Department of Planning and Environment

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Bays West Stage 1–White Bay Power Station (and Metro)

Draft Design Guide

August 2022

Acknowledgement of Country

The Department of Planning and Environment acknowledges the Traditional owners and Custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

Aboriginal people take a holistic view of land, water and culture and see them as one, not in isolation from each other. The Bays West Master Plan Summary is based on the premise upheld by Aboriginal people that if we care for Country, it will care for us.

A number of quotes within this Design Guide are sourced from the First Nations Engagement Report. Cox Inall Ridgeway acknowledges the contributions of participants, without their input and considerations they could not have brought the report to life. These included community members in Sydney aged 18-30 that live/work in inner city, as well as First Peoples Disability Network, Sydney Royal Botanical Gardens, and Jumbunna Institute.

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Contents

1 Introduction

1.1 Name of Guide

This document is the Design Guide for Bays West Stage 1 - White Bay Power Station (and Metro).

1.2 Citation

This document may be referred to as the Guide.

1.3 Commencement

The Guide commences on the day on which the relevant Schedule of the *State Environmental Planning Policy (Precincts - Eastern Harbour City)* 2021 (SEPP) is made.

1.4 Land to which this Guide applies

The Guide applies to Bays West Stage 1, being the land identified on Figure 1 - Land Application

This Guide is a matter for consideration under Clause 35 (Additional requirements for development applications in certain areas of Sydney) of the Environmental Planning and Assessment Regulation (2021).

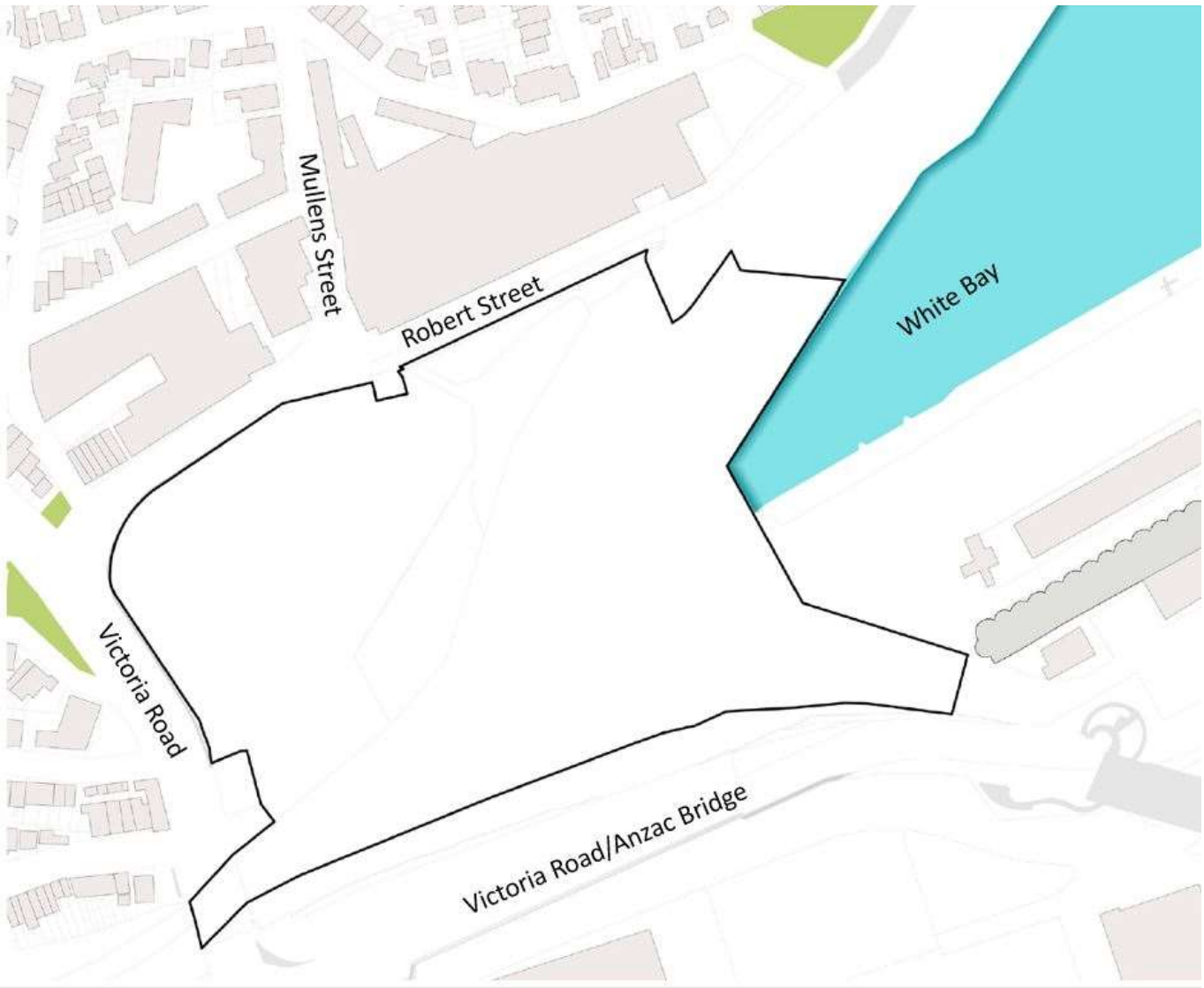

Figure 1 - Land Application Map – Bays West Stage 1

1.5 How to Use this Guide

This Guide provides design and other guidance for development within the site. It comprises a hierarchy of objectives and guidance to guide future development. Each topic area is structured to provide the user with:

- **Objectives** that describe the desired outcome(s).
- **Provisions** that provide requirements of how the objectives can be achieved through appropriate design and development responses.

Development needs to demonstrate how it meets the objective and guidance. The guidance sets clear measurable benchmarks for how the objectives can be practically achieved. If it is not possible to satisfy the guidance, applications must demonstrate what other responses are used to achieve the objectives.

Definitions

Site – refers to the land subject to this Guide

FPL – Flood Planning Level

1.6 Relationship to Other Documents (and Instruments)

The Guide sets out specific guidance to inform future development within the site. Proposed development within the site will need to have regard to this Guide as well as the relevant provisions in the *Inner West Local Environmental Plan 2022* (IWLEP 2022), site specific provisions of the *State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021* and any other relevant Environmental Planning Instruments.

The *Inner West Development Control Plan* (IWDCP2022) is applicable to development not identified as State Significant Development. In the event of an inconsistency between this Guide and the DCP, this Guide prevails to the extent of the inconsistency.

1.7 Purpose

The purpose of this Design Guide is to supplement the provisions of the SEPP by providing more detailed provisions to guide development on land shown in Figure 1 - Land Application.

Development applications (DAs) for new development will be assessed on their individual merit having regard to the SEPP, this Design Guide, the affordable housing provision within Inner West LEP 2022, other matters listed in Section 4.15 of the Act, and any other adopted relevant policies that relate to development within the site.

1.8 Process and Approach – Connecting with Country

A fundamental principle for the renewal of Bays West has been to embed Country and its connections in all aspects of the strategy, design and implementation. Key knowledge keepers including Bangawarra (through the Place Strategy) and Zakpage (for Master Plan and rezoning) have been at the centre of the project design. Engagement has been held with a variety of First Nations stakeholders at both Place Strategy and Master Plan and rezoning phases.

This Design Guide has been structured to ensure that connecting with Country is a principle ingrained in every aspect of the project from public domain, built form, activation, environment and social infrastructure. The Design Guide ensure that the integration of planning controls with key philosophy and principles of Country is undertaken in Bays West.

Detailed design outcomes will integrate Aboriginal culture, Country, and heritage in modern and inclusive approaches. For culturally appropriate design outcomes to be realised in all built environment projects, it is critical that Country is explored beyond typical landscape outcomes.

This approach must also progress past the design phase and into delivery and implementation for the full life cycle of precincts.

2 Desired Future Character

> "Listening and understanding Country creates a greater sense of connection between person and space. A better connection with space can profoundly influence how a person treats and interacts with that space, so by exploring and reflecting Country in all project outcomes, we can help enable people to better appreciate and respect Country in all expressions."
>
> **Cox Inall Ridgeway – First Nations Engagement Report (Bays West Stage 1 Master Plan).**

> Country is the wellspring from which all knowledge originates. It holds information, innovations, stories and secrets – from medicine, engineering, ecology and astronomy to social mores on how to live, and social organisation, including moiety division and kinship systems….Songlines are foundational to our culture – to what we know, how we know it and when we know it. Songlines are our library, our archive from which all subjects are derived, including the knowledge of the design, orientation and siting of our built structures, as well as the design of objects such as boomerangs and fish traps, with their ancestral dimension.
>
> **Margo Neale, Senior Indigenous Curator National Museum of Australia**

Objective

The primary objective of this Guide is to create development consistent with the following desired future character statement.

Future Character Statement

The Bays West Place Strategy sets out a vision for a connected, vibrant and activated precinct – a new kind of Sydney urbanism that respects and celebrates Country, drawing on natural, cultural, maritime and industrial stories to shape an innovative and sustainable new place for living, recreation and working.

The heritage-listed White Bay Power Station, is one of the most recognised landmarks in the Bays West Precinct and includes surrounding lands to the White Bay foreshore. By creating a new technology landmark for Sydney that draws on the Precinct's working heritage, the desired future character is to enshrine the area's history while adapting it for the knowledge-economy jobs of the future. The delivery of the Metro Station by 2030 will be the first step in the renewal of the precinct

and will unlock the future for White Bay Power Station and the land around the new Bays Metro Station (The Bays Station).

An understanding and appreciation of Country should be at the heart of planning and placemaking. It enables an understanding of the landscape and natural processes and allows us to plan to work with the land, not against it, which leads to better sustainable outcomes. It also provides a richer narrative and understanding of Place, which enables us to see our efforts as caretakers of the land for future generations. Country underpins all project themes and directions.

> "Rather than acting as a stand-alone driver, Connecting with Country underpins all of the themes and their associated directions."
>
> **Cox Inall Ridgeway – First Nations Engagement Report (Bays West Stage 1 Master Plan).**

The principal design driver of the precinct is embodied through the concept of a Water Songline, which represents an invitation to care for Country. The Precinct's history as a place where Nattai Gurad (freshwater) meets Gari Gurad (salt water) to form Biddi Gurad (brackish water) creates strong principles of the opportunity for connection and power, in Country, knowledge and people.

The new precinct will be part of a system formed by water that moves beyond the management of environmental systems but invites people to be a part of it and to explore a spiritual connection to the natural world.

This deep connection is explored through design that celebrates Sweetwater (inland sweet tasting water), Bitterwater or Sourwater (sacred brackish fishing water typified by the ebb and flow of the tide, always changing) and Saltwater (the lagoons, bays, river mouths and out into the ocean).

Bays West can express these stories of water through the parklands and heritage buildings and be mapped across the site like a songline. For Aboriginal people songlines were a system of recording vast amounts of cultural and ecological data without the written word.

The information was encoded in stories that were embedded in the land (geographic features and objects) so that as people moved through Country overtime, the mnemonic was reinforced and layered.

> The connection to Country strategy proposes to augment the former use of the site as a power station into a place of learning as a way of elevating knowledge as the power of the future.

This Water Songline is embedded in all aspects of the Precinct, including the Design Guide.

The future development will:

1. Unlock the potential of the White Bay Power Station and recognise its history in an authentic way.
2. Deliver a mix of land uses to support a vibrant, mixed-use centre with a night time economy that is consistent with the Eastern Harbour City District Plan's Innovation Corridor and delivers a sufficient concentration of non-residential uses to achieve a successful town centre.
3. Reveal, express and celebrate the natural and cultural narratives and knowledge from custodians to reveal the richness of layers and stories of this place.

4. Enable a low-car, high public and active transport precinct to be designed using the Movement and Place Framework.
5. Mandate very high levels of environmental performance including PV arrays that supply substantial energy, smart use of water and passive design features like external sun access and shading and natural cross ventilation suitable for Sydney's climate.
6. Ensure a rich landscape setting with substantial tree canopy cover and landscaping that screens walls that protect the interiors of buildings from flooding.
7. Consolidate the open space as a large public waterfront park, centred on the Power Station, and visible from all parts of the site and surrounds to provide amenity, diversity, equality and ecology for the community framed by diverse built form character.
8. Ensure building heights that maintain solar access to the waterfront park, Metro Plaza and Power Station forecourt throughout the year.
9. Create a permeable pattern of walking connections through the precinct that also provide on-site at grade servicing.
10. Deliver a rich variety of architectural approaches, diverse apartment types, building heights and form in a collection of well-constructed, low maintenance buildings.
11. Ensure a variety of scales and spaces, with access and services to cater for large celebrations and everyday gathering.

3 Staging and Implementation

Bays West Stage 1 will need to have staged construction and implementation to allow for construction and operation of the The Bays Station by 2030, with other parts of the sub-precinct being delivered over an extended period.

Any temporary activation or adaptive reuse of the White Bay Power Station will need to balance potential remediation issues and ongoing construction programming within the sub-precinct.

This section of the Guide provides a number of objectives to guide and support the staged construction and implementation of the precinct.

Objectives

a) Ensure the redevelopment of the White Bay Power Station and Metro sub-precinct is planned and delivered in an orderly manner.

b) Ensure the delivery of public infrastructure, including utilities, parks, streets, public art and other community facilities as the population increases.

c) Maximise parts of the sub-precinct that are activated from Day 1 of Metro operations, including (where practicable) non-residential development surrounding the station, parts of the White Bay Power Station and the future park location. This may require temporary uses and structures.

d) Ensure that the development of sites can occur independently to the greatest extent possible.

e) Ensure that as the precinct is staged and constructed, ongoing meaningful engagement continues to occur with appropriate First Nations peoples to ensure principles of Country continue beyond the design phase of the project.

f) Establish new street blocks that promote permeability.

g) Ensure that the active, public and private transport networks within the precinct are practical and flexible from Day 1 of Metro operations to ensure that people are easily able to traverse the precinct.

4 Connecting with Country Principles

> "It is only through learning about our culture and our ways of life can we bridge the gap between what non-Indigenous people think our culture is compared to what it actually is."
>
> **Cox Inall Ridgeway – First Nations Engagement Report (Bays West Stage 1 Master Plan).**

The key principle of revealing, expressing, and celebrating the natural and cultural narratives and knowledge from custodians to reveal the richness of layers and stories of place is central to the project.

Objectives

a) Ensure development acknowledges and embeds Country, and how the design first and foremost heals Country.

b) Ensure locally connected Aboriginal community voices are embedded into development of the Precinct.

c) Provide opportunities for collaboration and co-designing with Aboriginal and Torres Strait Islander peoples for development within the Precinct.

d) Celebrate Aboriginal culture and language through opportunities to name locations and streets in local traditional language or implement dual naming in collaboration with the locally connected community and a community endorsed language expert.

e) Deliver the Bays West Stage 1 Master Plan, connection to Country strategy to celebrate and enshrine the design principle of a Water Songline that mixes Sweetwater, Bitterwater, and Saltwater and the precinct as a place of knowledge, learning and power.

Provisions

1. Development is to demonstrate how it has integrated the key design themes of the *Bays West draft Connecting with Country Framework* (Bangawarra, 2021) and the *draft Stage 1 Bays West Master Plan Connecting with Country Framework* (Alison Page, 2022).
2. Development is to integrate design of buildings and public spaces to reflect Indigenous design principles and opportunities to connect with Country. Examples of this include supporting access to Sky Country through incorporating open roof tops and facilitating sensory access (be it visual, aural, or otherwise) to Country from inside built structures.
3. Design of tall buildings is to complement Country and embody the essence of the culture and stories underneath. Building should be an 'extension' of Country, demonstrating the significance of the land beneath and its story to the Gadi and Wangal people.

4. Development within the White Bay Power Station, White Bay Park, and other key development elements are to demonstrate how they deliver an outdoor and indoor learning space through 'Water Country' and the themes of knowledge, energy and power.
5. Development is to revive and enliven pre-development landscapes and traditional uses of Country and language through:
   a. encourage locally indigenous vegetation that enhances environmental quality and optimises opportunities for habitat for native flora and fauna species;
   b. acknowledging Indigenous knowledge systems and how they can contribute to informing future building design and landscaping outcomes as an expression of Connecting with Country;
   c. applying Cultural Design Principles and opportunities to connect with Country through the design of built form, landscaping, public art and public domain, drawing on knowledge of Country held by local Aboriginal Knowledge Holders;
   d. acknowledging and celebrating Aboriginal and Torres Strait Islander living cultures and site-specific stories of place through art, performance, and other creative expression involving the engagement of suitably qualified Indigenous practitioners;
   e. considering Aboriginal inclusion, comfort and access in the design and operation of publicly accessible space, including building forecourts, through-site links, retail spaces and hospitality venues; and
   f. identifying opportunities to name streets, public places, and community facilities and provide wayfinding signage in local traditional language or implement dual naming. Where Aboriginal naming is adopted, consider providing physical material that outlines the pronunciation and history behind the Aboriginal name, where appropriate and agreed to by relevant Aboriginal stakeholders.

   Note: for Aboriginal naming and dual naming, the proponent is to consult with the NSW Geographical Names Board, local language subject matter experts and with NSW Aboriginal Languages Trust.
6. Development is to contribute to strengthening the sense of Aboriginal and Torres Strait Islander community in the Precinct, and where possible create spaces for the Aboriginal and Torres Strait Islander community to meet and connect.
7. Targeted engagement with the Aboriginal and Torres Strait Islander community is required to be undertaken prior to any Development Application to seek views:
   a. on whether the proposed development impacts on existing or recent spaces or activities on the site, or on surrounding properties, that are important for Aboriginal and Torres Strait Islander communities;
   b. on whether the proposed development impacts on the wider context of the Precinct being a place; and
   c. on how the development may best maximise the presence, visibility and celebration of Aboriginal and Torres Strait Islander peoples, organisations, businesses and living cultures.
8. Engagement activities are to be designed and led by Aboriginal-owned consultation advisories to ensure culturally secure practices.
9. Development applications for new buildings, alterations to or adaptive re-use of elements of the White Bay Power Station, or that propose or include parts of the public domain are to

include an Aboriginal and Torres Strait Islander consultation report, that builds on the consultation work/reports undertaken and details:

a. pre-lodgement consultation activities;
b. the outcomes of consultation;
c. how these have informed planning and design of the proposed development; and
d. what mitigation measures are proposed to reduce any impacts to the areas of Aboriginal cultural value.

5 Resilience and Social infrastructure

The Organisation for Economic Co-operation and Development (OECD) defines resilient cities as those *"that have the ability to absorb, recover and prepare for future shocks (economic, environmental, social and institutional). Resilient cities promote sustainable development, well-being and inclusive growth."* The concept of resilience reflects the importance and significance of taking an ancient Indigenous concept and applying it to life in modern Sydney.

Resilience sits as an overarching term in this document, and also relates to Sections on Country, sustainability, landscape and biodiversity. This Section outlines how development is to demonstrate principles of resilience and Country when delivering social infrastructure.

5.1 5.1 Social Infrastructure

Objectives

a) Deliver future development that supports community health and wellbeing through mechanisms that support diversity, inclusion and social engagement through the provision of restorative public gathering spaces.

b) Embed the concepts of Country, knowledge, learning and power through the delivery of key social infrastructure within the precinct.

c) Ensure the design and management of social infrastructure make them welcoming and inclusive places for everyone.

d) Encourage greater social contact in future development through the provision of informal and social gathering places in appropriate locations, including suitable privately-developed land.

e) Locate social infrastructure in close proximity to public transport such as the future Metro and bus stops. It should also be well-connected to other key destinations via high-quality walking and cycling links.

f) Ensure social infrastructure has high visibility, convenient and easy to access from the street and key locations.

g) Improve physical activity by encouraging active mobility and recreational exercise through the provision of diverse and high-amenity public outdoor green spaces.

h) Maximise the use of existing physical infrastructure such as the White Bay Power Station to include social and cultural spaces and meet the evolving needs of the community.

i) Digitise access to social infrastructure within the sub-precinct to improve the user experience.

Provisions

1. Development within Bays West Stage 1 is to incorporate the following indoor social and recreational infrastructure:
   a. Multi-purpose community and library hub that incorporates the stories of Country attached to the site as a foundation for creative and inclusive storytelling and cultural expression; and
   b. Cultural and community spaces such as production spaces, theatre spaces and flexible event spaces.
2. Development is to deliver a minimum of 2 hectares of landscaped and hardscaped public open spaces across Bays West Stage 1. These will be a variety of spaces which will include one or more of the following:
   a. A district level foreshore park that connects to the waterway and associated foreshore;
   b. Hard and soft surfaces, including curtilage around the White Bay Power Station;
   c. Passive recreation spaces, communal gathering spaces, including spaces for lunch;
   d. Day and night spaces;
   e. Outdoor learning areas, including outdoor learning spaces that embody the cultural themes of 'Water Country';
   f. A district level play space; and
   g. Opportunities for active recreation including potentially outdoor sports court, fitness station and skate friendly area.
3. Power and water infrastructure in the public realm must be adequate to support fresh food markets and events.

5.2 Affordable and Diverse Housing

Delivery of affordable and diverse social and aboriginal housing is a key priority of the NSW Government, with Bays West identified as a priority project. Affordable Housing is mandated within the precinct through an appropriate Clause in the Inner West Council LEP 2022 and Affordable Housing Program.

Objectives

a) Ensure that delivery of housing considers affordability, diversity and social need.

b) Deliver housing within Bays West Stage 1 that is inclusive, diverse and provides residential dwellings for all people, including those on lower incomes, vulnerable groups, and First Nations peoples.

c) Ensure that all housing, including affordable housing, delivered in Bays West Stage 1 meets the applicable design excellence and amenity threshold criteria detailed within this Design Guide.

Provisions

1. All housing within Bays West Stage 1 must comply with relevant state and local planning policies (SEPP 65, Housing SEPP), applicable sections of the Design guide including Design Excellence (Section 13), Amenity (Section 14) and Access and inclusion (Section 5.3), and any other statutory requirements.
2. A Noise Management Plan is required for all noise-generating developments adjacent to residential uses to ensure compatibility of late night premises uses and residential uses. The plan must provide a framework for setting noise limits for each noise-generating use within the development to ensure that sensitive receivers maintain acoustic amenity.
3. A minimum of 15% of residential dwellings must be 3, 4 or 5 bedroom dwellings.

