



*Swan and Canning Rivers Management Act 2006*

**PART 5**

**DETERMINATION OF DEVELOPMENT APPLICATION**

FILE NUMBER : 2019/3067  
APPLICANT : Mr Nathan Stronach, Bosun, Royal Freshwater Bay Yacht Club  
APPLICANT'S ADDRESS : 1 Hobbs Place, Peppermint Grove  
LANDOWNER : Department of Biodiversity, Conservation and Attractions  
(Conservation Commission of Western Australia)  
LAND DESCRIPTION : Royal Freshwater Bay Yacht Club, Lot 2534 on Plan 222326  
(Reserve 17060), 1 Hobbs Place, Peppermint Grove  
DEVELOPMENT : Removal and replacement of western wharf and associated  
structural beams and piles  
VALID FORM 1 RECEIVED : 19 November 2019  
DETERMINATION : **APPROVAL WITH CONDITIONS**

The application to commence development in accordance with the information received on 19 November 2019 is APPROVED subject to the following conditions:

**CONDITIONS**

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

**Prior to the commencement of works**

2. The applicant shall notify the Department of Biodiversity, Conservation and Attractions in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
3. A Construction Environmental Management Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 1 and 2**).
4. Final design plans/drawings and technical specifications, including details of the colours, finishes and materials for the new wharf, shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 1 and 4**).
5. The applicant shall ensure that all contractors and personnel involved in the wharf replacement works are familiar with the requirements of this approval prior to the commencement of works and during the works at all times.

**During works**

6. All works shall be implemented in accordance with the plans approved under **Conditions 3 and 4**.

7. The applicant shall take appropriate preventative measures during the works to ensure that no soil, runoff, construction material or any other deleterious matter is allowed to enter the river.
8. The applicant shall install at a minimum double silt curtains and take appropriate measures to contain turbidity to the riverbed lease area and prevent, where practicable, sediment plumes from moving outside the immediate area of the works. If sediment plumes are visible beyond the riverbed lease area, the wharf replacement works shall cease until the issue has been resolved to the satisfaction of the Department of Biodiversity, Conservation and Attractions (see **Advice Note 3**).
9. Silt curtains are to be checked regularly to ensure they are correctly attached and performing as intended.
10. Piling operations shall include a soft start up procedure at the commencement of each piling sequence (see **Advice Note 7**). No pile driving shall start if dolphins are within 200 metres of the site.
11. Piling activity shall cease if a dolphin comes within 50 metres of the site and shall not recommence until any dolphin has moved away more than 200 metres or has not been observed for 20 minutes.
12. The applicant shall ensure that no damage to the riverbank or waterway occurs beyond the scope of the approved works. If any inadvertent damage occurs, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours of the damage occurring and rectify the damage at its expense.

#### **On completion of works**

13. Upon completion of the works, all waste materials, equipment and machinery shall be removed, and the site cleaned up to the satisfaction of the Department of Biodiversity, Conservation and Attractions.
14. Within six months of the completion of works, as constructed drawings for the wharf shall be submitted to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

#### **ADVICE NOTES**

1. Notifications and plans can be emailed to [rivers.planning@dbca.wa.gov.au](mailto:rivers.planning@dbca.wa.gov.au).
2. The Construction Environmental Management Plan required under **Condition 3** shall describe how the proposed works will be managed to minimise potential environmental impacts and shall address, but not be limited to:
  - a. scope of works, including demolition and construction methodology;
  - b. site access and management, including temporary fencing requirements;
  - c. management of machinery and equipment, including a refuelling procedure and spill response;
  - d. on-site storage and bunding of materials, equipment, chemicals and fuel;
  - e. waste management;
  - f. air quality and dust management;
  - g. protection of the river from inputs of debris, rubbish or other deleterious material;
  - h. wildlife management, including minimising noise and vibration impacts, seahorse protection and/or relocation and use of a marine mammal observer;

- i. access and safety;
- j. hours of operation and schedule of works;
- k. complaints and incidents; and
- l. management actions to address acid sulfate soils and/or contaminated sediments should they be encountered.

A site map showing the laydown area and vehicle entry/exit points shall be included. Emergency spill kits shall be onsite at all times and it is preferable that refuelling of land-based vehicles or machinery is undertaken outside the Swan Canning Development Control Area at a licensed refuelling facility. In the case of pollution events, the Department of Biodiversity, Conservation and Attractions shall be contacted immediately on 9278 0981 (Riverpark Duty Officer) or 9480 9924 (Marine Pollution Response).

3. With regard to **Condition 8**, in the case of sediment plumes extending beyond the area of works, the Department of Biodiversity, Conservation and Attractions shall be contacted immediately on 9278 0981 (Riverpark Duty Officer) or 9480 9924 (Marine Pollution Response). The applicant shall provide a record of the incident with proposed contingency actions.
4. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the plans and details required under **Conditions 3 and 4**, the documents must be submitted to the Department of Biodiversity, Conservation and Attractions at least 42 days before the expected works commencement date.
5. The wharf engineering drawings are to be approved and certified by a Maritime Engineer in accordance with *AS4997-2005 Guidelines for the Design of Maritime Structures*, and *AS3962-2001 Guidelines for the Design of Marinas*.
6. The applicant shall apply for and obtain a modification to its jetty licence from the Department of Transport, Coastal Facilities Management.
7. With regard to **Condition 10**, to minimise underwater noise, it is preferred that a vibration pile driver with a soft start-up, rather than a drop hammer, be used to install the piles. This should reduce noise impacts, including that to dolphins.
8. The Department of Water and Environmental Regulation, Contaminated Sites advises that the site is classified under the *Contaminated Sites Act 2003* as 'possibly contaminated – investigation required'. It is recommended that adequate safety measures are implemented to minimise the risk of disturbing suspected contaminated soils.
9. The proposed works are located adjacent to an area mapped as having a moderate to low acid sulphate soil risk. The *Acid Sulphate Soils Guideline Series for guidance on the identification, assessment and management of acid sulphate soils in Western Australia* is available from the Department of Water and Environmental Regulation website at [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au). If any acid sulphate soils are exposed during the works, the Contaminated Sites Branch of the Department of Water and Environmental Regulation shall be contacted for further advice on 1300 762 982.
10. The Department of Planning, Lands and Heritage (DPLH), Heritage Operations has advised the proposed works are situated within Aboriginal site ID 3536, being the Swan River. These works can be conducted via Regulation 10 of the Aboriginal Heritage Regulations 1974. DPLH recommends that the applicant consults with the South West Aboriginal Land and Sea Council to obtain a letter of support on behalf of the Native Title claim group.

11. All noise levels produced by the works are to comply with the provisions of the Environmental Protection (Noise) Regulations 1997 (as amended).



Hon Stephen Dawson MLC  
**MINISTER FOR ENVIRONMENT**

Date: 11/6/20



**DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS REPORT**

PROPOSAL	Removal and replacement of western wharf, and associated structural beams and piles
LOCATION	Royal Freshwater Bay Yacht Club, Lot 2534 on Plan 222326 (Reserve 17060) and Lot 7364 on Plan 168202 (Reserve 17113), 1 Hobbs Place, Peppermint Grove
COST	\$1,500,000
APPLICANT	Mr Nathan Stronach, Bosun, Royal Freshwater Bay Yacht Club
LANDOWNER	Department of Biodiversity, Conservation and Attractions (Conservation Commission of Western Australia)
LOCAL GOVERNMENT	Shire of Peppermint Grove
MRS CLASSIFICATION	Parks and Recreation Reserve
DECISION TYPE	Part 5, <i>Swan and Canning Rivers Management Act 2006</i> – Ministerial Determination
ATTACHMENTS	1. RFBYC location and boundary plan 2. Wharf replacement site photographs 3. Technical drawings
RECOMMENDATION	<b>APPROVAL WITH CONDITIONS</b>

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**REPORT**

**1.0 INTRODUCTION**

- 1.1 The Department of Biodiversity, Conservation and Attractions (DBCA) has received an application from Mr Nathan Stronach, Bosun, Royal Freshwater Bay Yacht Club (RFBYC), for the removal and replacement of the western extent of the main wharf, structural beams and piles at RFBYC, Lot 2534 on Plan 222326 (Reserve 17060) and Lot 7364 on Plan 168202 (Reserve 17113), 1 Hobbs Place, Peppermint Grove (**Attachment 1 and 2**).
- 1.2 As the works are located entirely within a lot that is in the Swan Canning Development Control Area (DCA), the application is being processed pursuant to Part 5 of the *Swan and Canning Rivers Management Act 2006* (SCRM Act).
- 1.3 The Director General of DBCA has prepared this report in accordance with section 76 of the SCRM Act.

## **2.0 CONSULTATION**

### **Shire of Peppermint Grove**

- 2.1 The development application was endorsed by the Shire of Peppermint Grove's Chief Executive Officer and returned to DBCA with no comments on the proposal.

