



**PART 5**

**DETERMINATION OF DEVELOPMENT APPLICATION**

FILE NUMBER : 2017/1761  
APPLICANT : City Foreshore Investments Pty Ltd  
AGENT'S ADDRESS : Attn: Alex Edgington  
General Manager  
Jetty Marine and Constructions  
PO Box 190  
SOUTH FREMANTLE WA 6162  
LANDOWNER : City of Perth  
LAND DESCRIPTION : Lot 300 on Plan 47450 (Reserve 48325) Swan River adjacent  
to Lot 305, 306 and 307 Riverside Drive, East Perth, Point  
Fraser Entertainment Complex/On the Point Development  
(Ku De Ta Restaurant)  
DEVELOPMENT : Installation of a Berthing Facility (Stage 2)  
VALID FORM 1 RECEIVED : 3 April 2017  
DETERMINATION : **APPROVAL WITH CONDITIONS**

The application to commence development in accordance with the information received on 3 April 2017, and the supplementary information received on 13 June 2017, 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 Final Construction Environmental Management Plan shall be submitted for approval by the Department of Biodiversity, Conservation and Attractions, on advice from the City of Perth (see **Advice Note 2**).
4. Prior to the commencement of works, a Monitoring and Maintenance Plan shall be submitted for approval by the Department of Biodiversity, Conservation and Attractions (see **Advice Note 3 and 7**).
5. Prior to the commencement of works, final design plans/drawings for the proposed berthing facility, including details of the external materials and colours, shall be submitted for

approval by the Department of Biodiversity, Conservation and Attractions, on advice of the Department of Transport and the City of Perth (see **Advice Notes 4, 5 and 7**).

6. Prior to the commencement of works, a jetty modification licence shall be obtained from the Department of Transport and forwarded to the Department of Biodiversity, Conservation and Attractions (see **Advice Note 5 and 7**).
7. Prior to the commencement of works, an amendment to the River reserve lease is required (see **Advice Note 6**).

#### **During works**

8. All works shall be implemented in accordance with the plans and final design plans/drawings approved under **Conditions 3, 4, 5**.
9. A silt curtain shall be employed and maintained around the perimeter of the proposed works to contain turbidity and prevent sediment plumes from moving outside the immediate area of work. In the event that plumes or adverse turbidity occur beyond the area of work, the applicant shall contact the Department of Biodiversity, Conservation and Attractions within two hours.
10. Piling operations shall include a soft start up procedure at the commencement of each piling sequence.
11. The contractor shall keep a constant watch for dolphins during piling operations. No pile driving shall start if dolphins are within 200m of the site and piling activity shall cease if a dolphin comes within 50m of the site and shall not recommence until any dolphin has moved away more than 200m or has not been observed for 20 minutes.
12. No debris, rubbish or any other deleterious material shall be allowed to enter the river as a result of the works.
13. The applicant shall ensure that no damage to the foreshore or waterway (including infrastructure and vegetation) occurs as a result of the works. Should any inadvertent damage occur, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours and make good any inadvertent damage.
14. 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.
15. All incidents of pollution or spills within the Swan Canning Development Control Area shall be reported immediately to the Department of Biodiversity, Conservation and Attractions, contacted on 9278 0900 or a/h 0419 192 845.

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

16. 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.
17. The permit for the Stage 1 berthing facility (P11912) shall be revoked following the completion of the works approved under this Part 5 Development Approval.

## ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to [rivers.planning@dbca.wa.gov.au](mailto:rivers.planning@dbca.wa.gov.au).
2. The Final Construction Environmental Management Plan required under **Condition 3** shall provide further details how the proposed works will be managed to minimise environmental impacts, safety risks and nuisances and should address, but not be limited to:
  - a. scope of works (see below);
  - b. site access (see below);
  - c. machinery, equipment and materials to be used, and refuelling (see below);
  - d. on-site storage and bunding of materials, equipment, chemicals and fuel (including aerial photograph with locations marked);
  - e. sediment and turbidity management (see below);
  - f. inspection and reporting schedule on sedimentation and turbidity (see below);
  - g. wildlife protection (see below);
  - h. protection of the river from inputs of debris, litter, rubbish or other deleterious material;
  - i. waste management
  - j. public access and safety (see below);
  - k. hours of operation, timeframes and responsibility for tasks identified; and
  - l. complaints and incidents.

The scope of works will need to be updated to include the works required to relocate the Stage 1 berthing facility and the installation of additional mooring piles to create the short-term berthing pens.

Further details regarding the refuelling procedure and location will need to be provided. A diagram showing the correct silt curtain arrangement should be provided. All reasonable efforts should be taken by the applicant to control plumes but where they occur, the applicant must stop work whilst the plume is addressed and should only recommence work once the integrity of the silt curtain (or equivalent) is restored.

Where a plume occurs, this should be reported to the Department of Biodiversity, Conservation and Attractions within one (1) hour of occurrence and addressed immediately or as soon as reasonably possible during a high-risk event (e.g. during storms or strong tides). The Department of Biodiversity, Conservation and Attractions can be contacted on 9278 0900.

The City of Perth has advised that site access through the foreshore reserve will not be permitted for the proposed works. In regard to public access and safety, details regarding how public access on the foreshore and waterway will be maintained during the construction works will need to be provided. The Department of Transport has advised that a safe navigation channel must be maintained during the construction works.

To minimise underwater noise, it is preferred that a vibration hammer with a soft start-up, rather than a drop hammer, be used to install the piles. This should reduce noise impacts, including to dolphins which are often observed in this part of the estuary. For further protection of fauna, an independent experienced marine mammal observer (or similar) shall be engaged prior to and at all times during piling operations.

Furthermore, the City of Perth has requested amendments to the CEMP to address the following:

- Ensure that marine and terrestrial wildlife are not adversely impacted by the proposed works, and reflected in the following sections:
  - i. The Management Plan Actions which outline potential issues and contingencies (pages 8 and 9);
  - ii. The Health and Safety section to include Jetty Marine Construction's duty of care in ensuring the health and safety of wildlife (page 10); and

- iii. The Environmental Management and Reporting section to include the marine ecosystem as a relevant area of concern. The proposed works should have minimal impact and/or risk to the marine ecosystem (Page 13).
    - The impacts from the piling vibrations to also be considered within the 50m radius of marine mammals to stop works. Further clarification is required regarding how the 50m radius from the lifting site will reduce the impact of vibrations from 'piling' on marine mammals.
    - The City of Perth should also be notified in regard to hydrocarbon spills (Page 8).
3. In relation to **Condition 3**, the Monitoring and Maintenance Plan is to outline the applicant's responsibilities in maintaining public access and safety, waste 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.
4. In relation to **Condition 5**, the final design plans/drawings should also address the following:
- a. The external finishes and colours for the Stage 2 berthing facility are to be consistent with the Stage 1 berthing facility and the main jetty platform of the Point Fraser Development (i.e. timber decking).
  - b. The jetty design for the berthing facility should consider the risk of the structure breaking free during major flooding events, and the potential to cause damage or obstruction to flows downstream.
  - c. The berthing structure and the temporary/short term berthing pens are to be located outside the vessel navigation channel.

City of Perth Advice

- d. The pontoon to be designed to cater for all water levels, including the Lowest Astronomical Tide, Highest Astronomical Tide, storm tide and flowing.
  - e. The floating pontoon should comply with the relevant loading and stability requirements in accordance with Australian Standard AS3962 and certified by a professional engineer, 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.
  - f. No deck furniture being permitted on the floating pontoon.
  - g. Tidal levels being indicated on the piles.
  - h. All piles having a 300mm wide retro reflective band 300mm below the pile cap.
  - i. The floating pontoon being a non-slip surface suitable for the marine environment.
  - j. 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 Department of Transport - Maritime Planning has been consulted with regards to these constraints. Workplace health and safety hazards during construction and the operational phase of the works must be adhered to and addressed in the design report.
5. In relation to **Condition 5 and 6**, the Department of Transport, Maritime Planning branch advises the following will need to be provided:
- a. The design drawings must demonstrate that both the soil and piles for the Stage 2 berthing facility can withstand the berthing loads of 23m vessels in accordance with

Australian Standards – Guidelines for Designs of Marinas AS3962-2001 (Specifically Clause 4.9);

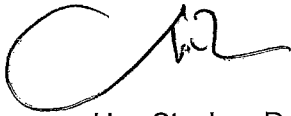
- b. All engineering design drawings/plans of the berthing facility shall be certified and signed by an experienced practicing engineer and designed in accordance with Australian Standards – Guidelines for Designs of Marinas AS3692-2001 and Guidelines for Design of Maritime Structures AS4997-2005.
  - c. All drawings are to specify the maximum design vessels for the proposed jetty structures;
  - d. The applicant shall apply for and obtain a jetty modification licence from the Department of Transport, Coastal Facilities Management once all necessary approvals and information have been obtained.
  - e. No construction should commence until all approvals relating to this application are obtained.
6. In regard to **Condition 7**, 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 berthing facility and associated berthing pens are maintained as a public use facility at all times.

No fees are permitted to be charged to the berthing vessels using the berthing facility and short-term berthing pens. 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, such as dredging, is proposed then additional approval from the Department of Biodiversity, Conservation and Attractions shall be required.

7. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the drawing, designs and plans required under Condition 3 to 5 inclusive, the documents should be submitted to the Department of Biodiversity, Conservation and Attractions no later than 30 days prior to the expected commencement date.
8. This approval does not include any signage. A separate permit application and approval for signage will be required from the Department of Biodiversity, Conservation and Attractions.
9. The applicant is advised that the proposal has the potential to be affected by sea level rise. It is recommended applicant understand the implications of potential sea level rise on the site. The onus rests with the applicant to undertake a risk assessment and exercise their judgment in determining the level of risk they are prepared to accept. The Swan River Trust's *Climate Change Risk Assessment Project* (2010) models impacts of potential sea level rise in the Swan and Canning rivers, and sets out a methodology to assess the vulnerability of foreshore areas. It is recommended that applicant undertakes their own research and obtain appropriate independent professional advice relevant to the particular circumstances.
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* (the Act). It is also advised that an

approval under section 18 of the Act is likely to be required. It is recommended that the applicant present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536 (Swan River).

11. In regards to marine safety, the applicant is advised to ensure that all in water operations and activities are conducted in accordance with the relevant marine legislation, including commercial vessel manning and survey requirements, in accordance with the *Prevention of Collisions at Sea Regulations 1983*.
12. The differential global positional system (DGPS) coordinates of the berthing facility is to be provided post construction to the Department of Transport – Navigational Safety. An additional port navigation aid upstream of the berthing facility may be installed.
13. The site is within an existing 5 knot speed restriction zone and the proposed berthing facility is directly adjacent to the navigational channel and therefore may be exposed to vessel wake and wash.
14. It is recommended that the proponent, or any third party contractor it engages to carry out the works, notify Department of Transport Navigational Safety Project Officer on 9431 1025 or by email to [navigational.safety@transport.wa.gov.au](mailto:navigational.safety@transport.wa.gov.au) prior to the commencement of works to enable a Notice to Mariners outlining the scope of the works to be promulgated, funded by the proponent or its contractor.



Hon Stephen Dawson MLC  
**MINISTER FOR ENVIRONMENT; DISABILITY SERVICES**

Date: 11/02/12

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

PROPOSAL : Installation of a Berthing Facility (Stage 2)

LOCATION : Lot 300 on Plan 47450 (Reserve 48325) Swan River adjacent to Lot 305, 306 and 307 Riverside Drive, East Perth, Point Fraser Entertainment Complex/On the Point Development (Ku De Ta Restaurant)

APPLICANT : City Foreshore Investments Pty Ltd

AGENT : Jetty Marine and Constructions

LANDOWNER : Swan River Trust

LOCAL GOVERNMENT : City of Perth

MRS CLASSIFICATION : Waterways

LG CLASSIFICATION : Waterways

DECISION TYPE : Part 5, *Swan and Canning Rivers Management Act 2006* – Ministerial Determination

ATTACHMENTS : 1. Location map  
2. Aerial photo of subject land  
3. Plans for the Stage 1 berthing facility and fender system previously approved (permits)  
4. Plans for the Stage 2 berthing facility  
5. City of Perth's Advice Letter  
6. Current Riverbed Lease Area  
7. Public Access Plan

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) to install a vessel berthing facility on the Swan River at the Point Fraser Entertainment Complex/On the Point Development (Point Fraser Development), which is within the Swan Canning Development Control Area (DCA) (see **Attachments 1 and 2**). The subject land 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 3**). The structures approved consist of seven fender piles (475mm x 12.7mm x 26m length), a floating jetty pontoon (2.6m x 19m), gangway (10m long) and one mooring pile (323mm x 9.5mm x 26m length). The applicant advised that the Stage 1 berthing facility will be used for passenger drop off and pick up, and the short-term berthing of recreational vessels.
- 1.3 The applicant is seeking to expand the proposed berthing facility, with Stage 2 of the development proposing the installation of a longer floating jetty pontoon (6m x 1.5m pontoon section and 23m x 5m pontoon section), a gangway (12m x 1.2m) and eight supporting piles (610mm x 12.7mm x 26m) to accommodate the short-term berthing of larger vessels (i.e. commercial ferries). In addition, the Stage 1 berthing facility will be shifted approximately 3m northwards, with two supporting piles to be installed at either side, and three mooring piles to be installed east of the pontoon to create 8m wide vessel berths (see **Attachment 4**).
- 1.4 The proposed development is to occur on a lot located completely within the DCA and therefore the proposed works require an approval under Part 5 of the *Swan and Canning Rivers Management Act 2006* (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, environmental protection, flood risk and sea level rise, being incorporated on the approval.
- 2.2 The City's full comments are outlined at **Attachment 5**.

### Department of Transport, Maritime Planning

- 2.3 The Department of Transport (DoT), Maritime Planning has assessed the referral and has no in-principle objection to the proposal proceeding subject to the following:
  - The applicant will need to modify its existing riverbed lease to accommodate the proposed jetty structure and moored vessels;
  - The design drawings must demonstrate that both the soil and piles can withstand the berthing loads of 23m vessels in accordance with Australian Standards – Guidelines for Designs of Marinas AS3962-2001 (Specifically Clause 4.9);
  - All engineering design drawings/plans of the berthing facility shall be certified and signed by an experienced practicing engineer and designed in accordance with Australian Standards – Guidelines for Designs of Marinas AS3692-2001 and Guidelines for Design of Maritime Structures AS4997-2005.
  - All drawings are to specify the maximum design vessels for the proposed jetty structures;



- The applicant shall apply for and obtain a jetty modification licence from DoT Coastal Facilities Management once all necessary approvals and information have been obtained and prior to the commencement of works.
- No construction should commence until all approvals relating to this application are obtained.

#### **Department of Transport, Marine Safety**

- 2.4 DoT, Marine Safety has assessed the application from a navigational safety perspective and has no objection provided that:
- A safe navigational channel for vessel traffic must be maintained at all times during construction works;
  - Prior to the commencement of works, a temporary notice to mariners (TMNT) must be issued and it is recommended that DoT should be notified at least four weeks prior to works commencing.
  - The differential global positional system (DGPS) coordinates of the berthing facility is to be provided post construction. An additional port navigation aid upstream of the berthing facility may be installed.
- 2.5 DoT further advised that the area is within an existing 5 knot speed restriction zone and the proposed berthing facility is directly adjacent to the navigational channel and therefore may be exposed to vessel wake and wash.

#### **Department of Aboriginal Affairs**

- 2.6 The former Department of Aboriginal Affairs (DAA) reviewed the proposal and advised that the area of the proposed works is within a registered site of Aboriginal Significance (Swan River, DAA 3536).
- 2.7 As the proposed works may impact upon the Aboriginal site an approval under section 18 of the *Aboriginal Heritage Act 1972* (Aboriginal Heritage Act) is likely to be required. It is advisable that the developer present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536 (Swan River). The developer is also advised to contact DAA seeking advice regarding the requirements under the *Aboriginal Heritage Act* and the proposed works.

#### **Department of Water**

- 2.8 The former Department of Water, Floodplain Management (DoW) branch reviewed the proposal and provided 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 the riverine flooding being the dominant flooding regime;
  - The proposed berthing facility will be subject to flooding potential flood damage during major river flow event;
  - The obstructive effect of the proposed berthing facility is not considered to be a significant obstruction to major flows compared to the obstructive effect of the existing development located immediately downstream (i.e. the Point Fraser Development); and
  - The berthing facility design should consider the risk of the structure breaking free during major flooding events, and the potential to cause damage or obstruction to flows downstream.

### **3.0 PUBLIC COMMENT – 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 recommendations was provided to the applicant and the local government. A copy was also published on the Department's website for a period of two weeks between 1 August 2017 and 16 August 2017 with an invitation for public submissions.

3.2 Four (4) submissions were received:

- One submission was from the Department of Planning, Lands and Heritage, advising that the draft report is consistent with the advice provided by the former Department of Aboriginal Affairs on 25 May 2017, and had no further comments.
- One public submission was received from a restaurant proprietor associated with the Point Fraser Development supporting the proposed berthing facility. It noted that Point Fraser is an iconic part of the Swan River, and the development of a berthing facility at Point Fraser will enhance boating access to the area and provide connection to other tourism 'hot spot' areas (i.e. East Perth and Burswood Precinct following the opening of Perth Stadium).
- One public submission was received from a ferry operator, advising that it supports the proposed application. It has recently included Point Fraser as part of its ferry and shuttle service between Elizabeth Quay and Claisebrook Cove (using small electric vessels), following the completion of the Stage 1 Berthing Facility. It advises the new drop off/pick up point at Point Fraser has generated significant public interest, and would like to establish a frequent ferry service to the venue. It also notes that the current berthing facility (aligned north to south) can make it difficult for berthing due the tidal movements and strong easterly winds, and the increase level of recreational vessel use in summer will make it difficult to manage. It is anticipated that the Stage 2 berthing facility (aligned parallel to the river channel) will assist with these issues, and provide a separate berth for commercial ferries.
- One public submission was from a facilities management company associated with the Point Fraser Development, providing 41 individual signatures in support of the proposed berthing facility.

