
VISUAL IMPACT ASSESSMENT

GLADESVILLE BRIDGE MARINA

**PREPARED FOR
GBM PTY LTD**

17 December 2019



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1.0 INTRODUCTION

1. This report comprises a visual impact assessment associated with the proposed extension of the current Gladesville Bridge Marina. It is prepared having regard to the requirements of the Sydney Harbour Foreshores and Waterways Area DCP for SREP (Sydney Harbour Catchment) 2005 DCP ('DCP') provisions as detailed in section D.1.4 of the document.
2. The proposal comprises alterations and additions to the marina berth layout to provide overall storage for 130 vessels comprising 15 swing moorings and 115 floating berths. The works include:
 - a. removal of 29 existing moorings and retention of 15 existing swing moorings;
 - b. construction of 65 new floating berth spaces of varying sizes, that increases the number of floating berths from 50 to 115;
 - c. cessation of slipway activities;
 - d. demolition of the slipway rails and demolition of the internal office mezzanine structure within the covered slipway area; and
 - e. provision of 8 new valet car parking spaces within the existing slipway area.
3. Details of the proposed marina extension assessed by this report are as per that contained on the GHD drawing 21-227558-K101 REV G (GHD Plan), dated 8 October 2019. The two existing south-west/ north-east primary berthing arms are referred to as Arm D (north) and E (south) on the GHD plan. The current arm (from the hardstand wharf) is realigned, to be referred to as Arm A (on the GHD plan).
4. In summary, and as depicted on the GHD Plan, the following modifications are proposed to the marina:
 - Removal of the existing arm connecting to the jetty pedestrian walkway from the hardstand;
 - Provision of new Arms A, B and C close to the hardstand (located west of the two existing south-west/ north-east marina arms);
 - Extension of Arms D and E.
 - The marina layout provides for 115 berths.

5. The following information has been provided by, or on behalf of, GBM, for this report:
 - height details of vessels (being the assessable height for each category of berth, on the GHD Plan (for the purposes of DCP assessment) ('assessable height').
 - an overlay of the proposal over the existing marina layout (GHD Plan); and
 - photomontages of the proposal inserted within specified view locations identified as part of the analysis arising from this report.
6. As part of the DA preparation process (which commenced in 2016) several community liaison meetings were held on the subject land. Prior to those sessions, there had been long-period of potential impact evaluation associated with determining the potential scale and scope of the proposal, that including sequential preliminary visual impact assessment analysis of a range of former draft options.
7. At the community sessions, draft layouts of the proposal accompanied by related montages demonstrating the proposal from public domain locations were on display. The first of these were held on 19-20 October 2018, and the most recent held on 6 September 2019. Arising from this process, due to a technical incompatibility between the montage model and the base photographs upon which they were to be placed, image distortion was identified in the exhibited draft photomontages. Since that time the base photographs have been re-taken, with the montage modelling being are compatible, i.e. without distortion.
8. Access provided to several residential properties proximate to the subject marina that has enabled an appreciation of the likely extent and range of potential view aspects available over the marina and waterway from the private domain. However, in evaluating the potential for view impact of the proposal upon the private domain, i.e. from those neighbouring residential properties, for reasons of privacy the photographs taken from those properties, and subsequent draft montages prepared based on those images provided to those property owners, are not incorporated in this report.
9. Notwithstanding, as with the draft public domain images discussed above, the draft photomontage images provided to those private property owners are not relied upon in this assessment, due to the evident distortions identified. The distortion arises from an incompatibility detected late in the montage preparation process (between the original photographs and the computer model technology relied upon for preparing those montages).

2.0 Subject site and surrounding area.

2.1 subject site

10. The existing marina is located on the waterway of Sydney Harbour, being on the Parramatta River (east of Five Dock Point and Victoria Place ('river')) (*Image 1*).



Image 1: Aerial image of the subject site and surrounding locality.

11. The marina is within a leased portion of the river waterway, with an arm connection to the foreshore (a hardstand area) (*Image 2*).

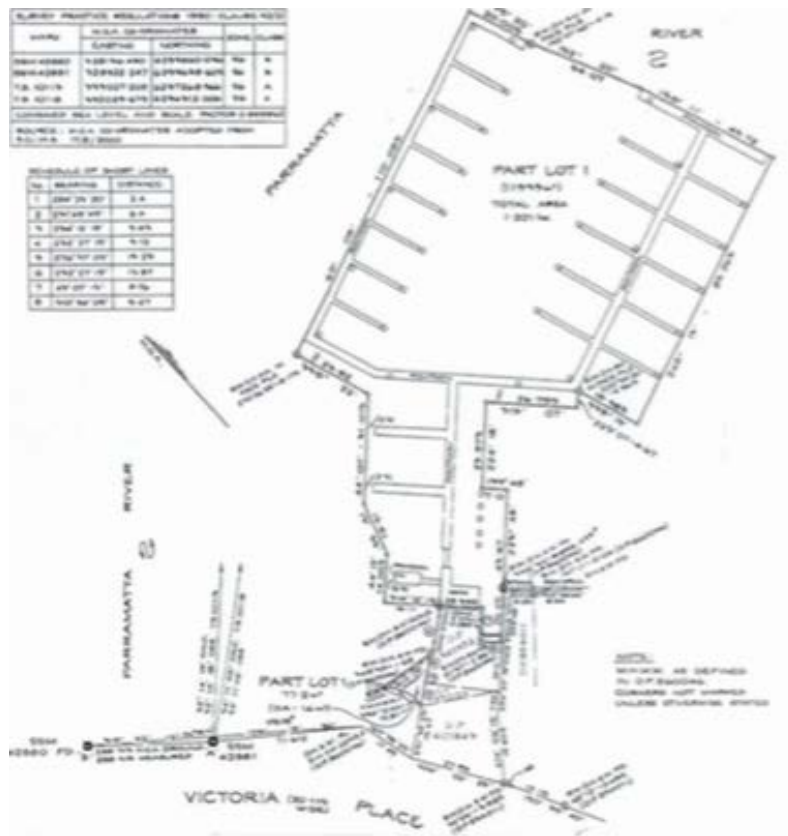


Image 2: Lease area of the existing marina, including berth layout.

12. Access to the marina is via a shared access driveway from Victoria Place. The marina structures are not generally visible from Victoria Place. A dwelling (with separate level access to the footway of Victoria Place) is located directly above the marina-related office accommodation. The building in which the commercial operational offices are located is three-storeys. The marina facility occupies the two lower levels. Pedestrian access to the marina office accommodation is via the marina hardstand and driveway (not directly from Victoria Place).
13. The current marina has the capacity to accommodate up to 99 vessels. There are currently 55 fixed berths and 44 swing moorings. Details of the location of the swing moorings accompany the development application.
14. The berthing arms of the existing marina comprise floating pontoons, stabilised by fixed pylons. The level of the pontoons rise and fall with the tide of the river.
15. The hardstand area at the foreshore of the river provides for parking, and a slipway for boat/ marine repairs.

16. From the hardstand, a pedestrian ramp connects to a single berthing arm (for the purposes of this report, Arm A), which then thereafter links with to two further berthing arms (Arms D and E).
17. Formal berthing bays are located on the northern side of Arm A. Casual berthing for a single vessel occurs on its southern side. Arm A is angled in its alignment.
18. Arm D is located furthest from the river foreshore, positioned beyond the northern extent of the Arm A berthing bays. There are 16 berthing bays associated with Arm D, all located on its southern side. Arm D defines the northern extent of the marina. There is a casual berthing area at the end of Arm D.
19. Arm E is the southern-most arm, extending closer to the southern foreshore of the river than Arm A. There are fixed berths on either side of Arm A. The eastern end of Arm E is about 150m distant from the hardstand edge of the marina.
20. During site visits between 2016 and the preparation of this report, the largest vessels in situ have been about 20m in length, and 4-5m in height, being located proximate to the western (hardstand) end of the marina. The majority of vessels are lower in height, and of a lesser length. It is understood that there is currently no legal restriction to the size or height of vessels permitted to use the fixed berths.
21. For the purposes of this report, it is assumed (for comparison purposes with the proposal) that the current layout and facility accords with its current development consent. It is understood that the current development consent under which the marina operates does not limit the height of vessels able to be accommodated.

2.2 Surrounding locality

22. For this report, potentially sensitive locations (as defined by Table D1 of the SREP (Sydney Harbour Catchment) 2005 DCP ('DCP')) from where the existing marina is, and proposed extensions are likely to be, visible have been identified. In the main, identifiable locations most likely to be frequented by the general public, generally comprising public open space, public roads, the river ferry public transport route/ jetty, and accessible foreshore locations, have been examined to assess their likely sensitivity in relation to the marina.

23. The character of the river is a mix being harbour-related foreshore proximate to the marina comprising natural topographical features generally proximate to non-urban uses; and formalised high/ visually prominent retaining walls to the foreshore, with development set back from the foreshore (open space between the built form and the waterway). The built form comprises a mix of 2-3 storey freestanding dwelling houses and 3-4 storey medium density residential flat development. Private jetties serve a number of the waterfront properties. In particular:
- a. development to the west and south of the existing marina, addressing Victoria Place and Drummoyne Avenue respectively, comprises a mix of residential flat buildings and freestanding dwelling houses. Characteristically (as they appear from the river) the built form of these developments are elevated above the foreshore. The lowest levels of accommodation in these developments are about 3-4m (and in some cases greater) above the foreshore level at the water's edge; and
 - b. A number of residential-related jetties and mooring pens are located on the southern foreshore of the river, south of Arm E. The closest residential jetty/ mooring pen to Arm E (in the marina) is about 45m distant, being south-west of the marina. In addition, there is a small number of swing moorings located within the navigational area of water located between those residential jetties and Arm E of the existing marina.
24. Gladesville Bridge, a high-level road bridge, is visually prominent in the landscape setting of the marina. It is about 150m east of Arms D and E. It connects the suburbs of Drummoyne and Hunters Hill. The most prominent feature of the bridge is its single wide span arch that extends from the northern bank to the southern bank of the river. The bridge is on a north-south alignment over the waterway. There is a narrow walkway along the western side of the bridge but views from the bridge to the marina are restricted by the height of the balustrade which restricts downwards viewing to the water and the marina in general.
25. In addition to the fixed marina layout, there are also swing moorings within the river, positioned on both sides of its main channel through its centre. The swing moorings are generally located to the east and west of, and below, the bridge, close to the foreshore on both sides of the river. Vessels berthed on the swing moorings close to the southern bank proximate the marina appear to be predominantly motor vessels, with (to a lesser extent) some sailing vessels.

3.0 Identification of potentially sensitive view locations.

26. In accordance with section D1.4 of the DCP, the potential visual catchment of the marina has been identified, being areas from which the proposed development will be visible. This identification in the first instance focuses on public domain Locations, including the waterway, public roads and open space/ foreshore areas. Following the analysis in this section, consideration of private dwellings was undertaken by being able to attend a mix of dwellings in the most sensitive Locations along the southern side of the river, both waterfront and also higher on the slope.
27. Photographs have been taken from the identified sensitive Locations. This analysis has regard to the totality of their available aspect to the Parramatta River ('river') and foreshore areas, including the bridge.
28. Potentially sensitive Locations on the northern and southern sides of the river have been identified for the consideration of potential view impact, having regard to the subject proposal (**Image 3**).