5.3 Access and Inclusion

> "There is no word for disability in any Aboriginal language. People with a disability were always included in the daily life of their mob, and while they might not have been able to hunt or fish, they were responsible for other tasks, like child minding or preparing food."
>
> **First Nations Engagement Report (Bays West Stage 1 Master Plan).**

This principle, along with the concept of dignified access, is to be embedded in all aspects of the design and development of Bays West.

Objectives

a) Design development, for both public and private uses, to ensure that people of all abilities can access a premises in a way that is dignified and equitable for all.

b) Support community wellbeing by delivering equitable access to services.

Provisions

1. Development must comply with inclusion and accessibility provisions within the Building Code of Australia, the Australian Standards and the Disability Discrimination Act.
2. Development should seek to exceed minimum inclusion and accessibility standards and to integrate inclusion at the core of the design process.
3. Development is also intended to be designed to support cultural inclusion. This can include, but is not limited to, the following measures:
   a. Telling stories in braille or describing design in braille;
   b. Showing key Country designs and artworks in braille;
   c. Use of QR codes to provide more details of artworks and other design features in both public and private spaces;

d. Design areas that will include performances to have areas where those using wheelchairs are provided opportunities to view performances on easily access viewing platforms; and
e. Use of colour as an accessibility design feature.

6 Innovation

In accordance with the *Greater Sydney Regional Plan* and the *Eastern City District Plan*, innovation will sit at the centre of the renewal of the Bays West Precinct. The Eastern City District is intended to be more innovative and globally competitive with a greater portion of knowledge-intensive jobs from the Asia Pacific.

Innovative practices and technologies are necessary for the success of Bays West, including the opportunity to deliver parts of the White Bay Power Station through novel and cutting-edge technologies and heritage treatment. The power station will also support innovation through the delivery of start-up, creative, and cultural land uses, in particular those innovations that apply traditional knowledges working with western science.

Given the importance of innovation both within the Power Station and Bays West Stage 1's place in the global innovation corridor, innovation objectives and provisions are outlined to enable ongoing innovation as new technologies and opportunities emerge.

Objectives

a) Enable innovative uses and technologies that align with the precinct's key principles of design excellence, sustainability and Country to be embedded in the development process.

b) Support innovation, cultural and creative industries (including night-time economy) alongside knowledge-intensive jobs growth.

c) Recognise that innovation opportunities available in the future have not yet been identified and to enable future development to take advantage of them.

Provisions

1. Development applications with a Capital Investment Value of $10 million or greater are to be accompanied by an 'Innovation Statement' that outlines the development's innovative approach to one or more of the following elements:
   a. land uses, including concentration of firms and specialist industries;
   b. delivery of projects that ensure learning, place and power, in accordance with the connecting with Country framework and controls.
2. The innovation statement should also outline innovative technologies incorporated in the design and construction of the development as they relate to two or more of the below Design Guide areas:
   a. Country
   b. Land uses, including those associated with the night-time economy, creative and cultural industries
   c. Sustainability

d. Landscape, canopy and biodiversity
e. Heritage
f. Public domain
g. Social infrastructure and resilience
h. Movement and transport
i. Air quality, wind, noise
j. Stormwater and flooding
k. Geotechnical and contamination
l. Services and infrastructure, and utilities.

3. The submitted innovation statement, and proposed technologies must be reviewed by the relevant Design Excellence Panel as part of assessing the development's overall consistency with this Section, Section 4 (Connecting with Country Design Principles), and Section 13 (Design Excellence).

7 Key Development Precincts

> "Country is all around us – the landscape, the sea, the sky. In a large open space, there is a deep opportunity to reflect on the encompassing nature of Country and appreciate all she has given us and continues to give us."
>
> **First Nations Engagement Report (Bays West Stage 1 Master Plan).**

> "Large buildings should complement Country and embody the essence of the culture and stories underneath and, in essence, be an extension of Country. But often, these big buildings just sit on Country with no regard for the significance of what's underneath. It would be good to see buildings in the precinct make sense to the story of Country at Bays West and the enduring significance of the place to Gadi and Wangal people."
>
> **First Nations Engagement Report (Bays West Stage 1 Master Plan).**

Each Key Development Precinct within Bays West Stage 1 should reveal the place stories of Bays West that have been used to support the Connecting with Country approach. The location of the key development precincts are provided in Figure 2 - Key Development Precincts.

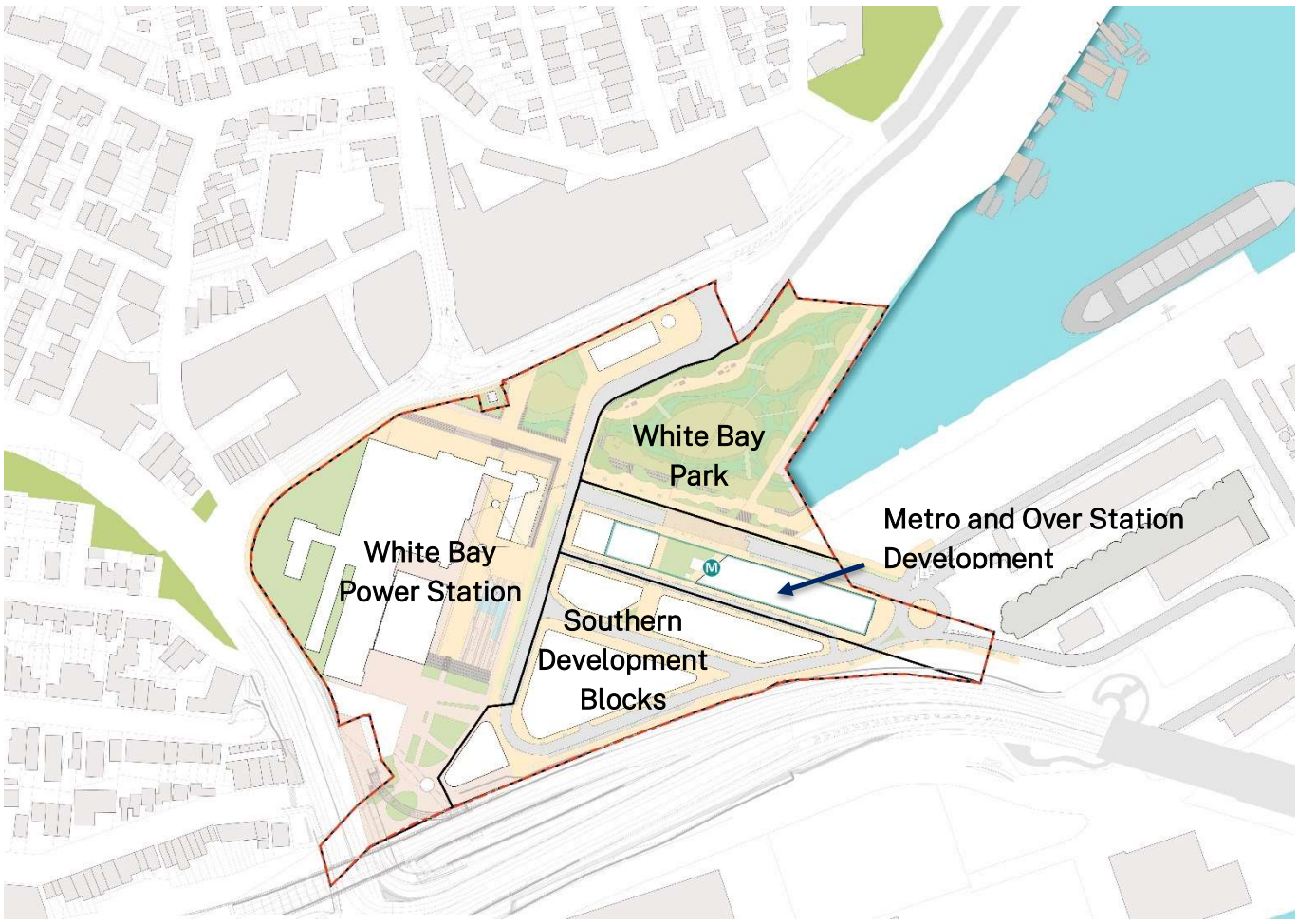

Figure 2 - Key Development Precincts

7.1 Metro and Over Station Development Precinct

Character

The Metro and Over Station Development Precinct is centrally located within White Bay Power Station (and Metro) sub-precinct.

The Metro and Over Station Development Precinct will be a vibrant, transit node that will serve as the primary transport hub within the broader Bays West Precinct. This will be comprised of the Sydney Metro West station, the associated services buildings to enable the operation and maintenance of the station as well as employment-generating commercial and retail premises above and adjoining the station.

The Development Precinct will incorporate the Bays Station plaza, a new civic space located at the junction of major pedestrian desire lines from the metro station and transport interchange to the White Bay Power Station and future White Bay Park. The Plaza will be defined to the east by the station entry and be comprised primarily of wide, paved landscapes to enable for the significant amount of people entering and exiting the metro station on a daily basis.

To the north, a flexible movement corridor has been allowed for that may cater for pedestrian, cyclists, buses, coaches, kiss'n'drop, taxis, car share and service vehicles if the Precinct movement networks requires it in the future.

To the south, a service lane has been allowed for that enables the servicing and maintenance access to the station services buildings at the eastern and western ends of the station box.

7.1.1 Built Form, Building Envelopes and Articulation

Objectives

a) Protect and enhance the rich, distinctive and valued character of the area, particularly those elements that contribute to a sense of place and identity including White Bay Power Station and surrounding heritage elements.

b) Provide building forms that reinforce the desired character of the area.

c) Ensure building orientation maximises visual amenity and natural surveillance, taking advantage of any views to open space and White Bay.

d) Ensure buildings are of a design to reduce perceived bulk and scale.

e) Ensure buildings create an open, attractive and distinct skyline.

f) Frame and define the streets and public open spaces with appropriately scaled built form.

g) Reduce the impacts on viewsheds to the White Bay Power Station particularly from the Anzac Bridge.

h) Ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

i) Deliver a varied built form across both horizontal and vertical planes.

j) Reinforce the intended Town Centre character and enhance the pedestrian experience.

k) Ensure that buildings address the new streets.

Provisions

1. Development shall be designed to incorporate clearly defined station entries and building elements, commercial and retail premises.
2. Floor-to-floor heights are to be a minimum of 4m for all uses.
3. Buildings are to minimize impacts on views to the White Bay Power Station from the Anzac Bridge. This is to include consideration of station ventilation and services.
4. Buildings shall not exceed 50m in length and 25m in width and shall have floor plates of no more than 1,000m^2 GFA per floor.
5. Rooftops are to be utilised for green roof spaces that include rooftop gardens and solar panels.
6. Station services buildings should be designed in a way that celebrates the working harbour and industrial legacy of the site.
7. Facade treatments are to create visual variety and interest while contributing to the continuity of the streetscape.

8. Walls should comprise a variety of colours to reduce monotony and add variety to the streetscape.
9. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.

7.1.2 Setbacks, Build to Line and Active Frontages

Objectives

a) Provide an appropriate pedestrian scale built form to the public domain of Metro Station Plaza, surrounding streets and the interface to White Bay Park.

b) Ensure high levels of amenity are provided through appropriate building separation, setbacks and depths.

c) Create an active node around the metro station.

d) Reinforce complementary uses and desired street character.

e) Promote an exceptional pedestrian experience with active frontages.

f) Ensure active uses are located in areas of high pedestrian activity and amenity.

g) Ensure ground floor uses activate the public domain and streets and provide passive surveillance.

h) Encourage ground floor activities (uses such as local retail, business and/or community) to spill out into the public domain to create a vibrant streetscape and promote a sense of community.

i) Use build to line guidelines to define and frame primary public spaces and active streets with built form that contributes to a sense of place and pedestrian-scaled experiences.

Provisions

1. Primary setbacks are required to define the streets with pedestrian scaled built form and ensure cohesion with the surrounding buildings in adjoining sub-precincts ,as per Figure 3 - Metro and Over Station Development – Primary Setback and Build to Line.
2. A minimum 90% built to line for the interfaces to the Metro Station Plaza, and the proposed public domain spaces to the north and south of the station.
3. Active frontages are to be provided as per Figure 4 - Metro and Over Station Development - Active Frontages on both the northern and southern interfaces to the surrounding public domain comprised of small-scale retail and entries to the commercial building lobbies.
4. Ground level articulation is to ensure universal access to all tenancies and properties from the public domain.
5. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street. Separate entrances are required for commercia, retail and station uses. Lighting should be provided for safety at night.

6. Where an active frontage is required, a majority of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors.
7. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.
8. A minimum 2.5m awning is to extend over the public domain where any active edge is prescribed by this Guide.
9. Footpath awnings shall be designed to complement and integrate with the facade and the streetscape.
10. Ventilation louvres, particularly for the metro services buildings, are to be integrated into facade designs, where located on street frontages.
11. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.

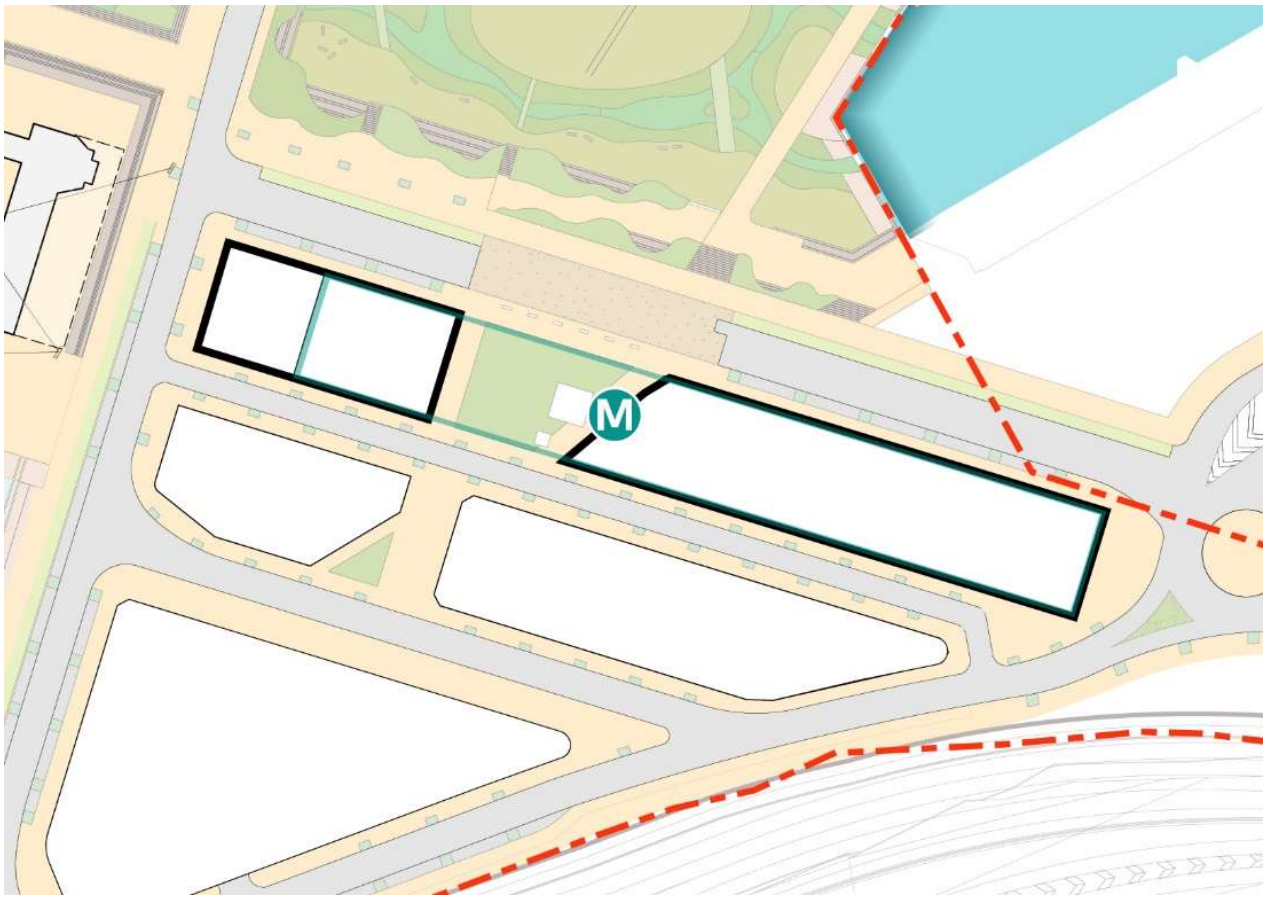

Figure 3 - Metro and Over Station Development – Primary Setback and Build to Line

0m primary setback

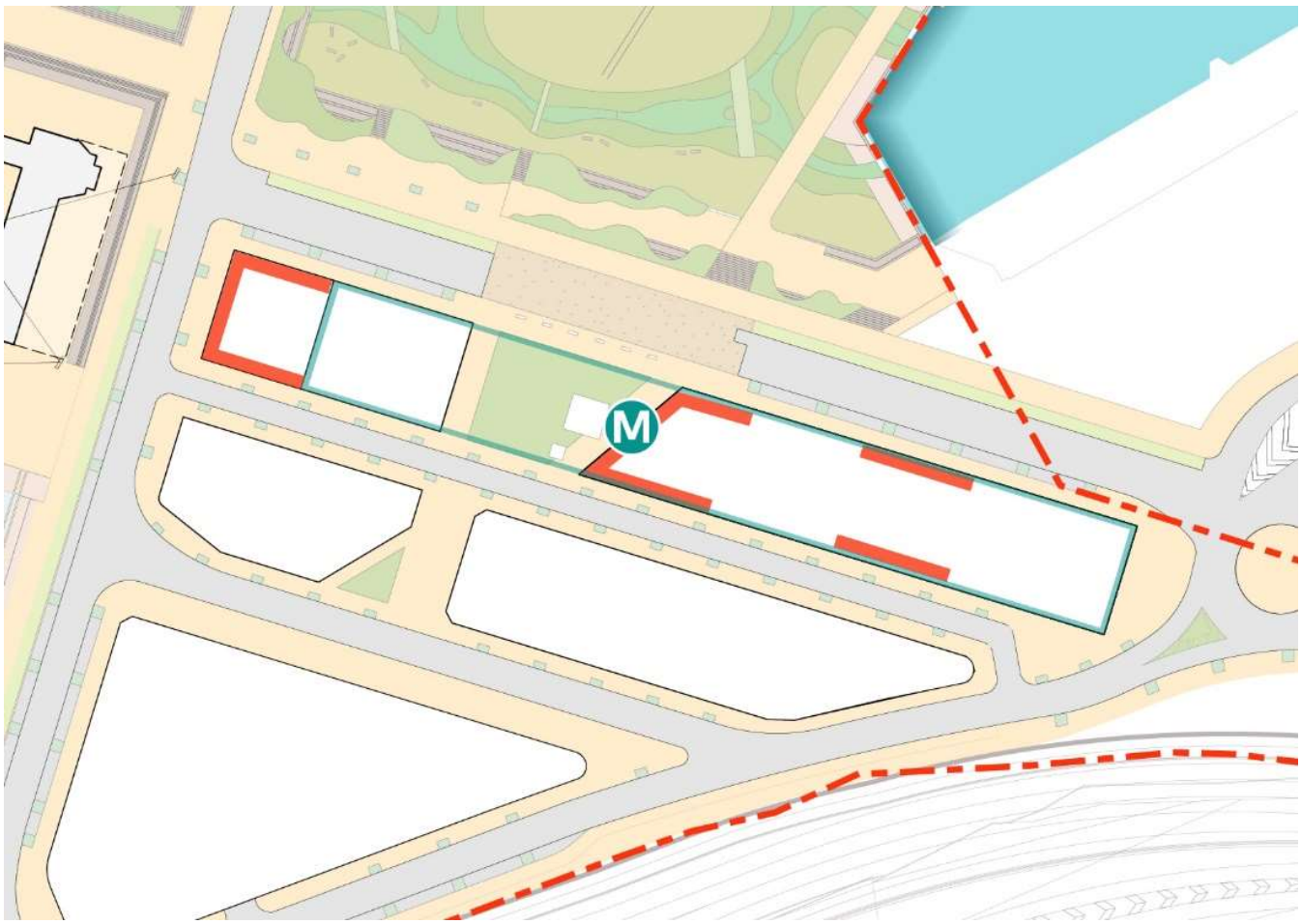

Figure 4 - Metro and Over Station Development - Active Frontages

Active frontage

7.1.3 Metro and Over Station Development Public Domain

Public Plaza and North Metro interface

The Bays Station is positioned at the heart of the Bays West Precinct linking people to open space, the White Bay Power Station and the surrounding White Bay Precinct. The station interface prioritises people and safety, offering a flexible plaza that can accommodate every day and event use.

A generous open plaza encourages users to transit through from all directions, promoting exceptional user experience that is enhanced by considered material choices that reflect the renewed heritage character of the surrounding precinct as well as integrated urban furniture that aids movement.

Objectives

a) Create a low speed, legible and accessible streetscape where safety and pedestrian movement is prioritised.

b) Ensure pedestrian flow is unencumbered when entering/exiting the metro station and surrounds.

c) Maintain clear site lines towards White Bay Power Station, White Bay Park and White Bay Wharf.

d) Achieve a strong urban canopy along both sides of the primary street as a buffer between the footpath and road carriageways, ensuring continuous natural shade cover.

e) Prioritise clear and direct access into the Metro precinct when travelling from all directions.

f) Encourage slow zones at the metro station entry/exit where cars, cycleways and pedestrian paths meet.

g) Aesthetically pleasing street frontage that compliments the surrounding built form and broader streetscape.

Provisions

1. Provide a passive green threshold between the metro station Buildings that offers flexible space for meeting, queuing and accommodating influx of people during peak times of travel.
2. Allow minimal provision for urban furniture in open space adjacent to the Metro entry/exit to reduce impact on pedestrian flows.
3. Trees to be planted in clusters and or spaced to ensure access to Sky Country.
4. Incorporate a raised pedestrian threshold at the interface of the metro station entry/exit and White Bay Park to slow vehicles/cyclists upon approach.
5. Inclusion of bollards, urban furniture and tree planting at the interface between the street and metro station entry/exit and plaza to signalise caution within this zone.
6. Landscaping within the street and open spaces should enable natural surveillance and clear lines of sight by minimising obstructive plantings between 0.5m - 2.0m above ground level.

7.

7.2 Southern Development Blocks Development Precinct

7.2.1 Character

The Southern Development Blocks Development Precinct is a includes a number of triangular area bounded by the White Bay Power Station to the west, The Bays Station to the north, Anzac Bridge to the east and Victoria Road to the south.

