# View and Visual Impact Assessment

Barangaroo Concept Plan (06\_0162) Modification 9 - RtS Scheme | September 2024 Final



### **Barangaroo Concept Plan**

Modification 9 - RtS Scheme - View and Visual Impact Assessment Report

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## **Glossary of Terms**

Approved Concept Plan	The most recent concept plan iteration for the Barangaroo development approved by the NSW government. The "Approved Concept Plan" refers to the most recently approved plan: MOD 11.
Barangaroo Reserve	The area of parkland to the north of the Barangaroo development. Refer to Section 4.3 for a site plan showing location.
Barangaroo South	The southern area of the Barangaroo development. This area is a commercial and residential precinct that includes; Crown Hotel and Resort; the three Sydney International Towers; International House; Daramu House; five residential buildings, including the Renzo Piano One Sydney Harbour development (Block R4A, R4B and R5); Barangaroo Ferry Wharf; Barangaroo House; and nearly three hectares of public space (Hickson Park). Refer to Section 4.3 for a site plan showing location.
Block R4A, R4B and R5	Separate building envelopes of the Renzo Piano One Sydney Harbour development in Barangaroo South. Refer to Section 4.3 for a site plan showing location.
Block 5	The unique building envelope (42.45m max. height) in the southern portion of Central Barangaroo. Refer to Section 4.3 for a site plan showing location.
Block 6	The unique building envelope (35m max. height) in the central portion of Central Barangaroo. Refer to Section 4.3 for a site plan showing location.
Block 7	The unique building envelope (35m max. height) in the northern portion of Central Barangaroo. Refer to Section 4.3 for a site plan showing location.
Built form	The shape and configuration of a building or buildings.
Central Barangaroo	The central portion of the Barangaroo development. This area will be a mixed use precinct with commercial, retail, residential, civic and parkland spaces. The area includes Block 5, 6 and 7. Refer to Section 4.3 for a site plan showing location.
Compositional elements	Elements that make up a view, which can include; physical characteristics such as topography, built form, vegetation and topography, as well as landscape character, which can have cultural and social associations.
Curtilages of important elements	The land surrounding and associated with important elements. In planning terms, the curtilage of a house is an area of land surrounding or attached to house which is often enclosed. This term also refers to other buildings and landmark objects.
Development envelope	The volume of space that buildings and architectural elements (built form) can be constructed within. Built form is not likely to take up all of the envelope volume, however, it shows the is the greatest extend that any built form can inhabit.
DGRs	Director General Requirements are a list of requirements specific to a development to be addressed in the Environmental Impact Statement for the proposal.
Existing view	The view as seen from an Observer Location.
Magnitude (of change)	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or not, and whether the change is short or long term in duration (Guidelines for Landscape and Visual Impact Assessment, 2013). Refer to Section 5.4 for further information.
Modification	A formal application to modify an existing development consent.
MOD 8	The eighth modification to the Barangaroo Concept Plan 06_0162, abbreviated to 'MOD' 8. This modification has been approved.
MOD 9 - exhibited	The ninth modification to the Barangaroo Concept Plan 06_0162. The design of this modification application was exhibited in July and August 2022, and has been abbreviated to 'MOD' 9 -exhibited. This modification contains the previous MOD 10 and MOD 11 changes. Refer to Section 1.2 for a full description.

MOD 9 - RtS	The response to submission (RtS) is an updated version of the ninth modification to the Barangaroo Concept Plan 06_0162. This modification contains the previous MOD 10 and MOD 11 changes, and the amendments resulting from the design responses to submissions after exhibition of MOD 9 - exhibited. This is the design that has been assessed in this report. Refer to Section 1.2 for a full description.
MOD 10	The 10th modification to the Barangaroo Concept Plan 06_0162. This modification has been approved.
MOD 11	The 11th modification to the Barangaroo Concept Plan 06_0162. Referred to in the report as the "Approved Concept Plan". This modification has been approved. This is the latest modification to have been approved at the time of writing this report, and therefore provides the most current concept design against which MOD 9 - RtS will be assessed. Refer to Section 2.3 for a full description.
Modulated	Varying size and shape in architectural elements.
Observer Location	The location from which an assessment is made of the impact that the MOD 9 - RtS design has on the view. Refer Section 5.1 for the full list of locations.
Proposed Concept Plan	The proposed changes to the Approved Concept Plan. This will be the ninth modification of the Barangaroo development, which is to be assessed in this report. See also "MOD 9 - RtS"
Public domain	Publicly accessible land, including parks, reserves and other freely accessible spaces.
Receptors	Also referred to as 'visual receptors'. Individuals and/or defined groups of people who have the potential to be affected by a proposal (Guidelines for Landscape and Visual Impact Assessment, 2013).
Sensitivity	A term applied to specific viewpoints, combining judgements of the susceptibility of the viewpoint to the specific type of change or development proposed and the value related to that view (Guidelines for Landscape and Visual Impact Assessment, 2013). Refer to Section 5.4 for further information.
The applicant	Infrastructure NSW (INSW)
View sharing	In relation to views from private property, a planning principle was developed as part of a Court decision in the matter Tenacity v Warringah Council. The principle sets out questions and considerations that can help determine whether view sharing is reasonable in the specific context of the development: 1. identify and consider the nature and value of views, where the views are enjoyed from and the extent of the impact; 2. the reasonableness of the proposal causing the impact. This principle is discussed in the private Observer Locations, but not assessed.
Visual absorption capacity	The measure of an area's ability to accommodate changes while maintaining the existing landscape character or the composition of the view. The visual prominence of a proposal will be minimised when seen against a backdrop with a high visual absorption capacity.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area (Guidelines for Landscape and Visual Impact Assessment, 2013).
Visual catchment	The extent of area from which a proposal is visible.
Visual material	An umbrella term to describe the images and diagrams required to address the requirements of the DGRs.
Visualisation	A computer simulation, photomontage or other techniques illustrating the predicted appearance of a development (Guidelines for Landscape and Visual Impact Assessment, 2013).

## **Executive Summary**

This report assesses the extent of visual impact of the proposed Modification 9 development envelope (MOD 9 - RtS), relative to the Approved Concept Plan for Central Barangaroo.

This assessment assumes that all approved development within Barangaroo South is in place (and any approved development within Barangaroo South that has not been completed at the time of writing this report has been modelled and assessed). This assessment also assumes that the Approved Concept Plan development envelope for Central Barangaroo is in place. This report assesses the visual impact of MOD 9 -RtS on views from 41 representative Observer Locations (OLs), comprising areas within the public domain (parks, reserves and streets), and private domain. Refer Figure A.

Figure B, Figure C and Figure D illustrate the Approved Concept Plan.

Figure B, Figure E and Figure F illustrate the MOD 9 - RtS.

This report has been prepared in accordance with the requirements of the Director General Requirements (DGRs) as issued on 15 April 2014.

#### Summary of Changes Between MOD 9 - exhibited and MOD 9 - RtS

A previous version of Modification 9 (MOD 9 - exhibited) was exhibited between July and August 2022. MOD 9 - exhibited has subsequently been refined by the project team to the current modification assessed in this document: Modification 9 Response to Submissions (MOD 9 -RtS) . Extensive engagement has occurred with the Department of Planning and Environment (DPE) and Government Architect NSW (GANSW) to review key elements of the project including scale of built form compatibility, open space and public amenity.

MOD 9 -RtS comprises a more simplified building envelope, reducing the scale to better compliment the scale of the surrounding heritage context. Additional public domain is provided and removal of the previously proposed 20 storey tower and removal of the cantilever over Hickson Street in response to submissions. The additional Block 5 height remains, set against the backdrop of the Barangaroo South high-rise towers and taller built form on Hickson Road and Kent Street. A series of wide separations bisect the blocks in an east-west and north-south direction, creating a more modulated form for the development.

These changes have reduced many of the impact ratings seen in the MOD 9 - exhibited design. The removal of the Block 7 tower has removed the built form anomaly from within the view, which previously interrupted continuous views to the harbour and the horizon from observer locations to the east and south. The removal of the cantilever along Hickson Road reduces the geographical footprint to the east and provides a visual 'breathing space' between the Millers Point Conservation Area and the Central Barangaroo development. The flat face of the MOD 9 - RtS eastern edge more appropriately reflects the flat face of the Hickson Road cutting. The long north-south separation between the blocks sets up a linear composition of buildings along Hickson Road and a parallel pedestrian avenue which responds well to the urban form.

#### **Summary of Findings between Approved Concept Plan and MOD9 -RtS**

The key views identified in the planning and background documents (including DGRs) as relevant to the Central Barangaroo development are outlined in Chapter 3. The key views to be protected can be summarised as:

- Views from the Millers Point Conservation Area
- Views from the west looking towards Central Barangaroo
- Views from Barangaroo South looking north, north-east towards the Sydney Harbour Bridge and the Sydney Opera House.

The majority of views west to Darling Harbour and beyond from Millers Point and east from Pyrmont and Balmain East looking back towards Millers Point, have already been lost to the Approved Concept Plan, with MOD 9 - RtS marginally increasing height at the southern end of Central Barangaroo adjacent to the much taller South Barangaroo and Sydney CBD high-rise buildings.

Extensive harbour views are still available north of Central Barangaroo from sensitive viewing locations within Millers Point, including from Observatory Hill Park, High Street, the north end of Merriman Street, and Dalgety's Road. A substantial and visually cohesive component of the Millers Point Heritage Conservation Area remains visible from observer locations along the western shore of Darling Harbour, including an additional view through to the topography of High Street behind (east of) Central Barangaroo.

MOD 9 - RtS is generally seen to exhibit a High to Moderate level of visual integration into the landscape compared with the Approved Concept Plan due the compositional form, scale, line and massing of the three development blocks, relative to that of towers within Barangaroo South.

The views from Barangaroo South to Sydney Harbour Bridge and the Sydney Opera House landmarks are not obstructed by the MOD 9 - RtS development envelope.

Overall, the key driver of High to Moderate ratings arose from the sensitivity of visual receptors to proposed change rather than the magnitude of change between the Approved Concept Plan and MOD 9 - RtS

For views from the public domain, sensitivity was the key driver of High to Moderate ratings of visual impact, with most ratings of magnitude of change falling within the range of Moderate and Low / Negligible.

For views from the private domain, all locations were deemed to have a High sensitivity to change. Two of the thirteen private domain views were assigned a magnitude of Moderate, with the remainder being Low.

Table A provides a summary of findings arising from MOD 9 - RtS for each representative OL.



Figure A Map of Observer Locations (OL's) (Source: AECOM modified Google Map)

#### **Extent of Change**

The degree of change between the Approved Concept Plan and Mod 9 - RtS is relfected in the magnitude rating illustrated in Table A. As part of this process, context is provided with regard to the development that was in place prior to the bringing into existence of Barangaroo to assit in understanding the cumultative changes seen.

