



Image 32 Photograph from Pyrmont Bridge looking towards ICC & Harbourside



Image 33 Photograph from Pyrmont Bridge looking at existing stair circulation from Ground to level 1 Harbourside



Image 34 Photograph showing existing waterfront conditions and event space



Image 35 Photograph from under Pyrmont Bridge looking south at waterfront and Cockle Bay



Image 36 Photograph from waterfront looking at public space and domain under Pyrmont Bridge



Image 37 Photograph at circulation stair adjacent to Pyrmont Bridge undercroft & public space

Heritage Analysis - Pyrmont Bridge

The site extends from Pyrmont Bridge in the north to the International Convention Centre site currently under redevelopment to the south. On the west the site is bounded by Darling Drive, and extends east to the public SHFA-owned promenade on the Darling Harbour foreshore. The northern boundary of the site abuts the south-western end of Pyrmont Bridge. In several locations the existing shopping centre complex has a direct physical or visual interface with Pyrmont Bridge.

Pyrmont Bridge is currently a major pedestrian thoroughfare between Pyrmont and the city. Bicycle traffic also uses the bridge, which is closed to vehicular traffic. Pyrmont approach is directly from street level, as originally constructed. The goods line (now the light rail) passes beneath the roadway adjacent to the Western approach.

The current relationship between the shopping centre and the bridge has a negative impact on the aesthetic values of the bridge due to the loss of sight lines to the bridge and the lack of setback between the bridge approaches and the shopping centre. The proposed 10 metre setback of the podium from the bridge and 50 metre setback of the tower from the bridge and creation of an open, terraced publicly accessible space around the bridge and its approaches will allow for the removal of many of the key intrusive elements from within the view scapes to and from the bridge and its approaches.

Refer to the Heritage Interpretation Strategy that accompanies this submission for further information and description of the relationship between Pyrmont Bridge and the proposals.



Image 38 Existing relationship to bridge

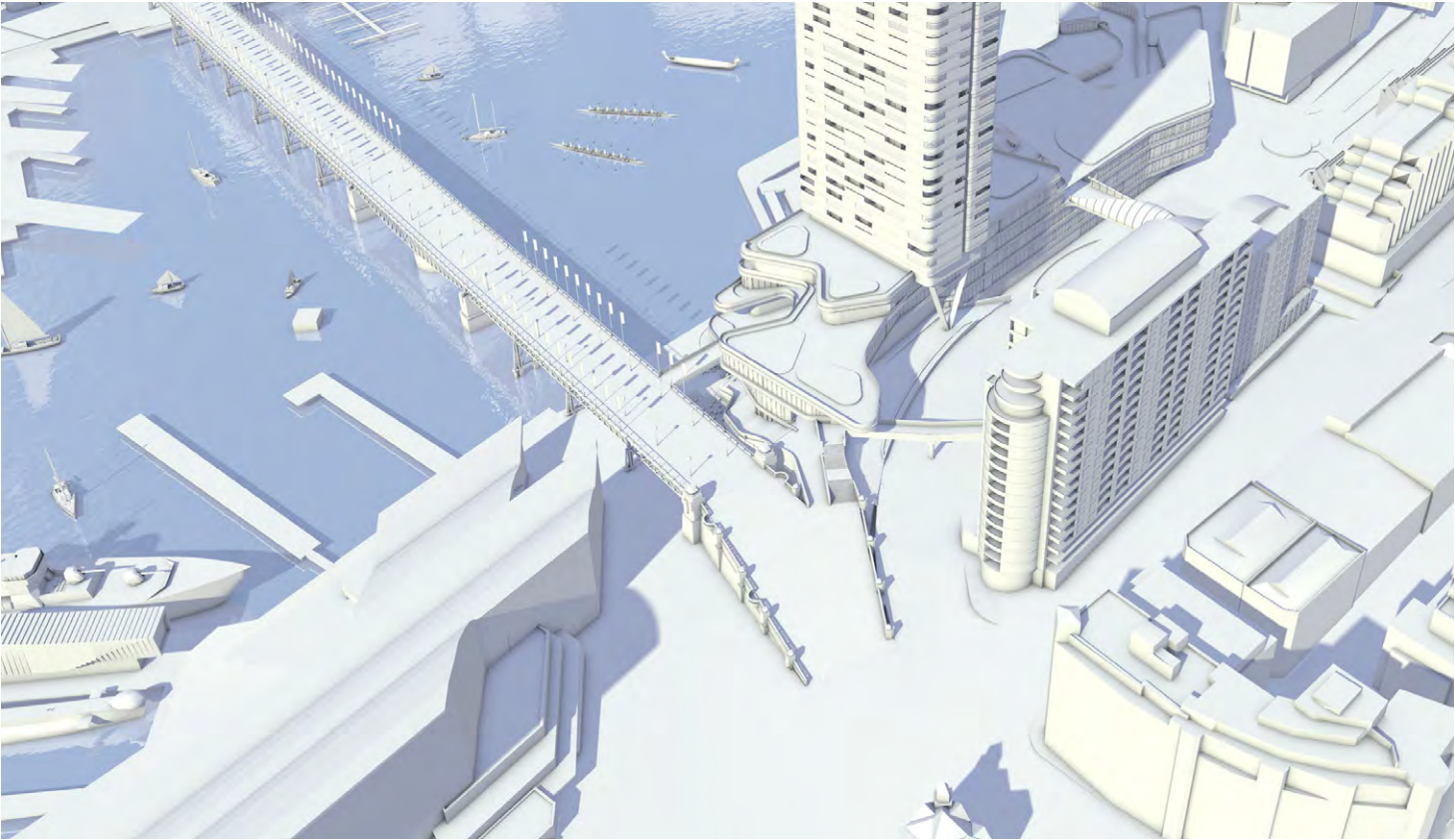


Image 39 Proposed relationship to bridge (Indicative design only)



Image 40 Existing Pyrmont Bridge approach



Image 41 Redundant Monorail Station / Pyrmont Bridge interface.



Image 42 Existing stair adjacent to Pyrmont Bridge.



Image 43 Existing Harbourside / Pyrmont Bridge interface.

The introduction of high quality public areas will provide opportunities for visitors to Darling Harbour to engage with uninterrupted views of the bridge within its harbour setting, on a daily basis and during event-based activities.



Image 45 Proposed relationship to bridge (Indicative design only)



Image 46 Pyrmont Bridge 1969



Image 44 Pyrmont Bridge 1806

Heritage Analysis - Pymont

Bridge Setbacks

The proposals as contained within this report see the introduction of a generous ribbon stair between Pymont Bridge and the new centre. A 10m set back has been adopted between Pymont Bridge and the built form of the new centre.

The space between the bridge and the centre is occupied by 'ribbon stair' which includes terracing around the podium and adjacent to the bridge undercarriage and trusses. The setbacks are of a scale that will provide new opportunities for pedestrians to visually appreciate the industrial nature and technical aspects of the bridge.

Currently, this area of the public domain is underutilised and does not provide a suitable place for pedestrians to gather and sit. By creating a strong connection between the public domain and this section of the bridge fabric, the aesthetic qualities of the bridge will be better viewed, interpreted and understood. It also keeps the focus of the site users at ground level, with the bridge still providing a key point of visual interest.

The proposals will open up access to numerous new views and vistas of the harbour and Pymont Bridge from all levels of the development. This is a key positive impact of the proposed development because it allows the opening up of previously unavailable views and vistas to the bridge from within the Darling Harbour Precinct itself.

The introduction of high quality public areas will provide opportunities for visitors to Darling Harbour to engage with uninterrupted views of the bridge within its harbour setting, on a daily basis and during event-based activities.

The design of the open public spaces within the centre also provides opportunities for views to and from the Darling Harbour Rail Corridor and the Darling Harbour Water Feature, as well as improving the interface and integration with the Australian National Maritime Museum.

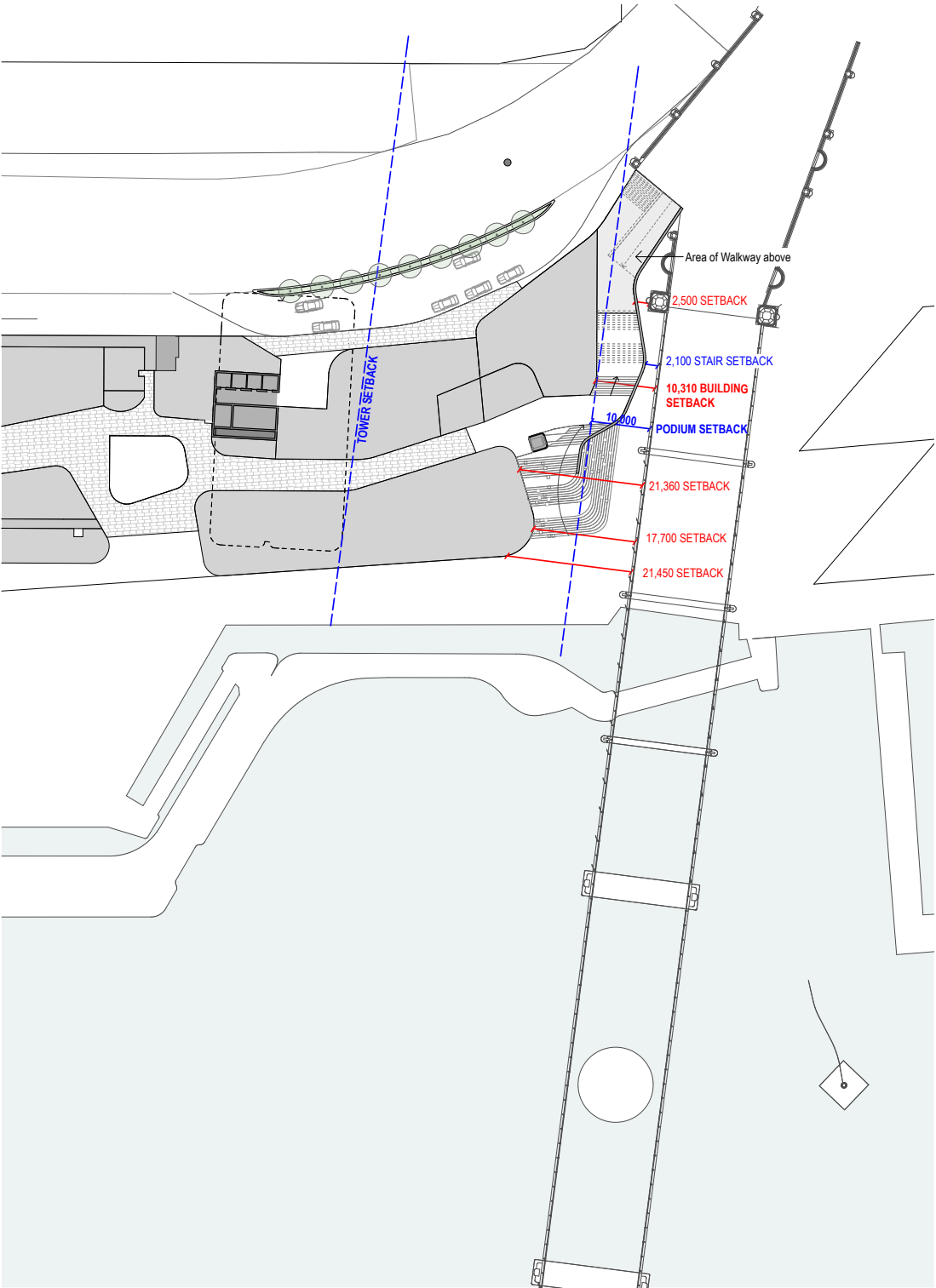
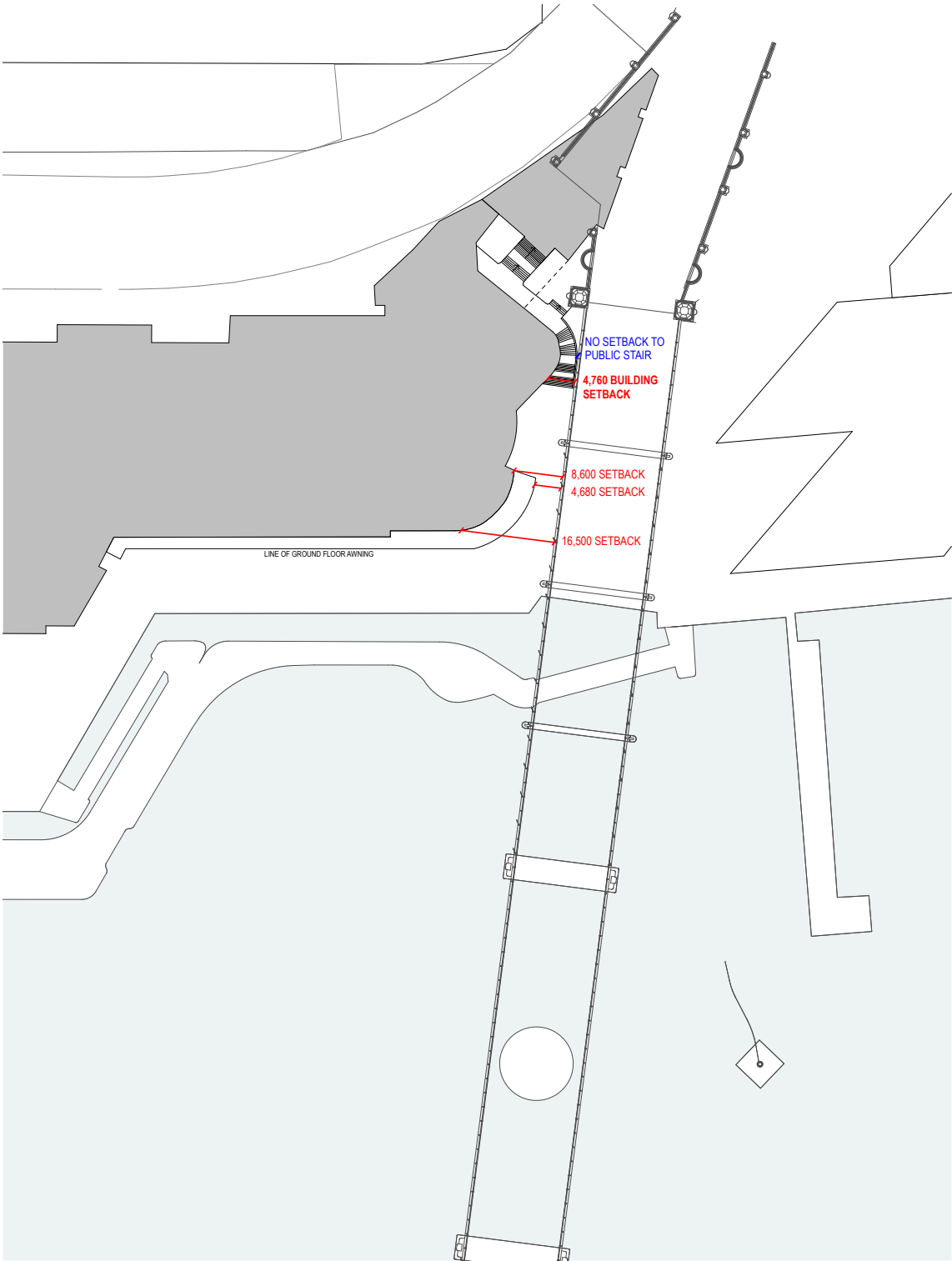


