

# One Sydney Harbour Residential Buildings : R4B

Stage 1 B, Barangaroo South  
SSD 6965

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State Significant Development Application  
Landscape Design Statement  
Aug 16 Rev 10

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DRAWINGS
RPB430-GE-R4B000 R4B DA General Arrangement
RPB430-GE-R4B001-GRND R4B DA Ground Floor
RPB430-GE-R4B002-P02 R4B DA Podium Level 02
RPB430-SE-R4B003 R4B DA Section: R4B Typical Podium Detail Section

# O1

## Introduction

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# 01 Introduction

## Purpose

Grant Associates has been appointed by Lendlease to develop the Landscape and Public Realm Proposals for the Stage 1B, One Sydney Harbour Residential Buildings at Barangaroo South.

This document explains the principles, strategies and proposals for the landscape and public realm surrounding and in the development. They have been prepared in conjunction with the project design team including Renzo Piano Building Workshop, Lendlease and Cardno. This report should be read in conjunction with the various other development application reports, and associated drawings, provided by the project design team as part of the application.

This Landscape Design Statement has been prepared to accompany a State Significant Development Application (SSD 6964) for residential building R4B.

## Interim Landscape Proposals

In accordance with the staged approval process, and in addition to the permanent landscape proposals that are proposed for the building ground floor and podiums, this Design Statement includes an interim landscape proposal for areas that are intended to be replaced by subsequent development applications.



# 01 Introduction

## Reference Images

Roof top podiums including raised planting, lawns and flexible use open spaces





# 01 Introduction

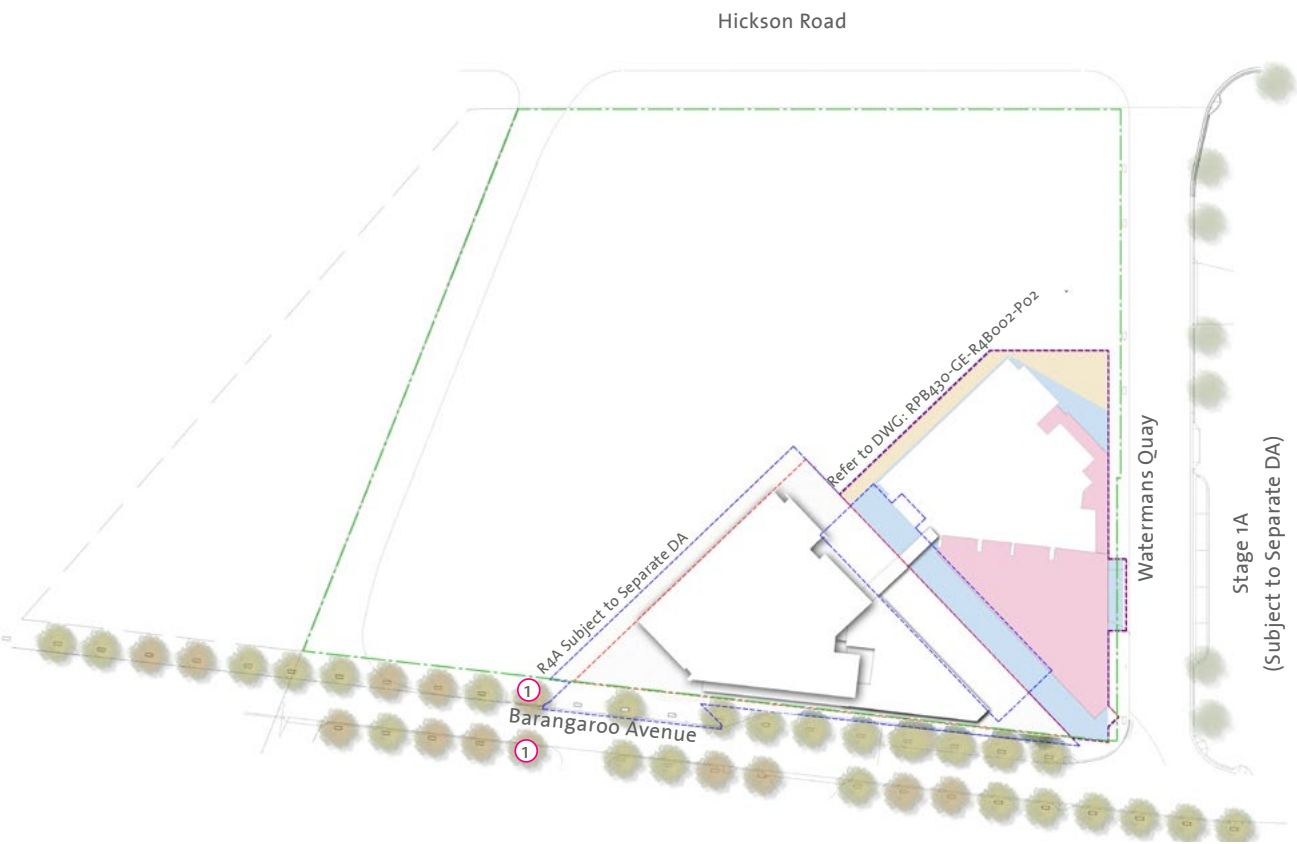
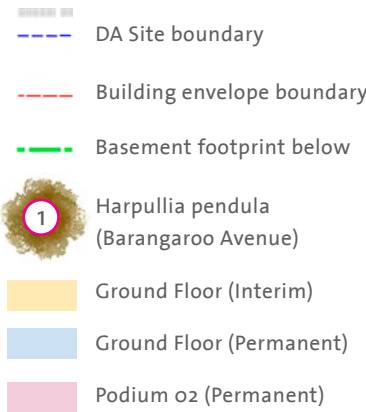
## Scope

This application seeks approval for podium landscape and interim works to the perimeter of building R4B. The diagram below indicates the scope of the landscape and public realm that is included in this application.

