

# Designing the new Sydney Commuter Ferry Wharves



Transport  
for NSW

## Background

In 2008, the former NSW Maritime, invited international and local architects to submit a concept design for the wharf upgrades. Forty-seven submissions were received, with the winning design being submitted by Australian architects Group GSA.

Photo by Ethan Pohlhoff Photography

### Design objective

To improve safety, amenity and comfort for ferry passengers.

#### What are the benefits?

- Passengers can wait in a comfortable area on the water and be protected from the sun, wind and rain and enjoy the harbour vista.
- Elderly or less mobile passengers and those with small children and prams can feel more secure while boarding or waiting for the ferry.

#### How has this been achieved?

The design provides larger, covered waiting spaces, seating, clear safety screens, safety handrails, lighting and wider gangways.

### Design objective

Discourage inappropriate activities at the wharves eg. climbing onto the roofs to watch harbour events, vandalism and sleeping in the waiting areas.

#### What are the benefits?

- Improves amenity for waiting passengers.
- Less unsightly graffiti and cleaning costs reduced.
- Discourages members of the public participating in risky behaviour.

#### How has this been achieved?

- Opportunities for vandalism to occur are reduced by using glass screens, lighting and having open areas.
- Sleeping is discouraged in the waiting area by using divided seating and ensuring fresh air constantly recirculates (the gaps at the top and bottom of the glass screens help achieve this).
- Climbing onto the roof structure is discouraged by designing a smooth, curved roof and eliminating foot or hand holds.

### Design objective

To ensure all wharves achieve compliance by 2020 (where possible) with the *Disability Discrimination Act* (DDA) standards and codes of practice.

#### What are the benefits?

The new wharf facilities provide equal access and opportunities for people with a disability.

#### How has this been achieved?

The design has removed the need for tidal steps and ensured that the slope of the gangway complies with DDA standards during high and low tides, where possible.

### Design objective

Investigate opportunities to improve ferry operations by making them more efficient.

#### What are the benefits?

The improvement of passenger flow on and off ferries will help keep 'dwell' time to a minimum. This in turn assists in ensuring ferries arrive and depart on time.

#### How has this been achieved?

Each individual wharf and its ferry operations have been examined and improvements made to the orientation, location and layout of the new wharf facilities. Passengers will now be able to get on and off the ferry simultaneously. This has been achieved, in part, by ensuring that all new wharves have a berthing face of at least 14 metres.

### Design objective

Consider ways to minimise design, construction and future maintenance costs.

#### What are the benefits?

Significant costs have been saved by keeping the design, materials and layout of the wharves consistent with each other.

#### How has this been achieved?

- Procuring the wharf elements in bulk.
- Using the same construction materials and methodologies at each wharf.
- Use of materials giving long life and low upkeep.
- Reducing future maintenance costs by having the same elements and materials.

### Design objective

To create a distinctive theme that will unify and identify the Sydney commuter ferry wharves.

#### What are the benefits?

Passengers can readily identify the wharf as a ferry commuter wharf. Did you know that there are over 100 wharves in Sydney? Some are commuter wharves, others are back-up commuter wharves, some are private and others are used for commercial and recreational activities.

#### How has this been achieved?

The design is distinctive in its form and will be applied to all commuter wharves for a single 'look and feel'.



## Design considerations

In designing the new wharves consideration was given to:

- Customers' requests for improved amenity (including protection from weather and more seating) and improved accessibility.
- Ferry masters' knowledge and experience of maritime conditions prevailing at the wharf and on the harbour.
- Detailed marine studies of the site; wave climate, depth of water, high and low tide levels taking in account changes in climatic conditions and 100 year weather occurrences.
- Use of appropriate materials, surfaces and design that discourage vandalism or inappropriate use of the wharf (eg sleeping in it and climbing onto the roof).
- Creating a shape and form that visually complements the harbour while maintaining water views from the wharf.

## Why are the new pontoons and gangways larger and the layout different?

Some changes have been made to the size and layout of the pontoons/gangways to ensure that the design objectives have been achieved.

### Longer gangways

Steps have been removed – this means a longer, sloping gangway connecting the land to the pontoon is required. The length/slope of the gangway aims to meet DDA standards in both high and low tides.

### Wider gangways

The width of the gangways has been increased to a minimum of 2.4 metres wide. The wider gangways enable two-way flow of passengers and makes access easier and safer for those passengers using wheelchairs or who have prams and small children.

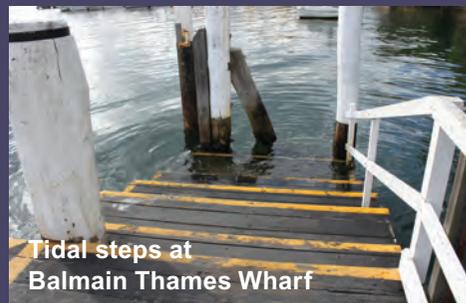
### Placement of the pontoon

The orientation, location and layout of each wharf has been examined resulting in changes to some wharves to provide improvements. This means some pontoons will be located further from the

land than what they currently are now. Factors such as accommodating larger ferry boats and turning movements, tidal conditions and the number of berthing faces all influence the placement of the new pontoon design.

### Larger pontoons

The need for larger pontoons is determined by several factors. Larger pontoons are required to ensure wharves remain stable in 'open' harbours such as Rose Bay where tidal conditions are choppy. Busier wharves mean that larger pontoons with more waiting space are required to accommodate the higher passenger numbers. All pontoons have been designed to accommodate seating and safety and service equipment.



Tidal steps at Balmain Thames Wharf



Wider gangway at the new Milsons Point Wharf



Artist impression of the new Rose Bay Wharf