

## PREFERRED PROJECT REPORT

This Preferred Project Report (PPR) sets out the changes to the project since exhibition, arising in part from submissions made, and from further consultation with stakeholders including community representatives, the City of Sydney Council, and Dragon Boats NSW.

The changes to the project are:

- Floating pontoons to comprise the marina instead of the originally approved fixed wharf;
- Reconfiguration / location of water-based structures, maritime safety devices, and the mooring arrangements;
- Reduction in the overall water-based license area and realignment to this area to provide a wider area for Dragon Boat launching in the vicinity of the marina;
- Addition of a sewer pump-out facility at the site;
- Addition of a new electrical substation – with the final location to be determined;
- Addition of end of trip facilities for cyclists working at the marina facility;
- Improved / additional screen planting and vegetation at the site, including fronting Bank Street;
- Potential for artwork screening (in collaboration with / or review by the City of Sydney) to enhance the external appearance of the development; and
- Submission of new and additional information in relation to:
  - o Navigation and safety impacts
  - o Visual Impact Assessment addressing visual impacts and view loss
  - o Summary of prior consideration of alternative sites
  - o Acoustic impacts addendum report
  - o Air Quality commentary
  - o Updated Plan of Management
  - o Summary of further consultation carried out since exhibition of the application

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These changes and additional information are as set out in this PPR and the Appendices to this overall RIS / PPR package of documents.

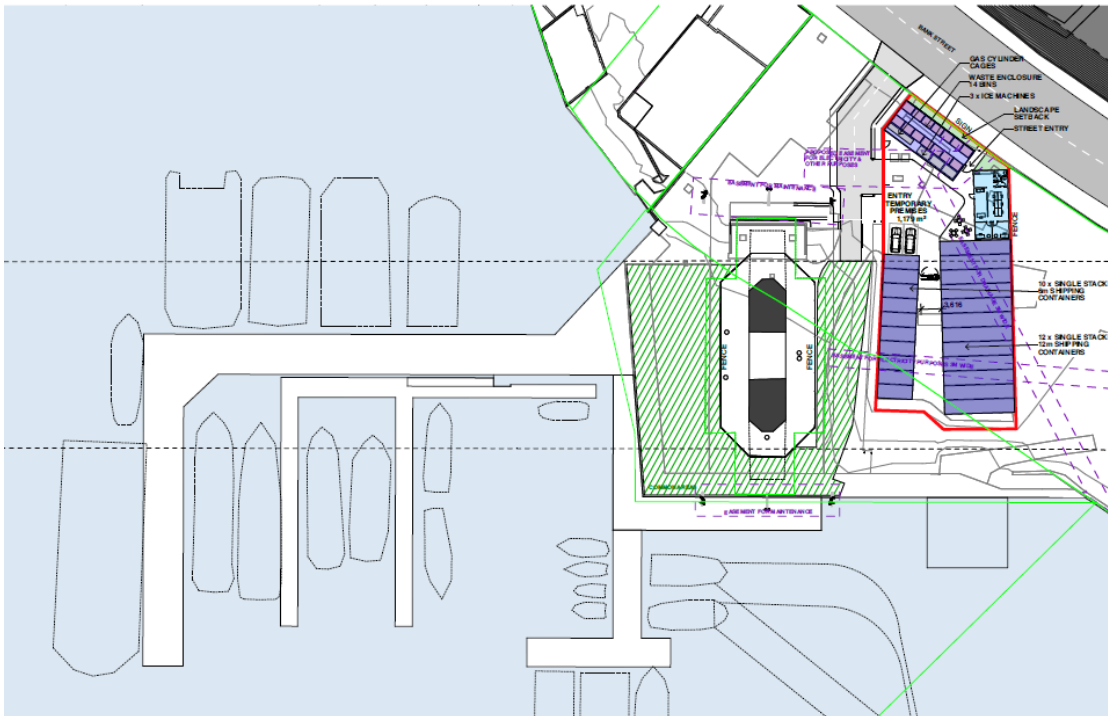
The DPE has required that any new works or structures not originally proposed in the application have a detailed assessment undertaken, and associated reports and documentation revised, where relevant.