The pre-Barangaroo development of East Darling Harbour Wharves facilitated effectively unimpeded views from the Millers Point Heritage Conservation Area, including Sydney Observatory and Observatory Hill Park, across Darling Harbour to the inner western suburbs (OLs 01, 02, 03, 04, 09, 33 and 34 shown in Figure A), and conversely, effectively unimpeded views back to the Millers Point Heritage Conservation Area from the western shores of Darling Harbour (OLs 10, 11, 12, 13, 14, 39, 40 and 41 shown in Figure A).

The Approved Concept Plan incorporates the completed towers within Barangaroo South, and a long, relatively low development envelope within Central Barangaroo of between about 8-10 storeys in height. The Central Barangaroo development envelope extends across the southern face of the Millers Point Heritage Conservation Area, from midway along the length of the State Heritage Register listed terraces on High Street, to the south beyond the Highgate residential tower on Kent Street. It projects above both the High Street terraces and the more elevated terraces behind on Kent Street. This effectively results in full view loss across Darling Harbour from these terraces (OL 08 shown in Figure A), and conversely, effective full view loss from locations on the western shores of Darling Harbour (OLs 10, 11, 12, 13, 14, 32, 39, 40 and 41 shown in Figure A) to the southern end of the Millers Point Heritage Conservation Area (including the terraces).

Existing views from the Langham Hotel (OL 16 shown in Figure A) to the west are effectively blocked by the Approved Concept Plan, except through the proposed step down envisioned in the Master Plan as the future location of the Barangaroo steps.

Views to the harbour from Sydney Observatory and Observatory Hill Park are predominantly obscured by the development. The view to the horizon is maintained, with all the Block heights within the development sitting below the Sydney Observatory domes.

View sharing impacts for the Barangaroo South observer locations and the Kent Street residential towers (OL 17 to OL 25 shown in Figure A) are predominantly Low, with substantial harbour views and view to points of interest retained towards the north-west for these residences. Fractional removal of views to Millers Point Conservation Area for two OL's result in a Moderate impact.

The key driver of the High to Moderate overall visual impact ratings is the sensitivity of visual receptors to the proposed change, rather than the magnitude of change.

MOD 9 - RtS exhibits a High level of visual absorption capacity within the surrounding landscape compared with the Approved Concept Plan due the compositional form of the three development blocks, relative to that of towers within Barangaroo South.

Overall, the similar central and northern block heights, stacking of height towards the southern end of Central Barangaroo and additional and relocated separations of MOD 9 - RtS over that of the Approved Concept Plan building envelope is considered to provide a positive outcome with regards to the impact to the visual amenity of the proposal in the landscape surrounds.

Table A Summary of 'Significance of Visual Impact' ratings for each Observer Location

	OBSERVER LOCATION	SENSITIVITY*	MAGNITUDE**	SIGNIFICANCE OF	COMMENTS++
				VISUAL IMPACT+	
	OL 1 - SYDNEY OBSERVATORY HILL PARK	HIGH	LOW	MODERATE	Sensitivity is High due to the extensive panoramic harbour views. Magnitude is Low due to the minor additional height seen against the backdrop of
	OL 2 - SYDNEY OBSERVATORY	HIGH	LOW	MODERATE	development in Barangaroo South.
	OL 3 - HIGH STREET (SOUTH)	MODERATE	LOW	MODERATE-LOW	Sensitivity is Moderate due to the nature of the exceptional view even though receptors are likely to be transitory. Magnitude is Low due to the additional height seen to the south edge.
ı	OL 4 - MUNN RESERVE	HIGH	LOW	MODERATE	Sensitivity is High given the recreation reserve and Barangaroo access point. The identified importance of the view is contrasted against the visual sandwiching of Central Barangaroo in the foreground and background. The magnitude is Low due to the minor additional height seen against the backdrop of development in Barangaroo South.
ı	OL 5 - CLYNE RESERVE	HIGH	NEGLIGIBLE	NEGLIGIBLE	Sensitivity is High given the location comprises a shaded playground close to a Barangaroo access point. Magnitude is Negligible given the development would be obscured from this view.
z	OL 6 - BARANGAROO RESERVE - WULUGUL PARK	HIGH	LOW	MODERATE	Sensitivity of recreational receptors is High given high sensitivity of recreational users. Even though the development is a small portion of the wider panoramic view it is seen in relatively close proximity. Magnitude is Low given the minor change in the view.
PUBLIC DOMAIN	OL 7 - BARANGAROO RESERVE - STARGAZER LAWN PARK	MODERATE	NEGLIGIBLE	NEGLIGIBLE	Sensitivity of recreational receptors is Moderate given inward focus of this open space. There would be no change in the seen size or scale of the development.
3LIC D	OL 8 - HICKSON ROAD MODER		LOW	MODERATE-LOW	Sensitivity is Moderate given the heritage importance of the location, however, users would be travelling through the space. Magnitude is Low given the scale of the change to the southern end of the development visible is minimal, nearest to the location.
E B	OL 9 - GAS LANE	LOW	HIGH	MODERATE	Sensitivity is Low given many recreational users may be both unaware of the 'sliver' harbour view between the Crown Hotel and Resort and Block 5 (MOD 9-RtS), and focused on wayfinding. Magnitude is High given the small proportion of the harbour left visible.
	OL 10 - BALLAARAT PARK		LOW	MODERATE	Sensitivity is High given the highly sensitive recreational users viewing the change to MOD 9 - RtS as a small part of an extensive, dynamic harbour
	OL 11 - PIRRAMA PARK		LOW	MODERATE	view. Magnitude is Low due to the minor additional height seen against the backdrop of development in Barangaroo South, which is a small portion of a much larger view.
ı	OL12 - BALMAIN EAST - ILLOURA RESERVE	HIGH	LOW	MODERATE	Sensitivity is High given the usually highly sensitive recreational users viewing the change to MOD 9 - RtS as only a small component of an extensive, dynamic harbour view. The view is recognised in heritage reporting as having high value. Magnitude is Low given the high visual absorbency of the city scape behind.
	OL13 - BALLS HEAD	MODERATE	NEGLIGIBLE	NEGLIGIBLE	Sensitivity is Moderate given the distance: MOD 9 - RtS comprises a small component of an extensive, dynamic harbour view and therefore the
	OL14 - BLUES POINT MODER		NEGLIGIBLE	NEGLIGIBLE	focus of attention is likely to range across the view, but the view is recognised in heritage reporting as having high value. Magnitude is Negligible as it would be difficult to see any changes against the backdrop of development in Barangaroo South.
	OL15 - SYDNEY HARBOUR BRIDGE	MODERATE	NEGLIGIBLE	NEGLIGIBLE	Sensitivity is Moderate within the context of the busy road setting but from a Nationally listed heritage item. Magnitude is Negligible given there is no seen change from this location.

#### Sensitivity

Sensitivity evaluates the 'susceptibility' (or level of concern) of visual receptors to proposed change in relation to:

- views and visual amenity, and
- the 'value' attached to particular views, e.g. a view identified as important within heritage reporting.

#### Magnitude\*

Magnitude is evaluated in terms of:

- size or scale' of change in the view, e.g. due to loss or addition of features;
- · 'geographical extent' e.g. the area over which visual effects will be felt; and
- duration' and 'reversibility' of effects.

#### Significance of Visual Impact +

The separate assessments of Sensitivity and Magnitude are combined to determine an overall Significance of Visual Impact.

#### Comments+-

Key high level assessment considerations. Refer Section 6 'visual impact assessment' tables for full summary of considerations for each observer location.

Table A Continued Summary of 'Significance of Visual Impact' ratings for each Observer Location

	OBSERVER LOCATION	SENSITIVITY*	MAGNITUDE**	SIGNIFICANCE OF VISUAL IMPACT+	COMMENTS++		
	OL16 - LANGHAM HOTEL - LEVEL 3	HIGH	MODERATE	HIGH - MODERATE			
	OL17 - HIGHGATE - LEVEL 15	HIGH	LOW	MODERATE			
	OL18- HIGHGATE - LEVEL 25	HIGH	LOW	MODERATE			
	OL 19 - THE GEORGIA - LEVEL 15	HIGH	LOW	MODERATE			
¥	OL 20 - THE GEORGIA - LEVEL 25	HIGH	LOW	MODERATE	Sensitivity for these Private Domain visual receptors is High for all of the private domain observer locations due to the regular attention residents		
OMA	OL 21 - STAMFORD MARQUE - LEVEL 15	HIGH	LOW	MODERATE	and hotel guests would pay to the view, and the exceptional nature of the panoramic view across the western Sydney Harbour landscape.  Magnitude is Moderate for three of the thirteen locations broadly due to issues of:		
Б Щ	OL 22 - STAMFORD MARQUE - LEVEL 25	HIGH	LOW	MODERATE	reduction of the view to the western shore of the harbour		
PRIVATE DOMAIN	OL 23 - STAMFORD ON KENT - LEVEL 15	HIGH	LOW	MODERATE	<ul> <li>reduction or removal of view to the future Hickson Park</li> <li>reduction on view to Millers Point Conservation Area.</li> </ul>		
R	OL 24 - STAMFORD ON KENT - LEVEL 25	HIGH	LOW	MODERATE			
	OL 25 - 189 KENT STREET - LEVEL 15	HIGH	LOW	MODERATE			
	OL 26 - ONE SYDNEY HARBOUR - LEVEL 9	HIGH	MODERATE	HIGH - MODERATE			
	OL 27 - CROWN SYDNEY HOTEL - LEVEL 13	HIGH	MODERATE	HIGH - MODERATE			
	OL 28 - CROWN SYDNEY APARTMENTS - LEVEL 34	HIGH	LOW	MODERATE			
	OL 29 - SHELLEY STREET (FROM KING STREET BRIDGE)	N/A	N/A	N/A			
	OL 30 - LIME STREET	N/A	N/A	N/A			
	OL 31 - DARLING HARBOUR (PYRMONT BRIDGE)	N/A	N/A	N/A	The Approved Concept Plan and MOD 9 - RtS is not visible from these locations.		
۰	OL 32 - DARLING HARBOUR - AUSTRALIAN NATIONAL MARITIME MUSEUM	N/A	N/A	N/A			
	OL 33 - SYDNEY OBSERVATORY HILL PARK - SOUTH PATH	HIGH	LOW	MODERATE	The Sensitivity is High due to the extensive panoramic harbour views and heritage importance. Magnitude is Low due to the minor additional height		
z	OL 34 - SYDNEY OBSERVATORY - SOUTH WEST	HIGH	LOW	MODERATE	seen against the backdrop of development in Barangaroo South. Views of the harbour would partially open with the additional separation between Block 6 and 7.		
MA	OL 35 - NATIONAL TRUST CAR PARK	N/A	N/A	N/A	The Approved Concept Plan and MOD 9 - RtS is not visible from this location.		
000	OL 36 - HIGH STREET – NORTH	HIGH	LOW	MODERATE	Sensitivity is High due to the extensive panoramic harbour views and the view is recognised in heritage reporting. Magnitude is Low due to the		
PUBLIC DOMAIN	OL 37 - HIGH STREET – SOUTH	HIGH	LOW	MODERATE	minor additional height seen against the backdrop of development in Barangaroo South. Views of the harbour would partially open with the additional separation between Block 6 and 7.		
E S	OL 38 - HICKSON ROAD - CORNER OF WATERMANS QUAY MODERA		LOW	MODERATE- LOW	Sensitivity is Moderate given users would be travelling through the space, however, this view is highlighted in heritage reporting. Magnitude is Low due to the minor additional height seen in Block 5. No change is seen to the remaining view of the Dalgety Bond Store.		
	OL 39 - JAMES WATKINSON RESERVE MODERA		NEGLIGIBLE	NEGLIGIBLE	Sensitivity is Moderate given the usually highly sensitive recreational users viewing the change to MOD 9 -RtS as only a small component of an extensive, dynamic harbour view. No change would be seen from this location.		
	OL 40 - GIBA PARK  MODERATE		LOW	MODERATE- LOW	Sensitivity is Moderate given the usually highly sensitive recreational users viewing the change to MOD 9 - RtS as only a small component of an extensive, dynamic harbour view. Magnitude is Low due to the minor additional height seen against the backdrop of development in Barangaroo South		
	OL 41 - CORNER OF GRAFTON STREET AND GRAFTON LANE	MODERATE	LOW	MODERATE- LOW	Sensitivity is Moderate given the sensitive residential receivers, however, the change to MOD 9 - RtS is only a small component of an extensive, dynamic harbour view. Magnitude is Low due to the minor additional height seen against the backdrop of development in Barangaroo South. Views of the Hickson Road cutting would partially open with the additional separation between Block 6 and 7.		