Image 47 Comparison between existing and proposed relationship to Pymont Bridge



Image 49 Reference images for the Pymont Bridge undercroft

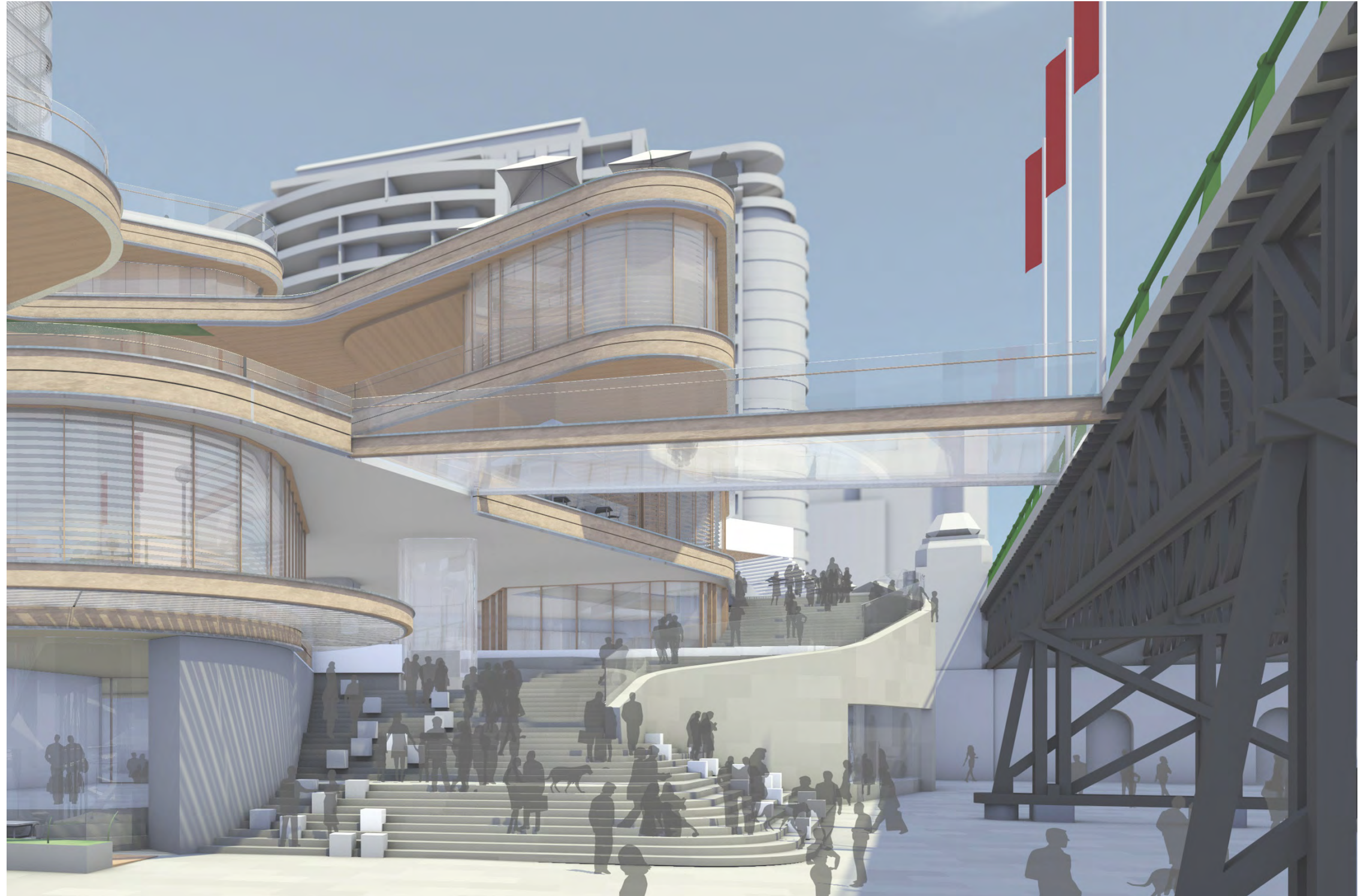


Image 48 Illustrative Scheme showing proposed relationship to Pymont Bridge

4.0 Design Principles

The indicative proposals contained within the report have been shaped with consideration of a number of Design Principles. These principles have informed the placement, shaping, activation and permeability of the built form. The following series of diagrams illustrate the key Design Principles. The top image illustrates the broad principle while the lower image illustrates how this can be incorporated into the build form.

*** Note: Lower row of diagrams based on indicative design only. Detailed design to occur at a later stage**



Existing Building

Originally conceived as Harbourside Festival Market Place, the existing centre opened in 1988. It was designed by Clark Perry Blackmore (later Architecture Oceania) in association with RTKL Associates, "in an idiom superficially recalling Joseph Paxton's famous Crystal Palace (1851)*." The existing centre provides 3 levels of retail (with a partial level 4) within a low rise centre characterised by a central glazed galleria. The retail offering is constructed around central malls, with food and beverage outlets providing activation along the eastern edge.

* Sydney Architecture, by John Haskell, John Callanan

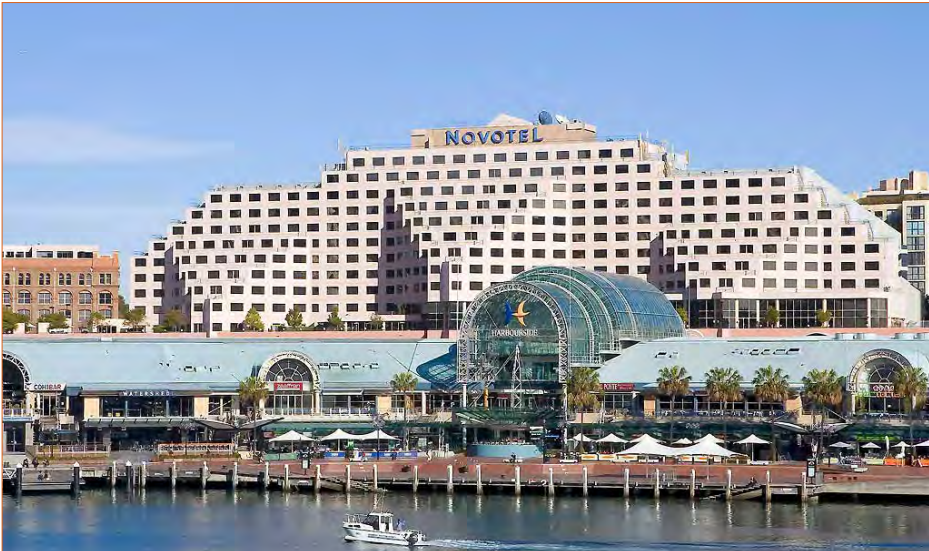
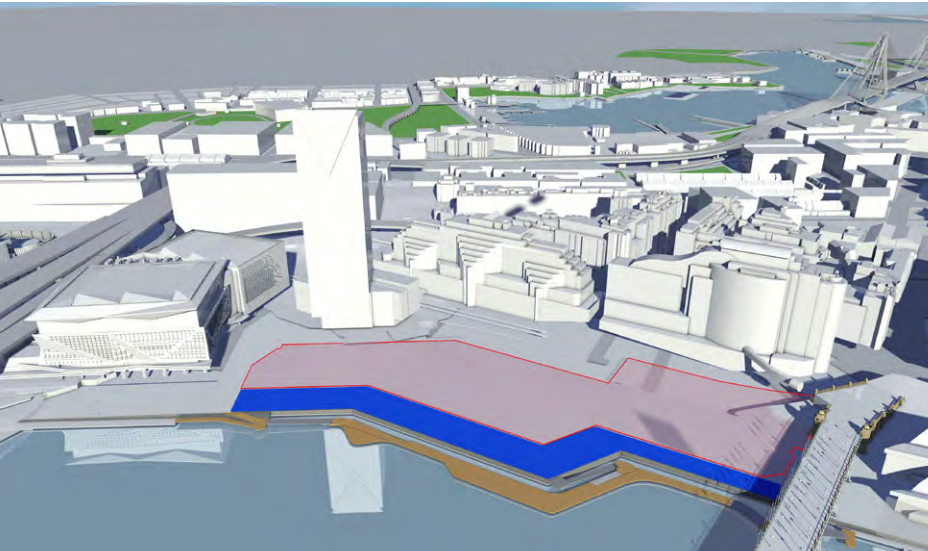


Image 50 Existing condition



Regularised Waterfront Setback

The existing Harbourside Shopping Centre occupies a key site on the western edge of Cockle Bay with a water frontage stretching approximately 270m from the ICC to the south to Pyrmont Bridge to the north. The central position of the centre sits 29m back from the waters edge. At the southern end this contracts to 10.8m while adjacent to Pyrmont Bridge the set back is 11.2m. The proposals contained within this submission seek to adopt a regularised 20m set back for the southern and central portion of the site, and 14m for the northern end ground floor. The proposal also achieves an overall increase in waterfront public domain.

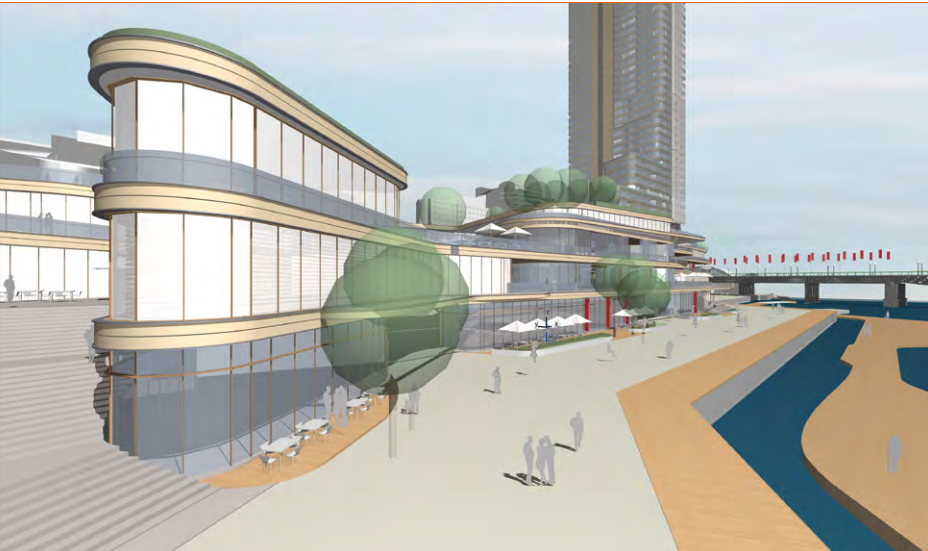
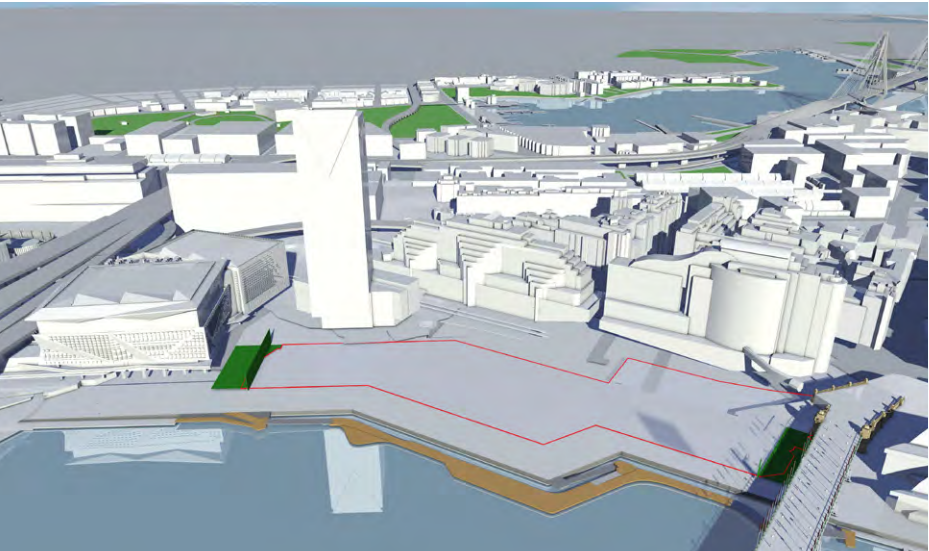


Image 51 Illustrative Scheme: Regularised Waterfront Setback



Setbacks - ICC & Pyrmont Bridge

The ICC and ICC Hotel form the edges to a new east / west orientated public space known as Harbourside Place. The proposals contained in this submission seek to enhance views into and out of this public space, with careful consideration of scale, function and materiality.