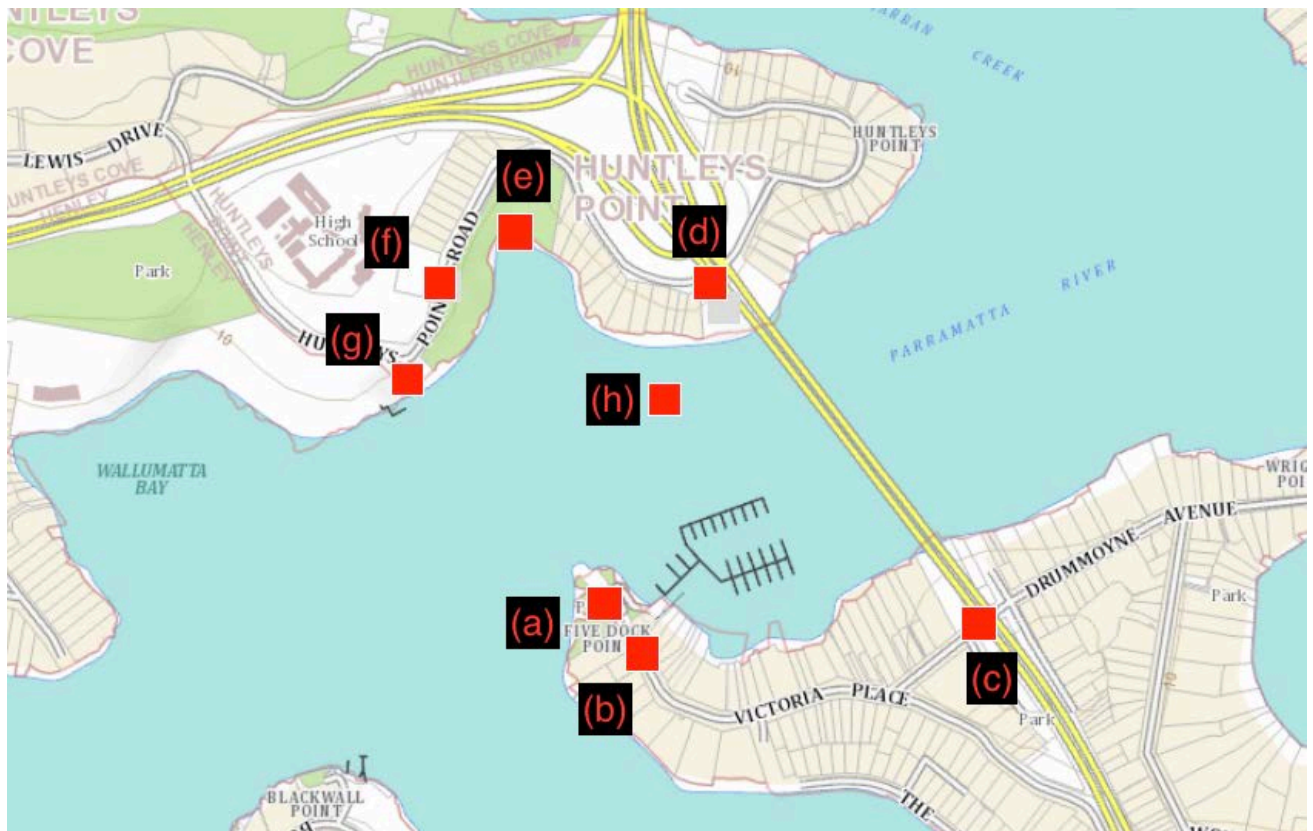


Image 3: Location of potentially sensitive view Locations

29. In summary, these Locations are:

South side of Parramatta River

- a. Howley Park (on Five Dock Point)
- b. Victoria Place
- c. Victoria Road Reserve (below and associated with the South Pylon of Gladesville Bridge).

North side of Parramatta River (Hunters Hill LGA)

- d. Victoria Road Reserve (below and associated with the North Pylon of Gladesville Bridge).
- e. Betts Park
- f. Huntleys Point Road
- g. Huntleys Point; and,
- h. Parramatta River Ferry (travelling between Huntleys Point Wharf and Drummoyne Wharf).

30. Additional public domain locations were examined (but these are not depicted on Image 4). From those additional locations there are only available very distant aspects to the marina. These locations are either in inaccessible locations; or locations where the aspect to the marina is obscured by existing structures and existing swing mooring-related vessels on the waterway. These include:

- a. Gladesville Reserve – Located on the northern side of the Parramatta River, west of Huntleys Point Wharf. There are no evident viewing points, and the western-most beach location is very distant. The reserve is only accessible to the public at low tide; and views to the current marina location are filtered only, in the main obscured by vessels on existing swing moorings.
- b. Gladesville Bridge elevated roadway – The bridge is immediately east of the subject marina proposal. The angle of view to the marina is restricted, with the downwards view to the area occupied by the proposed extensions not being generally apparent to either passing traffic, or pedestrians likely to be using the footway.

- c. The road reserve of Drummoyne Avenue (east of the bridge) – Located on the southern side of the river. There are no available view corridors to the river from the footway or roadway between existing residential developments fronting the river foreshore.
- d. The road reserve of Cambridge Road (east of the bridge) – This road reserve (partially made) extends from Drummoyne Avenue to the river, and extends to the eastern side of Gladesville Bridge. The marina is generally obscured by the alignment of the bridge pylons; the contours of the landform below the bridge; and by development along Drummoyne Avenue on the western side of the bridge.

4.0 Characteristics of identified sensitive view locations.

31. Details of each of the identified sensitive view locations are as follows:

a. Location 1: Five Dock Point

32. Five Dock Point has the following characteristics:

- i. Five Dock Point is a promontory, on the south side of the river, it is accessed directly from Victoria Place, north-west of the marina. Victoria Place follows the ridgeline of the promontory. Five Dock Point projects into the river beyond the northern extent of the existing marina. The marina is located south-east of the point.
- ii. Located on the Point is a formalised area of public open space, Howley Park, used for passive and active open space purposes occupying the western side and promontory.
- iii. The active area of the park is on the western side of Victoria Place, comprising the western slope and foreshore of the park. There are no eastward aspects available to the water or bridge from this portion of the park, except at the edge of Victoria Place. The western portion of the park comprises a grassed slope that extends from the road down to the foreshore. It includes a small area of seating/ picnic facilities with a view aspect primarily to the west, and to a lesser extent, to the north. There is no eastward aspect towards the marina from the seating and activity areas.
- iv. Open space associated with the park on the promontory comprises a level area of grass, contained by a raised perimeter wall and open balustrade fencing (**Image 4**). It accommodates angled seating that is not oriented to the east, or south-east (towards the bridge). The promontory is elevated above the level of the river, with the space designed as a formal viewing platform. This area includes a formal information display.



Image 4: Formal angled-seating area (Howley Park) located on the promontory of Five Dock Point

- v. From the promontory there is an aspect to the west, north and east over the river (**Image 5**).



West

North

East

Five Dock Point: Panoramic view to the waterway and northern foreshore escarpment (west to east view) from rear of viewing platform associated with Howley Park, with the bridge and part of the existing marina visible at the eastern extent of the view.



North-east

East

South-east

Five Dock Point: Panoramic view to the waterway and northern foreshore escarpment (north-east to south-east view) from western side of viewing platform associated with Howley Park, with filtered views to the bridge and existing marina.

Image 5: Panoramic views from Five Dock Point

- vi. Foreshore vegetation located below the viewing platform rises above the level of the promontory. It restricts south-easterly-facing aspects to the marina from the main open space area of the viewing platform.
- vii. From the southern edge (rear-most) of the viewing platform, close to the footway of Victoria Place, there is an aspect to Gladesville Bridge. From this location the full span and arch of the bridge over the river is visible. Whilst on a comparative basis this aspect is more secondary (compared to the outlook from primary seating area of the promontory), it is the only available aspect to the bridge from the promontory. From this location, existing Arm D, and vessels on Arm A, of the marina are visible in the foreground, positioned in the waterway below the view line to the bridge (**Image 6**). Existing swing moorings further to the east of the marina are visible above the location the marina, below the bridge.



Image 6: View from the rear portion of Howley Park (on the promontory of Five Dock Point), facing eastward to the bridge with the existing marina in the foreground.

- viii. The eastern portion of Five Dock Point, east of the promontory comprises a foreshore area. It is narrow in width and is steeply sloping. It is occupied by foreshore vegetation. At low tide, a foreshore rock platform/ beach is visible. Access to this portion is via the vehicular access driveway shared with the marina. There is no access from either the viewing platform or Victoria Place to this foreshore area. There is no formalised pedestrian access to the foreshore. The outlook from the foreshore is defined by the promontory, and a minor rock crop to the east. The outlook is primarily to the north, to the river and northern foreshore; and to north-east, to the bridge and part of the marina (*Image 7*).



Image 7: View from the Five Dock Point eastern foreshore, being generally inaccessible for pedestrians. The marina is in the foreground (right-hand extremity).

b. Location 2: Victoria Place

33. Victoria Place is the road immediately west of the marina, from which access is obtained. The roadway is elevated above the level of the marina, providing access to Five Dock Point. There are eastward and westward views to the river from the road. Victoria Place has the following characteristics:
 - i. a narrow width local road, characterised by freestanding dwelling houses and residential flat developments.
 - ii. the only evident non-residential use is the marina operation located at the terminus of the roadway (on its eastern side).
 - iii. it is subject to time-restricted kerbside parking. The road is a no-through road.
 - iv. there is minimal evident pedestrian activity within the roadway.
 - v. available aspects to the river to both the east and west over, and proximate to, the entry driveway to the marina. There are no other evident view-points from the road to the river. The view to:
 - to the east is Gladesville Bridge and the river beyond, and eastern foreshore, where the full width and arch of the visible presents over the width of river (**Image 8**). The current marina is in the foreground, with the view aspect being over the main marina hardstand and structures, as well as over vessels below the bridge span, and along the alignment of, Arms D and E of the marina berths.

- To the west, over the western portion of Howley Park (as described above).



Image 8: Victoria Place (driveway ramp to marina): Facing east. Standing view towards bridge.

c. Location 3: Cambridge Park reserve at the South Pylon (located below and beside Gladesville Bridge) (south side of river).

34. The Victoria Road reserve below the alignment of the southern section of Gladesville Bridge ('South Pylon Reserve' for the purposes of this report) forms part of Cambridge Park, extending from Drummoyne Avenue to the river foreshore. Cambridge Park has the following characteristics:
- i. steeply sloping, from south to north, from Drummoyne Avenue towards the river.
 - ii. the lowest point of the reserve (along its northern edge) is elevated above the river foreshore by about 4m.
 - iii. the central portion is traversed overhead by the bridge.
 - iv. the central portion is occupied by the pylons of the road bridge above.
 - v. the central portion is physically covered by the elevated road bridge above.
 - vi. is fully grassed.
 - vii. is not a formalised area of public open space, except for some seating is provided on the upper slope of the space.
 - viii. is accessible to pedestrians via its frontage to Drummoyne Avenue (with limited pedestrian activity).
 - ix. the southern foreshore and near water of the waterway is obscured from view from the upper portion of the reserve due to the elevation of the reserve (above the bridge-related retaining wall).
 - x. permits views either side of the alignment of the road bridge arch, to the north-west and north-east from various locations. Aspects to the river extend to the northern foreshore, and escarpment beyond, to the north-east and north-west.
 - xi. the upper central portion has an aspect to the waterway, but not proximate to the marina (**Image 9**). From this position, there is view to the waterway on both sides of the bridge, extending to the northern foreshore of the river, and its escarpment.



Image 9: South Pylon (within Cambridge Park): Standing view, western side of bridge. Facing north to the waterway on both sides of the bridge pylons, to the northern escarpment of the river.

- xii. the south-eastern upper slope aspect towards the west includes as aspect to the waterway. The aspect is to the distant northern foreshore, with part of the marina in the foreground of the waterway. The view is filtered by the pylons of the bridge within the reserve (**Image 10**). The existing outer arm is visible.



Image 10: South Pylon (within Cambridge Park): South-eastern side of open space. Standing view under the bridge, facing north-west towards existing marina, river and northern escarpment.

- xiii. the aspect from the south-western upper slope is to the distant northern-eastern escarpment, and the waterway. The view is filtered by the pylons of the bridge within the reserve (**Image 11**).



Image 11: South Pylon (within Cambridge Park): South-western corner of open space. Standing view under the bridge, facing north-east to river and escarpment beyond.