The Southern Development Blocks Development Precinct will be a vibrant, mixed use destination that will provide retailing, dining and recreation uses, as well services that support the local community. Above a ground floor of fine grain uses, a mixture of commercial space and residential will be delivered.

This Development Precinct will incorporate a small plaza located at the junction of major pedestrian desire lines from the metro station, bus interchange, and the destinations within the southern development blocks themselves. The Plaza will be lined to its east with fine grain retail and dining experiences, with this activity also wrapping around at the north onto the service lane and relating to the future uses of commercial over the station. To the south the Plaza interfaces with an east-west street which is envisaged to be a bus-only, or very limited vehicular access street.

The plaza is proposed to be configured so that there is a visible link from the street through to the metro station entry to aid in legible transfer between modes.

The northernmost lots within the Southern Development Blocks will be characterised by two 4-storey commercial buildings that provide for employment-generating uses in an area of high accessibility within the precinct that defines the public domain on four sides. The lower heights, relative to surrounding buildings, will maintain views to the White Bay Power Station from the Anzac Bridge. The rooftops of these buildings will be publicly accessible and opportunities for sky country.

The retail frontages will include fine grain tenancies addressing the street frontages. The resulting mix of tenants will provide the services and requirements of the Precinct's residents, workers and visitors, to support the fundamentals of this transit-oriented development.

This Development Precinct will have a direct interface with White Bay Power Station Plaza and the transport interchange and the Station Plaza. The activated frontages wrapping the Precinct will have awnings and carefully considered corner treatments and building entries to contribute to the streetscape character and pedestrian amenity.

The newly formed topography of the site, falls from south to north, affording the opportunity to provide a contiguous parking and servicing area that is predominantly located below the new ground plane.

7.2.2 Built Form, Building Envelopes and Articulation

Objectives

a) Protect and enhance the rich, distinctive and valued character of the area, particularly those elements that contribute to a sense of place and identity including White Bay Power Station and surrounding heritage elements.

b) Provide building forms that reinforce the desired character of the area.

c) Ensure building orientation maximises visual amenity and natural surveillance, taking advantage of any views to open space and White Bay.

d) Ensure buildings are of a design to reduce perceived bulk and scale.

e) Ensure buildings create an open, attractive and distinct skyline.

f) Frame and define the streets and public open spaces with appropriately scaled built form.

g) Reduce the impacts on viewsheds to the White Bay Power Station particularly from the Anzac Bridge.

h) Ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

i) Deliver a varied built form across both horizontal and vertical planes.

j) Reinforce the intended Town Centre character and enhance the pedestrian experience.

k) Ensure that buildings address the new streets.

Provisions

1. To present individual buildings to the street as a typology of multiple buildings (or facades) as a representation of multiple smaller allotments through vertical and horizontal articulation and the use of a variety of finishes and materials within single buildings.
2. To achieve this, the design of the buildings must present as;
   a. 2 different buildings within the northernmost development parcels
   b. 6 different buildings within the central development parcel
   c. 1 building within the southernmost development parcel.
3. Vertical articulation is aligned with changes in building heights within the building envelopes.
4. Floor to Floor Heights:
   a. Ground Floor active uses are to have a minimum floor to floor height of 4m.
   b. Commercial uses are to have a minimum floor to floor height of 4m.
5. Facades either extend to ground plane or sit on a podium of varied language and varied heights and towers are built to boundary with no setback at podium level where wind, noise and air requirements can be satisfied

6. Consistency of varied brick as anchor material; with a high proportion of solid to void in fenestration where possible.
7. Towers above the street wall shall be orientated to maximise solar access to public and private spaces and habitable rooms, district views to the east, north, east and west and to minimise wind down draft.
8. Tower massing and scale is to consider possible future development on adjoining sites, including the Boiler House buildings.
9. Rooftops are to be utilized for green roof spaces that include rooftop gardens and solar panels.
10. Facade treatments are to create visual variety and interest while contributing to the continuity of the streetscape.
11. Walls should comprise a variety of colours to reduce monotony and add variety to the streetscape.
12. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.

7.2.3 Setbacks, Build to Line and Active Frontages

Objectives

a) Provide an appropriate pedestrian scale built form to the public domain of White Bay Power Station and its surrounds.

b) Ensure high levels of amenity are provided through appropriate building separation, setbacks and depths.

c) Create a viable mixed-use development precinct that leverages the accessibility and amenity that the metro station, the White Bay Park and the revitalized White Bay Power Station affords.

d) Reinforce complementary uses and desired street character.

e) Promote an exceptional pedestrian experience with active frontages.

f) Ensure active uses are located in areas of high pedestrian activity and amenity.

g) Ensure ground floor uses activate the public domain and streets and provide passive surveillance.

h) Encourage ground floor activities (uses such as local retail, business and/or community) to spill out into the public domain to create a vibrant streetscape and promote a sense of community, particularly in the southernmost development block with an interface to the Southern Entry Park.

i) Utilise build to line guidelines to define and frame primary public spaces and active streets with built form that contributes to a sense of place and pedestrian-scaled experiences.

Provisions

1. Primary setbacks are required to define the streets with pedestrian scaled built form and ensure cohesion with the surrounding buildings in adjoining precincts, as per Figure 5 - Southern Development Block - Primary Setback and Build To Line.
2. A minimum 90% built to line for the interfaces to the Southern Entry Park, and the proposed street network.
3. Active frontages are to be provided as per Figure 6 - Southern Development Block - Active Frontages on the interfaces to the surrounding public domain comprised of small-scale retail and entries to the residential and commercial building lobbies.
4. Ground level articulation is to ensure universal access to all tenancies and properties from the public domain and the sleeving of the contiguous parking and service area to the bus-street.
5. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street. Separate entrances are required for commercial, retail and residential uses. Lighting should be provided for safety at night.
6. Where an active frontage is required, a majority of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors, inline with the design provision of high proportion of solid to void in fenestration where possible.
7. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.
8. A minimum 2.5m awning is to extend over the public domain where any active edge is prescribed by this Guide.
9. Footpath awnings shall be designed to complement and integrate with the facade and the streetscape.
10. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.

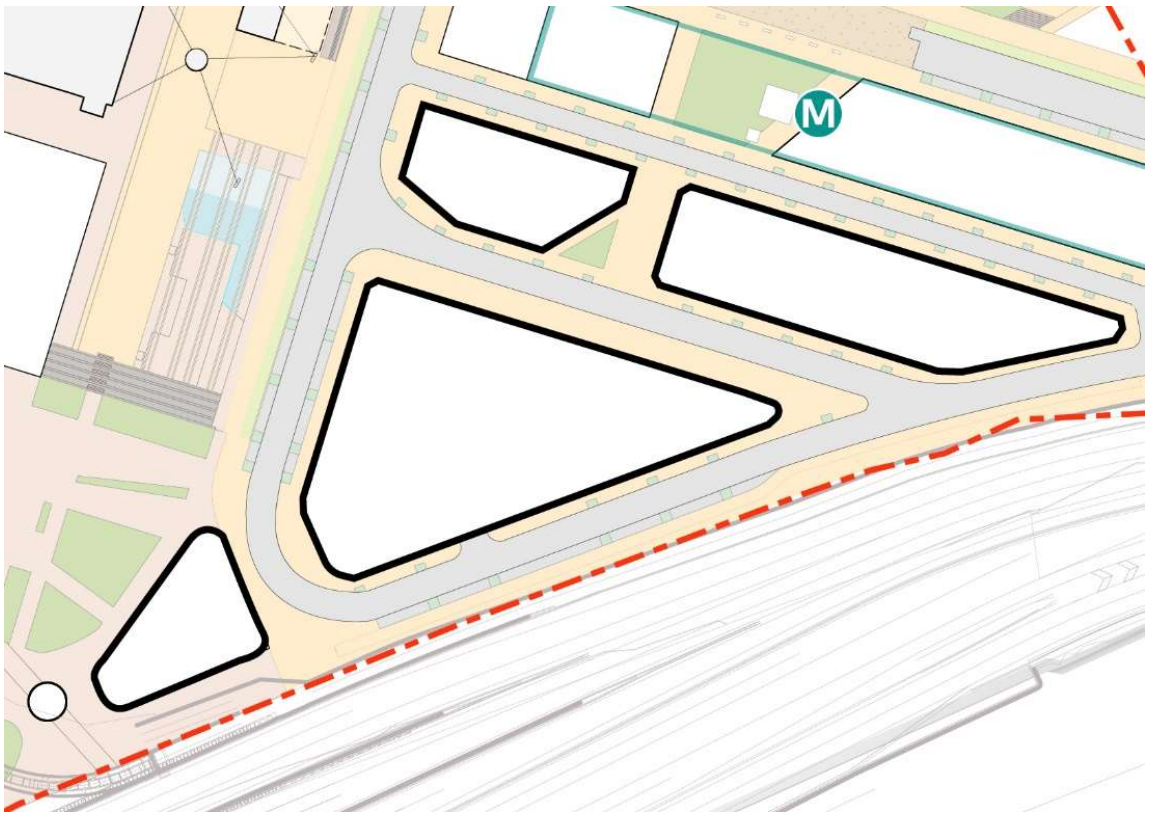

Figure 5 - Southern Development Block - Primary Setback and Build To Line

0m primary setback and build to line

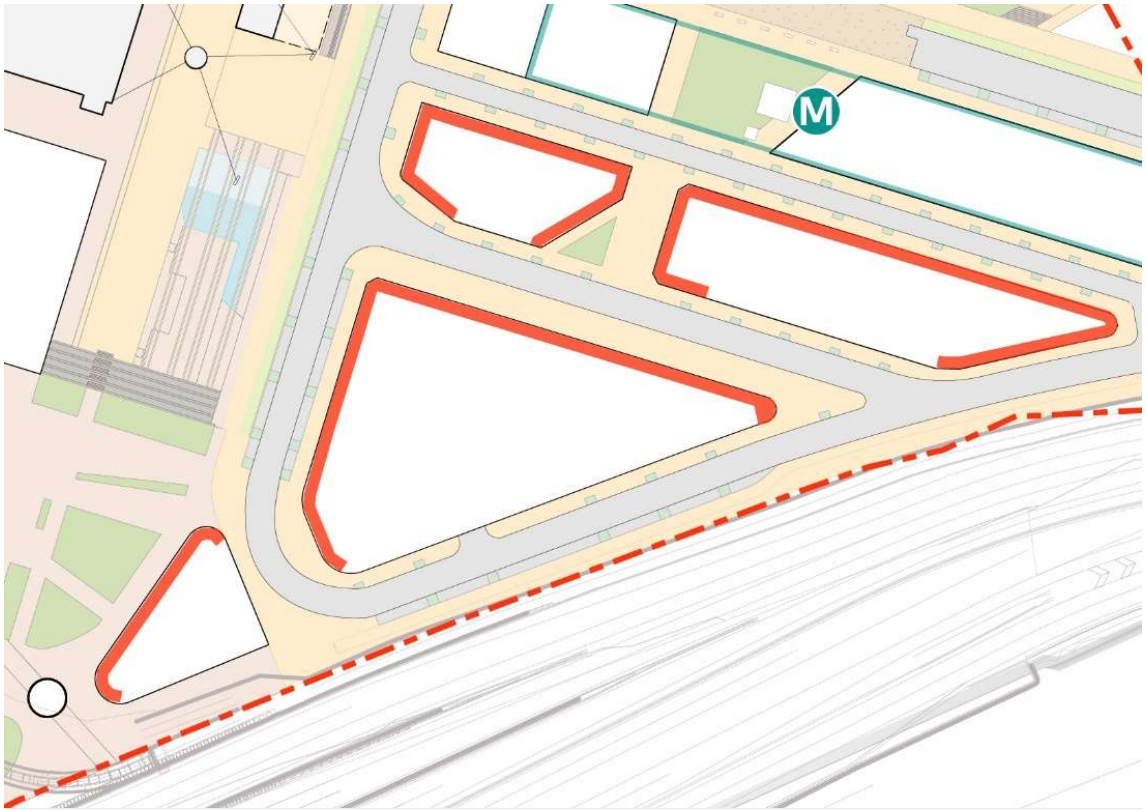

Figure 6 - Southern Development Block - Active Frontages

Active frontage

7.3 White Bay Power Station Development Precinct

> "Many people were reliant on the Power Station for their livelihoods – it was symbolic of an industry that sustained people. This is how Aboriginal view Country – it is our life source and provides constant sustenance for us to thrive and survive."

The White Bay Power Station (WBPS) will enliven the Bays cultural and creative arts district, acting as host to various events and experiences for the Sydney Metropolitan Area. The rich layers of pre and post-colonial history are embellished in the fabric of the built form and surrounding infrastructure, making it the historic anchor of the Bays West Precinct. The niche character of the facades of the WBPS provide opportunity for the public domain to deliver innovative user experiences, offering a renewed sense of place and identity whilst bringing new purpose and amenity.

7.3.1 Land Uses

Objectives

a) Conserve and repurpose White Bay Power Station as a focal point of the precinct incorporating key creative, cultural and commercial uses as part of the Eastern Harbour City innovation corridor.

b) Ensure the reuse of the White Bay Power Station delivers public benefit and includes a public access strategy underpinning the core reuse.

c) Ensure future land uses within the Power Station can deliver a viable development outcome that enhances and celebrates the building's heritage, whilst also supporting a vibrant night-time economy and innovative cultural and creative uses.

Provisions

1. Reuse of the White Bay Power Station and any resultant change must not reduce the heritage significance of the place as detailed in the Statement of Cultural Significance and follow the polices of the Conservation Management Plan. Any adaptive reuse uses must demonstrate consistency with the CMP, including retention and respect for the significant elements and attributes of the place.
2. A majority of the uses operating within the White Bay Power Station must be associated with creative industries, entertainment facilities and/or community facilities.

7.3.2 Built Form - existing

Objectives

a) Ensure future development retains and respects the visibility and prominence of the power station as a harbour-side, and industrial landmark to the local community.

b) Ensure views from major axial approaches including Anzac Bridge, Johnston Street Annandale, City west Link, Victoria Road (from northwest), Glebe Point Road, Mullens Street and Robert Street are maintained as substantially unobstructed views.

c) Integrate and interpret the unique industrial and maritime history to the precinct which will underpin the future use and the character.

Provisions

1. The Cultural Significance of the White Bay Power Station and development precinct (particularly historic, technical and social significance) is interpreted throughout the redevelopment of the place.
2. Retain and respect the significant views and vistas to and from the White Bay Power Station as set out in the Conservation Management Plan and the Masterplan.
3. Retain and interpret the importance of rail connections to the White Bay Power Station and the precinct generally as a connected precinct with trade and export.
4. Retain visual and physical connection of the White Bay Power Station with water and interpret the important themes of water to the precinct including export, trade, transport and industrial processes (underground water canal used for heating and cooling systems).
5. Retain the historic relationship and connections with surrounding suburbs. Enable public connections with other sub-precincts including other significant heritage items including the former Glebe Island Silos and the Glebe Island Bridge.

7.3.3 Built Form, Setbacks, Build to Line and Active Frontages – New Boiler House

Objectives

a) Provide building forms that reinforce the desired character of the area and align with the Conservation Management Plan for the White Bay Power Station

b) Frame and define the streets and public open spaces with appropriately scaled built form.

c) Reinstate a built form in the footprint of the old Boiler House no. 2 as a major priority as it will restore the formal massing and balance of the whole power station.

Provisions

1. The footprint of Boiler House no. 2 is to be built strictly in accordance with the policy guidelines contained within the White Bay Power Station Conservation Management Plan
2. A new building, similar in height to 1958 Boiler House, can be constructed on the site of Boiler House #2 to a maximum height of RL36.7
3. Access to daylight for the laboratory in Admin wing must be retained through the design of any new building in the footprint of Boiler House no 2 and the new structure may interconnect into the Pump House via new openings at a variety of levels
4. The building is to be distinctively different to the existing White Bay Power Station and not attempt to reinterpret the old Boiler House form and finish
5. An awning may be reinstated on the eastern side of the coal handling shed
6. Rooftops are to be utilized for green roof spaces that include rooftop gardens and solar panels.
7. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.
8. Setbacks and Build To Lines are to be delivered as per Figure 7 - White Bay Power Station New Boiler House - Primary Setback and Build To Line.
9. New Boiler House active frontages are to be delivered as per Figure 8 - White Bay Power Station New Boiler House - Active Frontage.

Figure 7 - White Bay Power Station New Boiler House - Primary Setback and Build To Line

0m primary setback and build to line

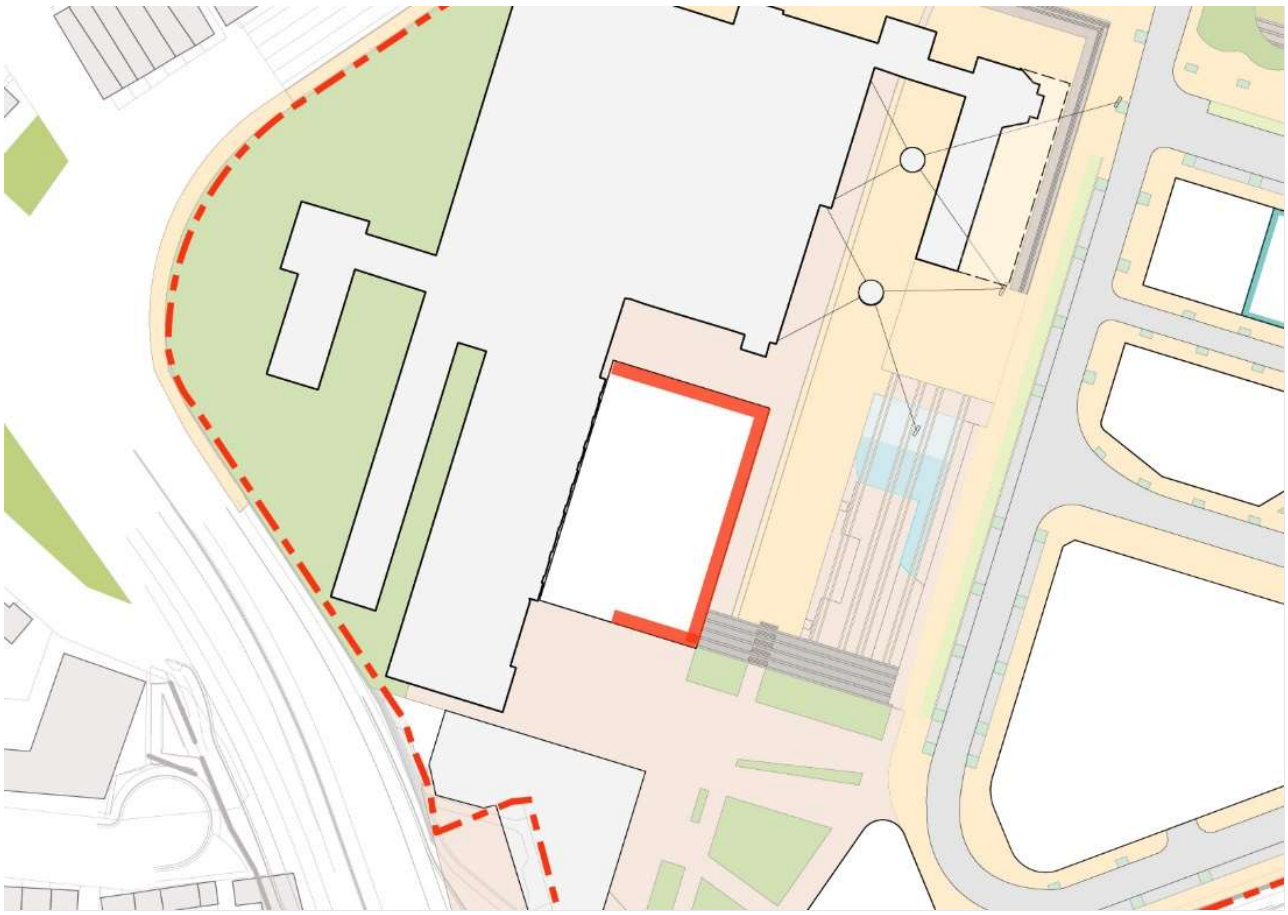

Figure 8 - White Bay Power Station New Boiler House - Active Frontage

Active frontage

7.3.4 Setbacks, Build to Line and Active Frontages (Robert St Community Zone)

Objectives

a) Ensure buildings are of a design to reduce impacts on the penstock and overshadowing of White Bay Park

b) Ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

c) Ensure that buildings address the new streets.

d) Define the edge of the White Bay Power Station Northern Plaza.

Provisions

1. 50% of the building footprint for a height of 2-storeys is to be dedicated to an open, undercover recreation space to complement the uses within the White Bay Power Station Northern Plaza and White Bay Park
2. Floor-to-floor heights are to be a minimum of 4m for all uses.
3. Buildings shall not exceed 50m in length and 25m in width and shall have floor plates of no more than 1,000m^2 GFA per floor.
4. Primary setbacks are required to define the streets with pedestrian scaled built form and ensure cohesion with the surrounding buildings in adjoining precincts, as per Figure 9 Robert St Community Zone - Primary Setback and Build To Line.
5. A minimum 90% built to line for the interfaces to the White Bay Power Station Northern Frontage, as per Figure 9 Robert St Community Zone - Primary Setback and Build To Line.
6. Active frontages are to be provided as per Figure 9 Robert St Community Zone - Active Frontages below on both the western interfaces to the surrounding public domain comprised of small-scale retail and entries to the commercial building lobbies.
7. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street. Separate entrances are required for commercia, retail and station uses. Lighting should be provided for safety at night.
8. Where an active frontage is required, a majority of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors.
9. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.
10. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.

11. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.
12. Buildings must Incorporate a publicly accessible rooftop structures that maximises opportunities for sky country.
13. Facade treatments are to create visual variety and interest while contributing to the continuity of the streetscape.
14. Walls should comprise a variety of colours to reduce monotony and add variety to the streetscape.