The proposals will open up access to numerous new views and vistas of the harbour and Pyrmont Bridge from all levels of the development. The setback to the built form will increase from 4.76m to 10.0m.

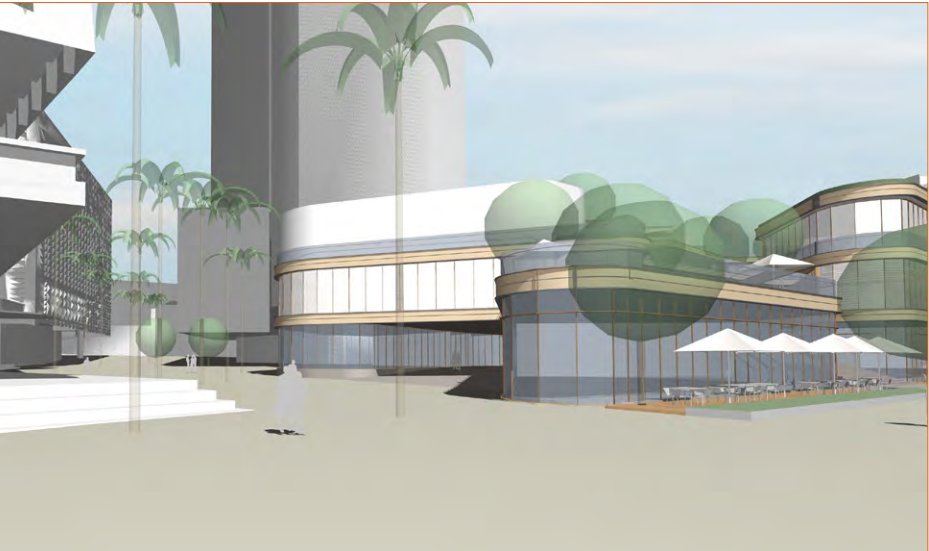
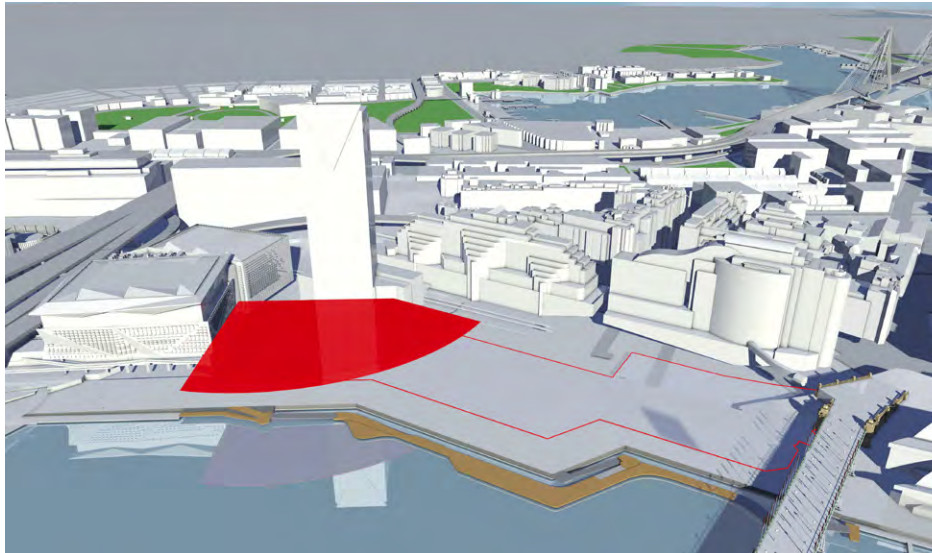


Image 52 Illustrative Scheme: Setback -ICC & Pyrmont Bridge

*** Note: Lower row of diagrams based on indicative design only. Detailed design to occur at a later stage**



Relationship to ICC and ICC Hotel

The massing of the proposed retail podium steps down towards the south, encouraging pedestrian porosity and openness on approach from the south via 'The Boulevard'. This reduced scale also assists with view sharing from the ICC pool deck and foyer spaces within the ICC.

* as referenced in SICEEP Public Domain report. The Boulevard provides a strong north /south pedestrian connection through the SICEEP precinct linking the hotel, the ICC and the Waterfront in the north to Tumbalong Park and the Hay-market in the south



Image 53 Illustrative Scheme: Relationship to ICC and Hotel



East - West site link

A key component of the illustrative design proposal is the introduction of a major east / west pedestrian connection from L03 of the proposed centre to Bunn Street. This is an all access bridge gateway spanning Darling Drive into the precinct creating a clear visual and physical pedestrian access between Pyrmont and the Harbour. This green link through Bunn St encourages neighbouring communities to utilise both the public domain and new retail amenities. The Bunn Street bridge lands on the landscape level including observation deck offering an opportunity for locals to have access to waterfront views and public seating within a green setting, which in turn connects down to the waterfront via the Event Steps.



Image 54 Illustrative Scheme: East - West site link



Pyrmont Bridge Links & Plaza (Level 2)

A redeveloped Harbourside offers improved opportunities for access to Pyrmont Bridge. A new publicly accessible plaza is proposed at level 2 adjacent to Pyrmont Bridge. This provides an activated north facing space directly accessible from Pyrmont Bridge. The associated setback of the podium built form will provide a much needed buffer between the heritage fabric of the bridge and the redeveloped Harbourside.. In particular, the removal of remnant fabric associated with the monorail access point, and the modern fabric that abuts and obstructs views to the bridge will have a positive impact.

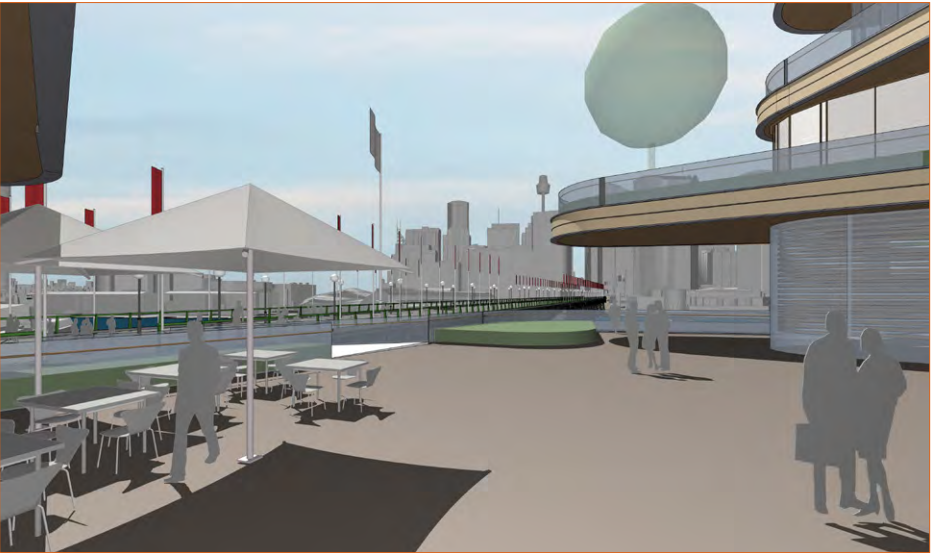
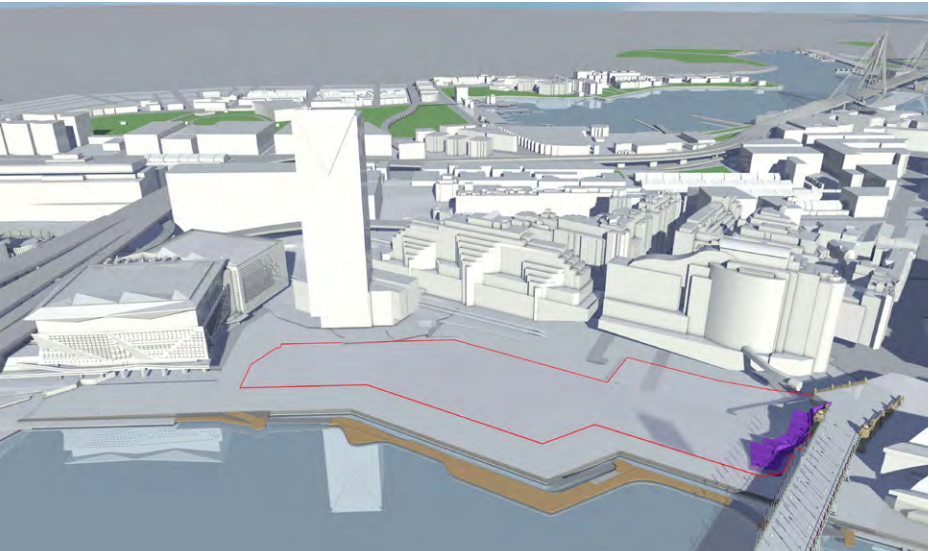


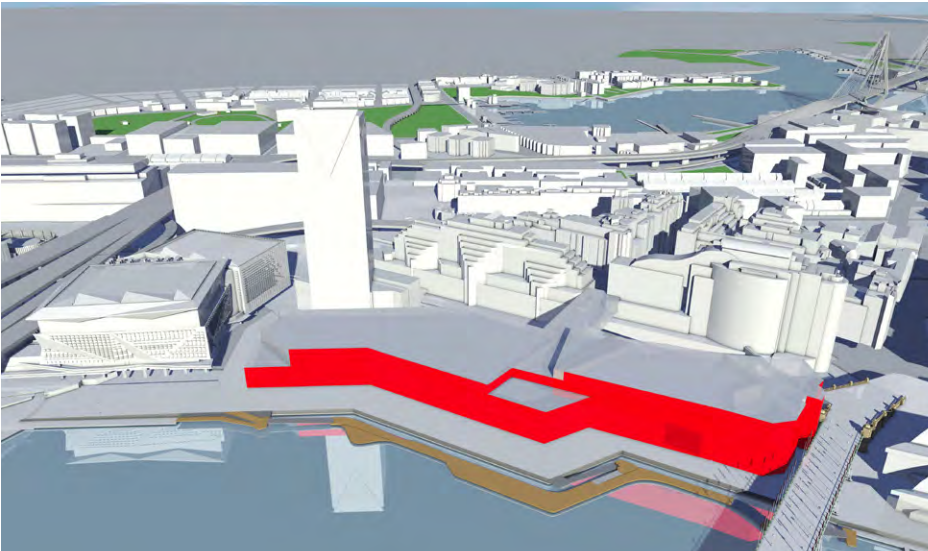
Image 55 Illustrative Scheme: Pyrmont Bridge & Plaza (Level 02)

* Note: Lower row of diagrams based on indicative design only. Detailed design to occur at a later stage



Pymont Stair Link - 'Ribbon Stairs'

The existing stair linking the waterfront to the Pymont Bay approach will be replaced with a more generous public stair incorporating seating and landscaping. Currently, this area of the public domain is restricted, uninviting and underutilised and does not provide a suitable place for pedestrians to gather and sit as illustrated below.



Active Waterfront Edges

The proposals seek to create a highly activated waterfront edge via the integration of porous retail frontages, external licenced areas, generous publicly accessible stairs, escalators and lifts, and event steps. The public domain infrastructure and furniture will create the additional smaller scale for every-day use to compliment the larger event scale of space within the site. Refer to Aspect Studio's Design Report for greater detail on activation strategies.



Tower Location - Links

The tower component of the proposal has been positioned with careful consideration of access and linkage to existing and proposed pedestrian, cycle and vehicular links. A central north tower position allows a vehicle drop off to be facilitated off Darling Drive towards the north of the site. The central north tower position also facilities direct pedestrian access to Pymont Bridge via the level 02 plaza space as shown below.