- xiv. The waterway and northern escarpment are visible from the lower slope of the reserve (north-western portion, at the western boundary) facing over the rear setback of the neighbouring residential property (**Image 12**);



Image 12: View from the western boundary of Cambridge Park over the rear setback of neighbouring residential development to the waterway and northern escarpment, towards the existing marina.

- xv. Vessels on swing moorings on the southern side of the river are visible from various vantage points, mainly the western side, and south-eastern corner, with the river beyond visible above the vessels (**Image 12**).

d. Location 4: Victoria Road reserve – occupied by the North Pylon of Gladesville Bridge) (north side of river),.

- 35. Victoria Road Reserve on the northern side of the river. It is located below the alignment of the northern section of Gladesville Bridge (on the opposite bank of the river to the marina and extending from Huntleys Point Road to the river foreshore). The reserve has the following characteristics:
 - i. steeply sloping, from north to south (from Huntleys Point Road) towards the river.
 - ii. the lowest point of the reserve (along its northern edge to the waterway) is elevated by about 3-4m above the river foreshore.
 - iii. the central portion is traversed overhead by the bridge.
 - iv. the central portion is occupied by the bridge pylons.
 - v. the central portion is physically covered by the elevated road bridge above.
 - vi. is fully grassed.
 - vii. is not a formalised area of public open space, and is absent any formal seating.
 - viii. is accessible to pedestrians via its frontage to Huntleys Point Road (with limited pedestrian activity).
 - ix. provides for distant aspects to the upper portion of the Harbour Bridge arch; and to City skyline, from the upper slope of, and eastern portion of, the reserve close to the road (**Image 13**).



Image 13: View from the upper slope of the Victoria Road reserve, central portion close to the road, facing south-east, with views to open water, distant swing moorings; and the distant city skyline and Harbour Bridge.

- x. provides for aspects either side of the alignment of the road bridge arch, to the waterway and southern escarpment of the river from various locations, including the marina (mainly western side of the bridge alignment). In the main areas of the reserve to the east of the bridge have a restricted view to the waterway proximate to the marina and proposed extension.
- xi. aspects to the river extend to the southern foreshore, and escarpment beyond, to the south-east and south-west.
- xii. the waterway close to the reserve comprises mainly open water, unaffected by any swing moorings. Vessels on swing moorings on the southern side of the navigation channel are visible in the distance close to the foreshore of the waterway.
- xiii. aspects to the existing marina from locations proximate to the waterway retaining wall are generally limited to positions on lower slope on the western side of the reserve.

- xiv. as viewed from the upper slope of the reserve west of the bridge, the aspect is downwards onto the surface of the water. The existing marina area occupies the 'upper' portion (between 15-20%) of potentially visible waterway in this perspective, with the remaining 80-85% 'lower' area of water being unobstructed by any moored vessels (**Image 14**).



Image 14: Upper slope, central portion, facing south-west, towards the waterway (west of the bridge) and southern foreshore. The existing marina is on the southern side of the main navigational channel, being the open water in the foreground.

- xv. The prevailing character of development on the opposite side of the river (proximate to the area of waterway to be affected), as appreciated from the western side of the reserve, is of an apparent scale of 4-5 storeys (resulting from their typical stepped form), located above riverside retaining walls and, in some cases, also above additional garden retaining walls.
- xvi. From the upper slope of the reserve, and Huntleys Bay Road, there are district views above the height of the foreshore development of Drummoyne Avenue on the opposite bank of the river (**Image 15**), and to the waterway.
- xvii. The existing marina visually obscures the foreshore edge on the southern side of the river. Building forms south of the marina are not generally located above the height of existing vessels within the marina.
- xviii. The existing foreshore edge, east of the existing marina on the southern side of the river (proximate the area of waterway likely to be affected by the development) is defined by retaining walls associated with adjacent residential development. There are no natural features visible at the foreshore edge.



to south-east

to south, to existing marina

View 15: Panoramic view from the reserve around the North Pylon: Facing south – elevated portion of the reserve below the bridge, with the marina to the right of image.

e. Location 5: Betts Park

36. Location 5, Betts Park, is an informal area of public open space on the northern side of the river, opposite the subject marina. Its primary orientation is to the south-west, partially away from the subject marina, and potentially affected area of water. It has the following characteristics:
 - i. Sloping land located between Huntleys Point Road and the river foreshore.
 - ii. Passive recreation use.
 - iii. Primarily bushland.
 - iv. Limited informal pedestrian access to the foreshore, with only one formalised pathway to an informal landing deck at the foreshore edge.
 - v. Minimal pedestrian use.
 - vi. No formal recreation areas.
 - vii. The primary aspect from the landing deck is towards Five Dock Point, on the southern side of the river, at the western extent of the available panorama, and to the marina (**Image 16**). Existing arms of the marina extend almost to the eastern extremity of the available panorama, with only a minor portion of potential waterway (to be affected) being visible on the horizon of a large area of open water close to the park reserve.



towards marina

to south

Image 16: Betts Park: Facing south from foreshore landing jetty to Five Dock Point and existing marina

f. Location 6: Huntleys Point Road (north of Betts Park).

37. Location 6 is on Huntleys Point Road from which there are glimpses to the marina. The image below represents the widest available view (**Image 17**). This Location:

- i. is elevated above, and on the northern side of, Betts Park. It is a residential street, serving only local traffic, with some commuter parking associated with the operation of the Parramatta River Sydney Ferry Service from Huntleys Point ferry wharf.
- ii. is an east-west road, with residential dwellings elevated above the level of the roadway on its northern side. The primary outlook from the footway is sideways, through the canopy of trees within Betts Park.
- iii. enables an sideward-facing filtered aspect to the Parramatta River, to the southern side of the river, spanning from Gladesville Bridge to the existing marina at a single point on the footway adjacent to Betts Park.
- iv. is subject to minimal pedestrian movement, likely to be mainly in the early morning and late evening. It is not a primary viewing point.



south-east (bridge)

to marina

south

Image 17: Huntleys Point Road, facing over Betts Park. Standing View. Facing south across the harbour towards the marina.

g. Location 7: Huntleys Point

38. Location 7, Huntleys Point, comprises a formalised viewing platform that is accessed from Huntleys Point Road (**Image 18**). The viewing platform is east of the Huntleys Point ferry wharf. It is elevated above the river foreshore. Access to the wharf is from Huntleys Point Road that terminates at the point. The commuter wharf itself is at foreshore level and is regularly used. The viewing platform has the following characteristics:

- i. It is a passive area of private open space;
- ii. It is subject to infrequent, low intensity, use;
- iii. it is a pocket park, with a single seat providing an outlook to the river;
- iv. it includes a formal information display;
- v. it provides a south-west to south-east view panorama. This panorama includes an easterly aspect to Gladesville Bridge;
- vi. the existing marina is contained between Five Dock Point and the bridge; and
- vii. the area of waterway to be potentially affected is partially in the foreground of the bridge arch.



east (bridge)

south (to marina and Five Dock Point)

south-west

Image 18: Huntleys Point. Panoramic view facing south across the harbour towards Five Dock Point and the marina, the latter being just to the right of the bridge, visible in the waterway and against the escarpment.

h. Location 8: Parramatta River Ferry (traversing the waterway between Huntleys Point Wharf and Drummoyne Wharf) - Rivercat

39. Location 8 is a public ferry catamaran (Rivercat). The ferry route follows the river to and from Circular Quay to Parramatta, a distance of about 18-20km, serving both the northern and southern river banks, so traversing its width on a number of occasions.
40. There are internal and external seating areas on the vessel. Sitting views from the external seating area are generally obscured by the side balustrade. Standing is permitted in the external seating area (where, in some instances, there is a rear platform area, but not on all vessels).
41. The ferry travels primarily between the northern side of the river west of Gladesville Bridge, and the southern side east the bridge. The ferry passes in both directions within about 200m of the existing marina at the central point of the river below the bridge.
42. The rivercat journey time between Parramatta and Circular Quay (from the timetable) is 83 minutes. The travel time between the two points is (from the ferry timetable) is about 5 minutes. The travel time (from personal observation travelling on the ferry) between Huntleys Point Wharf and the bridge is about 2 minutes.
43. View outlook opportunities from the ferry are in all directions, depending upon where the viewer elects to sit/ stand on the ferry, but there are no single vantage points to obtain a 360-degree panorama. The view line of a passenger is about 4m above the water level. Views to the marina and southern side of the river are primarily from the southern side of the ferry only, irrespective of direction between the two points. River views are available from the ferry during the full length of the ferry route (**Images 19 and 20**). The river width upstream of the marina narrows towards Parramatta, and widens downstream towards Circular Quay.
44. Views to the southern and northern foreshores of the river are partially obscured both by vessels within marina and on the swing moorings, these existing at various points along the length of the ferry route. The elevated topography, and associated features/ built form alongside the river is generally visible above the height of vessels moored on the river (as viewed from the ferry).

45. Vessels on single moorings proximate the existing marina and bridge are visible in the foreground of, and partially screen, the existing marina. They variously affect views to the marina, and water below the bridge arch. when viewed from the eastern side of the bridge.



south-east (bridge)

to marina

south

Image 19: Ferry. Facing south (side-facing from vessel) to the southern foreshore, and buildings fronting the waterway, with the marina in the foreground.



Image 20: Ferry. Facing south west (rear or front-facing from vessel) to the bridge, swing mooring in the foreground, and existing marina in the background.

5.0 The Proposal

5.1 Background to preparation of the development proposal

46. On-going examination of potential visual impact associated with the proposed extension of the current marina has been underway on a continual basis since May 2016. That process has resulted in the current proposal being revised sequentially in response to the following observations and/ or findings from that process:
- a. the potential view impact of vessels can be minimised (as ascertained from public domain vantage points on the northern and southern sides of the river):
 - i. if their berths are located at ninety degrees to the southern foreshore; and
 - ii. the arms are sufficiently separated to allow for views over vessels to water between the arms; and
 - iii. vessels on the outer edge of the marina are of a height to allow for views to the main navigation channel.
 - b. the current width of the inner navigational channel (currently between the marina and the southern foreshore) is to be retained, to achieve appropriate spatial separation from the foreshore;
 - c. berths for larger craft should be located generally within the western (existing) portion of the re-arranged marina;
 - d. berths for smaller craft have a limited impact upon views when placed at the eastern end of the extended marina; and
 - e. the potential for a continuous appearance of moored vessels on the outer edge of proposed Arm D is avoided in the proposed design, having regard to the assessable height photomontage, enabling the retention of views to the open water channel to the north (as viewed from the properties to the south) and to retain an aspect into the marina and foreshore development from the northern shore of the waterway.
47. The above principles allow:
- a. for water views to be maximised to the main navigational channel of the river (north of the existing marina); and between the arms of the marina, from

various public domain locations on the southern foreshore with the view aspect being generally over the proposed expanded marina;

- b. for water views to be maximised to the main navigational channel (north of the marina); and to the open span of Gladesville Bridge (west of the marina) from elevated public domain locations on Five Dock Point, with the view aspect being generally over the proposed expanded marina (with new extensions screened by the existing marina form); and
- c. the berths for larger craft to be viewed against a backdrop of existing built form and foreshore retaining walls from various location on the northern foreshore of the river.

48. The current proposal has been evolved based on the above principles, to maximise the availability of water views to the existing waterway, and to minimise impacts from the new extension for the purposes of the subject application. The outcomes of the above approach should achieve an acceptable view impact from the identified public domain locations.

49. Given the identified sensitive public domain locations are primarily foreshore locations, often closer to the water's edge compared to nearby private dwelling locations, it was assumed during this process that the potential impact upon neighbouring residential dwellings is also limited. Affirmation of that conclusion was confirmed thereafter following subsequent access that was provided to several neighbouring residential properties located to the south and west of the marina, some on higher sloping land, and others closer to the waterway, on lower sloping land.

5.2: Description of the subject proposal.

