

Blue Infrastructure Services

ABN: 44649768749

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Reference:

Your ref: DEV2024/1582

11/04/2025

Economic Development Queensland
Townsville Waterfront PDA
Development Scheme

Copy to Jason Harris
Australian Volunteer Coast Guard
PO Box 487
TOWNSVILLE QLD 4810

Attention: Michael Fallon,

**Re: Further Issues Letter
PDA Development Permit for Operational Works for Tidal Works (New Pontoon)
at Sir
Leslie Thiess Drive, Townsville City described as Lot 802 on SP310561**

In response to EDQ's information request outlined in the Further Issues Letter dated 18 February 2025, the following information is provided to assist in EDQ's assessment of Item 4 of the application.

4. Access Ramp Compliance – Grade and DDA Considerations

- Revise and resubmit the drawings to show access ramp grade in Lowest Astronomical Tide (LAT) and Highest Astronomical Tide (HAT) conditions.
- Demonstrate that the proposed pontoon design complies with Section 3.5.4(c) of the Townsville Waterfront PDA Development Scheme.

I am writing in my capacity as an RPEQ Civil Engineer to offer technical support in

This letter has been prepared by Blue Infrastructure Services in support of the Townsville Coastguard, following engagement via Littoral Vista Group.



**PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**

Approval no: DEV2024/1582

Date: 12/05/2025



**Queensland
Government**

relation to the gangway slope design for the Townsville Coastguard's pontoon and gangway project at Ross Creek, currently under review by EDQ.

Having worked extensively with Port of Townsville and other Townsville local bodies, I have revisited the design and provided a more refined interpretation based on **Townsville Berth 1 Pumphouse tide gauge** updated tidal data (BOM 2024) and **Port of Townsville Survey and Datum Guidelines (Rev 8)**. These updated figures more accurately reflect the local tidal conditions and better align with the functional requirements of the Coastguard.

While the original design by GC Marine was based on solid industry practices, I have identified some areas where local data and experience improve the compliance case:

- The **LAT level** used in the original calculations appears to be lower than the most recent Port of Townsville data. This discrepancy results in a steeper gangway angle than is necessary. The LAT level referenced by Port of Townsville is -1.856m AHD.
- The **contact point** for the gangway slope calculation was taken from the tread surface, when measured from the roller and bracket beneath the gangway slightly decreases the grade. This changes position with varying tide heights and the angle of the pontoon.

Using the updated data and clarifying these assumptions, the revised slope calculations show:

- **Maximum slope at LAT:** 1:2.42
- **Slope at 80% exceedance:** 1:3.92
- **Slope at 90% exceedance:** >1:3

These revised values demonstrate compliance with **AS3963-2001: Guidelines for the Design of Marinas**, which is the most relevant reference for private gangways in this instance. Furthermore, the gangway is not publicly accessible and is located behind a security gate, with use restricted to trained personnel or those accompanied by trained personnel which have completed a vessel and pontoon induction. As such, the **Townsville PDA guidelines** are not applicable here, and the AS3963 standard remains the correct reference for the design.

This revised assessment is based on **local data** and my ongoing experience working with the Port and similar local infrastructure projects. It is not a reflection of an error in the original design but rather an enhancement using the most relevant local information.

We are confident that the design is fit for purpose and is compliant with the relevant standards. We fully support this application and believe that, with the minor adjustments

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suggested, it will meet all necessary compliance requirements.

Calculations can be provided on request if further clarification is needed.

I trust this information is helpful, and I am happy to provide any further technical input as required.

Kind regards,

A handwritten signature in black ink, appearing to read "J. Isbester", written over a white rectangular background.

Jason Isbester

Director | Principal Engineer | Project Manager

RPEQ No. 17597

Blue Infrastructure Services

Engaged via Littoral Vista Group in support of the Townsville Coastguard

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