### **4.0 RELEVANT POLICIES AND PLANS**

- ◆ State Planning Policy 2.10 - *Swan-Canning River System* (SPP 2.10)
- ◆ State Planning Policy 2.6 - *State Coastal Planning* (SPP 2.6)
- ◆ Planning for Land Use, Development and Permitting Affecting the Swan Canning Development Control Area (Policy 42)
- ◆ Planning for Jetties in the Swan Canning Development Control Area (Policy 44)

### **5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS**

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

## 6.0 BACKGROUND

- 6.1 CFI was issued a development approval by the Western Australian Planning Commission (WAPC) in 2012 to construct the Point Fraser Development, which consist 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 Lot 305 and 307 Riverside Drive, Perth (A-Class Reserve) 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, with the building currently sub-leased to Ku De Ta Perth Pty Ltd, forming part of its restaurant venue.
- 6.2 Jetty Marine and Constructions (JMC) has been contracted by CFI to implement the works, and has prepared the concept drawings/plans and a draft Construction Environmental Management Plan (CEMP) as part of the application. The proposed berthing facility is estimated to cost \$300,000.
- 6.3 The new berthing facility will be located to the east of the Ku De Ta restaurant, with the new jetty pontoon to be connected to the board walk of the main jetty via a gangway.
- 6.4 The proposed works will consist of:
- Stage 2 berthing facility – Installation of 8 steel piles and HDPE sleeves, one pontoon and one gangway. The jetty pontoon will have a micromesh fibre reinforced plastic decking and aluminium extrusions.
  - Relocation of the Stage 1 berthing facility, which will consist of shifting the jetty pontoon northwards by approximately 3m (including the removal of one supporting pile) and the installation of two supporting piles. In addition, three mooring piles are proposed to create four, 8m wide berths to facility the short-term berthing of recreational/small vessels.
- 6.5 The berthing pens (and mooring piles) for the Stage 1 facility and the Stage 2 berthing facility are located outside the applicant's existing River reserve lease (see **Attachment 4**).
- 6.6 The smaller jetty pontoon is to provide a drop off/pick up point and the short-term berthing of small recreational vessels. The larger jetty pontoon will facilitate the temporary (i.e. drop off/pick up) and short-term berthing of commercial ferries. The berthing facility is intended to be accessible to the public.

## 7.0 DISCUSSION

### River Reserve Lease

- 7.1 A River reserve lease (4063m<sup>2</sup>) 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 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 adjacent River reserve lease held by CFI to be nullified.
- 7.3 For the section of the development located over the water (i.e. Ku De Ta Restaurant) the applicant was issued a revised River reserve lease (1093m<sup>2</sup>) 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 the size of the lease area and the lease 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 (1498m<sup>2</sup>) 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 Similarly, if the Stage 2 facility is approved, an amended River reserve lease area to facilitate the on-going maintenance and operation of the berthing facility would be required. It is recommended that the River reserve lease boundary be amended to accommodate all the jetty infrastructure and berthing pens.
- 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 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. The proposed development should be carefully undertaken to prevent detrimental impacts to the river and adjacent foreshore area.
- 7.9 The proposed works include the installation of jetty pontoons and 13 piles. Works associated with the construction and piling will have a number of potential impacts to the foreshore and waterway, including disturbance to the riverbed, risk of reducing water quality, fauna disturbance and impacts to public access and safety.
- 7.10 The applicant has submitted a draft CEMP with its development application. The draft CEMP outlines broad management actions to address some of the potential impacts, including the installation of silt curtain to manage sediment and turbidity, refuelling and spill response procedures, maintaining public access to the premises during construction, wildlife monitoring and management during piling operations and waste management.
- 7.11 A more detailed final CEMP, prepared and implemented to the satisfaction of DBCA, will be required as a condition of approval. One aspect of the plan that will require updating is the inclusion of the works required to relocate the Stage 1 berthing

facility and the installation of additional mooring piles to create the short-term berthing pens. The final CEMP will also need to include further details of turbidity and sediment management, site access and storage, management of machinery and equipment (including refuelling), public access and safety, detailed construction methodology, waste management and potential noise and vibration impacts to fauna.

## Jetty Design

- 7.12 Policy 44 recognises that appropriately designed and located public and commercial jetties form an integral part of the river system setting and are an important recreational and tourist resource. In addition, jetty proposals should also provide a public benefit, by enabling general public access on the facility.
- 7.13 In 2003 the City commissioned a Masterplan and an Indicative Development Plan and Policy (IDP&P) for Point Fraser to facilitate the creation of a river recreation node, and included aspects such as a commercial site and foreshore enhancement. An updated IDP&P was produced in 2007, with one of the main variations being the introduction of options for commercial development to extend over the River reserve to facilitate the Point Fraser Development (see **Attachment 7**). The Masterplan and both versions of the IDP&P were endorsed by the former Trust.
- 7.14 The Trust had previously conveyed support for passive, boat friendly development within Perth Water including provision of public berthing/mooring areas for smaller watercraft through consideration of the IDP&P (2007).
- 7.15 Given that the Point Fraser is located within a narrow stretch of the Swan River (approx. 145m wide), the development of a commercial jetty facility, including the provision of long term berthing pens is not considered appropriate at this location. Furthermore, Policy 44 indicate that the long-term moorings of vessels can only be supported within a marina, yacht club or other aquatic clubs.
- 7.16 The applicant has advised however that the proposed berthing facility at Point Fraser will be used for passenger drop off and pick up, and short-term berthing of vessels only (i.e. 2-3 hours). The applicant has also indicated that the facility will be publicly accessible, with the short-term berthing pens to be available for use to recreational vessels and commercial ferries. Conditions on the approval will be included to ensure that the facility will have provisions for public access and use.
- 7.17 Policy 44 seeks to ensure that the location of a jetty and its associated vessel berthing does not interfere with vessel navigation. DoT, Navigational Safety has reviewed the proposal, and advised that a navigation aid may be installed in the immediate vicinity of the berthing facility to minimise any collision risk of passing vessels and the new facility. Furthermore, the applicant will need to ensure that a safe navigation channel will need to be maintained during construction works, and this will need to be addressed in the CEMP.
- 7.18 Policy 44 also seeks to ensure that the design of a jetty is such that it is safe for public use. Jetty structures must comply with the relevant Australian Standards and be certified by a qualified and practising marine engineer, as recommended by DoT, Maritime Safety. These requirements can be included as a condition of approval.

- 7.19 To ensure that the berthing facility is regularly managed and maintained (e.g. litter management and general maintenance), a maintenance and monitoring plan will also be required as a condition of approval.

### **Heritage Protection**

- 7.20 Policy 42 states that places of cultural and heritage significance, both Aboriginal and European, and of natural heritage are to be conserved.
- 7.21 The proposal is within the boundaries of an Aboriginal site DAA 3536 (Swan River).
- 7.22 The former Department of Aboriginal Affairs advised that as the proposed works may impact upon DAA 3536 an approval under section 18 of the *Aboriginal Heritage Act 1972* is likely to be required.

### **Visual Amenity**

- 7.23 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.
- 7.24 The proposed jetty pontoons for the Stage 2 berthing facility will have a beige coloured micromesh decking and dull-grey aluminium extrusions, with steel piles encased in black sleeves. It is noted that the jetty pontoon for the Stage 1 berthing facility proposes a timber decking, consistent with the main jetty platform of the Point Fraser development.
- 7.25 To ensure that the Stage 2 berthing facility is consistent with the character and landscape of the area, it is recommended that the final design drawings detailing the colours and external finishes be included as a condition of approval. It is recommended that the finishes to the Stage 2 works are consistent with the Stage 1 works (i.e. timber decking).

### **Flood and Sea Level Rise**

- 7.26 The former DoW advised that the site will be affected by flooding, with the 1% annual exceed probability flood level expected to be approximately 1.7m AHD based on results from the Swan River Flood Study and the 'Assessment of Swan and Canning River Tidal and Storm Surge Water Levels' (URS, January 2013). The flood level is expected to reach approximately 2.3m AHD by 2110, allowing for sea level rise.
- 7.27 The proposed development has the potential to be affected by sea level rise. SPP 2.6 provides guidance for development setbacks to reduce risks associated with the effects of coastal processes (e.g. storm surge, tidal movement and sea level change). In addition, the Swan River Trust's *Climate Change Risk Assessment Project* (2010) also provides guidance on foreshore vulnerability and this will be included as advice to the applicant.

### **Public Access**

- 7.28 SPP 2.10 states that public access to the river and foreshore should be maintained while protecting the river. It is important that development near the river does not impede or restrict public access.

- 7.29 The walkways through the Point Fraser Development (i.e. board walk) have been made accessible to the public through provisions in the River reserve lease and WAPC 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.
- 7.30 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. The City advised that land based access of machinery and equipment through the foreshore reserve during the construction works will not be permitted.
- 7.31 The applicant can be advised to outline its site access arrangements and the maintenance of public access within the CEMP.
- 7.32 Once completed, the proposed jetty pontoon will enhance and facilitate public access to the river and this recently developed area of the central city foreshore through the provision of a berthing facility for recreational vessels and commercial ferry operators.

## **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 the draft report at its meeting on 18 July 2017. The Trust resolved to support the report and recommendations. The Trust also advised that the proposed berthing facility will improve public boating access to the river at this location.

## **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. With the recent commercial development of the immediate locality, as well as future development planned in the area such as Perth Stadium and Waterbank, improved boating access for the public is strongly supported.
- 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 shall be addressed through future leasing provisions, and a maintenance and monitoring program.
- 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 the Department of Biodiversity, Conservation and Attractions advises the Minister for Environment that the City Foreshore Investments Pty Ltd proposal to

install a berthing facility on Lot 300 on Plan 47450 (Crown Reserve 48325), Perth, as described in the application received on 3 April 2017, and the supplementary information received on 13 June 2017, 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 Final Construction Environmental Management Plan shall be submitted for approval by the Department of Biodiversity, Conservation and Attractions, on advice from the City of Perth (see **Advice Note 2**).
4. Prior to the commencement of works, a Monitoring and Maintenance Plan shall be submitted for approval by the Department of Biodiversity, Conservation and Attractions (see **Advice Note 3 and 7**).
5. Prior to the commencement of works, final design plans/drawings for the proposed berthing facility, including details of the external materials and colours, shall be submitted for approval by the Department of Biodiversity, Conservation and Attractions, on advice of the Department of Transport and the City of Perth (see **Advice Notes 4, 5 and 7**).
6. Prior to the commencement of works, a jetty modification licence shall be obtained from the Department of Transport and forwarded to the Department of Biodiversity, Conservation and Attractions (see **Advice Note 5 and 7**).
7. Prior to the commencement of works, an amendment to the River reserve lease is required (see **Advice Note 6**).