Image 56 Illustrative Scheme: Pymont Stair Link

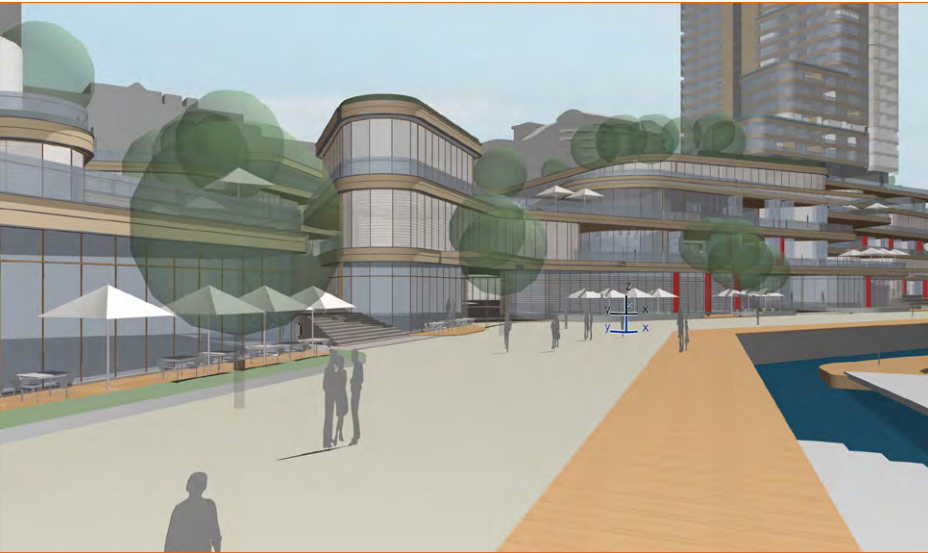


Image 57 Illustrative Scheme: Active Waterfront Edges

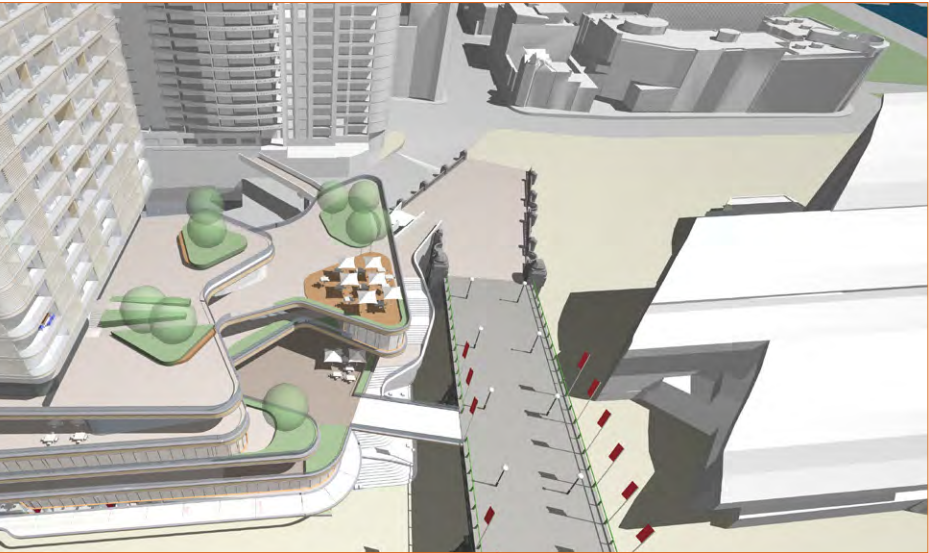
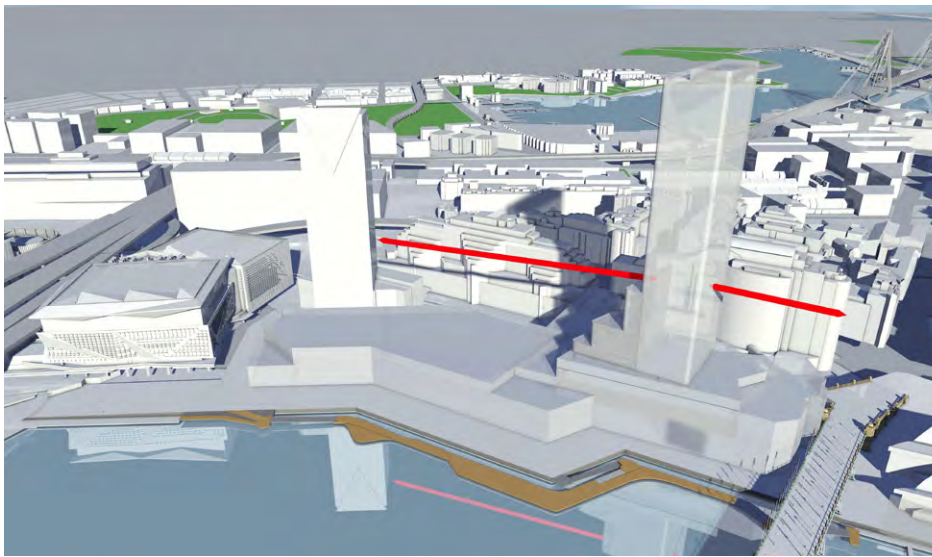


Image 58 Illustrative Scheme: Tower Location - Links

* **Note:** Lower row of diagrams based on indicative design only. Detailed design to occur at a later stage

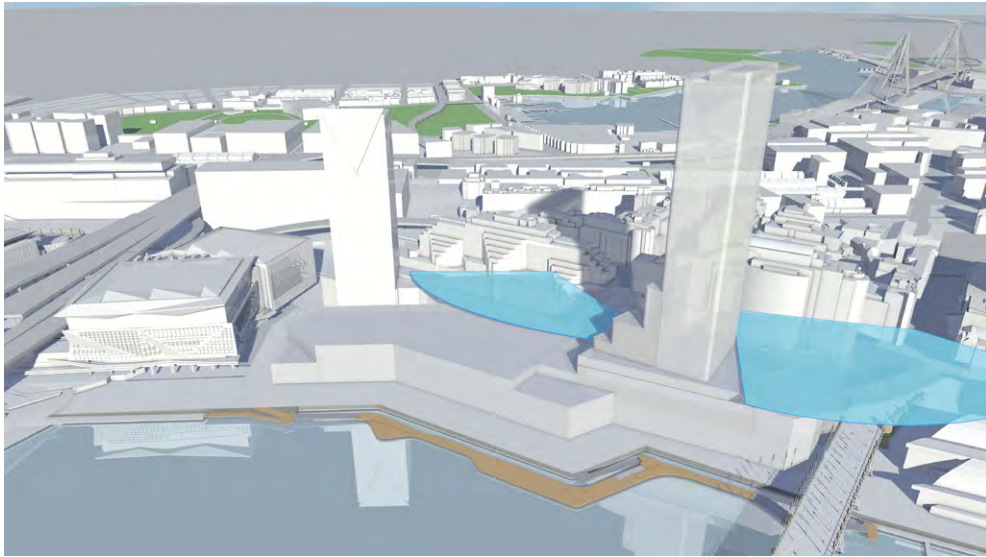


Tower Separation

The western edge of Cockle Bay (as viewed from the east) has a notably different character to the city side of the bay. The eastern, city side is characterised by greater density and height, with a higher concentration of commercial buildings. This distinction in character can be maintained if the development of the western side of Cockle Bay is based upon on a reduced number of well proportioned, taller towers which are well spaced apart. This will maintain a distinction in skyline between the east and west edges of Cockle Bay.



Image 59 Illustrative Scheme: Tower Separation



View Sharing

Careful consideration has been given to view sharing for all properties to the west of the site. Given the adopted central north tower position, particular consideration has been given to the impact upon 50 Murray Street (one Darling Harbour). A residential tower, with a small floor plate size best facilities view sharing. The visual presence of the proposed tower is minimised by making it rectangular in plan and orienting it so that its short sides face east and west. A 50m tower set back relative to Pymont Bridges allow key views to the north to be maximised. The podium envelope has been further refined with consideration of view sharing from the lower levels of 50 Murray Street.

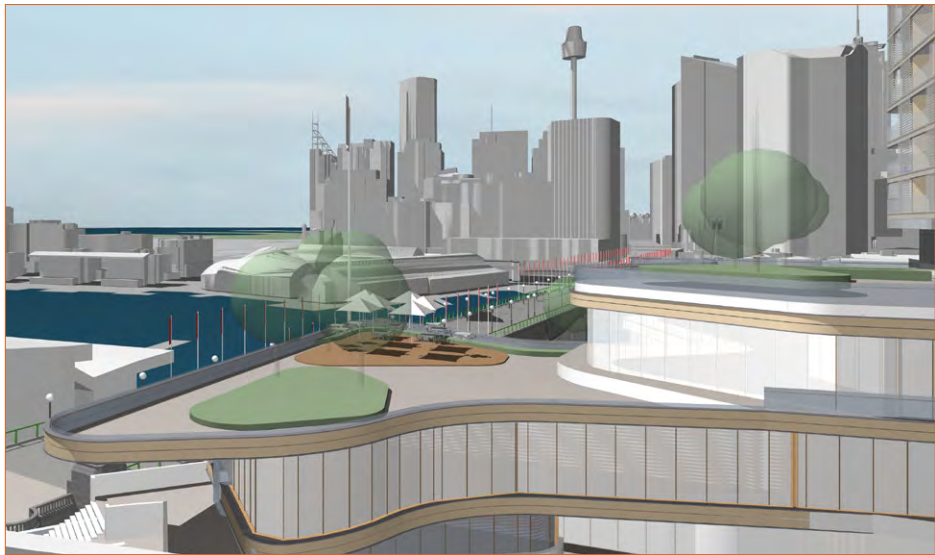
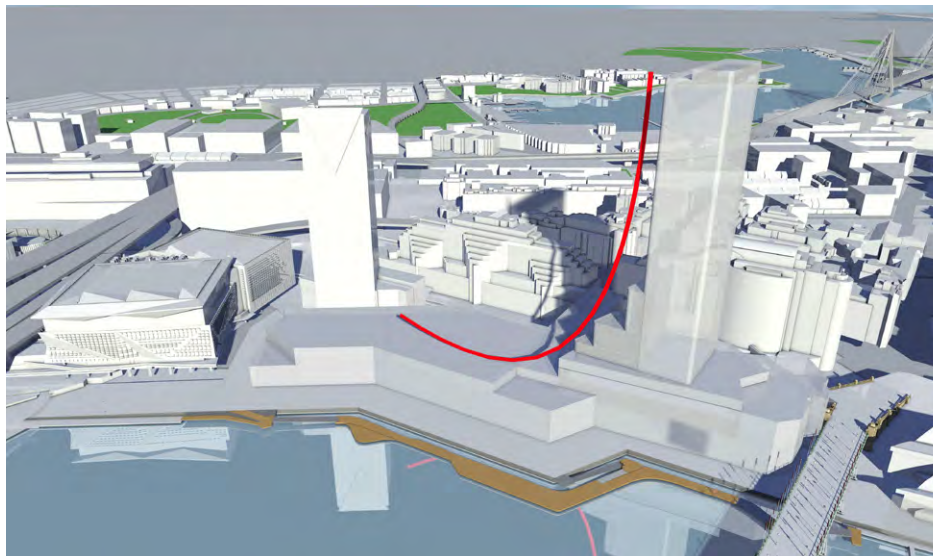


Image 60 View Sharing



Tower and Podium relationship

The inclusion of a tower in the redevelopment of Harbourside provides an unique opportunity for an integrated podium and tower form. The Stage 1 envelope has been developed to accommodate a stepped building form as represented in the illustrative scheme below. This form allows an holistic architectural and landscape outcome to be developed.



Image 61 Illustrative Scheme: Tower and Podium relationship

Links + Connections

The ongoing SICEEP redevelopment is organised around a central spine know as 'the Boulevard' which provides a strong north / south pedestrian connection through the SICEEP precinct linking the hotel, the ICC and the Waterfront in the north to Tumbalong Park and the Haymarket in the south. 'the Boulevard' terminates as it mean the southern edge of Cockle Bay, conceptually extending over the water.

The redevelopment of Harbourside offers opportunity for this key north / south spine to be extended and linked to Pyrmont Bridge and the upper levels of Pyrmont. Three key urban links have been identified:

- from the waterfront to Bunn Street, via a new porous and accessible Harbourside.
- from the waterfront to the city via an improved and generous access to Pyrmont Bridge.
- improved access to the Pyrmont Bridge approach, and Pyrmont beyond via a new porous and accessible Harbourside.

The waterfront boulevard width adjacent to Harbourside has been increased to 20m to provide a more generous and inviting public experience along the waterfront at its southern and mid areas. The width has been increased from 11m to 14 at the northern end of the boulevard.

A new pedestrian bridge is proposed to align with Bunn Street. This is an all access bridge gateway into the precinct creating a clear visual and physical pedestrian access between Pyrmont and the harbour, and reconnecting the site to its local surroundings. While not issued in final form, this Bunn Street connection was identified as an opportunity in Woods Bagot's Western Harbour Precinct Design Guidelines dated November 2014. The new Bunn Street connection links directly to a central 'Event Stair' which provides a generous link to the upper retail levels whilst also functioning as important public domain infrastructure. This space operates as seating edges to the main event space.

A fine-grained network of east-west connections integrates the SICEEP precinct with the immediately surrounding areas. The northern most connection is Harbourside Place. The redevelopment of Harbourside offers an opportunity for Harbourside Place to be significantly enhanced, with a redeveloped Harbourside completing the perimeter of this key public space. The proposals contained in this submission seek to enhances views into and out of this space, with careful consideration of scale, function and materiality.

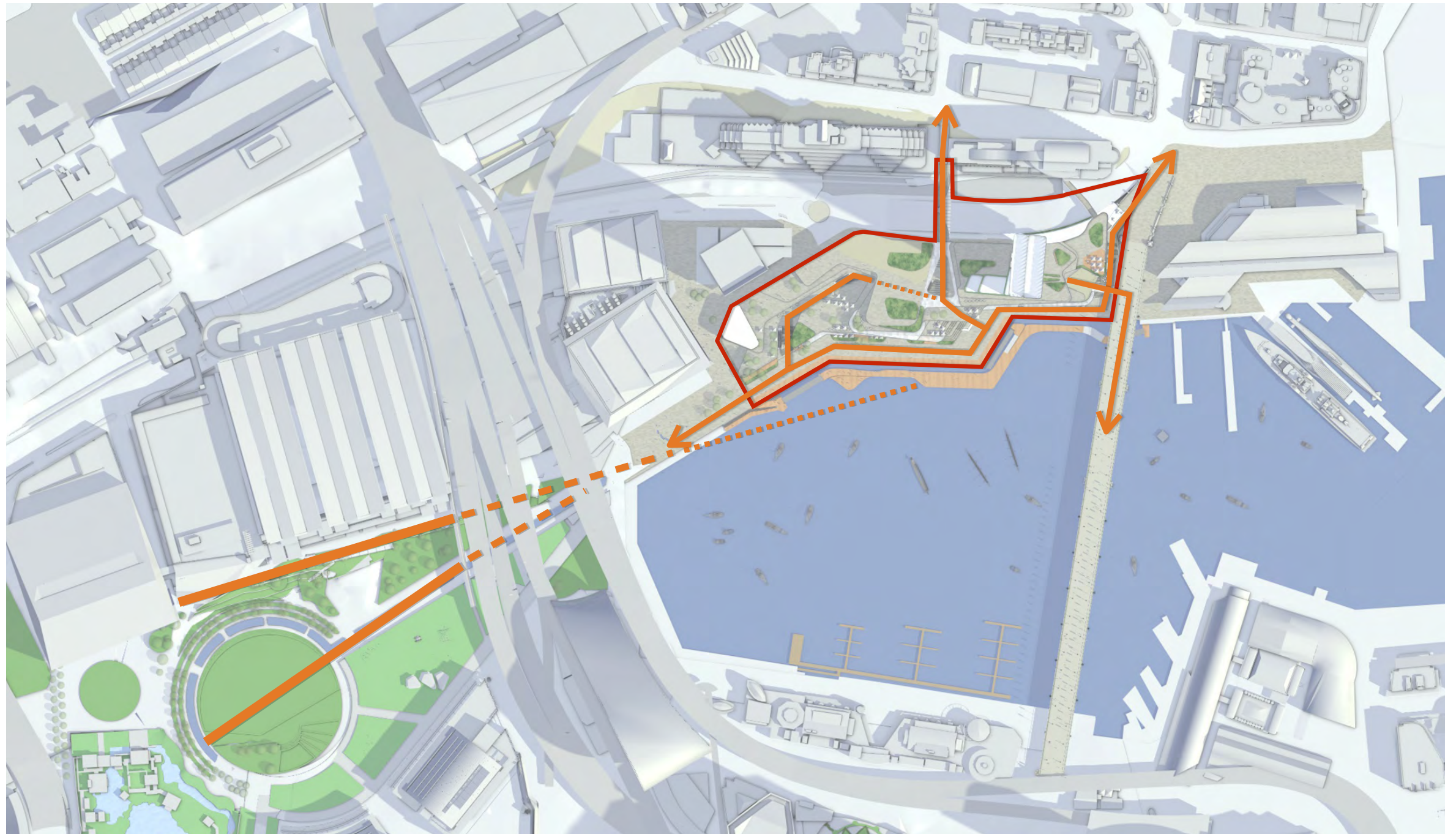


Image 62 Site and wider urban connections

The proposed development improves the pedestrian movement enabling porosity through the building and an ease of pedestrian movement and permeability through the precinct.



