Gladstone Ports Corporation
*Growth, Prosperity, Community.*

GPC Document No. 1522942
GPC Ref: DA2018/10
Your Ref.:

4 November 2019

Pacific Marine Base Bundaberg Pty Ltd
c/- Jim Lawley
Pacific Tug (Aust) Pty Ltd
PO Box 5245
VICTORIA POINT QLD 4165

Email: JimL@pacifictug.com

Dear Mr Lawley

## DECISION NOTICE – APPROVAL WITH CONDITIONS – DA2018/10

**(GIVEN UNDER S63 PLANNING ACT 2016 AND THE PROVISIONS OF GLADSTONE PORTS CORPORATION LAND USE PLAN 2012)**

### 1. Application Details

This development application was **properly made** to the Gladstone Ports Corporation Limited on **29 January 2019**.

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| Application Number: | **DA2018/10** |
| Applicant Name: | **Pacific Marine Base Bundaberg Pty Ltd** |
| Applicant Contact Details: | **Jim Lawley**<br>**Pacific Tug (Aust) Pty Ltd**<br>**PO Box 5245**<br>**8/119 Colbum Avenue**<br>**VICTORIA POINT QLD 4165**<br>**Email:** JimL@pacifictug.com |
| Approvals Sought: | **Material Change of Use & Operational Works for:**<br>• **Marine industry base on Strategic Port Land**<br>• **Environmentally Relevant Activities 16 & 49**<br>• **Tidal works that is dredging, reclamation and construction of sheet pile wharf, dock, additional piles, stormwater outfall and navigational aids**<br><br>**Operational Works for:**<br>• **Disposal of dredged material on Strategic Port Land** |

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| Details of Proposed Development: | **Marine Industry Base – dredging berth pocket and dock, reclamation and new land-backed wharf, loading and unloading vessels, vessel repair and maintenance.** |
| Location Street Address: | **Buss Street<br>BURNETT HEADS QLD 4680** |
| Location Real Property Description: | **Lease AU on SP305678 in Lot 501 on SP279707<br>Lots 5 & 6 on RP7193, Lot 6 on SP166192<br>Lease AW on SP305678 in Lot 287 on SP166199 and<br>Unallocated state land adjacent to Lot 287 on SP166199** |
| Land Owner: | **Gladstone Ports Corporation Limited and<br>Department of Natural Resources, Mines and Energy** |
| Present Zoning & Precinct | **Strategic Port Land and Strategic Port Land tidal area –<br>Port Industry Precinct<br>Terminals/Wharves Precinct and<br>Investigation Area Precinct** |

## 2. Details Of Proposed Development

The development includes:

Commercial Vessel Wharf (land backed) – loading and unloading vessels with general and break bulk cargo, tidal works for capital and maintenance dredging of berth pocket and approach, tidal works for reclamation, sheet piled wharf and stormwater outfall; disposal of dredged material, office building, access road, parking and manoeuvring areas and associated services.

Ship Repair and Maintenance Facility – vessel cleaning, maintenance and repairs, tidal works for capital and maintenance dredging of dock, tidal works for sheet and tubular piled dock, guide pile; disposal of dredged material, ship-lift, maintenance and repair facility including blasting and painting sheds, support services hub and superintendent office building, parking and manoeuvring areas and associated services.

The development excludes:

- the storage and handling of bulk materials and bulk minerals as defined in the *Environmental Protection Regulation 2008*;
- Excavating and removing from the lease area 5,000t or more of material per annum;
- In-water hull cleaning of vessels; and
- Receiving passenger vessels for disembarkation of passengers.

## 3. Details Of Decision

This development application was **decided** on **4 November 2019.**

This development application is **approved in full with conditions**. These conditions are set out in Attachment 1 and are clearly identified to indicate whether the assessment manager or a concurrence agency imposed them.

## 4. Details Of Approval

This development approval is a **Development Permit** given for:

**Material Change of Use and Operational Works**

a) Assessable development on Strategic Port Land and Strategic Port Land tidal area – *Planning Regulation 2017* reference: Schedule 10, part 13 - Ports, division 5, subdivision 2, Table 1:
   - Material Change of Use and Operational Works for a marine industry base, environmentally relevant activities and tidal works; and
   - Operational works for disposal of dredged material.

b) Environmentally relevant activities – Planning Regulation 2017 reference: Schedule 10, part 5, division 4, table 1, item 1 – devolved ERA's:
   - ERA 49 – Boat maintenance or repair; and

c) Environmentally relevant activities – Planning Regulation 2017 reference: Schedule 10, part 5, division 4, table 2, item 1 – non-devolved ERA's:
   - ERA 16 (1)(c) – Extractive and screening activities – dredging in a year more than 100,000t but not more than 1,000,000t; and

d) Operational Works that is Tidal Works or work in a coastal management district – *Planning Regulation 2017* reference:
   - Schedule 10, part 17 – division 3, Table 1, Item 1 – capital dredging berth pocket, approach and dock, reclamation, sheet piled wharf, sheet and tubular piled dock, guide.pile, navigation aid and stormwater outfall; and
   - Schedule 10, part 17 - division 3, Table 2, Item 1 – capital dredging berth pocket, approach and dock, reclamation, sheet piled wharf, sheet and tubular piled dock, guide pile, navigation aid and stormwater outfall.

## 5. Conditions

This development approval is subject to the conditions in Attachment 1 - Part 1 and Part 2.

## 6. Further Development Permits

Please be advised that the following development permits are required to be obtained before the development can be carried out:

1. Allocation of Quarry Material under the *Coastal Protection and Management Act 1995* from Department of Environment and Science – required for removing quarry material from tidal water where the land is state coastal land (unallocated state land);
2. Permit to Remove Quarry Material under the *Forestry Act 1959* from Department of Agriculture and Fisheries – required for removing quarry material from state land under lease.
3. Operational works for sewerage and water services under the Bundaberg Regional Council Planning Scheme.
4. Council approval for road works to accommodate B-Double truck movements and dredge pipe road crossing under the Bundaberg Regional Council Planning Scheme.

## 7. Properly made submissions

Not applicable – No part of the application required public notification.

## 8. Referral Agencies for the Application

The referral agencies for this application are:

| For an application involving | Name of referral agency | Agency | Address |
|---|---|---|---|
| Operational Works that is Tidal Works or Works in a Coastal Management District – dredging, reclamation, dock, piling, stormwater outfall<br><br>Material Change of Use for Environmentally Relevant Activities ERA 16(1)(c), 49 | Department of State Development, Manufacturing, Infrastructure and Planning | Concurrence | Wide Bay Burnett State Assessment Referral Agency (SARA)<br>PO Box 979<br>Bundaberg Qld 4670<br>WBBSARA@dsdmip.qld.gov.au |

## 9. Approved Plans and Specifications –

Copies of the following plans, specifications or drawings are enclosed in **Attachment 2**:

| Drawing/report title | Prepared by | Date | Reference no. | Version |
|---|---|---|---|---|
| **Aspect of development: Material Change of Use and Operational Work for marine industry base – assessable development on Strategic Port Land and Strategic Port Land tidal area** | | | | |
| Drawing index and locality plan | GHD | 09/11/2018 | 41-31423-G001 | Rev D |
| General notes | GHD | 09/11/2018 | 41-31423-C001 | Rev D |
| General layout plan | GHD | 09/11/2018 | 41-31423-C200 | Rev D |
| Staging plans | GHD | 09/11/2018 | 41-31423-C201 | Rev C |
| Turning paths and ship lift section | GHD | 09/11/2018 | 41-31423-C210 | Rev D |
| Pavement plan | GHD | 09/11/2018 | 41-31423-C310 | Rev D |
| Pavement details | GHD | 09/11/2018 | 41-31423-C311 | Rev D |
| Earthworks plan | GHD | 09/11/2018 | 41-31423-C315 | Rev D |
| Site sections – sheet 1 of 2 | GHD | 09/11/2018 | 41-31423-C320 | Rev D |
| Site sections – sheet 2 of 2 | GHD | 09/11/2018 | 41-31423-C321 | Rev D |
| Stormwater and catchment layout plan | GHD | 09/11/2018 | 41-31423-C400 | Rev D |
| Master services – layout plan | GHD | 09/11/2018 | 41-31423-C500 | Rev D |
| Electrical site reticulation – layout plan | GHD | 09/11/2018 | 41-31423-E100 | Rev D |
| Communications site reticulation – layout plan | GHD | 09/11/2018 | 41-31423-E200 | Rev D |
| Washbay layout – hydraulic services | GHD | 09/11/2018 | 41-31423-H100 | Rev D |
| Maritime notes | GHD | 09/11/2018 | 41-31423-K000 | Rev B |
| Maritime layout | GHD | 09/11/2018 | 41-31423-K001 | Rev D |
| Dredging plan | GHD | 09/11/2018 | 41-31423-K010 | Rev D |
| Dredging typical section and volumes | GHD | 09/11/2018 | 41-31423-K020 | Rev A |

| Drawing/report title | Prepared by | Date | Reference no. | Version |
|---|---|---|---|---|
| Dredging sections sheet 1 of 2 | GHD | 09/11/2018 | 41-31423-K030 | Rev A |
| Dredging sections sheet 2 of 2 | GHD | 09/11/2018 | 41-31423-K035 | Rev A |
| Dredging/reclamation plan | GHD | 09/11/2018 | 41-31423-K050 | Rev A |
| Quaywall plan and longitudinal section | GHD | 09/11/2018 | 41-31423-K100 | Rev D |
| Quaywall sections and details | GHD | 09/11/2018 | 41-31423-K101 | Rev D |
| Ship lift plan and sections | GHD | 09/11/2018 | 41-31423-K200 | Rev D |
| Landscape concept plan – planting plan | LAUD ink | Nov 2018 | 41-31423-L001 | Rev D |
| Landscape concept plan – planting plan | LAUD ink | Nov 2018 | 41-31423-L002 | Rev C |

## 10. Currency Period for the Approval

This development approval will lapse at the end of the periods set out below:

- For Material Change of Use this approval lapses 6 years after this approval decision date – reference section 85 of the *Planning Act 2016.*
- For Operational Works approvals, the approval lapses 2 years after this approval decision date – reference section 85 of the *Planning Act 2016.*

## 11. Rights of Appeal

The rights of applicants to appeal to a tribunal or the Planning and Environment Court against decisions about a development application are set out in chapter 6, part 1 of the *Planning Act 2016.* For particular applications, there may also be a right to make an application for a declaration by a tribunal (see chapter 6, part 2 of the *Planning Act 2016*). **Attachment 3** is an extract from the *Planning Act 2016* that sets down the applicant's appeal rights and the appeal rights of a submitter.

For further information please contact Judy Horsfall, Planning Officer on 07 4976 1314 or via email horsfallj@gpcl.com.au.

Yours sincerely

**Anthea Bennett**
**Acting Manager Planning and Development**
4 November 2019

Cc: Bundaberg Regional Council
Wide Bay Burnett SARA

Enc. Attachment 1: Conditions of Approval
Part 1 – Conditions imposed by the assessment manager
Part 2 – Conditions required by the referral agency response
a) Department of State Development, Manufacturing, Infrastructure and Planning, 1 November 2019

Attachment 2: Approved plans and specifications

Attachment 3: Extract of appeal provisions

# ATTACHMENT 1: CONDITIONS OF APPROVAL

## PART 1: ASSESSMENT MANAGER CONDITIONS

In general the development proposal is in compliance with the requirements of Gladstone Ports Corporation Limited (GPC). This development approval is subject to each of the following conditions which are stated by Gladstone Ports Corporation Limited, the assessment manager.

### Part 1a: Approval sought under *Planning Act 2016* – Material Change of Use and Operational Works for assessable development on Strategic Port Land

#### GENERAL

1. The proposed development must be carried out generally in accordance with the plans as lodged with the application except where modified by conditions of this permit. The proponent must obtain a development or change approval for any proposed development, temporary or permanent that is inconsistent with the approved plans, prior to such works commencing.
2. Unless otherwise stated, all conditions must be completed prior to the commencement of the use.
3. Where additional "approval" is required under these conditions by GPC for drawings or documentation the proponent must submit for review, amend to the satisfaction of and obtain written acceptance from GPC. Only in this manner can compliance with the condition be achieved.

   Furthermore, GPC will require no less than 20 business days, unless otherwise conditioned by GPC, to initially assess the drawings or documentation provided prior to the initiation of works. Should further information be required to be provided for assessment, GPC will require a further 5 business days to complete the information request response.
4. All other relevant regulatory approvals must be obtained before commencement of works or operation of the facility e.g. building approval under the Building Act 1975 or plumbing and drainage work approval when required.
5. The proponent must inform GPC of completion of works within 14 days of practical completion of each stage or new phase of works and undertake a site inspection with GPC. The proponent must also certify that the development is constructed as per design and that the development has been constructed generally in accordance with the approved plans i.e. RPEQ certification for all civil works and tidal works and the appropriate certification for all building and plumbing works.
6. The proponent must at its cost and expense, keep and maintain the subject area, including existing services, in a state that is satisfactory to the Port.

#### ENGINEERING & PLANNING

7. Prior to commencing works for each stage or any new phase of development, the proponent must submit to GPC for approval the final 100% design 'for construction' drawings, including but not limited to:
   (a) Earthworks (excavation and filling) including batters and final levels on site and surrounds;
   (b) Stormwater infrastructure (for management of onsite and offsite / around site stormwater) and stormwater outfall;
   (c) Stormwater and boat maintenance and washbay waste water treatment, recycling, disposal or discharge infrastructure;
   (d) Pavement;

(e) Utilities e.g. electricity and telecommunications;
(f) Outdoor lighting
(g) Potable water and sewerage infrastructure;
(h) Fencing;
(i) Buildings and other structures e.g. blasting and painting sheds, signage etc;
(j) Waste storage areas and chemical and fuel storage areas; and
(k) Temporary outdoor repair and maintenance areas including treatment and controls for air emissions, land contamination and stormwater and wastewater discharges, including vessel encapsulation.

8. Prior to commencing works for each stage or any new phase of development, the proponent must submit to GPC for approval the final 100% design RPEQ certified 'for construction' drawings for tidal works, including but not limited to:

   (a) Berth pocket and access channel;
   (b) Reclamation;
   (c) Wharf;
   (d) Sheet piling;
   (e) Piles;
   (f) Dock;
   (g) Stormwater outfall; and
   (h) any other tidal infrastructure within the project.

9. Prior to disposing of any excavated fill material from the proponent's lease area to any external site, the proponent must:

   (a) obtain written approval from GPC should the disposal be proposed elsewhere on GPC land;
   (b) submit to GPC for approval a Traffic Management Plan; and
   (c) obtain any other regulatory approvals necessary to carry out the works.

10. The operational works that is the tidal works component of the activity that involves the shorefront development must achieve completion within 3 years of the date this development application was decided.

11. Any material which is deposited or any debris which falls or is deposited on tidal lands or into tidal waters during the construction of the development will be removed by the proponent with the cost borne by PMBB. Upon completion of the development, the proponent will provide a clearance survey of the development area to GPC as certification that the seabed is clear of any material or debris.

12. If, as a result of removal of material, or other cause attributable to the proponent any bank or structure outside the approved work area is displaced, the proponent at its cost and expense shall restore the bank or structure to its former condition and take such other action as is necessary to ensure the stability of the bank or structure to the satisfaction of the Regional Harbour Master.

13. Upon completion of the works the proponent must supply GPC with RPEQ certified 'As Constructed' plans in hard copy (2 of) which illustrate all infrastructure and services installed on and adjacent to Port land associated with the activity. The RPEQ certified drawings are to also be supplied in electronic (CAD format).

14. The proponent is to supply GPC with a copy of certification of all building and plumbing and drainage works upon completion of works.

15. During all stages and phases of construction and operations all stormwater within the lease area or that stormwater that used to travel across the lease area is to be captured or diverted and discharged via a GPC approved stormwater outfall to the Burnett River. During construction and operations stormwater infrastructure is to be sufficient to prevent pondage adjacent to or beyond Buss Street.

16. Air emissions, including blasting grit dust and paint overspray generated during operations, should not adversely impact other port users, their operations or

products/cargos and should not extend beyond the lease area boundary. Air emissions must be continually reviewed during operations and will be revised as required in response to negative impacts as they arise.

17. The proponent is to notify GPC of damage caused to any port infrastructure or services e.g. roads, water mains etc. as a result of this activity. The proponent may undertake the repairs directly in consultation with GPC and Bundaberg Regional Council, however, depending upon the nature and location of the damage, GPC retains the right to undertake the repairs at the expense of the proponent.

**Roads, Parking and Access**

18. Provide to the satisfaction of Bundaberg Regional Council, road widening and infill works at the Buss Street roundabout to accommodate the B-Double truck movements. The works may be inclusive of, but not limited to, the provision of:
    (a) reinforced concrete and pavement within the central island; and
    (b) widening of the south eastern kerb and channel (right-turn out of the premises – southbound to ensure that the B-Doubles can turn into Buss Street without crossing the centreline of the street.

19. The proponent must consult with Bundaberg Regional Council regarding any proposed works within council road reserves for the purposes of dredged material disposal e.g. pipeline crossing and obtain any council approvals necessary prior to works commencing (see advice in Part 1b).

20. All vehicle parking must be accommodated within the lease area during construction and operations. No trucks are to queue offsite within the road reserve or elsewhere on vacant land.

21. Prior to commencing operations that involves B-double vehicles, the proponent must submit to GPC for approval a Traffic Management Plan.

**Utilities**

22. Sanitary Drainage and water supply must be provided to the satisfaction of the Bundaberg Regional Council and generally in accordance with GHD plan number 41-31423-C500 Rev D and H100 Rev D. Works must include, but not limited to, the following:
    (a) the low pressure system (LPS), contained within the lease area, must be maintained and operated by the Lessee at all times;
    (b) the LPS must connect to the pressure main via a Boundary connection Assembly – which is inclusive of two isolation valves pup out tee and non-return valve;
    (c) the two manholes immediately downstream of the LPS pressure main must be lined;
    (d) the first sewerage manhole upstream of the connection to Council's sewerage network must be provided with a property connection point (type A);
    (e) connections to the existing water and sewage mains must be undertaken by Council and provided at no cost to Council.

23. Connection to Bundaberg Regional Council's water and sewer infrastructure is to be installed by Bundaberg Regional Council with the cost borne by Pacific Marine Base Bundaberg (PMBB).

24. GPC's potable water main located along Wharf Drive is to be terminated at the southern boundary of lease AU on SP305678 in Lot 501 on SP279707 to the satisfaction of GPC with the cost borne by PMBB. A new potable water main from the Council's water main on Buss Street to lease AA on SP225499 in Lot 501 on SP279707 (145 Buss Street) is to be provided to the satisfaction of GPC with the cost borne by PMBB.

25. If the development requires the relocation of telecommunications located along Wharf Drive to Buss Street, PMBB will bear the cost of service relocation. Procurement of the relocation services will be managed by PMBB in consultation with asset owners and affected users and the relocation plan will be submitted to GPC for approval prior to works commencing.

**Outdoor Lighting**

26. Any site lighting used during construction or operations should not impact on the visibility of Navigational Aids utilised for the primary shipping channels nor illuminate a landward glare beyond the site boundary. Lighting must be continually reviewed during construction and operations with respect to navigation and will be revised as required in response to negative impacts as they arise.

27. Any site lighting used during construction or operations should not impact on sensitive land uses e.g. residences, or sensitive receptors including environmental values e.g. turtles. Lighting must be periodically reviewed during construction and operations with respect to sensitive land uses and receptors and will be revised as required in response to negative impacts as they arise.

**Street Identification and Signage**

28. The street address of the development must be clearly visible and discernible from the primary frontage of the site by the provision of a street name and, where appropriate, the building/business name.

29. The proponent must provide details of all proposed signage associated with the development, including signs on buildings, fences and posts, to GPC for approval prior to procurement of the relevant sign. It is the responsibility of the proponent to determine whether building approval is required for any proposed signs and obtain necessary approval.

**Landscaping**

30. Landscaping is to be carried out and maintained in accordance with approved plans. The proponent must maintain the property frontage in a clean and tidy manner, and mow any grassed areas regularly.

**Dredging and Dredge Material Disposal**

31. At least 3 months prior to commencing a dredging campaign, the proponent must obtain GPC's approval to use the Materials Relocation Area (MRA). The proponent must provide the following information in their application:

    (a) Volume of dredged material to be disposed within the MRA;

    (b) Schedule and timeframe of the proposed works; and

    (c) Sediment sampling and analysis report prepared in accordance with National Guidelines for Dredging (Commonwealth of Australia 2009) and National Environment Protection (Assessment of Site Contamination) Measure (NEPC 1999) for all areas to be dredged (including the dock) which is to be disposed of in the MRA.

32. The proponent must submit to GPC for approval a Dredge Management Plan (DMP) at least 30 business days prior to the commencement of each capital and maintenance dredging campaign. When the dredge material is being placed within GPC's MRA, the DMP must be consistent with GPC's MRA Strategy and Layout Plan and must include but is not limited to:

    (a) a dredge campaign program and schedule based upon the requirement of one

user of the MRA at a time;

(b) for capital and maintenance dredging, a sediment sampling and analysis report:

- prepared in accordance with National Guidelines for Dredging (Commonwealth of Australia 2009) and National Environment Protection (Assessment of Site Contamination) Measure (NEPC 1999) which includes all areas of proposed dredging; and
- demonstrates the material is not contaminated and is suitable for disposal in the MRA.

(c) a plan, including layout plans and engineering drawings for dredge material disposal transfer, pump-out methodology, placement, containment and management including:
- infrastructure required inside the MRA such as bund walls, weir boxes etc.;
- transfer methodology e.g. pipeline or truck, route/road crossings; and
- maintenance of vehicle and pedestrian access e.g. along Buss Street;

(d) a capacity analysis for the proposed disposal area within the MRA based upon the requirements of a minimum freeboard to top of bund of 1m to be maintained at all times;

(e) an acid sulphate soil treatment and management plan that:
- is prepared by a suitably qualified person;
- provides methodology to be implemented for identifying acid sulphate soils placed by the proponent that requires treatment separately from any existing acid sulphate soils in the MRA;
- includes details of methodology of acid sulphate soil treatment, monitoring and verification of successful treatment; and
- certification that the acid sulphate soil placed in the MRA by the proponent has been treated to relevant criteria such that there is no risk of non-compliant pH or contaminant levels in future water discharges.

(f) a discharge monitoring and sampling plan for the MRA to demonstrate compliance with relevant discharge water quality criteria;

(g) proposed reporting requirements in the event of any non-compliance with approvals;

(h) a traffic management plan for excavated or dredged material that is to be transferred to the MRA via truck; and

(i) a description of environmental values and potential impacts and proposed control measures.

33. The proponent must consult with GPC's Port Strategy and Development Department during the preparation of the DMP prior to submitting the DMP to GPC for approval.

34. The dredging and dredge placement activities must be undertaken in accordance with the DMP required in condition 32.

35. The proponent must obtain any relevant regulatory approvals necessary to carry out maintenance dredging and disposal of dredged material.

36. Upon completion of the dredging campaign and within one month of the final lawful release of discharge waters (unless otherwise agreed in writing) the proponent must provide to GPC for approval a report that documents the activities that have been carried out during the dredging campaign including:

(a) Volume and type of material placed inside the disposal area within the MRA;
(b) Final levels of disposal area within the MRA;
(c) Acid sulphate soil treatment monitoring data and verification of completed successful treatment; and
(d) Water quality discharge monitoring data and verification of completion of

discharges.

**Construction Management**

37. The proponent or their contractor is required to apply for and obtain from GPC a Permit to Dig/Excavate for each stage of development prior to commencing excavation or digging for each stage by contacting the Port Infrastructure Asset Manager on 4976 1332 or bartono@gpcl.com.au.

38. In the event a construction compound is required on port land outside the project lease area for offices, laydown areas, employee car parking or stockpiling areas etc., the proponent or their contractor must obtain a Consent to Enter from GPC's Property Advisor via 07 4976 1334 or gibson@gpcl.com.au prior to works commencing.

39. Prior to each stage or new phase of construction works commencing on site, a Construction Traffic Management Plan (CTMP) specific to the construction works being undertaken must be submitted to GPC for approval. The CTMP must include peak traffic movement data for each stage or new phase of works. The CTMP must be amended as necessary for any proposed construction works and any amendments to the CEMP are to be submitted to GPC for approval.

40. The hours for the construction of the facility (i.e. operation of any machinery and/or other equipment other than a dredge) shall be restricted to between 7:00am and 6:00pm Monday to Saturday. No works shall be undertaken Sundays or on public holidays. Any variations to these times will be subject to the written approval of GPC. Dredging activities shall be unrestricted i.e. can take place 7 days a week 24 hours per day.

41. No mud, dirt or other debris is to be tracked onto public roads during construction activities.

**ENVIRONMENT**

**Construction Environmental Management Plan**

42. Prior to construction works commencing on site, a Construction Environmental Management Plan (CEMP) specific to the construction works must be submitted to GPC for approval. The CEMP must be regularly reviewed and amended as staged works progress.

    The construction works must be undertaken in accordance with the approved CEMP that ensures:

    (a) environmental risks are identified, managed and continually assessed and reviewed; and
    (b) that staff are trained and aware of their obligations under the CEMP; and
    (c) that reviews of environmental performance are undertaken at least annually; and
    (d) any amendments to the CEMP are to be submitted to GPC for review and approval.

**Operational Environmental Management Plan**

43. Prior to operational works commencing on site, an Operational Environmental Management Plan (OEMP) specific to all operational works must be submitted to GPC for approval. The OEMP must be regularly reviewed and amended as staged operations progress.

    The operational works must be undertaken in accordance with the approved OEMP that ensures:

    (a) environmental risks including the potential to cause environmental nuisance are

identified, managed and continually assessed; and
(b) that staff are trained and aware of their obligations under the OEMP; and
(c) that reviews of environmental performance are undertaken at least annually; and
(d) any amendments to the OEMP are to be submitted to GPC for review and approval.

**Marine Fuel and Oil Spill Management Plan**

44. Prior to operational works commencing on site, a Marine Fuel and Oil Spill Management Plan (MFOSMP) specific to spills in the marine environment must be submitted to GPC for approval. The MFOSMP must be regularly reviewed and amended as staged operations progress. The MFOSMP can be developed either as a standalone document or as a section of the OEMP.

    Spill prevention and response must be undertaken in accordance with the approved MFOSMP that ensures:

    (a) environmental spill risks are identified, managed and continually assessed; and
    (b) adequate spill response equipment is maintained on site; and
    (c) that staff are trained and aware of their obligations under the MFOSMP; and
    (d) that reviews of environmental performance are undertaken at least annually; and
    (e) any amendments to the MFOSMP are to be submitted to GPC for review and approval.

**Incident notification**

45. Gladstone Ports Corporation's Environment Hotline (07) 4976 1617 must be notified of the occurrence of:

    (a) release / spill of contaminants (e.g. fuels / chemicals / sewerage) greater than 250L to land; or
    (b) release / spill of contaminants (e.g. fuels / chemicals / sewerage) to water; or
    (c) any environmental complaints received by the holder of this approval; or
    (d) non-compliance with conditions of this approval or any other environmental approval obtained in relation to the approved activity.

46. When required by GPC, noise monitoring must be undertaken upon receipt of a complaint from a sensitive receptor to ensure that relevant acoustic quality objectives defined in the Environmental Protection (Noise) Policy 2019 are being achieved. The method of measurement of noise should be consistent with the latest edition of the Department of Environment and Science Noise Measurement Manual. The monitoring results must be provided to GPC.

## Part 1b: Advice

1. WS1: All sewerage and water services are to be in accordance with Bundaberg Regional Council's WEBBROC standard drawings and specifications.

2. GEN1: The mechanism to obtain permission to carry out works within the Road Reserve will be granted through FM-7-003 Application to carry out works in, on, over or under Bundaberg Regional Council owned and maintained property.

3. The operations of the facility are to be in accordance with the *Maritime Transport and Offshore Facilities Security Act 2003*. Any operations involving security regulated shipping will require obtaining an approved Maritime Security Plan.

4. Any construction activities that involve the excavation and removal from site of 5,000t or more of material per annum will trigger an approval for Environmentally Relevant Activity 16 (2b) e.g. in relation to site development earthworks, removal of existing revetment or dock excavation earthworks.

## PART 2: REFERRAL AGENCY CONDITIONS

**Referral Agency Name: Department of State Development, Manufacturing, Infrastructure and Planning**

RA6-N

Queensland Government

Department of
**State Development, Manufacturing, Infrastructure and Planning**

SARA reference: 1902-9672 SRA
Council reference: DA2018/10

1 November 2019

Chief Executive Officer
Port of Gladstone Ports Corporation Limited
PO Box 259
Gladstone Qld 4680
bennetta@gpcl.com.au

Attention: Anthea Bennett

Dear Anthea

# SARA response—Pacific Tug, Burnett Heads

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the Department of State Development, Manufacturing, Infrastructure and Planning on 5 March 2019.

## Response

| | |
|---|---|
| Outcome: | Referral agency response – with conditions |
| Date of response: | 1 November 2019 |
| Conditions: | The conditions in **Attachment 1** must be attached to any development approval |
| Advice: | Advice to the applicant is in **Attachment 2** |
| Reasons: | The reasons for the referral agency response are in **Attachment 3** |

## Development details

| | | |
|---|---|---|
| Description: | Development permit | Material change of use for Marine industry base on Strategic Port Land and Environmentally Relevant Activities 16 (dredging), 38 (surface coating) and 49 (boat maintenance or repair)<br>Operational work for tidal works for dredging |

DA Advisory Team (DAAT)
1 William Street, Brisbane QLD 4000
PO Box 15009, City East QLD 4002

| | |
|---|---|
| SARA role: | Referral Agency. |
| SARA trigger: | 10.17.3.1.1 – Tidal works (Planning Regulation 2017)<br>10.17.3.2.1 – Disposal of dredge spoil in tidal water (Planning Regulation 2017)<br>10.5.4.2.1 – Environmentally relevant activity (Planning Regulation 2017)<br>10.9.4.2.4.1– Development within 25m of a State Transport Road (Planning Regulation 2017) |
| SARA reference: | 1902-9672 SRA |
| Assessment Manager: | Port of Gladstone Ports Corporation Limited |
| Street address: | Buss Street, Burnett Heads; 45 Wharf Drive, Burnett Heads; Creevey Road, Burnett Heads; 15 Creevey Road, Burnett Heads |
| Real property description: | 287SP166199; 501SP279707; 5RP7193; 6RP7193; 6SP166192 |
| Applicant name: | Mr Jim Lawley |
| Applicant contact details: | PO Box 5245<br>Victoria Point QLD 4165<br>JimL@pacifictug.com |
| Environmental Authority: | This referral included an application for an environmental authority under section 115 of the *Environmental Protection Act 1994.* Below are the details of the decision:<br>• Approved<br>• Reference: EA0001988<br>• Effective date: 9 October 2019<br>• Prescribed environmentally relevant activity (ERA): ERA 49 – Boat maintenance or repair and ERA16 – Extraction and Screening.<br><br>If you are seeking further information on the environmental authority, the Department of Environment and Science's website includes a register. This can be found at: www.des.qld.gov.au<br><br>If you are seeking further details about the environmental authority, please contact the Department of Agricultural and Fisheries (DAF) at: livestockregulator@daf.qld.gov.au |

## Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules) Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Danielle Harris, Principal Planner, on 34527654 or via email DAAT@dsdmip.qld.gov.au who will be pleased to assist.