#### **During works**

8. All works shall be implemented in accordance with the plans and final design plans/drawings approved under **Conditions 3, 4, 5**.
9. A silt curtain shall be employed and maintained around the perimeter of the proposed works to contain turbidity and prevent sediment plumes from moving outside the immediate area of work. In the event that plumes or adverse turbidity occur beyond the area of work, the applicant shall contact the Department of Biodiversity, Conservation and Attractions within two hours.
10. Piling operations shall include a soft start up procedure at the commencement of each piling sequence.
11. The contractor shall keep a constant watch for dolphins during piling operations. No pile driving shall start if dolphins are within 200m of the site and piling activity shall cease if a dolphin comes within 50m of the site and shall not recommence until any dolphin has moved away more than 200m or has not been observed for 20 minutes.



12. No debris, rubbish or any other deleterious material shall be allowed to enter the river as a result of the works.
13. The applicant shall ensure that no damage to the foreshore or waterway (including infrastructure and vegetation) occurs as a result of the works. Should any inadvertent damage occur, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours and make good any inadvertent damage.
14. 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.
15. All incidents of pollution or spills within the Swan Canning Development Control Area shall be reported immediately to the Department of Biodiversity, Conservation and Attractions, contacted on 9278 0900 or a/h 0419 192 845.

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

16. 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.
17. The permit for the Stage 1 berthing facility (P11912) shall be revoked following the completion of the works approved under this Part 5 Development Approval.

#### **Ongoing**

18. The berthing facility (floating pontoon) and the associated berthing pens shall be publicly accessible at all times.
19. The berthing facility (floating pontoon) shall be used as a drop off/pick up point or short-term vessel berthing only. No fees are permitted to be charged to the berthing vessels.
20. The applicant is responsible for the ongoing maintenance of all infrastructure and facilities within the River reserve lease area, in accordance with the approved Monitoring and Maintenance Plan.

#### **ADVICE TO APPLICANT**

1. Notification of commencement of work and plans can be emailed to [rivers.planning@dbca.wa.gov.au](mailto:rivers.planning@dbca.wa.gov.au).
2. The Final Construction Environmental Management Plan required under **Condition 3** shall provide further details how the proposed works will be managed to minimise environmental impacts, safety risks and nuisances and should address, but not be limited to:
  - a. scope of works (see below);
  - b. site access (see below);
  - c. machinery, equipment and materials to be used, and refuelling (see below);
  - d. on-site storage and bunding of materials, equipment, chemicals and fuel (including aerial photograph with locations marked);

- e. sediment and turbidity management (see below);
- f. inspection and reporting schedule on sedimentation and turbidity (see below);
- g. wildlife protection (see below);
- h. protection of the river from inputs of debris, litter, rubbish or other deleterious material;
- i. waste management
- j. public access and safety (see below);
- k. hours of operation, timeframes and responsibility for tasks identified; and
- l. complaints and incidents.

The scope of works will need to be updated to include the works required to relocate the Stage 1 berthing facility and the installation of additional mooring piles to create the short-term berthing pens.

Further details regarding the refuelling procedure and location will need to be provided. A diagram showing the correct silt curtain arrangement should be provided. All reasonable efforts should be taken by the applicant to control plumes but where they occur, the applicant must stop work whilst the plume is addressed and should only recommence work once the integrity of the silt curtain (or equivalent) is restored.

Where a plume occurs, this should be reported to the Department of Biodiversity, Conservation and Attractions within one (1) hour of occurrence and addressed immediately or as soon as reasonably possible during a high-risk event (e.g. during storms or strong tides). The Department of Biodiversity, Conservation and Attractions can be contacted on 9278 0900.

The City of Perth has advised that site access through the foreshore reserve will not be permitted for the proposed works. In regard to public access and safety, details regarding how public access on the foreshore and waterway will be maintained during the construction works will need to be provided. The Department of Transport has advised that a safe navigation channel must be maintained during the construction works.

To minimise underwater noise, it is preferred that a vibration hammer with a soft start-up, rather than a drop hammer, be used to install the piles. This should reduce noise impacts, including to dolphins which are often observed in this part of the estuary. For further protection of fauna, an independent experienced marine mammal observer (or similar) shall be engaged prior to and at all times during piling operations.

Furthermore, the City of Perth has requested amendments to the CEMP to address the following:

- Ensure that marine and terrestrial wildlife are not adversely impacted by the proposed works, and reflected in the following sections:
  - i. The Management Plan Actions which outline potential issues and contingencies (pages 8 and 9);
  - ii. The Health and Safety section to include Jetty Marine Construction's duty of care in ensuring the health and safety of wildlife (page 10); and
  - iii. The Environmental Management and Reporting section to include the marine ecosystem as a relevant area of concern. The proposed works should have minimal impact and/or risk to the marine ecosystem (Page 13).
- The impacts from the piling vibrations to also be considered within the 50m radius of marine mammals to stop works. Further clarification is required regarding how the 50m radius from the lifting site will reduce the impact of vibrations from 'piling' on marine mammals.
- The City of Perth should also be notified in regard to hydrocarbon spills (Page 8).

3. In relation to **Condition 3**, the Monitoring and Maintenance Plan is to outline the applicant's responsibilities in maintaining public access and safety, waste 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.
4. In relation to **Condition 5**, the final design plans/drawings should also address the following:
  - a. The external finishes and colours for the Stage 2 berthing facility are to be consistent with the Stage 1 berthing facility and the main jetty platform of the Point Fraser Development (i.e. timber decking).
  - b. The jetty design for the berthing facility should consider the risk of the structure breaking free during major flooding events, and the potential to cause damage or obstruction to flows downstream.
  - c. The berthing structure and the temporary/short term berthing pens are to be located outside the vessel navigation channel.

#### City of Perth Advice

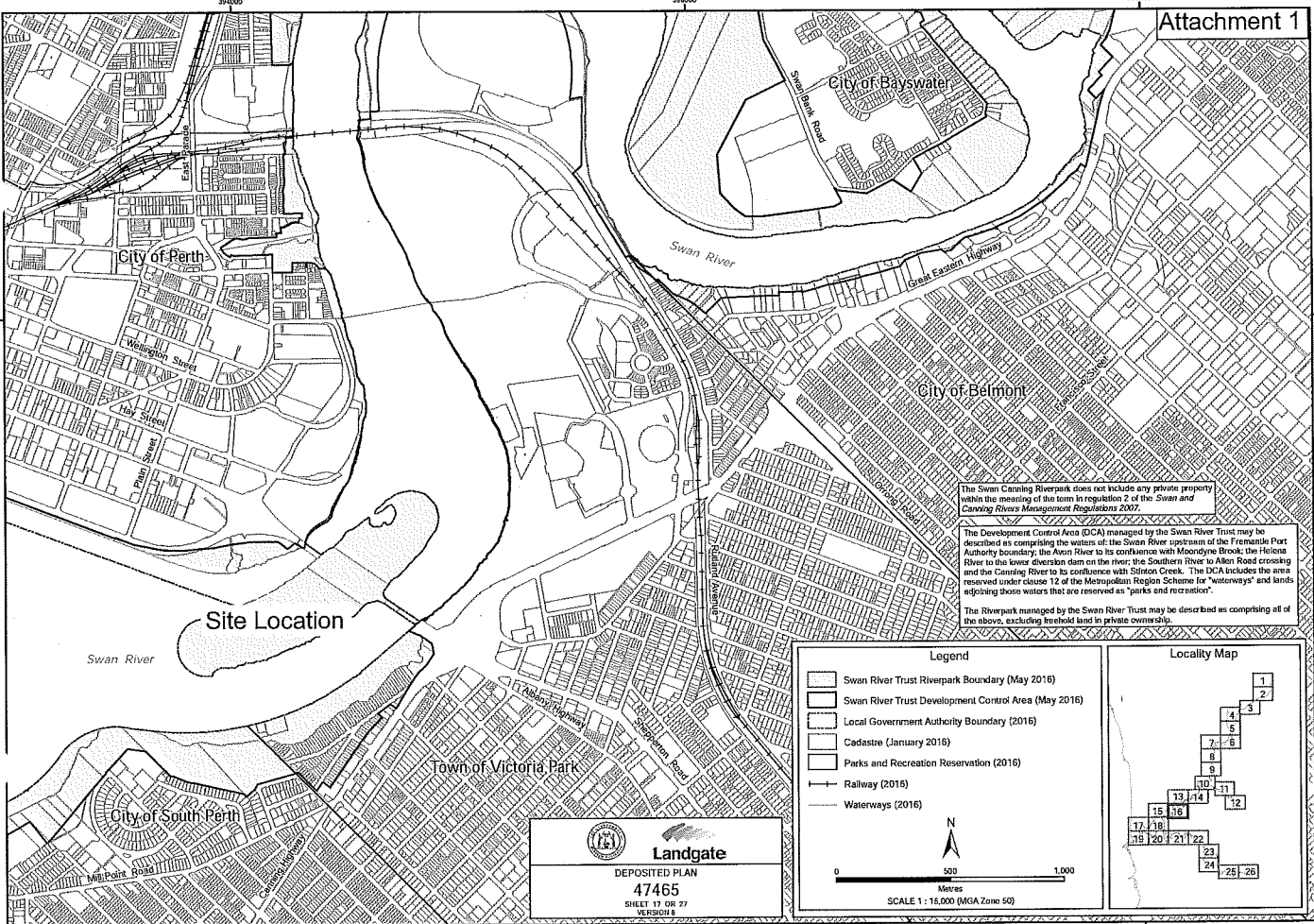
- d. The pontoon to be designed to cater for all water levels, including the Lowest Astronomical Tide, Highest Astronomical Tide, storm tide and flowing.
  - e. The floating pontoon should comply with the relevant loading and stability requirements in accordance with Australian Standard AS3962 and certified by a professional engineer, 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.
  - f. No deck furniture being permitted on the floating pontoon.
  - g. Tidal levels being indicated on the piles.
  - h. All piles having a 300mm wide retro reflective band 300mm below the pile cap.
  - i. The floating pontoon being a non-slip surface suitable for the marine environment.
  - j. 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 Department of Transport - Maritime Planning has been consulted with regards to these constraints. Workplace health and safety hazards during construction and the operational phase of the works must be adhered to and addressed in the design report.
5. In relation to **Condition 5 and 6**, the Department of Transport, Maritime Planning branch advises the following will need to be provided:
  - a. The design drawings must demonstrate that both the soil and piles for the Stage 2 berthing facility can withstand the berthing loads of 23m vessels in accordance with Australian Standards – Guidelines for Designs of Marinas AS3962-2001 (Specifically Clause 4.9);
  - b. All engineering design drawings/plans of the berthing facility shall be certified and signed by an experienced practicing engineer and designed in accordance with Australian Standards – Guidelines for Designs of Marinas AS3692-2001 and Guidelines for Design of Maritime Structures AS4997-2005.
  - c. All drawings are to specify the maximum design vessels for the proposed jetty structures;