The new works or structures not originally proposed in the application and the impacts of these changes are addressed in turn below:

### ***Floating Pontoons***

Since the exhibition of MOD 3, UGDC now proposes a marina layout comprised entirely of floating pontoons connected to shore by a single gangway attached to the western shoreline (refer Appendices A and F of the Royal HaskoningDHV Navigation Impact Assessment at **Appendix C** of this RIS / PPR package and figures below).

The figures show the exhibited fixed wharf configuration and assumed vessel mooring location of the BBM fleet (Figure 1) and then the floating pontoon arrangement enabling a more flexible outcome which removes vessel turning movements towards the Dragon Boat launching ramp, locates larger vessels to the west away from the Dragon Boat launching area, and enables the licence area to be revised to be smaller, again away from the Dragon Boat launching area (Figure 2).



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Figure 1 – Exhibited Fixed Wharf Design

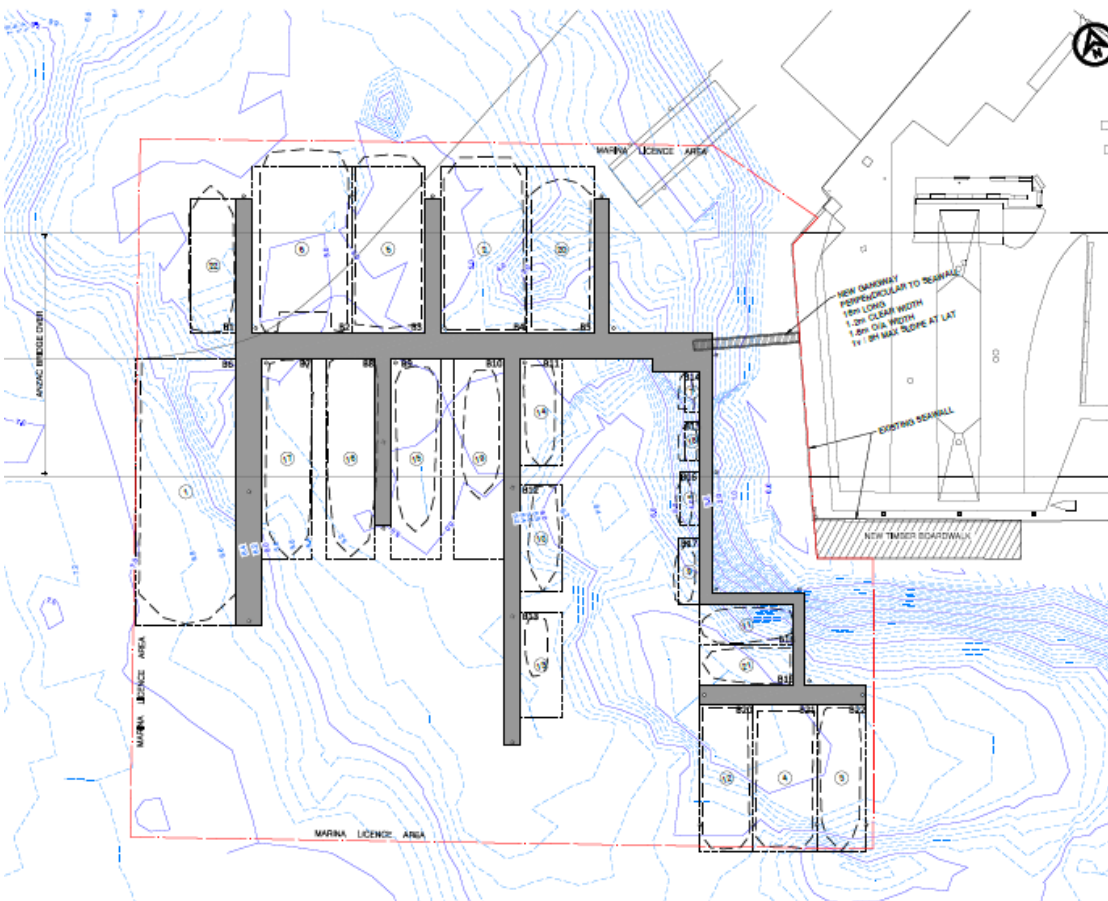


Figure 2 – PPR Floating Pontoon Design

The positions of vessels have been amended (as compared to the proposed berthing positions within the s75W Modification Application under the fixed wharf arrangement). This now provides a more efficient berthing / mooring arrangement and reduces interaction and conflict with the Dragon Boat launching ramp to the east. The reduced piling requirement for the floating structure also reduces impacts on the seabed during construction. Appropriate placement of vessels will further reduce seabed disturbance compared to the notional mooring arrangements under the fixed wharf design during operation of the marina.

The waterway licence area proposed to accommodate the marina operations is 10,967m<sup>2</sup>, which is similar to the overall waterway lease area of the original Sydney Heritage Fleet Facility proposal, but reduced in size due to superior vessel mooring allocations now possible due to the floating pontoon design.

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The proposed footprint of marina structures and moored vessels extends approximately 100m west and 50m south into the waterway from the existing shoreline. As such, the encroachment of the marina to the west is similar to that of the original Sydney Heritage Fleet facility proposal (as described in Section 3.2 of the Royal HaskoningDHV Navigation Impact Assessment). The marina extends around 20m further south due to the perpendicular orientation of vessels berthed in the south-east corner of the marina. The closest moored vessel within the marina is approximately 40m from the Dragon Boat launching ramp.