## Relevant Existing Policy and Codes

The design of the landscape and public realm, in particular the streetscape proposals, recognises the existing City of Sydney standards for particular components of the public realm. This includes the integration of the proposals from Stage 1A so that there is a continuation of character and theme in the key connecting streets. This report has therefore considered the following:

- Barangaroo South Design Guidelines 2015 (concept plan mod8)
- City of Sydney – Sydney Streets Design Code 2013
- City of Sydney – Public Domain Manual 2013
- City of Sydney – Sydney Lights Design Code
- Aspect | Oculus Existing Design Proposals For Stage 1A



# 01 Introduction

## Interim and Permanent Landscape Proposals

Interim landscape is proposed at the ground level to ensure that there is adequate pedestrian movement space around the outdoor dining areas.

A permanent landscape proposal at the ground floor will be subject to design development, having regard to the design of the adjacent public domain area, when prepared. This will be coordinated with the Barangaroo Delivery Authority prior to the issue of a construction certificate.

## Context

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02 Context

Context

Barangaroo, formerly known as East Darling Harbour, is a 22 ha site with a 1.4 km harbour foreshore frontage located on the north western edge of the Sydney CBD. The site is bound by the Sydney Harbour foreshore to the north and west, the historic precincts of Millers Point, The Rocks and Sydney Harbour Bridge to the east and the Darling Harbour/King Street Wharf precincts to the south.

An International design competition to identify a potential framework for the redevelopment of the entire Barangaroo site preceded a competitive process to select a preferred developer for the southern part of the site, Barangaroo South. Lendlease were successful in securing the development rights for the southern 7ha parcel of harbour front land, and are now well advanced in the delivery of the first precinct on the site.

Initial stages are scheduled for occupation during 2015 and 2016. Design for the second stage of the project, described as Stage 1B, is advancing and includes the proposed residential buildings by Renzo Piano Building Workshop and the Crown Hotel Resort by Wilkinson Eyre Architects. Grant Associates has been appointed as the Landscape Architect for the public realm associated with Stage 1B, including the landscape for the residential buildings.

Aerial View of the completed Barangaroo development including the soon to be completed Barangaroo Reserve and the Crown Hotel and Stage 1B residential buildings.



02 Context

Views

The topography and urban overlay of Sydney Harbour creates an extraordinarily rich diversity of views, micro climates and character that ranges from raw natural coastlines, villages melded into the landscape and then the bustling high density heart of Sydney rising as a distinctive skyline.

From Barangaroo South the views across the harbour change in character from low rise urban backdrops to the south and west through to the tree and steeple profile of Balmain East and then to the more natural profiles of Goat Island, Balls Head Reserve, the Barangaroo Reserve to the north west.

Barangaroo South Stage 1B, and in particular Hickson Park (subject to a separate application) has the potential to create a distinctive transition between the high rise development and the calmer, lower rise qualities of the CBD to Barangaroo South. The backdrop views (from the elevated position of the R4B podium) of the harbour (over Barangaroo Central and Watermans Cove) offer a unique aspect that is intended to be used to maximum effect in views from within the Park.

01\_View west towards Balmain

02\_View Eastward from future Hickson Park towards the CBD

03\_View from the Bond towards the future Hickson Park

04\_View from Pymont towards Barangaroo



02



03



04





02 Context

Waterside Places and Spaces

The CBD is blessed with a rich variety of significant urban and green public open space which, facilitated by a comfortable climate, allow for a wide range of public activities from lunch time breaks, promenading, jogging, high energy sports and evening entertainment.

- Primary International Landmark
- Secondary (City) Landmarks
- Key Spaces and Landmarks
- Waterfront Connections