- d. The applicant shall apply for and obtain a jetty modification licence from the Department of Transport, Coastal Facilities Management once all necessary approvals and information have been obtained.
  - e. No construction should commence until all approvals relating to this application are obtained.
6. In regard to **Condition 7**, 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, such as dredging, is proposed then additional approval from the Department of Biodiversity, Conservation and Attractions shall be required.

7. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the drawing, designs and plans required under Condition 3 to 5 inclusive, the documents should be submitted to the Department of Biodiversity, Conservation and Attractions no later than 30 days prior to the expected commencement date.
8. This approval does not include any signage. A separate permit application and approval for signage will be required from the Department of Biodiversity, Conservation and Attractions.
9. The applicant is advised that the proposal has the potential to be affected by sea level rise. It is recommended applicant understand the implications of potential sea level rise on the site. The onus rests with the applicant to undertake a risk assessment and exercise their judgment in determining the level of risk they are prepared to accept. The Swan River Trust's *Climate Change Risk Assessment Project* (2010) models impacts of potential sea level rise in the Swan and Canning rivers, and sets out a methodology to assess the vulnerability of foreshore areas. It is recommended that applicant undertakes their own research and obtain appropriate independent professional advice relevant to the particular circumstances.
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* (the Act). It is also advised that an approval under section 18 of the Act is likely to be required. It is recommended that the applicant present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536 (Swan River).
11. In regards to marine safety, the applicant is advised to ensure that all in water operations and activities are conducted in accordance with the relevant marine legislation, including





The Swan Canning Riverpark does not include any private property within the meaning of this 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 Moondyne Brook; the Helens River to the lower diversion dam on the river; the Southern River to Allen Road crossing and the Canning River to its confluence with Sitton Creek. The DCA includes the area reserved under clause 12 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   |  | Locality Map |    |
|----------|--|--------------|----|
| [Symbol] | Swan River Trust Riverpark Boundary (May 2016)       | [Symbol]     | 1  |
| [Symbol] | Swan River Trust Development Control Area (May 2016) | [Symbol]     | 2  |
| [Symbol] | Local Government Authority Boundary (2016)           | [Symbol]     | 3  |
| [Symbol] | Cadastre (January 2016)                              | [Symbol]     | 4  |
| [Symbol] | Parks and Recreation Reservation (2016)              | [Symbol]     | 5  |
| [Symbol] | Railway (2016)                                       | [Symbol]     | 6  |
| [Symbol] | Waterways (2016)                                     | [Symbol]     | 7  |
|          |  | [Symbol]     | 8  |
|          |  | [Symbol]     | 9  |
|          |  | [Symbol]     | 10 |
|          |  | [Symbol]     | 11 |
|          |  | [Symbol]     | 12 |
|          |  | [Symbol]     | 13 |
|          |  | [Symbol]     | 14 |
|          |  | [Symbol]     | 15 |
|          |  | [Symbol]     | 16 |
|          |  | [Symbol]     | 17 |
|          |  | [Symbol]     | 18 |
|          |  | [Symbol]     | 19 |
|          |  | [Symbol]     | 20 |
|          |  | [Symbol]     | 21 |
|          |  | [Symbol]     | 22 |
|          |  | [Symbol]     | 23 |
|          |  | [Symbol]     | 24 |
|          |  | [Symbol]     | 25 |
|          |  | [Symbol]     | 26 |



**Landgate**  
 DEPOSITED PLAN  
 47465  
 SHEET 17 OF 27  
 VERSION 6

Development Control Area and Riverpark Map 16

## Attachment 2



### Legend

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

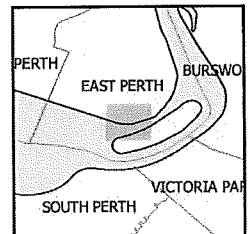


1:2,000 (A4)

0 10 20 30 m



Geographic Projection  
Datum: GD494

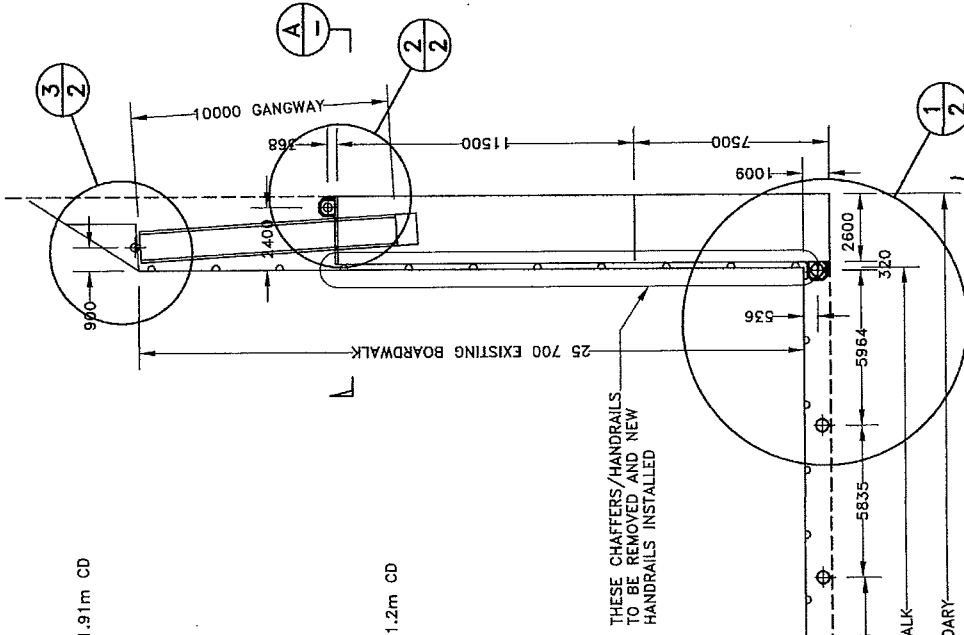
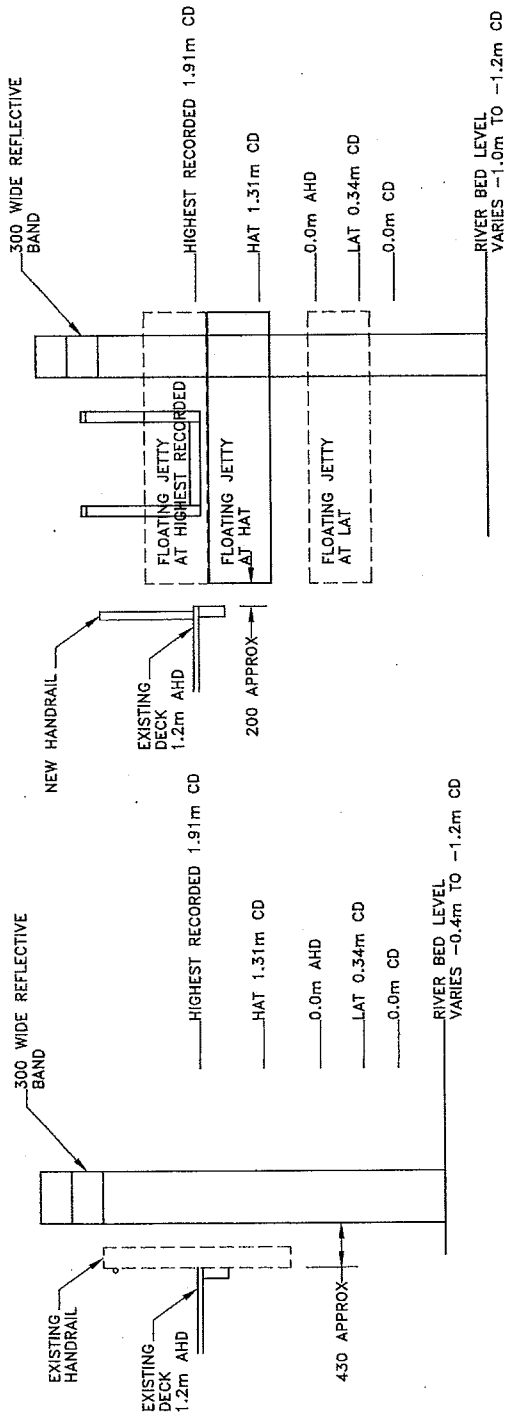