Dragon Boats NSW provided input into these design refinements, articulating its general support and view that compared to the exhibited fixed wharf design, the PPR scheme provides for a safer, clearer delineation between the motorised and passive vessels in this part of Blackwattle Bay. See Minutes of meetings held with Dragon Boats NSW representation at **Appendix G**.

In addition to providing for added safety, improved sight lines, enhanced and increased navigational safety devices (see below) and the like, the floating pontoons also improve the general wave climate in this location by shielding and deflecting waves.

#### ***Reconfigured water-based structures, maritime safety devices, and mooring arrangements***

Navigation aids proposed as part of the floating marina facility comprise two navigation lights fixed to each end of the outermost (western) marina arm, a single navigation light fixed to the southern end of the central marina arm, and a single navigation light fixed to the eastern end of the pontoon in the south-east corner of the marina. It is noted that the proposed western extent of the marina would require the existing lit port beacons (on each side of Anzac Bridge) to be relocated approximately 20m to the west (refer Map 3 of the Royal HaskoningDHV Navigation Impact Assessment).

Again, as above, Dragon Boats NSW provided input into these design refinements, articulating its general support and view that compared to the exhibited fixed wharf design, the PPR scheme provides for a safer, clearer delineation between the motorised and passive vessels in this part of Blackwattle Bay and effective containment of the marina usage. See Minutes of meetings held with Dragon Boats NSW representation at **Appendix G**.

#### ***Reduced Marine Licence Area***

The ability to reduce the previous approved marine license area arises from the departure from the fixed wharf design to the floating pontoon design and the ability to reconsider the mooring arrangements for BBM's vessels. Following detailed consideration of the BBM fleet, vessel size, hull shape, draught, mechanical specifications, tidal information and water depth, and the resultant preferred mooring location, it was established that the license area could be refined and reduced to meet this project's spatial requirements, rather than rely upon the pre-existing area.