### **Department of Water and Environmental Regulation, Contaminated Sites**

- 2.2 The Department of Water and Environmental Regulation (DWER), Contaminated Sites advised that the site is currently classified as 'possibly contaminated – investigation required' under the *Contaminated Sites Act 2003*. Further discussion on historical contamination is contained in Section 7.23 to 7.25 of the report.
- 2.3 DWER Contaminated Sites has assessed the proposal and advises that it has no objections to the proposed redevelopment provided that soil or sediment disturbance is minimised. DWER further recommends that a site management plan be in place to mitigate the potential risks associated with sediment disturbance.

### **Department of Transport, Maritime Planning**

- 2.4 The Department of Transport (DoT), Maritime Planning advised it has no objections to the proposed redevelopment provided RFBYC obtains a modification to its jetty licence from DoT and the wharf engineering drawings are approved and certified by an experienced Maritime Engineer in accordance with *AS4997-2005 Guidelines for the Design of Maritime Structures* and *AS3962-2001 Guidelines for the Design of Marinas*.

### **Department of Planning, Lands and Heritage**

- 2.5 The Department of Planning, Lands and Heritage (DPLH), Heritage Operations has advised the proposed works are situated within Aboriginal site ID 3536, being the Swan River. Therefore, to be consistent with other wharf and jetty replacement projects, these works could be conducted via Regulation 10 of the Aboriginal Heritage Regulations 1974.
- 2.6 DPLH recommends RFBYC consults with the South West Aboriginal Land and Sea Council to obtain a letter of support on behalf of the Native Title claim group.

## **3.0 PUBLIC CONSULTATION – SUBMISSIONS ON DRAFT REPORT**

- 3.1 In accordance with the requirements of Part 5 of the SCRM Act, a copy of the draft report and proposed recommendation was provided to the applicant and relevant stakeholders being the Shire, DWER, DoT and DPLH. A copy was also published on the DBCA website for a period of 17 days between 8 May 2020 and 26 May 2020 with an invitation for public submissions.
- 3.2 One submission was received from DWER – Flood Management advising that, despite the location of the wharf being within the 1 in 100 Annual Exceedance Probability (AEP) flood level and the 1 in 100 AEP for expected significant wave height, the proposal is not considered to have any potential to cause significant impact to the existing flood regime. RFBYC had already addressed this requirement

in its application and measures to address changes in sea level are discussed under section 7.7 below.

#### 4.0 RELEVANT POLICIES AND PLANS

- ◆ State Planning Policy 2.10 – *Swan-Canning River System* (SPP 2.10)
- ◆ Corporate Policy Statement No. 42 – *Planning for Land Use, Development and Permitting Affecting the Swan Canning Development Control Area* (Policy 42)
- ◆ Corporate Policy Statement No. 43 – *Planning for Marinas, Yacht Clubs and Aquatic Clubs in the Swan Canning Development Control Area* (Policy 43)

#### 5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS

- ◆ Environmental Protection
- ◆ Visual Amenity
- ◆ Heritage
- ◆ Acid Sulphate Soils
- ◆ Contamination

#### 6.0 BACKGROUND

- 6.1 The RFBYC covers approximately 2.2ha of land and approximately 5.24ha over water (see **Attachment 1**). RFBYC has a land lease from the Western Australian Conservation and Parks Commission for its land-based facilities (e.g. clubroom, car park, storage and fuel facilities) and a River reserve lease from the Swan River Trust for its river-based facilities (e.g. jetties and mooring pens). The wharf is confined to within the land lease boundary only.
- 6.2 The wharf is a free standing structure over water and therefore the replacement works will include in-water activities.

#### 7.0 DISCUSSION

- 7.1 The western extent of the existing wharf was originally constructed in 1970. As a result of investigations into the wharf's structural integrity, RFBYC determined the wharf has reached the end of its 50 year design life and that it is not economically, or from an engineering perspective, feasible to conduct further maintenance works.
- 7.2 As the wharf is a free standing structure over water the replacement works will involve in-water activities.
- 7.3 The major aspects of the wharf demolition will involve the deconstruction and removal of the wharf's concrete deck slabs, removal of the land-wharf interface abutment, removal of the wharf's concrete structural supporting beams, cutting of the existing 32 steel piles at seabed level and removal of two cranes attached to the wharf (used for the launching and retrieval of yachts and other vessels from the water) (see **Attachment 3**).

- 7.4 The major aspects of the wharf replacement include the installation of the wharf decking using precast concrete slabs, 11 new steel piles, re-instatement of the land-wharf interface abutment, construction of a new underwater rock revetment (to mitigate erosion and stabilise the river bank), new kerbing using recycled plastics and the re-installation of the two lifting cranes (see **Attachment 3**).
- 7.5 The wharf and the associated ring road that abuts the wharf is deemed essential infrastructure by RFBYC as it enables the safe and unencumbered launching and retrieval of yachts and other vessels from the water.
- 7.6 The replacement wharf will use like-for-like materials, will remain within the wharf's existing footprint and the colours and finishes will match existing themes.
- 7.7 The height of the wharf decking will be raised by 100mm to allow for sea level change. To compensate, there will be some minor level adjustments, contouring and fill required to the western boundary road and areas immediately land side of the wharf to maintain surface levels.
- 7.8 The proposed wharf replacement will extend its lifespan, functionality and benefit RFBYC's land-based and river users.
- 7.9 No dredging or excavation of the riverbed is required as part of the replacement works.
- 7.10 A new rock revetment is proposed to be installed over the existing revetment under the wharf. Final engineering drawings on this aspect of the works are pending.
- 7.11 Potential impacts on the river and reserve from construction activities are to be managed through a construction environmental management plan (CEMP).

### **Environmental Protection**

- 7.12 Policy 42 aims to ensure that land use and development adjacent to the river system maintains and enhances the quality and amenity of the river environment.
- 7.13 The construction works have the potential to impact on the foreshore and waterway, including wildlife (noise and displacement) impacts.
- 7.14 To ensure that all potential environmental risks and impacts are identified and managed appropriately, it is recommended that a CEMP be included as a condition of approval. The CEMP will be required to include details of demolition and construction methodology, protection of water quality, machinery and equipment management (including refuelling), site access and management, safety, waste management and spill response, foreshore protection, management actions to address acid sulfate soils and/or contaminated sediments if encountered, and minimisation of potential noise and displacement impacts to fauna.



## **Visual Amenity**

- 7.15 Policy 42 states that the design, materials and colour scheme of developments adjacent to the river and foreshore should complement and protect the character and landscape setting of the river.
- 7.16 As noted in 6.5 above, the replacement wharf will use like-for-like materials, will remain within the wharf's existing footprint and the colours and finishes will match existing themes, that being raw off-form concrete, white kerbing and the two lifting cranes remaining blue. The visual amenity of the site, particularly when viewed from the river, will not be altered.
- 7.17 A condition of approval will require the provision of final design drawings, including colours and finishes.

## **Heritage**

- 7.18 Policy 42 states that places of cultural and heritage significance, both Aboriginal and European, and of natural heritage are to be conserved.
- 7.19 As noted in 2.5 to 2.6 above, DPLH has advised that the works are situated within Aboriginal site ID 3536, being the Swan River. The wharf replacement works can be conducted under Regulation 10 of the Aboriginal Heritage Regulations 1974. RFBYC should consult with the South West Aboriginal Land and Sea Council to obtain a letter of support on behalf of the Native Title claim group.

## **Acid Sulphate Soils**

- 7.20 The site of the proposed works has not been assessed for acid sulphate soils (ASS), however, the works are to be undertaken adjacent to an area mapped as having a high to moderate ASS disturbance risk, within 3m of the natural surface.
- 7.21 ASS becomes an issue when affected soil sediment is exposed to the air, however, this is not likely to occur. The in-water works will only involve the cutting of the old piles at the riverbed level and removal, and the installation of new piles.
- 7.22 The potential for disturbance of ASS during the works is considered to be relatively minor, and can be addressed through the conditioned CEMP and advice notes on the approval.

## **Contamination**

- 7.23 DWER's Contaminated Sites unit has advised the river sediments adjacent to the proposed redevelopment have been classified as 'possibly contaminated – investigation required' under the *Contaminated Sites Act 2003* due to a series of assessments detecting antifouling agents (such as those found in marine vessel antifouling paint), which is likely attributed to slipway maintenance of boats and other vessels at RFBYC.
- 7.24 As advised under 2.3 above, DWER Contaminated Sites has assessed the proposal and advises that it has no objections to the proposed redevelopment provided that soil or sediment disturbance is minimised. DWER further recommends that a site

management plan be in place to mitigate the potential risks associated with sediment disturbance.

It is proposed the on-land works involving the wharf-land abutment and contouring and fill to the western boundary road and areas immediately land side of the wharf will only involve shallow disturbance of previous imported fill.

7.25 The potential for disturbance of any contaminated soils or sediment during the construction works is considered to be relatively minor and can be addressed through the conditioned CEMP and advice notes on the approval.