Produced by SC,  
Department of Parks and  
Wildlife



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 consequence 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.



| REV | DATE      | BY  | DETAILS             |
|-----|-----------|-----|---------------------|
| B   | 23 MAY 17 | MJS | REVISED             |
| A   | 19 APR 17 | MJS | ISSUED FOR APPROVAL |

|   |  |                                       |  |
|---|--|---------------------------------------|--|
| EXISTING STRUCTURE AND LEASE BOUNDARY TAKEN FROM UMS DRAWING 10265-GA-001 REV B |  | MAXIMUM VESSEL ON FLOATING JETTY 7.0m |  |
| MAXIMUM VESSEL ON MOORING PILES 10.0m   |  |                                       |  |

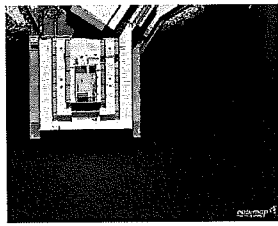
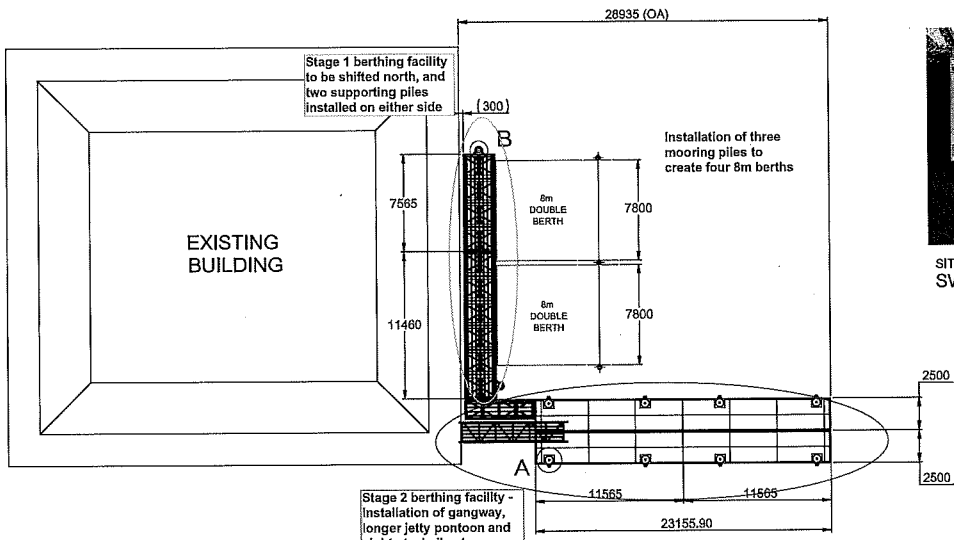
  

|  |  |   |  |
|--|--|---|--|
| <b>SEARLE CONSULTING LTD</b><br>9 ARUNDEL STREET<br>PERMANTHE<br>WA 6160<br>TEL (08) 9336 2404<br>FAX (08) 9336 3904 |  | <b>JETTY AND MARINE CONSTRUCTIONS</b><br>PROPOSED MOORING PILES AND<br>FLOATING JETTY<br>KUDETA, EAST PERTH<br>PLAN |  |
| SCALE AS NOTED (A3)  |  | SC195-06-01   |  |
|  |  | B   |  |

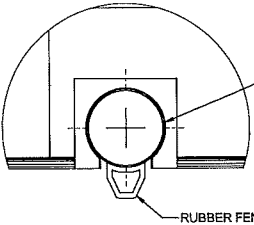






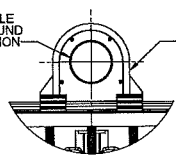


SITE LOCATION:  
SWAN RIVER, WA



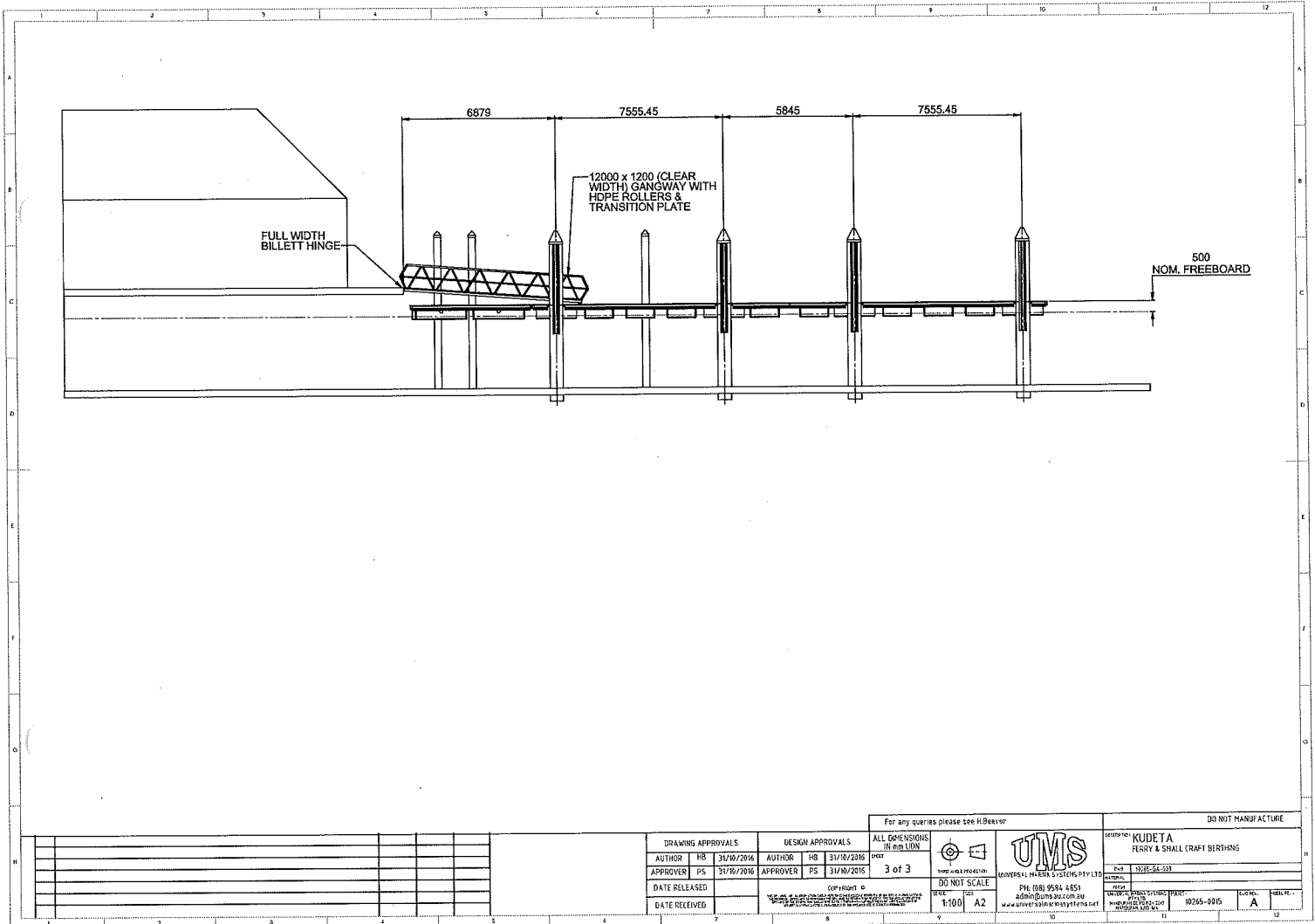
DETAIL A  
SCALE 1 : 20

Ø323 x 9.5 x 26000 STEEL PILE  
HDPE SLEEVE DRIVEN AROUND  
FOR CORROSION PROTECTION



DETAIL B  
SCALE 1 : 20

|                   |    |            |  |                  |    |            |      |                                    |                              |   |   |                    |  |
|-------------------|----|------------|--|------------------|----|------------|------|------------------------------------|------------------------------|---|---|--------------------|--|
| DRAWING APPROVALS |    |            |  | DESIGN APPROVALS |    |            |      | ALL DIMENSIONS IN MILLIMETERS      |                              | FOR ANY QUERIES PLEASE SEE H BEEVER   |   | DO NOT MANUFACTURE |  |
| AUTHOR            | HB | 31/10/2016 |  | AUTHOR           | HB | 31/10/2016 | DATE | 2 of 3                             | <br>DO NOT SCALE<br>1:200 A2 | <br>UNIVERSAL INFRASTRUCTURE SYSTEMS PTY LTD<br>PH: (08) 9584 4451<br>admin@uims30.com.au<br>www.universalsystemstechnologies.net | RECEIVED BY: KUDETA<br>FERRY & SMALL CRAFT BERTHING |                    |  |
| APPROVER          | PS | 31/10/2016 |  | APPROVER         | PS | 31/10/2016 |      | FILE NO: 10295-0015<br>SHEET NO: A |                              |   |   |                    |  |
| DATE RELEASED     |    |            |  | DATE RECEIVED    |    |            |      |                                    |                              |   |   |                    |  |



| DRAWING APPROVALS |    |            | DESIGN APPROVALS |    |            |
|-------------------|----|------------|------------------|----|------------|
| AUTHOR            | HB | 31/02/2016 | AUTHOR           | HB | 31/02/2016 |
| APPROVER          | PS | 31/02/2016 | APPROVER         | PS | 31/02/2016 |
| DATE RELEASED     |    |            | DATE RECEIVED    |    |            |