The reduction in area principally occurs at the interface with the Dragon Boating launching ramp, allowing an additional distance and buffer be created. This new southern boundary to the license area can also be appropriately demarcated with navigation markers and lights to even further enhance safety for the Dragon Boating community.

Dragon Boating NSW representatives at a meeting with the project team supported this change and advised that this would result in a much improved operational scenario for use and safety at this part of Blackwattle Bay.

The further refinement and reconsideration of the scheme will have no negative consequential impacts on any other part of the project.

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Based on the PPR, the Royal HaskoningDHV assessment, and consultation with Dragon Boats NSW, the following measures are considered to minimise and mitigate potential navigation impacts from the proposed floating marina facility. These Mitigation Measures are derived from Section 4.6 of the Royal HaskoningDHV Navigation Impact Assessment:

- wave climate experienced at the marina site complies with guidance for acceptable conditions within AS3962-2001, provided that the 'Sunseeker' moored at Berth B1 is substituted with one of the larger vessels that are positioned within the interior berths, such as the 'Southern Star';
- comparison of the required seabed levels for berthing with minimum existing seabed levels demonstrates that existing water depths satisfy the requirements of AS3962-2001 and dredging is not required to provide additional water depth for the proposed marina berthing arrangement;
- the proposed floating marina facility does not extend any further west than that considered to be acceptable by RMS for safe navigation of outbound vessels, including manoeuvring of large vessels in adverse weather conditions, in the approved development application for the original Sydney Heritage Fleet facility proposal;
- navigation lights mounted on poles are proposed to be fixed to each end of the outermost (western) marina arm, a single navigation light fixed to the southern end of the central marina arm, and a single navigation light fixed to the eastern end of the pontoon in the south-east corner of the marina;
- the existing lit port beacons on each side of Anzac Bridge would need to be relocated approximately 20m to the west to accommodate the proposed western extent of the marina;
- installation of piled marker buoys with navigation lights to be installed to delineate the port side limit of navigation along the western side of the proposed marina and the waterway lease area, which would provide visual markers to guide rowing crews and assist in segregation of non-powered and motorised craft;
- the final type of navigation aids and their positioning would be subject to the requirements of RMS and the Harbour Master
- the southern encroachment of the proposed marina into the waterway does not extend beyond the encroachment of other existing structures on the northern shoreline of Blackwattle Bay;
- the proposed floating marina structure is less visually obtrusive at times when berths are unoccupied when compared to the original Sydney Heritage Fleet facility which included a fixed wharf structure;
- existing 4 knot speed limit and no wash zone within Blackwattle Bay / Rozelle Bay;
- further consultation with stakeholders (rowing clubs and RMS) to investigate potential relocation of the rowing route turn in the vicinity of the marina to enhance segregation of non-powered and motorised craft;
- installation of several marker buoys alongside the western side of the dragon boat launching ramp to guide rowing crews away from the SE corner of the marina during launching and retrieval activities;

- the 3 berths in the south-east corner of the marina are aligned approximately in a SSW-NNE direction (parallel to the dragon boat launching ramp) such that movement of marina vessels into and out of these berths would not involve manoeuvring in close proximity to the launching ramp;
- larger sized vessels with higher powered engines, are located in berths that are positioned away from the south-east corner of the marina and hence away from the dragon boat launching ramp;
- navigation requirements should be written into the 'marina rules' and/or a Plan of Management and included as part of the berthing agreement and planning documentation for the marina's use and include:
  - 4 knot speed limit and no wash zone;
  - keeping a proper lookout for non-powered craft at all times;
  - notification of peak times for passive recreation (e.g. dawn and dusk);
  - giving way to passive recreational craft including rowing boats and dragon boats; and,
  - exercise caution on approach to Glebe Island Bridge and follow traffic light signals when in operation.

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the above navigation requirements should also be reinforced and made clearly visible to marina customers with signage installed in prominent locations throughout the marina.

- installation of prominent signage at the Glebe Island Bridge entrance advising that "non-powered vessels are using this area frequently" or words to this effect.