Sensitivity\*
Sensitivity evaluates the 'susceptibility' (or level of concern) of visual receptors to proposed change in

- views and visual amenity, and
   the 'value' attached to particular views, e.g. a view identified as important within heritage reporting.

#### Magnitude\*\*

Magnitude is evaluated in terms of:

- size or scale' of change in the view, e.g. due to loss or addition of features;
  'geographical extent' e.g. the area over which visual effects will be felt; and duration' and 'reversibility' of effects.

#### Significance of Visual Impact +

The separate assessments of Sensitivity and Magnitude are combined to determine an overall Significance of Visual Impact.

Comments++
Key high level assessment considerations. Refer s.6 'visual impact assessment' tables for full summary of considerations for each observer location.

Below are sections and elevations showing the relationship between the Approved Concept Plan and the MOD 9 -RtS design, and the relationship of these building envelopes and the surrounding landform and built form context. Figure C and Figure D show the Approved Concept Plan. Figure E and F show the MOD 9 - RtS design overlaid with the dashed line of the Approved Concept Plan. As can be seen, the massing of the Blocks 6 and 7 have been rearranged more evenly in MOD 9 - RtS, and Block 5 has additional height and geographic extent to the south.

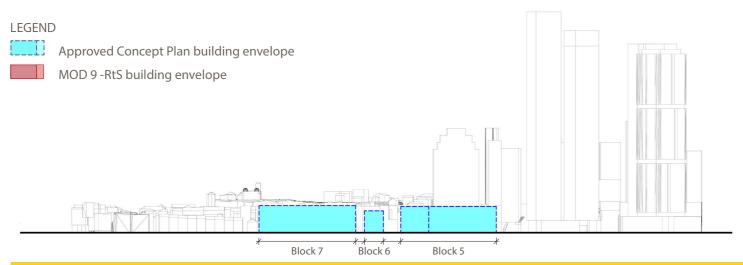


Figure C Elevation Looking East - Approved Concept Plan (Source: Modified from SJB diagrams July 2023)

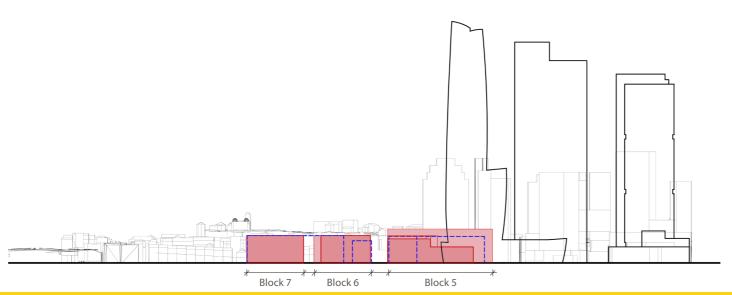


Figure E Elevation Looking East - MOD 9 - RtS, Approved Concept Plan shown as a blue dotted line (Source: Modified from SJB diagrams October 2023)

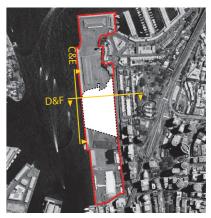
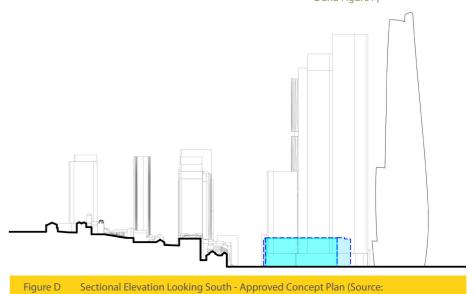


Figure B Location of sectional elevations (refer Figure C, Figure D, Figure E and Figure F)



Modified from SJB diagrams July 2023)

Figure F Sectional Elevation Looking South - MOD 9 - RtS (Source: Modified from SJB diagrams October 2023)

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### 1.0 Introduction

This View and Visual Impact Assessment (VVIA) has been prepared in support of an application to modify the Approved Concept Plan for Barangaroo, which was approved on 2 September 2020 under the then Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act)

This application assesses the Proposed Concept Plan 06-0162 Modification 9 Response to Submission scheme (MOD 9 -RtS) against the Approved Concept Plan as the baseline for assessment.

Barangaroo is made up of three distinct precincts, known as Barangaroo South, Central Barangaroo and Barangaroo Reserve. These form the development framework for the overall mixed use development.

Infrastructure NSW (INSW) seeks approval under the former Section 75W of the EP&A Act to modify the Barangaroo Concept Plan in relation to Central Barangaroo and the Barangaroo Reserve. The Director General's Requirements (DGRs) for MOD 9 were issued to the former Barangaroo Delivery Authority (BDA) on 15 April 2014. As such, Mod 9 - RtS and its technical assessments (including this document) is the result of submissions on the exhibited version of Mod 9, which was put on display in July 2022.

The previous MOD 9 Concept Plan (MOD 9 - exhibited) was publicly exhibited in July and August of 2022. In response to the public submissions the proposed concept design for Central Barangaroo has been amended

This VVIA has been prepared by AECOM Australia Pty Ltd (AECOM) to satisfy the DGRs. This report has been informed by the Central Barangaroo Urban Design Report prepared by SJB and other technical reports and information referenced - refer to Chapter 9.

This VVIA describes the site, its environs and the proposed modifications to the previously exhibited design. It assesses the visual impact of the proposed modification compared with that of the Approved Concept Plan. Given the early stage of design, the VVIA assesses MOD 9 - RtS as development envelopes. This VVIA should be read in conjunction with the supporting documentation for the application.

This VVIA has been prepared in accordance with the requirements of the transitional provisions under Part 3A of the EP&A Act, and presents relevant modifications of the Concept Plan Approval 06\_0162 (Approved Concept Plan).

#### 1.1 The Applicant

The applicant is INSW.

Barangaroo is a globally recognised 22 hectare urban renewal projectlocated on the western harbour foreshore of Sydney's CBD.

As Australia's first carbon neutral urban precinct, Barangaroo showcases world-class sustainability, whilst delivering extensive new foreshore public spaces on Sydney Harbour, international design excellence, the implementation of leading technologies and public art and cultural programs.

In March 2009, the Barangaroo Delivery Authority Act 2009 was established to ensure management and compliance of Barangaroo in achieving the following objectives:

- Encourage the development of Barangaroo as an active, vibrant and sustainable community and as a location for national and global business:
- Create a high-quality commercial and mixed-use precinct connected to, and supporting, the economic development of Sydney;
- Facilitate the establishment of Barangaroo Reserve and public domain land:
- Promote the orderly and sustainable development of Barangaroo, balancing social, economic and environmental outcomes; and
- Create in Barangaroo an opportunity for design excellence outcomes in architecture and public domain design.

INSW was established in July 2011 to assist the NSW Government in identifying and prioritising the delivery of critical public infrastructure for NSW.

On 1 July 2019, the Barangaroo Delivery Authority Act 2009 was transferred to INSW as the State Government agency responsible for the development of Barangaroo and management of its public spaces.

#### 1.2 Proposed Modification

This modification application (MOD 9 -RtS) seeks consent for modifications to the approved Barangaroo Concept Plan MP06\_0162 (as modified by MOD 11) in relation to Central Barangaroo, Barangaroo Reserve (Cutaway only) and Barangaroo South (Barton Street and Hickson Park only).

MOD 9 -RtS proposes changes to the approved design of Blocks 5, 6 and 7, updates to the Instrument of Approval and Statement of Commitments, and amendments to State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 (PEHC SEPP) as it applies to Barangaroo.

Following exhibition of the project from 12 July 2022 to 8 August 2022, MOD 9 - exhibited has been refined by the project team. Extensive engagement has occurred with the Department of Planning and Environment (DPE) and Government Architect NSW (GANSW) to review key elements of the project including scale of built form compatibility, open space and public amenity.

Overall, the proposed modification introduces a more simplified building envelope at a reduced scale to the surrounding heritage context, including additional public domain offering and the deletion of the previously proposed 20 storey tower. These updates are in direct response to submissions received.

#### Modified Concept Plan Development Description

The modifications to the approved Concept Plan require amendments to Schedules of the Instrument of Approval, including the development description and relevant conditions of consent. The Instrument of Approval was last modified as part of MOD 11 on 22 October 2020.

This modification application seeks to modify the Condition 'A1 Development Description' of the approved Concept Plan for Barangaroo (MP06 0162), as follows (Approved Concept Plan values crossed out):

A mixed-use development involving a maximum of <del>602,354</del> 667,686 m<sup>2</sup> gross floor area (GFA), comprising:

- a maximum of <del>191,031</del> 237,031 m<sup>2</sup> of residential GFA of which a maximum of 162,031 m<sup>2</sup> will be in Barangaroo South;
- a maximum of 76,000 m<sup>2</sup> of GFA for tourist uses of which a maximum of 59,000 m<sup>2</sup> will be in Barangaroo South;
- a maximum of 34,000 44,766 m<sup>2</sup> of GFA for retail use of which a maximum of 30,000 m<sup>2</sup> will be in Barangaroo South;
- a maximum of 5,000 m<sup>2</sup> of GFA for active uses in the Public Recreation zone of which 3,500 m<sup>2</sup> will be in Barangaroo South; and
- a minimum of 12,000 14,800 m<sup>2</sup> GFA for community use.