5.0 Development option studies

Development options summary

The proposed development will comprise approximately four (4) levels of retail / restaurant floor space with a residential apartment tower above. The design of the residential tower will be subject to ongoing design development and a separate application for detailed approval. However the tower is proposed to be located towards the central northern end of the site, approximately 50m south from Pyrmont Bridge and will comprise a total of approximately 35,000 m2 of residential Gross Floor Area (GFA).

Prior to the decision to progress with a residential tower at the central northern end of the site a range of development options were considered as follows:

- low building
- a pair of lower towers
- southern tower
- central tower (position on the Bunn Street Axis)
- central northern tower (as adopted)

Commercial and residential uses have been investigated for the proposed tower. Both uses are permitted under the deemed SEPP "Darling Harbour Development Plan No. 1".

Each development option was assessed with consideration of the following:

- view sharing with adjacent development
- overshadowing impacts
- visual impact from the public domain
- visual privacy
- integration with podium and impacts on servicing
- opportunities for connection to pedestrian, cycle, public transport and vehicular routes.

A retail podium combined with a residential tower located to the central northern portion of the site best allows the above criteria to be achieved. A central north tower accommodates a stepping podium form which increases in scale from the south to the Bunn Street connection. Additionally, it allows for a direct

Bunn St connection with enhanced views from the retail terraces to Cockle Bay. The tower position allows for a positive skyline relationship to the ICC Hotel ie. comfortable tower separation whilst preserving key northern views for 50 Murray St.

The illustrative scheme adopts a 3-5 level linear retail podium that replaces the existing Harbourside Centre. A single tower will best accommodate the residential component with consideration of impacts on the public realm and neighbouring properties. A slender, well proportioned tower will also offer excellent amenity for the future residents of the tower, with excellent access to day light, views and privacy.



Existing



Low Building

- Positive
- Large floorplates reduce height of building
 - Limits overshadowing to southern Cockle Bay

- Negative
- Extensive view loss for neighbours, particularly 50 Murray, Novotel and Ibis Hotels
 - Limits opportunity for public roof terrace to retail component
 - Narrow Bunn St connection and view corridor
 - Large slow moving shadow impacts adjacent waterfront public domain



Two Towers

- Positive
- Impact on skyline is mitigated relative to a single tall tower
- Negative
- Large floorplates reduce height of building
 - Significant view loss for adjacent properties to the west of the site
 - Limits opportunity for public roof terrace
 - Disjointed servicing and loading which adds to podium bulk
 - Twin tower forms doubles impacts on neighbours views and overshadowing

Image 65 Images Above: Tower Position Study

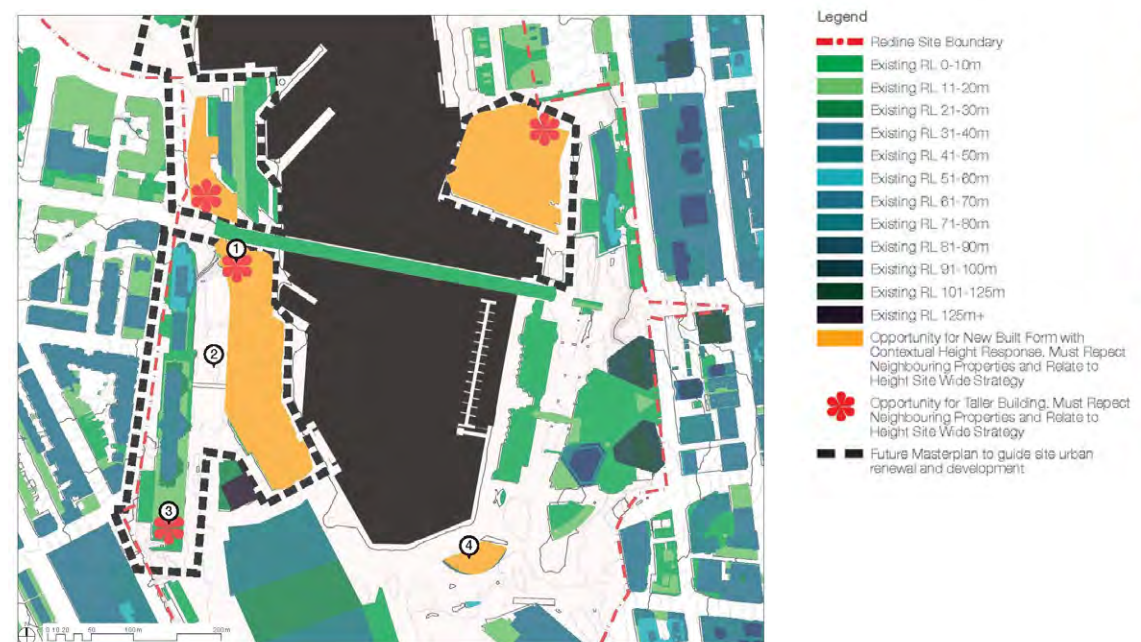


Image 67 above: Extract from Woods Bagot's Western Harbour Precinct Design Guidelines dated November 2014, showing opportunity for taller building to north of site.
Note: this document has not been issued in a final form.



Southern Tower

Positive

- Improved view sharing for 50 Murray St
- Maintains a large north facing landscaped rooftop opportunity for retail podium

Negative

- Close proximity to ICC Hotel results in crowded skyline with poor tower separation
- Significantly compromised view sharing for ICC Hotel
- Significantly compromised view sharing for Novotel
- Poor connection for tower to Pyrmont Bridge and CBD beyond
- Increased overshadowing on public domain to front of ICC and southern Cockle Bay



Central Tower

Positive

- Improved view sharing for 50 Murray St

Negative

- No opportunity for view corridor from Bunn St walkway to city and public terrace
- Reduced amenity of potential public roof terrace due to tower placement
- Close proximity to ICC Hotel with poor tower separation
- Compromised view sharing for Novotel and Ibis hotels.
- Placement of tower breaks retail into two distinct portions (north/south) which compromises the serving and operation of the retail centre
- Poor connection for tower to Pyrmont Bridge and CBD beyond



Central northern Tower

Positive

- Large roof terrace with opportunity to step up from the south to the Bunn Street connection
- Increased opportunities for pedestrian connection & permeability to/from Pyrmont Bridge
- Bunn St connection enhanced and views to Cockle Bay framed
- Positive skyline relationship to ICC Hotel ie. comfortable tower separation
- Maximised view sharing for ICC Hotel
- Preserves key northern views for 50 Murray St
- More northern tower position minimises impacts of overshadowing onto public domain to south.

Negative

- Tower shadow falls over podium roof terraces and landscaped roofs

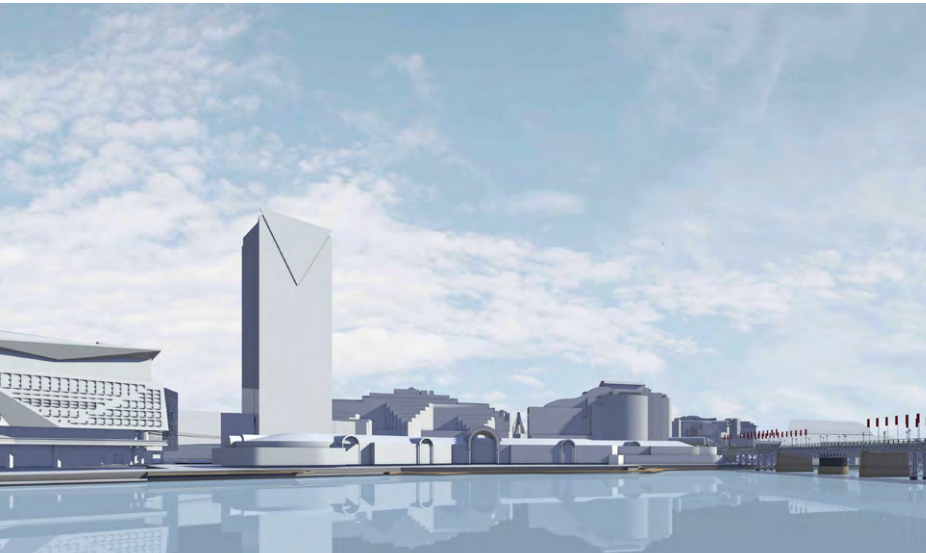
Image 66 Images Above: Tower Position Study. Cont

Visual impact for development options

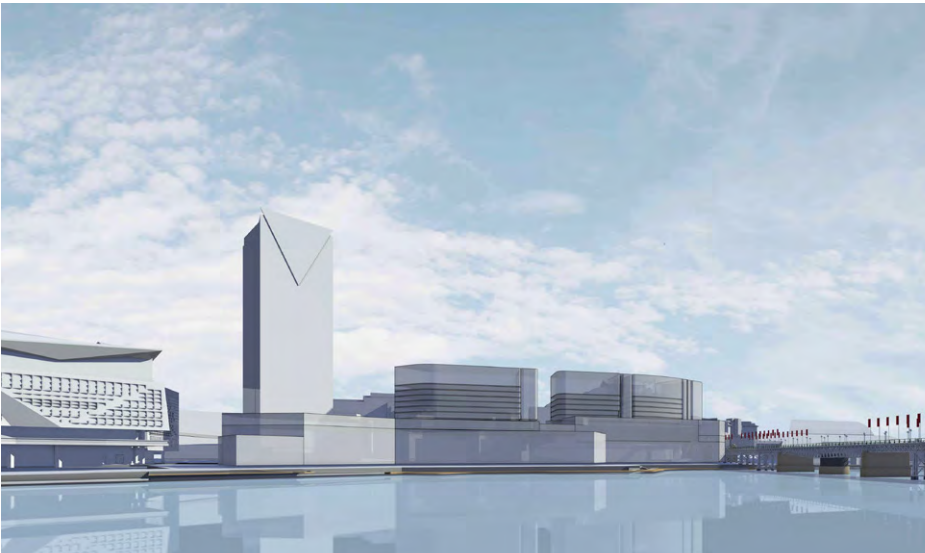
Each development option was assessed for it's visual implications from the eastern side of Cockle Bay.

The desirable distinction in character between the eastern and western skyline of Cockle Bay can be maintained if the development of the western side of Cockle Bay is based upon on a reduced number of well proportioned, slender towers which are well spaced apart.

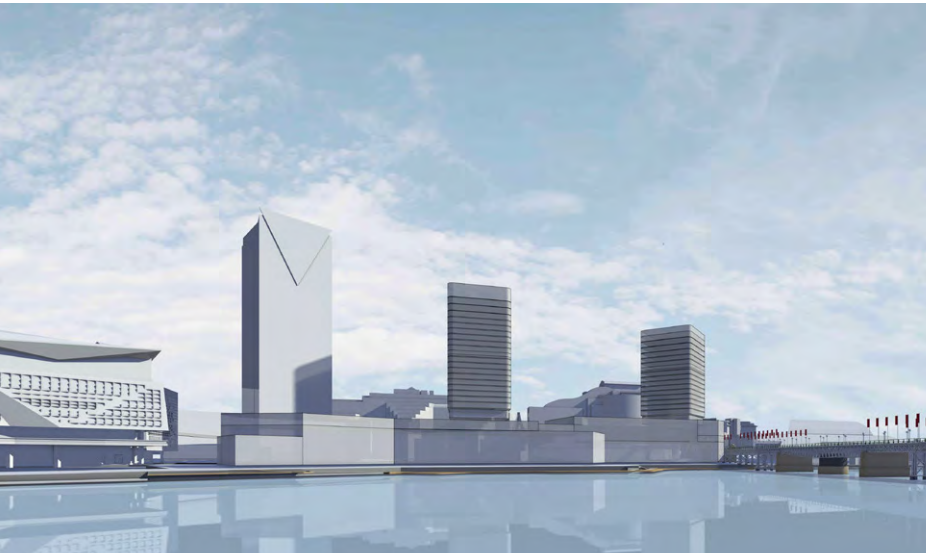
A single tower position in a central northern location bast facilities this outcome, whilst also considering environmental impacts on the public realm and neighbours.