## **8.0 SWAN RIVER TRUST ADVICE**

8.1 In accordance with section 75(3A) of the SCRM Act, the Swan River Trust (the Trust) considered DBCA's draft report at a meeting on 7 April 2020, where the Trust resolved to advise the Director General of DBCA that it recommends the application be approved subject to the conditions outlined in DBCA's draft report.

## **9.0 CONCLUSION**

9.1 The proposed works are replacing like-for-like and not considered to be excessive in scale or bulk and will extend the usable life of the wharf and its functionality.

9.2 Potential environmental impacts from the works are considered low and can be addressed through the implementation of an approved CEMP.

9.3 For these reasons, the wharf replacement proposal is recommended for approval, subject to conditions and advice.

## **10.0 RECOMMENDATION – APPROVAL WITH CONDITIONS**

That the Director General of the Department of Biodiversity, Conservation and Attractions advises the Minister for Environment that the Royal Freshwater Bay Yacht Club's proposal to remove and replace the western wharf on Lot 2534 on Plan 222326 (Reserve 17060) and Lot 7364 on Plan 168202 (Reserve 17113), 1 Hobbs Place, Peppermint Grove, as described in the application received on 19 November 2019 and amended plans received on 19 March 2020, be approved, subject to the following conditions and advice notes:

### **CONDITIONS**

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

### **Prior to the commencement of works**

2. The applicant shall notify the Department of Biodiversity, Conservation and Attractions in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
3. A Construction Environmental Management Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 1 and 2**).

4. Final design plans/drawings and technical specifications, including details of the colours, finishes and materials for the new wharf, shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 1 and 4**).
5. The applicant shall ensure that all contractors and personnel involved in the wharf replacement works are familiar with the requirements of this approval prior to the commencement of works and during the works at all times.

#### **During works**

6. All works shall be implemented in accordance with the plans approved under **Conditions 3 and 4**.
7. The applicant shall take appropriate preventative measures during the works to ensure that no soil, runoff, construction material or any other deleterious matter is allowed to enter the river.
8. The applicant shall install at a minimum double silt curtains and take appropriate measures to contain turbidity to the riverbed lease area and prevent, where practicable, sediment plumes from moving outside the immediate area of the works. If sediment plumes are visible beyond the riverbed lease area, the wharf replacement works shall cease until the issue has been resolved to the satisfaction of the Department of Biodiversity, Conservation and Attractions (see **Advice Note 3**).
9. Silt curtains are to be checked regularly to ensure they are correctly attached and performing as intended.
10. Piling operations shall include a soft start up procedure at the commencement of each piling sequence (see **Advice Note 7**). No pile driving shall start if dolphins are within 200 metres of the site.
11. Piling activity shall cease if a dolphin comes within 50 metres of the site and shall not recommence until any dolphin has moved away more than 200 metres or has not been observed for 20 minutes.
12. The applicant shall ensure that no damage to the riverbank or waterway occurs beyond the scope of the approved works. If any inadvertent damage occurs, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours of the damage occurring and rectify the damage at its expense.

#### **On completion of works**

13. Upon completion of the works, all waste materials, equipment and machinery shall be removed, and the site cleaned up to the satisfaction of the Department of Biodiversity, Conservation and Attractions.
14. Within six months of the completion of works, as constructed drawings for the wharf shall be submitted to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

## ADVICE NOTES

1. Notifications and plans can be emailed to [rivers.planning@dbca.wa.gov.au](mailto:rivers.planning@dbca.wa.gov.au).
2. The Construction Environmental Management Plan required under **Condition 3** shall describe how the proposed works will be managed to minimise potential environmental impacts and shall address, but not be limited to:
  - a. scope of works, including demolition and construction methodology;
  - b. site access and management, including temporary fencing requirements;
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  - e. waste management;
  - f. air quality and dust management;
  - g. protection of the river from inputs of debris, rubbish or other deleterious material;
  - h. wildlife management, including minimising noise and vibration impacts, seahorse protection and/or relocation and use of a marine mammal observer;
  - i. access and safety;
  - j. hours of operation and schedule of works;
  - k. complaints and incidents; and
  - l. management actions to address acid sulfate soils and/or contaminated sediments should they be encountered.

A site map showing the laydown area and vehicle entry/exit points shall be included. Emergency spill kits shall be onsite at all times and it is preferable that refuelling of land-based vehicles or machinery is undertaken outside the Swan Canning Development Control Area at a licensed refuelling facility. In the case of pollution events, the Department of Biodiversity, Conservation and Attractions shall be contacted immediately on 9278 0981 (Riverpark Duty Officer) or 9480 9924 (Marine Pollution Response).

3. With regard to **Condition 8**, in the case of sediment plumes extending beyond the area of works, the Department of Biodiversity, Conservation and Attractions shall be contacted immediately on 9278 0981 (Riverpark Duty Officer) or 9480 9924 (Marine Pollution Response). The applicant shall provide a record of the incident with proposed contingency actions.
4. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the plans and details required under **Conditions 3 and 4**, the documents must be submitted to the Department of Biodiversity, Conservation and Attractions at least 42 days before the expected works commencement date.
5. The wharf engineering drawings are to be approved and certified by a Maritime Engineer in accordance with *AS4997-2005 Guidelines for the Design of Maritime Structures*, and *AS3962-2001 Guidelines for the Design of Marinas*.
6. The applicant shall apply for and obtain a modification to its jetty licence from the Department of Transport, Coastal Facilities Management.
7. With regard to **Condition 10**, to minimise underwater noise, it is preferred that a vibration pile driver with a soft start-up, rather than a drop hammer, be used to install the piles. This should reduce noise impacts, including that to dolphins.

8. The Department of Water and Environmental Regulation, Contaminated Sites advises that the site is classified under the *Contaminated Sites Act 2003* as 'possibly contaminated – investigation required'. It is recommended that adequate safety measures are implemented to minimise the risk of disturbing suspected contaminated soils.
9. The proposed works are located adjacent to an area mapped as having a moderate to low acid sulphate soil risk. The *Acid Sulphate Soils Guideline Series for guidance on the identification, assessment and management of acid sulphate soils in Western Australia* is available from the Department of Water and Environmental Regulation website at [www.dwer.wa.gov.au](http://www.dwer.wa.gov.au). If any acid sulphate soils are exposed during the works, the Contaminated Sites Branch of the Department of Water and Environmental Regulation shall be contacted for further advice on 1300 762 982.
10. The Department of Planning, Lands and Heritage (DPLH), Heritage Operations has advised the proposed works are situated within Aboriginal site ID 3536, being the Swan River. These works can be conducted via Regulation 10 of the Aboriginal Heritage Regulations 1974. DPLH recommends that the applicant consults with the South West Aboriginal Land and Sea Council to obtain a letter of support on behalf of the Native Title claim group.
11. All noise levels produced by the works are to comply with the provisions of the Environmental Protection (Noise) Regulations 1997 (as amended).

**FINAL REPORT ENDORSED**

Signed: Mark Webb Date: 10/6/2020  
Mark Webb  
Director General





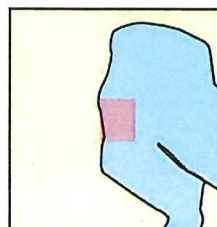
# Royal Freshwater Bay Yacht Club - Property and Lease boundaries and location of wharf replacement