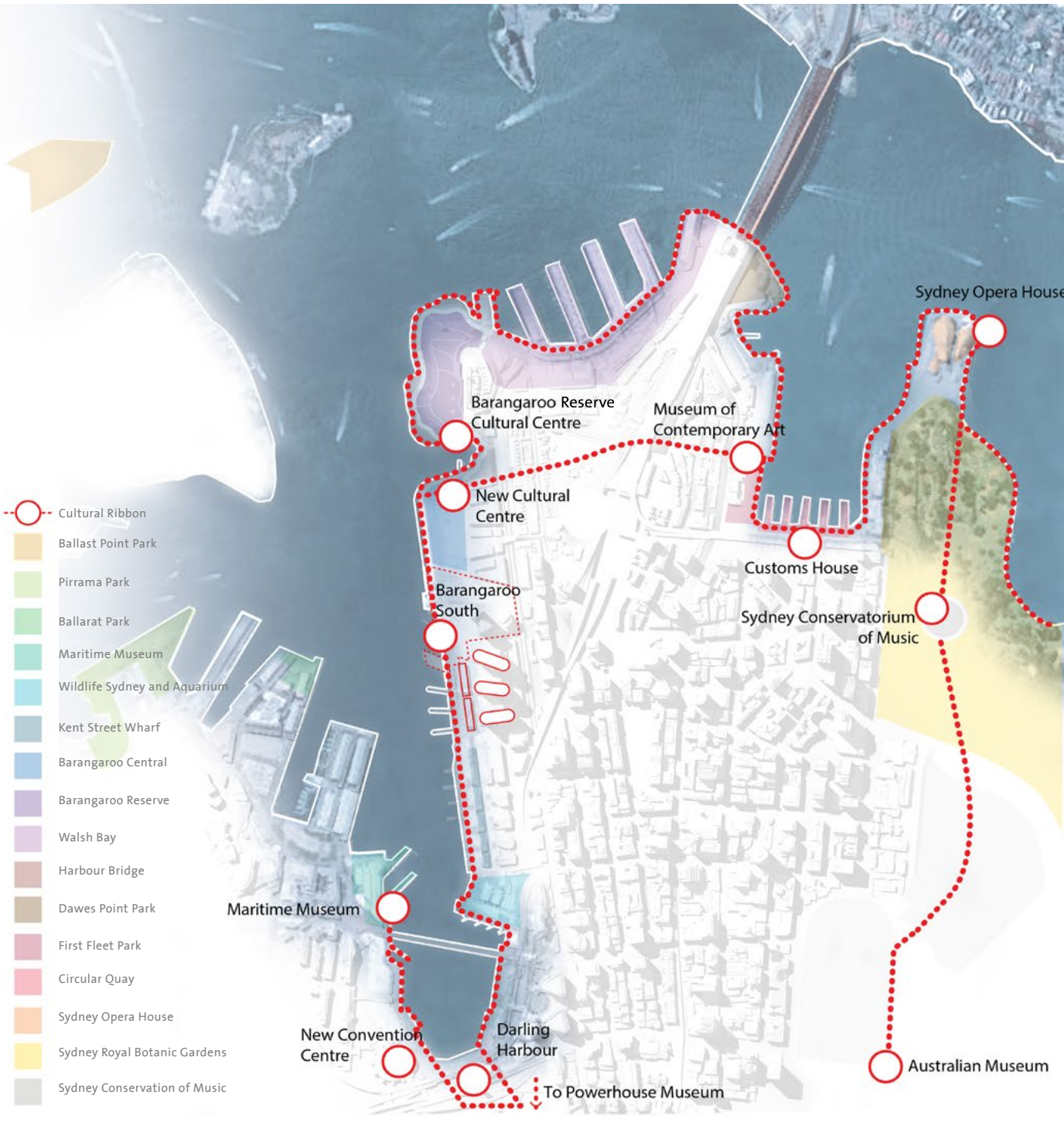
- 1 Ballast Point Park
- 2 Pirrama Park
- 3 Ballarat Park
- 4 Maritime Museum
- 5 Pyrmont Bridge
- 6 Darling Harbour
- 7 Wildlife Sydney and Aquarium
- 8 Kent Street Wharf
- 9 Watermans Cove
- 10 Barangaroo Central
- 11 Barangaroo Reserve
- 12 Walsh Bay
- 13 Harbour Bridge
- 14 Dawes Point Park
- 15 First Fleet Park
- 16 Circular Quay
- 17 Sydney Opera House
- 18 Sydney Royal Botanic Garden

02 Context

Cultural Ribbon

The Cultural Ribbon, one of the major cultural proposals of Sustainable Sydney 2030, is a foreshore walk linking the City's leading cultural institutions. The Cultural Ribbon aims to recognise the crucial role the arts plays in the City's life and identity. Along with the Eora Journey, the Cultural Ribbon will be a key cultural pathway on the City's proposed Liveable Green Network. The Cultural Ribbon will link the Powerhouse Museum and Maritime Museum at Darling Harbour to future cultural venues at Barangaroo, to Circular Quay and the Opera House and on to the Art Gallery of NSW and the Australian Museum. Barangaroo South will form an important part of this foreshore link.

The Barangaroo Draft Public Arts and Cultural Plan (Jan 2015) also identifies an Integrated Strategy for the Implementation of public art across the entire precinct.



- Cultural Ribbon
- Ballast Point Park
- Pirrama Park
- Ballarat Park
- Maritime Museum
- Wildlife Sydney and Aquarium
- Kent Street Wharf
- Barangaroo Central
- Barangaroo Reserve
- Walsh Bay
- Harbour Bridge
- Dawes Point Park
- First Fleet Park
- Circular Quay
- Sydney Opera House
- Sydney Royal Botanic Gardens
- Sydney Conservation of Music



02 Context

City Links and Spaces

Connecting routes to and from the City are varied and each has its own sequence of levels, experiences and qualities. Barangaroo South needs to complete these journeys and connections in a meaningful way that also reflects the individuality of each route and engages the City with its harbour.

Barangaroo South, particularly Hickson Park, will be a significant new addition to the framework of the public realm for the City. Its successful integration, permeability and connection to the existing network of spaces is essential.

