



Swan and Canning Rivers Management Act 2006

PART 5

DETERMINATION OF DEVELOPMENT APPLICATION

FILE NUMBER	:	2020/0425
APPLICANT	:	City Foreshore Investments Ltd
LANDOWNER	:	Swan River Trust
LAND DESCRIPTION	:	Swan River adjacent to Lots 305, 306 and 307 Riverside Drive, East Perth, Point Fraser Entertainment Complex/On the Point Development
DEVELOPMENT	:	Installation of a berthing facility (Stage 2)
VALID FORM 1 RECEIVED	:	5 February 2020
DETERMINATION	:	APPROVAL WITH CONDITIONS

The application to commence development in accordance with the application received on 5 February 2020 and additional information received on 8 April 2020, is APPROVED subject to the following 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. Prior to the commencement of works, a revised Construction Environmental Management Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 2 and 5**).
4. Prior to the commencement of works, final design plans/drawings for the proposed berthing facility, shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 3 and 5**).
5. Prior to the commencement of works, a Monitoring and Maintenance Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Note 4 and 5**).
6. Prior to the commencement of works, the River reserve lease is to be amended (see **Advice Note 5 and 6**).

During works

7. All works shall be implemented in accordance with the plans approved under **Conditions 3 and 5**.

8. No rubbish or any other deleterious matter shall be allowed to enter the river as a result of the works.
9. The applicant shall ensure that no damage to the foreshore, riverbank, or waterway (including vegetation and infrastructure) 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.
10. The proposed works shall not prevent public access along the foreshore or across the River reserve unless closure is necessary for safety purposes and has been approved by the Department of Biodiversity, Conservation and Attractions, and an alternative route has been provided.

On completion of works

11. Upon completion of the works, all waste materials, equipment, and machinery shall be removed, and the site cleaned up and reinstated to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

On-going

12. The applicant shall undertake on-going monitoring and maintenance of the berthing facility in accordance with the Monitoring and Maintenance Plan approved under **Condition 5**, for the life of the development.
13. The berthing facility and associated pens shall remain available for use and access by the broader public. No fees are permitted to be charged for the berthing of vessels. The jetty is for short-term berthing only and not to be used as a home berth.

ADVICE TO APPLICANT

1. Notification of commencement of works and submission of documents can be emailed to rivers.planning@dbca.wa.gov.au.
2. The Construction Environmental Management Plan required under **Condition 3** is to be amended to address the following:
 - Confirmation whether any land-based machinery or equipment is required. The City of Perth advises that site access through the foreshore reserve during construction works will not be permitted.
 - Location and details of any materials laydown area.
 - The refuelling of any vessels/barge over the water (including contingency) is only to be carried out at a licenced fuel facility.
 - Update the silt curtain arrangement on Page 8 to ensure that all piling works are confined within the silt curtain. Silt curtains should be visually checked twice a day to ensure that they are secured and functioning as intended.
3. In relation to **Condition 4**, the final design drawings and plans are to be signed and certified by an experienced maritime engineer to confirm that they have been designed in accordance with AS3962-2001 *Guidelines for Design of Marinas* (AS3962-2001). Size dimensions of all the jetty structures, berthing pen locations and details of the port hand marker (No. 4276) to be relocated to the end of 'Jetty H' should be included in the plans.

In addition, the City of Perth advises the following:

- a. The jetty should be designed to cater for all water levels, including the Lowest Astronomical Tide, Highest Astronomical Tide, storm tide and flooding.

- b. The jetty structures should comply with the relevant loading and stability requirements in accordance with AS3962-2001, including the following criteria: stability, positive floatation, loading - general and permanent, floating structure live loads, environmental loads (i.e. wave, winds, water current, floods, debris mats and negative lift) and berthing loads.
 - c. No deck furniture to be permitted on the floating pontoon.
 - d. Tidal levels should be indicated on the fender piles.
 - e. All piles should have a 300mm wide retro reflective band 300mm below the pile cap.
 - f. The decking for the jetty structures to be a non-slip surface suitable for the marine environment.
 - g. A full design report to be prepared to outline the maximum allowable vessels permitted based on the pontoon length, water depth, river channel width and safe vessel operation and manoeuvrability and confirmation that the Australian Maritime Safety Authority (or equivalent) has been consulted with regard to these dimensional constraints.
4. In relation to **Condition 5**, the Monitoring and Maintenance Plan is to outline the applicant's commitments in maintaining public access and safety, waste management, fuel spill management and general maintenance of the berthing facility. The applicant should maintain current liability insurance for the berthing facility, with a copy to be provided to the Department of Biodiversity, Conservation and Attractions.
5. In regard to **Condition 6**, an amendment of the River reserve lease is required to:
- a. Extend the lease boundary to include the new berthing facility and associated short term berthing pens;
 - b. Address the leaseholder's responsibility for providing on-going management of the berthing facility and short-term berthing pens;
 - c. Restrict berthing duration of vessels to temporary or short-term berthing only (i.e. 3-4 hours maximum); and
 - d. Ensuring the floating jetty structures are maintained as a public use facility.

The leaseholder shall be responsible for all legal costs associated with the amendment of the lease and shall also be required to prepare and implement an Environmental Management System (EMS) to the satisfaction of the Department of Biodiversity, Conservation and Attractions. This approval does not authorise the applicant to carry out any other works besides the scope of the approved works, whether within or outside the lease area. If any other work is proposed, an additional approval from the Department of Biodiversity, Conservation and Attractions shall be required. Dredging works (to create or maintain access to berthing pens) are unlikely to be supported by the Department of Biodiversity, Conservation and Attractions.

6. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the plans and details required under **Conditions 4 to 6**, the documents shall be submitted to the Department of Biodiversity, Conservation and Attractions at least 30 days before the expected works commencement date.
7. Regarding navigational safety, the Department of Transport (DoT) advises the following:
- a. All in-water operations and activities must be conducted in accordance with the relevant marine legislative provisions.
 - b. Prior to the commencement of works, a temporary notice to mariners (TNTM) outlining the scope of works and works area, navigational markings (lighting) and date of works must be issued. The applicant will need to notify DoT by email (navigational.safety@transport.wa.gov.au) at least 21 days prior to works commencing to enable a TNTM to be published.

- c. The applicant is to ensure that the maximum design size of vessels at each proposed jetty is supported by sufficient water depth to ensure the safe berthing of vessels.
 - d. DoT's port hand marker (No. 4276) must be relocated to the top of the pylon at the end of the Jetty H and be placed at a sufficient height to ensure that it is seen above any vessels which are berthed at the jetty. DoT is to be notified by email (marked attention: Navigational Aids Coordinator, navigational.safety@transport.wa.gov.au and navmore@transport.wa.gov.au) following the relocation works.
 - e. It is recommended that consultation be undertaken with ferry operators, community clubs (i.e. Rowing Western Australia) and the adjacent canoe operator, that have vessels/crafts transiting the area, regarding the proposed development.
8. This application and therefore approval do not include any signage. A separate permit application and approval for signage will be required from the Department of Biodiversity, Conservation and Attractions in accordance with the Swan and Canning Rivers Management Regulations 2007.
 9. The applicant is advised that the proposal has the potential to be affected by the 1 per cent annual exceedance probability (AEP) flood level and potential sea level rise, with the 1% AEP flood level expected to be approximately 1.5mAHD, and approximately 2.3mAHD to allow for sea level rise of 0.9m by 2110. The proposed berthing facility will be subject to potential flood damage during major river flow events. The berthing facility design should consider the risk of the structure breaking free during major flooding events (i.e. floating pontoon rising out of the jetty piles), and its potential to cause damage or create blockages to flows downstream. The applicant may need to engage a suitably qualified consultant to investigate suitable jetty design solutions to address these issues.

The onus is on the applicant to undertake its own investigations, risk assessment and exercise its own judgment in determining the level of risk it is prepared to accept. The Swan and Helena River Flood Study (2018) may contain relevant flood information that can be made available by the Department of Water and Environmental Regulation to the applicant on request.

10. The applicant is advised to contact the Department of Planning, Lands and Heritage to ensure that the proposed works do not breach any section of Part IV (Protection of Aboriginal Sites) of the *Aboriginal Heritage Act 1972* (AHA). Approval under section 18 of the AHA may be required. It is recommended that the applicant consult the South West Aboriginal Land and Sea Council about the works, which may impact the Swan River. Please refer to the *Aboriginal Heritage Due Diligence Guidelines* (Department of Planning, Lands and Heritage and the Department of Premier and Cabinet, 2013) when planning specific development within a Heritage area.



Hon Stephen Dawson MLC
MINISTER FOR ENVIRONMENT

Date: 19/8/20

DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS REPORT

PROPOSAL : Installation of a berthing facility (Stage 2)
COST : \$250,000
LOCATION : Swan River adjacent to Lots 305, 306 and 307 Riverside Drive, East Perth, Point Fraser Entertainment Complex/On the Point Development
APPLICANT : City Foreshore Investments Ltd
LANDOWNER : Swan River Trust (Reserve 48325)
LOCAL GOVERNMENT : City of Perth
MRS CLASSIFICATION : Waterways
DECISION TYPE : Part 5, *Swan and Canning Rivers Management Act 2006* – Ministerial Determination
ATTACHMENTS : 1. Location plan (2 pages)
2. Plans for Stage 1 berthing facility and fender system previously approved (3 pages)
3. Plans for Stage 2 berthing facility approved on 11 October 2017 (1 page)
4. City of Perth's Advice Letter (2 pages)
5. Updated plans for Stage 2 berthing facility (subject to this application) (4 pages)
6. Current riverbed lease area (1 page)
7. Public Access Plan (1 page)
RECOMMENDATION : **APPROVAL WITH CONDITIONS**

REPORT

1.0 INTRODUCTION

1.1 The Department of Biodiversity, Conservation and Attractions (DBCA) has received an application from City Foreshore Investments Pty Ltd (CFI) proposing to install a berthing facility on the Swan River (Reserve 48325) adjacent to the Point Fraser Entertainment Complex (On the Point Development) at Lots 305, 306 and 307 Riverside Drive, East Perth (see **Attachment 1**). The subject site is reserved for 'Waterways' under the Metropolitan Region Scheme.

1.2 The applicant was granted two permits under the Swan and Canning Rivers Management Regulations 2007 on 8 March 2017 to install a fender system and

Stage 1 of its berthing facility within its existing riverbed lease area (2017/0256 & 2017/0259, P11911 & P11912) adjacent to the Ku De Ta Restaurant (see **Attachment 2**). The approved structures include seven fender piles (475mm x 12.7mm x 26m length) for the existing timber boardwalk/jetty structure and a floating jetty pontoon (2.6m x 19m), gangway (10m long) and one mooring pile (323mm x 9.5mm x 26m length) on the eastern side of the existing boardwalk/jetty structure. The Stage 1 berthing facility is to be used for passenger drop off and pick up, and the short-term berthing of small vessels (i.e. recreational vessels).

- 1.3 The applicant was previously granted an approval under Part 5 of the *Swan and Canning Rivers Management Act 2006* (SCRM Act) on 11 October 2017 to expand its berthing facility, with Stage 2 to consist of installing a longer floating pontoon, gangway and jetty piles to accommodate the short-term berthing of large vessels (e.g. commercial ferries) and expansion of the Stage 1 berthing facility by installing three mooring piles to create four (4) pens (i.e. 8m wide berths) to accommodate the short-term berthing of additional small/recreational vessels (see **Attachment 3**). However, the approval expired prior to the works being implemented.
- 1.4 The proposed development is to occur on a lot wholly within the Swan Canning Development Control Area and outside of the applicant's River reserve lease area and therefore requires an approval from the Minister for Environment in accordance with Part 5 of the SCRM Act.
- 1.5 The Director General of DBCA has prepared this report in accordance with section 76 of the SCRM Act.

2.0 CONSULTATION

City of Perth

- 2.1 The City of Perth (the City) has assessed the application and advises that it supports the proposal subject to conditions relating to the berthing facility design, construction management and on-going monitoring and maintenance of the proposed structures, being incorporated on the approval.
- 2.2 The City's full comments are provided at **Attachment 4**.