For any queries please see H-Beaver

ALL DIMENSIONS IN MILLIMETERS

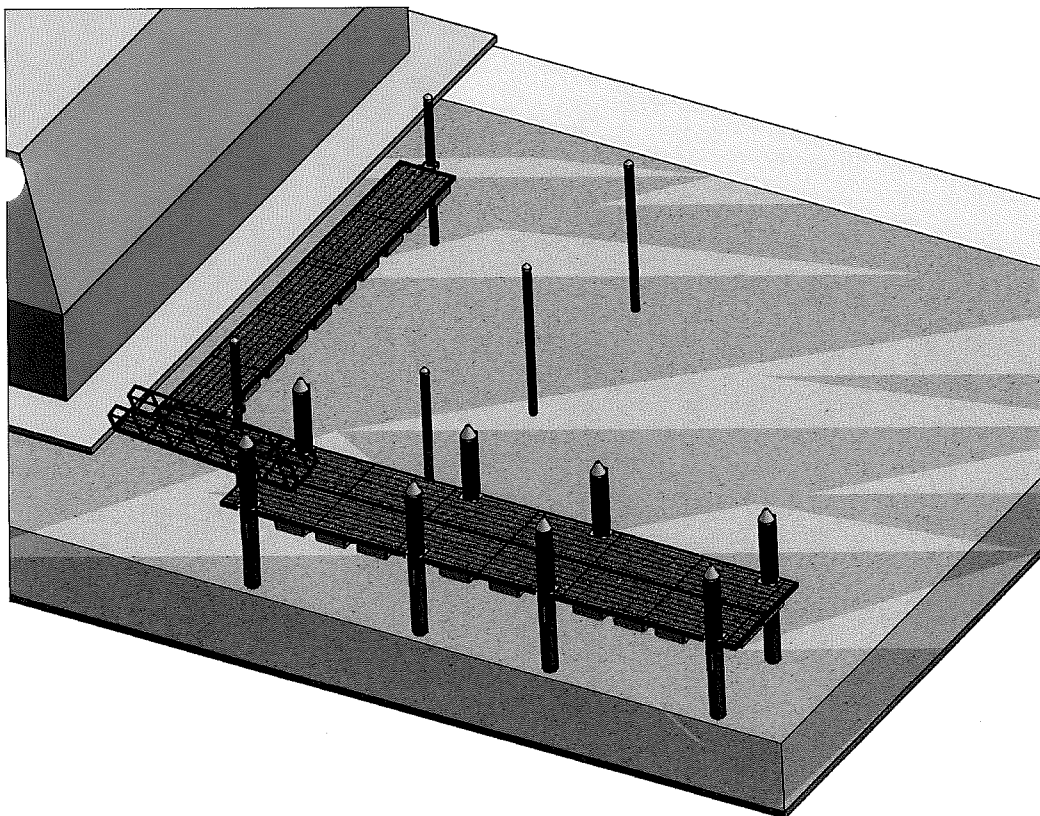
3 of 3

DO NOT SCALE

SCALE 1:100 A2



|                                  |  |
|----------------------------------|--|
| DO NOT MANUFACTURE               |  |
| PROJECT NO.                      | KUDETA FERRY & SMALL CRAFT BERTHING                                    |
| DWG NO.                          | 10245-005  |
| ISSUE NO.                        | 1  |
| DATE                             | 31/02/2016   |
| SCALE                            | 1:100  |
| PROJECT                          | PH 100 95 94 4551<br>admin@ums.au.com.au<br>www.universalmarine.com.au |
| UNIVERSAL MARINE SYSTEMS PTY LTD | 10245-005  |
| WORKSHEET NO.                    | A  |






**NOTES:**

1. **MATERIALS**  
ALL ALUMINIUM TO CONFORM TO AS1664 GRADE 6082/T5 & T6
2. **WELDING**  
ALL WELDS TO BE CONTINUOUS & FILLET WELD ALL ROUND UNO IN ACCORDANCE WITH AS 1669
3. **FLOATATION**  
28 NO. PE-23 FLOATS - 635 DEEP  
8 NO. PE-14 FLOATS - 635 DEEP  
FREEBOARD = 546 (APPROX.)

**DESIGN STATEMENT:**

1. 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 SMALL CRAFT BERTHING AS WELL AS A SINGLE FERRY 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.
2. THE PONTOONS ON THIS DRAWING IS INTENDED FOR USE WITH 1 TONNE CLEATS POSITIONED IN CLOSE PROXIMITY TO INTERCOASTAL OR END CHANNEL. HIGHER CAPACITY CLEATS ARE DETAILED ELSEWHERE.
3. 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'
4. THE PONTOON IS DESIGNED FOR UNRESTRICTED ACCESS WITH:
  1. MINIMUM STRUCTURAL UNIFORM DISTRIBUTED LIVE LOADING CAPACITY OF 3kPa IN ACCORDANCE WITH THE REQUIREMENTS OF AS3962-2001 CLAUSE 4.7.2 WITH EQUIVALENT 50mm RESERVE BUOYANCY CLAUSE 4.7.1
  2. MINIMUM LIVE FLOATATION LOADING CAPACITY OF 3kPa AND MINIMUM LIVE LOAD STABILITY LOADING CAPACITY OF 2kPa IN ACCORDANCE WITH THE REQUIREMENTS OF AS3962-2001 CLAUSE 4.7.3

|                   |               |                                    |               |   |   |   |  |
|-------------------|---------------|------------------------------------|---------------|---|---|---|--|
|                   |               |                                    |               | For any queries please see HBeever          |   | DO NOT MANUFACTURE  |  |
| DRAWING APPROVALS |               | DESIGN APPROVALS                   |               | ALL DIMENSIONS IN mm UNLESS SHOWN OTHERWISE |   |                |  |
| AUTHOR            | RB 31/07/2016 | AUTHOR                             | HD 31/07/2016 | 1 of 3                                      |  | <b>UIMS</b><br>KUDETA<br>FERRY & SMALL CRAFT BERTHING   |  |
| APPROVER          | PS 31/07/2016 | APPROVER                           | PS 31/07/2016 | DO NOT SCALE                                |  | INCH 1025-82-001<br>SCALE<br>FILE NO: 0564-1851<br>ADMIN@uimssystem.com.au<br>www.uimssystem.com.au |  |
| DATE RELEASED     |               | COPYRIGHT ©                        |               | SCALE                                       | 1:100   | A2  | UIMS SYSTEMS (Pty) Ltd<br>10795-0015<br>10795-0015<br>10795-0015 |
| DATE RECEIVED     |               | UNIVERSAL MARINA SYSTEMS (PTY) LTD |               |   |   |   |  |

DEPARTMENT OF PARKS  
& WILDLIFE

23 MAY 2017

Corporate Information Services



CITY of PERTH

Enquiries to: Jasmine Hancock  
Contact: 08 9461 3106  
Our Ref: DA-2017/5156  
DPaW Ref: 2017/1761

18 May 2017

Mr Glen McLeod-Thorpe  
Manager Statutory Assessments  
Department of Parks and Wildlife  
Locked Bag 104  
Bentley Delivery Centre WA 6983

Dear Mr McLeod-Thorpe

**21 (LOT 306) RIVERSIDE DRIVE, EAST PERTH – STAGE 2 WORKS FOR THE INSTALLATION OF A NEW BERTHING FACILITY AT THE POINT FRASER RESTAURANT AND ENTERTAINMENT DEVELOPMENT**

Thank you for your email dated 20 April 2017 referring an application for stage 2 works for the installation of a new berthing facility at the Point Fraser restaurant and entertainment development at the subject site to the City for comment.

It is advised that the City supports this proposal and provides the following advice:-

Engineering Advice

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. *Workplace health and safety hazards during construction and the operational phase of the works have to be adhered too and be addressed in the design report.*
11. *All environmental and occupational health and safety requirements set out in the application being met as stated in the Construction Management Plan.*

#### Environment and Sustainability Advice

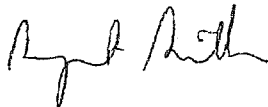
1. *The Construction and Environment Management Plan being modified to ensure marine and terrestrial wildlife are not adversely impacted by the proposed works. Whilst it is noted that Section 12 - Air Quality Management identifies management procedures to ensure noise does not adversely impact on marine life, the protection of marine and terrestrial wildlife should be expanded to other sections of this report including the following:-*
  - *The Management Plan 'Actions' which outline potential issues and contingencies (pages 8 and 9);*
  - *The opening statement of the Health and Safety section being modified to include JMC's duty of care in ensuring the health and safety of wildlife (page 10); and*
  - *The Environmental Management and Reporting section being modified to include the marine ecosystem as a relevant area of concern. The proposed works should ensure that no risk or impact from activities impact on the marine ecosystem (page 13);*
2. *The 50 meter radius to stop work if marine animals are sighted being expanded to consider the impact of vibrations and not limited to only noise. This is particularly relevant when the mooring piles are driven into the seabed and where the associated vibrations may impact on the navigation systems of marine mammals, including*

*dolphins. Further clarification is required regarding how the 50 metre radius from the lifting site will reduce the impact of vibrations from 'piling' on marine animals.*

- 3. With respect to the Management Plan 'Action 4.2' the City of Perth also being notified of any hydrocarbon spill (page 8).*
- 4. Additional modelling/mapping information being undertaken to understand the climate change risks such as sea level rise and flooding risks to this proposal. These risks have been outlined in the Swan River Trust's Climate Change Risk Assessment Project in 2010 and it was recommended that the applicant undertake their own risk assessment to understand and undertake action to mitigate any risks to their site.*