The MOD 9 - exhibited application proposed a GFA increase of 144,355 m<sup>2</sup> for Blocks 5, 6 and 7 (above and below ground). The amended MOD 9 -RtS application reduces this by 40,355 m<sup>2</sup>, resulting in a revised GFA increase of 104,000 m<sup>2</sup> (above and below ground).

### **Structure of this Report**

This VVIA is structured as follows:

- Section 1 Introduction: provides an introduction to the proposal background and the VVIA;
- Section 2 Existing Environment: provides a description of the site, the regional and local context, the visual catchment and an overview of the Approved Concept Plan;
- Section 3 Document Review: summarises the relevant background documents relevant to the assessment;
- Section 4 Project Description: outlines the primary components of MOD 9 - RtS;
- Section 5 Methodology: provides information on method and terminology used in the assessment;
- Section 6 Visual Impact Assessment: assessments of the impact to various observer locations, including photomontages and assessment ratings;
- Section 7 Analysis of Impacts: provides a summary analysis of the visual impacts and assesses the change between the Approved Concept Plan and MOD 9 - RtS;
- Section 8 Conclusion: provides a conclusion of the expected visual impacts and mitigation measures;
- Section 9 References used and a list of figures and tables; and
- Section 10 Appendices.

### 1.3 Director General's Assessment Requirements (DGRs)

Table 1 outlines the DGRs Requirements as pertinent to this VVIA.

The DGRs were issued on 15 April 2014 for Project Application MP 06-0162. In relation to the subject modification, these DGRs remain relevant and have been used to guide the format and requirements of this report.

Table 1 Director Generals Requirements

Requirement	Where Addressed
Visual assessment methodology  The consultant's methodology should be explicit. This may include a flow-chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities.	Chapter 5
As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework.	Chapters 2, 3, 4 and 5
Visual catchment should be defined and explained.	Section 2.2
An assessment matrix should be produced including number of observers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low.	Chapter 6
Visual catchment  Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified. This must include, but is not limited to Hickson Road, Kent Street, Shelley Street, Lime Street, Gas Lane, High Street, East Balmain, Darling Harbour, Blues Point, Millers Point, Sydney Observatory, Sydney Observatory Hill Park, Clyne Reserve, Munn Reserve, Sydney Harbour Bridge, Pyrmont Bridge, Ballaarat Park Darling Island and Jones Bay Wharf Pyrmont.	Section 2.2 and Chapter 5
Categories of views (e.g. from the water, from public open space, from key streets, from main buildings and from key heritage items) should be defined.	Section 2.2
Photos are required for representative view categories, plotted on a map.	Section 2.2

Requirement	Where Addressed
Visual material Reference to be made to site analysis.	Section 2.1 and Chapter 3
Provide key plan indicating where Observer Locations are located and narrative explaining why these have been selected.	Section 5.1 and Chapter 6
The modified and approved built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact.	Sections 2.2 and 4.2 nd Chapter 5
The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment.	Sections 2.3 and 4.2
Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment.	Sections 2.3 and 4.2
A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views.	Chapter 6
Assessment must benchmark against the existing situation and currently approved plans.	Section 2.3, Chapters 4 and 6
Photomontages to be provided for key Observer Locations from all directions, and from several positions within the visual catchment.	Chapter 6
As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context.	Chapters 4 and 6
A comparison of a, 'approved' and 'proposed' is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46° angle of view) from long range, medium range and short range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating, as well as a comparison analysis with the Approved Concept Plan.	Chapter 5



## 2.0 Existing Environment

#### 2.1 Site Analysis

Barangaroo comprises a long north-south facing site that is bounded to the north by Sydney Harbour and on its long edge by Darling Harbour to the west. Its land boundaries comprise the State Heritage listed precincts of the Walsh Bay Wharves and Dawes Heritage Conservation Area to the north-east and Millers Point Heritage Conservation Area to the east. The south-east boundary adjoins the high-rise CBD, with the mid to low rise King Street Wharf precinct adjoining the southern boundary (refer Figure 1).

The context for Central Barangaroo is closely defined by Barangaroo South with its high-rise environment, and the naturalistic, forested Barangaroo Reserve to the north (refer Figure 1).

#### 2.1.1 Millers Point Precinct

The following site context is an extract from the East Darling Harbour (EDH, now Barangaroo) Concept Plan - City of Sydney, 2011.

Located to the north western end of the CBD the subject site is somewhat divorced from the activity and development of the CBD due to the topography as well as The Rocks and the Millers Point Conservation Areas.

Millers Point is located ... at a much higher level than the EDH (now Barangaroo) site due to the dramatic fall in the topography from the natural ridgeline down to the west. The topography of the area has been manipulated over time through reclamation of the foreshore and cutting of the land. Millers Point is physically separated from the EDH site by stone cuttings along Hickson Road and around the northern and eastern edges of the Millers Point Headland. The Hickson Road and High Street profile forms a distinctive V-shape when viewed from the west while the headland and cutting is visible from the north around to the west. Millers Point consists largely of late nineteenth and early twentieth century residential development with associated buildings such as hotels and corner shops.

Davies (2006) states that the character of Millers Point ... 'is almost defined on a street by street basis, but the most striking element is the homogeneity of the whole' ... and that 'Another important characteristic of the area is the network of lanes, pedestrian ways, stairs and small public spaces' ... with 'stairs, retaining walls and palisade fences (comprising an) important characteristic of the area'. Refer Section 3.2.1

With regard to the housing, Davies (2006) notes that ... 'Important in understanding the character (of Millers Point) is understanding that most of the housing was integrally linked to wharf activity (of the Barangaroo site) providing housing for workers between 1912 and the 1970's'... and that 'A key characteristic of the precinct is the predominantly small scale of the elements that provide the complex visual character'.

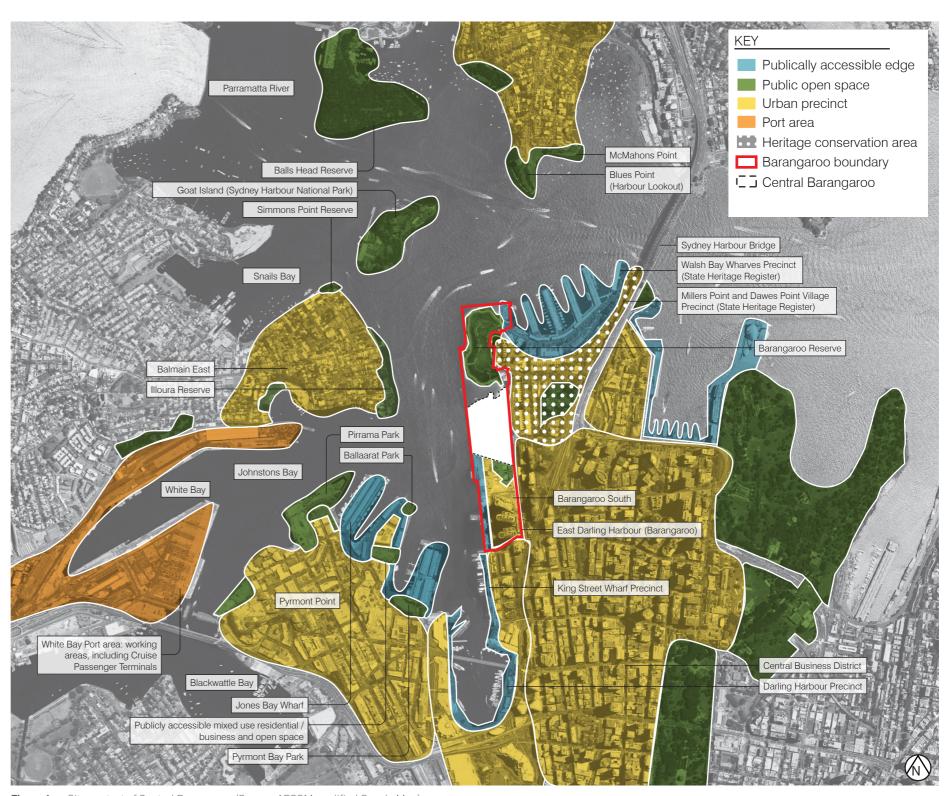


Figure 1 Site context of Central Barangaroo (Source: AECOM modified Google Map)

With regard to Central Barangaroo, Victorian and Edwardian residential buildings are clearly seen from the Harbour and vantage points to the west, set above the Central Barangaroo site on the escarpment edge. A visually prominent element of this view is ...'the striking early twentieth century worker housing facing west that dips to the centre of the row and is clearly visible again above the wharves and sits below the taller and more articulated early housing above it.' (Davies, 2006) Davies concludes with regard to the housing of the precinct that ...'Although small in scale, the buildings dominate...'.

Above this, views are available to Observatory Hill which provides a soft green and open landscape with mature fig trees sitting above the visually hard and dense, small scale residential development below. Davies describes this area as ...'another rare urban space that has remained in its open form with the Observatory located at its heart. The elevated setting, the open grassland with mature trees, the few built features such as the bandstand and the enclosed observatory garden provide a place of exceptional value'.

Conversely, a range of views are available from Millers Point across
Central Barangaroo to the west, including panoramic views from
Observatory Hill and the edges of the escarpment at High Street, and
some slot views between buildings to the Harbour. Davies (ibid.) notes
that ...'Generally views are framed by features such as palisade fences,
stairs, trees or other devices that mark the edges of the escarpment or
level changes' ... and ...'often the view is through a filtering element that
gives a sense of looking out from a defined place. The feeling of enclosure
and separateness is important in many of the views'.

#### 2.1.2 Sydney CBD

The high-rise of the Sydney CBD extends to the south-eastern corner of the Central Barangaroo site, comprising both residential and business tower developments that overlook the site and enjoy panoramic views across western Sydney to the Blue Mountains. These tower developments are currently not well connected to Hickson Road and Barangaroo.

#### 2.1.3 Barangaroo South Precinct

Located north of King Street Wharf, the southern half of the Barangaroo South Precinct comprises the three commercial International Towers Sydney buildings, and medium-rise residential apartments fronting onto the waterside Wulugul Walk pedestrian promenade. The remaining three blocks within the precinct are the One Sydney Harbour Towers, culminating with the recently completed Crown Hotel Resort at 271.3m high (75 floors). The ground floors of Barangaroo South consist of commercial and retail uses, including waterfront dining.