Department of Planning, Lands and Heritage

- 2.3 The Department of Planning, Lands and Heritage (DPLH) has reviewed the application and advised that the proposed structures are located within a Registered Site of Aboriginal Significance (ID 3536 Swan River).
- 2.4 DPLH advised that as the proposed works are within an Aboriginal site, the applicant may need to submit a section 18 application under the *Aboriginal Heritage Act 1972* if any riverbed disturbance works are required (e.g. jetty piling works).
- 2.5 DPLH further advised that the South West Aboriginal Land and Sea Council should be contacted for its advice regarding potential impacts of the proposed development within the Aboriginal site, and the applicant should refer to DPLH's *Aboriginal Heritage Due Diligence Guidelines*.

Department of Transport, Maritime Planning

- 2.6 The Department of Transport (DoT), Maritime Planning advised that it has no in-principle objection and has advised the drawings/designs for the proposed development have already been pre-approved by DoT and a jetty modification licence has been prepared.

Department of Transport, Navigational Safety

- 2.7 DoT, Navigational Safety advised that it has no objections to the proposal, subject to the following recommendations:
- All in-water operations and activities must be conducted in accordance with the relevant marine legislative provisions;
 - Prior to the commencement of works, a temporary notice to mariners (TNTM) outlining the scope of works and works area, navigational markings (lighting) and date of works must be issued. The applicant will need to notify DoT at least 21 days prior to works commencing to enable a TNTM to be published;
 - The applicant is to ensure that the maximum design size of vessels at each proposed jetty is supported by sufficient water depth to ensure the safe berthing of vessels;
 - DoT's port hand marker (No. 4276) must be relocated to the top of the pylon at the end of Jetty H (see **Attachment 5**) and be placed at a sufficient height to ensure that it is seen above any vessels which are berthed at the jetty. DoT is to be notified following the relocation works; and
 - It is recommended that consultation be undertaken with ferry operators, community clubs (i.e. Rowing Western Australia) and the adjacent canoe operator that have vessels/crafts transiting the area regarding the proposed development.

Department of Water and Environmental Regulation

- 2.8 The Department of Water and Environmental Regulation (DWER) has reviewed the proposal with regards to flooding impacts and provides the following advice:
- The section of the Swan River adjacent to the Point Fraser Development is prone to both riverine and tidal/storm surge flooding, with riverine flooding being the dominant flooding regime. The general area is affected by flooding with the 1% AEP flood level expected to be approximately 1.5mAHD, with the designated flood level for planning at this location to be approximately 2.3mAHD (to allow for sea level rise of 0.9m by 2110);
 - The proposed berthing facility will be subject to potential flood damage during major river flow events;
 - The obstructive effect of the proposed berthing facility is not considered to be significant during major river flows compared to the obstructive effect of the adjacent existing development (i.e. On the Point);
 - The berthing facility design should consider the risk of the structure breaking free during major flooding events (i.e. floating pontoon rising out of the jetty piles), and its potential to cause damage or create blockages to flows downstream. The applicant may need to engage a suitably qualified consultant to investigate suitable jetty design solutions to address these issues; and
 - The Swan and Helena River Flood Study (2018) may contain relevant flood information that can be made available to the applicant on request.

3.0 PUBLIC SUBMISSIONS – 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 referral agencies. A copy was also published on the DBCA website for a period of two (2) weeks between 22 July 2020 and 5 August 2020 with an invitation for public submissions.
- 3.2 One (1) submission was received from the Department of Planning, Lands and Heritage on 27 July 2020 to advise that it is satisfied that its previous comments have been addressed in the report.

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. 44 – *Planning for Jetties in the Swan Canning Development Control Area* (Policy 44)

5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS

- ◆ River Reserve Lease
- ◆ Environmental Protection
- ◆ Jetty Design
- ◆ Heritage
- ◆ Visual Amenity
- ◆ Public Access and Safety
- ◆ Flood Risk and Sea Level Rise

6.0 BACKGROUND

- 6.1 CFI was issued a development approval by the Western Australian Planning Commission (WAPC) in 2012 to construct the On the Point Development, which consists of an entertainment and restaurant complex, associated alfresco area and board walk around the building. The development has both a land and water-based component, and is located on Lot 306 Riverside Drive, Perth, portions of Lots 305 and 307 Riverside Drive, Perth (A Class reserves) and the River reserve. The water based component of the development consists of a single storey building and timber board walk on a jetty platform.
- 6.2 The proposed works will consist of:
- Installing a jetty pontoon (approximately 24m x 2.5m) and 5 steel piles with HDPE sleeves and caps.
 - Installing four finger jetties (approximately 10m x 1m) and 4 steel piles with HDPE sleeves and caps (see **Attachment 5**).
- 6.3 The new berthing facility will be located to the east of the existing boardwalk/development and accessed via the jetty and gangway installed as part of the Stage 1 works. The new berthing facility will provide short-term berthing areas for non-powered crafts ('Jetty A'), small pleasure crafts ('Jetty B'), 8m long vessels ('Jetty C-G') and drop-off/pick up points for 15m long vessels ('Jetty H'), and is

intended to be used for both recreational and commercial vessels (see **Attachment 5**) and be accessible to the public. The new berthing facility is anticipated to provide up to 8-9 berthing areas for crafts and vessels.

- 6.4 The proposed development is located outside the applicant's existing River reserve lease (see **Attachment 6**).
- 6.5 Jetty Marine and Constructions has been engaged by CFI to implement the works and has prepared the drawings and designs and a Construction Environmental Management Plan (CEMP) for the proposed berthing facility.

7.0 DISCUSSION

River Reserve Lease

- 7.1 A River reserve lease (4063m²) was previously held by CFI that was issued in 1986, prior to the establishment of the Swan River Trust (the Trust). The intent of the lease was to facilitate construction of a replica of the *Parmelia*, a barque sailing ship that was used to transport the first settlers of the Swan River colony to Western Australia, however this did not eventuate. The extensive River reserve lease was considered contentious at the time due to the terms of the lease (being 40 years), and that a large-scale commercial development over the River reserve may not be appropriate at this location.
- 7.2 In order to facilitate a land-based Point Fraser development, the City instigated the excision of a portion of the A Class reserve to create Lot 306 in exchange for the adjacent River reserve lease held by CFI to be nullified.
- 7.3 For the section of the development located over the water, the applicant was issued a revised River reserve lease (1093m²) in 2011. The revised River reserve lease was subject to negotiations at the State Administrative Tribunal due to issues raised by the proponent relating to lease area and terms, and conditions relating to the original development approval regarding public access arrangements through the development.
- 7.4 Following further negotiations with the Trust, an additional lease area was agreed to assist with the management of housekeeping issues such as anti-social behaviour, rubbish, boat mooring and public liability. The revised River reserve lease (1498m²) was issued in 2012 (see **Attachment 6**).
- 7.5 The proposed berthing facility will be consistent with the permitted use of the existing River reserve lease, which includes 'ferry terminal, ticket booth, cafe, restaurant and supper club or any other use approved in writing by the Lessor'.
- 7.6 Given the size and scale of the new berthing facility and to ensure that all jetty infrastructure for the complex/development is routinely maintained and managed, it is recommended that the River reserve lease area be amended to include the new berthing facility and associated berthing pens (i.e. an additional area of approximately 430m²).
- 7.7 SPP 2.10 states that the river is a public resource that should be available to the community in perpetuity; therefore, any proposal for development that may affect the river and its settings should demonstrate a benefit to the community. The lease

terms should also reflect the intent of the berthing facility to be (i) maintained as a public use facility and (ii) for temporary and/or short-term berthing of vessels only.

Environmental Protection

- 7.8 Policy 42 aims to ensure that land use and development on and adjacent to the river system maintains and enhances the quality and amenity of the river environment. Installation of the jetty extension should be carefully undertaken to prevent detrimental impacts to the river.
- 7.9 The applicant has submitted a CEMP that contains management actions to address sediment and turbidity plumes, noise and wildlife monitoring during piling operations, waste management and refuelling of machinery/equipment and spill response, however it is recommended that some amendments to the CEMP are undertaken to ensure all potential environmental impacts are adequately addressed.

Jetty Design

- 7.10 Policy 44 recognises that appropriately designed and located commercial and community boating facilities, such as jetties and boat ramps, form an integral part of the river system setting and are an important recreational and tourist resource. Policy 44 also seeks to ensure that the location of boating infrastructure does not interfere with vessel navigation.
- 7.11 The Draft Perth Water Buneenboro Precinct Plan (PWPP) (DBCA, September 2019) indicates that the expansion of jetty infrastructure to enhance water transport at Point Fraser, a secondary activity node, could be supported.
- 7.12 Point Fraser is located within a narrow stretch of the Swan River (approximately 145m wide), and therefore the development of a commercial jetty facility/marina, including long-term berthing pens, is not considered appropriate at this location. However, a short-term berthing facility to enhance boating access to the river at Point Fraser could be considered and will be consistent with the PWPP.
- 7.13 DoT has previously advised that the proposed berthing facility will have minimal impact on the adjacent navigational channel provided that vessels using the southern-most jetty are berthed alongside the jetty (i.e. not protruding into the channel). The relocation of the navigational marker to the end of Jetty H will assist with vessels transiting the area. DoT's advice to address navigational safety will be included on the approval.
- 7.14 'Jetty A/B' is located in shallow waters (0.6-1.3m depth of water). The applicant has confirmed that no dredging will be required to create or maintain access to the shallow berthing pens, with these berthing pens designed for use by non-powered crafts and small pleasure crafts only.
- 7.15 DoT Maritime Planning has advised that it has pre-approved the drawings/designs for the proposed development and has prepared the jetty modification licence. It is noted that the design drawings and plans submitted with this application have not been signed and certified by a qualified and practising marine engineer to state that it complies with AS3962-2001 *Guidelines for Design of Marinas*. It is recommended that final design drawings and plans for the proposed berthing facility are provided to DBCA prior to works commencing.

- 7.16 To ensure that the new jetty structure is regularly managed and maintained (e.g. litter, fuel spill management and general maintenance), a maintenance and monitoring plan (MMP) will be required as a condition of approval.
- 7.17 Once constructed, the new berthing facility is anticipated to enhance boating access to the river at Point Fraser, including the On the Point development.

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 The proposal is within the boundaries of an Aboriginal site (Swan River).
- 7.20 An advice note will be included to advise the applicant that an approval under section 18 of the *Aboriginal Heritage Act 1972* may be required.

Visual Amenity

- 7.21 Policy 42 indicates that development should seek to enhance and protect the character and landscape setting of the river through the avoidance of stark and discordant colours, forms and bulk.
- 7.22 The jetty pontoons are proposed to have hardwood timber decking and dull-grey aluminium extrusions. The steel jetty piles will be encased in black HDPE sleeves and white caps. The materials, colours and finishes for the proposed jetty structures will generally be consistent with the Stage 1 berthing facility.

Public Access and Safety

- 7.23 The walkways through the On the Point Development (i.e. board walk) have been made accessible to the public through provisions in the River reserve lease and development approval (see **Attachment 7**). This public walkway aligns with the path network of the adjacent foreshore reserve, which also connects to the Point Fraser Carpark.
- 7.24 Public access along the foreshore and the Point Fraser development during the construction works should be maintained wherever possible and restricted only for safety reasons.
- 7.25 The applicant has advised that the delivery of materials to the site will be via water transport. Details regarding the use of land-based machinery have not been provided. The applicant can be advised to confirm its site access arrangements and the maintenance of public access within the CEMP.

Flood Prone Area and Sea Level Rise

- 7.26 Policy 42 states that development within the floodway that will significantly affect the normal flow of the Swan and Canning rivers during floods and/or will lead to the degradation of the natural features of the river system should not be supported.

- 7.27 The proposed development has the potential to be affected by flood waters and sea level rise. An advice note will be included to advise the applicant that the jetty designs should account for these matters.

8.0 SWAN RIVER TRUST

- 8.1 In accordance with section 75(3A) of the SCRM Act, the Trust considered DBCA's draft report at its meeting on 16 June 2020 where it resolved to support the application subject to the recommended conditions.

