

# Attachment 1D



Friday, 12 May 2023

Statutory Assessments  
Rivers & Estuaries Branch  
Department of Biodiversity, Conservations & Attractions  
Locked Bag 104  
Bentley DC WA 6983

## Re: Swan Yacht Club Jetty Development Application

Dear Sir/Madam,

We are writing to submit our Part 5 development application for the proposed works at Swan Yacht Club.

Our development application encompasses a range of new works within the existing and proposed lease boundaries at Swan Yacht Club's East Fremantle site. It includes significant enhancements to the club's facilities, aimed at improving the experience for members, visitors, and the wider community. Our proposed works align with the goals outlined in the comprehensive Master Plan, which has been developed in consultation with stakeholders, including the Town of East Fremantle and the Department of Biodiversity, Conservation and Attractions.

The key components of our application, as detailed in the attached documents, consist of the demolition of the existing slipway and the beautification of its footprint, the replacement of Jetty 5, the construction of new maintenance facilities, boat ramp works, and the establishment of a negative fork wharf. These works have been carefully planned to minimise environmental impact while ensuring compliance with all relevant regulations and standards.

Our team has taken into consideration the long-term vision for Swan Yacht Club, and we are committed to delivering a project that upholds the highest standards of quality, safety, and environmental sustainability. Additionally, we have considered the feedback and insights provided by the stakeholders throughout the consultation and planning process.

We believe that the approval of our development application will allow Swan Yacht Club to thrive and continue serving its members and the community effectively.

Thank you for considering our application. We are confident in our ability to successfully execute this project and fulfill all the necessary requirements. Should you require any additional information or have any questions, please do not hesitate to contact me at your convenience.

Yours sincerely

Damien Gaspar  
General Manager  
08 9339 3520  
[manager@swanyachtclub.com.au](mailto:manager@swanyachtclub.com.au)  
Riverside Road, East Fremantle

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## Form 1 – Application for Approval of Development

Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)

### 1. Applicant – the applicant is required to sign the form at item No. 8

The applicant is the person with whom the Chief Executive Officer will correspond, unless an authorised agent has been appointed to act on behalf of the applicant, in which case correspondence will be sent direct to the agent.

Name of Applicant	Swan Yacht Club Inc					
Name of Company (if applicable)	Swan Yacht Club Inc					
Contact person	Damien Gaspar					
Postal address	PO Box 20					
Town/Suburb	Palmyra			Postcode	6959	
Telephone	Work	0893393520	Home		Mobile	
Facsimile						
Email	manager@swanyachtclub.com.au					

### 2. Landowner(s) – landowners are required to sign the form at item No. 8

All owner(s) of the land must sign this application. Where land is owned by the Crown, or has a management order granted to a local government or other agency, this application must be signed by the relevant landowner as required under section 72(5)(a) of the Act. If there are more than 2 landowners, please provide the additional information on a separate page.

#### Details of 1<sup>st</sup> landowner

Full name	Town of East Fremantle				
Company/agency (if applicable)					
Position & ACN/ABN (if applicable)	Position		ACN/ABN No.	80 052 365 032	
Postal address	PO Box 1097				
Town/Suburb	Fremantle	State	WA	Postcode	6959

#### Details of 2<sup>nd</sup> landowner (if applicable)

Full name	Glen McLeod-Thorpe , on behalf of the Swan River Trust				
Company/agency (if applicable)	Department of Biodiversity, Conservation and Attractions				
Position & ACN/ABN (if applicable)	Position	Manager, Rivers & Estuaries Branch	ACN/ABN No.		
Postal address	17 Dick Perry Ave				
Town/Suburb	Kensington	State	WA	Postcode	6151



**Form 1 – Application for Approval of Development**  
*Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)*

**3. Appointment of an authorised agent – authorised agent is required to sign the form at item No. 8**

Where the applicant has appointed an authorised agent to act on their behalf, the authorised agent must attach the written authority to this application.

Have you appointed an authorised agent to act on your behalf?      YES       NO

**Details of authorised agent**

Full name					
Company/agency (if applicable)					
Position in company/agency (if applicable)					
ACN/ABN (if applicable) /Telephone	ACN/ABN:	Work		Mobile	
Postal address					
Town/Suburb		State		Postcode	

**4. Certificate(s) of title information**

Certificate of title	Lot 300 on DP47450	
Lot No. and location of subject lot	Lot 10105 on Plan 214976	
	Lot 10106 on DP 214976	
Reserve No. (if applicable)	Lot 8661 on Plan 21239	
Street No. and name	Lot 7771 on Plan 169877	
Town/Suburb	East Fremantle	
Nearest road intersection	Preston Point Road	

**5. River reserve lease (Swan and Canning Rivers Management Act 2006 - section 29)**

If you intend to apply for a lease in relation to this proposed development, you will need to complete a separate Form – Application for a River reserve lease – and lodge it concurrently with this application. Note: River reserve leases will not be granted for developments requiring approval under section 70 of the Act – to which the proposed lease relates – unless that approval has been granted.

Does the development require a River reserve lease?      YES       NO

If the development requires a River reserve lease, please tick the appropriate box below.

New lease	<input type="checkbox"/>
Renewal of a lease	<input type="checkbox"/>
Modification of an existing lease (ie. change in area or purpose etc.)	<input checked="" type="checkbox"/>



Form 1 – Application for Approval of Development
Swan and Canning Rivers Management Act 2006 - Part 5 – section 72(1)

6. River reserve licence (Swan and Canning Rivers Management Act 2006 - section 32)

If you intend to apply for a licence in relation to this proposed development, you will need to complete a separate Form – Application for a River reserve licence – and lodge it concurrently with this application, e.g. charter vessel operation, kayak, canoe tours, etc. Refer to the Licence Application Guidelines on how to apply for a River reserve licence.

Does the proposed development involve an activity in the River reserve that will require a River reserve licence?

YES [ ] NO [x]

If the development requires a River reserve licence, please tick the appropriate box below.

New licence [ ]
Renewal of a licence [ ]

Modification of an existing licence (ie. change in area, purpose, etc.)

7. Details of proposed development

Please provide a written description of the proposed development (refer to the Development Application Guidelines for further details on what information to include in this section).

Table with 2 columns: Field Name, Description. Fields include Estimated cost of development (\$ 2650000), Current use of land (Yacht Club), and Proposed development (Please see attached documentation).





Form 1 – Application for Approval of Development  
Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)

**8. Signatures**

**Signed by Applicant**

Applicant signature			
Date		12/5/23	
Print name and position (if signing on behalf of a company or agency)	Name	DAMIEN GASPAR	
	Position	General Manager	

**Signed by Landowner/s (if the landowner is not the applicant)**

I consent to this application being made.			
Landowner signature			
Landowner signature			
Date		25/5/23	
Print name and position (if signing on behalf of a company or agency)	Name	ANDREW MALONE	
	Position	A/CEO	

**Signed by Authorised Agent (if you are acting for the applicant)**

I have attached a copy of the written authorisation for me to act on behalf of the applicant to this application.			
Authorised Agent signature			
Date			
Print name and position (if signing on behalf of a company or agency)	Name:		
	Position:		




**Form 1 – Application for Approval of Development**  
*Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)*

**8. Signatures**

**Signed by Applicant**

Applicant signature		
Date		
Print name and position (if signing on behalf of a company or agency)	Name	
	Position	

**Signed by Landowner/s (if the landowner is not the applicant)**

<b>I consent to this application being made.</b>		
Landowner signature		
Landowner signature		
Date	14 June 2023	
Print name and position (if signing on behalf of a company or agency)	Name	Glen McLeod-Thorpe
	Position	Manager, River and Estuaries Branch

on behalf of the Swan River Trust

**Signed by Authorised Agent (if you are acting for the applicant)**

<b>I have attached a copy of the written authorisation for me to act on behalf of the applicant to this application.</b>		
Authorised Agent signature		
Date		
Print name and position (if signing on behalf of a company or agency)	Name:	
	Position:	

SWAN YACHT CLUB  
PART 5 APPLICATION  
SUPPORTING DOCUMENTATION



ESTABLISHED 1904

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## INTRODUCTION

The Swan Yacht Club [SYC] is pleased to present our Part 5 development application to the Town of East Fremantle [ToEF] and the Department of Biodiversity, Conservation and Attractions [DBCA].

Our application seeks approval for a range of new works within the existing and proposed new water lease extension, of approximately 6200sqm, at our East Fremantle site.

### **Comprehensive Master Plan:**

SYC has undertaken an extensive consultation process, working closely with stakeholders including ToEF and DBCA. As part of this collaborative effort, we have developed a comprehensive Master Plan that outlines our substantial proposed works program over the next two decades. This Master Plan encompasses both on-water and land-based construction activities, reflecting our commitment to the long-term development and enhancement of our facilities.

### **Scope of Part 5 Application:**

While our Master Plan encompasses various projects, this Part 5 application **focuses specifically** on four major works activities. These activities are detailed further in the application document and include:

- Demolition of Existing Slipway and Beautification of Footprint
- Extension of liquor licence area to the west of the existing bar/restaurant, including creation of pop-up function / event space
- Jetty 5 Replacement and wave attenuation system
- Installation of Dry Docks

### **Purpose of Development:**

The primary objective of this development is to improve the Club's facilities for our valued members, visitors, and the wider public. Additionally, we aim to enhance the environment and aesthetic appeal of the area. Through these works, we strive to create an exceptional experience for all who visit our Club.

### **Environmental Considerations:**

The proposed works have been meticulously planned to minimise any potential impact on the environment and our team has taken great care to ensure that all relevant regulations and standards are met, guaranteeing compliance throughout the construction process.

