asset Protection Zone conditions
- ❖ Fine fuel load (see definitions) is to be reduced and maintained to an average of no more than two tons per hectare across the whole property
- ❖ Install hazard specific fire breaks

It also states that where an approved Bushfire Management Plan is in place, all properties covered by the Plan are to comply with the conditions of the plan.

1.6 Proposed Development

The subdivision plan is shown in Figure 3 and it is proposed to create ten (10) lots as follows:

- Six lots with a maximum area of 185sqm;
- Three lots with areas between 1,283sqm and 2,063sqm;
- One lot of 3,718sqm being on the eastern side of Flinders Parade.
- A POS reserve of 531sqm; and
- A mall reserve of 572sqm.

There are two subdivision roads reserves being 8.5 and 14m wide and they are connected by the mall. There is a 1 to 2m road widening along Adelaide Crescent.

The proposed Lots 1-6 will have frontages of 7.4m to Adelaide Terrace and will be developed for single attached dwellings with rear lane access.

Proposed lots 7-9 will provide appropriately sized lots to be marketed and facilitate future mixed use development in accordance with the planning framework.

Proposed lot 10 would facilitate a hotel development. These uses and development would be anticipated to be proposed in accordance with the scheme and structure plan.

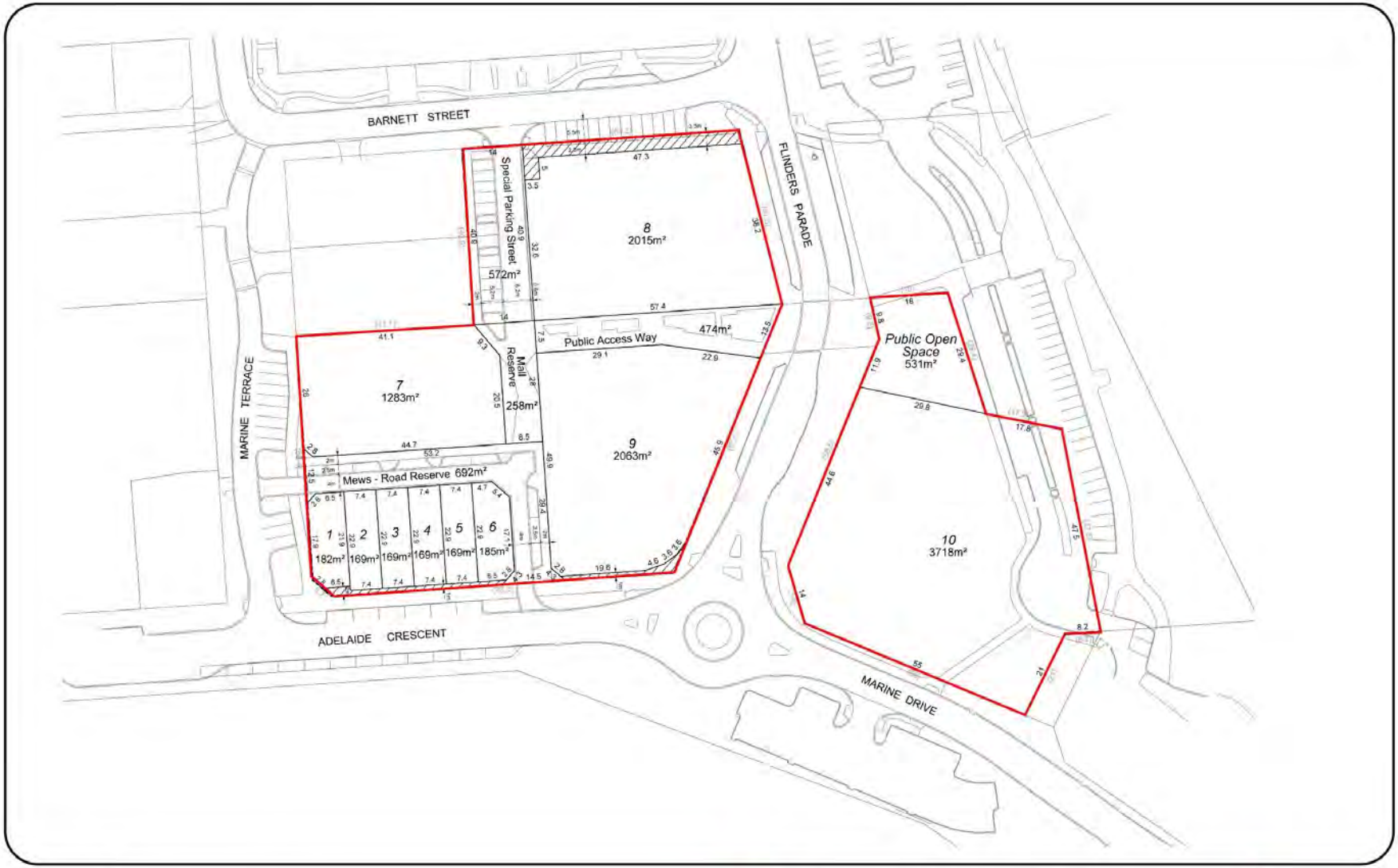


FIGURE 3
PROPOSED SUBDIVISION

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2.0 Environmental Considerations

State Planning Policy 3.7 (SPP3.7) policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values.

2.1 Clearing, Revegetation and Landscaping

The existing vegetation within the subject land will be cleared for the construction of the development.

Landscaping will be in accordance with the Landscape Master Plan as contained in Appendix 2. The public open areas within the site will be developed and maintained as managed reserves / low threat vegetation.

3.0 Bushfire Assessment Results

3.1 Assessment Inputs

3.1.1 Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with:

- Clause 2.2.3 of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas;
- The Visual Guide for Bushfire Risk Assessment in Western Australia; and
- Applicable Fire Protection Australia BPAD Practice Notes.

It is noted that AS3959 (2018):

- Commenced operation from the 1st May 2019 and this alters the classification of woodland and scrub. Woodlands are now defined as having a grassy understorey with isolated shrubs while Scrub vegetation (tall heath) has been increased from 4 to 6m height.
- Amendment No 2 to AS3959 (December 2020) altered the characteristics of forests and woodlands to reference trees up to 30m high ie from 0m - 30m.

The vegetation plots are shown in Figure 4. The primary vegetation is located on the slopes of Mount Adelaide. The vegetation over the whole of the Mount Adelaide and Mount Clarence reserve is complex and described as follows (1).

> The Mount Clarence and Mount Adelaide reserve supports a wide variety of native vegetation types. The dominant vegetation types are mixed eucalypt woodlands with a dense mixed scrub understory and coastal heathlands near King George Sound. Fragmented open heaths are associated near the fringes of massive granite outcrops, while dense heathland including stunted eucalypts occurs on shallow soils.

However, the lower slopes within 100m of the subject land contain a larger percentage of forest species with significant fuel loads. There are also a number of rocky and cleared areas, which are being revegetated.

While the vegetation has mixture of heights, it is predominantly 6m or more in height and adopting a conservative approach it has been classified as low forest rather than as scrub.

The location of the vegetation photographs is shown in Figure 5.

1 Working on Fire (2015) Fuel Management Strategies and Works Program for Specific Areas of Land Managed by the City of Albany page 16.



LEGEND

- SUBJECT LAND
- VEGETATION ASSESSMENT AREA (150m from boundary of the subject land)
- GEO REFERENCE
- UPSLOPE
- VEGETATION CLASSIFICATION
  - CLASS A FOREST
  - CLASS D SCRUB
  - CLASS G GRASSLAND
- EXCLUDED
  - 2.2.3.2(e) NON VEGETATED
  - 2.2.3.2(f) LOW THREAT VEGETATION

Location Details:	Lot 9001 Flinders Parade Middleton Beach
Assessment Date:	11/12/2020
Prepared by:	G Lush
Accreditation Level:	Level 2
Accreditation Number:	BPAD 27682
Accreditation Expiry Date:	February 2022
Date of Aerial Photo:	March 2020

FIGURE 4
VEGETATION CLASSIFICATION

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Figure 5 Photograph Locations

Photo No 1 **Plot No 1**

Vegetation Classification
Excludable - 2.2.3.2(f) Low Threat Vegetation

Description
Middleton Beach foreshore public open space.



Photo No 2 **Plot No 1**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Middleton Beach foreshore public open space, extending into the eastern portion of Lot 9001.



Photo No 3 **Plot No 1**

Vegetation Classification
Excludable - 2.2.3.2(f) Low Threat Vegetation

Description
Existing residential development with managed gardens. Plot 2 scrub vegetation in the foreground.



Photo No 4 **Plot No 2**

Vegetation Classification
Class D Scrub - Closed scrub D-13

Description
Acacia scrub within the subject land less than 6m in height.



Photo No 5 **Plot No 3**

Vegetation Classification
Class A Forest - Low open forest A-04

Description
Peppermints to 8m height at the bottom of the slope, with 50% canopy coverage over dense mixed understorey and grass.



Photo No 6 **Plot No 3**

Vegetation Classification
Class A Forest - Low open forest A-04

Description
Peppermints to 8m height at the bottom of the slope, with 50% canopy coverage over dense mixed understorey and grass. Feature survey undertaken to confirm the boundary of the reserve.



Photo No 7 **Plot No 3**

Vegetation Classification
Class A Forest - Low open forest A-04

Description
Cleared area subject to revegetation. Low forest generally less than 10m height in the background.



Photo No 8 **Plot No 3**

Vegetation Classification
Class A Forest - Low open forest A-04

Description
Cleared area subject to revegetation. Low forest generally less than 10m height in the background.



Photo No 9 **Plot No 3**

Vegetation Classification
Class A Forest - Low open forest A-04

Description
Cleared area subject to revegetation. Low forest generally less than 20m height in the background.



Photo No 10 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Mixed Eucalypts to 10m height but generally smaller with variable canopy coverage generally more than 30%. Scrub understorey with dense areas of fallen branches and elevated fuel.



Photo No 11 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Mixed Eucalypts to 10m height but generally smaller with variable canopy coverage generally more than 30%. Scrub understorey with dense areas of fallen branches and elevated fuel.



Photo No 12 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Mixed Eucalypts to 10m height but generally smaller with variable canopy coverage generally more than 30%. Scrub understorey with dense areas of fallen branches and elevated fuel.



Photo No 13 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Peppermints to 8m height at the bottom of the slope, with 50% canopy coverage over dense mixed understorey and grass.



Photo No 14 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Mixed Eucalypts to 10m height but generally smaller with variable canopy coverage generally more than 30%. Scrub understorey with dense areas of fallen branches and elevated fuel.



Photo No 15 **Plot No 3**

Vegetation Classification
Class A Forest - Open forest A-03

Description
Mixed Eucalypts to 10m height but generally smaller with variable canopy coverage generally more than 30%. Scrub understorey with dense areas of fallen branches and elevated fuel.



3.2 Assessment Outputs

3.2.1 BAL Contour Map

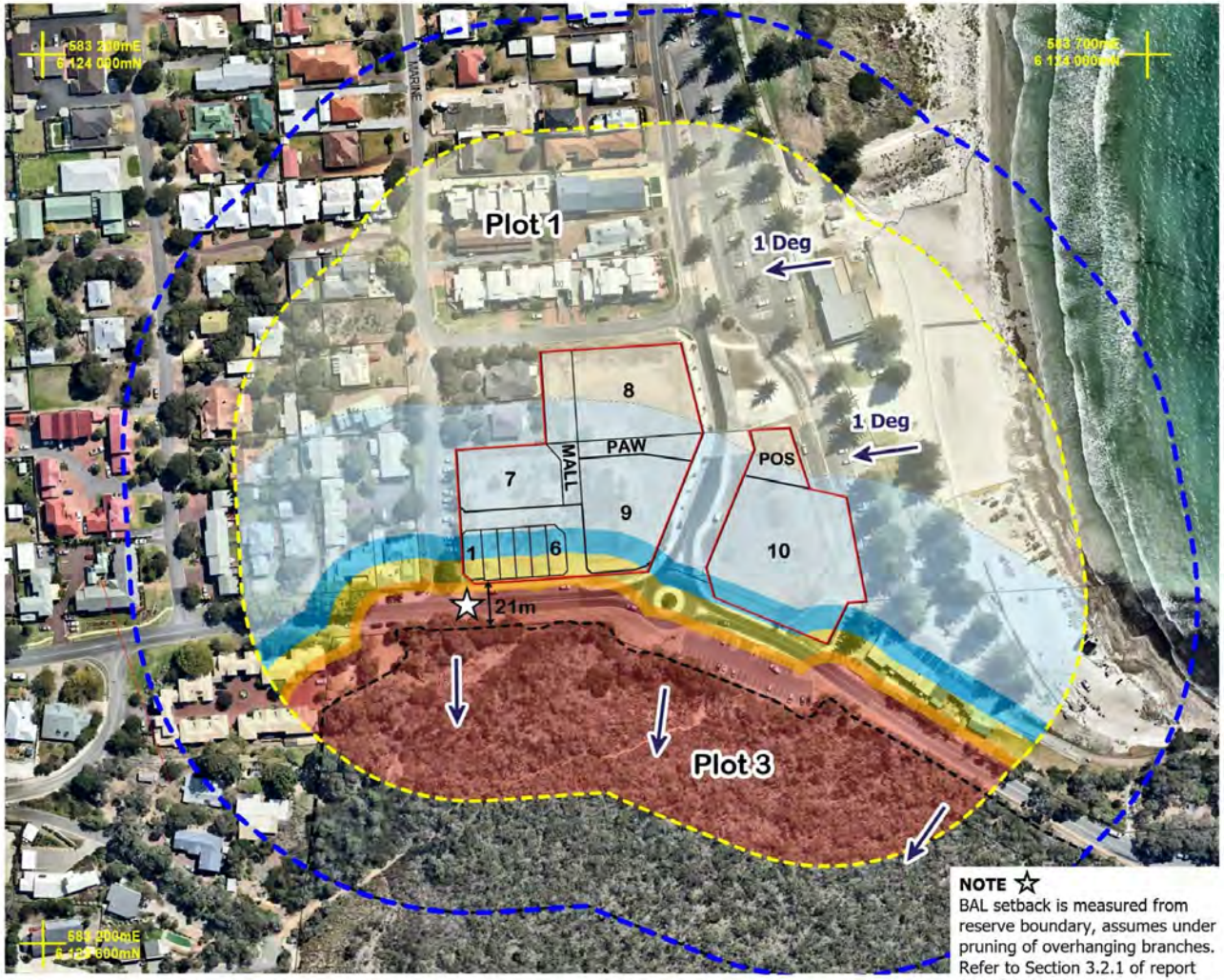
A BAL Contour Map is a plan of the subject lot/s illustrating the potential radiant heat impacts and associated indicative BAL ratings in reference to any classified vegetation remaining within 100 metres of the assessment area after the development is completed.

The BAL Contour Setbacks are based upon the following vegetation modifications / assumptions:

- That Plot 2 vegetation will be cleared for the construction of the development; and
- In Plot 3 branches overhanging the Adelaide Crescent boundary of Reserve 27068 will be under pruned to a height of 2m. This allows BAL setback has been measured from the base of the trees which are contained within Reserve 27068. This has been confirmed by a feature survey with the boundary peg shown below.



Boundary of Reserve 27068



LEGEND

- SUBJECT LAND
- VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject site)
- BAL CONTOUR ASSESSMENT AREA (100m from the external boundary of the subject site)
- PROPOSED CADASTRE
- UPSLOPE
- VEGETATION PLOT
- GEO REFERENCE
- INDICATIVE BAL/ RATING
  - BAL-FZ
  - BAL-40
  - BAL-29
  - BAL-19
  - BAL-12.5
  - BAL-Low

Location Details:	Lot 9001 Flinders Parade Middleton Beach
Assessment Date:	11/12/2020
Prepared by:	G Lush
Accreditation Level:	Level 2
Accreditation Number:	BPAD 27682
Accreditation Expiry Date:	February 2022
Date of Aerial Photo:	March 2020

FIGURE 6
BAL CONTOUR MAP

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

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The BAL Contour Map is shown in Figure 6 and the setbacks are documented in Table 2. All of the proposed development / building envelopes will have a BAL - 29 rating or less.

Lot 10 is only impacted in the south eastern corner and depending upon the site setbacks any building may have a lower BAL rating.

It is also noted that as the hazard vegetation is situated only on one side of the development, then the shielding provisions in AS3959 may also apply and these allow for a reduction of the BAL rating by one level.

Table 2 BAL Setbacks

Lot	Plot (1)	Vegetation Classification	Effective Slope	Separation Distance (2)	BAL Rating
1	3	Class A - Forest	Upslope	22m	BAL – 29
2	3	Class A - Forest	Upslope	21m	BAL – 29
3	3	Class A - Forest	Upslope	21m	BAL – 29
4	3	Class A - Forest	Upslope	21m	BAL – 29
5	3	Class A - Forest	Upslope	21m	BAL – 29
6	3	Class A - Forest	Upslope	21m	BAL – 29
7	3	Class A - Forest	Upslope	52m	BAL – 12.5
8	3	Class A - Forest	Upslope	80m	BAL – 12.5
9	3	Class A - Forest	Upslope	22m	BAL – 29
10	3	Class A - Forest	Upslope	23m	BAL – 29

Notes
(1) The selected vegetation plot is the plot with the highest BAL rating.
(2) The separation distance is measured to the nearest point on the defined building envelope boundary, development setback from the Busselton Bypass or the 25m asset protection zone (whichever is greatest).

4.0 Identification of Bushfire Hazard Issues

While the subject land does not contain any bushfire prone vegetation it is located within the 100m bushfire prone buffer to the Mount Adelaide reserve. This reserve contains significant areas of remnant vegetation with high fuel loads and steep slopes. These make fire mitigation difficult as noted in Council's management plans and reports. To manage this threat at an acceptable level it will require specific measures to be implemented and maintained within the subject land.

5.0 Assessment Against the Bushfire Protection Criteria

5.1 BPC Elements

The proposed subdivision has been assessed against the Bushfire Protection Criteria as contained in Version 1.3 of the Guidelines (Dec 2017).

5.1.1 Element 1 Location

Intent: 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.	
Acceptable Solution	**Compliance**
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.	Section 4.0 identifies the bushland hazard which is one side of the subject land. Upon completion the development will have a moderate bushfire hazard level and the development areas will have a BAL–29 or less rating.

5.1.2 Element 2 Siting and Design of Development

Intent: To ensure that the siting and design of development minimises the level of bushfire impact.	
Acceptable Solution	**Compliance**
A2.1 Asset Protection Zone Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements: • 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. • Management: the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'.	The lots may not be large enough to provide an asset protection zone within the lot boundary. The APZ will extend over the adjacent road reserves. This complies with the Guidelines which state on page 63 of the BPC that the APZ may include public roads, waterways, footpaths, buildings, rocky outcrops, golf courses, maintained parkland as well as cultivated gardens in an urban context.

5.1.3 Element 3 Vehicular Access

Intent: To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.	
Acceptable Solution	**Compliance**
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.	The subject land has three different vehicular access routes being from Marine Drive, Adelaide Terrace and Flinders Parade.
A3.2 Public road A public road is to meet the requirements in Table 6, Column 1.	The vehicular access technical requirements (BPC Table 6) are shown in Table 3 at the end of this section. The proposed subdivision roads are to be designed in accordance with Institute of Public Works Engineering Australia WA Division Inc. (2009) Local Government Subdivisional Guidelines.
A3.3 Cul-de-sac or dead-end road A cul-de-sac and/or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/or will need to be demonstrated by the proponent), the following requirements are to be achieved: • Requirements in Table 6, Column 2; • 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); and • Turn-around area requirements, including a minimum 17.5 metre diameter head.	Not applicable as the car parking 'street' connects to the Mall and internal subdivision road which will potentially allow emergency vehicles forward access. In addition, the street is only 40m in length and leading away from the hazard on land with a BAL-12.5 or BAL-Low rating.

Acceptable Solution	Compliance
A3.4 Battle-axe Battle-axe access leg should be avoided in bushfire prone areas. Where no alternative exists, (this will need to be demonstrated by the proponent) all of the following requirements are to be achieved: • Requirements in Table 6, Column 3; • Maximum length: 600 metres; and • Minimum width: six metres.	Not applicable.
A3.5 Private driveway longer than 50 metres A private driveway is to meet all of the following requirements: • Requirements in Table 6, Column 3; • 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).	Not applicable
A3.6 Emergency access way An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet all of the following requirements: • Requirements in Table 6, Column 4; • 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.	Not applicable.

Acceptable Solution	Compliance
A3.7 Fire service access routes (perimeter roads) Fire service access routes are to be established to provide access within and around the edge of the subdivision and related development to provide direct access to bushfire prone areas for fire fighters and link between public road networks for firefighting purposes. Fire service access routes are to meet the following requirements: • Requirements Table 6, Column 5; • 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;	Not applicable.
A3.8 Firebreak width 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.	Not applicable as all lots are less than 0.5 hectares.

Table 3 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	1:10	1:10	1:10	1:10	1:10
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 min inner radius (m)	8.5	8.5	8.5	8.5	8.5
*Refer to E3.2 Public roads: Trafficable surface					

5.1.4 Element 4 Water

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.	
Acceptable Solution	**Compliance**
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.	Yes, the subdivision will be provided with reticulated water and there are existing hydrants in close proximity to the site as shown in Figure 1.
A4.2 Non-reticulated areas Water tanks for fire fighting purposes with a hydrant or standpipe are provided and meet the following requirements: • 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 further most house site within the residential development to allow a 2.4 fire appliance to achieve a 20 minute turnaround time at legal road speeds;	Not applicable.
A4.3 Individual lots within non-reticulated areas Single lots above 500 square metres need a dedicated static water supply on the lot that has the effective capacity of 10,000 litres.	Not applicable.

6.0 Responsibilities for Implementation and Management of the Bushfire Measures

The management of the risk posed by bushfires is a shared responsibility between landowners, government and industry. These responsibilities are documented in Table 4.

The management measures listed below should not be construed to assure total bushfire protection and do not guarantee that a building will not be damaged in a bushfire. The severity of a bushfire will depend upon the vegetation fuel loadings; the prevailing weather conditions and the implementation of appropriate fire management measures.

Table 4 Implementation

No	MANAGEMENT ACTION
1.0 Developer Prior to Issue of Titles (Subdivision Clearance)	
1.1	Construction of the subdivision roads to standards outlined in the BMP to ensure safe access and egress.
1.2	Provision of a plan demonstrating the location and capacity of fire the fire hydrants shall be submitted to the City of Albany and DFES.
1.4	That a notification be placed upon the Certificates of Title of all lots / development sites with a rating of BAL-12.5 or above advising landowners of this Bushfire Management Plan.
1.5	Designing landscaping within the BAL setback as low threat vegetation/low fuel zone. This should comply with the Asset Protection Zone specifications as follows: 1) 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. 2) 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. 3) 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. 4) 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. 5) 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. 6) 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. 7) Grass: should be managed to maintain a height of 100 millimetres or less.
1.6	Landscaping of Adelaide Crescent road reserve including under pruning to 2m height of any overhanging branches from Reserve 27068, opposite Lots 1 - 6, as shown in Figure 6.

2.0 Developer Prior to Sale of Lots	
2.1	Providing prospective purchasers lots having a BAL-12.5 rating or higher with a summary of this BMP report.
2.2	Maintaining any vacant undeveloped land as low threat vegetation complying with the City's Fire Management Notice.
3.0 Landowner Prior to Occupancy (Development Application)	
3.1	Ensuring that any residential building is designed and constructed to the appropriate BAL level not exceeding BAL-29.
3.2	Ensuring that, as far as is practicable, that non-residential developments incorporate the bushfire resistant construction requirements of the Building Code, including as appropriate the provisions of AS3959 Construction of Buildings in Bushfire Prone Areas (as amended), commensurate with the bushfire attack level (BAL) established for the relevant portion of the site.
4.0 Landowner Ongoing	
4.1	Providing and maintain an asset protection zone in accordance the specifications in Item 1.5
4.2	Complying with the City's annual Fire Management Notice as applicable.
5.0 Local Government Ongoing Management	
5.1	Ensuring Building Permit Applications and Development Applications are compliant with the building and land use planning provisions.
5.2	Maintaining Adelaide Crescent road verge (both sides) as an asset protection zone in accordance the specifications in Item 1.5. This includes where tree branches have been under pruned as referenced in Item 1.6 (opposite lots 1 to 6) and shown in Figure 6.
5.3	Ensure compliance with its annual Fire Management Notice.


LEGEND
Structure Plan Boundary
Lot Boundary
Precincts
Hotel/ Mixed Use
Mixed Use
Residential
Edge
Public Open Space
High Street
Public Access Way
Pedestrian Priority Access
Green Pedestrian Link
Pedestrian Cross Walk
Primary Activity Node
Primary Active Frontage
Secondary Active Frontage
Public Parking
Parking Entry/Exit (Indicative)
Bush Fire Prone Area Boundary
(100m from base of Mount Adelaide)
Flinders Parade
Barnett Street
Adelaide Crescent
Marine Terrace
Marine Drive
Mount Adelaide
2-3 storeys
2-3 storeys
2-5 storeys
1-3 storeys
5+ storeys
LANDCORP
Hames Sharley
Middleton Beach Activity Centre
STRUCTURE PLAN


LEGEND
CHARACTER PRECINCTS
STREET TREES
MIDDLETON BEACH ACTIVITY CENTRE
LANDSCAPE MASTER PLAN
SK02-E
AECOM

APPENDIX G

Sustainability Strategy Report

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Sustainable Built Environments Pty Ltd

Sustainability Strategy Report

for the

PROPOSED MIXED-USE DEVELOPMENT

at

Corner of Adelaide Crescent and Marine Terrace, Albany (WA)

For

DevelopmentWA

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Quality Assurance
Document: Sustainability Strategy Report
Date: 11/02/2021
Prepared by: Rob Petruzzi

Revision	Revision Date	Details	Authorised
V1	18/12/20	Draft – For information	SMC
V2	29/01/21	Revised based on Architect Comments	SMC

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1. INTRODUCTION

1.1 Aim

Sustainable Built Environments (SBE) has been commissioned to provide a Sustainability Strategy Report for the proposed development at the corner of Adelaide Crescent and Marine Terrace, Albany (WA).

The aim of the report is to identify and convey the key sustainability opportunities embraced in the design, and to provide a clear indication of how the development addresses environmental sustainability and meets Section 4.22, 4.23, 4.24 of the Middleton Beach Activity Centre Design Guidelines.

In the absence of a specific framework to benchmark the ESD design performance of the development, SBE has referenced a number of recognised industry tools in order to develop recommendations under each key ESD criteria including: management, water and energy efficiency, stormwater, indoor environment quality (IEQ), sustainable transport, waste, urban ecology, building materials and innovation.

The holistic integration of key sustainability initiatives in the design of the proposed development will have significant environmental, social and economic benefits to the local area and the future occupants and users of this development.

1.2 The Project

The project involves the development of six two-storey townhouses. Flexible spaces (Building Class 5 and 6) are proposed to the Ground Floor of Lot 1 and 6, while the other Lots will be classified as Building Class 1 with the flexibility to rent part of the Ground Floor as short term accommodation, or fit it out as home-offices.

1.3 Documents

The following documents have been referenced when producing this report:

- DA drawings produced by PTX Architects dated 18 January 2021 (rev. B).
- Sections 4.22 (Energy Efficiency), Section 4.23 (Water Management and Conservation), and Section 4.24 (Waste Management) of the Middleton Beach Activity Centre Design Guidelines.
- Sustainable Design Assessment in the Planning Process Factsheets
- Green Star Design & As Built Submission Guidelines
- NCC2019

1.4 Middleton Beach Activity Centre Design Guidelines Sustainability Objectives

1.4.1. 4.22 Energy Efficiency

- To establish appropriate energy efficiency commitments in the development application stage.
- To minimise energy use and emissions through passive strategies, supported by active systems.

1.4.2. 4.23 Water Management and Conservation

- To establish appropriate water management and conservation commitments at the development approval stage.
- To minimise scheme water consumption throughout the development.
- To manage stormwater on-site in accordance with the adopted Urban Water Management Plan (UWMP).
- To ensure that flooding impacts will be minimal for occupants, buildings and the environment.

1.4.3. 4.24 Waste Management

- To design waste storage facilities to minimise impacts on the streetscape, building entry and amenity of residents.
- To minimise domestic waste by providing safe and convenient source separation and recycling.

2. MANAGEMENT

It is important to encourage an environmental focus in the management of design, construction and operational phases of the development. The Management category aims to highlight the importance of a holistic and thoroughly integrated approach to constructing and operating a building with good environmental performance.

Management			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
2.1	*ESD Professional*	To ensure appropriate sustainable design principles and strategies are considered from the preliminary design stage by encouraging early involvement of a suitably qualified ESD professional.	Sustainable Built Environments (SBE) has been engaged to provide sustainable design advice from preliminary design through to construction.
2.2	*Metering*	To provide building users with information that allows monitoring of energy and water consumption	Each dwelling shall have separate utility meters. Further, sub-meters shall be provided where a commercial use is proposed for the Ground Floor flexible spaces. In-home displays / energy monitors are also recommended to allow occupants real-time tracking of their energy usage.
2.3	*Building Users Guide*	To encourage and recognise initiatives that will help building users to use the building efficiently	A Building Users' Guide using a non-technical language shall be developed and issued to all building occupants. The Building Users' Guide may be a simple booklet, an App, interpretative signage, or a combination of these, with the purpose to facilitate more sustainable behaviour by building occupants.

3. WATER

In Australia, water has long been considered a precious and high-demand resource. Fresh water supplies are increasingly affected by a range of factors including catchment locations, contaminated sources, drought and rising demand. In addition to reducing the demand for water, efficient use of water in buildings can reduce building owners' operational costs. This category aims to minimise the impacts on the environment from extensive water use in the built environment.

Water			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
3.1	*Potable Water Use Reduction*	To encourage building design that minimises potable water consumption in operations.	All sanitary fixtures and water appliances shall have the WELS rating stated below: • Taps – 6 Stars • Toilets – 4 Stars • Showers – 3 Stars (>4.5 but <=6.0) • Dishwashers – 5 Stars • Washing Machine – 5 Stars One 2,000 litres rainwater tank shall be installed to each townhouse to collect rainwater from the roof area for reuse in toilet flushing. Refer to Appendix C for more information.
3.2	*Water Efficient Landscaping*	To ensure the efficient use of water and to reduce total operating potable water use through encouraging water efficient landscape design.	Drought resistant plants shall be selected for all landscaped areas. Further, where an irrigation system is required, this shall be a subsurface drip irrigation system with rain and soil moisture sensors.

4. ENERGY

Production of Australia's energy is largely from the incineration of non-renewable fossil fuels and is the country's greatest contributor to greenhouse gas emissions. The credits within the Energy Category target an overall reduction of energy consumption. Such reduction has an impact upon greenhouse gas emissions and energy production capacity as well as other emissions associated with energy generation.

Energy			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
4.1	*Thermal Performance Assessment*	To reduce reliance on mechanical systems to achieve thermal comfort in summer and winter, as well as to reduce greenhouse gas emissions, energy demand, and maintenance and operational costs.	A preliminary energy efficiency assessment has been conducted in accordance with NCC2019. This demonstrates the development has the design potential to exceed NCC2019 minimum requirements. For more information on the preliminary energy efficiency assessment refer to Appendix A.
4.2	*Space Heating and Cooling*		Space heating and cooling shall be provided by reverse cycle air conditioning with a minimum 5-star energy rating. Further, the rated capacity of the air conditioning equipment shall not exceed the design heating capacity by more than 20% and the design cooling capacity by more than 10%.
4.3	*Hot Water*		The domestic hot water systems shall have an efficiency of more or equal to 95%, or be rated 6 stars minimum. Heat pumps or electric instantaneous units are recommended as this will allow the development to be gas-free.
4.4	*Internal Lighting*		All indoor lighting shall be LED technology and the maximum illumination power density shall be at least 20% less than specified by the NCC.
4.5	*Outdoor Lighting*		All outdoor lighting shall be LED technology and be controlled by a combination of motion and daylight sensors.
4.6	*Cooking Appliances*		It is recommended that all cooking appliances be electric in order to allow the development to be gas-free.
4.7	*Renewable Energy Systems*		A 6kW solar PV array shall be provided to each townhouse. Battery storage shall also be considered.
4.8	*Air Tightness*		It is recommended that the development be detailed and constructed in order to minimise air leakages and achieve an air change rate of maximum 3 ACH. Refer to Appendix B for an analysis of the comparative benefits of air tightness on heating and cooling loads.

5. STORMWATER

Continued urbanisation and expansion has resulted in a dramatic increase in areas of hard and impervious surfaces, such as buildings, roads and car parks. This has various negative impacts on waterways and their water quality, as well as on people, fauna and flora.

Best practice stormwater management means incorporating water sensitive urban design strategies such as rainwater tanks, raingardens, porous paving and landscaping to reduce the volume of run-off and the pollutant load on local waterways.

Stormwater			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
5.1	*Stormwater Treatment*	To minimise negative environmental impacts of stormwater runoff and maximise onsite re-use of stormwater	The proposed stormwater treatment approach for shall include the collection of most of the new roof area into individual 2,000 litres rainwater tanks for re-use in toilet flushing. The remainder of the hard surfaces shall be treated by raingardens or proprietary systems such as SPEL Hydrochannel or a SPEL Basin. Refer to Appendix C for a more information about the stormwater treatment approach.

6. INDOOR ENVIRONMENT QUALITY

Indoor Environment Quality (IEQ) is a key ESD objective in the provision of a healthy and safe internal building environment for residents. The IEQ category aims to balance other categories, in the sense that reductions in energy consumption could easily be achieved at the expense of occupants' comfort. Yet, occupant comfort is vital and as such the IEQ category encourages healthy and good indoor environmental quality.

Indoor Environment Quality			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
6.1	*Daylight Access*	To provide a high level of amenity and energy efficiency through design for natural light.	A preliminary daylight assessment has been conducted for all areas where high level of daylight is expected (i.e. living areas, bedrooms, and commercial spaces). The results demonstrate that appropriate levels of daylight are achieved by the development. Refer to Appendix D for a copy of the Daylight Modelling report.
6.2	*Ventilation*	To provide fresh filtered air and low-energy space conditioning.	A heat-recovery ventilation system is recommended to provide 24/7 fresh filtered air.
6.3	*Volatile Organic Compounds Limits*	To recognise projects that safeguard occupant health through the reduction in internal air pollutant levels.	All paints, adhesives, sealants and carpets applied on-site as part of the proposed works shall meet the maximum Total Volatile Organic Compound (TVOC) limits outlined in Appendix E.
6.4	*Formaldehyde Emissions Limits*		All engineered wood products including particleboard, plywood, Medium Density Fibreboard (MDF), Laminated Veneer Lumber (LVL), High-Pressure Laminate (HPL), Compact Laminate and decorative overlaid wood panels used as part of the proposed works shall meet the Formaldehyde emission limits outlined in Appendix F.

7. TRANSPORT

The automobile accounts for 54% of Australia's total domestic transport emissions and approximately 80% of adults use a private car to commute to and from work. There is a need to maximise alternative transport options if the environmental impact of car commuting is to be reduced. Options available may include trains, buses and, light rail trams. Walking and cycling are the most environmentally friendly alternatives, with no associated fuel use or pollutants. All credits within the Transport category have the same underlying principle; to reward the reduction in automotive movement by simultaneously discouraging it and encouraging use of alternative transportation.

Transport			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
7.1	*Bicycle Parking*	To provide a high level of amenity and energy efficiency through design for natural light. To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling.	At least one bicycle parking space per dwelling shall be provided in order to allow occupants to securely store bikes. At least two bicycle parking spaces shall be provided for visitors. This may be located adjacent to Lot 1.
7.2	*Electric Vehicle Infrastructure*		It is recommended that each dwelling be provided with EV charging infrastructure, or that provisions be made to allow future occupants to easily install their own.

8. WASTE

Up to 40% of the waste going to Australia's landfills is related to the construction and demolition of buildings. Simple design decisions can influence the amount of construction waste being produced and operational waste streams being separated.

Even more waste is produced during the occupancy phase of buildings. Poor waste practices and treatment of the environment in the past have not only lead to a degradation of our water, air and land resources but also represent a big financial burden to current and future generations.

Waste			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
8.1	*Operational Waste – Convenience of Recycling*	To minimise recyclable material going to landfill.	Dual bins shall be provided in the kitchen of each dwelling to facilitate separation of waste streams. A communal composting system should also be considered, or alternatively residents should be provided access to a food and garden waste collection service.

9. URBAN ECOLOGY

The credits within the Land Use and Ecology category promote initiatives to improve or reduce impacts on ecological systems and biodiversity. The term 'Biodiversity' is used to describe the variation of life forms in a particular ecosystem and is often used as a measure of the health status of the environment.

Many credits in other categories have an indirect impact on the land use and ecology of the Australian environment, for example, the 'Stormwater' category addresses the rainwater run-off from buildings and hard surfaces in an attempt to prevent pollution from reaching nearby natural watercourses. This category, however, addresses the direct impact of a project on the ecological value of the site.

Urban Ecology			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
9.1	*Vegetation*	To encourage and recognise the use of vegetation and landscaping within and around developments.	Appropriate landscaping shall be integrated to increase urban ecology and habitat creation. Green walls and roofs should be considered as effective ways of integrating vegetation to small sites while also improving amenities.
9.2	*Private Open Space*	To encourage plants in a healthy ecological context to be grown on balconies and in courtyards	All balconies and courtyards shall have a water supply (tap) and a wastewater connection (drain) to encourage occupants to grow plants.

10. MATERIALS

The production and use of building materials can have serious impacts on the environment. Energy is used to extract, produce and transport building materials; natural resources are exploited to be used in building materials; the industrial production of the materials causes pollution, and if poorly selected and used the material ends up as waste, to become landfill or incinerated.

Within the Materials category the credits target the consumption of resources through selection and re-use of materials, and efficient management practices. The basic concepts of the category are to reduce the amount of natural resources used, re-use whatever materials can be re-used, and recycle whenever possible.

Materials			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
10.1	*Timber Products*	To reward projects that include materials that are responsibly sourced or have a sustainable supply chain.	At least 95% of all timber used in the building and construction works shall either be: • Certified by a forest certification scheme and be accompanied by a relevant Chain of Custody (CoC) certificate; or • Be from a reused source.
10.2	*Permanent Formwork, Pipes, Flooring, Blinds and Cables*		At least 90% of all permanent formwork, pipes, flooring, blinds and cables used as part of the proposed works shall either: • Not contain PVC and have an Environmental Product Declaration (EPD); or • Meet Best Practice Guidelines for PVC.
10.3	*Product Transparency and Sustainability*	To encourage sustainability and transparency in product specification.	Products and manufacturers complying with the following standards and certifications shall be chosen in preference to non-compliance choices, where they are equally suitable for use and selection does not impact the project budget: • Products with a product-specific, third-party verified EPD; • Products with a industry-wide, third-party verified EPD; • Carpet Institute of Australia Environmental Certification Scheme (ECS); • Ecospecifier Green Tag GreenRate; • Australasian Furnishing Research and Development Institute Green Tick; • Good Environmental Choice Australia; • The institute for Market Transformation to Sustainability Sustainable Materials Rating Technology; • Manufacturer Environmental Management System (ISO14001); • Manufacturer certified to SA8000 social accountability standard or GeSI management standards; and • Products certified to Fairtrade Mark.
10.4	*Construction and Demolition Waste*	To reward projects that reduce construction waste going to landfill by reusing or recycling building materials.	At least 80% of the waste generated during construction and demolition shall be diverted from landfill. This commitment shall be included in the contractual documentation.

11. INNOVATION

Innovation challenges are designed to encourage and direct investment in solutions that address a wide range of social, economic and environmental sustainability issues. The general aims are to create new opportunities for industry-leading ideas, process and technologies.

Innovation			
Section Number	**Initiative**	**Aim**	**Compliance Requirement**
11.1	*Air Tightness Test*	To improve passive energy performance of building façades by designing well sealed buildings and carrying out whole building air tightness testing.	It is recommended that a whole building air tightness test be conducted by an ATTMA Member for all dwellings in accordance with ATTMA TSL1. Achieving an air change rate of maximum 3 ACH is recommended.
11.2	*Contractor Education*	To increase the knowledge of contractors and subcontractors about the benefits and outcomes of sustainable practices, and develop their skills in delivering such benefits.	It is recommended that the Head Contractor delivers staff training on the core concepts of global warming, climate change and the health impacts of minimum building practices, as well as site-specific training that highlights the sustainable solutions adopted by the project. This training shall be provided to at least 80% of all contractors and subcontractors that work on site for a least three days
11.3	*Local Procurement*	To encourage projects that use materials, products or services produced or generated within Australia.	It is recommended that an effort be made to ensure that a significant percentage of the products and materials used in the project are produced or manufactured in Australia. It is recommended that an effort be made to ensure that a significant percentage of the services and skilled labour employed by the project come from the local area surrounding the site.

12. CONCLUSION

This report outlines the range of sustainability initiatives that have been included in the design of the proposed development at the corner of Adelaide Crescent and Marine Terrace, Albany (WA).

The development proposal demonstrates a holistic approach to sustainable urban development that addresses the environmental objectives of the Middleton Beach Activity Centre Design Guidelines, and achieves best practice sustainability outcomes across all key ESD criteria.

The integration of all, or some, of the initiatives recommended within this report will result in a development with greater environmental sustainability credential compared to industry standard, which will consequentially lead to economic, environmental and social benefits for the developer, the local community, and the future occupants and users of the site.

APPENDIX A – PRELIMINARY ENERGY EFFICIENCY ASSESSMENT

Table 1, 2 and 3 outline the assumptions that have been included in the preliminary Energy Efficiency assessment (Energy Rating Method) of the townhouses and the results obtained.

General Building Simulation Parameters	
Address	Cnr of Adelaide Crescent and Marine Terrace, Albany 6330 (WA)
Site rotation from true north	9.9°
Building Class	1
Weather Data	58 Albany
Software	FirstRate5 v5.3.0

Building Fabric Parameters Construction	Design Response / Performance Requirements
Floors	Concrete Slab on Ground R2.35 added insulation
	Intermediate (enclosed) R3.10 added insulation
	Intermediate (exposed) R5.00 added insulation
Roof / Ceiling	Roof R5.00 added insulation
Walls	External walls – timber cladding R3.10 added insulation
	External walls – polystyrene cladding R2.50 added insulation plus R1.8 polystyrene cladding
	Boundary walls R2.50 added insulation
	Internal stud walls R2.50 added insulation
Glazing	Hinged Door Total U-Value: 2.30 (or less) Total SGHC: 0.44 (or within ±5%)
	Awning Window Total U-Value: 2.30 (or less) Total SGHC: 0.40 (or within ±5%)
	Fixed Glazing Total U-Value: 2.20 (or less) Total SGHC: 0.52 (or within ±5%)
	Sliding Door Total U-Value: 2.20 (or less) Total SGHC: 0.45 (or within ±5%)
	Sliding Window Total U-Value: 2.70 (or less) Total SGHC: 0.40 (or within ±5%)
	Louvred Window Total U-Value: 2.40 (or less) Total SGHC: 0.10 (or within ±5%)
Ceiling Penetration	Lighting Number assumed – all downlights shall be IC rated and sealed
	Exhaust Fans Number assumed –all exhaust fans shall be provide with self-closing damper and sealed

Table 1: Preliminary NatHERS assessment construction details

Unit	Heating Energy (MJ/m^2)	Cooling Energy (MJ/m^2)	Total Energy (MJ/m2)	Star Rating
Lot 1	63.0	10.0	73.0	6.4
Lot 2	65.6	8.2	73.8	6.4
Lot 3	70.0	8.0	78.0	6.2
Lot 4	70.0	8.0	78.0	6.2
Lot 5	70.0	8.0	78.0	6.2
Lot 6	56.7	12.5	69.2	6.6
Average	**65.9**	**9.1**	**75.0**	**6.3**

Table 2: Preliminary NatHERS assessment results – Exposed Site

Unit	Heating Energy (MJ/m^2)	Cooling Energy (MJ/m^2)	Total Energy (MJ/m2)	Star Rating
Lot 1	59.8	12.1	71.9	6.4
Lot 2	62.2	8.9	71.1	6.4
Lot 3	66.6	9.4	76.0	6.3
Lot 4	66.6	9.4	76.0	6.3
Lot 5	66.6	9.4	76.0	6.3
Lot 6	53.9	14.4	68.3	6.6
Average	**62.6**	**10.6**	**73.2**	**6.4**

Table 3: Preliminary NatHERS assessment results – Open Site

Similarly Table 4 outlines the assumptions that have been included in the preliminary Energy Efficiency assessment (DTS Method) of the commercial spaces of Lot 1 and 6.

General Building Simulation Parameters	
Address	Cnr of Adelaide Crescent and Marine Terrace, Albany 6330 (WA)
Site rotation from true north	9.9°
Building Class	5 an 6
Climate Zone	6

Part	Provisions / DTS Performance Values	Compliance	Proposed Performance Values	Comments / Assemblies
J1.3a Roof and ceiling construction	A roof or ceiling that is part of the envelope must achieve a Total R-Value of 3.20 (downward):	N/A	-	There is no external roof as part of the assessed areas.
J1.3b	In climate zones 1 to 7 the solar absorptance of the upper surface of a roof must be not more than 0.45.	N/A	-	There is no external roof as part of the assessed areas.
J1.4 Roof lights	Roof lights must have a total area of not more than 5% of the floor area of the room or space served and transparent and translucent elements with U_w of 3.9 (or less) and a $SHGC_w$ in accordance to Table J1.4 of the NCC.	N/A	-	There are no roof lights within the assessed area.
J1.5 Wall and Glazing	The Total System U-Value of wall-glazing construction must not be greater than 2.0.	YES	0.63 (max.)	Across all façades
	The wall components of a wall-glazing construction must achieve a minimum Total R-Value of 1.4	YES	Lightweight Timber Cladding R_T 2.95	120mm lightweight timber frame with external timber of CFC cladding, 110mm (R3.1) insulation and 10mm internal plasterboard lining
		YES	Polystyrene Cladding	90mm lightweight timber frame with external 50mm (R1.8)

General Building Simulation Parameters				
			R_T 4.13	polystyrene cladding, 90mm (R2.5) insulation and 10mm internal plasterboard lining
	The solar admittance of externally facing wall-glazing construction must not be greater than 0.13:	YES	0.10 (max.)	Double glazed windows in thermally broken aluminium frames with a maximum SHGC of 0.52
J1.6 Floors	A floor without an in-slab heating or cooling system that is part of the envelope must achieve a Total R-Value of 2.0 (downward)	YES	R_T2.70	100-150mm concrete slab on ground with 50mm (R2.35) under slab insulation

Table 4: Preliminary Section J Part J1-J3 assessment

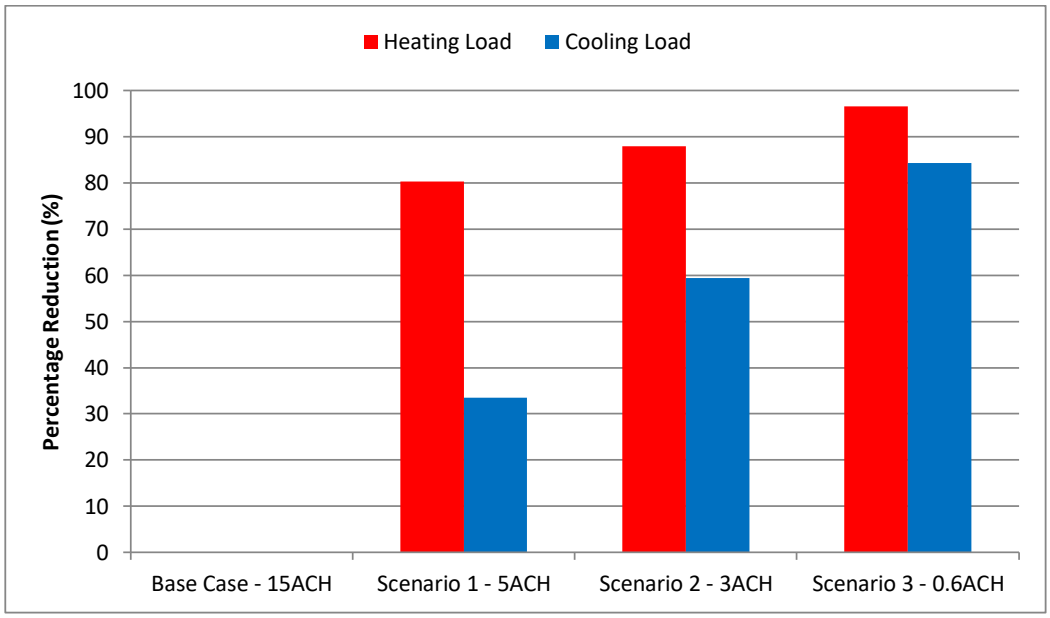
APPENDIX B – AIR THIGHNESS ANALYSIS

The NatHERS software used to conduct the energy efficiency assessment outlined in Appendix A adopts a variable air infiltration rate which can be averaged at 15ACH. This is based on field research conducted by the CSIRO which demonstrated that even newly constructed 6 star dwelling in all capital cities of Australia are generally poorly sealed.

The benefits of air tightness are various and include improved energy efficiency and thermal comfort, as well as reduced risks for interstitial condensation and associated mould issues.

The following graph illustrates the comparable reduction in heating and cooling loads that could be achieved simply through an air tight building envelope.

The analysis was conducted for three scenarios achieving increasing levels of air tightness (from 5ACH to 0.6ACH) as well as the Base Case (15ACH). The graph illustrates that heating loads can be reduced by at least 80% and cooling loads by at least 30% (when achieving 5ACH).



APPENDIX C – STORMWATER TREATMENT

It is proposed that stormwater falling onto the site be treated via the following systems:

1. Individual 2,000 litres rainwater tanks to collect rainwater from the townhouses roof area and connected to the toilets for reuse.
2. SPEL Hydrochannel or SPEL Basin to treat stormwater from the remainder of the hard surfaces (e.g. terraces, walkways, driveways, etc.) and any rainwater tank overflow.





2,000 litre slimline rainwater tank





SPEL hydrochannel





SPEL Basin

APPENDIX D – DAYLIGHT ASSESSMENT

Table 5 outlines the assumptions that have been included in the Daylight Assessment, while Tables 6 to 8 and Figures 3 show the results obtained.

General Building Simulation Parameters	
Address	Cnr of Adelaide Crescent and Marine Terrace, Albany 6330 (WA)
Site rotation from true north	9.9°
Building Class	1, 5 and 6
Weather Data	58_Albany_WA_CZ0605_12_TMYC.epw
Sky	Uniform Design Sky @ 10,000 Lux
Software	IES VE 2019.3.2.0
Application	FlucsDL
Working Plane	Floor Level
Daylight Factor Threshold	Flexible Spaces 2.0% Living Areas 1.0% Bedrooms 0.5%
Total Assessed Floor Area	705 m^2 (approx.)

Surface Reflectance	
Floors	0.3
Walls	0.7
Ceilings	0.7
Roof	0.3
Ground	0.3

Glazing Visible Light Transmittance	
External and Internal Glazing	0.5

Geometry	
Overshadowing	Neighbouring buildings that provide overshadowing have been included within the model.
Local shading	All balconies, canopies and reveals have been modelled as per the architectural drawings.