9.0 CONCLUSION

- 9.1 The proposed berthing facility is not considered to be excessive in scale or bulk, and will not have a significant visual impact on the area. The proposed berthing facility seeks to improve the amenity of the area by facilitating access to and from the river.
- 9.2 Potential environmental impacts during construction from the proposed works can be addressed through the preparation and implementation of an approved CEMP required as a condition of approval.
- 9.3 Future community use, operation and management of the berthing facility can be addressed through future leasing provisions, and a maintenance and monitoring plan.
- 9.4 For these reasons, the proposal is recommended for approval subject to conditions and advice.

10.0 RECOMMENDATION – APPROVAL WITH CONDITIONS

That the Director General of DBCA advises the Minister for Environment that CFI's proposal to install a berthing facility on the Swan River (Reserve 48325) adjacent to the Point Fraser Entertainment Complex (On the Point Development) at Lots 305, 306 and 307 Riverside Drive, East Perth, as described in the application received on 5 February 2020 and additional information received on 8 April 2020, be approved, subject to the following 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. Prior to the commencement of works, a revised Construction Environmental Management Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 2 and 5**).
4. Prior to the commencement of works, final design plans/drawings for the proposed berthing facility, shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Notes 3 and 5**).

5. Prior to the commencement of works, a Monitoring and Maintenance Plan shall be submitted to and approved by the Department of Biodiversity, Conservation and Attractions (see **Advice Note 4** and **5**).
6. Prior to the commencement of works, the River reserve lease is to be amended (see **Advice Note 5** and **6**).

During works

7. All works shall be implemented in accordance with the plans approved under **Conditions 3** and **5**.
8. No rubbish or any other deleterious matter shall be allowed to enter the river as a result of the works.
9. The applicant shall ensure that no damage to the foreshore, riverbank, or waterway (including vegetation and infrastructure) 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.
10. The proposed works shall not prevent public access along the foreshore or across the River reserve unless closure is necessary for safety purposes and has been approved by the Department of Biodiversity, Conservation and Attractions, and an alternative route has been provided.

On completion of works

11. Upon completion of the works, all waste materials, equipment, and machinery shall be removed, and the site cleaned up and reinstated to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

On-going

12. The applicant shall undertake on-going monitoring and maintenance of the berthing facility in accordance with the Monitoring and Maintenance Plan approved under **Condition 5**, for the life of the development.
13. The berthing facility and associated pens shall remain available for use and access by the broader public. No fees are permitted to be charged for the berthing of vessels. The jetty is for short-term berthing only and not to be used as a home berth.

ADVICE TO APPLICANT

1. Notification of commencement of works and submission of documents can be emailed to rivers.planning@dbca.wa.gov.au.
2. The Construction Environmental Management Plan required under **Condition 3** is to be amended to address the following:
 - a. Confirmation whether any land-based machinery or equipment is required. The City of Perth advises that site access through the foreshore reserve during construction works will not be permitted.

- b. Location and details of any materials laydown area.
 - c. The refuelling of any vessels/barge over the water (including contingency) is only to be carried out at a licenced fuel facility.
 - d. Update the silt curtain arrangement on Page 8 to ensure that all piling works are confined within the silt curtain. Silt curtains should be visually checked twice a day to ensure that they are secured and functioning as intended.
3. In relation to **Condition 4**, the final design drawings and plans are to be signed and certified by an experienced maritime engineer to confirm that they have been designed in accordance with AS3962-2001 *Guidelines for Design of Marinas* (AS3962-2001). Size dimensions of all the jetty structures, berthing pen locations and details of the port hand marker (No. 4276) to be relocated to the end of 'Jetty H' should be included in the plans.

In addition, the City of Perth advises the following:

- a. The jetty should be designed to cater for all water levels, including the Lowest Astronomical Tide, Highest Astronomical Tide, storm tide and flooding.
 - b. The jetty structures should comply with the relevant loading and stability requirements in accordance with AS3962-2001, including the following criteria: stability, positive floatation, loading - general and permanent, floating structure live loads, environmental loads (i.e. wave, winds, water current, floods, debris mats and negative lift) and berthing loads.
 - c. No deck furniture to be permitted on the floating pontoon.
 - d. Tidal levels should be indicated on the fender piles.
 - e. All piles should have a 300mm wide retro reflective band 300mm below the pile cap.
 - f. The decking for the jetty structures to be a non-slip surface suitable for the marine environment.
 - g. A full design report to be prepared to outline the maximum allowable vessels permitted based on the pontoon length, water depth, river channel width and safe vessel operation and manoeuvrability and confirmation that the Australian Maritime Safety Authority (or equivalent) has been consulted with regard to these dimensional constraints.
4. In relation to **Condition 5**, the Monitoring and Maintenance Plan is to outline the applicant's commitments in maintaining public access and safety, waste management, fuel spill management and general maintenance of the berthing facility. The applicant should maintain current liability insurance for the berthing facility, with a copy to be provided to the Department of Biodiversity, Conservation and Attractions.
5. In regard to **Condition 6**, an amendment of the River reserve lease is required to:
- a. Extend the lease boundary to include the new berthing facility and associated short term berthing pens;
 - b. Address the leaseholder's responsibility for providing on-going management of the berthing facility and short-term berthing pens;
 - c. Restrict berthing duration of vessels to temporary or short-term berthing only (i.e. 3-4 hours maximum); and
 - d. Ensuring the floating jetty structures are maintained as a public use facility.

The leaseholder shall be responsible for all legal costs associated with the amendment of the lease and shall also be required to prepare and implement an Environmental Management System (EMS) to the satisfaction of the Department of Biodiversity, Conservation and Attractions. This approval does not authorise the applicant to carry out any other works besides the scope of the approved works, whether within or outside

the lease area. If any other work is proposed, an additional approval from the Department of Biodiversity, Conservation and Attractions shall be required. Dredging works (to create or maintain access to berthing pens) are unlikely to be supported by the Department of Biodiversity, Conservation and Attractions.

6. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the plans and details required under **Conditions 4 to 6**, the documents shall be submitted to the Department of Biodiversity, Conservation and Attractions at least 30 days before the expected works commencement date.
7. Regarding navigational safety, the Department of Transport (DoT) advises the following:
 - a. All in-water operations and activities must be conducted in accordance with the relevant marine legislative provisions.
 - b. Prior to the commencement of works, a temporary notice to mariners (TNTM) outlining the scope of works and works area, navigational markings (lighting) and date of works must be issued. The applicant will need to notify DoT by email (navigational.safety@transport.wa.gov.au) at least 21 days prior to works commencing to enable a TNTM to be published.
 - c. The applicant is to ensure that the maximum design size of vessels at each proposed jetty is supported by sufficient water depth to ensure the safe berthing of vessels.
 - d. DoT's port hand marker (No. 4276) must be relocated to the top of the pylon at the end of the Jetty H and be placed at a sufficient height to ensure that it is seen above any vessels which are berthed at the jetty. DoT is to be notified by email (marked attention: Navigational Aids Coordinator, navigational.safety@transport.wa.gov.au and naymore@transport.wa.gov.au) following the relocation works.
 - e. It is recommended that consultation be undertaken with ferry operators, community clubs (i.e. Rowing Western Australia) and the adjacent canoe operator, that have vessels/crafts transiting the area, regarding the proposed development.
8. This application and therefore approval do not include any signage. A separate permit application and approval for signage will be required from the Department of Biodiversity, Conservation and Attractions in accordance with the Swan and Canning Rivers Management Regulations 2007.
9. The applicant is advised that the proposal has the potential to be affected by the 1 per cent annual exceedance probability (AEP) flood level and potential sea level rise, with the 1% AEP flood level expected to be approximately 1.5m AHD, and approximately 2.3m AHD to allow for sea level rise of 0.9m by 2110. The proposed berthing facility will be subject to potential flood damage during major river flow events. The berthing facility design should consider the risk of the structure breaking free during major flooding events (i.e. floating pontoon rising out of the jetty piles), and its potential to cause damage or create blockages to flows downstream. The applicant may need to engage a suitably qualified consultant to investigate suitable jetty design solutions to address these issues.

The onus is on the applicant to undertake its own investigations, risk assessment and exercise its own judgment in determining the level of risk it is prepared to accept. The Swan and Helena River Flood Study (2018) may contain relevant flood information that can be made available by the Department of Water and Environmental Regulation to the applicant on request.

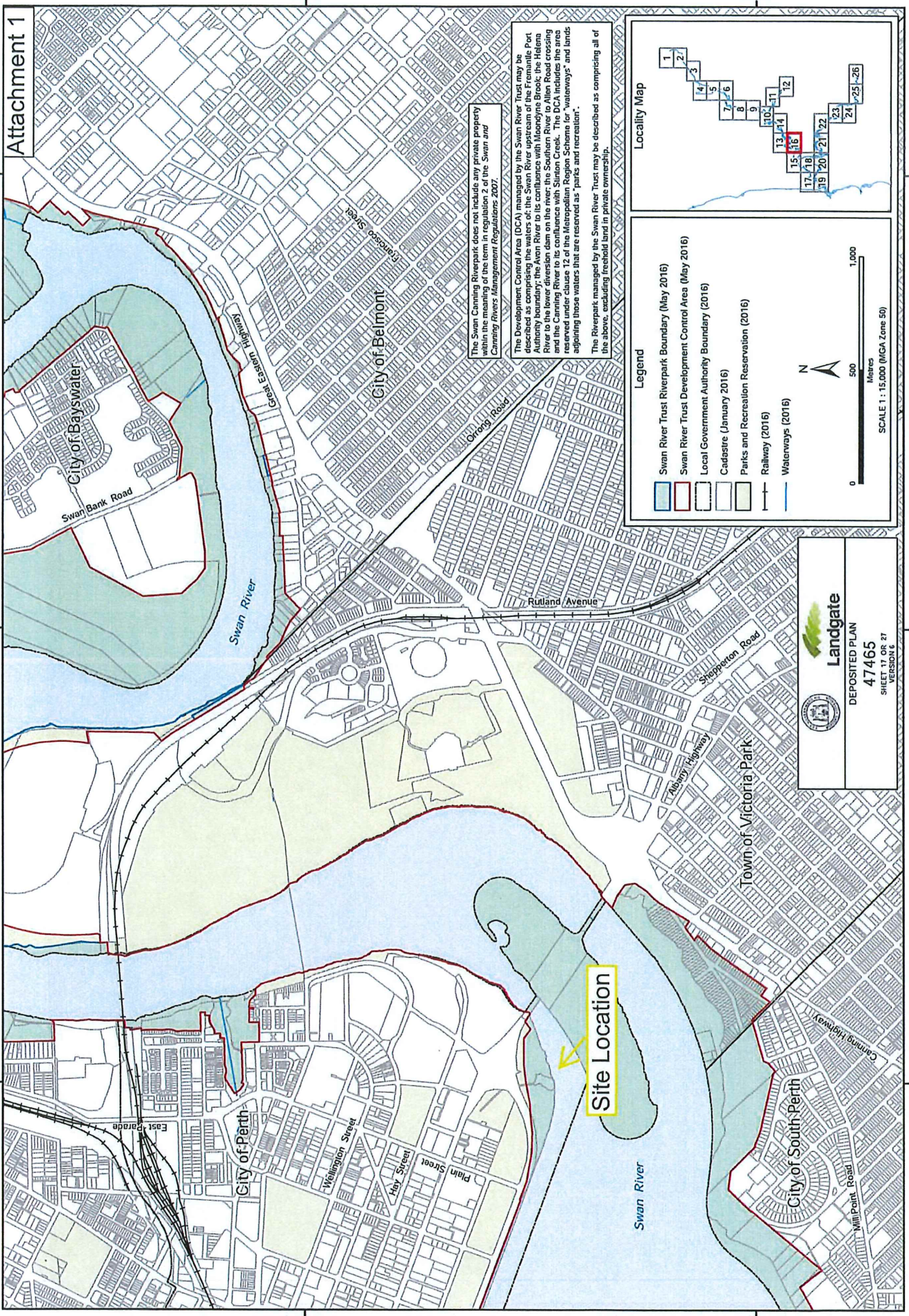
10. The applicant is advised to contact the Department of Planning, Lands and Heritage to ensure that the proposed works do not breach any section of Part IV (Protection of

Aboriginal Sites) of the *Aboriginal Heritage Act 1972* (AHA). Approval under section 18 of the AHA may be required. It is recommended that the applicant consult the South West Aboriginal Land and Sea Council about the works, which may impact the Swan River. Please refer to the *Aboriginal Heritage Due Diligence Guidelines* (Department of Planning, Lands and Heritage and the Department of Premier and Cabinet, 2013) when planning specific development within a Heritage area.