### ***Sewer pump out facility***

The sewer pump out facility is to be located below ground within the open space area towards Bank Street – see drawings S75W-05 and -06 from the PPR's architectural plan set – **Appendix B**.

With regard to the facility's internal sewerage system, there will be a pump-out inlet located in recessed service duct in selected central positions on the floating pontoons with an 80mm polyethylene pipe (similar to a hose) placed on the underside of the pontoons (in a void above the waterline). The poly pipe will run in series on the underside of the pontoons and along the gangway. The polypipe will then run underground to a tank with a pumpstation. The pumpstation will regulate the incoming flow and discharge it into the Sydney Water sewer system. There is an overflow tank placed directly adjacent to the pump station tank in the event of pump failure.

A tradewaste application will be completed through the Sydney Water Tap-In system as per the Sydney Water Notice of Requirements.

The treatment of the site sewage will be completed by Sydney Water at their treatment facilities.

Noise and odour are controlled in sealed environments, i.e. the electric motors (already usually quiet) will be housed in aboveground sealed pedestals and odour is controlled as follows:

- Sewerage is to be pumped directly into the sewerage system via a leak tight line; and
- All holding tanks for sewage are air tight.

The impacts of introducing the sewer pump-out facility will be minor from an odour and amenity perspective. As noted, the sealed, underground, and closed nature of the pump-out system is such that noise and odour leakage will be limited (at worst).

Pacific Environmental has reconsidered odour potential tied to prevailing winds (and as set out earlier advised *near-field odour observations were taken downwind of the (existing site's) sewage pump-out activities, during which time no adverse odour was observed beyond the site boundary. This suggests that providing good odour management practices are followed, we do not anticipate adverse odour beyond the site, regardless of meteorological conditions.*

From a noise generation perspective Renzo Tonin advises:

*Based on past Sydney Water projects, underground sewer pumps of this type are typically no more than approximately 67dB(A) sound power level. This is much quieter than the existing above ground pump measured at Blackwattle Bay. The proposed underground pump is predicted to comply with the noise criteria at all times.*

*In the case of the smaller pumps located on each pier, their noise levels are unknown at this early stage of the project, however pump noise can readily be mitigated using acoustic enclosures and/or screens if required.*

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### Electricity Substation

An L type kiosk electricity substation is proposed to be established in the north-eastern corner of the site, adjacent to the Bank Street frontage of the site and the existing wall of the building at 1-3 Bank Street. The final location is still to be determined and will be based on optimising its connection to existing services and operational capacity, and without significantly impacting upon the area of open space, its design or impacts upon neighbours.

The substation will have an easement zone of 3.31m wide by 5.3m long with the substation itself somewhat smaller in dimension (being 2.71m long x 1.475m wide x 1.62m high). The easement will principally enable maintenance access and clearance to open doors and hatches unencumbered, and provide for suitable air-intake for cooling purposes. Principal access to the substation will be via its narrow ends, orientated to the north and south, and its side facing Bank Street – see Figure 3 below.