### **Commitment to Quality and Sustainability:**

The Swan Yacht Club is dedicated to maintaining the highest standards of quality, safety, and environmental sustainability in all our endeavors. We are committed to working closely with the DBCA and other stakeholders to ensure the successful completion of these projects in line with our shared vision.

### **Community Benefits:**

The approval of this application will enable the Club to continue serving our members and the local community. By enhancing our facilities, we aim to provide an exceptional experience while preserving the long-term conservation and preservation of the local environment.

Thank you for considering our development application. We look forward to working collaboratively with the ToEF and DBCA to bring these exciting plans to fruition.

## ABOUT THE SWAN YACHT CLUB

The Swan Yacht Club (SYC) has a long and impressive history that dates back over a century. The club has been led by a devoted committee and management team for the past decade, and under their guidance, the SYC has become the most dynamic club on the Swan River in terms of community involvement and attracting the public to its shores.

Located on a picturesque Swan River peninsula in East Fremantle, the SYC provides its members and visitors with access to an extensive range of facilities, including a 280-berth marina, a slipway and vessel maintenance facility, trailer boat storage with dual-access boat ramps, as well as modern and comfortable hospitality amenities featuring bars, restaurants and multi-purpose function rooms.

With over 3,000 active members, the SYC actively encourages public participation in numerous events throughout the year. The club provides swimming and greenbelt facilities for the community to share with its membership group.

In recent years, the SYC has made significant investments to improve its facilities, including the construction of a new clubhouse, modern hospitality amenities, such as the Swan River's only floating River Deck, as well as upgrading and improving its jetty and land-based infrastructure.

The committee and management team have demonstrated their commitment to community engagement by negotiating a larger public-access zone [Greenbelt] located between the land and seabed lease areas. This expansion will provide opportunities for the public to use the club's modern hospitality facilities, creating an attractive space for community events and activities, attracting visitors to the area and supporting local businesses.

This Development Approval submission seeks to continue the SYC's commitment to improving its facilities and services for its members and the wider community. The staged range of project works proposed in this submission, based on the SYC 20-year Masterplan, includes upgrading the club's facilities, such as the jetty, slipway, dry stack boat storage, vessel maintenance facility, boat ramp, and upgrades to landscaping, pathways, and revegetation of the greenbelt zones. These improvements will continue to enhance the SYC's reputation as a welcoming and inclusive community-focused club.



# SWAN YACHT CLUB 20-YEAR MASTERPLAN



TOWN of  
EAST FREMANTLE



swan  
yacht  
CLUB INC  
ESTABLISHED 1904



Department of Biodiversity,  
Conservation and Attractions



After engaging in a series of extensive consultations, negotiations, and discussions with the Department of Biodiversity, Conservation and Attractions (DBCA) and the Town of East Fremantle (ToEF), the Swan Yacht Club (SYC) has successfully finalised its vision and planning for a range of major works projects over the next two decades.

This 20-year masterplan, which has been submitted as a part of the club's application, provides comprehensive details of the planned works, highlighting both the reduction in SYC land lease area, whilst significantly extending the greenbelt zones in line with DBCA's management guidelines and corporate policies.

This comprehensive masterplan includes SYC's application for an extension of approximately 6200sqm of water lease area, strategically located along the northern and western boundaries of the existing lease. This expansion will provide SYC with additional space required to accommodate the Australian Standards in marina design, supporting the club's future development plans for a safer and compliant etty system.

The staged approach outlined in this plan has been developed to align with the club's budgetary forecasts and is designed to create an exceptional facility that will cater to the needs of both the membership group and the wider community. The plan's comprehensive approach aims to transform the SYC into an even more progressive club, setting the standard for the Swan River region.

This project represents a significant milestone for the SYC and reflects the organisation's ongoing commitment to maintaining a world-class facility that offers a range of amenities for boating enthusiasts of all levels, whilst minimizing the environmental impact of these developments.

The masterplan has successfully obtained in-principle support from both the Department of Biodiversity, Conservation and Attractions (DBCA) and the Town of East Fremantle (ToEF).

Matthew Crawford Architects

Swan Yacht Club Masterplan

PROPOSED MASTERPLAN STAGE 1

DATE: 15/08/2023

SCALE: A1:00

PROJECT NO: 2023001

CLIENT: SWAN YACHT CLUB

LOCATION: SWAN RIVER, WESTERN AUSTRALIA

STATUS: PRELIMINARY

DESIGNED BY: M. CRAWFORD

DRAWN BY: J. SMITH

CHECKED BY: M. CRAWFORD

DATE: 15/08/2023



# SYC Master Plan Stage 1 Works

The Swan Yacht Club 20-Year Master Plan outlines a comprehensive set of improvements that will be carried out over a period of three distinct phases, as illustrated in the accompanying drawings and fully described in this proposal. For clarity, refer to Master Plan Drawings on pages 52-54.

**This Part 5 submission focuses on components of the Stage 1 works of the master plan, which are described in detail. It is important to note, however, that some additional aspects of the overall master plan will require separate applications for approval.**

These applications will cover specific components of the proposed works, and will be submitted as needed throughout the implementation of the plan. Overall, the Master Plan is designed to ensure that the Swan Yacht Club is equipped to construct first class infrastructure and provide outstanding experience for its members and visitors for years to come.

The Stage 1 works of the Swan Yacht Club 20-Year Master Plan consist of various specific construction projects as well as administration actions. The first administrative action involves immediately handing back the western portion of the property, as hatched in orange on Plan A1.00 REV P, from the SYC's land lease Drawing Ref No 9. This is subject to the Club retaining usage of the land for overflow parking and dredge spoils as required. SYC will continue to maintain the land area for the duration of their existing lease. Additionally, the approval of the ~6200sqm extension to the riverbed lease 2 is also required to proceed with this action.

The construction works planned for Stage 1 at the site will include-

1. The removal and demolition of the existing slipway and bosuns shed, and the beautification of the area including increase car parking and liquor license extension, Drawing Ref No. 10, 15 & 20.
2. The demolition of the existing Jetty 5 structure and the construction of a new floating attenuation system at the western and northern proposed ~6200sqm extension to lease boundaries 2
3. Establishment of a new maintenance facility on the eastern par park including concrete washdown pad, 11
4. Upgrade/replacement of the concrete boat ramp lanes and extension to the floating boat ramp jetties [Jetty 7] 6 8
5. Construction of a negative fork wharf for the launch and retrieval of the dry pen vessels 7
6. All remaining items as listed on Stage 1 of the Master Plan will form part of the initial works commitments at the SYC, however the club will submit as separate Form 7 applications closer to the commencement of the works and as funding allows.

This application includes separate sections that provide comprehensive details about the project, including construction management plans, cost estimates, design drawings, program timelines, and methodologies.







### SYC Master Plan Stage 3 Works

Stage 3 of the SYC Master Plan outlines a future 2-storey development that will feature additional hospitality space, catering for the forecast increase in club membership, both boating and social members. This development will also incorporate the bosuns shed within part of the ground floor, providing a dedicated workspace for the boat crew while maximizing the use of the available space.

The new building is to be constructed on the clubs leased property, within the liquor license extension, and will not encroach on the newly created 20m green belt public space area. This ensures that the public space remains untouched while providing the necessary infrastructure for the club to expand and cater to its growing membership.

The additional hospitality space will provide a range of facilities, including restaurants, bars, function rooms, and meeting spaces. These facilities will cater to the increasing demand for hospitality services by members, as well as visitors to the club. The new building will also incorporate the latest technologies and design features to create an optimal environment for social and boating activities.

Furthermore, the new development will complement the existing infrastructure of the club, including the boat storage, maintenance facility, and other amenities. It will also enhance the overall visitor experience, providing a modern, comfortable, and functional space for members to socialize, dine, and engage in various activities.

These future works are planned for mid 2030.



## SUMMARY OF PROPOSED WORKS

The Development Approval submission to the Department of Biodiversity, Conservation and Attractions (BCA) from the Swan Yacht Club (SYC) outlines a range of project works that are part of the SYC 20-year Masterplan. The proposed works in this Part 5 application are designed to improve the facilities and infrastructure of the club while minimising its impact on the environment.

The Masterplan project works are divided into different stages, and the first stage, which is this Part 5 application includes, the demolition and upgrade of Jetty 5 to a modern floating wave attenuator pontoon system. The end-of-life slipway infrastructure will also be demolished and repurposed into a public access greenbelt zone, pop-up special hospitality function facilities, and additional parking. The proposed Dry Stack Negative Fork Wharf will support the longer-term Boat Storage Facility [not a part of this application] that will provide berthing for up to 90 trailer-sized craft in a modern multi-level stacking facility.

Included in this Part 5 application is the request for blanket approvals for the clubs existing and future Dry Dock systems (see Pages 126-156 for product details and specifications)

Stage 1 includes a Vessel Maintenance Facility that can accommodate vessels up to 12m and 10 tonne for minor maintenance works. The Boat Ramp will be upgraded with a replacement of the aged concrete ramp facility and upgrades to temporary berthing via a collector jetty. These proposals will be included in future applications.

Other proposed future projects (not in this Part 5 application) includes upgrades to landscaping, pathways, and revegetation of the greenbelt zones. The vehicular access to the SYC will be upgraded with drop zones for guests and visitors.

The Development Approval submission provides detailed construction information, including cost estimates, design drawings, program timelines, and methodologies for each of the proposed works. The proposed works are expected to enhance the facilities and services provided by the SYC and contribute to the sustainability of the environment. Details of each project in this application are located as per the below table.