FINAL REPORT ENDORSED

Signed: M Webb Date: 16/8/20

Mark Webb
Director General



Attachment 1

The Swan Canning Riverpark does not include any private property within the meaning of the term in regulation 2 of the Swan and Canning Rivers Management Regulations 2007.

The Development Control Area (DCA) managed by the Swan River Trust may be described as comprising the waters of: the Swan River upstream of the Fremantle Port Authority boundary; the Avon River to its confluence with Moorlyne Brook; the Helena River to the lower diversion dam on the river; the Southern River to Allen Road crossing and the Canning River to its confluence with Sturton Creek. The DCA includes the area reserved under clause 72 of the Metropolitan Region Scheme for "waterways" and lands adjoining those waters that are reserved as "parks and recreation".

The Riverpark managed by the Swan River Trust may be described as comprising all of the above, excluding freehold land in private ownership.

Legend

- Swan River Trust Riverpark Boundary (May 2016)
- Swan River Trust Development Control Area (May 2016)
- Local Government Authority Boundary (2016)
- Cadastre (January 2016)
- Parks and Recreation Reservation (2016)
- Railway (2016)
- Waterways (2016)

Locality Map

Scale
 0 500 1,000
 Metres
 SCALE 1: 15,000 (MGA Zone 50)

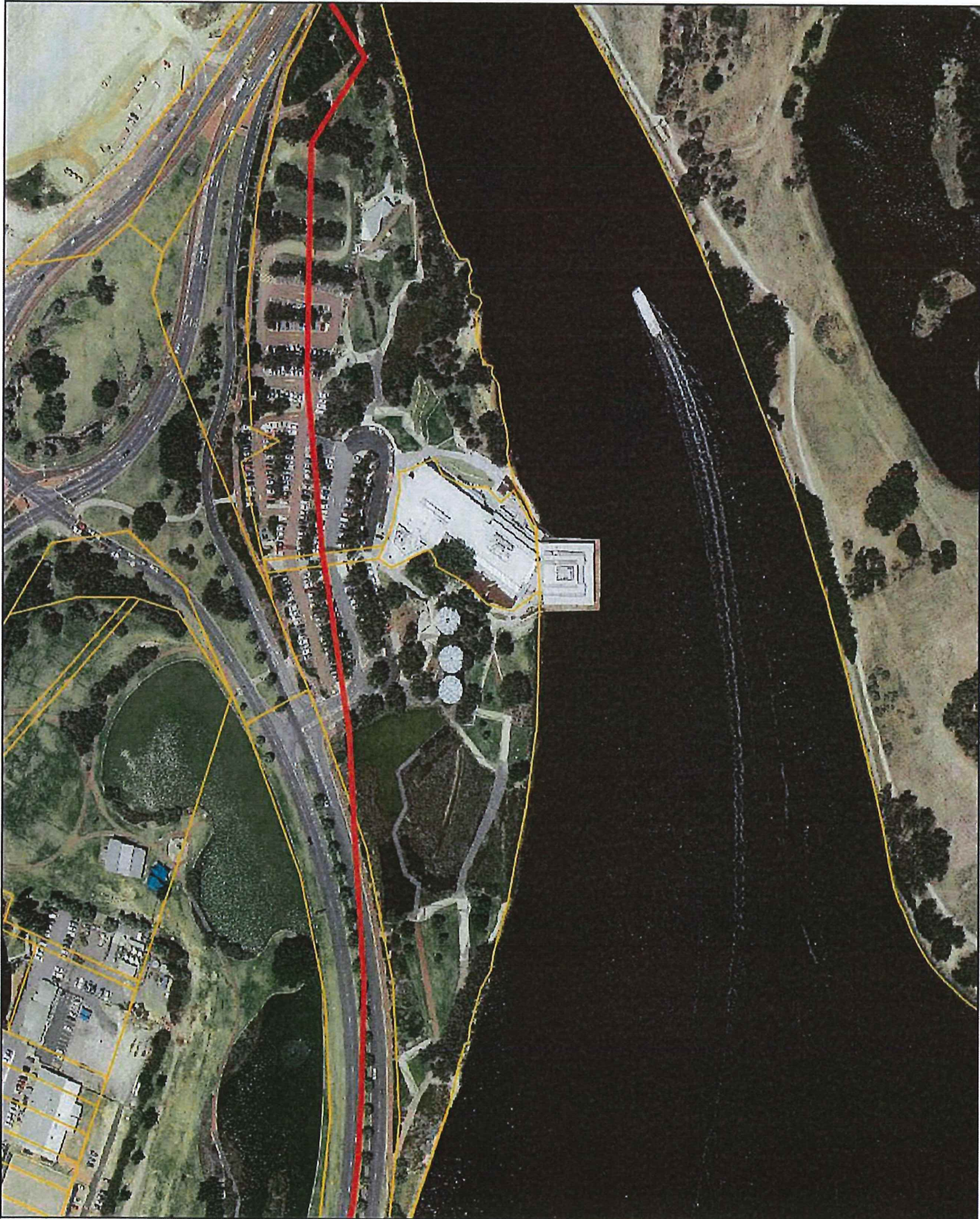
North Arrow

Landgate
 DEPOSITED PLAN
47465
 SHEET 17 OF 27
 FEBRUARY 2015

Point Fraser

Legend

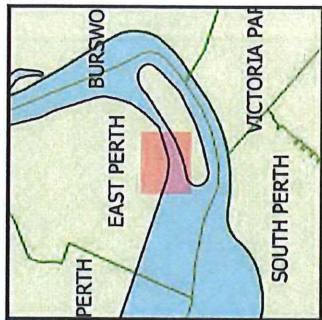
Swan River Trust - DCA (2016)
Perth Central Cadastre (Land Parcels)



1:2,000 (A4)
0 10 20 30 m



Geographic Projection
Datum: GDA94



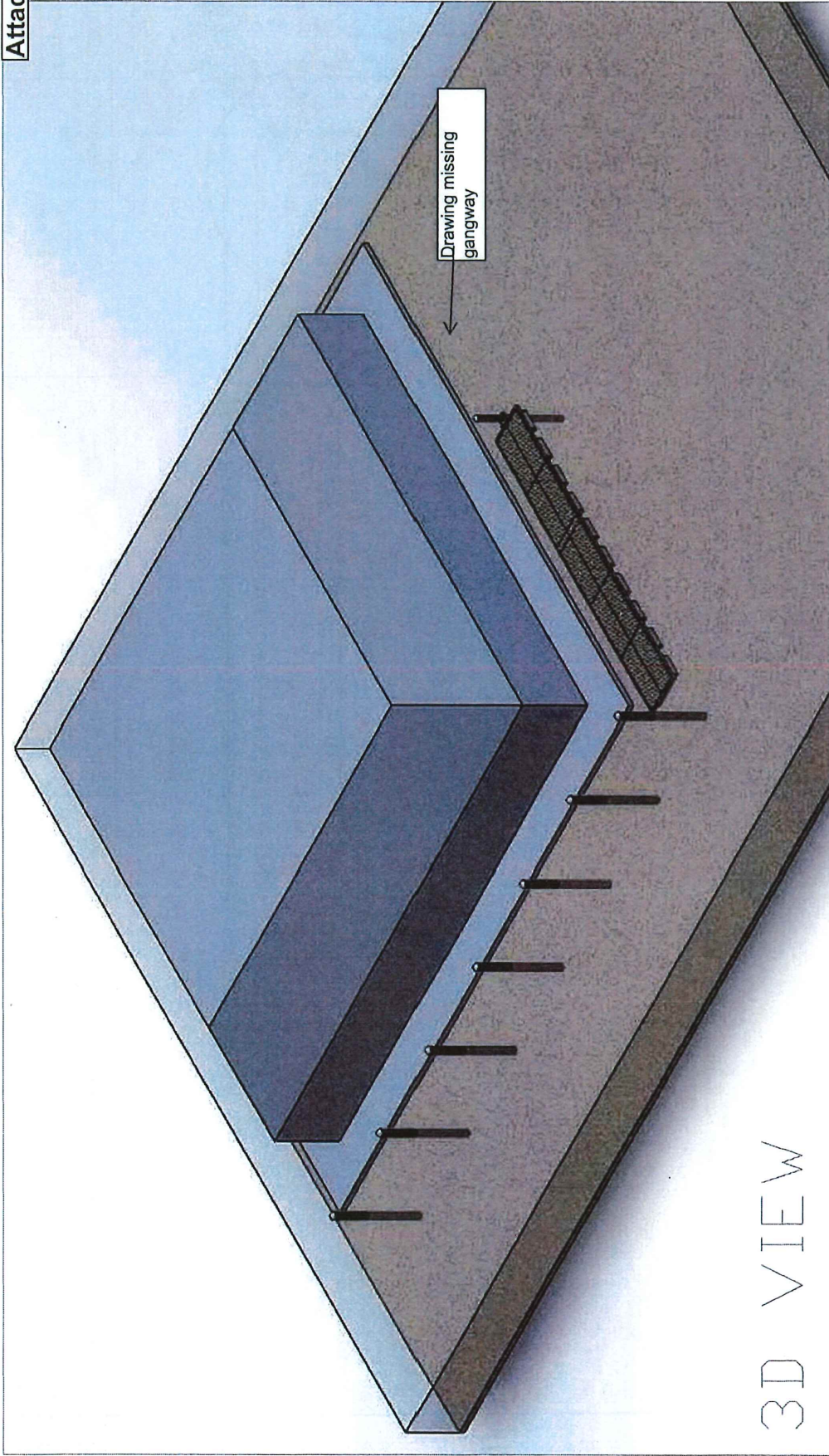
Produced by SC
Department of Parks and
Wildlife