- Open Spaces and Parks
- Hardscape Open Spaces
- Key Pedestrian Connections
- City Rail Network
- Proposed Light Rail Extension
- Key East-West Links
- Continuous Public Foreshore
- Water Linkages

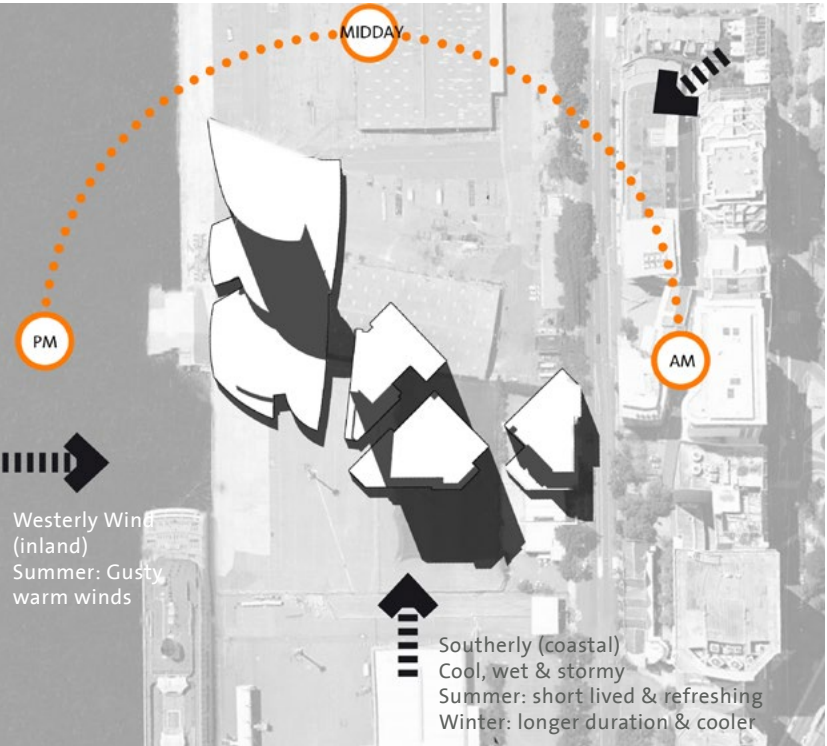


02 Context

Microclimate (refer also Pedestrian Wind Environment Study)

Wind, sun and shade are the main elements of consideration for the public spaces in Barangaroo South. Wind has the potential to dramatically impact general pedestrian amenity and external dining and comfort in the public realm (refer also the Pedestrian Wind Environment Study).

The balance of shade and sun is important for amenity in the hot summer months. Equally, access to winter sun is an important factor for the success and use of all of the outdoor spaces.








North easterly wind  
(Cyclical & sea breeze)  
Cool & humid: calm  
morning/strong evening