Table 5: Daylight modelling inputs

Nominated Area	Area (m^2)	Area above threshold (m^2)	Compliant Area (%)
Lot 1 – Multi-Use	25	22	86
Lot 2 – Multi-Use	25	11	44
Lot 3 – Multi-Use	25	11	44
Lot 4 – Multi-Use	25	12	48
Lot 5 – Multi-Use	25	10	42
Lot 6 – Multi-Use	25	14	55
TOTAL	**169**	**98**	**53**

Table 6: Daylight assessment results – Ground Floor flexible spaces

Nominated Area	Area (m^2)	Area above threshold (m^2)	Compliant Area (%)
Lot 1 – Living Area	48	45	95
Lot 2 – Living Area	45	44	99
Lot 3 – Living Area	45	44	99
Lot 4 – Living Area	45	44	99
Lot 5 – Living Area	45	44	99
Lot 6 – Living Area	50	48	97
TOTAL	**277**	**271**	**98**

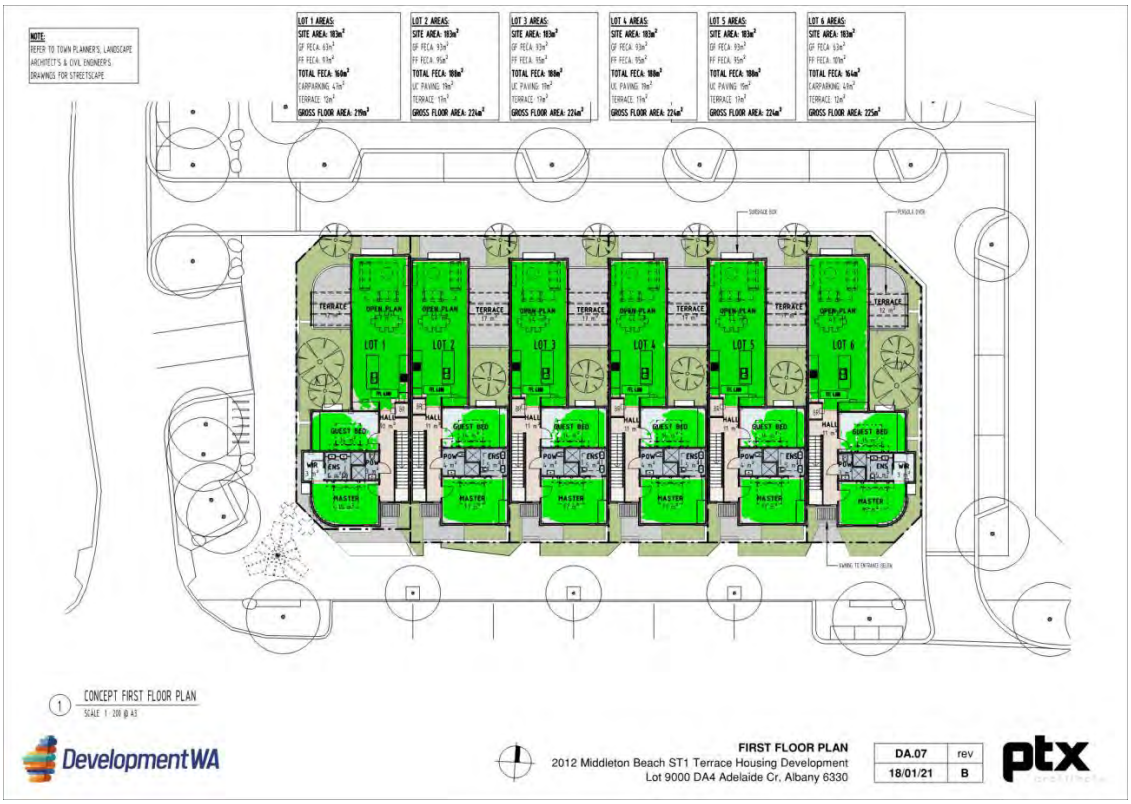
Table 7: Daylight assessment results – First Floor living areas

Nominated Area	Area (m^2)	Area above threshold (m^2)	Compliant Area (%)
Lot 1 – Master Bedroom	15	15	98
Lot 1 – Guest Bedroom	15	11	75
Lot 2 – Master Bedroom	17	16	95
Lot 2 – Guest Bedroom	15	11	72
Lot 3 – Master Bedroom	17	16	95
Lot 3 – Guest Bedroom	15	11	72
Lot 4 – Master Bedroom	17	16	95
Lot 4 – Guest Bedroom	15	11	72
Lot 5 – Master Bedroom	17	16	95
Lot 5 – Guest Bedroom	15	10	69
Lot 6 – Master Bedroom	15	15	98
Lot 6 – Guest Bedroom	15	11	75
TOTAL	**188**	**159**	**85**

Table 8: Daylight assessment results – First Floor living areas



Ground Floor



First Floor

Figure 1: Daylight plots showing area of best practice daylight

APPENDIX E – PAINTS, ADHESIVE, SEALANTS AND CARPETS

The following TVOC limits are applicable to all internal applications of all types of paints, adhesives or sealants applied on-site, including both exposed and concealed applications. If exterior grade products are used in an internal application then these must also meet the requirements.

The following items are excluded from this credit:

- Glazing film, tapes, and plumbing pipe cements;
- Products used in car park;
- Paints, adhesives and sealants used off-site, for example applied to furniture items in a manufacturing site and later installed in the fitout; and
- Adhesives and mastics used for temporary formwork and other temporary installations.

Product Type	Maximum TVOC Content (g/litre of ready to use product)
General purpose adhesive and sealants	50
Interior wall and ceiling paints, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealants, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

Table 9: Maximum TVOC Limits for Paints, Adhesives and Sealants

Further, carpets used in the project must either be:

- Certified under a recognised Product Certification Scheme (listed on the GBCA website) or other recognised standards; or
- Compliant with the Total VOC (TVOC) limits specified in the table below.

Product Type	Maximum TVOC Content (g/litre of ready to use product)
ASTM D5116 – Total VOC limit	0.5mg/m2 per hour
ASTM D5116 – 4-PC (4 – Phenylcyclohexene)	0.05mg/m2 per hour
ISO 16000 / EN 13419 – TVOC at three days	0.5mg/m2 per hour
ISO 10580 / ISO/TC 219 (Document N238) – TVOC at 24 hours	0.5mg/m2 per hour

Table 10: Carpet Test Standards and TVOC Emissions Limits

APPENDIX F – ENGINEERED WOOD PRODUCTS

The term "engineered wood products" includes composite wood products and includes raw/ unfinished as well as finished products. Items not covered by these limits include products used in exterior applications, formwork, internal car park applications, re-used products, and raw timber. All emission levels must be established by a NATA or ISO/IEC 17025 registered laboratory as per the testing methodologies in the table above.

Test Protocol	Emission Limit / Unit of Measurement
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1.0 mg/L
AS/NZS 1859.1:2004 - Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5 mg/L
AS/NZS 1859.2:2004 - MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.0 mg/L
AS/NZS 4357.4 – Laminated Veneer Lumber (LVL)	≤1.0 mg/L
Japanese Agricultural Standard MAFF Notification No.701 Appendix Clause 3 (11) - LVL	≤1.0 mg/L
JIS A 5908:2003- Particle Board and Plywood, with use of testing procedure JIS A 1460	≤1.0 mg/L
JIS A 5905:2003 - MDF, with use of testing procedure JIS A 1460	≤1.0 mg/L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1 mg/ m²hr
ASTM D5116 (applicable to high pressure laminates and compact laminates)	≤0.1mg/m²hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1 mg/m²hr (at 3 days)
ASTM D6007	≤0.12mg/m³**
ASTM E1333	≤0.12mg/m³***
EN 717-1 (also known as DIN EN 717-1)	≤0.12 mg/m³
EN 717-2 (also known as DIN EN 717-2)	≤3.5 mg/m²hr
**The test report must confirm that the conditions of this table comply for the particular wood product type, the final results must be presented in EN 717-1 equivalent (as presented in the table) using the correlation ratio of 0.98.	
*** The final results must be presented in EN 717-1 equivalent (as presented in the table), using the correlation ratio of 0.98.	

Table 11: Formaldehyde emission limit values for engineered wood products

APPENDIX H

Landscape Masterplan



MIDDLETON BEACH ACTIVITY CENTRE

Development Application Report

SEE DESIGN



Contents

01. Site Context

02. Concept

03. Site Masterplan

04. Stage 1 Detail plan

05. PAW Detail plant

06. Mood Board

07. PAW Perspectives

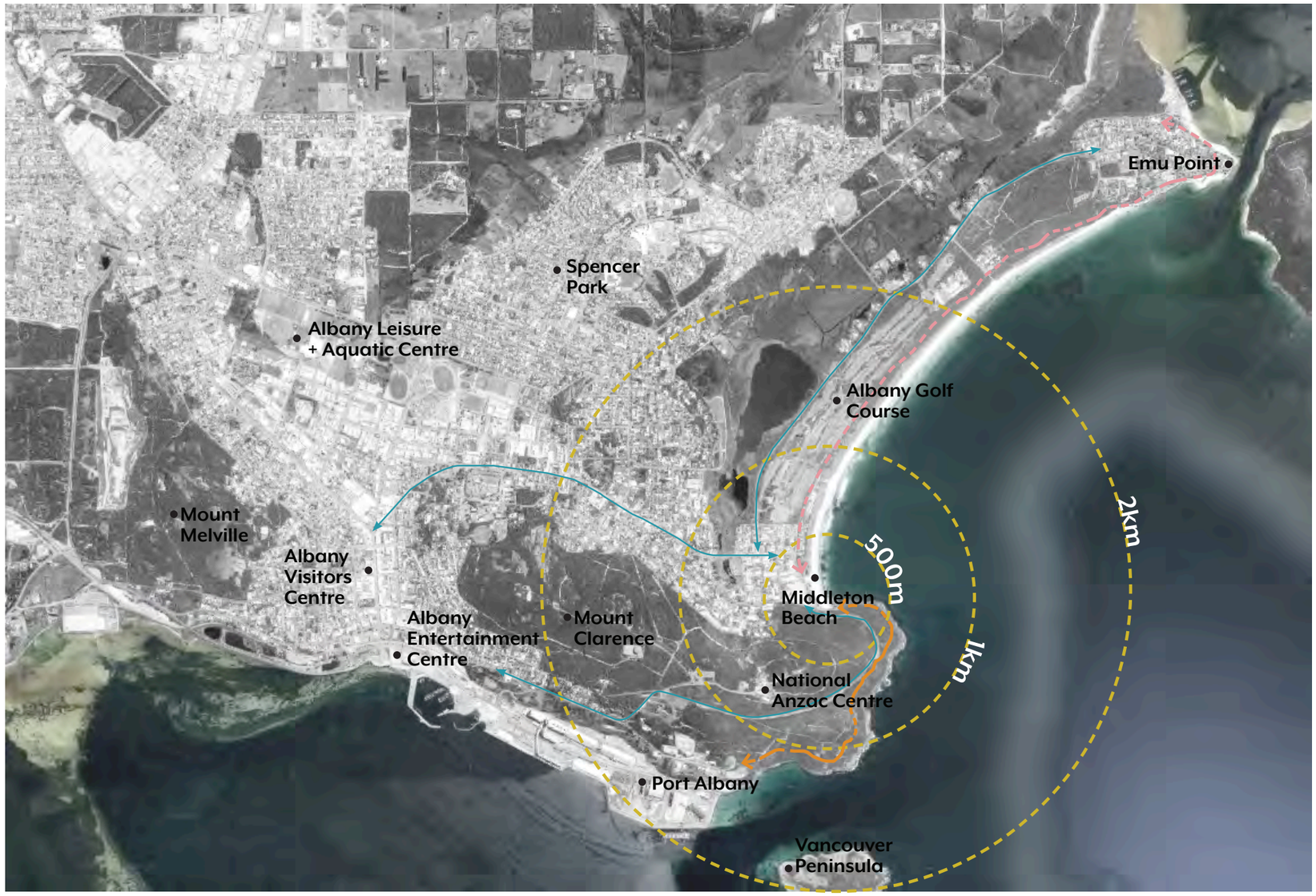
08. Sections

09. Material Palette

10. Plant Palette

11. Irrigation

01. Site Context



Middleton Beach activity center is located in close proximity to two significant Albany landscapes; the Mounts precinct and Middleton beach foreshore.

Access to the area is predominately via vehicles however key pedestrian and cycle networks are available and regularly utilized.

During the Summer months and school holidays Middleton Beach is activated by tourists and locals a like. With locals frequenting the area throughout the year to utilise the towns popular swimming beach and walking trails.

Middleton Beach to Emu Point Walk

Middleton Beach Board Walk

Major roads to Middleton Beach

02. Landscape Concept



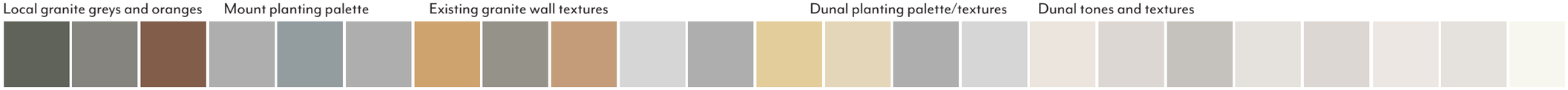
Local granite greys and oranges

Mount planting palette

Existing granite wall textures

Dunal planting palette/textures

Dunal tones and textures



Transition from mountain granite greys and oranges to dunal sands and limestones

The public realm within the Middleton Beach Activity centre will take its textures, tones, materiality, and planting directly from the surrounding coastal and mount landscape.

Middleton beach and surrounding landscape is characterised by the steep terrain and woodland vegetation along the mount (earthy/warm tones) down to the coastal dunes and granite outcrops across the waterfront (lighter/softer tones)

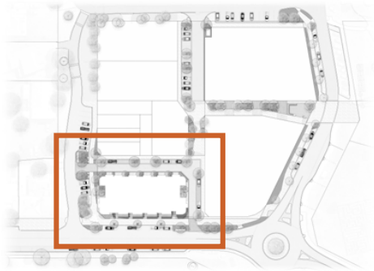
The planting palette is diverse and vastly different ranging form the dense mount vegetation to the coastal palette of the dunes.

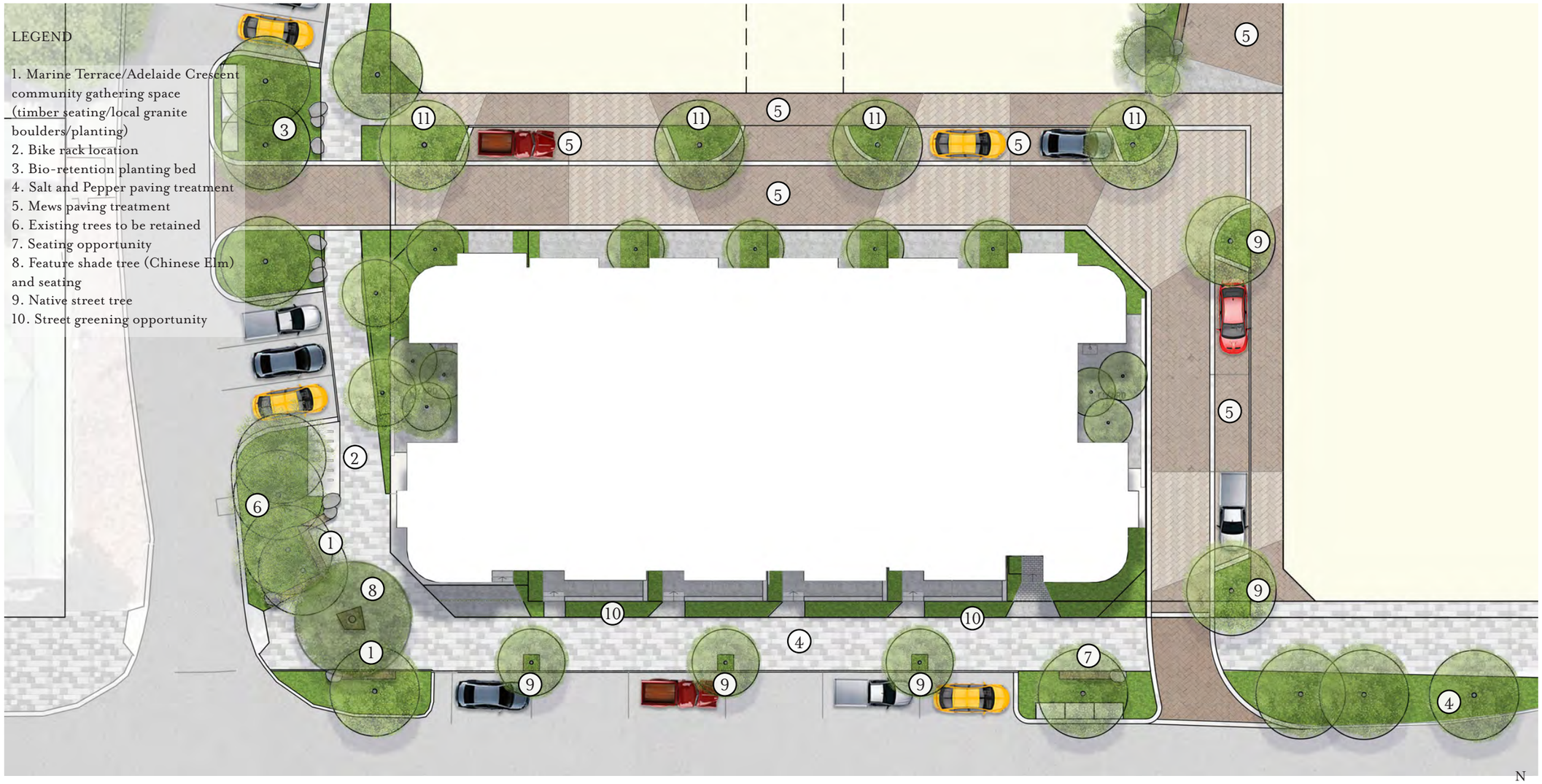
We intend to reflect the natural condition of the site through the use of both materials, textures, vegetation and colour tones.

03. Site Masterplan



04. Stage 1 Detail Plan

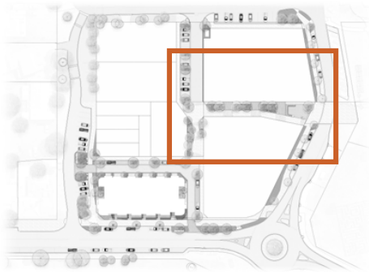


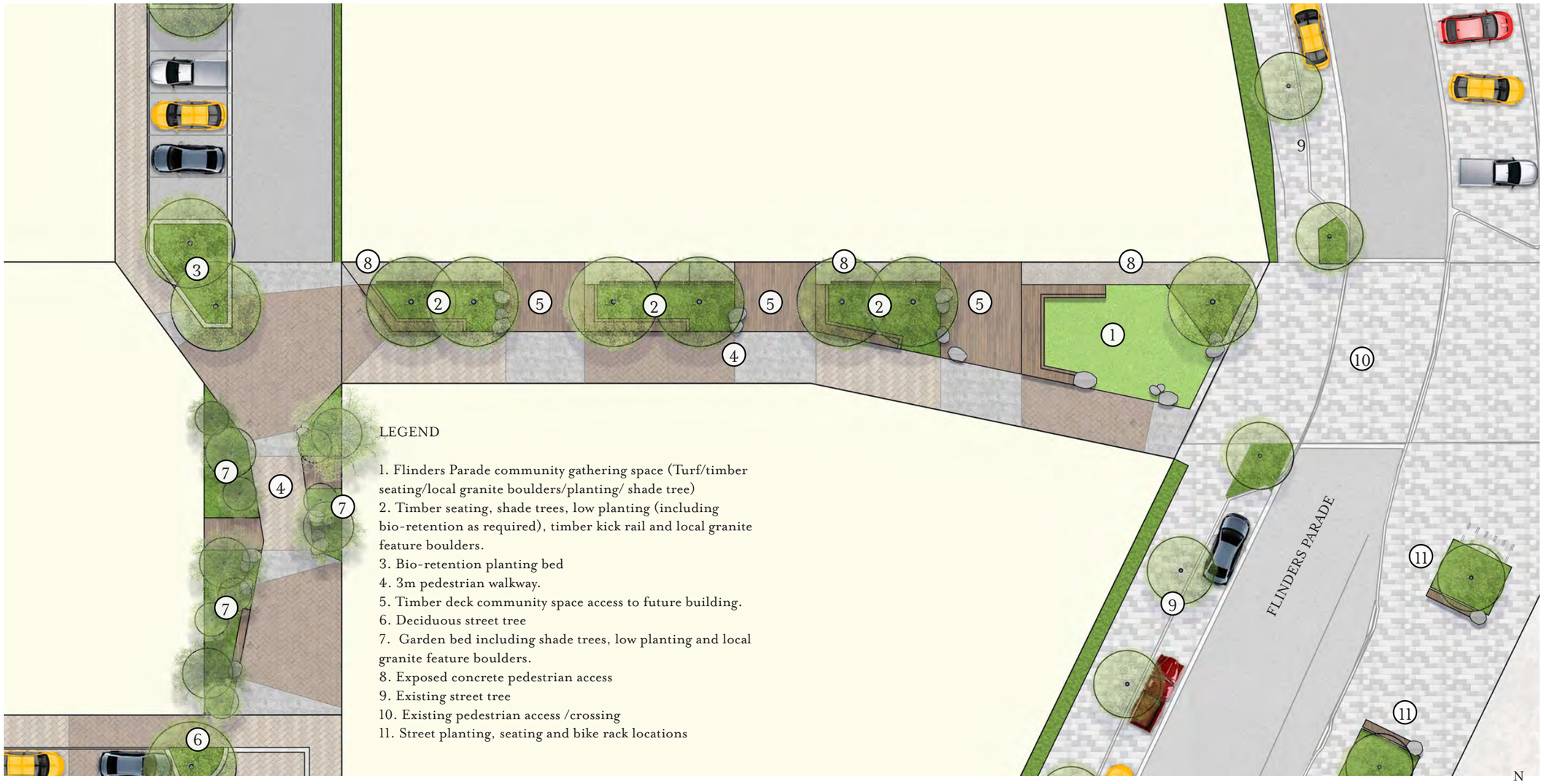


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1:250 @ A3

05. PAW Detail Plan





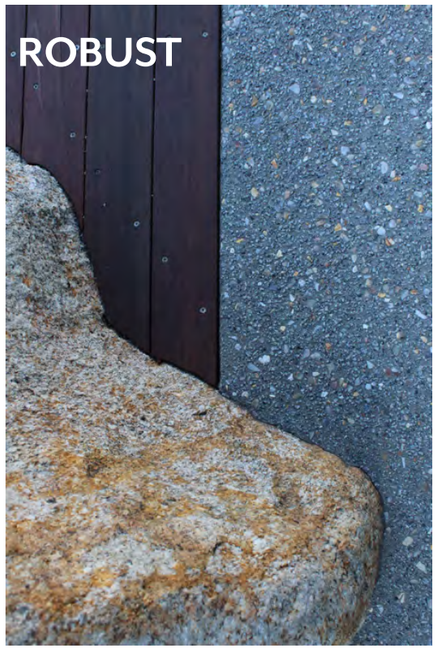
LEGEND

1. Flinders Parade community gathering space (Turf/timber seating/local granite boulders/planting/ shade tree)
2. Timber seating, shade trees, low planting (including bio-retention as required), timber kick rail and local granite feature boulders.
3. Bio-retention planting bed
4. 3m pedestrian walkway.
5. Timber deck community space access to future building.
6. Deciduous street tree
7. Garden bed including shade trees, low planting and local granite feature boulders.
8. Exposed concrete pedestrian access
9. Existing street tree
10. Existing pedestrian access /crossing
11. Street planting, seating and bike rack locations

N

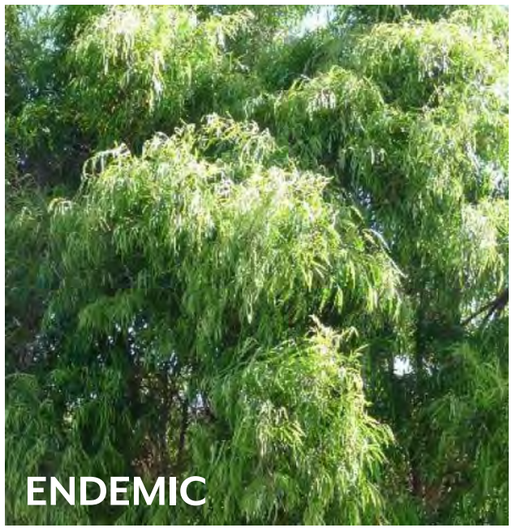
1:250 @ A3

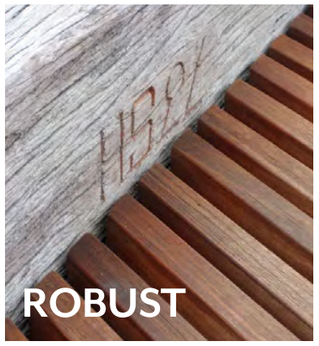
06. Mood Board



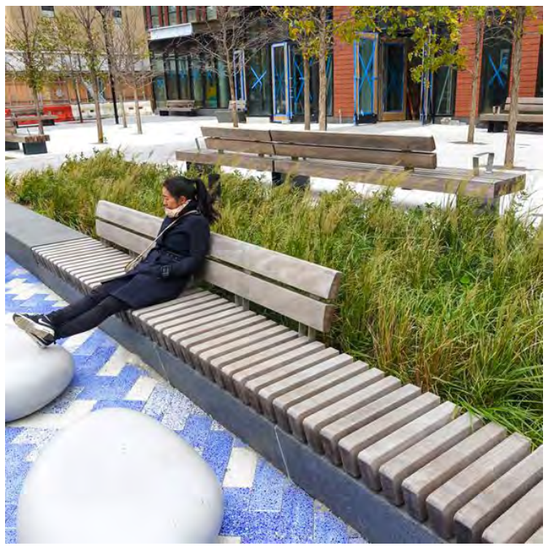
















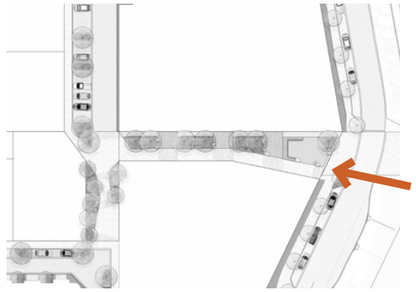




07. PAW Perspectives



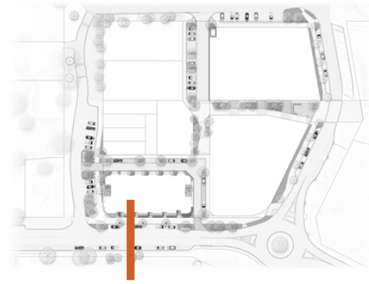




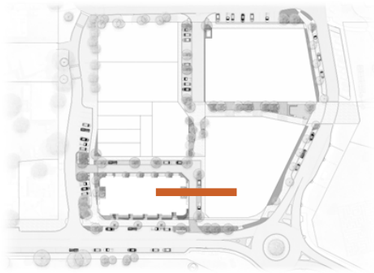
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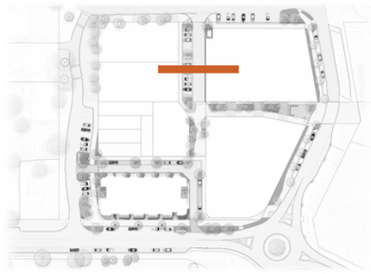
08. Sections




3300
1000
2500
8100
2500
lots 1-6
pedestrian path
street tree / planting bed
parking bay
two way street
parking bay
mount clarence




400
3600
2500
2000
lots 1-6
kerb
one way lane
parking bay
pedestrian path
future lots




future lots
2000
pedestrian path
5200
parking bay
6200
vehicular access
460
planting bed
future lots

09. Material palette

SURFACE TREATMENTS



Footpath (Streets)
Unit paver
Colour - Salt and pepper
Finish - shot blast



Promenade - Node
In-situ concrete
Colour - GP Grey
Finish -Wood float and saw cut



Promenade- In-situ concrete
Colour - Ivory Coast
Finish - Light exposed/washed aggregate



Deck
Hardwood Timber - Jarrah
Colour - Natural
Finish - Oil



Stabilised Gravel (local fines)
Colour - Natural
Finish - Compacted



Mews + PAW
Unit pavers
Colour - Silver, Arctic + Chert
Finish - shot blast

WALL TREATMENTS

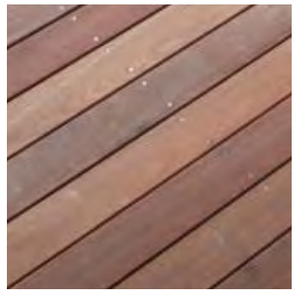


Seating wall
In-situ concrete
Colour - Gp Grey
Finish - Off Form



Terrace Retaining wall - Ellen Cove
Local Granite
Finish/colour - Natural



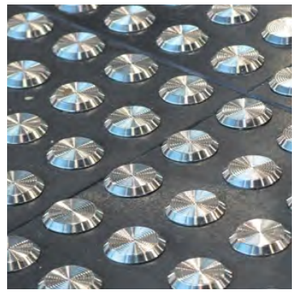


Seating
Hardwood Timber - Jarrah
Colour - Natural
Finish - Oil

FIXTURES



Handrail/ Balustrade
316 Stainless steel



Tactile
Stainless steel
Colour - S/S



Bike racks
Semi Hoop
316 Stainless steel



Drinking fountains
Arqua + Dog Bubbler
Stainless steel
Street Furniture Australia



Bin surround. General waste and
Recycle to fit 120lt bin
Street Smart Recycle Unit
Company - Furphy Foundary



Pole top lighting
Beka shredder - Zela

(City of Albany to confirm)

10. Plant palette

PEDESTRIAN ACCESS WAY



Carpobrotus virescens



Anigozanthos sp. “Kangaroo Paw”



Westringia dampierii



Myoporum ‘Coastal Carpet’



Kennedia coccinea



Pimelea ferruginea



Banksia repens



Lomanda tanika



Ficinia nodosa



Lepidosperma gladiatum



Atriplex cinerea

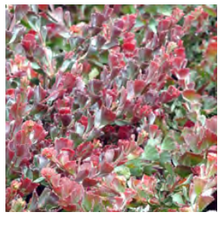


Leucophyta brownii

STREETSCAPE



Hemiandra pungens ‘alba’



Adenanthos cuneatus “Coral carpet”



Anigozanthos sp. “Kangaroo Paw”



Grevillea crithmifolia



Conostylis candicans



Banksia repens

TREES



Agonis flexuosa



Melaleuca cuticularis



Platanus acerifolia ‘London Plane Tree’



Betula pendula ‘Silver Birch’



Ulmus parvifolia ‘Chinese Elm’

11. Irrigation

Planting selection has been based on the specific climatic conditions throughout the proposed development. Both native and exotic water wise species are proposed to ensure low water usage whilst creating an inviting landscape for the future residence. Varied tree species (both existing and proposed) will create tree canopies increasing shade across the site allowing for the creation of new micro-climates.

Irrigation of the proposed landscape is required to meet the following;

- Maintain a vigorous healthy appearance to all planting.
- Carry out intensive care and watering of planting during the establishment period to ensure vigorous healthy growth. (The establishment period shall be not less than 3-6 months.)
- Avoid frequent dampening of the surface.
- Allow the surface of the soil to partially dry out between watering.
- Water at times of day to minimise water evaporation loss as per water corporation recommendations . Do not water during the hottest period of Summer days.
- Coordinate system to ensure water regime is approved against any state/ federal government legislation and restrictions at the time.
- Ensure system has been programmed for the precipitation requirements of the individual zones/stations with regard to types of plants.
- The infiltration rate of the soil/medium and associated physical factors seasons, evaporation, exposure and topography
- An allowance for adjustment or shut down during and after periods prolonged heavy rains.





APPENDIX I

Waste Management Plan

encycle consulting

waste less, achieve more

Middleton Beach Albany Stage 1a

Waste Management Plan

6 April 2021

Rev_1

DevelopmentWA

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Rev_0	V Dow	A Bremner	30 March 2021
Rev_1	A Bremner	A Bremner	6 April 2021

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Glossary of terms and acronyms

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).

1 Introduction

This Waste Management Plan (WMP) has been prepared for DevelopmentWA for the Development Application for the Stage 1a proposed residential development within the larger development area of Middleton Beach in Albany.

This first stage of the proposed development will consist of six townhouses, each of which will have an area of floor space on the ground floor which is currently identified as multi-use, and may later be used for home office or short-stay type purposes if viable. The ground floor area in unit 1 only, can be built to accommodate a small commercial or a small café takeaway tenancy at the discretion of the residents. This WMP has been prepared based on the following information:

- Concept plans and area schedule from Taylor Burrell Barnett (TBB) dated 8 September 2020; final architectural drawings from PTX Architects dated 29 March 2021; swept path drawings from Stantec dated 5 March 2021
- WALGA Multi-Dwelling Development Waste Management Plan Guidelines (2018)
- WALGA Commercial and Industrial Waste Management Plan Guidelines (2016)
- Conversations and emails with Murray Swarbrick – City of Albany regarding council waste management requirements between 12 October 2020, 30 November 2020 and 8 December 2020.

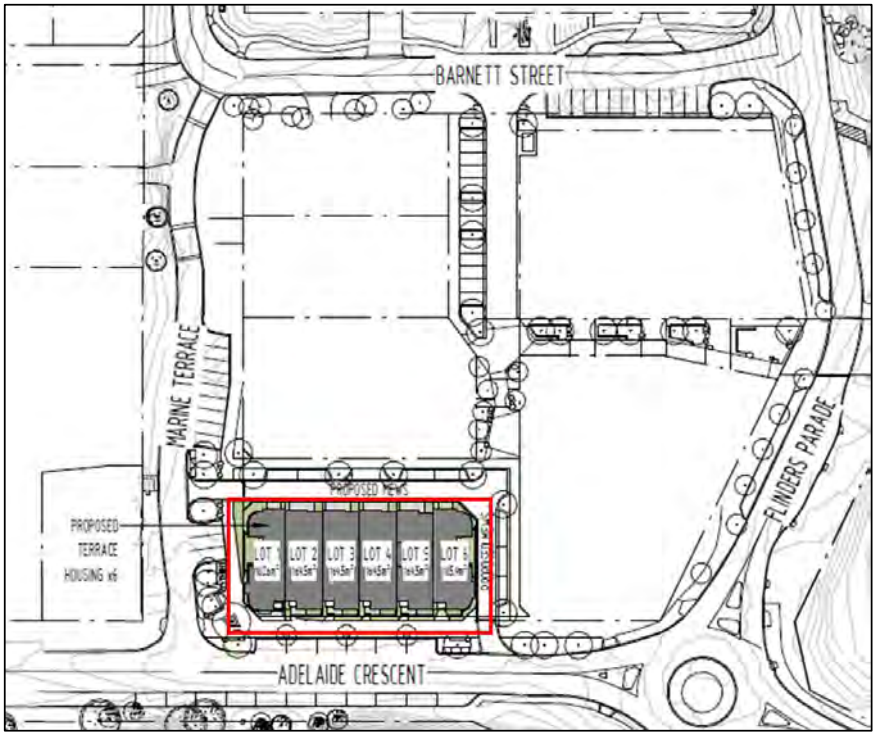


Figure 1: Site Masterplan showing location of stage 1a

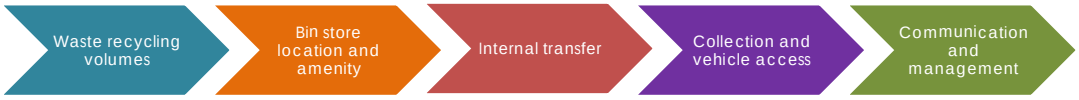
1.1 Context

For efficient and effective waste management across the entire Middleton Beach precinct once operational, the collection and centralisation of waste and recyclables is to be carefully considered at the building design phase of each stage. Key factors to consider at the design phase include:

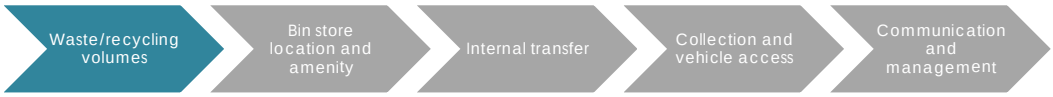
- The volumes of waste and recyclables likely to be generated during operation
- Suitability of bin storage area
- Safety for all operatives involved in waste management
- Access for trucks for waste collection
- Local council requirements
- Amenity (odours and noise)
- The ongoing management of waste and recycling services

1.2 Key components of the WMP

This WMP consists of five core components. The following report will present detailed information on each of the following components.



2 Estimated waste and recycling volumes



2.1 Local government requirements for waste volumes and bin type

WALGA Multi-Dwelling Development Waste Management Plan Guidelines (2016) and current City of Albany waste management provisions have been used as a basis for estimating waste generation rates for this development.

Stage 1a (on Adelaide Crescent) consists of six townhouses. All townhouses will require 3 bins to be stored within the lot boundary; (one for general waste (140 L), one for recycling (240 L) and one for FOGO[1] (240L). All bins will be serviced once a fortnight. General waste and FOGO will be collected on the same day during one week and then commingled recycling will be collected in the alternate week. The information is set out in the table below.

	Waste requirement	Recycling requirement	FOGO requirement
Per dwelling	1 x 140 L	1 x 240 L	1 x 240 L
Collection frequency	Fortnightly	Fortnightly	Fortnightly

If commercial office tenancies or short stay rooms are developed within the ground floor spaces of the units the following generation rates will be used to calculate waste volumes (from WALGA Waste Management Guidelines for Commercial & Industrial Developments, 2016).

	Waste requirement	Recycling requirement	FOGO requirement
Takeaway food & beverage (Unit 1 only)	0.8 L / 1m² floor area / day	0.4 L / 1m² floor area / day	10% of general waste
Short stay accommodation	40 L /occupant/week	20 L /occupant/week	-
Office	0.1 L / 1m² floor area / day	0.1L / 1m² floor area / day	-

[1] FOGO is food organics and garden organics

2.2 Number and type of bins required for development

The total number of bins to be set out at the hardstand collection pads from the 6 townhouses distributed between Adelaide Crescent and Marine Terrace are set out in table 1. General waste and FOGO bins will be collected on the same day and commingled recycling collections occur on alternate weeks.

Table1: Number of bins to be presented on the collection pads

Townhouses	Bin size (L)	Number of bins	Collection frequency
General waste	140	6	Fortnightly*
Commingled recycling	240	6	Fortnightly*
FOGO	240	6	Fortnightly*

If commercial spaces are established within the ground floor areas of the tenancies the tenants will include bin store areas within these tenancies to accommodate the following storage as required (see Table 2). Bin estimates are based on 33 m^2 of takeaway (or similar).

Table 2: Bin storage requirements for the optional takeaway tenancy on the ground floor

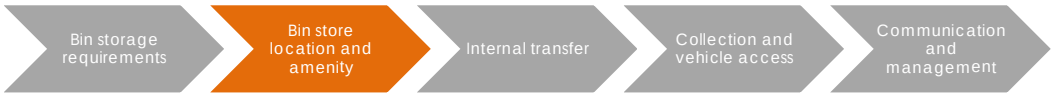
Unit 1 – food and beverage	Bin size (L)	Number of bins	Collection frequency
General waste	140	1	As required
Commingled recycling	240	1	As required
Food waste	240	1	As required

Units 2-6: Office space or short stay	Office/short stay waste and recycling is likely to be minimal and can be combined within existing residential bins

As any office waste and recycling generated will be very small (calculated as about 12.5 L per week of waste and recycling from the 25 m^2 area) it can be accommodated within the residential bins for that unit.

Similarly, only a small volume of waste/recycling is likely to be generated if the multi-use area is used as short-stay accommodation, given the lack of kitchen facilities and small size of the room (25 m^2), (the WALGA generation rate assumes access to kitchen facilities). Short stay waste/recycling can be combined within the existing standard residential bins.

3 Bin store location



3.1 Bin store location

Bins for the townhouses are required to be stored within the boundary of each dwelling as per Figure 2 and will need to be placed on the kerbside for collection via City of Albany side-lift vehicle on collection days.



Figure 2: Townhouse plan showing the allocated space for bin storage

3.2 Bin collection point

There is limited space in the area close to the townhouses and two separate collection pads will be in place for safe bin collection. One bin pad is on Marine Terrace and the other is on Adelaide Crescent.



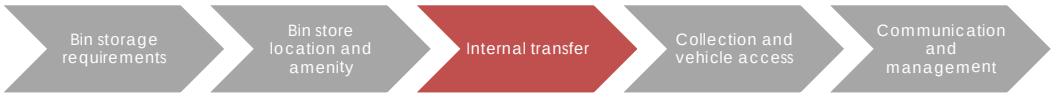
Figure 2: Bin pad for bin placement on collection days

3.3 Bin store amenity

These considerations will be applied to the design of the commercial bin store areas if required.

Bin Transfer	
Aisle door and lift width:	All doors, corridors and lifts 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 store	
Bin store walls and ceilings:	All internal walls in bin stores will be cement rendered (solid and impervious) to enable easy cleaning. Ceilings will be finished with a smooth faced, non-absorbent material capable of being easily cleaned. Walls and ceilings will be finished or painted in a light colour.
Ventilation and odour:	The design of bin store/s will provide for adequate separate ventilation with a system that complies with Australian Standard 1668 (AS1668). The ventilation outlet is not in the vicinity of windows or intake vents associated with other ventilation systems.
Doors:	Ventilated roller doors will be specified both internally and externally to enable bins to be easily wheeled into and out of the bin stores.
Vermin:	Self-closing doors to the bin store/s will be installed to eliminate access by vermin
Lighting:	Bin store/s will be provided with artificial lighting, sensor or switch controlled both internal/external to the room.
Noise:	Noise is to be minimised to prevent disruption to occupants or neighbours.
Fully Enclosed:	The bin store/s will be fully enclosed and only be accessible by residents, tenancy staff and the waste service provider.
Aesthetics:	The bin store/s will be consistent with the overall aesthetics of the development.
Signage:	Visual aids and signage will be provided to ensure that the area works as intended.

4 Bin collection points



4.1 Location of waste, recycling and FOGO bin collection points

Due to the nature of the development and high density implications of the dwellings communal bin collection pads have been located along the streets. In order to accommodate side lift waste collection vehicle, one way streets, street landscaping and resident convenience a collection location has been identified. One bin pad is on Marine Terrace and the other is on Adelaide Crescent as can be seen in Figure 2. Any commercial waste and recycling from Unit 1 food and beverage tenancy, if established, will be placed on the bin pad for collection on an alternate day to residential waste and recycling collections.

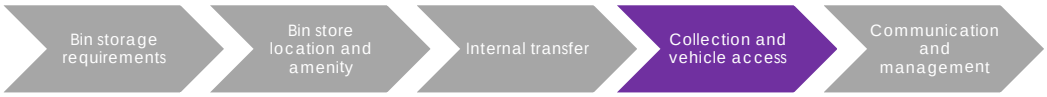
4.2 Transfer of bins to collection points

Residents and tenants will be responsible for storing waste and recyclables separately within their townhouses and transferring to the appropriate bin.

Residents and tenants will be responsible for manually transferring of waste, recycling and FOGO bins to the appropriate collection location bin pad to be emptied and for retrieving the empty bins to return them to their dwellings.

As it is unfeasible (due to space, safety and amenity implications) for residents in this development to discard bulk items on their kerbsides, they will instead make use of tip passes for disposal as provided by the City of Albany.

5 Collection and vehicle access



The City of Albany will service the residential waste, recycling and FOGO bins. A side-lift vehicle will require access to the bins in a single row on the verge-side bin pad collection location.

Bin collection pads have been placed so that there will be sufficient clearance provided at the pick-up point to allow for the arc movement of the truck's bin lifter to avoid any damage to property, trees and bins.

On collection days side lift vehicles for general waste, recycling and FOGO will stop adjacent to the development to collect bins from the 2 collection points. The vehicles will drive in a forwards motion and park adjacent to the bin pads. The truck can travel along Marine Terrace and make a left turn onto Adelaide Crescent to service both bin pads.

As this waste management plan is for stage 1a of this development a swept path analysis for vehicle ingress and egress has been completed by Stantec for the whole site. The swept path has been complete based on the specifications of the City of Albany waste collection vehicles (see Figure 3). The swept path shows the location of the bin pads for use by residents in stage 1a townhouses. The swept path also shows there is access to future development sites through a waste vehicle turning into the development from Barnett Street, travelling along the special parking street and the mall reserve to exit the development via the Mews and onto Adelaide Crescent.

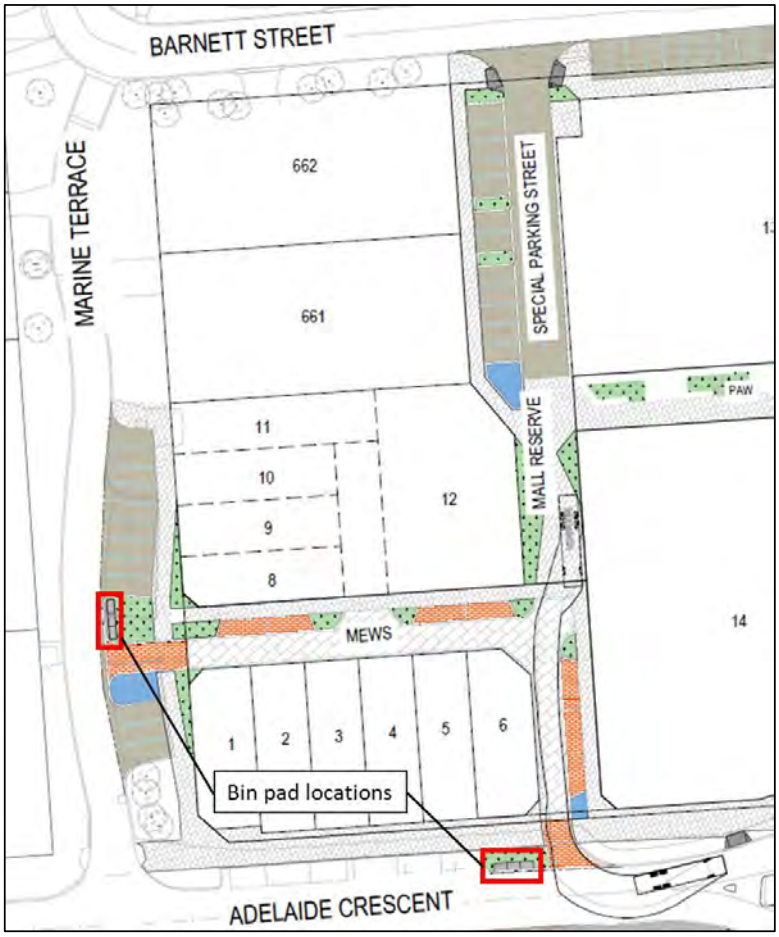
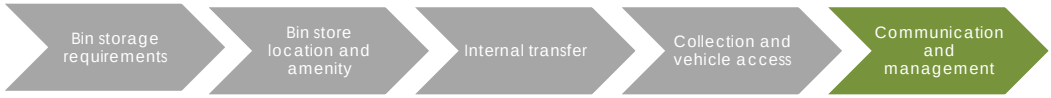


Figure 3: Swept path analysis showing access for waste collection vehicles (12.5m)

6 Ongoing communication and management



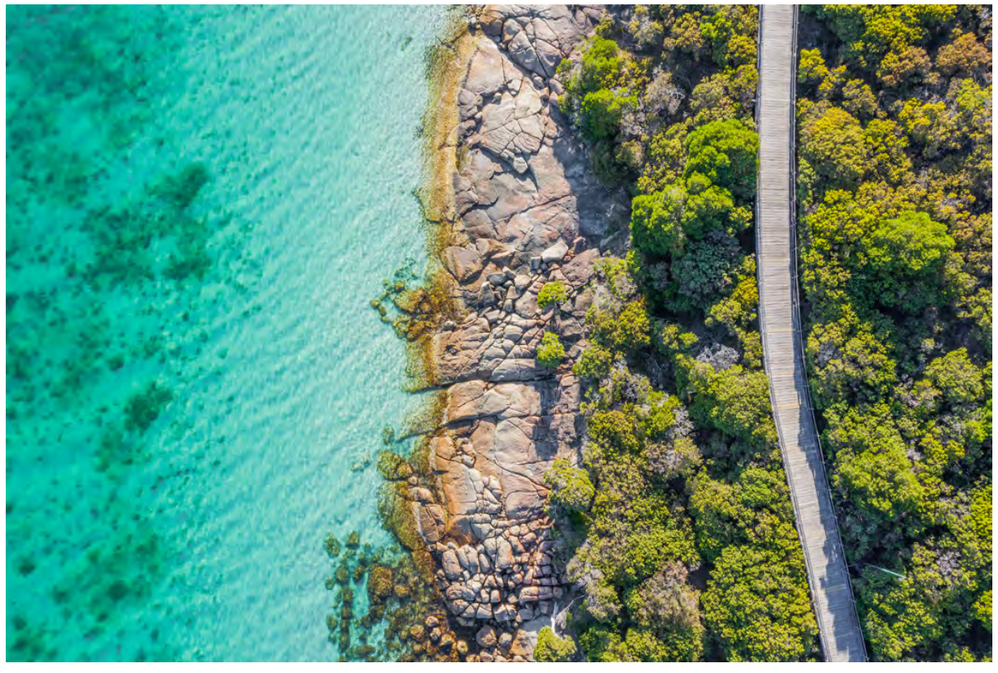
All residents will be made aware through City of Albany communications of the waste and recycling systems and how they should be used.

Residents will each be responsible for setting out and retrieving bins from the collection point on relevant days.

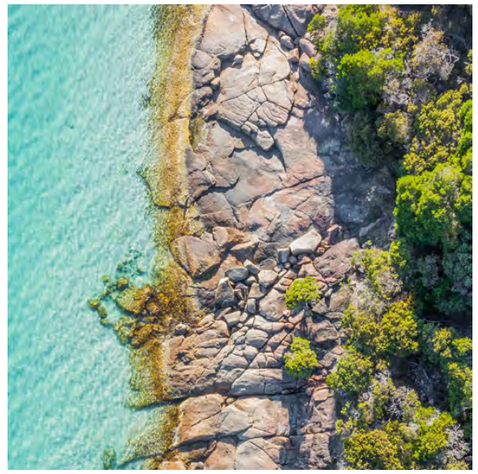
If any of the small multi-use areas are sub-let, the tenants will be responsible for managing storage and collection of bins.