#### 2.1.4 King Street Wharf Precinct

The King Street Wharf precinct includes a range of entertainment offerings, extensive waterfront dining and a mixed use offering. These are complemented by the waterfront pedestrian link between Darling Harbour to the south and Barangaroo South. The adjacent north-south alignment of Lime Street and Shelley Street provide direct connections to Barangaroo. Medium-rise mixed use development lies to the east of the wharf area including hotel and rental apartments, business and residential unit development. Central Barangaroo is not readily visible from this precinct.

#### 2.1.5 Darling Harbour Precinct

The Darling Harbour and the International Convention Centre precinct lies to the south of King Street Wharf, and in conjunction with the wharf, generates large crowds of recreational users. Central Barangaroo is not visually prominent from this precinct.

#### 2.1.6 Pyrmont Point Precinct

The north-eastern edges of Pyrmont Point provide extensive areas of waterfront wharves, most of which are publicly accessible, and comprise a mix of residential and business development. These areas can be expected to be well utilised by both local residents and visitors to the area, and provide close, detailed views to the Central Barangaroo precinct. The area also includes five parks, four of which have views towards Central Barangaroo, these are Ballaarat Park, Pirrama Park, Giba Park, and James Watkinson Reserve, all providing high levels of visual detail for Central Barangaroo and Millers Point beyond.

Additionally, this precinct has been subject to substantial recent highrise residential development on the western point, a significant proportion of which can be expected to have views to Central Barangaroo.

#### 2.1.7 White Bay Precinct

The White Bay Precinct is an active port area. The White Bay Passenger Cruise Terminal is located directly opposite Central Barangaroo. The terminal is used for functions, where Barangaroo will comprise a small element of the view east across to the CBD.

The south-eastern portion of the White Bay Precinct will have limited views to Central Barangaroo with the exception of the northern wharf edge area which will have views to the northern end of Central Barangaroo and Barangaroo Reserve.

The White Bay Precinct is ear-marked for future redevelopment, some of which would be expected to have views to Central Barangaroo and Millers Point beyond.

#### 2.1.8 Balmain Precinct

The Balmain East peninsula is characterised by a densely populated low-rise residential development which was primarily developed in the mid to late 1800's and retains most of the original subdivision pattern and much of the period housing. The south-eastern edge of the peninsula contains Balmain East Wharf, Illoura Reserve and Peacock Point which provide extensive viewing locations across Pyrmont, Darling Harbour, Central Barangaroo and Millers Point beyond.

#### 2.1.9 Goat Island

Goat Island has long been a significant place in Port Jackson. The island, known as Me-mel by the local Gadigal people, was once inhabited by Bennelong and Barangaroo. The island is now part of Sydney Harbour National Park and is not readily accessible by the public other than by means of formal guided tours or special events.

Given the location of the island north, north-west of Barangaroo, views to Central Barangaroo are restricted by Barangaroo Reserve. Upon maturation of trees within the Reserve, a moderate portion of development within Central Barangaroo will be screened from sight, with the exception of views from the southern portion of the island.

#### 2.1.10 Balls Head Reserve

Comprising a significant area of urban bushland and situated on the foreshore of Sydney Harbour, Balls Head Reserve comprises a popular picnic spot that provides high amenity values and spectacular harbour views.

#### 2.1.11 Blues Point Reserve

Blues Point Reserve is located north, north-east of Barangaroo, is described by North Sydney Council as one of its most popular parks, and therefore within the context of this application comprises a sensitive visual receptor location. The reserve features spectacular views of the city, the Harbour, the Sydney Opera House and the Sydney Harbour Bridge, attracting tourists as well as locals. The Reserve looks primarily south to the Millers Point headland and Barangaroo Reserve.

#### 2.1.12 Barangaroo Reserve

The recently completed Barangaroo Reserve (formerly known as the Barangaroo Headland) comprises a large harbour foreshore park at the northern end of the Barangaroo site. Constructed to reference the premaritime geography of the area; the Sydney Harbour and Nawi Cove foreshores were recreated using large sandstone blocks. The landform rises up to meet the level of Merriman Street, creating a large flat grassed area known as Stargazer Lawn, which provides sweeping views across the harbour. The sides of the landform are vegetated in a naturalistic way to reflect natural harbour sandstone escarpments. Walkways and cycleways wrap around the harbour and throughout the park. The Cutaway, which has been excavated into the headland, comprises space for future community and cultural facilities.

#### 2.2 Visual Catchment

Figure 2 provides a potential visual catchment for Central Barangaroo overlaid with locations listed in the Director General's Requirements (refer Section 1.3).

The rationale for the visual catchment boundary is provided below. While it is noted that people located within this visual catchment boundary may see views to Central Barangaroo, the detail able to be seen in any location would be dependent on local factors such as the distance and obstructions such as buildings or vegetation.

- East: The eastern boundary describes a line that infers views from high-rise development within the CBD that has the potential to overlook Central Barangaroo. This part of the catchment is relatively close to the site, and the high-rise development and landform within the visual catchment quickly precludes most views from tall buildings further to the east.
- South: The King Street Wharf and Darling Harbour precincts would have limited views to Central Barangaroo due to the existing International Towers Sydney development, Crown Hotel and Resort, and One Sydney Harbour within Barangaroo South.
- West: The views from the west incorporate Pyrmont, White Bay and Balmain East, and would see the long edge of the development:
  - Pyrmont: Extensive views are available from the eastern waterfront edge of Pirrama Park, Ballaarat Park and Jones Bay Wharf in particular, which provide panoramic harbour views that incorporate Central Barangaroo in detail. Additionally, it can be expected that a significant component of the high-rise residential development on the western ridge of Pyrmont will have views to Central Barangaroo, although with substantially less visual detail available than the aforementioned waterfront development due to increased viewing distance.
  - White Bay: The north-eastern point of this precinct contains the Sydney Harbour Boat Storage facility and is not accessible to the general public. Views from the adjacent White Bay Passenger Cruise Terminal to the east, which also hosts private functions, are obstructed by this facility. The areas further west may also have views to the site, but the visual detail available from these locations will diminish with viewing distance, and have fewer receptors given the industrial landuse.
  - Balmain East: Central Barangaroo comprises a visually prominent element of the panoramic view from this location, which would also include Pyrmont, Darling Harbour to Millers Point and the CBD. The approximate viewing distance of 500m allows for a high level of visual detail.
- North: Goat Island, Balls Head, Blues Point and Milsons Point all have extensive harbour views that incorporate the Millers Point headland and Barangaroo Reserve. However, Central Barangaroo would be partially obscured by Barangaroo Reserve.

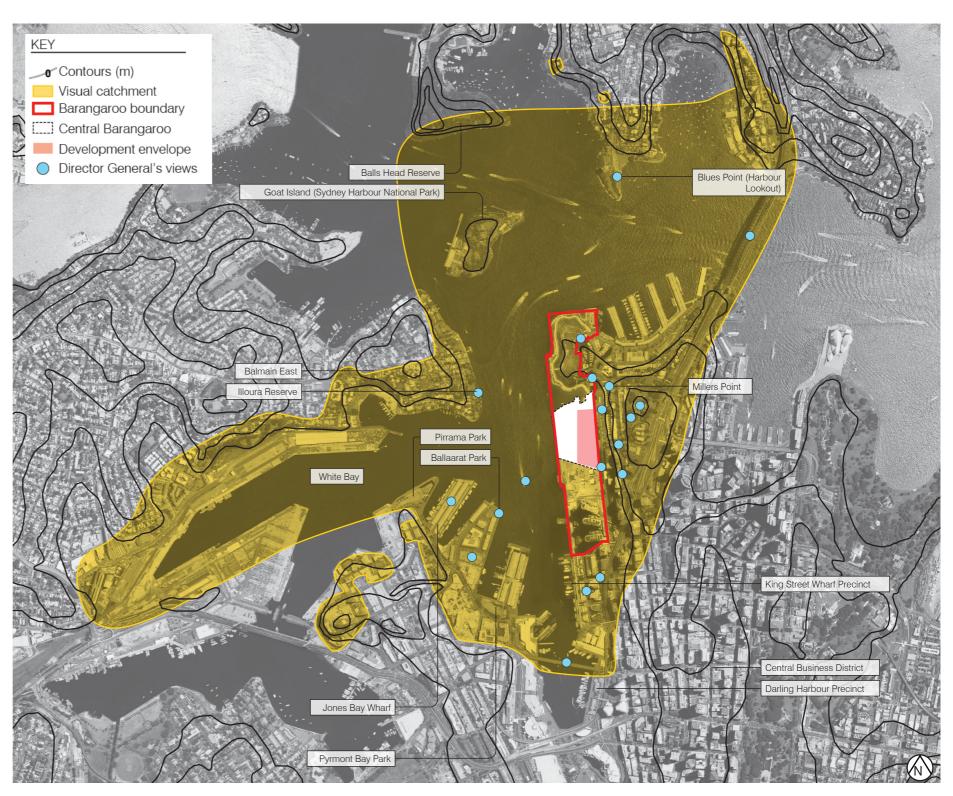


Figure 2 Visual Catchment Map (Source: AECOM modified Google Map)

#### 2.2.1 View Categories

Categories of locations from which important views towards Central Barangaroo are obtained are shown on Figure 3 and comprise:

- A. Key heritage items (refer Figure 4): The key heritage area with views to Central Barangaroo is Millers Point Conservation Area. This is made up of the following key views:
  - Views from Millers Point Conservation Area: Key views are from residential buildings, Lance Kindergarten and Children's Centre and public domain areas adjoining and nearby to the western edge of the conservation area, including the Agar Steps. A view across Central Barangaroo, albeit with limited visibility of the ground plane, is available from Observatory Park on the high point of the Millers Point headland. Views from these locations are discussed in detail in Section 3 of this report. The kindergarten and much of this residential development are separately listed on the State Heritage Register. These locations provide framed and panoramic views across Central Barangaroo to Darling Harbour, fringing peninsula suburbs and White Bay, and beyond to Western Sydney.
  - Views to Millers Point Conservation Area: Key views to the conservation area are available from the west across Darling Harbour, comprising Pyrmont Point, White Bay and Balmain East as described previously. Views from these locations are discussed in detail in Section 3 of this report.
- B. Public open space (refer Figure 5 and Figure 6): Key views to the Central Barangaroo site are available from public open space to the west as described previously for Pyrmont Point and Balmain East, and from Munn Street Park above Hickson Road. Views are also available from Barangaroo Reserve within Barangaroo itself. Views from these locations are discussed in detail in Section 3 of this report.
- C. Key streets (refer Figure 7): Key streets from which views are available to Central Barangaroo comprise High Street, Munn Street and Hickson Road within the Millers Point Conservation Area.
- D. Darling Harbour (refer Figure 8): Detailed views of Central Barangaroo are available from watercraft on Darling Harbour. For the purposes of this report, the views from Pyrmont Point eastern waterfront and Illoura Reserve in Balmain East are considered representative of views from the Harbour.