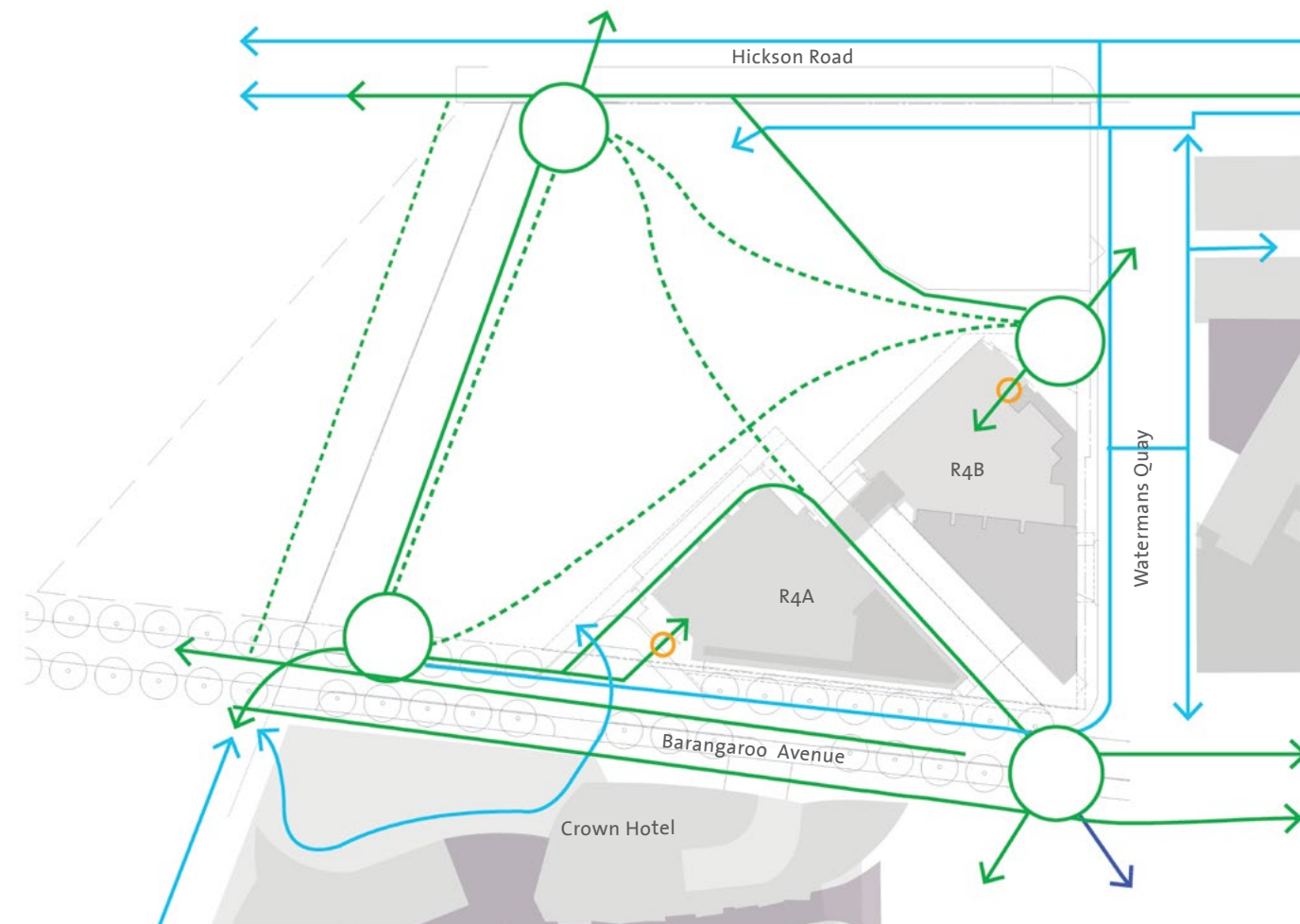
02 Context

Pedestrian Movement

There are several key arrival points into Stage 1B, including a continuous access along the waterfront, Barangaroo Avenue and Scotch Row. This indicates that pedestrian movement north south, as well as east west to and from the city are important.

The key pedestrian movement (prior to the completion of Hickson Park) is expected to be generated by Stage 1A workers to the interim grass space (future Hickson Park), Wulumay Walk and onwards to Barangaroo Reserve. Other key pedestrian links to the CBD include Wyndyard Walk/City Walk Bridge and the stairs and lift adjacent to the Bond building (however this is envisaged to be less used). There is a convoluted collection of stairs and steep climbs to the connection with Kent Street.

-  Lobby
-  Primary Route
-  Primary Route through Hickson Park
-  Waterfront Route
-  Secondary Route






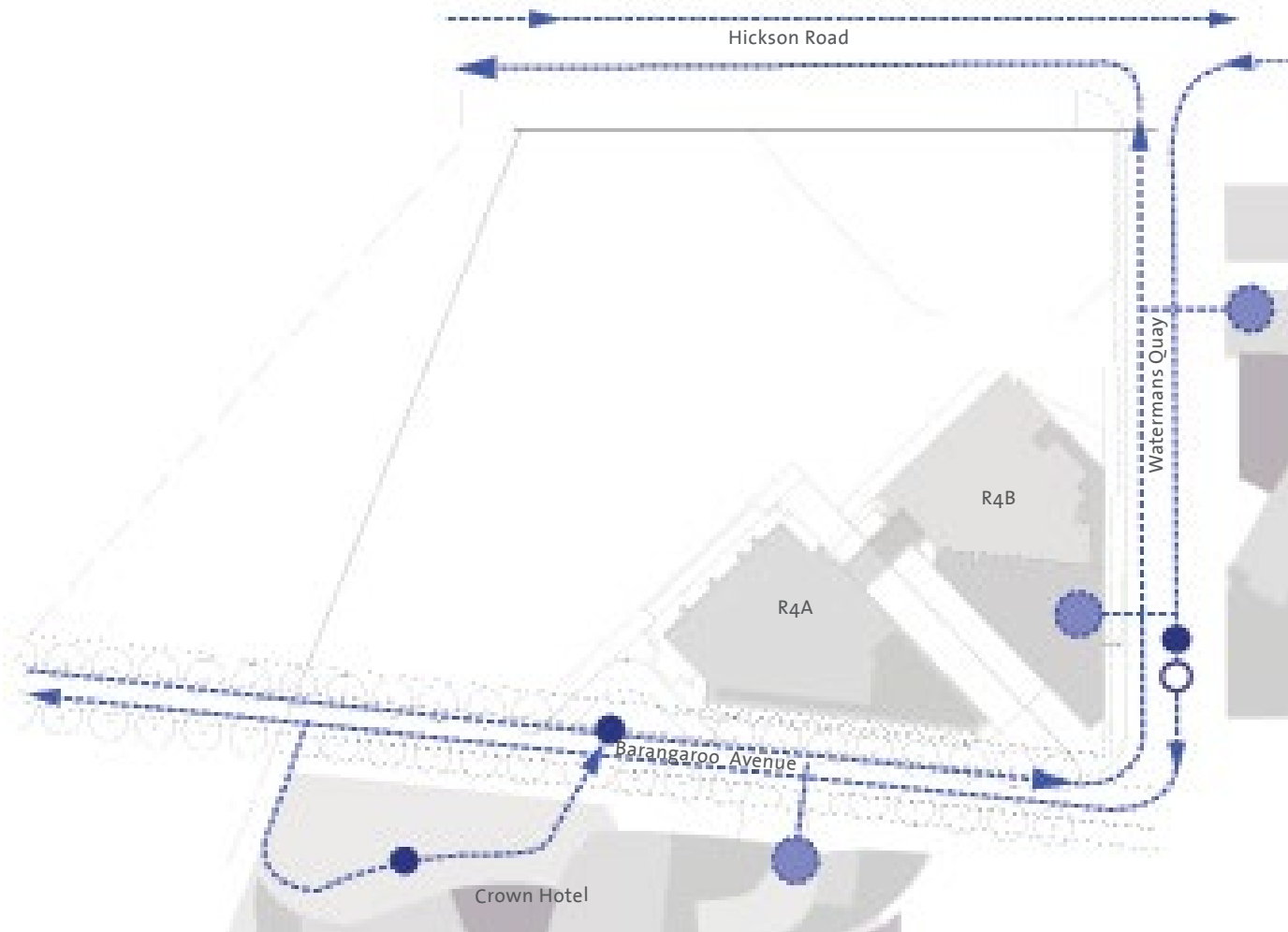
02 Context

Vehicular Movement

The Basement entries for Stage 1A and 1B are located on Watermans Quay. Basement access is for both private and service vehicles.