MIDDLETON BEACH

STAGE 1A TERRACE HOUSING DEVELOPMENT



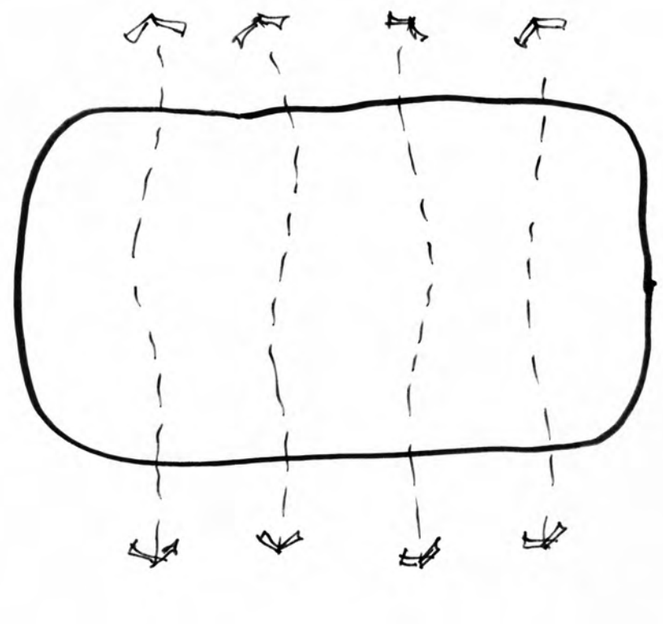
DEVELOPMENT APPROVAL
March 2021
Revision E



Swimming, jumping and diving off the rocks as the favorite activity for children



Collecting, cooking and eating Periwinkles under the Peppermint trees



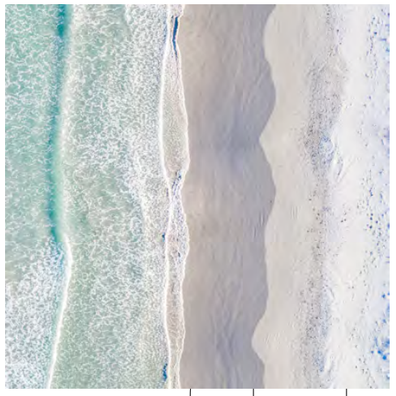
“ The connection of the two aspects of the site - northern sun & southern vegetated mountain - is enveloped by a notion of softness and calm stemming from the indigenous heritage of a playful yet restful beach environment ”



Soft & shady Peppermint trees provided restful picnic places



Iridescent Christmas Beetles present in the Peppermint grove were chaught and admired before let go again

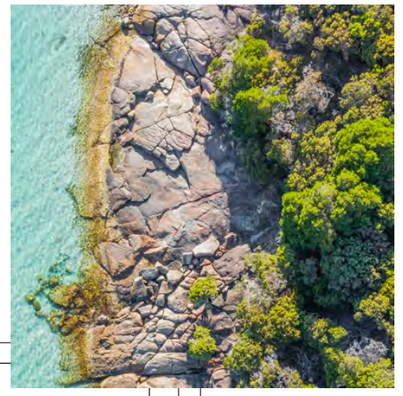


Light sand &
off whites



Simple coastal structures

Light silvered
timber;
earthy tones



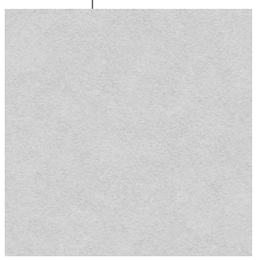
Coastal granite, lush
native vegatation,
tourquise clear water





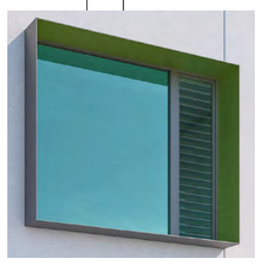
Shades of olive/ green
referencing local Periwinkles
and Christmas Beetles



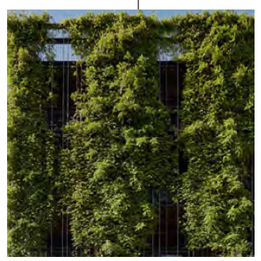












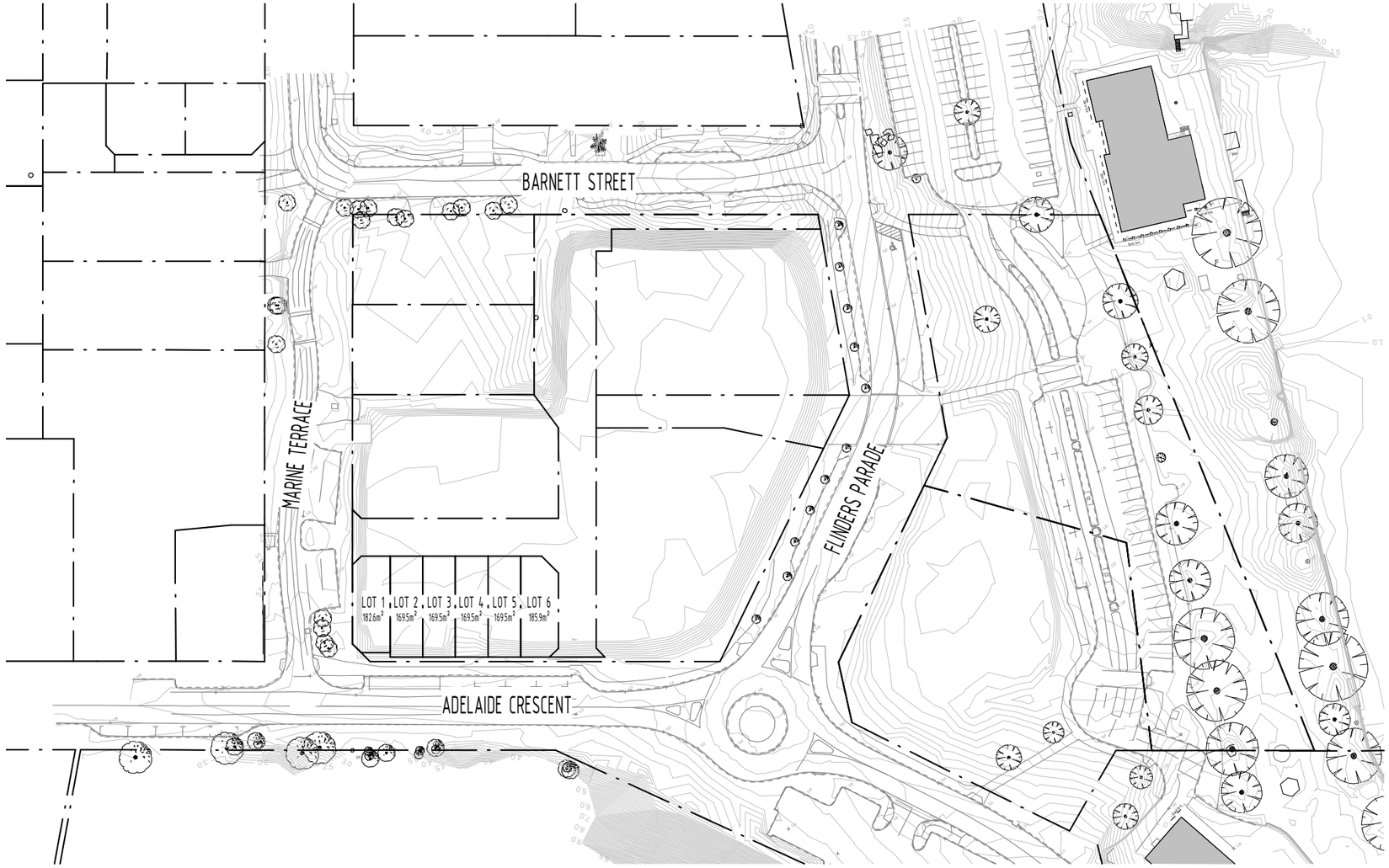


DevelopmentWA

CONTEXT RELATIONSHIP
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.02	rev
29/03/2021	E

ptx architects



1 01 EXISTING SITE PLAN
SCALE 1 : 1000 @ A3

EXISTING SITE PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.03	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE



1 PROPOSED SITE PLAN
SCALE 1 : 1000 @ A3

PROPOSED SITE PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.04	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE

LOT 1 AREAS:
SITE AREA: 183m²
GF FECA: 65m²
FF FECA: 103m²
TOTAL FECA: 168m²
CARPARKING: 49m²
TERRACE: 12m²
GROSS FLOOR AREA: 229m²

LOT 2 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 97m²
TOTAL FECA: 182m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 218m²

LOT 3 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 4 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 5 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 6 AREAS:
SITE AREA: 186m²
GF FECA: 57m²
FF FECA: 104m²
TOTAL FECA: 161m²
CARPARKING & SITTING: 57m²
TERRACE: 12m²
GROSS FLOOR AREA: 230m²

BIN PRESENTATION AREAS FOR LOT 1, 2 & 3

FLUSH MOUNTED KERBS FOR STEP & HAZARD FREE ACCESS TO BIN PRESENTATION AREAS



BUILT IN STORAGE SPACE UNDER EACH STAIRS; BOTTOM FOUR TREADS REMOVABLE TO SUIT WINDING LAYOUT & RESIDENTAIL LIFT IF DESIRED

FLUSH MOUNTED KERBS FOR STEP & HAZARD FREE ACCESS TO BIN PRESENTATION AREAS

FEATURE TREE WITH SEATING

LINE OF BAL-29 SETBACK. REFER TO BUSHFIRE CONSULTANT'S REPORT

FEATURE BREEZE BLOCK SCREEN W. BICYCLE RACK BEYOND

PLUMBING PROVISION IN WALL

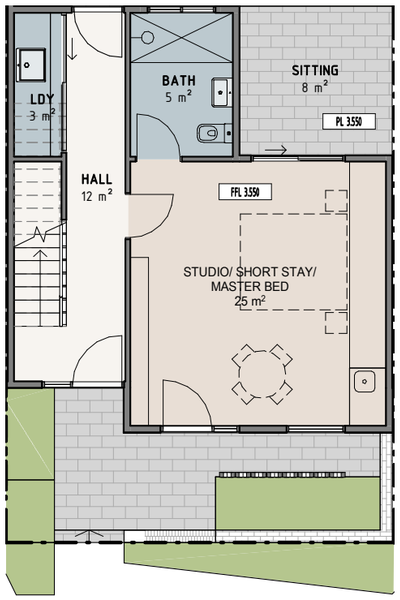
LOW RETAINING WALL TO GARDEN BED

BIN PRESENTATION AREAS FOR LOT 4, 5 & 6

1 PROPOSED GROUND FLOOR PLAN
SCALE 1 : 200 @ A3

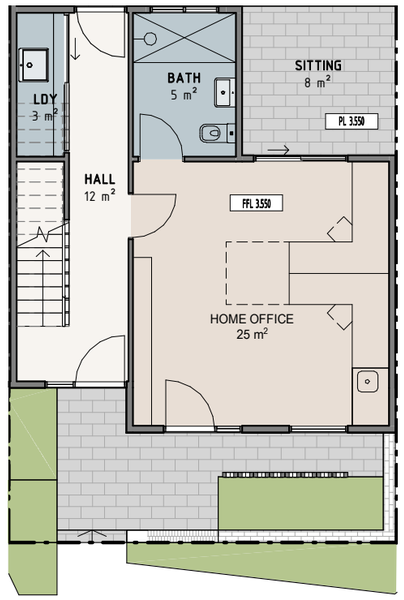
PROPOSED GROUND FLOOR PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.05	rev
29/03/2021	E



1 MULTI-USE (LOT 2) - STUDIO/ SHORT STAY/ MASTER BED

SCALE 1 : 100 @ A3



2 MULTI-USE (LOT 2) - HOME OFFICE

SCALE 1 : 100 @ A3

3 MULTI-USE (LOT 1) - SMALL CAFE/ JUICE BAR

SCALE 1 : 100 @ A3

4 MULTI-USE (LOT 1) - SMALL CONSULTING

SCALE 1 : 100 @ A3

MULTI-USE LAYOUTS

2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.06	rev
29/03/2021	E

NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE

LOT 1 AREAS:
SITE AREA: 183m²
GF FECA: 65m²
FF FECA: 103m²
TOTAL FECA: 168m²
CARPARKING: 49m²
TERRACE: 12m²
GROSS FLOOR AREA: 229m²

LOT 2 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 97m²
TOTAL FECA: 182m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 218m²

LOT 3 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 4 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 5 AREAS:
SITE AREA: 170m²
GF FECA: 85m²
FF FECA: 98m²
TOTAL FECA: 183m²
UC PAVING: 19m²
TERRACE: 17m²
GROSS FLOOR AREA: 219m²

LOT 6 AREAS:
SITE AREA: 186m²
GF FECA: 57m²
FF FECA: 104m²
TOTAL FECA: 161m²
CARPARKING & SITTING: 57m²
TERRACE: 12m²
GROSS FLOOR AREA: 230m²

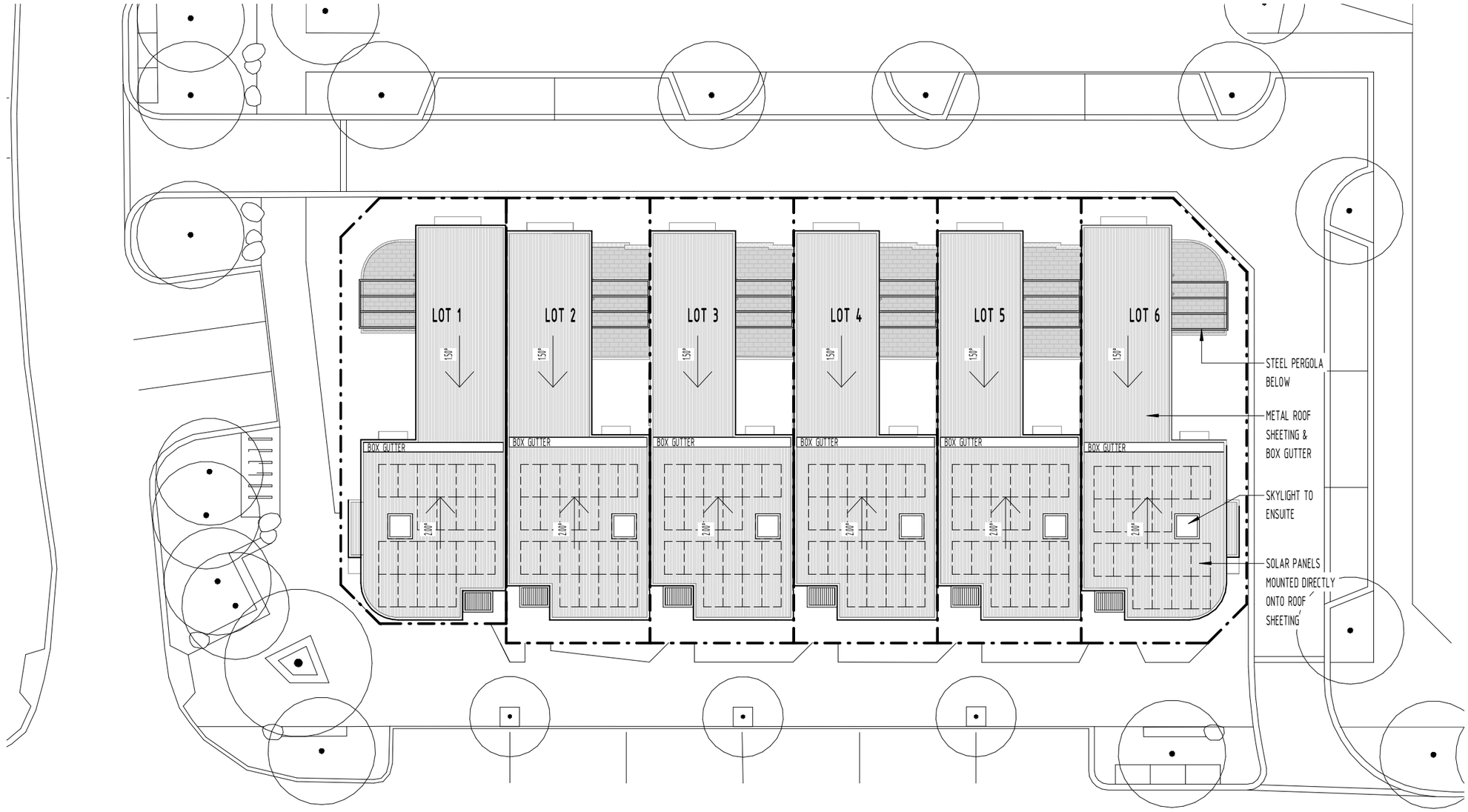


1 PROPOSED FIRST FLOOR PLAN
SCALE 1 : 200 @ A3

PROPOSED FIRST FLOOR PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.07	rev
29/03/2021	E

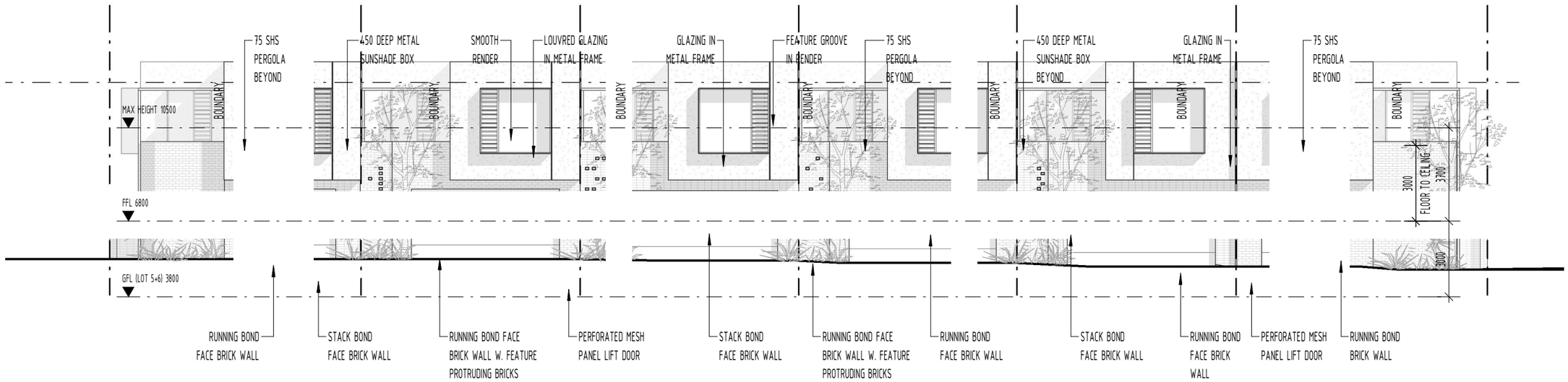
NOTE:
REFER TO TOWN PLANNER'S, LANDSCAPE ARCHITECT'S & CIVIL ENGINEER'S DRAWINGS FOR STREETSCAPE



1 PROPOSED ROOF PLAN
SCALE 1 : 200 @ A3

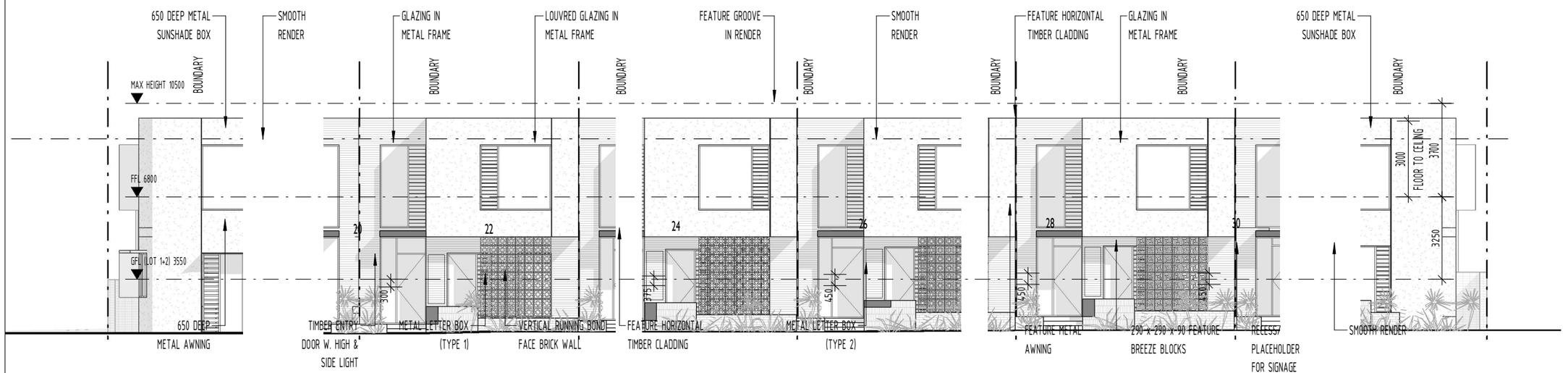
PROPOSED ROOF PLAN
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.08	rev
29/03/2021	E



1 NORTH ELEVATION

SCALE 1 : 150 @ A3



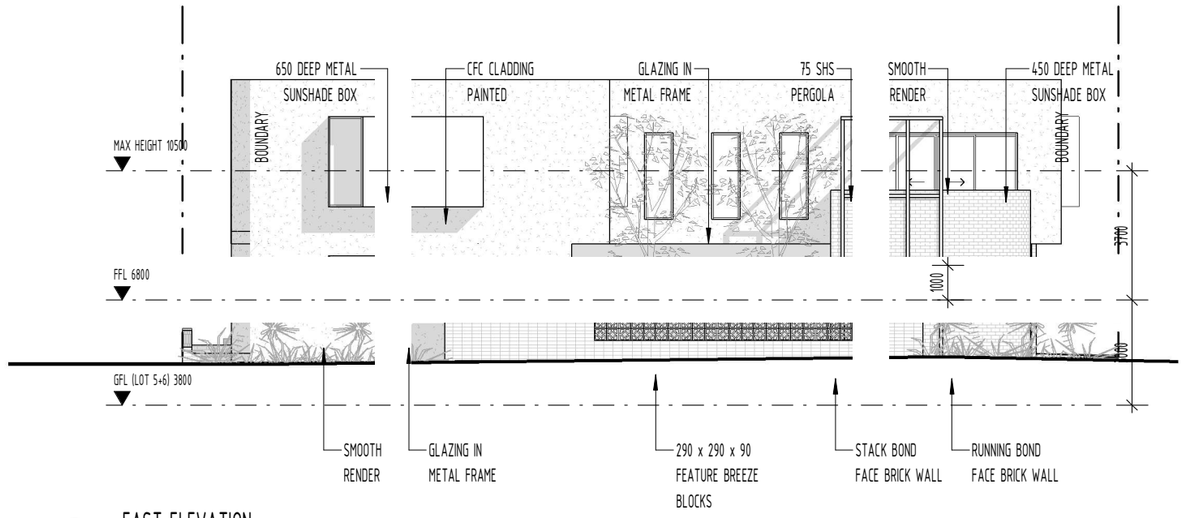
2 SOUTH ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS NORTH & SOUTH

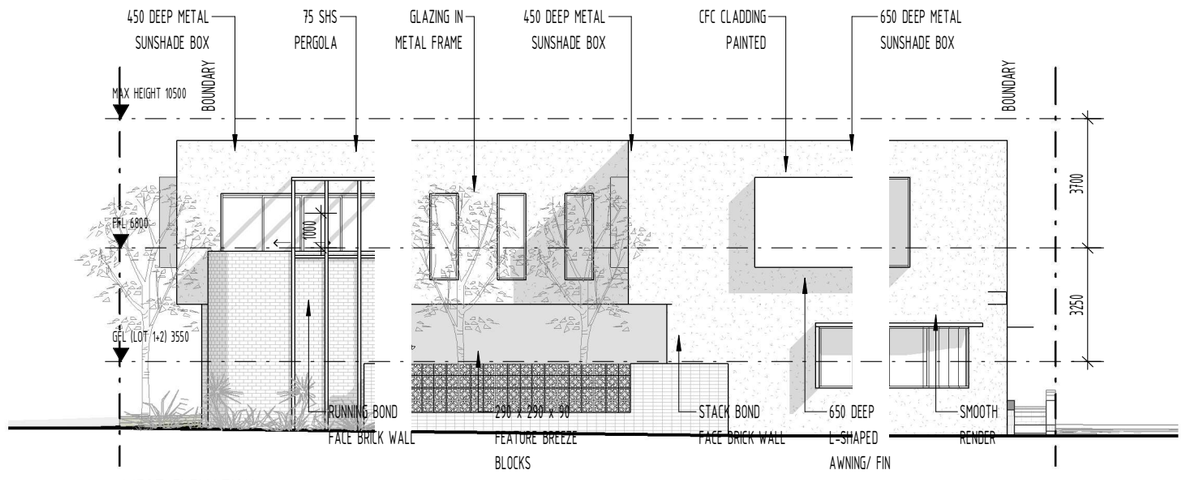
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.09	rev
29/03/2021	E



1 EAST ELEVATION

SCALE 1 : 150 @ A3



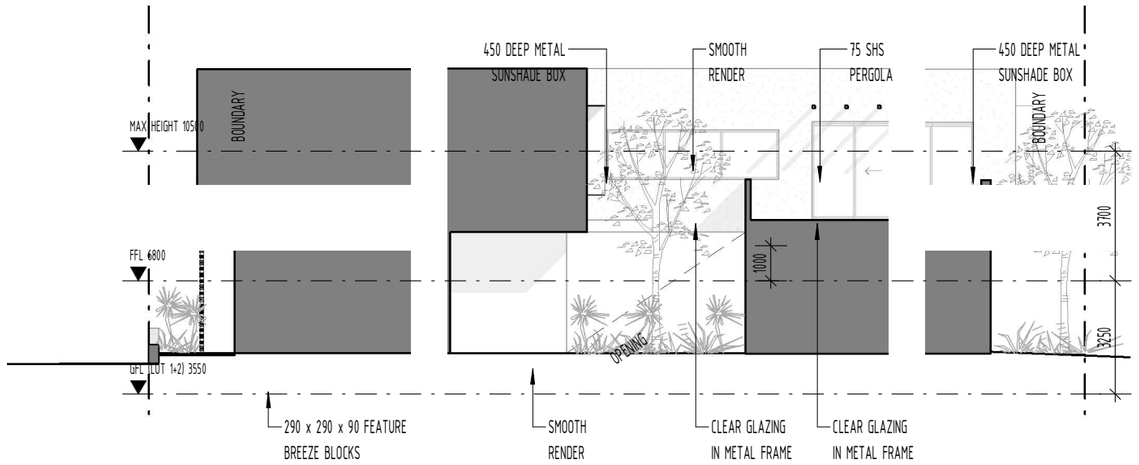
2 WEST ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS EAST & WEST

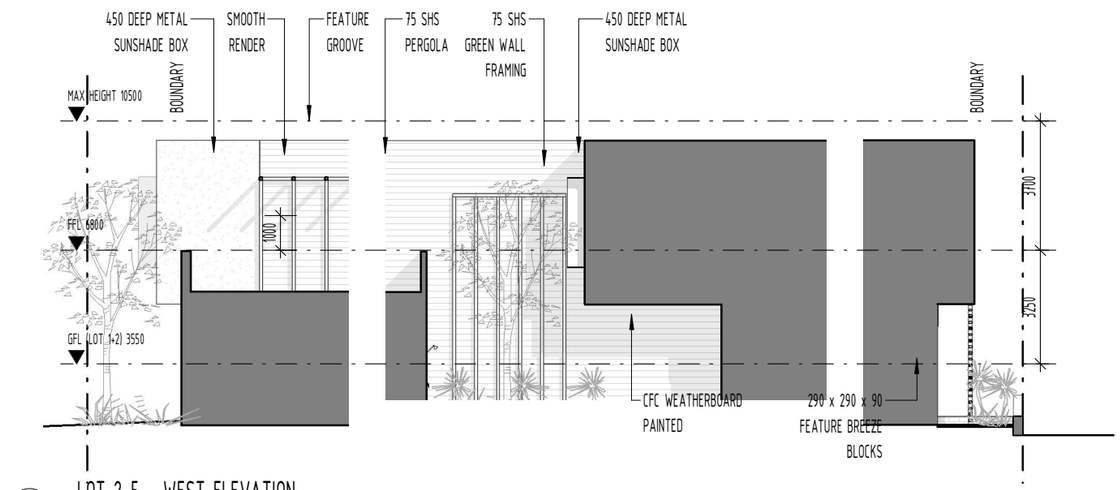
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.10	rev
29/03/2021	E



1 LOT 2-5 - EAST ELEVATION

SCALE 1 : 150 @ A3



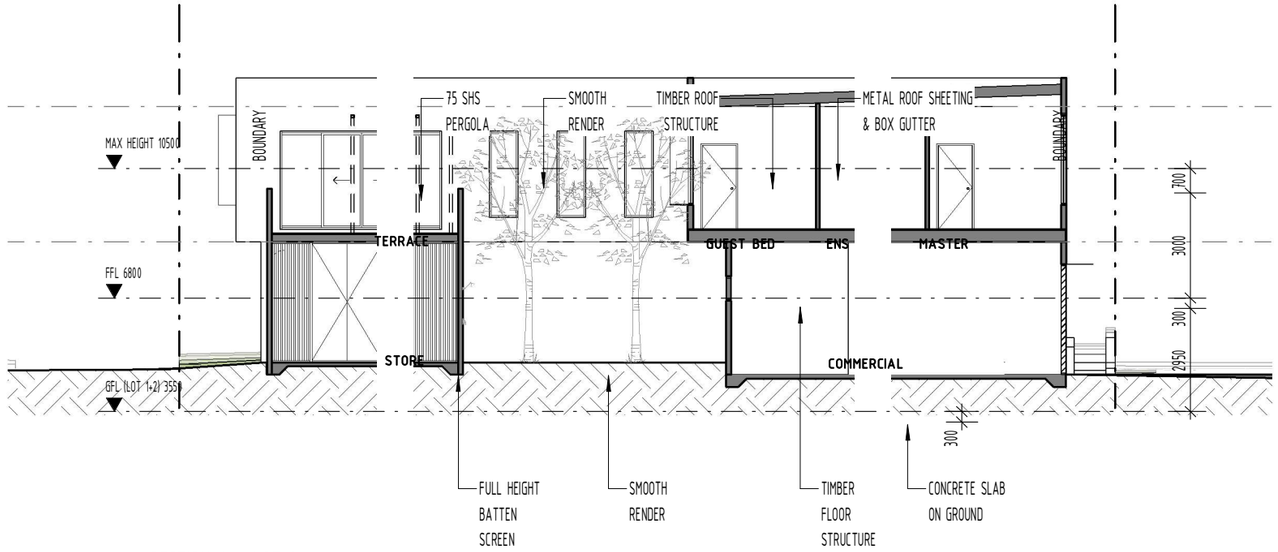
2 LOT 2-5 - WEST ELEVATION

SCALE 1 : 150 @ A3

ELEVATIONS EAST & WEST INTERNAL

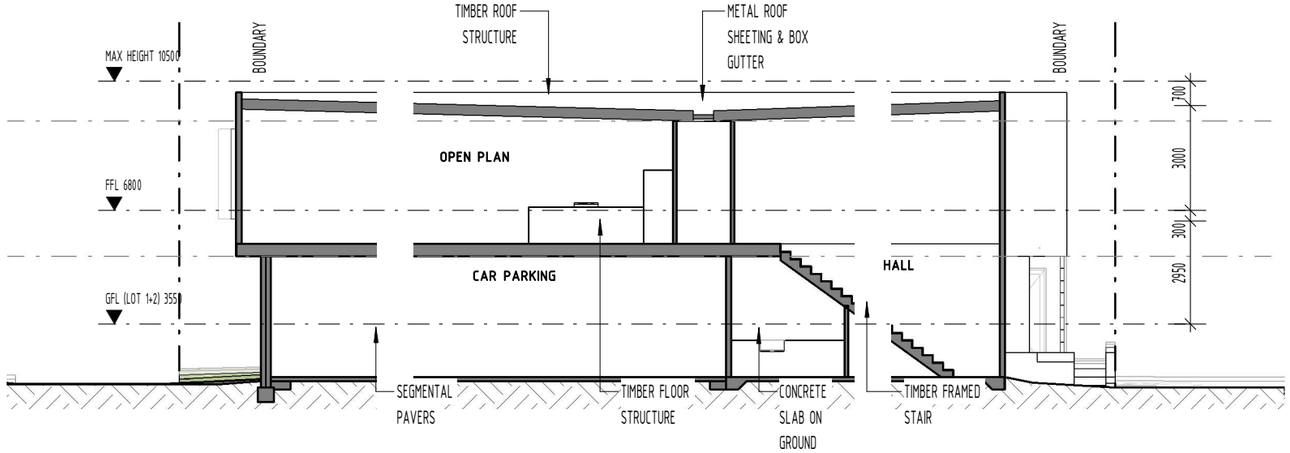
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.11	rev
29/03/2021	E



1 SECTION A - LOT 1

SCALE 1 : 150 @ A3



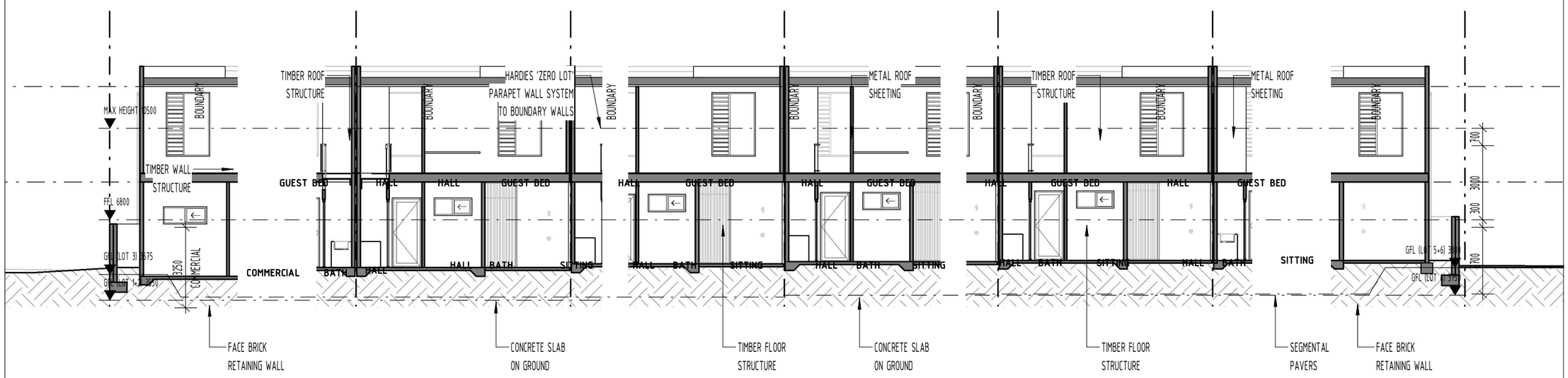
2 SECTION B - LOT 1

SCALE 1 : 150 @ A3

SHORT SECTIONS

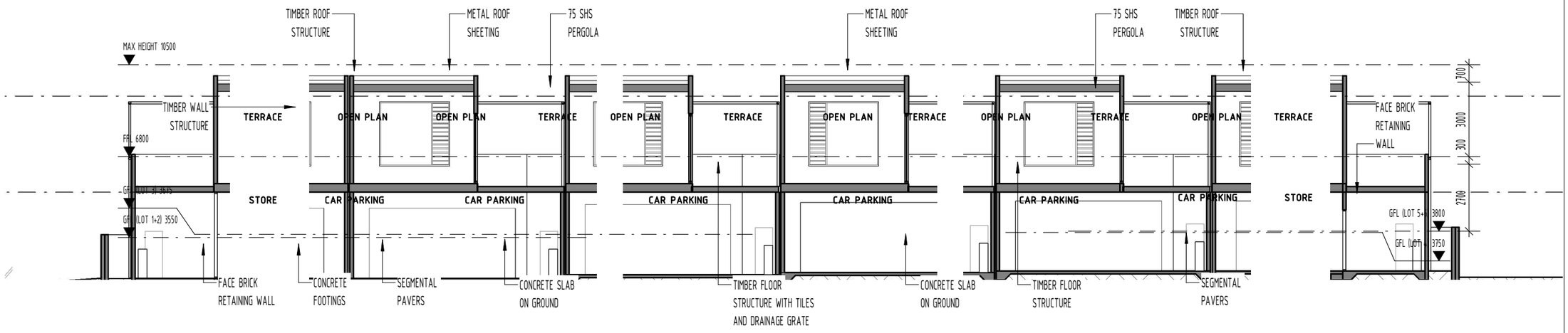
2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.12	rev
29/03/2021	E



1 SECTION C - LOT 1 TO 6

SCALE 1 : 150 @ A3



2 SECTION D - LOT 1 TO 6

SCALE 1 : 150 @ A3

LONG SECTIONS

2012 Middleton Beach Stage1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.13	rev
29/03/2021	E

1 WALL FINISHES
NTS



RE-01

Rendered Polystyrene Cladding
Masterwall 50mm
Finish: Trowel on Acrylic Render
Colour: Off White



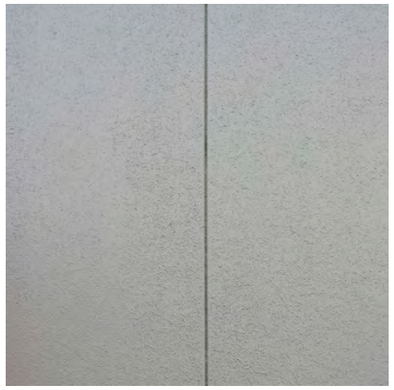
RE-02

Rendered Fibre Cement Cladding
James Hardie HardieTex System
Finish: Trowel on Acrylic Render
Colour: Off White



WB-01

Fibre Cement Weatherboard Cladding
James Hardie Linea Weatherboard
Finish: Painted
Colour: Warm Grey



FC-01

Fibre Cement Flat Panel Cladding
James Hardie EasyLap Panel
Finish: Painted
Colour: Warm Grey



BR-01

Face Brick
Brikmakers Toolonga
Grout: TBA
Bond: Running & Stack

2 GLAZING
NTS

3 ROOF SHEETING
NTS



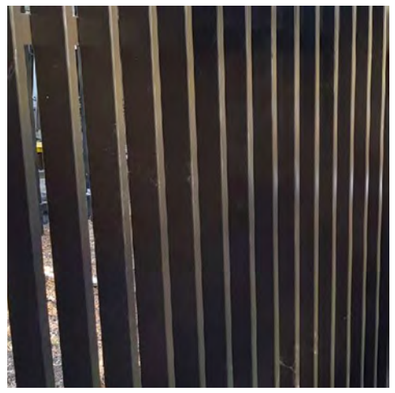
BR-02

Breeze Blocks
Cubic Products Custom
Type: Custom
Colour: Off White



TMB-01

Timber Cladding
Tallowwood or Spotted Gum BAL 29
Finish: Pre Finish Timber Preservative
Colour: Weathered Silver



TMB-02

Timber Screen & Gates
90 x 45mm CCA
Finish: Painted
Colour: Charcoal



WINDOWS & DOORS

Tinted Double Glazing
Powder coated Aluminium Framing
Colour: Colorbond Basalt



ME-01

Metal Roof Sheeting
Lysaght Colorbond Steel
Profile: Klip-Lok Classic 700
Colour: Shale Grey

DevelopmentWA

MATERIAL SELECTIONS
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.14	rev
29/03/2021	E

ptx architects

1 PAVING FINISHES
NTS



PA-01

Brikmakers Geo Collection
Size: Vistapave 60
Colour: Gem

2 LANDSCAPE ELEMENTS
NTS



VERTICAL PLANTING

TBA



TERRACE PERGOLAS

Steel SHS Framing with Coastal Vines
Finish: Galvanised & Painted



COURTYARD GREEN WALL

TBA



STREET TREES

Agonis Fexuosa
- WA Peppermint Tree

3 ARCHITECTURAL ELEMENTS
NTS



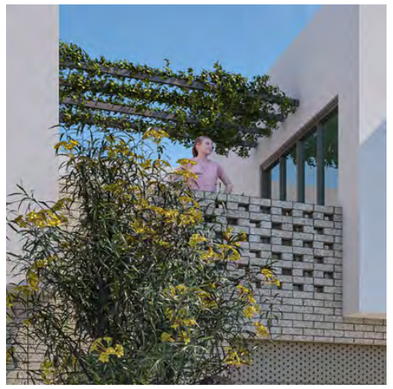
GARAGE DOORS

Custom Panel Lift Doors
TBA
Material: Perforated Aluminium
Colour: Warm Grey



ENTRY CANOPIES & LETTERBOXES

Metal Canopies & Letterboxes
Finish: Powdercoated
Colour: Mix of Local Greens



TERRACE BALUSTRADES

Hit and Miss Face Brick
Brikmakers Toolonga
Grout: TBA
Bond: Running



WINDOW HOODS

Aluminium Window Hoods
Heka Hoods 300mm & 450mm
Finish: Powdercoated w. Painted Reveals
Colour: Basalt & Olive Greens

DevelopmentWA

MATERIAL SELECTIONS
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.15	rev
29/03/2021	E

ptx architects



1 VIEW FROM SW CORNER
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 01
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.16	rev
29/03/2021	E

ptx architects



1 VIEW OF SW CORNER
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 02
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.17	rev
29/03/2021	E

ptx architects



1 ADELAIDE CRESCENT FACADE
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 03
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.18	rev
29/03/2021	E

ptx architects



1 THE MEWS
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 04
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.19	rev
29/03/2021	E

ptx architects



1 MARINE TERRACE FACADE
NTS

DevelopmentWA

ARTISTS IMPRESSION VIEW 05
2012 Middleton Beach Stage 1A Terrace Housing Development
Lot 9000 DA4 Adelaide Crescent, Albany 6330

DA.20	rev
29/03/2021	E

ptx architects

DEVELOPMENT APPLICATION P2210221
PUBLIC/GOVERNMENT AGENCY SUBMISSIONS
Site details: 1-7 Flinders Parade, Middleton Beach
Application details: Multiple Dwelling (x6)

No.	Government Agency/Public Summary of Submission(s)	Proponent Comment	Officer Comment and Recommendation
1.	I wanted to comment on the plan for housing at Flinders Parade. I know I, as well as many others, think that developing this site for housing is catering to the few rich, rather than using this prime spot as something that the community can enjoy. Middleton is a prime tourist hot spot, as well as a gathering place for locals, and it seems a lack of vision and a waste of a lovely space to simply develop it into housing (which by the way, are very uninspired in aesthetics... could take some tips from the Hybla's classic but modern design). There needs to be more thought into what this can be used for, for the community as a whole. Perhaps an open air stage/ sunken amphitheatre for outdoor performances in better weather, as well as another area for markets and community events. It is also the perfect spot for a block of small micro-businesses e.g. Icecream store, surfboard store/surf gear hire, small bar etc. It was also be the perfect place to have designated spots for food trucks, which the City of Albany has not done enough to support and encourage.	*Acknowledge comments and suggestions.* *Please note that this DA detail accords with the Structure Plan and development intent for the precinct.*	The land uses are consistent with Structure Plan and LPS1 provisions. The site (Lot 9001) will be developed in a number of stages, this application relates to the first stage of a precinct wide design.

2.	I just saw an artist's impression of the new buildings….ugh..all new commercial buildings in Albany should be built in federation style to keep the unique character of our amazing city. Modern horrors make Albany look like Northbridge.	*Acknowledge comments – This DA details the narrative of the local design history, materials and architectural interpretation of those – albeit in a contemporary form. federation style, subjective – the DG checklist, the concept design report and the site/ character analysis report (all lodged as detailed Appendix to the DA) outline the reasoning further behind the design response and its connections to place. These documents include significant detail of the design fundamentals and community benefits.*	The design has been assessed against the Middleton Beach Design Guidelines by an appointed Estate Architect and a Design Review Panel who expressed support for the proposal.
3.	I am not supportive of the development proposal. This is a prime development site that is very important to the long-term tourism and commercial development of Albany. The development proposed is underwhelming, lacking in aspiration and will provide minimal economic and cultural benefits to the City and its residents. The city would be better to work with the private sector to put together a consortium that will rebuild the hotel that was lost. The proposed townhouse development would affect the viability of such an initiative. A rebuild of the hotel would have overwhelming community support. It would be a suitable project for a community focused Royalty for Regions funding application.	*Acknowledge comments and suggestions – This DA detail accords with the Structure Plan and subdivision intent for the site.* *The DA is for one component of the Middleton Beach Precinct only, and importantly provides a residential interface to existing development, that will not compete with the future Hotel Site located adjacent the foreshore.* *The Hotel site has been designated adjacent the foreshore, which enables the location of this DA to provide appropriate diversity in residential opportunities for the locality.* *Equally, this DA sensitively limits the quantity of non-residential proposed, to protect the viability of vital primary activated frontages located along Flinders Parade in the approved Structure Plan and Design Guidelines.* .	The development is one component of a larger precinct that will contain greater height and building mass. As such the extent of this proposal is intended to provide a transitionary height edge to this south western frontage.
4.	1. I ask that the Peppermint trees located on the corner of Marine Terrace and Adelaide crescent be retained and incorporated into the landscape plans for the development. The existing trees are mature, provide shade and are a landscape feature at present that should be retained. 2. Parking is a major problem in the area and will be worse as development occurs. It is important that the development provides sufficient parking for its own uses internally and it is made clear that street parking is for	*Acknowledge comments - The existing peppermint trees in this location have been specifically identified for retention within the DA package, as well as additional endemic planting as part of the proposed landscaping design – this is noted on the landscape plan Appendix H.* *Parking - a comprehensive approach to the parking surrounding the development has been prepared. This will increase the existing parking quantity and enable the bay locations to be more accessible to the public.* *This DA proposal satisfies its parking demand – please refer Appendix D – Design Compliance Review Checklist – Item 3.10 Car and Bicycle Parking*	The existing peppermint trees in this location have been identified for retention. No specific car parking rates are identified, with the provisions of LPS1 stating car parking rates shall be determined by the Local Government. The proposal provides two car parks per residence which would be consistent with the requirements of the R-Codes. A comprehensive approach to the parking surrounding the development has been prepared which will increase the existing parking quantity and enable the bay locations to be more accessible to the public. Payment-in-lieu of parking is recommended for the commercial tenancy.

	public use, not residential use for the users of the terrace housing.		
5.	With regard to the proposal currently being considered for 6 Multiple Dwellings on Adelaide Crescent, Middleton Beach, I support the mixed use development with commercial uses at the ground floor level of these buildings and residential/accommodation on the higher floors. It was unclear from the information provided how the City of Albany would control/ensure that the mixed use development would occur on the ground floor. I think it is imperative for this location that the ground floor of land on the street frontages provide opportunities for mixed use development to add to the vibrancy of this community/tourist node. Whilst I understand there is a structure plan and special site provisions in place to guide the development of the superlot owned by Development WA, it would be great to see an overall guide plan of how the heights of proposed development would work in this area. On face value and with little information provided in the 21 pages of plans consisting of the DA, a two storey development in this location seems an inefficient use of land given the existing services and infrastructure in an area that is one of Albany's premier tourist destinations. However if the height of the development in this area is going to be tiered I believe the two story height limit is short sighted. This development is the start of the development of the super lot at Middleton Beach and whilst I understand that it is located at the portion of the site closest to the existing residential area and a two storey development is likely to be more palatable with the community, I would suggest that the planners consider the suitability of higher storeys	*Acknowledge comments and suggestions.* *We confirm that the DA does provide for a secondary active frontage through robust/adaptable ground floor building design.* *The building configuration will enable these spaces to adapt over the lifespan of the building and respond to the local commercial demands to achieve sustainable activity.* *In regards to the proposed height, this development is one component of a larger precinct that will contain greater height and building mass. As such the extent of this DA is intended to provide a transitionary height edge to this south western frontage.*	The development is one component of a larger precinct that will contain greater height and building mass. As such the extent of this proposal is intended to provide a transitionary height edge to this south western frontage. The proposal abuts a 'Secondary Active Frontage' as designated within the Precinct Plan. The ground floor of Units 2-6 are designed to allow future adaptability at ground level and facilitate uses such as short term holiday accommodation or offices. A commercial unit is proposed on the corner of Adelaide Crescent and Marine Terrace. This unit has been designed to facilitate future restaurant/café or consulting room uses which offers further activation to the secondary active frontage. It should also be noted that the Structure Plan states 'Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation.'

	across this site and ask Development WA to produce an overall detailed area/development plan with specific height details, rather than the generic terms used in the structure plan of 2-5 storeys. It would be beneficial for future DAs of this nature to make reference to the relevant zoning, scheme provisions and/or any associated planning documents that would inform the public during the advertising period. In conclusion, active land uses at ground level are essential and greater height should be considered or at the very least an overall development plan produced by Development WA to ensure a cohesive mixed use development where the community and visitors both benefit.		
6.	I wish to advise I strongly support the design proposal and consider that it provides: • Excellent relationships with and opportunity for passive surveillance of the public realm on all sides of the development • Maximisation of opportunity for passive solar gain • A far more sympathetic interface with existing commercial, short stay and residential development on Marine Tce and Adelaide Crescent than the apartment style development initially envisaged • Potential for ageing in place through provision for a lift The advertised plans do not provide sufficient detail to determine whether provision has been made for solar energy and storage and other environmental measures, such as rainwater harvesting. I am concerned that there is no provision for visitor parking within the development. It is	*Acknowledge comments and suggestions.* *Important detail regarding the energy & sustainability aspects of the DA proposal are included at Appendix D – Design Compliance Review Checklist and Appendix E - Concept Design report* *Parking - a comprehensive approach to the parking surrounding the development has been prepared. This will increase the existing parking quantity and enable the bay locations to be more accessible to the public.* *This DA proposal satisfies its parking demand – please refer Appendix D – Design Compliance Review Checklist – Item 3.10 Car and Bicycle Parking*	Noted. A Sustainability Strategy Report has been provided by the applicant which indicates the proposal addresses the environmental objectives of the Guidelines and best practice sustainability outcomes across key environmentally sustainable design criteria. This application is consistent with the provision of the LPS1 which state 'No visitor car parking requirements or permanent residential development' within the Mixed Use Precinct.

	therefore considered imperative that the proposed public parking off Barnett Street is provided contemporaneously with this development, together with provision of additional parking along Adelaide Crescent. New parking bays on the southern side of Adelaide Crescent would narrow the carriageway, potentially acting as a traffic calming measure and encouraging better adherence to the posted but poorly observed 40 km/hr speed limit in this area.		
7.	**DEPARTMENT OF PLANNING, LANDS AND HERITAGE** The lots are within the Mixed Use (MU) precinct of the Middleton Beach Activity Centre Structure Plan (MBACSP) and Special Use 25 (SU25) of the City of Albany Local Planning Scheme No.1 (LPS1). The proposal to create six single attached dwellings is in accordance with both LPS1 and the MBACSP, however, there are some details of the design that appear to vary from provisions of the LPS1, MBACSP and Design Guidelines and WAPC policy as detailed below: **LPS1 – SU25** • Active Frontage - build adaptability into the development at ground floor level. The current ground floor design fronting Adelaide Crescent includes stepped back individual entries, low face brick walls, abutting garden plantings, breeze block privacy screening and proposed bicycle parking. This design is primarily for long term residential, holiday accommodation and perhaps a consulting room but unlikely to ever accommodate other commercial uses that require an active street (restaurant, small bar, tavern, convenience store or office). Visibility into ground floor spaces is impeded	*Acknowledge submission and we provide the following comments:* *The majority of these items identified by the DPLH were addressed during the design development phases of this site involving the City and Design Review Pane (DRP)l.* *The DPLH items have each been addressed below and the relevant detailed justification and record of DRP recommendations have been identified for further reference.* ***Active Frontage:*** *The design response to the Secondary Active Frontage is purposely different in character to that expected for the Primary Active Frontage.* *This is to provide diverse non-residential opportunities in the area, and protect the viability of the mandatory primary frontages to Flinders Parade.* *For greater detail and DRP recommendation, please refer* ***Appendix D – Design Compliance Review Checklist and Design Review Panel Response – Item 3.4***	**LPS1** The development abuts Adelaide Terrace which is designated a 'Secondary Active Frontage' within the Precinct Plan. Potential ground floor land uses (Short Term Holiday Accommodation, Office, etc) are considered appropriate for a 'Secondary Active Frontage'. A future Restaurant/Café or consulting rooms on the corner of Adelaide Crescent and Marine Terrace offers further activation to the secondary active frontage. It should also be noted that the Structure Plan states 'Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation.' **MBACSP** This provision is described as design guidance only, rather than a mandatory requirement. During the design review process (see below) the Local Design Review Panel were satisfied the ground floor has been appropriately designed to enable adaptability at ground level and facilitate non-residential uses. Potential overshadowing arising from the development of proposed Lot 7 will be explored within that development application. Potential ground floor land uses (Short Term Holiday Accommodation, Office, etc) are considered appropriate for a 'Secondary Active Frontage'. A future Restaurant/Café or consulting rooms on the corner of Adelaide Crescent and Marine Terrace offers further activation to the secondary active

	and frontage design would make future street activation unlikely. **MBACSP** • Table 5: Building Heights (s.4.2.1) notes that ground floors within the MU precinct are to be a minimum of 4.5m floor to floor. This is noted to enable ground floor tenancies that can accommodate adaptable building design. Height of the ground floor (3m) appears not to be in accordance with the provisions. • Table 5: Building Heights (s 4.2.1) notes a height between 2 to 5 storeys can be accommodated along Adelaide Crescent. What are the overshadowing implications to the proposal given the balance of the MU area to the north (proposed Lot 7 in WAPC 160524) is indicated to accommodate a four storey proposal? Or alternatively will this development have repercussions on the building height permitted within proposed Lot 7? • Activation (s. 4.2.3) notes development of Adelaide Crescent shall accommodate active uses as denoted as "Secondary Active Frontages'. Although Flinders Parade is to be the priority activation zone, the secondary zone is to be designed to facilitate similar activation as and when required and provide connection to the existing commercial area to the west.	*Table 5: Building Heights - minimum floor to floor heights* *These are included in Part 2 of the LSP (Explanatory Section – rather than Implementation Section) and are described as Design Guidance only, rather than mandatory items. They are similarly included in the Design Guidelines as guidance information also.* *For greater detail and DRP recommendation, please refer* ***Appendix D – Design Compliance Review Checklist and Design Review Panel Response – Item 4.3 Ceiling Heights*** *Table 5: Building Heights – overshadowing measures for Lot 7 will be determined through SPP 7.3 and the Design Guidelines requirements.* *Importantly this proposal results in minimal overshadowing of the adjacent public realm and neighbouring properties.* *For greater detail and DRP recommendation, please refer* ***Appendix D – Design Compliance Review Checklist and Design Review Panel Response – Item 3.2 Orientation*** *Activation – it should also be noted that the LSP (4.2.3) stresses that the Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation.* *As such, the DA provides adaptable design that will respond over time to diverse needs that will add to the diversity of offerings, whilst not directly competing with the Flinders uses.* *This will directly assist the Flinders St uses being sustainable.*	frontage. It should also be noted that the Structure Plan states 'Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation. The proposal provides rear loaded garages to each multiple dwelling, with access provided off a Right of Way (ROW). The garages are setback from the ROW and integrated into the design of the individual units, mitigating the visual impact of the garage structures to the future ROW/streetscape and openings to living areas on the upper floor providing passive surveillance. It is acknowledged that the Structure Plan provision aimed to respond to initial design concepts prepared for the Mixed Use Precinct, that considered proposals of a greater scale that encompassed the entire lot, compared to what is proposed as part of the subject development application. Subsequently, the requirements aren't reflective of a functional and design outcome for the smaller scale development proposed. An Indoor Environmental Quality (IEQ) Assessment has been provided by the applicant with results demonstrating appropriate levels of sunlight access are achieved by the development. **Design Guidelines – Mixed Use Precinct** Potential overshadowing arising from the development of proposed Lot 7 will be explored within that development application. This provision is described as design guidance only, rather than a mandatory requirement. During the design review process (see below) the Local Design Review Panel were satisfied the ground floor has been appropriately designed to enable adaptability at ground level and facilitate non-residential uses. Potential ground floor land uses (Short Term Holiday Accommodation, Office, etc) are considered appropriate for a 'Secondary Active Frontage'. A future Restaurant/Café or consulting rooms on the corner of Adelaide Crescent and Marine Terrace offers further activation to the secondary active

	• Parking (s. 4.2.4) notes parking is to be provided via a single-entry point with no private garages. • As an aside, screening the southern side of the building with breeze blocks will limit natural light penetration into the ground floor spaces which will create poor amenity and reliance on artificial light which is not in accordance with sustainability provisions. **Design Guidelines – Mixed Use Precinct** • Building Height o adequate daylight and solar access. See above, regarding screening. o minimum floor to floor height of 4.5m at ground level . See above comment	*Parking – please note that only one entry point is being proposed per lot. The LSP (4.2.4) reference to private garages (at time of production) did not envisage this outcome for single attached dwellings – even though this was a permissible use listed in the LSP.* *Every effort has been made in the detailed design to mitigate the visual impact of the garage structure through the integration of the garage into the design form of the remaining* *The detailed design has been assessed and approved by an independent ESD consultant. Important detail regarding the energy & sustainability aspects of the DA proposal are included at **Appendix D** – Design Compliance Review Checklist, **Appendix E** - Concept Design report and Appendix G – ESD Report.* *Please refer to these reports to address this item.* *Please refer to responses above regarding these topics.* *Please note that this floor to floor item is specifically identified in the DG's as design guidance status and not a primary control. This matter was tested and discussed at length with the DRP and Estate Architect in regards to the DG design guidance requirements.* *For greater detail and DRP recommendation, please refer **Appendix D – Design Compliance Review Checklist and Design Review Panel Response – Item 4.3 Ceiling Heights*** *For greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 3.1 Response to Context***	frontage. It should also be noted that the Structure Plan states 'Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation. The established entryways for the proposed dwellings allow flexibility for a variety of uses. The proposed adaptable spaces are not intended for night time hospitality or entertainment use, with the main functionality limited to day time activation. Potential ground floor land uses (Short Term Holiday Accommodation, Office, etc) are considered appropriate for a 'Secondary Active Frontage'. A future Restaurant/Café or consulting rooms on the corner of Adelaide Crescent and Marine Terrace offers further activation to the secondary active frontage. It should also be noted that the Structure Plan states 'Secondary Active Frontages should not dilute or detract from the development of Flinders Parade as the priority zone of activation. The estate architect has advised that due to the proposed nature of the development, deviation away from the objective to provide awnings along secondary street frontages is appropriate for this style of development. The proposal provides rear loaded garages to each multiple dwelling, with access provided off a Right of Way (ROW). The garages are setback from the ROW and integrated into the design of the individual units, mitigating the visual impact of the garage structures to the future ROW/streetscape and openings to living areas on the upper floor providing passive surveillance. It is acknowledged that the Structure Plan provision aimed to respond to initial design concepts prepared for the Mixed Use Precinct, that considered proposals of a greater scale that encompassed the entire lot, compared to what is proposed as part of the subject development application. Subsequently, the requirements aren't reflective of a functional and design outcome for the smaller scale development proposed.