- E. High-rise residential development Kent Street (refer Figure 9): The north-western edge of the CBD and the western area of Pyrmont Point comprise the key high-rise development locations from which significant views across Central Barangaroo are available.
- F. High-rise residential and hotel development Barangaroo South (refer Figure 10): The northern development of Barangaroo South comprises key high-rise development locations from which significant views across Central Barangaroo are also available. In particular, views from the Crown Sydney Hotel Resort.

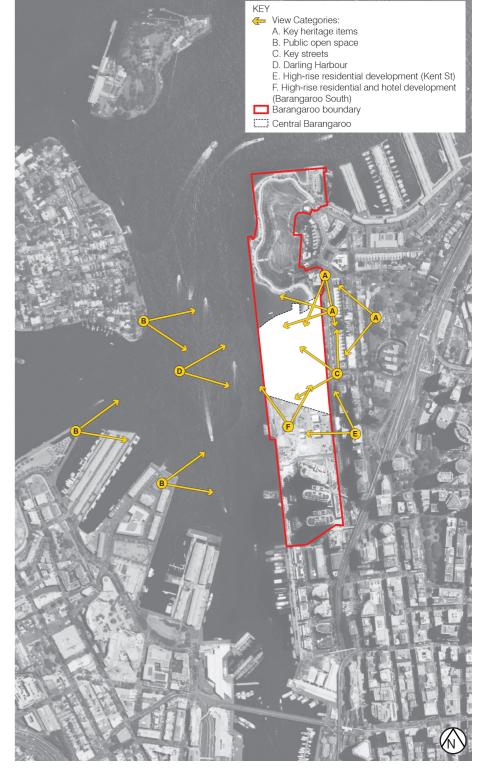


Figure 3 View Categories (Source: AECOM modified Google Map)



**Figure 4** A. Key heritage items: view from the end of Munn Street looking south down Hickson Road and over Central Barangaroo. The view is seen within the context of the Millers Point Conservation Area (Source: AECOM)



Figure 5 B. Public open space: view from Illoura Reserve, Balmain East, east towards Barangaroo, with Central Barangaroo and Millers Point to centre of frame (Source: AECOM).



Figure 6 B. Public open space: view from Barangaroo foreshore looking east towards High Street and the Central Barangaroo (Source: AECOM).



Figure 7 C. Key streets: view from High Street looking west across Central Barangaroo towards Illoura Reserve and Balmain East (Source: AECOM).



towards Barangaroo with Central Barangaroo to the centre left of the frames(Source: AECOM).



Figure 8 D. Darling Harbour: view from the water looking north east Figure 9 E. High-rise development - Kent St: rendered view from the Highgate Residential tower looking north-west across Central Barangaroo (Source: Arterra)



Figure 10 F. High-rise and hotel development - Barangaroo South: rendered view from the Crown Sydney Hotel and Resort tower looking north across Central Barangaroo (Source: Arterra)



## 3.0 Background Review

#### 3.1 Heritage Overview

The surrounding landscape of Central Barangaroo is rich with historical and cultural context. The following is summarised from the Heritage Assessment and Impact Statement (GML Heritage 2021). The report condenses occupation in the area into four phases:

- Aboriginal occupation;
- private ownership, 1788-c1870;
- intensive development and decline, c1870-1900; and
- change and renewal, 1901–2021.

Although Central Barangaroo and the wider study area does not contain any previously identified Aboriginal sites or places and is unlikely to reveal any new ones, the area was widely used by Aboriginal peoples. The Millers Point area was known to the Cadigal as 'Coodye' and Dawes Point as 'Tarara'/'Tarra'. The Eora people called Darling Harbour 'Tumbalong', meaning a place where seafood is found. The remnants of which coined the European name 'Cockle Bay'. Observatory Hill was likely used as both a lookout and a landmark.

Private development in the 1830s transformed the area with maritime and shipping industries around Millers Point and in Darling Harbour. From 1900, changes in shipping technology and the impact of the Bubonic plague required the area to undergo renewal. Between 1880 and 1900, most of the wharves and other structures were demolished during the government redevelopment.

In 1909 the Sydney Harbour Trust began modifying the natural landform to create roads, including Hickson Road at wharf level by 'cutting down' the cliff face in East Darling Harbour. The wharves between Dawes Point and Millers Point were named Walsh Bay after the Sydney Harbour Trust Engineer in Chief, HD Walsh.

By the 1920s, whole streets had been subsumed into hundreds of houses managed by the Sydney Harbour Federation Trust, along with a kindergarten, red brick shops along Argyle Street and hotels like the Hotel Palisade. The area presented as a coherent village and became something akin to a company town. A close-knit, largely working-class community remained, bound to the wharves, right up until the 1980s.

During the Great Depression workers named the section of Hickson Road adjacent to Central Barangaroo the 'Hungry Mile', as workers used to walk between the wharves searching for work so they could provide for their families. Ships had become too big for the finger wharves around the 1950's and following a period of disuse the Walsh Bay wharves around the 1960s, major changes occurred in the area.

The Darling Harbour wharves were constructed, the western shoreline was moved around 200m westwards, and a large concrete apron was created, forming the shipping container dock (since demolished). Also in this period, the pedestrian bridge across from High Street was removed, the men's toilets on Hickson Road were decommissioned and the northern steps were bricked in, changing the connection of the harbour to Millers Point.

Millers Point and Dawes Point Village precinct comprises a fine grain network of buildings and streets. The built form provides a visually contrasting low-density buffer between the high-rise development of the city, including Barangaroo South and the harbour.

Key areas of historic importance are listed in Table 2, showing the organisation they are listed within. There are several State Heritage Register (SHR) items in the vicinity of Central Barangaroo including: Millers Point and Dawes Point Village Precinct, Sydney Observatory, Dalgety Bond Store, Munn's Slipway, Sewage Pumping Station, other properties individually listed on SHR as well as on Sydney LEP including Palisade Fence & High Steps and Fort Street School.

The proximity to water is a significant factor for the maritime State heritage listed conservation areas. The visual links to the harbour along streets and over rooftops from Millers Point Conservation Area and Millers Point and Dawes Point Village Precinct are important historic connections.

 Table 2
 Key Views to and from Millers Point Conservation Area

Heritage Item or Place	Register			
	National Heritage Register	State Heritage Register	Sydney City LEP	National Trust Register
Sydney Observatory		Χ	Χ	Х
Observatory Park				Х
Observatory Precinct			Х	Х
Sydney Harbour Bridge	Х		Х	Х
Millers Point Conservation Area		Χ	Χ	



igure 11 View of the Parramatta River from Observatory Hill in 1789 (Source: Australian National Maritime Museum)

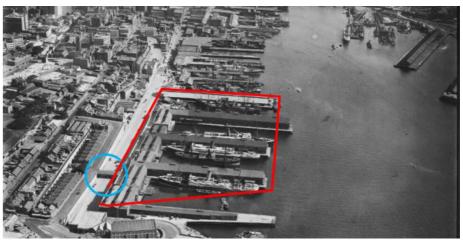


Figure 12 Aerial view showing the approximate study area (red) in c1930 after the demolition of Clyde Street and the creation of High Street and Hickson Road. The former bridge connection over Hickson Road to High Street is shown circled in blue. (Source: GML amended NLA, PIC 1561114257 LOC 21)



Figure 13 Sydney Harbour Trust's employees' homes and Lance Kindergarten in High Street, Millers Point, c1920. The bridge connection between the wharf buildings and High Street is shown circled in blue, at the 'low point' of High Street. (Source: GML amended NSW State Archives photograph)

#### 3.2 Document Background

### 3.2.1 East Darling Harbour Concept Plan Heritage Impact Assessment (2007)

The 2007 East Darling Harbour Concept Plan Heritage Impact Assessment by City Plan Heritage was undertaken as part of the environmental assessment for the East Darling Harbour (now Barangaroo) Concept Plan. The report assessed the impact of the proposed development envelopes of Barangaroo on views to and from the Millers Point Conservation Area, noting that the ability to appreciate the Conservation Area and its relationship to the harbour was considered important to retain the area's significance. It also noted that Millers Point had historically been subject to change in views and access to views as the uses have evolved and developed in the wider area.

The report made the following recommendations with regard to the Millers Point Conservation Area:

- Retain views to Observatory Hill Park from public spaces on opposite foreshores:
- Retain the panorama from Pyrmont Park around to the Sydney Harbour Bridge as seen from Observatory Hill Park;
- Provide adequate view corridors over and between new built forms to maintain the key attributes of views from Millers Point including:
  - significant tracts of water
  - the junction of Darling Harbour and the Harbour proper
  - the opposite foreshores
  - panoramic qualities of existing views, and
  - distinctive views to landmark structures;
- Retain the ability to appreciate Millers Point headland from public spaces on opposite foreshores; and
- Retain the ability to appreciate the roofscape of terrace houses throughout Millers Point from public spaces on opposite foreshores.

Further concluding recommendations of the report were:

- Allow for the appreciation of significant places in views from public places on the harbour foreshore; and
- Maintain the key attributes of views from Observatory Hill Park.

The report identified important views from the Millers Point Conservation Area as follows (refer Figure 14):

- 1. Panorama from Observatory Hill Park to the west;
- 2. View south along Hickson Road from Munn Street;
- 3. View west from the northern end of High Street over the former Munn Street alignment;
- 4. View west from the centre low point of High Street; and
- 5. View west from the south end of High Street.

The report also identified key views towards the Millers Point Conservation Area, as follows (refer Figure 15):

- 1. View south-east from Balls Head;
- 2. View from the end of Darling Street, Balmain;
- 3. View north-east from Pyrmont Point (now Pirrama) Park; and
- 4. View south from Blues Point.

In regard to the development envelopes proposed in the East Darling Harbour Concept Plan the report concluded that:

'there will be change to the views associated with the Millers Point Conservation Area, however, the level of impact is considered to be appropriate having regard to the history of the changing views within this area and the conservation of key view corridors'.