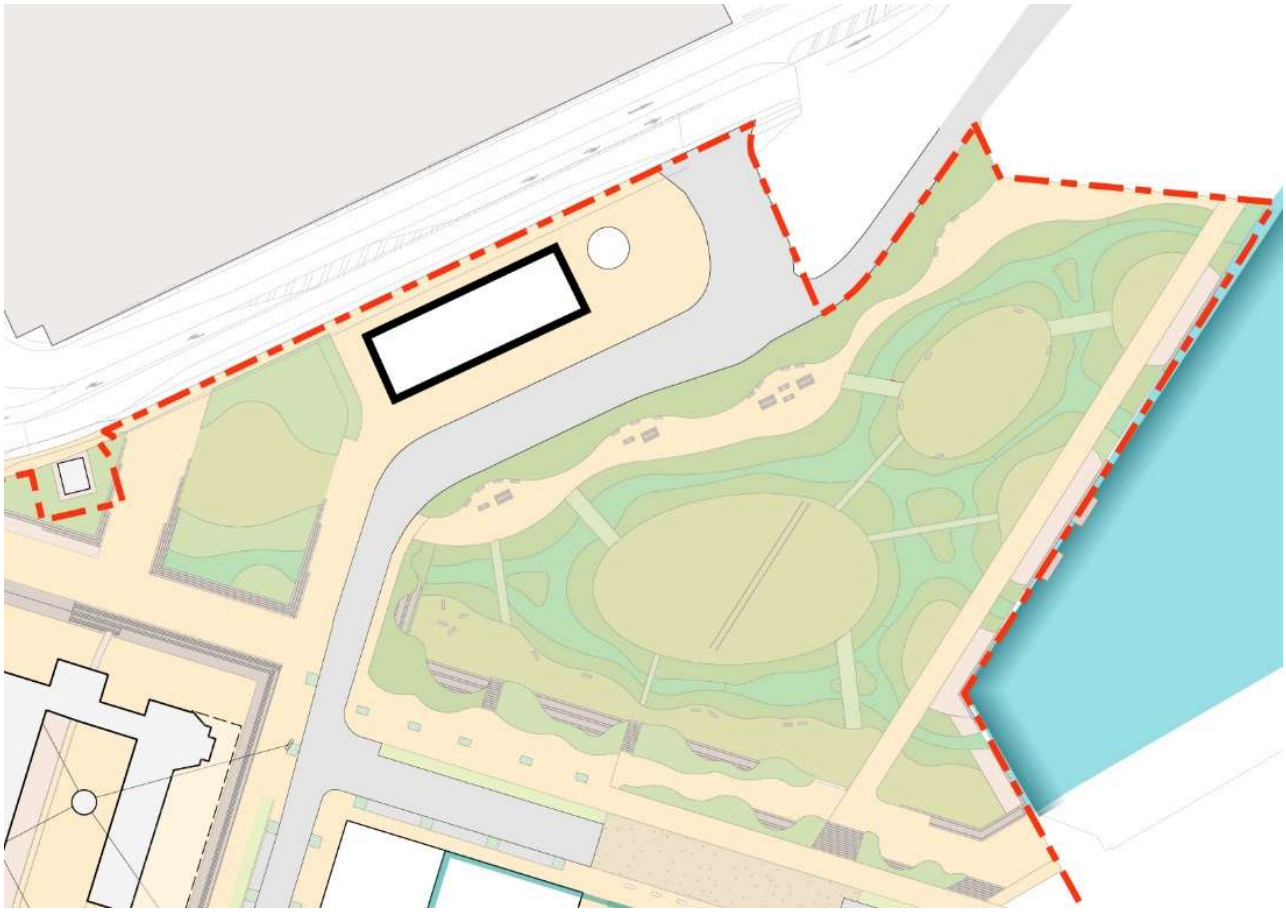

Figure 9 - Robert St Community Zone - Primary Setback and Build To Line

0m primary setback and build to line

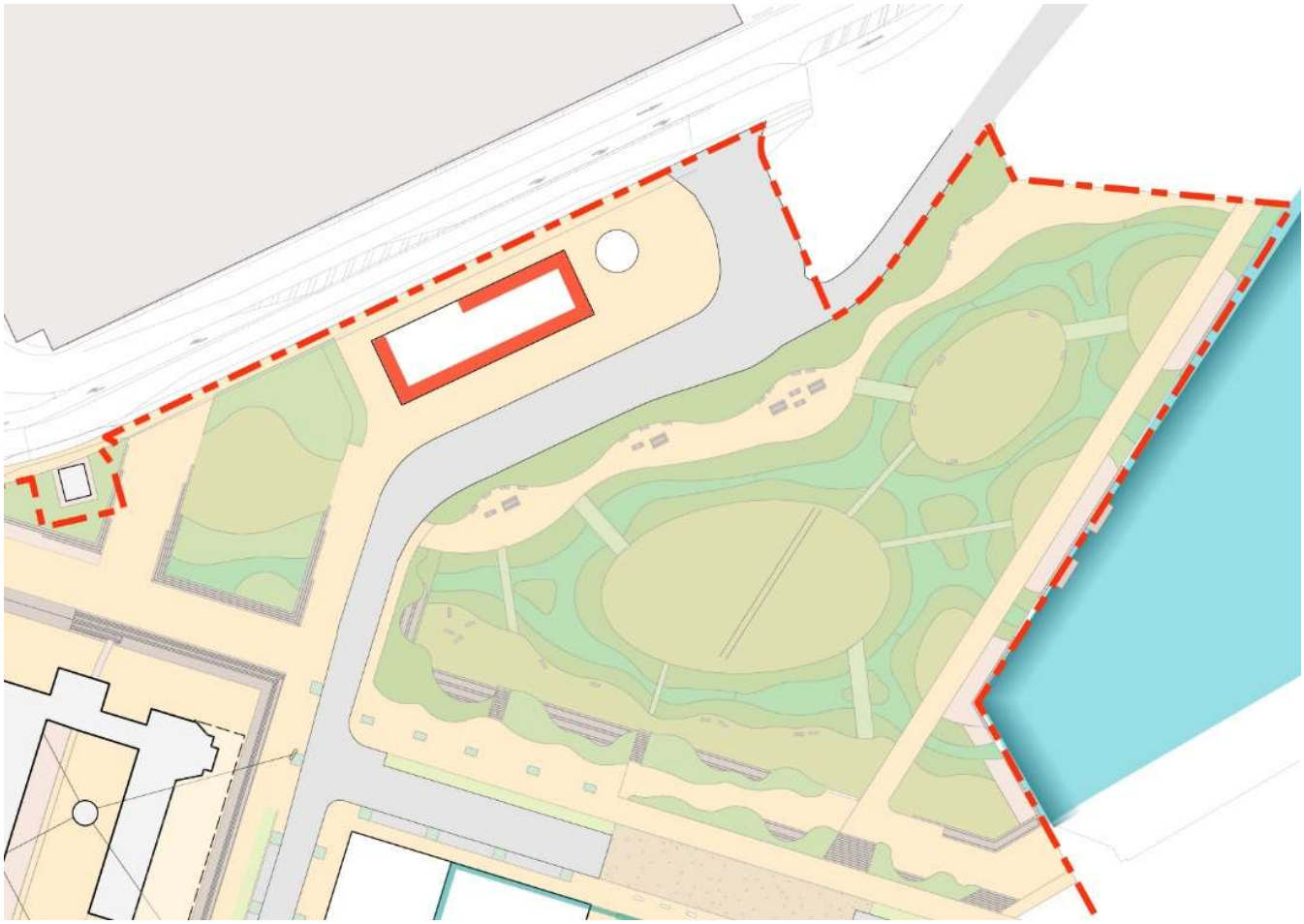

Figure 10 - Robert St Community Zone - Active Frontages

Active frontage

7.4 White Bay Power Station Public Domain

The White Bay Power Station will be supported by a broad range of public spaces. These are identified in Figure 11 - White Bay Power Station Public Domain.

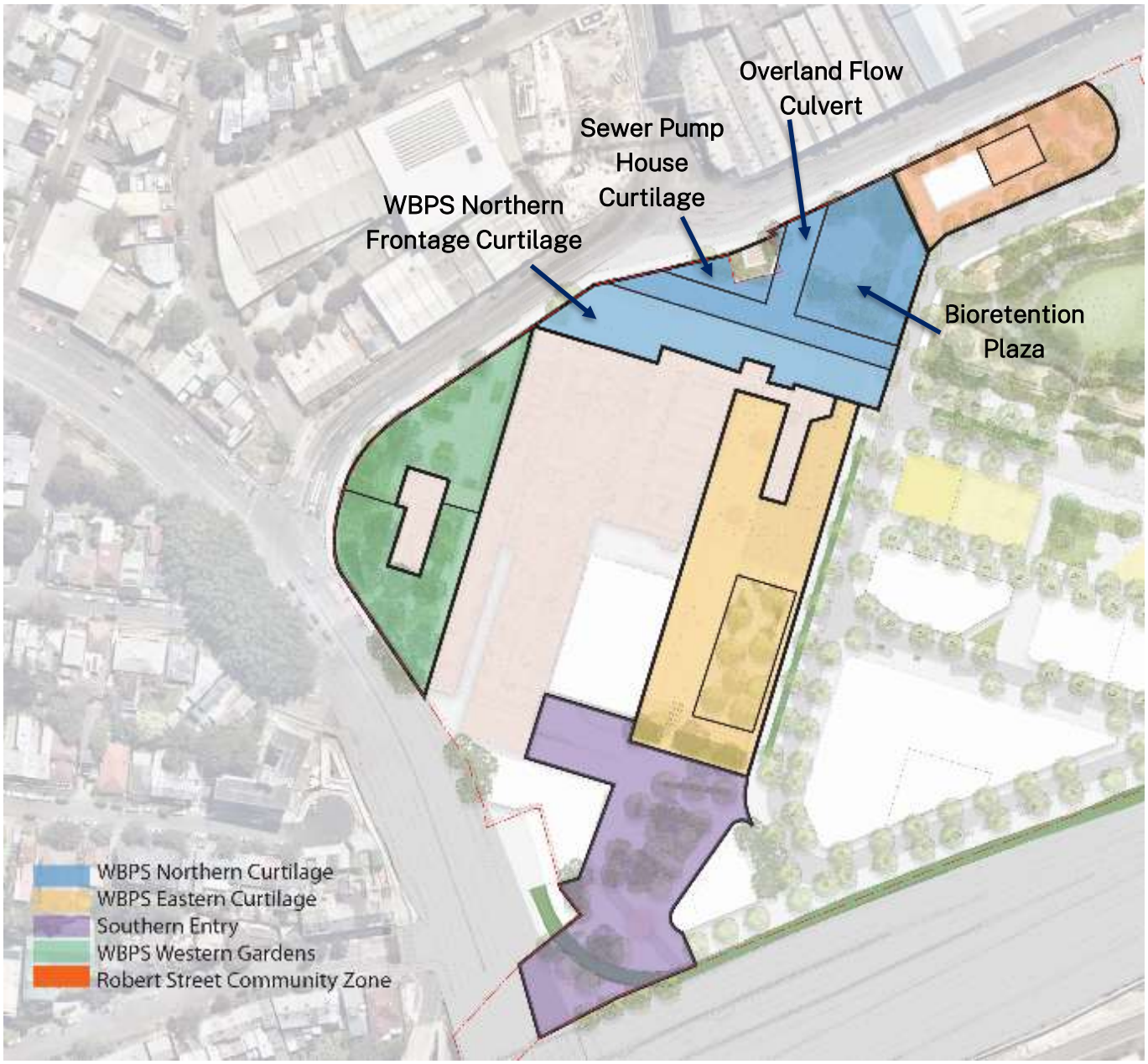

Figure 11 - White Bay Power Station Public Domain

White Bay Power Station Northern Curtilage

The White Bay Power Station (WBPS) Northern Frontage proposed a new pedestrian entry from Robert Street, transitioning up and over existing stormwater infrastructure and into a generous flexible plaza space.

The public domain will respect the existing infrastructure surrounding the WBPS, providing significant open space to allow pedestrian movement and engagement with the built form. Upon entry, the parkland landscape and heritage fabric is intertwined, softening the strong urban frontage and providing smaller scale breakout opportunity before arrival.

Objectives:

a) Prioritise pedestrian access along key desire lines in east-west and north-south directions.

b) Provide a strong visual connection to the North elevation of the White Bay Power Station and Coal - Loader Shed to direct pedestrian movement from the north towards the eastern curtilage of the WBPS.

c) Develop contrast between the WBPS Northern Frontage curtilage, Sewer Pump House curtilage and Bioretention Plaza.

d) Develop a strategy to integrate interpretive heritage elements and create visual interest amongst the public domain. Refer to section 6.3.2 for how to address existing built forms.

e) Negotiate proposed level changes (related to overland flow channel) that respect the character and curtilage of White Bay Power Station and that does not diminish the power station as a landmark to the area.

f) Embed the knowledge and stories of Country across the public domain.

g) Deliver a public domain material palette that responds to the:

   a. WBPS heritage

   b. Broader Bays Precinct.

Within the White Bay Power Station Northern Curtilage there are several key elements which must meet the below objectives. These are areas are identified in Figure 11 - White Bay Power Station Public Domain above .

h) WBPS Northern Frontage Curtilage:

   a. Prioritise the retention of the WBPS and surrounding heritage features, infrastructure, spaces and fabric.

   b. Respect the character and curtilage of White Bay Power Station and design to ensure the power station is not diminished as a landmark to the area.

   c. Achieve an adaptable, highly urban plaza space that celebrates the industrial heritage and is capable of accommodating a broad range of uses, experiences and activities.

i) Overland Flow Culvert:

   a. The design for the northern frontage incorporates stormwater/overflow infrastructure that is seamlessly integrated into the public domain.

b. Stormwater/overflow infrastructure is not to inhibit equal access opportunities. Refer to section 15 for Stormwater, Flood Mitigation and Water Quality.

c. Headwall interface with Robert Street is sensitive to surrounding heritage elements.

d. Material selection for the top of the culvert (raised urban pedestrian platform) is to be seamlessly integrated into the broader public domain.

e. Celebrate stormwater low flows from the culvert in Bioretention Plaza.

j) Sewer Pump House Curtilage:

a. Retain the Sewer Pump Station as a Heritage Element - Refer to Heritage section below.

b. Retain visual connection to the WBPS and other heritage built form.

k) Bioretention Plaza:

a. A permeable plaza space that prioritises soft landscaping with opportunity for a flexible breakout space.

b. To contain bioretention planting that will filter low velocity stormwater flows prior to entering White Bay Park.

c. Interpret historical elements, including spur lines and surrounding heritage features.

Provisions:

1. Materials used in the public domain are to respond to the industrial character of the WBPS to create a well-integrated space that celebrates the site's heritage.
2. Provide a sunken plaza surrounding the curtilage of the WBPS that is predominately hardscape, offering significant open space and movement that can accommodate major community events and gathering.
3. The historic Sewer Pump Station is to be protected at its existing levels, with an appropriate curtilage for servicing. The surrounding area must be softscape, inclusive of endemic species and tree planting to express the character of the surrounding White Bay Park.
4. Incorporate existing spur lines as a continuous interpretive element in the ground plane from north to south through the WBPS Precinct.
5. Provide a high quality and functional solution to level change between WBPS curtilage and Robert Street that responds to the overland flow and supports seamless access for people of all abilities transitioning into the precinct. This includes:
   a. Utilising the Coal Loader Shed as a visual cue and threshold for WBPS curtilage.
   b. A DDA compliant equal access walkway from Robert Street.
6. A generous raised urban pedestrian platform (level with the Port Access Road junction) will provide equal access and should:
   a. Define the WBPS northern curtilage and protect it from flooding;
   b. Define the curtilage for the existing Pump Station;
   c. Define the curtilage for the Bioretention Plaza;
   d. Follow the culvert alignment below; and

e. Disguise the infrastructure of stormwater capture and discharge;
f. Have a strong urban edge, incorporating bleacher seating, ramps and stairs to manage level change into sunken plazas.

White Bay Power Station Eastern Curtilage

The public domain serves the surrounding New Boiler House and entry to the White Bay Power Station East. Positioned in direct alignment with The Bays Station, the sunken plaza accommodates the confluence of movement when travelling to and from the WBPS and should provide an extended breakout space for amenity and events. The significant vertical infrastructure such as the Coal-Loader Shed and chimneys are retained, becoming strong landmark features, establishing a connection for users with the existing heritage of the precinct.

Objectives:

a) Provide a main entry/exit point into the WBPS building.
b) Provide a new highly- functioning building that activates the ground plane and elevates the creative and industrial character of the WBPS precinct. Refer to Section 6.3.3. New Boiler House.
c) Maintain clear site lines between the WBPS, the New Boiler House and The Bays Station.
d) Achieve an adaptable, highly permeable plaza space that celebrates the industrial heritage and capable of accommodating a broad range of uses, experiences and activities.
e) Prioritise pedestrian access along key desire lines in east-west and north-south directions.
f) Embrace the level changes between the WBPS Eastern curtilage, Southern Plaza and north-south street interface to develop a unique, accessible and multifaceted design outcome.
g) Encourage active frontage of WBPS East with opportunity for breakout, dining and pop-up.
h) Celebrate the Coal Loader as a vertical landmark within the WBPS precinct.
i) Learn, understand and embed the knowledge of Country through the inclusion of interpretive overlays of both landscape and historical elements in the ground plane.
j) Respect the character and curtilage of White Bay Power Station and design to ensure the power station is not diminished as a landmark to the area.

Provisions:

1. A sunken plaza surrounding the curtilage of the WBPS accommodate major community events and gathering.
2. Provide a large central entry/exit point into the White Bay Power Station that:
   a. Celebrates and welcomes users into the creative industrial precinct;
   b. Is highly visible and accessible for all abilities;
   c. Is well lit and engaging from the street;
   d. Utilises custom signage and wayfinding initiatives; and
   e. Connects with the proposed 'New Boiler House'.

3. Define the WBPS Eastern curtilage by the existing Coal Loader surrounds, allowing a clear open plaza space that is aligned with the Robert Street entry.
4. Design a heritage plaza with a series of interpretive overlays:
    a. Reinstate the pre-colonial shoreline through the design of a shallow wetland;
    b. Introduce endemic, water sensitive species within the shallow wetland to embrace the pre-colonial planting character;
    c. Retain expression of historical spur lines and built form footprints in the public domain ground plane;
    d. Protect and celebrate the White Bay Power Station chimneys;
    e. Protect the Coal Loader surrounds at its existing level; and
    f. Enhance the Coal Loader infrastructure as a feature element, with additional awnings and permeable space beneath for flexible use.
5. Ensure DDA compliant access from the north- south street and pedestrian priority crossing between the White Bay Power Station and the rest of the precinct.
6. A strong urban edge at the south inclusive of bleacher seating with gravel and planting inlays.

Southern Entry

The southern entry welcomes users to the Bays West Precinct when travelling from the Rozelle Rail Yards and Anzac Bridge Cycleway. The entry is anchored by the existing heritage penstock, with surrounding landscape spaces organized to allow for flexible movement towards the White Bay Power Station East, The Bays Station and proposed mixed use development. The public domain offers smaller, intimate spaces for dwelling whilst accommodating the functional uses of the surrounding infrastructure.

Objectives:

a) Embed the knowledge and stories of Country across the public domain.

b) Seamlessly connect with adjacent pedestrian links from Rozelle Rail Yards, Anzac Bridge Cycleway and Victoria Road Overpass.

c) Opportunity for a historical marker upon entry that celebrates an existing heritage element.

d) Provide a strong visual connection towards the WBPS precinct and surrounding Bays Precinct.

e) Create a series of small passive landscape spaces with a strong canopy coverage.

f) Ensure adequate curtilage is provided for services to the WBPS and ISS Building.

g) A material palette that responds to the:

h) White Bay Power Station heritage

i) Broader Bays Precinct.

j) Seamlessly connects with Westconnex interfaces optimising open space around points of access.

Provisions

1. Integrate pedestrian movement paths with native planting and lawn spaces to direct users towards The Bays Station, WBPS, Anzac Bridge and proposed mixed use building.
2. Maximise native tree planting in lawn and garden beds to ensure access to shade and create a soft landscape character.
3. Accommodate a large, passive lawn space upon entry from Rozelle Rail Yards.
4. Curate a clear site line from the entry lawn towards the Coal Loader in the WBPS Eastern curtilage.
5. Landscaping and open spaces should enable natural surveillance and clear lines of sight by minimising obstructive plantings between 0.5m - 2.0m above ground level.
6. Retain the penstock as a heritage feature and entry marker into the precinct.
7. Emphasise the cooling tunnels through interpretive design in the ground plane.
8. Provide a shared zone adjacent to the ISS building to optimise entry for vehicles and services. Allow minimal provision for furniture and planting that would impede on function of the zone.
9. Provide a seamless entry for cyclists onto the Anzac Bridge Cycleway where the public domain and route intersect.

White Bay Power Station West Gardens

The Western Gardens embraces the rugged and industrial nature of the White Bay Power Station surrounds, creating unique plant communities that are intertwined with the relics of the existing infrastructure. A balance of passive movement zones and intimate fine- grain landscape rooms are designed, responding to the varying level changes between Robert Street, Victoria Road and the WBPS Western Elevation. Each garden encourages biodiversity, responding to the local microclimates existing within the region and delivering a new landscape unique to the character of the WBPS.

Objectives:

a) Develop a passive, landscape focused space that uplifts the existing built form and offers retreat amongst the busy industrial context.

b) Integrate planting and pedestrian movement into the heritage fabric of the WBPS.

c) Tree planting to include a diversity of local native species to enhance the biodiversity of the site that must be supported by robust ecologies of middle and lower plantings.

d) Utilise existing remnants of material and infrastructure to define and inform the ground plane.

e) Celebrate the contrast between landscape and existing hardscape.

f) Improve access and entry to the WBPS.

g) Embrace the rugged, existing sloped landscape and significant level changes at the junction between Robert Street and Victoria Road.

Provisions:

1. North - West Gardens should:
   a. Create a series of intimate outdoor rooms that express varying planting characters, respective to the fine grain microclimates.
   b. Utilise the existing upper slab height to create an intimate plaza that is remnant of the historic WBPS ground plane.
   c. Incorporate sunken gardens amongst the remnants of the WBPS substations, integrating and retaining portions of the existing walls
   d. Provide a secondary entry into the gardens via Robert Street ensuring safe, equal access is achieved.
   e. Stabilise existing sloped planter beds.
   f. Utilise the above head infrastructure between the existing control room and WBPS to create a pedestrian through site link to the south- west gardens.
2. South - West Gardens should:
   a. Develop an 'outcrop garden' south of the control room that incorporates a robust selection of tree species with diverse canopy.
   b. Reinstate the existing bridge connection between Victoria Road and White bay Power Station at south of the site.