	• Response to Context - Develop Adelaide Crescent as a mixed- use street with occasional small cafés and other local facilities. As above the design is more residential than mixed use. • Public Domain Interface- Minimise conflict between permanent and short stay residential, tourism and mixed uses and in particular night time hospitality and entertainment. How is the conflict proposed to be managed in the design? • Active Frontages – notes areas marked 'Secondary Active Frontage' should: o encourage a range of active uses at pedestrian level. Currently not provided. o demonstrate measures to build adaptability at ground floor. Currently not provided. o upper level to interface with active frontage – balconies and habitable rooms. Currently no balcony and planned as bedroom not living. Notwithstanding – living space on south side is not recommended due to solar aspect but balcony recommended to provide activation. • Awnings Over Footpaths – for mixed use development abutting an active street frontage, weather protection should be provided over footpaths. Awnings should be provided on all	*For greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 3.3 Public Domain Interface*** *Please see detailed responses above regarding this same subject matter, and for greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 3.4 Mixed Use*** ***In addition please also refer Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 4.7 Private Open Space and Balconies*** *Please note that this awnings item is specifically identified in the DG's as design guidance status and not a primary control. This matter was tested and discussed at length with the DRP and Estate Architect in regards to the DG design guidance requirements.* *For greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 4.15 Awnings and shading devices***	This provision is described as design guidance only, rather than a mandatory requirement. During the design review process (see below) the Local Design Review Panel were satisfied the ground floor has been appropriately designed to enable adaptability at ground level and facilitate non-residential uses. Please note that these two matters are specifically identified in the DG's as design guidance status and not a primary control. The nominated Estate Architect and LDRP are satisfied that the facades of the building are consistent with the requirements of the Design Guidelines. **WAPC Policies** The Residential Design Codes do not apply to the subject site. As such the proposal has been considered solely against the provisions of LPS1 (SU25), the Structure Plan and associated Design Guidelines.

	'Secondary Active Frontage' as indicated on Figure 2 MBACSP Precinct Plan. Currently no weather protection or awnings provided. • Vehicle Access and Car and Bicycle Parking- Basement car parking should be integrated into the built form and screened from view, such that the car parking area is not directly visible from the street or other public spaces. Crossovers and garages should not visually dominate the public realm. Currently garages all visible. • Ceiling Heights - For mixed use developments a minimum of 4.5m floor to floor height should be provided at ground floor to promote adaptability of use. As above. • Facades o The ground level of commercial / mixed use buildings should be a minimum of 70% glazed where fronting streets. All upper floors should be 50% glazed where fronting streets. Check this been achieved? o Vehicle access and building services should be integrated into building design and not dominate	*DG – 3.9 - Car parking is accessed from a public laneway; no basement parking solution is proposed so the design review panel concluded that this design guidance item did not apply. Whilst garages are visible, they are not visually dominant in accordance with the guidance item. The careful use of mixed materials, overhanging upper-level development, use of private landscaping in the laneway setback have all been carefully crafted to reduce the visual impact of the garages – these accord with the photographic example included at DG 3.9 from Knutsford Precinct in Fremantle* *Ceilings - Please see detailed responses above regarding this same subject matter, and for greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Item 4.3 Ceiling Heights*** *Facades - Please note that these two matters are specifically identified in the DG's as design guidance status and not a primary control. These two matters were both tested and discussed at length with the DRP and Estate Architect in regards to the DG design guidance requirements.* *For greater detail and DRP recommendation, please refer **Appendix D** – Design Compliance Review Checklist and Design Review Panel Response – **Items 3.2 Orientation, 3.3 Public Domain Interface and 4.12 Facades***	

	any street façade. Garages in laneway dominate laneway street façade. **WAPC Policies** It is recommended that the proposal is assessed against the following WAPC policies: • Design WA suite of documents including SPP 7.3 Apartment and draft Medium Density volumes o Note – ensure assessment against the availability of deep soil areas and primary garden area requirements (40m2 / minimum dimension 4m). There have been recent and very relevant SAT decisions on this matter which support a requirement for the deep soil areas [WASAT156 - BRADSHAW and CITY OF JOONDALUP [2020] WASAT 156 - eCourts Portal (justice.wa.gov.au)]and [WASAT115 - KEMSTONE INVESTMENTS PTY LTD and CITY OF JOONDALUP [2020] WASAT 115 - eCourts Portal (justice.wa.gov.au)] • Draft Liveable Neighbourhoods 2015 including the Activity Centre provisions	*It is noted that the draft amendments to SPP 7.3 - Residential Design Codes Volume 1 (Low and Medium Density) remain in very much a draft form while a review and further testing is undertaken.* *By way of correspondence dated 26 May 2021, Gail McGowan, DG DPLH, conveyed to proponents and decision-makers that they should continue to apply the current gazetted version of the R-Codes Vol.1 and carefully consider any level of regard to be given to the proposed amendments in the draft advertised version of the 'Medium Density Codes'.* *We expect the DPLH submission may have pre-dated the directive from the DG and therefore we recommend that any comments made in relation to the assessment of the DA against the draft Medium Density Codes should be disregarded in light of the DG circular dated 26 May 2021.* *Whilst the DPLH submission highlights the matter of primary garden area minimum area – this information is based on a deemed to comply pathway only – and as stated, this detail has not been finalised by the Design WA team. In response to their comments here, via a performance-based approach, the MDC guidelines clearly state that the primary garden area can be satisfied in an alternative manner by distributing the total area in separate locations to benefit the performance of the development. This provides for innovative and sustainable development to respond to its context, orientation and sustainability objectives.* *But we stress, the current draft content of the Medium Density Codes will alter ahead of gazettal and do not represent the final deemed to comply requirements.* *Similar to the draft Medium Density Codes, the draft Liveable Neighbourhoods operational policy (2015) should*	

	In addition to the development application, it is recommended that the City consider the Draft Position Statement: Special Entertainment Precincts. Convergence of land uses in MU areas can cause conflict between noise-sensitive development and noise emitters. Application of special control areas (SCA) within the MBACSP area in the near term may be worth considering. A SCA would enable additional provisions including application of notifications on titles regarding noise. Example model provisions are included in the appendix of the draft position statement.	*be given little regard as it is also being reviewed and refined to form part of the Design WA suite of documents.* *In this regard, the WAPC endorsed version of LN (2008) remains the operational policy. Furthermore, the* ***approved Structure Plan*** *for this area provides appropriate and suitable guidance for the subdivision and development of the Activity Centre.* *Thankyou*	

Local Planning Scheme No. 2 - Indicative Processing Timeline

No	Task	Progress
1	Resolution to initiate/advertise the draft LPS2	Expected Nov 2021
2	Forward the draft LPS2 to the Department of Planning, Lands and Heritage (DPLH) and the Environmental Protection Authority (EPA) for assessment and comment. DPLH provide comments and suggested modifications on LPS1. EPA determine if draft LPS2 requires formal or informal environmental review.	Expected Nov 2021 – Feb 2022
3	Revised draft LPS2, incorporating suggested modifications, adopted by City.	Expected March 2022
4	Forward draft LPS2 to DPLH for approval to advertise.	Expected March 2022
5	DPLH grants approval for draft LPS2 to be advertised for public comment.	Expected May 2022
6	City considers any modifications, that may be requested by the DPLH, and resolves to proceed, or not, with the draft LPS2.	Expected June 2022
7	Forward modified draft LPS2 to DPLH for approval to advertise.	Expected June 2022
8	Draft LPS2 advertised for public comment for 4-months	Expected July 2022 – Oct 2022
9	City considers submissions and recommends modifications to draft LPS2 as a result of submissions received	Expected Nov - Dec 2022
10	City refers draft LPS2, submissions and recommendations to DPLH for consideration and final approval	Expected Dec 2022
11	Minister approves new LPS2 (subject to modifications)	Expected March 2023
12	LPS2 gazetted and existing town planning scheme revoked	Expected April 2023

Harvest Road Aquaculture Facility
Lot 501 Swarbrick Street, Emu Point
Development Application

July 2021 | 20-232



HARVEST ROAD

Roberts Gardiner Architects

element.
the art and science of place

We acknowledge the custodians of this land, the Minang/Menang 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.

Document ID: /Volumes/Graphics/2020/20-232 - Emu Point, Lot 501 Swarbrick Street - Albany Oyster Farm/20-232 Oyster Farm DA report Folder/20-232 Oyster Farm draft DA report May21.indd

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
3	10.02.21	Final	Daniel Lees	Daniel Lees
4	12.02.21	Final	Daniel Lees	Daniel Lees
5	16.02.21	Final	Daniel Lees	Daniel Lees
6	10.03.21	Final	Daniel Lees	Daniel Lees
7	11.05.21	Final	Daniel Lees	Daniel Lees
8	07.07.21	Final	Daniel Lees	Daniel Lees

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LEEUW



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, on the northern portion of Lot 501 Swarbrick Street, Emu Point (the subject site). The Aquaculture Facility will pack shellfish from a number of seabed leases in the vicinity.

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:

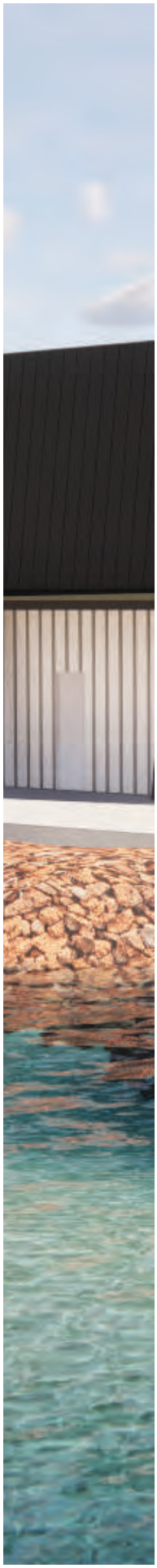
> *'But as we share a taste of home with the world, we are working towards something greater. We believe in oceans that flourish. Where marine life is abundant and healthy. Where we give more than we take.*
>
> *We have built our aquaculture business on sustaining this vision. Through regenerative practices 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 35,175m^2. This application applies to the northern-most portion of Lot 501, encompassing an area of approximately 8,430m^2.

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 8.5km 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

It is noted that there is potential for acid sulphate soils to exist in the locality, which will be appropriately managed via a standard ASS management plan that could be appropriately conditioned as part of any approval.

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 packing of shellfish and associated car parking.

The marine base will include a packing building, nursery shed and a workshop, within three separate buildings.

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

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

Stage Two:

- Demolition of the existing brick building
- Packing facility
- Amenities & office
- Workshop
- Car parking bays (within the current lease boundary)
- Loading apron (within the proposed expanded lease boundary)
- Fencing
- Potential improvements to existing sea wall (if required)

3.3 Land Use and Activities

3.3.1 Aquaculture Facility

The aquaculture packing 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 15^{oC}, while Akoya and Mussels are stored at 4^{oC}.

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

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.

Packing

The 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 pack up to approximately 2,000 tonnes per annum, including Rock Oysters, Akoya Oysters and mussels.

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 the for the choice of materials and construction.

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 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 ultiamtely will complement the existing surrounding improvements and buildings in the precinct.

3.5 Landscaping

Landscaping 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. This 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 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. 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 each month.

During low seasons (June to October), it is estimated only one weekly produce truck departure will be required for production volumes (total produce truck movements of two per week, one arrival and one departure). Across peak months (November to May), up to two weekly produce truck departures are anticipated (total truck movements of four per week, two arrival and two departure). 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, which are additional to the aforementioned low and high season produce truck movements. These numbers also exclude the truck movements associated with waste collection. The proposed traffic volumes are not considered to result in a material impact on the road network, or unreasonable 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 Staff and Car Parking

Harvest Road Ocean's proposed shore base has been designed to create a net positive impact on the surrounding parking facilities, including the provision of new public parking for precinct visitors. Overall, the proposed facility will actively contribute to a safer environment for all visitors including neighbouring commercial tenants, recreational users and residents. This will be achieved through the co-working of a number of interrelated factors:

- The proposed facility will see a net increase of 13 new parking bays within the Emu Point precinct.
- The proposed facility has been designed to incorporate staff parking requirements within the site with new 38 bays created, eliminating the need for staff to use public parking. This number exceeds the total employees numbers expected on-site, even during peak production.
- Harvest Road will employ a range of strategies to reduce single occupancy vehicle travel by encouraging greater use of car sharing, public transport, walking and cycling where practical. This includes, but is not limited to incentivising employees to carpool, and the investment in end-of-trip facilities.
- Total on-site employee numbers will be managed in relation to staffing requirements at off-site facilities.
- The proposed facility design also includes new standard and disabled parking for the public to conveniently access Emu Point's commercial jetty. New parking bays will be clearly marked for general public use to eliminate confusion around correct parking zones.
- The proposed design will help improve public safety by ensuring that operational vehicles and equipment movements occur within the site boundary.
- It is also noted that the number of bays now exceeds the City's parking requirements under the City's Planning Scheme.

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, 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.

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 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.

4.1.6 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. The proposal is entirely consistent with the marine operations already undertaken at Emu Point, and consistent with the previous use, being an oyster packing facility.

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 no public art requirement be imposed on the development.

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

Table 2 – Current and Proposed BAL Ratings

Built Environment	Current BAL	Proposed BAL
Packing/Amenities Building	**BAL FZ**	**BAL-19/12.5**
Bulk Fuel Store	**NA**	**BAL-19**
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 packing activities that will be primarily undertaken. Table 5 of LPS1 would require the following parking for the use:

Car parking - '1 per 100m^2 NLA'

Bicycle parking - '1 per 20 car bays'

Based on a combined Net Lettable Area (NLA) for the workshop, shed and packing warehouse of approximately 3,172m^2 (ie. stages one and two), approximately 32 car bays and two bicycle bays would be required. However the definition of NLA is fairly broad and all-encompassing, and is not well suited for determining areas of the buildings that will be occupied by employees in the context of this proposal. Of the 3,172m^2 NLA, 570m^2 of this within the packing building is occupied by freezers and forklift maneuvering space, 110m^2 of this within the nursery building is occupied by the footprint of upweller machinery, and 400sqm of this within the shed is storage. In this regard, 1080m^2 of the NLA is uninhabitable space, that will not be occupied by employees, and therefore will not contribute towards the demand for car parking bays.

Based on the inhabitable NLA of 2032m^2, 20.3 (21) car parking bays would be required.

A total of 44 car bays are proposed as part of the stage one and stage two development, plus a number of bicycle parking bays, with 6 of these being available to the public and provided beyond the current and proposed extended lease area.

In this regard there will be a sufficiency of car parking.

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 packing facility.

Refer to Appendix D – Waste Management Plan

The development will have a bin store to allow for the storage and collection of seafood packing shell waste, general waste from bio-secure area, and general waste and recyclables from administration areas.

The bin store will be located north of the packing facility. The bin store is located along the northern boundary of the packing 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.

A commercial waste 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. the vehicle will drive in forward motion and park adjacent to the bin store. The operatives will enter the bin store to retrieve and service the bins. The empty bins will be returned to the bin store.

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 (CHRMAP). 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 3 in the following 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 3 - 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.

Risk Mitigation and Adaption Options	Appropriateness for site	
	Coastal Erosion	**Coastal Inundation**
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 packing 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, 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 two stages:
  - The oyster and mussel nursery shed and associated infrastructure; and
  - The packing facility, workshop and associated infrastructure.
- The development 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

REGISTER NUMBER	
501/DP64940	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	**N/A**

WESTERN AUSTRALIA

VOLUME **LR3159** FOLIO **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

Subject to dealing

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

LANDGATE COPY OF ORIGINAL NOT TO SCALE 08/07/2020 01:34 PM Request number: 60761504

Landgate
www.landgate.wa.gov.au

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.

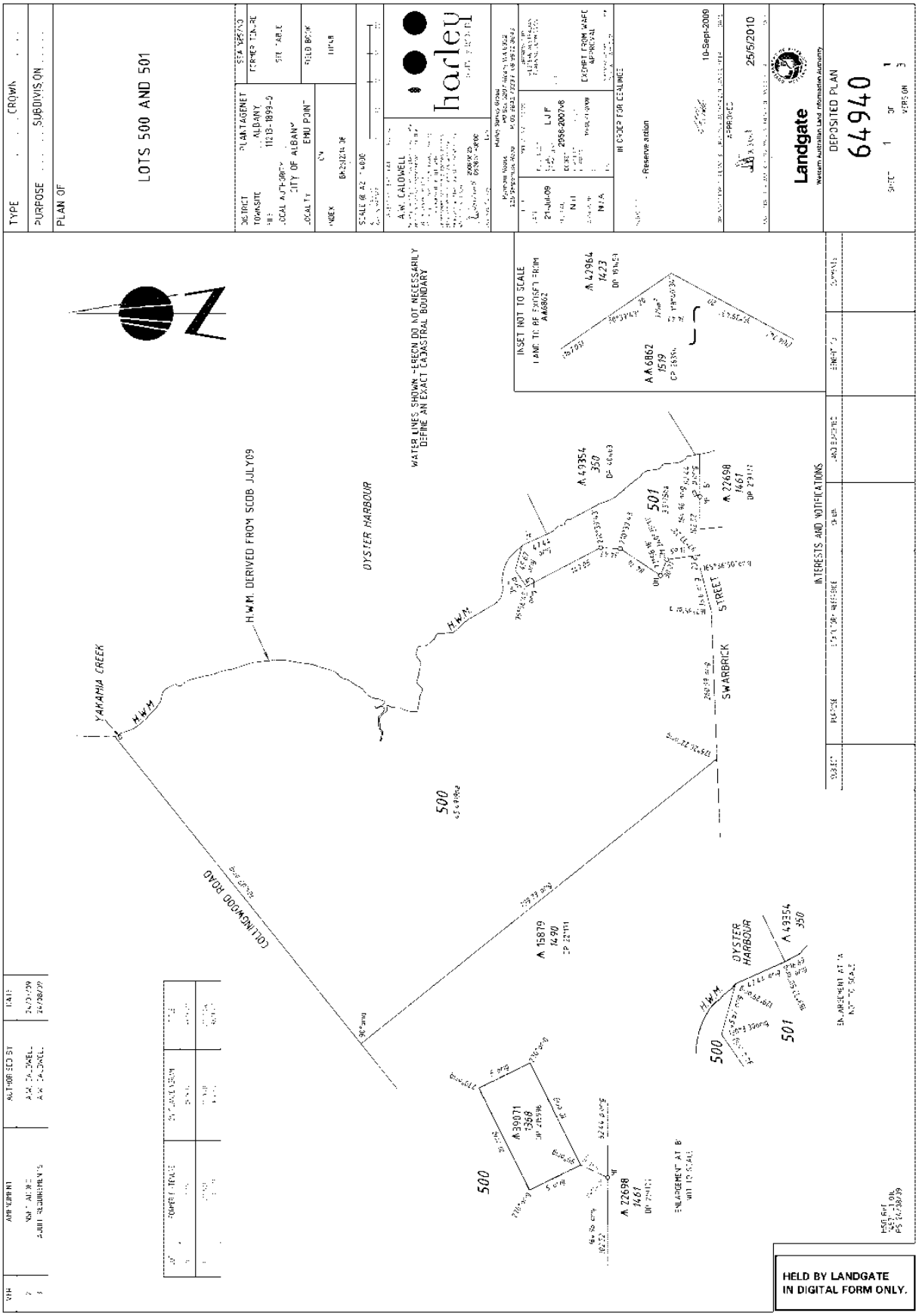
SKETCH OF LAND:	DP64940
PREVIOUS TITLE:	LR3078-477, LR3117-246
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF ALBANY
RESPONSIBLE AGENCY:	DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)

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

Subject to dealing

LANDGATE COPY OF ORIGINAL NOT TO SCALE 08/07/2020 01:34 PM Request number: 60761504

Landgate
www.landgate.wa.gov.au



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

Landgate
www.landgate.wa.gov.au

Appendix B – Architectural Plans

HARVEST ROAD OCEANS PTY LTD ADDITIONAL LEASE AREA 2266m²

OYSTER HARBOUR

NEW LEASE BOUNDARY (INDICATIVE SUBJECT TO SURVEY)

PROPOSED LEASE BOUNDARY

47.44

EXISTING ROCK REVETMENT

45.67

PROPOSED LEASE BOUNDARY

17.1

6.73

7.59

28.42

NEW HARDSTAND

FUTURE REPLACEMENT FINGER JETTY

RAMP NEW JETTY TO SUIT

JETTY C VEHICLE AND PEDESTRIAN ACCESS

BOAT ACCESS

EXISTING SERVICE JETTY

PUBLIC ACCESS ROUTE

LOADING APRON

RAMP UP

EXISTING LEASE BOUNDARY

27.05

STAGE 2A
PACKING BUILDING
FFL 2.10
LOWER LEVEL NLA 1444 m²
UPPER LEVEL NLA 384 m²

PACKING FFL 2.10

PASSAGE

PACKING AREA 5 DEG

PLANTROOM OVER HATCHED

FREEZER TO +3 DEG

BIOSECURE

ADMIN

AIR-LOCK

UAT

RECEPTION

DRY

BIO SECURE

NITROGEN TANK

33.35

PUBLIC CARBAYS

NO PARKING - TRUCK ACCESS AND TURN AROUND

DISABILITY ACCESS RAMPS

NITROGEN TANK

SIGN "NO THOUGH ROAD"

HARVEST ROAD OCEANS PTY LTD LEASE AREA 5596m²

BIN COMPOUND

GATE

DRY GOODS

DISPATCH

TRUCK DOCK

4.43

SLIDING 5m SECURITY GATE

TRUCK PATH

EXISTING LEASE BOUNDARY

BIOFILTRATION BASIN (REFER CIVIL)

BIOFILTER

STAGE 1 NURSERY FFL 2.10

NLA 673 m²

STAGE 1 OYSTER & MUSSEL SHED FFL 2.10

34.4

EXISTING LOT BOUNDARY

PROPOSED LEASE BOUNDARY

NEW HARDSTAND

RAMP UP

DRIVEWAY

STAGE 2B WORKSHOP NLA 671 m² FFL 2.10

7 CARBAYS

7 CARBAYS

30.57

STAGE 2B - DEMOLISH EXISTING ADMIN & INSTALL NEW CARPARK

24 CARBAYS

BIOFILTRATION BASIN (REFER CIVIL)

EX HYDRANT

NEW 2m WIDE FOOTPATH AND FENCE

PROPOSED LEASE BOUNDARY

NEW 2m WIDE FOOTPATH

EXISTING LEASE BOUNDARY

81.53

EXISTING LEASE BOUNDARY

43.77

PUBLIC ACCESS ROUTE

RESERVE

1423

0m 5m 10m 20m

1/01 SITE PLAN – STAGE 2
1: 250

STAGE 2

-Packing Building, Amenities & Office
-Demolition of existing brick building
-Workshop Building
-Loading Apron
-Hardstands
-Carparking
-Boatramp

New Lease Area

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G	30.11.20	NET LETTABLE AREAS SHOWN
H	1.12.20	ADDITIONAL LEASE BOUNDARY ADJUSTED
J	14.12.20	ADJUSTED PACKING SHED, CARPARKING & BOAT R AMP
K	15.12.20	ADJUSTED PACKING SHED & BOAT RAMP
L	16.12.20	ADJUSTED TRUCK ACCESS, DISABILITY & PUBLIC A CCESS WAY
M	16.12.20	ADJUSTED PUBLIC ACCESS WAY & CARPARKING
N	04.01.21	ADJUSTED LEASE BOUNDARY, TRUCK ACCESS & CARPARKING
P	12.01.21	OYSTER SHED UPDATED
Q	14.01.21	BOAT RAMP, PACKING BUILDING & HARDSTAND UPDOATED
R	15.01.21	HARDSTAND UPDATED
S	19.01.21	PACKING SHED UPDATED
T	11.02.21	ISSUED FOR REVISED DA
U	23.02.21	REVISED PACKING SHED ISSUED FOR CLIENT REVIEW
V	09.03.21	REVISED PACKING SHED ISSUED FOR CLIENT REVIEW
W	30.03.21	REVISED LEASE BOUNDARY ISSUED TO COA
X	14.04.21	REVISED CARPARKING
Y	07.05.21	REVISED PACKING BUILDING FOR REVIEW

CLIENT
HARVEST ROAD

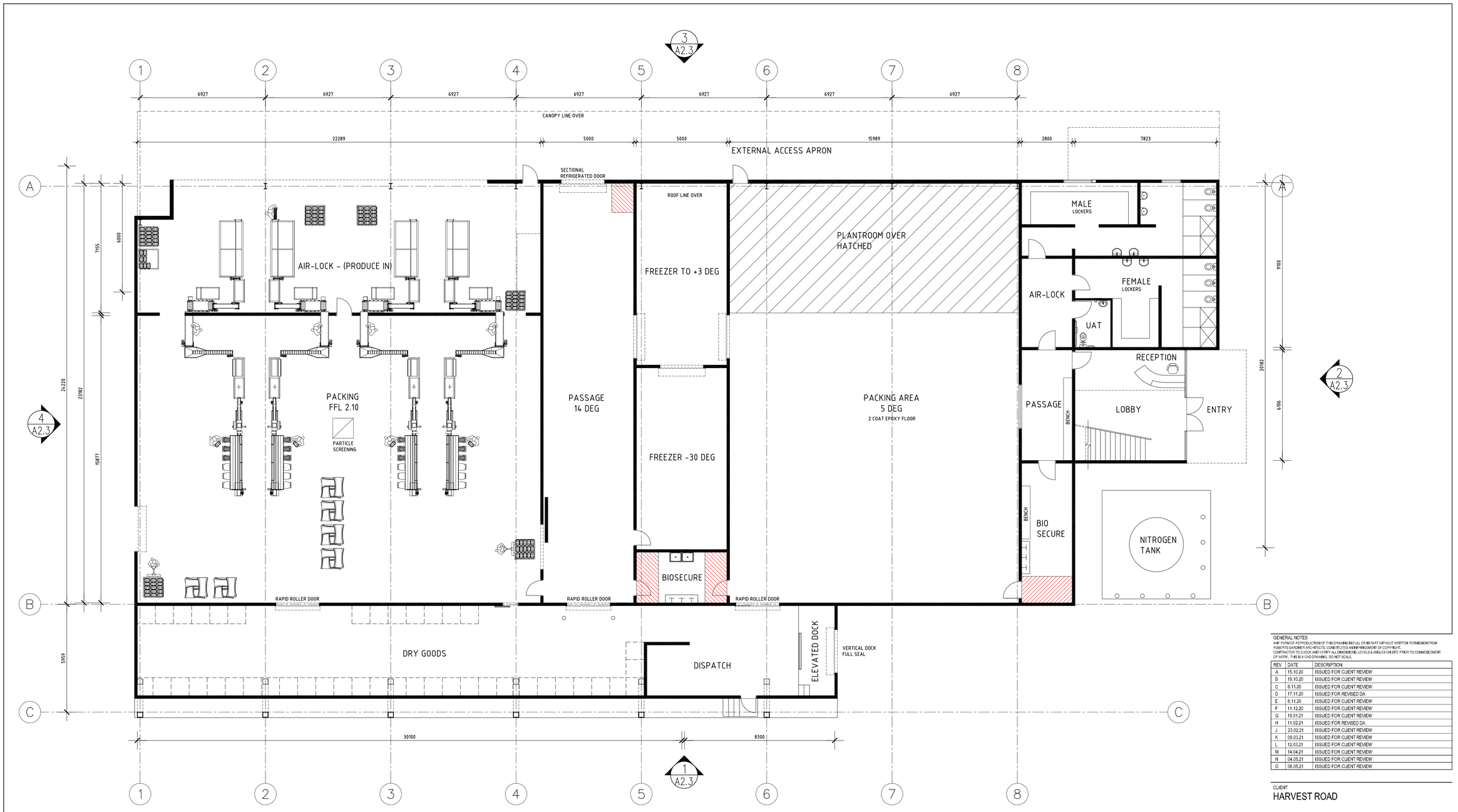
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ABN 91 358 204 743
P.O.Box 1502, Albany, WA 6331
Roberts Gardiner Architects

PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 2 - SITE PLAN

DESIGNED MR	DRAWN DG	SCALE 1:250 @ A1 (1:500 @ A3)	
VERIFIED	APPROVED MR	DATE MAY-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-2.0	REVISION Y
CAD FILE STAGE2-DA.DWG			



0m 5m 10m 20m

1 / A01 GROUND FLOOR PLAN
1:100

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C	6.11.20	ISSUED FOR CLIENT REVIEW
D	17.11.20	ISSUED FOR REVISED DA
E	6.11.20	ISSUED FOR CLIENT REVIEW
F	11.12.20	ISSUED FOR CLIENT REVIEW
G	19.01.21	ISSUED FOR CLIENT REVIEW
H	11.02.21	ISSUED FOR REVISED DA
J	23.02.21	ISSUED FOR CLIENT REVIEW
K	09.03.21	ISSUED FOR CLIENT REVIEW
L	12.03.21	ISSUED FOR CLIENT REVIEW
M	14.04.21	ISSUED FOR CLIENT REVIEW
N	04.05.21	ISSUED FOR CLIENT REVIEW
O	06.05.21	ISSUED FOR CLIENT REVIEW

CLIENT
HARVEST ROAD

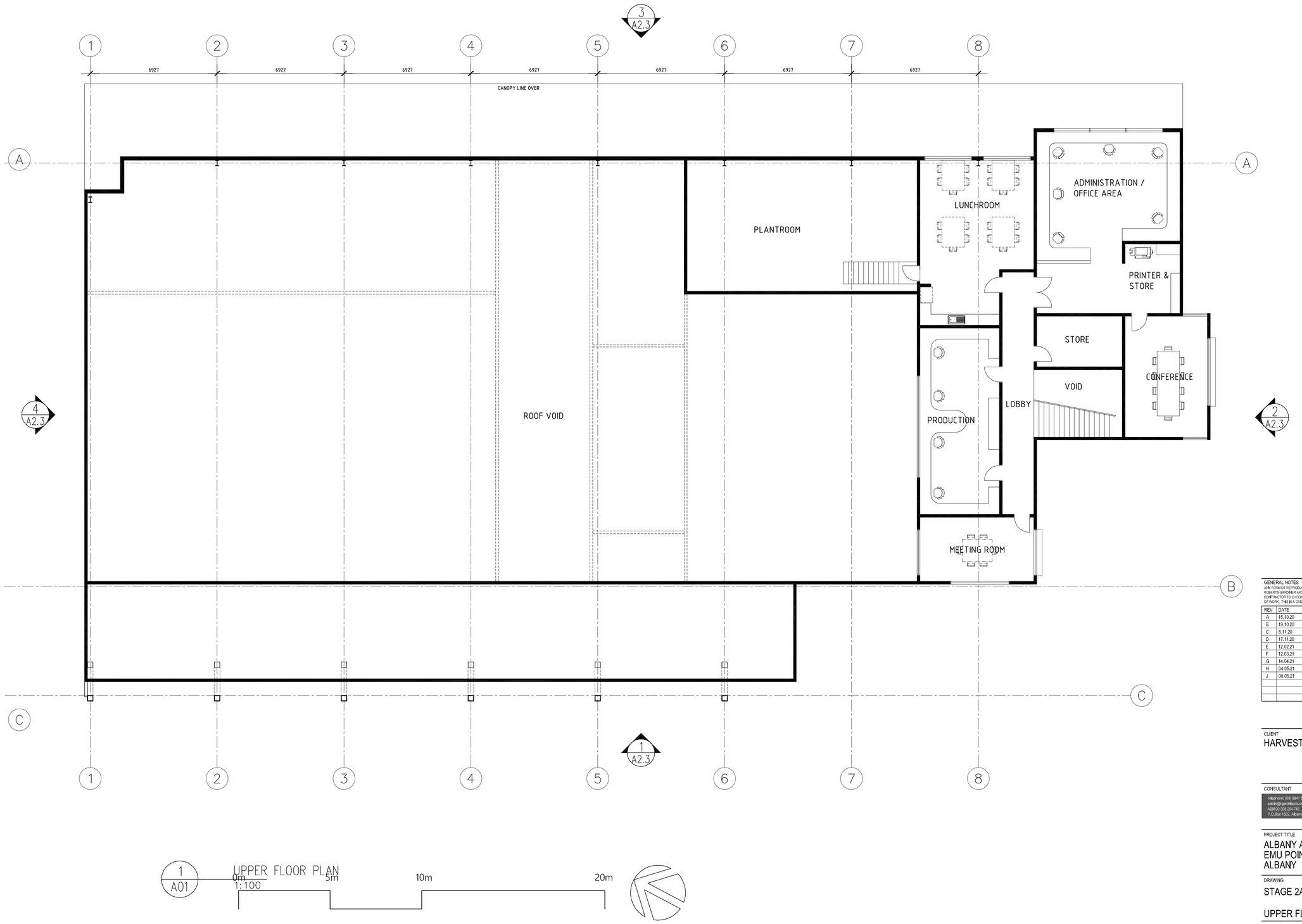
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PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 2 - PACKING & OFFICE

GROUND FLOOR PLAN

DESIGNED MR	DRAWN DG	SCALE 1:100	
VERIFIED	APPROVED MR	DATE MAY-2021	
PROJECT NUMBER 20-021		DRAWING NUMBER A-2.1	REVISION O
CAD FILE PACKING OPT 1.DWG			



1 A01 UPPER FLOOR PLAN
1:100
0m 5m 10m 20m

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E	12.02.21	ISSUED FOR REVISED DA
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G	14.04.21	ISSUED FOR CLIENT REVIEW
H	04.05.21	ISSUED FOR CLIENT REVIEW
J	06.05.21	ISSUED FOR CLIENT REVIEW

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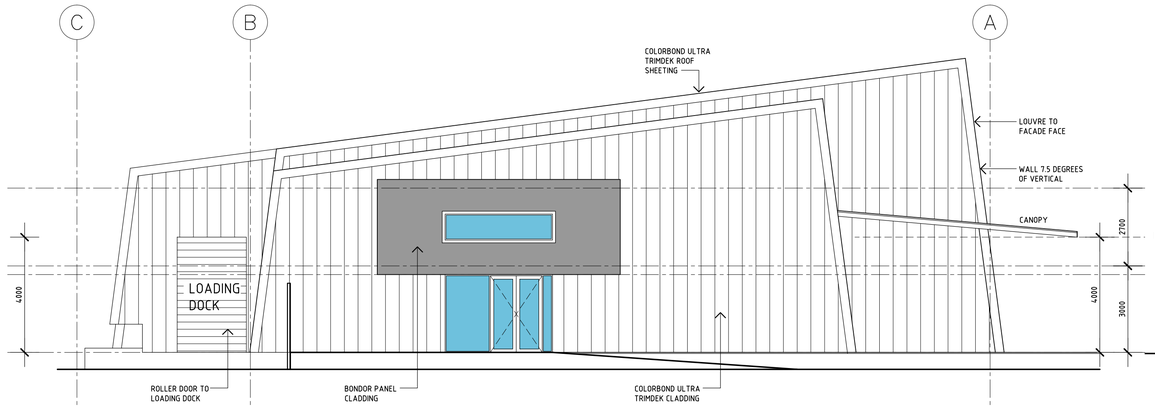
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PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

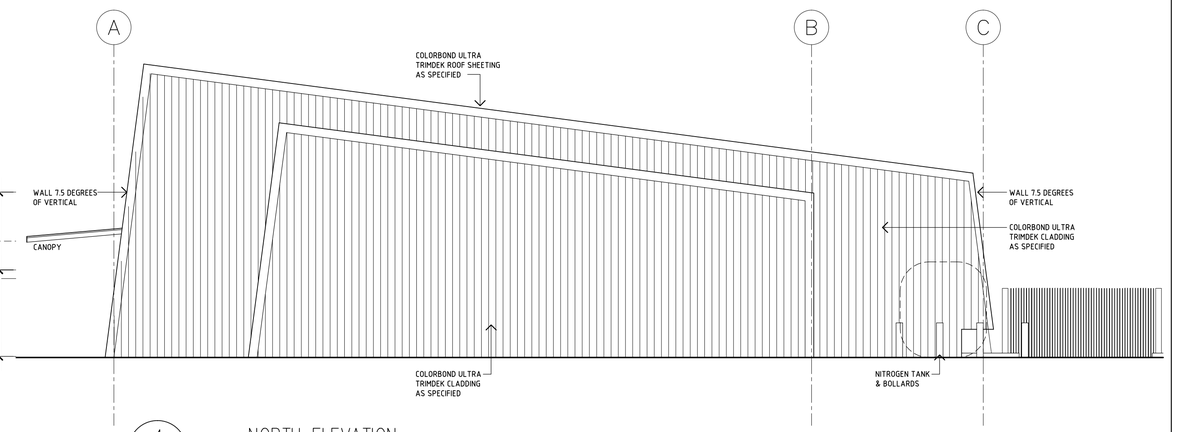
DRAWING
STAGE 2A - PACKING & OFFICE

UPPER FLOOR PLAN

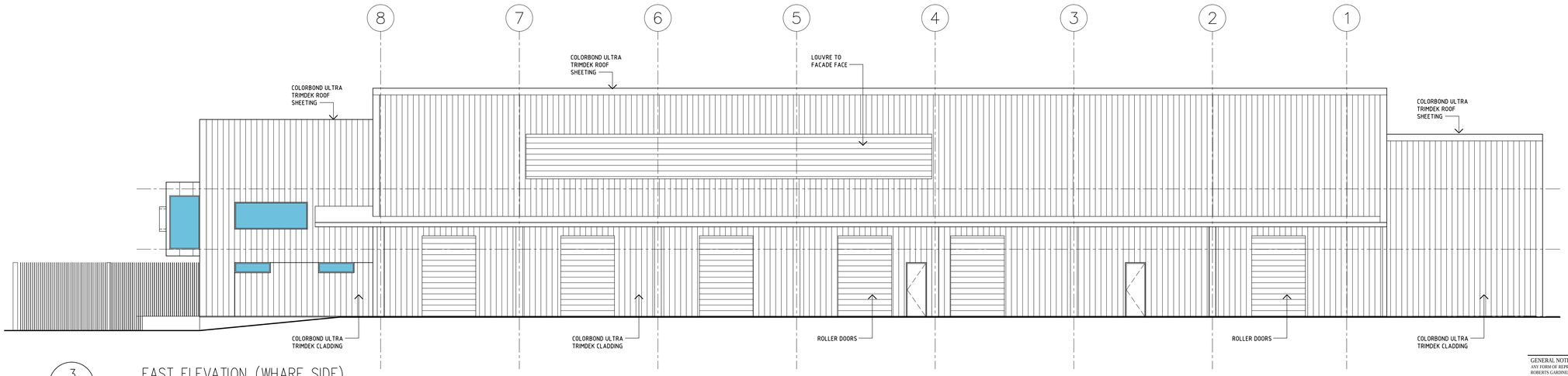
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VERIFIED	APPROVED MR	DATE MAY-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-2.2	REVISION J
CAD FILE PACKING OPT 1.DWG			



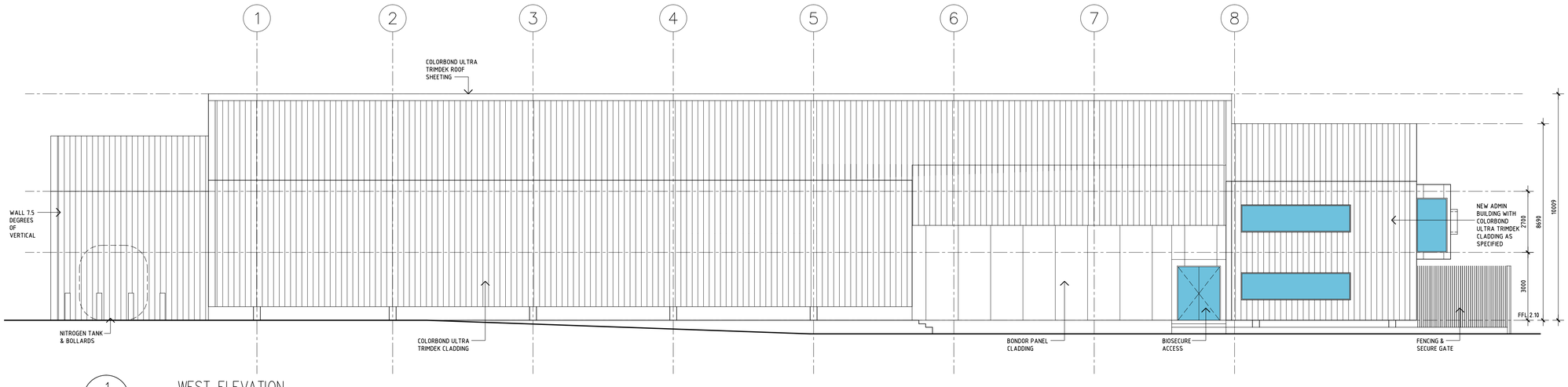
2 / A01 SOUTH ELEVATION 1:100



4 / A01 NORTH ELEVATION 1:100



3 / A01 EAST ELEVATION (WHARF SIDE) 1:100



1 / A01 WEST ELEVATION 1:100

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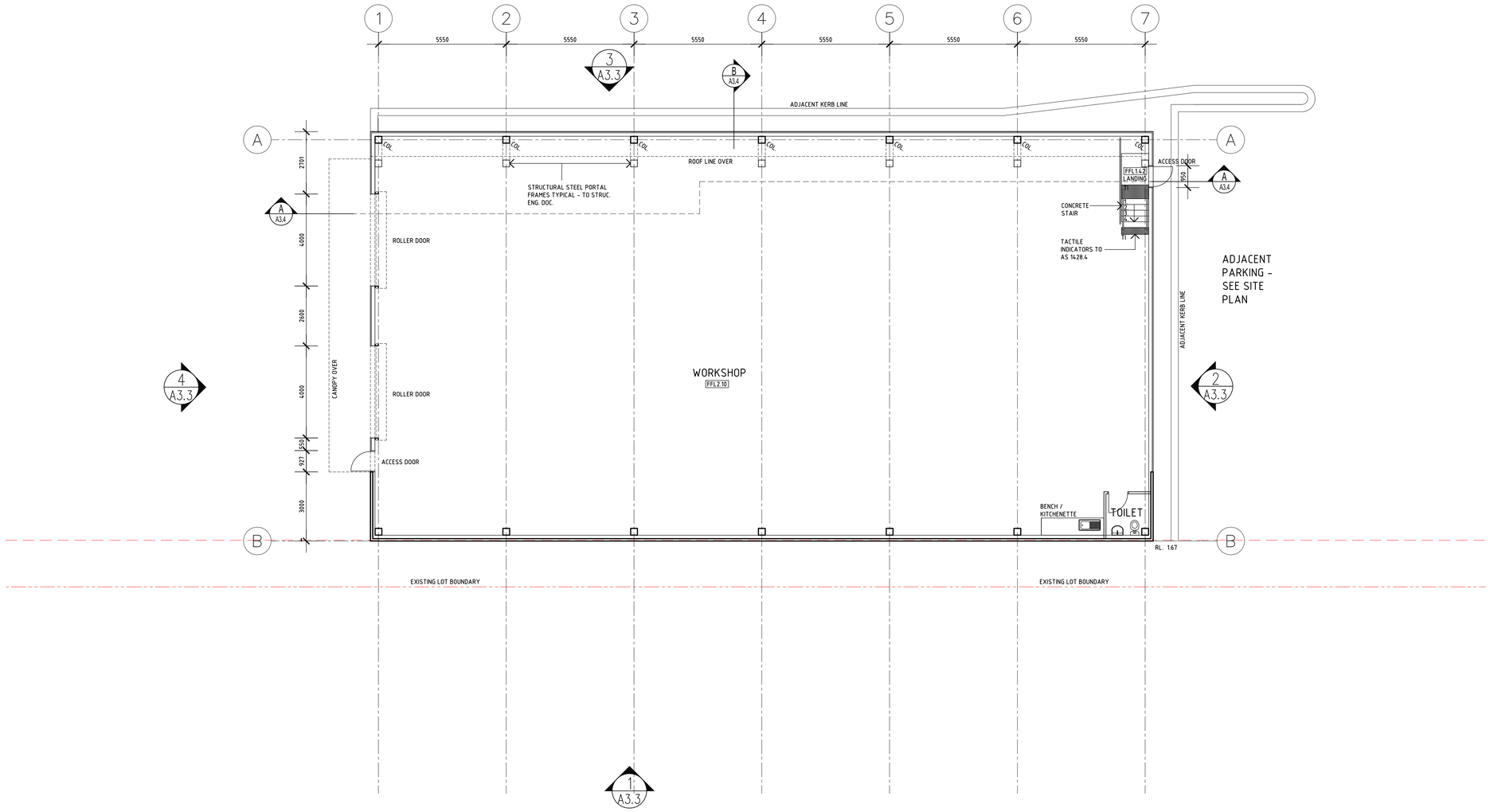
Roberts Gardiner Architects

PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 2A - PACKING & OFFICE

ELEVATIONS

DESIGNED MR	DRAWN DG	SCALE 1:100	
VERIFIED	APPROVED MR	DATE 12-02-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-2.3	REVISION B
CAD FILE PACKING OPT 1.DWG			



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C	04.08.21	ISSUED FOR CLIENT REVIEW

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HARVEST ROAD

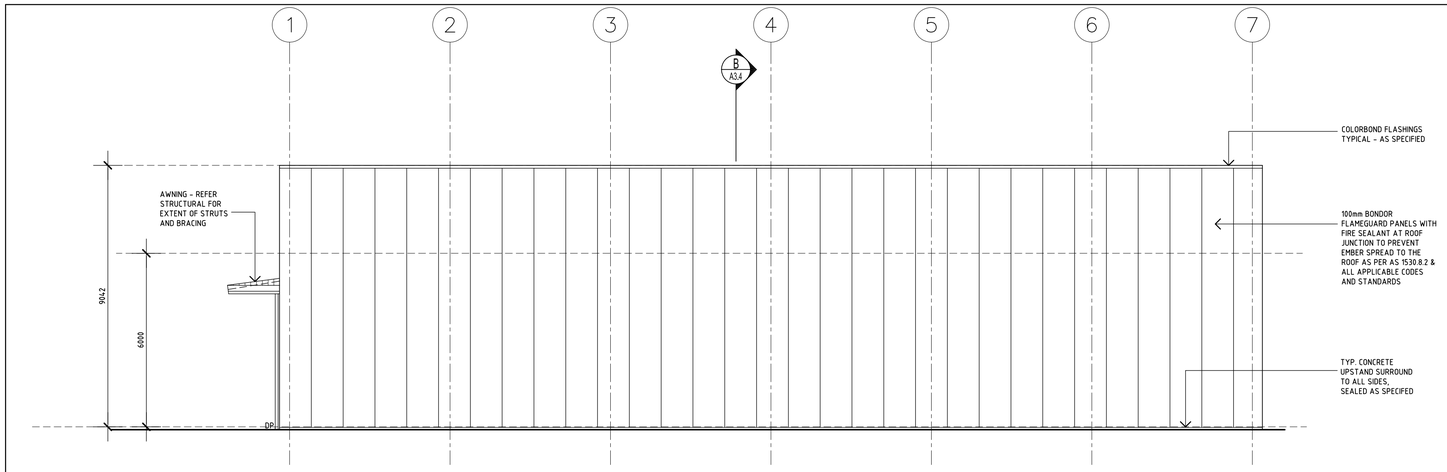
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PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

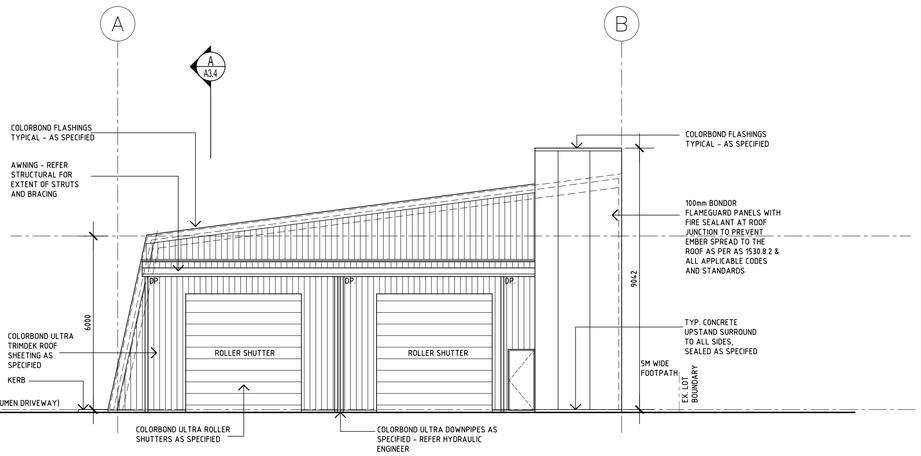
DRAWING
STAGE 2B - WORKSHOP

FLOOR PLAN

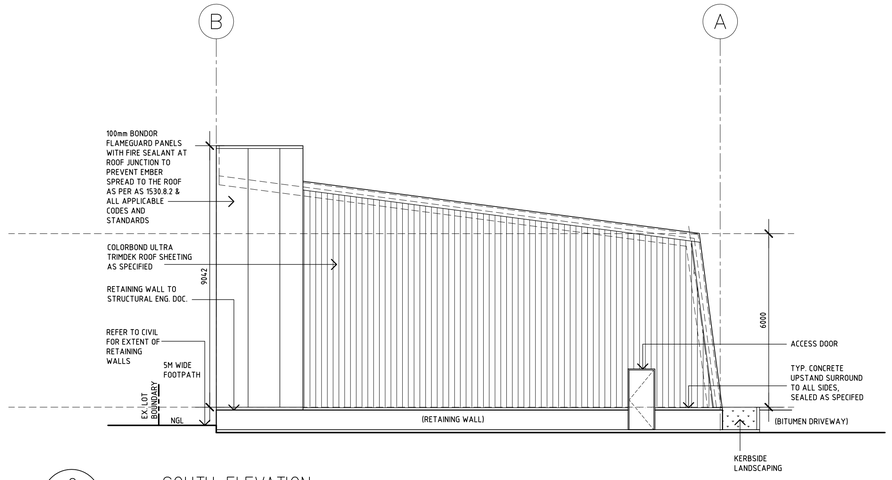
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VERIFIED	APPROVED MR	DATE 04-08-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-3.1	REVISION C
CAD FILE WORKSHOP.DWG			



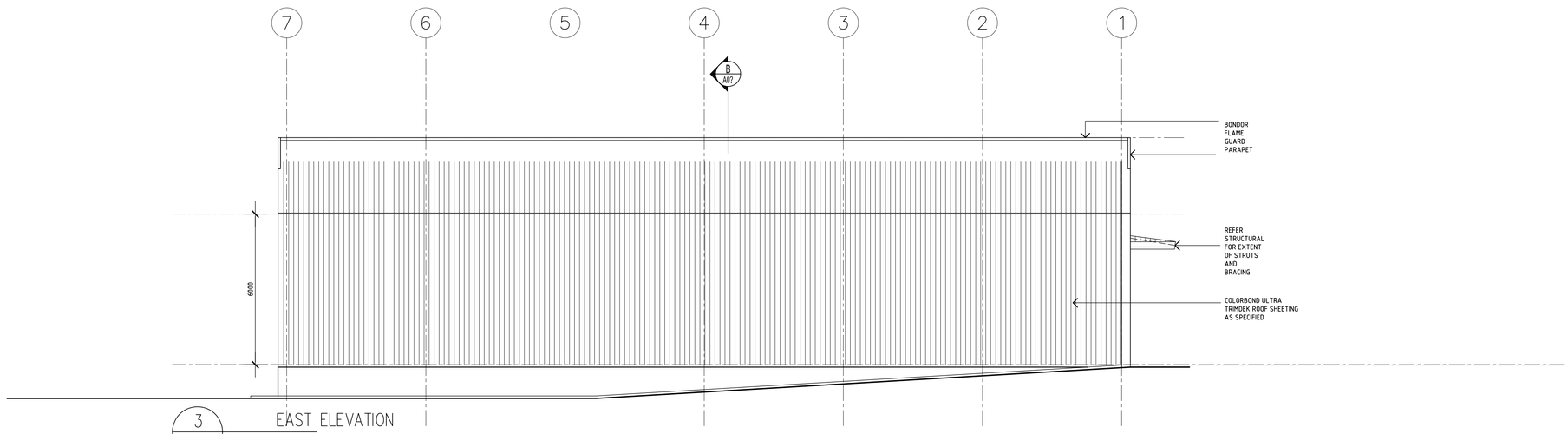
1 / A3.1 WEST ELEVATION
1:100



4 / A3.1 NORTH ELEVATION
1:100



2 / A3.1 SOUTH ELEVATION
1:100



3 / A3.1 EAST ELEVATION
1:100

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C	04.08.21	ISSUED FOR CLIENT REVIEW

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PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 2B - WORKSHOP

ELEVATIONS

DESIGNED MR	DRAWN RR	SCALE 1:100 @ A1	
VERIFIED	APPROVED MR	DATE 04-08-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-3.2	REVISION C
CAD FILE WORKSHOP.DWG			


Roberts Gardiner
Architects


LEEUWIN
COAST
Roberts Gardiner
Architects


Roberts Gardiner
Architects


LEEUW
Roberts Gardiner
Architects


Roberts Gardiner
Architects


Roberts Gardiner
Architects

element.