**Legend**

- Proposed wharf replacement
- RFBYC Riverbed Lease

  
 1:2,000 (A4)  
 0 10 20 30 m  
  
 Geographic Projection  
 Datum: GDA94

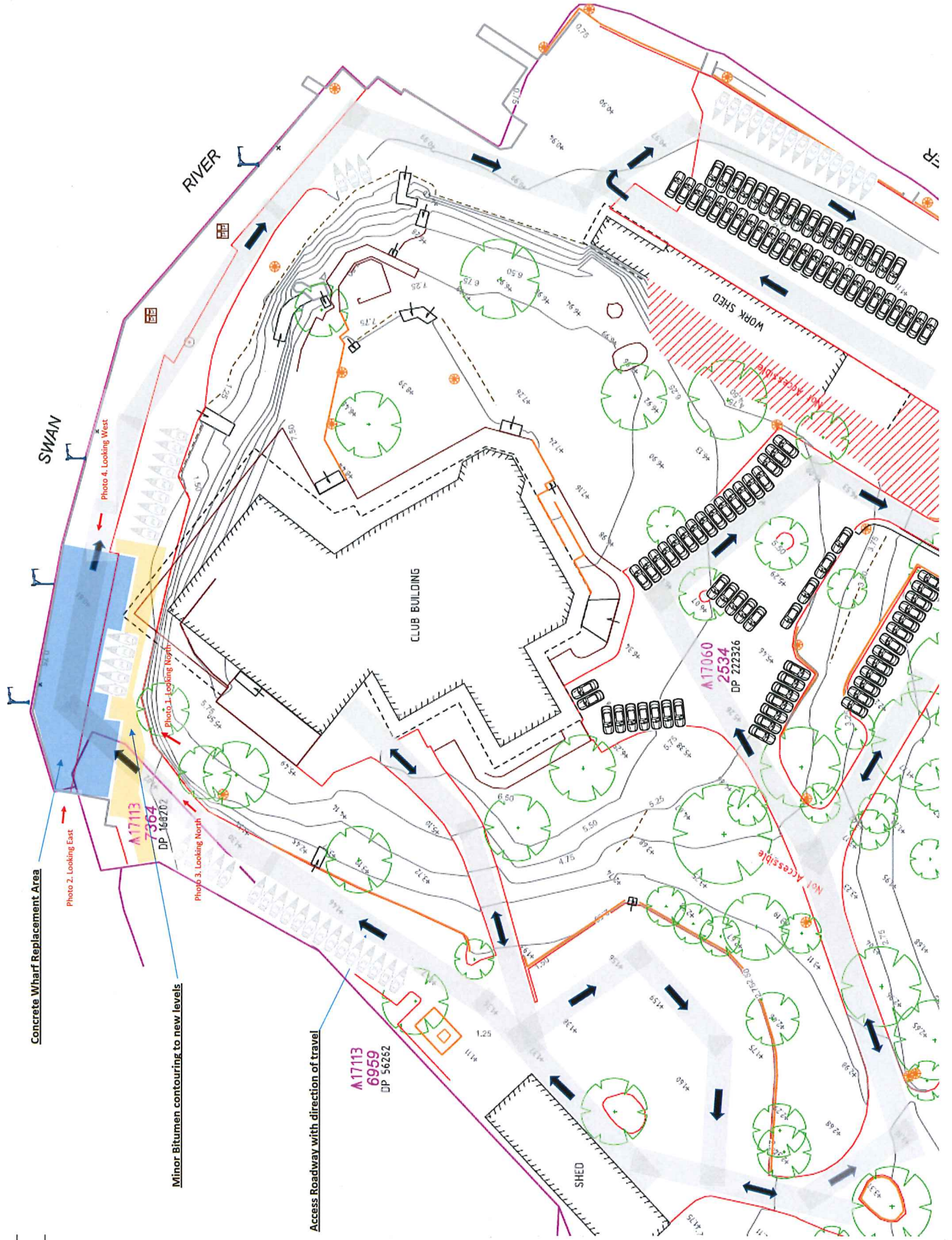


Produced by jr,  
 Department of Biodiversity,  
 Conservation and Attractions  
  
 Department of Biodiversity,  
 Conservation and Attractions  
 Job Ref: part5  
 Produced at 12:38 PM on March 20, 2020

The Department of Biodiversity, Conservation and Attractions does not guarantee that this map is without flaw of any kind and disclaims all liability for any errors, loss or other consequence which may arise from relying on any information depicted. Roads and tracks on land managed by DBCA may contain unmarked hazards and their surface condition is variable. Exercise caution and drive to conditions on all roads.



Figure 1 - Location of wharf replacement on northern boundary of the Royal Fresh Water Bay Yacht Club showing photo points 1-4 in red





# Attachment 2

Figure 1 - Location of wharf reconstruction on northern boundary of the Royal Fresh Water Bay Yacht Club

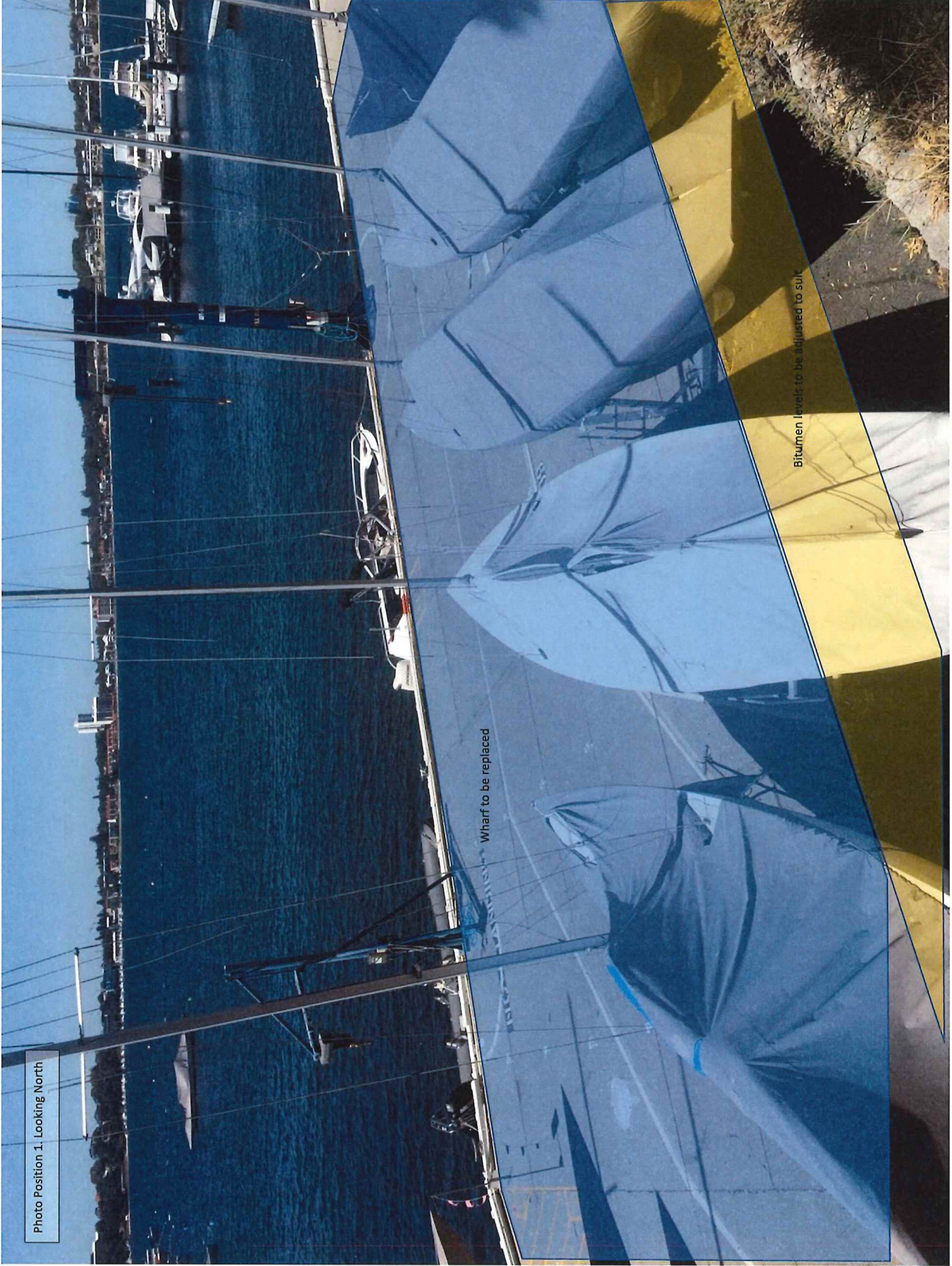




Figure 1 - Location of wharf replacement on northern boundary of the Royal Fresh Water Bay Yacht Club

## Attachment 2





Figure 1 - Location of wharf replacement on northern boundary of the Royal Fresh Water Bay Yacht Club