## DRAWINGS/SPECIFICATIONS/PROGRAMS

This section of the Development Application submission documentation serves to present project-specific details and "typical" design information, giving an overview of the projects planned for Stage 1 of SYC's master plan. It also includes indicative project timelines, providing a sense of the expected progression for each project.

It is important to note that due to the anticipated lead time for project commencement, the detailed designs for these projects will not be produced until closer to the actual start dates. Therefore, the information provided in this documentation represents a close approximation of the infrastructure that will ultimately be constructed at our site.

While the designs are subject to further refinement and fine-tuning during the detailed design phase, the information presented here offers a reliable representation of the intended scope, scale, and functionality of the proposed projects. It allows stakeholders, authorities, and the community to gain a clear understanding of the planned developments and their potential positive impact on the site.

SYC remains committed to ensuring that the final infrastructure aligns closely with the information provided in this submission, taking into account any necessary adjustments or enhancements that may arise during the detailed design and construction phases.

As the projects progress and the actual start dates approach, more comprehensive and detailed design documentation will be prepared and submitted for approval. This will ensure that the final infrastructure meets the highest standards of quality, safety, and compliance with all applicable regulations and guidelines.

By providing this project-specific and indicative design information, along with projected timelines, SYC aims to foster transparency and informed decision-making among all stakeholders involved.





Project 1	Demolition of Existing Slipway and Beautification of Footprint
Stage	1
Commencement	On Part 5 application approvals
Project Duration	8 months
Project Cost Estimate	\$350,000

**Project Description**

The SYC has recognised the importance of providing greater access and utilisation of the club's leased land by the community. In order to achieve this, the club has proposed a plan to demolish the existing slipway and bosuns shed and transform the area into a beautiful and inviting space that is accessible to the public.

The proposed redevelopment will include the creation of lawn and beach areas, which will be complemented by winding pathways that provide easy access to the foreshore from both directions. The pathway design has been carefully planned to ensure that it is accessible for all members of the community, including those with disabilities.

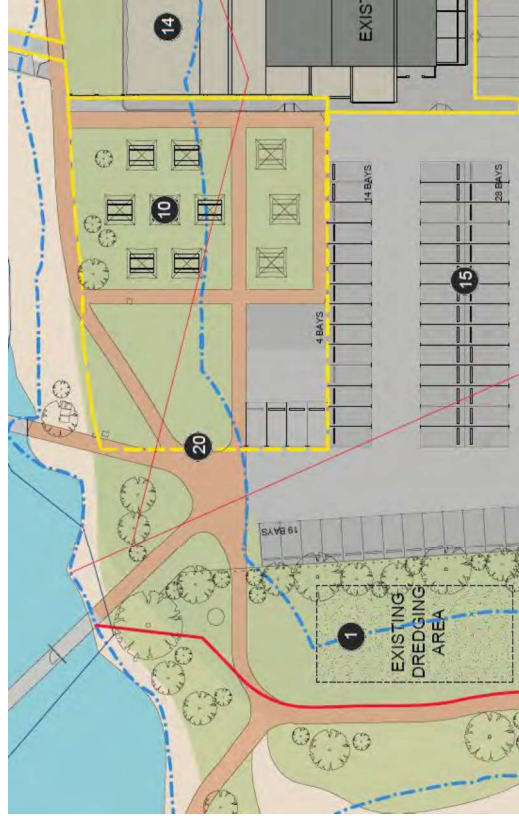
The redevelopment of this area will not only improve the aesthetic appeal of the foreshore, but it will also encourage greater use of the area by the public. By providing a welcoming and accessible space, the club aims to increase community engagement and foster a stronger sense of community.

The proposed redevelopment is part of the club's ongoing commitment to enhancing the facilities and services that it provides to its members and the wider community and is committed to developing a space that is not only functional but also environmentally sustainable.

Overall, the proposed redevelopment of the slipway and bosuns shed area will provide a significant benefit to the community by enhancing the public's access to, and use of, the foreshore. The SYC is excited to undertake this project and looks forward to delivering a beautiful and accessible space for the benefit of all members of the community.



**Existing Slipway/Bosuns Shed**



**Proposed Layout**

## Demolition of Existing Slipway and Beautification of Footprint

### Construction Methodologies

The Swan Yacht Club has proposed the redevelopment and beautification of the western side of its property to improve public access, use, and aesthetic appeal. The plan involves demolishing the existing slipway and bosuns shed facilities and replacing them with modern lift & launch infrastructure on the eastern side of the property lease that provides a safer operational and environmentally compliant maintenance facility.

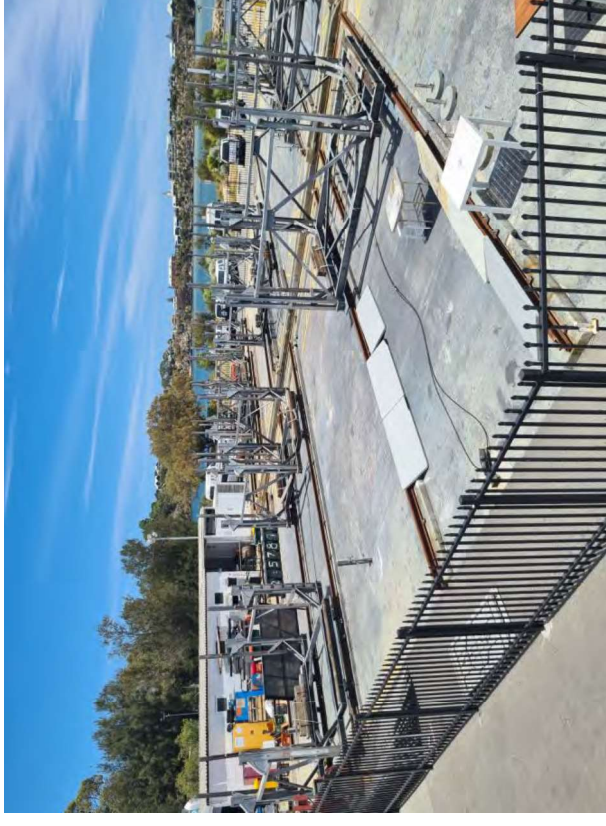
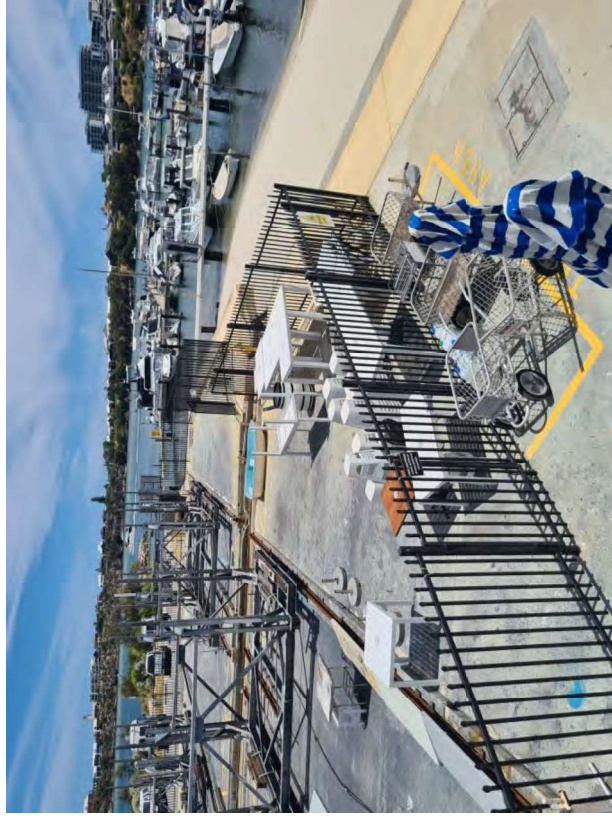
The demolition process will be comprehensive, including the removal of all supporting foundations at the seabed, rail tracks that cross underneath the pedestrian path on the beach, and all existing infrastructure such as winch and cable infrastructure, boat cradles, security fencing, existing pathways, and services supplied to the area. Once completed, the site will be leveled in preparation for refurbishment and beautification.

The refurbishment works will focus on a green space and beach area spanning approximately 2000 square meters, extending from the existing clubhouse through to the groyne on the eastern side of the property. The pathways will be realigned, providing meandering access through the newly generated grassed greenspace area. Additionally, the parking area will be realigned and paved, and the seawall will be upgraded where the existing slipway cable crossing exists.

The proposed plan also includes the establishment of an informal/pop-up licensed function event space area, which will require an extension of the liquor license. The works are expected to be completed within 18 months after approval of the application.

The rationale behind this proposal is to provide a new, safer and environmentally compliant maintenance facility on the eastern car park, while enhancing public access, use, and beautification of the foreshore on club leased land. By demolishing the aging slipway and bosuns shed facilities and replacing them with modern infrastructure, the club will be better equipped to provide members and visitors with a more efficient maintenance facility.