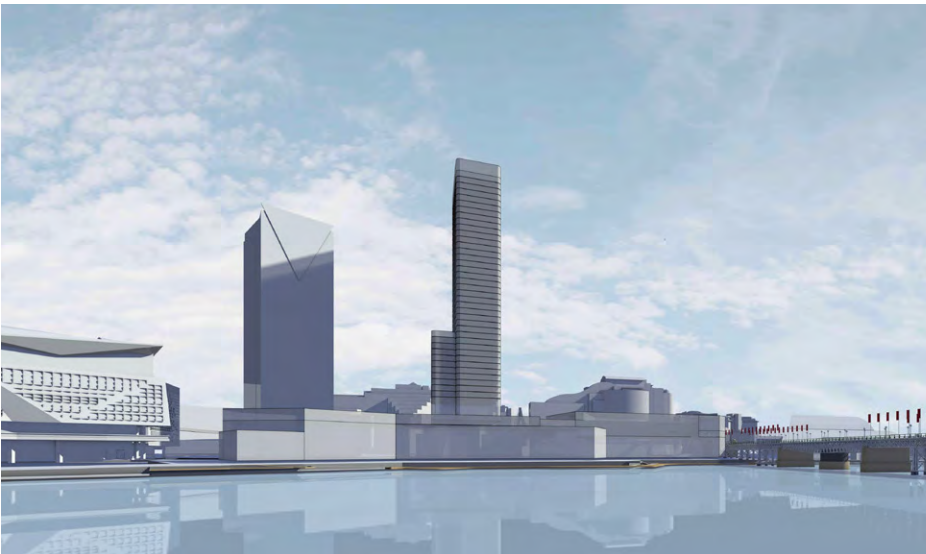
Existing



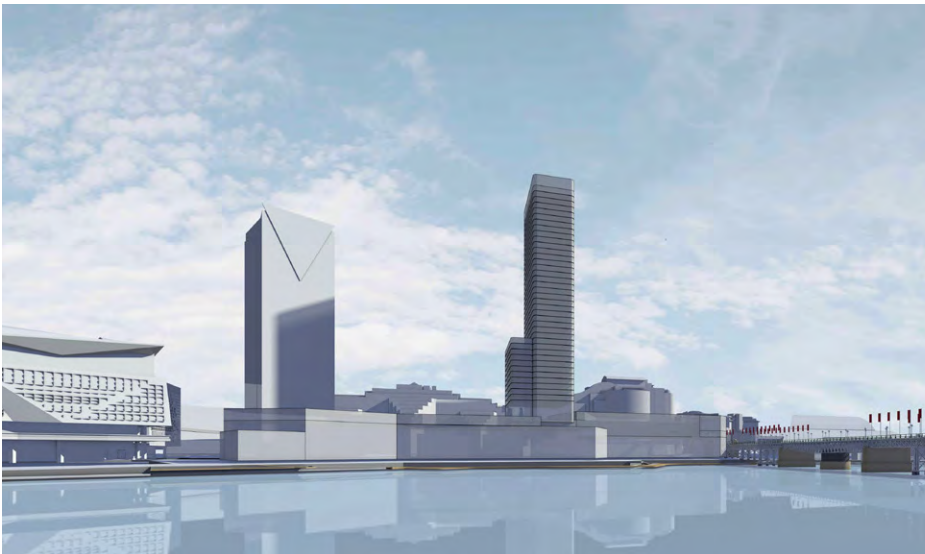
Low Building



Two Towers



Southern Tower

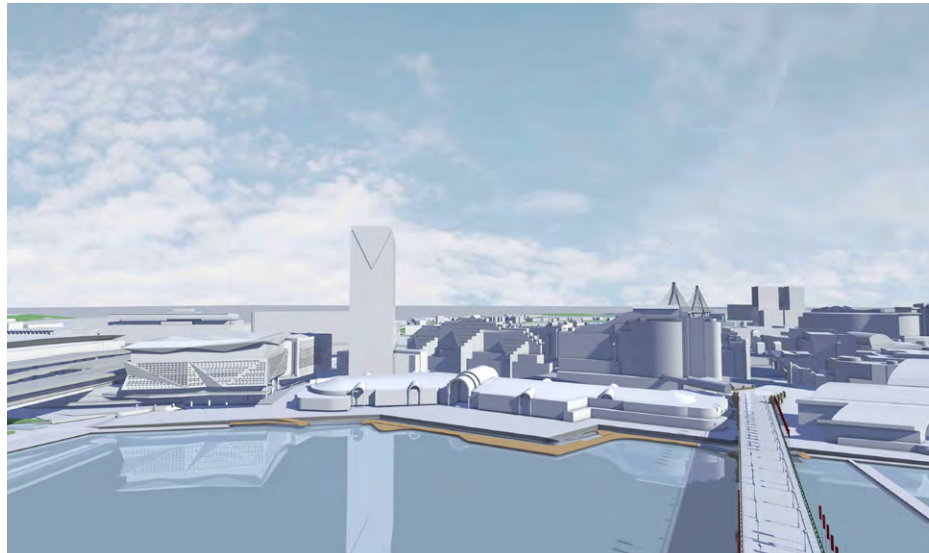


Central Tower

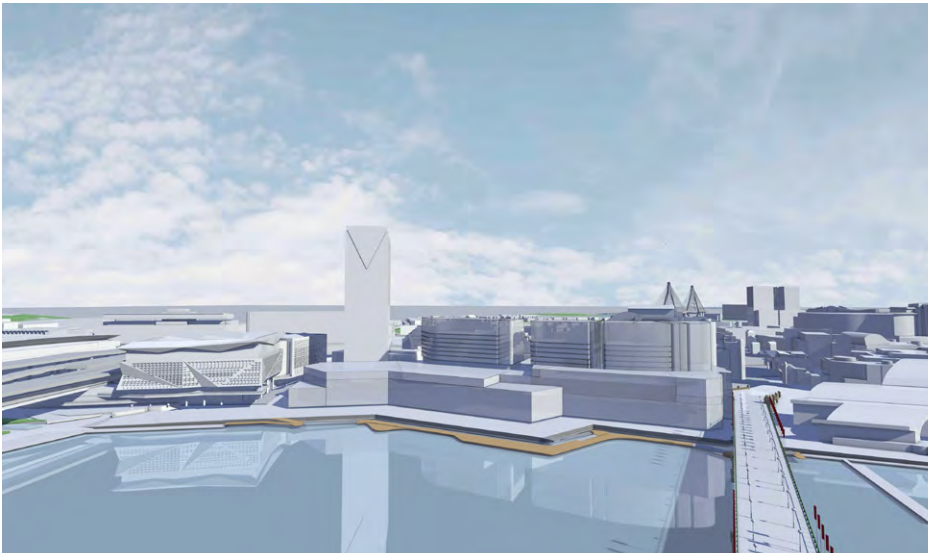


Northern Tower

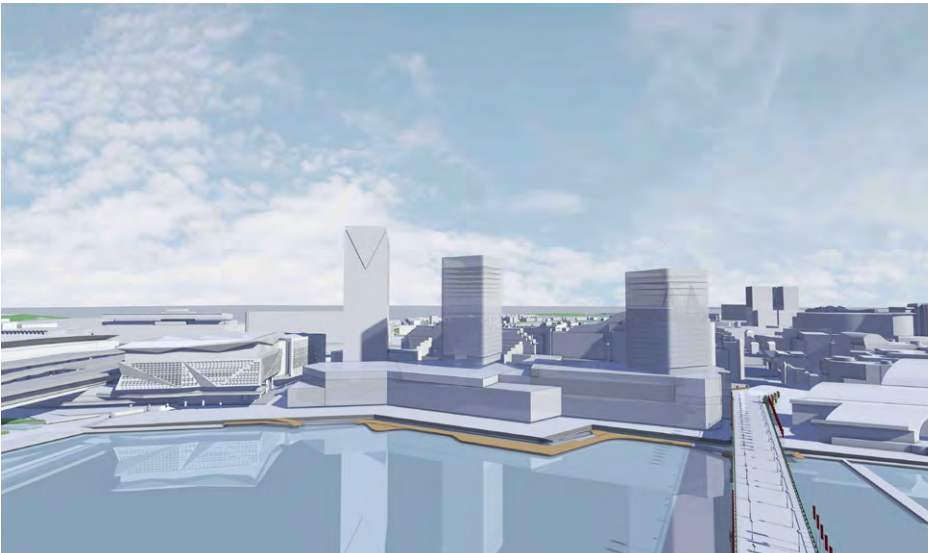
Image 68 Images Above: Tower Position View Study - From Cockle Bay Wharf



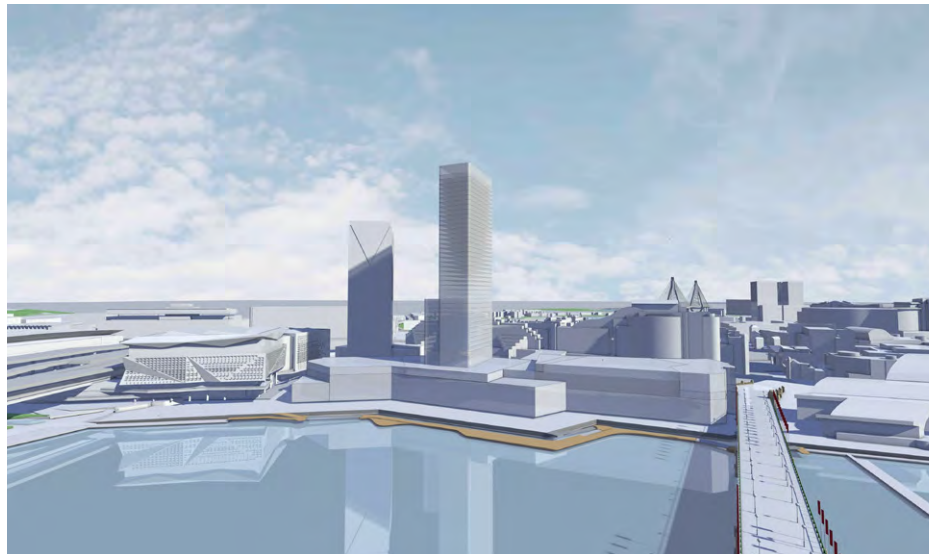
Existing



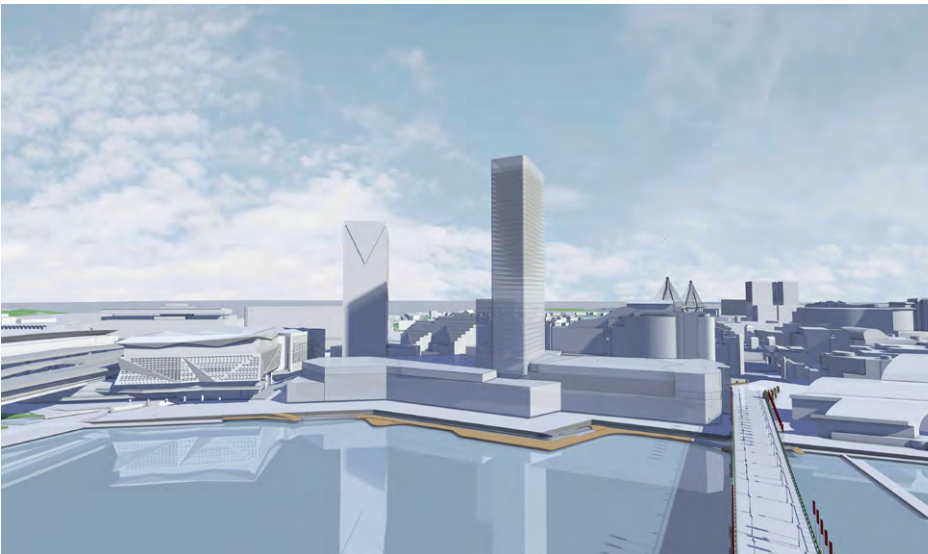
Low Building



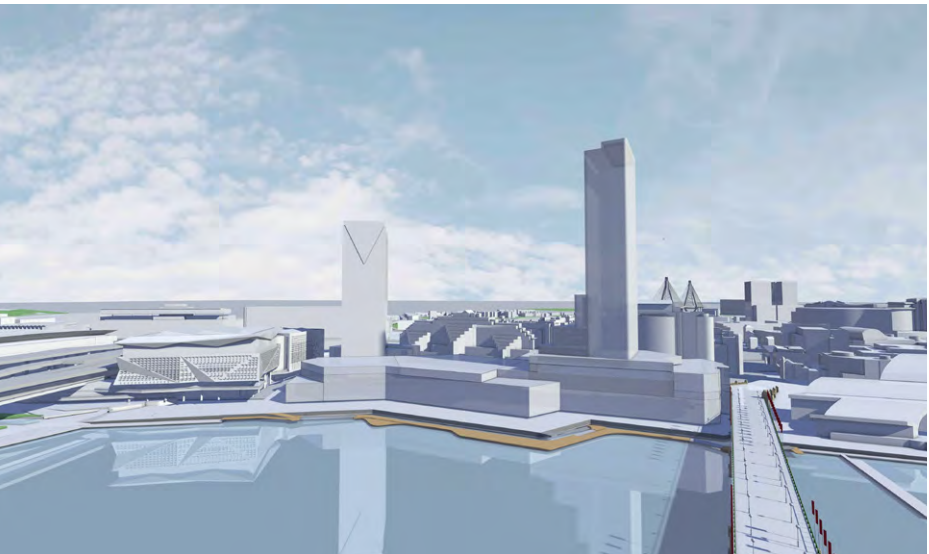
Two Towers



Southern Tower



Central Tower



Northern Tower

Image 69 Images Above: Tower Position View Study - From eastern end Pyrmont Bridge

6.0 Tower: Land Use and Position

Commercial and residential uses have been investigated for the proposed tower. Both uses are permitted under the deemed SEPP "Darling Harbour Development Plan No. 1".

Initially a commercial use tower was proposed, which drove the tower to be located towards the north of the site, thus ensuring a clear commercial address was provided with good pedestrian access to Pyrmont Bridge and the CBD to the east. The northern tower position combined with commercial floorplate size requirements impacted significantly upon the views from those apartments located in the eastern half of 50 Murray Street. Following community

consultation and subsequent discussions directly with resident representatives of 50 Murray Street, an option to move the commercial tower an additional 25m south was investigated as illustrated below. This option significantly improved views to 50 Murray Street but was not viable as a commercial proposition. The lack of adjacency to Pyrmont Bridge coupled with the planning and servicing impacts upon the retail component meant that this option was not progressed further.