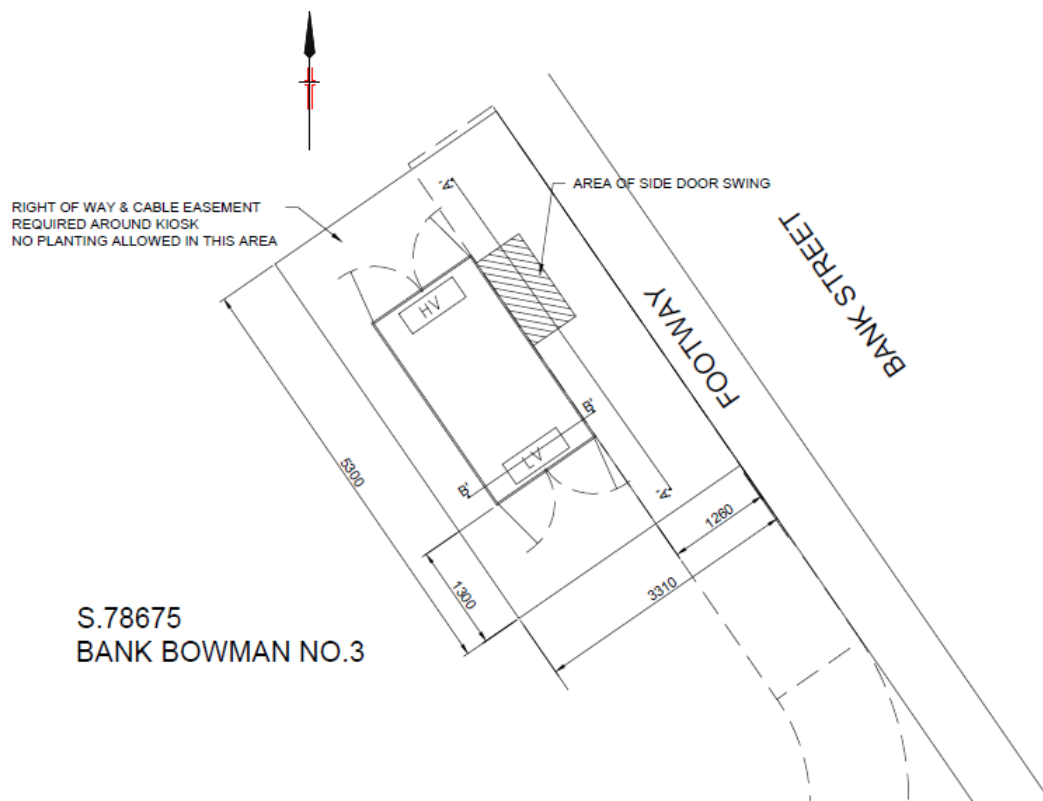


Figure 3 – Potential substation location and easement zone

The substation will rely on Ausgrid's existing underground high voltage network and connect an 11kV High Voltage (HV) cable under Bank Street to existing HV cabling under the eastern footpath of Bank Street against Distillery Hill. Connection to the existing Ausgrid network will involve trenching, minor

excavation, duct installation and high voltage cabling. Once connected the substation will have adequate capacity to supply the project.

The L type substation generates a low humming noise to a maximum of about 60 dBA, within the industry standards. Renzo Tonin has assessed the likely noise impacts of the substation as follows:

*The kiosk would house a transformer similar to a Schneider L-type 600 model rated at 59dB(A) sound power level. At this level the substation is expected to be inaudible at the nearest residential receiver and therefore no additional noise mitigation is required.*

### **End of trip cyclist facilities**

End of trip facilities have been added to the office building without any corresponding increase in floor area of the building. The facilities comprise a small change room and lockers only, noting size constraints and the temporary nature of the development. See the PPR architectural plan set for details.

The impact of this new inclusion is positive as it will further promote cycling as an active and non-car transport form to the site, above and beyond solely providing for bicycle racks / storage.

The existing BBM operations do not include any cycling-related facilities and the inclusion of racks and end of trip facilities (within the constraints of the overall development footprint / envelope) has the potential to positively change staff commuting culture, even if only in a minor way.

It should also be noted that the vessels operating from the marina also have bathroom and shower facilities on-board which can also be utilised by marina staff.

### **Additional planting / vegetation**

The architectural plans have included additional landscaping / vegetation within the 2.5m setback at the Bank Street frontage to the buildings and within the 10m deep green space off Bank Street to further assist in screening and softening the appearance of the project, particularly when viewed from the public domain of Bank Street and from Distillery Hill and its residential and public open space uses.