Yours sincerely

Kerry Doss
Deputy Director-General

cc Mr Jim Lawley - JimL@pacifictug.com
Anthea Bennett - BennettA@gpcl.com.au

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 – Change representation provisions
Attachment 5 - Approved plans and specifications

# Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at Attachment 5)

| No. | Conditions | Condition timing |
|---|---|---|
| **Material change of use** | | |
| The chief executive administering the *Planning Act 2016* nominates the Department of Environment and Science to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s): | | |
| 1. | The dredging must be undertaken generally in accordance with the following plans:<br>• Dredging Plan, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K010, Rev: D<br>• Dredging typical section and volumes, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K020, Rev: A<br>• Dredging sections sheet 1 of 2, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K030, Rev: A<br>• Dredging sections sheet 2 of 2, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K035, Rev: A. | For the duration of the dredging works |
| The chief executive administering the *Planning Act 2016* nominates the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition: | | |
| 2. | The development must be generally in accordance with Section 6 of the Traffic Impact Assessment, prepared by GHD, dated September 2018, Reference 4131423. | Prior to the commencement of use and to be maintained at all times |
| **Operational work – Prescribed tidal works** | | |
| The chief executive administering the *Planning Act 2016* nominates the Department of Environment and Science to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s): | | |
| 3. | The dredging and construction of the boat maintenance and repair facility must be undertaken generally in accordance with the following plans:<br>• General Layout Plan prepared by GHD dated 09.11.18, Drawing No: 41-31423-C200, Rev: D<br>• Maritime Layout, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K001, Rev: D<br>• Dredging Plan, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K010, Rev: D<br>• Dredging typical section and volumes, prepared by GHD, dated 09.11.18, Drawing No: 41-31423-K020, Rev: A<br>• Dredging sections sheet 1 of 2, prepared by GHD dated 09.11.18, Drawing No: 41-31423-K030, Rev: A<br>• Dredging sections sheet 2 of 2, prepared by GHD, dated | For the duration of the works |

| | | |
|---|---|---|
| | 09.11.18, Drawing No: 41-31423-K035, rev A. | |
| 4. | For the proposed works, only use clean materials and ensure that the works do not cause contamination. | For the duration of the works |
| 5. | Erosion and sediment control measures, which are in accordance with Best Practice Erosion and Sediment Control (BPESC) guidelines for Australia (International Erosion Control Association), are to be installed and maintained to prevent the release of sediment to tidal waters. | For the duration of the works |
| 6. | Should any erosion control structures or berth pocket infrastructure collapse, fail or otherwise suffer structural consequences which impact their integrity or ability to function as intended, the works must be:<br>a. reinstated in accordance with this development approval; or<br>b. removed and disposed of at an appropriately licensed facility. | As soon as reasonably practicable subsequent to the damage |
| 7. | a) Obtain RPEQ certification confirming that the tidal works, have been constructed in accordance with the current version of the Department's guideline '*Building and engineering standards for tidal works*'.<br>b) Submit a copy of the certification to palm@des.qld.gov.au or mailed to:<br>Department of Environment and Science<br>Permit and Licence Management<br>Implementation and Support Unit<br>GPO Box 2454<br>Brisbane Qld 4001 | Within two (2) weeks of the completion of the works |
| 8. | a) In the event that the works cause disturbance or oxidisation of acid sulfate soil, the affected soil must be treated and thereafter managed (until the affected soil has been neutralised or contained) in accordance with the current *Queensland Acid Sulfate Soil Technical Manual: Soil management guidelines*, prepared by the Department of Science, Information Technology, Innovation and the Arts, 2014.<br>b) Submit certification by a an appropriately qualified person, confirming that the affected soil has been neutralised or contained, in accordance with (a) above to palm@des.qld.gov.au or mailed to:<br>Department of Environment and Science<br>Permit and Licence Management<br>Implementation and Support Unit<br>GPO Box 2454<br>Brisbane Qld 4001<br>**Note: Appropriately qualified person** means a person or persons who has professional qualifications, training, skills and experience relevant to soil chemistry or acid sulfate soil management and can give authoritative assessment, advice and analysis in relation to acid sulfate soil management using the relevant protocols, standards, methods or literature. | (a) Upon disturbance or oxidisation until the affected soil has been neutralised or contained<br>(b) At the time the soils have been neutralised or contained |
| The chief executive administering the *Planning Act 2016* nominates the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition: | | |

| | | |
|---|---|---|
| 9. | The transportation of material between the dredging site and the reclamation site (identified on Lot 6 SP166192 and Lots 5 & 6 RP7193) uses the route generally as shown on the Dredging/Reclamation Plan, prepared by GHD, date 09.11.18, Drawing No: 41-31423-K050, Rev: A. | For the duration of works |
| 10. | a) Provide written notice the Regional Harbour Master (Gladstone) when the dredging authorised under this approval is scheduled to commence.<br>b) Provide written notice the Regional Harbour Master Gladstone when the dredging authorised under this approval has been completed.<br>Each notice must state this application number, the location and name of registered place and the condition number under which the notice is being given, and provided to Gladstone.rhm@msq.qld.gov.au. | (a) At least two (2) weeks prior to the commencement of Works<br>(b) Within two (2) weeks of the completion of works |
| 11. | a) Prepare a hydrographic survey by a licenced surveyor to an A Class standard, in accordance with Maritime Safety Queensland's *Standards for Hydrographic Surveys within Queensland Waters,* of the authorised dredge areas.<br>b) Submit a hydrographic survey to Regional Harbour Master (Brisbane) at Gladstone.rhm@msq.qld.gov.au. | Within two (2) weeks of the completion of the works |
| 12. | a) All vessels, structures, plant and equipment associated with the dredging of the approved works must be lit/marked such that undertaking the dredging works does not cause a risk to the safe navigation of ships.<br>b) Lighting provided must not obscure, disguise or otherwise interfere with the effectiveness of navigational lighting. | For the duration of the works |
| 13. | a) Prepare a Marine Execution Plan (MEP), which includes the following:<br>i. Forecasted start and end dates<br>ii. Hours of work<br>iii. General methodology overview<br>iv. Name of principal marine equipment involved<br>v. Extreme weather contingency plans<br>vi. 24/7 point of contact to ensure timely communication with<br>vii. Vessel Traffic Services during extreme weather and other<br>viii. maritime emergencies.<br>ix. Vessel traffic management plan to allow safe passage of<br>x. passing traffic<br>xi. Any other information to support the safe management of the<br>xii. marine works as identified by the applicant.<br>b) Provide a copy of the MEP to the Regional Harbour Master (Brisbane) at Gladstone.rhm@msq.qld.gov.au.<br>c) The works must be undertaken in accordance with the MEP required in part a) of this condition. | (a) Prior to commencement of works<br>(b) At least two (2) weeks prior to the commencement of works<br>(c) At all times |

# Attachment 2—Advice to the applicant

| General advice | |
|---|---|
| 1. | Terms and phrases used in this document are defined in the *Planning Act 2016* its regulation or the State Development Assessment Provisions (SDAP) v2.4. If a word remains undefined it has its ordinary meaning. |

# Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

**The reasons for the department's decision are:**

- To ensure the dredging and reclamation is carried out in the location and to the extent specified on the approved plan of development
- To ensure the proposed works can meet all relevant performance outcomes of the SDAP State Code 8: Coastal development and tidal works, State code 16: Environmentally relevant activities and State code 1: State controlled road.
- The works are for dredging and land reclamation. This is considered a coastal dependent development.

**Material used in the assessment of the application:**

- The development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- The *State Development Assessment Provisions* (version 2.4), as published by the department
- The Development Assessment Rules
- SARA DA Mapping system
- State Planning Policy mapping system

## Attachment 4—Change representation provisions

# Planning Act 2016 – Change representation provisions

The following provisions are the **change representation provisions** as defined in the Planning Act 2016, section 75.

# Chapter 3 Development Assessment

## Division 2 Changing development approvals

## Subdivision 1 Changes during appeal period

### 75 Making change representations

1) The applicant may make representations (***change representations***) to the assessment manager, during the applicant's appeal period for the development approval, about changing—
   (a) a matter in the development approval, other than—
      i. a matter stated because of a referral agency's response; or
      ii. a development condition imposed under a direction made by the Minister under chapter 3, part 6, division 2; or
   (b) if the development approval is a deemed approval—the standard conditions taken to be included in the deemed approval under section 64(8)(c).
2) If the applicant needs more time to make the change representations, the applicant may, during the applicant's appeal period for the approval, suspend the appeal period by a notice given to the assessment manager.
3) Only 1 notice may be given.
4) If a notice is given, the appeal period is suspended—
   (a) if the change representations are not made within a period of 20 business days after the notice is given to the assessment manager—until the end of that period; or
   (b) if the change representations are made within 20 business days after the notice is given to the assessment manager, until—
      i. the applicant withdraws the notice, by giving another notice to the assessment manager; or
      ii. the applicant receives notice that the assessment manager does not agree with the change representations; or
      iii. the end of 20 business days after the change representations are made, or a longer period agreed in writing between the applicant and the assessment manager.
5) (5) However, if the assessment manager gives the applicant a negotiated decision notice, the appeal period starts again on the day after the negotiated decision notice is given.

## 76 Deciding change representations

1) The assessment manager must assess the change representations against and having regard to the matters that must be considered when assessing a development application, to the extent those matters are relevant.
2) The assessment manager must, within 5 business days after deciding the change representations, give a decision notice to—
   (a) the applicant; and
   (b) if the assessment manager agrees with any of the change representations—
      i. each principal submitter; and
      ii. each referral agency; and
      iii. if the assessment manager is not a local government and the development is in a local government area—the relevant local government; and
      iv. if the assessment manager is a chosen assessment manager—the prescribed assessment manager; and
      v. another person prescribed by regulation.
3) A decision notice (***a negotiated decision notice***) that states the assessment manager agrees with a change representation must—
   (a) state the nature of the change agreed to; and
   (b) comply with section 63(2) and (3).
4) A negotiated decision notice replaces the decision notice for the development application.
5) Only 1 negotiated decision notice may be given.
6) If a negotiated decision notice is given to an applicant, a local government may give a replacement infrastructure charges notice to the applicant.

# Attachment 5—Approved plans and specifications

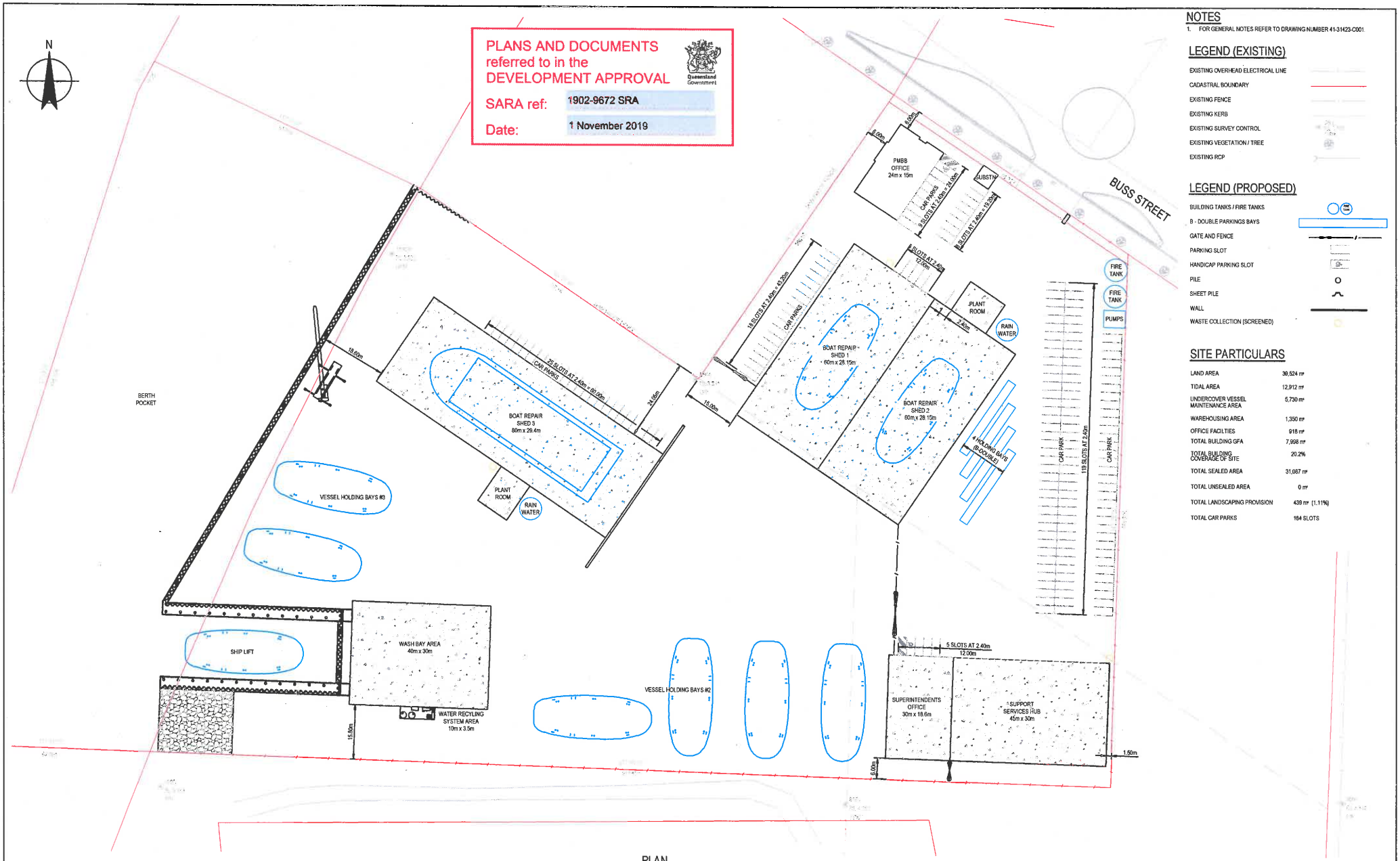
# Attachment 5—Approved plans and specifications

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019




## NOTES

1. FOR GENERAL NOTES REFER TO DRAWING NUMBER 41-31423-C001.

## LEGEND (EXISTING)

- EXISTING OVERHEAD ELECTRICAL LINE
- CADASTRAL BOUNDARY
- EXISTING FENCE
- EXISTING KERB
- EXISTING SURVEY CONTROL
- EXISTING VEGETATION / TREE
- EXISTING RCP

## LEGEND (PROPOSED)

- BUILDING TANKS / FIRE TANKS
- B - DOUBLE PARKINGS BAYS
- GATE AND FENCE
- PARKING SLOT
- HANDICAP PARKING SLOT
- PILE
- SHEET PILE
- WALL
- WASTE COLLECTION (SCREENED)

## SITE PARTICULARS

| | |
|---|---|
| LAND AREA | 39,524 m² |
| TIDAL AREA | 12,912 m² |
| UNDERCOVER VESSEL MAINTENANCE AREA | 5,730 m² |
| WAREHOUSING AREA | 1,350 m² |
| OFFICE FACILTIES | 918 m² |
| TOTAL BUILDING GFA | 7,998 m² |
| TOTAL BUILDING COVERAGE OF SITE | 20.2% |
| TOTAL SEALED AREA | 31,067 m² |
| TOTAL UNSEALED AREA | 0 m² |
| TOTAL LANDSCAPING PROVISION | 439 m² (1.11%) |
| TOTAL CAR PARKS | 164 SLOTS |

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

Pacific Marine Base — BUNDABERG — Ship Repair | Berthing | Project Support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Registered Professional: R.ORTIZ
Registration: GHD
Registration Discipline: CIVIL
Signature: R.ORTIZ* No. 13260 Date 02.08.18

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Drafting Check: *B. CHAN — Design Check: *O. ISSADEEN
Approved (Project Director): *C. GILL
Date: 03.07.18
Scale: AS SHOWN

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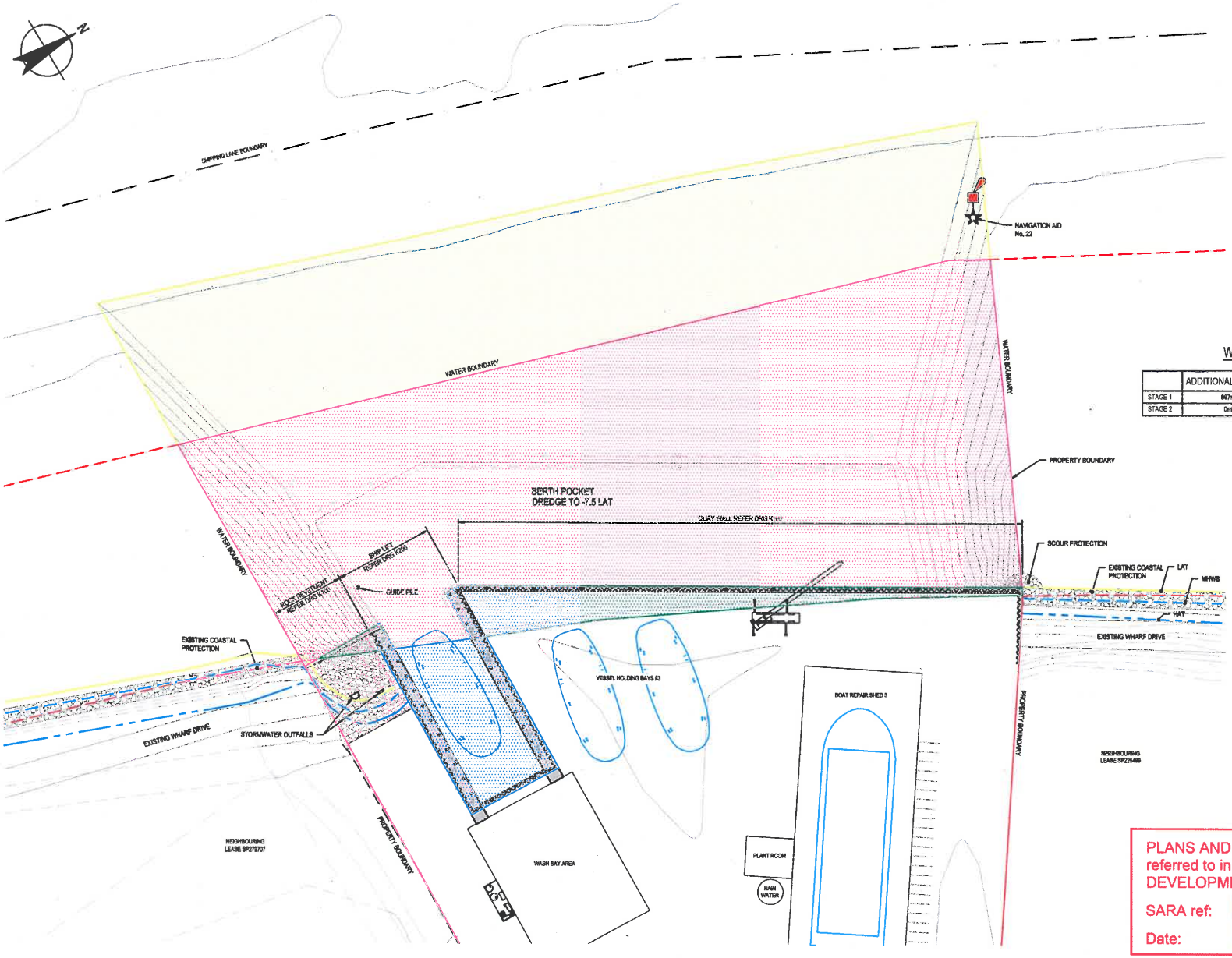
Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: GENERAL LAYOUT PLAN

Original Size: A1 — Drawing No: 41-31423-C200 — Rev: D

Plot Date: 8 November 2018 - 2:08 PM — Plotted by: Rene Ortiz Chivara — Cad File No: G:\41\31423\CADD\Drawings\41-31423-C200.dwg




## NOTES

1. FOR GENERAL AND CONSTRUCTION NOTES REFER TO DRAWING NUMBER 41-31423-K000.

## LEGEND

AREA 1: DREDGE AND OPERATION AREA FOR SUB-LEASE AW ON SP305678 IN LOT 287 ON SP305678 (WET AREA OWNED BY THE STATE AND LEASED BY GPC)

AREA 2: DREDGE AREA ON UNALLOCATED STATE LAND (USL) ASSOCIATED WITH SITE DEVELOPMENT

AREA 3: DREDGE AREA FOR LEASE AU ON SP305678 IN LOT 501 ON SP279707 (DRY AREA OWNED BY GPC)

AREA 4: RECLAMATION AREA FOR SUB-LEASE AW ON SP305678 IN LOT 287 ON SP305678 (WET AREA OWNED BY THE STATE AND LEASED BY GPC)

## WATER AREA BALANCE

| | ADDITIONAL RECLAIM | ADDITIONAL INTERTIDAL | NET |
|---|---|---|---|
| STAGE 1 | 867m² | 0m² | 867m² |
| STAGE 2 | 0m² | 42m² | 42m² |

## MARITIME LAYOUT

SCALE 1:500

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *S.V. | 30.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *R.O. | *S.V. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | B.V. | *R.O. | *S.V. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

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Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Designer B.GILES
Drafting Check *J.DE JESUS
Design Check *S.VIVIAN
Approved (Project Director) *C.GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

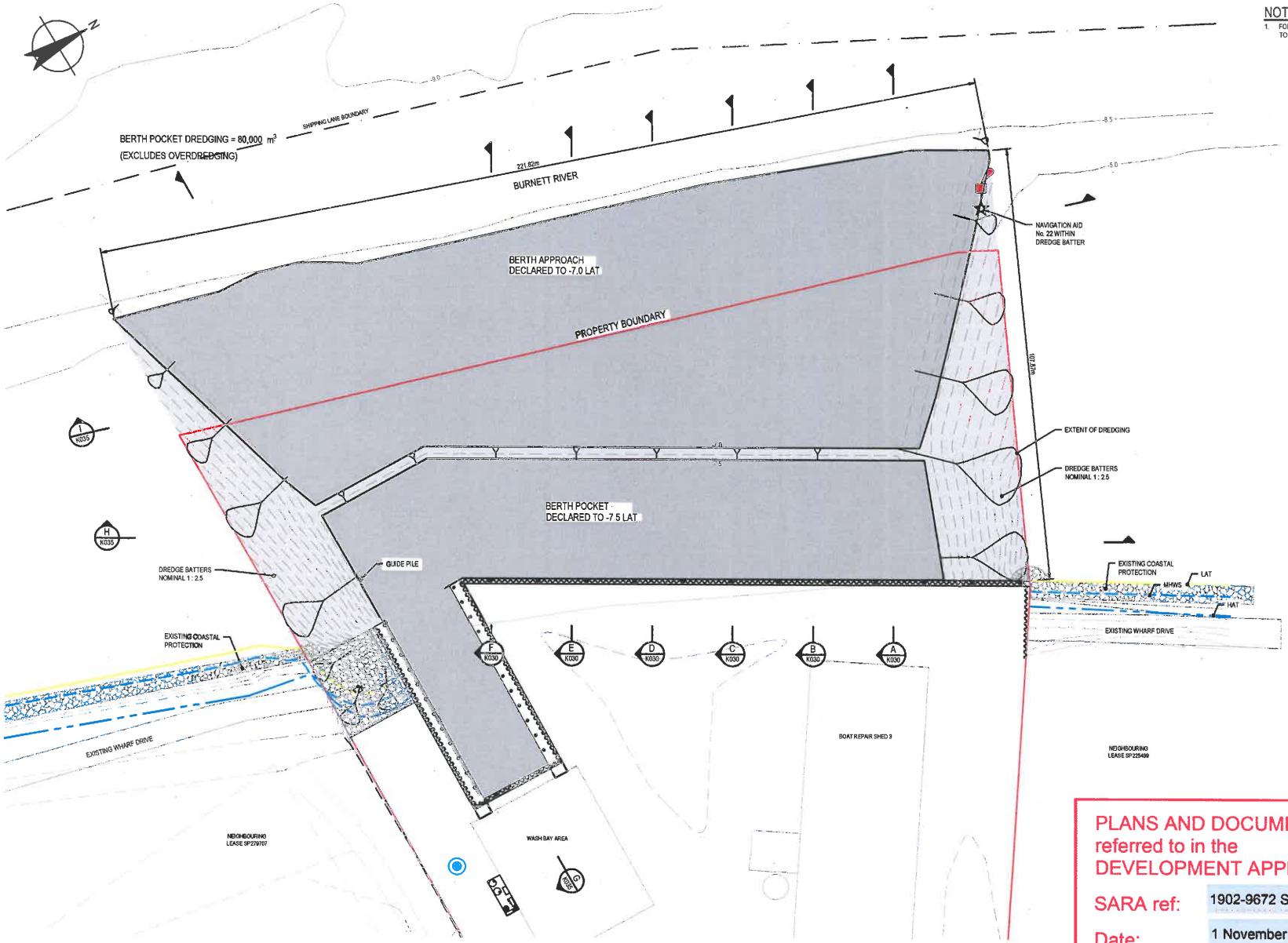
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title MARITIME LAYOUT

Original Size A1
Drawing No: 41-31423-K001
Rev: D

Plot Date: 8 November 2018 - 12:41 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K001.dwg

## NOTES

1. FOR LEGEND, GENERAL AND CONSTRUCTION NOTES REFER TO DRAWING NUMBER 41-31423-K000.




## DREDGING PLAN

SCALE 1:500

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 30.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *R.O. | *S.V. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | B.V. | *R.O. | *S.V. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

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Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Designer B. GAILES
Drafting Check *D.SIPPEL
Design Check *S. VIVIAN
Approved (Project Director) *C.GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING PLAN

Original Size A1 Drawing No: 41-31423-K010 Rev: D

Plot Date: 13 November 2018 - 2:30 PM Plotted by: Keone Bradley
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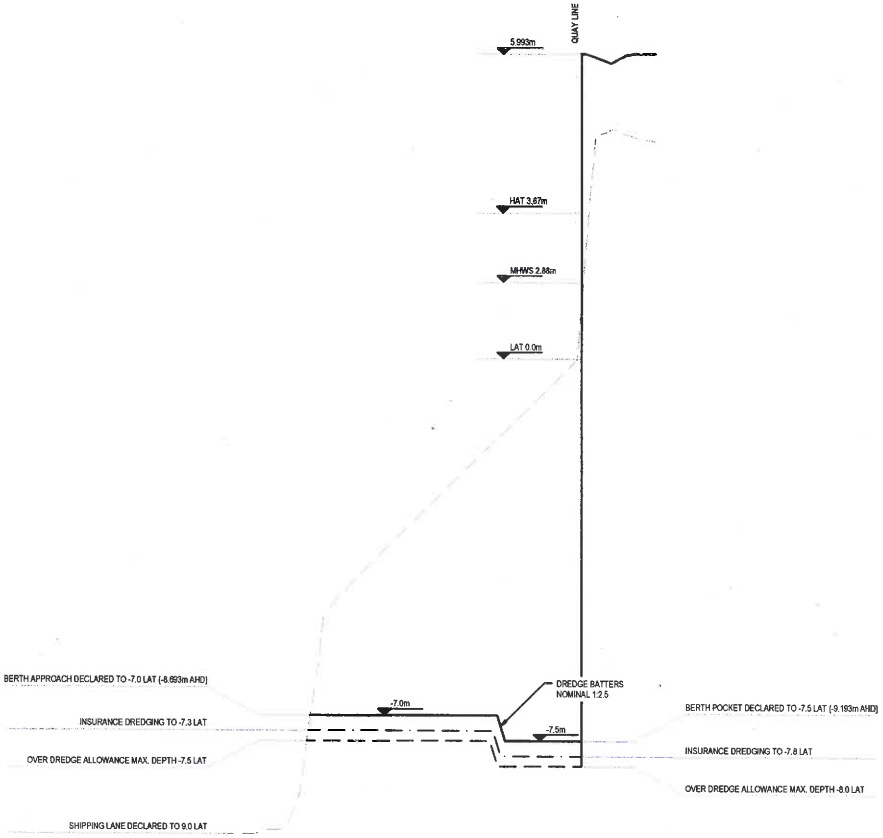


## DREDGING TYPICAL SECTION

SCALE H 1:1000 V 1:50

## DREDGING VOLUMES:

| AREA | DREDGE FROM SEABED TO INSURANCE DEPTH | | DREDGE BETWEEN INSURANCE AND OVER DREDGE ALLOWANCE | | TOTAL VOLUME REMOVED FOR DEVELOPMENT (m3) |
|---|---|---|---|---|---|
| | ALLOCATION REMOVED (%) | VOLUME (m3) | ALLOCATION REMOVED (%) | VOLUME (m3) | |
| AREA 1 | 100% | 54100 | 50% | 1300 | 55400 |
| AREA 2 | 100% | 17600 | 50% | 800 | 18400 |
| AREA 3 | 100% | 8300 | 50% | 100 | 8400 |
| TOTAL | | 80000 | | 2200 | 82200 |

- 50% OVER DREDGE BY VOLUME ALLOWANCE TO ACHIEVE INSURANCE DEPTH PROFILE.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

Pacific Marine Base BUNDABERG

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Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (Project Director) *C. GILL
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Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING TYPICAL SECTION AND VOLUMES

Original Size A1
Drawing No: 41-31423-K020
Rev: A

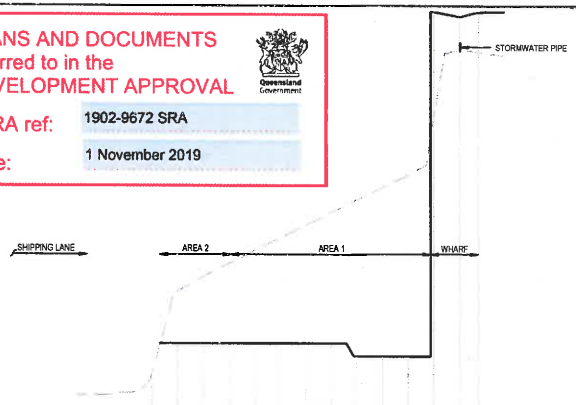
Plot Date: 13 November 2018 - 2:29 PM Plotted by: Keons Bradley
Cad File No: N:\AUBrisbane\Projects\41\31423\CADD\Drawings\Marines\41-31423-K020.dwg

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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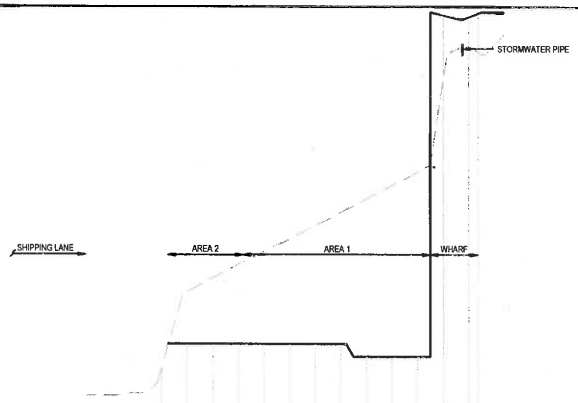
| SURVEY | | | | -9.855 | -9.604 | -9.059 | -8.536 | -8.043 | -4.549 | -4.055 | -3.562 | -3.068 | -2.574 | -2.077 | -2.077 | 0.120 | 2.801 | 2.708 | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 147.573 | | | | | | |

A SECTION
K010 SCALE H 1:1000 V 1:100

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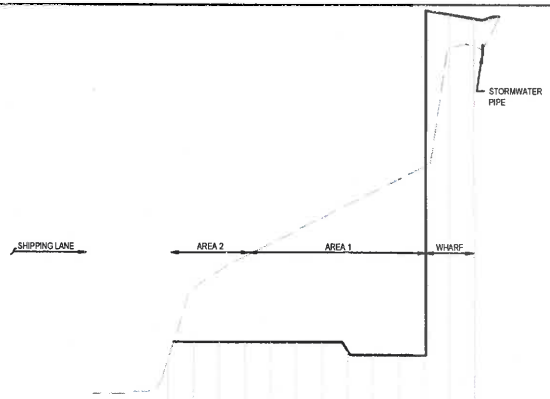
| DESIGN | | | | | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -9.193 | -9.193 | -9.193 | -4.178 | 4.113 | 4.257 | | | | | |
| SURVEY | | | | -9.579 | -9.604 | -9.080 | -5.561 | -5.068 | -4.564 | -4.041 | -3.516 | -2.995 | -2.474 | -1.952 | 1.679 | 2.926 | 2.761 | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 143.581 | | | | | | |

B SECTION
K010 SCALE H 1:1000 V 1:100

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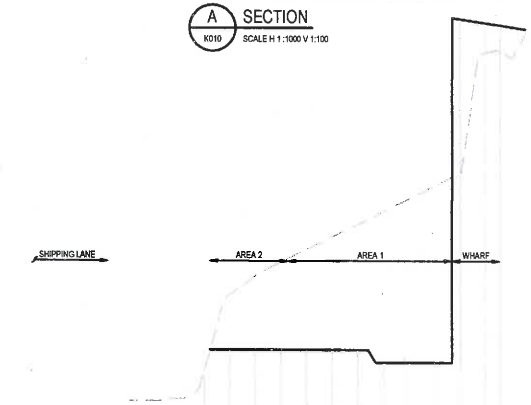
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -9.028 | -9.193 | -9.193 | -9.193 | 4.135 | 3.975 | | | | | | | |
| SURVEY | | | | -9.307 | -8.572 | -5.891 | -5.339 | -4.830 | -4.321 | -3.812 | -3.304 | -2.812 | -2.321 | -1.829 | 2.746 | 2.690 | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 139.598 | | | | | | | |

C SECTION
K010 SCALE H 1:1000 V 1:100

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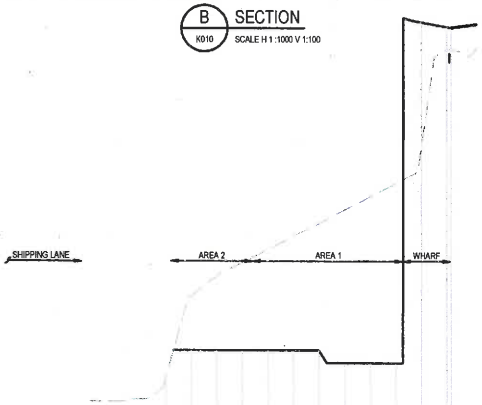
| DESIGN | | | | | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -9.193 | -9.193 | -9.193 | 4.254 | 4.103 | 4.018 | | | | | | | |
| SURVEY | | | | -9.485 | -6.530 | -5.752 | -5.233 | -4.735 | -4.238 | -3.740 | -3.242 | -2.745 | -2.236 | -1.713 | 2.970 | 3.000 | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 135.596 | | | | | | | |