# Attachment 2

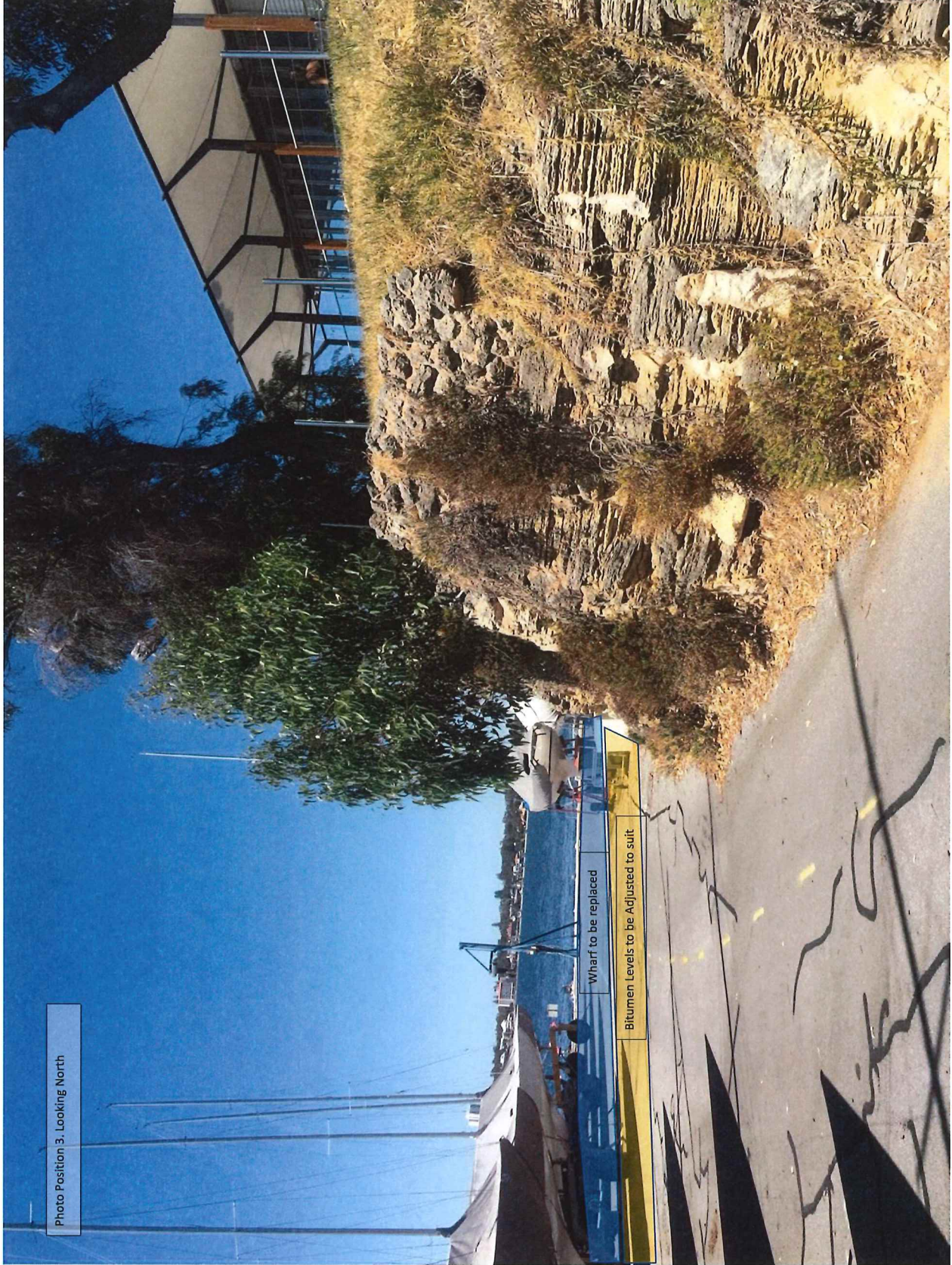
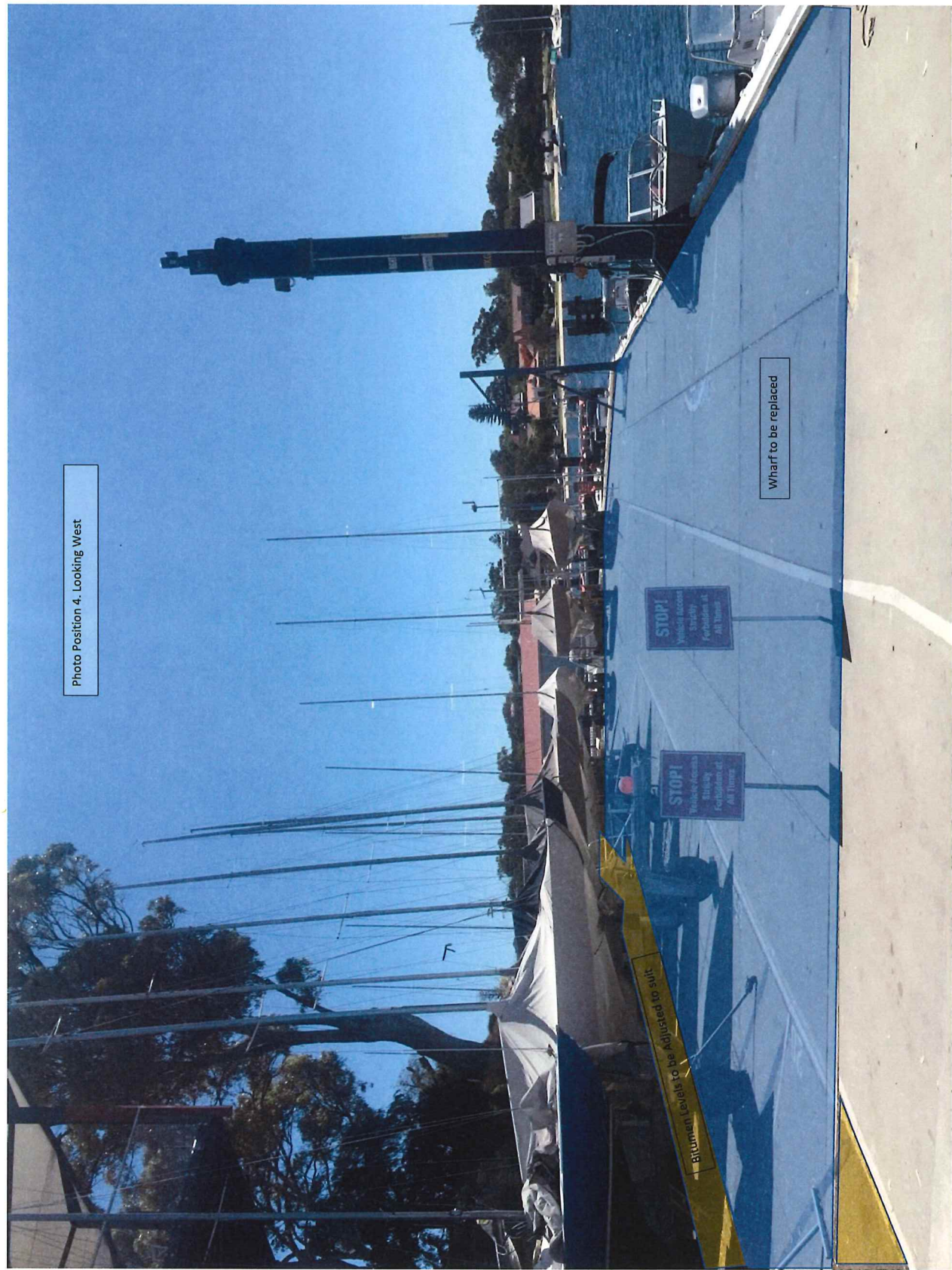




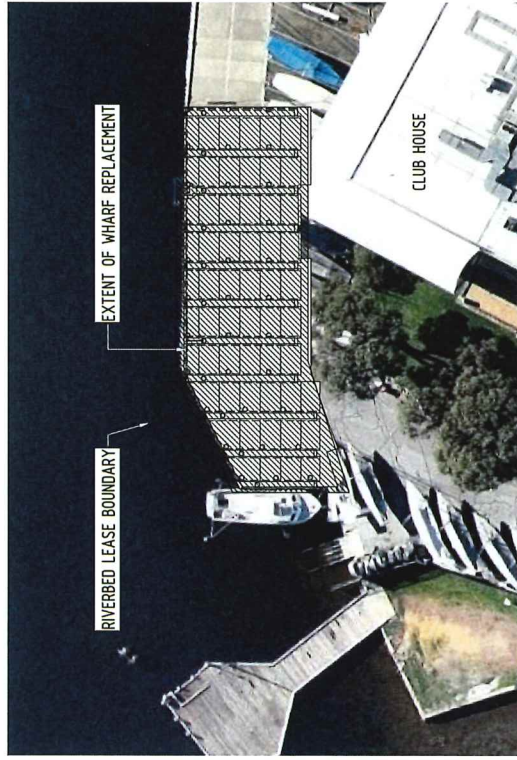
Figure 1 - Location of wharf replacement on northern boundary of the Royal Fresh Water Bay Yacht Club