The Landscape plan has been updated with a revised planting list and specification. The now greater diversity of plantings have been selected based on their appropriateness to the site and to encourage biodiversity in the local ecosystem. The selected plantings have been drawn from the City of Sydney's "Recommended local natives for habitat gardens" list and according to their appropriateness to this location. The planting spacings have been nominated to allow for 'natural attrition and recommended densities'.

The choice of plantings is consistent with vegetation that would be found natively / endemically in the locality. This includes Sickle Wattle (*Acacia Falcata*); White Feather Honey Myrtle (*Melaleuca decora*); and Blueberry Ash (*Elaeocarpus reticulatus*). These species have the potential to grow to between 4-6m in height with a 2m spread.

The project is in itself temporary, and this also extends to the landscaping and open space, which will be further master planned as part of the final design outcomes for the wider transformation of this part of the Bays Precinct. To that end, application of the UrbanGrowth NSW document 'Guiding Principles for Marine Foreshore Developments' developed by the Sydney Institute of Marine Science and the University of Sydney and as requested by the City of Sydney is premature for the site as plantings and vegetation intended for lasting and restorative ecological purposes would be removed and replaced after 10 years.

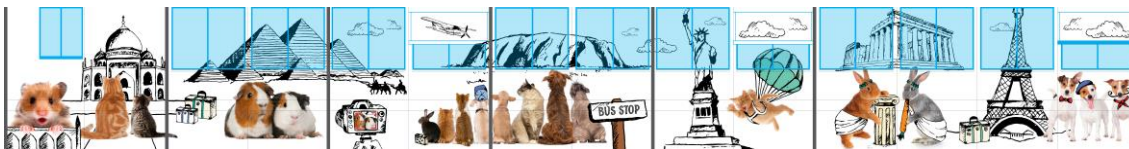
The impacts of additional planting and vegetation at the site are a positive contribution to the overall project in providing a screened, green buffer to the built edge and form of the development, albeit temporarily.

### **Artwork / screening**

In the recent meeting with The City of Sydney, Council suggested / requested improving the outward appearance of the built elements of the project with an artistic wrap or screening. We note that a similar method of improving the appearance of the construction hoardings and later fencing around the temporary Ultimo Public School in Wentworth Park has also been employed.

The following images indicate an example of the potential building wrap and graphic to be applied to ramp balustrades and homebases at the temporary Ultimo Public School. Each homebase will have a unique porch graphic, whilst each park-facing elevation has a unique wrap, and each ramp has a unique graphic to the balustrade, all within the same theme as per the examples.

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**Figure 4 – Building wrap example – Ultimo Temporary Public School**



**Figure 5 – Ramp balustrade wrap - Ultimo Temporary Public School**



**Figure 6 – Construction hoarding art wrap - Ultimo Temporary Public School**



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**Figure 7 – Construction hoarding art wrap - Ultimo Temporary Public School**

UGDC agrees that this is a suitable way of improving the appearance of the temporary BBM facility and will work with Council towards a design and artwork which will soften and screen the site, add visual interest and ownership, and a thematic and artistic design conducive to the locality.

### **Summary of impacts**

Overall, the changes to the project as proposed under this Preferred Project Report can be described as improving and enhancing the overall impacts of the project.

Navigational safety is significantly enhanced as is an overall level of conflict between different vessels and vessel types within Blackwattle Bay.

Buffer planting will enhance and soften the appearance and built edge of the land-based facility, whilst assisting in providing a more welcoming open space environment. Similarly, the land-based component of the project's visual appearance can be further enhanced via artwork and screening, subject to Council input.

As addressed in the Response to the DPE's key issues with respect to visual impacts and view loss – the Visual Impact Assessment demonstrates that the overall land and water-based impacts upon view loss will be minor / modest. No iconic views will be affected, and impacts will be temporary, reversible, and modest for their duration.

The new sewer pump-out system and kiosk sub-station will also have only negligible and imperceptible noise and/or odour impacts, unlikely to affect neighbours at their properties.