Job Ref: 01
Produced at 11:32 AM on July 03, 2017

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

Attachment 2

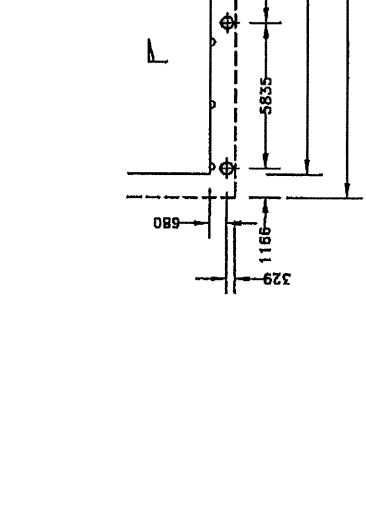
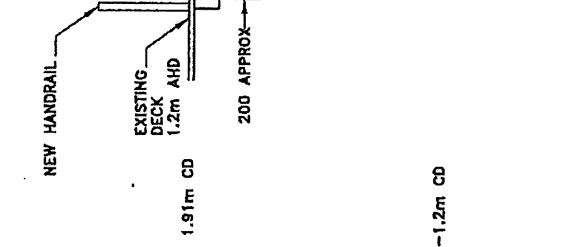
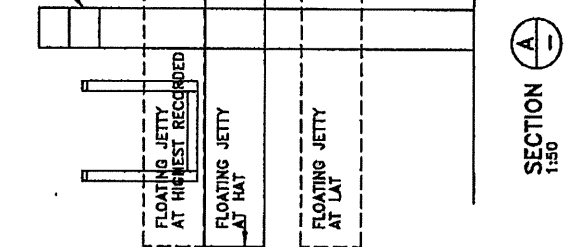
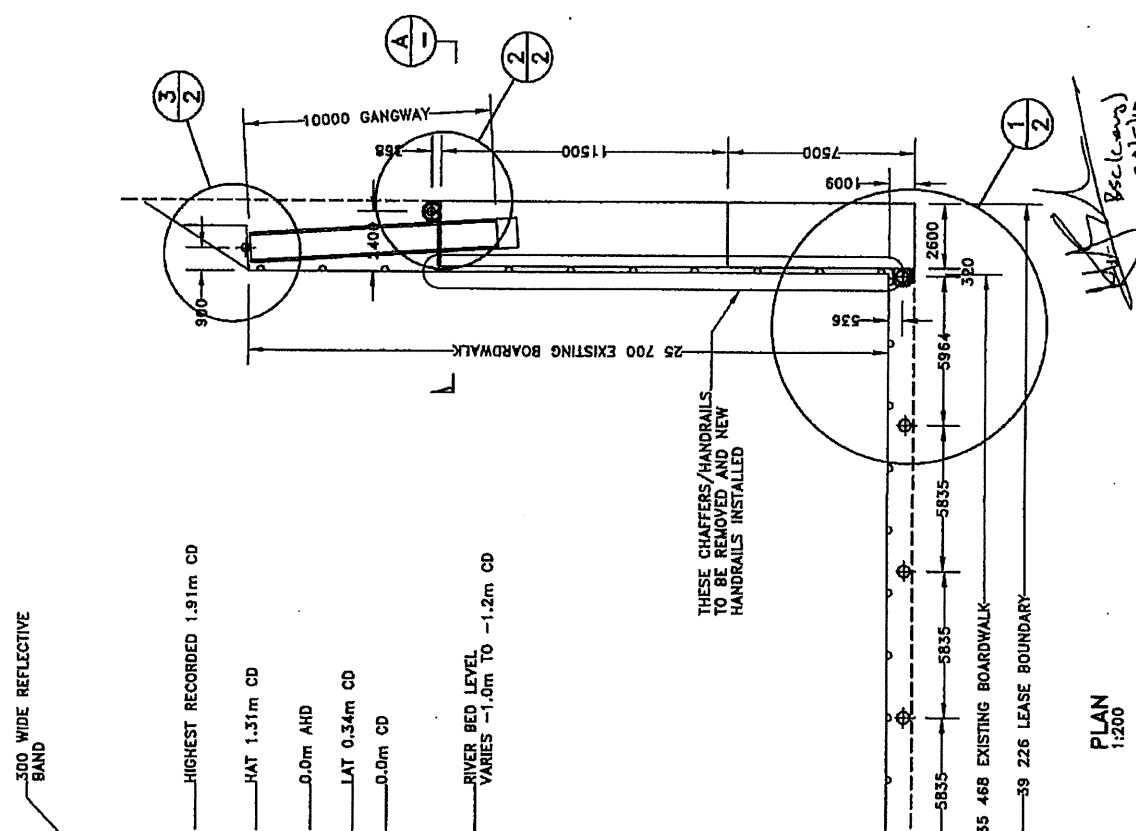


3D VIEW

(UMS)
 LOT 103, 2 HAMPTON STREET
 GREENFIELDS, MANDURAH
 WESTERN AUSTRALIA
 TEL: +61 (0) 8944 4291
 EMAIL: ADMIN@UMS.COM.AU

DESIGNED BY:		X		FOR APPROVAL		A		REV		BY		CHKD.		DATE		REVISION	
PROJECT:		KUDETA - STAGE 1		DRAWN:		HB		PS		BY		CHKD.		DATE		REVISION	
SHEET NO:		A3		DATE:		25.11.2016		DRG N°:		10265-CA-002		SCALE:		1:1000		REV#	
CHECKED BY:		A3		DATE:		25.11.2016		SCALE:		1:1000		REV#		A		A	

THIS DRAWING IS THE PROPERTY OF UNIVERSAL MARINA SYSTEMS AND IS SUPPLIED ONLY FOR THE PURPOSE INTENDED. IT MUST NOT BE COPIED OR TRANSMITTED TO OTHER PARTIES OR USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF UNIVERSAL MARINA SYSTEMS.

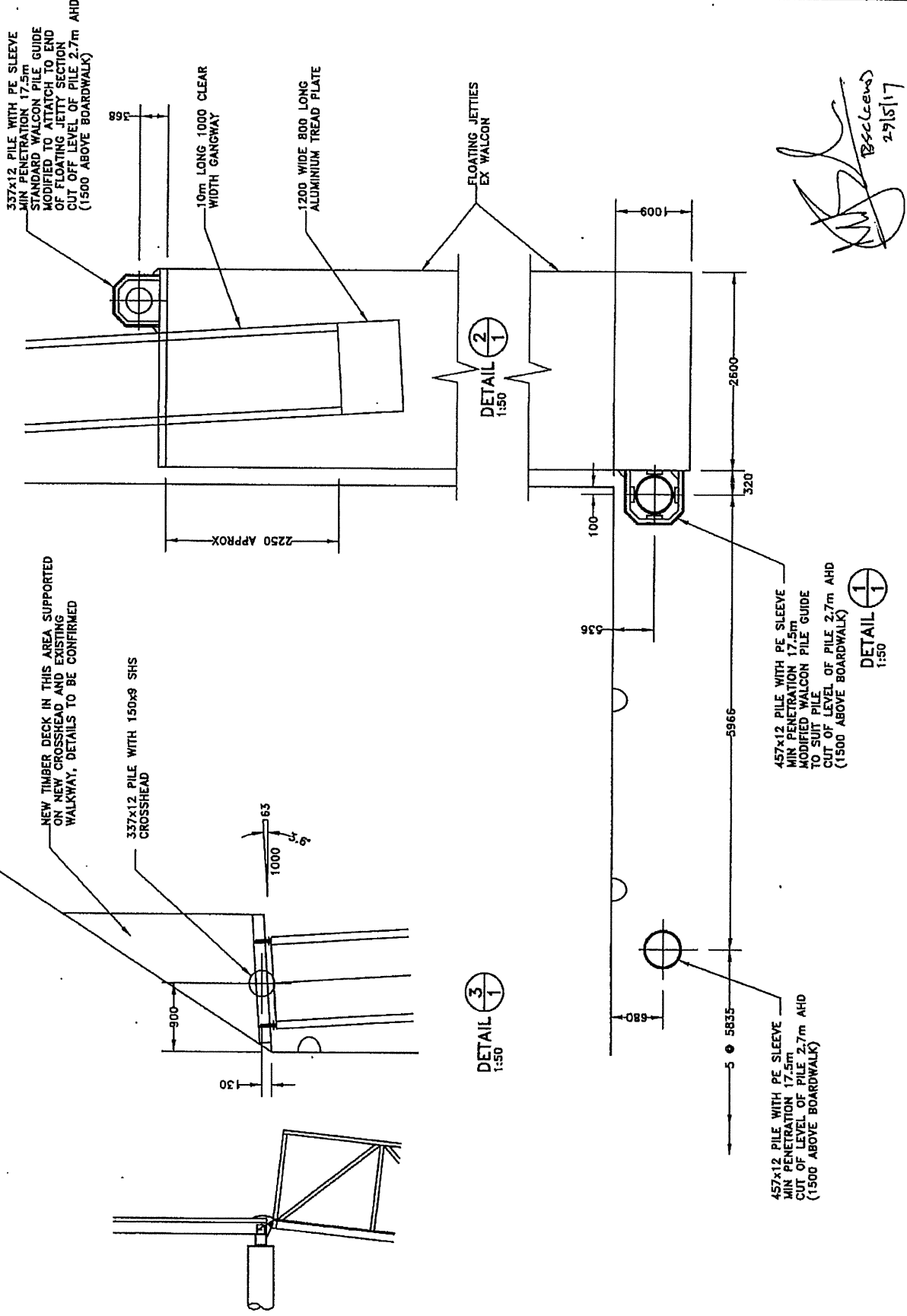


PLAN
1:200

SECTION A 1:50

SECTION B 1:50

REV	DATE	BY	DETAILS	EXISTING STRUCTURE AND LEASE BOUNDARY TAKEN FROM UMS DRAWING 10265-GA-001 REV B	SEARLE CONSULTING PTY	JETTY AND MARINE CONSTRUCTIONS	SCALE AS NOTED (A3)
B	23 MAY 17	MJS	REVISED	MAXIMUM VESSEL ON FLOATING JETTY 7.0m	9 ARUNDEL STREET PERMANTE WA 6160 TEL (08) 9336 2404 FAX (08) 9336 3804	PROPOSED MOORING PILES AND FLOATING JETTY KUDETA, EAST PERTH PLAN	(A3)
A	19 APR 17	MJS	ISSUED FOR APPROVAL	MAXIMUM VESSEL ON MOORING PILES 10.0m			SC195-06-01
							B



JETTY AND MARINE CONSTRUCTIONS

PROPOSED MOORING PILES AND
FLOATING JETTY
KIDNET, EAST PERTH
DETAILS

SCALE AS NOTED (A3)

SC195-06-02

B

SEARLE CONSULTING

9 ARUNDEL STREET
FREMANTLE
WA 6160
TEL (08) 9336 2464
FAX (08) 9336 3504

REV	DATE	BY	DETAILS
B	23 MAY 17	MJST	REVISED
A	19 APR 17	MJST	ISSUED FOR APPROVAL

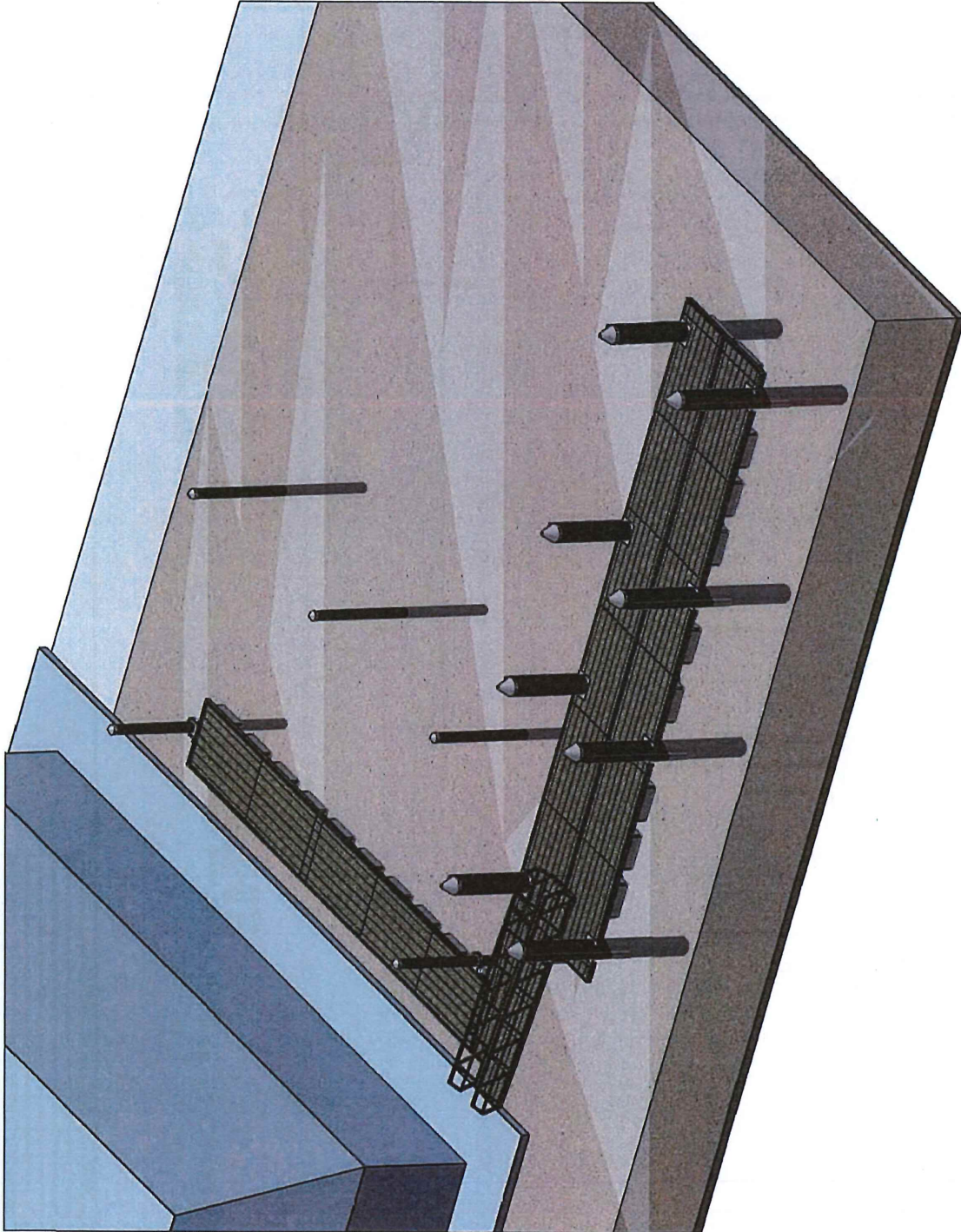
Attachment 3

NOTES:

- MATERIALS**
ALL ALUMINIUM TO CONFORM TO AS1664
GRADE 6082/T5 & T6
- WELDING**
ALL WELDS TO BE CONTINUOUS 6 FILLET
WELD ALL ROUND UNO IN ACCORDANCE WITH
AS 1665
- FLOATATION**
28 No. PE-23 FLOATS - 635 DEEP
8 No. PE-14 FLOATS - 635 DEEP
FREEBOARD = 546 (APPROX.)