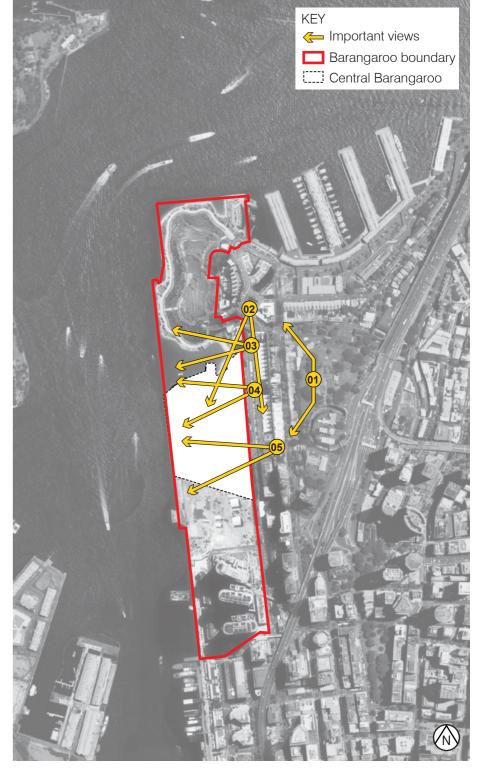


Figure 14 Important views from Millers Point (Source: AECOM Modified Google Map)

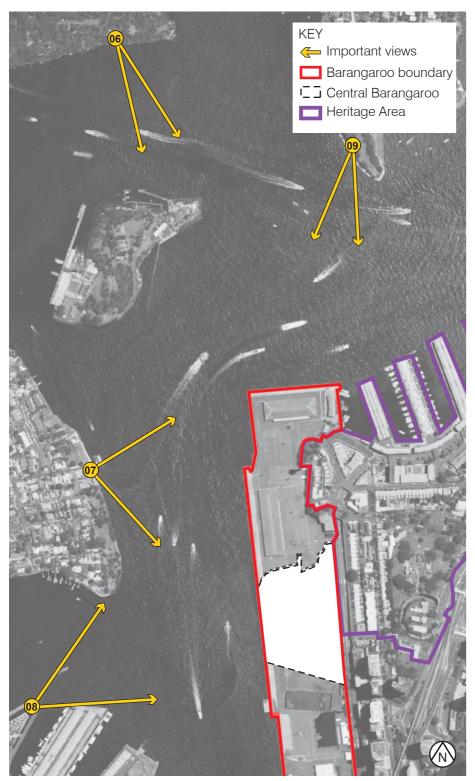


Figure 15 Important Views to Millers Point (Source: AECOM Modified Google Map)

#### 3.2.2 Millers Point and Walsh Bay Heritage Review (2006)

This report was commissioned by the City of Sydney to consider whether a rationalisation of the Council's planning controls for Millers Point should take place, replacing existing Special Area and Heritage Streetscapes with a new conservation listing under City Plan Heritage (2007). The report recommended the creation of a Heritage Conservation Area, of which an objective was:

To maintain significant existing views and vistas into and out of the precinct to the water and Harbour Bridge north and to the city south, and Observatory Park.

Relevant recommendations of the report for 'Views and Vistas' comprise:

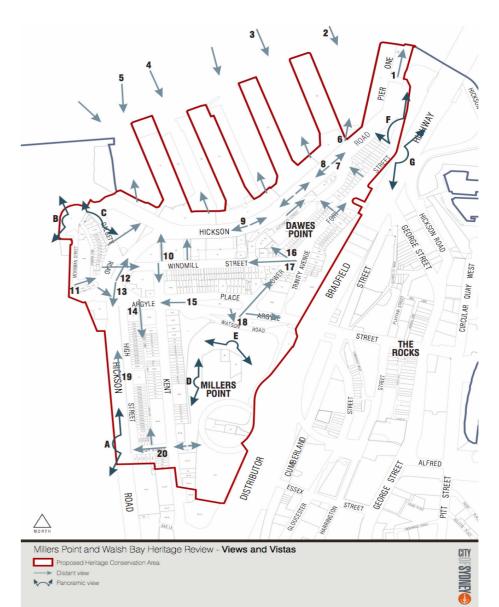
- 16. Retain the mapped major viewscapes from the precinct to the harbour, the Sydney Harbour Bridge and headlands beyond (refer Figure 16).
- The broad viewscape from Observatory Hill to the west over Kent Street to the Harbour and the foreshore beyond
- Slot views between buildings, along streets, down stairways and lane ways that provide a range of views to lower streets, to buildings and in some locations to water

17. Development within the viewshed of Observatory Hill park area should not interrupt or remove views to the harbour when looking ... west across Darling Harbour to Pyrmont, Balmain and White Bay (while development is proposed along the waterfront, views to parts of the water and headlands beyond should be retained)

18. Identified and mapped significant views within the area should be retained in future development or public realm developments.

The following significant views and vistas referred to in the recommendations that are of particular relevance to this assessment comprise (refer Figure 16):

- A. The view from High Street west over Darling Harbour to Balmain, Pyrmont and White Bay in the distance.
- D. The extensive view from Observatory Hill Park that extends from the Sydney Harbour Bridge to Darling Harbour.
- 13. View from Munn Street overbridge looking south.
- 20. View from the Agar Steps and High Street west to the harbour and headlands beyond.



**Figure 16** Map of key views and vistas identified within the Millers Point & Walsh Bay Heritage Review. (Source: Millers Point & Walsh Bay Heritage Review, 2007)

#### 3.2.3 Harbour Village North Public Domain Study (2011)

The City of Sydney prepared the Harbour Village North Public Domain Study in 2011. The Study focused on connections between Barangaroo and the adjacent city areas, aiming to maximise the accessibility of the new precinct for pedestrians and cyclists.

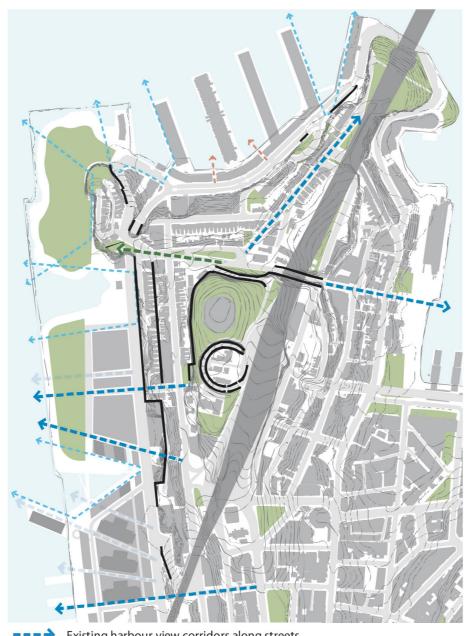
One of the six 'guiding directions' of the Study is to "Celebrate landform and harbour views". This provides the following guidance:

- The experience of landform and harbour views is one of the defining characteristics of the area. Public domain works should respect and reinforce existing harbour view corridors along streets and between buildings.
- Highlight the experience of topography with pedestrian bridges and well designed stairs and lifts where appropriate. Existing sandstone walls along The Hungry Mile, stairs and bridges, are unique to this precinct and should be celebrated.
- Significant and historic panoramic views from Observatory Hill to Sydney Harbour are important and must be protected.
- The retention of wide harbour views from existing streets and public domain areas with the development of Barangaroo should be maximised, and framed with carefully considered landscape and built form elements.

Refer to Figure 17 for important views identified within the study.

#### The report also:

- · Identified the view from Kent Street looking through Gas Lane to the harbour, as a 'key street' and priority upgrade area.
- Identified Observatory Park Hill as a priority project, including an aim to "consolidate open space to extend the 'Green Mantle'" of the Park.



- Existing harbour view corridors along streets
- Future harbour view corridors along streets
- Existing view corridors green views Wide harbour views from the public domain

Framed views between buildings

Cliffs and walls

1m contours

Figure 17 Map of important views identified in Guiding Direction 4 - 'Celebrate landform and harbour views'. (Source: Harbour Village North Public Domain Study 2011)

#### 3.2.4 The Darling Harbour Wharves Site Study (2006)

The Darling Harbour Wharves Site Study (Hill Thalis and Urban Projects, 2006) looked at significant views across the entirety of the Barangaroo site, especially views to the harbour from Millers Point and Observatory Hill. The study also considered the visibility of the site from public places from the west. These included the following views relevant to the Central Barangaroo site:

- · High Street South, looking north;
- · High Street, looking west;
- · Agar Steps, looking west; and
- a panorama from Millers Point looking south west to north east.

Although Central Barangaroo sits outside the view shed shown from the north of Millers Point it is considered relevant as Barangaroo Reserve provides new public open space adjacent to that area.

#### 3.2.5 Master Plan Framework (2015)

Work on master planning to define an ultimate vision for Central Barangaroo commenced in January 2013 with the appointment of a team of international and local professionals, Skidmore, Owings & Merril + Anderson Hunter Horne (SOM + AHH). Through this process, INSW consulted with the public and other key stakeholders to inform the master planning of Central Barangaroo.

A Master Plan Framework (2015) was prepared. The framework sought to provide a clear and comprehensive vision for Central Barangaroo, intended to guide ongoing planning and provide design direction for the public domain and development initiatives on the site. The document addressed street hierarchy and proposed links, connections and access conditions within and beyond the site, and indicated how the public domain was proposed to be used.

The Master Plan Framework (2015) included the following key components:

- The Sydney (now Barangaroo) Steps as a city gateway to Barangaroo;
- · Three clear development blocks along Hickson Road;
- · A continuous 30 metre public foreshore walk;
- New civic park/plaza integrated with the waterfront and the Sydney Steps;
- A network of east-west streets to facilitate pedestrian connections and access to the development between Hickson Road and the foreshore open space;
- · Conservation of views from Observatory Hill to the horizon; and
- A positive interface between Barangaroo South and Central Barangaroo.

Key elements of the design relevant to this assessment comprised:

- Sydney (now Barangaroo) Steps created a new access and improved visual connection from Millers Point to the harbour; and
- Views the development was not to exceed approved height limits and building footprints within the site, conserving views from Observatory Hill, and making provision for views through east-west running streets and laneways to the harbour.

### 3.2.6 Crown Sydney Property v Barangaroo Delivery INSW; Lendlease (Millers Point) v Barangaroo Delivery INSW [2018] NSWSC 1931

An agreement on view sharing has been reached between the developers (Crown Sydney Property and Lendlease) and the former Barangaroo Development Authority (now INSW) resulting from Crown Sydney Property v Barangaroo Delivery INSW; Lendlease (Millers Point) v Barangaroo Delivery INSW [2018] NSWSC 1931. The views to the Sydney Opera House and the Sydney Harbour Bridge from the Block Y buildings must be maintained.

#### 3.2.7 SEPP (Biodiversity and Conservation) 2021

State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP B&C) contained the provisions transferred from a range of former SEPPs. In relation to water catchment matters, the former SEPPs transferred into SEPP B&C included the following:

- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011
- Sydney Regional Environmental Plan No 20 Hawkesbury-Nepean River (No 2 – 1997)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005, and
- Greater Metropolitan Regional Environmental Plan No 2—Georges River Catchment.

Until recently, SEPP B&C contained the transferred and renumbered provisions of these SEPPs, meaning it provided almost identical provisions as they previously existed under the former SEPPs.