# Attachment 2

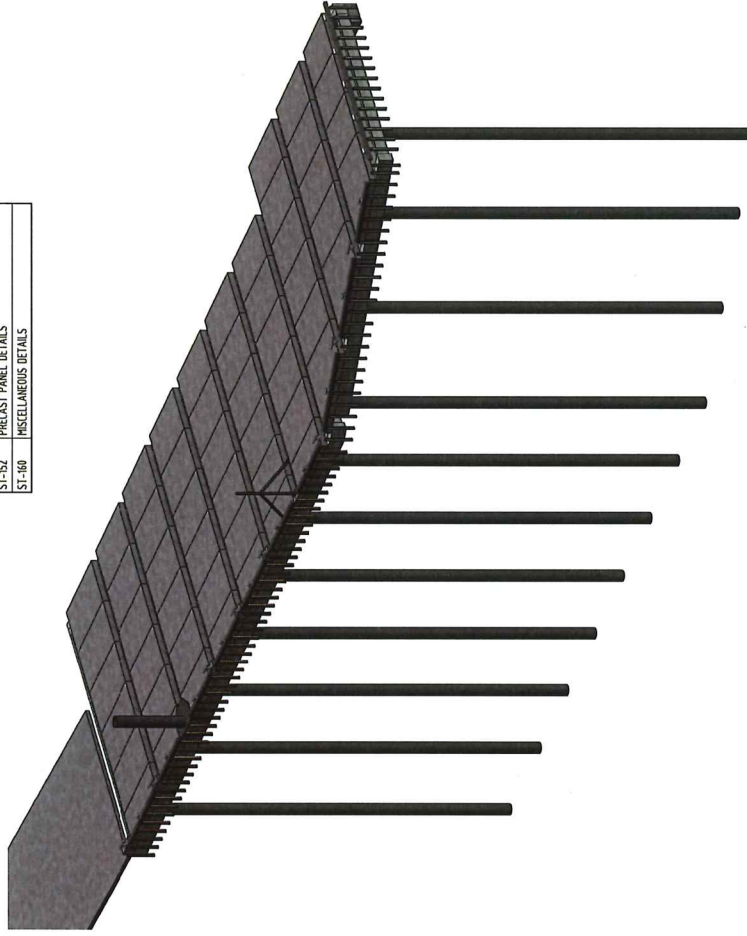


# RFBYC MAIN WHARF REPLACEMENT

DRAWING LIST	
NUMBER	SHEET NAME
ST-101	COVER PAGE
ST-102	NOTES SHEET
ST-111	DEMOLITION PLAN AND SECTIONS
ST-121	GENERAL ARRANGEMENT PLAN & SECTIONS
ST-131	PILE LAYOUT, SECTIONS AND DETAILS
ST-141	CONCRETE LAYOUT, SECTIONS AND DETAILS
ST-151	PRECAST PANEL, SECTIONS AND DETAILS
ST-160	MISCELLANEOUS DETAILS



KEY PLAN  
SCALE 1:250



3D VIEW - MAIN WHARF REPLACEMENT  
N.T.S.

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	PREP	ENG	CHKD
A	11.03.20	PRELIMINARY ISSUE	SP	JK	RD
B	13.03.20	ISSUE FOR DESIGN REVIEW	SP	DL	

**WGA**  
WALLBRIDGE CONSULTANTS  
Level 11, 88 Koppa Park Road, West Perth  
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ROYAL FRESHWATER BAY YACHT CLUB  
PEPPERMINT GROVE, SWAN RIVER  
MAIN WHARF REPLACEMENT  
COVER PAGE  
A1  
DOCUMENT NUMBER  
WGA191073-DR-ST-101 B

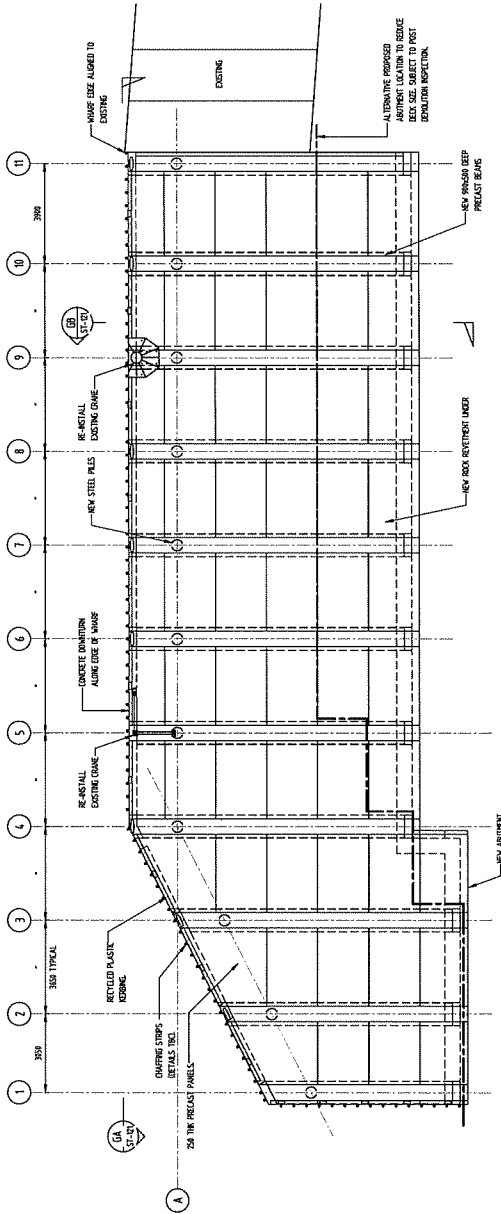
Project: SP  
Client: RFBYC  
Scale: 1:250  
Date: 13/03/20

When checked period for date, the scale bar is 1:1 (100mm)

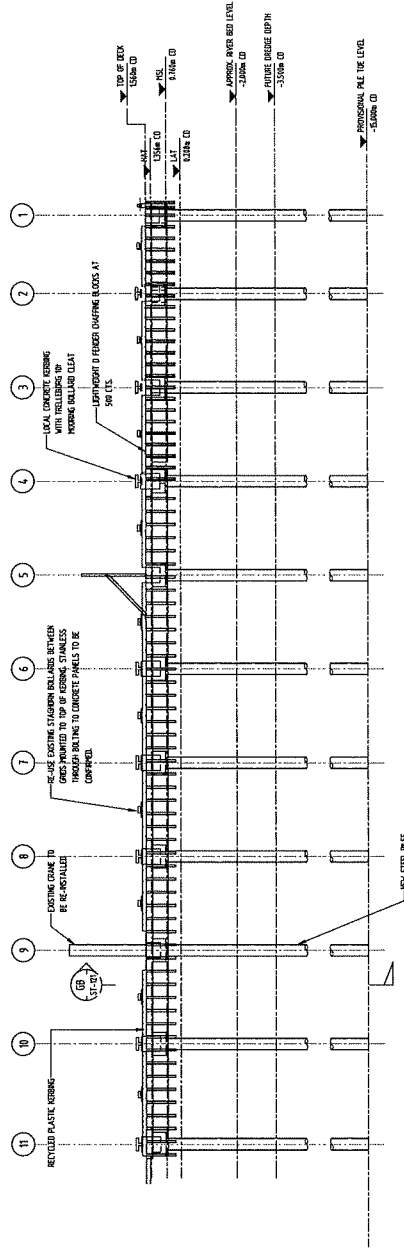




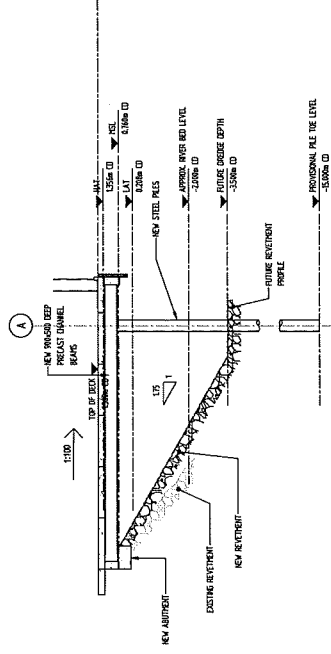




GENERAL ARRANGEMENT  
SCALE: 1:50



SECTION GA  
SCALE: 1:50



SECTION GB  
SCALE: 1:50

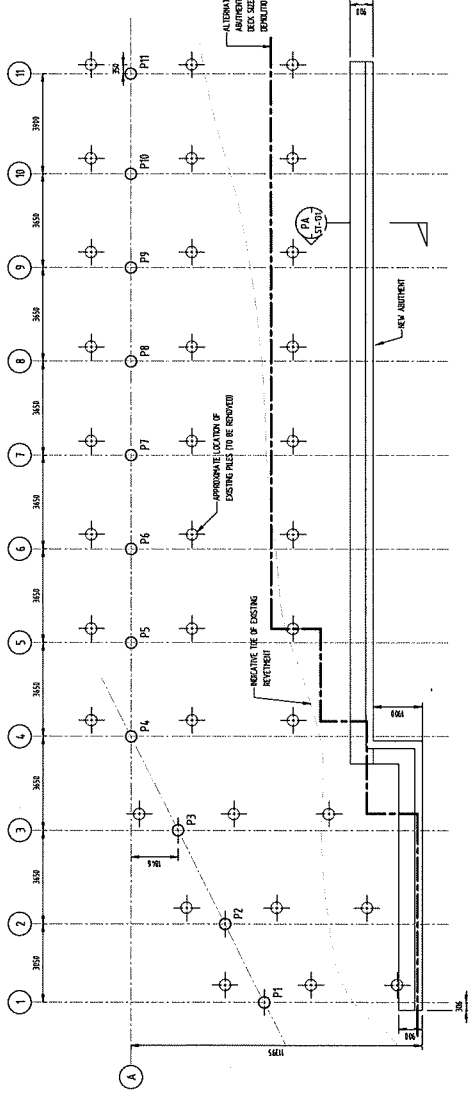
PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DRAFT	ENG.	CHECK
A	11/25	PRELIMINARY ISSUE	SP	JK	UD
B	03/20	ISSUE FOR DESIGN REVIEW	SP	DL	