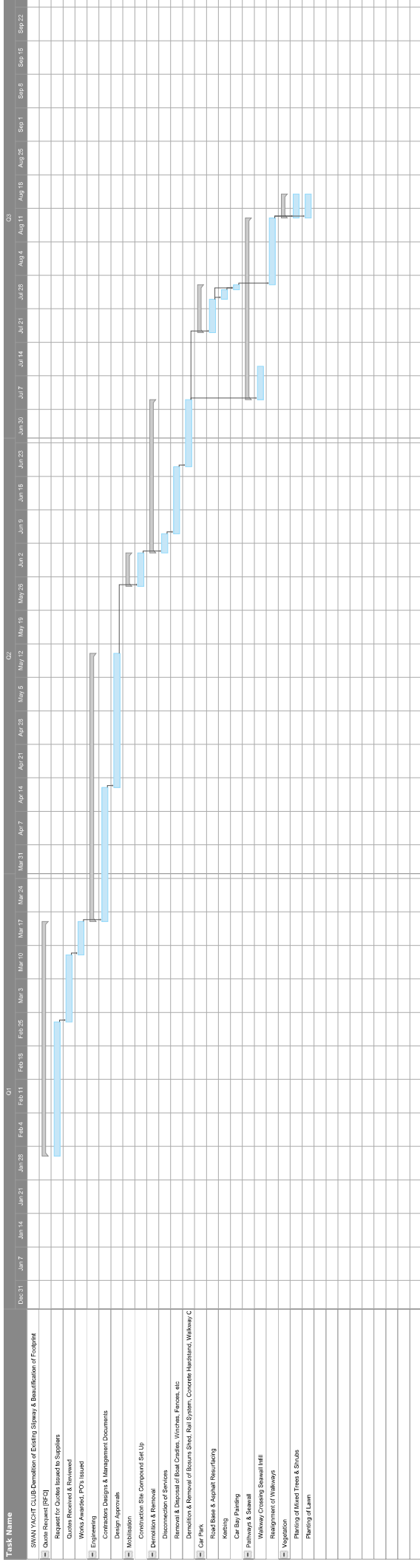
The green space and beach area, winding pathways, and additional parking space will improve the experience of club members and the public visiting the area. The establishment of a licensed function event space area will provide additional revenue streams for the club, contributing to its long-term financial sustainability and allowing it to invest in additional infrastructure upgrades in Stages two and three of the Master Plan.





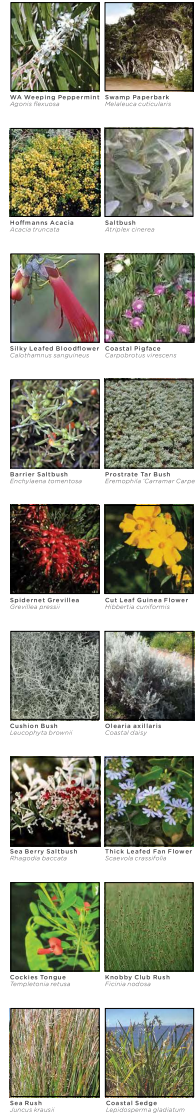


# Swan Yacht Club-Demolition of Existing Slipway





# Swan River



WA Weeping Peppermint  
*Agonis flexuosa*

Swain's Paperbark  
*Melaleuca cuticularis*

Silky Leaved Bloodflower  
*Carpobrotus virescens*

Barrier Saltbush  
*Eriophyllum tomentosum*

Spidernet Grevillea  
*Grevillea pressii*

Cushion Bush  
*Atriplex cinerea*

Sea Berry Saltbush  
*Leucophyta brownii*

Cockles Tongue  
*Templetonia retusa*

Sea Rush  
*Juncus kraussii*

Coastal Sedge  
*Lepidosperma gladiatum*

Do not scale from this drawing  
 Check all dimensions on site  
 This drawing is copyright

PROJECT  
**SWAN YACHT CLUB**  
 LANDSCAPE CONCEPT PLAN  
 Revision B

SITE  
 RIVERSIDE ROAD  
 EAST FREMANTLE WA 6058

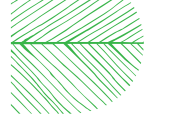
DATE  
 May 2023

SCALE  
 1:200

JOB NUMBER  
 1506

FELICITY BODYCOAT  
 B.Arts, Cert. Hort. Practice

38 GLYDE STREET  
 MOSMAN PARK WA 6012  
 MOBILE 0432 349 787  
 FELICITY@BODYCOAT.COM.AU



designing.green.

## Site Plan

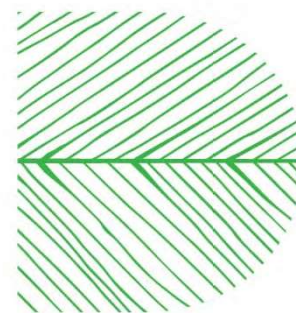
Western Boundary

Key	Botanical Name	Common Name	Qty	Spacing*
<b>Trees</b>				
Aw	Acacia cyclops	Coastal Wattle	2	6m
AF	Agonis flexuosa	WA Weeping Peppermint	7	A/S
Mc	Melaleuca cuticularis	Saltwater Paperbark	9	A/S
<b>Shrubs/Ground Covers</b>				
Ac	Atriplex cinerea	Saltbush	20	1m
At	Acacia truncata	Hoffmanns Acacia	4	2m
Cs	Calothamnus sanguineus	Silky Leaved Blood Flower	6	2m
Cv	Carpobrotus virescens	Coastal Pigface	63	1m
Ecc	Eremophila Carramar Carpet	Prostrate Tar Bush	51	1-2m
Et	Eriophyllum tomentosum	Barrier Saltbush	1	1-2m
Gp	Grevillea pressii	Spidernet Grevillea	36	2m
Hc	Hibbertia confertiflora	Cut Leaf Guinea Flower	3	1-2m
Lb	Leucophyta brownii	Coastal Daisy	60	1m
Ms	Melaleuca systena	Coastal Honey Myrtle	2	6m
Oa	Olearia axillaris	Smoke Bush	3	1-2m
Rb	Rhagodia baccata	Sea Berry Saltbush	8	2m
Sc	Scaevola crassifolia	Thick Leaved Fan Flower	25	1m
Tr	Templetonia retusa	Cockles Tongue	9	1m
<b>Grasses</b>				
Fn	Ficinia nodosa	Knobby Club Rush	22	1m
JK	Juncus kraussii	Sea Rush	20	1m
Lg	Lepidosperma gladiatum	Coastal Sedge	44	1m

May 3, 2023

## Plant Selection - Schedule 1c

Swan Yacht Club  
Riverside Road  
East Fremantle, WA 6058



design in green.

**NB: Subject to availability at time of ordering**

Key	Botanical Name	Common Name	Qty	Spacing*
<b>Trees</b>				
Aw	Acacia cyclops	Coastal Wattle	2	6m
Af	Agonis flexuosa	WA Weeping Peppermint	7	A/S
Mc	Melaleuca cuticularis	Saltwater Paperbark	9	A/S
<b>Shrubs/Ground Covers</b>				
Ac	Artriplex cinerea	Saltbush	20	1m
At	Acacia truncata	Hoffmanns Acacia	4	2m
Cs	Calothamnus sanguineus	Silky Leafed Blood Flower	6	2m
Cv	Carpobrotus virescens	Coastal Pigface	63	1m
Ecc	Eremophila Carramar Carpet	Prostrate Tar Bush	51	1-2m
Et	Enchylaena tomentosa	Barrier Saltbush	1	1-2m
Gp	Grevillea pressii	Spidernet Grevillea	36	2m
Hc	Hibbertia cunifformis	Cut Leaf Guinea Flower	3	1-2m
Lb	Leucophyta brownii	Coastal Daisy	60	1m
Ms	Melaleuca systema	Coastal Honey Myrtle	2	6m
Oa	Olearia axillaris	Smoke Bush	3	1-2m
Rb	Rhagodia baccata	Sea Berry Saltbush	8	2m
Sc	Scaevola crassifolia	Thick Leafed Fan Flower	25	1m
Tr	Templetonia retusa	Cockies Tongue	9	1m
<b>Grasses</b>				
Fn	Ficinia nodosa	Knobby Club Rush	22	1m
JK	Juncus krausii	Sea Rush	20	1m
Lg	Lepidosperma gladiatum	Coastal Sedge	44	1m

### Notes

1. a/s = as shown on plan
2. Subject to availability at time of ordering. Please contact Design In Green for any substitutions.
3. Spacing intended as a guide only, space evenly in given area.
4. Whilst plan is to scale, check all dimensions on site.

<b>Project 2</b>	<b>JETTY 5</b>
<b>Stage</b>	1
<b>Commencement</b>	On Part 5 application approvals
<b>Project Duration</b>	18 months
<b>Project Cost Estimate</b>	\$3.4m

### Project Description

The proposed replacement structure for Jetty 5 will be a floating concrete attenuator of approximately 300 meters in length, with a deck width of 4m. The structure will be secured by steel piles that will be protected with HDPE sleeves. The new jetty will also serve as a mooring system, providing vessel berths of up to 23m in length.

The current Jetty 5 berths, constructed in the early part of the century, suffer extensively from several natural and man-made conditions, including current, wind waves, sediment build-up inside the jetty system, and significant vessel wake waves generated by speeding boats and large river/Rottneest ferries that pass close to the jetty system.