Robert Street Community Zone

Objectives

a) Embed the knowledge and stories of Country across the public domain.

b) Create a pedestrian plaza space that compliments the character and uses of the adjacent community building.

c) Promote an active and engaging user experience when transitioning through the plaza and streetscape.

d) Integrate heritage elements to create a unique landmark that creatively reflects the character of the White Bay Power Station (WBPS).

e) Maintain clear site lines through White Bay Park and towards the WBPS that allow safe pedestrian travel.

f) Achieve a strong urban canopy along the street that enhances the planting character established within White Bay Park.

Provisions

1. Retain the existing penstock as a landmark feature.
2. Include an active play space within the under croft of the community building that differs to the amenity provided within White Bay Park.
3. Provide a clear connection for pedestrians from Robert Street.

4. Ensure native tree planting is incorporated throughout the urban plaza for shade and natural surveillance.

7.5 White Bay Park Development Precinct

Nestled within an industrial landscape, White Bay Park offers significant areas of green public open space that complements the surrounding Rozelle Parklands and activates the Bay's foreshore. Comprised of a series of passive and active landscape islands, the park focuses on creating an immersive experience of Country, telling the story of water as it moves from 'sweet to sour to salt'.

The below provides overarching objectives and provisions which relate to White Bay Park and sub-objectives and provisions which relate to focus areas of Water and Natural Systems, Play Areas, and Passive and Active Open Space.

Objectives:

a) Offer a series of accessible and diverse landscape open spaces at the waterfront that engage in passive and active recreation.

b) Park is to be informed by the needs, knowledge and stories of the local Aboriginal community to connect to a deep sense of time and place.

c) Acknowledge and express the existing song lines.

d) Explore and express the contrast between the rich pre–colonial landscape, underlying geomorphology and the later industrial landscape.

e) Deliver a high quality and functional solution to level changes across all interfaces with the park that supports seamless access for all abilities, connections and transitions.

f) Maintain strong visual connections from The Bays Station, Port Access Road and WBPS.

g) Provide clear connections with equal access from The Bays Station, White Bay and Port Access Road.

h) Ensure there is a variety of scales and spaces, with access and services to cater to everyday gathering and for mass celebration.

i) Strengthen the local ecologies through providing an abundance of native planting that offers habitat, diverse canopy and understorey.

Provisions:

1. Provide a large, public, waterfront park minimum 1.5 Ha in size.
2. Include a wayfinding strategy beginning from the outskirts of the park and transitioning through the internal spaces to increase legibility for users.
3. Materiality should contrast the industrial heritage of the WBPS, evoking natural earth tones that complement the native planting character.
4. Ensure access to seating, bins, water fountains and other essential furniture at regular intervals, particularly amongst key activation nodes.
5. The park should offer:

a. A large central passive lawn space
b. A district level playground inclusive of nature play
c. Designated spaces with amenities such as seating, BBQ, fitness, lookout.
d. A series of equal access pathways and bridges to connect spaces.
e. Interpretive overlays through the ground plane that connect with the historic elements of the WBPS and Country.
f. Include acknowledgements/welcome to Country upon park entries that acknowledge the entire kinship system.

6. Interfaces with the park should:
   a. Maintain a strong connection with The Bays Station ensuring DDA compliant equal access from the footpath to the park.
   b. Ensure an unobstructed pedestrian and cyclist shareway along the White Bay Harbour in alignment with the Metro entry/exit.

Natural Water Systems

Objectives

a) Celebrate the site's water story and natural systems.
b) Naturally improve the quality of the water before existing into the Bay.
c) Incorporate water sensitive planting that will support and enhance the character of the parklands.

Provisions

1. Establish an
   a. Invert level that enables saltwater to tidally enter the parks creek system.
   b. Invert level that enables low flow stormwater flows from the culvert to enter the parks creek system ebbs and flows.
2. Establish a water system that:
   a. Is resilient to flooding and sea level rise.
   b. Embraces biodiversity and open opportunity for new habitat and ecological rejuvenation.
3. Include specific points of physical access and engagement for users to the water's edge, where the quality of landscape and users safety is not compromised.
4. Support the waters ebbs and flows with the inclusion of natural sandstone, rocks and battered planting.

Play Areas

Objectives

a) A dedicated space for a formal, district scale playground that responds to the local natural environment.

b) Ensure all-inclusive play and access.

c) Play elements must be designed and built for all abilities and ages and should connect to the five pillars of play:

   a. Physical Engagement

   b. Cognitive Play

   c. Social play

   d. Sensory play

   e. Imaginative Play.

Provisions

1. Nature Play island inclusive of bespoke play elements that reflect local ecologies, sandstone geology and Country.
2. Pockets of native planting should envelop the playground, softening the edges and providing a landscape buffer.
3. Inclusion of various measures of shade cover over play equipment and amenity.
4. Materiality of equipment should be robust, high quality and durable to withstand extensive use.

Passive and Active Open Space

Objectives

a) Provide sufficient open space that cater to the current and growing needs of the community.

b) Provide a balance of passive and active landscape 'islands' that vary in size and shape.

c) Develop a landscape narrative that binds together all areas of open space, evoking a strong sense of place and identity true to the local character of the Bay.

d) Ensure access to Sky Country by providing openings in tree canopy.

e) Create opportunities for self- activation amongst passive open space.

Provisions

1. Provide a large, flat central lawn at the heart of the park that is accessible and visible when entering from the surrounding streets.
2. Include multiple nodes of enclosed spaces with fixed amenities such as picnic, BBQ and shade cover to cater to various sized user groups at all times of the year.
3. Sleeve the 'islands' in diverse native planting, to create visual interest when looking onto and transitioning within the park.
4. Landscaping should enable natural surveillance and clear lines of sight by minimising obstructive plantings between 0.5m - 2.0m above ground level.

8 Movement and Access

The Bays West Place-Based Transport Strategy (PBTS) sets an ambitious aspiration to provide an exemplar precinct in Sydney that is low-car and designed for sustainable transport with little or no need for private car travel. The Bays West Precinct must prioritise the use of sustainable modes of transport, being walking, cycling and public transport. This should also capitalise on the opportunities for mobility changes supported by e-mobility devices such as scooters and e-bikes

Planning, design and delivering of the transport network is address the TfNSW Movement and Place Framework, ensuring that all road users and functions are considered. Critical to the success of the precinct will be balancing and managing the existing movements associated with White Bay Cruise Terminal (WBCT) and Ports and Maritime, with those associated with the delivery of Sydney Metro West and the proposed precinct development.

Development will be delivered over several years to 2040 and beyond, and the transport network must be able respond to changing needs and environment through the staged delivery of infrastructure and services. The network must be capable of embracing and delivering transport innovation such as electric vehicle transition, dynamic transport services, Mobility as a Service that will allow the more efficient movement of people and goods to, from and within Bays West.

The objectives and provisions are to be complemented by relevant Australian standards and relevant NSW Government policies, plans and guidance. Street typologies and designs are to be generally in accordance with Section 4.17 of the Bays West Stage 1 Master Plan.

8.1 Walking and cycling

Walking and cycling will form the principal movements for the site for all trips and purposes. This behaviour must occur from day one. Several priority walking and cycling connections must be delivered early and supported by comprehensive local network to ensure the focus on sustainable travel creates actual mode shift. This will also need to consider the opportunities presented by Glebe Island Bridge.

Objectives

a) Ensure development will result in a high quality, integrated, permeable and accessible pedestrian and cycle network that gives priority to pedestrian and cyclist movement.

b) Design the walking and cycling network to follow a hierarchy depending on its function:

   a. Primary – high quality segregated routes that connect to the wider regional network. These links will provide connectivity to the transport interchange and key destinations within the precinct e.g. White Bay Power Station (WBPS) and the Harbourside Park.

   b. Secondary – connections to key uses and catchments surrounding Bays West. These links provide connectivity between primary links and the built form and can either be shared or segregated depending on number of users and final design of public domain.

c. Local – finer grain provisions to access specific uses with a greater focus on placemaking. These links should be walkable but do not need to be segregated.

c) Enable all walking and cycling connections to be safe, secure, direct and amenable.

d) Improve public health through increased active transport mode share.

e) Deliver part of the active transport route between Parramatta and Circular Quay.

Provisions

1. The location of primary walking and cycling connections are provided in accordance with Figure 12 - Walking and Cycling Connections and TfNSW guidelines (Cycleway Design Toolbox and Walking Space Guide) and include:
   a. A north-south link between Robert Street and Anzac Bridge that provides a bicycle path[1] and a Type 5 footpath[2] or a shared path[1].
   b. A east-west link link between Robert Street and Glebe Island that provides a bicycle path[1] and a Type 5 footpath[2] or a shared path[1].
   c. A north-south link between Glebe Island and Rozelle Parklands that provides a bicycle path[1] and a Type 5 footpath[2] or a shared path[1].
2. Every road or street provided in the Precinct needs a footpath that, at a minimum, meets the standards set out in the TfNSW Walking Space Guide 2020.
3. The location of secondary walking and cycling connections are provided in accordance with Figure 12 - Walking and Cycling Connections and include:
   a. A link under Anzac Bridge towards Rozelle Bay that provides a bicycle path[1] and a Type 5 footpath[2] or a shared path[1].
   b. A secondary walking and cycling access points to Robert Street via the internal road network that provides bicycle paths[2] and a Type 3 footpath[2] or a shared path[1].
4. A Civic Space between the bus interchange and The Bays Station must:
   a. Provide seamless interchange between public transport modes;
   b. Be sufficiently wide to accommodate walking and cycling;
   c. Have activated frontages and clear sight lines between the two modes; and
   d. Provide clear wayfinding.

   This link must be well lit, weather protected and attractive public domain.
5. Access for pedestrians and cycling to Bays West Stage 1 is to be direct and legible, with access points that are highly visible from main approaches including Robert Street, Rozelle Parklands, Glebe Island Bridge and the Balmain Peninsula.
6. The pedestrian and cyclist network must be designed in accordance with the principles of Crime Prevention through Environmental Design (CPTED) principles to be safe and secure with good passive surveillance opportunities. These areas are also to consider accessibility for all.

[1] TfNSW, Cycleway Design Toolbox (2020)

[2] TfNSW, Walking Space Guide (2020)

7. The pedestrian network is to:
   a. Be aligned with key pedestrian desire lines;
   b. Provide safe crossing points throughout the network;
   c. Have generous widths to accommodate the current and future anticipated peak hour pedestrian flows;
   d. Be designed to incorporate opportunities for respite and pause away from primary pedestrian flows;
   e. Provide continuous shade coverage along streets, and pedestrian and bicycle routes where possible (natural or constructed);
   f. Be supported by active frontages; and
   g. Be designed to support access for people of all abilities equitably throughout the sub-precinct.
8. Established and emerging transport innovations, such as micro-mobility or mobility hubs, should be trialled in select locations throughout the precinct to encourage walking and cycling.

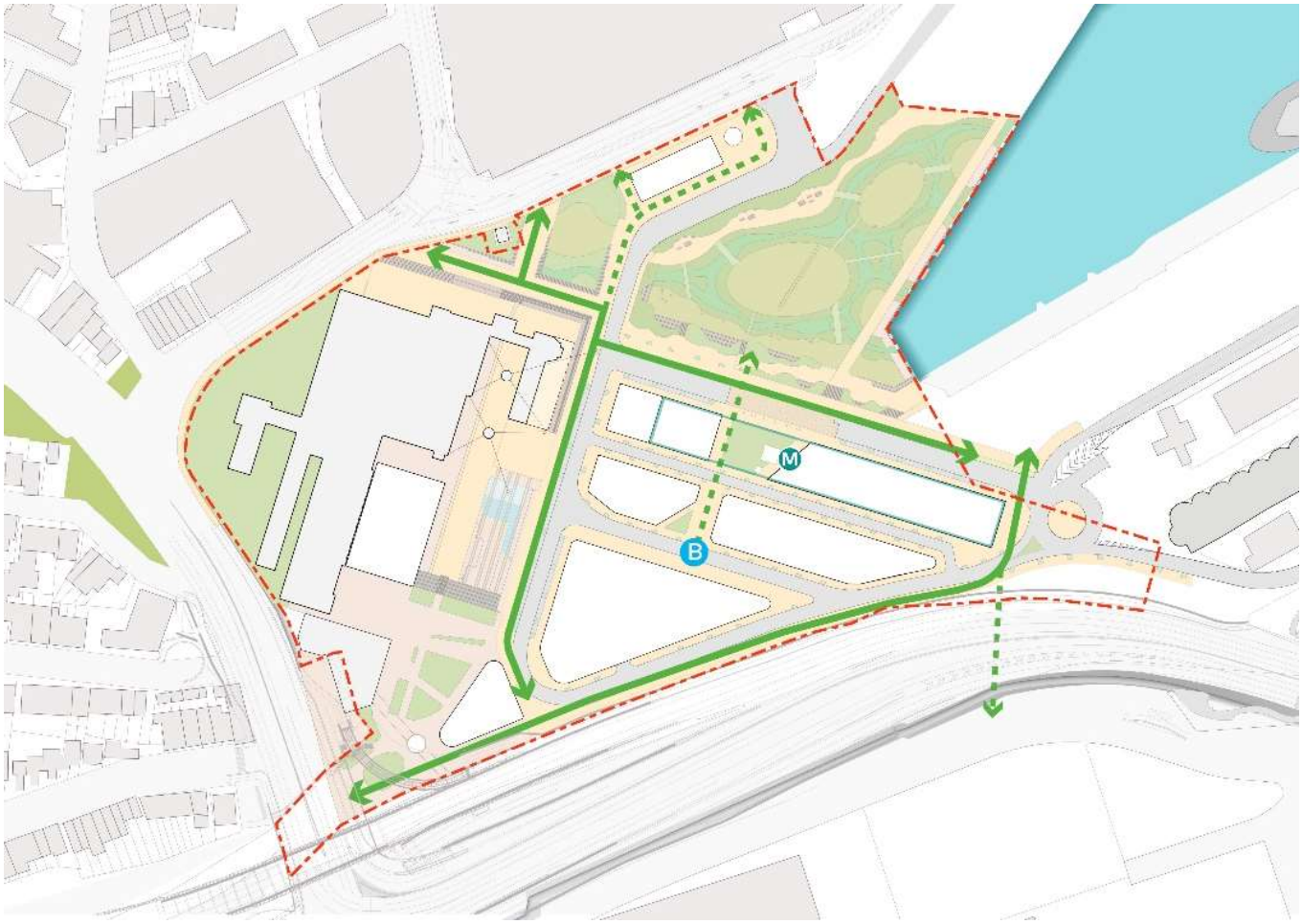

Figure 12 - Walking and Cycling Connections

Primary walking and cycling connection

Secondary walking and cycling connection

8.2 End of Trip Facilities

Objectives

a) Long-stay bike parking facilities are directly linked to a primary link presented in Figure 1, secure, intuitively connected building entrances, parking and end-of-trip facilities and well sign-posted.

b) Short stay bike parking facilities are directly linked to a primary link presented in Figure 1, well signposted and proximate to the users' destination.

c) Integrate public cycle parking within the urban realm and proposed community uses

Provision

9. Long-stay bike parking will be:
    a. Accessible via a security or intercom systems and have suitable security to protect personal belongings.
    b. Proximately located to the building's bicycle entrance/exit lockers and end-of-trip facilities.
    c. Accessible via two methods if a level change is required. This may include a combination of a lift, ramp or stairs with a wheeling ramp.
    d. Supported by standard bicycle maintenance facilities.
10. Short-stay bike parking will:
    a. Include a proportion provided in the public realm that is visible from the building's entrance
    b. Be accessible via two methods if a level change is required. This may include a combination of a lift, ramp or stairs with a wheeling ramp.
11. Provide a bike hub in the public realm that is easily accessible from one of the primary links presented in Figure 1.
12. End of trip facilities of a sufficient scale and design must be provided in each individual development that is clearly visible and supports direct and intuitive access for its users, including cycle parking for visitors and employees. Minimum bicycle parking rates are presented in site specific provisions which apply to Stage 1 in the Environmental Planning Instrument.
13. A locker will be provided for every long-stay cycle parking space.
14. 1 shower will be provided for every 10 long-stay cycle parking spaces.

8.3 Transport Interchange

Delivering a high-quality transport interchange that provides seamless interchange between bus, metro and the wider precinct for all customers and users is essential to the success of the Bays West Precinct.

Objectives

a) Deliver a precinct bus interchange to support the existing and future bus network, which is integrated with The Bays Station.

b) Deliver a separated bus interchange location which is only accessible by Buses and emergency vehicles.

c) Ensure interchange between modes is seamless. Interchange modes include metro-bus, walking/cycling-metro and walking/cycling-bus.

d) Design the station, station plaza, interchange and integrated development to encourage an active and attractive public domain that supports a range of amenities for all users.

Provisions

1. Deliver a bus interchange that is central to the precinct's functionality and movement, generally as per Figure 13 - Bus Route Locations. The bus interchange should:
   a. Be designed primarily as a bus only interchange; but must be suitable for appropriate emergency as required.
   b. Be suitable for all bus types including 12.5m, 14.5m and 18m articulated buses.
   c. Ensure appropriate bus travel lanes and bus parking lanes. The width of travel lanes should preferably be 3.5m.
   d. Provide bus stops within a 100m walk of The Bays Station gate line as per TfNSW and Sydney Metro requirements.
   e. Accommodate six bays suitable for 14.5m buses and 18m articulated buses.
   f. Be designed to accommodate short term (~5 minutes) and medium term layover (~30 minutes) in line with service requirements.
   g. Provide seating at transfer points between modes for the comfort of waiting passengers.
   h. Provide intuitive and simple wayfinding in accordance with TfNSW guidelines.
2. Development surrounding the transport interchange should have activated frontages.
3. Appropriate seating and respite areas must be provided at transfer points between modes for the comfort of waiting passengers.

It is noted that the transport interchange will be delivered in stages to align with growth in the overall sub-precinct and wider precinct.

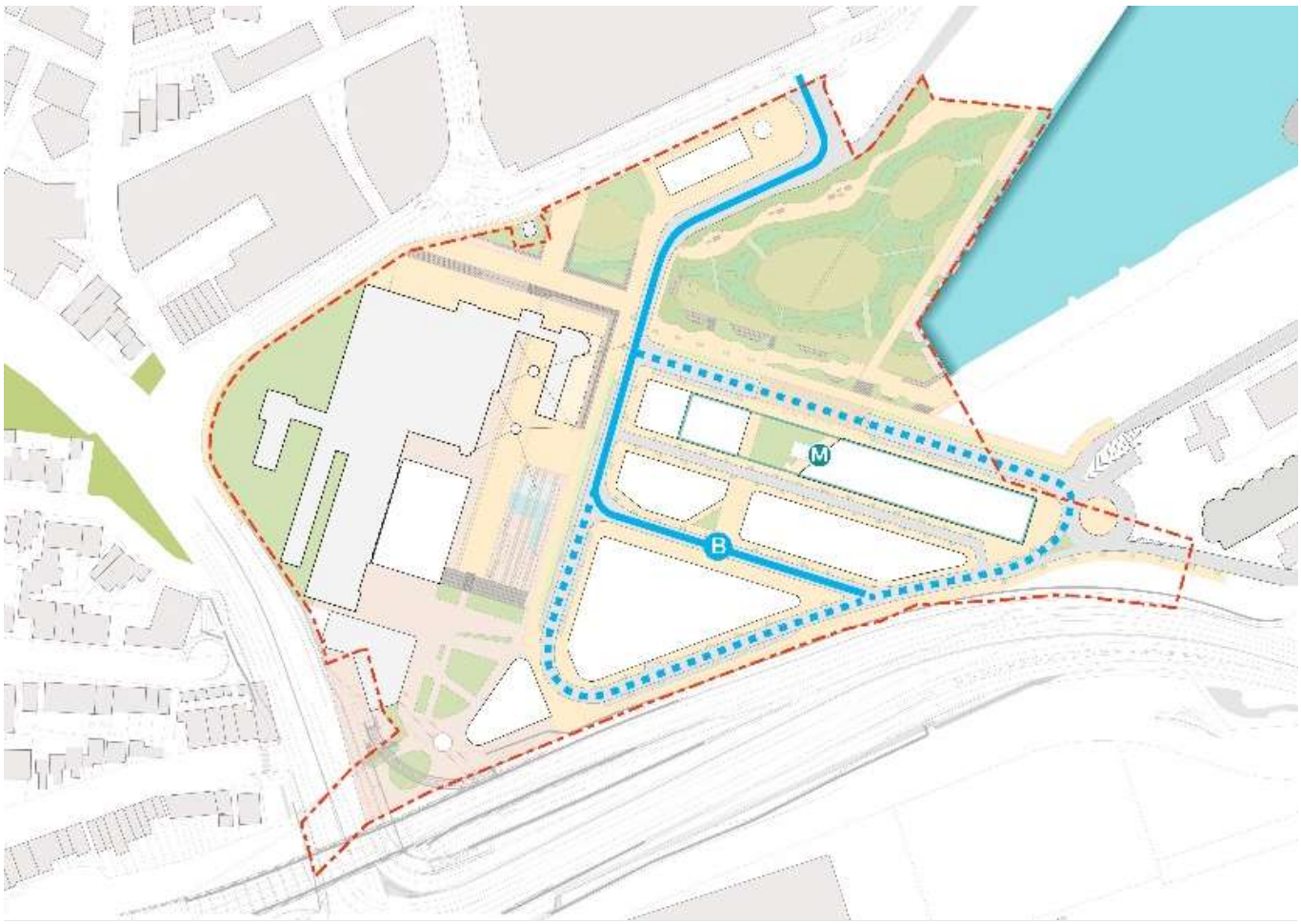

Figure 13 - Bus Route Locations

Bus route

Bus route options

8.4 Private vehicle access and parking

Bays West is being planned and designed to be low car precinct. Private vehicle access is still required and will serve an important function including servicing, building access and emergency vehicle access. Any private vehicle access needs to be carefully planned and managed.

Objectives

a) Ensure Bays West Stage 1 is designed and delivered for low car mode share and trip generation.

b) Enable development to be supported by vehicle access arrangements that adapt to the changing needs of the broader Bays West Precinct as it develops.

c) Utilise parking provision for the precinct as a mechanism for minimising and reducing vehicle trips to and from the precinct.

d) Design any car parking to be future proofed for future adaptive re-use.

e) Design the Precinct to support the transition to electric vehicles, including provision of charging facilities.