Appendix C – Bushfire Management Plan

Bushfire Management Plan

Aquaculture Maintenance and Seafood Processing Facility

Lot 501 Emu Point

Client – Tattarang Pty Ltd

January 2021

envision
bushfire protection

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
V3	27 January 2020	Anthony Rowe	Enlarged processing plant and deletion of vulnerable landuse

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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 the Site);
- Oyster and Mussel Shed/Nursery - replacement and consolidation of the existing facility;
- Marine workshop - activity consolidation; and
- A 2 m wide public access way along the northern and western boundary.

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).

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.

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 car-park. It is located at the northern extent of the Emu Point foreshore reserve and residential area, which extends for a further 450 m 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 160 m wide channel east of the Site. The channel opposite the Site connects to a peninsula and forest.

The proposal will augment the existing (authorised) aquaculture industry at the Site. The approved land use comprises the open storage of aquaculture equipment, an oyster nursery, a machinery servicing area, product processing/Nursery and an administration building.

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 proposal 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 since 1977 (Landgate).

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 container	**Ad-hoc**	**BAL-19**
Open materials store/enclosed materials store	**BAL FZ**	**BAL FZ**
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 10.0^0 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 in AS 3959:2018, method 1, across 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 be applicable to strategic planning considerations, future land zoning, whereas Element 2 is applicable to development applications following the intentions of the land use zone but ameliorating the potential bushfire impacts affecting the Site.

The Site has been historically (since 1996) used for industry. This includes the development within BAL-40 and BAL-FZ.

Given the Site adjoins the sea, the current functions and habitable buildings have been located at the inland boundary nearest the adjoining classified vegetation (Forest). This has included the open storage (open bins) of large volumes of plastics used for the aquaculture function.

The proposal provides the Processing/Amenities Building, and bulk fuel container, are located with an indicative BAL exposure of BAL-19 (shielded side BAL-12.5) and comply with the acceptable solution.

The components that will remain within BAL-40 and BAL-FZ are the Marine workshop and Oyster and Mussel Shed/Nursery. It is necessary to leave a large hardstand area at the base of the boat ramp for the launch and retrieval of vessels associated with the facility. No practical alternative is therefore available for the location of the Marine workshop and Oyster and Mussel Shed/Nursery other than along the western boundary.

These components are, therefore, to be assessed by Performance Principle, and in particular whether the proposal represents a reduced risk to damage from bushfire and would reduce the risk of igniting a bushfire.

Performance Principle

The WASAT considered a similar situation at a Bunning Store (Bunnings Group Limited and Presiding Member of the Metro North-West Joint Development Assessment Panel [2019]). That involved enclosing the open store area (BAL FZ) within a building, that amongst other things would improve its protection from the effects of a bushfire, notwithstanding it did not comply with the acceptable solution because the building would exceed BAL 29 at its face.

The WASAT found that SPP 3.7 should not be inflexibly applied, the acceptable solution is only one treatment of the risk, others can be considered, and that SPP 3.7 is a risk-based implementation to land use planning and development, and treatments that can reduce a present risk can comply with the Policy, namely Objective 5.1, to avoid any increase, and Objective 2, to reduce vulnerability to bushfire

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.

   The proposal is to consolidate this storage in an enclosed out-building (floor areas 670 m^2) 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).

Steel sheeting can transfer radiant heat internally. 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 damage to stored materials.

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 2 m 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 hot works, is proposed within 20 metres of the west boundary, during the bushfire season.

   Fire hoses are also positioned on the west boundary to reduce the spread of fire from the Site, and the improve building defence when safe to operate the equipment.

The consolidation of buildings, replacing the ad hoc storage of potentially flammable items, also improves the orderly movement within the Site during an emergency.

A fire break of 4 m in the adjacent reserve, which has been provided since 1996, requires regular maintenance by the City, but it provides access to the reserve, and also reduces a continuation of flame contact upon the buildings after the peak flame residency (2 minutes)[1]. The firebreak serves all business in the precinct; it is not exclusive to the proposal. In addition, the proposal includes a 2 m wide footpath within the existing lease boundary, to provide a 6 m separation.

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.

Performance Principle

The road network and present land use is dependent upon a single access. There is no practical means of providing secondary vehicle access.

The Site is classed as a single aspect threat, that the bushfire threat comes primarily from vegetation to the west. To the east of the Site is the coast/sea which is low threat and it is a low wave energy beach.

Access to the Site is rated at BAL 19, at a peak intensity of the fire (2 minutes) and is unlikely to be blocked by fallen trees for the extent that it is a single access. Brigade access may therefore only be temporarily restricted, and whilst not advocated as a preference the coast is a low threat potentially providing safe refuge for employees at the Site. The coast is identified by the State Emergency Management Committee[2] as a potential refuge.

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

[1] 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.

[2]

boundary. Internal hydrants are also to be supplied following the requirements of the *Building Act 2011.* 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 additional measures relating to the construction of the buildings in BAL-40 – BAL-FZ as risk treatments following r.78E (1) LPS 2015 Deemed Provisions).

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 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. Walls: s.9.4 - Non-combustible insulation FRL min 30/30/30 External glazed elements, assemblies and doors: s.9.5 - Windows located to the south and east building elevation - Garage Doors in accordance with s.9.5.6 Roofs……: s.9.6 Verandahs……: s.9.7 Water and Gas Supply Pipes:s.9.8	**Prior to occupation and ongoing**
2.	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. Walls: s.9.4 - Non-combustible insulation FRL min 30/30/30 External glazed elements, assemblies, and doors: s.9.5 - Ventilation and Access doors in accordance with s.9.5.6 Roofs……: s.9.6 Verandahs……: s.9.7 Water and Gas Supply Pipes:s.9.8	Prior to occupation and ongoing
3.	Any form of 'hot works' are restricted from being undertaken outside of the marine workshop during the declared bushfire season. *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.* 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.	Ongoing
4.	Landscaping is to be maintained as a reticulated garden consistent with low threat vegetation excluded by cl. 2.2.3.2(f).	Prior to occupation and ongoing

5.	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.	Prior to occupation and ongoing
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.	Prior to occupation
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. *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.*	Prior to occupation

The City of Albany

1.	Maintain the fire break (4 m clear mineral surface) at the western and northern boundary with Boronia Reserve	Ongoing
2.	Administering the requirements of the *Planning and Development Act 2005* by ensuring the facility closure in accordance with the terms of the Development approval.	Ongoing
3.	Administering the requirements of the *Planning and Development Act 2005* and the *Building Act 2011*.	Ongoing

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) FRL 30/30/30.
2. Recommended (advisory only) BAL construction standard (blue).
3. Site landscaping is to be maintained as a reticulated garden consistent with low threat vegetation excluded by cl. 2.2.3.2(f).
4. Hot works are not to be undertaken in the restricted area during the annual bushfire season
5. 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.
6. Internal hydrants (six) are to be provided to the site as per the Hydrant plan.
7. 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.
8. 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.

- Site Boundary and internal hardstand area
- Hot works restricted area
- 24 m marked turning areas to remain clear
- 2 m wide footpath
- 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: 27 January 2021

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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, workshop and a portable bulk fuel container (>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**	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 The development proposal comprises replacing the existing buildings with the following: • Processing/Amenities/administration Building, consolidate and replace existing administration and process building; • Bulk Fuel container, new; • Oyster and Mussel Shed/Nursery, replacement and consolidation of the existing facility; 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**	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. Safer place option destinations include • 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			

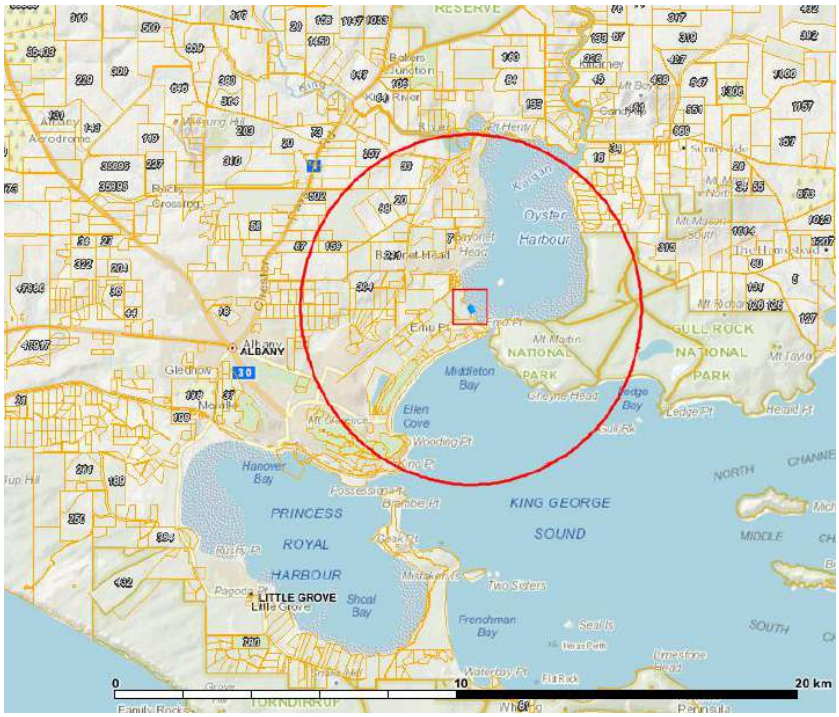


Plate 1:Site in Locality



Plate 2: OBRM Bushfire Prone Area (Pink area*)*

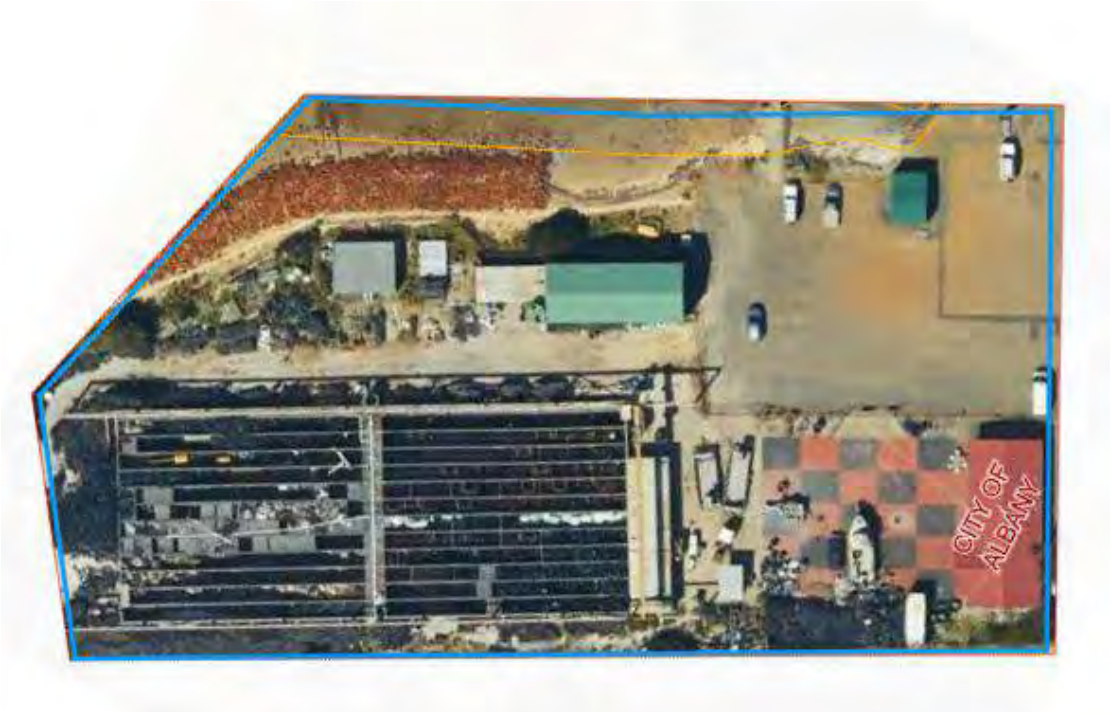


Plate 3: Authorised site use.

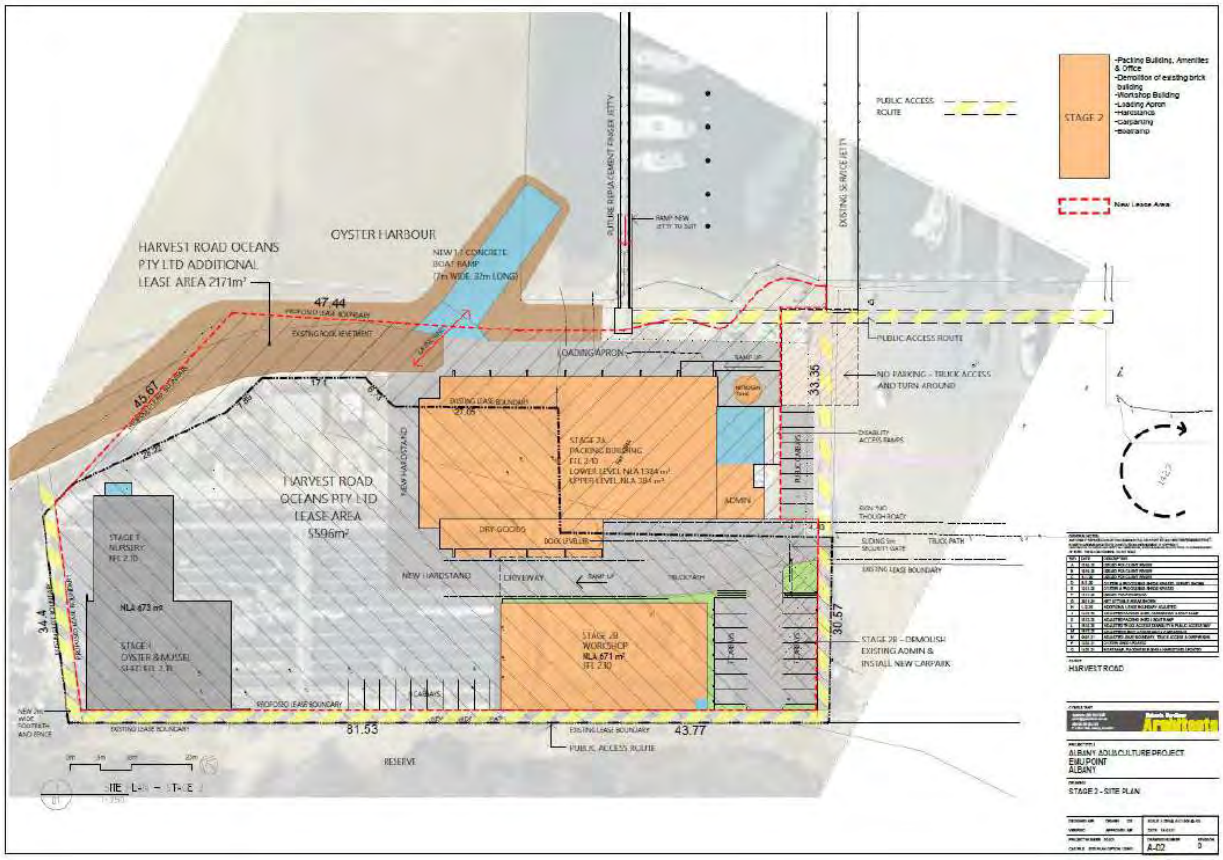


Plate 4: Proposed development

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 (Guidelines V1.3)*.

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 stands 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'.

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 WASAT affirmed the intent of the Policy Measures are not to be applied inflexibly but instead should be approached on the basis of risk and the individual circumstance. It determined that a proposal need not be either 'minor development' or an 'unavoidable development' but can still be approved as a non-complying development, to be considered on its merits where it can demonstrate a reduced risk and therein satisfaction of the precautionary principle.

Analogous with this proposal, the WASAT Bunnings case involved an authorised activity. The Bunning' proposal involved its outdoor storage of timbers and building materials yard that bordered a reserve (DoT) classified as having forest vegetation. The outdoor storage area therefore falling within BAL FZ. No adjoining land management was supposed in this instance (DoT do not provide firebreaks). The proposal involved enclosing the outdoor store, and notwithstanding it was a building addition extending into BAL FZ, it was acknowledged by DFES that it represented a reduced risk compared to the current authorisation involving the open storage of flammable materials within the BAL FZ area. It was acknowledged that it reduced the risk by enclosing the flammable materials within a non-combustible structure and conversely provided a barrier to a fire escaping the Bunning's Site to enter the adjacent forest.

Furth to the WAST findings it was presented that Cl. 5.6 *Proposing A High risk Landuse in a Bushfire Prone area*, (Guidelines V1.3) recognises appropriate storage of on-site flammable material 'would be required to reduce the threat among other considerations'.

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

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 are those involving heat or spark generation as a production process.

The role of SPP 3.7 is to consider the consequence of bushfire, either the proposal igniting one and the community risk, to threaten external assets, or any particular considerations of a bushfire arriving at the Site, and the precautions to be taken to stop it becoming a structural fire or interfering with suppression of a structural fire.

Associated legislation acknowledged but not addressed in this BMP includes:

- Dangerous Goods Safety Act 2007
- Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 (bulk >500 L)

DMIRS Accredited Compliance Consultant WA Dangerous Goods Storage and Handling Licensing assessment are responsible for the facility design and submission of applications for licencing this applies to bulk fuel storage greater than 500 L

The proposal is to include a bulk fuel container, 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.

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*.

Part 10A Schedule 2 of the *Planning and Development (Local Planning Scheme) Regulations 2015*

The *Planning and Development Act 2005* and the consideration of development within bushfire prone area requires that all classes of development comply with the siting requirement consideration, notionally the acceptable solution or by performance principle.

Whilst the bushfire construction standard do not apply through the NCC, to classes other than 1-3 and 10a, the *Planning and Development Act 2005* can apply construction requirement where not in conflict with the *Building Act 2011*. Clause 78E(1) provides that:

> ***78E Matters to be considered for development approval***
>
> *(1) In considering an application for development approval for development to which this Part applies, the local government is to have regard to the bushfire resistant construction requirements of the Building Code.*

This enables through the performance principle considerations as an alternative to the acceptable solution, siting to achieve BAL -29, that construction requirements can be applied at planning to achieve the SPP 3.7 Policy Intent.

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:

<u>*Environment Protection Act 1986*</u>

- 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 30794) BAL report 14/08/20.

The Assessment was 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.

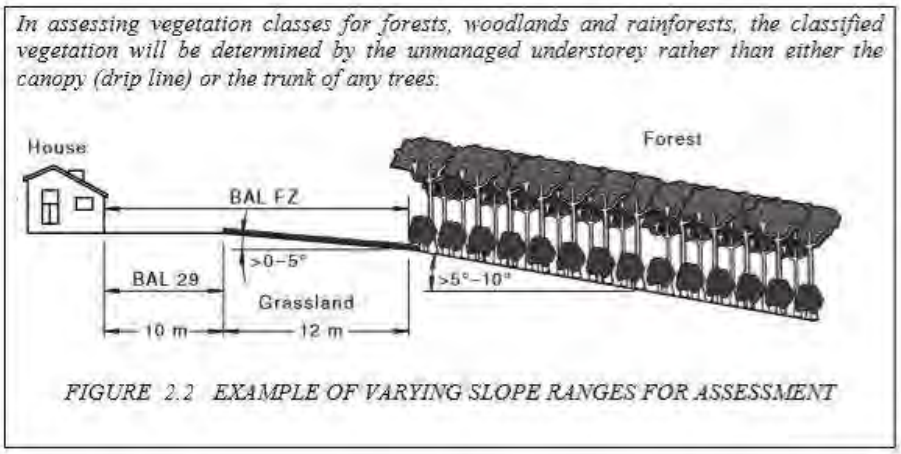


Plate 11: Arrangement of inputs for the determination of a BAL.

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 container	**BAL-19**
Oyster and Mussel Shed/Nursery	**BAL-FZ**
Materials store	**BAL-FZ**
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 0.0^0 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.

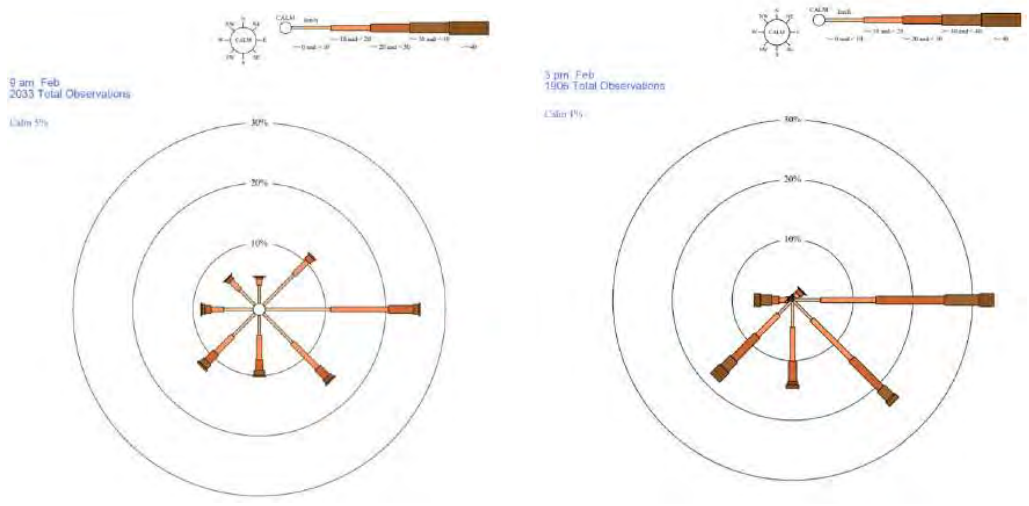


Plate 12: Wind roses (Feb 9 am and 3 pm), Bureau of Meteorology, Albany.

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 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		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. Following the WAPC Position Statement: *Planning in bushfire prone areas – Demonstrating Element 1: Location and Element 2: Siting and design* 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. 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 is addressed by a Performance Principle method. **See section 5.2 of this Assessment.**

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: • 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	The Site adjoins forest to its west and north boundary. The adjoining vegetation casts BAL levels of declining intensity into the Site. Existing development at the Site is located within BAL-40- BAL-FZ. The proposed development will result in development placed within BAL-40 -BAL-FZ. 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 is addressed by a Performance Principle method. **See section 5.2 of this Assessment.**
Element 3: Vehicular Access To ensure that the vehicular access serving a subdivision/ development is	**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	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. This matter is to be addressed as a Performance Principle. **See section 5.2 of this Assessment.**

<table>
<tr><th>Bushfire Protection Criteria</th><th>Method of Compliance</th><th>AS</th><th>PP</th><th>Proposed Bushfire Management Strategies</th></tr>
<tr><td rowspan="3">available and safe during a bushfire event</td><td>A3.2 Public road

A public road is to meet the requirements in Table 6, Column 1.

Table 6: Vehicular access technical requirements
<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></td><td>✓</td><td></td><td>The singe access is a public road compliant with the DPLH interpretation of Table 6 Column 1.</td></tr>
<tr><td>A3.3 Cul-de-sac (including a dead-end road)

Requirements in Table 6, Column 2;

• 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); and
• Turn-around area requirements, including a minimum 17.5 metre diameter head.</td><td></td><td>P</td><td>The Site's location is not compliant with the Acceptable Solution requirements for a cul-de-sac, because the Site is more than 200 m from a road providing access in two directions.

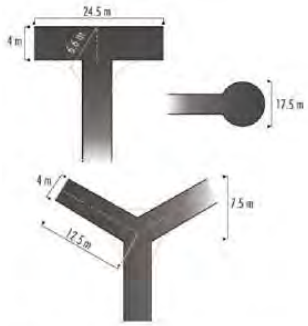
The terminus of the road access, public car park and boat ramp accommodated is of sufficient size to accommodate the turning of a type 3.4 fire brigade appliance.

This matter is to be addressed as a Performance Principle.

See section 5.2 of this Assessment.</td></tr>
<tr><td>A3.4 Battle-axe

Requirements in Table 6, Column 3;

• Maximum length: 600 metres; and Minimum width: six metres.</td><td>N/A</td><td></td><td></td></tr>
</table>

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
	A3.5 Private driveway longer than 50 m Requirements in Table 6, Column 3; • 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)  **Figure 22:** Design requirements for a private driveway longer than 50 metres Turning areas should allow type 3.4 fire appliances to turn safely	C		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. 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. The site operation and attending emergency services would benefit from a marked accessway provided in accordance with Column 3 (Private Driveway) in Table 6 *Vehicular access technical requirements* in Element 3 *Guidelines for planning in bushfire prone areas V1.*3

Bushfire Protection Criteria	Method of Compliance	AS	PP	Proposed Bushfire Management Strategies
	A3.6 Emergency access way Requirements in Table 6, Column 4; • 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; • 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		The Oyster and Mussel Shed/Nursery and the Marine OPS workshop buildings *are proposed to be constructed* at the western boundary of the Site. The Built Environment Branch DFES may have setback requirements at Building Permit which may be satisfied by an access arranged on the adjoining land.

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 *Building Act 2011* 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 • 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 furthermost 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 defendable 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 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 WASAT matter:

Following the WASAT 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 m^2) located furthest from the high occupancy buildings. The building has a vertical wall located 2 m from the north and western boundary. This is further to the 4 m firebreak that has been maintained by the City of Albany, since 1996, for the benefit of the commercial development in this precinct. This will therefore provide the proposed Oyster/Mussel storage and the Nursery with a 6 m separation from the adjacent forest. The enclosure of the Oyster/Mussel storage (potentially flammable

material) within a non-combustible construction, is consistent with the risk treatment at cl.5.6 in the Guidelines V1.3, an appropriate storage of material to reduce the threat from bushfire but also to reduce the threat of a transfer of fire to the adjacent forest and w restrict the escape of fire from the storage area into the forest.

It is to be noted that steel sheeting can transfer radiant heat internally. A Fire Rating Level, which includes an insulation performance, has been specified (BAL FZ FRL 30/30/30) (Various methods are described to achieve fire rated walls in the NCC). These measures will reduce the risk of damage to stored materials and have been conditioned in this report in accordance with Regulation 78E(1) LPS Regulations 2015 Deemed Provisions.

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 (These have been conditioned in this report in accordance with Regulation 78E(1) LPS Regulations 2015 Deemed Provisions). 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 activity (spark generation and the use of open flame (hot works) should apply within 20 m of the west boundary, during the bushfire season. Fire hose should also 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.

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 container also represents a consolidation of the current arrangement and a safer placement away from the adjacent vegetation and within BAL-19.

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 or be located within 200 m to a public road providing alternative destination options for evacuation outside of the fire ground and for emergency services to be able to attend the Site and retreat if necessary.

The road network and present land use is dependent upon a single access.

There is no practical means of providing a secondary vehicle access, and the Site is at the extent of a coastal reserve comprising remnant forest and scrub extending north.

SPP 3.7 does not apply retrospectively and allowance is made in the guideline that the technical requirements, including the 200 m do not apply where the lot layout already exists.

"A3.3 Cul-de-sac (including a dead-end road)

A cul-de-sac and/or a dead-end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/or will need to be demonstrated by the proponent), the following requirements are to be achieved:"

Notwithstanding this, the Policy Intent is vehicular access serving a subdivision/development is available and safe during a bushfire event The access route is between an area of low threat, coast with a low wave energy beach, and within BAL-19. The road for the extent that it extends beyond a through road is unlikely to be closed by fallen objects such as trees, so it is only likely to be impassable during the fire peak, 2 minutes. In the interim the coast can provide pedestrian access to a BAL Low area for refuge and retreat before returning to attend to any small fires, assisted by an on-site network of fire hoses.

In consideration of the locational attributes, the proposal is able to demonstrate safety is available to the occupants at the Site.

The foreshore at Emu Point is a natural and practical destination to shelter from a bushfire approaching from the west and is recognised (page 11) in the SEMC Western Australia Community Evacuation in Emergencies Guideline 18 December 2020.



Plate 15: Foreshore Emergency Assembly



Plate 16: Albany Sea Rescue at carpark

5.2 Additional Bushfire Management Strategies

Additional management strategies, further to the Bushfire Protection Criteria, are addressed in the performance principles.

Notably these provide for a construction standard to be applied to buildings that are not a class 1-3 or 10a (following regulation 78E(1) LPS 2015 Deemed Provisions, and the provision of fire hoses at the west and north boundary to assist with fire suppression when safe to do so.

The maintenance of the firebreak by the City of Albany is of longstanding and a benefit. The design and construction standard of the buildings is not dependent upon the condition of the firebreak.

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



BIO DIVERSE SOLUTIONS

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

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.

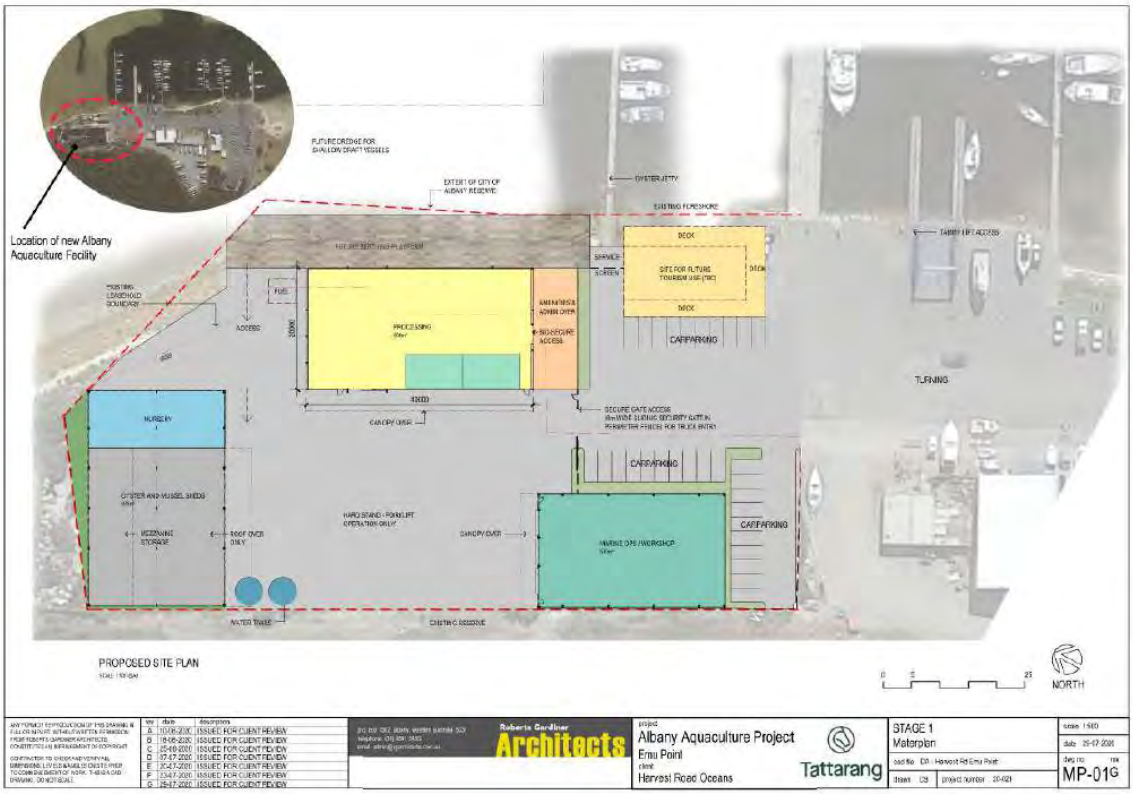


Figure 1: Master Plan (Revision G)

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

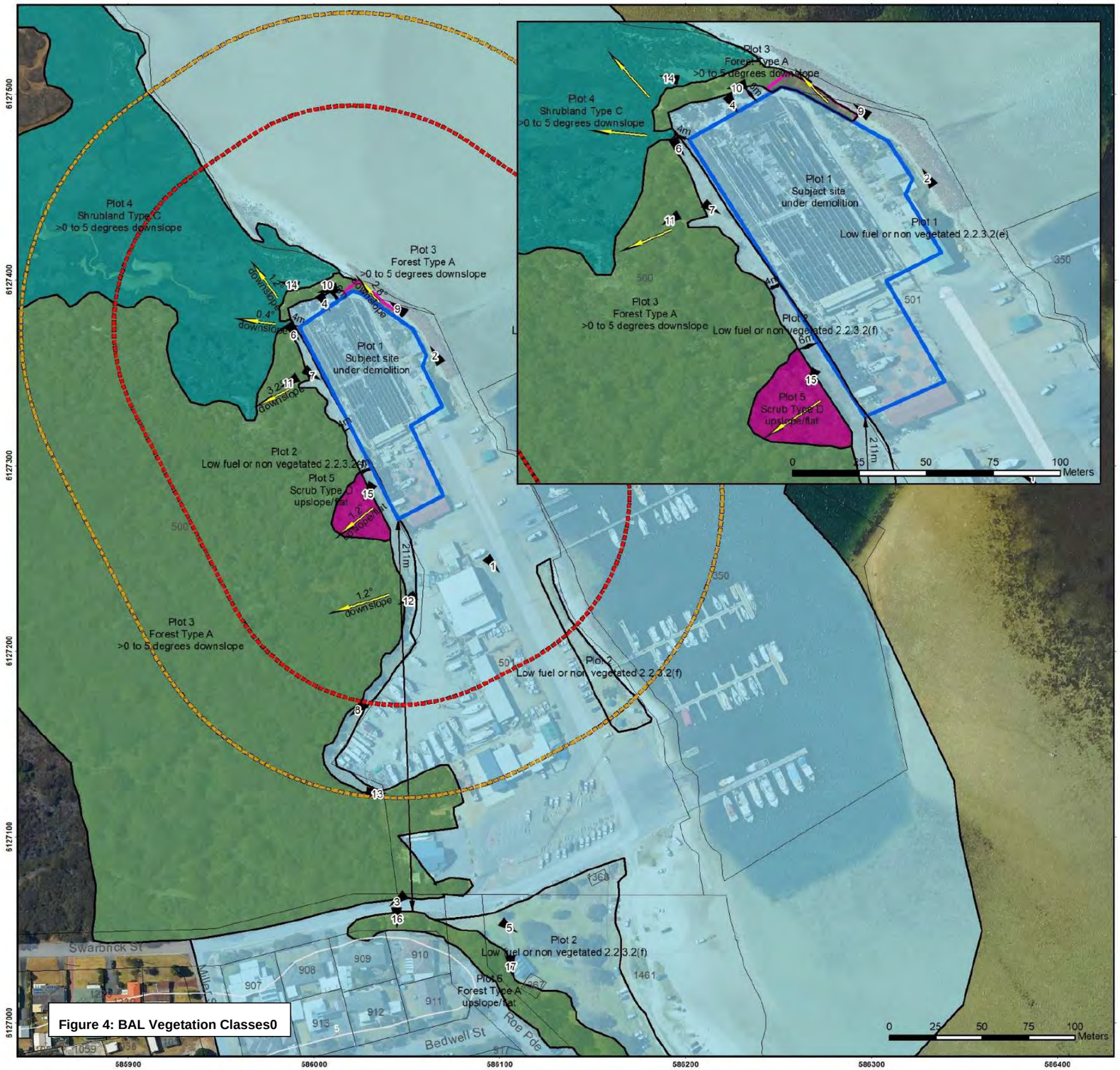


Figure 4: BAL Vegetation Classes0

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 3

BIO DIVERSE SOLUTIONS

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Albany, WA 6330
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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	QA Check	Drawn by
KK	BT	CV
STATUS	FILE	DATE
FINAL	MSC0296	23/07/2020

Plot	1	Classification or Exclusion Clause	Low fuel or non-vegetated areas Exclusion 2.2.3.2 (e)
			**Location:** Located internal to subject site and north-east, east, south and south-east of subject site. **Dominant species & description:** Bare hardstand areas, Oyster Harbour, parking, demolition site. As per exclusion clause 2.2.3.2 (e) of AS3959.
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)**
			**Additional photo of Plot 1.**
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)



Location: Located west and south of the subject site.

Dominant species & description: Mowed grasses and POS areas managed by CoA. Managed firebreaks. As per exclusion clause 2.2.3.2 (f) of AS3959.

Available fuel loading: <2t/ha.

Photo Id 5: View of low fuel area situated south of the subject site, outside 150m assessment area.

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



Additional photo of Plot 2.

CoA have confirmed a regular maintenance program along the western/south western interface to the site.

Photo Id 6: View of 4m firebreak located to the west of the subject site.

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
			**Location:** North and east of the subject site. **Separation distance:** 0-6m. **Dominant species & description:** Peppermint trees grading to paperbarks in the west. Multilayered grasses, juvenile trees, *Acacia longifolia*, *Asparagus asparagoides* (Bridal creeper) and buffalo grass. **Average vegetation height:** 4-6m. **Foliage cover:** >30-70% Foliage cover. **Fuel loading:** 25-35t/ha. **Effective Slope:** Downslope >0-5 degrees. Note: new fencing around site, vegetation assumed to be future low fuel along fence line.

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
			**Additional photo of Plot 3.** 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.

Photo Id 10: View of Forest Type A located along northern fence line.

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

Plot	3 cont.	Classification or Exclusion Clause	Forest Type A
			**Additional photo of Plot 3.**
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**
			**Location:** North of subject site in the tidal flats. **Separation distance:** 4m. **Dominant species & description:** Herbs and rushes and *Melaleuca* sp., *Atriplex sp*. (saltmarsh species) and various low swamp tidal species. **Average vegetation height:** 1-1.5m. **Foliage cover:** >30% Foliage cover. **Fuel loading:** 15t/ha. **Effective Slope:** Downslope >0-5 degrees.
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
			**Location:** South west of the subject site. **Separation distance:** 4m. **Dominant species & description:** Dead *Melaleuca cuticularis* (Salt water paperbark), rushes, *Asparagus asparagoides* (Bridal creeper), and *Polygala myrtifolia* (myrtle-leaf milkwort). **Average vegetation height:** 2.5m. **Foliage cover:** >30% Foliage cover. **Fuel loading:** 25t/ha. **Effective Slope:** Flat/upslope.
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**
			**Location:** South of the subject site. Outside 150m assessment boundary. **Separation distance:** 211m. **Dominant species & description:** *Agonis flexuosa*, connected crowns, juvenile trees, *Hibbertia* sp., *Pelargonium sp.* (Geranium), *Watsonia*, *Moraea flaccida* (Cape Tulip), kikuyu grass and *Adenanthos sericeus* (Albany Woolly Bush). Multilayered. **Average vegetation height:** 4-6m. **Foliage cover:** >30-70% foliage cover. **Fuel loading:** 25-35t/ha. **Effective Slope:** Flat/upslope.
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 CLASSIFCATIONS:

- 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).

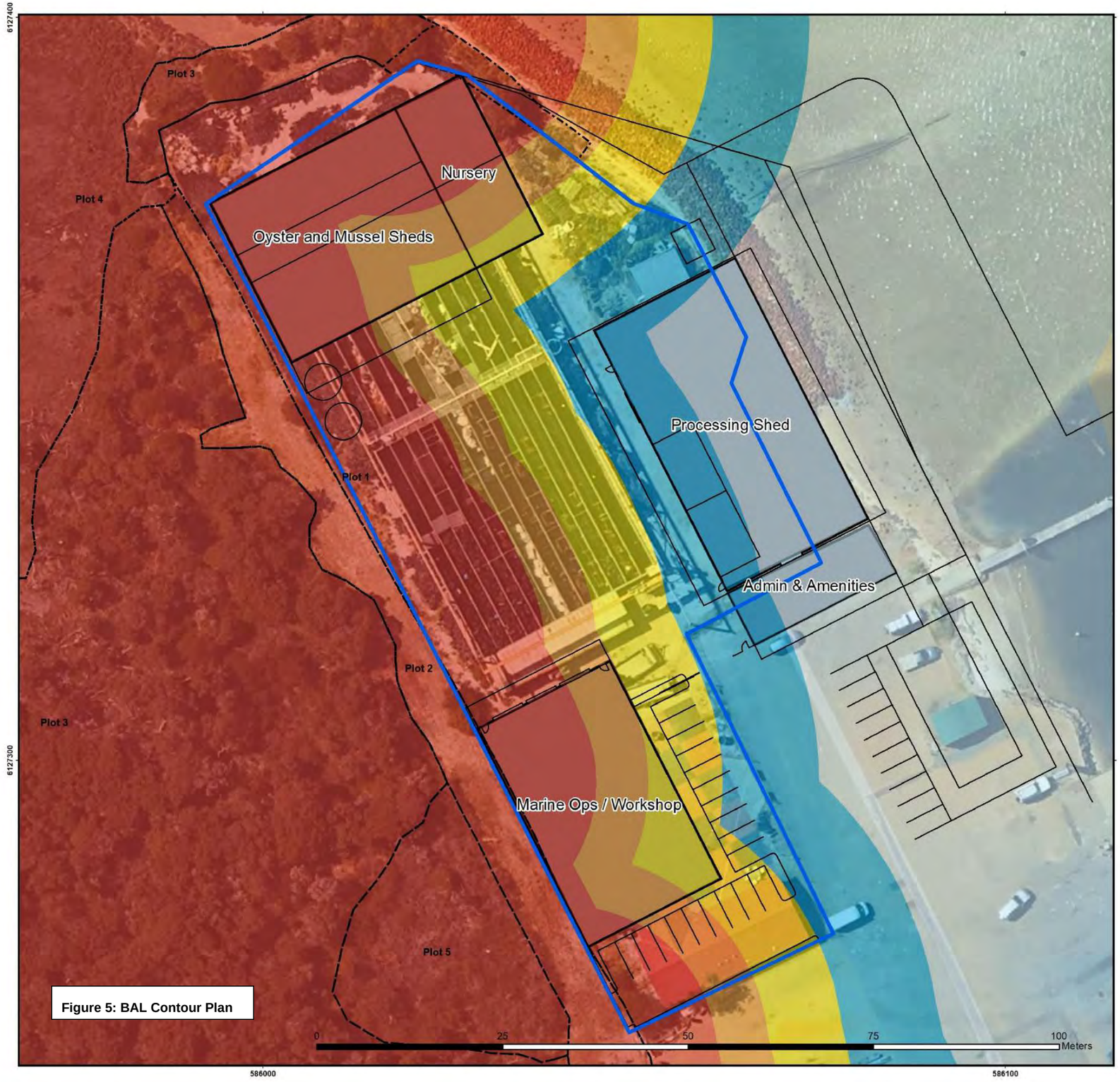


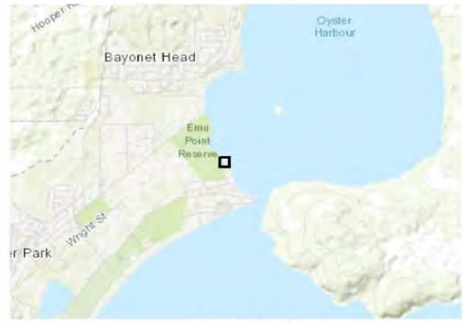
Figure 5: BAL Contour Plan

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

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Albany, WA 6330
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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

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Tattarang
Emu Point Oyster Farm
Emu Point, WA 6330

BAL Contour Plan

BAL Assessor	*QA Check*	*Drawn by*
KK	BT	SA
STATUS	*FILE*	*DATE*
FINAL	MSC0296	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.

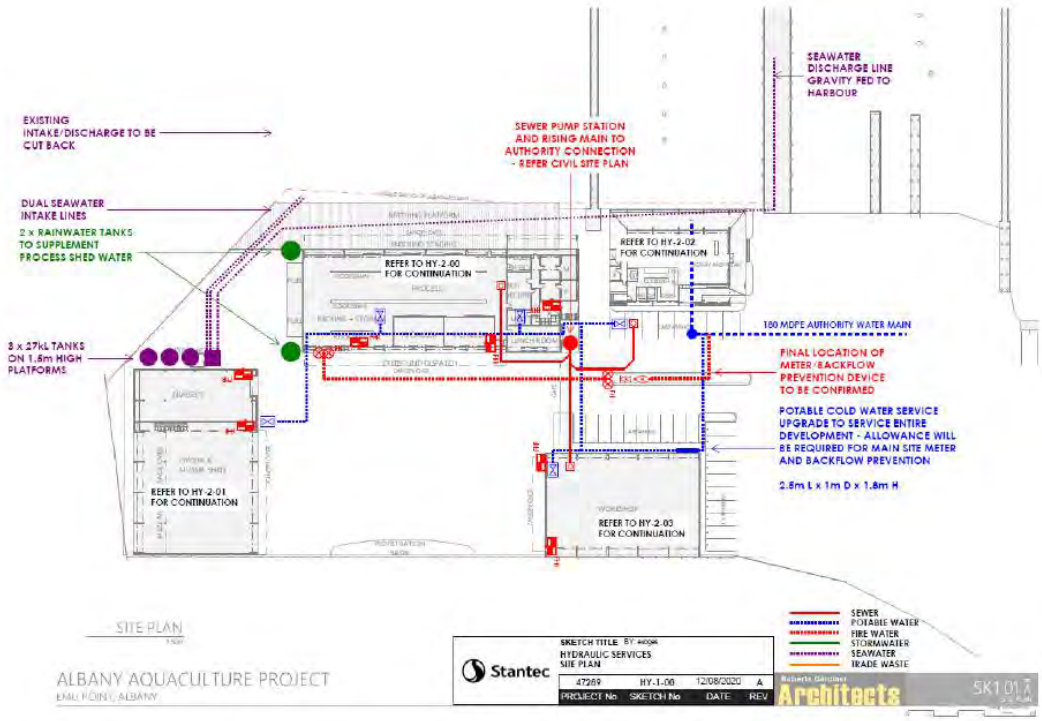


Figure 6: Hydrant Site Plan

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

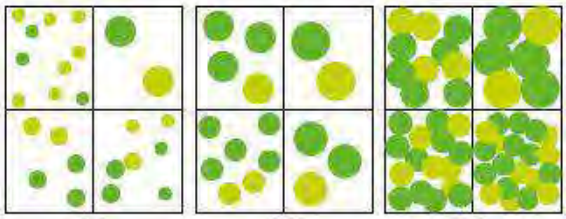
WAPC APZ standards to apply

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

Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Building and Energy

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
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Cannington Western Australia 6107
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W: **www.dmirs.wa.gov.au/building-and-energy**
E: **be.info@dmirs.wa.gov.au**

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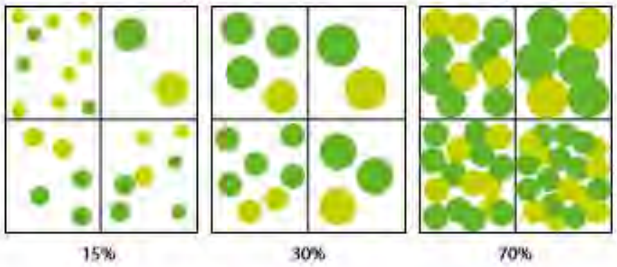
APPENDIX 2- APZ Guidelines

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

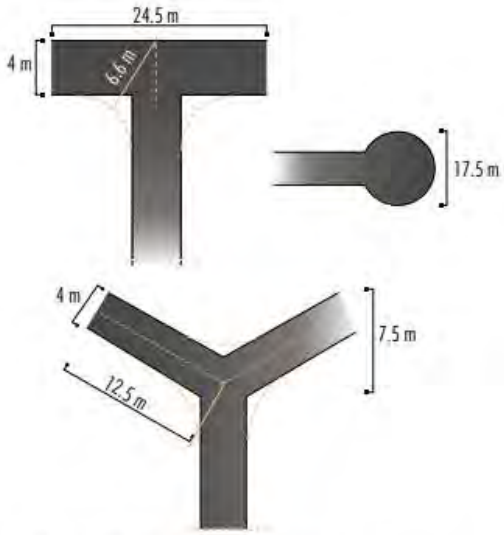


Figure 22: Design requirements for a private driveway longer than 50 metres
Turning areas should allow type 3.4 fire appliances to turn safely

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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element.

Appendix D – Waste Management Plan

encycle consulting

waste less, achieve more

Lot 501 25 Swarbrick St, Emu Point

Waste Management Plan

11 February 2021

Project No. 20-1067-1

Rev_3

Harvest Road Oceans (Tattarang Pty Ltd)

11 February 2021

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Encycle Consulting 2021

11 February 2021

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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.

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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 RG Architects A-2.0T on 11 February 2021
- 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, administration and packing 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
- 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:

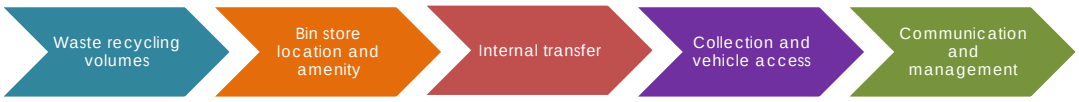
- The City requiring areas for bin and refuse storage
- Bin store areas to be:
    - Located, constructed / drained, paved and screened from public view to the satisfaction of the local government
    - Permanently retained for that exclusive use
- No person shall alter any bin store forming part of 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:

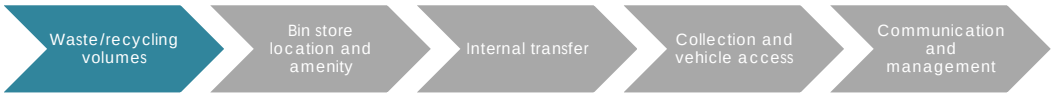
- Enclosed design of bins / bin stores to prevent access by rodents and / or insects with the potential to be disease vectors
- Shell waste that includes dead animals / shell meat is not to be left lying around, buried or cremated on site (with the exception of waste to energy, waste treatment, hot composting 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 Aquaculture facility packing, 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 packing and administrative areas of the aquaculture facility.

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 - aquaculture administration

Premises type	Waste generation rate	Recycling generation rate	Percentage breakdown of recycling stream by material
Production admin office	0.1 L /1m²/day	0.1 L /1m²/day	79% paper 14% cardboard 2% soft plastics 7% commingled
Production meeting space	0.1 L /1m²/day	0.1 L /1m²/day	79% paper 14% cardboard 2% soft plastics 7% commingled
Production lunch room	0.1 L /1m²/day	0.1 L /1m²/day	79% paper 14% cardboard 2% soft plastics 7% commingled
Packing	0.1 L /1m²/day	0.1 L /1m²/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

11 February 2021

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 660 L MGB in the bin compound.

Packing

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 Number and type of bins required for development

The development will be undertaken in a staged approach as follows:

- Stage 1: Nursery and oyster and mussel shed
- Stage 2A: Packing and admin and Stage 2B: Workshop

The number and types of bins to be stored in the bin compound are detailed in table 2. The number and types of bins are to accommodate twice-weekly collections, as per the following considerations:

- 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 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 seafood processing shell waste may be required in the event of any extreme weather events or disease impacts, or any potential odour management requirements.

Table 2: Total number & size of bins to be stored in bin compound

Waste stream	Bin size (L)	Number of bins	Collection frequency
General waste	660	2	Twice weekly
General waste (seafood processing shell waste – refer table 3)*	660	2	Twice weekly
Commingled recycling	1,100	1	Twice weekly

*Separate general waste bin for bagged, non-sterilised items from bio secure area (i.e. shells, gloves, eyewear, masks, gowns, head covers, earplugs and other personal protective equipment).