D SECTION
K010 SCALE H 1:1000 V 1:100

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| SURVEY | | | -9.797 | -5.582 | -5.766 | -5.242 | -4.727 | -4.203 | -3.685 | -3.167 | -2.650 | -2.133 | | | 3.086 | 3.101 | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 131.603 | | | | | | | |

E SECTION
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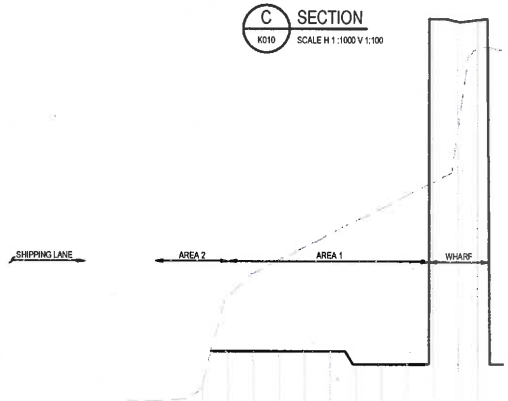


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| DESIGN | | | | | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -9.193 | -9.193 | -9.193 | 4.300 | | 4.205 | 4.256 | | | | | | |
| SURVEY | | | -10.075 | -6.581 | -5.660 | -5.146 | -4.637 | -4.126 | -3.615 | -3.104 | -2.593 | -2.082 | | 3.128 | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 127.611 | | | | | | | | |

F SECTION
K010 SCALE H 1:1000 V 1:100

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 08.11.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

Pacific Marine Base BUNDABERG


GHD
145 Ann St Brisbane QLD 4000 Australia
GPO Box 668 Brisbane QLD 4001
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E bnemail@ghd.com W www.ghd.com


Registered Professional B.GILES
Registration
GHD
Registration Discipline
MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Drawn B.VASTA
Designer B. GAILES
Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (Project Director) *C. GILL
Date 03.07.18
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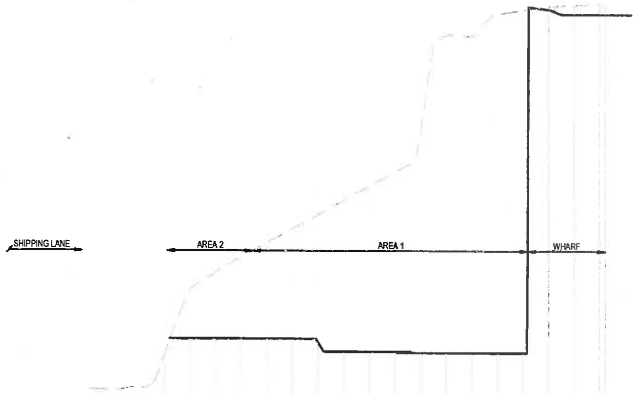
Client **PACIFIC MARINE BASE BUNDABERG PTY. LTD.**
Project **CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT**
Title **DREDGING SECTIONS SHEET 1 OF 2**

Original Size **A1**
**Drawing No: 41-31423-K030**
**Rev: A**

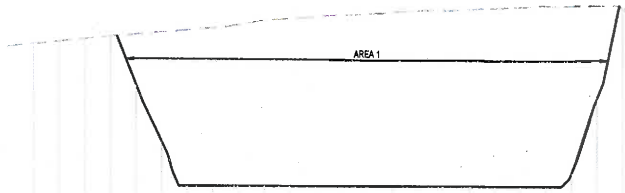
Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K030\035.dwg




DATUM RL -12.000

| CHAINAGE | SURVEY | DESIGN |
|---|---|---|
| 0 | | |
| 10 | | |
| 20 | | |
| 30 | -9.318 | |
| 40 | -6.754 | -8.693 |
| 50 | -6.078 | -8.693 |
| 60 | -5.450 | -8.693 |
| 70 | -4.894 | -8.693 |
| 80 | -4.343 | -8.693 |
| 90 | -3.792 | -8.621 |
| 100 | -3.241 | -9.193 |
| 110 | -2.690 | -9.193 |
| 120 | -2.139 | -9.193 |
| 130 | | -9.193 |
| 140 | 3.213 | -9.193 |
| 150 | 3.180 | -9.193 |
| 160 | 4.065 | -9.193 |
| 170 | 4.217 | -9.193 |
| 180 | 4.322 | 4.202 |
| 190 | 4.391 | 4.012 |
| 200 | 4.449 | 4.012 |
| 202.053 | 4.453 | 4.012 |

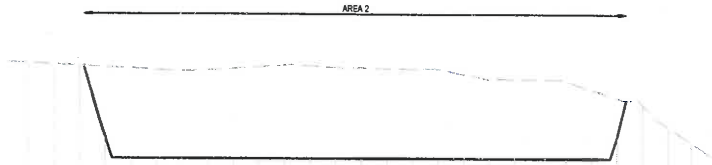
G K010 SECTION
SCALE H 1:1000 V 1:100




DATUM RL -11.000

| CHAINAGE | SURVEY | DESIGN |
|---|---|---|
| 0 | -3.610 | |
| 10 | -3.501 | |
| 20 | -3.393 | |
| 30 | -3.300 | |
| 40 | -3.212 | -5.225 |
| 50 | -3.124 | -7.451 |
| 60 | -3.061 | -9.193 |
| 70 | -2.975 | -9.193 |
| 80 | -2.846 | -9.193 |
| 90 | -2.672 | -9.193 |
| 100 | -2.597 | -9.193 |
| 110 | -2.528 | -9.193 |
| 120 | -2.445 | -9.193 |
| 130 | -2.403 | -9.193 |
| 140 | -2.338 | -9.193 |
| 150 | -2.282 | -9.193 |
| 160 | -2.256 | -9.193 |
| 170 | -2.228 | -9.193 |
| 180 | -2.180 | -9.193 |
| 190 | -2.140 | -9.193 |
| 200 | -2.096 | -9.193 |
| 210 | -2.099 | -8.677 |
| 220 | -2.092 | -5.699 |
| 230 | -2.170 | |
| 240 | | |
| 250 | | |
| 255.525 | | |

H K010 SECTION
SCALE H 1:1000 V 1:100




DATUM RL -10.000

| CHAINAGE | SURVEY | DESIGN |
|---|---|---|
| 0 | -5.146 | |
| 10 | -5.196 | |
| 20 | -5.246 | |
| 30 | -5.296 | -8.042 |
| 40 | -5.346 | -8.693 |
| 50 | -5.396 | -8.693 |
| 60 | -5.448 | -8.693 |
| 70 | -5.352 | -8.693 |
| 80 | -5.330 | -8.693 |
| 90 | -5.268 | -8.693 |
| 100 | -5.207 | -8.693 |
| 110 | -5.225 | -8.693 |
| 120 | -5.297 | -8.693 |
| 130 | -5.327 | -8.693 |
| 140 | -5.341 | -8.693 |
| 150 | -5.355 | -8.693 |
| 160 | -5.377 | -8.693 |
| 170 | -5.567 | -8.693 |
| 180 | -5.750 | -8.693 |
| 190 | -5.757 | -8.693 |
| 200 | -5.763 | -8.693 |
| 210 | -5.821 | -8.693 |
| 220 | -6.175 | -8.693 |
| 230 | -6.491 | -8.019 |
| 240 | -6.762 | |
| 250 | -7.631 | |
| 258.877 | -8.238 | |

I K010 SECTION
SCALE H 1:1000 V 1:100

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

Pacific Marine Base
Ship Repair | Bunkering | Project Support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E bnemail@ghd.com W www.ghd.com


Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Drawn B.VASTA
Designer B. GAILES
Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (Project Director) *C. GILL
Date 03.07.18
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Client **PACIFIC MARINE BASE BUNDABERG PTY. LTD.**
Project **CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT**
Title **DREDGING SECTIONS SHEET 2 OF 2**

Original Size **A1** Drawing No: **41-31423-K035** Rev: **A**

Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K030\D35.dwg

DREDGING/RECLAMATION PLAN

SCALE 1:5000

LEGEND:

PORT OF BUNDABERG MATERIAL RECLAMATION AREA (MRA)

DREDGE MATERIAL PIPELINE

DREDGE AREA

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

DEVELOPMENT APPROVAL ISSUE

| No | Revision Note: * indicates signatures on original issue of drawing or last revision of drawing | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | B.V. | *B.C. | *C.G. | 09.11.18 |

0 50 100 150 200 250m

SCALE 1:5000 AT ORIGINAL SIZE

Pacific Marine Base

BUNDABERG

Ship Repair | Dredging | Product Support

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E brsmail@ghd.com W www.ghd.com

Registered Professional B.GILES

Registration GHD

Registration Discipline MARINE

Signature *B.GILES No. 10749 Date 02.08.18

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Drawn B.VASTA

Designer B. GAILES

Drafting Check *D.SIPPEL

Design Check *S. VIVIAN

Approved (Project Director) *C.GILL

Date 03.07.18

Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.

Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT

Title DREDGING/RECLAMATION PLAN

Original Size A1

Drawing No: 41-31423-K050

Rev: A

Plot Date: 8 November 2018 - 12:42 PM Plotted By: Keegan Stewart

Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K050.dwg

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Queensland Government

SARA ref: 1902-9672 SRA

Date: 1 November 2019

# Pacific Marine Base Bundaberg Pty Ltd

## Marine Industry Development, Port of Bundaberg
## Traffic Impact Assessment

September 2018

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

# 6. Conclusions and recommendations

## 6.1 Summary of impacts and mitigation measures proposed

This assessment provided an analysis of the traffic impacts that the proposed Marine Industry Development, located at Buss Street, Bundaberg Port would have on the surrounding road network. This report assessed the Bundaberg Port Road link to Bargara Road, Buss Street/Marina Drive roundabout and the Bundaberg Port Road/Wharf Drive/Buss Street intersection.

The assessment indicates that the road network and intersections would not be significantly impacted in terms of capacity, operation or pavement impact by the proposed Marine Industry Development. The safety issues surrounding the B-Double swept paths have been identified. However, the development generates infrequent B-Double movements and planning exists for this corner to be improved.

The proposed development is shown to satisfy the requirements of the State Development Assessment Provisions (SDAP) for "Vehicle access to a State Controlled Road" and does not significantly worsen or unduly compromise the efficiency of the road network.

### 6.1.1 Buss Street/Marina Drive roundabout - site access

To accommodate this development, an additional leg on the Buss Street/Marina Drive roundabout is required to provide site access. This forth leg will allow for B-Double access and be constructed to a width of 18 m.

The proposed access is shown in Appendix A.

## 6.2 Traffic impact assessment RPEQ certification

***Traffic Impact Assessment for proposed Marine Industry Development at Lot 501 on SP279707, 45 Wharf Drive, Burnett Heads***

As a professional engineer registered by the Board of Professional Engineers of Queensland pursuant to the Professional Engineers Act 2002 as competent in my areas of nominated expertise, I understand and recognise:

- The significant role of engineering as a profession, and that
- The community has a legitimate expectation that my certification affixed to this engineering work can be trusted, and that
- I am responsible for ensuring its preparation has satisfied all necessary standards, conduct and contemporary practice.

As the responsible RPEQ, I certify:

i. I am satisfied that all submitted components comprising this traffic impact assessment, listed in the following table, have been completed in accordance with the Guide to Traffic Impact Assessment published by the Queensland Department of Transport and Main Roads and using sound engineering principles, and that

ii. Where specialised areas of work have not been under my direct supervision, I have reviewed the outcomes of the work and consider the work and its outcomes as suitable for the purposes of this traffic impact assessment, and that

iii. The outcomes of this traffic impact assessment are a true reflection of results of assessment, and that

iv. I believe the strategies recommended for mitigating impacts by this traffic impact assessment, embrace contemporary practice initiatives and will deliver the desired outcomes.

**Table 19 Certification details**

| Certification details: | | | |
|---|---|---|---|
| Name | Nicole Deighton, GHD Pty Ltd | RPEQ No. | 17754 |
| RPEQ Competencies: | Civil | | |
| Signature | NDeighton | Date | 07/09/2018 |
| Postal address | PO Box 712, Bundaberg Qld 4670 | | |
| Email | Nicole.Deighton@ghd.com | | |

### Table 20 Certification checklist

| Traffic impact assessment components to which this certification applies | ✓ |
|---|---|
| **1. Introduction** | |
| Background | ✓ |
| Scope and study area | ✓ |
| Pre-lodgement meeting notes | - |
| **2. Existing conditions** | |
| Land use and zoning | ✓ |
| Adjacent land uses/approvals | ✓ |
| Surrounding road network details | ✓ |
| Traffic volumes | ✓ |
| Intersection and network performance | ✓ |
| Road safety issues | ✓ |
| Site access | ✓ |
| Public transport (if applicable) | - |
| Active transport (if applicable) | - |
| Parking (if applicable) | - |
| Pavement (if applicable) | ✓ |
| Transport infrastructure (if applicable) | - |
| **3. Proposed development details** | |
| Development site plan | ✓ |
| Operational details (including year of opening of each stage and any relevant catchment/market analysis) | ✓ |
| Proposed access and parking | ✓ |
| **4. Development traffic** | |
| Traffic generation (by development stage if relevant and considering light and heavy vehicle trips) | ✓ |
| Trip distribution | ✓ |
| Development traffic volumes on the network | ✓ |
| **5. Impact assessment and mitigation** | |
| With and without development traffic volumes | ✓ |
| Construction traffic impact assessment and mitigation (if applicable) | - |
| Road safety impact assessment and mitigation | ✓ |
| Access and frontage impact assessment and mitigation | ✓ |
| Intersection delay impact assessment and mitigation | ✓ |
| Road link capacity assessment and mitigation | ✓ |
| Pavement impact assessment and mitigation | ✓ |
| Transport infrastructure impact assessment and mitigation | - |
| Other impact assessment relevant to the specific development type/location (if applicable) | - |
| **6. Conclusions and recommendations** | |
| Summary of impacts and mitigation measures proposed | ✓ |
| Certification statement and authorisation | ✓ |

# 7. References


Department of Transport and Main Roads, September 2017, *Guide to Traffic Impact Assessment,* The State of Queensland (Department of Transport and Main Roads, Brisbane).

New South Wales Road and Maritime Services, *Guide to Traffic Generating Developments (Roads and Maritime Services 2002)*

Department of Transport and Main Roads, 2014, *Supplement to Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Department of Transport and Main Roads)*

Austroads, 2017, *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections*, Austroads Ltd, Sydney, 2017.

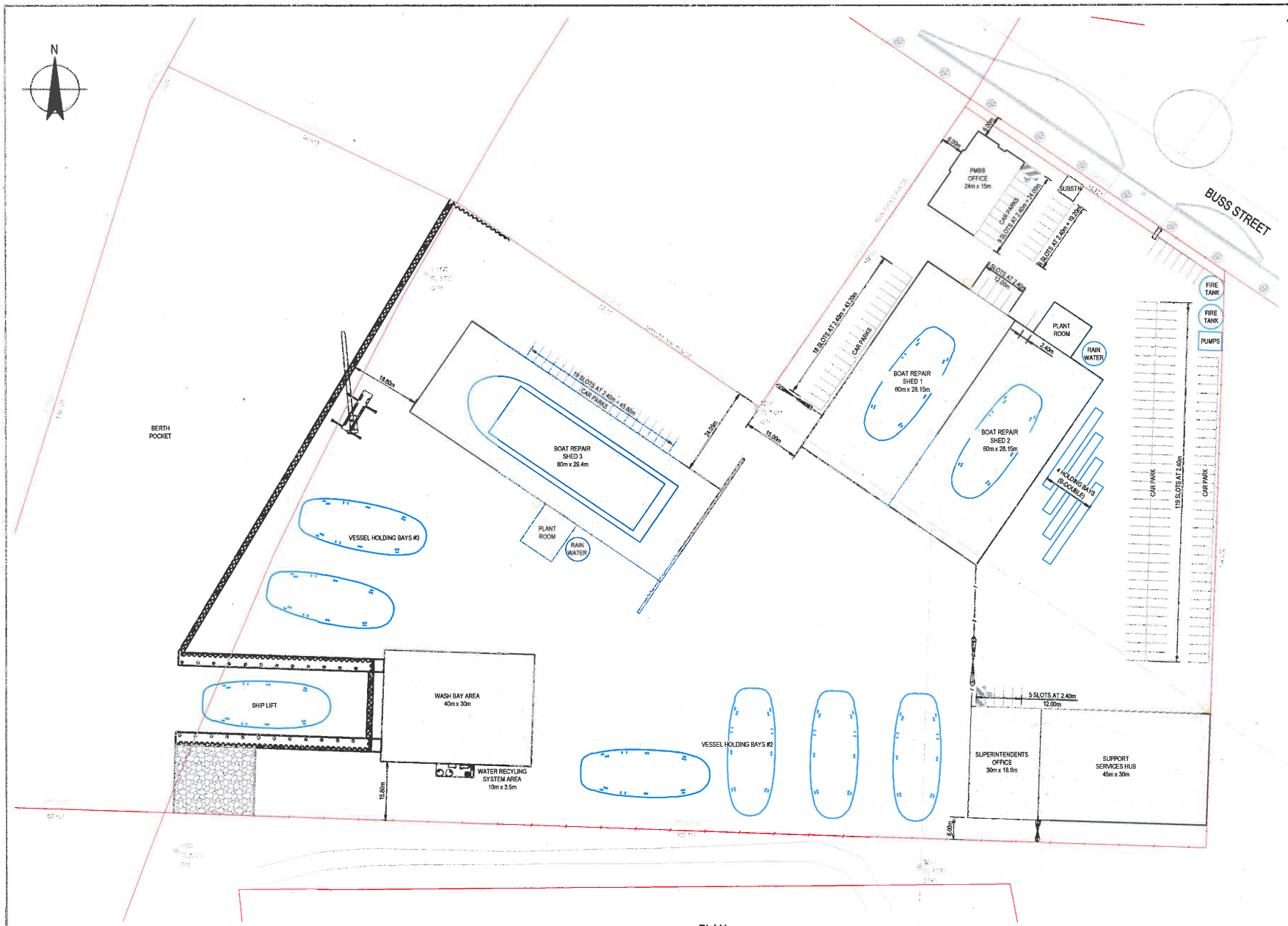
Austroads, 2017, *Guide to Road Design Part 3: Geometric Design*, Austroads Ltd, Sydney, 2016.

*Austroads, 2017, Guide to Traffic Management Part 3: Traffic Studies and Analysis;*

*Austroads, 2017, Guide to Pavement Technology Part 2: Pavement Structural Design;*

# Appendices

# **Appendix A** – Proposed general layout plan




## PLAN

SCALE 1:500

## NOTES

1. FOR GENERAL NOTES REFER TO DRAWING NUMBER 41-31423-C001.

## LEGEND (EXISTING)

- EXISTING OVERHEAD ELECTRICAL LINE
- CADASTRAL BOUNDARY
- EXISTING FENCE
- EXISTING KERB
- EXISTING SURVEY CONTROL
- EXISTING VEGETATION / TREE
- EXISTING RCP

## LEGEND (PROPOSED)

- BUILDING TANKS / FIRE TANKS
- B - DOUBLE PARKINGS BAYS
- GATE AND FENCE
- PARKING SLOT
- HANDICAP PARKING SLOT
- PILE
- SHEET PILE
- WALL
- WASTE COLLECTION (SCREENED)

## SITE PARTICULARS

| | |
|---|---|
| LAND AREA | 36,524 m² |
| TIDAL AREA | 12,912 m² |
| UNDERCOVER VESSEL MAINTENANCE AREA | 5,730 m² |
| WAREHOUSING AREA | 1,350 m² |
| OFFICE FACILITIES | 918 m² |
| TOTAL BUILDING GFA | 7,998 m² |
| TOTAL BUILDING COVERAGE OF SITE | 20.2% |
| TOTAL SEALED AREA | 31,067 m² |
| TOTAL UNSEALED AREA | 0 m² |
| TOTAL LANDSCAPING PROVISION | 430 m² (1.11%) |
| TOTAL CAR PARKS | 184 SLOTS |

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

BUNDABERG
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Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

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Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: GENERAL LAYOUT PLAN

Original Size A1
Drawing No: 41-31423-C200
Rev: C

Plot Date: 29 August 2018 - 10:50 AM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\41-31423-C200.dwg

# ATTACHMENT 2: APPROVED PLANS AND SPECIFICATIONS

# PACIFIC MARINE BASE BUNDABERG PTY. LTD.
# PMBB MARINE INDUSTRY DEVELOPMENT
# 41-31423

LOCALITY PLAN

NOT TO SCALE

## DRAWINGS LIST:

| DRAWING No. | DRAWING TITLE |
|---|---|
| **GENERAL** | |
| 41-31423-G001 | DRAWING INDEX AND LOCALITY PLAN |
| **CIVIL** | |
| 41-31423-C001 | GENERAL NOTES |
| 41-31423-C200 | GENERAL LAYOUT PLAN |
| 41-31423-C201 | STAGING PLANS |
| 41-31423-C210 | TURNING PATHS AND SHIP LIFT SECTION |
| 41-31423-C310 | PAVEMENT PLAN |
| 41-31423-C315 | EARTHWORKS PLAN |
| 41-31423-C320 | SITE SECTIONS - SHEET 1 OF 2 |
| 41-31423-C321 | SITE SECTIONS - SHEET 2 OF 2 |
| 41-31423-C400 | STORMWATER AND CATCHMENT LAYOUT PLAN |
| 41-31423-C500 | MASTER SERVICES LAYOUT PLAN |
| **ELECTRICAL** | |
| 41-31423-E100 | ELECTRICAL SITE RETICULATION LAYOUT PLAN |
| 41-31423-E200 | COMMUNICATIONS SITE RETICULATION LAYOUT PLAN |
| **HYDRAULICS** | |
| 41-31423-H100 | WASHBAY LAYOUT - HYDRAULIC SERVICES |
| **MARITIME** | |
| 41-31423-K000 | MARITIME NOTES |
| 41-31423-K001 | MARITIME LAYOUT |
| 41-31423-K010 | DREDGING PLAN |
| 41-31423-K020 | DREDGING TYPICAL SECTION AND VOLUMES |
| 41-31423-K030 | DREDGING SECTIONS - SHEET 1 OF 2 |
| 41-31423-K035 | DREDGING SECTIONS - SHEET 1 OF 2 |
| 41-31423-K050 | DREDGING/RECLAMATION PLAN |
| 41-31423-K100 | QUAYWALL PLAN AND LONGITUDINAL SECTION |
| 41-31423-K101 | QUAYWALL SECTIONS AND DETAILS |
| 41-31423-K200 | SHIP LIFT SECTIONS AND DETAILS |
| **ARCHITECTURAL** | |
| 41-31423-A002 | PMBB OFFICE FLOOR PLAN AND ELEVATIONS |
| 41-31423-A003 | SUPERINTENDENT'S OFFICE FLOOR PLAN AND ELEVATIONS |
| 41-31423-A004 | SUPPORT SERVICES HUB FACILITY PLAN AND 3D VIEW |
| 41-31423-A005 | BOAT REPAIR SHED 1 AND 2 PLAN AND 3D VIEW |
| 41-31423-A006 | BOAT REPAIR SHED 3 PLAN AND 3D VIEW |
| 41-31423-A007 | RENDERED IMAGES - SHEET 1 |
| 41-31423-A008 | RENDERED IMAGES - SHEET 2 |
| 41-31423-A009 | RENDERED IMAGES - SHEET 3 |
| **LANDSCAPE** | |
| 41-31423-L001 | LANDSCAPE CONCEPT PLAN - PLANTING PLAN |
| 41-31423-L002 | LANDSCAPE CONCEPT PLAN - PLANT SPECIES SCHEDULE, IMAGES AND NOTES |

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL | Designer R. ORTIZ
Drafting Check *B. CHAN | Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: DRAWING INDEX AND LOCALITY PLAN

Original Size A1 | Drawing No: 41-31423-G001 | Rev: D

Plot Date: 6 November 2018 - 2:23 PM Plotted by: Rene Ortiz Chivara Cad File No: G:\41\31423\CADD\Drawings\41-31423-G001.dwg

## EXISTING FEATURES, CLEARING DEMOLITION

1. ALL MATERIALS TO BE DEMOLISHED/REMOVED ARE TO BE DISPOSED OFF SITE IN ACCORDANCE WITH GLADSTONE PORT CORPORATION, BUNDABERG REGIONAL COUNCIL, STATE AND COMMONWEALTH REQUIREMENTS
2. EXISTING SERVICES ARE TO BE RETAINED UNLESS NOTED OTHERWISE. CONTRACTOR TO TAKE DUE CARE TO PROTECT EXISTING SERVICES DURING CONSTRUCTION.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM LOCATION OF EXISTING SERVICES PRIOR TO UNDERTAKING SITE WORKS.
4. DETAILED SURVEY DATED 19/05/2018 IS SUPPLIED BY INSITE SJC.

## SURVEY NOTES & DETAILS

1. COORDINATE SYSTEM MGA ZONE 56 (GDA94)
2. VERTICAL DATUM AHD
3. CONTRACTOR TO LOCATE ALL LEVELS FROM ESTABLISHED BENCH MARKS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE RELEVANT AUTHORITY TO CONFIRM THE LOCATION AND DEPTH OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS.
5. EXISTING CONTOURS SHOWN AT 0.25m INTERVALS.
6. SURVEY SUPPLIED BY INSITE SJC. DRAWING No GC18-123 D1.
7. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

## SITE ADDRESS

BURNETT HEADS, BUNDABERG, QUEENSLAND 4670
LEASE AU on SP305678 in LOT 501 on SP279707 AND
SUB-LEASE AW on SP305678 in LOT 287 on SP166199
LOCAL AUTHORITY: BUNDABERG REGIONAL COUNCIL

## SITE LAYOUT

1. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. TEMPORARY SECURITY FENCE SHALL BE PROVIDED AT ALL TIMES AND TO SURROUND CONSTRUCTION WORK SITE IN IT'S ENTIRETY.
4. THE CONTRACTOR SHALL CHECK, CONFIRM AND SATISFY THEMSELVES THAT ALL DIMENSIONS, LEVELS AND SERVICE LOCATIONS ARE CORRECT PRIOR TO CONSTRUCTION WORKS COMMENCING ON SITE.
5. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IMMEDIATELY OF ANY DISCREPANCIES OR ERRORS THAT MAY BE PRESENT WITHIN THESE PLANS.
6. THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF LEVELS AND LOCATIONS OF SERVICES TO FULLY COMPLY WITH 'AS-CONSTRUCTED' INFORMATION REQUIREMENTS FOR THE PROJECT.
7. DO NOT SCALE THIS DRAWING SCALE NOTED IS CORRECT PRIOR TO REDUCTION OF DRAWING SIZE.
8. LEVEL INFORMATION IS GIVEN TO LIP OF KERB AND CHANNEL OR FACE OF KERB UNLESS NOTED OTHERWISE.
9. NEW ROAD SURFACE, PAVEMENT FORMATION AND KERBING TO MATCH SMOOTHLY AND NEATLY WITH EXISTING SURFACES. LEVELS AND ALIGNMENT MAY BE VARIED WHERE NECESSARY TO ACHIEVE SMOOTH FINISH AS DIRECTED BY SUPERINTENDENT.
10. SUBSOIL DRAINAGE TO BE IN ACCORDANCE WITH BUDANBERG REGIONAL COUNCIL REQUIREMENTS

## INTERSECTION DETAILS

1. KERB AND CHANNEL LEVELS SHOWN ARE TO LIP OF KERB AND CHANNEL OR PAVEMENT AT FACE OF KERB ONLY.
2. ALL DIMENSIONS AND KERB AND CHANNEL RADII SHOWN ARE TO THE LIP.
3. LEVELS AND ALIGNMENT FOR CONNECTION TO EXISTING WORKS MAY BE VARIED WHERE IT IS NECESSARY TO ACHIEVE A SATISFACTORY SMOOTH FINISH TO THE COMPLETED WORKS AS DIRECTED BY SUPERINTENDENT

## EARTHWORKS, EROSION SEDIMENT CONTROL

1. ALL SEDIMENT AND EROSION CONTROL MEASURES ARE TO BE IN ACCORDANCE WITH 'BEST PRACTICE EROSION AND SEDIMENT CONTROL' PUBLISHED BY INTERNATIONAL EROSION CONTROL ASSOCIATION, AUSTRALASIA, 2008.
2. STOCKPILES, BORROW PITS, STORAGE AREAS TO BE CONSTRUCTED IN ACCORDANCE WITH PRINCIPLES DETAILED IN 'BEST PRACTICE EROSION AND SEDIMENT CONTROL' PUBLISHED BY INTERNATIONAL EROSION CONTROL ASSOCIATION, AUSTRALASIA, 2008.
3. IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE, DUE TO UNFORESEEN CIRCUMSTANCES, CORRECTIVE ACTION IS TO BE UNDERTAKEN IMMEDIATELY WHICH MAY INCLUDE AMENDMENTS/ADDITIONS TO THE ORIGINAL APPROVED PLANS. SUCH ADDITIONS ARE TO BE APPROVED BY SUPERINTENDENT.
4. THE SEQUENCE OF OPERATIONS SHALL BE AS FOLLOWS.
   - 4.a. DELINEATION OF BUFFER AREAS AND DRAINAGE RESERVES, ERECTION OF BARRIER FENCING.
   - 4.b. LOCATION OF TOPSOIL STOCKPILES AND ERECTION OF DOWNHILL SEDIMENT FENCE.
   - 4.c. THE CONSTRUCTION OF TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (E.G. SEDIMENT FENCES).
   - 4.d. LAND CLEARING AND TOPSOIL STRIPPING.
   - 4.e. CONSTRUCTION OF STORMWATER DRAINAGE FACILITIES.
   - 4.f. LAND SHAPING.
   - 4.g. CONSTRUCTION OF ROADS AND ACCESS WAYS, INSTALLATION OF SERVICES.
   - 4.h. FINAL REHABILITATION AND LANDSCAPING.
   - 4.i. MAINTENANCE.
5. ALL SEDIMENT FENCES ARE TO BE INSTALLED PARALLEL TO CONTOURS UNLESS SHOWN OTHERWISE.
6. SEDIMENT FENCES ARE TO BE INSTALLED DOWNHILL AND DIVERSION BANKS UPHILL OF STOCKPILES.
7. TOPSOIL STOCKPILES ARE TO BE MULCHED OR TEMPORARILY VEGETATED IF THEY ARE TO REMAIN FOR MORE THAN 30 DAYS.
8. MOVEMENT OF CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO THE AREA OF WORK AND EXISTING ROADS. CONTRACTOR TO CONSTRUCT ENTRY/EXIT SEDIMENT TRAP.
9. DISTURBED AREAS ARE TO BE GRASS SEEDED FOLLOWING FINAL TRIMMING, AREAS ARE TO BE DISTURBED AND RESTORED PROGRESSIVELY UNO BY LANDSCAPE DRAWINGS.
10. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED AND MAINTAINED AFTER EACH STORM EVENT AND AT REGULAR INTERVALS.
11. ALL SEDIMENT CONTROL DETAILS SHOWN ARE INDICATIVE ONLY AND FINAL LOCATIONS ARE TO BE DETERMINED ONSITE BY THE CONTRACTOR.
12. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL NEW GROUND IS ESTABLISHED AND/OR REVEGETATED, OR UNTIL WRITTEN NOTICE FROM SUPERINTENDENT.
13. BOTH TEMPORARY AND PERMANENT SEDIMENT MANAGEMENT DEVICES SHALL BE MAINTAINED AT A SUITABLE LEVEL/CONDITION THROUGHOUT CONSTRUCTION. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 25%.
14. ALL DEVICES SHOWN ARE TO BE LOCATED INSIDE THE PROPERTY BOUNDARIES.
15. WORK AREAS SHALL BE KEPT DAMP BY USE OF A WATER TRUCK TO CONTROL DUST ON SITE.
16. TOPSOIL AND EXCAVATED MATERIAL SHOULD BE STOCKPILED SEPARATELY.
17. CARE SHOULD BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. PLACE APPROPRIATE SEDIMENT CONTROLS INCLUDING SEDIMENT FENCES AROUND STOCKPILES.
18. EARTHWORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH BUNDABERG REGIONAL COUNCIL STANDARDS AND AS3798-2007/AMDT1-2008 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS.'
19. FILTRATION CONTROL MEASURES SHOULD BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK. IE. SILT FENCES.
20. APPROPRIATE SEDIMENT CONTROLS SHOULD BE USED TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM.
21. PRE-DISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE REINSTATED, E.G. REINSTATEMENT OF EXISTING FOLLOWING USE OF TEMPORARY DEVICES
22. PRE-DISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED, E.G. REINSTATEMENT OF EXISTING CONDITIONS FOLLOWING USE OF TEMPORARY DEVICES
23. EARTHWORK PROFILES ARE TO BE TRANSITIONED UNIFORMLY BETWEEN PRESCRIBED SLOPES.
24. ALL EARTHWORK CARRIED OUT BELOW 5.0m AHD MUST BE CARRIED OUT IN ACCORDANCE WITH AN ACID SULPHATE SOILS MANAGEMENT PLAN PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH BUNDABERG REGIONAL COUNCIL GUIDELINES UNLESS NOTED OTHERWISE

## SIGNAGE LINEMARKING NOTES

1. ALL ROAD SIGNAGE AND PAVEMENT LINE MARKING TO BE IN ACCORDANCE WITH QUEENSLAND DEPARTMENT OF MAIN ROADS PUBLICATION 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)'.
2. ALL EXISTING ROAD SIGNAGE REQUIRED TO BE RE-LOCATED AS A RESULT OF CONSTRUCTION WORKS SHALL BE TAKEN-UP AND PLACED IN STORAGE FOR RE-INSTATEMENT FOLLOWING COMPLETION OF CONSTRUCTION WORKS.
3. ALL EXISTING REDUNDANT LINE MARKING TO BE REMOVED.
4. RRMP TO BE INSTALLED IN ACCORDANCE WITH MUTCD.
5. ALL GUIDE POSTS TO BE INSTALLED IN ACCORDANCE WITH MUTCD.