Provisions

1. Development must seek to achieve a 5% private vehicle mode share throughout the precinct. This will need to be support by appropriate planning, design, service provision and travel demand management measures. Development applications for redevelopment of any area within the Stage 1 precinct is to be accompanied by a transport impact assessment that sets out:
   a. Proposed trip generation and access arrangements
   b. Proposed measures for managing the effective and safe movement of pedestrians around the site during the construction process.
   c. How traffic impacts on the surrounding road network will be managed during construction and once the development is operational.
   d. How ride share pick up and drop off will be managed.
   e. Developments need to outline how they will comply with the maximum parking rates.
2. Green Travel Plans must be provided for all new developments that set out:
   a. Access to public transport provision
   b. Access to End of Trip facilities and bicycle parking
   c. Access to basement carparking facilities
   d. Incentives to encourage uptake of sustainable modes of travel.
3. Development is to provide dedicated carparking for:
   a. Car share spaces
   b. Accessible spaces
   c. Electric vehicle spaces.
4. Adopt and implement maximum parking controls for the Bays West precinct as per those in the Environmental Planning Instrument, which will result in low levels of car parking. These car parking rates include requirements for active or passive electric vehicle (EV) charging infrastructure in the future.
5. Any EV charging facilities should be provided in safe, accessible locations that are clearly signed from main site access points.
   a. In residential car parking areas, 100% of spaces need to have passive infrastructure, suitable for transition when required and 20% of these must be active with charging facilities installed.
   b. In commercial car parking areas 100% of spaces need to have passive infrastructure, 20% of employee parking and 100% of day to day operational parking must have active infrastructure.
6. Create a new vehicle access point from Robert Street into the precinct.
7. Vehicular access from the Robert Street entrance to the Port Access Road is prohibited.
8. Development is encouraged to consolidate basements across individual sites and, where possible, decouple parking areas from individual sites.

9. Sydney Metro has provided the following requirements for The Bays Station. These requirements include:
    a. 2 point to point bays
    b. 6 Kiss and Ride bays
    c. 1 accessible Kiss and Ride bay.
10. Development to demonstrated decouple parking has been considered.

8.5 Port and cruise access

Ports, Maritime and industry is a major feature of the Bays West Precinct today. Existing movements will need to be catered for and balanced against renewal of the precinct over time. The precinct road network will need to flexible and adaptable to ongoing planning by PANSW on the future of their land.

Objectives

a) Preserve and enhance working harbour and port operations on Glebe Island and Robert Street in conjunction with urban renewal, with these operations occurring 24 / 7.

b) Design the street network in Bays West Stage 1 to cater to a variety of different movements and vehicle types, including but not limited to precinct users, cruise passengers and port operations while being capable of accommodating change over time.

c) Encourage a mode shift away from private vehicle use for passengers accessing the White Bay Cruise Terminal.

d) Ensure resilience is provided on the transport network in the event of a vehicle breakdown or emergency.

Provisions

1. The precinct road network must be designed to accommodate cruise and port traffic, including:
    a. Additional traffic associated with the arrival of cruise ships (passengers embarking and disembarking);
    b. Vehicle servicing port and maritime operations (heavy and medium vehicles); and
    c. Changing requirements as PANSW develops its masterplan for Ports land.
2. Development must not prohibit ongoing key port and cruise traffic gateways:
    a. Limited servicing and logistics use for the White Bay Cruise Terminal using existing PANSW gateway at Robert Street;
    b. Large / heavy vehicles servicing the Port to continue operations via James Craig Road;
    c. Passenger traffic associated with the White Bay Cruise Terminal traverses the precinct via James Craig Road and use the Port Access Road; and
    d. Passenger traffic to the White Bay Cruise Terminal not to use Robert Street.

3. Existing heavy vehicle movements to Glebe Island must be maintained through the provision of a new / upgraded roundabout. The roundabout must be designed to be suitable for heavy vehicles (25/26m B-double vehicles), medium vehicles and 14.5m buses and coaches. This should consider the TfNSW Restricted Access Vehicle Map.
4. Bays West Stage 1road network needs to connect with the existing Port Access Road within the Robert St sub-precinct.
5. Main Streets and Local Streets within Bays West Stage 1 must be designed so that they do not prohibit ports and cruise traffic in the event of an emergency.

8.6 Service vehicle access

Facilitating the efficient movement of goods through freight and servicing within the precinct will be critical. Balancing these needs against all other movements, and ensuring that there is appropriate access and dedicated space will be critical.

Objectives

a) Ensure developments adhere to the overall Bays West Delivery and Servicing Plan, which will encompass all existing and future uses within Bays West (plan yet to be developed).

b) Ensure freight and servicing within Bays West Stage 1 is managed holistically to enable functional and consolidated servicing across the different development parcels.

c) Minimise the impact of freight and servicing movements on Bays West Stage 1 street network, particularly at peak times.

d) Provide clear and direct servicing access to The Bays Station buildings including the Intake Sub Station and associated non-station uses.

e) Support emerging transitions in the freight network, including the electrification of logistics systems.

f) Ensure freight and servicing activities occur off street.

Provisions

1. Development applications for redevelopment of any area within Bays West Stage 1 are to be accompanied by an integrated servicing strategy demonstrating how the respective development will be serviced. The strategy will need to align with the objectives set out in the Bays West Delivery and Servicing Plan and is to include details on the following:
   a. Operation of freight and logistics;
   b. Parking and servicing requirements for each of the developments within Bays West Stage 1; and
   c. Future servicing for over and under station developments.
2. Appropriate facilities for last mile delivery are to be provided (potential for centralised facility).

3. The street network is not to inhibit servicing access to the ISS.
4. Development must provide three servicing bays for waste collection associated with the Sydney Metro eastern services building.
5. Dedicated space to be provided for unloading within the precinct to efficiently conduct freight and servicing operations on a precinct level. This can only occur on-street if no off street spaces are able to be provided.
6. Vehicular access to buildings must be provided from Main Streets and Local Streets (not Civic Spaces or Bus Street).

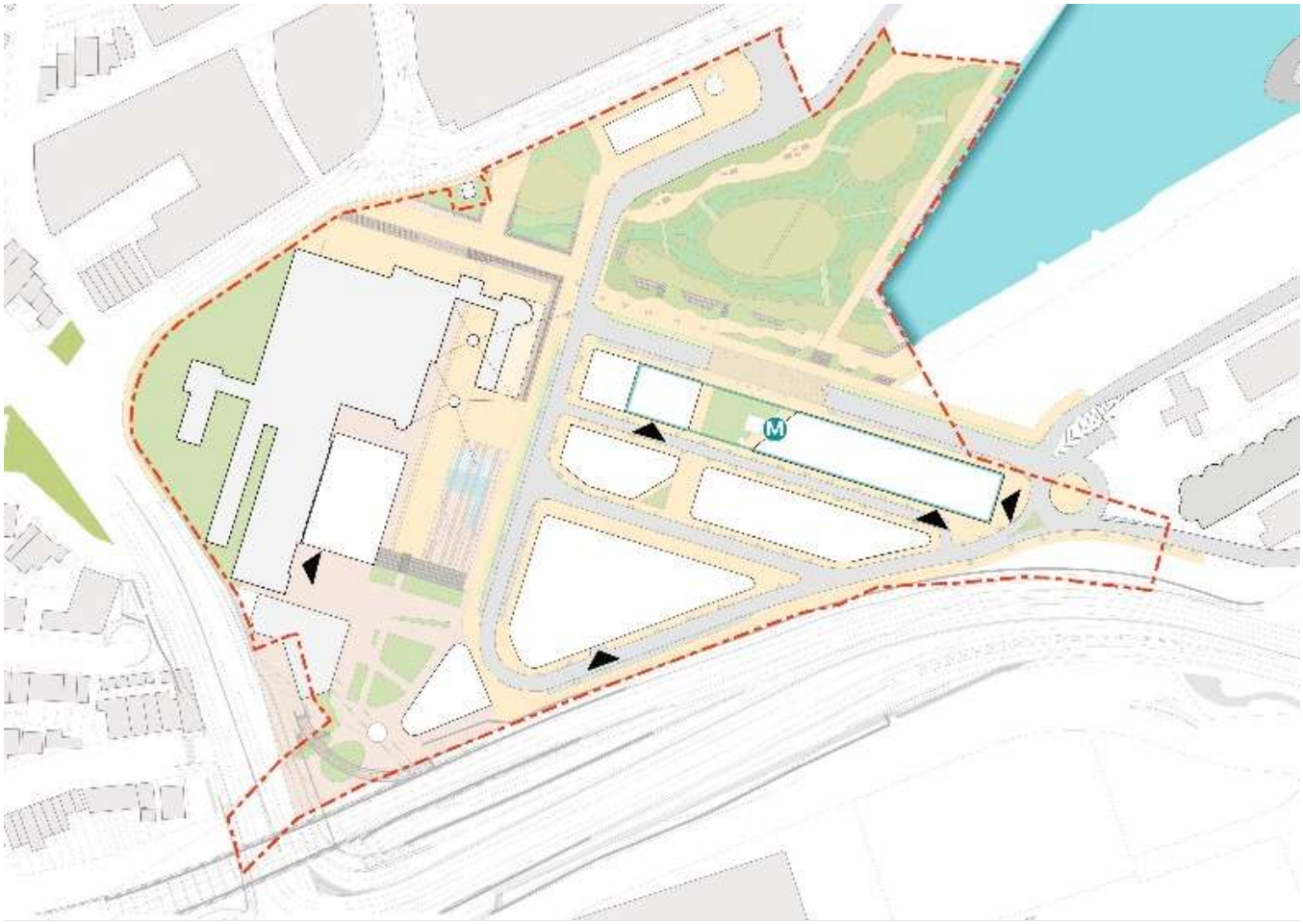

Figure 14 - Service Access

Servicing and loading access

8.7 Event Management

Renewal of the Bays West precinct provides an opportunity to for the precinct to facilitate a variety of different events – from the everyday to major events. The revitalisation and reuse of the White Bay Power Station and delivery of a new Harbourside park and other potential event spaces will attract significant numbers of people to the precinct at different times. Careful management of these events from a movement and transport perspective will be important to ensure access for all users.

Objectives

a) Ensure that Bays West is delivered as a low-car precinct, including in the management of small and large-scale events.

b) Prioritise and manage access for events through appropriate plan and approval processes.

c) Support sustainable modes of travel for events as a first choice for attendees.

Provisions

1. During special events at the White Bay Power Station and the Harbourside Park, managed servicing arrangements will be required to unload on street or in the public realm at off peak times.
2. Development applications for redevelopment of any area within Bays West Stage 1 are to be accompanied by an Event Management Plan. This must include, but is not limited to, the following:
   a. Vehicle and parking access arrangements.
   b. Patron and movement generated by the event.
   c. Servicing setup and close out functions.
   d. Any road closures and associated traffic management plans / measures.
3. Development must facilitate flexible uses and spaces that can adapt to changing functions and temporal travel patterns.

9 Aboriginal Cultural Heritage

The stretch of Country now known as Bays West has been known for millennia as Gari Gurad/Nura (Saltwater Country) and Nattai Gurad/ Nura (Freshwater Country). This Country is celebrated for vast expanses of garaban (rock and sandstone) which in some places provides shelter, gibbaragunya (stone/cave shelters), and in other places creates yiningmah (steep cliffs) where ceremony can be performed privately without uninitiated onlookers.

Bangawarra's Connecting with Country framework specifically notes that "*One of the difficulties in describing and protecting Country is that Country also includes many intangible aspects of our culture such as stories, memories and Songlines. These aspects of Country are often disregarded or unknown to heritage consultants, as so many parts of Country are classified as "not of cultural significance" and can be destroyed in development.*"

Accordingly, the objectives and provisions within the subject chapter must be considered holistically with the overall approach to Country for Bays West, which is interwoven throughout the Design Guide and other statutory and strategic planning documents.

Objectives

a) To ensure that aboriginal cultural heritage is considered holistically as part of a comprehensive connecting with Country framework for Bays West.

b) Create regenerative public spaces that utilize language, cultural stories and locally native ecologies.

c) To honour the cultural significance of Country by providing space for expressions of culture across public spaces through public art, and through ample provision of space for gathering, enactment of culture and ceremony.

Provisions

1. Development must be carefully considered to ensure it will not cause further damage or disrupt the established ecologies, and as much as possible should make positive contributions to caring for Country, augmenting habitats and improving damage that has been done in the past.
2. New vegetation must consist of species endemic to Bays West to ensure that everything on Country belongs to Country.
3. Connect important public spaces across the precincts of Bays West in a contemporary Songline that acknowledges the knowledges, stories, peoples and languages of Bays West.
4. Any physical remnants of Aboriginal people presence/occupation that remain (likely within sandstone remnants) are to be acknowledged.
5. Ensure development allows physical access to the water and waterfront for the enactment of culture on Country.

10 Non-Aboriginal Heritage

Heritage within Bays West is intended to deliver a benchmark for recognition of Country and the value Indigenous cultural knowledge brings, whilst celebrating and revitalising non-aboriginal heritage associated with the precinct's maritime and industrial past.

This Chapter focuses on the heritage and planning process and guidelines that should accompany development for non-aboriginal heritage, including the White Bay Power Station. Refer to Section 7 (Place) for detailed guidance related to the design and development objectives for the Power Station and other non-aboriginal heritage structures within Bays West Stage 1.

Objectives

a) Ensure new development appropriately respects, celebrates and enhances the heritage significance of the place including the setting, curtilage and legibility of structures and building complexes within State Heritage Register (SHR) listed White Bay Power Station.

b) Enable the sympathetic adaptive use of significant heritage items, features, spaces and extant heritage fabric.

c) Heritage assets are to be conserved and adaptively reused.

d) Key views within and across and to the site are identified and respected.

e) Encourage access to heritage assets particularly to internal spaces of high and exceptional heritage significance.

f) Interpret the industrial maritime history and historic development of land reclamation within the precinct including the historic relationship that the precinct has had to the surrounding suburbs.

Provisions

1. A Statement of Heritage Impact is to accompany a development application for a new building or alterations and additions within the White Bay Power Station and is to be prepared in accordance with the NSW Heritage Manual 'Statement of Heritage Impact'.
2. The Statement of Heritage Impact is to address:
   a. the heritage significance of the SHR item, the affected component and surrounding heritage items;
   b. the options that were considered and discounted when arriving at a preferred development scheme and the reasons for choosing the preferred option;
   c. the potential impact of the proposed development on the heritage significance of the affected component, the SHR item and its setting, including surrounding heritage items and significant views and vistas;

d. the compatibility of the development assessed against the guidelines conservation policies and principles contained within the applicable heritage controls and the White Bay Power Station Conservation Management Plan, Non-Aboriginal Heritage Study, Heritage Interpretation Strategy and other relevant heritage documentation;
e. the cumulative heritage impact of the proposed development on the precinct and the SHR item; and
f. Potential for impact to underground heritage including archaeological impacts and proposals to mitigate such impacts.

3. A development application proposing full or substantial demolition of areas within the White Bay Power Station that have medium or higher significance will not be supported under any circumstances. It must also be recognized that the significance of the White Bay Power Station is closely tied to its retention as a collective whole that represents the complete operating system and processes of coal fired power generation and supply. This means that structures and spaces of lower significance may have a supporting role for higher significant areas and their removal has the potential to deplete the integrity and significance of the power station as a whole. Any demolition must be assessed in this regard.
4. Any buildings/site elements of low heritage significance proposed for removal are to be catalogued and accompanied by a photographic archival recording to establish a recorded inventory of removed heritage items.

11 Sustainability

"Listening and understanding Country creates a greater sense of connection between person and space. A better connection with space can profoundly influence how a person treats and interacts with that space, so by exploring and reflecting Country in all project outcomes, we can help enable people to better appreciate and respect Country in all expressions."

First Nations Engagement Report (Bays West Stage 1 Master Plan).

11.1 Climate Risk and Resilience

Objectives

a) Embed design for a future climate in all design processes using Representative Concentration Pathway (RCP) 8.5 in 2090 climate scenarios.

b) Manage sea level rise and incorporate it productively into a slowly changing landscape.

c) Identify mechanisms to manage heat, bushfire (and smoke), flood and storm impacts through extreme events.

d) Provide community facilities that support social resilience during major shock events.

e) Effectively mitigate climate risk in alignment with the Taskforce for Climate-related Financial Disclosures (TCFD).

f) Enable flexible, adaptive and regenerative systems with the capacity to be changed subject to uncertain future pressures.

Provisions

5. Development must deliver a climate positive precinct, including:
   a. All electric built environment;
   b. Zero fossil fuel use for regular building operations;
6. Design to Representative Concentration Pathway 8.5 in 2090 climate scenarios;
7. Design all residential buildings, including student accommodation, is to achieve thermal safety outcomes aligned with Chartered Institution of Building Services Engineers TM59 Design methodology for the assessment of overheating risk in homes (2017);
8. Manage and allow sea level rise through design and incorporate it productively into a slowly changing landscape;

9. Development must manage overland flooding by requiring:
    a. All critical equipment and services to be located above Probable Maximum Flood (PMF) levels;
    b. All structures below PMF must be designed to survive flooding.
10. Where possible, provide space for centralised precinct thermal and power utilities;
11. Include space within buildings for future energy storage (electrical and/or thermal batteries);
12. Community facilities are to be designed to serve as gathering places during emergencies and interruptions in services; and
13. Balance evapo-transpirative planting for local passive cooling and drought-tolerant plant species.

11.2 Greenhouse Gas Emissions and Energy

Objectives

a) Deliver a Net-zero carbon precinct at time of delivery and throughout operational life.

b) Ensure that the precinct does not use fossil fuels in regular precinct operations, but ensures a reliable energy supply that also ensures energy affordability and minimises energy use.

c) Deliver a precinct that is demand-responsive, and smart utility grid ready.

Provisions

14. All normally-operating building and precinct systems must be electrified.
15. Buildings and public realm design must achieve high levels of energy efficiency through passive design and efficient services.
16. Development must demonstrate how it has reduced embodied carbon in all construction by 30% relative to 'Business As Usual' with a stretch target of 40% using Greenstar LCA methodology.
17. Development must ensure that rooftops used are for energy generation (through Photovoltaic panels) where not otherwise used for services, resident or visitor amenity, or vegetation-based habitat. Where photovoltaic panels are located, development must also explore the opportunity for vegetation to sit beneath the panels.
18. Development applications are to consider and outline where future batteries could be suitable within future development design. This could include potential adaptive reuse of former basement / parking areas.
19. Development is to consider how energy, water, or other utilities are shared between buildings or across the precinct.

11.3 Circular Economy, Supply Chain, and Materials

Objectives

a) Achieve circularity in the construction, operational, and end-of-life stages of all buildings and other constructions throughout the Precinct.

b) Minimise new resource and new product use.

c) Protect natural resources that would otherwise be damaged through resource extraction or deposition.

d) Protect Bays West Stage 1 from waste products littering the public realm and damaging the natural marine and terrestrial ecosystems.

e) Divert operational waste from landfill.

f) Eliminate single-use plastics from the upstream supply chain in both construction and operations.

g) Establish high levels of recyclability in the upstream supply chain in both construction and operations.

Provisions

1. Building forms must promote longevity by allowing easy adaptive reuse to accommodate alternative occupancies.
2. Provide spaces that facilitate sharing economy programs like car share services, bicycle share services, and community tool libraries.
3. Provide ample space in buildings and public realm to facilitate collection and storage of multiple waste streams.
4. Organic waste diversion or capture must be provided for all buildings and all use types.
5. Development applications are to be accompanied by a Construction Management Plan demonstrating how:
   a. recycled content is to be used in all construction in accordance with Greenstar methodology or equivalent;
   b. the majority of construction waste will be diverted from landfill to beneficial re-use (provisionally 95%, in line with Green Star benchmarks or equivalent).

11.4 Sustainability Governance and Assurance

Objectives

a) Provide an objective governance framework to ensure that sustainability objectives are delivered in development.

b) Provide an independent verification process to ensure that sustainability can be delivered and utilised by all.

c) Ensure that sustainability measures in development are reviewed by an independent third party to provide consent authorities confidence in delivering objective sustainability outcomes.

Provisions

1) Development is to achieve the targets provided at Table 1 Sustainability Targets:

Table 1 Sustainability Targets

Development type	Rating tool	Rating type	Target rating
Public domain	Green Star	Communities	6 Star
All buildings	Green Star	Buildings	6 Star
Commercial buildings	NABERS	Energy	5.5 Star
		Water	5 Star
	WELL	Core & Shell	Silver
Residential buildings	Liveable Housing Design		Silver (30% of units)
			Gold (10% of units)

1. Where development achieves the following targets, up to an additional 5% FSR can be achieved on the site:
   a. Residential units achieve NatHERS ratings of 7 and 10 points for water and energy above BASIX requirements;
   b. Residential units are provided continuous mechanical ventilation and exhaust with heat recovery;
   c. Residential units achieve Liveable Housing Design rating of Platinum;
   d. Commercial buildings achieve 6 Star NABERS without Green Power; and
   e. Buildings install purple pipe to all significant single non-potable water end uses.

12 Landscape, Canopy and Biodiversity

"Country is all around us – the landscape, the sea, the sky. In a large open space, there is a deep opportunity to reflect on the encompassing nature of Country and appreciate all she has given us and continues to give us."

First Nations Engagement Report (Bays West Stage 1 Master Plan).

Objectives

a) Recreate environmental values across the precinct consistent with Country, including native vegetation, water ways, water bodies and wetlands.

b) Provide opportunities to increase biodiversity resilience to climate change and natural hazards.

c) Improve water quality of the harbour while restoring and expanding the green and blue natural health systems.

d) Deliver a renewal precinct that transforms the existing poor urban conditions on site to an ecologically diverse, sustainable and dense planted urban canopy that connects learning environments and provides a level of habitat connectivity that is currently absent.

e) Enable greater consultation in the future to align traditional knowledge and cultural views of biodiversity with those responsible for developing the future ecological opportunities for enhancement.

f) Provide habitat connectivity for mobile species between key local and regional green and blue spaces.

g) Establish a biophilic environment at Bays West that provides a material connection for tenants and visitors to natural systems.

h) Achieve a Net Positive Impact on biodiversity through support for off-site land projects that generate biodiversity offset credits aligned with negative emissions instruments (afforestation, reforestation and soil carbon sequestration).