Table 3 details the calculations used to derive waste generation rates of the shell fish.

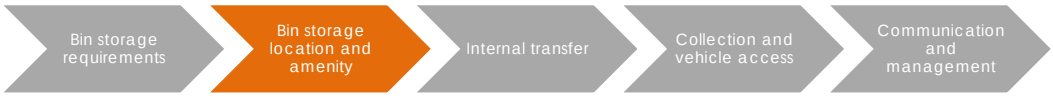
Table 3: Seafood processing shell waste

Production species	Total shell weight	Mortality rate	Total waste shells	
Unit measure	*tpa*	*% production tpa*	*tpa*	*Litres (L)**
Rock oysters	2,285	1%	23	
Akoya	1,845	1%	18	
Mussels	1,705	3%	51	
Total	5,835		92 tpa	92,000 L (approx.)

Note: NSW DPI advised that 1 tn of oyster shells can fit adequately in 1 m^3 (1,000 L) 'bulka bag'.

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3 Bin storage areas and amenity



3.1 Bin compound location

The development will have one (1) bin compound to allow for the storage and collection of:

1. General waste and recyclables from the administration and packing areas; and
2. Seafood processing shell waste, general waste from bio secure area, and general waste and recyclables from shell fish operational areas

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.

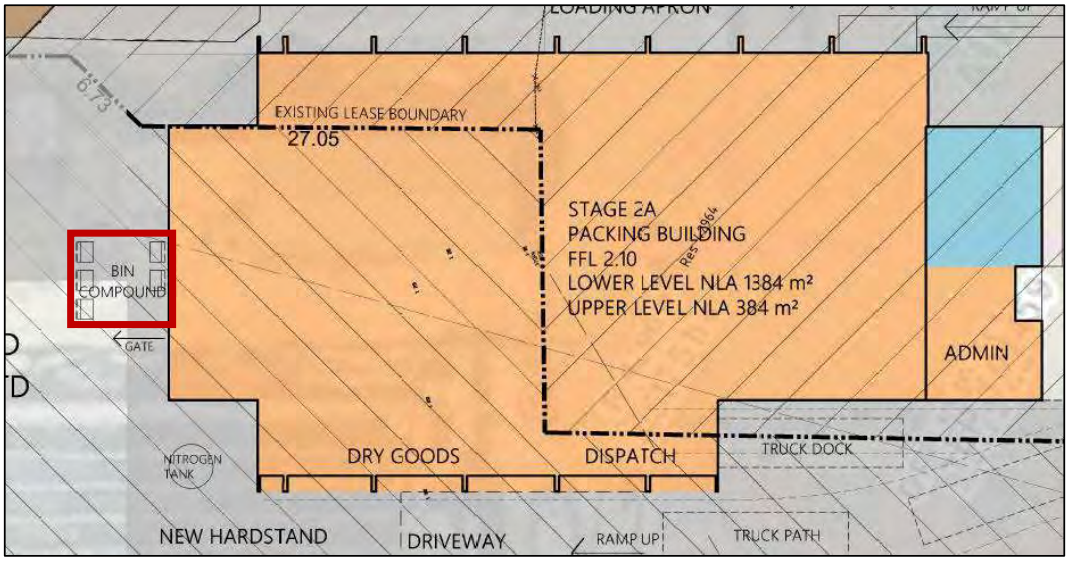
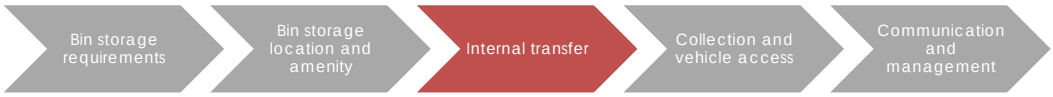


Figure 1: Location of bin compound and layout of bins

3.2 Bin compound 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

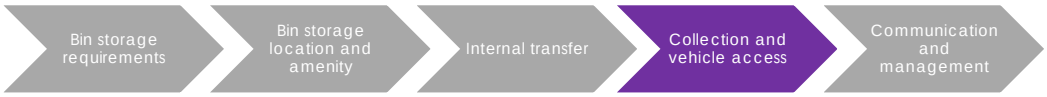


Operational staff assessing and handling processing of oysters, akoya and mussels will dispose of shell waste from the processing areas or directly from baskets and dispose of to 660 L MGBs stored north of processing building.

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, and packing building to the relevant general waste or recycling MGBs stored in the bin compound.

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'. 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 service the bins at the bin compound, the vehicles will drive in a forwards motion and park adjacent to the bin compound area. The operatives will retrieve and service the bins and return empty bins to the bin compound.

5.2 Vehicle access

Figures 2 and 3 show the collection points and where the waste vehicles will stop to service the bins.

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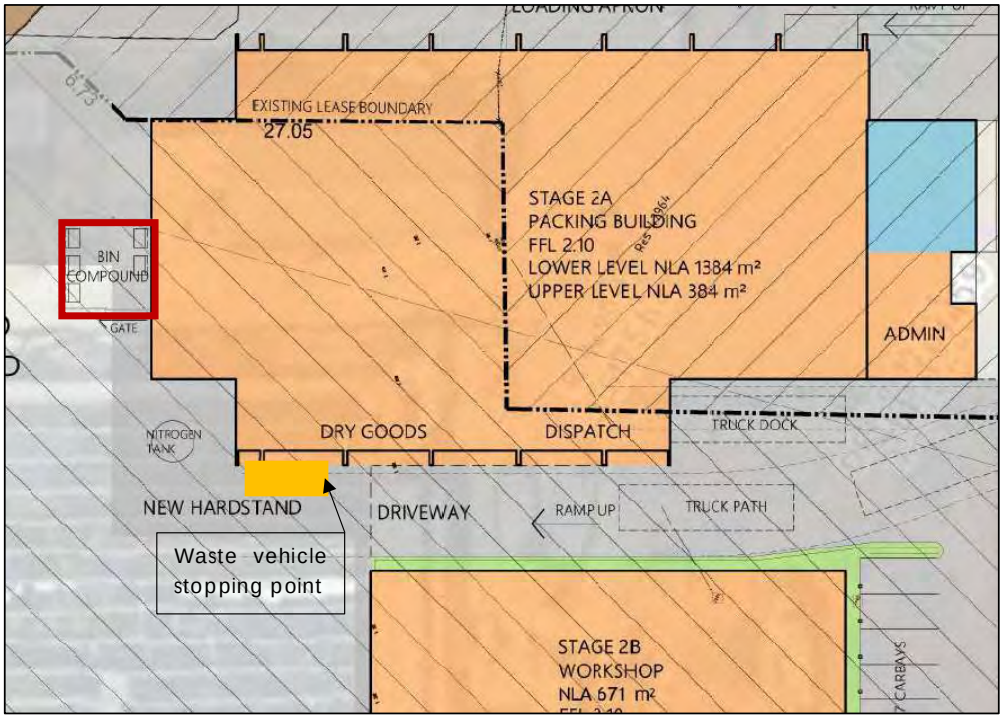


Figure 2: Waste collection vehicle stopping point

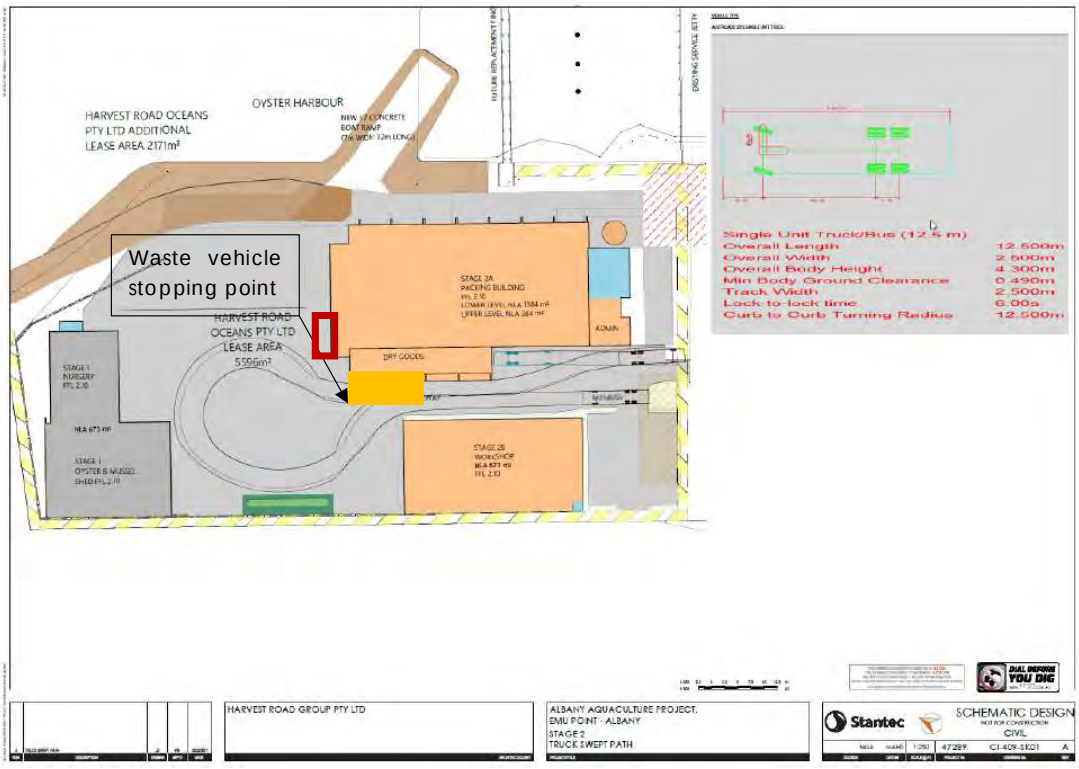
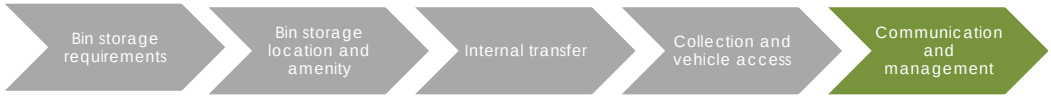


Figure 3: Waste vehicle stopping point on 'swept path' drawing

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 bin compound and surrounds 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.

element.

Appendix E – Coastal Hazard Assessment

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R1419 Rev 1

February 2021

Harvest Road Oceans Pty Ltd

Emu Point
Preliminary Coastal Hazard Assessment

marinas
boat harbours
canals
breakwaters
jetties
seawalls
dredging
reclamation
climate change
waves
currents
tides
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K1789/2, Report R1419 Rev 1
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Form 035 18/06/2013

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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 a packing and storage facility at the existing Emu Point boat harbour. 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

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

2.1 Existing Site Conditions

A detailed inspection of the existing site, seawall and jetty structures was completed by MRA in November 2020. The existing seawall appeared to be in a moderate condition, with a significant percentage of rock being undersized. There were also loose rocks spread at the front of the structure indicating movement and instability, and the toe of the seawall was not embedded. Based on the condition of the seawall it is not appropriate to provide sufficient protection to the development under severe conditions.

An informal gravel boat ramp exists at the site. The ramp is not protected, and appears to be in poor condition.



Figure 2.2 Existing Seawall (Left) & Gravel Ramp (Right)

Survey of the site was completed by Caldwell in November 2020 and is included in Appendix A. This indicated that the site is typically low lying, mostly in the order of +1 mAHD. The nearshore area in front of the site is very shallow with depths of -0.1 mAHD in front of the seawall, and only reaching -0.35 mAHD approximately 40 m offshore.

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.

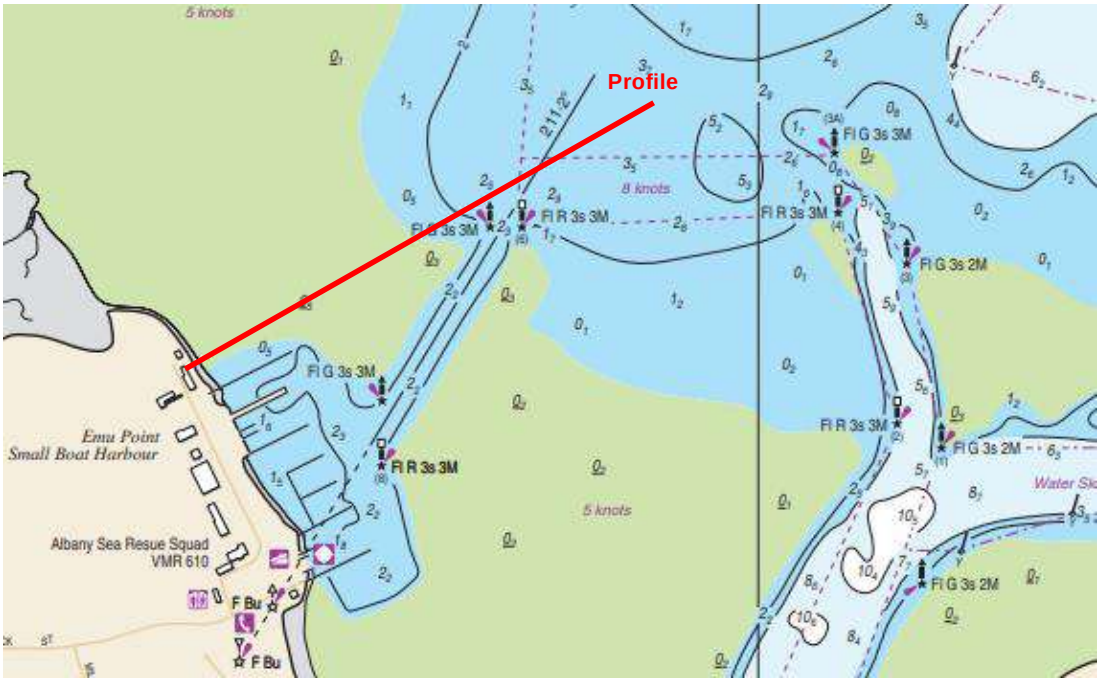


Figure 3.1 SBEACH Profile Location & Alignment

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.

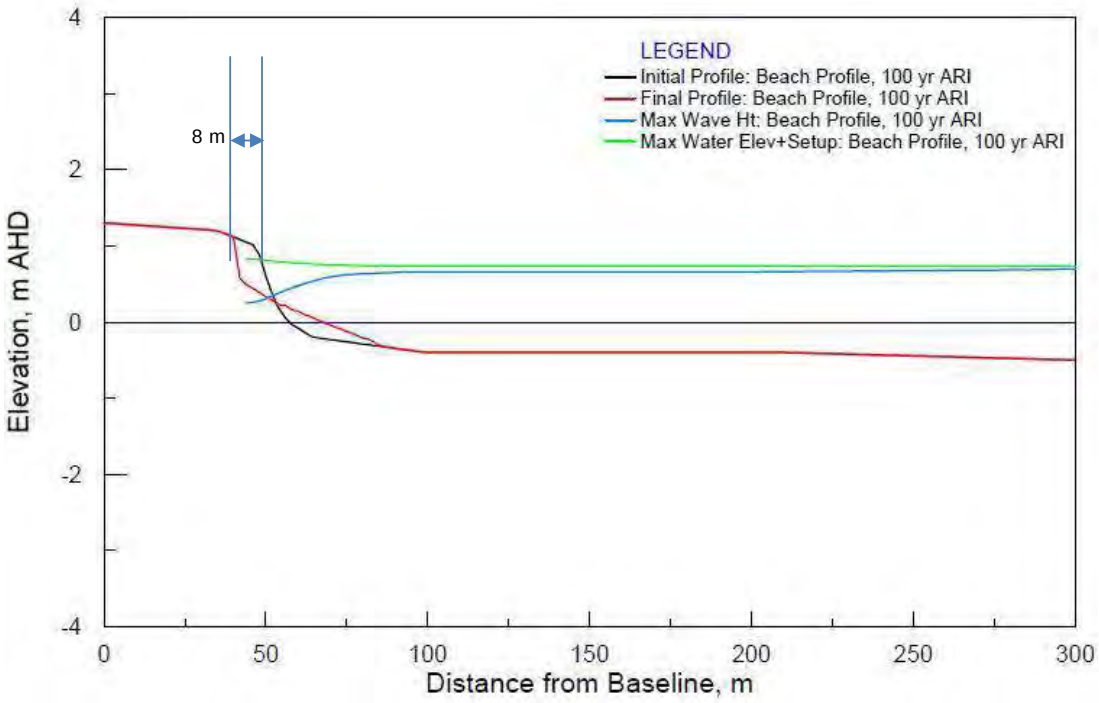


Figure 3.2 SBEACH Results

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 8 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.

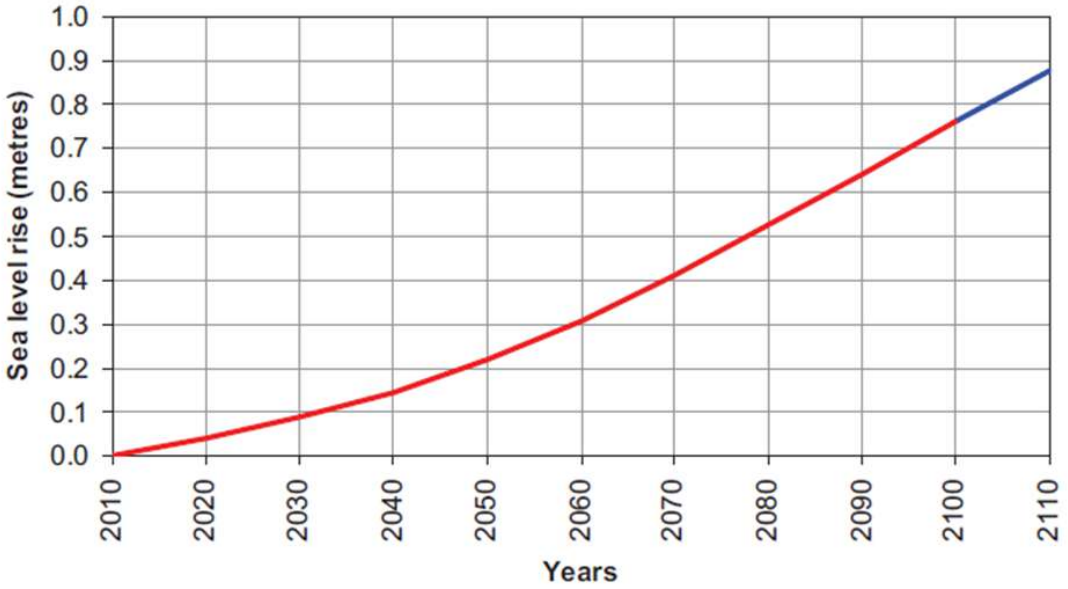


Figure 3.4 Recommended Allowance for Sea Level Rise (DoT 2010)

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 B.

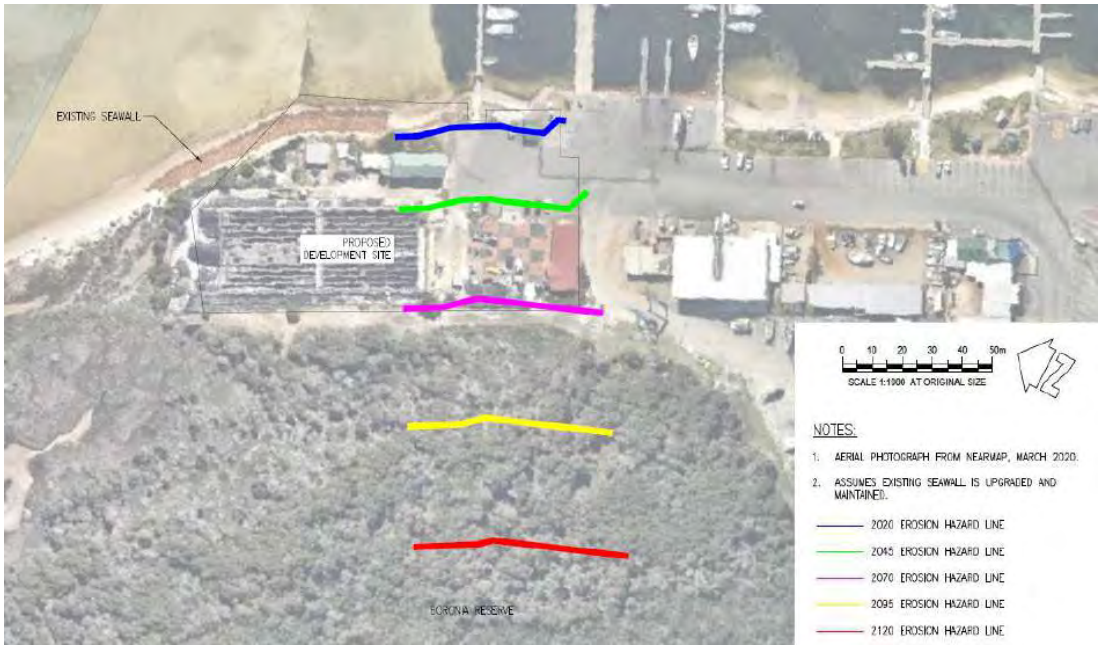


Figure 3.5 Coastal Erosion Hazard Lines

These indicate that without extension of the existing seawall, the proposed development site will be at risk to coastal erosion in the near future. This assessment has been completed on the basis that the existing seawall is appropriately upgraded.

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.

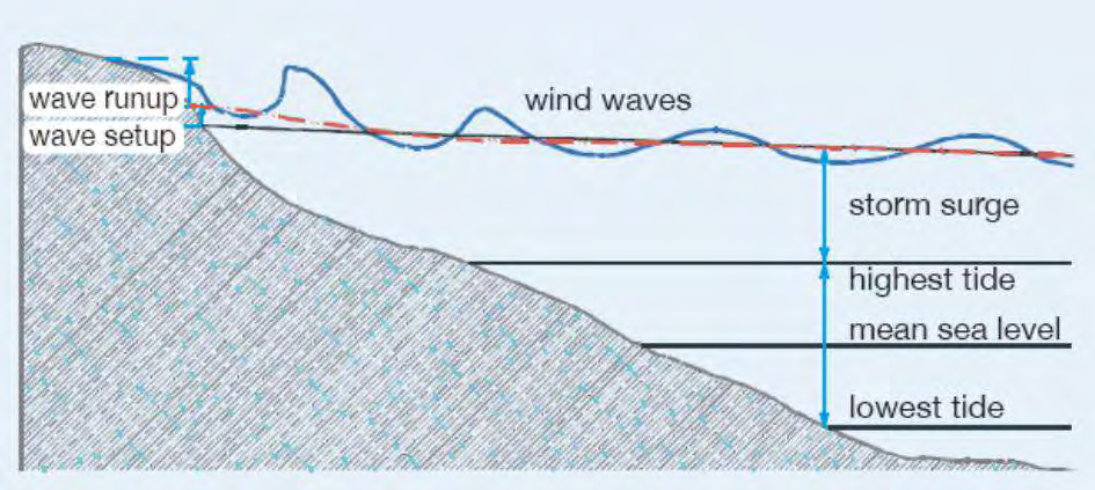


Figure 3.6 Storm Surge Components

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 B 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 be upgraded to protect the entirety of the site, be tied into the future boat ramp and be extended past the finger jetty to the service jetty.

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 proposed development will sit below this level and it is impractical to locally fill and develop to 2.40 mAHD.
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 facility, 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:

- Filling the site above existing levels to reduce the likelihood of flooding and inundation.
- 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 the facility's 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 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 upgraded and extended to mitigate the potential coastal erosion hazards that may occur in the future. This means that the existing boat ramp will also need to be upgraded to tie into the extended seawall.

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.

6. References

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Appendices

Appendix A **Caldwell November 2020 Survey**

Appendix B **Coastal Erosion Hazard Lines**

Appendix A Caldwell November 2020 Survey

LEASE A

LEASE B

Res 42964

1423

EXTENT OF EXIST ROCK

Water pipe

black poly

black poly

OPEN PIT TOP CONC 1.92 SILT @ 4.5m DOWN

OLD CONCRETE PAD

Borehole?

Verandah

SHED

RAMP

JETTY

Hydrant

Valve

Tap

Water meter

Gully

SIGN

Edge of Bank

Footpath

7·89

17·10

27·05

28·22

31·32

20·53

44·88

30·57

LEGEND

- Wisor control point
- S H nail
- FENCE
- Top
- box
- Visible pipe
- Column (Abt location)
- septic pump out
- Telecom pit or box
- fire
- fire
- SCDB Lot Boundary
- Fence
- Rock outcrop (left)
- Building
- Edge of concrete (left)
- gully
- SHED
- Verandah
- Sewerage manhole
- Water pipe
- Lease Boundary

CONTOUR INTERVAL 0.2m

CALDWELL LAND SURVEYS

email: aarron@caldwellsurveys.com.au

SCALE @ A0 1:200

Site Survey at Lot 501 Lease
EMU POINT, ALBANY

21-11-20

Drawing No.
2020-41-02C

Horizontal Datum
MGA94
Level Datum
AHD

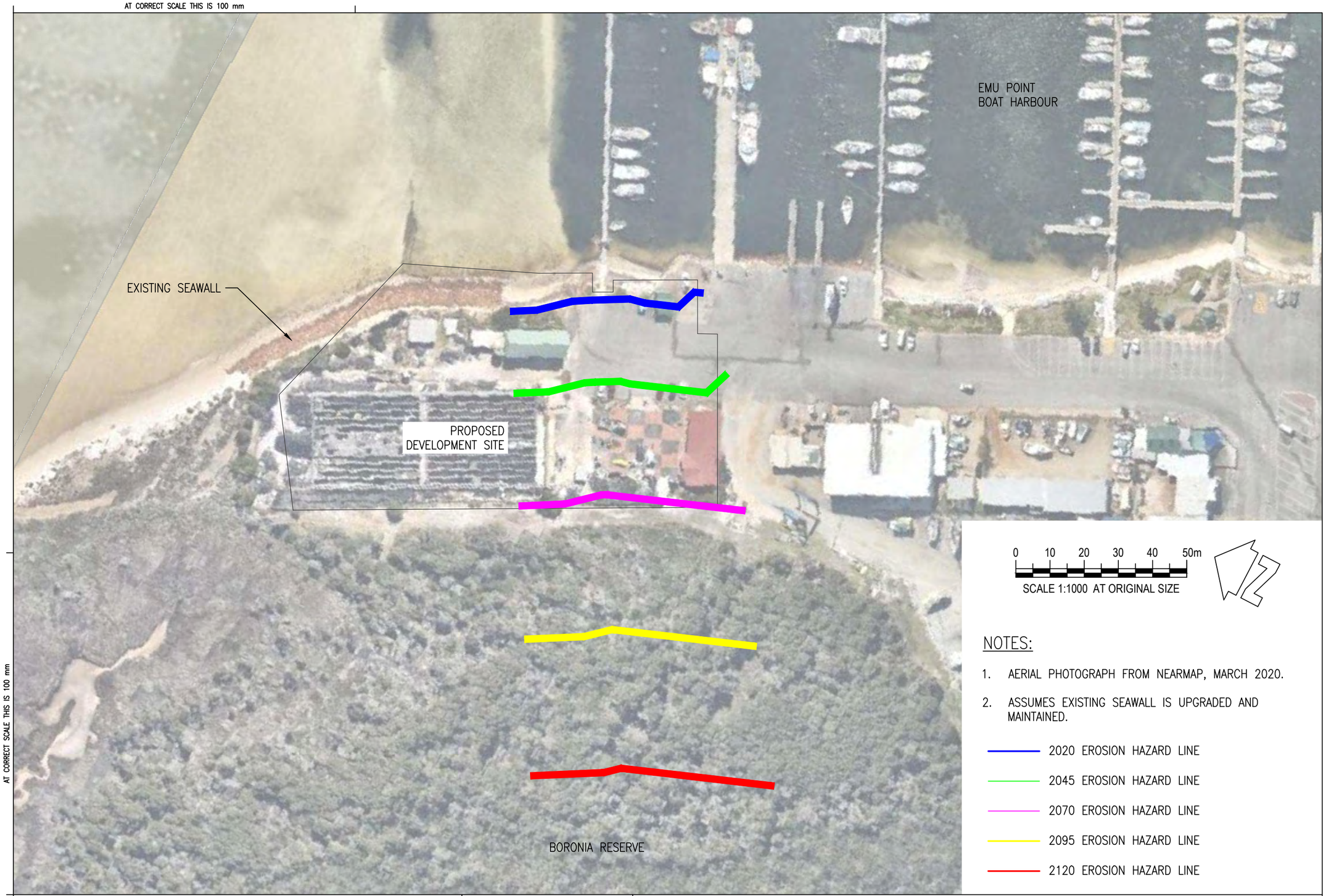
Lot Boundaries have NOT been re-established, plotted from SCDB only (+/-0.1m)
Adopted level for TBM from RTK VRS GNSS radiation only
Services Plotted are surface features located and
DBYD information received - approx. alignments only

SCALE 1:200 ON A0 SIZE PAPER

0 2 4 6 8 10

Appendix B Coastal Erosion Hazard Lines

AT CORRECT SCALE THIS IS 100 mm



AT CORRECT SCALE THIS IS 100 mm

0 10 20 30 40 50m

SCALE 1:1000 AT ORIGINAL SIZE

NOTES:

1. AERIAL PHOTOGRAPH FROM NEARMAP, MARCH 2020.
2. ASSUMES EXISTING SEAWALL IS UPGRADED AND MAINTAINED.

- 2020 EROSION HAZARD LINE
- 2045 EROSION HAZARD LINE
- 2070 EROSION HAZARD LINE
- 2095 EROSION HAZARD LINE
- 2120 EROSION HAZARD LINE

m p rogers & associates pl
coastal and port engineers
Suite 1, 128 Main Street
Osborne Park 6017 t: +61 8 9254 6600
Western Australia admin@coastsandports.com.au

DRAWN K WORTH
CHECKED T HUNT

COASTAL EROSION HAZARD LINES
EMU POINT TOURISM FACILITY

SCALE AT A3 1:1,000

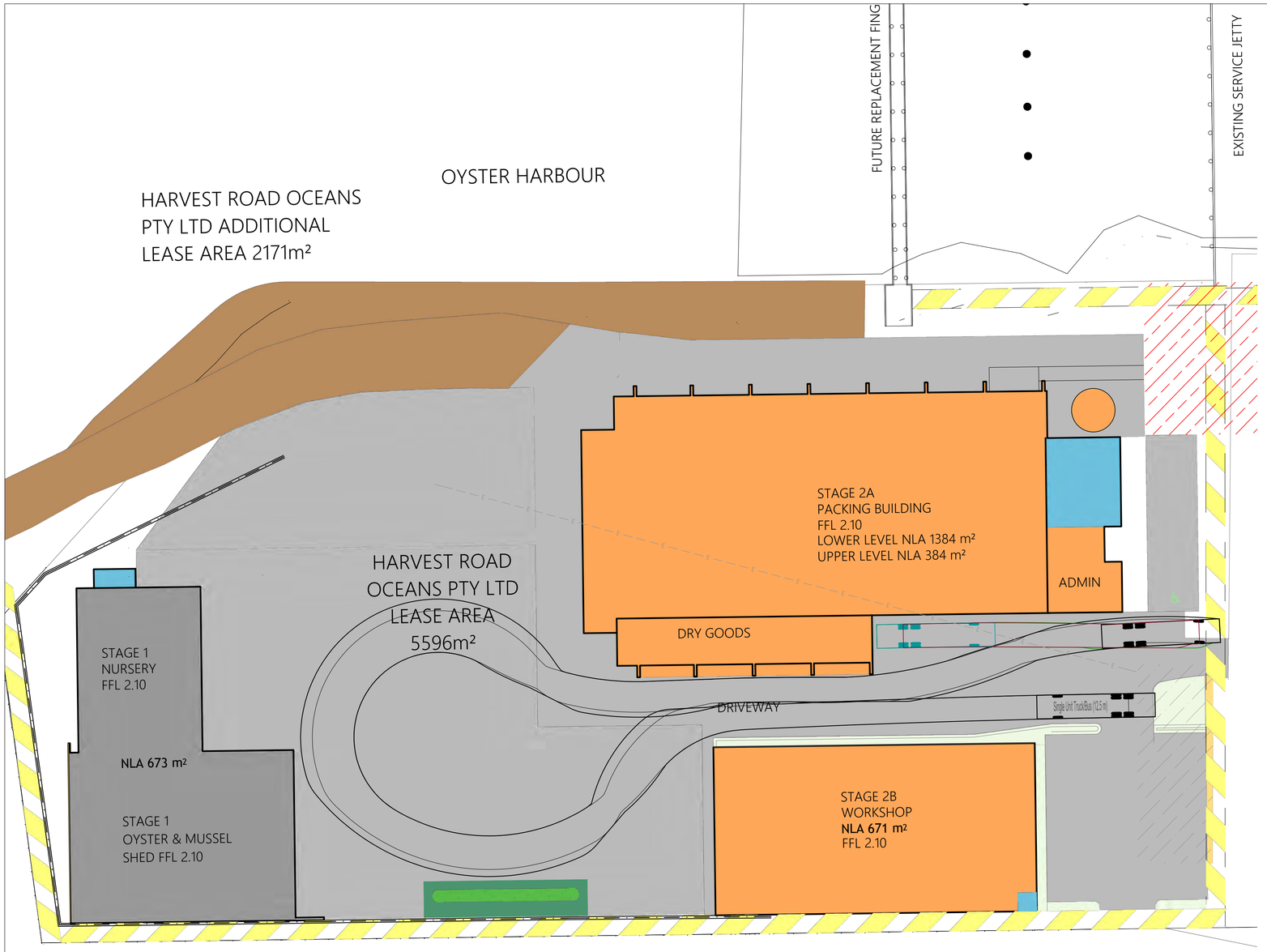
FEBRUARY 2021
SK1789-02C

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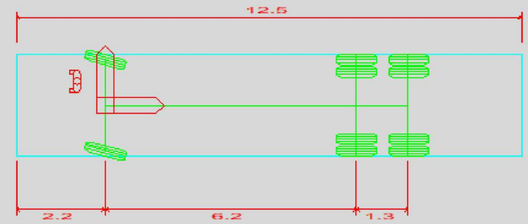
Appendix F – Truck Turning Template

DATE PLOTTED: 10/02/2021 3:38:55 PM BY: DURANTE, JULIA



VEHICLE TYPE

AUSTROADS 2013 SINGLE UNIT TRUCK.



Single Unit Truck/Bus (12.5 m)	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.490m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

1:250 2.5 0 2.5 5 7.5 10 12.5 A1
1:500 A3

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REV	DESCRIPTION	DRAWN	APPD	DATE
A	TRUCK SWEPT PATH	JD	FW	10/02/2021

HARVEST ROAD GROUP PTY LTD
ARCHITECT/CLIENT

ALBANY AQUACULTURE PROJECT,
EMU POINT - ALBANY
STAGE 2
TRUCK SWEPT PATH
PROJECT/TITLE

Stantec

SCHEMATIC DESIGN
NOT FOR CONSTRUCTION
CIVIL

COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV
MGA	mAHD	1:250	47289	CI-409-SK01	A

CAD FILE: 47289_CI-409-SK01 TRUCK TURNING MOV STAGE 2.DWG

Appendix G – Servicing Concepts

DATE PLOTTED: 12/08/2020 11:46:40 AM BY: HAWKINS, MATTHEW



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.

DIAL1100 BEFORE YOU DIG

0 5 10 20 50

A1 @ 1:1000 (A3 @ 1:2000)

REV	DESCRIPTION	DRAWN	APP'D	DATE
A	PRELIMINARY ISSUE	MJH	RP	12/08/2020

KEYPLAN

HARVEST ROAD OCEANS PTY LTD
PO BOX 3155
BROADWAY NEDLANDS WA 6009

ARCHITECT/CLIENT

OYSTER FARM EMU POINT, ALBANY
HIGH VOLTAGE UPGRADE

PROJECT/TITLE

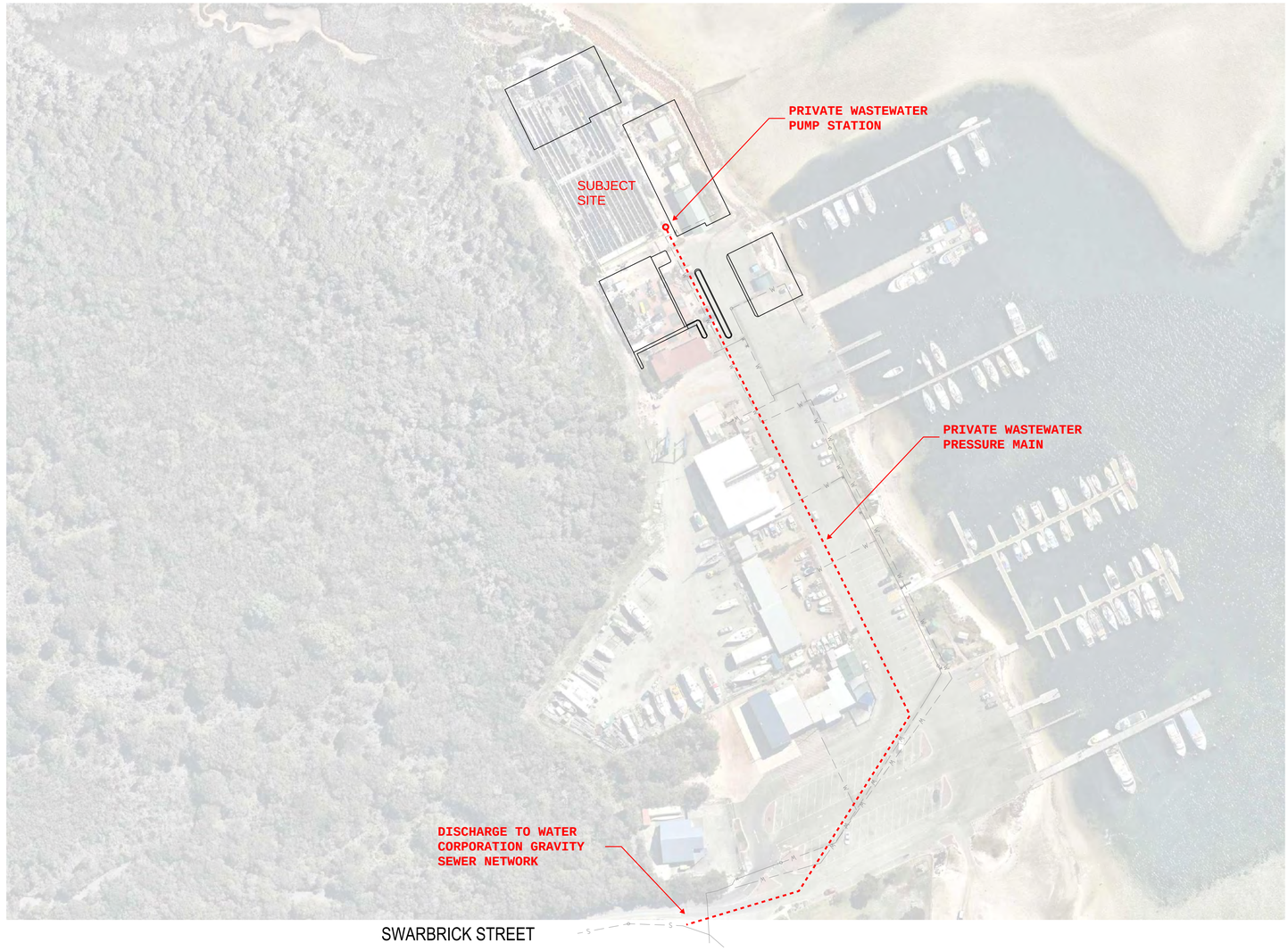
Stantec

PRELIMINARY
NOT FOR CONSTRUCTION
ELECTRICAL SERVICES

SCALE @ A1	PROJECT No	DRAWING No	REV
1:1000	47289	EL-300-SK1	A

CAD FILE: SKETCH.DWG

DATE PLOTTED: 12/08/2020 5:16:20 PM BY: DURANTE, JULIA



LEGEND

- PROPOSED WASTER WATER PRESSURE MAIN
- EXISTING SEWER
- EXISTING WATER

1:1000 10 0 10 20 30 40 50 A1
1:2000 A3

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REV	DESCRIPTION	DRAWN	APP'D	DATE
A	PRELIMINARY SKETCH	JD	FW	12/08/2020

TATTARANG

ARCHITECT/CLIENT

OYSTER FARM EMU POINT, ALBANY
SEWER PRESSURE MAIN

PROJECT/TITLE

Stantec

SCHEMATIC DESIGN
NOT FOR CONSTRUCTION
CIVIL

COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV
MGA	mAHD	1:1000	47289	CI-309-WW-SK01	A

CAD FILE: RECONFIGURATION LAYOUT.DWG

element.

Appendix H – Urban Water Management Plan

LEGEND

- PERMEABLE PAVEMENT
- ASPHALT/CONCRETE PAVEMENT
- BIOFILTRATION BASIN
- PROPOSED PIT/PIPE NETWORK
- SURFACE FLOW PATHS


PERMEABLE PAVING


BIOFILTRATION BASIN

STORMWATER MANAGEMENT PRINCIPLES AND DESIGN CRITERIA

- 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.

New Lease Area

PUBLIC ACCESS ROUTE

HARVEST ROAD OCEANS PTY LTD ADDITIONAL LEASE AREA 2171m²

BIOFILTER AREA (2% OF HARDSTAND CATCHMENT) = 27m2. OVERFLOW TO HARBOUR.

ROOF RUNOFF TO DISCHARGE DIRECT TO HARBOUR (TYP.)

DISCHARGE TO HARBOUR

47.44 PROPOSED LEASE BOUNDARY

EXISTING ROCK REVETMENT

45.67 PROPOSED LEASE BOUNDARY

MAJOR EVENT FLOW

BIOFILTER

28.22

17.1

6.73

7.89

NEW HARDSTAND

HARDSTAND AREA = 1,353m2

HARVEST ROAD OCEANS PTY LTD LEASE AREA 5596m²

FUTURE REPLACEMENT FINGER JETTY

RAMP NEW JETTY TO SUIT

EXISTING SERVICE JETTY

DISCHARGE TO HARBOUR

LOADING APRON

RAMP UP

EXISTING LEASE BOUNDARY 27.05

STAGE 2A PACKING BUILDING FFL 2.10 LOWER LEVEL NLA 1384 m² UPPER LEVEL NLA 384 m²

Res 3864

ADMIN

PUBLIC ACCESS ROUTE

NO PARKING - TRUCK ACCESS AND TURN AROUND

33.35

DISABILITY ACCESS RAMPS

PUBLIC CARBAYS

SIGN "NO THOUGH ROAD"

4.43

SLIDING 5m SECURITY GATE

TRUCK PATH

EXISTING LEASE BOUNDARY

BIOFILTER

BIOFILTER AREA (2% OF HARDSTAND CATCHMENT) = 12m2. OVERFLOW TO HARBOUR.

30.57

STAGE 2B - DEMOLISH EXISTING ADMIN & INSTALL NEW CARPARK

STAGE 1 NURSERY FFL 2.10

NLA 673 m²

STAGE 1 OYSTER & MUSSEL SHED FFL 2.10

34.4

EXISTING LOT BOUNDARY

PROPOSED LEASE BOUNDARY

NITROGEN TANK

DRY GOODS

DISPATCH

NEW HARDSTAND

DRIVEWAY

RAMP UP

TRUCK PATH

HARDSTAND AREA = 605m2

HARDSTAND AREA = 988m2

STAGE 2B WORKSHOP NLA 671 m² FFL 2.10

7 CARBAYS

7 CARBAYS

9 CARBAYS

PROPOSED LEASE

BIOFILTER

NEW 2m WIDE FOOTPATH AND FENCE

EXISTING LEASE BOUNDARY

81.53

NEW 2m WIDE FOOTPATH

EXISTING LEASE BOUNDARY

43.77

MAJOR EVENT FLOW

RESERVE

1423

0m 5m 10m 20m

1/01 SITE PLAN – STAGE 2
1:250

BIOFILTER AREA (2% OF HARDSTAND CATCHMENT) = 20m2. OVERFLOW TO HARBOUR.

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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	30.11.20	NET LETTABLE AREAS SHOWN
H	1.12.20	ADDITIONAL LEASE BOUNDARY ADJUSTED
J	14.12.20	ADJUSTED PACKING SHED, CARPARKING & BOAT RAMP
K	15.12.20	ADJUSTED PACKING SHED & BOAT RAMP
L	16.12.20	ADJUSTED TRUCK ACCESS, DISABILITY & PUBLIC ACCESS WAY
M	16.12.20	ADJUSTED PUBLIC ACCESS WAY & CARPARKING
N	04.01.21	ADJUSTED LEASE BOUNDARY, TRUCK ACCESS & CARPARKING
P	12.01.21	OYSTER SHED UPDATED
Q	14.01.21	BOAT RAMP, PACKING BUILDING & HARDSTAND UPDATED
R	15.01.21	HARDSTAND UPDATED
S	19.01.21	PACKING SHED UPDATED

CLIENT
HARVEST ROAD

CONSULTANT

telephone: (08) 9841 5455
admin@rgarchitects.com.au
ABN 90 308 204 743
P.O.Box 1502, Albany, WA 6331

Roberts Gardiner Architects

PROJECT TITLE
ALBANY AQUACULTURE PROJECT
EMU POINT
ALBANY

DRAWING
STAGE 2 - SITE PLAN

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Urban Water Management Plan BY: Fred Wallefeld
ALBANY AQUACULTURE PROJECT

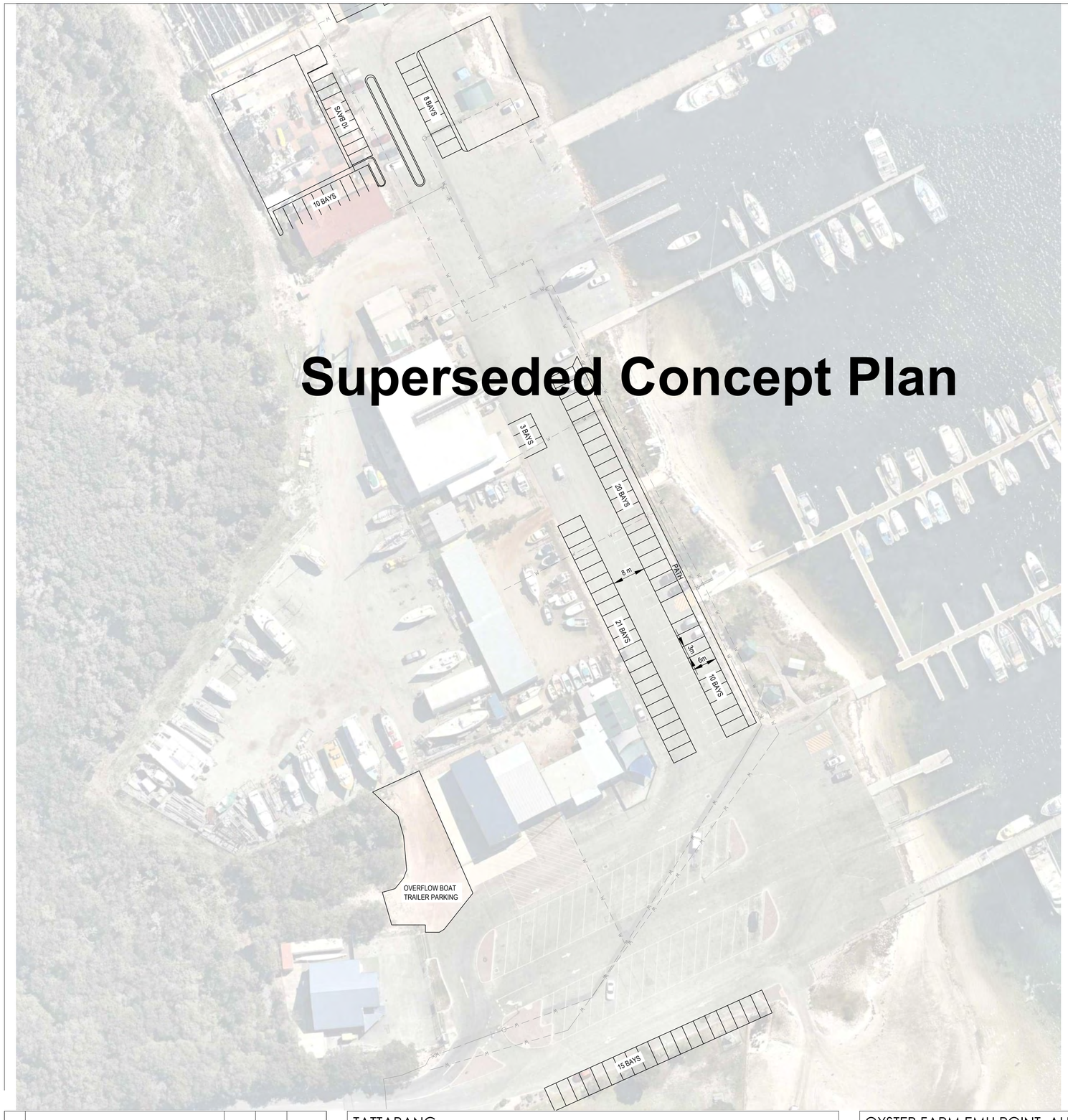
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PROJECT No	SKETCH No	DATE	REV

DESIGNED MR	DRAWN DG	SCALE 1:250 @ A1 (1:500 @ A3)	
VERIFIED	APPROVED MR	DATE 19-01-21	
PROJECT NUMBER 20-021		DRAWING NUMBER A-02	REVISION S
CAD FILE SITE PLAN OPTION 1.DWG			

element.

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

REV	DESCRIPTION	DRAWN	APP'D	DATE
B	PRILIMINARY SKETCH WITH LAYOUT AMENDMENTS	JD	FW	12/08/2020
A	PRELIMINARY SKETCH	JD	FW	28/07/2020

TATTARANG
ARCHITECT/CLIENT

OYSTER FARM EMU POINT, ALBANY
CARPARK RECONFIGURATION CONCEPT
PROJECT/TITLE

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CIVIL

COORDS	DATUM	SCALE @ A1	PROJECT No	DRAWING No	REV
MGA	mAHD	1:500	47289	CI-059-SK01	B

element.

the art and science of place

Level 18, 191 St Georges Tce, Perth WA 6000
T. (08) 9289 8300 – **E.** hello@elementwa.com.au
elementwa.com.au

DEVELOPMENT APPLICATION P2210088
PUBLIC/GOVERNMENT AGENCY SUBMISSIONS
Site details: 2 Swarbrick Street, Emu Point
Application details: Aquaculture (Stage 2)

No.	Government Agency/Public Summary of Submission(s)	Proponent Comment	Officer Comment and Recommendation
	AGENCY SUBMISSIONS		
1.	**Department of Planning, Lands and Heritage – Aboriginal Heritage Operations** The Department of Planning Lands and Heritage (DPLH) notes the development proposal abuts registered Aboriginal site ID 636 (Oyster Harbour) but does not encroach on the area. As such, the DPLH does not have any comment to make regarding the query.	Noted.	Noted.
2.	**Department of Planning, Lands and Heritage** Comments on the proposal are provided below reflecting advice from across the Department's full portfolio. <u>Land Use Management</u> The subject site is Reserve 42964 for the purpose of 'Marine and Associated Purposes' which includes the power to lease. A lease to Harvest Road Oceans Pty Ltd (HRO) by the City of Albany (City) (O4199841) was registered on 4 April 2020 for aquaculture activities over a portion of Reserve 42964. An excision from Reserve 42964 is required to facilitate the full extent of the development application (DA). A lease arrangement will need to be finalised between the City and the Department. The lease will occupy the same footprint (subject to survey) as the 'Proposed Lease Boundary', shown on page 21 Drawing Stage 2 – Site Plan A-2.0 Revision W of the February 2021 DA.	Noted.	Noted.

	The excision will require: • A redescription and Survey of the Reserve to exclude the area of the proposed lease boundary; • A surrender of the existing Lease O4199841; • A Head Lease between the State and the City; and • A sub-lease between the City and HRO the proceeds used towards the upkeep and maintenance of Reserve 42964. There is an expectation from the City and HRO that the Head lease will be consistent with other leases in the Emu Point Reserve and be granted for 50 years. Negotiation of the new lease term will consider internal Departmental advice. The DA documentation has a recommendation 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." LUM notes that the seawall is contained within: • The proposed lease area as identified in the DA; • Adjacent Class 'A' Reserve 6862 for Protection of Boronia; and • Land and Water below the High-Water Mark being Oyster Harbour. LUM recommends that the City progress an excision from Reserve 6862 to enable the orphan seawall to be captured under Reserve 42964 to address any uncertainty of responsibility of maintenance going forward. <u>Heritage</u> Please see prior advice provided on Stage 1 of the Development Application (dated 19 November 2020) which is also relevant for Stage 2.	Acknowledged. DPLH Aboriginal Heritage Operations notes the development proposal abuts registered Aboriginal site ID 636 (Oyster Harbour) but does not	Noted. This will be addressed with an Advice Note as per Stage 1.