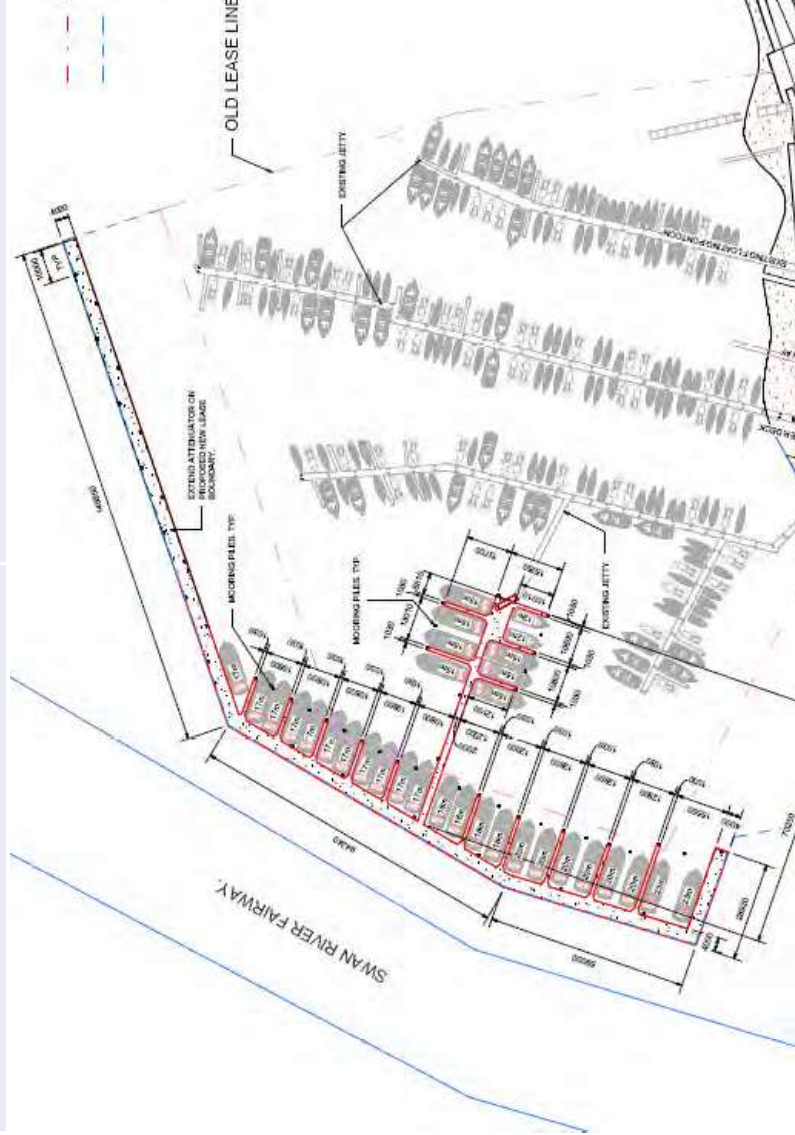
To create a safer and user-friendly marina environment, and to comply with the current Australian Standards for marina design, the application includes a request to extend the riverbed lease boundary to the west and north, resulting in approximately 6,200 sqm of additional water lease. This extension will not increase the number of berths in the marina but will allow for berthing of some larger vessels.

The installation of the proposed floating attenuator system will significantly reduce the impact of the above issues by significantly eliminating wave action from entering the marina, providing a safer and more comfortable amenity for users. The attenuation effect is also expected to reduce sediment flow into the marina area, which will reduce the frequency of dredging the seabed, providing an additional environmental benefit for the site.

Furthermore, by extending the lease boundary to the north and west, passing vessels will be forced to use the navigation channel, creating a safer environment for users of the river system in this location, particularly for canoe, SUP, and other self-propelled vessel users.

Access to the new Jetty 5 will be via an extension to the west of Jetty 6, which will also be a floating pontoon system retained by HDPE sleeved steel piles. The extension will realize an additional four 15m berths on the northern side of the pontoon system and five 12m berths on the southern side. Transition from the existing Jetty 6 to the new floating extension will be via a marine-grade aluminum gangway.

In conclusion, the proposed replacement structure for Jetty 5 will be a floating attenuator that will serve as a mooring system and significantly reduce the impact of wave action on the marina environment. The extension of the riverbed lease boundary to the west and north will create a safer and user-friendly marina environment without increasing the number of berths.









## Construction Methodologies

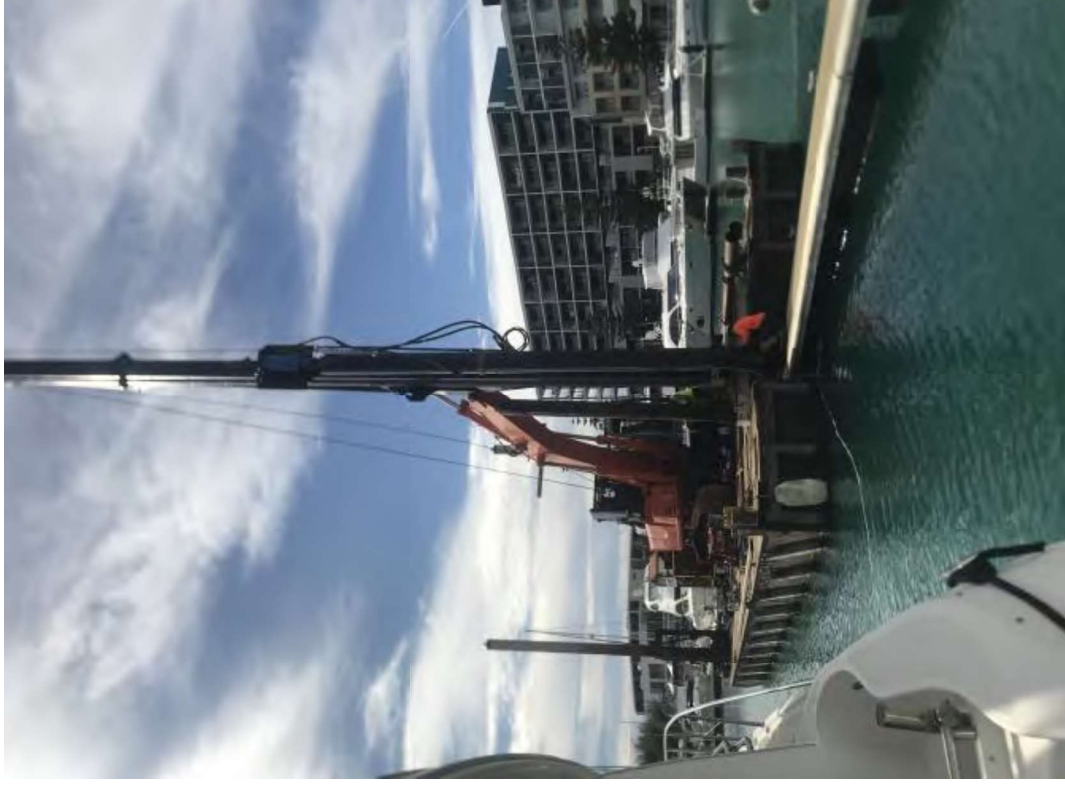
The construction plan for the proposed Jetty 5 project involves obtaining approved construction methodologies from individual contractors for their respective works programs, such as demolition, piling, pontoon construction, supply and installation, services installation, and other processes. Each contractor must provide the required Construction & Environmental Management Plans for the works and location for the approval of the SYC, ToEF and DBCA.

For the demolition of existing structures, a methodical approach will be taken. Firstly, all existing services such as power, water, and other jetty accessory items will be isolated, disconnected and removed. Then, the finger jetties and walkway jetties will be dismantled and loaded onto a barge before being taken to an approved disposal site. Piles will be removed using a vibrating hammer method to extract them from the seabed. If it's not possible to extract the pile, it will be cut 300mm below the seabed and removed. Silt curtain protection will be installed to minimize sediment movement from exiting the site. Seabed clean-up of any materials dislodged during the dismantling process will also be carried out.

Piles will be installed using a vibrating and or drop hammer method and driven to design embedment before being cut off to final RL height. HDPE pile sleeves will then be installed over the driven steel pile and driven into the seabed at a minimum embedment of 1.5m. The sleeves will then be fully sealed to provide the 50-year design life and prevent oxygen ingress and oxidation. White bird deterrent conical caps will be installed at the top of the HDPE sleeve.

The attenuation, walkway, and pontoon modules will be fabricated off-site using the preferred contractor's proprietary system manufacturing methodologies and shipped to the site. Attenuation, walkway, and finger pontoon installation will then be carried out on-site. The attenuation modules will be launched at the boat ramp facility and towed to the final location for installation/connection to the piles. All units will be connected to form the walkway. Similarly, Jetty 6 walkway pontoons will follow the same procedure and be secured to the piles. Finger pontoons will be connected to the attenuator and walkway pontoons and piles.

An aluminum truss-style gangway that complies with DDA requirements will be installed at the end of the existing Jetty 6 landing, connecting the walkway to the attenuator pontoon system. Services such as potable water and power, firefighting equipment, safety ladders, and life buoys will be installed on the new pontoon systems. Overall, the methodology statement is designed to ensure that the project is executed efficiently, safely, and in compliance with all required standards and regulations.