Provisions

1. Development of the precinct must ensure integration of a large public park with a strong Connection with Country framework, regional playground, green spaces, passive open space environmental habitat and amenities.
2. Individual developments must demonstrate how they are contributing to an urban tree canopy that shades 30% of the total site, primarily comprised of local and endemic species – maximising habitat whilst providing amenity and shelter for the community.
3. Design of private and public domain must ensure that 100% surface water runoff is filtered through landscape treatment before discharging to waterways. Captured water is to be used in terrestrial features, such as wetlands that also provides a freshwater environment for microbat foraging.
4. Development must create interpreted aquatic habitats to include bioretention / water quality improvements for overland flow from the land to marine environments.
5. Development adjoining the water must allow for an interpreted shoreline and using plants consistent with estuarine saltmarsh which could allow for tidal movements onto the land and considers future climate / sea level rise.
6. Protect existing and create new urban habitat for terrestrial and aquatic species at multiple scales, including ecological pockets.
7. Landscaping must consist of durable, endemic, native species that also provide opportunities to share knowledge of Country and reflect communities that may have existing prior to clearing.
8. Where appropriate, development is to:
    a. Use stormwater to provide a freshwater environment for microbat foraging.
    b. Create interpreted aquatic habitats to include bioretention / water quality improvements for overland flow from the land to marine environments.
9. Use native species in landscaping to reflect communities that may have existed prior to clearing
10. Where appropriate, development is to enable augmented fauna habitats such as:
    a. Use of microbat chambers where existing habitats are affected;
    b. design and deployment of ‘seahorse hotels’ in the marine environment through collaboration with Aboriginal artists that also enable reuse of existing urban materials; and
    c. design and use of marine tiles to encourage marine plants and macroalgae to colonise and grow along the edge of the sub-tidal marine environment.

13 Design Excellence

Objectives

a) Embed design excellence, including designing for Country across all aspects and stages of designing for the Bays West precinct.

b) Ensure high quality and varied design through the use of competitive design processes for sites within Bays West.

c) Ensure development individually and collectively contributes to the architectural and overall urban design quality of the local government area.

d) Encourage variety in architectural design and character across large developments to provide a fine grain which enriches and enlivens the public realm of Bays West.

e) Deliver exceptional public domain, heritage and Country outcomes for development within Bays West.

Provisions

1. Development is to be consistent with the principles and processes outlined in Section 3.7 of the Bays West Urban Design Framework – Bays West Precinct Design Excellence Strategy.
2. Individual projects must have a project specific Design Excellence Strategy approved by the consent authority prior to commencement of a competitive design process (for public domain and State Significant projects) or submission of a development application, whichever is earlier.
3. The Design Excellence Strategy will outline:
   a. Whether a competitive process is required, or alternate design excellence process is permitted (must be subject to concurrence by Government Architect NSW);
   b. Where a competitive process is required, the location and extent of each competitive design process or where limited to a single development site or street block;
   c. How diversity of architectural style and form will be achieved across the precinct;
   d. The type of competitive design processes to be undertaken: an architectural design competition, open or invited; or competitive design alternatives;
   e. The number of designers involved in the processes; and
   f. How fine grain and contextually varied architectural design is to be achieved across large sites.
4. For projects requiring a design competition, it must be undertaken in accordance with the 'Draft Government Architect's Design Excellence Competition Guidelines, 2018'.
5. A public art strategy prepared by a suitably qualified person consistent with the Bays West Design Guide Section on Public Art is to inform the competitive design process and, where appropriate, be included in the competition brief.

6. A ‘designing with Country’ strategy prepared by a suitably qualified person consistent with the Bays West and Government Architect draft Connecting with Country frameworks, the GANSW ‘designing with Country’ discussion paper, and this Design Guide is to inform the competitive design process and, where appropriate, be included in the competition brief.

14 Amenity

The following controls are intended to complement existing amenity provisions required through state policies including:

- *State Environmental Planning Policy 65 (Design Quality of Residential Apartment Development)* and the *Apartment Design Guide*.
- *Noise Restriction Policy – Port Authority of NSW (2020)*.

14.1 Solar Access to Public Open Spaces

Objective

a) Deliver maximum solar access to the public domain to support appropriate vegetation growth, access to sunlight, and activation and enjoyment of the open space areas.

Provisions

1. Key public open space areas must provide appropriate shelter structures (in addition to significant vegetation and canopy cover) to protect against heat and sun during warmer months, particularly in the White Bay Park play spaces.

14.2 Noise

Objective

a) Ensure an appropriate level of amenity in relation to noise and vibration is provided for workers, visitors and residents.

Provisions

1. A Noise and Vibration Impact Assessment is to be prepared by a suitably qualified acoustic consultant when submitting a development application for a new building in Bays West Stage 1.
2. The Noise and Vibration Impact Assessment is to consider and respond to noise and vibration impacts from the surrounding road network, future metro rail, harbour activity, port operations, and the future activation of the precinct and other potential noise sources.

3. Development assessment shall include, but not be limited to the following (or where updated or superseded), as relevant to the proposed use:
   a. NSW State Environmental Planning Policy (Transport and Infrastructure) 2021,
   b. Development Near Rail Corridors and Busy Roads – Interim Guideline 2008
   c. Glebe Island and White Bay Port Noise Policy 2020
   d. NSW Noise Policy for Industry 2017
   e. NSW Assessing Vibration: A Technical Guideline 2006.
4. Noise and vibration emissions shall be assessed at all existing and future receiver locations within the precinct.
5. To minimise cumulative noise impact across the precinct, determination of Project Noise Trigger Levels in accordance with the NSW Noise Policy for Industry should not correct for high traffic noise based on Section 2.4.1 of the policy.
6. Assessment of low frequency noise from ports activities shall consider any revised policy and recommendations from the Port Authority of NSW.
7. Where noise criteria cannot be achieved concurrently with natural ventilation via open windows, alternative ventilation shall be provided complying with the Building Code of Australia requirements as a minimum. Noise from background ventilation systems shall be at least 5 dB below the relevant noise policy internal criteria. Notwithstanding the provision of alternative ventilation, measures to reduce noise to external areas and via open windows shall be incorporated in the overall design and layout of noise sensitive development.

14.3 Wind

Objectives

a) Ensure development within the Bays West precinct manages the cumulative impact of development on the local wind environment, and does not result in unsafe wind conditions within the public domain, publicly accessible managed space, and adjacent areas surrounding the development.

b) Ensure the wind conditions for pedestrian comfort in and around the precinct are suitable for the intended pedestrian use of the spaces.

Provisions

1. The building forms of all new developments are to be designed to minimise the impact of wind on the surrounding areas to ensure compliance with the wind classification for the intended uses of the public domain.
2. A quantitative wind effects report is to be submitted with any development application for new buildings greater than, or equal to, 30 m tall that addresses how the proposed development meets the relevant classification as detailed in Figure 1. The wind analysis is to be based on a minimum of 16 wind directions at 22.5° increments. The report should compare results in the existing (no development in the Bays West precinct) and proposed

configurations (with all proposed developments in the Bays West precinct). A qualitative wind effects report is to be submitted with any development application for new buildings less than 30m tall.

3. Wind impacts from any development must not exceed the Wind Safety Criterion, which is an annual maximum 0.5 second gust wind speed in 1 hour of 24 m/s during daylight hours from 6 am to 10 pm (exceedance probability of 0.0171%). The probability exceedance should be integrated around all wind directions.
4. Wind impacts from any development on the surrounding public domain and publicly accessible space are not to exceed the relevant Wind Comfort classification criterion for sitting, standing, and walking in accordance with the zoning in Figure 15 - Wind Classification Map. The Wind Comfort criteria is based on exceedance of an hourly mean wind speed, or gust equivalent mean wind speed, whichever is greater for each direction, of no more than 5% of the time during daylight hours from 6 am to 10 pm. The classification levels are:
   a. pedestrian walking – 8 m/s,
   b. pedestrian standing – at building entrances, bus stops, train platforms – 6 m/s, and
   c. pedestrian sitting – 4 m/s.

   The gust equivalent mean wind speed is equal to the maximum 3 second gust wind speed measured in an hour divided by 1.85. The probability exceedance should be integrated around all wind directions.
5. In addition to the classification requirements in Figure 15 - Wind Classification Map, within the Parkland zone an area of at least 150 m2 should be classified for pedestrian standing, and an additional 50 m2 classified for pedestrian sitting.
6. New developments within Bays West Stage 1 are to achieve the wind comfort classification on land outside the precinct (i.e. the area outside the site boundary on Figure 15 - Wind Classification Map), unless demonstrated that the existing wind conditions (without any re-development in the Bays West precinct) in that area do not achieve the appropriate Wind Comfort classification. If the existing wind conditions do not achieve the identified wind comfort classification, any new development is not to worsen the existing wind conditions.
7. Future development applications are to demonstrate how public domain and building design have considered all opportunities to improve wind conditions for appropriate areas to standing or sitting.

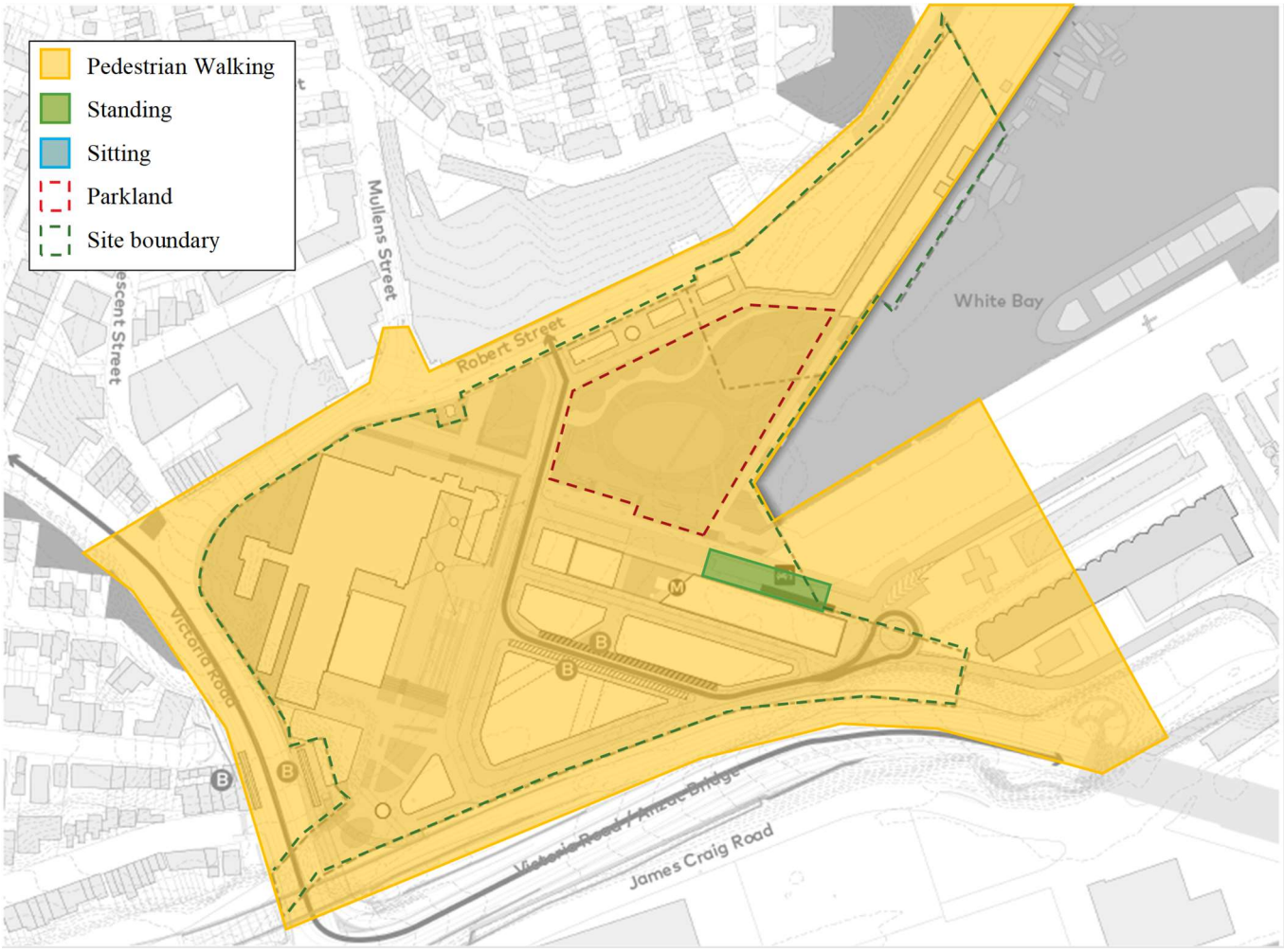

Figure 15 - Wind Classification Map

14.4 Air Quality

Objectives

a) The development layout within the Bays West precinct is to be designed to ensure a suitable and acceptable ambient air quality environment such that it adequately protects the amenity of the area as well as the health and well-being of users.

b) New development within the Bays West precinct must manage emissions to air in a safe and controlled manner, such that it does not pose or give rise to risks of harm to human health or the environment within as well as outside the precinct.

Provisions

1. The intended uses of new development within the Bays Precinct need to be considered during design in relation to existing and future known sources of air pollution. Where possible, sensitive uses, such as residential, education and health uses (if proposed), should be distanced as far as possible from significant sources of air pollution (e.g heavily trafficked roads, industrial sources).

2. The building forms design and orientation of all new developments within the Bays West precinct are to be designed to promote dispersal of and/or shielding effect from air pollution, to maintain amenity for building users as well as at any proposed outdoor recreational activity locations.
3. The design of buildings within 100 m of the nearby Victoria Road and Anzac Bridge Access Road will need to take into account elevated pollutant concentrations close to these sources and include relevant design controls to protect human health and amenity.
4. The design should aim for net zero emissions in relation to transport and other fossil fuel combustion sources within the precinct.
5. Any air quality assessment required during the planning process will need to be able to demonstrate that air quality has been considered throughout the design process and has minimised the impact on users of the precinct from the surrounding environment.
6. Continued engagement should be undertaken with Port Authority NSW and Cement Australia (as a minimum) to determine any changes to the local air quality environment that may impact the precinct.

14.5 View Sharing and Outlook

Objectives

c) Preserve significant views from public places.

d) Ensure that development does not unreasonably borrow amenity from neighbouring sites including access to views and outlook.

e) Protect key view corridors to and from the White Bay Power Station from:

   i. Anzac Bridge

   ii. Observatory Hill and the Harbour Bridge

   iii. Johnston Street

   iv. Mullens Street

   v. Glebe Point Road (Chimneys only)

   vi. City West Link.

Provisions

1. Development must protect views to and from the White Bay Power Station from the key view corridors identified in the White Bay Power Station Conservation Management Plan.
2. Development must consider and assess the impact of proposals on view sharing consistent with the principles identified in Tenacity Consulting v Warringah Council [2004] NSWLEC 140.
3. Development must not further restrict views to Sydney Harbour from the future White Bay Park.

15 Public Art

Public art is a key element in realising the connected, vibrant and activated precinct envisioned for Bays West. As Stage 1 of Bays West, the White Bay Power Station and Metro sub-precinct plays a critical role in establishing the cultural life and showcasing the future character of the wider precinct.

Public art can be a powerful means of communicating and celebrating the embedded heritage, values and culture of this place including its unique biodiversity and historic built forms. Public art can also be used to conjure a vision of the precinct's future. In recognition of this important role in contributing to place identity and vibrancy in the public realm, public art forms part of the design excellence assessment.

In line with the approach throughout this Design Guide, the public art curatorial principles have drawn directly from the project's Connecting with Country framework. These principles are inspired by the body of work developed by key knowledge-keepers including Bangawarra and Zakpage. Consequently, the references to Saltwater Country, Freshwater Country and Brackish Water Country originate in the documentation prepared by these consultants.

Public Art Curatorial Principles

Power of Connection

Drawing on Biddi Gurad (Brackish Water Country) concepts in the Connecting with Country themes, this principle recognises the highly nutrient, estuarine ecology that historically defined the site as a place for the meeting and mixing of salt and fresh water. As a place of connection and power, White Bay should be a place that reflects a culture of collaboration, meeting and learning. Public art should reflect this connective power in both its development and practical realisation.

Layers of Time

The concept of Gari Gurad (Saltwater Country) provides a poignant departure point for a principle based on deep time. Over millennia, as sea levels have risen and fallen, the to and fro' of tidal forces have created a layering of cultural as well as ecological character in this area. This concept is also reflected in the Urban Design Principle 'Reinforce a Layered and Evolving Heritage,'. Historic shorelines, sandstone cliffs, pumping stations, warehouses and the monumental power station all reveal layers of stories and cultural values. Public art in White Bay should draw upon, interpret and celebrate the historical biodiversity and human-built fabric of these multiple layers as a source of inspiration.

New Growth and Flow

Nattai Gurad (Freshwater Country) provides the impetus for this principle: a cleansing element that arrives through rain and flood, refreshing the landscape and generating new growth. In a similar way, public art should help realise a dynamic and engaging public realm. This principle can be achieved by conceiving public art in conjunction with the Innovation principles of this Design Guide.

Public art programming is also a key lever in achieving the Urban Design Principles of 'Precinct-scale activation from Day 1' and 'The Everyday and the Event.'

Defining Public Art

Public art is defined as:

> "Art that is made with the specific intention of being situated in the public domain, often outside, and intended to be accessible to a wide audience... (It) includes a wide range of art forms including free-standing sculptural artworks, murals, installations, integrated design projects (where artwork is integrated into the fabric of architecture or applied to buildings, for example), ephemeral art, socially engaged and artist-led participatory processes, and temporary performance works at festivals and cultural events. Public art can be permanent (lasting many years), or temporary (lasting a few hours, days or months)... The purpose of commissioning artwork varies, across diverse contexts that include urban renewal and place making, festivals, percent for art schemes or civic art collection. Public art contributes to our understanding and appreciation of local cultural and social heritage, enhances the natural and built environment, and helps to create meaning in public space".
>
> **National Association for the Visual Arts (NAVA) Australia (2019)**

Objectives

a) Public art is to be integrated into the fabric of the renewal of the precinct and is to be underpinned by a strong approach to collaboration across all stakeholders and design disciplines.

b) Opportunities for community-engagement and participation in public art projects should be realised, to create long lasting connections between visitors, residents and workers.

c) The layered histories and community stories about the edge of the harbour that date back for millennia will be interpreted by Public Art.

d) The evolution and range of White Bay's biodiversity will be an inspiration for public art programs throughout the area.

e) Public art programs will promote and define White Bay's cultural profile: from temporary injections of fresh new ideas through to everyday expressions of artistic virtuosity.

f) Public art will be a source of life and vibrancy at White Bay from Day 1 through delivery of 'meanwhile interventions', iterative arts programs and demonstration projects that illustrate the innovative character of the area.

Principles

1. Where practical, development must include dedicated arts and cultural governance groups and mechanisms for the achievement of the public art objectives.
2. Public art commissions and programmed activities should demonstrate cohesion and synergies across the precinct. Arts and cultural activities within the precinct boundary and in the surrounding area should be planned in consultation with stakeholders, owners and authorities.
3. Arts and cultural activities should be considered holistically which consultation with a range of design disciplines and stakeholders including place activation and aboriginal advisory.
4. Competitive design responses must demonstrate excellence in programming and curation that maintains positive community connection and association with the site throughout all stages of development. Responses must include an arts program statement that provides evidence for how culture-led placemaking from 'Day 1' will achieve this provision.
5. Public art planning must include a variety of approaches, scales and forms and engage the three curatorial principles. Commissions should include:
    a. A significant relative allocation of capital budget towards public art, comparable to 'percent for art' programs or best practice benchmarks;
    b. Major art commissions by Aboriginal artists with a focus on the inclusion of local custodian artists;
    c. Integrated commission(s) with artists collaborating on built form design;
    d. A future-focussed commission that promotes green / biodiversity place character; and
    e. Play-based commission or artist collaborative approach to playground.
6. Public art designs must be consistent with the Active Multi-modal Interchange Urban Design Principle and must not interfere with lines of sight to the metro, impact solar access or obscure passive surveillance. Public art designs must also be consistent with the IWLEP 2022 'Public art on footpaths' controls where applicable.

16 Stormwater, Flood Mitigation and Water Quality

"Water is calming, healing, and tactile, and a key part of Country at the site. As a site used for healing and connection for Aboriginal people in pastimes, water should be integrated into the site and public domain wherever possible"

First Nations Engagement Report (Bays West Stage 1 Master Plan).

Objectives

a) Minimise consumption of water resources.

b) Minimise wastewater generation.

c) Deliver clean stormwater to Sydney Harbour.

d) Solve current flooding issues, and reduce flood and inundation risk as a result of intersecting climate change pressures of sea-level rise and increased rainfall.

e) Align water quality, supply source, and treatment needs to enable effective water harvesting and re-use.

f) Ensure development which may be affected by flooding adequately factors in climate change impacts.

Provisions

1. No potable water is to be used for non-potable uses.
2. Development must identify mechanisms for waste-water treatment and re-use aligned with best practice utilities and implement solutions that can be sustainably operated over the full life of the precinct.
3. Development must capture rainwater and reuse from all non-trafficable roof surfaces.
4. Universally accessible drinking water fountains, with water bottle filling, are available in all public spaces.
5. Protect space for water recycling plant sufficient to serve Bays West.
6. Provide purple pipe non-potable water supply within all buildings to major non-potable water end uses.
7. Integrate site layout and the drainage system to avoid nuisance flows and flooding within the precinct and onto neighbouring properties.

a. Site layout must be designed to minimise disruption or disturbance of land surfaces or natural drainage patterns. Where natural surface flows from uphill lands, have the potential to flow through the property, notwithstanding the presence of fences, walls and minor structures, they must not be blocked or redirected because of the proposal.
b. Buildings are to be setback where overland flow paths are needed in that location due to site constraints to convey flows across the surface.
c. Solid or masonry boundary fences should not be erected where they will divert stormwater runoff to another property. Boundary fences should be of lightweight or partially open construction in these circumstances.
d. The site drainage system must be designed to collect and convey gravity flows by gravity and have a pipe system for frequent rainfall events combined with an overland flow path to convey larger flows that are generated during storms.
e. Where an overland flow path cannot be provided due to the position of existing buildings and structures that are to be retained, the capacity of the pipe system must be designed to capture and convey the 1% AEP storm event flow from the contributing catchment assuming 80% blockage of the inlet and 50% blockage of the pipe.
f. An inter allotment drainage system, and associated drainage easement, must be used where the development would cause existing and/or natural drainage patterns within the vicinity of the site to be blocked, diverted, or concentrated onto another property.
g. Adequate provision must be provided to minimise the potential for surface waters entering buildings, including a minimum off 150mm step between the external finished surface level and the finished floor level. A larger step may be required where the surface waters from multiple uphill properties may enter the site.