## SEWER RETICULATION

1. ALL WORKS TO BE UNDERTAKEN STRICTLY IN ACCORDANCE WITH GLADSTONE PORT CORPORATION AND BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS.
2. ALL SEWERS SHALL BE Ø150 uPVC CLASS 'SN8' RUBBER RING JOINTED CODE 'R9' IN 3m MAXIMUM LENGTHS UNLESS NOTED OTHERWISE ON PLANS.
3. uPVC PIPES SHALL COMPLY WITH AS1260.
4. ALL SEWER LENGTHS AND GRADES ARE MEASURED FROM CENTRE OF MANHOLE TO CENTRE OF MANHOLE UNLESS NOTED OTHERWISE ON PLANS.
5. ALL SEWER LINES AND MANHOLES TO BE OFFSET 1.5m FROM PROPERTY BOUNDARIES UNLESS NOTED OTHERWISE.
6. TRENCHING AND BACKFILLING OF SEWERS SHALL BE UNDERTAKEN IN ACCORDANCE WITH BUNDABERG CITY COUNCIL STANDARD DRAWING 13929.
7. ALL SEWERS SHALL PROVIDE A MINIMAL CLEARANCE OF 300mm TO OTHER SERVICES AND INFRASTRUCTURE.
8. ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING S-0020.
9. PRECAST MANHOLES MAY BE USED AS AN ALTERNATIVE, SUBJECT TO THE PRIOR APPROVAL OF THE SUPERINTENDENT AND LOCAL AUTHORITY.
10. ALL MANHOLE DROP TYPES SHALL BE IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING S-0020, S-0021, & S-0023.
11. SEWER LOT CONNECTION BRANCHES ARE TO BE AS INDICATED ON SEWER LONGITUDINAL SECTIONS AND AS DETAILED ON I.P.W.E.A.Q STANDARD DRAWING S-0030.
12. LOT CONNECTION BRANCHES SHALL BE uPVC CLASS 'SN8' AND COMPLY WITH AS1260.
13. JUMP-UPS OR SLOPE DROPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING S-0020, S-0021 AND S-0023 IN ORDER TO ACHIEVE LEVELS INDICATED ON LONGITUDINAL SECTIONS.
14. ANCHOR BLOCKS SHALL BE PROVIDED ALONG SEWER DRAINAGE LINES WHERE REQUIRED AND INSTALLED IN ACCORDANCE WITH BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS
15. CONNECTION TO EXISTING SEWERS, SEWER MANHOLES OR PUMP STATIONS SHALL ONLY BE UNDERTAKEN BY THE LOCAL AUTHORITY UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
16. EXISTING SEWER LEVELS SHALL BE VERIFIED PRIOR TO THE COMMENCEMENT OF WORKS.
17. AS CONSTRUCTED SURVEY OF PIPES AND STRUCTURES SHALL BE COMPLETED PRIOR TO BACKFILL OF SERVICE TRENCHES.
18. THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF LEVELS AND LOCATIONS OF SERVICES INSTALLED TO FULLY COMPLY WITH GLADSTONE PORT CORPORATION/BUNDABERG REGIONAL COUNCIL "AS CONSTRUCTED" INFORMATION REQUIREMENTS.
19. ALL TESTING OF NEW SEWER MAINS IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE TESTING REQUIREMENTS OF GLADSTONE PORT CORPORATION/ BUNDABERG REGIONAL COUNCIL.

## WATER RETICULATION

1. THE CONTRACTOR SHALL COVER AND ALLOW FOR ALL COSTS ASSOCIATED WITH REMOVING, RE-TRENCHING AND RELAYING NEW WATER MAINS FOLLOWING PEGGING OF CADASTRAL BOUNDARIES SHOULD NEW MAINS NOT BE LOCATED ON CORRECT ALIGNMENTS AS DETAILED ON THESE PLANS ON COMPLETION OF CONSTRUCTION WORKS.
2. ALL WORKS TO BE UNDERTAKEN STRICTLY IN ACCORDANCE WITH GLADSTONE PORT CORPORATION/BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS.
3. ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS UNLESS NOTED OTHERWISE.
4. THE CONTRACTOR SHALL NOTIFY THE SUPERVISING SUPERINTENDENT IMMEDIATELY OF ANY DISCREPANCIES OR ERRORS THAT MAY BE PRESENT WITHIN THESE PLANS.
5. WATER MAIN ROAD CROSSING ENVELOPING CONDUITS TO BE PLACED IN A CLASS 'SN8' uPVC ENVELOPING CONDUIT AND INSTALLED IN ACCORDANCE WITH THE BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS.
6. LOCATIONS OF WATER MAIN ROAD CROSSING ENVELOPING CONDUITS SHALL BE MARKED IN ACCORDANCE WITH THE BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS.
7. MAXIMUM JOINT DEFLECTION AT PIPE COLLARS = 5°. SUPERVISING SUPERINTENDENT TO BE NOTIFIED OF LOCATIONS WHERE JOINT DEFLECTION IS TO BE APPLIED BY CONTRACTOR DURING THE CONSTRUCTION PROCESS. JOINT DEFLECTION ONLY TO BE USED AS A LAST RESORT IN LIEU OF PIPE BEND COMBINATIONS.
8. DUCTILE IRON PIPE FITTINGS SHALL COMPLY WITH AS 2280.
9. CAST IRON PIPE FITTINGS SHALL COMPLY WITH AS 2544 AND BE SPIGOT ENDED, CLASS C WALL THICKNESS.
10. SLUICE VALVE SHALL BE IN ACCORDANCE WITH AS2638
11. VALVE AND HYDRANT COVER BOXS SHALL BE IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING W-0061
12. TYPICAL HYDRANT SPACING = 80m MAX UNO.
13. THRUST BLOCKS SHALL BE INSTALLED AT ALL BENDS, TEES HYDRANT LOCATIONS, SLUICE VALVE, AIR VALVE, SCOUR VALVE AND DEAD END CAP LOCATIONS STRICTLY IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING W-0041 AND IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS AND SPECIFICATIONS.
14. CLASS N25 CONCRETE TO BE USED IN THRUST BLOCKS.
15. GROUND BEARING PRESSURE FOR DETERMINING ANCHORAGE SIZES SHALL BE 50kPa UNLESS NOTED OTHERWISE.
16. VALVES AT ENDS OF LINES Ø100 OR GREATER TO BE ANCHORED IN ACCORDANCE WITH I.P.W.E.A.Q STANDARD DRAWING W-0041.
17. CONNECTIONS TO THE EXISTING THE BUNDABERG REGIONAL COUNCIL (GPC) WATER MAIN SHALL BE UNDERTAKEN BY THE BUNDABERG REGIONAL COUNCIL (GPC) AT THE DEVELOPERS EXPENSE.
18. REFER WATER SUPPLY CODE OF AUSTRALIA STANDARD DRAWING WAT-1105 FOR CONNECTION DETAIL TO EXISTING MAINS.
19. THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF LEVELS AND LOCATIONS OF SERVICES INSTALLED TO FULLY COMPLY WITH THE BUNDABERG REGIONAL COUNCIL (GPC) "AS CONSTRUCTED" INFORMATION REQUIREMENTS.
20. LOCATION OF SERVICE INCLUDING MAINS, VALVES, HYDRANTS, TEES, BENDS AND DEPTHS TO SERVICE AND PROPERTY CONNECTIONS SHALL BE THE MINIMUM SUPPLIED INFORMATION BY CONTRACTOR.
21. AN AS CONSTRUCTED SURVEY SHALL BE UNDERTAKEN AND COMPLETED PRIOR TO ACCEPTANCE OF CONSTRUCTION WORKS AS 'ON-MAINTENANCE'.
22. ALL TESTING OF NEW WATER MAINS TO BE UNDERTAKEN IN ACCORDANCE WITH THE LOCAL AUTHORITY REQUIREMENTS.
23. TEST PRESSURE FOR PIPELINE IS TO BE AS OUTLINED BY GLADSTONE PORT CORPORATION AND BUNDABERG REGIONAL COUNCIL.
24. TEST PROCEDURE TO BE IN ACCORDANCE WITH AS 2032

## STORMWATER DRAINAGE NOTES

1. FOR CONNECTIONS TO EXISTING STORMWATER DRAINAGE NETWORKS, LEVELS AND GRADIENTS OF STORMWATER DRAINAGE PIPES AND/OR OPEN DRAINS MAY BE VARIED TO ACHIEVE A SATISFACTORY CONNECTION. WRITTEN APPROVAL FROM THE SUPERINTENDENT AND COUNCIL SHALL BE OBTAINED PRIOR.
2. ALL NEW AND EXISTING STORMWATER DRAINAGE NETWORKS SHALL BE KEPT FREE OF SEDIMENT AND DEBRIS. ALL NEW STORMWATER LINES SHALL BE CLEANED OF ALL SEDIMENT AND DEBRIS PRIOR TO 'ON-MAINTENANCE' INSPECTION.
3. ALL STORMWATER DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH BUNDABERG REGIONAL COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS.
4. PRECAST CONCRETE ITEMS MAY BE USED AT THE DISCRETION OF BUNDABERG REGIONAL COUNCIL.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE SITE AND SURROUNDING AREA FROM DAMAGE RESULTING FROM STORMWATER RUNOFF. TEMPORARY DIVERSION DRAINS AND OR OTHER DRAINAGE CONTROL DEVICES ARE TO BE IMPLEMENTED BY THE CONTRACTOR DURING CONSTRUCTION TO MINIMISE THE EFFECTS OF WEATHER.
6. EXISTING SERVICES ARE TO BE RETAINED UNLESS NOTED OTHERWISE. CONTRACTOR TO TAKE DUE CARE TO PROTECT EXISTING SERVICES DURING CONSTRUCTION
7. FOR MAINTENANCE HOLE DETAILS REFER TO BUNDABERG REGIONAL COUNCIL STANDARD DRAWING SD.02 AND SD.03
8. FOR EXCAVATION BEDDING AND BACKFILLING DETAILS REFER TO WITH I.P.W.E.A.Q STANDARD DRAWING SD.30 AND SD.31.
9. OUTLET PROTECTION SHALL BE PROVIDED AT ALL HEADWALL AND ENDWALL OUTLET POINTS WITHIN THE EXTENT OF WORKS.

## GROUND IMPROVEMENT

1. REMOVE, DISPOSE OR REUSE EXISTING TOP SOIL (NOM. 150mm)
2. REMOVE, DISPOSE OR REUSE EXISTING FILL TO ACHIEVE SUBGRADE LEVEL.
3. REMOVE AND RE-COMPACT MIN. 1000mm OF EXISTING, PLAVE COMBIGRID 60/60, PLACE AND COMPACT MIN 400mm OF ROCK FILL.

## PAVEMENTS

1. ASPHALT PAVEMENT TYPES AND SPECIFICATIONS AS PER THE DEPARTMENT OF TRANSPORT AND MAIN ROADS.

## LANDSCAPE

1. LANDSCAPE WORKS TO BE UNDERTAKEN AS PER BUNDABERG REGIONAL COUNCIL REQUIREMENTS AND SPECIFICATIONS

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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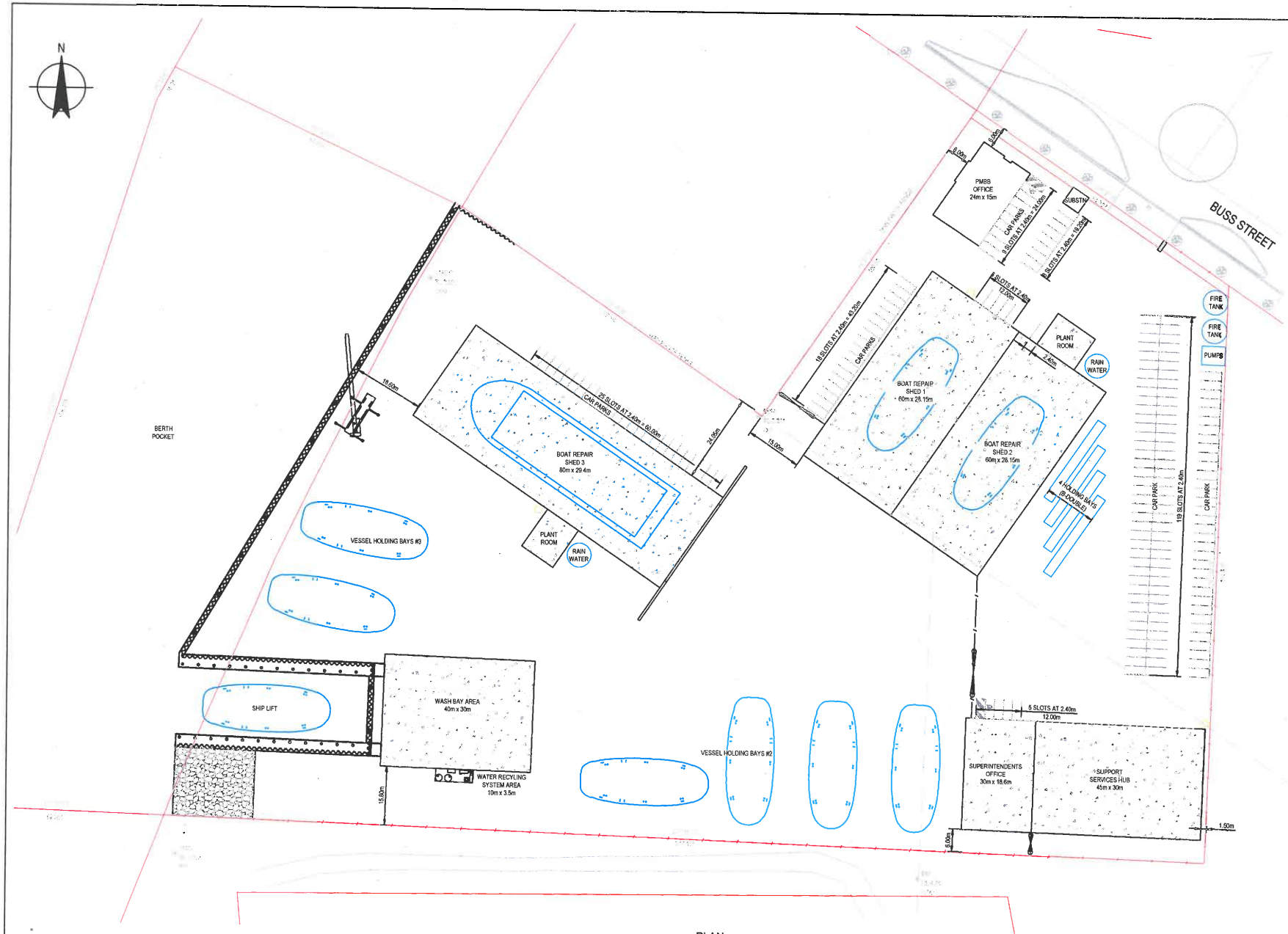
Drawn J. BARCIAL | Designer R. ORTIZ
Drafting Check *B. CHAN | Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title GENERAL NOTES

Original Size A1 | Drawing No: 41-31423-C001 | Rev: D

Plot Date: 8 November 2018 - 12:34 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\41-31423-C001.dwg




## NOTES

1. FOR GENERAL NOTES REFER TO DRAWING NUMBER 41-31423-C001.

## LEGEND (EXISTING)

- EXISTING OVERHEAD ELECTRICAL LINE
- CADASTRAL BOUNDARY
- EXISTING FENCE
- EXISTING KERB
- EXISTING SURVEY CONTROL
- EXISTING VEGETATION / TREE
- EXISTING RCP

## LEGEND (PROPOSED)

- BUILDING TANKS / FIRE TANKS
- B - DOUBLE PARKINGS BAYS
- GATE AND FENCE
- PARKING SLOT
- HANDICAP PARKING SLOT
- PILE
- SHEET PILE
- WALL
- WASTE COLLECTION (SCREENED)

## SITE PARTICULARS

| | |
|---|---|
| LAND AREA | 39,524 m² |
| TIDAL AREA | 12,912 m² |
| UNDERCOVER VESSEL MAINTENANCE AREA | 5,730 m² |
| WAREHOUSING AREA | 1,350 m² |
| OFFICE FACILTIES | 918 m² |
| TOTAL BUILDING GFA | 7,998 m² |
| TOTAL BUILDING COVERAGE OF SITE | 20.2% |
| TOTAL SEALED AREA | 31,087 m² |
| TOTAL UNSEALED AREA | 0 m² |
| TOTAL LANDSCAPING PROVISION | 439 m² (1.11%) |
| TOTAL CAR PARKS | 184 SLOTS |

APPROVED

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

Pacific Marine Base — BUNDABERG — Dock Repair | Berthing | Project Support

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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
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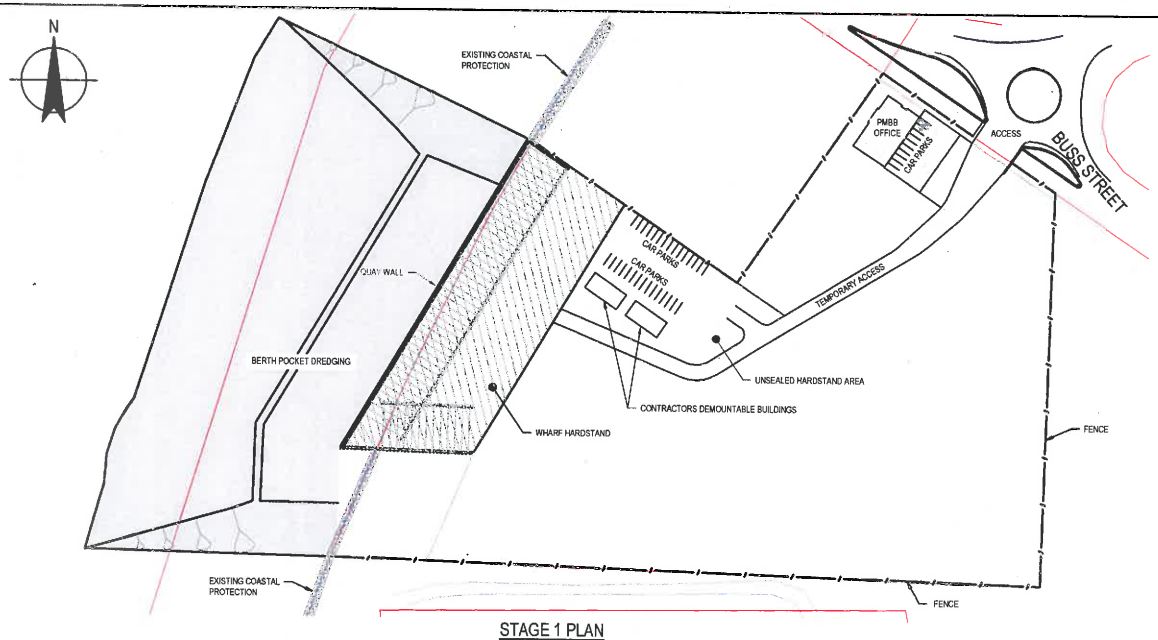
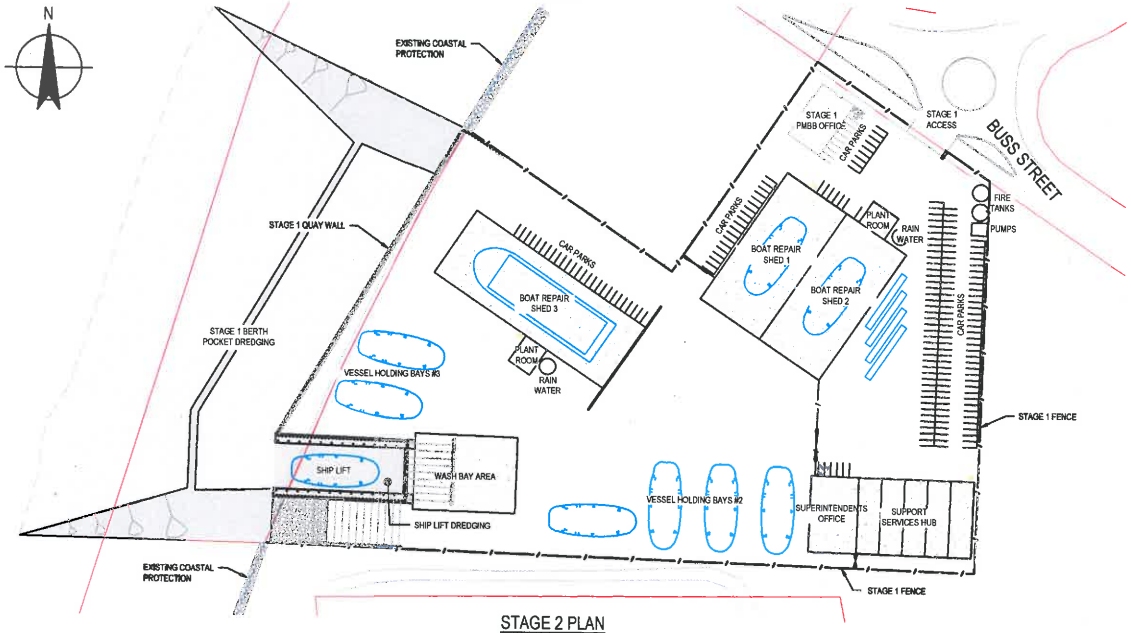
Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: GENERAL LAYOUT PLAN

Original Size A1
Drawing No: 41-31423-C200
Rev: D

Plot Date: 8 November 2018 - 2:08 PM Plotted by: Rene Ortiz Chivara
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C200.dwg




STAGE 1 PLAN
SCALE 1:1000




STAGE 2 PLAN
SCALE 1:1000

## NOTES

1. FOR GENERAL NOTES REFER TO DRAWING NUMBER 41-31423-C001.

## PROPOSED DELIVERY STAGES

IN LINE WITH THE PMBB FUNCTIONAL DESIGN BRIEF, THERE IS AN INTENTION TO CONSTRUCT THE FACILITIES IN STAGES, WHICH WILL PRIORITISE THE WATERFRONT ELEMENTS AND ESSENTIAL LAND SIDE INFRASTRUCTURE. THE ULTIMATE DEVELOPMENT CASE WILL BE DELIVERED OVER TWO STAGES.

### STAGE 1 - COMMERCIAL VESSEL WHARF

STAGE 1 IS PROPOSED TO INCORPORATE THE DEVELOPMENT OF THE SHOREFRONT, WHICH WILL INCLUDE:

- SHEET PILE WALL QUAY WALL ALONG SHOREFRONT;
- WHARF LAND BACKING / HARDSTAND;
- DREDGING OF THE BERTH POCKET AND ASSOCIATED APPROACHES AS REQUIRED TO PROVIDE SUFFICIENT UNDER KEEL CLEARANCE FOR VESSELS; AND
- PMBB OFFICE
- ACCESS ROAD, SITE FENCING, ASSOCIATED STORM WATER DRAINAGE AND SERVICES.

### STAGE 2 - SHIP REPAIR AND MAINTENANCE FACILITY

STAGE 2 IS TO INCORPORATE THE REMAINING ELEMENTS AND FUNCTIONAL REQUIREMENTS FOR SHIP REPAIR AND MAINTENANCE FACILITY. THE COMPLETION OF STAGE 2 WILL INFILL THE REMAINING OPERATIONAL REQUIREMENTS TO ACHIEVE THE ULTIMATE DEVELOPMENT CASE. THIS WILL INCLUDE:

- SHIP LIFT, INCLUSIVE OF LOADING PIERS AND WASH DOWN AREA;
- THE REMAINING HARDSTAND AREAS WITHIN THE DEFINED LOT BOUNDARIES TO SUPPORT ACCESS / EGRESS, PARKING, VEHICLE CIRCULATION AND BUILDINGS.
- DRAINAGE INFRASTRUCTURE (STORM WATER AND WATER TREATMENT / IMPROVEMENT DEVICES);
- REMAINING SITE SERVICES - ELECTRICAL / HYDRAULICS / COMMUNICATIONS AND FIRE WATER;
- SUPPORT SERVICES HUB / MULTI USER FACILITY;
- SHIP REPAIR SHEDS;
- SUPERINTENDENT OFFICE (ADJOINED TO SUPPORT SERVICES HUB)

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | B.C. | C.G. | 09.11.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | B.C. | C.G. | 31.08.18 |
| A | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | B.C. | C.G. | 02.08.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 10 20 30 40 50m
SCALE 1:1000 AT ORIGINAL SIZE

Pacific Marine Base
BUNDABERG
Ship Repair | Berthing | Project Support

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Registered Professional R.ORTIZ
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Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check B. CHAN
Design Check O. ISSADEEN
Approved (Project Director) C. GILL
Date 02.08.18
Scale AS SHOWN
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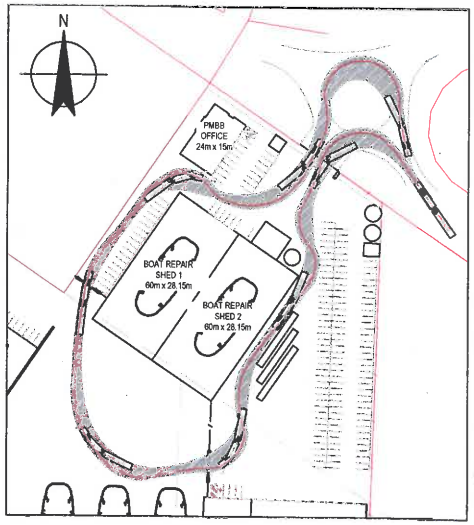
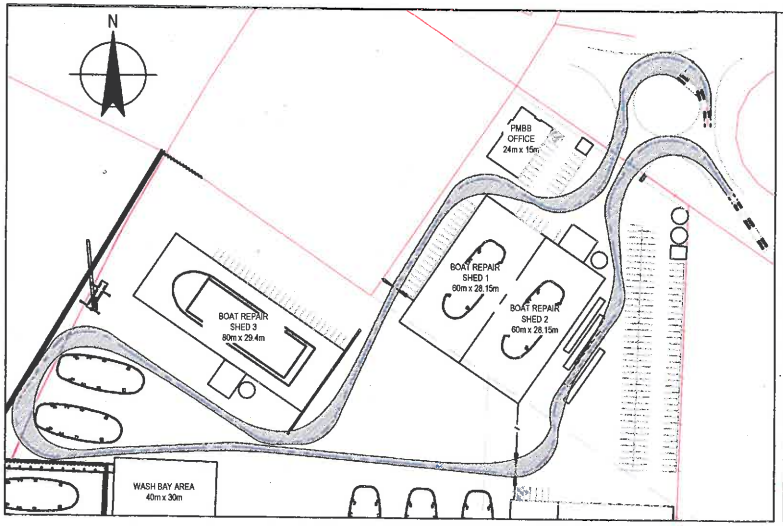
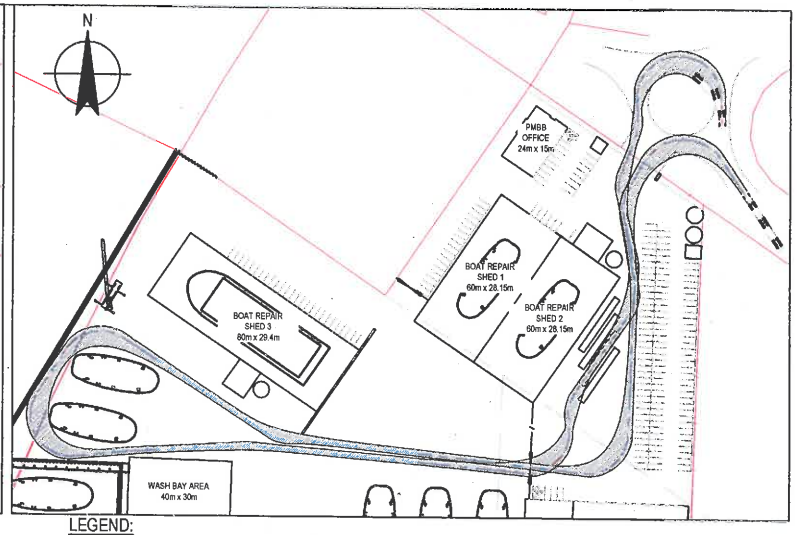
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title STAGING PLANS

Original Size A1
Drawing No: 41-31423-C201
Rev: C

Plot Date: 8 November 2018 - 12:35 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C201.dwg




## LEGEND:

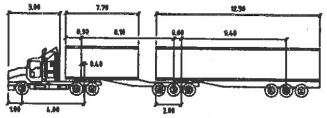
VEHICLE PATH

VEHICLE BODY

TRAVELIFT

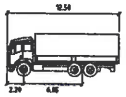
INDICATIVE 80m VESSEL

INDICATIVE 35m VESSEL



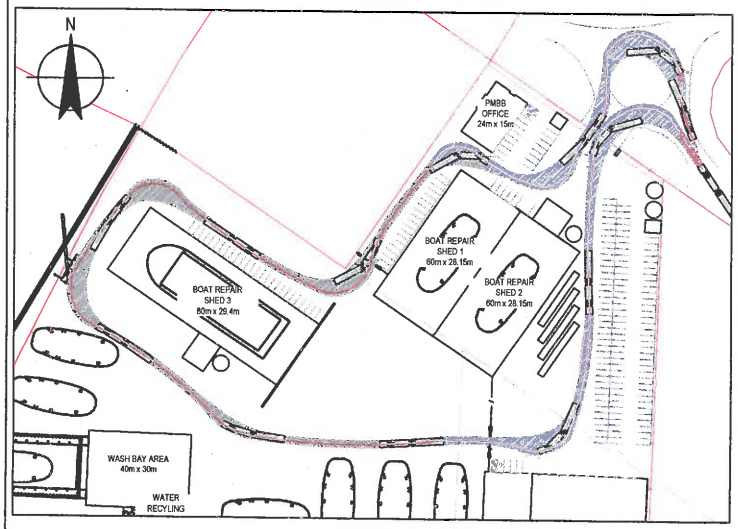

**B-DOUBLE 25M** metres

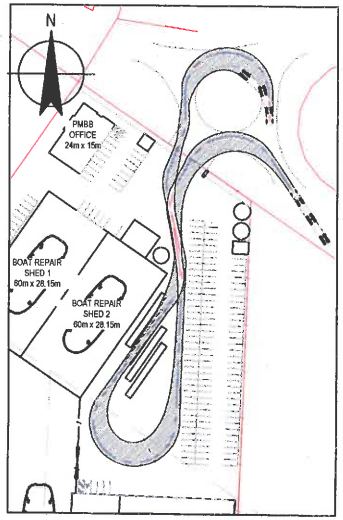
| | | | |
|---|---|---|---|
| Tractor Width | : 2.50 | Lock to Lock Time | : 6.0 |
| Trailer Width | : 2.50 | Steering Angle | : 29.7 |
| Tractor Track | : 2.50 | Articulating Angle | : 70.0 |
| Trailer Track | : 2.50 | | |