**WGA**  
WALLBRIDGE GILBERT  
AZTEC  
Level 1, 85 Kings Park Road, West Perth  
Western Australia 6005  
Phone: (08) 9447 2222  
Email: wga@wga.com.au

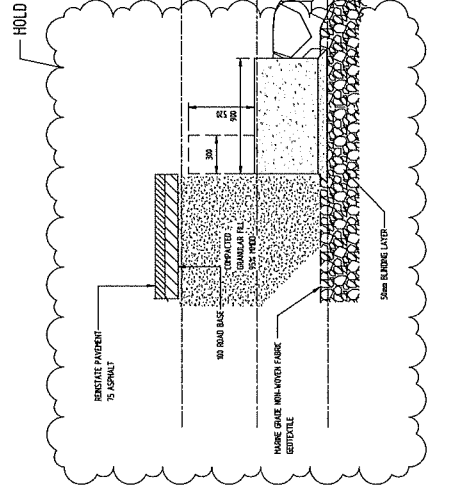
ROYAL FRESHWATER BAY YACHT CLUB  
PEPPERMINT GROVE SWAN RIVER  
MAIN WHARF REPLACEMENT  
GENERAL ARRANGEMENT PLAN & SECTIONS

DOCUMENT NUMBER: A1  
JOB NUMBER: JK  
SCALE: SP  
DRAWING NUMBER: WGA191073-DR-ST-121 B



PILE AND ABUTMENT LAYOUT  
SCALE: 1:50

MARK	PILE SIZE	PILE GRADE (MPS)	APPROX SEABED LEVEL (m CD)	MIN. PILE EMBEDMENT BELOW SEABED LEVEL (m)	PILE CUTOFF LEVEL (m CD)	PROVISIONAL PILE LENGTH (m)	PILE CUT-OFF & MIN. EMBEDMENT (m)	ULTIMATE PILE CAPACITY (kN)	DESIGN COORDINATES (m)	
									NORTHING	EASTING
P1	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P2	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P3	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P4	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P5	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P6	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P7	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P8	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P9	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P10	457x610x105	OSD	-3	0	4685	18	235	600	784	784
P11	457x610x105	OSD	-3	0	4685	18	235	600	784	784



NOTE:  
EXCAVATE EXISTING REVEMENT TO NATURAL GROUND LEVEL.  
TYPICAL ABUTMENT DETAIL

SECTION  
SCALE: 1:20

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION

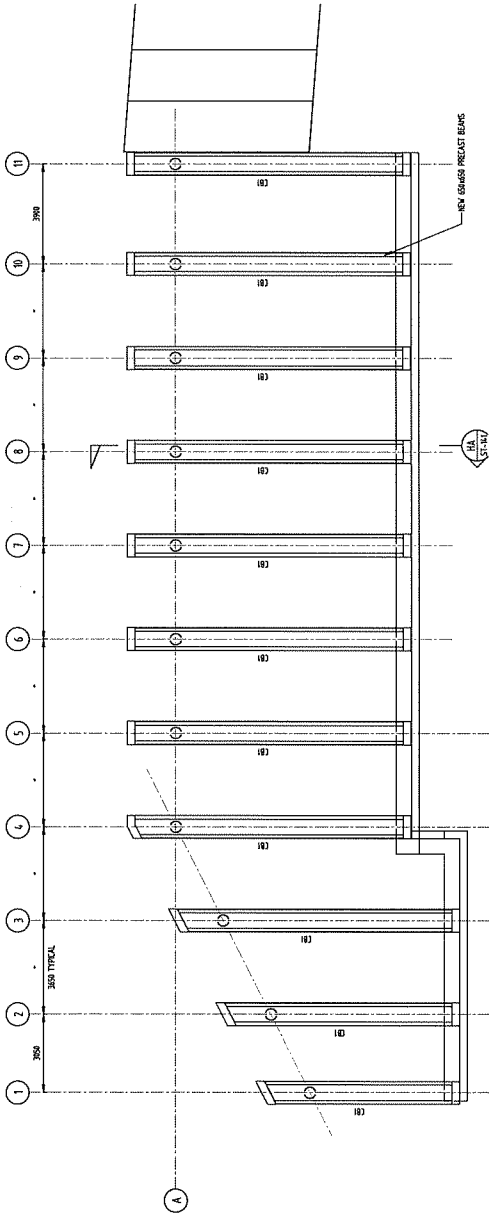


REV	DATE	DESCRIPTION	DRAWN	ENG.	CHECKED
A	17/05/2023	ISSUE FOR DESIGN REVIEW	SP	DL	JK
B	18/05/2023	ISSUE FOR DESIGN REVIEW	SP	DL	JK

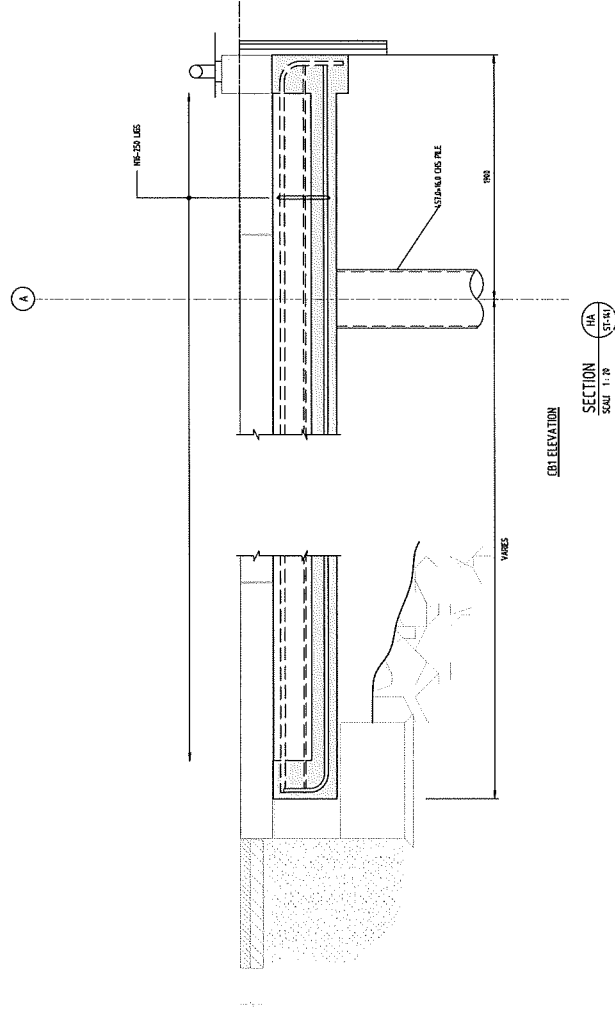
**WGA**  
 WALLERBROSSE GILBERT  
 ARCHITECTS  
 Level 1, 55 Kopp Park Road, West Perth  
 Western Australia 6005  
 Phone: 08 9447 4500  
 Email: gwg@wga.com.au

CLIENT: ROYAL FRESHWATER BAY YACHT CLUB  
 PROJECT: REPERMANT GROVE, SWAN RIVER  
 MAIN WHARF REPLACEMENT  
 PILE LAYOUT, SECTIONS AND DETAILS  
 DRAWING NUMBER: A1  
 SHEET: JK  
 SCALE: SP  
 PROJECT NUMBER: WGA191073-DR-ST-131 B