Whilst resident representatives of 50 Murray Street acknowledged that moving the tower south improved views from their building and a residential use was

favoured, it is acknowledge that the residents preference was for any tower to be located toward the southern portion of the site, adjacent to the ICC Hotel. A tower in this location is not supported by the design team given the Design Principle of Tower Separation as noted earlier in this report.

A additional study was undertaken to test the viability of a residential tower. The residential tower option adopted a smaller floor plate with slight height increase. A smaller floorplate combined with additional height results in a more slender and elegant tower form. To minimise view impacts upon properties to the west the tower has been oriented with it's narrow face to the east and

west. This allows the broad face to orientate to the north which assists with ADG solar compliance and provides opportunity for good amenity within the apartments.

A comparative study was undertaken to compare the implications on views from 50 Murray Street as shown on the following page. This study determines that whilst moving the commercial tower 25m to the south relative to the position at community consultation, a more significant improvement can be realised by adopting a slim residential tower form positioned 50m from Pyrmont Bridge.

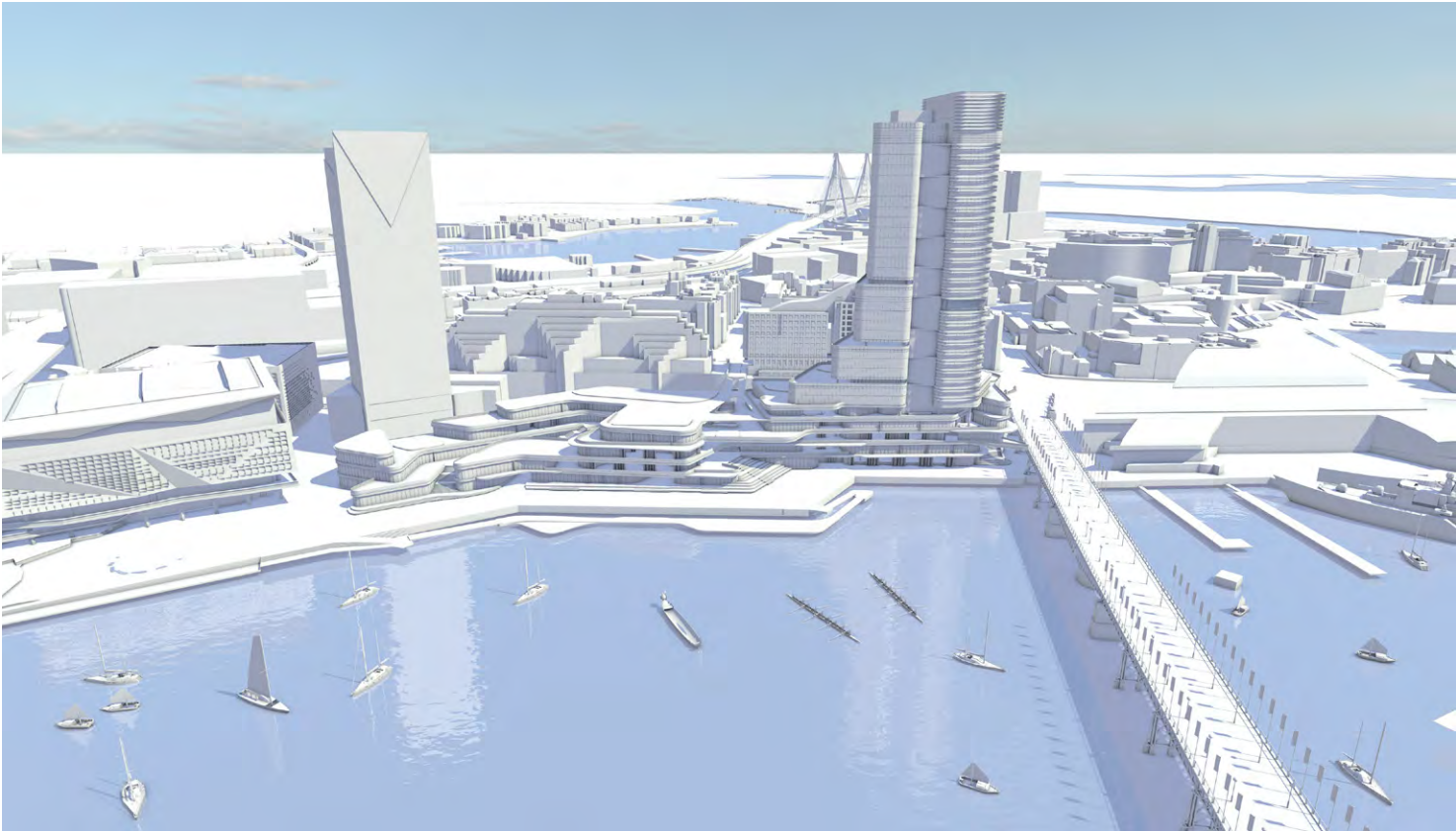


Image 70 Commercial Tower : Position as at Community Consultation

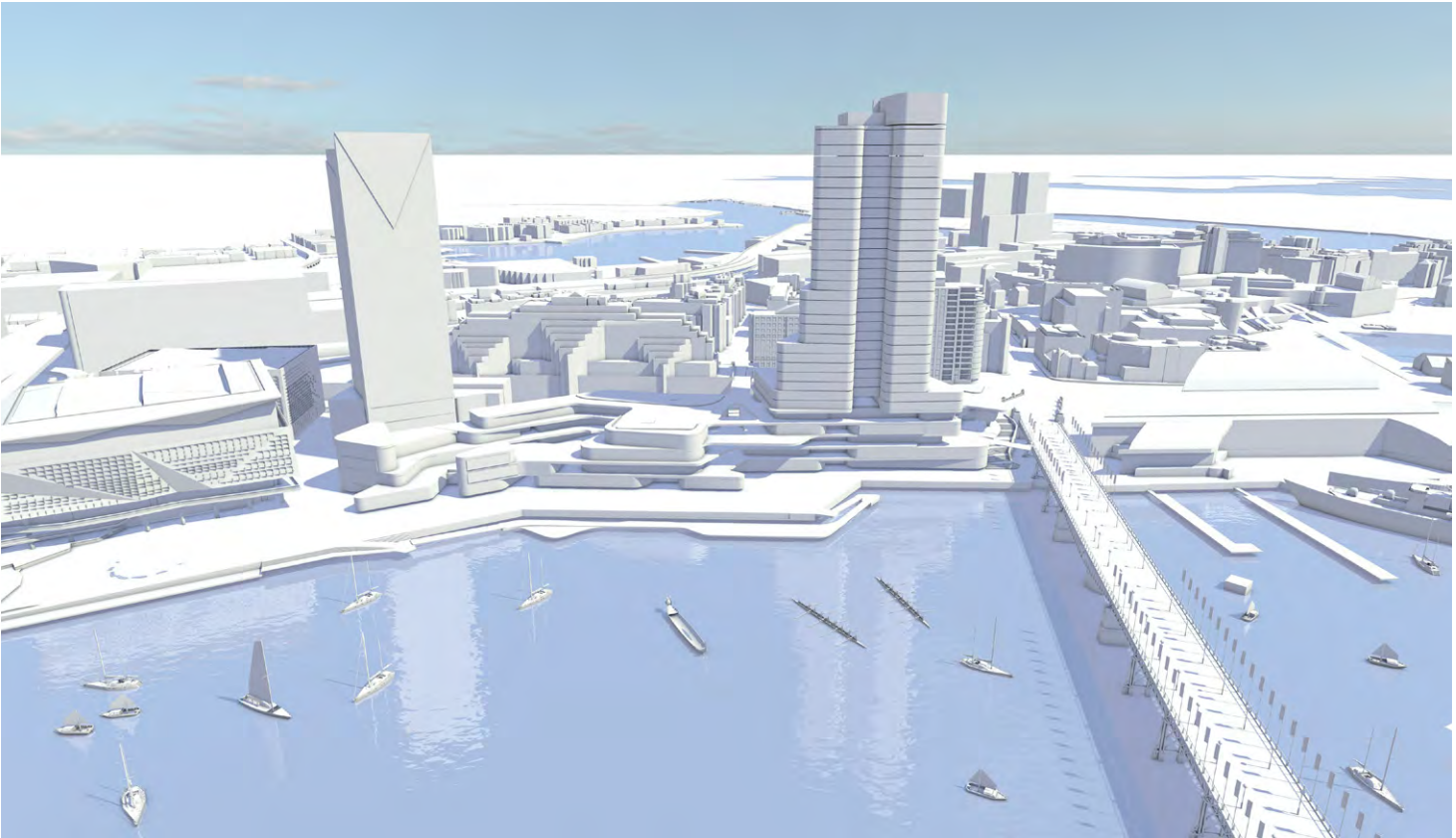


Image 71 Commercial tower moved 25m south relative to image on left, ie: 50m to Pyrmont Bridge



Image 72 Commercial Tower at Community Consultation



Image 73 Commercial Tower at Community Consultation

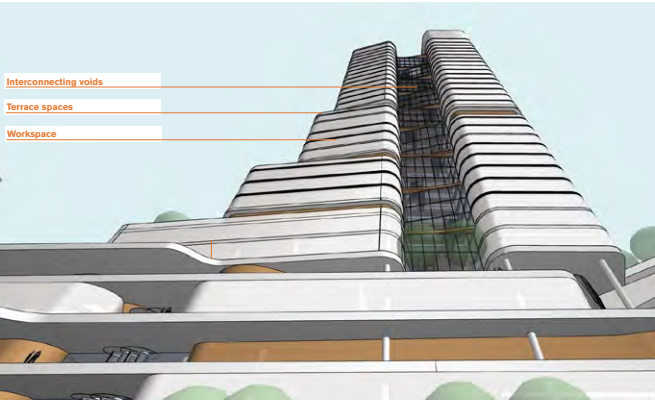


Image 74 Concept Design studies for a commercial tower

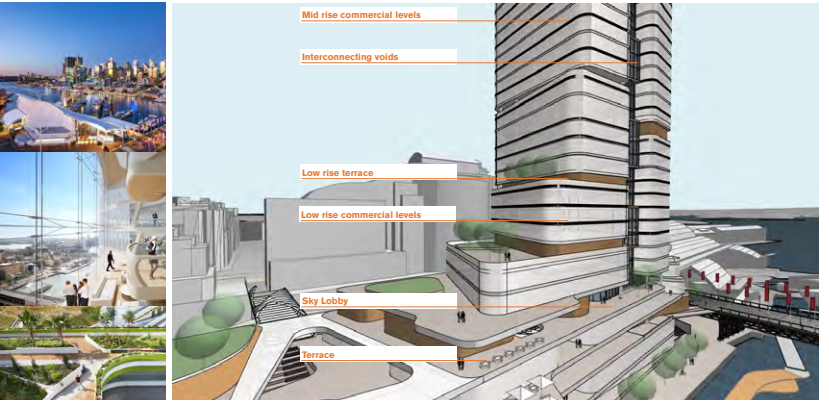


Image 75 Concept Design studies for a commercial tower

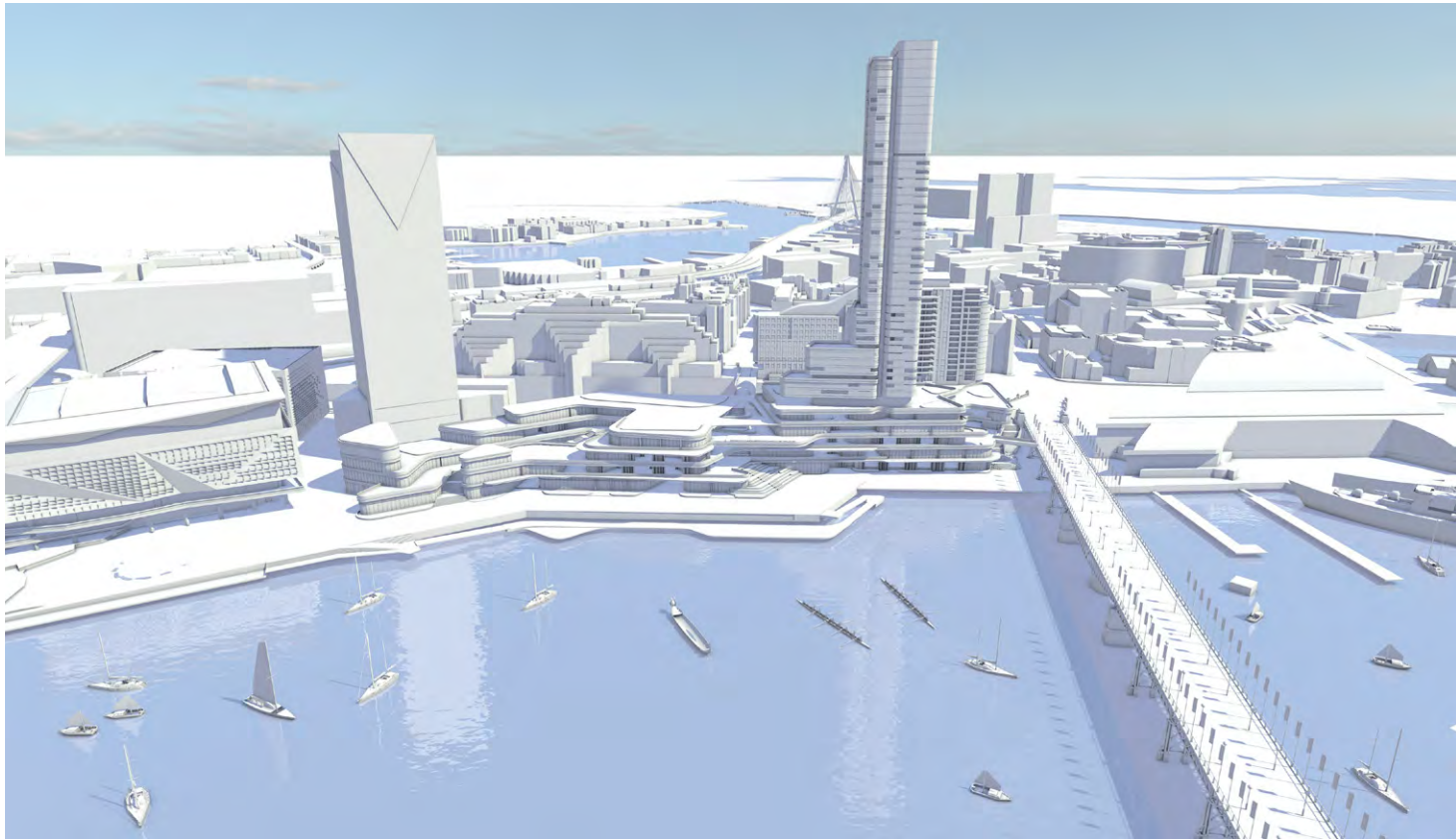


Image 76 Residential Tower: allows for a more slender tower form with increased view sharing