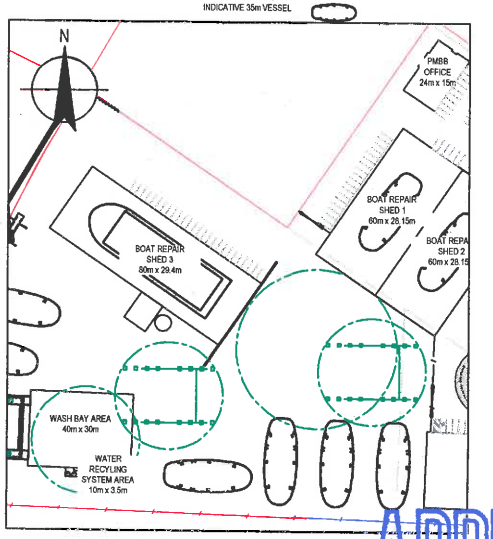


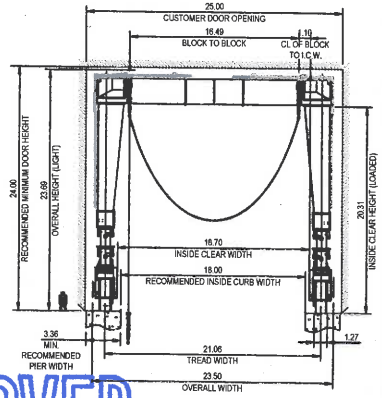

**SU TRUCK**

| | metres |
|---|---|
| Width | : 2.50 |
| Track | : 2.50 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 36.6 |




APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 10 20 30 40 50m
SCALE 1:1000 AT ORIGINAL SIZE

0 2.5 5 7.5 10 12.5m
SCALE 1:250 AT ORIGINAL SIZE

Pacific Marine Base
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Registered Professional R.ORTIZ
Registration
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Registration Discipline
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Signature *R.ORTIZ
No. 13290
Date 02.08.18

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Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

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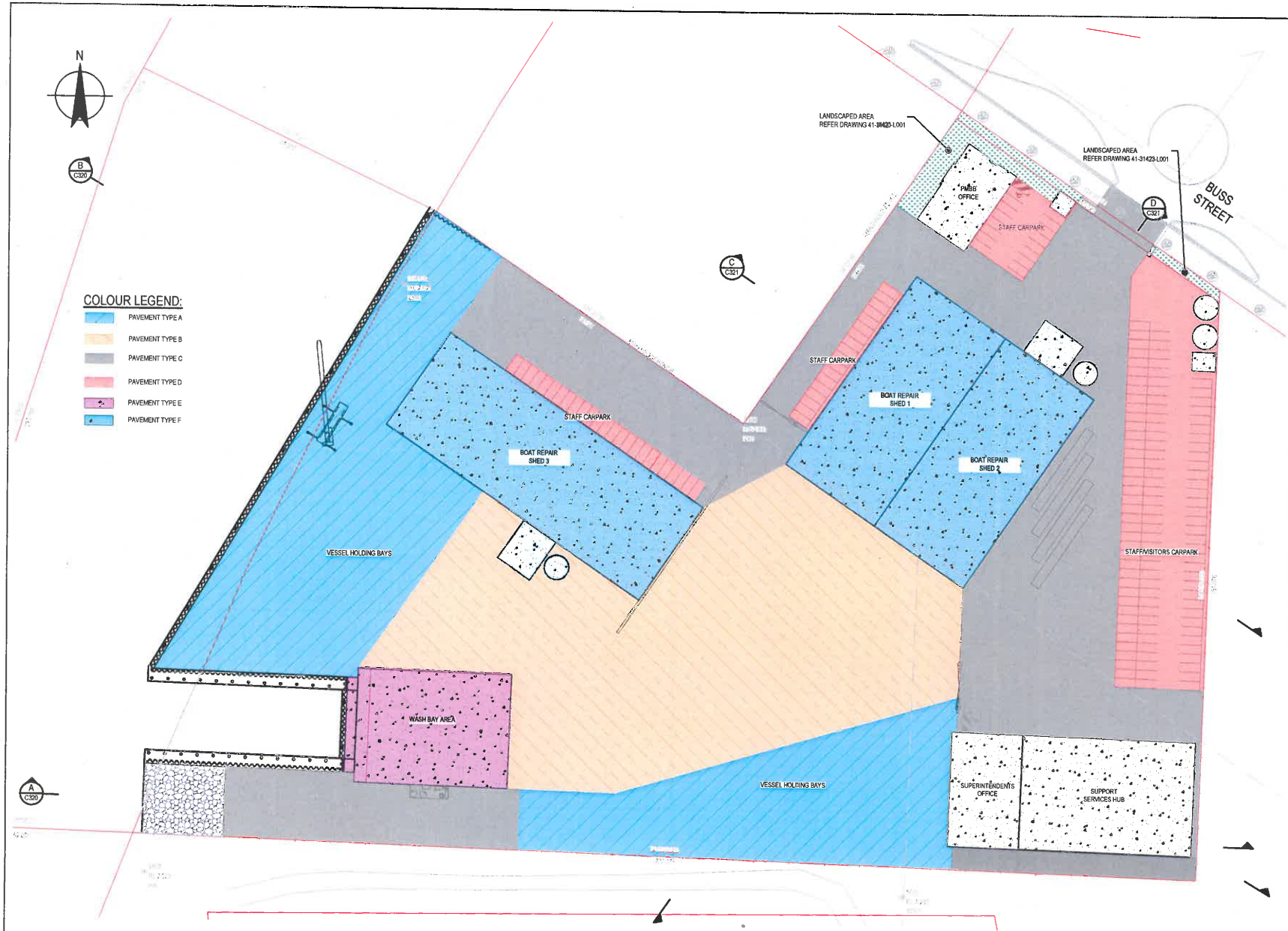
Client **PACIFIC MARINE BASE BUNDABERG PTY. LTD.**
Project **CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT**
Title **TURNING PATHS AND SHIP LIFT SECTION**

Original Size **A1**
Drawing No: **41-31423-C210**
Rev: **D**

Plot Date: 8 November 2018 - 12:37 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C210.dwg




## LEGEND:

**PAVEMENT TYPE A - (VESSEL HOLDING BAYS)**

50mm SURFACING LAYER - AC14H (A15E)
75mm BASE COURSE - AC20H (E800)
250mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR
250mm LOWER SUBBASE COURSE 1 - TYPE 2.3 UNBOUND GRANULAR
500mm LOWER SUBBASE COURSE 2 - TYPE 2.5 UNBOUND GRANULAR

SUBGRADE IMROVEMENT:

1000mm RECOMPACT EXISTING UNCONTROLLED FILL

**PAVEMENT TYPE B - (VESSEL TRAVELLING AREA SHUTTLELIFT AND B-DOUBLES)**

50mm SURFACING LAYER - AC14H (A15E)
75mm BASE COURSE - AC20H (E800)
250mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR
250mm LOWER SUBBASE COURSE 1 - TYPE 2.3 UNBOUND GRANULAR
925mm LOWER SUBBASE COURSE 2 - TYPE 2.5 UNBOUND GRANULAR

SUBGRADE IMPROVEMENT:

500mm RECOMPACT EXISTING UNCONTROLLED FILL

**PAVEMENT TYPE C - (ACCESS ROAD)**

50mm SURFACING LAYER - AC14H (A15E)
75mm BASE COURSE - AC20H (E800)
150mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR

SUBGRADE IMPROVEMENT:

1000mm RE-COMPACT EXISTING UNCONTROLLED FILL

**PAVEMENT TYPE D - (PASSENGER CARPARKS)**

35mm SURFACING LAYER - AC10H (A15E)
100mm BASE COURSE - TYPE 2.1 UNBOUND GRANULAR
150mm UPPER SUBBASE COURSE - TYPE 2.3 UNBOUND GRANULAR

SUBGRADE IMPROVEMENT:

1000mm RECOMPACT EXISTING UNCONTROLLED FILL

**PAVEMENT TYPE E - (VESSEL WASH BAY AREA - HIGH FREQUENCY)**

670mm SLAB INTERIOR - PLAIN JOINTED CONCRETE PAVEMENT (N50)
1100mm SLAB EDGE - PLAIN JOINTED CONCRETE PAVEMENT (N50)

SUBGRADE IMPROVEMENT:

800mm RECOMPACT EXISTING UNCONTROLLED FILL

**PAVEMENT TYPE F - (VESSEL HOLDING BAYS (SHED) - LOW FREQUENCY)**

810mm SLAB INTERIOR - PLAIN JOINTED CONCRETE PAVEMENT (N50)
1050mm SLAB EDGE - PLAIN JOINTED CONCRETE PAVEMENT (N50)

SUBGRADE IMPROVEMENT:

550mm RECOMPACT EXISTING UNCONTROLLED FILL

APPROVED

## PLAN

SCALE 1:500

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

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Registered Professional R.ORTIZ
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Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale 1:500

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**DEVELOPMENT APPROVAL ISSUE**

Client **PACIFIC MARINE BASE BUNDABERG PTY. LTD.**
Project **CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT**
Title **PAVEMENT PLAN**

Original Size **A1** Drawing No: **41-31423-C310** Rev: **D**

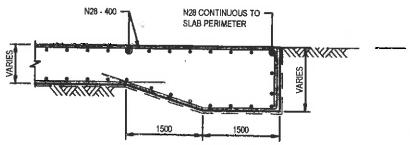
Plot Date: 6 November 2018 - 2:11 PM Plotted by: Rene Ortiz Chivara
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C310\C311.dwg

## PAVEMENT SPECIFICATIONS

| TYPE | PAVEMENT MATERIAL | TRAFFIC / DESIGN ESA's | ASSUMED CBR (%) |
|---|---|---|---|
| A<br>VESSEL HOLDING AREA | 50mm SURFACING LAYER - AC14H (A15E)<br>75mm BASE COURSE - AC20H (C800)<br>250mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR<br>250mm LOWER SUBBASE COURSE 1 - TYPE 2.3 UNBOUND GRANULAR<br>500mm LOWER SUBBASE COURSE 2 - TYPE 2.5 UNBOUND GRANULAR<br>**SUBGRADE IMPROVEMENT:**<br>800mm RECOMPACT EXISTING UNCONTROLLED FILL | 5 x FULLY LOADED 1250C / YEAR<br>20 x 400t TUGS 1250C / YEAR<br>25 x UNLOADED 1250C / YEAR | 5 |
| B<br>VESSEL TRAVELLING AREA<br>SHUTTLELIFT AND B-DOUBLES | 50mm SURFACING LAYER - AC14H (A15E)<br>75mm BASE COURSE - AC20H (C800)<br>250mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR<br>250mm LOWER SUBBASE COURSE 1 - TYPE 2.3 UNBOUND GRANULAR<br>825mm LOWER SUBBASE COURSE 2 - TYPE 2.5 UNBOUND GRANULAR<br>**SUBGRADE IMPROVEMENT:**<br>500mm RECOMPACT EXISTING UNCONTROLLED FILL | 20 x FULLY LOADED 1250C / YEAR<br>80 x 400t TUGS 1250C / YEAR<br>100 x UNLOADED 1250C / YEAR<br>365 x B-DOUBLES / YEAR | 5 |

## PAVEMENT SPECIFICATIONS

| TYPE | PAVEMENT MATERIAL | TRAFFIC / DESIGN ESA's | ASSUMED CBR (%) |
|---|---|---|---|
| C<br>ACCESS ROAD | 50mm SURFACING LAYER - AC14H (A15E)<br>75mm BASE COURSE - AC20H (C800)<br>150mm UPPER SUBBASE COURSE - TYPE 2.1 UNBOUND GRANULAR<br>**SUBGRADE IMPROVEMENT:**<br>1000mm RE-COMPACT EXISTING UNCONTROLLED FILL | 60,000<br>(B-DOUBLES ONLY) | 5 |
| D<br>PASSENGER CARPARKS | 35mm SURFACING LAYER - AC10M (A15E)<br>150mm BASE COURSE - TYPE 2.1 UNBOUND GRANULAR<br>150mm UPPER SUBBASE COURSE - TYPE 2.3 UNBOUND GRANULAR<br>**SUBGRADE IMPROVEMENT:**<br>1000mm RE-COMPACT EXISTING UNCONTROLLED FILL | 20,000 | 5 |
| E<br>VESSEL WASHBAY AREA<br>HIGH FREQUENCY | 670mm SLAB INTERIOR - PLAIN JOINTED CONCRETE PAVEMENT (N50)<br>1130mm SLAB EDGE - PLAIN JOINTED CONCRETE PAVEMENT (N50)<br>**SUBGRADE IMPROVEMENT:**<br>800mm RE-COMPACT EXISTING UNCONTROLLED FILL | 400 x FULLY LOADED 1250C / YEAR | 5 |
| F<br>VESSEL HOLDING (WAYSTSHED)<br>LOW FREQUENCY | 610mm SLAB INTERIOR - PLAIN JOINTED CONCRETE PAVEMENT (N50)<br>1050mm SLAB EDGE - PLAIN JOINTED CONCRETE PAVEMENT (N50)<br>**SUBGRADE IMPROVEMENT:**<br>850mm RE-COMPACT EXISTING UNCONTROLLED FILL | 50 x FULLY LOADED 1250C / YEAR | 5 |




TYPICAL CONCRETE PAVEMENT EDGE THICKENING DETAIL

SCALE 1:50

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DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
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| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 0.5 1.0 1.5 2.0 2.5m
SCALE 1:50 AT ORIGINAL SIZE

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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale 1:50

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Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title PAVEMENT DETAILS

Original Size A1
Drawing No: 41-31423-C311
Rev: D

Plot Date: 6 November 2018 - 2:13 PM Plotted by: Rene Ortiz Chivara
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C310\C311.dwg

## NOTES

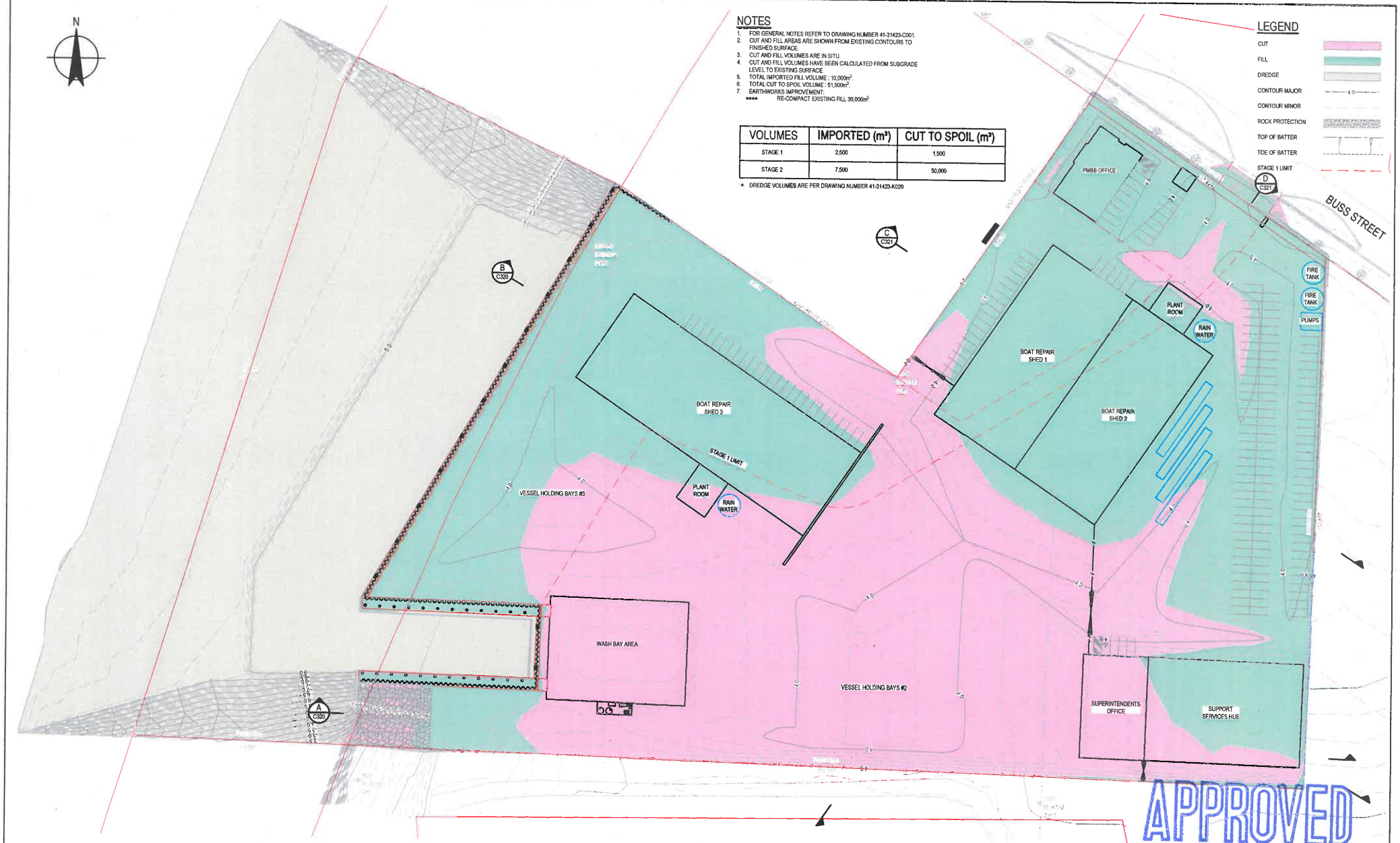
1. FOR GENERAL NOTES REFER TO DRAWING NUMBER 41-31423-C001.
2. CUT AND FILL AREAS ARE SHOWN FROM EXISTING CONTOURS TO FINISHED SURFACE.
3. CUT AND FILL VOLUMES ARE IN SITU.
4. CUT AND FILL VOLUMES HAVE BEEN CALCULATED FROM SUBGRADE LEVEL TO EXISTING SURFACE
5. TOTAL IMPORTED FILL VOLUME : 10,000m³.
6. TOTAL CUT TO SPOIL VOLUME : 51,500m³.
7. EARTHWORKS IMPROVEMENT:
   RE-COMPACT EXISTING FILL 30,000m³.

| VOLUMES | IMPORTED (m³) | CUT TO SPOIL (m³) |
|---|---|---|
| STAGE 1 | 2,500 | 1,500 |
| STAGE 2 | 7,500 | 50,000 |

* DREDGE VOLUMES ARE PER DRAWING NUMBER 41-31423-K020

## LEGEND

- CUT
- FILL
- DREDGE
- CONTOUR MAJOR
- CONTOUR MINOR
- ROCK PROTECTION
- TOP OF BATTER
- TOE OF BATTER
- STAGE 1 LIMIT




APPROVED

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

BUNDABERG Pacific Marine Base
Ship Repair | Bordens | Project Support


GHD
145 Ann St Brisbane QLD 4000 Australia
GPO Box 668 Brisbane QLD 4001
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Registered Professional R ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

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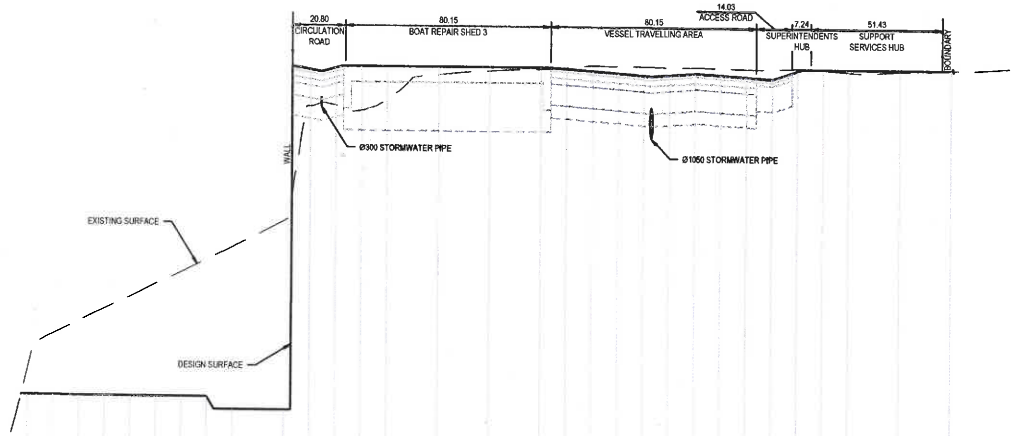
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title EARTHWORKS PLAN

Original Size A1
Drawing No: 41-31423-C315
Rev: D

Plot Date: 13 November 2018 - 2:32 PM Plotted by: Keona Bradley
Cad File No: N:\AUB\Brisbane\Projects\41\31423\CADD\Drawings\41-31423-C315.dwg

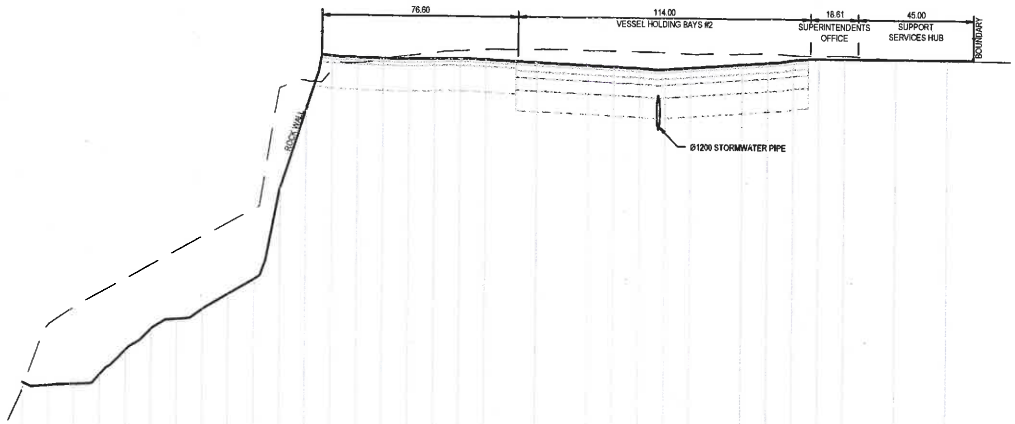



DATUM RL. -11.00

| CHAINAGE | DESIGN | SURVEY |
|---|---|---|
| 0.00 | | |
| 20.00 | | |
| 40.00 | -8.693 | -7.78 |
| 50.00 | -8.693 | -8.31 |
| 60.00 | -8.693 | -8.80 |
| 70.00 | -8.693 | -5.30 |
| 80.00 | -8.693 | -4.90 |
| 90.00 | -8.693 | -4.31 |
| 100.00 | -8.693 | -3.82 |
| 110.00 | -8.693 | -3.32 |
| 120.00 | -9.193 | -2.83 |
| 140.00 | -9.193 | -1.78 |
| 150.00 | 4.156 | 2.72 |
| 160.00 | 4.265 | 2.77 |
| 170.00 | 4.300 | 2.57 |
| 180.00 | 4.300 | 3.01 |
| 200.00 | 4.300 | 3.99 |
| 220.00 | 4.300 | 4.15 |
| 240.00 | 4.300 | 4.23 |
| 250.00 | 4.252 | 4.29 |
| 260.00 | 4.175 | 4.38 |
| 270.00 | 4.098 | 4.38 |
| 280.00 | 4.011 | 4.36 |
| 290.00 | 4.032 | 4.34 |
| 300.00 | 4.102 | 4.34 |
| 310.00 | 4.048 | 4.33 |
| 320.00 | 3.962 | 4.30 |
| 330.00 | 3.917 | 4.28 |
| 340.00 | 4.224 | 4.32 |
| 350.00 | 4.300 | 4.27 |
| 360.00 | 4.300 | 4.21 |
| 380.00 | 4.300 | 4.23 |
| 400.00 | 4.300 | 4.29 |
| 420.00 | | 4.42 |
| 422.32 | | 4.44 |

B C310/C315 SECTION

SCALE HORIZ 1:1000 VERT 1:100




DATUM RL. -11.00

| CHAINAGE | DESIGN | SURVEY |
|---|---|---|
| 0.00 | | |
| 20.00 | | |
| 40.00 | -8.893 | -8.94 |
| 50.00 | -8.800 | -8.41 |
| 60.00 | -8.724 | -5.70 |
| 70.00 | -8.347 | -5.14 |
| 80.00 | -7.355 | -4.59 |
| 90.00 | -6.520 | -4.03 |
| 100.00 | -6.131 | -3.47 |
| 110.00 | -5.713 | -2.91 |
| 120.00 | -5.125 | -2.36 |
| 130.00 | -4.539 | -1.81 |
| 140.00 | -0.952 | 2.98 |
| 150.00 | 2.125 | 3.27 |
| 160.00 | 4.260 | 3.69 |
| 170.00 | 4.204 | 3.99 |
| 180.00 | 4.178 | 4.12 |
| 190.00 | 4.166 | 4.29 |
| 200.00 | 4.167 | 4.41 |
| 210.00 | 4.200 | 4.51 |
| 220.00 | 4.195 | 4.56 |
| 240.00 | 4.069 | 4.58 |
| 260.00 | 3.973 | 4.56 |
| 270.00 | 3.925 | 4.55 |
| 280.00 | 3.880 | 4.53 |
| 290.00 | 3.848 | 4.50 |
| 300.00 | 3.919 | 4.46 |
| 320.00 | 4.062 | 4.47 |
| 330.00 | 4.133 | 4.50 |
| 340.00 | 4.247 | 4.45 |
| 350.00 | 4.300 | 4.42 |
| 360.00 | 4.300 | 4.44 |
| 380.00 | 4.300 | 4.31 |
| 400.00 | 4.300 | 4.31 |
| 420.00 | | 4.27 |
| 424.75 | | 4.27 |

A C310/C315 SECTION

SCALE HORIZ 1:1000 VERT 1:100

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

BUNDABERG Pacific Marine Base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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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| | | | |
|---|---|---|---|
| Drawn | J. BARCIAL | Designer | R. ORTIZ |
| Drafting Check | *B. CHAN | Design Check | *O. ISSADEEN |
| Approved (Project Director) | *C. GILL | | |
| Date | 03.07.18 | | |
| Scale | AS SHOWN | | |

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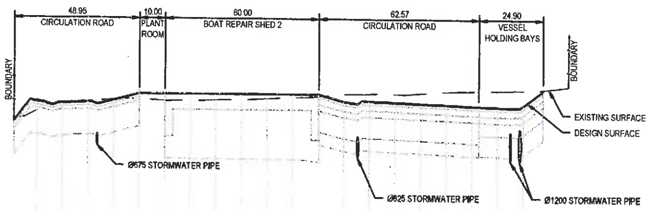
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title SITE SECTIONS
SHEET 1 OF 2

Original Size A1 Drawing No: 41-31423-C320 Rev: D

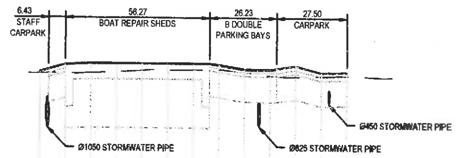
Plot Date: 8 November 2018 - 12:38 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\41-31423-C320\C321.dwg




DATUM RL -2.000

| CHAINAGE | DESIGN | SURVEY |
|---|---|---|
| 0 | | |
| 10 | 3.984 | 3.584 |
| 20 | 3.929 | 3.877 |
| 30 | 3.964 | 4.005 |
| 40 | 4.043 | 4.068 |
| 50 | 4.300 | 4.091 |
| 60 | 4.300 | 4.034 |
| 70 | 4.300 | 4.047 |
| 80 | 4.300 | 4.072 |
| 90 | 4.300 | 4.092 |
| 100 | 4.300 | 4.133 |
| 110 | 4.300 | 4.179 |
| 120 | 4.182 | 4.224 |
| 130 | 4.035 | 4.323 |
| 140 | 4.062 | 4.347 |
| 150 | 4.020 | 4.344 |
| 160 | 3.979 | 4.378 |
| 170 | 3.937 | 4.450 |
| 180 | 3.888 | 4.477 |
| 190 | 3.849 | 4.497 |
| 200 | 3.921 | 4.523 |
| 210 | | 4.581 |
| 220 | | |
| 230 | | |
| 239.26 | | |

D (C310/C315) SECTION
SCALE HORIZ 1:1000 VERT 1:100




DATUM RL -3.000

| CHAINAGE | DESIGN | SURVEY |
|---|---|---|
| 0 | | |
| 10 | | |
| 20 | | |
| 30 | 3.958 | 3.912 |
| 40 | 4.261 | 3.914 |
| 50 | 4.300 | 3.936 |
| 60 | 4.300 | 3.976 |
| 70 | 4.300 | 4.041 |
| 80 | 4.300 | 4.057 |
| 90 | 4.300 | 4.059 |
| 100 | 4.251 | 4.076 |
| 110 | 4.091 | 3.982 |
| 120 | 4.076 | 3.844 |
| 130 | 4.230 | 3.818 |
| 140 | 3.970 | 3.844 |
| 150 | 3.992 | 3.860 |
| 160 | | 3.83 |
| 170 | | |
| 180 | | |
| 190 | | |
| 200 | | |
| 210 | | |
| 220 | | |
| 230 | | |

C (C310/C315) SECTION
SCALE HORIZ 1:1000 VERT 1:100

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE (0 1 2 3 4 5m)
HORIZONTAL 1:1000 AT ORIGINAL SIZE (0 10 20 30 40 50m)

BUNDABERG Pacific Marine Base — Ship Repair | Barging | Project Support

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E bnemail@ghd.com W www.ghd.com

Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Drawn J. BARCIAL | Designer R. ORTIZ
Drafting Check *B. CHAN | Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

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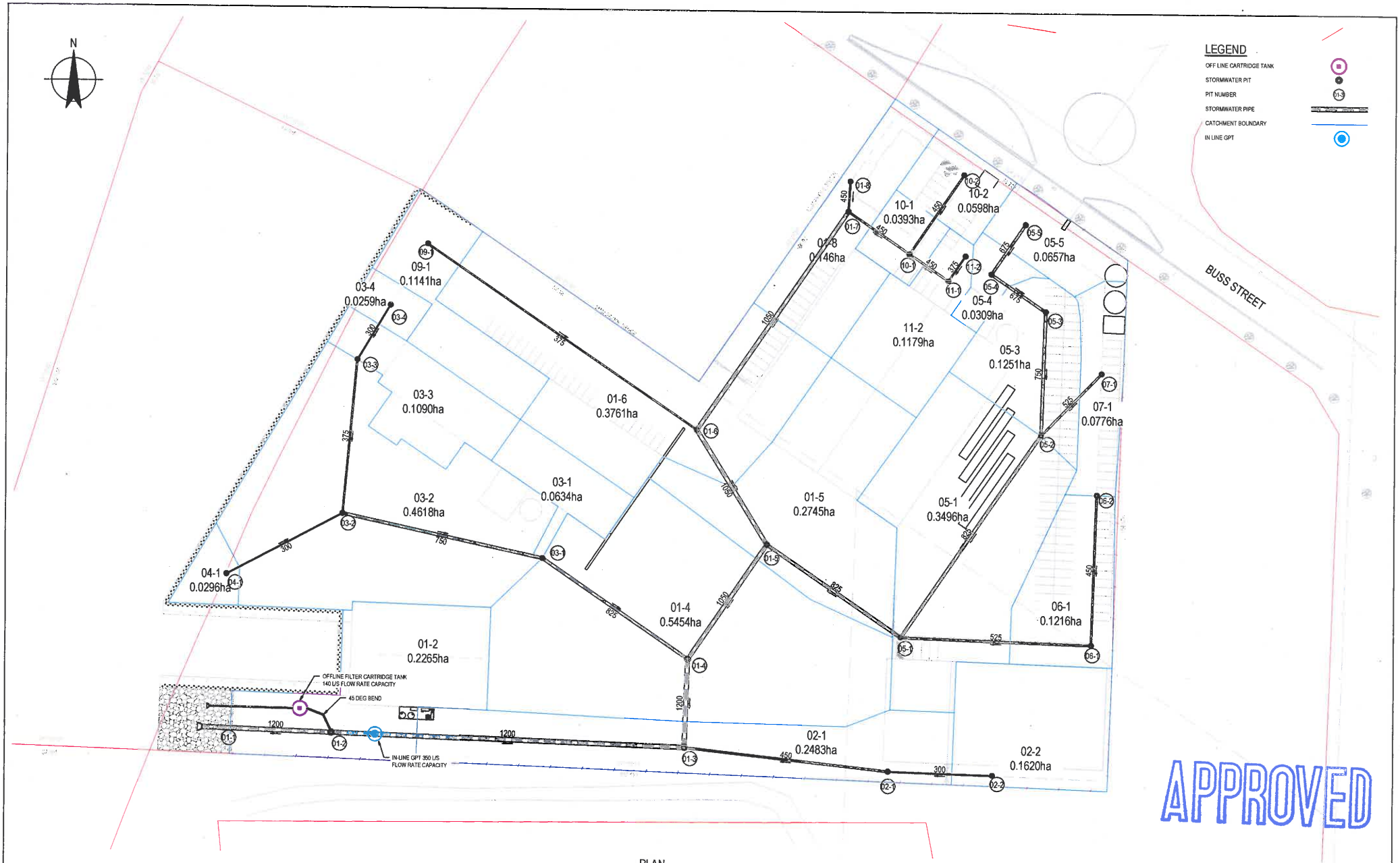
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title SITE SECTIONS SHEET 2 OF 2

Original Size A1 Drawing No: 41-31423-C321 Rev: D

Plot Date: 8 November 2018 - 12:38 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C320□C321.dwg