	Land Use Planning Please see prior advice provided on Stage 1 of the Development Application (dated 19 November 2020) which is also relevant for Stage 2. The Western Australian Planning Commission's suite of State Planning Policies should also be used by the City to guide consideration of the above site-specific matters, where relevant. Coastal Planning The following comments are in addition to the advice provided on Stage 1 of the Development Application (dated 19 November 2020). It is understood that a future boat ramp for use by the Harvest Road facility and extension of the seawall/revetment will be subject to a future and separate development application. Both M.P. Rogers & Associates' Emu Point Preliminary Hazard Assessment (August 2020) and the Preliminary Coastal Hazard Assessments (February 2021) submitted with the proposals indicate the site will be impacted by erosion and inundation over the 100-year planning timeframe set out in Schedule 1 of SPP 2.6. In the present day (2020), the seawall offers protection to the facility. However, the erosion hazard line shown in the assessment for 2020 is located within the site where no revetment/seawall is located and it indicates the proposed development area would likely be impacted by erosion between 2045 and 2070. Therefore, development within Stage 2 is likely to be impacted within this timeframe. The assessment recommends the 'protect' risk management and mitigation measure under SPP 2.6 Guidelines to mitigate erosion risk; that is, by extending the existing seawall to protect the unprotected shoreline. This option is contingent on the existing revetment/seawall being inspected to confirm its condition and suitability to adequately protect the site, as well as upgrading if deemed necessary, and extension.	encroach on the area. This can be appropriately addressed via an Advice Note (as per the Stage 1 DA). The previous advice noted that: "*the proposal generally aligns with strategic directions of the Western Australian Planning Commission's (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.*" This in-principal support is acknowledged. Noted. This can be appropriately addressed via a Condition of any approval (as per the Stage 1 DA).	Noted. Prior to the commencement of development, the applicant will be required to provide an updated Coastal Hazard Assessment to the City of Albany for approval. Prior to occupancy, the coastal protection measures identified in the approved Coastal Hazard Assessment should be implemented and maintained thereafter to the satisfaction of the City of Albany. The applicant has been advised that the Coastal Hazard Assessment shall include an inspection of the existing seawall by a suitably qualified expert to confirm its condition and suitability to adequately protect the site. Any requirements for repairs or extension of the seawall shall be implemented at the lessee's cost.

	Approximately 35% of the proposed packing facility in Stage 2 between the area of the existing finger jetty and the service jetty is not currently or proposed to be protected by a revetment/seawall. Notwithstanding the area around the jetties is understood to be subject of negotiations with the Department of Transport (DoT), satisfactory extension of the revetment/seawall should be included as a condition of approval. The Assessments also highlight the risk of inundation over the planning timeframe and recommend the 'accommodation' measure to manage and mitigate inundation; that is, by taking measures through the design, construction and management of the site that acknowledge the risk. The inundation risk is recognised in the City's policy, Development in Flood Prone Areas, in which development is recommended to have a minimum finished floor level (FFL) of 3.02m AHD. It is noted that the proposed FFL of the packing facility is 2.10m, which does not comply.	These risks are acknowledged and can be appropriately flagged via an Advice Note (as per the Stage 1 DA).	The applicant has advised that increasing the finished floor levels of buildings to 3.02AHD would significantly impact the ability of forklifts and other machinery to access the buildings. However, buildings have been designed in a way which will allow them to safely withstand a flood event, with all sensitive equipment and electrics located above the required finished floor level. It is 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. It is also recommended that an advice note be attached indicating the City's preference that all buildings be built up to 3.02AHD as per the Policy requirement.

3.	**Department of Water and Environmental Regulation** Thank you for providing the for the Department of Water and Environmental Regulation (DWER) to consider. DWER has identified that the proposal has the potential for impact on water resource values and/or management. While DWER does not object to the proposal key issues and recommendations are provided below, and these matters should be addressed: <u>Acid sulfate soils</u> As potential ASS exist within the area, ASS investigation should be undertaken as part of any ground disturbing works or excavation including servicing of the sewerage main if this needs to be buried at depth. <u>Waterways Conservation Act 1976</u> DWER should be consulted regarding dredging, dewatering or construction of the boat ramp, jetties, sea wall in accordance with previous advice provided regarding Stage 1 to determine if certain activities require approval. <u>Mechanical servicing</u> There should be no machinery servicing at the site to avoid the risk of hydrocarbon spills. Only small quantities of fuels should be stored within bunded areas (<500 l) and refuelling restricted to a fully bunded areas where oil wastewater separation traps are installed. <u>Coastal risk management and adaption strategy</u> Recommendations to accommodate short term flooding and inundation through development design and management including appropriate management plans/measures for events need to be addressed to protect water quality in the estuary. It is recommended that appropriate bunding design and standards is added to the list of measures in the report for development to accommodate flooding and inundation.	 This can be appropriately addressed via a Condition of any approval, to require the preparation and implementation of an acid sulfate soils management plan should any acid sulfate soils be encountered during site works. Noted. Noted. 1,000L Diesel and petrol currently. Will prepare a management plan. These risks are acknowledged and can be appropriately flagged via an Advice Notes (as per the Stage 1 DA).	 The site contamination branch of DWER previously advised that stockpiled hydrocarbon-impacted soil were removed from site in June 2020 and as a result the site is now suitable for the proposed development. These works do not form part of the development application. Noted – this will be implemented as an advice note. The applicant has advised that increasing the finished floor levels of buildings to 3.02AHD would significantly impact the ability of forklifts and other machinery to access the buildings. However, buildings have been designed in a way which will allow them to safely withstand a flood event, with all sensitive equipment and electrics located above the required finished floor level.

	<u>Stormwater management</u> DWER is supportive of the current version of the UWMP stormwater management principles and design criteria. Recent case studies by DWER on use of permeable paving suggest this is highly effective in reducing stormwater run-off from car parking areas. Use of tree pits should be considered within design. Other measures including collection of roof runoff for re-use will also help reduce stormwater run-off from the site. High groundwater levels and soil permeability will need to be assessed for appropriateness of measures to increase infiltration across the site. Appropriate vegetation species selection for biofiltration areas should be sought and use of small trees should be considered to maintain performance of these areas as these support many beneficial microbial processes. Design of the discharge points should be undertaken sympathetically with the environment and to prevent scouring. Will the stormwater drainage outlets be located below sea water level? Potential exists for the outlets to be buried to reduce risk of scouring. If located above water level, to ensure effectiveness of stormwater outlets and prevent seawater ingress back through to the infiltration basins valves should be incorporated. Design of major storm event runoff to the reserve should ensure public access is maintained and not impacted by flooded areas. Culverts may need to be installed across the footpath for this purpose. <u>Car parking</u> As the additional carpark concept is located outside the Harvest Group lease area this infrastructure should be considered as part of the City of Albany's precinct planning for Emu Point. In the event the concept is supported by the City it should be designed to enhance the amenity of the foreshore at Emu Point and include landscaping/ revegetation at the interface.	Noted. Noted. All required carparking is provided within the lease line (38 bays).	It is 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. It is also recommended that an advice note be attached indicating the City's preference that all buildings be built up to 3.02AHD as per the Policy requirement. Stormwater comments noted. The City has prepared a draft concept plan for improvements to vehicle parking, manoeuvrability and pedestrian movement within the Reserve which includes provision for landscaping.

4.	**Department of Transport (Maritime)** I refer to your referral of the Stage 2 Development Application of the Harvest Road Aquaculture Project at Emu Point. Maritime's comments on the application are limited to the impact of the proposal on marine infrastructure and operations at Emu Point. Following a review of the documentation provided, DoT has no objection to the proposal. Some reservations need to be addressed through the following conditioning of a Development Approval: • The lease boundary abuts DoT's Harbour Boundary along the sea wall/ revetment. No obstructions of vehicle and pedestrian access by any building, structure, fencing or retaining will be permitted within 15m from DoT's Harbour Boundary along the sea wall/ revetment. • The proponent is to initiate negotiations with DoT for approval to gain access into the water within two years of the date of Development Approval. • Any seawater intake piping infrastructure in the harbour for this project is to approved by DoT. • Any used water discharge piping infrastructure in the harbour is to be approved by DoT.	Noted. We would propose that a management arrangement be entered into with DoT to allow for the desired occasional maintenance access, as the building is proposed within 15m. Noted, this can be appropriately flagged via an Advice Note. Noted, this can be appropriately flagged via an Advice Note. Approval received from DWER. Noted, this can be appropriately flagged via an Advice Note.	Noted Further discussions with DoT revealed that a 5m wide, level service corridor from the water line would be sufficient to meet DoT requirements. This requirement is recommended to be implemented as a condition of planning consent. Noted – and applied as an advice note. Noted – and applied as an advice note. Noted – and applied as an advice note.
5.	**Department of Primary Industries and Regional Development** Thank you for inviting the Department of Primary Industries and Regional Development (DPIRD) to comment on the above proposal. DPIRD does not object to the proposal.	Noted.	Noted.
6.	**Department of Fire and Emergency Services** Further to your request to comment on stage two of the aquaculture facility at Lot 501 Swarbrick Street, Emu Point and provide comment on the stage one Development Approval to inform the drafting of conditions for		Due to the existing legacy situation, compliance with these elements is unable to be realistically achieved. These elements have been addressed extensively by a Level 3 BPAD practitioner and it is considered

	stage two, the Department of Fire and Emergency Services (DFES) provides the following comments. These comments are limited to those conditions and matters related to State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7) and the Guidelines for Planning in Bushfire Prone Areas (Guidelines). DFES previously commented on version 3 of the Bushfire Management Plan (BMP) dated 27 January 2021 and recommended that the proposal not be supported due to non-compliance. DFES notes that the development is now proposed to be staged and the lease boundary has changed; however, the BMP has not been amended. The BMP should be further updated to reflect these further details and change in site conditions. Specifically, the BMP should additionally acknowledge the staging of the works and confirm the responsibilities for the establishment and ongoing maintenance for the 2m wide public access route given it now largely falls outside of the lease area. Notwithstanding that the Development Application for the works for stage one has been approved, DFES' previous recommendation on 2 March 2021 that the development is not supported due to non-compliance remains unchanged. Attention is drawn to clause 4.6.2 of the Guidelines which states that "As the BMP is a document that should apply for the life of the development, the decision-maker should require modifications to the document in the event there are discrepancies, prior to endorsement and/or approval of the planning application being granted." The BMP should be amended prior to determination of the	Notwithstanding DFES' previous recommendation that the stage one development not be approved, this has been approved by the City of Albany, with a condition requiring the BMP and BEEP to be implemented and maintained, along with firebreaks and an asset protection zone to be maintained. The same approach can be applied to this stage two development application.	the proposal can proceed without pedestrian safety being compromised in the event of a bushfire. It is recommended that an updated BMP be provided, along with a BEEP to the satisfaction of the City of Albany to appropriately address the matters raised by DFES.

	Development Application for the stage two works. Notwithstanding DFES' recommendation and the above direction in the Guidelines, DFES supported that the marine workshop and the oyster and mussel sheds/nursery be constructed to the AS3959 standard for BAL-FZ. This bushfire mitigation measure is referenced in figure EX 1 and the section in the BMP addressing the Responsibilities for Implementation and Management of Bushfire Measures. It is unclear from the stage one Development Approval conditions whether the City is seeking to require construction to the AS3959 standard and, if so, how such enforcement will be undertaken if not through a condition of Development Approval.		
7.	**Department of Health** The DOH provides the following comment: The development is required to connect to scheme water and reticulated sewerage and be in accordance with the Government Sewerage Policy 2019. All food related areas (kitchen, preparation areas, etc.) to comply with the provisions of the Food Act 2008 and related code, regulations and guidelines. Details available for download from: http://ww2.health.wa.gov.au/Articles/F I/Food-regulation-in-WA All food related aspects to comply with the provisions of the Food Act 2008 and related code, regulations and guidelines and in particular Standard 4.2.1 Primary Production and Processing Standard For Seafood. The development is also to comply with requirements of the Department of Primary Industries and Regional Development and include an Aquaculture Management and Environmental Monitoring Plan (MEMP).	It is proposed to connect the development to the Water Corporation gravity sewer network via a private wastewater pressure main and pump station, as shown in the servicing concept drawing included at Appendix G of the DA report. The remaining comments are noted.	Noted – reticulated sewer and water connections will be implemented as a condition of planning consent.

	http://www.fish.wa.sov.au/Search/Results.aspx?k=Aquaculture%20Manaqement%20and%20Environmental%20Monitorino%20Plan		
	PUBLIC SUBMISSIONS		
8.	Please pass on our support of the Leeuwin Coast Aquaculture Facility. We believe it will assist in bringing more employment opportunities and recognition to the region.	Noted.	Noted
9.	I am in full support of the construction of the proposed Leeuwin Coast Aquamarine Park at Emu Point. Apart from the obvious business & tourist benefits to our lovely town of Albany, the advantages to people living with disability will be enormous. I work in the disability sector as an organiser & facilitator of sport, recreation & leisure experiences for those local people who need support in community involvement. Every Friday morning, my people enjoy Fishability on the service jetty at Emu Point. The proposed infrastructure of the Aquamarine Park would add toilets, gardens & a recreation area for participants as well as promote a better connection between tourists, locals, community members, business people & those living with disability. Furthermore, as a local resident, my family; who frequents Squid Shack, Emu Piont Cafe & fishing & swimming around Emu Point; would enjoy the food & drink benefits the oyster & seafood business would bring to the area. I am fully supportive of the proposed Leeuwin Coast Aquamarine Park at Emu Point.	Noted.	Noted
10.	I've looked at the application and provide my comments: I am a ratepayer in the City of Albany I fully support the application for the following reasons;	Noted.	Noted

	1. The scale and scope of the development is entirely consistent with the physical capacity and designation of the site. 2. There are no deleterious affects on the amenity of the surrounding land. Therefore the application should be approved with only the minimum and necessary conditions. All the best		
11.	As a member and representative of the Albany Boating and Fishing Club, I support this application 100%. The benefits to the environment, the community and the "tidying up" or improvement of Emu Point is welcomed and supported with a recommendation from the club to approve. I trust this meets with your approval.	Noted.	Noted
12.	We have consistently raised issues with the proposed Oyster farming and processing facility being proposed for the Emu point Public Marina. We have hosted two public meetings on the issue and these have been very well attended by local residents. We have over 90 members and is simply motivated to ensure Emu Point and the wider community are informed about issues affecting the area and have every opportunity to be fully engaged on issues that affects their lives and livelihoods. This includes promoting improvements and new ventures consistent with the character and planned land use in the area. We appreciated the City's agreement to our request to extend the period of public comment on the Oyster farming and processing facility to June 11, 2021 to allow the community the opportunity to consider the issues at a public meeting and to ensure the community had the best opportunity to understand the proposal and make appropriate comment. Without doubt the most controversial aspects of the introduction of significantly expanded aquaculture		Noted

	into the Albany coast has been concern about the environmental impacts and also the proposed expansion of the aquaculture and oyster processing facility at the Emu Point Marina. At both of the public meetings, collectively attended by over 100 people, there were consistent concerns raised by the entire group and unanimous resolutions were passed after presentations and discussion on aquaculture and associated proposals. For the purpose of the input into this development application we would like to identify the issues the community as a whole has raised and ensure that it is understood that these come from the broadest possible cross section of the community. 1. <u>Emu Point precinct plan and Marina land use plan is required</u> The absence of a clear precinct and land use plan for Emu Point and for the Emu Point Marina is a glaring omission in the planning and development process. Simply put, the proposed development of the Aquaculture facility and oyster processing facility at the industrial size and scale proposed is out of context and out of character for the Emu point Marina. The Marina is home to many community based organisations including Disability Fishers, Dragon Boat racers, Sea Search and Rescue, Albany Boating and Fishing Club, Kalgan River Queen tourist venture, public boat ramps and of course it is a popular, swimming and recreational facility for many Albany families. The Marina area of Emu Point is particularly attractive to Albany families with small children due to its sheltered and shallow waters.	Suggesting 'the community as a whole' has raised specific concerns is not correct. As evidenced by the multiple letters of support drawn from Albany residents, business owners and ratepayers, including those who work, recreate and reside in Emu Point, there is also clear support for the current application. The City's Local Planning Scheme clearly sets out the contemplated land uses and development outcomes for Emu Point, via the Restricted Use provisions. The 'conditions' set out for the Emu Point Restricted Use area do not envisage a precinct plan and simply state that development requirements will be determined by the City as part of the assessment of an individual development application. The City may wish to prepare a masterplan for the Emu Point precinct at a future point in time, however this is most appropriately led by the City, rather than an individual proponent (lessee). The proposal is consistent with the past and existing uses on Lot 501 as the site was previously used as an oyster processing facility. Descriptions of the proposed structures as 'industrial size' and 'out of character' for the area are subjective and somewhat misleading when viewed in the context of the commercial footprint of the pre-existing aquaculture facilities on site, plus its ongoing operation in Emu Point since the early 1990s, making that business a character of the area for more than 25 years.	In regards to the scale of the development, no maximum size requirements apply to the R2 area or the Reserve. The height of the structures is compatible with height of other structures within the Reserve and the facility is broken up into a number of buildings in order to minimise visual impact. Requests for the preparation of a precinct and land use plan for the wider Emu Point area are noted, however the application must be assessed against the applicable planning framework at the time of submission. Land uses considered appropriate for the Reserve are identified in the 'Restricted Use 2' (R2) provisions of LPS1. The 'Aquaculture' use is consistent with R2 requirements. The applicant has advised that all staff parking will be accommodated on site. This is recommended to be implemented as a condition of planning consent. The City has development a draft concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements.

	The Marina is already heavily congested with cars, boats and boat trailers and pedestrians, with parking almost always unavailable at peak periods. The introduction of a large industrial development at the end of the Marina operating 15 hours a day, land locked by an A class reserve on two sides and Oyster harbour at the front makes no planning sense. There is no room for growth and all of the extra traffic both trucks and employees will all travel through the public areas of the marina and use the single road in and out of the marina and Emu Point. While the Marina has been able to accommodate associated businesses such as a restaurant, marine services and boat lifters it has not seen large scale industrial processes to the extent proposed under this development application. The current commercial enterprises (including the previous Oyster farming venture) have worked well with the local communities use of the Marina and these organisations have largely respected the public nature of the marina as being the first priority. The Emu point community through its representations to the Friends of Emu Point have made it very clear they do not support a large scale industrial development at the Emu Point Marina without there being a clear land use and precinct plan that identifies how all of these enterprises and their growth into the future and their impact on the community amenity will be accommodated. 2. <u>Expansion of the existing Lease is not supported</u> The Harvest Road proposal for Emu Point marina has changed considerably over time • Originally a Restaurant, Tourist facility, Oyster farming and processing employing almost 90 people. Processing 80 million Oyster a year. (More than all of NSW). The City of Albany circulated the application for comment and 54 residents of Emu Point opposed the development in that form.	A maximum of four truck movements per week is anticipated during the peak months (November to May), and four truck movements per day outside of peak months. It is expected that Swarbrick Street and Emu Point Drive have sufficient capacity to accommodate the protected increase in truck movements. It is noted that public comments from Emu Point residents, business and visitors in strong support of the application have been received by the City indicating clear levels of community support. These comments relate to the Lease, rather than the DA advertised. The proposed aquaculture facility is consistent with the Emu Point Restricted Use area provisions set out in the City's Local Planning Scheme.	The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee.

	• Stage 2 now proposes Oyster processing facility 2,000 Tonnes, half South Australia's Oyster production (possibly to be reduced to 730 Tonnes) and employment of less than 40 people but still operating 15 hours a day and with an extra 2,170 square metre or 40% increased lease of Crown Land and exclusive access to the waterfront and final Jetty with no public access through this area. The single most controversial aspect of this latest development application is that the buildings assume approval for expansion of the existing lease area, including the waterfront being provided to Harvest Road. While this represents a clear commercial benefit, there is no clear community benefit and no clear justification and no apparent advertising of the new lease. • This lease area covers the potential tourist entry point to the Northern reaches of Oyster harbour, an A class nature reserve with many species of endangered migratory birds. Indeed, proposals have been made to develop a walkway along the waterfront to the Aboriginal Heritage fish traps further North. • This lease, if approved, will mean tourists and other visitors seeking access to the A Class reserve or walking the annual "Septimus Roe" walk around Oyster Harbour, will need to walk around the rear of the Oyster processing facility, passing the biofiltration ponds. • The facility design and lease expansion is not supported as it is for twice the amount of Oysters that DPIRD has been recommended as the environmentally sustainable carrying capacity of the aquaculture Zones (under review). • The development application seems to assume that if the lease expansion is granted it will not	Comments relating to production estimates (and those of other jurisdictions) are not relevant to this Development Application. It is important to note that the production volumes that our facilities have been designed to cater for under the DA are not from Albany alone. Harvest Road have extensive lease networks that extends from Carnarvon to Albany. All of these leases will be used to achieve our production targets, with stock spending a portion of their lives at different locations before finalising their journey to Market at the Albany facility. As such, the production numbers HRG have indicated and any considerations around carrying capacity cannot be directly compared. This information has been communicated to several interested community groups throughout our consultation process, Including the Friends of Emu Point. This comment is considered to be beyond the scope for the DA advertising, as it relates to the lease. The Applicant has a strong commitment to environmental sustainability and, as such, does not support the destruction of A Class reserve. The Applicant proposes to work collaboratively with community stakeholders via an easement created to maintain safe access to northern reaches of Oyster Harbour. This would increase pedestrian safety by decoupling their movements from commercial and non-commercial vehicle movements across the rest of the precinct. As stated above, statements regarding production estimates and carrying capacities are beyond the scope of this DA advertising.	The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense and ensure suitable arrangement are made with the City to offset the resulting loss of sealed surface area and associated parking opportunities.

	be put to tender or more widely advertised, but will simply be offered to the commercial operator, Harvest Road. This will effectively deny any other aquaculture providers from using the location for aquaculture services.	Harvest Road's application does not preclude potential competitors from making future development applications to support their own production. It is however important to note that the area proposed to be added to the lease could not be operated by other operators as it would directly inhibit Harvest Road's access to their site.	
	• No other users of the Public Marina have been given the opportunity to expand their leases onto the Waterfront. This includes Boat Lifter service, Restaurant, marine services, Volunteer Sea Rescue and the Boating and Fishing Club. All have a significant set back from the waterfront. If agreed this sets a new precedent for the Marina.	Other stakeholders will retain access to the waterfront.	
	• Cutting off access to the waterfront is contrary to the City of Albany planning strategy 2019 which makes clear that it does not support developments this close to the foreshore.		
	• More generally, the broader State policy is not to support commercial leases over Crown Land of this kind.	This is incorrect. The DPLH has provided in-principal support for the DA, with the following advice: "*the proposal generally aligns with strategic directions of the Western Australian Planning Commission's (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.*" This in-principal support is acknowledged.	
	• All parking, congestion, vehicle movements and activity previously conducted in this area of the waterfront are now pushed south away from the Harvest Road Lease.		
	• Eight additional truck trips per day as well as staff travel through an already heavily congested and mixed use marina area is a potential safety issue and will raise further traffic issues along Swarbrick Street, Emu Point Drive, Troode and ultimately Ulster Roads.	See adjacent comment on improving pedestrian safety. The local road network has the capacity to accommodate four additional truck movements per week, plus additional staff car movements.	
	• The proposed development buildings could be accommodated within the existing lease boundaries without cutting off waterfront access and without major disruption to the community use of the broader area.		
	• A more logical location for this size and scale of industrial development is at the Albany Port	Leeuwin Coast's site at Emu Point has supported shellfish operations for many decades. The site provides direct access to the calm and pristine waters	

	where facilities are in place to support it, including truck and boat traffic, and land is available for future growth and expansion. 3. <u>Other questions and comments raised</u>	of Oyster Harbour which is key to the integrated nature of operations and the proposed facility. The site also supports the use of oyster punts, the small and unintrusive vessel that make up the majority of the operational fleet. These vessels can only operate in calm waters and the location of our site facilitates their safe launch and retrieval with minimal interruption to the local community.	
	• The waste management plan is inadequate. If the City had contacted counterparts in other States it would have found this is a major issue in areas where Oyster processing is conducted, especially NSW. The quantity and type of waste and the frequency of disposal needs to be made clear. The purpose of the biofiltration ponds needs to be explained. The disposal of up to 20% attrition of the Oysters also needs to be explained. It also needs to be confirmed that no waste will be dumped into the harbor.	It is noted that the City was generally satisfied with the Waste Management Plan submitted with the Stage 1 DA, with a condition placed on this approval to require some minor updates, and then its implementation. This can again be appropriately addressed via a Condition of any Stage 2 approval.	The applicant will be required to provide an amended Waste Management Plan (WMP) be submitted to reflect amendments to the proposal which were not considered in the WMP provided.
	• The operation of the facility for 15 hours a day will add noise, lights and disturbance and is not supported as it is inconsistent with the local environment and there is an insufficient buffer with other residential and public use of the marina.	Noise mitigating materials will be used in construction and will restrict disturbance of the community. The completed development will need to comply with the Noise Regulations in any case.	A condition is recommended to be imposed requiring the development to comply with the Environmental Protection (Noise) Regulations 1997 (WA) at all times. Further, a condition is also recommended to ensure the property does not prejudicially affect the amenity of the neighbourhood by, but not limited to, the emission of noise, vibration, smell, smoke or dust.
	• While aquaculture as an industry does have support from Friends of Emu Point, it needs to be properly planned and organised. A more logical location for the industrial development is at the Albany Port where facilities are already in place and truck and boat traffic can be better handled. 4. <u>Alternative assessment option</u>	The City's Local Planning Scheme clearly sets out the contemplated land uses and development outcomes for Emu Point, via the Restricted Use provisions. The 'conditions' set out for the Emu Point Restricted Use area do not envisage a precinct plan and simply state that development requirements will be determined by the City as part of the assessment of an individual development application.	Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location.
	The Friends of Emu Point strongly recommends that the City of Albany refer this application to an independent and expert assessment group to ensure transparency and impartiality. This is possible under the Development Assessment Panels regulations 2011. The project is valued at $9m which is less than the threshold of $10m when a mandatory referral to an Assessment	The City has referred the DA to a range of State Government agencies, with their comments appropriately responded to. This suggestion is not possible. This DA has been lodged with the City of Albany, is within the 'optional' Development Assessment Panel (DAP) threshold, with the applicant electing for the City to determine the	The applicant may choose to have the application determined by a Development Assessment Panel (DAP) where the value is between $2 - $10 million, however the applicant has chosen to have the application assessed by the City of Albany.

	Panel is required. In this case Harvest Road has elected to have the application considered by the City of Albany. It is understood by the Friends of Emu Point that the City can refer the development application to an independent Development Assessment Panel to consider the proposal. The City has capacity to do this on the grounds that it would ensure impartiality and transparency given that the City is the Lessor as well as approving the development on its leased land. Further rationale for referring this development application to a Development Assessment panel includes: • It would represent a more transparently impartial and independent planning decision in light of the clear public support the City has offered the aquaculture project. • It would ensure broader precinct planning is conducted and considered, add expert planning skills to achieve a better planning decision for what represents a unique and significant industrial project at $9m. We would appreciate an opportunity to discuss our concerns and issues further if more clarity is required.	DA, not the DAP. There is no legal ability under the referenced Regulations for the DA decision maker to be changed 'mid assessment'. It is solely up to the applicant to elect the DA decision maker (for an optional DAP application), and only at the time of DA lodgement.	
13.	To Whom It May Concern As a Pen Lease Holder at the Emu Point Marina, I wish to comment on the situation pending with the Harvest Road development. 1. The environmental impact on this sensitive marine area should not be permitted. 2. The processing plant should be established at a designated industrial site where all facilities for safety and conservation are in place. e.g. the current facility for mulie fishers	The proposal is consistent with the past and existing uses on Lot 501 as the site was previously used as an oyster processing facility.	1. Additional approvals are required from other agencies for environmental aspects of the application including sea water discharge and intake (DWER), seabed leases and jetty licences (DoT) and an aquaculture licence will need to be obtained from DPIRD. 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 2 planning proposal.

	3. An invasive industry, particularly one of the size proposed, should not be permitted in the vicinity of a thriving tourist and current business precinct. 4. The increase in truck and employee traffic will impact on the one access road to the marina. 5. The Emu Point marina area is unique in it's ability to accommodate usage by current businesses, tourists and recreational fishers. An increase in heavy traffic would put an end to this. 6. The Volunteer Sea Rescue Service's vital work could be affected by the increase in vehicle movement in the area, particularly by trucks. 7. When busy, at the present time (e.g. school holidays, long weekends), parking is at a premium. The decrease in parking bays caused by this proposal will make reasonable access to their vessels by pen lease holders and customers to existing businesses extremely difficult.	As previously stated, aquaculture operations have co-existed with the surrounding Emu Point community for more than 25 years. It is expected that Swarbrick Street and Emu Point Drive have sufficient capacity to accommodate the protected increase in truck movements. Please refer to previous comments relating to the proportionally low volume of additional vehicle movements expected to occur. The proposed facility will see a net increase of parking bays within the Emu Point precinct. The proposed facility has been designed to incorporate staff parking requirements within the site with new 38 bays created, eliminating the need for staff to use public parking. This number exceeds the total employees numbers expected on-site, even during peak production.	2. Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location. 3. The application is essential upgrading dated Ocean Foods International infrastructure and replacing with new, modernised infrastructure for the same purpose. 4. Swarbrick Street has been determined as a fit for purpose and capable of accommodating the proposed heavy vehicle movements. Heavy vehicles arrivals and departures shall be limited to 7.00am to 7.00pm Monday to Sunday to mitigate impacts of vehicular noise on Swarbrick Street residents. 5. The applicant has advised that all staff parking will be accommodated on site. This is recommended to be implemented as a condition of planning consent. The City has development a draft concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements. 5 See above 6 See above
14.	I have been working at the Emu Point marina for 20 years, and have made huge financial and personal commitments, I also have gained considerable working knowledge about this marina precinct. We have worked alongside and in collaboration with the City of Albany introduced good facilities and have all worked hard to establish a safe and workable marina. 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 need.		The applicant has advised that all staff parking will be accommodated on site. This is recommended to be implemented as a condition of planning consent. The City has development a draft concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements.

	The Emu Point precinct has been a working marina for 50 years, with modern boat lifting facilities and hardstand work areas, with maintenance and repair facilities for private and commercial vessels, they service all the vessels from Augusta to Esperance. The closest similar facility is Busselton. There is a boat shop chandlery and boat storage, squid shack, Albany Sea Rescue, Power boat sports club. This development will affect all these local businesses by reducing car parking and the disruption of traffic flow. At certain times the marina precinct is pushed past capacity, I get to witness all the goings on, Emu Point marina 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. We are not against development and encourage growth and feel that Harvest road will be great for Albany in general, with jobs and tourism. This current planning application has changed considerably from the original concept of having the packing and storage shed further north and located on their existing lease. The proposed changes to the existing lease areas and placing a commercial tenant in the current car park will have major ramifications. 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 21 cars for the public, pen holders, that will stop the natural flow of traffic? How can we restrict access to workable marine jetties in one of the best natural harbours that offers	Car parking has been addressed above. The proposed facility is not expected to substantially increase vehicle movements to and from the Emu Point precinct. The integrated nature of the proposed facility means that Harvest Road products will be consolidated and packed within the proposed facility, limiting truck movements to and from the site. Leeuwin Coast will continue to monitor staff transport and will consider initiatives such as carpooling and public transport to manage traffic movements.	Additional signage will be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas. The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements.

	the boating community a place to pen their boats that earns revenue for the state government? How can we stop public access to the waterfront, sandflats, and Bayonet Head? This access along the waterfront is a public right of way and has been here since way before settlement, according to the plan they have a gate across there working platform, this creates a public barrier. 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. The Fishability use this jetty for wheelchair vans and carers with the disabled. (Visit their website fishability at Emu Point) 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. This plan will create may problems with the amount of traffic that will be created, and many SAFETY ISSUES will be problematic. When we lift the boats, they are required to be washed down before moving onto the hardstand area. We have a licensed area that we control to stop any damage to vehicles and to provide public safety during this process. the proposed walkway directs people across this work area. I will have to build barricades and safe control areas. We would need to consider putting a full barricade across the access road at certain times to stop traffic entering so that we can safely operate the boat lifting crane. This could create may operational problems to the Harvest Road production. I would like the City of Albany to address some of my concerns for this Planning Proposal by Harvest Road at the Emu Point Facility.	Public access to the northern-most jetty will be maintained, noting the public access route shown on the site plan. Public access will be maintained to the north of the subject site, noting the proposed public access route along the western boundary (within the site), from the existing car park in the south, to the north. There will be no impact to the accessibility to commercial jetty. Dedicated public car parks will also be created at the front of the Harvest Road facility to create a planned and defined parking solution for that area of Emu Point. Fishability have expressed their strong support for the application and the project in general. The proposed design will help improve public safety by ensuring that operational vehicle and equipment movements occur within the site boundary, reducing vehicle-pedestrian interaction. The facility design also incorporates a pedestrian walkway for continued public access to the areas surrounding the proposed facility.	Public access to the northern-most jetty will be maintained, noting the public access route shown on the site plan. No impact to the accessibility of the commercial jetty is expected Additional signage will be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas. The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle movements. A formalised pedestrian access way to the mud flats has been provided. As a result, it is considered that the development will have a positive impact on the safety of other users of the reserve. 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.

	A commercial enterprise being able to take over public space to include in their lease. If the City of Albany is offering this proposed area for commercial development, why has this not been advertised, so other commercial operators can make an application I would like consideration so I can have more space for hardstand. Emu Point Slipway Services provide a public service and with future growth anticipated in Albany we need to be able to provide more hardstand facilities. Harvest Road in their original Development application (OCT 2020) managed to fit their packing and storage sheds into their existing lease, they have recently revised the operational capacity and reduced the number of annual tonnage, and also revised the number of staff, I cannot understand why now they need to increase their lease now by 2170M2, and the size of the their packing shed from 1062M2 to 1838M2 they have basically moved their packing sheds south and created a large open hardstand area on their current lease, they do not need to do this and this has created all the associated problems. I suggest this is basically a Land grab with no thought to the local lease holders, commercial operators, or Albany residents. Big impact on Emu Point – • Processing 16 hours per day – 6 days a week. • 8 trucks per day, 6 days per week. • Additional refuse trucks – 4 trucks per week. • 40 staff need for 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, major tourist and locals draw card for	The proposal involves leased land at a long-established aquaculture facility. The integrated nature of the proposed facility means that our operations will be consolidated and packed within the proposed facility, limiting truck movements to and from the site. To respond, the proposed facility will: - Only operate at peak capacity of up to 15hrs per day - See a maximum of four additional truck movements per week during peak months only (Nov – May). - See a net increase in available public parking within the Emu Point precinct. - Be designed to incorporate staff parking requirements within our site. The facility design also includes new standard and	The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. A condition requiring suitable arrangements being made for the provision of 1,145m2 of sealed surfaced area to offset the loss due to the expansion of the leased area is recommended. No maximum size requirement applies to the R2 area or the Reserve. The height of the structures is compatible with height of other structures within the Reserve and the facility is broken up into a number of buildings in order to minimise visual impact. The aquaculture licence, offshore lease areas and production capabilities of the operators will be determined through the aquaculture licence and offshore lease application. Additional signage will be implemented to regulate traffic movements and to provide safe turning circles away from pedestrian orientated areas and boat lifting and launching areas. The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements. A formalised pedestrian access way to the mud flats has been provided.

	families to enjoy jetty fishing in sheltered waters. • Fishability's – use the jetty regularly. They have up to 20 plus cars, wheelchair and carers. • Boat pen holders need to access parking for the jetty and boats. • 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. The recommendations are as follow. I propose that the application be stopped and the original stage 2 development which fits on their existing lease be considered. This will allow public, commercial fishermen, pen holders to be able to access the jetties, car parking facility and have access to the waterfront, this will help with traffic management. I propose that the City of Albany 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. The City of Albany develop a Emu Point Masterplan with consultation of stake holders, Emu Point residents and the wider Albany public.	disabled parking for the public to conveniently access Emu Point's commercial jetty. - Not impede access to the current commercial jetty.	Public access to the Jetty's will remain. As a result, it is considered that the development will have a positive impact on the safety of other users of the reserve. The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. The City has not considered the release / clearance of the A-class reserve, nor does it have the statutory authority to permit this. 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. Requests for the preparation of a precinct and land use plan for the wider Emu Point area are noted, however the application must be assessed against the applicable planning framework at the time of submission. Land uses considered appropriate for the Reserve are identified in the 'Restricted Use 2' (R2) provisions

			of LPS1. The 'Aquaculture' use is consistent with R2 requirements. The City has prepared a draft concept plan for improvements to vehicle parking, manoeuvrability and pedestrian movement within the Reserve.
15.	Our club trains on the waters of Oyster Harbour at least three mornings a week therefore we have a vested interest in the waters of Oyster Harbour remaining in pristine condition, supporting the diverse marine and birdlife. We have had several meetings with the Harvest Leeuwin Coast Group and are confident the professional approach of the group, employing qualified experienced staff from around Australia and New Zealand in maintaining the waters of Oyster Harbour in a clean healthy condition to best grow their produce, encourage the growth of seagrass and in turn increase marine and birdlife. It is in their best interests, one cannot grow good crops in poor soil. The Development of the Facility at the northern portion of Lot 501 is well overdue, it was becoming quite a rundown eyesore. The new development will revitalize this area bringing employment opportunities and putting Albany on the map for being the largest producers of mussels and oysters in the State. Emu Point is one of Albany's most beautiful places for the boating, fishing communities and families who enjoy the protected beach. The Leeuwin Coast Development will not interfere with these recreational activities but enhance and add a vital industry that can sit alongside the public use of the area. In this regard we respectfully support the proposed development of the Leeuwin Coast Facility .	Noted.	Noted.
16.	Our winery would like to offer its support to Leeuwin Coast Aquaculture Operations at Emu Point. We run a winery and a tourist-oriented cellar door complex in Denmark. We provide free wine tasting,	Noted.	Noted.

	wine sales and gelato sales. In the summer we run events featuring local food providers and musicians. We also find that increasingly we are providing additional tourist information to our visitors. Questions we get frequently asked are things like:- Which places are open? where can I dine this evening? The list is endless. Leeuwin Coast has already developed an oyster and mussel nursery near Emu Point, they also have some onshore infrastructure. The company now wants to enter a phase 2 which entails building some simple freezing and packing facilities with amenities and offices. There has been an oyster business at Emu Point for many years and this development provides an extension of these facilities. We are of the opinion that the developing the Oyster Industry in Albany is beneficial not only for Albany but also for the Great Southern as a whole. The development has been carefully planned so as NOT to be obtrusive to the neighbours and will clear up a rather run down area. Yes it will increase tourism locally... but in our view this is wonderful for the City of Albany....as it provides more exciting things to do for visitors...and it will lead to increased employment in the region (Hotels, motel , bars, restaurants etc.). The City of Albany should definitely support this wonderful opportunity for the region.		
17.	I strongly object to the proposal to extend the lease area and development to the high water mark and in doing so preventing public access along the foreshore. I request that the proposal be modified to enable public access along the foreshore as is occurring presently on public land. This is consistent with the state coastal planning policy, encouraging access. The proposal is essentially privatising the foreshore area, which is presently public and has access (a path) used by walkers and fishermen accessing	The proposal has been designed having regard to the operational requirements of the proponent, for aquaculture purposes. Localised diversion of public access to the foreshore is not uncommon in the circumstances, noting the range of land uses contemplated for Emu Point by the Restricted Uses in the City's Local Planning Scheme. Public access will be maintained to the north of the subject site, noting the proposed public access route along the western boundary (within the site), as stated above.	A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee. Upgrades or additions to the seawall will be at the applicant expense and entirely located within the lease area, to address any uncertainty of responsibility or maintenance going forward. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense and ensure suitable arrangement are made with the City to offset the resulting loss of sealed surface area and associated parking opportunities.

	Oyster Harbour. The access is important, providing access to some of the best whiting fishing in the State. The proposal intends to extend private lease and use the foreshore, stopping access along the foreshore. This is contrary to coastal planning policy. It is at odds with the proposals to have access around both harbors, linking together to form strategic trails. Instead, the development proposal intends to use access at the back of the premises. This path is alongside fencing, sheds and carp parking within a firebreak. It is unsightly and provides dangers to the user, with very poor visibility (it has 2 right hand bends), poorly lit and will put off put off public use particularly by women who will feel most at risk. Far from encouraging access and public use, it will put people off using the area and restrict access. I ask that public access be retained along the foreshore, along with what is presently public land, outside the lease area.		The public access will be formalised at the rear of the site which is considered an improvement on the existing informal access over the seawall and across the foreshore.
18.	I wish to comment on the planned Stage 2 of the Aquaculture development at 2 Swarbrick St, Emu Point. Following the approval of Stage 1, I believe Stage 2 still leaves all of the questions asked of Stage 1 as problems unanswered and they still exist. I find it hard to fathom that the councillors and the City of Albany can make the assumptions they have that this project will not adversely affect the residents and businesses of Emu Point. The concerns I raised in my previous comment about the traffic will still exist, any increase at all in traffic movement along Swarbrick Street in particular and along the front of the businesses adjacent to this project will adversely affect residents and businesses and the public using the boat harbour facility.	These comments have been addressed in response to preceding submissions. As stated above, the proposed facility is not expected to substantially increase vehicle movements to and from the Emu Point precinct.	Swarbrick Street has been determined as a fit for purpose and capable of accommodating the proposed vehicle movements. Heavy vehicles arrivals and departures shall be limited to 7.00am to 7.00pm Monday to Sunday to mitigate impacts of vehicular noise on Swarbrick Street residents.

	The site in question for this development is in a bushfire prone area. Any increase in vehicle and people movement out of this area and surrounding areas in the event of a fire in the bushland is a huge concern as there is only one road out of Emu Point and it is already quite congested and Swarbrick Street runs right beside the bushland area.		A Bushfire Management Plan has been prepared by a Level 3 BPAD practitioner. It is considered the proposal can proceed without pedestrian safety being compromised in the event of a bushfire.
	The Development Application is proposed to operate 12 hours per day, six days a week (farming) and increasing up to 16 hours per day, 6 days a week (packing) during peak periods. The number of staff vehicles alone is significant, add to this the heavy vehicle movements as outlined in the application and I wonder how you can say this has no significant affect? How long since a vehicle count was done on Swarbrick Street (and Miller Street as well) as a lot of the heavy rubbish removal trucks use Miller Street as well. It is already a heavy traffic area and ANY increase is going to be unbearable.	Harvest Road Ocean's proposed shore base has been designed to create a net positive impact on the surrounding parking facilities, including the provision of new public parking for precinct visitors. Overall, the proposed facility will actively contribute to a safer environment for all visitors including neighbouring commercial tenants, recreational users and residents.	See above
	The Development Application uses the excuse that "there is already an oyster farming business at this site" as a reason why this new one should be OK. NO it's not, it is totalling NOT OK and can not be compared. The existing (old) oyster farm did not impact on the residents and business like this proposed one will.	This point is not fully substantiated to allow for further comment.	Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location. Vehicular traffic addressed above.
	I am flabbergasted that the proposed new lease boundary can extend out into the water, blocking access to everyday pedestrians who wish to walk along the waterfront as they have done in the past. And to expect pedestrians to alternately walk around the back of the oyster farming/packing facility is abhorrent. The danger posed to pedestrians, cyclists and residents along Swarbrick Street and into the Boat harbour area is significant as it is now and to add the proposed increase of traffic movements to this area is not satisfactory.	The proposed facility maintains existing access to businesses and public space within the Emu Point precinct and will not impede their access to the waterfront or existing commercial or recreational jetties.	The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense and ensure suitable arrangement are made with the City to offset the resulting loss of sealed surface area and associated parking opportunities. The applicant has advised that all staff parking will be accommodated on site. This is recommended to be implemented as a condition of planning consent.

	I have seen the vehicle movement changes along Swarbrick Street in the last 2 years just because of the popularity of this beautiful area, and that is what it is for, not for a very large industry to impact on the lifestyle and safety of the residents. The standard of the road along Swarbrick Street needs to move with the times as well, it is narrow with no verge and bushland right up to the edges. Cycleways exit at three locations as well as two roads onto Swarbrick Street to add to the dangers. It appears that Councillors of this City are not hearing what its constituents are saying, nor are they appearing to be concerned about us. The next elections will be interesting.		The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle movements. 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. Heavy vehicle movements (arrival and departure) are limited to approximately 8 per day during peak season which is not considered to be of a volume likely to adversely impact any existing activities within the Reserve. Swarbrick Street has been determined as a fit for purpose and capable of accommodating the proposed vehicle movements.
19.	I have grown up here and I have witnessed the Albany Council make blunder after blunder where it concerns the Emu Point coastal environment. While in principle I agree with the development of an oyster aquiculture business here, I hold grave and grim concerns about the impact it will have on Emu Point and the Oyster Harbour itself. The proposal seems to fly in the face of expert advice as to the scale of the operation as a whole. Culturing and processing well over double the recommendation by experts is ludicrous to say the least. They want 2000 tons? Experts say the limit should not exceed approx. 750 tons for a combination of Oyster Harbour, King George sound and Princess Royal Harbour!! Leeuwin also want claim on waterfront land that has never been allowed to be held by private companies anywhere before? How can the council suddenly allow this? The area they propose to lock up is “our” land and space, not to mention	These comments have been addressed in response to preceding submissions. As noted above, statements pertaining to carrying capacity and lease production volumes are not relevant to this application. The proposal has been designed having regard to the operational requirements of the shore base, for aquaculture purposes. Localised diversion of public access to the foreshore is not uncommon in the	Noted. The planning application relates to the land based operations only. The aquaculture licence and lease areas within Oyster Harbour waters and production capabilities of the operators are determined by DPIRD through the assessment process for the aquaculture licence and lease applications. A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous

	excessive to the point it will severely impact other operations at the marina and the public as a whole. As to Oyster Harbour, I don't believe that enough research has been done on the long lasting effects this industry will have on its health. More research is required and Leeuwin needs to prove beyond doubt it will not have long lasting detrimental effects on our beautiful area. Traffic increases and the issues that brings along Swarbrick St has not been resolved by the council or Leeuwin Coast. A bypass or service road was discussed and rejected. How can you expect the residents who live along that road to suffer what's to come? Seriously arrogant and dismissive by both parties. This need to be addressed to the satisfaction of all Emu Point residents. Noise, waste and other environmental effects, like effects to marine life, birds, seagrass needs to be addressed in full also. What about the use of the Oyster Harbour to the public? We suddenly can't use the harbour freely as we always have with movement and free access suddenly severely restricted. I, as an Emu Point resident, demand that the Albany Council put this application on hold until they have done further and far more detailed research. A rushed decision will be a very bad one. You just have to look at the rock groynes that were put in place many years ago. What a flying disaster!! I trust you will truly take the time to make informed decisions with regards to this proposal.	circumstances, noting the range of land uses contemplated for Emu Point by the Restricted Uses in the City's Local Planning Scheme. Public access will be maintained to the north of the subject site, noting the proposed public access route along the western boundary (within the site), as stated above. As noted above, the proposed facility will not see a significant increase in traffic volume to the area.	lessee. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense. See above re: Aquaculture licence. Heavy vehicle movements (arrival and departure) are limited to approximately 8 per day during peak season which is not considered to be of a volume likely to adversely impact any existing activities within the Reserve. Swarbrick Street has been determined as a fit for purpose and capable of accommodating the proposed vehicle movements. A condition is recommended to be imposed requiring the development to comply with the *Environmental Protection (Noise) Regulations 1997 (WA)* at all times. Staff recommend an amended Waste Management Plan (WMP) be submitted to reflect amendments to the proposal which were not considered in the WMP provided Public use of Oyster Harbor will not be restricted.
20.	It is most unfortunate that we are now faced with the situation that the original plan put forward by Harvest Road and approved by the community has been ignored. The application for approval of the lease area to extend out to the southern boundary down to the concrete jetty must not be approved. In the plan there is no consideration given to the	These comments have been addressed in response to preceding submissions.	The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act.

	professional fishermen to be able to park their vehicles near the jetty. In fact the area where amateurs now fish as well as industry service personal work will be completely pushed well away for a parking spot. This will include clients of the Kalgan Queen tours In making a decision about this area also consider that the area taken away is near the same area of parking that Harvest Road now is showing. The public and business people need access to MORE parking not less Where will the City of Albany council find more parking to adequately service the waterfront There maybe other parties interested in land in that area. Will there be a tendering process before any decision is made. The proposal to change the boundary must be refused. There is adequate room on the property to put the proposed new building within the original boundary as per the initial public submission. The foreshore track for the public to use to walk to Bayonet Head would stay in place and release about 380 sq m of land around the south. west and east sides of the property, enough to build the restaurant. I wish Harvest Road success but not at any cost The environment, the present lease holders, fishermen and enjoyment of the community needs to be considered	Harvest Road Ocean's proposed shore base has been designed to create a net positive impact on the surrounding parking facilities, including the provision of new public parking for precinct visitors. Overall, the proposed facility will actively contribute to a safer environment for all visitors including neighbouring commercial tenants, recreational users and residents.	A condition requiring suitable arrangements being made for the provision of 1,145m2 of sealed surfaced area to offset the loss due to the expansion of the leased area is recommended. See above - The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense
21.	I wish to submit the following comment to the City of Albany on the above planning proposal:- That public access to the Jakamia creek wetlands area to the West of the proposed development be maintained. This is a great mud-flat area for families and students to explore our stunning natural environments.	These comments have been addressed in response to preceding submissions.	Public access to the waterfront will be formalised and redirected to the rear of the site.
22.	I cannot see this development as being of any benefit to Albany. This site itself is not suitable for this proposed industry.	These comments have been addressed in response to preceding submissions.	Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location.

	The city of Albany will have to spend a huge amount to increase parking. Boat owners who pay for the marina cannot park near the facilities on many days and the marina is not yet filled. Is our population increasing? The Emu Point slipway is one of the most important services in Albany. It is the only one of it's type between Busselton and Adelaide. Every vessel in town, Emu Point and some of the yacht club have to use it annually. By increasing industrial traffic, it will complicate it's usage. The development should be located in an industrial area in town.	As stated above, the proposed facility is not expected to substantially increase vehicle movements to and from the Emu Point precinct.	The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle and pedestrian movements. 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.
23.	I am a resident of Emu Point. I either walk, cycle or drive around Emu point on a daily basis and believe I have a good understanding of the dynamics of the 'point' and observations of the activities that make Emu Point what it is. I fully support the efforts and submission supplied by the friends of Emu Point and although I am in favour of the development, I am not in favour of their lease area being expanded as per plan beyond what already exists. One of my main concerns is loss of waterfront, loss of jetty usage and the extra traffic flow and activity at the site including public access. I believe the proposed stage 2 development is too substantial for the site and business area. Public access and parking is already an issue and this I believe will be further impeded if stage 2 goes ahead in the proposed plan. The future growth of the precinct is a major concern with lack of space for any further development restricted, by the fact that the area is limited in size. I believe at present, there is a nice balance between the existing businesses and public access and use of the area. I would like to reiterate that I fully support the friends of Emu Point submission.	These comments have been addressed in response to preceding submissions. As stated above, Harvest Road Ocean's proposed shore base has been designed to create a net positive impact on the surrounding parking facilities, including the provision of new public parking for precinct visitors. Overall, the proposed facility will actively contribute to a safer environment for all visitors including neighbouring commercial tenants, recreational users and residents.	A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense and ensure suitable arrangement are made with the City to offset the resulting loss of sealed surface area and associated parking opportunities.

24.	While I generally support aquaculture, I do have serious concerns regarding the proposed Harvest Road processing facilities at the Emu Point Marina. Emu Point already struggles to support the traffic flow and parking from the locals and visitors use of the harbour and Marina My main concerns are: 1. How is it that the proposed development needs an extra 2,170 square metres to house the facility. This is 40N extra space with no clear reason for the increase and does not have my support 2. How is the City able to hold the lease, approve Its expansion and also approve the buildings that go on it. This seems very conflicted, approving the development application should be a process independent of the Leasor 3. I think the traffic congestion needs to be fixed before any Increase in a lease or activity at the Marina is considered. This should include looking at a road around the back of the current leases. 4. The trafflc to the already congested area needs a detailed management plan that takes into consideration the full usage of the marina, not just for this application. The current recreational use for fishing disability access, tourists, families must be supported as the priority. Does the City consider this the priority? If not the City needs to Inform the community accordingly. 5. The idea that Harvest Road has sole access to the last Jelly of the Marina and sole use of the foreshore goes against the City of Albany own planning strategy which clearly states it does not support commercial access close to the foreshore. If approved what does this mean to other commercial operators in Albany? 6. Odour and waste management am also a grave concern to me. I have heard from	These comments have been addressed in response to preceding submissions. This statement is not correct. Access to the current commercial jetties will not be affected by this application. A waste management plan has been prepared for the servicing of all waste and recyclables created at the proposed facility. All hard waste will be correctly stored before being transported off site and the little fresh	1. A larger lease area is required to facilitate improvements to the revetment wall and cater for an increase in operating capacity from the previous lessee. 2. The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. 3. The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle and pesestrian movements. The City has not considered the release / clearance of the A-class reserve, nor does it have the statutory authority to permit this. 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. 4. The City has development a concept plan to add additional parking bays to the Reserve and improve existing vehicle movements. 5. Access to the current commercial jetties will not be affected by this application. 6. Impacts of odour are likely to be minimal as shellfish are predominately propagated / reared in coastal waters rather than land based ponds or tanks. Staff recommend an amended Waste Management Plan (WMP) be submitted to reflect amendments to the proposal which were not considered in the WMP provided.