DESIGN STATEMENT:

- THE UNIVERSAL MARINA SYSTEMS PONTOON SHOWN ON THIS DRAWING IS INTENDED FOR SHELTERED WATERS IN REGION 'B' IN ACCORDANCE WITH AS1170.2 WITH CURRENT FLOW OF 1m/s AND MAXIMUM WAVE HEIGHT OF 300mm IN ACCORDANCE WITH AS3962-2001. PONTOON SHOWN ON THIS DRAWING IS INTENDED FOR USE AS A SMALL CRAFT BERTHING AS WELL AS A SINGLE CRAFT BERTHING. MAXIMUM CANTILEVER LENGTH 12m. CANTILEVER FINGERS GREATER THAN 12m REQUIRE A PILE AT THE UNSUPPORTED END. PILES OR OTHER ANCHORAGE SUPPORT SYSTEMS DO NOT FORM PART OF THIS DRAWING AND TO BE CERTIFIED SEPERATELY.
- THE PONTOONS ON THIS DRAWING IS INTENDED FOR USE WITH 1 TONNE CLEATS POSITIONED IN CLOSE PROXIMITY TO INTERCOSTAL OR END CHANNEL. HIGHER CAPACITY CLEATS ARE DETAILED ELSEWHERE. THE WORKS TO COMPLY WITH ALL RELEVANT AUSTRALIAN CODES INCLUDING THE QUEENSLAND GOVERNMENT EPA'S OPERATIONAL POLICY 'BUILDING AND ENGINEERING STANDARDS FOR TIDAL WORKS' AND AS3962-2001 'GUIDELINES FOR DESIGN OF MARINAS'.
- THE PONTOON IS DESIGNED FOR UNRESTRICTED ACCESS WITH:
 - MINIMUM STRUCTURAL UNIFORM DISTRIBUTED LIVE LOADING CAPACITY OF 2kPa IN ACCORDANCE WITH THE REQUIREMENTS OF AS3962-2001 CLAUSE 4.7.1 UNIFORM EQUIVALENT 50mm RESERVE BUCKLING CLAUSE 4.7.1
 - MINIMUM LIVE FLOATATION LOADING CAPACITY OF 3kPa AND MINIMUM LIVE LOADS TABULAR LOADING CAPACITY OF 2kPa IN ACCORDANCE WITH THE REQUIREMENTS OF AS3962-2001 CLAUSE 4.7.3



For any queries please see H Beever

DRAWING APPROVALS		DESIGN APPROVALS		ALL DIMENSIONS IN mm UNLESS SPECIFIED	
AUTHOR	HB	31/08/2016	AUTHOR	HB	31/08/2016
APPROVER	PS	31/08/2016	APPROVER	PS	31/08/2016
DATE RELEASED			DATE RECEIVED		
COMMENTS: 0 THIS DRAWING IS THE PROPERTY OF UNIVERSAL MARINA SYSTEMS PTY LTD. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE DRAWING TITLE. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF UNIVERSAL MARINA SYSTEMS PTY LTD.					

SCALE	SIZE
1:100	A2

DESCRIPTION	DATE	BY
ISSUED FOR PERMIT	10/25/2015	A

UNIVERSAL MARINA SYSTEMS PTY LTD
PH: 0800 956 4851
www.universalmarinasystems.net

UNIVERSAL MARINA SYSTEMS PTY LTD
1025/2015

DO NOT MANUFACTURE



City of Perth

27 May 2020

Mr Glen McLeod-Thorpe
Manager Statutory Assessments
Department of Biodiversity, Conservation and Attractions
Locked Bag 104
BENTLEY DELIVERY CENTRE WA 6983

Dear Mr McLeod-Thorpe,

21 (LOT 306) RIVERSIDE DRIVE, EAST PERTH - REVISED STAGE 2 BERTHING FACILITY AT THE POINT FRASER RESTAURANT AND ENTERTAINMENT DEVELOPMENT

Thank you for your email dated 13 May 2020 referring an application for the revised Stage 2 berthing facility at the Point Fraser restaurant and entertainment development to the City for comment.

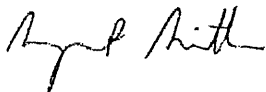
It is advised that the City supports this proposal subject to the following recommended conditions: -

1. *The pontoon being designed to cater for all water levels including Lowest Astronomical Tide (LAT), Highest Astronomical Tide (HAT), storm tide and flooding.*
2. *The flotation modules complying with the relevant loading and stability requirements according to the Australian Standard AS3962 – “Guidelines for design of marinas” and certified by a professional engineer, including the following criteria: -*
 - *Stability;*
 - *Positive flotation;*
 - *Loading – general;*
 - *Loading permanent;*
 - *Floating structure live loads;*
 - *Environmental loads i.e. waves, winds and water current (including floods, debris mats and negative lift); and*
 - *Berthing loads.*
3. *No deck furniture being permitted on the flotation modules.*
4. *Tidal levels being indicated on the fender piles.*

5. *All piles having a 300mm wide retro reflective band 300mm below the pilecap.*
6. *The flotation modules being a non-slip surface suitable for the marine environment.*
7. *The owner of the land to which the structure attaches or benefits being responsible for the ongoing care and maintenance of the installed structure/works.*
8. *A full design report being prepared outlining the maximum allowable vessels permitted based on the pontoon length, water depth, river channel width and safe vessel operation and manoeuvrability and confirmation that the Maritime Safety Western Australia or equivalent agency has been consulted with regard to these dimensional constraints.*
9. *No land access being permitted to construct the berthing facility.*
10. *All environmental and occupational health and safety requirements set out in the application being met as stated in the Construction Management Plan.*

Jasmine Hancock of the City's Development Approvals Unit is available on 08 9461 3106 to assist you with any further queries you may have relating to this matter.

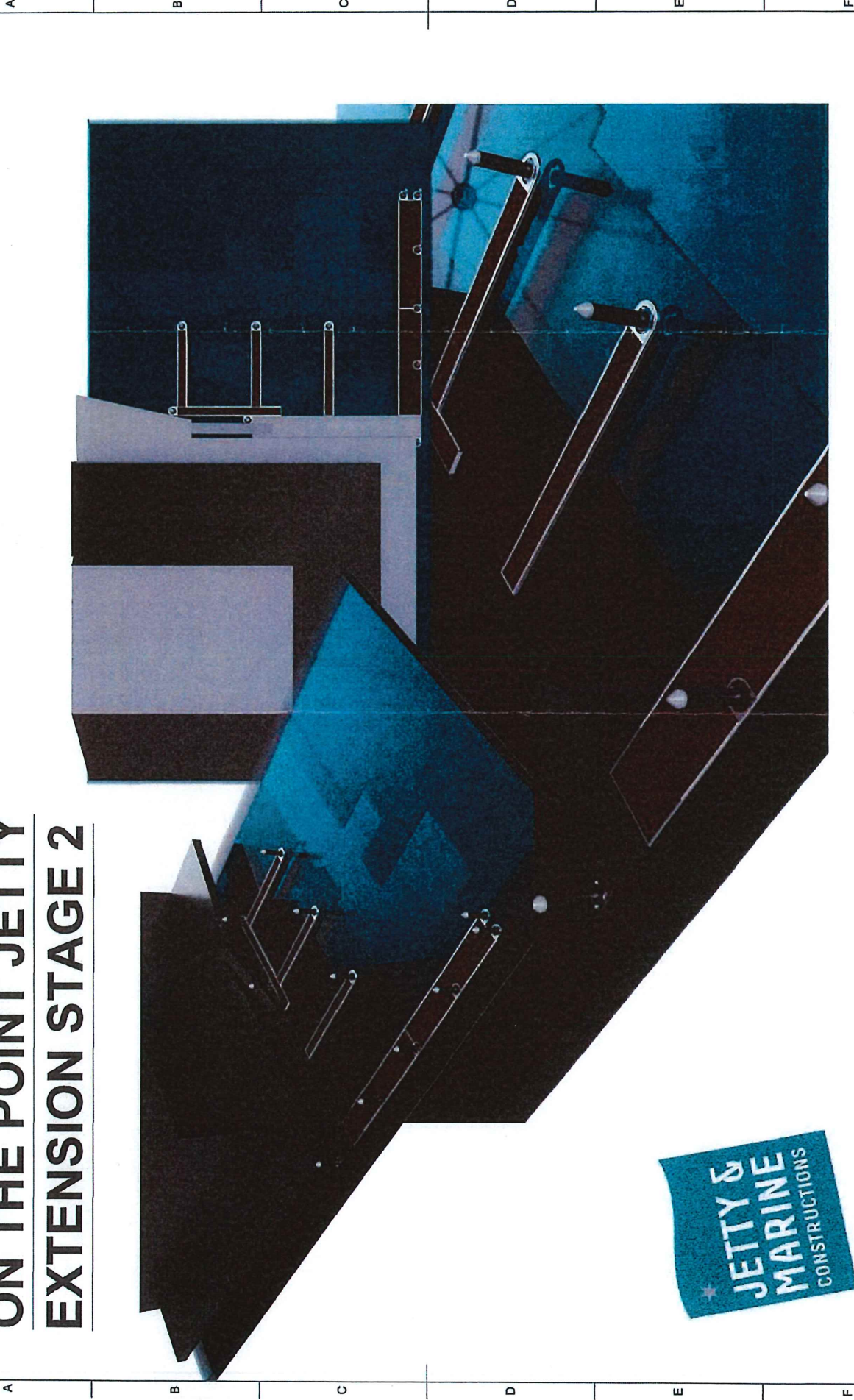
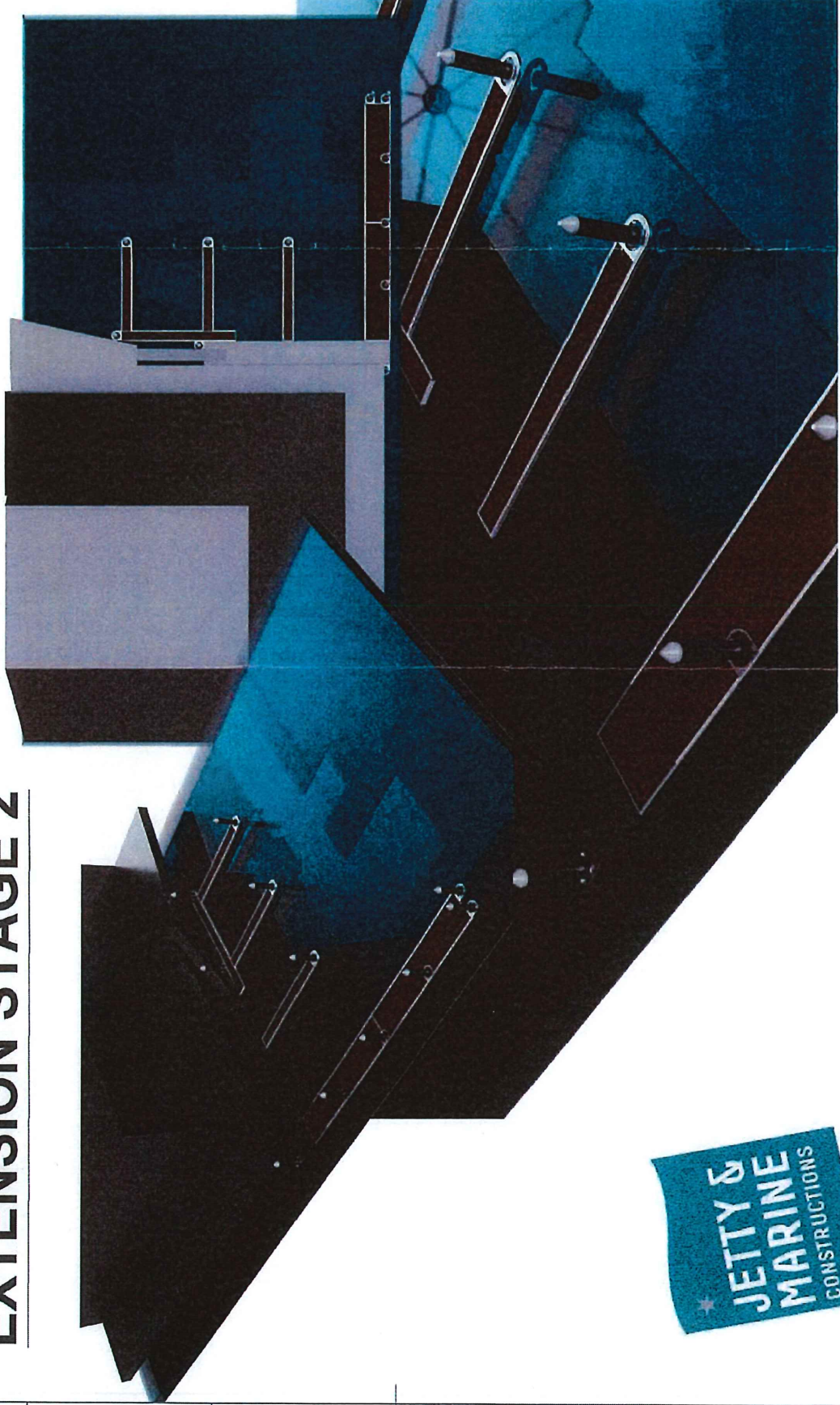
Yours sincerely,