PLAN
SCALE 1:500

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

Pacific Marine Base
BUNDABERG

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Registered Professional R.ORTIZ
Registration GHD
Registration Discipline CIVIL
Signature R.ORTIZ* No. 13260 Date 02.08.18

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Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
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Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title STORMWATER AND CATCHMENT LAYOUT PLAN

Original Size A1
Drawing No: 41-31423-C400
Rev: D

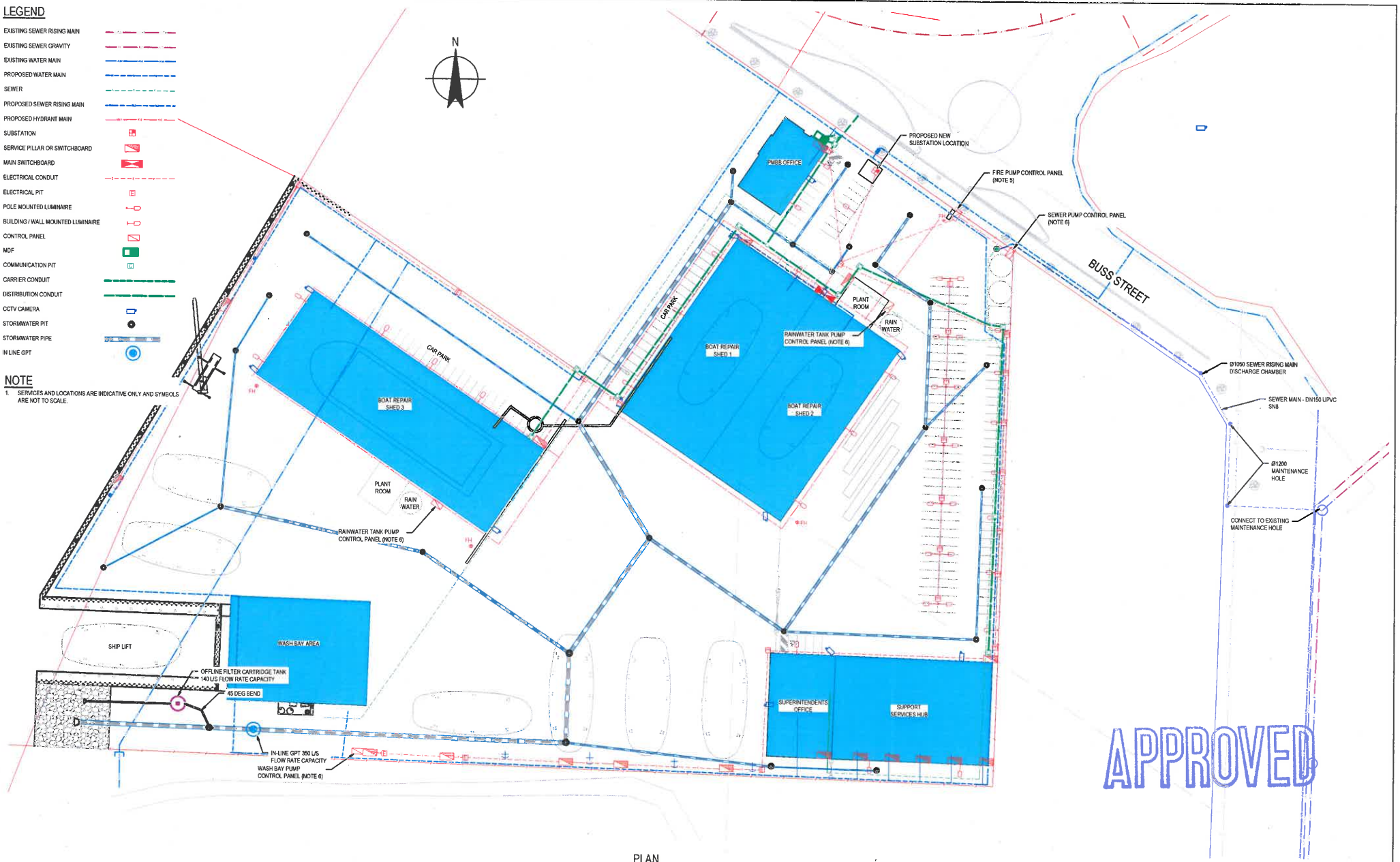
Plot Date: 8 November 2018 - 12:38 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C400.dwg

## LEGEND

- EXISTING SEWER RISING MAIN
- EXISTING SEWER GRAVITY
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- SEWER
- PROPOSED SEWER RISING MAIN
- PROPOSED HYDRANT MAIN
- SUBSTATION
- SERVICE PILLAR OR SWITCHBOARD
- MAIN SWITCHBOARD
- ELECTRICAL CONDUIT
- ELECTRICAL PIT
- POLE MOUNTED LUMINAIRE
- BUILDING / WALL MOUNTED LUMINAIRE
- CONTROL PANEL
- MDF
- COMMUNICATION PIT
- CARRIER CONDUIT
- DISTRIBUTION CONDUIT
- CCTV CAMERA
- STORMWATER PIT
- STORMWATER PIPE
- IN LINE GPT

## NOTE

1. SERVICES AND LOCATIONS ARE INDICATIVE ONLY AND SYMBOLS ARE NOT TO SCALE.




## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 31.08.18 |
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 08.08.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

BUNDABERG Pacific Marine Base
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E bnemail@ghd.com W www.ghd.com


Registered Professional P.KNIGHT
Registration GHD
Registration Discipline ELECTRICAL
Signature *P.KNIGHT No. 4123 Date 02.08.18

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Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
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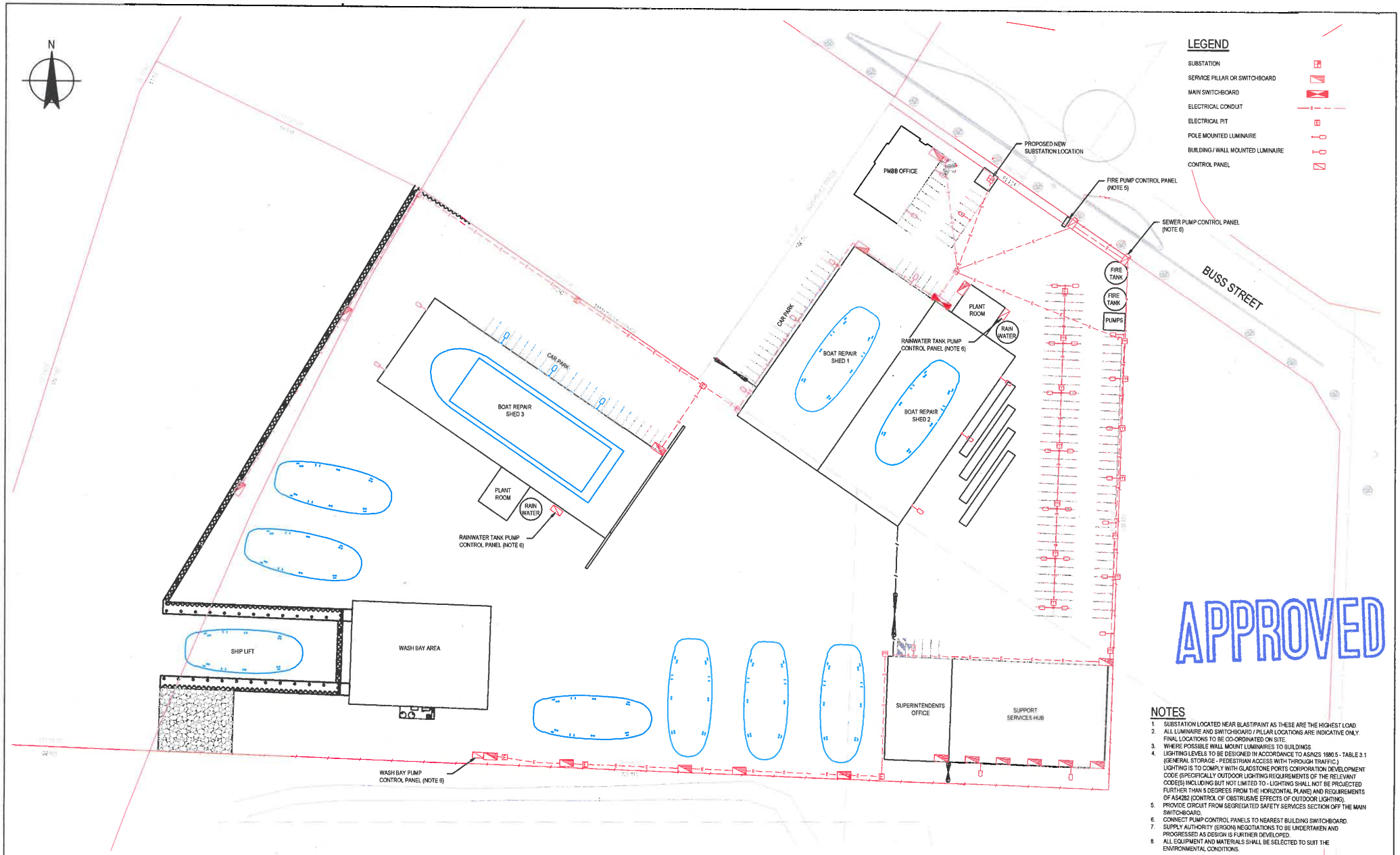
Client **PACIFIC MARINE BASE BUNDABERG PTY. LTD.**
Project **CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT**
Title **MASTER SERVICES LAYOUT PLAN**

Original Size **A1** Drawing No: **41-31423-C500** Rev: **D**

Plot Date: 8 November 2018 - 12:39 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-C500.dwg




APPROVED

## NOTES

1. SUBSTATION LOCATED NEAR BLAST/PAINT AS THESE ARE THE HIGHEST LOAD.
2. ALL LUMINAIRE AND SWITCHBOARD / PILLAR LOCATIONS ARE INDICATIVE ONLY. FINAL LOCATIONS TO BE CO-ORDINATED ON SITE.
3. WHERE POSSIBLE WALL MOUNT LUMINAIRES TO BUILDINGS.
4. LIGHTING LEVELS TO BE DESIGNED IN ACCORDANCE TO AS/NZS 1680.5 - TABLE 3.1 (GENERAL STORAGE - PEDESTRIAN ACCESS WITH THROUGH TRAFFIC.) LIGHTING IS TO COMPLY WITH GLADSTONE PORTS CORPORATION DEVELOPMENT CODE (SPECIFICALLY OUTDOOR LIGHTING REQUIREMENTS OF THE RELEVANT CODE(S) INCLUDING BUT NOT LIMITED TO - LIGHTING SHALL NOT BE PROJECTED FURTHER THAN 5 DEGREES FROM THE HORIZONTAL PLANE) AND REQUIREMENTS OF AS4282 (CONTROL OF OBSTRUSIVE EFFECTS OF OUTDOOR LIGHTING).
5. PROVIDE CIRCUIT FROM SEGREGATED SAFETY SERVICES SECTION OFF THE MAIN SWITCHBOARD.
6. CONNECT PUMP CONTROL PANELS TO NEAREST BUILDING SWITCHBOARD.
7. SUPPLY AUTHORITY (ERGON) NEGOTIATIONS TO BE UNDERTAKEN AND PROGRESSED AS DESIGN IS FURTHER DEVELOPED.
8. ALL EQUIPMENT AND MATERIALS SHALL BE SELECTED TO SUIT THE ENVIRONMENTAL CONDITIONS.

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

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0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

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Registered Professional P.KNIGHT
Registration GHD
Registration Discipline ELECTRICAL
Signature *P.KNIGHT No. 4123 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

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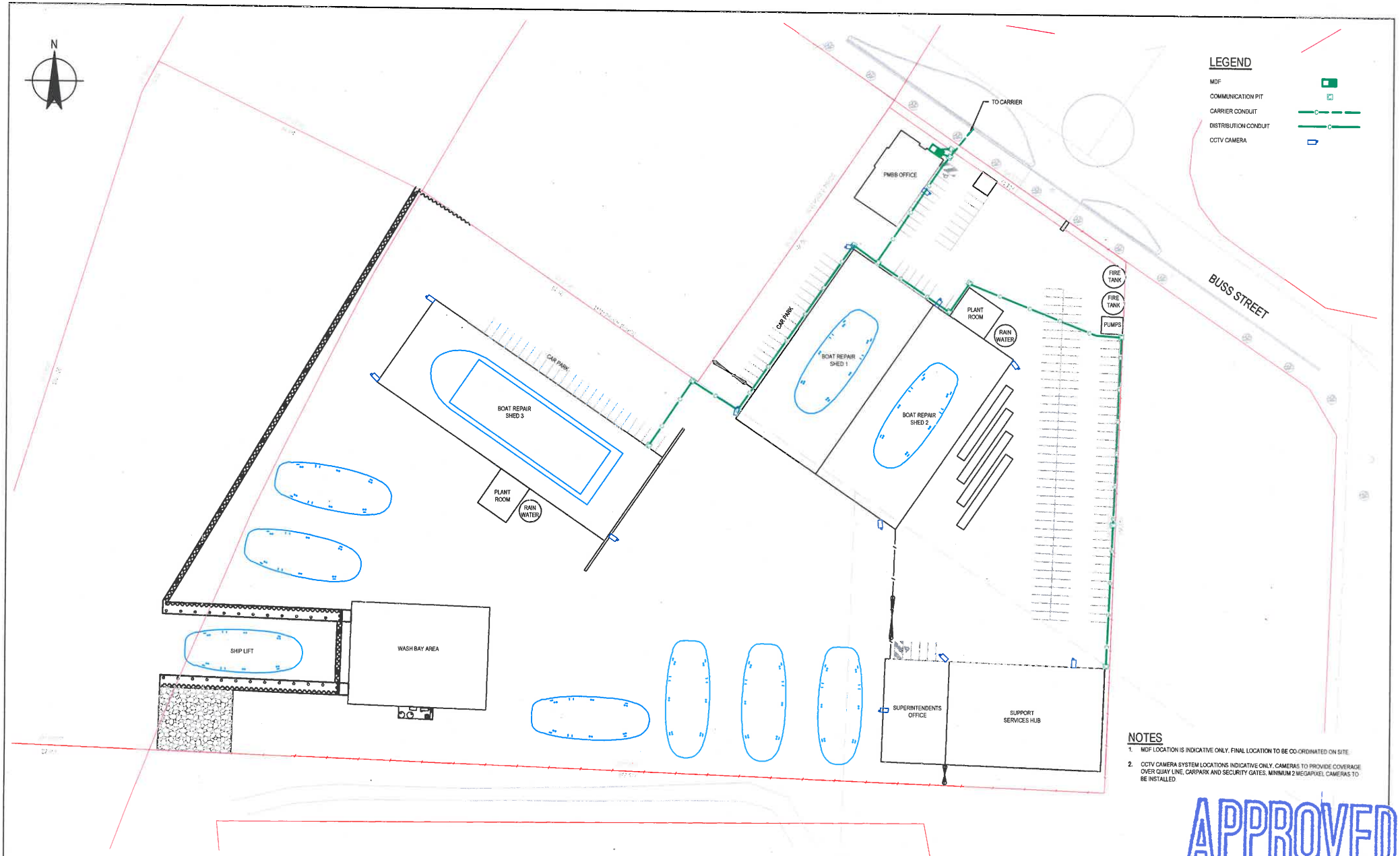
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title ELECTRICAL SITE RETICULATION LAYOUT PLAN

Original Size A1
Drawing No: 41-31423-E100
Rev: D

Plot Date: 8 November 2018 - 12:39 PM Plotted By: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-E100.dwg




## NOTES

1. MDF LOCATION IS INDICATIVE ONLY. FINAL LOCATION TO BE CO-ORDINATED ON SITE.
2. CCTV CAMERA SYSTEM LOCATIONS INDICATIVE ONLY. CAMERAS TO PROVIDE COVERAGE OVER QUAY LINE, CARPARK AND SECURITY GATES. MINIMUM 2 MEGAPIXEL CAMERAS TO BE INSTALLED.

APPROVED

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 31.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

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SCALE 1:500 AT ORIGINAL SIZE

Pacific Marine Base
BUNDABERG
Shop Repairs | Storage | Product Support

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Registered Professional P.KNIGHT
Registration GHD
Registration Discipline ELECTRICAL
Signature *P.KNIGHT No. 4123 Date 02.08.18

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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
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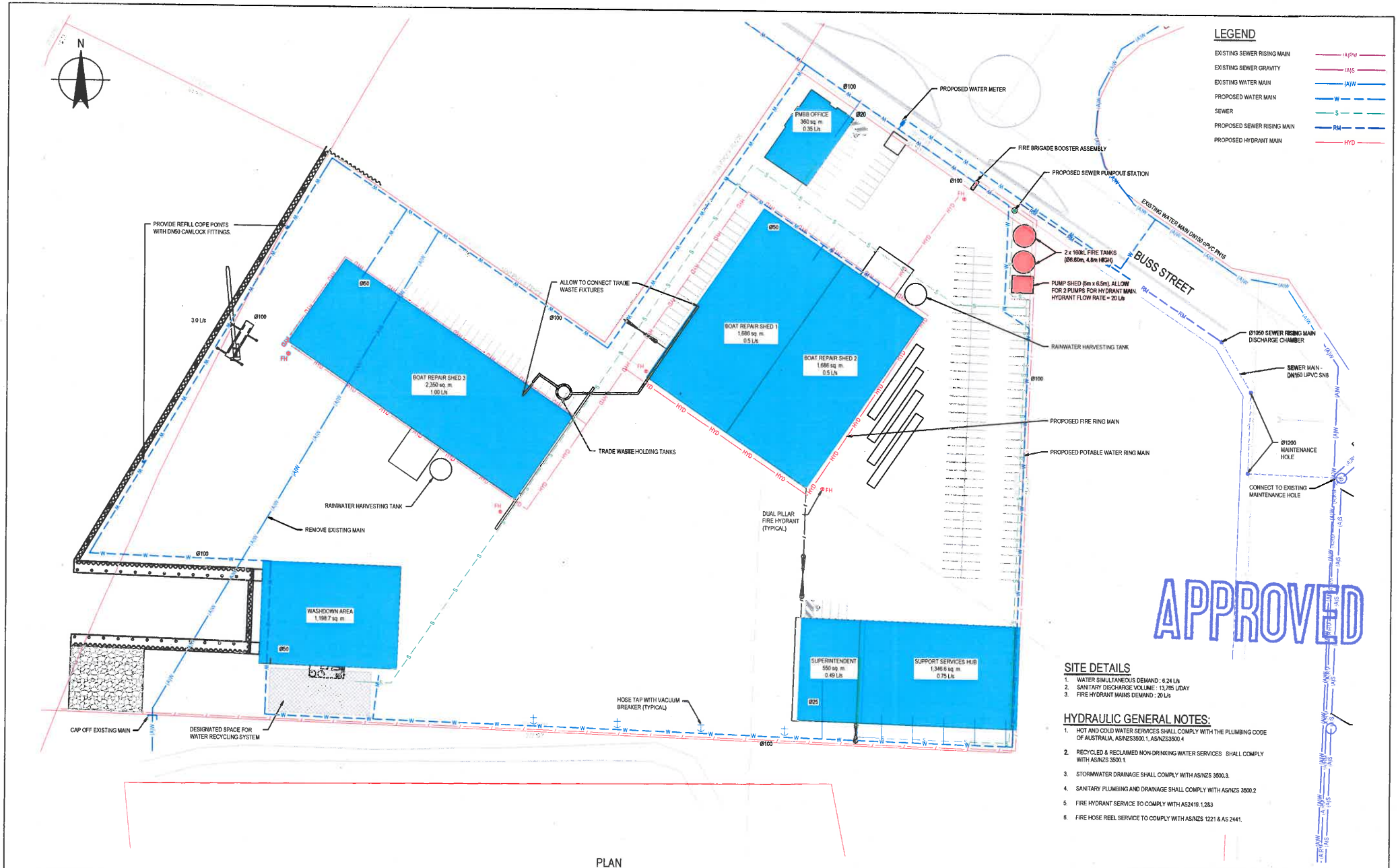
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title COMMUNICATIONS SITE RETICULATION LAYOUT PLAN

Original Size A1
Drawing No: 41-31423-E200
Rev: D

Plot Date: 8 November 2018 - 12:39 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-E200.dwg




## SITE DETAILS

1. WATER SIMULTANEOUS DEMAND : 6.24 L/s
2. SANITARY DISCHARGE VOLUME : 13,785 L/DAY
3. FIRE HYDRANT MAINS DEMAND : 20 L/s

## HYDRAULIC GENERAL NOTES:

1. HOT AND COLD WATER SERVICES SHALL COMPLY WITH THE PLUMBING CODE OF AUSTRALIA, AS/NZS3500.1, AS/NZS3500.4
2. RECYCLED & RECLAIMED NON-DRINKING WATER SERVICES SHALL COMPLY WITH AS/NZS 3500.1.
3. STORMWATER DRAINAGE SHALL COMPLY WITH AS/NZS 3500.3.
4. SANITARY PLUMBING AND DRAINAGE SHALL COMPLY WITH AS/NZS 3500.2
5. FIRE HYDRANT SERVICE TO COMPLY WITH AS2419.1,2&3
6. FIRE HOSE REEL SERVICE TO COMPLY WITH AS/NZS 1221 & AS 2441.

## PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision Note: * indicates signatures on original issue of drawing or last revision of drawing | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 08.11.18 |
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| B | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | J.B. | *B.C. | *C.G. | 03.07.18 |

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BUNDABERG Pacific Marine Base
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Drawn J. BARCIAL
Designer R. ORTIZ
Drafting Check *B. CHAN
Design Check *O. ISSADEEN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title WASHBAY LAYOUT - HYDRAULIC SERVICES

Original Size A1
Drawing No: 41-31423-H100
Rev: D

Plot Date: 8 November 2018 - 12:40 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\41-31423-H100.dwg

## GENERAL

G1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT AND RELEVANT PROJECT SPECIFICATIONS
G2. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE PROJECT SPECIFICATIONS, ALL RELEVANT AUSTRALIAN STANDARDS, INTERNATIONAL STANDARDS AND STATUTORY REGULATIONS.
G3. THE WORK IS TO BE CARRIED OUT IN A SAFE MANNER IN ACCORDANCE WITH THE APPLICABLE LEGISLATION, STATUTORY REGULATIONS, BY-LAWS OR RULES.
G4. THE CONTRACTOR IS RESPONSIBLE FOR OCCUPATIONAL HEALTH AND SAFETY OF SITE PERSONNEL AND GENERAL PUBLIC IN ACCORDANCE WITH ALL CURRENT WORK HEALTH AND SAFETY ACTS, LEGISLATIVE REQUIREMENTS, ASSOCIATED REGULATIONS AND CODES OF PRACTICE, INDUSTRIAL AGREEMENTS AND ACCEPTED INDUSTRY PRACTICE.
G5. THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM RELEVANT AUTHORITIES BEFORE COMMENCING WORK ON SITE AND NOTIFY RELEVANT SERVICE AUTHORITIES BEFORE COMMENCING WORK ON SITE.
G6. DIMENSIONS ARE NOT TO BE OBTAINED BY SCALING FROM DRAWINGS.
G7. DIMENSIONS ARE IN MILLIMETRES, LEVELS ARE IN METRES UNO.
G8. SERVICES SHOWN ON DRAWINGS ARE IN APPROXIMATE LOCATIONS ONLY.
G9. SERVICES OTHER THAN THOSE SHOWN MAY EXIST ON SITE.
G10. THE CONTRACTOR IS TO ESTABLISH THE LOCATION OF ALL SERVICES LOCATED WITHIN THE DESIGNATED WORK AREAS PRIOR TO COMMENCING WORK AND MARK LOCATIONS OF SERVICES CLEARLY ON SITE, AND ON AS-BUILT DRAWINGS.
G11. THE CONTRACTOR IS TO PROTECT EXISTING STRUCTURES AND SERVICES FROM DAMAGE OR CRACKING AND MAKE GOOD ANY DAMAGE TO EXISTING ELEMENTS AT COMPLETION OF WORKS.
G12. WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR IS TO PROVIDE SMOOTH TRANSITION FREE OF ABRUPT CHANGES.
G13. CONSTRUCTION METHODS AND TEMPORARY WORKS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
G14. THE STRUCTURE IS TO BE MAINTAINED IN A STABLE CONDITION DURING CONSTRUCTION WITH TEMPORARY BRACING AND/OR SUPPORT PROVIDED AS REQUIRED.
G15. TEMPORARY MEMBERS ARE TO BE SHOWN ON SHOP DRAWINGS. SPREADER BEAMS AND/OR LIFTING POINTS ARE TO BE PROVIDED WHERE REQUIRED.
G16. THE CONTRACTOR IS TO ENSURE NO PART OF THE STRUCTURE IS OVERSTRESSED.
G17. THE CONTRACTOR IS TO OBTAIN ADVICE AND CALCULATIONS FROM A SUITABLY QUALIFIED ENGINEER AS REQUIRED TO PROVE THE ADEQUACY OF THE STRUCTURE FOR THE PROPOSED CONSTRUCTION SEQUENCE, METHODS AND LOADS INCLUDING PROPPING, CRANE LIFTS, STORAGE OF MATERIALS etc.

## SURVEY CONTROL

G18. ALL LEVELS ARE IN METERS TO LAT & AHD.
G19. SURVEY AND SETTING OUT ARE TO BE UNDERTAKEN BY A REGISTERED SURVEYOR
G20. SITE SET OUT DIMENSIONS ARE TO BE VERIFIED BEFORE COMMENCING CONSTRUCTION. EXISTING STRUCTURES SHOWN ON DRAWINGS ARE IN APPROXIMATE LOCATIONS ONLY.
G21. ANY AMBIGUITIES OR DISCREPANCIES SHALL BE REFERRED FOR CLARIFICATION BEFORE WORK COMMENCES.

## HYDROGRAPHIC DATA

G22. EXISTING BATHYMETRY INFERRED FROM QUEENSLAND GOVERNMENT 'BUNDABERG SWING BASIN POST-BEDLEVELLING HYDROGRAPHIC SURVEY' DATED 11 MAY 2017, PLAN No. F002-054.
G23. NAVIGATION AIDS AND CHANNEL LIMITS TAKEN FROM QUEENSLAND GOVERNMENT 'BUNDABERG HARBOUR CONTROL PLAN', DATED FEBRUARY 2016, PLAN No. F001-002.

## SITE ADDRESS

BURNETT HEADS, BUNDABERG, QUEENSLAND 4670
LEASE AU on SP305678 in LOT 501 on SP279707 AND
SUB-LEASE AW on SP305678 in LOT 287 on SP186199
LOCAL AUTHORITY: BUNDABERG REGIONAL COUNCIL

## LEGEND

HAT
MHWS
LAT
PROPERTY BOUNDARY
NEIGHBOURING BOUNDARY

| | |
|---|---|
| HAT | 3.67m |
| MHWS | 2.88m |
| MHWN | 2.30m |
| MSL | 1.72m |
| MLWN | 1.14m |
| MLWS | 0.56m |
| LAT | 0.0m (-1.693m AHD) |

TIDAL PLANES
BUNDABERG (BURNETT HEADS)
(QUEENSLAND TIDE TABLES 2018)

## SAFETY IN DESIGN

SID1. THE ADEQUACY OF WORKING SPACE AVAILABLE FOR CONSTRUCTION ACTIVITIES IS TO BE REVIEWED TO ENSURE SEPARATION OF PLANT AND PERSONNEL ON SITE, AND TO PROVIDE FOR THE SAFE MOVEMENT OF BOTH.
SID2. THE STABILITY OF ANY EXISTING RETAINING WALLS MUST BE REVIEWED BY SUITABLY QUALIFIED ENGINEER.
SID3. BEFORE MATERIALS CAN BE STOCKPILED BEHIND IT OR EXCAVATION CAN BE UNDERTAKEN IN FRONT OF IT, ADVICE FROM A SUITABLY QUALIFIED ENGINEER IS TO BE SOUGHT.
SID4. DEVELOP STEELWORK / PRECAST / TILT UP INSTALLATION SAFE WORK METHOD STATEMENT TO ELIMINATE AND MINIMISE INSTALLATION RISKS, AND HAVE IT REVIEWED BY SUITABLY QUALIFIED STRUCTURAL ENGINEER PRIOR TO ERECTION.
STRUCTURAL MEMBERS ARE NOT TO BE CUT OR UNBOLTED WITHOUT SEEKING REVIEW BY A SUITABLY
SID5. QUALIFIED STRUCTURAL ENGINEER.
SITE BASED TREATMENTS ARE TO BE MINIMISED (eg WELDING, CUTTING, SPRAY PAINTING, GRIT BLASTING,
SID6. etc). ADEQUATE PROTECTION, SCREENING AND VENTILATION ARE TO BE PROVIDED TO MINIMISE THE HAZARD TO PERSONNEL IF SITE BASED TREATMENT IS UNAVOIDABLE.
WHERE STRUCTURAL ELEMENTS ARE DAMAGED, CRACKED OR HAVE SUFFERED SIGNIFICANT SECTION LOSS
SID7. THEY ARE TO BE MADE SAFE BEFORE ALLOWING GENERAL CONSTRUCTION OR REPAIR ACCESS.

## PILE INSTALLATION

E4. ALL PILES SHALL BE DESIGNED, CERTIFIED AND INSTALLED IN ACCORDANCE WITH AS 2159 TO ACHIEVE THE NOMINATED DESIGN LEVELS.
E5. THE CONTRACTOR SHALL UNDERTAKE A DRIVEABILITY ASSESSMENT TO CONFIRM THE REQUIREMENTS FOR PRE-DRILLING AND DRIVING OF PILES.
E6. THE FOUNDING LEVELS AND PILE SIZES OUTLINED ARE INDICATIVE ONLY AND THE CONTRACTOR SHALL DETERMINE THE DEPTHS REQUIRED TO ACHIEVE THE REQUIRED PILE CAPACITIES.
E7. THE GROUND CONDITIONS SHALL BE MONITORED AND REVIEWED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER IF THEY DIFFER FROM THE EXPECTED CONDITIONS.

## CONCRETE

C1. ALL WORKMANSHIP AND MATERIALS ARE TO COMPLY WITH THE REQUIREMENTS OF AS3800, AS3610 AND AS1379.
C2. EXTERNALLY EXPOSED CONCRETE TO BE CLASSIFICATION C2 WITH MIN. COVERS TO COMPLY WITH AS3600 UNO.
C3. CAST IN STEELWORK, OTHER THAN REINFORCEMENT, SHALL BE STAINLESS STEEL UNO.
C4. PROVIDE 50 mm BLINDING CONCRETE UNDER STRUCTURAL REINFORCED CONCRETE CAST ON GROUND UNO.

## REINFORCEMENT

R1. ENSURE REINFORCEMENT CAGES ARE ELECTRICALLY CONTINUOUS UNO AND THAT THE PILE REINFORCEMENT IS ELECTRICALLY CONTINUOUS WITH THE HEADSTOCK REINFORCEMENT.
R2. ENSURE EMBEDDED ITEMS (INSERTS, THREADED SOCKETS, FERRULES, BOLTS, DISSIMILAR METAL ITEMS, etc) IN COVER CONCRETE OR EXPOSED TO AIR ARE NOT IN CONTACT WITH REINFORCEMENT. PROVIDE ISOLATION BETWEEN DISSIMILAR METALS, AND BETWEEN REINFORCEMENT AND EXPOSED ITEMS.
R3. REINFORCEMENT, CAST-IN ITEMS etc ARE NOT TO BE WELDED UNLESS APPROVED BY A SUITABLY QUALIFIED ENGINEER.

## STEELWORK

S1. ALL STEELWORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AS 4100, AS/NZS 4600 AND AS/NZS 1554.
S2. STEELWORK FITTED AFTER CONCRETING SHALL HAVE DIMENSIONS CONFIRMED ONSITE PRIOR TO FABRICATION.
S3. ALL PLATES SHALL HAVE SHARP EDGES AND CORNERS ROUNDED AND GROUND SMOOTH TO A MINIMUM RADIUS OF 2.0mm.
S4. ALL CLOSED SECTIONS OR DETAILS DIFFICULT TO BLAST CLEAN AND SURFACE PROTECT SHALL BE SEALED WITH 6mm SEAL PLATES AND MIN. 4mm SEAL WELDS UNO. WHERE DRAINAGE MAY BE A PROBLEM, THE SEAL
S5. PLATES SHALL BE INSTALLED AT AN ANGLE TO SHED WATER.
S6. ALL WELDING SHALL BE STRUCTURAL PURPOSE IN ACCORDANCE WITH AS/NZS 1554 UNO.
S7. ALL SPLICING OF TUBULAR MEMBERS, PILES AND BEAMS SHALL BE FULL PENETRATION BUTT WELDS UNO.
ALL DIFFERENT MATERIALS (STEEL, SS, GALV, ALUMINIUM, ETC) SHALL BE SEPARATED BY INSULATING, BOLT INSULATION SHALL BE ACHIEVED WITH A 1mm THICK NYLON SLEEVE ON BOLT SHANK AND 3mm THICK UHMWPE WASHERS UNDER BOLT HEAD AND NUT.