	Tasmanian resident that the odours and shell waste can cause serious issues, Is this a concern in this applicatlon? Oyster Harbour Is a pristine Harbour thanks to the ongoing work of many groups. Having travelled extensively, these environments are no longer the norm. We should never take it for granted and it needs to be looked after.	water the facility uses will be discharged safely in the City's sewage system. The only discharge from our facility will be in the form of seawater that is circulated through the proposed shellfish nursery. This water will not be altered in any way and no organic material will be added to it. Instead, water taken into the nursery will pass over young oysters which filter and clean the water before it is released back into Oyster Harbour. It is also noted that the City was generally satisfied with the Waste Management Plan submitted with the Stage 1 DA, with a condition placed on this approval to require some minor updates, and then its implementation. This can again be appropriately addressed via a Condition of any Stage 2 approval.	
25.	Thank you for the opportunity to make comment on the Development Application submitted by Harvest Road. I have read the application and while I generally support Aquaculture as an Industry and Harvest Road as a company, I think this is very poor choice of location for this enterprise. The location is surrounded by an A class reserve ant the protected waters of Oyster harbour on three sides. The public Marina Is heavily used by the Emu Point and wider Albany community for recreational purposes with due regard for its zoning as a Parks and Recreation reserve. While It Is understood that part of the reserve has allowed an exemption for marine and aquaculture services it remains primarily for parks and recreation and should continue to do so until a clear precinct plan for Emu Point and the Marina is conducted. Is the public Marina for commercial activity, industrial activity, family recreation, fishermen (public and commercial)? Because It cannot be for all of them and until a clear plan for land use in the Marina Is conducted It will continue to be a dogs' breakfast. Mixing an industrial development of the size and sale of the Harvest Road proposal and seeking to	These comments have been addressed in response to preceding submissions.	Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location. The City has prepared a draft concept plan for improvements to vehicle parking, manoeuvrability and pedestrian movement within the Reserve.

	take over an additional 2,170 square metres of the Reserve including the waterfront solely for commercial purposes Is not supported. If the premises and the lease area of the previous operator was inadequate, then Harvest Road should pursue other locations for processing and not expect the community and City to simply grant extra space in the reserve in the expectation that it will be granted all of the remaining aquaculture leases in Albany, when we know there are other operator are seeking licenses for these zones. This proposal is: • inconsistent with the land use for the area, • Incompatible with the community recreational use of the Marina, • removing community recreational and pedestrian access to the foreshore and the last Jetty, • Far too large for the intended use to process 2,000 tonne of Oysters when the environmental report on the DPIRO website says the recommended carrying capacity of the three aquaculture zones Is 730 tonnes. • Pushing traffic and congestion into already congested public space, • Adding traffic and congestion to the small roads into and out of Emu Point. • Operating for too long at 15 hours a day and will create unwanted noise, lights, traffic and activity after hours. • Inconsistent with the conditions Imposed on other commercial operators In the precinct and will set a precedent for other to pursue building on the waterfront. If the City and State Governments keen to support Aquaculture developments, then it should develop appropriate industrial land for this purpose not try to force it into a busy public and recreational Marina and foreshore.	This statement is incorrect and has been addressed above. This statement is incorrect and has been addressed above. This statement is incorrect and has been addressed above. As stated previously, purported carrying capacity limits and production volumes from lease areas are not applicable to this application. For the reasons stated previously, the proposed facility will have a net positive impact on parking and pedestrian safety in the area. The proposed facility will not sustainably increase the traffic volumes to the area. The proposed design will help improve public safety by ensuring that our operational vehicle and equipment movements occur within the site boundary, reducing vehicle-pedestrian interaction. The facility design also incorporates a pedestrian walkway for continued public access to the areas surrounding the	No maximum size requirement applies to the R2 area or the Reserve. The height of the structures is compatible with height of other structures within the Reserve and the facility is broken up into a number of buildings in order to minimise visual impact. The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. See above The Engineering Section have confirmed the roads are capable of accommodating the size of vehicle and frequency of vehicle movements required. A condition is recommended to be imposed requiring the development to comply with the Environmental Protection (Noise) Regulations 1997 (WA) at all times. See above See above

	If approved in current form the development will create safety concerns 15 hours a day with increased traffic into a smaller area for residents, tourists and especially children using the Marina and the beach nearby which already has become an overflow for parking from the marina. Other issues that concern me about the application is that In discussion with people In NSW end Tasmania there are common issues with Oyster processers which the City of Albany needs to be across. This especially relates to noise, odours and management of waste. I would suggest the City takes the time to either access other planning expertise from other areas or at the very least visit other states where these issues have been faced. The complexity, size and scale of this development would clearly need additional and Independent scrutiny from a planning perspective. This will give people confidence that a full, independent and proper planning process has considered the development. My family purchased a residence in Emu Point because of the nature of the area. It is all about families and their relationship with the harbour, nature and not about industrial/commercial enterprise. In my view, for all of these reasons, an alternative location should be pursued to allow for the industrial size and scale required by Harvest Road, it cannot be accommodated in the existing commercial lease acquired by them.	proposed facility. Leeuwin Coast's aquaculture leases do not restrict public access to the local waters. Waste management has been addressed previously. Noise mitigating materials will be used in construction and will restrict disturbance of the community. The completed development will need to comply with the Noise Regulations in any case.	Staff recommend an amended Waste Management Plan (WMP) be submitted to reflect amendments to the proposal which were not considered in the WMP provided. Noise – see above. The applicant may choose to have the application determined by a Development Assessment Panel (DAP) where the value is between $2 - $10 million, however the applicant has chosen to have the application assessed by the City of Albany. See above.
26.	We would like to make comment on Stage 2 of the facility proposed by Harvest Road at Emu Point Albany. According to the plan submitted they are requesting: • a 40% increase in the lease land area which will result in restriction of access	These comments have been addressed in response to preceding submissions.	

	to the North Jetty and remove all easily accessible parking for pen holders on the North Jetty and the public; • making no mention also of any public disabled parking bays and; restrict public access to the shoreline and mudflats and; • setting a precedent for other large scale marine type industries in this foreshore area. The scale, noise disruption and increased traffic will not be in keeping with a Parks and Recreation area that is supposed to be for the public to enjoy. This is a heavy industry creating a lot of noise and waste 16 hours a day, 6 days a week. This proposed industrial facility is far too large for the Emu Point site and will be taking away from the public enjoyment of a beautiful and peaceful coastal environment. It totally exceeds what is best for the area. With the Council having no overall plan for the Emu Point precinct, the ability to keep it a pristine beautiful environment fully available to locals and tourists alike could now be lost due to the scale of the industrial processing facility. Make no mistake. It is a factory dressed up but still a large processing facility and not in keeping with the area.	The proposed facility will see a net increase in available public parking within the Emu Point precinct. The facility has been designed to incorporate staff parking requirements within our site. The facility design also includes new standard and disabled parking for the public to conveniently access Emu Point's commercial jetty It is misleading to characterise the site as a Parks and Recreation area. The site and this part of the Emu Point precinct is a long-established marine facility, including aquaculture activities. The City's Local Planning Scheme clearly sets out the contemplated land uses and development outcomes for Emu Point, via the Restricted Use provisions.	Public access to the northern jetty will remain. A condition requiring suitable arrangements being made for the provision of 1,145m2 of sealed surfaced area to offset the loss due to the expansion of the leased area is recommended. The City has prepared a draft concept plan for improvements to vehicle parking, manoeuvrability and pedestrian movement within the Reserve. The lessee will be required to redirect public access to the mudflats to the south west of the site at their expense. Aquaculture is listed as a restricted use within the RU2 area which means the use is permitted in this location. No maximum size requirement applies to the R2 area or the Reserve. The height of the structures is compatible with height of other structures within the Reserve and the facility is broken up into a number of buildings in order to minimise visual impact. See above – Draft Concept Plan. See above – appropriate land use and no size restrictions.

	The area will now be negatively impacted so any short or long term plans to improve the amenities and area for all users and visitors will be lost !!! All foreshore and coastal land needs protection, and this site should never have been given permission resulting in potentially a much larger industrial scale operation to take its place. I will also reiterate it sets a precedent for other large scale marine industries in the area if it is allowed by Council. Which is highly disturbing! Surely the area would be best served by a restaurant only, much more in keeping with a forward thinking precinct plan and would allow for processing the shellfish in an allocated industrial area elsewhere in Albany. This is why there are industrial areas set aside in Albany for processing activities such as this!. We are very concerned community members, long time residents and users of Emu Point and are very concerned by the proposed development and extension of the lease area.		See above – Draft Concept Plan. The sublease area is determined outside of the planning application and will be advertised to comply with the Local Government Act. Appropriate land uses are listed within LPS1. See above – appropriate land use. See above.
27.	I have read the development application today and had a discussion with the Albany Boating and Fishing Club Management Committee. The application certainly aligns with the very informative information sessions that you have held with the local community over the last few months, and reaffirms our view that the proposed development will be a significant enhancement to the Emu Point precinct, as well as providing an important and sustainable	Noted.	Noted.

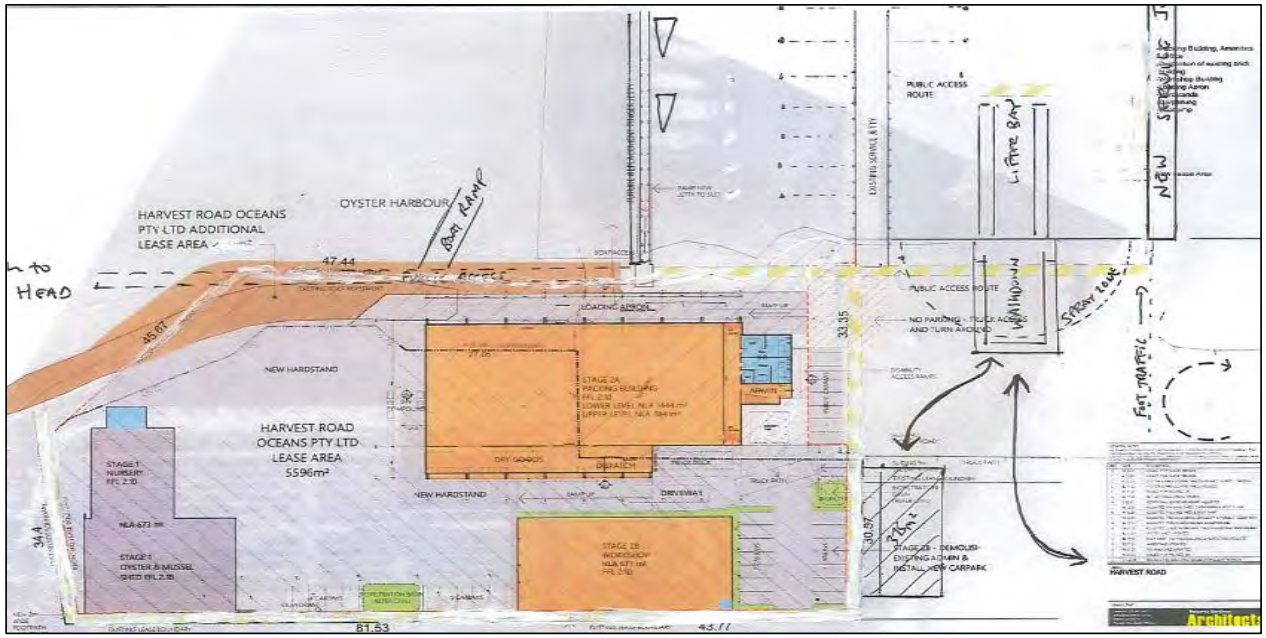
	local industry with long term employment opportunities. The proposed design will certainly give the precinct a much needed lift and blend in and enhance what is a very beautiful natural environment. We have always found your team to be dedicated and enthusiastic professionals and have every confidence that the proposed development will be of great long term benefit to the Albany / Great Southern community. We offer you our full support and wish you every success in your endeavours. The Management Committee is happy for you to pass on our views as expressed in this email to the City of Albany. Please let me know if you require a more formal response.		
28.	We welcome the opportunity to express full support for the Harvest Road Development Application that relates to Stage 2 for the Aquaculture Facility for Leeuwin Coast brand, on the northern portion of Lot 501 Swarbrick Street, Emu Point. Our regional development is dependent on attracting more people who want to live, work, invest and visit our City. This proposal supports a broader investment that will attract visitors, provide more than 90 full time jobs, provide local business to business opportunities and deliver a new Industry to the region. The proposed shore base facility is an important part of the longer-term, world-class aquaculture development that will create employment opportunities for the region and support the growth of the local aquaculture	Noted.	Noted.

	sector. The project will be globally recognised for the innovative and sustainable way that it will produce over 2000 tonnes of oysters per year from our region. Much of which will be the unique Akoya. We believe the Akoya product and innovative project presents a unique branding opportunity. An opportunity to be globally recognised as this Leeuwin Coast brand is marketed around the world. A brand that is consistent with our pristine and beautiful Great Southern region. The Chamber congratulates Harvest Road on its design to ensure continued access to, and improved safety of, the Emu Point precinct for both the general public and neighbouring businesses. The way in which the project has accommodated any concerns in the immediate surrounds of the site is commendable. We commend Harvest Road for their vision and encourage the City to consider in favour of this world class development as a sustainable and innovative project to bring socio-economic benefits, now and for our future generations.		
29.	Thank you for the opportunity to make comment on this application. I have viewed the application details and been to public presentations by the applicant in this instance and I am in total favour of their application to develop. Being an Albany resident and member of both the Albany Boating & Fishing Club & the Albany Dragon Boat Club I am regularly in the area of Emu Point. For many years the area of the Oyster Farm premises could be at best	Noted.	Noted.

	described as visually primitive, an eye sore and disorganised. In the very short time that Leeuwin Coast has been involved there has been a total transformation by them in that end of what is an industrial area. The proposed future development by them will enhance the area whilst providing a unique industry providing substantial employment and an economic stimulus to Albany. Whilst questioning some development applications Albany should seek stand out industries and give them the utmost assistance to fast track that development. I believe Leeuwin Coast to be a high quality environmentally friendly industry by a high quality company with experts in the aquaculture field which will be of great benefit to your region. A venture/development of this nature is well overdue in Emu Point. I wish Leeuwin Coast success and encourage the City of Albany to give this application speed and assistance through all channels.		
30.	I would like to put my support forward for the Leeuwin Coast Aquaculture Facility in Emu Point. This would provide employment opportunities for the area, support aquaculture and tourism. Please consider our support for a positive development.	Noted.	Noted.

Suggested amendments to planning application





Proponent response:

Officer Comment and Recommendation: Suggestions are noted and have been discussed with relevant parties however, the City must assess the as it is placed before us.

CITY OF ALBANY

REPORT

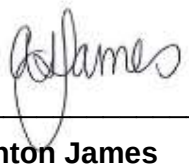
To	:	His Worship the Mayor and Councillors
From	:	Administration Officer - Planning
Subject	:	Development Application Approvals – July 2021
Date	:	3 August 2021

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1. The attached report shows Development Application Approvals issued under delegation by a planning officer for the month of July 2021

2. Within this period 53 Development Applications were determined, of these;

   - 52 Development Applications were approved under delegated authority; and
   - 1 Development Application was approved by Council.



Ashton James
Technical Support Officer – Development Services

PLANNING SCHEME CONSENTS ISSUED UNDER DELEGATED AUTHORITY

Applications determined for July 2021

Application Number	Application Date	Street Address	Locality	Description of Application	Decision	Decision Date	Assessing Officer
P2200622	20/11/2020	Aberdeen Street	Albany	Holiday House	Delegate Approved	20/07/2021	Dylan Ashboth
P2210020	14/01/2021	Duke Street	Albany	Multiple Dwellings x6 & Office	Approved	1/07/2021	Dylan Ashboth
P2210108	26/02/2021	Coombes Road	Kronkup	Single House & Variation of Building Envelope	Delegate Approved	6/07/2021	Dylan Ashboth
P2210223	9/04/2021	Slater Street	Lower King	Single House - Additions	Delegate Approved	1/07/2021	Dylan Ashboth
P2210228	9/04/2021	Wylie Crescent	Middleton Beach	Single House - Additions	Delegate Approved	20/07/2021	Dylan Ashboth
P2210259	20/04/2021	Vancouver Street	Albany	Grouped Dwelling (x2)	Delegate Approved	23/07/2021	Dylan Ashboth
P2210276	29/04/2021	Wollaston Road	Mira Mar	Single House	Delegate Approved	1/07/2021	Dylan Ashboth
P2210285	3/05/2021	York Street	Albany	Office (Signage)	Delegate Approved	27/07/2021	Dylan Ashboth
P2210293	7/05/2021	Bandicoot Drive	Lange	Single House & Retaining Wall	Delegate Approved	1/07/2021	Dylan Ashboth
P2210306	14/05/2021	Barker Road	Centennial Park	Development - Restroom and Water Tanks (x3)	Delegate Approved	29/07/2021	Jessica Anderson
P2210310	18/05/2021	Burgoyne Road	Albany	Single House & Retaining Wall	Delegate Approved	12/07/2021	Jessica Anderson
P2210316	19/05/2021	Burt Street	Mount Clarence	Home Occupation (Pest Control)	Delegate Approved	8/07/2021	Jessica Anderson
P2210317	19/05/2021	Elizabeth Street	Mount Melville	Single House - Outbuilding	Delegate Approved	7/07/2021	Jessica Anderson
P2210320	19/05/2021	Lowanna Drive	Marbelup	Variation of Building Envelope	Delegate Approved	9/07/2021	Jessica Anderson
P2210328	25/05/2021	Sanford Road	Centennial Park	Recreation - Private (Additions)	Delegate Approved	7/07/2021	Jessica Anderson
P2210329	25/05/2021	Chester Pass Road	Lange	Office & Warehouse - Additions (AdBlue Tank/Pump)	Delegate Approved	21/07/2021	Dylan Ashboth
P2210331	26/05/2021	Chester Pass Road	Milpara	Industry - Light (6x Units)	Delegate Approved	8/07/2021	Jessica Anderson
P2210334	27/05/2021	Flynn Way	Bayonet Head	Single House	Delegate Approved	23/07/2021	Dylan Ashboth
P2210341	1/06/2021	Celestial Drive	Mckail	Single House & Retaining Wall	Delegate Approved	5/07/2021	Jessica Anderson
P2210346	1/06/2021	Stead Road	Centennial Park	Consulting Rooms	Delegate Approved	6/07/2021	Jessica Anderson
P2210350	4/06/2021	Paul Terry Drive	Bayonet Head	Single House	Delegate Approved	19/07/2021	Jessica Anderson
P2210351	4/06/2021	Nambucca Rise	Lower King	Single House - Water Tank	Delegate Approved	8/07/2021	Jessica Anderson
P2210353	8/06/2021	Hereford Way	Milpara	Single House - Additions & Outbuilding	Delegate Approved	8/07/2021	Jessica Anderson
P2210355	8/06/2021	Elleker-Grasmere Road	Elleker	Approval of Existing Development (Single House - Additions & Outbuilding) and Outbuilding	Delegate Approved	5/07/2021	Jessica Anderson
P2210356	8/06/2021	Denman Road	Mount Clarence	Single House - Additions	Delegate Approved	27/07/2021	Jessica Anderson
P2210357	9/06/2021	Symers Street	Little Grove	Approval of Exisiting Development - Single House - Additions	Delegate Approved	9/07/2021	Jessica Anderson
P2210358	9/06/2021	Ajana Drive	Marbelup	Single House - Outbuilding	Delegate Approved	6/07/2021	Jessica Anderson

Application Number	Application Date	Street Address	Locality	Description of Application	Decision	Decision Date	Assessing Officer
P2210359	9/06/2021	Elphinstone Road	Robinson	Industry - General (Additions)	Delegate Approved	8/07/2021	Jessica Anderson
P2210361	9/06/2021	Bridges Street	Albany	Holiday House	Delegate Approved	13/07/2021	Jessica Anderson
P2210362	9/06/2021	Warlock Road	Bayonet Head	Single House - Addition	Delegate Approved	9/07/2021	Jessica Anderson
P2210363	10/06/2021	Glenelg Drive	Kalgan	Single House and Water Tank	Delegate Approved	15/07/2021	Jessica Anderson
P2210364	10/06/2021	Takenup Road	Napier	Agriculture - Extensive (outbuilding)	Delegate Approved	9/07/2021	Jessica Anderson
P2210365	10/06/2021	Hereford Way	Milpara	Single House - Outbuilding and Water Tank	Delegate Approved	15/07/2021	Jessica Anderson
P2210366	11/06/2021	South Coast Highway	Manypeaks	Single House - Outbuilding	Delegate Approved	15/07/2021	Jessica Anderson
P2210367	11/06/2021	Myola Drive	Kalgan	Single House	Delegate Approved	19/07/2021	Jessica Anderson
P2210369	14/06/2021	Drew Street	Seppings	Single House - Retaining Wall	Delegate Approved	19/07/2021	Jessica Anderson
P2210371	15/06/2021	Hunwick South Road	Torbay	Rural Pursuit (2x Horses & Shelter)	Delegate Approved	19/07/2021	Jessica Anderson
P2210373	16/06/2021	Lowanna Drive	Marbelup	Single House - Outbuilding & Water Tank	Delegate Approved	6/07/2021	Jessica Anderson
P2210374	16/06/2021	Kelty View	Willyung	Single House - Addition	Delegate Approved	19/07/2021	Jessica Anderson
P2210376	16/06/2021	Chester Pass Road	Milpara	Industry - Light Additions (Wash Down Bay)	Delegate Approved	6/07/2021	Jessica Anderson
P2210377	17/06/2021	Deloraine Drive	Warrenup	Single House - Verandah	Delegate Approved	22/07/2021	Dylan Ashboth
P2210381	22/06/2021	Katoomba Street	Orana	Single House - Additions	Delegate Approved	23/07/2021	Dylan Ashboth
P2210382	22/06/2021	Radiata Drive	Mckail	Single House	Delegate Approved	27/07/2021	Jessica Anderson
P2210383	23/06/2021	Freeman Close	Bayonet Head	Single House	Delegate Approved	29/07/2021	Jessica Anderson
P2210384	23/06/2021	Scorpio Drive	Mckail	Single House - Additions	Delegate Approved	27/07/2021	Jessica Anderson
P2210385	25/06/2021	Lower King Road	Lower King	Single House - Additions	Delegate Approved	20/07/2021	Jessica Anderson
P2210386	25/06/2021	Knapp Head Road	Lowlands	Single House - Outbuilding	Delegate Approved	27/07/2021	Jessica Anderson
P2210389	28/06/2021	Lockyer Avenue	Centennial Park	Community Recreation Facilities -	Delegate Approved	2/07/2021	Jan van der Mescht
P2210392	28/06/2021	Forsyth Glade	Kronkup	Single House - Outbuilding	Delegate Approved	27/07/2021	Jessica Anderson
P2210394	29/06/2021	Rock Cliff Circle	Nullaki	Building Envelope Single House Outbuilding & Water Tanks (x2)	Delegate Approved	27/07/2021	Jessica Anderson
P2210401	2/07/2021	Stirling Terrace	Albany	Development - Repairs & Maintenance	Delegate Approved	12/07/2021	Jessica Anderson
P2210403	2/07/2021	Ajana Drive	Marbelup	Development - Outbuilding	Delegate Approved	29/07/2021	Jessica Anderson
P2210404	2/07/2021	Miramar Road	Mira Mar	Single House	Delegate Approved	29/07/2021	Jessica Anderson

City of Albany

Building Report

To	:	His Worship the Mayor and Councillors
From	:	Ashton James - Development Services
Subject	:	Building Activity – July 2021
Date	:	4 August 2021

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1. In July, 2021 (85) building permits were issued for building activity worth $8,190.837. This included nine (9) Demolition permits and eleven (11) sign permits.

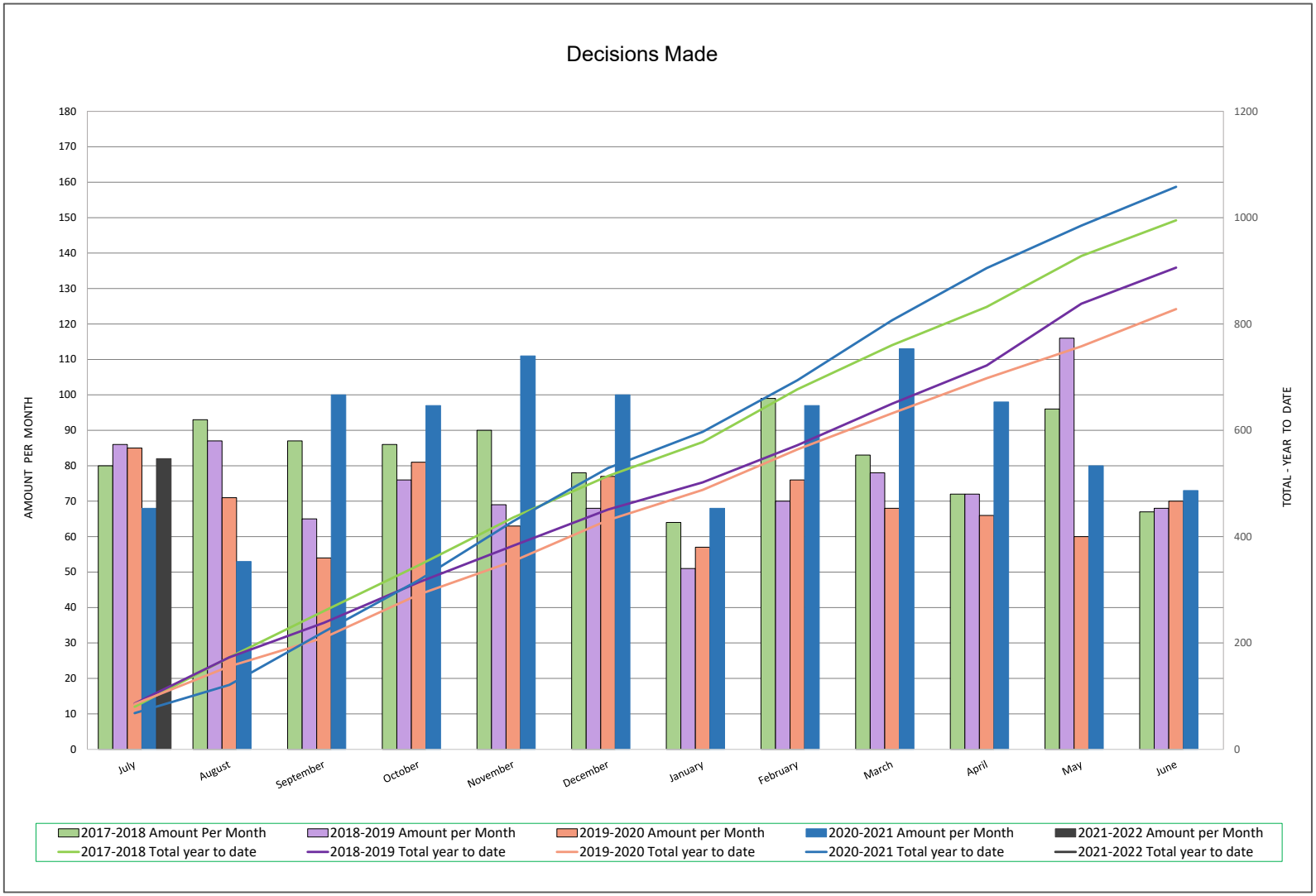
2. It's brought to Council's attention that these figures included the following building permit # 165560 - (New Dwelling): Estimated Value $1,180.000.

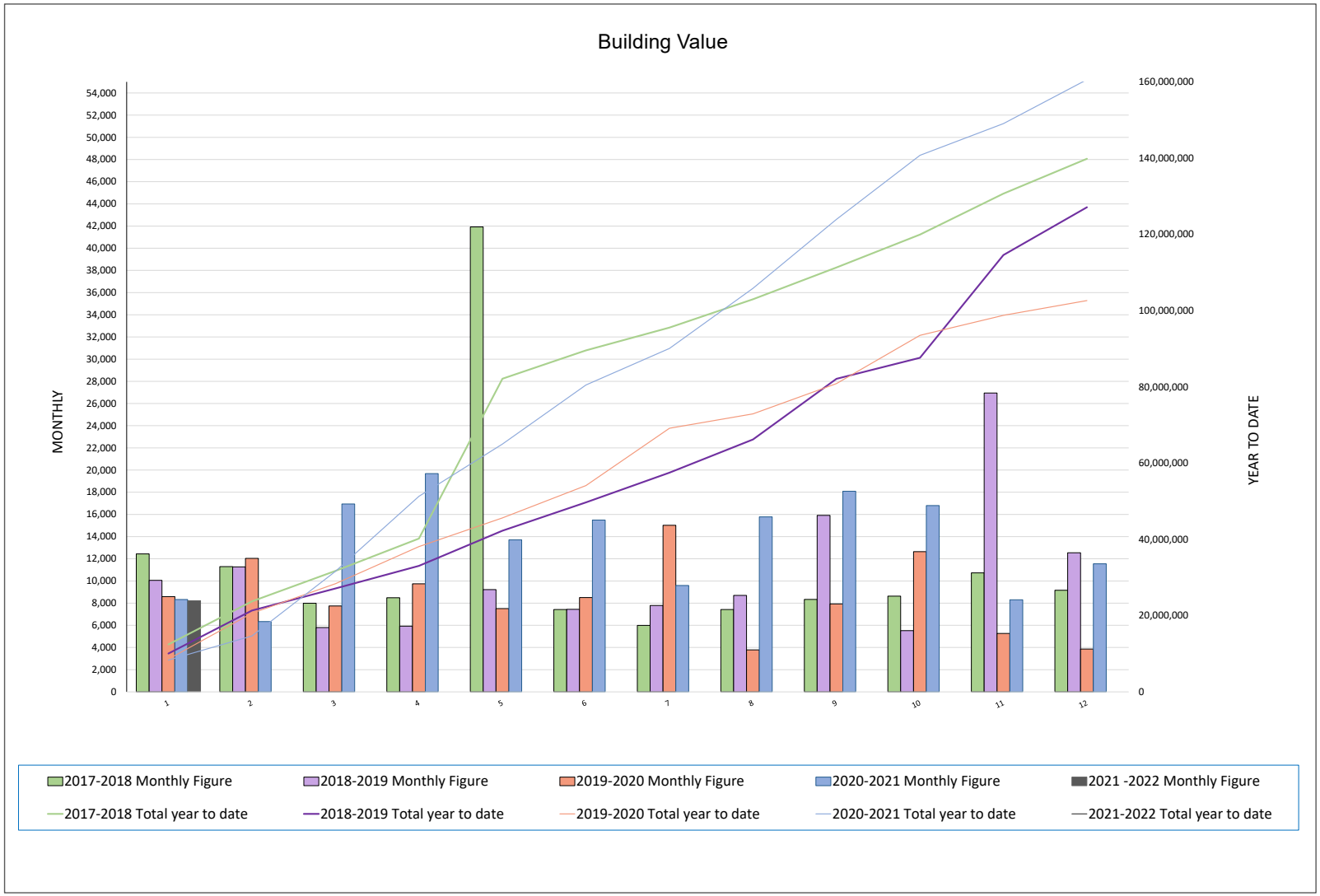
3. The three (3) attached graphs compare the current activity with the past four (4) fiscal years. The first one compares the amount of decisions made, the second one compares the value of activity, and the third one compares the number of dwellings and units.

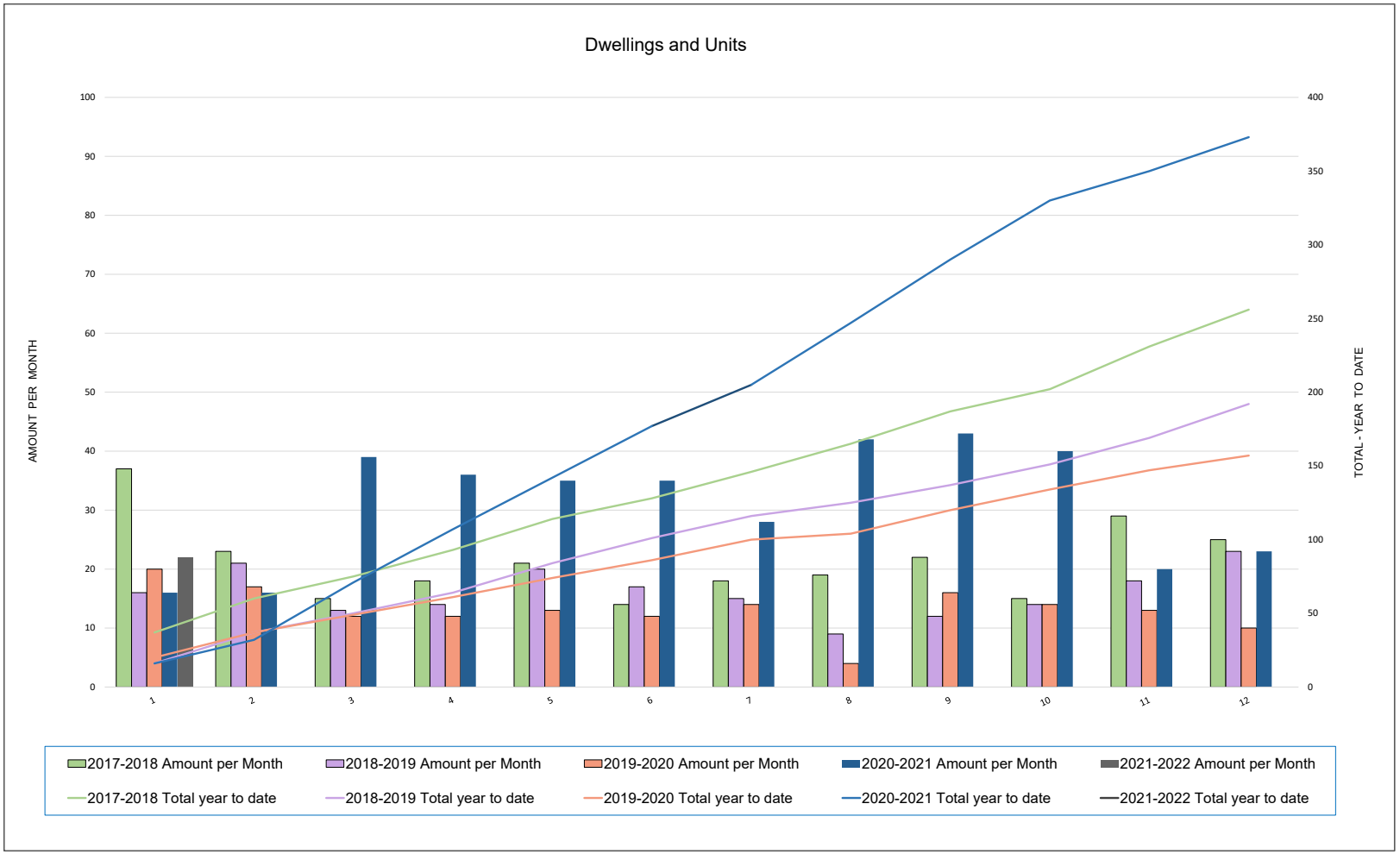
4. A breakdown of building activity into various categories is provided in the Building Construction Statistics form.

5. Attached are the details of the permits issued for July, the first month of activity in the City of Albany for the financial year 2021/2022.

Ashton James
Development Services


Decisions Made
AMOUNT PER MONTH
TOTAL - YEAR TO DATE
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
0
200
400
600
800
1000
1200
July
August
September
October
November
December
January
February
March
April
May
June
2017-2018 Amount Per Month
2018-2019 Amount per Month
2019-2020 Amount per Month
2020-2021 Amount per Month
2021-2022 Amount per Month
2017-2018 Total year to date
2018-2019 Total year to date
2019-2020 Total year to date
2020-2021 Total year to date
2021-2022 Total year to date


Building Value
MONTHLY
YEAR TO DATE
54,000
52,000
50,000
48,000
46,000
44,000
42,000
40,000
38,000
36,000
34,000
32,000
30,000
28,000
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
1
2
3
4
5
6
7
8
9
10
11
12
2017-2018 Monthly Figure
2018-2019 Monthly Figure
2019-2020 Monthly Figure
2020-2021 Monthly Figure
2021 -2022 Monthly Figure
2017-2018 Total year to date
2018-2019 Total year to date
2019-2020 Total year to date
2020-2021 Total year to date
2021-2022 Total year to date


Dwellings and Units
AMOUNT PER MONTH
TOTAL - YEAR TO DATE
0
10
20
30
40
50
60
70
80
90
100
0
50
100
150
200
250
300
350
400
1
2
3
4
5
6
7
8
9
10
11
12
2017-2018 Amount per Month
2018-2019 Amount per Month
2019-2020 Amount per Month
2020-2021 Amount per Month
2021-2022 Amount per Month
2017-2018 Total year to date
2018-2019 Total year to date
2019-2020 Total year to date
2020-2021 Total year to date
2021-2022 Total year to date

	SINGLE		GROUP			DOMESTIC/		ADDITIONS/		HOTEL/		NEW		ADDITIONS/		OTHER		TOTAL $
2021-2022	DWELLING		DWELLING		Total	OUTBUILDINGS		DWELLINGS		MOTEL		COMMERCIAL		COMMERCIAL				VALUE
	No	$ Value	No	$ Value		No	$ Value	No	$ Value	No	$ Value	No	$ Value	No	$ Value	No	$ Value	
JULY	21	6,675,556	1	165,000	22	17	719,143	15	333,674			1	40000	1	16,500	17	240,964	8,190,837
AUGUST																		
SEPTEMBER																		
OCTOBER																		
NOVEMBER																		
DECEMBER																		
JANUARY																		
FEBRUARY																		
MARCH																		
APRIL																		
MAY																		
JUNE																		
TOTAL TO DATE	**21**	**6,675,556**	**1**	**165,000**	**22**	**17**	**719,143**	**15**	**333,674**	**0**	**0**	**1**	**40,000**	**1**	**16,500**	**17**	**240,964**	**8,190,837**

BUILDING, SIGN & DEMOLITION LICENCES ISSUED UNDER DELEGATED AUTHORITY

Applications determined for July 2021

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
165512	DOWNRITE DEMOLITION	DEMOLITION PERMIT - DWELLING & OUTBUILDINGS - UNCERTIFIED	84	4	VANCOUVER STREET	ALBANY
165541	E AND L ROOFING AND CONSTRUCTION	PATIO - UNCERTIFIED	48	101 100 20	HILL STREET	ALBANY
165556	BUILDING APPROVAL CERTIFICATE	BUILDING APPROVAL CERTIFICATE - RETAINING WALL	9	66	FESTING STREET	ALBANY
165361	HOME GROUP WA GREAT SOUTHERN PTY LTD	NEW DWELLING - UNCERTIFIED	18	6	BARAMBAH CIRCUIT	BAYONET HEAD
165345	HOME GROUP WA GREAT SOUTHERN PTY LTD	NEW DWELLING - UNCERTIFIED	16	7	BARAMBAH CIRCUIT	BAYONET HEAD
165569	MATSON FABRICATIONS	PATIO - UNCERTIFIED	4	618	WARLOCK ROAD	BAYONET HEAD
165386	SERENITAS COMMUNITIES HOLDINGS PTY LTD T/AS THE OUTLOOK AT ALBANY	RETAINING WALL - STAGE 4 - UNCERTIFIED	20	501	ALISON PARADE	BAYONET HEAD
165562	RYDE BUILDING COMPANY PTY LTD	NEW DWELLING & RETAINING WALL - UNCERTIFIED	1	651	HOUGHTON BOULEVARD	BAYONET HEAD
165546	PLUNKETT HOMES (1903) PTY LTD	NEW DWELLING - UNCERTIFIED	63	132	KURANNUP ROAD	BAYONET HEAD
165559	WA COUNTRY BUILDERS	NEW DWELLING - UNCERTIFIED	7	728	DOYLE WAY	BAYONET HEAD
165360	HOME GROUP WA GREAT SOUTHERN PTY LTD	NEW DWELLING - UNCERTIFIED	3	700	FLYNN WAY	BAYONET HEAD
165598	D HARRIS	PATIO - UNCERTIFIED	72	30	GREEN ISLAND	BAYONET HEAD
165575	MINDFUL HOMES PTY LTD	SHED & WATER TANK - CERTIFIED		56	QUARANUP ROAD	BIG GROVE
165529	CITY OF ALBANY	SIGN X 1	94	4	SANFORD ROAD	CENTENNIAL PARK
165531	CITY OF ALBANY	SIGN X 1	41-55	727	KITCHENER ROAD	CENTENNIAL PARK
165517	CITY OF ALBANY	SIGN X 1	59-65	747 1267	SANFORD ROAD	CENTENNIAL PARK

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
165523	CITY OF ALBANY	SIGN X 1	143-149	740 741	NORTH ROAD	CENTENNIAL PARK
165524	CITY OF ALBANY	SIGN X 1	69-73	736	BARKER ROAD	CENTENNIAL PARK
165526	CITY OF ALBANY	SIGN X 1		730	BARKER ROAD	CENTENNIAL PARK
165527	CITY OF ALBANY	SIGN X 1	50	743	BARKER ROAD	CENTENNIAL PARK
165519	CITY OF ALBANY	SIGN X 2	59-65	747 1267	SANFORD ROAD	CENTENNIAL PARK
165532	CITY OF ALBANY	SIGN X 1	156	1359	LOCKYER AVENUE	CENTENNIAL PARK
165566	CITY OF ALBANY	SIGN X1	156	1359	LOCKYER AVENUE	CENTENNIAL PARK
165551	C & R GLIOSCA	NEW MANUFACTURED DWELLING & ALFRESCO & CARPORT - UNIT 19 - CERTIFIED	Unit 19/33	734	BARKER ROAD	CENTENNIAL PARK
165552	C & R GLIOSCA	NEW MANUFACTURED DWELLING & ALFRESCO & CARPORT - UNIT 18 - CERTIFIED	Unit 18/33	734	BARKER ROAD	CENTENNIAL PARK
165565	RYDE BUILDING COMPANY PTY LTD	NEW MANUFACTURED DWELLING - UNIT 10 - UNCERTIFIED	Unit 10/33	734	BARKER ROAD	CENTENNIAL PARK
165600	DELTA PTY LTD	DEMOLITION PERMIT - CREATING OPENINGINGS IN EXISITNG PRECAST WALLS	42-88	105 104	ALBANY HIGHWAY	CENTENNIAL PARK
165599	BODYCARE ENTERPRISES PTY LTD	SOLAR PANELS - CERTIFIED	64	102	LION STREET	CENTENNIAL PARK
165509	BUILDING APPROVAL CERTIFICATE	BUILDING APPROVAL CERTIFICATE - SHED CONVERTED TO DWELLING - CERTIFIED	1387	201	LOWER DENMARK ROAD	ELLEKER
165576	M ARMSTRONG	SHED - UNCERTIFIED	79	8	ELLEKER-GRASMERE	ELLEKER
165558	WR SARGEANT	SHED - UNCERTIFIED	166	50	ELLEKER-GRASMERE ROAD	ELLEKER
165553	M RYSTENBERG	CARPORT ADDITIONS & TILES REMOVED FROM ROOF AND REPLACED WITH COLOURBOND - UNCERTIFIED	34	944	MERMAID AVENUE	EMU POINT
165530	KS CASTLEHOW	SHED - UNCERTIFIED	16	29	BURVILL ROAD	GLEDHOW
165533	PLUNKETT HOMES (1903) PTY LTD	NEW DWELLING - UNCERTIFIED	3	666	CARTER STREET	GLEDHOW

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
165555	RYDE BUILDING COMPANY PTY LTD	NEW DWELLING - UNCERTIFIED	78	649	LITTLE OXFORD STREET	GLEDHOW
165591	L & J DRAPER	ADDITIONS TO DWELLING - LIVING ROOM EXTENSIONS - UNCERTIFIED	278	4	OLD ELLEKER ROAD	GLEDHOW
165536	KOSTER'S OUTDOOR PTY LTD	SHED EXTENSIONS - UNCERTIFIED	8	103	RIVERSIDE ROAD	KALGAN
165522	H WAITE & V BERRYMAN	SHED - UNCERTIFIED	249	19	MEAD ROAD	KALGAN
165549	DJ MCLEISH	AMENDMENT TO BUILDING PERMIT 165459 - CHANGE OF LOCATION - UNCERTIFIED	104	4	HUNTON ROAD	KALGAN
165557	BG & LS WARR	2 X SHIPPING CONTAINERS WITH ROOF - UNCERTIFIED	8	120	HOBBS CLOSE	KALGAN
165564	KOSTER'S OUTDOOR PTY LTD	SHED - UNCERTIFIED	149	24	MEAD ROAD	KALGAN
165535	RYDE BUILDING COMPANY PTY LTD	NEW DWELLING - UNCERTIFIED	13	214	STIRLING VIEW DRIVE	LANGE
165510	J & B PIPER	WATER TANK - UNCERTIFIED	84	11	WILSON STREET	LITTLE GROVE
165538	WA LITTLE	SHED - UNCERTIFIED	50	404	NAMBUCCA RISE	LOWER KING
165543	TURPS STEEL FABRICATIONS	PATIO - UNCERTIFIED	35B	1	SLATER STREET	LOWER KING
165580	C & J LE GRANGE	WATER TANK - UNCERTIFIED	56	407	NAMBUCCA RISE	LOWER KING
165602	ALBANY SHEDS AND GARAGES	SHED - UNCERTIFIED	24	112	BAKER STREET NORTH	LOWER KING
165579	TRABS CONSTRUCTIONS T/AS RANBUILD GREAT SOUTHERN	GARAGE - UNCERTIFIED	43417	104	SOUTH COAST HIGHWAY	MANYPEAKS
165584	PHILIP KINDER T/A CCS ASBESTOS REMOVAL & DEMOLITION PTY LTD	DEMOLITION - REMOVAL OF INTERNAL ASBESTOS CEILING WALL LINING TO MALE TOILET & ASBESTOS EXTERNAL EAVES	43715	500	SOUTH COAST HIGHWAY	MANYPEAKS
165511	TANKMAN MOUNT BARKER	WATER TANK - UNCERTIFIED	54	510	AJANA DRIVE	MARBELUP
165518	C & R GLIOSCA	NEW DWELLING - CERTIFIED	287	188	LOWANNA DRIVE	MARBELUP
165550	WA COUNTRY BUILDERS	AMENDMENT TO BUILDING PERMIT 164926 - CHANGE TO FINISH FLOOR LEVEL - UNCERTIFIED		523	KATUNA ROAD	MARBELUP
165482	KOSTER'S OUTDOOR PTY LTD	SHED & WATER TANK - UNCERTIFIED	264	162	LOWANNA DRIVE	MARBELUP

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
165590	WA COUNTRY BUILDERS	AMENDMENT TO BP #164959 - RAISE FINISHED FLOOR LEVEL - UNCERTIFIED		529	BERRIMA ROAD	MARBELUP
165578	KOSTER'S OUTDOOR PTY LTD	ANCILLERY ACCOMODATION WITH VERANDAH & SHED - UNCERTIFIED		526	BERRIMA ROAD	MARBELUP
165547	PLUNKETT HOMES (1903) PTY LTD	AMENDMENT TO BP165382 - CHANGE TO FLOOR LEVEL - UNCERTIFIED	126	59	BEAUDON ROAD	MCKAIL
165475	DW LEEFLANG	SECOND AMENDMENT TO BP 164927 - SITE CHANGE FOR WATER TANK AND OTHER ALTERATIONS & ADDITIONS TO DWELLING - CERTIFIED	575	6	ALBANY HIGHWAY	MCKAIL
165501	POCOCK BUILDING COMPANY PTY LTD	NEW DWELLING - UNCERTIFIED	31A	2	GOLF LINKS ROAD	MIDDLETON BEACH
165560	DA & AM HOLLAND	NEW DWELLING - UNCERTIFIED	18-20	7	WYLIE CRESCENT	MIDDLETON BEACH
165583	DOWNRITE DEMOLITION	DEMOLITION - DWELLING	29	160	GARDEN STREET	MIDDLETON BEACH
165593	KOSTER'S OUTDOOR PTY LTD	SHED & PATIO - UNCERTIFIED	50	116	HEREFORD WAY	MILPARA
165597	NEW HORIZON HOMES (WA) PTY LTD	SHED & WATER TANK - UNCERTIFIED	96	329	HEREFORD WAY	MILPARA
165503	WREN (WA) PTY LTD	NEW DWELLING GARAGE ALFRESCO & RETAINING WALLS - UNCERTIFIED	222	154	MIDDLETON ROAD	MIRA MAR
165528	CITY OF ALBANY	SIGN X 1	27-47	89 176 178 177 179 180	NORTH ROAD	MIRA MAR
165563	RYDE BUILDING COMPANY PTY LTD	NEW DWELLING - UNCERTIFIED	7	72	QUOKKA PLACE	MIRA MAR
165548	CITY OF ALBANY	ROOF COVER TO DINING AREA - CERTIFIED		560	FORTS ROAD	MOUNT CLARENCE
165537	DOWNRITE DEMOLITION	DEMOLITION - DWELLING & FENCE	25	710	SUFFOLK STREET	MOUNT CLARENCE
165603	DEMCO WA	DEMOLITION PERMIT - ASBESTOS ROOF REMOVAL	19	48	JOHN STREET	MOUNT CLARENCE
165604	DEMCO WA	DEMOLITION PERMIT - REMOVAL OF ASBESTOS ROOF SHEETS FROM DWELLING	41579	20	HAY STREET	MOUNT CLARENCE
165414	KEEDAK HOLDINGS PTY LTD	ALTERATION & ADDITION TO EXISTING DWELLING - UNCERTIFIED	221	55	SERPENTINE ROAD	MOUNT MELVILLE

Application Number	Builder	Description of Application	Street #	Property Description	Street Address	Suburb
165585	PHILIP KINDER T/A CCS ASBESTOS REMOVAL & DEMOLITION PTY LTD	DEMOLITION - ASBESTOS CEILING TO KITCHEN & ASBESTOS WALL LINING TO EXTERNAL GABLE	2151	4463	CHESTER PASS ROAD	NAPIER
165587	SD BOWMAN	MACHINERY SHED & 2 X WATER TANKS (50000L) - UNCERTIFIED	455	3	TAKENUP ROAD	NAPIER
165520	PHILIP KINDER T/A CCS ASBESTOS REMOVAL & DEMOLITION PTY LTD	DEMOLITION - ASBESTOS FENCE	16	116	WHIDBY STREET	ORANA
165581	GREAT SOUTHERN BOUNDARIES	RETAINING WALL - UNCERTIFIED	60	7	DREW STREET	SEPPINGS
165570	E & L ROOFING AND CONSTRUCTION	CARPORT - UNCERTIFIED	37	37	DAVID STREET	SPENCER PARK
165534	KOSTER'S OUTDOOR PTY LTD	SHED - UNCERTIFIED	11	57	KEMAL COURT	WARRENUP
165544	RYDE BUILDING COMPANY PTY LTD	NEW DWELLING - UNCERTIFIED	49	510	MENEGOLA DRIVE	WARRENUP
165577	R & C DAVY	BUILDING APPROVAL CERTIFICATE - CAMP KITCHEN GAZEBO & WATER TANK	37668	71 72 73	SOUTH COAST HIGHWAY	WELLSTEAD
165589	WA COUNTRY BUILDERS	AMENDMENT TO BP #165272 - FINISHED FLOOR LEVEL - UNCERTIFIED		831	GREENWOOD DRIVE	WILLYUNG
165586	C STEPHEN	ADDITIONS - STUDY - UNCERTIFIED	60	421	KELTY VIEW	WILLYUNG
165571	WA COUNTRY BUILDERS	NEW DWELLING - UNCERTIFIED	4	239	RIVERWOOD ROAD	WILLYUNG
165539	ALBANY FENCING CONTRACTORS	FENCE EXTENSION - UNCERTIFIED	57A	2	BARNESBY DRIVE	YAKAMIA
165364	HOME GROUP WA GREAT SOUTHERN PTY LTD	NEW DWELLING - UNCERTIFIED	34	684	GALLE STREET	YAKAMIA
165499	DOWNRITE DEMOLITION	DEMOLITION PERMIT - CLASSROOM X 2	42248	6	BEAUFORT ROAD	YAKAMIA
165588	PM & PH GREEN	BUILDING APPROVAL CERTIFICATE - FRUIT PACKING SHED & COUNTRY KITCHEN	50070	479 790	SOUTH COAST HIGHWAY	YOUNGS SIDING