50. The eastern extent of Arms D and E are to be extended towards the alignment of the bridge. The extension of Arm E is 101m in length, and that of Arm D is 101m also (**Image 21**).

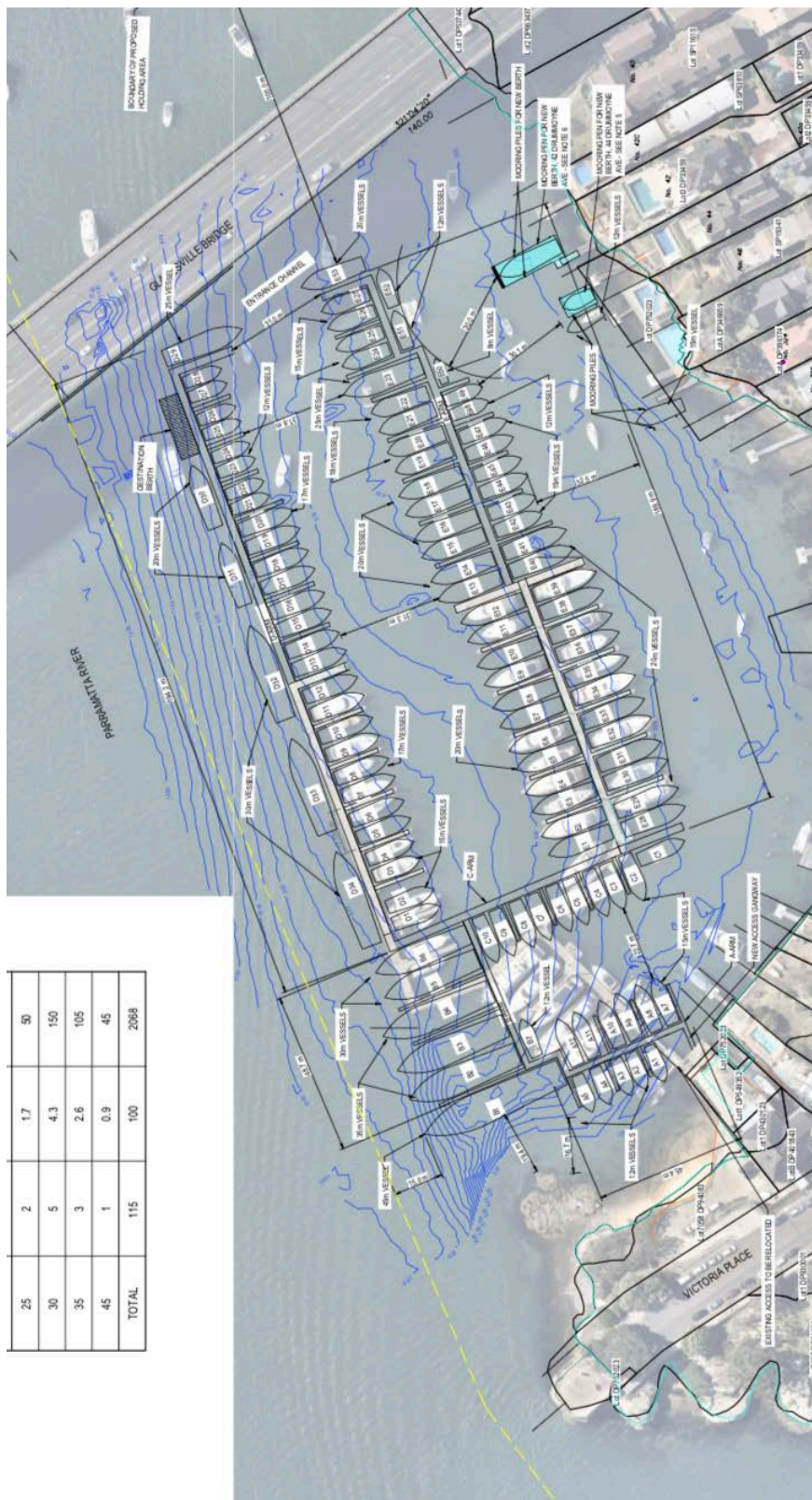


Image 21: Extract from Layout Drawing overlaid with existing marina arrangement within an aerial photograph.

51. The proposal comprises alterations and additions to the marina berth layout to provide overall storage for 130 vessels comprising 15 swing moorings and 115 floating berths (**Images 21 and 22**). The works include:

- f. removal of 29 existing moorings and retention of 15 existing swing moorings;
- g. construction of 65 new floating berth spaces of varying sizes, that increases the number of floating berths from 50 to 115;
- h. cessation of slipway activities;
- i. demolition of the slipway rails and demolition of the internal office mezzanine structure within the covered slipway area; and
- j. provision of 8 new valet car parking spaces within the existing slipway area.

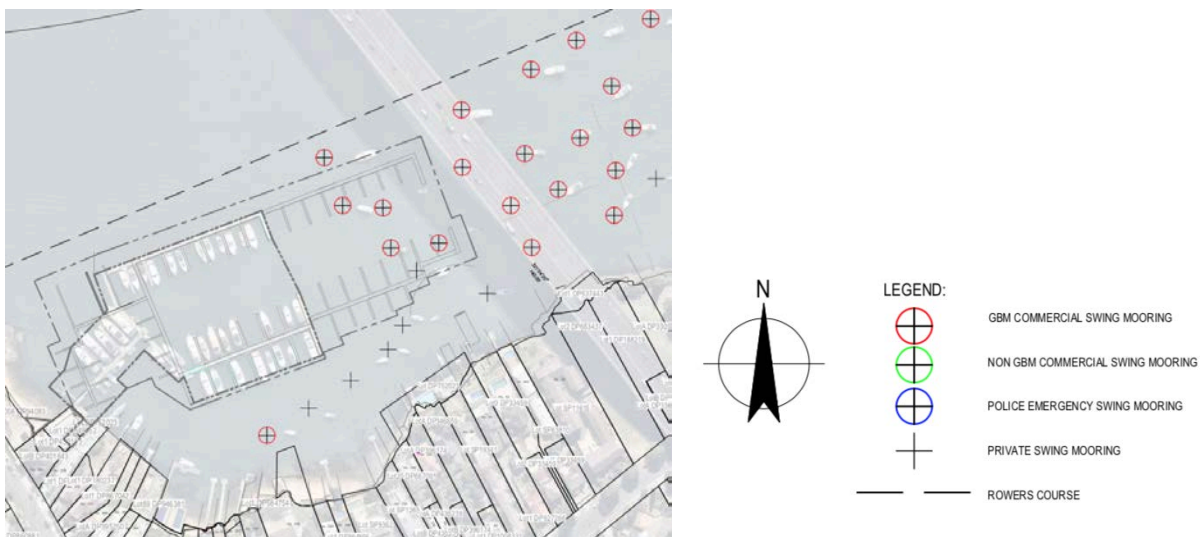


Image 22: Extract from the overlay plan depicting the location of existing swing moorings.

52. Aspects of the subject proposal, particular to the issue of view assessment, are as follows:

- a. realignment of Arm A by 90-degrees, to link with two new arms, Arms B and C. It will connect between Arm A and the existing pontoons of the two east-west arms of the marina become outer Arm D and Arm E. The smallest berths (A1-A5) are placed on Arm A, with the closest berth being beside the existing hardstand entry gate to the marina arms (as is currently the case);

- b. extension of the existing east-west arms, to become outer Arm D and Arm E, in an easterly direction, with inner channel berths at 90 degrees to the southern foreshore (similar to the existing marina arrangement. The outer-most arm is Arm D ('outer arm').
- c. medium-sized berths (35m or less) on the outer edge of outer Arm D (closest to the central river channel), with berths reducing in size from east to west along that edge.
- d. a staggered alignment of Arm E, both to reflect the natural staggered foreshore alignment of the river to the south, and to retain a channel width between the foreshore and the marina similar to that as existing; and
- e. alignment of proposed Arm B on the same east-west alignment as existing east-west arms; to accommodate the largest berths enables those berths to be at 90 degrees to the southern foreshore, located close to the elevated escarpment of Five Dock Point, whilst being accessible directly to/from the main channel of the river, with the largest berths closest to the foreshore area where there is deep water.

53. Photomontages of the proposal as viewed from the sensitive Locations identified in Section 3.0 have been provided by GHD. The photographs were taken at high tide, (except for that adopted for Five Dock Point, where it is advised the image proximate to mid-tide, with a possible difference of 0.4m). The photomontages accompany the development application under separate cover. They have been relied upon for the analysis of potential visual impact in Sections 7.0 and 8.0 of this report.

54. The height of vessels depicted in the DA-submitted photomontages is measured from the top of the pontoon to the top of superstructure, excluding the flybridge and/or mast (typical section of vessel image below (**Image 23**), being its assessable height for the purposes of this report, reflecting the requirements of the DCP ('assessable height').

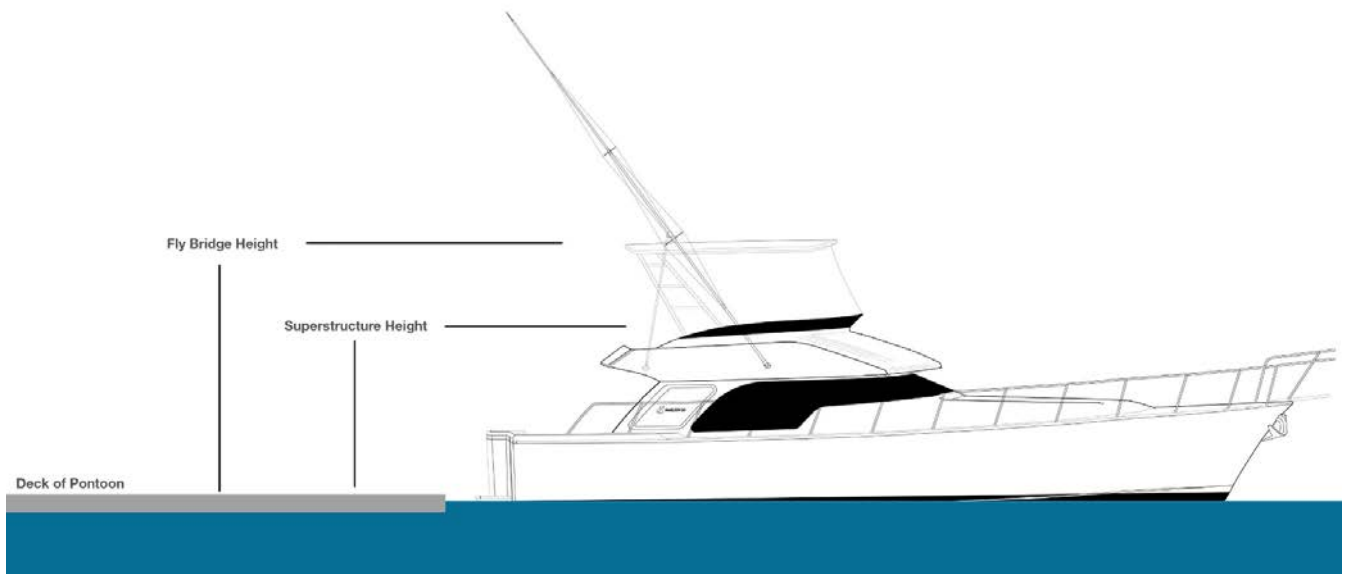


Image 23: Typical section of a vessel relied upon to inform the assessable height of a proposed vessel for the purposes of this report.