### Project Materials-Piles

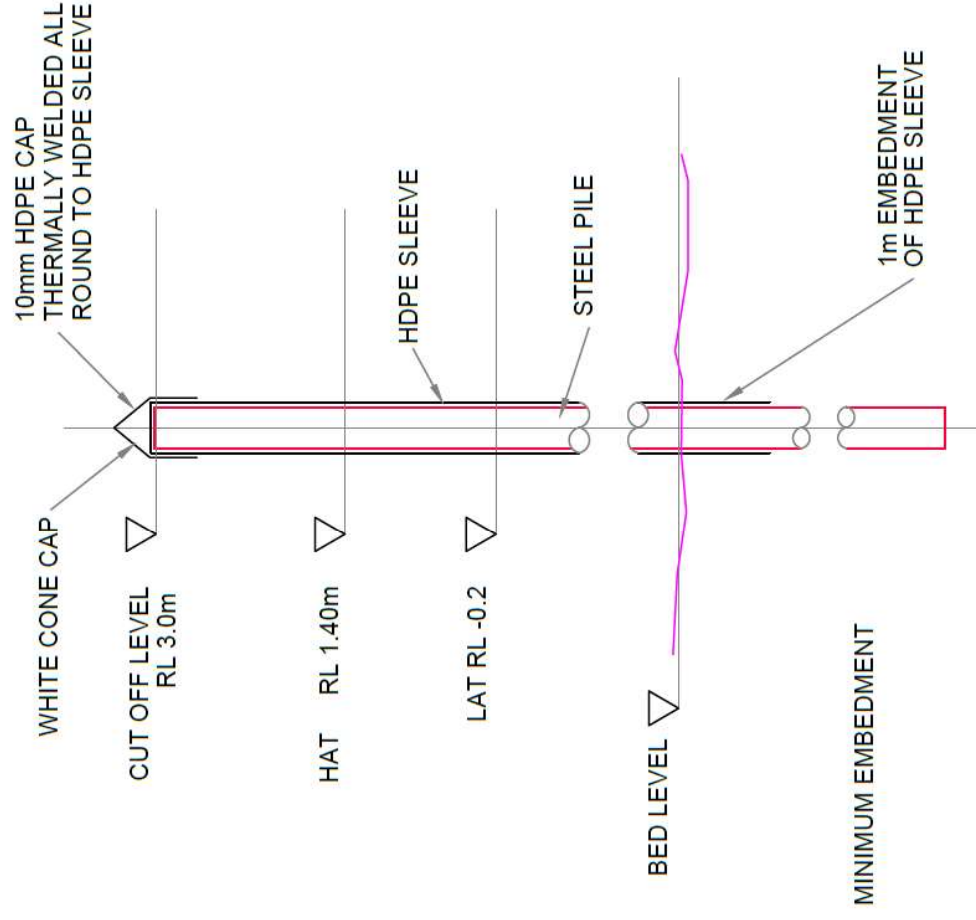
The piles are an essential component of the proposed project and play a critical role in ensuring the stability and longevity of the new jetty system. The piles are made of C350 grade steel, a high-strength, corrosion-resistant material that is ideal for marine applications.

The piles will be driven into the seabed using a vibro-head method, which is a non-percussive piling technique that reduces noise and vibration during installation. The vibro-head method involves vibrating the pile into the ground, which compacts the soil around the pile and provides a stable foundation. The piles will be driven to the designed length and embedment, ensuring that they provide the required support and stability for the new jetty system.

To protect the piles from corrosion and increase their design life, HDPE liners will be installed over the steel piles. The liners will be installed using a vibro-head method to ensure that they are securely fitted to the piles. The HDPE liners will provide a barrier between the steel piles and the surrounding seawater, preventing corrosion and ensuring that the piles have a minimum design life of 50 years.

The piles will be driven a minimum design specified into the seabed to provide adequate support and stability. The depth of embedment will depend on the site-specific conditions, including soil type, water depth, and wave conditions. The piles will be cut off to the final RL height after installation and will be fitted with HDPE liner and white bird deterrent conical caps to prevent birds from nesting on the piles.

In summary, the piles for the proposed project are made of C350 grade steel, driven into the seabed using a vibro-head method, sleeved and sealed with HDPE liners, and driven a minimum of 1.0 meters into the seabed. The piles will provide the necessary support and stability for the new jetty system, ensuring that it has a long design life and is able to withstand the harsh marine environment.



### Project Materials - Pontoons

The potential pontoon systems being considered for the project include a full concrete option, partial concrete option, and an aluminum/concrete option.

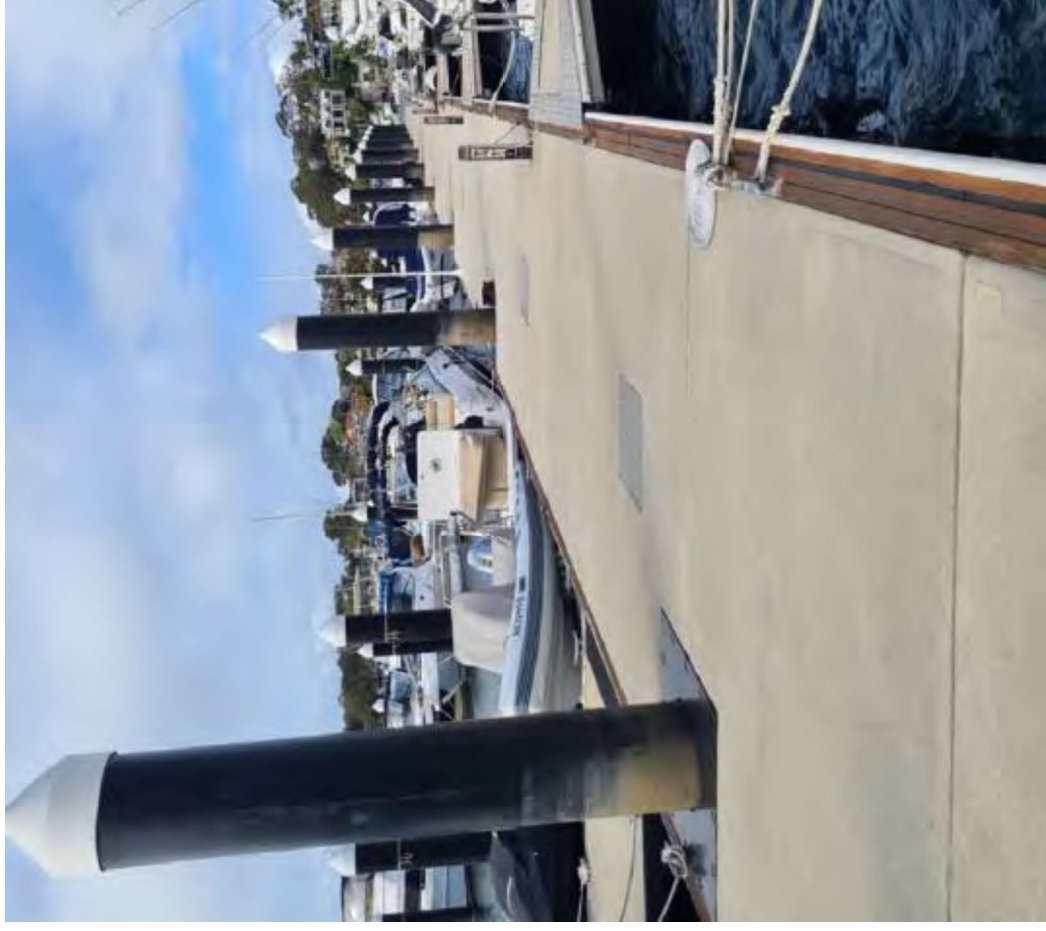
The full concrete option will feature 50mpa marine grade concrete with Fiberglass Reinforced Polymer (FRP) reinforcement deck. The floatation system will include 13.5kg/m<sup>3</sup> SL grade Expanded Polystyrene (EPS) foam encased in concrete and FRP through-rods. Stress Grade F17 timber walers will be used for durability class 1 or 2.

The partial concrete option will also feature 50mpa marine grade concrete with FRP reinforcement deck and SL grade EPS foam. The floatation system will have impact-resistant High-Density Polyethylene (HDPE) encasement. FRP through-rods and Stress Grade F17 timber walers will also be used.

The aluminum option will have a marine-grade aluminum frame with an FRP solid-top deck and SL grade EPS foam with impact-resistant HDPE encased floatation modules. The attenuation side panels will be made of 50mpa marine grade concrete.

Each pontoon system will be designed and fabricated off-site using the preferred contractor's proprietary system manufacturing methodologies and shipped to the project site for installation. The system installed will provide a stable and secure platform for boats to dock and allow for safe and efficient movement throughout the marina.

Upon approval of the Part 5 Application, and in particular the riverbed lease extension, SYC will approach market via a Request for Tender [RFT] process where makers will provide final designs and costings for consideration and subsequent appointment.





## Project Materials

### Services & Lighting:

To ensure the functionality and convenience of the marina berths, all new floating infrastructure will be equipped with service pedestals designed to meet the requirements of AS3962-2020 and other relevant Australian Standards. The service pedestals will be constructed using marine-grade aluminium, a durable and corrosion-resistant material suitable for marine environments. Each pedestal will serve two berths and provide the following services:

**Metered Power and Water:** The service pedestals will supply metered power and water connections to the berths. This will enable boat owners to conveniently access essential utilities for their vessels while docked at the marina.

**Walkway Lighting:** The walkway lighting design will be carefully planned to ensure compatibility with SYC's existing jetty lighting system, creating a cohesive and consistent visual environment. It will also comply with relevant Australian standards, particularly AS1158.3.1:2005 and AS4282-1997.

The lighting fixtures installed on the service pedestals will be designed to diffuse the light onto the deck area of the jetty system, ensuring safe passage for pedestrians during non-daylight hours. The lighting arrangement will be strategically positioned to avoid any interference with navigation processes for passing vessels. Additionally, considering the distance between the jetty and the western and northern shorelines, the lighting will not pose any issues to nearby residences, ensuring minimal impact on the surrounding area.

This approach to walkway lighting ensures that safety and visibility are prioritised for pedestrians while maintaining the navigational integrity of the area and respecting the needs of nearby residents. By adhering to the applicable Australian standards and considering the specific requirements of the site, the lighting design will provide a well-lit and secure environment for individuals using the walkway during nighttime hours.