Other vehicular entries on Barangaroo Avenue include access to the proposed Crown Hotel and the the porte cochere for the R4B building. Refer traffic report for further detail.

-  Underground Car Park Entrance
-  Drop-off
-  Taxis





03

## Design Approach

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# 03 Design Approach

## General

The design approach to the landscape for the podium included careful consideration of the need to provide a variety of spaces and experiences that provide respite and refuge from the busy CBD and also capitalise on the impressive views across the harbour towards Balmain and Pyrmont. The design also focussed on providing “perched” views from the level 2 podium down to Watermans Cove.

The podium is intended to feel like a private garden. A garden that strives to engender ownership by residents of the tower, provide a place in which they can relax and feel comfortable in - away from the busy city streets - and enage in the mangificent harbourside setting.

It is intended that the elevated podium garden encourages wildlife feeding Lorikeets on the balcony, watching butterflies and birds and beautiful compositions featuring a mix of exotic and native flowering plants that offer memorable and dramatic colour displays throughout all times of the year. The planting design is explained further in section 07 and will include a rich variety of colour, smell and texture to add to the level 02 podium garden.

- 01\_Bill and Melinda Gates Foundation. GGN
- 02\_Rooftop raised planter
- 03\_Bill and Melinda Gates Foundation. GGN
- 04\_Sandridge Energy Headquarters, Oklahoma. Hoerr Schaudt
- 05\_Sandridge Energy Headquarters, Oklahoma. Hoerr Schaudt



# 03 Design Approach





## Interim Landscape and Public Realm Design Concept

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# 04 Interim Landscape and Public Realm Design Concept

## General

The landscape and public realm proposals have been developed to ensure that the permanent works seamlessly integrate with ultimate proposal for Barangaroo Stage 1B public domain and the existing materiality and composition of the approved works in Stage 1A, which will be completed prior to stage 1B commencing.

It is also necessary that the proposals have a certain functional quality which acknowledges key pedestrian movement corridors and access to the entries of the associated buildings, including vehicular entries.

The interim landscape proposals include the paving on the ground plane to the north and east of the building. This is described in further detail in the following section.

--- DA site boundary

--- Building envelope boundary

--- Basement footprint below

1 Turf  
(Interim landscape. Refer to Basement DA)

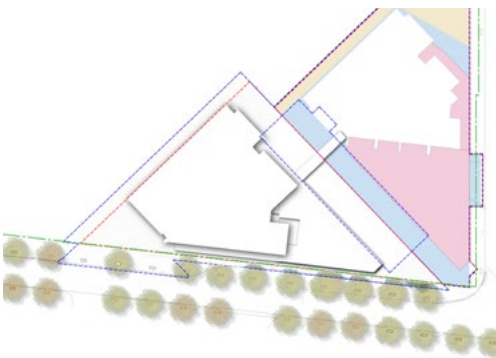
2 Interim stone paving subject to design development (outside of building envelope)