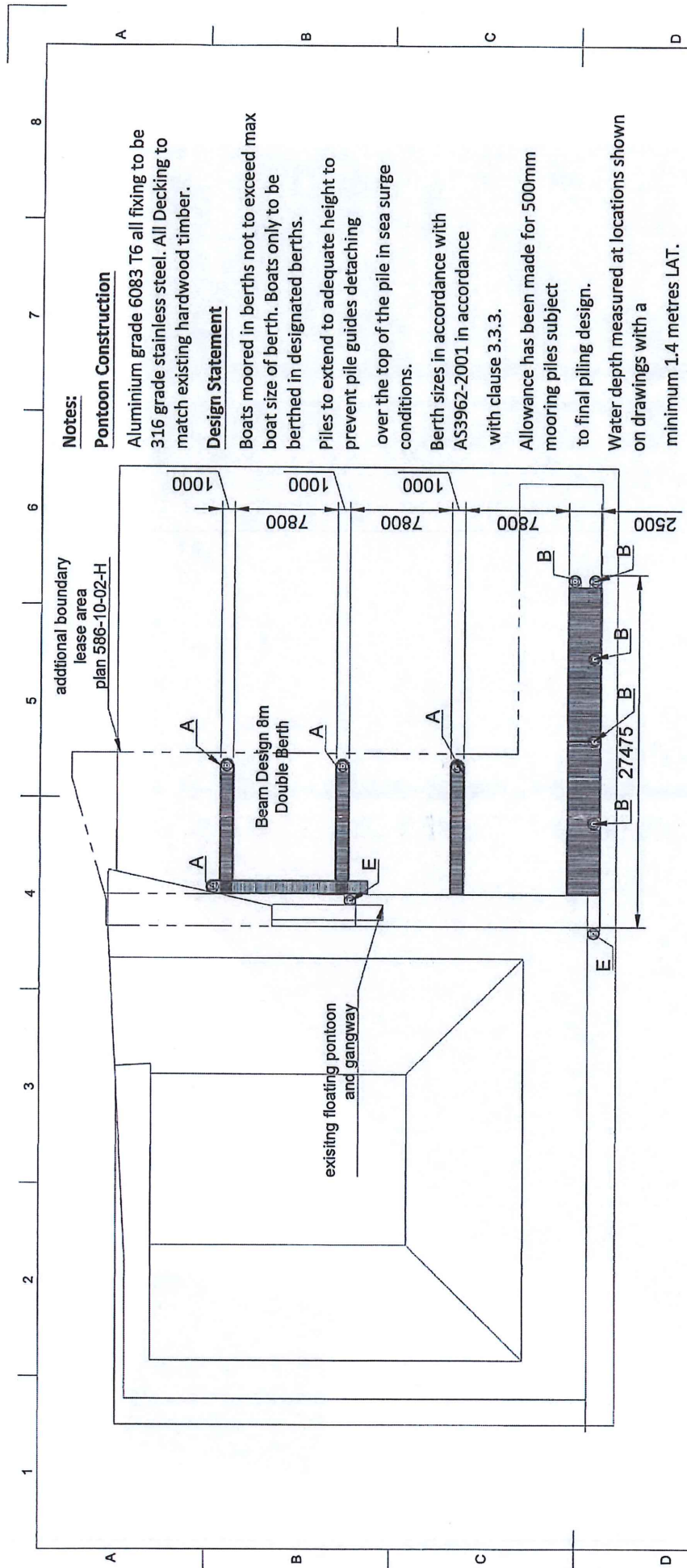


MARGARET SMITH
ALLIANCE MANAGER DEVELOPMENT APPROVALS

Attachment 5

ON THE POINT JETTY EXTENSION STAGE 2





Notes:

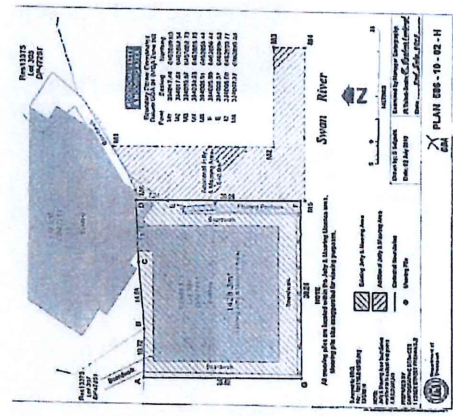
Pontoon Construction

Aluminium grade 6083 T6 all fixing to be 316 grade stainless steel. All Decking to match existing hardwood timber.

Design Statement

Boats moored in berths not to exceed max boat size of berth. Boats only to be berthed in designated berths.
 Piles to extend to adequate height to prevent pile guides detaching over the top of the pile in sea surge conditions.
 Berth sizes in accordance with AS3962-2001 in accordance with clause 3.3.3.
 Allowance has been made for 500mm mooring piles subject to final piling design.
 Water depth measured at locations shown on drawings with a minimum 1.4 metres LAT.

Pile Schedule	Dia mm	Wall mm	Qty
A	406	12.7	4
B	457	12.7	5
E	EXISTING		2



Dept.	Technical reference	Created by	Approved by
		SL	SL
		Document type	Document status
		DA APPROVAL	IFA
		Title	DWG No.
		On The Point Stage 2 Small Craft Berths	432-1
		Rev.	Date of issue
			02/01/2020
			Sheet
			2/3



MATERIALS
ALL ALUMINIUM TO CONFORM TO AS1664 GRADE 6082/ T5 & T6.

WELDING
ALL WELDS TO BE CONTINUOUS 6MM FILLET WELDS ALL ROUND UNO IN ACCORDANCE WITH AS1665.

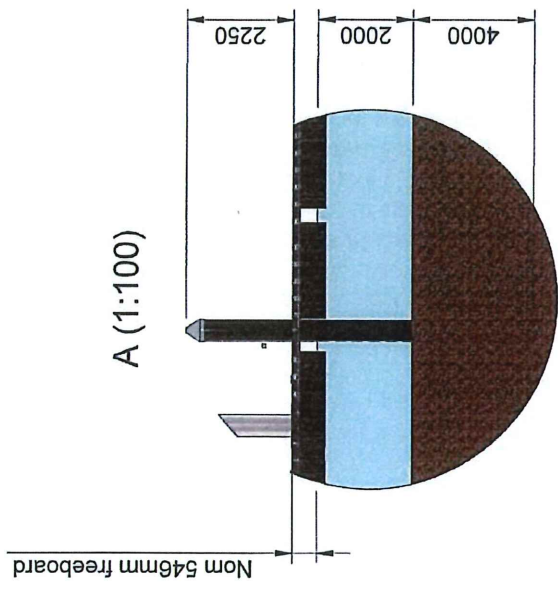
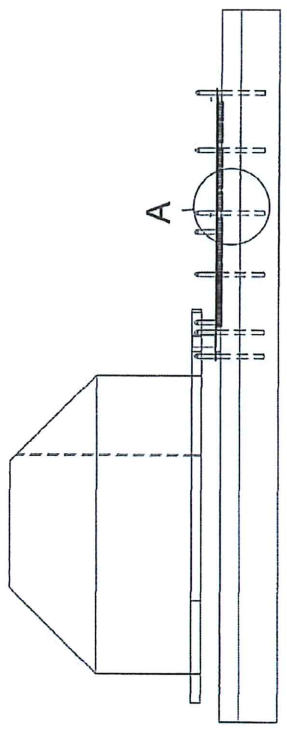
FLOATATION
PE-23 FLOATS - 635MM DEEP
FREEBOARD = 546MM APPROX

PILES

1. PILES ARE TO HAVE HPDE SLEEVES FULL LENGTH WITH 500MM INTO RIVERBED.
2. PILES TO HAVE WHITE SLOPING CAPS.
3. PILES TO HAVE SOLAR NAVIGATION LIGHTS INSTALLED ON TOP FOR SLOPING CAP.
4. PILES TO HAVE 300MM REFLECTIVE BAND JUST BELOW CAP.

DESIGN STATEMENT

1. THE JMC MARINA SYSTEM PONTOON SHOWN ON THIS DRAWING IS INTENDED FOR SHELTERED WATERS IN REGION B IN ACCORDANCE WITH AS2170.2 WITH CURRENT FLOWS OF 1M/S AND A MAXIMUM WAVE HEIGHT OF 300MM IN ACCORDANCE WITH AS3962-2001.
PONTOON ON THIS DRAWING IS INTENDED FOR SMALL CRAFT BERTHING AS WELL AS SINGLE FERRY BERTHING. MAXIMUM CANTILEVER LENGTH 12METRES. CANTILEVER FINGERS GREATER THAN 12 METRES REQUIRE A PILE AT THE UNSUPPORTED END. PILES OR OTHER ANCHORAGE SUPPORT SYSTEMS DO NOT FORM PART OF THIS DRAWING AND ARE TO BE CERTIFIED SEPERATELY.
2. THE PONTOONS ON THIS DRAWING ARE INTENED FOR USE WITH 1 TONNE CLEATS POSITIONED IN CLOSE PROXIMITY TO INTERCOASTAL END CHANNEL HIGHER CAPACITY CLEATS ARE DETAILED ELSEWHERE.
3. THE WORKS TO COMPLY WITH ALL RELEVANT AUSTRALIAN CODES INCLUDING ENGINEERING STANDARDS FOR TIDAL WORKS AND AS3962-2001 GUIDELINES FOR DESIGN OF MARINAS.
4. THE PONTOON IS DESIGNED FOR UNRESTRICTED ACCESS WITH :
 - 4.1. MINIMUM STRUCTURAL UNIFORM DISTRIBUTED LIVE LOADING CAPACITY OF 3kPa IN ACCORDANCE WITH REQUIREMENTS OF AS3962-2001 CLAUSE 4.7.2 WITH EQUIVALENT 50MM RESERVE BOUYANCY CLAUSE 4.7.1.
 - 4.2. MINIMUM LIVE FLOATATION LOADING CAPACITY OF 3kPa AND A MINIMUM LIVE LOAD STABILITY LOADING CAPACITY OF 2kPa IN ACCORDANCE WITH THE REQUIREMENTS OF AS3932-2001 CLAUSE 4.7.3