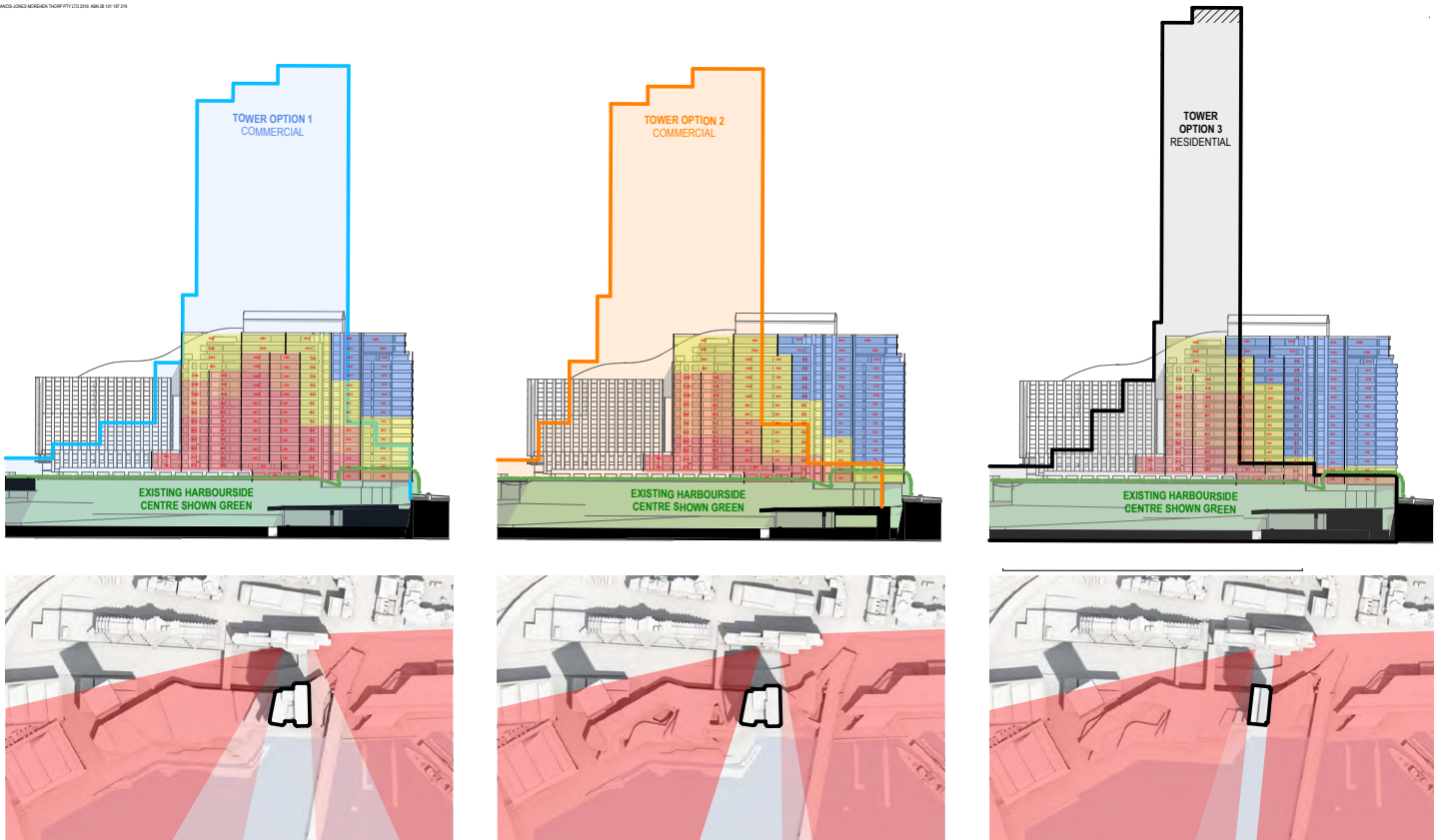


Image 77 View sharing analysis (50 Murray Street) for 3 tower options **(Indicative analysis only for comparison purposes)**



Image 81 Concept Design studies showing tower separation

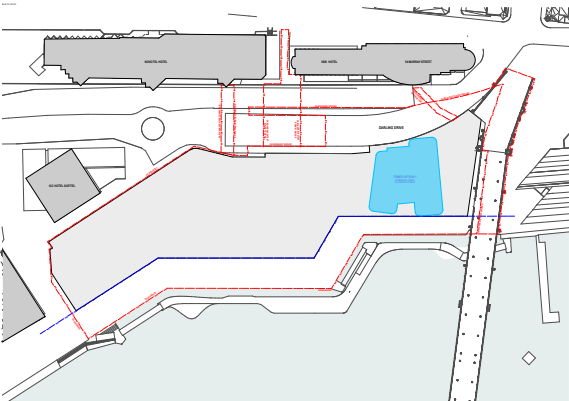


Image 78 Commercial Tower at Community Consultation

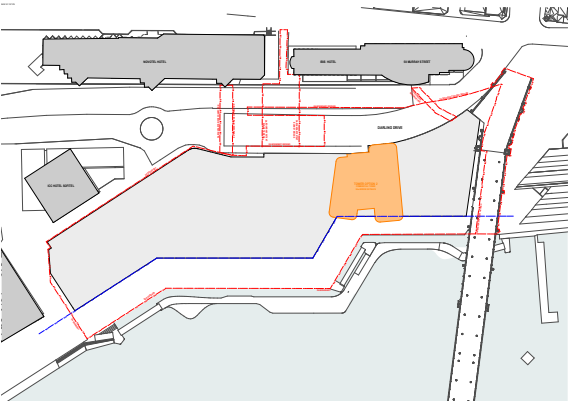


Image 79 Commercial Tower moved 25m south

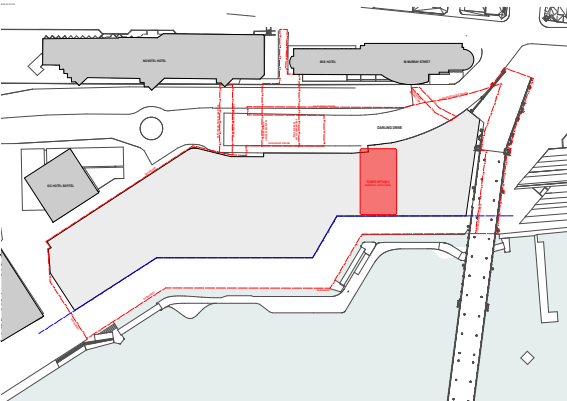


Image 80 Residential tower option

Height Analysis

A residential option will provide a slimmer, taller tower relative to a commercial tower option. This is consistent with the strategy as identified earlier in this report for well proportioned, well spaced towers on the west edge of Cockle Bay.

The envelope drawings as attached to this submission adopt a top RL of 166.350. This compares to the ICC Hotel at RL 133.550 (originally approved at RL 142.700 but subsequently reduced). A slim residential tower with a top RL of 166.350 is consistent with current and proposed towers around Cockle Bay. Tower 3 (C5) of the International Towers at Barangaroo adopts an RL of 168, with adjacent towers increasing in height to the north. A RL of 166.350 for Harbourside establishes a similar strategy for the western edge of Cockle

Bay, with tower height increasing from the south.

The Star has submitted a request for SEARs nominating "a tower up to 215m high". In May 2016 a request for SEARs was lodged for a commercial tower of 100,000 -110,000 sqm GFA at 241-249 Wheat Road, Cockle Bay. The illustrations lodged with this application suggest a tower of circa RL 190m - refer to below illustration. The Ribbon development to the south of Cockle Bay adopts a maximum of RL 93.50 as noted in JBA's Environmental Impact Statement as dated December 2015.

The desirable distinction in character between the eastern and western skyline of Cockle Bay can be maintained if the development of the western side of Cockle Bay is based upon on a reduced number of well proportioned, slender towers which are well spaced apart.

A slender residential tower with such a smaller floor plate will best ensure the intent of well proportioned, well spaced towers can be achieved. Whilst the residential tower adopts a slight increase in height relative to a commercial tower, the environmental impacts upon public space and neighbours are less.



Image 83 ICC Hotel: RL 133.50 (initially approved at RL 142.70)



Image 84 Illustration as submitted with request for SEARs for the Star

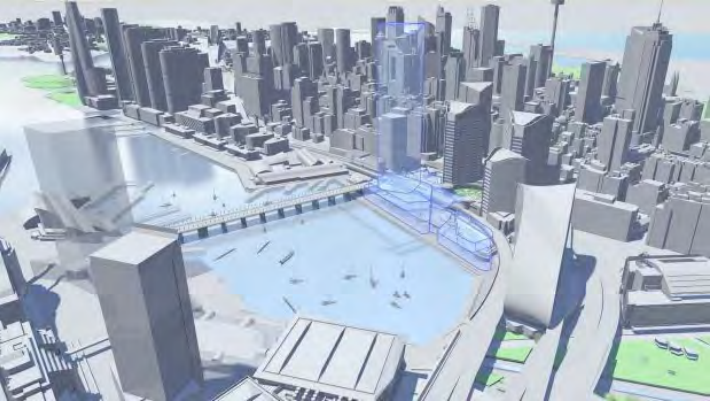


Image 85 Illustration as submitted with request for SEARs for 241-249 Wheat Road, Cockle Bay

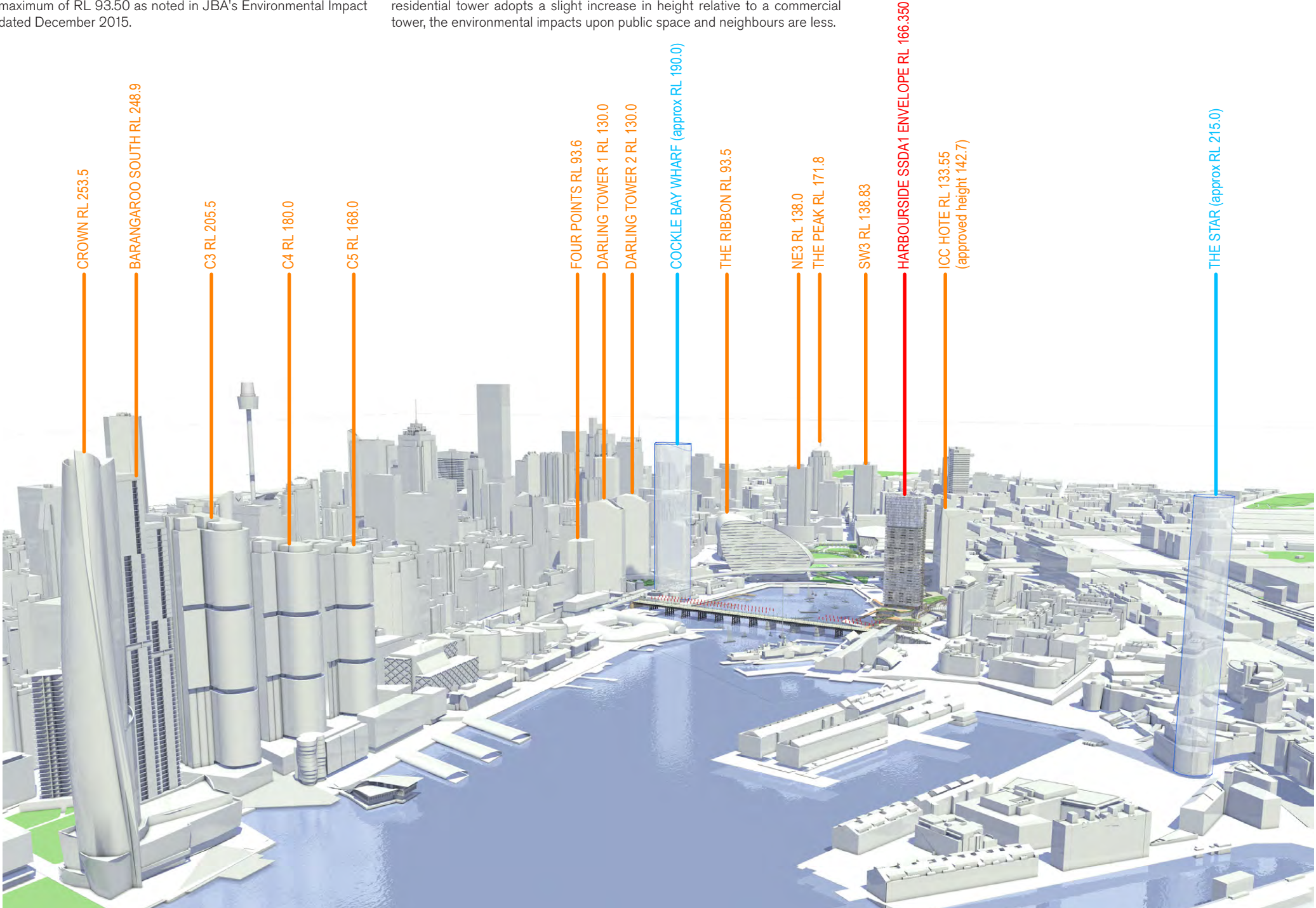


Image 82 Height analysis: Cockle Bay and surrounding area