

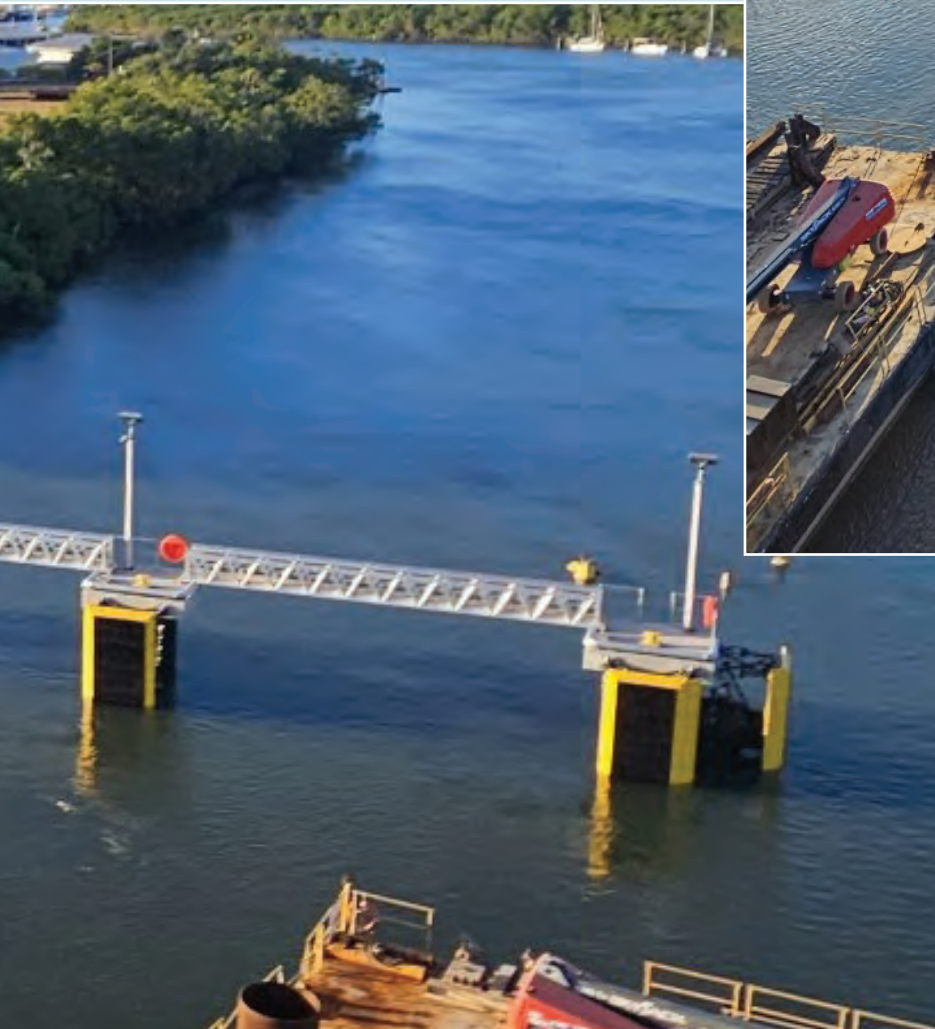


PROJECT SPOTLIGHT

Southern Barge Ramp Project



Dolphins enhance berthing and mooring operations by improving vessel safety and stability.
Photo credit ShibataFenderTeam.



The ramp is in the Cairns Marine Precinct, an important maritime maintenance, repair and overhaul destination. Photo credit ShibataFenderTeam.

The project is part of a broader effort to expand the Cairns Marine Precinct, a narrow channel significantly impacted by local currents. As a result, the dolphin fenders needed to be designed with profiled double chamfers,

allowing barges to impact and rotate around the dolphin fender before moving into the ramp.

The ramp is designed to accommodate barges up to 246 feet in length along 3 mooring dolphins.

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THE DOLPHINS

The dolphins allow barges to contact a dolphin and rotate around it, reducing the likelihood of hard impacts and excessive loads during berthing.

- Approx. 6.5 feet wide and 7 feet in diameter
- 2 dolphins: Side Fender Systems consisting of:
1 Cone Fender System (SPC1200, G1.3) equipped with a 7.22-ft by 19.69-ft closed-box steel panel.
- 1 dolphin: Dual Dolphin Fender System consisting of:
2 Cone Fender Systems (SPC1300, G1.2) with 7.55-ft by 19.69-ft closed-box panels arranged in a corner configuration and 1.98-ft side chamfers.

Panel dimensions were selected to ensure sufficient contact area across the varying tidal range at the site.

THE TEAM

Contractor:

Brady Marine & Civil

Specialist Engineering

Consultant:

Madsen Giersing

Fender System Design and Supply:

ShibataFenderTeam

Owner:

Ports North

Location:

Port of Cairns, Northern
Australia

The design considers local currents and the relatively low freeboard of the barges.

Photo credit:
ShibataFenderTeam.



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