55. The DA-submitted photomontages illustrate two scenarios:

- a. Scenario 1: The typical scale of vessels for the length of berth proposed, illustrated as actual craft in the photomontages. Their size and scale reflects that being typical of vessels currently berthed in comparable length berths associated with the current marina (i.e. being generally of a lower height than the maximum height of vessel for such a length) and
- b. Scenario 2: The assessable height of proposed vessels is shown in a colour-coded format (**Image 24**). The assessable height of a vessel within each proposed berth is depicted with two colour elements, at two different heights. The upper-most colour element represents the height of the superstructure; whilst the lowest element of the vessel represents its front portion in this scenario. The proposed colour-coded assessable height of a vessel in each berth is illustrated on the photomontages in the context of Scenario 1 for comparative purposes. For clarification, Berths E24-27 and E51-52 at the end of Arm E have an assessable height of 3m (i.e. are mauve-coloured)

Colour used		Assessable Superstructure height (m)
Mauve		3
Red		3.5
Yellow		4
Lime		4.5
Aqua		5.5
Light Blue		6
Dark Blue		7
Purple		8
Pink		9
Green		10

Image 24: Colour-code table depicting the assessable height of proposed vessels.

- c. The colour-code format has also been applied to the aerial overlay of the proposal for each berth in the proposal (**Image 25**).

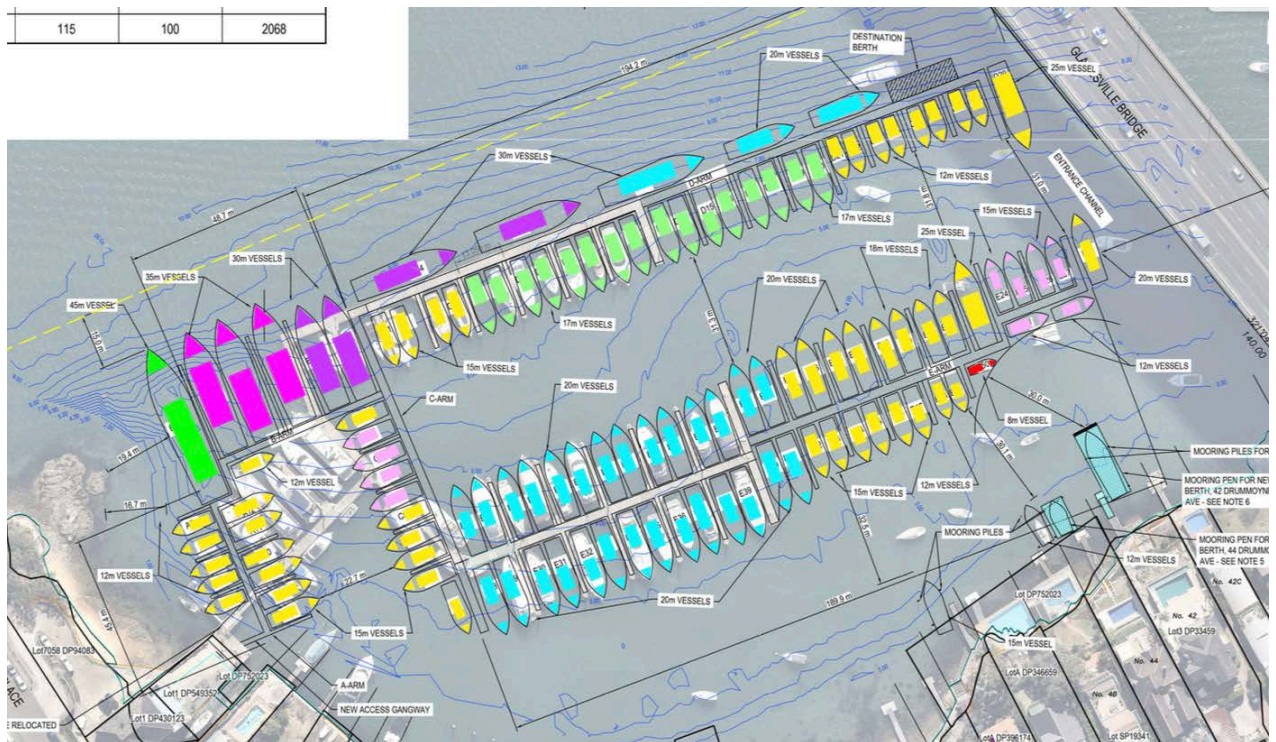


Image 25: Colour-coding depicting the assessable (superstructure) height of proposed berths.

56. A summary of the Scenario 2 assessable boat heights as illustrated in the colour-code overlay of the proposal (*Image 25*) is provided in **Table A**.

Assessable height* of vessel	Number of berths proposed
4m or less	60
>4m - 4.5m	16
>4.5m - 6m	31
>6m - 8m	4
>8m - 9m	3
>9m - 10m	1

* top of pontoon to top of superstructure, excluding flybridge/ mast.

Table A: Assessable height schedule of vessels used within the submitted photomontages (as per the layout in *Image 25*).

6.0 Relevant planning provisions pertinent to the issue of view assessment.

57. The relevant planning documents pertinent to the consideration of view assessment in this instance are the *SREP (Sydney Harbour Catchment) 2005* (now a Deemed SEPP) ('Deemed SEPP'); and its related *Sydney Harbour Foreshores and Waterway Area DCP 2005* ('DCP').
58. The waterway below the mean high water mark ('MHW') is subject to the Deemed SEPP and DCP. The area of waterway occupied by the existing marina, and the proposed extensions, is within Zone W1 *Maritime Waters*. The area of waterway south of the marina, for a distance of 30m measured from the MHW is zoned W6 *Scenic Waters: Active Use*. The remainder of the channel south of existing Arm E is in Zone W1. Zone W6 extends along the southern foreshore water almost to the alignment of Gladesville Bridge. Thereafter, to the east, the area of waterway 30m distant from the foreshore is zoned W7 *Scenic Waters: Casual Use* (**Image 26**).

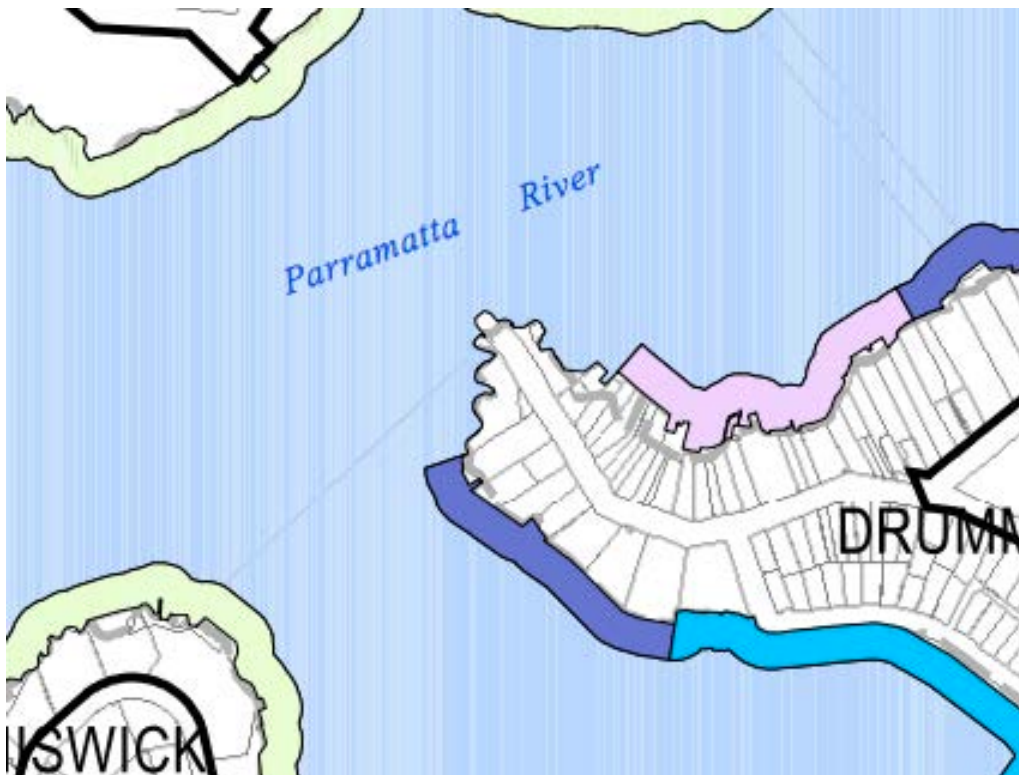


Image 26: Extract from the SREP zoning map.

59. The land use of a 'commercial marina' is permissible in the waterway of both Zones W1 and W6. The existing marina, and as extended, is defined in that manner.
60. None of the zone objectives of Zone W1 within clause 17 of the Deemed SEPP are specifically relevant to the issue of view impact and/ or are visual assessment objectives.
61. Clauses 25 and 26 of the Deemed SEPP are pertinent to the issue of visual assessment/ impact. Clause 27(e) is not considered relevant as the marina is not considered to be a boat storage facility to which that provision relates. Clauses 25 and 26 are dealt with in turn:

Clause 25 of the Deemed SEPP.

62. Clause 25, *foreshore and scenic quality*, reads as follows:

The matters to be taken into consideration in relation to the maintenance, protection and enhancement of the scenic quality of foreshores and waterways are as follows:

- (a) the scale, form, design and siting of any building should be based on an analysis of:
 - (i) the land on which it is to be erected, and*
 - (ii) the adjoining land, and*
 - (iii) the likely future character of the locality,**
 - (b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,*
 - (c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.*
63. As the proposed development does not include any new building on land, subsection (a) is not relevant in this instance.
64. In addressing subsection (b) it is considered that the proposed development will maintain, protect and enhance the unique visual qualities of the harbour, and its foreshore, in the same manner that the existing marina arrangement does. In achieving that objective:
- i. the proposed development does not extend beyond the existing northern extent of the existing marina, save for the location of vessels to be berthed alongside the existing northern edge of outer Arm D.

- ii. the pontoon extensions are well set back from the foreshore on the southern side of the river in a staggered alignment, reflecting the curvature of the foreshore, and retaining a similar width of channel between the development and the foreshore;
 - iii. as with the existing marina, the extensions will be viewed from the north against the elevated foreshore landform to the east and the (mainly) heavily urbanised to the southern bank of the river (and the foreshore retaining walls).
 - iv. the physical separation of the Arm A from the foreshore of Five Dock Point retains a similar visual context to the existing situation. The largest berths are in a similar location of the current larger berths of the existing marina, but further from the shore, such that there will not be any increase in visual impact from any of the identified Locations. These vessels will be visible to the oblique east-facing outlook from Five Dock Point (as is currently the case). The rearrangement of Arm A will not impact upon the setting of Five Dock Point from any sensitive location on the waterway or foreshore of the harbour.
65. Given the context of the subject site; the manner in which the development will be viewed, and that the subject marina proposal is not visible in the context of any other marina, there is no potential for cumulative impact of water-based development to arise. The fact that the marina exists under a former development consent, and is now proposed to be extended, is not considered to represent cumulative impact. It is concluded that subsection 25(c) is satisfied by the development.

clause 26 of the Deemed SEPP.

66. Clause 26, *maintenance, protection and enhancement of views*, reads as follows:

The matters to be taken into consideration in relation to the maintenance, protection and enhancement of views are as follows:

- (a) *development should maintain, protect and enhance views (including night views) to and from Sydney Harbour,*
- (b) *development should minimise any adverse impacts on views and vistas to and from public places, landmarks and heritage items,*
- (c) *the cumulative impact of development on views should be minimised.*

Sydney Harbour DCP provisions pertinent to visual impact assessment

67. The DCP contains, in Part 4.7 Marinas (Commercial and Private), objectives and guiding principles for the assessment of ‘*Visual Impact*’, including:
- *the visual impact of the marina on people in the visual catchment (derived from an analysis of the potential number of viewers, their location within the landscape, distance from the marina, and duration of view) is to be minimised.*
 - *waterside structures and berthed vessels associated with marinas are not to block views from foreshore public open space or views to foreshore public open space from the waterway.*
68. The DCP also reads (in the same section):
- any visual analysis shall consider the impact of the largest motor vessel(s) capable of being berthed at the marina.*
69. This latter DCP provision represents the most conservative scenario that could exist, i.e. being one that most unlikely on a day by day basis given most berths are not occupied (a) by the largest of potential-sized craft, for all of the time, and (b) nor throughout the year each day given the seasonal nature of boat use and movement. There are likely to be many instances where there are empty berths. Also, as is evidenced from observation of the existing marina, a number of berths are occupied by vessels of a lesser size than their potential. Also some of the berths are occupied by non-motor vessels (i.e. sailing craft).
70. Notwithstanding, the photomontages prepared for this proposal have assumed 100% occupancy of berths to allow for the DCP ‘worse-case’ assessment of potential view impact, being the Scenario 2 overlay of the Scenario 1-depicted photomontages.
71. Map 6, from the DCP (p23), defines the area of waterway in which the subject marina is located. The area of the marina and associated waters of the river nearby are categorised as Landscape Character Type 16 (***Image 27***).