## STAINLESS STEEL

ST1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4673.
ST2. STRUCTURAL STAINLESS STEEL SHALL BE GRADE 316 STAINLESS STEEL IN ACCORDANCE WITH AS4673 (COLD-FORMED STAINLESS STRUCTURES) AND AS1554.6 (WELDING CODE) UNO.
ST3. ALL BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL A4 CLASS 70 UNO IN ACCORDANCE WITH AS4673.
ST4. ALL BOLTS THROUGH DISSIMILAR METALS (STEEL, ALUMINIUM) SHALL BE INSULATED WITH A 1mm THICK UHMWPE SLEEVE ON BOLT SHANK AND 3mm THICK UHMWPE WASHERS UNDER HEAD & NUT. THE UHMWPE SHALL BE HEAVY DUTY, MARINE GRADE AND UV STABILISED.
ST5. THREADS OF SS BOLTS SHALL BE COATED WITH NICKEL BASED GREASE ANTI-SEIZE LUBRICANT BEFORE ASSEMBLY.

## PROTECTIVE COATINGS

PC1. PROTECTIVE COATINGS SHALL BE APPLIED TO ANY STRUCTURAL STEEL WORK THAT IS EXPOSED TO ATMOSPHERIC CONDITIONS.
PC2. STEEL ELEMENTS THAT REQUIRE A PROTECTIVE COATING TO BE APPLIED SHALL HAVE A MINIMUM RADIUS OF 2mm ON ALL EDGES.
PC3. PROTECTIVE COATING SYSTEM TO BE SUITABLE TO ACHIEVE A 10-YEAR TIME TO FIRST MAINTENANCE FOR A C5-M ENVIRONMENT IN ACCORDANCE WITH THE REQUIREMENTS OF AS/NZS 2312.1. COATING SHALL BE A HIGH SOLIDS EPOXY COATING SYSTEM WITH THE MINIMUM NUMBER OF COATS REQUIRED TO ACHIEVE A MINIMUM DRY FILM THICKNESS OF 400 MICRONS.
PC4. SURFACE PREPARATION TO THE STEEL ELEMENTS SHALL INVOLVE THOROUGH BLAST CLEANING TO ACHIEVE A CLASS SA 2.5 FINISH IN ACCORDANCE WITH AS 1627.
PC5. THE PROTECTIVE COATING SYSTEMS SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
PC6. PERMANENTLY IMMERSED STEEL ELEMENTS SHALL BE PROTECTED BY MEANS OF CATHODIC PROTECTION, PROTECTIVE COATINGS AS PER THAT FOR ATMOSPHERIC REGIONS OR OTHERWISE AS APPROVED BY A SUITABLY QUALIFIED ENGINEER.

## CONSTRUCTION METHOD (ANTICIPATED)

1. EXCAVATE NEAR THE EXISTING REVETMENT DOWN TO TIE ROD LEVEL (WHICH IS EXPECTED TO BE IN HIGH TIDE REGION). SOME OF THIS FILL THAT IS EXCAVATED WOULD BE USED TO EXTEND THE SOIL PLATFORM INTO THE RIVER TO ALLOW ACCESS FOR PILING RIG TO THE WALL ALIGNMENT.
2. DRIVE SHEET PILES (WALL AND DEADMAN). THE WALL SHEETS ARE EXPECTED TO BE DRIVEN TO A TOE LEVEL OF -16m LAT. THE SHEETS FOR DEADMAN ONLY EXTEND TO LAT LEVEL.
3. INSTALL STEEL WALER BEAMS AND STEEL TIE RODS.
4. PLACE FILL AT THE DEADMAN AND CONTINUE TO FILL BEHIND THE WALL.
5. CONSTRUCT THE REINFORCED CONCRETE CAPPING BEAM AT TOP OF THE SHEET PILEWALL.
6. CONTINUE BACKFILLING TO THE REQUIRED SUBGRADE LEVEL (UNDERSIDE PAVEMENT).
7. DREDGE IN FRONT OF THE WALL TO ACHIEVE THE REQUIRED BERTH POCKET LEVELS.
8. CONSTRUCT THE PAVEMENT INCORPORATING THE RETICULATION OF SERVICES AT REQUIRED DEPTHS AND LOCATIONS.
9. THE LENGTH OF THE WALL FROM THE NOTHERN BOUNDARY TO THE SHIP LIFT IS APPROXIMATELY 141m. THE DEADMAN IS PARALLEL WITH THIS QUAYWALL AND SETBACK 18m.

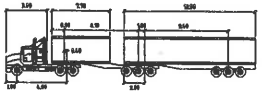
## DESIGN CRITERIA

STRUCTURES SHALL BE DESIGNED TO THE FOLLOWING PARAMETERS:

1. DESIGN LIFE: 30 YEAR MINIMUM WITH MINIMAL MAINTENANCE REQUIRED TO THE PRINCIPAL LOAD BEARING COMPONENTS
2. DESIGN VESSELS:

| VESSEL | DISPLACEMENT (tonne) | LENGTH (m) | BEAM (m) | DRAFT (m) |
|---|---|---|---|---|
| TUG ENVELOPE | < 1,000 | 35 | 12 | 5.5 |
| DESIGN VESSEL | 5,000 | 100 | 20 | 7.0 |

3. VESSEL BERTHING - 0.2m/s UNDER NORMAL BERTHING CONDITIONS
   BERTHING ANGLE - 15 DEGREES.
   ABNORMAL FACTOR OF SAFETY - 2.0.
   MINIMUM UKC - 1.0m
4. DECK LIVE LOADS:
   DECK STACK LOAD - 20 kPa
   DESIGN VEHICLE - 350t ROUGH TERRAIN CRANE
   - 250t PIN JIB CRANE
   - B-DOUBLE 25m



5. WIND LOADS:
   ULTIMATE REGIONAL WIND SPEED V500 - 57 m/s
   OPERATIONAL WIND SPEED V25 - 20 m/s
6. WAVE ACTION:
   MAX OPERATIONAL WAVE HEIGHT - HS = 0.4m
7. SHIP LIFT:
   ARRANGEMENT AS PER MARINE TRAVELIFT SHUTTLELIFT DRAWING 300288B. REFER TO DRAWING C210 FOR SECTION.
   MAXIMUM CORNER LOAD 577t.

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.C. | *C.G. | 09.11.18 |
| A | ISSUE FOR DEVELOPMENT APPLICATION | SR | R.O. | S.V. | 02.08.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

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Registered Professional B.GILES
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Signature No. 10749
*B.GILES Date 02.08.18

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Drawn E.PAZ
Designer B.GILES
Drafting Check J.DE JESUS
Design Check S.VIVIAN
Approved (Project Director) C.GILL
Date 02.08.18
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title MARITIME NOTES

Original Size A1
Drawing No: 41-31423-K000
Rev: B

Plot Date: 6 November 2018 - 12:40 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K000.dwg

## NOTES

1. FOR GENERAL AND CONSTRUCTION NOTES REFER TO DRAWING NUMBER 41-31423-K000.

## LEGEND

AREA 1: DREDGE AND OPERATION AREA FOR SUB-LEASE AW ON SP305678 IN LOT 287 ON SP305678 (WET AREA OWNED BY THE STATE AND LEASED BY GPC)

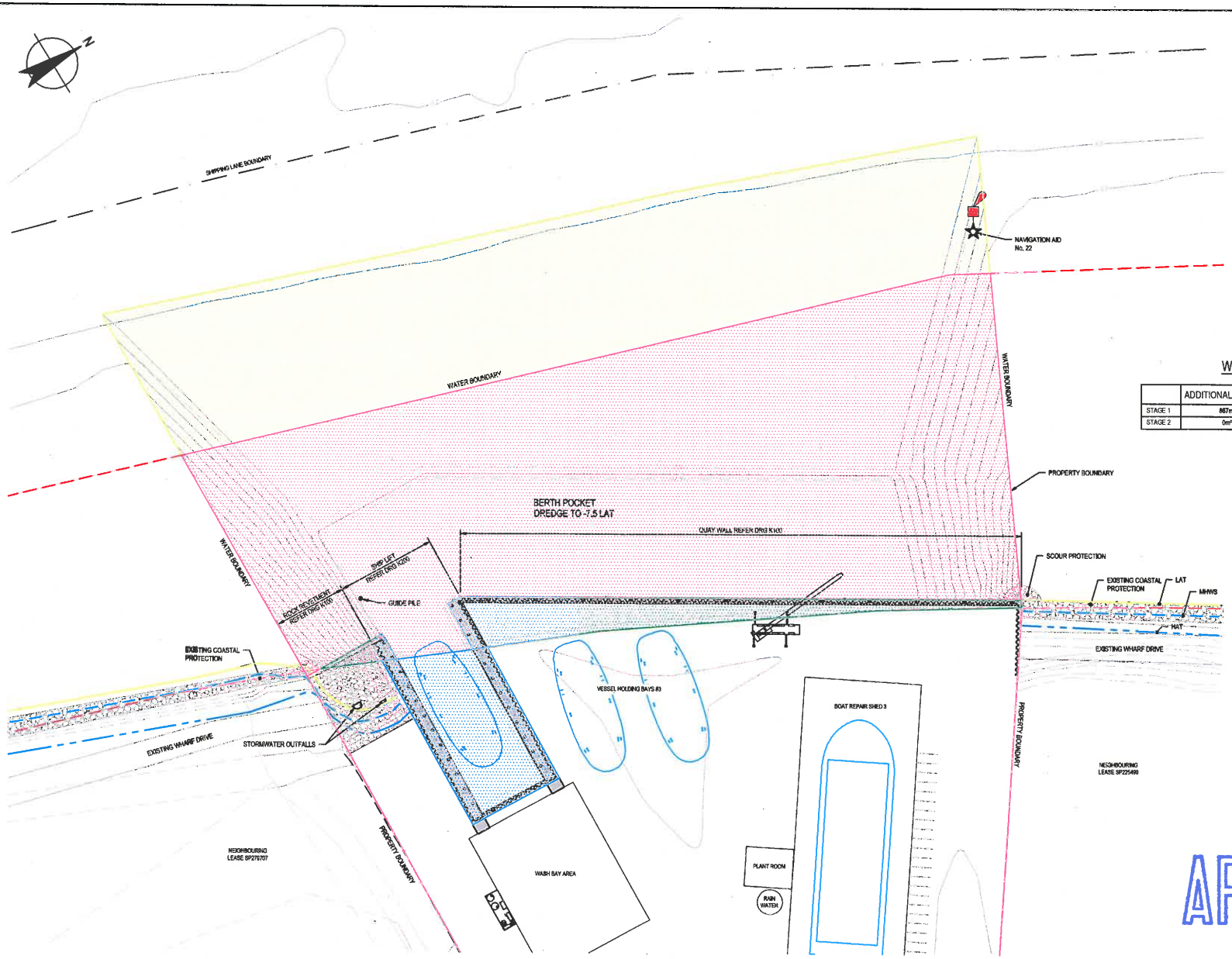
AREA 2: DREDGE AREA ON UNALLOCATED STATE LAND (USL) ASSOCIATED WITH SITE DEVELOPMENT

AREA 3: DREDGE AREA FOR LEASE AU ON SP305678 IN LOT 501 ON SP279707 (DRY AREA OWNED BY GPC)

AREA 4: RECLAMATION AREA FOR SUB-LEASE AW ON SP305678 IN LOT 287 ON SP305678 (WET AREA OWNED BY THE STATE AND LEASED BY GPC)

## WATER AREA BALANCE

| | ADDITIONAL RECLAIM | ADDITIONAL INTERTIDAL | NET |
|---|---|---|---|
| STAGE 1 | 867m² | 0m² | 867m² |
| STAGE 2 | 0m² | 42m² | 42m² |




APPROVED

## MARITIME LAYOUT

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

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Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Drawn E.PAZ
Designer B.GILES
Drafting Check *J.DE JESUS
Design Check *S.VIVIAN
Approved (Project Director) *C.GILL
Date 03.07.18
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client / Project / Title: **PACIFIC MARINE BASE BUNDABERG PTY. LTD. CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT MARITIME LAYOUT**

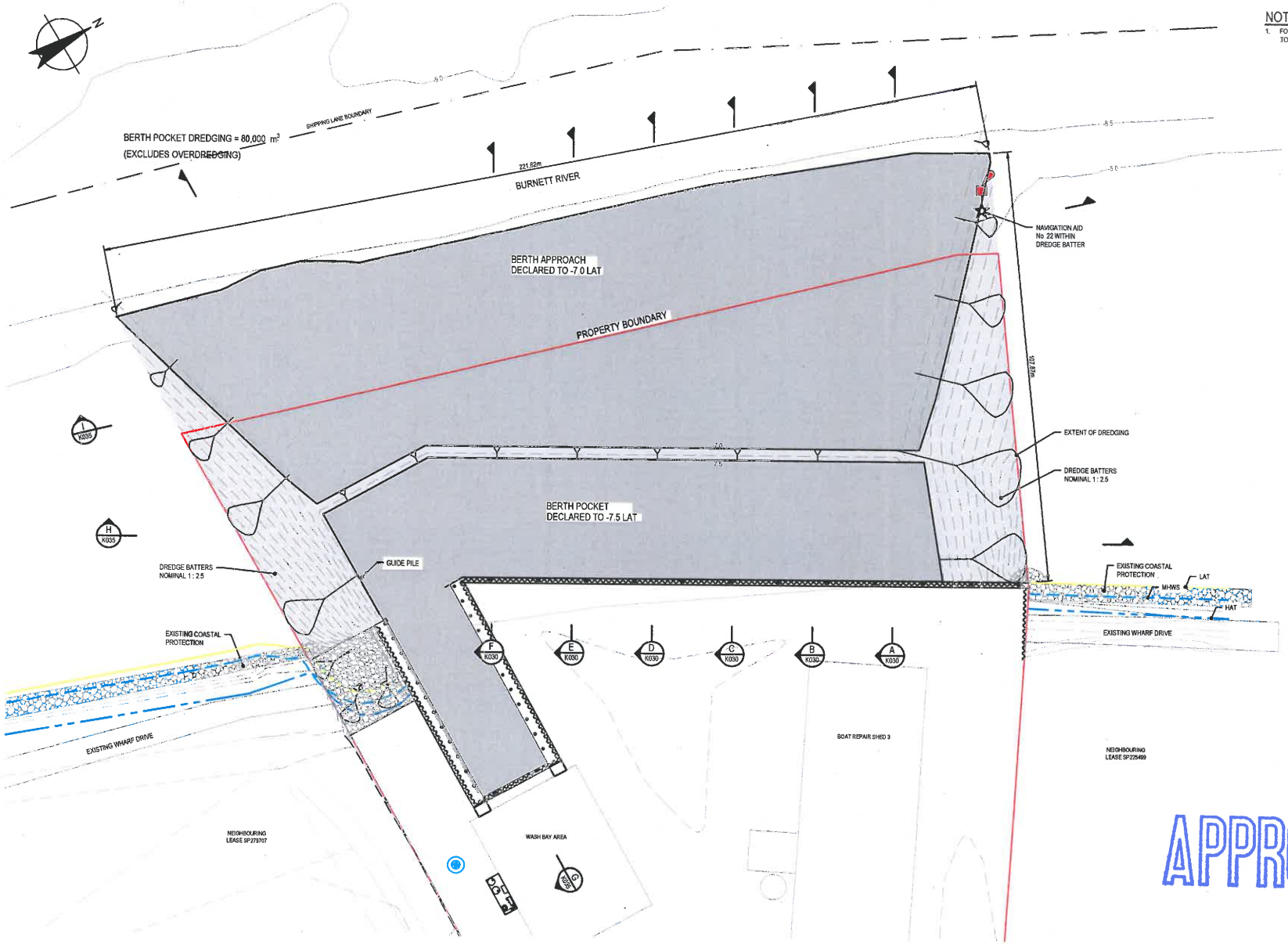
Original Size A1 **Drawing No: 41-31423-K001** **Rev: D**

Plot Date: 8 November 2018 - 12:41 PM Plotted by: Keegan Stewart

Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K001.dwg

## NOTES

1. FOR LEGEND, GENERAL AND CONSTRUCTION NOTES REFER TO DRAWING NUMBER 41-31423-K000




## DREDGING PLAN

SCALE 1:500

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | S.R. | *B.C. | *C.G. | 30.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *R.O. | *S.V. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | B.V. | *R.O. | *S.V. | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 5 10 15 20 25m
SCALE 1:500 AT ORIGINAL SIZE

BUNDABERG
Pacific Marine Base
Work Harbour | Boatyard | Pitcairn Quarry

GHD
145 Ann St Brisbane QLD 4000 Australia
GPO Box 668 Brisbane QLD 4001
T 61 7 3316 3000 F 61 7 3316 3333
E brismail@ghd.com W www.ghd.com

Registered Professional Engineer: B.GILES
Registration: GHD
Registration Discipline: MARINE
Signature: *B.GILES No. 10749 Date 02.08.18

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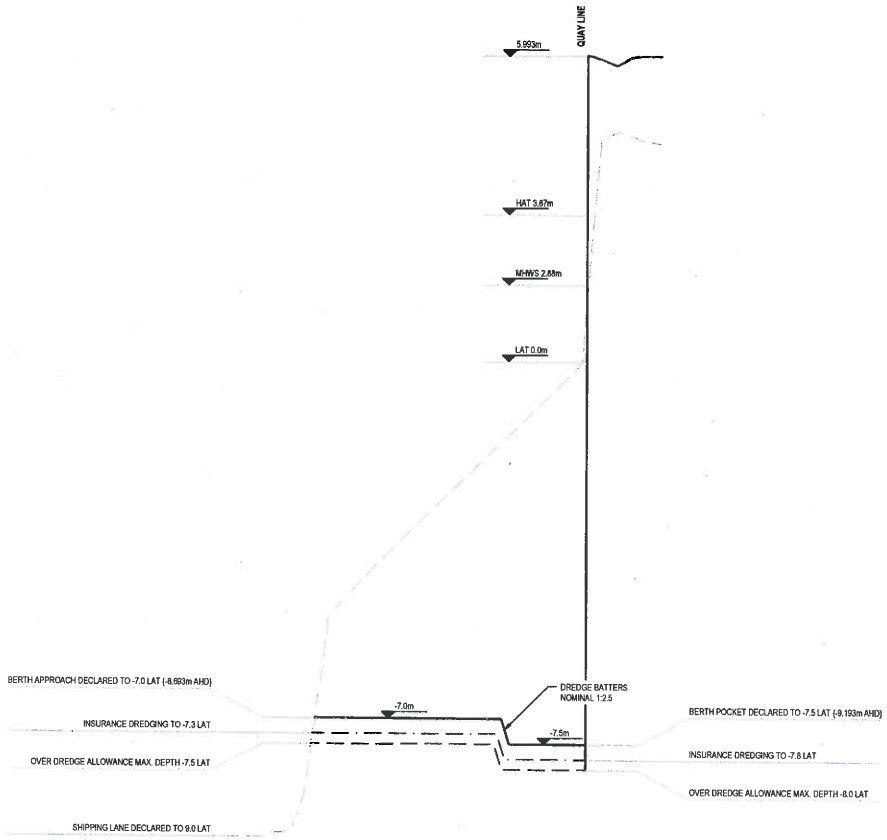
Drawn: B.VASTA
Designer: B. GAILES
Drafting Check: *D.SIPPEL
Design Check: *S. VIVIAN
Approved (Project Director): *C.GILL
Date: 03.07.18
Scale: AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: DREDGING PLAN

Original Size: A1
Drawing No: 41-31423-K010
Rev: D

Plot Date: 13 November 2018 - 2:30 PM Plotted by: Keone Bradley
Cad File No: N:\AUBrisbane\Projects\41\31423\CADD\Drawings\Marines\41-31423-K010.dwg




## DREDGING TYPICAL SECTION

SCALE H 1:1000 V 1:50

## DREDGING VOLUMES:

| AREA | DREDGE FROM SEABED TO INSURANCE DEPTH | | DREDGE BETWEEN INSURANCE AND OVER DREDGE ALLOWANCE | | TOTAL VOLUME REMOVED FOR DEVELOPMENT (m3) |
|---|---|---|---|---|---|
| | ALLOCATION REMOVED (%) | VOLUME (m3) | ALLOCATION REMOVED (%) | VOLUME (m3) | |
| AREA 1 | 100% | 54100 | 50% | 1300 | 55400 |
| AREA 2 | 100% | 17600 | 50% | 800 | 18400 |
| AREA 3 | 100% | 8300 | 50% | 100 | 8400 |
| TOTAL | | 80000 | | 2200 | 82200 |

- 50% OVER DREDGE BY VOLUME ALLOWANCE TO ACHIEVE INSURANCE DEPTH PROFILE.

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

Pacific Marine Base
Ship Repair | Berthing | Project Support

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E brmail@ghd.com W www.ghd.com

Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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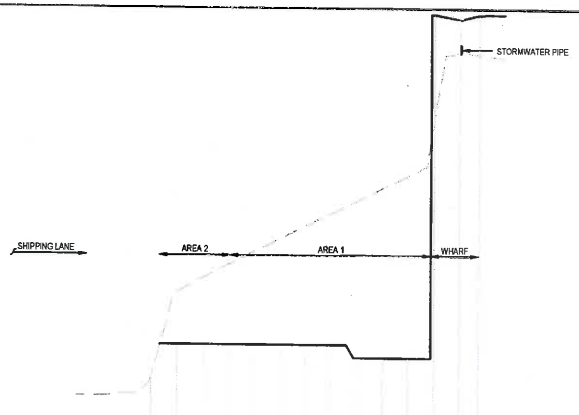
Drawn B.VASTA
Designer B. GAILES
Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (*Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING TYPICAL SECTION AND VOLUMES

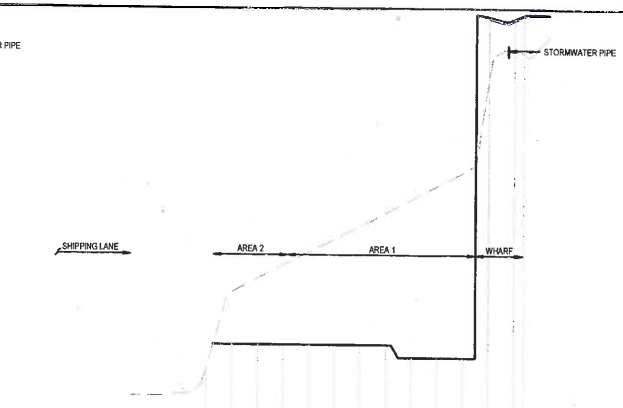
Original Size A1
Drawing No: 41-31423-K020
Rev: A

Plot Date: 13 November 2018 - 2:20 PM Plotted by: Keona Bradley
Cad File No: N:\AUBrisbane\Projects\41\31423\CADD\Drawings\Marines\41-31423-K020.dwg



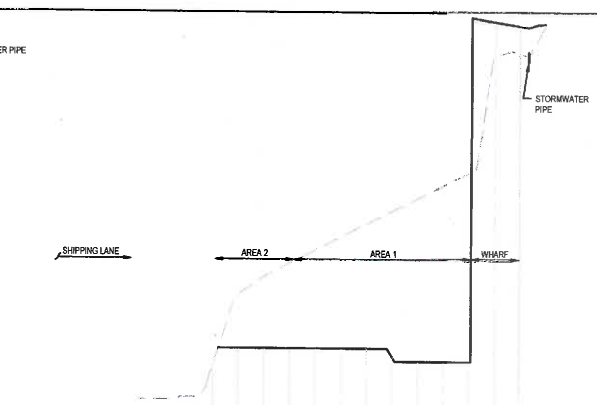

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 147.573 | | | | | | | | | | | | | | |

A SECTION
K010 SCALE H 1:1000 V 1:100



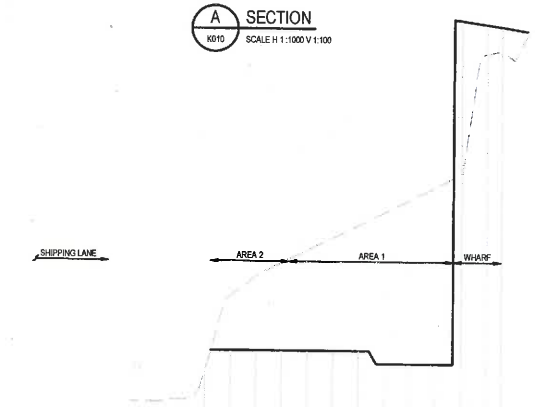

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 143.581 | | | | | | | | | | | | | | |

B SECTION
K010 SCALE H 1:1000 V 1:100



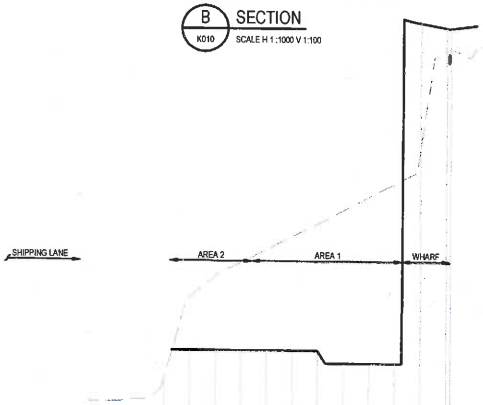

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 139.598 | | | | | | | | | | | | | | |

C SECTION
K010 SCALE H 1:1000 V 1:100



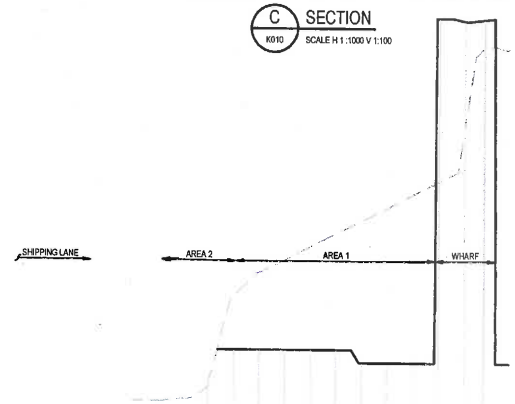

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 135.595 | | | | | | | | | | | | | | | |

D SECTION
K010 SCALE H 1:1000 V 1:100




| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 131.603 | | | | | | | | | | | | | | | |

E SECTION
K010 SCALE H 1:1000 V 1:100




| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 127.611 | | | | | | | | | | | | | | | | |

F SECTION
K010 SCALE H 1:1000 V 1:100

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

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E brmail@ghd.com W www.ghd.com

Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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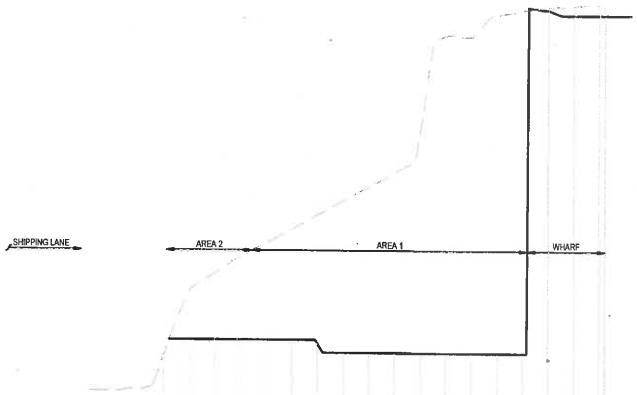
Drawn B.VASTA
Designer B. GAILES
Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN
This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING SECTIONS
SHEET 1 OF 2

Original Size A1
Drawing No: 41-31423-K030
Rev: A

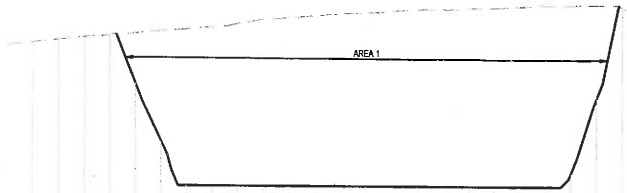
Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K030\035.dwg




DATUM RL -12.000

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.821 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -4.202 | -4.012 | | -4.012 | -4.012 |
| SURVEY | | | | -9.318 | -6.754 | -6.078 | -5.450 | -4.694 | -4.343 | -3.792 | -3.241 | -2.690 | -2.139 | | 3.213 | 3.180 | 4.065 | 4.217 | 4.322 | 4.391 | 4.449 | | 4.449 | 4.463 |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | | 202.053 | |

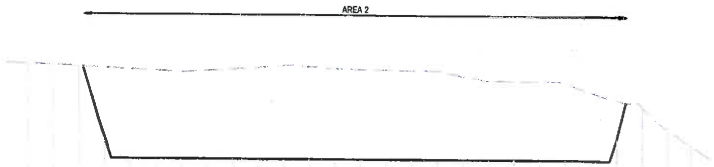
G K010 SECTION
SCALE H 1:1000 V 1:100




DATUM RL -11.000

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | -5.225 | -7.451 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -9.193 | -8.677 | -5.659 | | | | |
| SURVEY | -3.910 | -3.501 | -3.393 | -3.300 | -3.212 | -3.124 | -3.051 | -2.975 | -2.846 | -2.672 | -2.597 | -2.528 | -2.445 | -2.403 | -2.339 | -2.282 | -2.256 | -2.228 | -2.160 | -2.140 | -2.056 | -2.099 | -2.092 | -2.170 | | | |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 | 255.525 |

H K010 SECTION
SCALE H 1:1000 V 1:100




DATUM RL -10.000

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DESIGN | | | | | -8.042 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.693 | -8.019 | | | | |
| SURVEY | -5.146 | -5.196 | -5.246 | -5.295 | -5.346 | -5.399 | -5.448 | -5.392 | -5.330 | -5.268 | -5.207 | -5.229 | -5.297 | -5.327 | -5.341 | -5.355 | -5.377 | -5.587 | -5.750 | -5.757 | -5.763 | -5.821 | -6.175 | -6.491 | -6.762 | -7.631 | -9.238 |
| CHAINAGE | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 | 258.677 |

I K010 SECTION
SCALE H 1:1000 V 1:100

APPROVED

DEVELOPMENT APPROVAL ISSUE

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | J.B. | *B.C. | *C.G. | 09.11.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

VERTICAL 1:100 AT ORIGINAL SIZE
HORIZONTAL 1:1000 AT ORIGINAL SIZE
0 1 2 3 4 5m
0 10 20 30 40 50m

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GPO Box 668 Brisbane QLD 4001
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E bnemail@ghd.com W www.ghd.com

Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

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Drawn B.VASTA
Designer B. GAILES
Drafting Check *B. CHAN
Design Check *S. VIVIAN
Approved (Project Director) *C. GILL
Date 03.07.18
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING SECTIONS
SHEET 2 OF 2

Original Size A1
Drawing No: 41-31423-K035
Rev: A

Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marine\41-31423-K030\D35.dwg

## LEGEND:

PORT OF BUNDABERG MATERIAL RECLAMATION AREA (MRA)

DREDGE MATERIAL PIPELINE

DREDGE AREA

## DREDGING/RECLAMATION PLAN

SCALE 1:5000

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| A | ISSUE FOR DEVELOPMENT APPLICATION | B.V. | *B.C. | *C.G. | 09.11.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 50 100 150 200 250m
SCALE 1:5000 AT ORIGINAL SIZE

BUNDABERG Pacific Marine Base

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GPO Box 668 Brisbane QLD 4001
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E bnemail@ghd.com W www.ghd.com

Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature No. 10749
*B.GILES Date 02.08.18