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

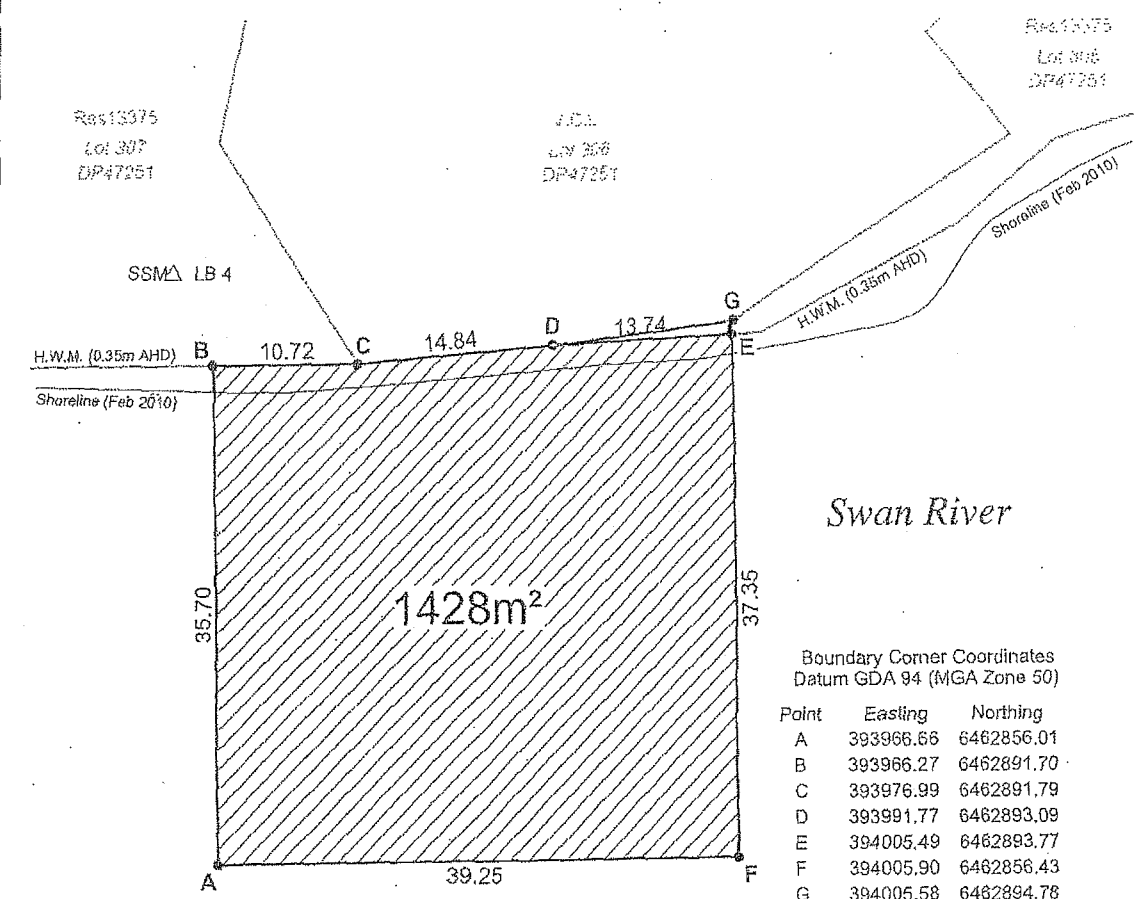


**MARGARET SMITH**  
**MANAGER DEVELOPMENT APPROVALS**



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

THAT PORTION OF SWAN RIVER RESERVE 48325 ALSO KNOWN AS pt. 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)

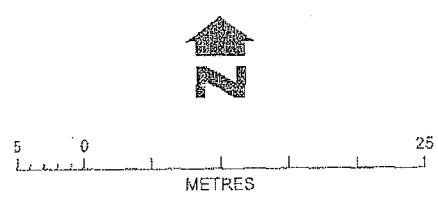
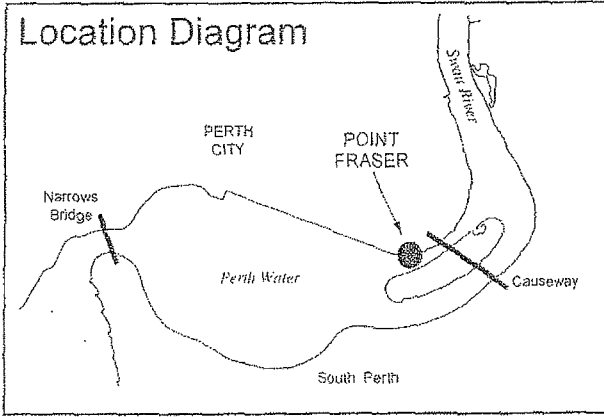
| Point | Easting   | Northing   |
|-------|-----------|------------|
| A     | 393966.66 | 6462856.01 |
| B     | 393966.27 | 6462891.70 |
| C     | 393976.99 | 6462891.79 |
| D     | 393991.77 | 6462893.09 |
| E     | 394005.49 | 6462893.77 |
| F     | 394005.90 | 6462856.43 |
| G     | 394005.58 | 6462894.78 |

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

Res 48325  
 Lot 301  
 DP47251

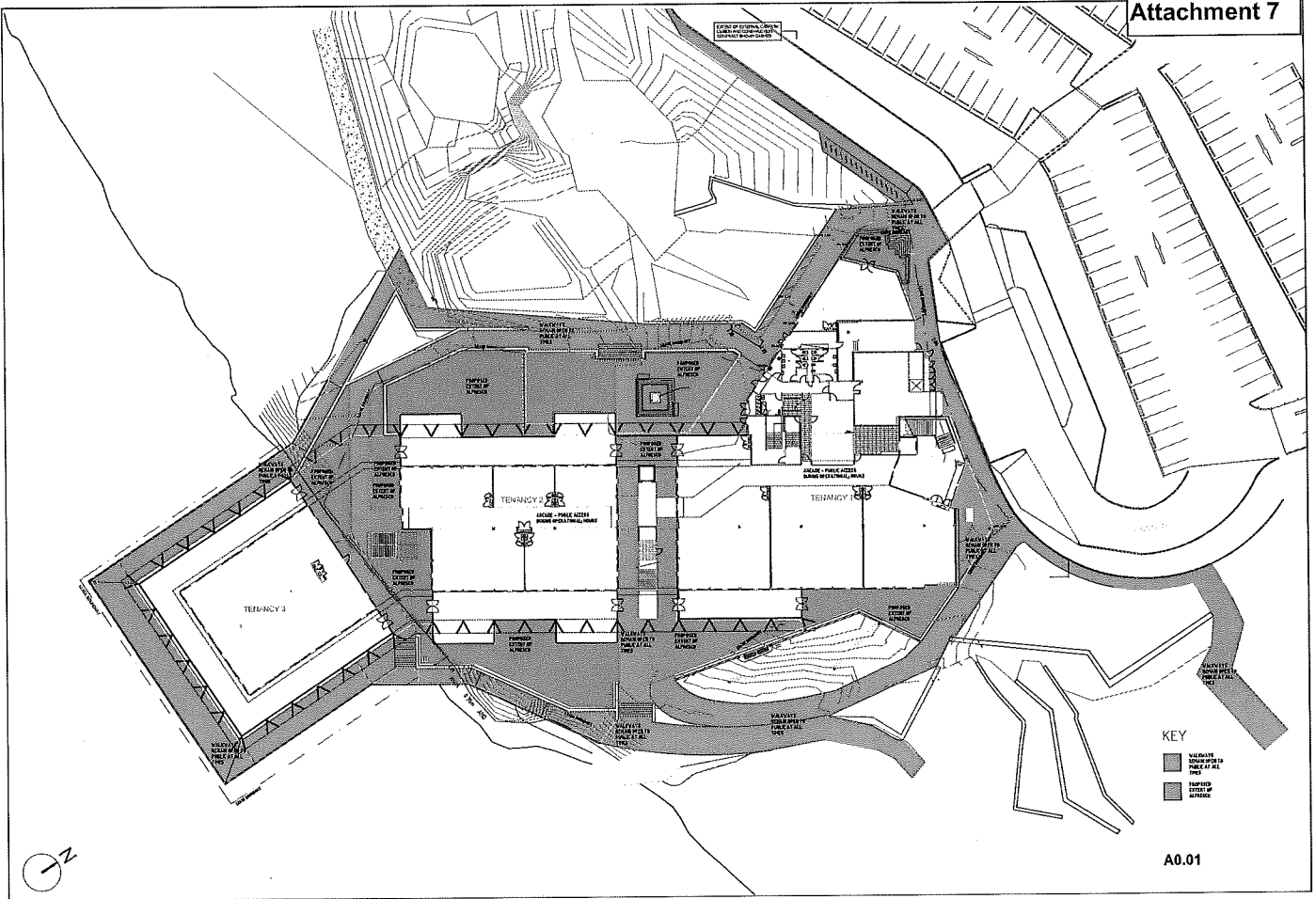
PREPARED BY  
 CARTOGRAPHIC SERVICES  
 1 ESSEX STREET FREMANTLE

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



Drawn by: P Elnam  
 Date: 6 September 2012

Examined by Coordinator Cartography:  
 R Talbot-Smith *R. Daws (acting)*  
 Date: *6th September 2012*



KEY  
[Hatched Box] STRUCTURAL WALLS AND COLUMNS  
[Hatched Box] CONCRETE FLOORING

A0.01