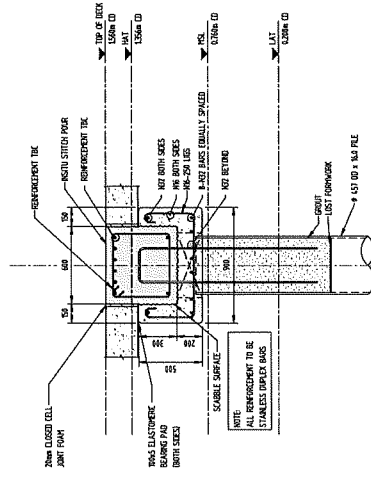




CONCRETE BEAM LAYOUT  
SCALE 1:100



CB1 ELEVATION  
SECTION  
SCALE 1:10



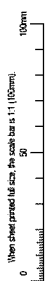
CB1 SECTION  
SCALE 1:20

NOT FOR CONSTRUCTION  
PRELIMINARY ISSUE

REV.	DATE	DESCRIPTION	DRAWN	CHECKED
1	15/03/20	ISSUE FOR DESIGN REVIEW	SP	DL

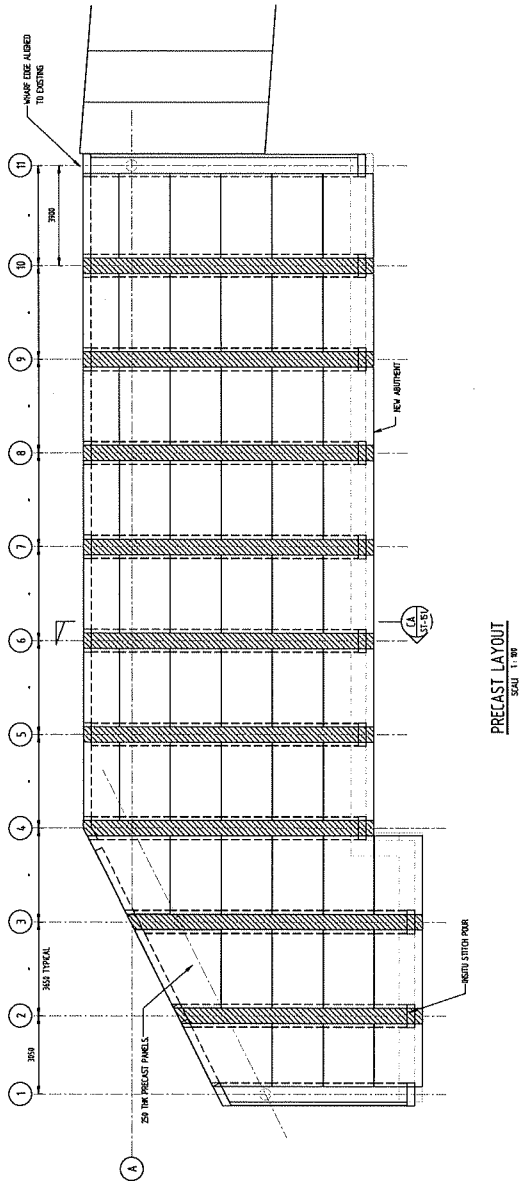
  

<b>WGA</b>		<b>ROYAL FRESHWATER BAY YACHT CLUB</b>	
WALLBRIDGE CIVIL & ELECTRICAL Level 1, 66 Coppin Park Road, West Perth Western Australia 6005 Phone: (08) 9447 3444 Email: info@wga.com.au		REPERIMENT GROOVE, SHWAN RIVER MAIN WHARF REPLACEMENT CONCRETE LAYOUT, SECTIONS AND DETAILS	
Job No:	A1	Client:	JK
Document Number:	WGA191073-ST-141 B	Scale:	SP

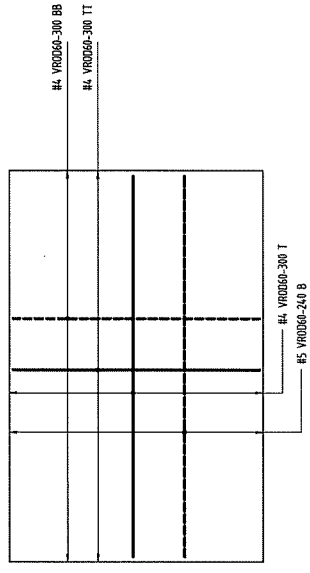


When plotted printed full size, the scale bar is 1:1 (100mm).

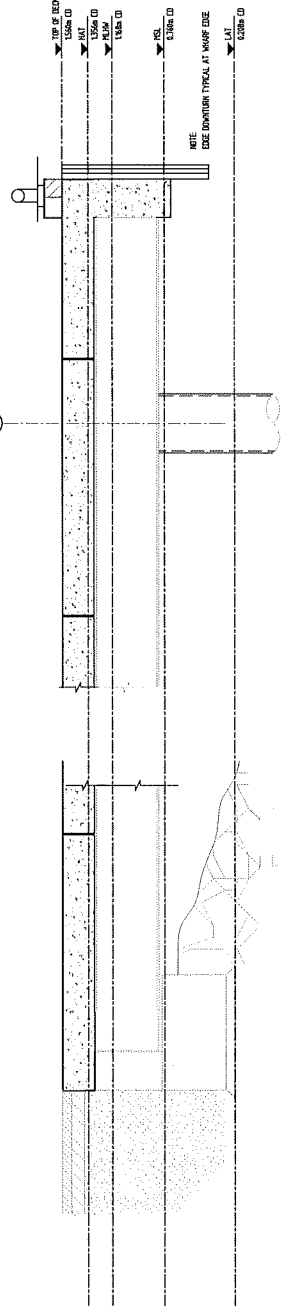




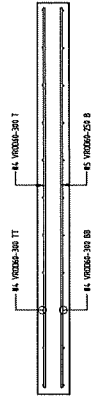
PRECAST LAYOUT  
SCALE 1:80



TYPICAL PANEL REINFORCEMENT  
SCALE 1:20



TYPICAL PANEL SECTION  
SCALE 1:20



SECTION  
SCALE 1:20

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION	DESIGNER	ENGR	CHECKED
A	04/20/20	ISSUE FOR DESIGN REVIEW	JK	JK	JK
B					

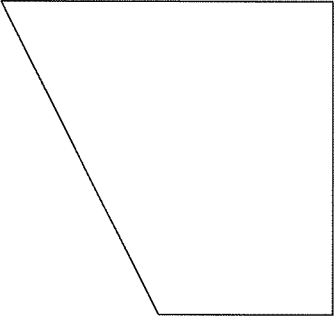
**WGA**  
 WALLACE & GORTALS  
 ARCHITECTS  
 Level 1, 66 Kemp Park Road, West Perth  
 Western Australia 6005  
 Email: info@wga.com.au

ROYAL FRESHWATER BAY YACHT CLUB  
 REPERIMENT GROVE, SILVAN RIVER  
 MAIN WHARF REPLACEMENT  
 PRECAST LAYOUT, SECTIONS AND DETAILS

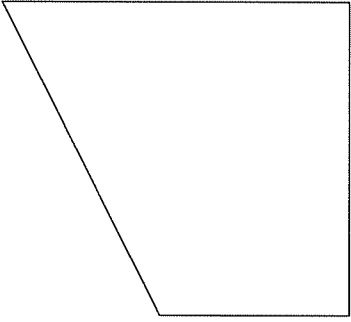
DRAWING NUMBER: **A1**  
 SHEET NO.: **JK**  
 DATE: **SP**  
 JOB NUMBER: **WGA191073-DR-ST-151 B**

When sheet printed M size, the scale bar is 1:1 (50mm)

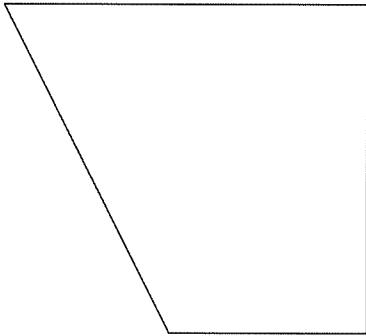




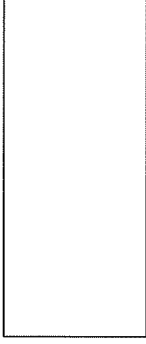
T3 PANEL PLAN  
SCALE 1:25



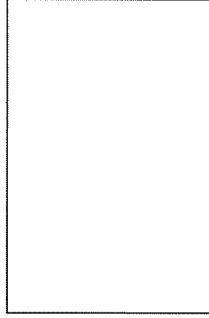
T4 PANEL PLAN  
SCALE 1:25



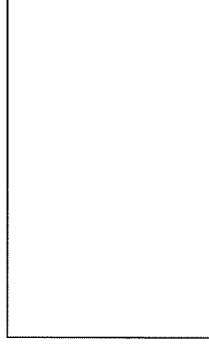
T5 PANEL PLAN  
SCALE 1:25



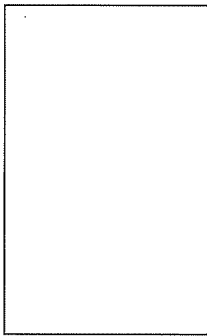
T9 PANEL PLAN  
SCALE 1:25



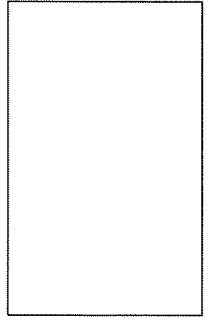
T2 PANEL PLAN  
SCALE 1:25



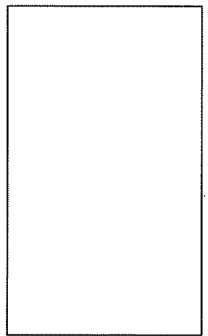
T10 PANEL PLAN  
SCALE 1:25



T6 PANEL PLAN  
SCALE 1:25



T8 PANEL PLAN  
SCALE 1:25



T7 PANEL PLAN  
SCALE 1:25

PRELIMINARY ISSUE  
NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION	DRAWN	ENCL	CHKD
A	13/03/23	ISSUE FOR DESIGN REVIEW	SP	JK	

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CHECK PRINT: DATE: \_\_\_\_\_ CHECKED: \_\_\_\_\_  
 ROYAL FRESHWATER BAY YACHT CLUB  
 REPURPOSE GROUVE, SWAN RIVER  
 MAIN WHARF REPLACEMENT  
 PRECAST PANEL DETAILS  
 A1  
 DOCUMENT NUMBER  
 WGA191073-ST-152 A



When these printed full size, the scale bar is 1:1 (100mm).