On 21 November 2022, an amendment to the water catchment provision was introduced via State Environmental Planning Policy (Water Catchments) 2022, which omitted Chapters 6-12 of the SEPP B&C. Chapter 10 previously established provisions for the Sydney Harbour Catchment Area.

The SEPP Water Catchments inserted a new consolidated Chapter 6 establishing all water catchment matters and applying to land in the following catchments:

- · the Sydney Drinking Water Catchment
- the Sydney Harbour Catchment
- · the Georges River Catchment, and
- · the Hawkesbury-Nepean Catchment.

Notwithstanding the omission of Chapter 10 from SEPP B&C in its current form, Section 6.65 of SEPP B& contains a savings and transitional provision. The savings and transitional provision means the new Chapter 6 does not apply to development applications lodged but not finally determined before 21 November 2022. Therefore, the historical provisions of Chapters 6-12 of SEPP B&C as they existed prior to 21 November 2022 continue to apply.

Accordingly, this VVIA has considered the relevant provisions of Chapter 10 in relation to the MOD 9 - RtS proposal. Only one clause relates to visual matters and a response is provided in Section 7.2.4. These clause would be considered by the consenting authority when considering the application.

Also covered Section 7.2.4 are Clauses 25 and 26 of the repealed Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005. This plan

aimed to ensure the Sydney Harbour catchment, foreshores, waterways and islands are recognised, protected, enhanced and maintained as a natural asset and as a public asset of national and heritage significance. Within the plan, Clauses 25 and 26 relate to the scenic quality and protection of views of the foreshore and waterways, and although these Clauses would not be considered by the consenting authority, they are considered as discussion points.

#### 3.2.8 Summary of Sky View Assessment

The Sky View Assessment for Barangaroo Concept Plan (06\_0162) Modification 9 prepared by AECOM (dated 15 July 2021) was prepared in anticipation of addressing the additional development height of the MOD 9 - exhibited design to satisfy the concerns raised by Sydney Observatory and the Modification 6 (MOD 6) Director General's Requirements. In the original submission, the Sydney Observatory requested clear view corridors within the night sky to continue their viewing of specific celestial objects of interest.

Subsequent to exhibition of MOD 9 - exhibited, an updated Sky View Assessment has been prepared to assess the new MOD 9 - RtS design to address comments from the Powerhouse and City of Sydney. In recent submissions the Powerhouse and City of Sydney requested consideration of other astronomical events in the night sky down to the horizon. The

amended MOD 9 - RtS design envelope now sits below the horizon and would not physically preclude viewing of any part of the night sky.

Lighting impacts are also discussed in the report. A formal light spill analysis of cumulative light spill impacts has not been carried out. The impact of light spill would be the change between the Approved Concept Plan and MOD 9 - RtS development envelopes. Due the similar geographic footprint, the relatively low building envelope heights and the highly illuminated environment, there is expected to be limited additional light spill. Light spill mitigation measures are expected to be incorporated in line with current standards.

#### 3.2.9 Submissions

Submissions resulting from the exhibition of the Central Barangaroo modification application (MP06\_0162 MOD 9) (MOD 9 - exhibited) from 12 July 2022 to 8 August 2022 were received from various individuals and agencies, including the City of Sydney and Heritage NSW.

The key issues raised in all submissions in relation to views are summarised as follows:

- The height and massing of the MOD 9 exhibited proposal, especially in relation to the Block 7 tower;
- The visual impacts to heritage items and heritage conservation areas;
   and
- Appropriateness of the methodology of Visual Impact Assessment and the Sky View Assessment.

A more detailed list of submissions is provided in Appendix B.

#### Height and massing of the MOD 9 proposal

In response to feedback from the previous MOD 9 - exhibited design, the MOD 9 - RtS design has been amended to simplify the form, reduce height and provide increased separation between the blocks. Changes include removal of the Block 7 tower and removal of the cantilevers. These changes have reduced the overall impact of the proposed

modification on views, including to and from heritage items and conservation areas, as raised by the submissions.

The MOD 9 - RtS design proposes the following maximum envelope heights for the Central Barangaroo blocks:

- Block 5—RL42.45 (previous RL44.5)
- Block 6—RL35 (previous RL38.7)
- Block 7—RL35 (previous RL73.7)

The revised block heights are now closer to the Approved Concept Plan.

#### The visual impacts to heritage items and to and from heritage conservation areas

The removal of the Block 7 tower from the MOD 9 - RtS design would reduce the impact on views to and from Millers Point and Dawes Point. Importantly, the continuity of the view to the horizon from Observatory Hill would now be maintained.

The MOD 9 – RtS design provides more evenly spaced and larger separations (minimum 12m, maximum 20m) between the blocks than the Approved Concept Plan, which would assist in maintaining visual connection to the water from locations within Millers Point. Although these would only provide glimpse views, the visual connection with the harbour would help to provide orientation and maintain the historic connection between Millers Point and the harbour.

The separations also afford viewing windows to and from High Street and assist in a visual 'reading' of the topography of the Heritage Conservation Area to the east of Central Barangaroo when directly across the harbour. From other locations to the west across the harbour, the MOD 9 – RtS design would be visually similar to the Approved Concept Plan, screening views to a section of Millers Point Conservation Area. In both the Approved Concept Plan and the MOD 9 – RtS designs the horizon remains visually intact, including providing unimpeded views to the Sydney Observatory, the Observatory Hill Park fig trees, and the Sydney Harbour Bridge from the western edge of the harbour.

The amended MOD 9 — RtS design is also more consistent with the topography and skyline of Millers Point in comparison to the previous MOD 9 – exhibited design. The proposed increase in height from the Approved Concept Plan is more appropriately nestled with other significantly taller elements in the south, with much of the height increase seen in Block 5 adjacent to Barangaroo South. Blocks 6 and 7

align more sensitively to the topography of Millers Point. They are proposed at a constant height of RL35, which does not reflect the underlying fall of topography running north along High Street, however, is lower than Observatory Hill.

The proposed bridge between the development and Millers Point has been relocated to its historic location at the low point on High Street. This element is not included in this application and will therefore not be assessed in this report. It is acknowledged that the MOD 9 - RtS proposal would sit against a backdrop of landform and built form and therefore would likely be more visually recessive with considered material choices, than the previous position in the MOD 9 - exhibited design pedestrian bridge location proposal.

#### Appropriateness of the methodology

Submissions took issue with the use of a development envelope over the master plan design as the Approved Concept Plan base line for analysis and the field of view in the visualisations.

The previous VVIA assessed the change between the worst-case scenarios for MOD 8 and MOD 9, showing the maximum allowable building envelopes. When approved in 2007, the Barangaroo concept plan was subject to development controls in Section 13 of the Environmental Assessment. These controls modulated the permissible built form and heights within the building block envelopes of Barangaroo. Subsequent base line analysis within this report uses the envisioned master plan arrangement.

Best practice methodology for a visual impact assessment is to assess the impact on the view as seen by the human eye. The industry standard is to provide 124 degrees of view to represent the a person's practical field of view. For consistency, the same viewing angle is used for every location to be able to appropriately and qualitatively compare affects on views from various locations.

Although it is noted that views in the literature are panoramic, the VVIA must follow a consistent methodology. Discussion has been provided to consider the impacts on panoramic views, however, these discussions tend to dilute the impact of the change with the change appearing smaller in a larger context. Focused views provide a worst case scenario. At no location would the proposal require more than 124 degrees to view the full change.

The Sky View Assessment issues have been resolved by the removal of the Block 7 tower.

#### 3.2.10 Summary of Key Views

Drawing from the above documents, key views relevant to Central Barangaroo are summarised below (refer Figure 18 and Table 3):

- Views from Millers Point Conservation Area;
- · Views from the west looking towards Central Barangaroo; and
- Views from Barangaroo South looking north, north-east towards the Sydney Harbour Bridge and the Sydney Opera House.

These key views have been prioritised in this assessment, particularly with regard to the issues of view sharing and conserving views west to the harbour and the horizon line.

With regard to views from the north from Blues Point and Balls Head, these locations are considered to constitute key viewing locations with regard to Central Barangaroo for the following reasons:

- The view from Blues Point (Figure 18, view 12) is approximately 1.1 km from Central Barangaroo, with the Central Barangaroo site not currently visible behind Barangaroo Reserve. However, much of MOD 9
   RtS will protrude above this level; and
- The view from Balls Head (Figure 18, view 11) is approximately 1.5 km from Central Barangaroo, resulting in views of the site being distant. However, much of MOD 9 RtS will be visible from this location.

With regard to the identified key views from the west:

- The view from the Illoura Reserve (Figure 18, view 10) is approximatley 500m from Central Barangaroo. This view is representative of both views from the Balmain East area, as well as views from the water generally; and
- The view from the Pirrama Park (Pyrmont Point) (Figure 18, view 09) is representative of views from nearby recreational facilities at Jones Bay Wharf and Ballaarat Park (Darling Island). At a viewing distance of approximately 750m, this location also provides a significant level of detail for the site, and is representative of views from the water.

With regard to the identified key view north along Hickson Road (Figure 18, view 13),:

- The view is located beside Grafton Bond Store, a state heritage item with connections to the former maritime industry of the area. This view assesses the distant sightlines between Grafton Bond Store and the Munn St Bond Store / Millers Point; and
- Also, this view is identified as part of an important view from this location in a local heritage study (Davies 2006).



Figure 18 Key views to and from Millers Point Conservation Area. (Source: AECOM modified Google Map)

Table 3 Key Views to and from Millers Point Conservation Area

No.	Location	Referen	Reference			
		East Darling Harbour Concept Plan Heritage Impact Assessment	Millers Point and Walsh Bay Heritage Review	Harbour Village North Public Domain Strategy		
View	rs from Millers Point Conservation Area					
01	Panorama from Observatory Hill to the west	Х	Χ			
02	View from Agar Steps and High Street to the west	Х	Х	Х		
03	Panorama from the western edge of High Street west over Darling Harbour to Balmain, Pyrmont and White Bay in the distance		Х			
04	Panorama from the northern end of High Street			Х		
05	View west from the low point of High Street	Х				
06	View west from the northern end of High Street. Note: This view is contained within view 04	Х				
07	View south along Hickson Road from Munn Street	Х	Х			
08	View from Gas Lane to White Bay and Balmain East			Х		
View	rs to Millers Point Conservation Area					
09	View from Pirrama Park to Millers Point Conservation Area	Х				
10	View from Balmain East -Illoura Reserve to Millers Point Conservation Area	X				
11	View from Balls Head Reserve to Millers Point Conservation Area		Х			
12	View from Blues Point to Millers Point Conservation Area		Х			
13	View from Grafton Street Bond Store to the Dalgety Bond Store		Х			
View	rs from Crown Hotel and Resort					
14	View from Barangaroo South to Sydney Harbour Bridge and the Sydney Opera House					