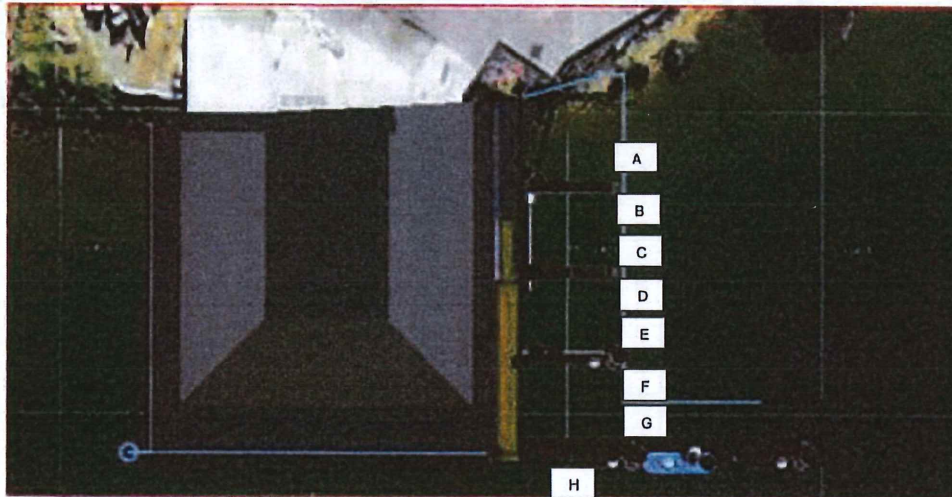
A (1:100)

Dept.	Technical reference	Created by	Approved by
		SL	SL
		Document type	Document status
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		Title	DWG No.
		On The Point Stage 2 Small Craft Berths	432-2
		Rev.	Date of issue
		A	2/01/2020
			Sheet
			3/3



Scaled Overlay

We have overlaid the extent of the new jetty structures over the aerial photograph to provide greater clarity in relation to the existing building and shoreline.



All berths are short stay berths with no overnight berthing and all full public access.

Intended Public Usage

Jetty A :Use for non-powered small pleasure craft such and canoes berthing

Jetty B: Use for small pleasure craft such as small tenders and jet skis.

Jetty C : 8 Metre Vessels in accordance with AS3962-2001

Jetty D : 8 Metre Vessels in accordance with AS3962-2001

Jetty E: 8 Metre Vessels in accordance with AS3962-2001

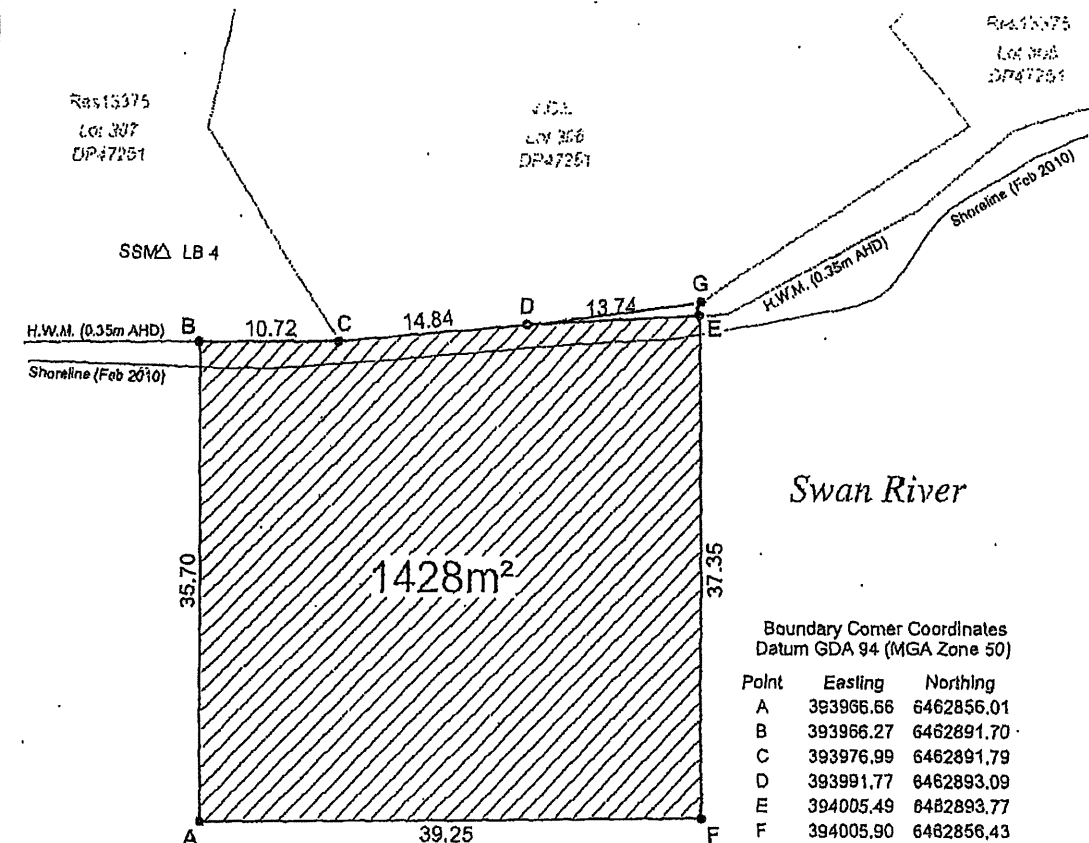
Jetty F: 8 Metre Vessels in accordance with AS3962-2001

Jetty G: 8 Metre Vessels in accordance with AS3962-2001

Jetty H : Drop off & pick point for recreational vessels upto 15metre and no greater draught of 1.2metres and commercial vessels such as Little Ferry Company and Captain Cook Cruises which most of their vessels are 1.2metres or below draught.

ANNEXURE "A"
 SWAN RIVER
 POINT FRASER
 RIVER BED LEASE SITE PLAN

THAT PORTION OF SWAN RIVER RESERVE 48325 ALSO KNOWN AS pl. LOT 301 ON DP47251
 AS SHOWN HATCHED ON PLAN 586-10-01-D COMPRISING AN AREA OF 1428 SQUARE METRES






Boundary Corner Coordinates
 Datum GDA 94 (MGA Zone 50)

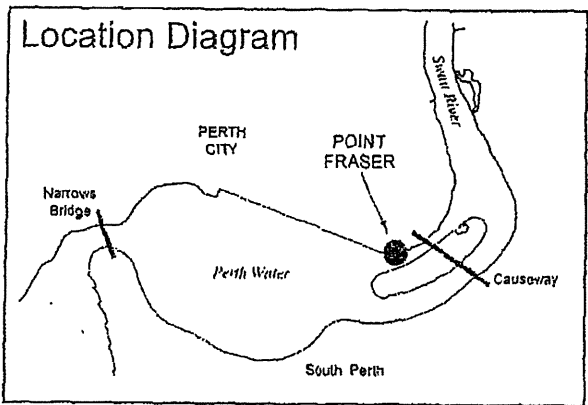
Point	Easting	Northing
A	393966.66	6462856.01
B	393966.27	6462891.70
C	393976.99	6462891.79
D	393991.77	6462893.09
E	394005.49	6462893.77
F	394005.90	6462856.43
G	394005.68	6462894.78

Surveyed by
 Gludice Surveys
 3rd Sept 2012
 Based on SSM LB4

Res 48325
 Lot 301
 DP 47251

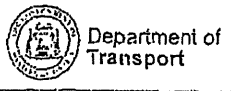
PREPARED BY
 CARTOGRAPHIC SERVICES
 1 ESSEX STREET FREMANTLE

-  Riverbed Lease
-  Part 'A' Class Reserve 13375
-  Cadastral Boundaries

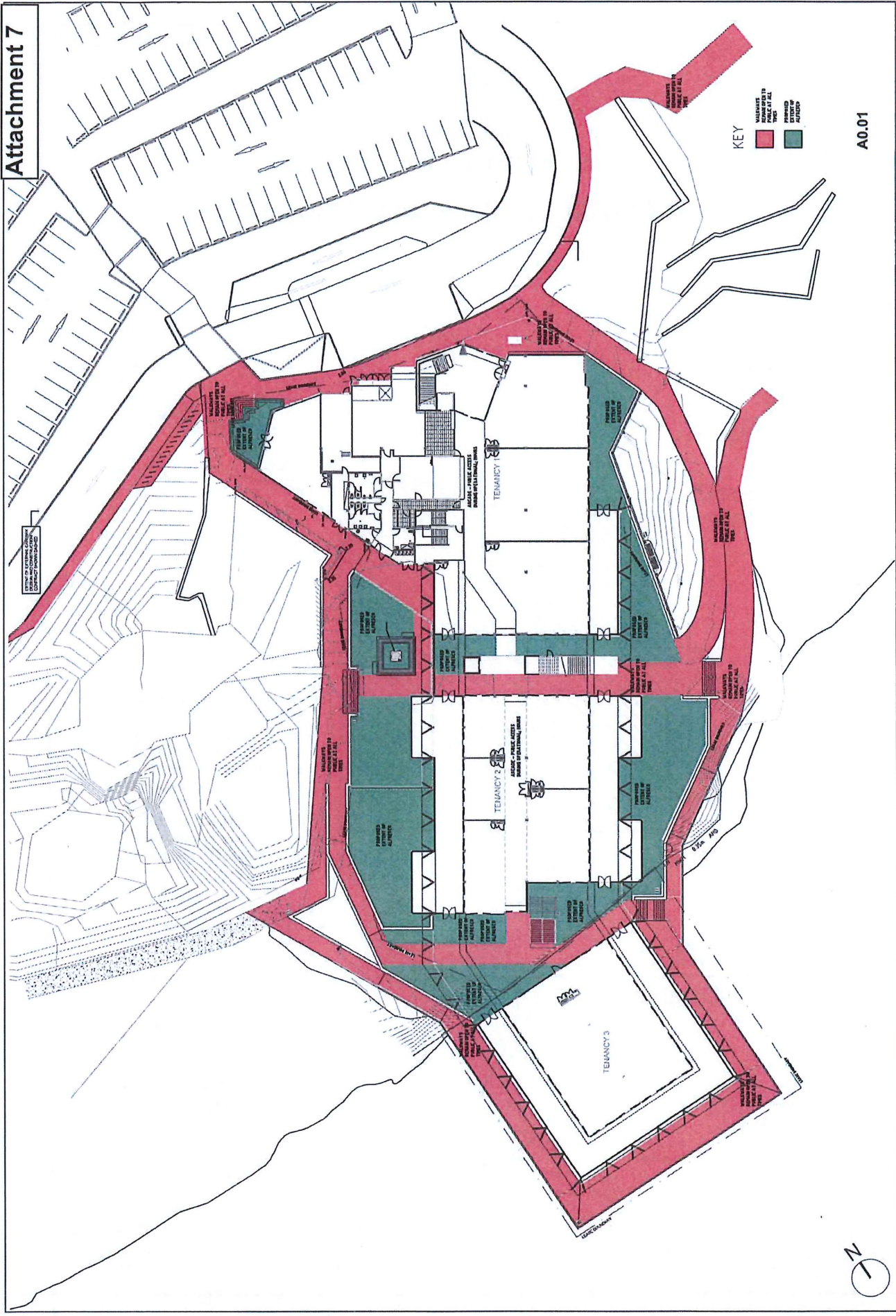


Drawn by: P Einam
 Date: 6 September 2012

Examined by Coordinator Cartography:
 R Talbot-Smith
 Date: 6th September 2012



Attachment 7



KEY
MAINTENANCE
ROADWAYS TO
BE PAVED BY
OWNER AT ALL
TIMES
PAVED
ROADWAYS
MAINTAINED
BY OWNER

A0.01