8. Due to the location in the catchment and adjacency to the harbour discharge point, no Onsite Detention (OSD) is required for this precinct. The capture and re-use of stormwater runoff for non-potable uses such as irrigation and wash-downs throughout the precinct is encouraged.
9. Stormwater treatment is to ensure that:
    a. A water quality filtration basket, or similar primary treatment device, must be installed on the site stormwater drainage system.
    b. Water quality treatment techniques should be provided where appropriate.
    c. Car wash bays must be provided for applications for multi-unit residential development. For developments with 16 or more dwellings, a dedicated car wash bay must be provided at a rate of 1 bay per 60 dwellings or part thereof.
10. Water quality treatment measures must be installed that meet the following:
    a. Reduction of average annual load for gross pollutants by 90% (Baseline annual pollution load of 500kg/ha/yr).
    b. Retention of average annual load for total suspended solids by 85% (Baseline annual pollution load of 900kg/ha/yr).
    c. Retention of average annual load for total phosphorous by 65% (Baseline annual pollution load of 2kg/ha/yr).
    d. Retention of average annual load of total nitrogen by 45% (Baseline annual pollution load of 15kg/ha/yr).
    e. Reduction of annual load (no visible discharge) of hydrocarbons by 90%.

f. Containment of 100% of toxicants.

The design of the stormwater treatment system must be incorporated into the Integrated Water Cycle Plan.

11. Stormwater Infrastructure for Water Disposal - Maintain existing natural drainage patterns and avoid nuisance and flooding to the drainage system and downstream properties:
    a. Where the site drains naturally towards any street frontage, stormwater runoff from all roof and impermeable areas must be drained by gravity to the public drainage system of that street frontage.
    b. Where the site naturally drains away from all street frontages and cannot discharge stormwater directly to Sydney Harbour, stormwater runoff should be drained to the precinct piped trunk drainage system, if it passes through the site, or an existing registered drainage easement benefitting the site.

       The drainage of any roof and surface areas that cannot drain to the street must be designed to cause no concentration of flows or nuisance to downstream properties.
    c. Connection to the public stormwater drainage system should be undertaken as follows:
        i. The site must be drained to the downhill extent of the site, generally in the direction that the site naturally drains. The outlet pipeline must be connected directly to the public piped drainage system. Where the piped drainage system is not available at the street frontage, the existing public system must be extended to the frontage of the site. An assessment of the existing capacity of the stormwater network must be made prior to connection to ensure there are no adverse impacts on the receiving drainage system.
    d. Basements must be of fully tanked construction such that pump-out systems are not required to drain the subsurface drainage system. Consideration will only be given to the provision of a pump-out system where it can be demonstrated by detailed geotechnical investigation that groundwater flows are minimal or intermittent.
    e. For basements other than for car parking purposes this will only be considered where it is demonstrated that they will not be subject to the ingress and surface stormwater, and where the sump and pump facilities can be housed and accessed for maintenance from an area external to the building above. Floor areas partly below the natural ground surface level will only be considered where it is demonstrated that they will not be subject to the ingress of surface stormwater, and where an overland flow path can be provided from all adjacent external finished surfaces.
    f. For basements associated with car parking facilities, a pump out system is permitted for minor surface areas that drain to the basement. All other forms of access to the basement must be protected from the weather so that the entry of stormwater runoff to the basement is minimised.
12. Development in the vicinity of a public drainage systems must:
    a. Ensure that development near the public drainage system does not compromise the functionality of the system and provides adequate access for its future management.
    b. Construction of permanent structures or placing of fill over the precinct piped drainage system is not permitted.
    c. Where the drainage system is within a drainage easement, the above restrictions extend over the width of the easement. If the drainage system is not within an easement, the above restrictions are extended by 1500mm to both sides of the centreline of the drainage

structure. These restrictions may be extended further due to considerations associated with flood risk management.

d. Open structures may be permitted where it can be demonstrated that they will not increase the risk of flooding to the subject or adjoining properties. These structures must not prevent or hamper future access to the drainage system for works and maintenance.

e. The construction of structures over or adjacent to the Sydney water piped stormwater drainage system must be approved by Sydney Water. This Guide may impose additional conditions to those imposed by Sydney Water.

13. Flood Risk management will be managed through development complying with the below:

a. Commercial, Industrial and Mixed-Use Development

i. All floor levels, including any existing components to be retained, are to be at or above the Flood Planning Level or raised to the Flood Planning Level.

ii. If this is impracticable, consideration may be provided to some or all of the non-residential floor levels having a freeboard of less than 500mm above the 1& AEP flood level, provided that satisfactory flood proofing (either wet or dry) is achievable to the Flood Planning level. All entrances and evacuation routes servicing any residential components must be above the Flood Planning Level.

b. Land with a High Hazard Category - development must demonstrate that:

i. There is no net loss in flood storage and floodway area as a result of the development.

ii. The development will not increase velocity, volume or direction or flood waters;

iii. The underside of all new floors are above the Probable Maximum Flood Level or Flood Planning Level, whichever is the highest, and all structures designed to withstand the High Hazard condition.

iv. The principle entries to all dwellings and common areas are located above the Probable Maximum Flood Level or Flood Planning Level, whichever is the highest, and an evacuation route is provided clear of the floodway.

v. Basement (below natural ground level) car parking is only permitted where all access and potential water entry points are above the Probable Maximum Flood Level or Flood Planning Level, whichever is the higher, and clearly signposted flood free pedestrian evacuation route is provided from the basement area separate to the vehicular access ramps.

c. Car parking Facilities and Basements

i. The floor level of new enclosed garages must be at or above the 1% AEP flood level plus 200mm. Consideration may be given to a floor level at a lower level, being the highest practical level but no lower than 180mm below the 1% AEP flood level, where it can be demonstrated that providing the floor level at the Flood Planning Level is not practical within the constraints of compliance with Australian Standard AS/NZS 2890.1 Parking facilities as amended.

ii. On properties with a low flood hazard classification, basement car parking (below natural ground level) must have all access and potential water entry points above the Flood Planning Level and provide a clearly signposted flood free pedestrian evacuation route from the basement area separate to the vehicular access ramps. Refer to part (e) within the Land with a High Hazard Category section for basement car parking in properties affected by High Hazard flooding.

d. Flood Mitigation and Modification Works - Those works that modify the stormwater drainage system or flood behaviour within the development site are permitted subject to the following:
   i. They do not have an adverse impact on any surrounding property.
   ii. Section 88B notation is to be placed on the title of the land that informs future landowners that flood protection measures, and the associated locations, have been undertaken on the property and of the need to retain and maintain these structures and works for future flood mitigation.
   iii. Where it is demonstrated that flood mitigation works result in the safe diversion of the floodwater away from the proposed development, the floor level may be located below the Flood Planning Level.

Table 2 Flood Planning Levels

Flood Planning Levels		
Residential	Habitable Rooms – Mainstream Flooding (flood depth greater than 0.25)	1% AEP flood level + 0.5m freeboard
	Habitable Rooms – Local drainage flooding (flood depth less than 0.25)	1% AEP flood level + 0.5m freeboard OR x2 the depth of flow to a minimum of 0.3m
Residential non-habitable Rooms	Mainstream of local flooding	1% AEP flood level
Industrial or commercial retail floor levels	Mainstream of local flooding	Merit based approach with a minimum level of the 1% AEP flood level
Below ground car parks	Mainstream of local flooding	1% AEP flood level + 0.5m freeboard OR Probable Maximum Flood Level (whichever is higher)
Metro Entrances	Mainstream of local flooding	1% AEP flood level + 0.5m freeboard OR Probable Maximum Flood Level (whichever is higher)

14. Development within the precinct is to comply with the below:
   a. New residential development and alterations and additions to residential development
      i. All floor levels including any existing components of the development (excluding open balconies) must be at or above or raised to the Foreshore Planning Level.
      ii. However, existing floor levels may be retained below the Foreshore Planning Level for alterations and additions to existing residential dwellings if the following are complied with:
         A. The floor levels of the additions and any altered floor areas must be at or above or raised to the Foreshore Planning Level.

B. Where alterations and additions affect less than 60% of the total existing floor areas, those existing areas that are not to be significantly altered may be retained below the Foreshore Planning Level.

C. Where the alterations and additions affect greater than 60% of the total existing ground floor areas and raising some or all of the existing floor levels is impracticable due to Heritage or Conservation Area constraints, only those areas so constrained may be retained at the existing level.

D. The additions must be designed and constructed such that they do not preclude the raising of the existing floor areas to the Foreshore Planning Level at a future date or when further additions are proposed.

E. For any addition above ground floor, the floor level of the addition must be at a height that allows for the ground floor below to be raised in the future (if not required to be raised under the above control) to the Foreshore Planning Level, whilst maintaining minimum floor to ceiling height requirements.

F. Any floor areas of the existing dwelling to be retained at the existing level, below the Foreshore Planning Level, must be satisfactorily flood proofed (either wet or dry) to the Foreshore Planning Level

b. All other development types

i. Where constructing the floor level, or raising the floor level of existing development to the Foreshore Planning Level is difficult to achieve, consideration may be given to some or all of the floor levels being up to 300mm lower than the Foreshore Planning Level provided that satisfactory flood proofing (either wet or dry) is achievable to the Foreshore Planning Level.

c. Car parking Facilities / Basements

i. The floor level of new enclosed garages must be at or above the Foreshore Planning Level.

ii. Basements must have all access and potential water entry points above the Foreshore Planning Level and a clearly signposted pedestrian evacuation route from the basement area separate to any vehicular access ramps.

d. General Requirements

i. Mitigation works that modify the wave action or tidal inundation behaviour within the development site may be permitted on a merit basis subject to demonstrating that there is not adverse impact on the subject property or surrounding land.

ii. A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title of the land describing the location and type of mitigation works with a requirement for their retention and maintenance.

15. Development is to ensure that the design for drainage and flooding shall be undertaken to include the effects of climate change. This will require that:

a. Climate change effects are to be incorporated in accordance with ARR2019 guidelines for rainfall intensity increase predicted for year 2090.

b. The 2090 interim climate change factor based upon a Representative Concentration Pathway (RCP) 8.5 (as recommended by ARR2019) adopts a 21.3% increase in rainfall intensity at the locality of the proposed works.

c. The design for drainage shall apply a 1.213 multiplier to rainfall intensities in determining the runoff and sizing of infrastructure.
d. All Flood Planning Levels are to be inclusive of climate change impacts.

16. To ensure that development is carefully designed, constructed and maintained to minimise impacts on the water cycle and counteract the impacts of urban development, the following key factors need to be taken into consideration at the implementation stage:
    a. Each future development is responsible for managing rainfall run-off from their respective development sites both from a quantity and water quality perspective.
    b. Hydraulic calculations at the detailed design development stage will determine the final development lot discharge locations, capacity of the new precinct drainage systems and outlets and interfaces at the properties for water quality.
    c. Development building floor levels to be assessed against proposed flood depths to mitigate future flood risks.
    d. Any harbour outlets to include improvements at the discharge location to provide water quality and ecological improvements.
    e. Consideration of roof water in place of mains supply for non-potable uses, especially for toilet flushing, laundry use and irrigation.
    f. Consideration of reuse of surface runoff for irrigation purposes.
    g. Landscaping designed for cleansing runoff and conserving water.
    h. Protection of native vegetation to minimise site disturbance and conserve habitat.
    i. Protection of stream corridors for their environmental, recreational and cultural values.

17 Ground Conditions (Geotechnical and Contamination)

Objectives

a) Ensure that the site is made suitable from an environmental and human health perspective for the proposed land uses, by incorporating remediation/management of contamination and acid sulfate soils both on-site and associated with the adjoining Sydney Harbour receiving environment.

b) Appropriately manage geotechnical constraints associated with the site to mitigate any impacts to existing infrastructure and structures as a result of future development works.

c) Ensure the cumulative impact of development of the site results in improvements to overall environmental conditions at and down-gradient of the site within the adjoining White Bay and Sydney Harbour.

Provisions

1. Development must comply with the requirements of the NSW Contaminated Land Management provisions as outlined in Chapter 4 of the SEPP (Resilience and Hazards) 2021 demonstrating that the site is, or will following remediation/management be made, suitable for the proposed development. All reports must be prepared with consideration to the relevant guidelines made or approved by the NSW EPA under Section 105 of the Contaminated Land Management Act 1997.
2. Where remediation/management is identified to be required, an appropriately detailed Remedial Action Plan (RAP) is required to be submitted documenting the actions required to make the site suitable for the proposed development.
3. An independent review of the assessment report(s) and RAP will be required for each development, resulting in preparation of a A Part B Site Audit Statement and Report, prepared by a NSW EPA Accredited Site Auditor, which confirms that the site can be made suitable for the proposed land use if remediated/managed in accordance with the submitted RAP.
4. The development and its associated remedial/management requirements should consider generation of excess excavated material, including waste handling (transport, identification, classification, stockpiling, tracking and disposal) and excavation water discharge.
5. The development methodology is also required to consider details for the mitigation and management measures to be implemented during the remediation and site construction works to minimize the potential human health risks (occupational exposure and nearby site occupants) and thereby ensure the safety of workers and nearby site occupants, including the measures necessary to monitor and manage the exposure of workers to contaminants as required under the Work Health and Safety Regulation, 2017.

6. Development is required to be undertaken consistent with the requirements of the Acid Sulfate Soil Manual (ASSMAC, 2018) and the National Acid Sulfate Soil Guidance. Australian Government Department of Agriculture and Water Resources (DAWR), June 2018 (AGDAW, 2018).
7. Where below ground works may/will result in disturbance of known or suspected acid sulfate soil within the development site and/or surrounds, a management plan will be required for the identification, handling, treatment, transport and disposal of any acid sulfate soil material including waste that may be encountered during demolition, site preparation, excavation and construction works. Development planning is to assess (and minimise) the impacts of groundwater drawdown (temporary and permanent) in addition to the actual ground disturbance (including excavation).
8. Assessment will be required to identify geotechnical issues associated with construction of the development, including but not limited to the location and depth of existing basement structures and/or foundations of buildings and other infrastructure (such as the White Bay Power Station and adjoining road infrastructure), below ground infrastructure (including the The Bays Station and tunnels, cooling water canal, etc) and the White Bay foreshore. Considerations include details of ground movement, saline (marine) groundwater conditions, advice on requirements for boundary offsets, underpinning, and other support to adjacent structures. Where appropriate, development of monitoring and mitigation measures will require to be considered.
    a. Development planning must give consideration to the potential for settlements and ground movements as may occur during/following construction of the development (and the associated below ground infrastructure), including the cumulative impact of development on groundwater characteristics within the precinct and the mixing zone in White Bay.
    b. A geotechnical model of representative geological and groundwater conditions must be prepared prior to construction to identify geological and groundwater features. The model must include details of proposed construction (including excavations and below ground structures) and construction staging, and identify surface and sub-surface structures, including any specific attributes, which may be impacted by the development. The Proponent must use this model to assess the cumulative predicted settlement, ground movement, stress redistribution and horizontal strain profiles caused by the development (i.e. during excavation and loading of the ground), including groundwater drawdown and associated impacts, on adjacent surface and sub-surface structures.
    c. Prior to construction, the Proponent must undertake a review of surface and sub-surface structures at risk from damage to determine appropriate criteria to prevent damage that may pose a settlement risk.
9. Planning for below ground construction activities will require a comprehensive groundwater assessment incorporating pre-construction (baseline) conditions, predicted impacts and proposed mitigation and reporting commitments during construction and post- construction and operational phase conditions. Where works will require temporary dewatering during construction, this assessment should identify and evaluate the discharge water quality and degree of potential impact the water may have on the receiving environment, including all pollutants and/or water quality characteristics that may impact upon human health and/or environmental quality.

18 Services and Infrastructure

This section focuses on the Services and Infrastructure required to be delivered within the Bays West Precinct to accommodate development of Stages 1, 2 and 3. This includes infrastructure relating to utility services and infrastructure including the Metro Intake Sub Station (ISS), 11kV/415V Distribution substations (Kiosk or Chamber type), 11kV Zone Substation and telecommunication facilities.

General Objectives

a) Ensure the construction of utility services and infrastructure is delivered in a logical and staged manner, and in sequence with development for the broader Bays West Precinct.

b) Encourage innovative and sustainable utility servicing across the Bays West Precinct to promote effective and efficient delivery of services.

c) Ensure utilities designs and locations consider space for alternative future services and do not preclude future developments from occurring.

d) Ensure works do not impact on Sydney Metro operations.

e) Ensure utilities are futureproofed to minimise the need for future rectification works.

f) Design and provide utility infrastructure to integrate with, and not negatively impact, use of the public realm, liveability, and the environment.

18.1 Potable Water

Objectives

a) Liaise with Sydney Water to ensure the infrastructure and servicing requirements for the precinct are in alignment with Sydney Water's 2020-2025 Growth Servicing Plan.

b) Manage and balance urban water elements (drinking water, wastewater, and stormwater) through integrated water management.

c) Design and delivery of infrastructure, servicing and development shall be driven by an integrated water cycle management approach to build resilience in Sydney's water supply through encouraging the use of recycled water, optimising stormwater management and maximising efficiency in the use of potable water.

d) Facilitate the delivery of regional water infrastructure to optimise the efficiency of development and deliver better outcomes for waterways, amenity, and liveability.

e) Minimise potable water use through water efficient fixtures and alternative water sources (e.g., recycled water and rainwater).

f) Ensure integrated water cycle management is safe, practicable and provides the best environmental outcomes.

Provisions

1. The applicant must demonstrate that adequate provisions are in place to connect to reticulated drinking water supply and effluent/wastewater disposal.
2. Avoid planting trees within 3m of a water main. Species selection should be determined with regard to site constraints.
3. Shared utility trenches must combine multiple utilities within a compact area of the street verge, and futureproof service location within road cross sections.
4. Development near infrastructure easements must not impact on the continued operation of the infrastructure.
5. Infrastructure should allow for co-location of compatible similar uses.
6. Use harvested stormwater (from on-site water storage or regional stormwater harvesting) for all non-potable water purposes, including:
   a. Passive cooling methods that supplement or preclude mechanical cooling;
   b. Internal reticulation for toilet flushing and other appropriate uses (e.g. laundry, hot water taps in baths, showers, laundry troughs and washing machines);
   c. Irrigation of landscaped areas (onsite, communal areas and public land) or Vegetation areas (existing where appropriate and revegetation);
   d. Water features;
   e. Cooling of industrial roofs; and
   f. Connection to regional/precinct harvesting and reuse schemes.

18.2 Wastewater

Objectives

a) Manage and balance urban water elements (drinking water, wastewater, and stormwater) through integrated water management.

b) Design and delivery of infrastructure, servicing and development is to be driven by an integrated water cycle management approach to build resilience in Sydney's water supply through encouraging the use of recycled water, optimising stormwater management and maximising efficiency in the use of potable water.

c) Water supply is provided to all development, as part of a comprehensive water infrastructure network.

d) Design and delivery of infrastructure, servicing and development shall be driven by an integrated water cycle management approach to build resilience in Sydney's water supply through encouraging the use of recycled water, optimising stormwater management, greywater harvesting and maximising efficiency in the use of potable water.

e) Facilitate the delivery of regional wastewater infrastructure to optimise the efficiency of development and deliver better outcomes for waterways, amenity, and liveability.

f) Optimise greywater reuse opportunities to minimise wastewater generation.

g) Ensure integrated water cycle management is safe, practicable and provides the best environmental and health outcomes.

h) Prioritise Water Sensitive Design initiatives in coordination with sustainability initiatives.

Provisions

1. The applicant must demonstrate that adequate provisions are in place to connect to reticulated drinking water supply and effluent/wastewater disposal.
2. Avoid planting trees within 3m of a sewer main. Species selection should be determined with regard to site constraints
3. Where storage is utilised, tank systems and or harvesting system requirements are to be determined considering the required effluent management flow targets
4. Use harvested greywater for appropriate onsite uses based on water quality requirements.

18.3 Electricity

Objectives

a) Deliver alternative servicing strategies such as solar power, battery storage and district cooling within the precinct.

b) Design built form to promote low energy usage and minimise energy waste.

c) Co-locate infrastructure to allow for compatible similar uses.

d) Enable shared utility trenches to combine multiple utilities within a compact area of the street verge, and futureproof service location within road cross sections.

e) Ensure development near infrastructure easements does not impact on the continued operation of the infrastructure.

Provisions

1. In multi-floor or multi-tenant or strata-subdivided developments, electricity sub-metering is to be provided for light, air conditioning and power within each floor and/or tenancy and/or strata unit. Locations are to be identified on the development plans.
2. New Distribution substations (Kiosk or Chamber type) and Zone Substation selection and locality to be completed in consultation with Ausgrid.
3. Underground electrical conduits to allow for further 11kV distribution feeders to be added in future.

18.4 Gas

Gas is not to be installed within the precinct as part of sustainability initiatives.

18.5 Telecommunications

Objectives

a) Provide for the effective, efficient and equitable provision of telecommunications and radio communications facilities.

b) Co-locate telecommunication facilities to minimise the number of facilities required.

c) Ensure facilities are designed to be visually compatible with the environmental character and visual context of the surrounding locality, with particular regard to heritage items and areas of heritage and environmental significance.

Provisions

1. The applicant must demonstrate that adequate provisions are in place to connect to the telecommunications network.
2. The design and installation of telecommunication and radio communication facilities, and associated infrastructure is to achieve compliance with relevant Australian Standards, and the Australian Communications and Media Authority (ACMA) guide – "Accessing and Installing Telecommunications Facilities – A Guide, 1999".
3. Co-location of telecommunication facilities must be demonstrated to minimise the number of facilities required.
4. Telecommunication facilities and designed and located to ensure human health and safety, including risks associated with the emission of electro magnetic radiation.
5. Signs are to be erected around any telecommunication facility to display warnings and information to minimise public risk.
6. Telecommunication facilities are to be enclosed with a minimum 1.8m open mesh (or similar) to prevent public access to the site.
7. Locate the telecommunication structures so they do not detract from:
8. The heritage significance or settings of a heritage item within the site
9. The amenity of open spaces; and
10. District views and vistas to Sydney Harbour.
11. Telecommunication facilities are of a "slimline monopole" construction.
12. The facilities are not include advertising signs, including logos.
13. The facilities are not to contain night illumination (except where a proposed telecommunications facility infringes the Obstacle Limitation Surface (OLS) for aircraft safety).
14. Infrastructure allows for co-location of compatible similar uses.

15. Telecommunications cabling to be provided by the NBN Co, additional allowances for carrier lead in cabling to be provided for precinct requirements.