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Drawn B.VASTA
Designer B. GAILES
Drafting Check *D.SIPPEL
Design Check *S. VIVIAN
Approved (Project Director) *C.GILL
Date 03.07.18
Scale AS SHOWN
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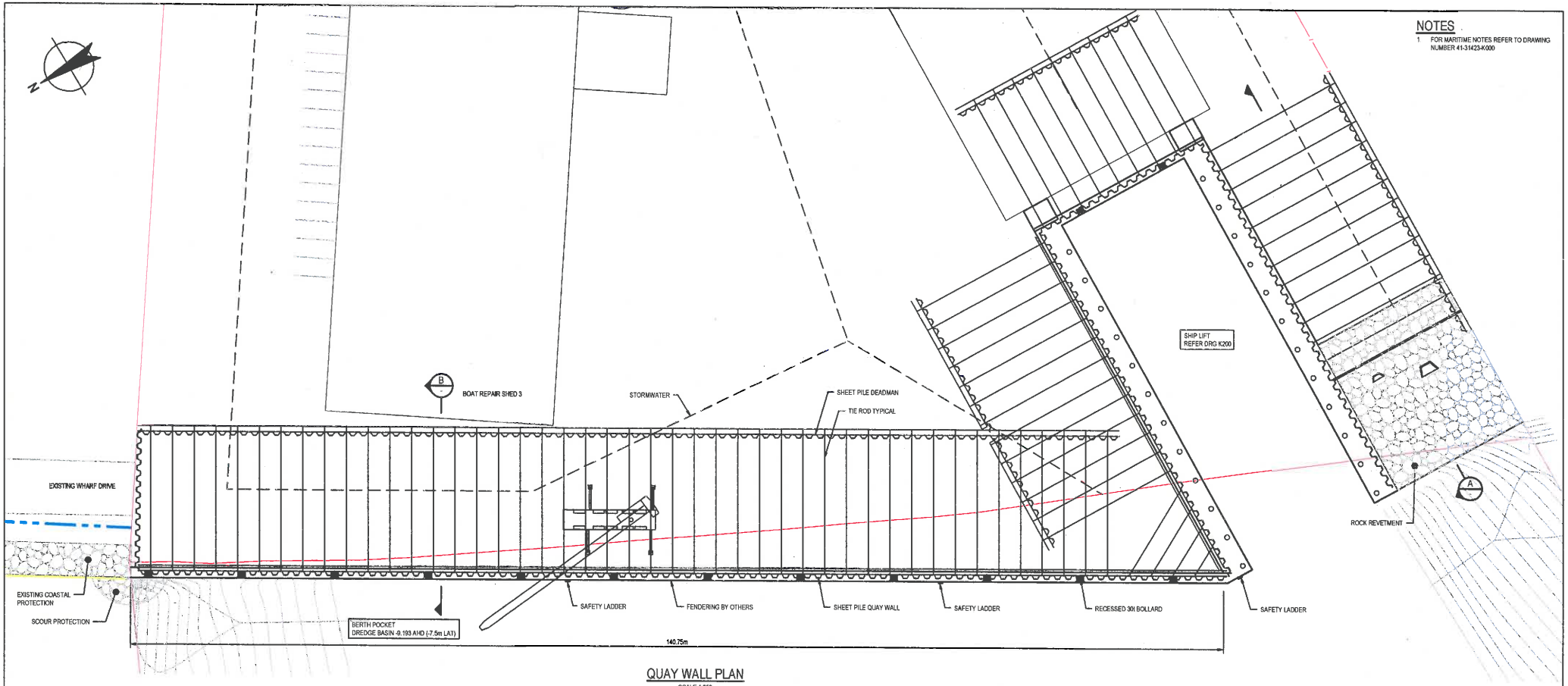
Client PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title DREDGING/RECLAMATION PLAN

Original Size A1
Drawing No: 41-31423-K050
Rev: A

Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart
Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K050.dwg

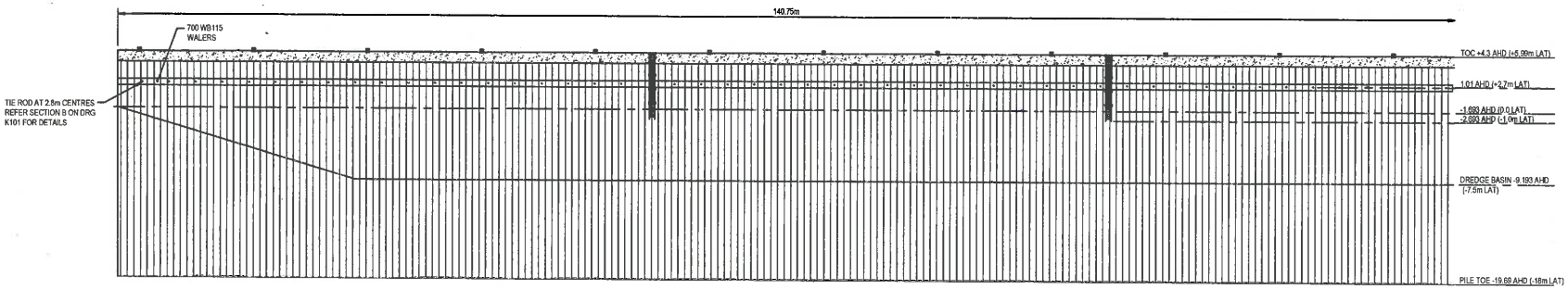
## NOTES

1 FOR MARITIME NOTES REFER TO DRAWING NUMBER 41-31423-K000




## QUAY WALL PLAN

SCALE 1:250




## QUAY WALL LONGITUDINAL SECTION

SCALE 1:250

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.C. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.C | *C.G. | 30.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *RO | *SV | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | EP | *RO | *SV | 03.07.18 |

Note: * Indicates signatures on original issue of drawing or last revision of drawing

0 2.5 5 7.5 10 12.5m
SCALE 1:250 AT ORIGINAL SIZE

BUNDABERG Pacific Marine Base
Dry Repair | Berthing | Project Support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145 Ann St Brisbane QLD 4000 Australia
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| | | | |
|---|---|---|---|
| Drawn | E.S.PAZ | Designer | B. GILES |
| Drafting Check | *J.DE JESUS | Design Check | *S.VIVIAN |
| Approved (Project Director) | *C.GILL | | |
| Date | 03.07.18 | | |
| Scale | AS SHOWN | | This Drawing must not be used for Construction unless signed as Approved |

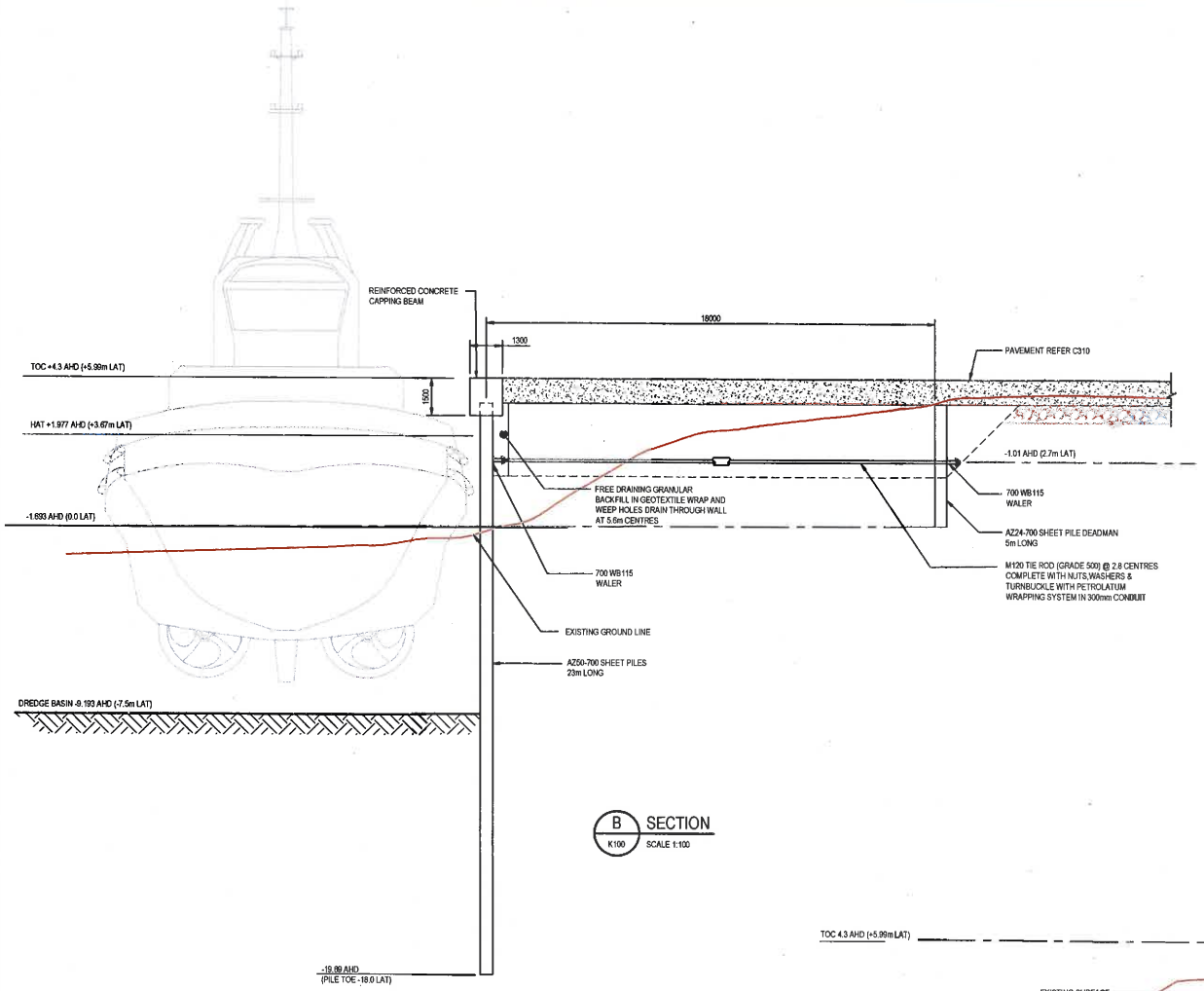
Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: QUAYWALL PLAN AND LONGITUDINAL SECTION

Original Size: A1 | Drawing No: 41-31423-K100 | Rev: D

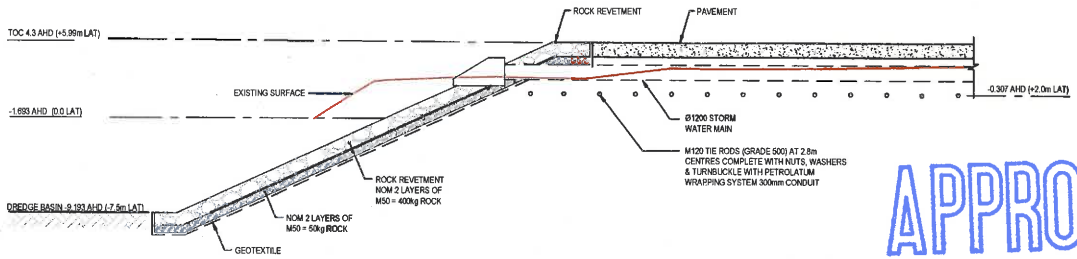
Plot Date: 8 November 2018 - 12:42 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K100.dwg

## NOTES

1. FOR MARITIME NOTES REFER TO DRAWING NUMBER 41-31423-K000.




B K100 SECTION
SCALE 1:100




A K100 SECTION
SCALE 1:200

APPROVED

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.G. | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.G. | *C.G. | |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.G. | *S.V. | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | E.P. | *B.G. | *S.V. | 03.07.18 |

Note: * indicates signatures on original issue of drawing or first revision of drawing

SCALE 1:200 AT ORIGINAL SIZE (0 2 4 6 8 10m)

SCALE 1:100 AT ORIGINAL SIZE (0 1 2 3 4 5m)

Pacific Marine Base — BUNDABERG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Registered Professional B.GILES
Registration GHD
Registration Discipline MARINE
Signature *B.GILES No. 10749 Date 02.08.18

**DO NOT SCALE**


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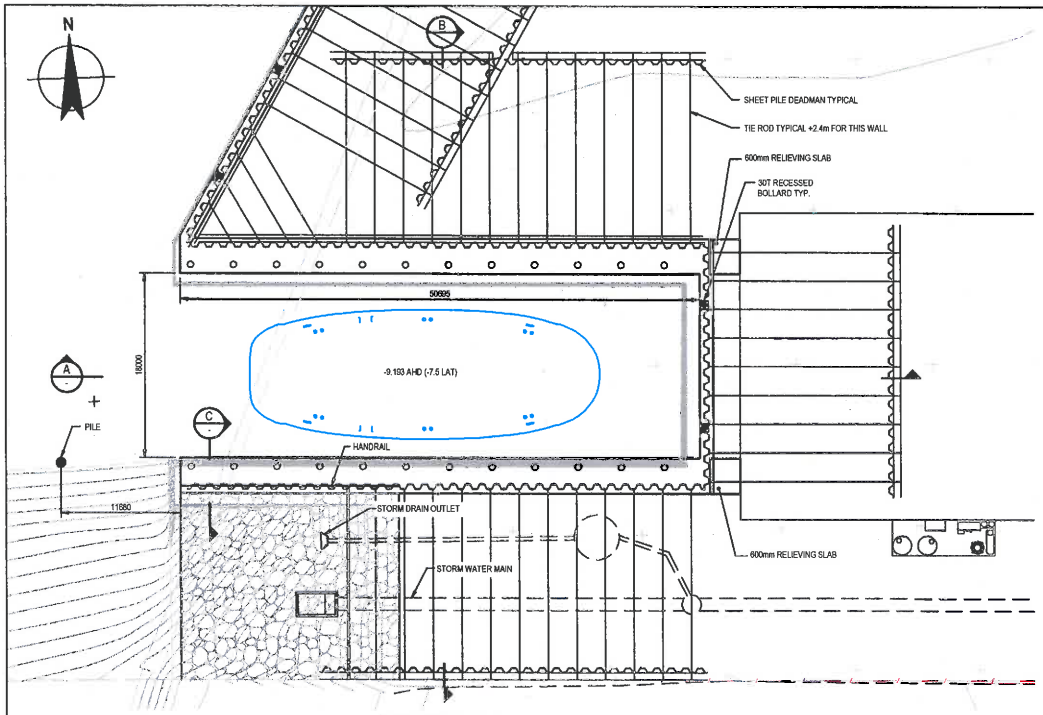
Drawn E.PAZ | Designer B.GILES
Drafting Check *J.DE JESUS | Design Check *S.VIVIAN
Approved (Project Director) *C.GILL
Date 03.07.18
Scale AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: QUAYWALL SECTIONS AND DETAILS

Original Size A1 | Drawing No: 41-31423-K101 | Rev: D

Plot Date: 8 November 2018 - 12:43 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\Marines\41-31423-K101.dwg

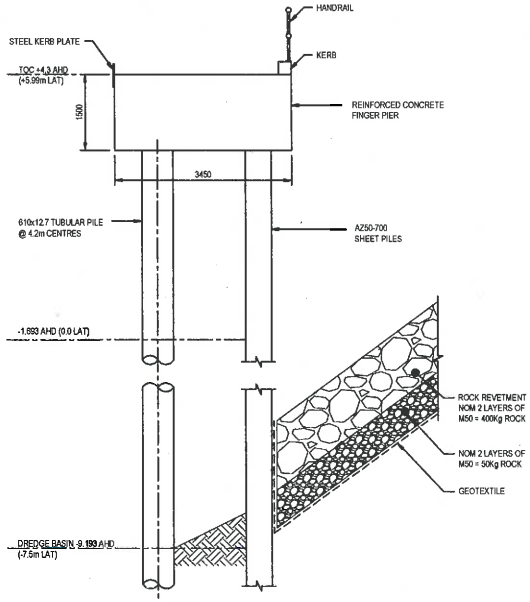



## SHIP LIFT PLAN

SCALE 1:250

## NOTES

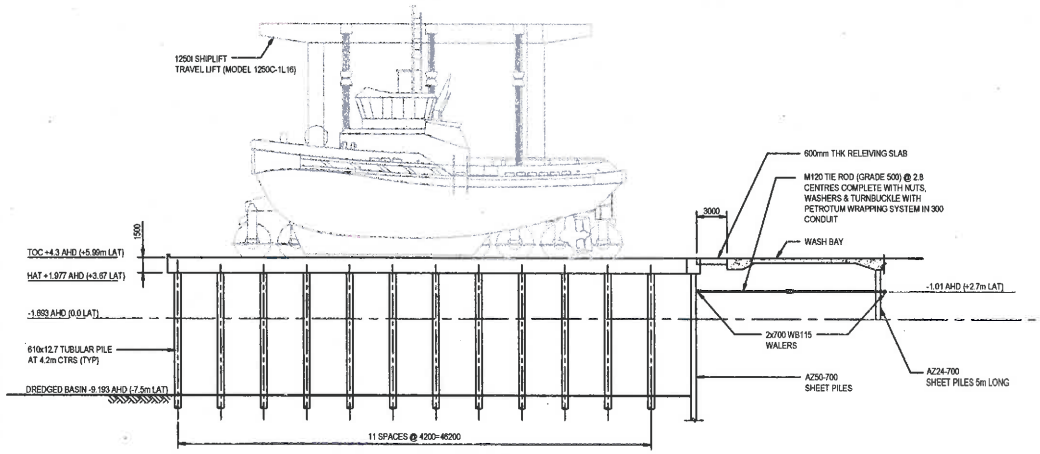
1. FOR MARITIME NOTES REFER TO DRAWING NUMBER 41-31423-K000




## C SECTION

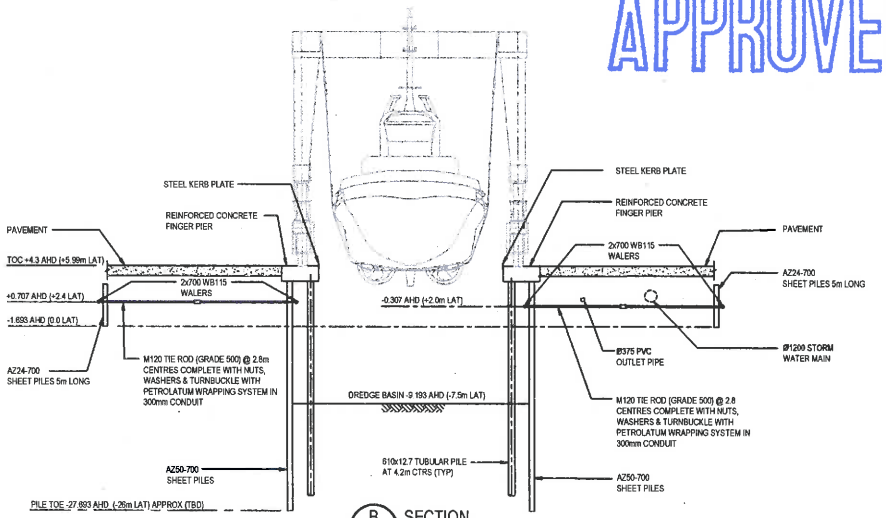
SCALE 1 : 50

APPROVED




## A SECTION

SCALE 1 : 250




## B SECTION

SCALE 1 : 250

**DEVELOPMENT APPROVAL ISSUE**

| No | Revision | Drawn | Job Manager | Project Director | Date |
|---|---|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | SR | *B.G | *C.G. | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | SR | *BG | *C.G. | 30.08.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | SR | *BG | *SV | 02.08.18 |
| A | CONCEPT DESIGN ISSUE | EP | *BG | *SV | 03.07.18 |

Note: * indicates signatures on original issue of drawing or last revision of drawing

SCALE 1:250 AT ORIGINAL SIZE (0 2.5 5 7.5 10 12.5m)

SCALE 1:50 AT ORIGINAL SIZE (0 0.5 1.0 1.5 2.0 2.5m)

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Registered Professional: B.GILES
Registration: GHD
Registration Discipline: MARINE
Signature: *B.GILES No. 10749 Date 02.08.18

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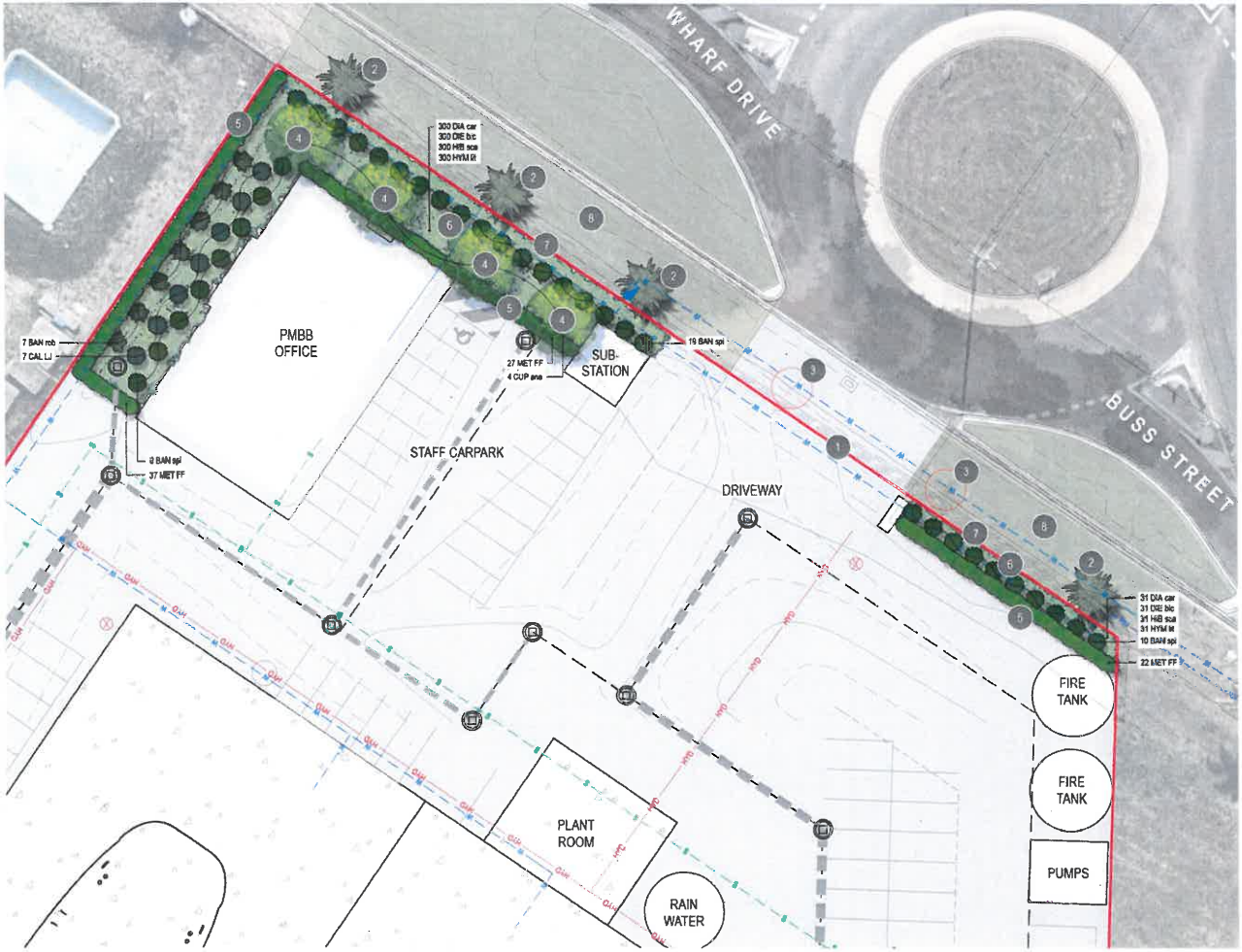
Drawn: E.PAZ
Designer: B.GILES
Drafting Check: *J.DE JESUS
Design Check: *S.VIVIAN
Approved (Project Director): *C.GILL
Date: 03.07.18
Scale: AS SHOWN

This Drawing must not be used for Construction unless signed as Approved

Client: PACIFIC MARINE BASE BUNDABERG PTY. LTD.
Project: CONCEPT DESIGN FOR PMBB MARINE INDUSTRY DEVELOPMENT
Title: SHIP LIFT PLAN AND SECTIONS

Original Size: A1
Drawing No: 41-31423-K200
Rev: D

Plot Date: 6 November 2018 - 12:44 PM Plotted by: Keegan Stewart Cad File No: G:\41\31423\CADD\Drawings\Marine\41-31423-K200.dwg




PLAN
SCALE 1:200

KEY PLAN
NTS

## LEGEND

- TREE TO BE REMOVED
- EXISTING TREE TO BE RETAINED
- PROPOSED SHADE TREES
- PROPOSED SHRUB AND LOW LEVEL PLANTING
- PROPOSED SHRUB SCREEN PLANTING
- PROPOSED GROUNDCOVER PLANTING
- TURFED VERGE
- CONCRETE AREAS - REFER CIVIL ENGINEERS DRAWINGS FOR DETAILS
- PROPERTY BOUNDARY

## NOTES

1. REFER TO DRAWING 41-31423-L002 FOR PLANT SPECIES SCHEDULE, IMAGES AND GENERAL NOTES
2. REFER CIVIL ENGINEERS DRAWINGS FOR ALL SERVICES DETAILS AND PROPOSED LOCATIONS

## ANNOTATION NOTES

1. SITE ENTRY
2. EXISTING PALMS IN VERGE TO BE RETAINED
3. EXISTING PALMS TO BE REMOVED TO ALLOW FOR PROPOSED DRIVEWAY CROSSOVER AND IMPROVED VEHICHLE SIGHT LINES
4. PROPOSED SHADE TREES CUP ana TO PROVIDE AMENITY TO ADJACENT HARDSTAND AREAS
5. MET FF AS BUFFER / SCREEN PLANTING TO BOUNDARY AND ROAD FRONTAGE
6. FEATURE SHRUBS AND GROUNDCOVERS AS SPECIFIED TO PROVIDE FULL COVERAGE OF GARDENBEDS
7. TIMBER EDGING TO GARDEN BED AND TURF INTERFACE
8. EXISTING TURFED VERGE TO BE RETAINED - MAKE GOOD IF DAMAGED DURING CONSTRUCTION

N

0 2 4 6 8 10m
SCALE 1:200 AT ORIGINAL SIZE

PRELIMINARY

| rev | description | drawn | date |
|---|---|---|---|
| D | ISSUE FOR DEVELOPMENT APPLICATION | KVW | 09.11.18 |
| C | ISSUE FOR DEVELOPMENT APPLICATION | KVW | 29.08.18 |

PACIFIC MARINE BASE BUNDABERG PTY LTD
PMBB MARINE INDUSTRY DEVELOPMENT
LANDSCAPE CONCEPT PLAN
PLANTING PLAN

LAUD ink
landscape architecture and urban design
Office 7, 915 Ann Street, Fortitude Valley, QLD 4006
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ABN 60 169 836 144

LAUDink JOB NO: 1711-005

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APPROVED

| | | | |
|---|---|---|---|
| scale | 1:200 for A1 | job no. | 41-31423 |
| date | NOV 2018 | rev no. | D |
| approved | E. NICHOLAOU* | | L001 |

## NOTES

1. REFER TO LANDSCAPE CONCEPT PLAN 41-31423-L001 FOR PLANTING ARRANGEMENT CONCEPT DESIGN PLAN
2.REFER TO CIVIL ENGINEERS DRAWINGS FOR DRIVEWAY AND RETAINED CROSSOVER DETAILS
3. REFER TO ARCHITECTS DRAWINGS FOR ALL FENCE DETAILS
4. LANDSCAPE DETAILED DESIGN IS TO BE COORDINATED WITH HYDRAULIC AND ENGINEERING DESIGN TO CONFIRM LOCATIONS OF UNDERGROUND SERVICES PRIOR TO CONSTRUCTION
5.LANDSCAPE GENERAL STANARDS.
5.1 SOIL TO AS 4419 PLANTING BEDS CULTIVATION MINIMUM DEPTH 100mm
GRASSED AREAS (TURF) 150mm PLANTING AREAS 150mm. SOURCE IMPORT TOP SOIL THAT COMPLIES WITH AS 4419.
5.2 MULCH TO AS 4454 PROVIDE MULCH WHICH IS FREE OF DELETERIOUS AND EXTRANEOUS MATTER SUCH AS SOIL, WEEDS AND STICKS.
5.3 STAKE SIZES FOR PLANTS 1-2.5m IN HEIGHT TO HAVE TWO 50 x 50 x 1800mm STAKES PER PLANT, PROVIDE TIES FIXED SECURELY TO THE STAKES, ONE TIE AT HALF THE HEIGHT OF THE MAIN STEM, OTHERS AS NECESSARY TO STABLILISE PLANT. FOR PLANTS <2.5m HIGH 50mm HESSIAN WEBBING STAPLED TO THE STAKES.

## PROPOSED PLANT SPECIES SCHEDULE

| QTY | CODE | PLANT SPECIES | COMMON NAME | CENTRES (mm) | POT SIZE |
|---|---|---|---|---|---|
| TREES | | | | | |
| 4 | CUP ana | CUPANIOPSIS anacardioides | Tuckeroo | AS SHOWN | 45L |
| SHRUBS | | | | | |
| 7 | BAN rob | BANKSIA robur | Swamp Banksia | 1500mm | 300mm |
| 36 | BAN spi | BANKSIA spinulosa | Hairpin Banksia | 500mm | 300mm |
| 7 | CAL LJ | CALLISTEMON viminalis `Little John` | Dwarf Weeping bottlebrush | 1500mm | 300mm |
| 86 | MET FF | METROSIDERON 'Fiji Fire' | Metrosideros | 1000mm | 25L |
| GROUND COVERS | | | | | |
| 331 | DIA car | DIANELLA caerulea | Blue Flax Lily | 500mm | 140mm |
| 331 | DIE bic | DIETES bicolor | Yellow Wild Iris | 500mm | 140mm |
| 331 | HIB sca | HIBBERTIA scandens | Snake Vine | 500mm | 140mm |
| 331 | HYM lit | HYMENOCALLIS littoralis | Spider Lily | 500mm | 140mm |

## PROPOSED PLANT SPECIES IMAGES

### PROPOSED TREE SPECIES

CUPANIOPSIS anacardioides

### PROPOSED SHRUBS

BANKSIA robur

BANKSIA spinulosa

CALLISTEMON viminalis 'Little John'

METROSIDERON 'Fiji Fire'

### PROPOSED GROUNCOVERS

DIANELLA caerulea

DIETES bicolor

HIBBERTIA scandens

HYMENOCALLIS littoralis

APPROVED

PRELIMINARY

| rev | description | drawn | date |
|---|---|---|---|
| C | ISSUE FOR DEVELOPMENT APPLICATION | KVW | 09.11.18 |
| B | ISSUE FOR DEVELOPMENT APPLICATION | KVW | 29.08.18 |

PACIFIC MARINE BASE BUNDABERG PTY LTD
PMBB MARINE INDUSTRY DEVELOPMENT
LANDSCAPE CONCEPT PLAN
PLANT SPECIES SCHEDULE, IMAGES & NOTES

LAUD ink
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ABN 80 160 838 144

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scale NTS for A1 job no. 41-31423
date NOV 2018 rev no. C
approved E. NICHOLAOU* L002

# ATTACHMENT 3: EXTRACT OF APPEAL PROVISIONS

(2) The person is taken to have engaged in the representative's conduct, unless the person proves the person could not have prevented the conduct by exercising reasonable diligence.

(3) In this section—

***conduct*** means an act or omission.

***representative*** means—

(a) of a corporation—an executive officer, employee or agent of the corporation; or

(b) of an individual—an employee or agent of the individual.

***state of mind***, of a person, includes the person's—

(a) knowledge, intention, opinion, belief or purpose; and

(b) reasons for the intention, opinion, belief or purpose.

# Chapter 6 Dispute resolution

## Part 1 Appeal rights

### 229 Appeals to tribunal or P&E Court

(1) Schedule 1 states—

(a) matters that may be appealed to—

(i) either a tribunal or the P&E Court; or

(ii) only a tribunal; or

(iii) only the P&E Court; and

(b) the person—

(i) who may appeal a matter (the ***appellant***); and

(ii) who is a respondent in an appeal of the matter; and



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(iii) who is a co-respondent in an appeal of the matter; and

(iv) who may elect to be a co-respondent in an appeal of the matter.

(2) An appellant may start an appeal within the appeal period.

(3) The ***appeal period*** is—

(a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or

(b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or

(c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or

(d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or

(e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or

(f) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

*Note—*

See the P&E Court Act for the court's power to extend the appeal period.

(4) Each respondent and co-respondent for an appeal may be heard in the appeal.

(5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.



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(6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—

(a) the adopted charge itself; or

(b) for a decision about an offset or refund—

(i) the establishment cost of trunk infrastructure identified in a LGIP; or

(ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

## 230 Notice of appeal

(1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—

(a) is in the approved form; and

(b) succinctly states the grounds of the appeal.

(2) The notice of appeal must be accompanied by the required fee.

(3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—

(a) the respondent for the appeal; and

(b) each co-respondent for the appeal; and

(c) for an appeal about a development application under schedule 1, table 1, item 1—each principal submitter for the development application; and

(d) for an appeal about a change application under schedule 1, table 1, item 2—each principal submitter for the change application; and

(e) each person who may elect to become a co-respondent for the appeal, other than an eligible submitter who is not a principal submitter in an appeal under paragraph (c) or (d); and



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(f) for an appeal to the P&E Court—the chief executive; and

(g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.

(4) The ***service period*** is—

(a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or

(b) otherwise—10 business days after the appeal is started.

(5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).

(6) A person elects to be a co-respondent by filing a notice of election, in the approved form, within 10 business days after the notice of appeal is given to the person.

(7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department's website for this purpose.

## 231 Other appeals

(1) Subject to this chapter, schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.

(2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.

(3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.

(4) In this section—

***decision*** includes—



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(a) conduct engaged in for the purpose of making a decision; and

(b) other conduct that relates to the making of a decision; and

(c) the making of a decision or the failure to make a decision; and

(d) a purported decision; and

(e) a deemed refusal.

***non-appealable***, for a decision or matter, means the decision or matter—

(a) is final and conclusive; and

(b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and

(c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

## 232 Rules of the P&E Court

(1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.

(2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.



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