## Project Materials

### Fire Fighting Services

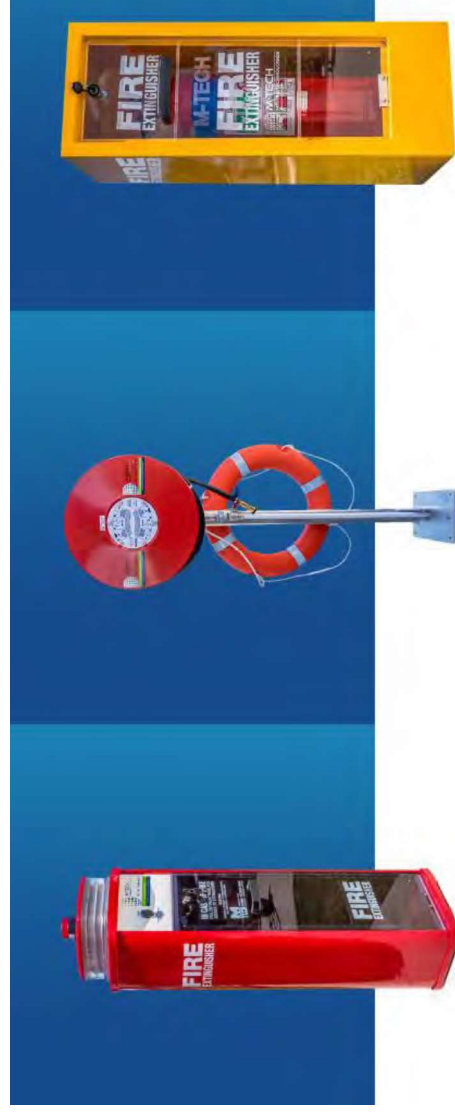
Safety is of paramount importance, and the design of the attenuator and new pontoon system will incorporate fire fighting equipment in compliance with Australian Standards, including the local DFES (Department of Fire and Emergency Services) marina requirements. The fire fighting services provided will include the following:

**Fire Hose Reels:** The attenuator and pontoon system will be equipped with strategically placed fire hose reels. These reels will provide a readily accessible water supply in the event of a fire emergency, enabling prompt response and effective fire suppression.

**Fire Extinguishers:** In addition to fire hose reels, fire extinguishers will be installed at appropriate locations throughout the attenuator and pontoon system. These extinguishers will provide additional fire protection measures, allowing for quick intervention and containment of small fires.

The design and implementation of the fire fighting services will adhere to relevant Australian Standards, ensuring that the marina infrastructure meets the necessary safety requirements and provides a secure environment for all marina users.

By incorporating these services and fire fighting measures, the Swan Yacht Club is prioritising the safety and convenience of its members and visitors, ensuring a well-equipped and secure marina facility.

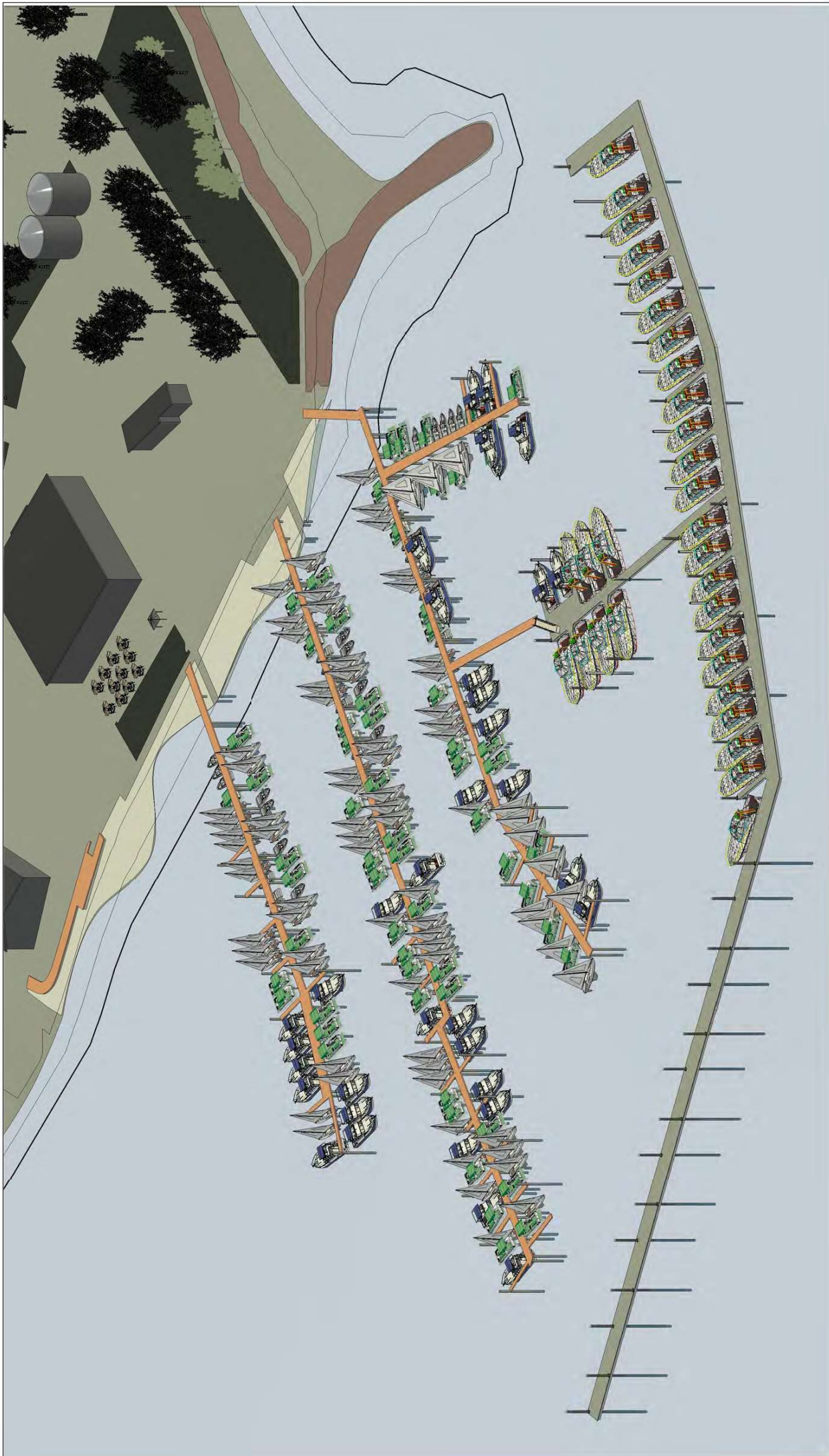












**1** FLOATING STRUCTURES

**ISSUED FOR REVIEW.**

**Australian Ports and Marinas**

No	REVISION	DATE	BY
A	ISSUED FOR CLIENT APPROVAL	23.01.23	ML
B	BERTHS AMENDED	12.04.23	ML

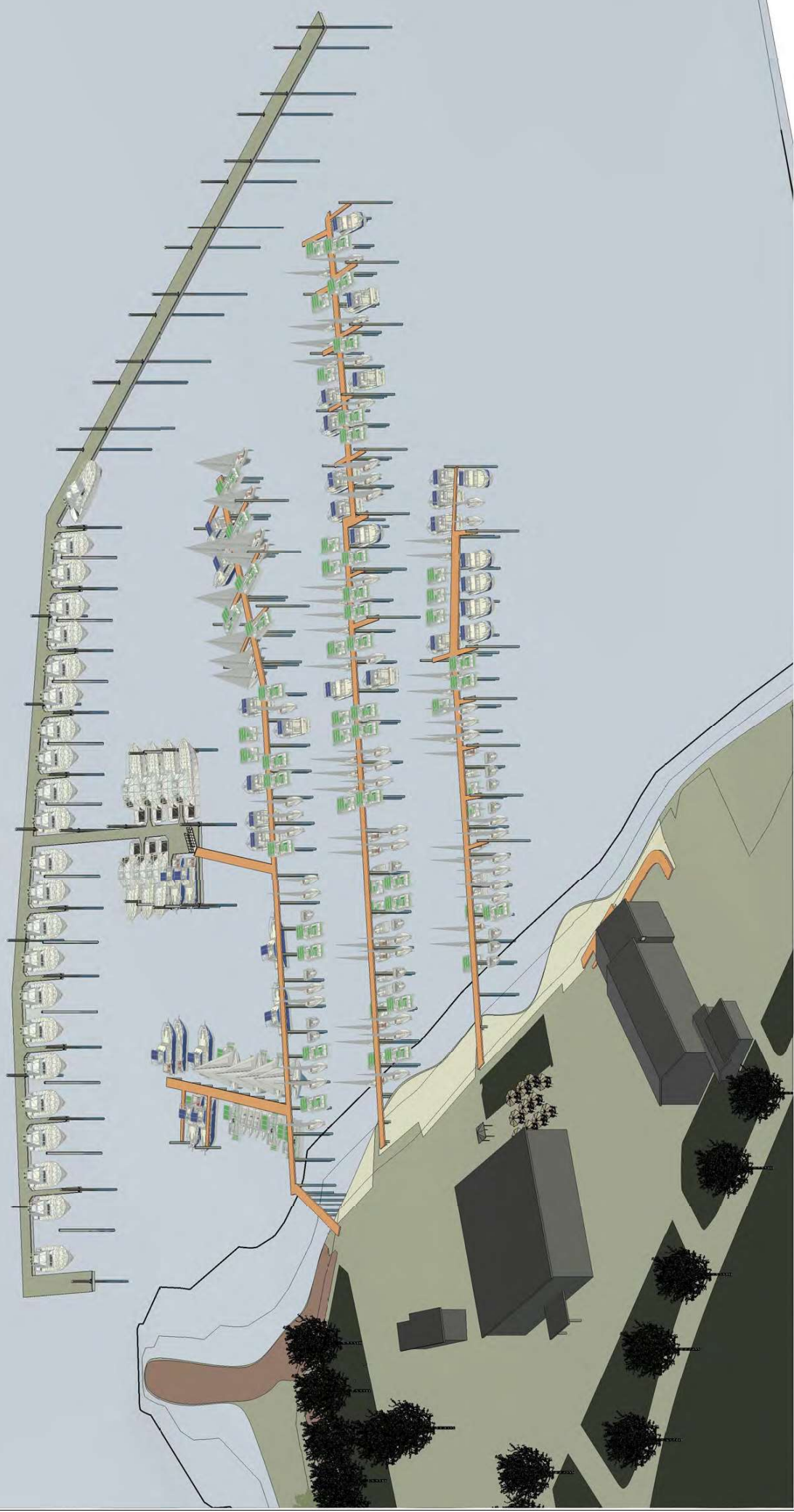
**Owner**  
 PERSPECTIVE ON FLOATING STRUCTURES