Image 27: Extract from the SREP DCP Landscape Character Map, with the subject land in Type 16.

72. Landscape Character Type 16 '*applies to the dense residential areas of the Parramatta River including Fern and Drummoyne Bays*'. The Statement of Character reads:

These areas have a high degree of built form with waterside commercial, residential, and industrial development dominating the foreshore. The mix of uses provides a distinctive urban character which should be maintained.

73. The statement of intent for Landscape Character Type 16 in the DCP is:

'to encourage appropriate waterfront development while protecting the character and amenity of developed areas, foreshores and the shoreline'.

74. The DCP incorporates detailed provisions for how this visual impact analysis is to be prepared, with details provided in Appendix D of the DCP.

75. The stated purpose of Appendix D of the DCP is (pg.68) to assist proponents to evaluate the potential impacts of marinas in various scenarios and minimise these impacts when designing a marina.

76. Figure D1 of Appendix D (p.69) of the DCP indicates that the potential visual impact of a marina development on the harbour would be expected to have the highest potential for impact where it is proposed in front of public open space; and generally have the lowest impact when it is proposed in front of existing commercial development.

77. The DCP observes:

While the overall potential visual impact of a proposed development will result from a complex combination of factors that are unique to each situation, Figure D2 provides an indication of the likely relative contribution that the various factors can be expected to make.

78. The range of potential view impact categorisation in Figure D2 of the DCP is limited in scale and scope, with impact to be defined only as Low, Medium or High. It is comparably a simplistic approach for undertaking a view analysis, say, when considered against the more sensitive grading incorporated by the Land and Environment Court Planning Principle for land-based development (in the judgement of *Tenacity Consulting P/L vs Warringah Council*).

79. The Figure D2 of the DCP matrix of contributing factors that each have a numeric weighting. By applying those factors, and their weighting, to each vantage point, the expectation is that a the visual impact of a development will emerge, either as low, medium or high.

80. DCP commentary regarding the matrix of D2 reads:

If the proposal generates a high level of impact for any view situation, steps should be undertaken to address these impacts prior to lodgement with the consent authority.

81. Though preliminary forms of the proposed development did not, in our view, generate high levels of impact for any single view situation, since that time steps have been undertaken to address those impacts. Those modifications have been identified earlier in this report.

82. Section D1.1 of Appendix D (pg.68 of the DCP) identifies characteristics of marinas generally, and likely impacts from marinas within particular harbour contexts and settings. Section D1.1 also refers to the application of Figure D2 in the following terms, noting that it only provides an '*indication of the likely relative contribution of the various factors*', read in full as follows:

While the overall potential visual impact of a proposed development will result from a complex combination of factors that are unique to each situation, Figure D2 provides an indication of the likely relative contribution that the various factors can be expected to make.

83. In preparation of this visual impact assessment, there are a number of characteristics derived from application of section D1.1 to the existing marina that are not reflected in the identification of Indicative Contribution to Potential Visual Impact in Figure D2 of the DCP. For instance, the DCP reads in relation to the carrying out of a visual impact assessment (pg.69) in section D.1:

the visual impact assessment is to be carried out taking account of the performance criteria for the Landscape Character Type(s) in this DCP that seek to maintain or enhance the visual harmony of the area of Harbour in which it is located.

84. However, the Figure D2 matrix does not include consideration of the Landscape Character Type in which a marina is proposed. If the performance criteria of Landscape Type 16 were included, it would be concluded that the existing marina is located in an urban setting, in which the development forms of the location (that includes the existing marina) currently dominate (and characterise) the setting of this location. As such, the marina, as proposed, would be considered appropriate for its setting (compared to a Landscape Character Type did not have the same characteristic performance criteria). On that basis, the subject site would have a low score in the Figure D2 matrix.
85. Further, Figure D2 also does not make provision for the following provision of section D.1 which all apply to the context of the subject site (moreso, say, that other Landscape Type locations):

The potential visual impact of marinas is significantly less when viewed from adjoining waterway or opposite shoreline, if the facilities are viewed against a background of large scale commercial, industrial or residential development or slopes and ridges with high elevation.

86. Figures D2 and D3 need to be read in context with the following provisions of Section D1 (pg.68) of the DCP, that comprise the underlying intent of the contributor indicators in the matrix applied to Figures D2 and D3:
- *The potential visual impact of marinas on adjoining residential development is strongly influenced by the degree of landform elevation with significantly less visual impact on elevated residences that have views over the top of marinas compared to residences located at elevations similar to the foreshore that have views blocked by boats and marina structures.*
 - *The potential visual impact on adjoining public open spaces and residential areas resulting from moored or berthed boats is strongly influenced by the relative size of the boat and distance from the viewer. For example a large power boat moored close to the shoreline will have a significantly higher visual impact than if it was moored on the waterway side of the marina.*
87. Lastly, it is noted that of the 6 indicative contributors to potential visual impact identified in Figure D2, only 5 comprise the indicative contributors in Figure D3, the View Analysis Matrix, for which an overall potential visual impact average score is derived. There is no commentary within this section of the DCP as to why not all 6 indicators are included in Figure D3.

Assessment of the Figure D2 criteria

88. When considered against the provision of Figure D1, that reflects the likely impact of a commercial marina within its context, the weighting of Below Medium impact arising from applying Figure D2 within Figure D3 appears to excessive.
89. Amongst other things, the criteria of Figure D2 contain are too many generalities; the scope of the criteria is too broad; and a range of influencing factors are omitted. The contributing factors of Figure D2 do not factor in:
- the land use context of the land in question as discussed in Figure D1 of the DCP, as to where the viewer is located, (whether it is public open space, a commercial site, or some other context).
 - the scope and extent of available view(s) from each vantage point.
 - the scale and size of the development within the available view.

- the intensity of pedestrian use / activity within the public open space use at the viewing location;
- that the impact may result from particular aspects of the development only, but not the whole development;
- the presence of any existing structures in the view aspect, i.e., swing moorings in the foreground.

90. The underlying commentary from section D1, identified above, informs the criteria within Figure D2. Thus, it appears some of the wording in the matrix does not align with that commentary. Contrary to the wording of some of the contributor indicators in the matrix:

- assume that where there is a full view over the marina, the elevated location satisfies the criteria for an elevated position with a clear view. That does not reflect the commentary in section D1 on that topic, as detailed above within this report. Given the majority of vessels proposed are to be 6m or less in height; vantage points are elevated; and are also distant from the viewer (which reduces their relative height), in both instances a clear view over the berth is likely. The photomontages illustrate this conclusion;
- the impact of a development 1000m distant from the foreshore is assumed to have the same as a development 100m away. This does not reflect the underlying commentary in section D1 as detailed above in this report.

91. As a consequence of the above factors, the general implication is that the view impact weighting (when applied to Figure D2 and D3 matrix) for any, if not all, commercial marina developments could potentially result in a medium impact as a minimum (compared to any potentiality for low impact).

92. In summary, application of the matrix to the subject proposal in this instance, need to be read in context with the underlying commentary of section D1 that informs the indicative contributors within Figure D2 and D3. On that basis, the matrix will provide a more site-specific and development-pertinent weighting of potential view impact.

7.0 Impact Assessment

94. Reflecting the approach contained in the summary guidance of the DCP discussed in section 6.0 of this report, assessment from the various vantage points particularly along the southern river foreshore, south and west of the existing marina, confirm views are maintained over the top of the existing berths and pontoons, from elevated locations, and in some instance are improved as some berths will accommodate smaller vessels (on a comparative basis). Compared to the aspect over the proposed berths suggests the same level of outlook as currently exists over the existing marina will be achieved. The photomontages for the most-sensitive Locations in Section 8.0 of this report affirm that likelihood.
95. None of the identified Locations have a direct aspect to the largest berth, B1. The identified Locations on the northern shore only enable an aspect to the northern end of Berth B1, such that it will appear as only a minor element within a wider panoramic view available to those positions. There will still be unaffected open waterway in the foreground of this berth, and the vessel in that berth will be viewed against built form to the south of the marina.
96. The identified Locations oriented towards the next highest category of berths (i.e. berths greater than 35m) are also all distant locations, with panoramic aspects. In those instances, both the existing and proposed marina will be viewed against buildings only, where in such instances the vessels will not rise above those structures.
97. Currently the view from the Cambridge Park (South Pylon) reserve, demonstrates:
- the higher areas of the reserve provide a more clear view over the existing marina compared to locations closer to the foreshore retaining wall, and
 - the elevation of the foreshore results in the waterway closest to the foreshore, including berths (on Arm E), being partially obscured from view from higher vantage points within the reserve.

98. A review of various photographs taken from neighbouring residential apartments (but not inserted into this report for resident privacy) affirms a similar contextual situation to that of the Cambridge Park (South Pylon) reserve exists where there are vantage points from neighbouring residential properties south of the marina. Examination of those north-facing images confirms that the waterway in the foreshore channel; the channel between outer Arm D and Arm E; and beyond outer Arm D are currently visible from elevated locations despite the presence of the existing marina.
99. From this, it is likely that residential properties with north-facing waterway views east of the existing marina arm would still maintain a view over the proposed arm extension of Arm E, to intermediate water, and over outer Arm D, to the main channel of the river beyond. There would be some change in the percentage of waterway visible from those locations, but that change is mainly in the central water aisle area, to a downward aspect, moreso than to outward views across the waterside of the marina, to the northern foreshore; or the foreshore southern channel. In some perspectives, depending upon the distance of the view from the foreshore retaining wall of those residential properties, their elevation, and along with the difference between the alignment of the foreshore and that of the projected Arm E, a portion of the existing marina arm and its southern-most berths might be partially altered, and in some instances, the outlook improved (given there is currently no height restriction on vessels in the existing marina). However, the extent of view to waterway and width of those residential (private domain) locations will not be generally impacted by the extension.
100. Viewed from identified Locations on the southern side of the river, the primary (and most likely) difference will be the occupation of the existing open waterway east of the existing marina arms. The likely density of craft occupying this area of water, in terms of footprint of pontoons and vessels, would be comparable to the existing marina appearance in the waterway. Whilst there would be a change in the waterway character as a consequence, from open water with some swing moorings to fixed berths comparable to that which exists in the current marina, a panoramic view to and over the extension is still retained, with the foreshore beyond being visible, along with the central water channel in the marina, and the near-shore southern navigation channel.

101. From Locations on the northern side of the river, the existing marina currently appears in the waterway as 'background', i.e. viewed against the foreshore retaining walls and urban setting of the southern shore development. Projection of the alignment of the outer arm (that closest to the northern shore) to reflect the proposal demonstrates that the marina extensions at the eastern end of the development, and at the western end near Five Dock Point, will also appear in waterway background, and not be generally discernible in the wide panoramic views in which the existing marina is viewed.
102. To reduce the potential reduction in water view associated with berths on the northern side of outer Arm D, the largest berths have been located closest to the existing marina on Arm B. Further, the assessable height identified for those berths retains views from the Locations to the open waterway and the north foreshore and escarpment beyond.
103. The berths for larger vessels are mainly located in the north-western sector of the development, mainly within, or immediately proximate to, the footprint of the existing marina.
104. The potential view impact upon the Locations from larger-size vessels in these berths (compared to the size of existing vessels berthed at the marina) will not:
- adversely obstruct public domain views over the marina to open waterway from the southern shore Locations due to the restricted size of berths on the extensions and orientation of vessels;
 - obstruct any views through the marina to the foreshore across/ over the main waterway channel as these vessels from
 - both the waterway north of the development, and
 - the northern side of the river/ harbour foreshore.