3 Temporary road  
(Refer to Public Domain DA for final road design)

4 Stage 1B Basement entry  
(Refer to Basement DA)

5 Stage 1B Basement infrastructure  
(Refer to Basement DA)

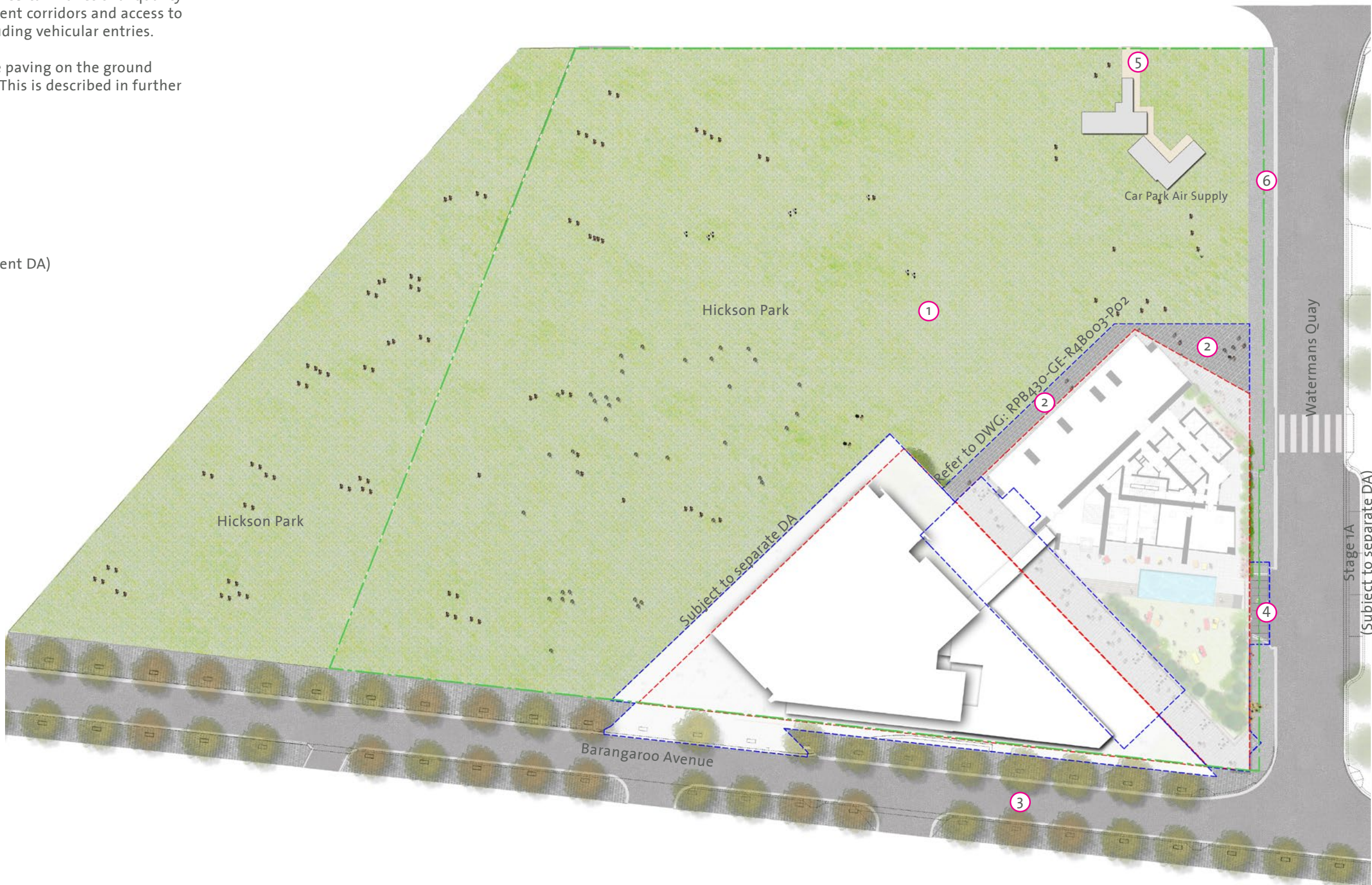
6 Interim bitumen paving



- Ground Floor (Interim)
- Ground Floor (Permanent)
- Podium 02 (Permanent)

Hickson Road

Basement Exit





05

## Landscape and Public Realm Design Concept

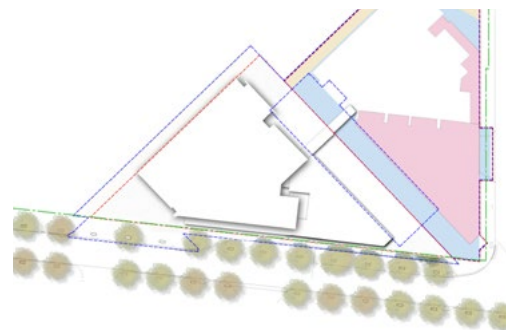
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R4B Ground Plane

The ground plane surrounding the building (within the R4B SSD boundary) will serve as an important space for access to all of the entries of the building and external dining areas for the restaurants and cafes.

The paving will continue the City of Sydney Granite Paving.

- DA site boundary
- Building envelope boundary
- Basement footprint below
- 1 Harpullia pendula (Refer to Basement DA)
- 2 Interim bitumen paving
- 3 Turf (Interim landscape. Refer to Basement DA)
- 4 Permanent stone paving subject to design development
- 5 Interim stone paving subject to design development (outside of building envelope)
- 6 Temporary road (Refer to Public Domain DA for final road design)
- 7 Permanent stone paving subject to design development (Refer to R4A DA)



- Ground Floor (Interim)
- Ground Floor (Permanent)
- Podium 02 (Permanent)

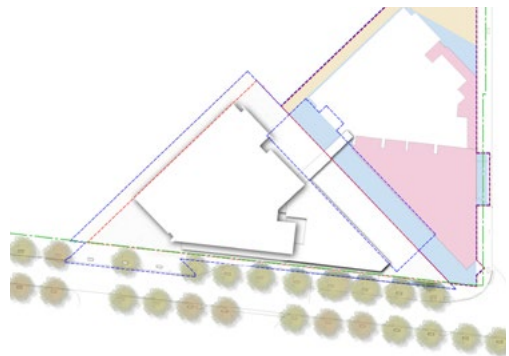




Level 02 Podium Garden

The podium gardens provide a shared private space offering a valuable resource for the local residents. The main podium garden is envisaged as a simple garden space - like a private garden.

- DA site boundary
- Building envelope boundary
- Basement footprint below
- 1 Stone paving on podium level 02
- 2 Turf
- 3 Podium steps
- 4 Disabled Lift
- 5 Shrub Planting
- 6 Swimming pool



- Ground Floor (Interim)
- Ground Floor (Permanent)
- Podium 02 (Permanent)





05 Landscape and Public Realm Design Concept

Level 02 Podium Garden

Planting around the perimeter will create a sense of protection and to provide wind mitigation. The central feature is a lawn which can be used for siting and informal play. The garden will accommodate a large lawn, hard paved areas and planted garden areas. It is also envisaged that the garden can be host to a range of community events and meetings.

The main level 02 podium garden will offer dramatic views down Watermans Quay and towards Watermans Cove.

- 01\_ Ropemaker Roof Terrace, London.  
Townshed Landscape Architects
- 02\_ Great Ormond Street Hospital Roof Terrace,  
London
- 03\_ Nathan Phillips Square Roof Garden, Toronto
- 04\_ Hypar Pavillion Roof, Lincoln Centre, New York

05 Landscape and Public Realm Design Concept





05 Landscape and Public Realm Design Concept

Level 02 Podium Garden  
Typical Section

Raised lawns and planters within the Podium Garden provide adequate soil provision for shrub planting.