AUSTRALIAN PORTS AND MARINAS  
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 WWW.AUSTRALIANPORTSANDMARINAS.COM.AU  
 PHONE +61 416 028 413  
 EMAIL: info@australianportsandmarinas.com.au

PROPOSED NEW RAMP & PONTOON,  
 FOR: SWAN YATCH CLUB  
 AT: RIVERSIDE ROAD, EAST FREMANTLE, WA 6158

Project number 2151122  
 Date 23.01.23  
 Drawn by Author  
 Checked by Checker  
 Scale

DA.2



1 FLOATING STRUCTURES 2

ISSUED FOR REVIEW.



No	REVISION	DATE	BY
A	ISSUED FOR CLIENT APPROVAL	23.01.23	ML
B	BERTHS AMENDED	12.04.23	ML

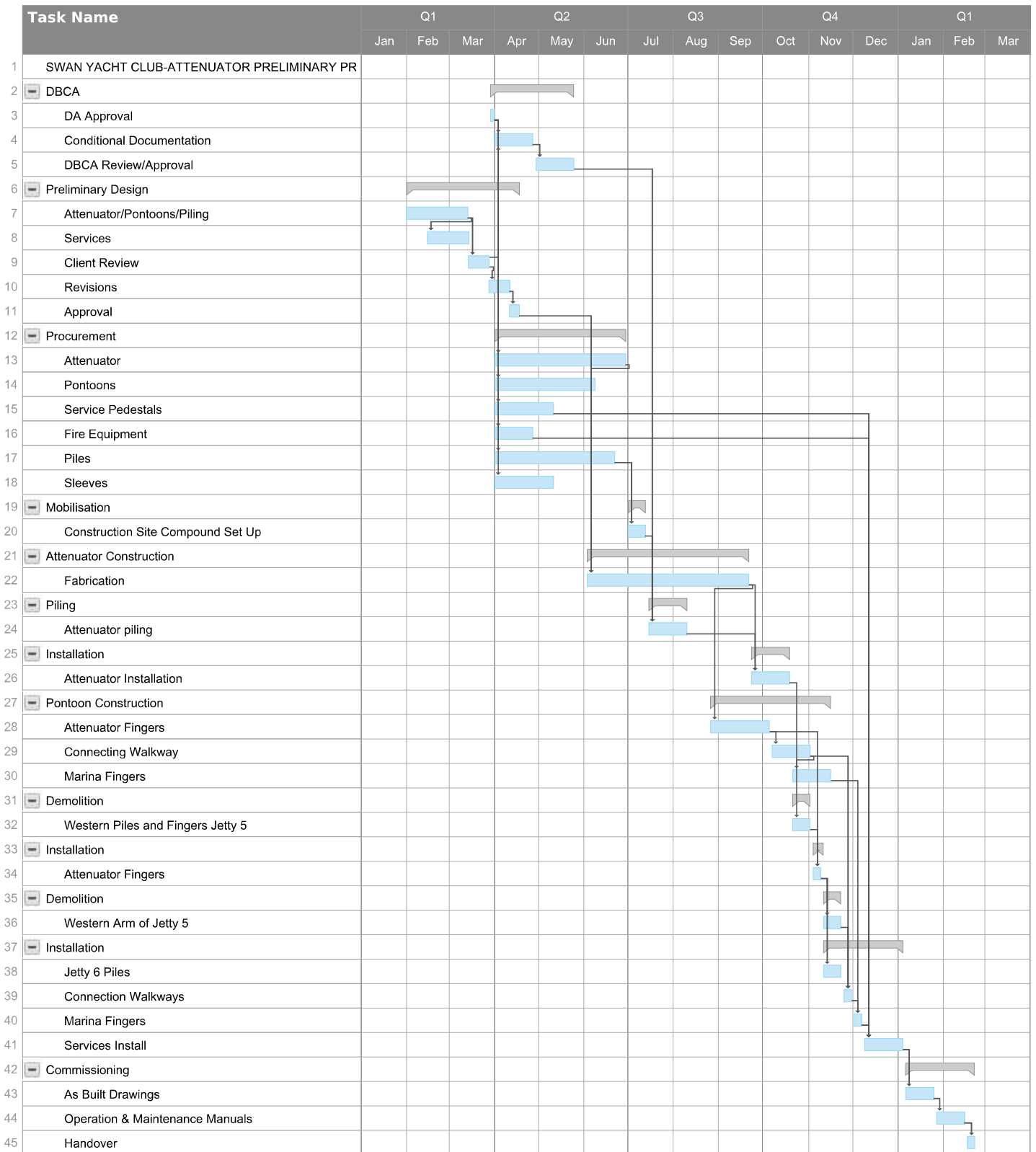
**Owner**  
 PERSPECTIVE ON FLOATING STRUCTURES 2

AUSTRALIAN PORTS AND MARINAS  
 SUITE 703, 43 BRIDGE STREET, HURSTVILLE NSW, AUSTRALIA  
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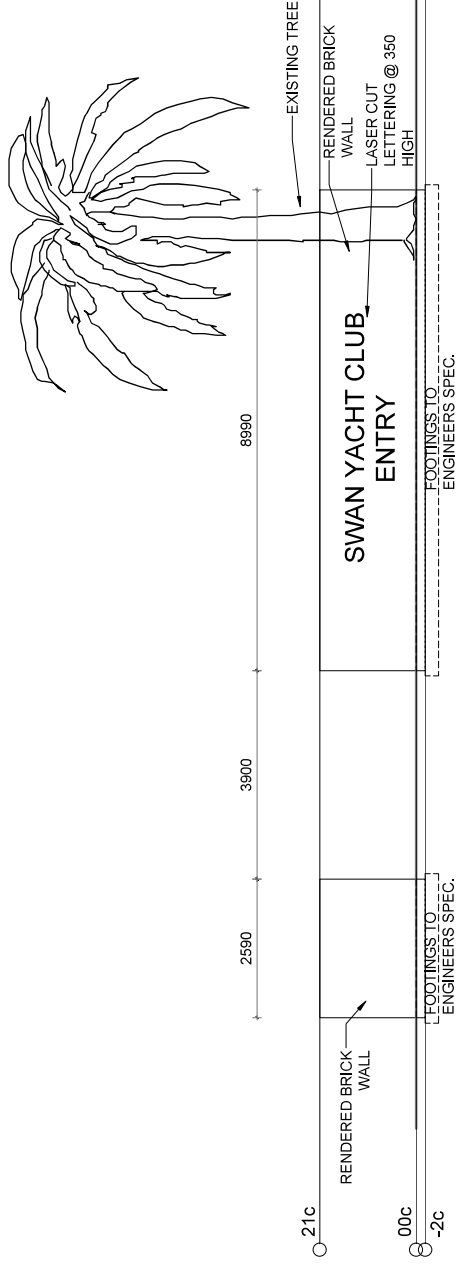
PROPOSED NEW RAMP & PONTOON, FOR: SWAN YATCH CLUB AT: RIVERSIDE ROAD, EAST FREMANTLE, WA 6158		Project number	2151122
Date	23.01.23	DA.3	
Drawn by	Author	Checked by	Scale



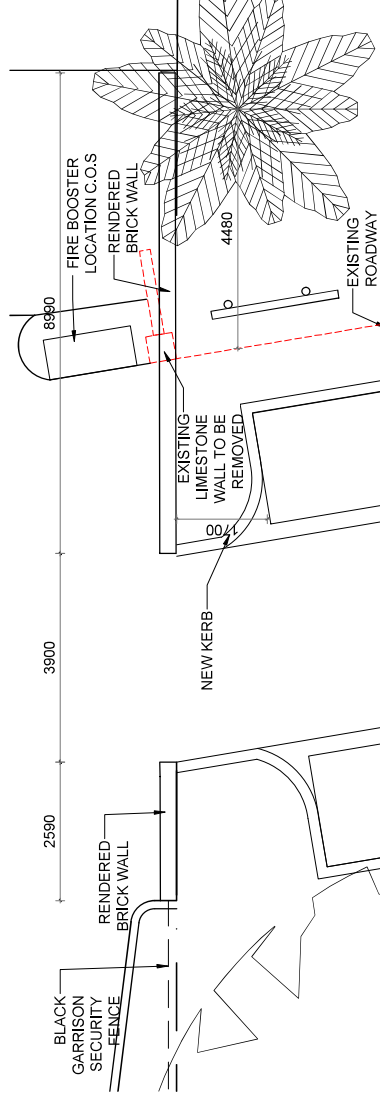
# Swan Yacht Club-Jetty 5 Attenuator



# ENTRY STREET SIGNAGE



1 WEST GATE ELEVATION  
1:100 @ A3



1 WEST GATE  
1:100 @ A3