8.0 DCP Figure D3 matrix assessment.

105. To assist this view impact assessment, Before photographs and After photomontages have been compared from the more sensitive Locations identified in this report. Those images have been relied upon to inform the following commentary.
106. This section comprises application of the contributing factors within DCP Figure D2 to the matrix at DCP Figure D3. From the DCP, a figure of 1.0 reflects Low Impact; 2.0, Medium impact; and 3.0, High impact.

8.1 Weighting summary using Figure D3 View Analysis matrix criteria for the development

107. From the discussion in Section 6.0 of this report, it has been observed that the scope of indicative contributors is too limited, and in themselves are too simplistic, for informing Figure D3, being out of step with the underlying intention on those matters as expressed in Section D1. Regard is required to that commentary in completing the matrix assessment below.
108. For the purposes of this section of the report, the development is assessed within DCP Figure Matrix D3 (using all 6 of the indicative contributors in Figure D2), (i.e. that seemingly erroneously omitted in the preparation of the DCP format is included).
109. Section D1.4 of the DCP only requires there to be further consideration of potential impact where the matrix score results in a high impact. The discussion regarding Figure D4, indicates the need to address the visual impacts where the score figure from the matrix is above 2 (Medium Impact).

110. Applying the 6 indicative contributors from Figure D2 within Figure D3 of the DCP, the following view weighting is attributed to the identified Locations arises:

View Location	Average Score	Potential Impact
1. Five Dock Point	1.7	Below Medium
2. Victoria Place	1.7	Below Medium
3. Cambridge Park (South Pylon)	1.8	Below Medium
4. Reserve (North Pylon).	1.7	Below Medium
5. Betts Park	1.7	Below Medium
6. Huntleys Point Road	1.5	Below Medium
7. Huntleys Point.	1.5	Below Medium
8. Ferry	1.5	Below Medium.

8.2 Conclusion of Figure D3 Matrix assessment.

111. From the above, the development will result in a Below-Medium rating, or impact, upon the identified sensitive Locations proximate to the subject marina.

112. The absence of a High rating, or impact, to any of the Locations indicates that the development, as proposed, is satisfactory in terms of view impact. None of the Locations rank above 2.0 which indicates an absence of unreasonable impact. Further design consideration is not required to reduce any potential impact further.

9.0 Site specific considerations of the development.

113. Albeit seemingly contrary to a DCP assumption (that the visual impact of a boat moored close to the shoreline is likely to be greater compared to a boat on the waterway side of the marina) in this instance the elevation of the southern foreshore retaining walls results in:

- the closest parts of the waterway and existing marina being obscured from higher vantage points. Proximate to its proposed location, the curvature of the existing foreshore retaining wall may have the potential to obscure part of Arm E from the South Pylon reserve, and from lower level vantage points within the nearest adjacent Drummoyne Avenue residential properties;
- views being available over the closer berths to water in the navigation channel of the marina; and,
- smaller vessels waterside of the existing marina comparatively having a greater impact upon outward views to the waterway compared to the proposed craft positioned on proposed Arm E (which is closer to the southern foreshore).

114. Of particular note are following site specific considerations:

- each of the public open space locations (8 Locations) from which there are vantage points are:
 - i. subject to low intensity pedestrian activity, and
 - ii. are passive recreational spaces.
- the area of waterway proposed to be affected by the marina extensions is not, in all cases, the primary to the outlook from each the public open space locations.
- each Location public open space provide a range of waterway aspects, of which the existing (and proposed) marina is generally considered only to be part, and in most cases, a minor part.
- the arc of the road bridge is a prominent feature in the landscape. Whilst swing moorings exist, there are no evident fixed structures proximate to the

bridge. The bridge presents, generally, a open and clear archway to its main waterway approaches.

- the marina site is within an established urban setting, characterised in part by the existing marina, being a characteristic to be retained and/ or encouraged in accordance with the DCP expectations for waterway within the context of Landscape Type 16 in which the marina site is located.
- the marina extension is mainly viewed either against existing marina structures and/ or the foreshore retaining wall of the southern foreshore and urban development located above it along the southern bank of the river.

115. In addition to the assessment against the provisions of the DCP (as contained in the completed Figure D3 View Analysis Matrix), the development has also been assessed against the Land and Environment Court Planning Principle relating to impact on public domain views, as set out in the judgement of *Rose Bay Marina Pty Limited v Woollahra Municipal Council and anor* [2013] NSWLEC 1046 ('*Rose Bay Marina*').

116. The Planning Principle assists in the assessment of the potential impact from private development (as is the subject proposal in this instance) on views from the public domain in the vicinity of a development. There are 5 steps contained in the Planning Principle (paragraphs 44-48), as follows (as extracted from the *Rose Bay Marina* judgement):

44. The first step of this stage is to identify the nature and scope of the existing views from the public domain. This identification should encompass (but is not limited to):

- *the nature and extent of any existing obstruction of the view;*
- *relevant compositional elements of the view (such as is it static or dynamic and, if dynamic, the nature and frequency of changes to the view);*
- *what might not be in the view - such as the absence of human structures in the outlook across a natural area (such as the view from Kanangra Walls);*
- *is the change permanent or temporary; or*
- *what might be the curtilages of important elements within the view.*

45 *The second step is to identify the locations in the public domain from which the potentially interrupted view is enjoyed.*

46 *The third step is to identify the extent of the obstruction at each relevant location.*

- *Unlike Tenacity (which adopts the proposition that sitting views are more difficult to protect than standing views), the impact on appreciation of a public domain view should not be subject to any eye height constraint. A public domain view is one that is for the enjoyment of the whole population, old or young and whether able-bodied or less mobile. It is not appropriate to adopt some statistically derived normative eye height for the assessment of such views (such as the conventionally adopted 1.6m eye height for the assessment of overlooking privacy impacts). Indeed, some views (such as that from Mrs Macquarie's Chair toward the Opera House and Harbour Bridge) may well be ones likely to be enjoyed frequently from a seated position.*

47 *The fourth step is to identify the intensity of public use of those locations where that enjoyment will be obscured, in whole or in part, by the proposed private development.*

48 *The final step to be identified is whether or not there is any document that identifies the importance of the view to be assessed.*

- *This will encompass specific acknowledgment of the importance of a view (for example, by international, national, state or local heritage recognition) or where the relevant planning regime promotes or specifically requires the retention or protection of public domain views.*

117. For the subject development, each of the 5 steps under the Planning Principle is considered for each of the identified Locations. The following comprises a summary of findings for each of the identified Location viewpoints having regard to the Planning Principle; a visual presentation of the outlook from those locations in the form of Before and After images (for the closest of the identified Locations), and an analysis of potential impact that informs a conclusion.

a. **Location 1: Five Dock Point:**

118. Five-step *Rose Bay Marina* identification:

- a) Views from Five Dock Point are primarily to the west and north (**Image 6**), with an oblique view to the east set back from the main viewing area, at the eastern extremity of the available panorama (**Image 7**).
- b) The public domain locations from which the views are enjoyed are described above and are unaffected to the west and north, and north-east (**Image 5**).
- c) Primarily the extended marina will be visible, viewed in a similar context (**Image 7**) to the east only. There will be a minor reduction in the footprint of water in front of the existing marina. Water is visible in the foreground of the vessels in the larger berths, and the view to the bridge is unaffected.
- d) The intensity of public use of the Point is low, given its size and the necessary position of the viewer (at the rear of the point) in order to see the marina, for the purpose of view assessment.
- e) There is not any known document identifying importance of this east-facing aspect, except acknowledging the visual significance of the bridge.
- f) The Scenario 2 image is comparable to the height of vessel illustrated in Scenario 1, thus the impact is also comparable.

119. Analysis: This position is within the public domain, but the easterly view outlook over the site in this Location is limited to an isolated single position that is not primary to the main river view (that exists to the west, north and north-east). The Before and After images indicates a change to the current outlook from this oblique aspect from the portion of Howley Park (on Five Dock Point) to the waterway, but not to the bridge (**Image 28**). The vessels on Arm B do not obstruct the arc of the bridge. A water and bridge aspect remains in the After situation (retaining a comparable aspect to waterway as exists in the Before situation due to the reconfiguration of the existing marina).

120. Summary: Low Impact upon existing views from Five Dock Point.

Before



After



Image 28: Location 1: Before and After (Scenario 2) representation of the view aspect from Five Dock Point (east-facing aspect from the rear of the viewing platform).

b. Location 2: Victoria Place:

121. Five-step *Rose Bay Marina* identification:

- a) Specific view within the street, facing east, over the existing marina. The position is at the end of a local road, with minimal movement/ activity. The road is adjacent to Howley Park, with wider, more open, views and sitting areas facing west. The road is elevated above the level of the marina. The main view to the east is to Gladesville Bridge.
- b) The public domain locations from which the views are enjoyed are described above.
- c) Proposed Arms A, B and C will be viewed in a similar manner to existing berths in the marina, and in a similar location, such that the change will be generally indiscernible (**Image 29**). The new berths on the northern side of outer Arm D will be generally screened by the marina berths to their south and west.
- d) The intensity of public use of the affected area is, for the purpose of view assessment, low.
- e) There is not any known document identifying the importance of this view except acknowledging the visual significance of the bridge.

122. Analysis: The use of the premises is commercial. The view is down onto and over the existing marina, and the extensions will appear within that context (in the near-ground); or will be generally screened or visually diminished in the background of existing marina arms retained as part of outer Arm D and Arm E. From the Before and After images (Image 9), the proposal improves the outlook from the roadway, with the craft in the foreground having a less obtrusive impact towards the bridge, and appearing less 'cluttered', and lower in scale. There is a net benefit to this view from this change (**Image 29**). Some minor reduction in view to the waterway behind existing vegetation. No impact upon views to the bridge.

123. Summary: Low Impact upon views from Victoria Place (potential improved view through the centre of the marina site).

Before



After



Image 29: Location 2: Before and After representation of the view aspect from Victoria Place facing east to the bridge.

c. Location 3: Cambridge Park (South Pylon):

124. Five-step Rose Bay Marina identification:

- a) View to the north from the public open space area below the bridge, sloping towards the harbour/ river frontage. The waterway view arc is limited by adjacent development, to about 90 degrees, with the bridge obscuring the area of waterway in the centre of the view. Vegetation along the foreshore partially obscures near-water views (**Images 9, 10 and 11**).
- b) The public domain locations from which the views are enjoyed are described above.
- c) The extremity of outer Arm D, and possibly Arm E, will be visible close to the foreshore edge (**Image 30**).
- d) The intensity of public use of the affected area is, for the purpose of view assessment, low.
- e) There is not any known document identifying the importance of this view, as the bridge is not within this aspect.

125. Analysis: The commercial use of the premises as existing; the informal character of the space, and passive nature; the elevated position of a viewer over the eastern section of the marina extension; the screening effect of the elevated foreshore retaining wall; the physical impact upon the setting of the reserve by the overhead road bridge and support pylons, the neighbouring residential development, and foreshore vegetation; risk of reducing waterside views beyond outer Arm D. The affection is upon a minor portion of the overall available aspect to waterway from Cambridge Reserve, limited to a change in the character of the waterway at its western extent; and increased area of waterway to the east (with the removal of swing moorings) (**Image 30**). No impact upon the waterway aspect east of the bridge.

126. Summary: Low Impact upon views from Cambridge Park reserve (South Pylon).

Before



After



Image 30: Location 3: Before and After aspect from the central grassed section of Cambridge Park (South Pylon of bridge).

d. **Location 4: North Pylon reserve:**

127. Five-step Rose Bay Marina identification:

- a) View to the south from the public open space area below the bridge, sloping towards the harbour/ river frontage. The arc is about 120 degrees, with the bridge obscuring the area of waterway in the centre of the view (**Image 15**). Vegetation along the foreshore partially obscures near water views).
- b) The public domain locations from which the views are enjoyed are described above.
- c) Outer Arm D will be visible. Arm E is likely to be obscured by outer Arm D (**Image 31**).
- d) The intensity of public use of the affected area is, for the purpose of view assessment, low.
- e) There is not any known document identifying the importance of this view as the bridge is not with this aspect.

128. Analysis: Distance over 200m. A wider panorama water view beyond that to the marina (**Image 31**). Unobstructed open water in the foreground of the marina, similar to that of the existing marina; the commercial use of the premises as existing; the informal character of the space, and its passive nature; the elevated position of a viewer over the eastern marina extension; the view against the southern foreshore retaining wall and existing urban form; the physical impact upon the setting of the reserve by the overhead road bridge and support pylons; distant from the marina, and unobstructed open water in the foreground. The impact is marginal, with no affectation upon the extent of open waterway in the foreground west of the bridge, and no affectation upon the waterway aspect east of the bridge, or to the City skyline or Harbour Bridge.

129. Summary: Low impact upon views from the reserve at the North Pylon of the bridge.

Before



After



Image 31: Location 4: Before and After representation of the view aspect from the North Pylon of the bridge (west side).

e. **Location 5: Betts Park:**

130. Five-step *Rose Bay Marina* identification:

- a) Views from the boardwalk spanning an arc of almost 180°, are of relatively open water with the existing marina and Five Dock Point at the eastern extent of the arc. The eastern extensions will not be visible in the view (**Image 16**).
- b) The public domain locations from which the views are enjoyed are described above.
- c) All of the extensions will be visible, along with the berths along the northern edge of outer Arm D (**Image 32**). Arms A, B and C will be viewed in a similar manner to existing berths, and in a similar location, such that the change will be generally indiscernible. The larger berths on the northern edge of outer Arm D will generally screen the marina berths to their south.
- d) The intensity of public use of the affected area (the boardwalk) is, for the purpose of view assessment, low to negligible.
- e) There is not any known document identifying the importance of this view.

131. Analysis: Distance of more than 400m; most of the marina viewed against the existing marina and buildings on the southern shore; there is no view impact of open water in the foreground. Viewed mainly to existing marina berths. Views to Five Dock Point are unaffected by the proposal.

132. Summary: Low Impact upon views available from Betts Park.

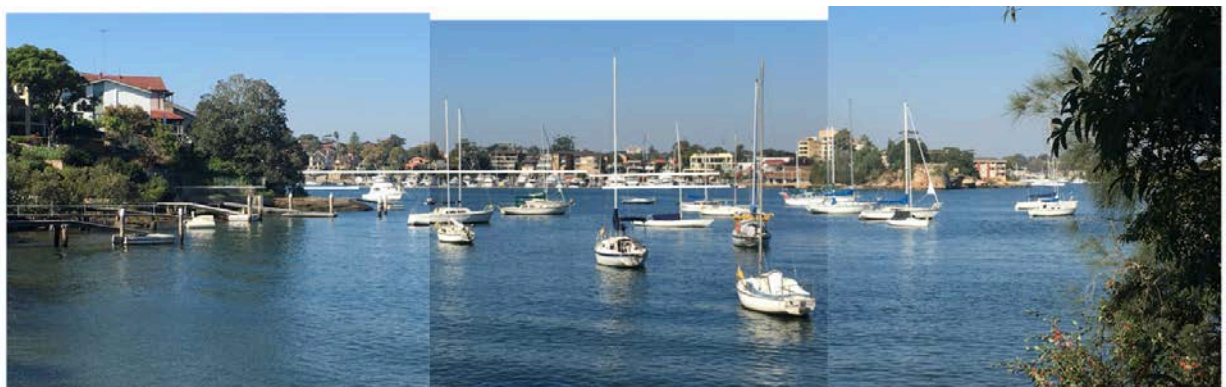


Image 32: Location 5: Before and After representation of the view aspect from Betts Park.

f. **Location 6 Huntleys Point Road:**

133. Five-step *Rose Bay Marina* identification:

- a) Views from the roadway; sideways viewing and through tree canopies. Pedestrians moving. No formal viewing position.
- b) The public domain location from which the view is enjoyed is described above.
- c) Arms A, B and C will be viewed in a similar manner to existing berths, and in a similar location, such that the change will be generally indiscernible (**Image 17**). The extensions to the east are in the background of the view, physically dominated by the vertical urban setting of the southern foreshore, and the presence of the adjacent overarching road bridge rising above.
- d) The intensity of public use of the affected area (the footway of the road) is, for the purpose of view assessment, low to negligible.
- e) There is not any known document identifying the importance of this view except acknowledging the visual significance of the bridge.

134. Analysis: Distance of more than 450m; most of the marina viewed against the existing marina and foreshore built form; there is no view impact upon open water, but mainly in screening the existing marina berths. The elevated location will permit views over the vessels along the northern side of outer Arm D. Views to Five Dock Point are unaffected by the proposal (**Image 33**).

135. Summary: Low Impact upon the view available from Huntleys Point Road.

Before



After



Image 33: Location 6: Before and After representation of the view aspect from Huntleys Point Road.

g. Location 7: Huntleys Point:

136. Five-step *Rose Bay Marina* identification:

- a) Views from the roadway; sideways viewing and through tree canopies. Pedestrians moving. No formal viewing position. A distance of about 340m to the western end of the marina, and 500m to the eastern extension of outer Arm D.
- b) The public domain location from which the view is enjoyed is described above.
- c) Arms A, B and C will be viewed against existing berths, and in a similar location, such that the change will be generally indiscernible (***Image 34***). The larger berths on the northern side of outer Arm D will generally screen the marina berths to their south. The extensions to the east are at the eastern end of the view, in the background, and physically dominated by the vertical urban setting of the southern foreshore, and the presence of the adjacent overarching road bridge rising above.
- d) The intensity of public use of the affected area (the elevated platform) is, for the purpose of view assessment, low.
- e) There is not any known document identifying the importance of this view except acknowledging the visual significance of the bridge.

137. Analysis: More than 350m-450m distant, with views to west to east portions of the marina respectively. Clear open water extending to the marina edge, being navigable channel, with most of the new larger berths viewed against the existing marina and against existing built form south of the marina; there is no view impact of open water. The primary panoramic water outlook and context of the view is retained, with no impact upon views to natural features such as bays, or to Five Dock Point, whilst the width of the view aspect to the waterway is unaffected.

138. Summary: Low Impact upon the panoramic view from Huntleys Point.



Image 34: Panoramic illustration from Huntleys Point, including the indicative representation of the proposal.

h. **Location 8: Ferry (Rivercat):**

139. Five-step *Rose Bay Marina* identification:

- a) Sideward view from the ferry from sitting down internally, or standing externally; a minor portion of an extensive foreshore view (2 min duration) along the full length of the river from Parramatta to Circular Quay. Pedestrians mainly commuters and tourists. Existing swing moorings.
- b) The private domain location from which the view is enjoyed is described above.

The main view is to outer Arm D and berths on its northern side, and between vessels, and then to the southern foreshore retaining wall, and urban built form above (**Image 35**).

- c) The intensity of public use of the affected area is, for the purpose of view assessment, low to medium.
- d) There is not any known document identifying the importance of this view except acknowledging the visual significance of the bridge.

140. Analysis: Viewed against the existing marina and foreshore; there is no view impact of open water until approaching the bridge (eastbound movement); viewed in context with swing moorings (westbound movement) and the southern foreshore east of the existing marina (both directions). Views to Five Dock Point are unaffected by the proposal. Removal of swing moorings from location facing westward to the marina reduces impact, with marina set closer (by comparison) to the foreshore. View still available to foreshore development and ridge line to Five Dock Point (**Image 35**).

141. Summary: Low Impact upon aspects from the Rivercat.

Before



After



Image 35: Location 8: Before and After representation of the view aspect from the Rivercat ferry.

Residential Locations - Consideration

142. Whilst not included in this report, consideration has been given to the outlook from a number of residential properties on the southern side of the river facing the development.
143. DCP provision Figure D.1 places a high level of sensitivity upon views from the public domain than those from private residences.
144. Some of the properties, particularly non-waterfront properties along Drummoyne Avenue have only cameo aspects to the waterway between existing waterfront developments on their northern side. The waterfront properties have wider views, with the bridge appearing dominant within their setting. The views from the waterfront sites are from living rooms and balconies. In the main they do not extend from Five Dock Point to the bridge, but are more limited in scope due to the location of neighbouring dwellings within the view cone from those locations.
145. Whilst Before photographs and draft After photomontages have been prepared for a number of residential Locations, they have not incorporated for privacy reasons. However, analysis of those images results in the conclusion that there is also only a Low impact upon their existing views.
146. A Low level of impact is discerned particularly due to those views already being in context with the existing marina; and waterway views are retained to the foreshore channel; between the marina arms; and over the marina to the main channel of the river. In no instance do the extensions of the marina have a significant impact upon existing waterway views. Views to the northern escarpment; the main channel; near channel and the bridge are all unaffected.

9.0 General Consideration

147. Whilst there are a number of vantage points from which the existing marina is currently visible in which context the proposed extensions will be visible, in summary Locations 1-4 are more sensitive than Locations 5-8 due to either distance from the marina site (mainly along the northern side of the river) or the speed of movement (i.e., ferry).
148. Whilst the development will be visible from each of the identified public domain Locations, the visual impact of the extension is limited overall to a small, or discrete, area of waterway within a wider panorama of open water available to each of those Locations. Of particular importance, the proposed development does not restrict or obscure any significant or prominent view to/ from the waterway from/to active and/or well-utilised passive or active public open space in those Locations.
149. In the main, the proposal is viewed against an urban backdrop from the foreshore public open space locations on the northern side of the river or from the ferry; and the water in the foreground remains visually more prominent and unaffected.
150. The conservative Appendix D3 matrix of the DCP indicates impact is Below Medium. None of the Locations is subject to High impact that warrants further amendment of the development. Having said that, extensive modifications have been made to the proposal from its infancy in response to ongoing assessment against matrix for this result to have eventuated at the time of lodgement of the development application. Equally, assessment against the Land and Environment Court Planning Principle, derived from the *Rose Bay Marina* judgement, concludes there will only be the potential for Low Impact upon each of the identified Locations.
151. The impacts from the development are considered to be either negligible or minor upon the identified Locations. The modifications made during the preliminary plan process has mitigated any potential for Medium, or greater, potential view impact under the DCP requirements for view impact assessment .

152. Whilst not included in this report, consideration has been given to the outlook from a number of residential properties on the southern side of the river facing the development (as these are not considered to be of the same significance as views from the public domain). At this stage, Before and After images from those properties are not incorporated for privacy reasons, but our analysis of those also indicates only the potential for Low Impact if the principles of the Rose Bay Marina Planning Principle are applied.
153. Whilst this assessment has focussed upon view impact upon the public domain, there has also been an examination of images taken from neighbouring residential properties, and draft photomontages prepared for the After situation in those instances. From that assessment, the likely impact upon residential properties to the south of the marina (being those closest to it) is also Low. This Low level of potential visual impact is determined on the following basis:
- a. that views are retained to the foreshore channel; to water between the marina arms; and to water north of the marina (over the outer Arm D) to the main channel of the river from those properties;
 - b. the visual context of those properties already contains an existing marina (not subject to any vessel height restriction) and
 - c. the development is proposed within an existing urban environment defined by multi-storey buildings, development foreshore areas; private jetties, the existing marina; and swing moorings; and,
 - d. the DCP provisions, compared to public domain views, place a lesser weight upon views from residential properties (Figure D1).
154. As an extension to the existing commercial fixed marina, the potential for view impact from the proposed development is not unreasonable for its location. It is concluded that the resulting minor/ low visual impact identified does not, on its own, comprise a sufficient reason to warrant refusal of the application.