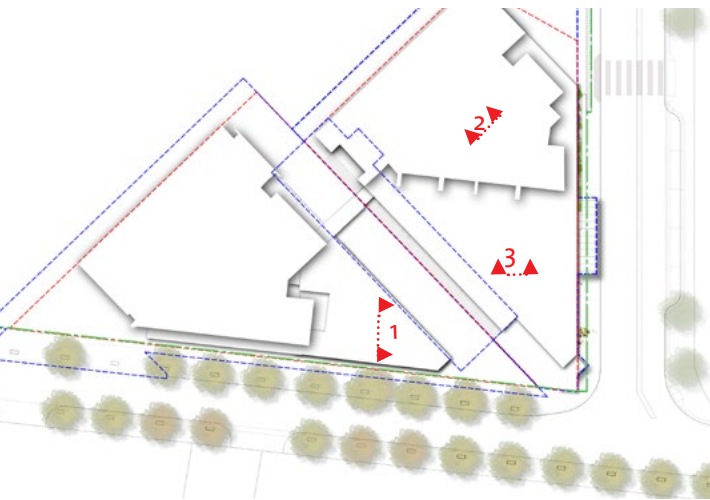
- 1 Shrub planting
- 2 Planting upstand
- 3 Stone unit pavers
- 4 Drainage cell
- 5 Growing media (maximum 500mm depth)
- 6 Structural slab
- 7 Stone paved stairs
- 8 Swimming pool



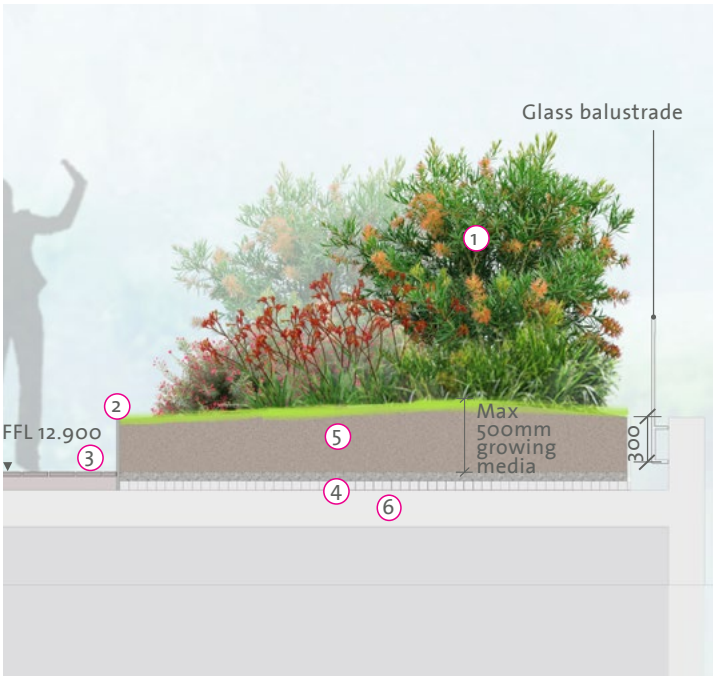
1. Raised lawn



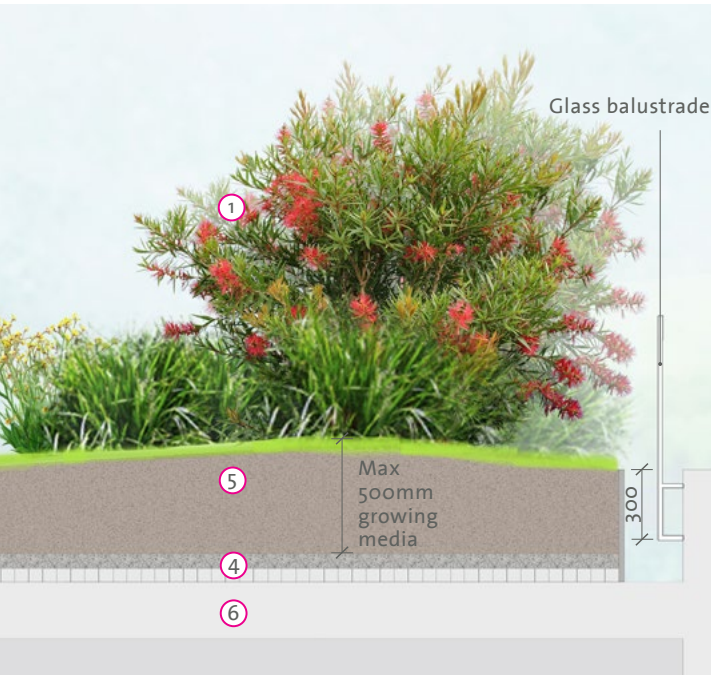
05 Landscape and Public Realm Design Concept



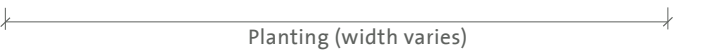
- 1 Shrub planting
- 2 Planting upstand
- 3 Stone unit pavers
- 4 Drainage cell
- 5 Growing media (maximum 500mm depth)
- 6 Structural slab



2. Raised planting



3. Raised planting and lawn



o6

## Hard Materials Strategy

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# o6 Hard Materials Strategy

## General

A simple palette of high quality complementary materials will be used in stage 1B. Their composition, size and laying pattern will be subtly varied to reinforce the identity and use of each of the spaces.

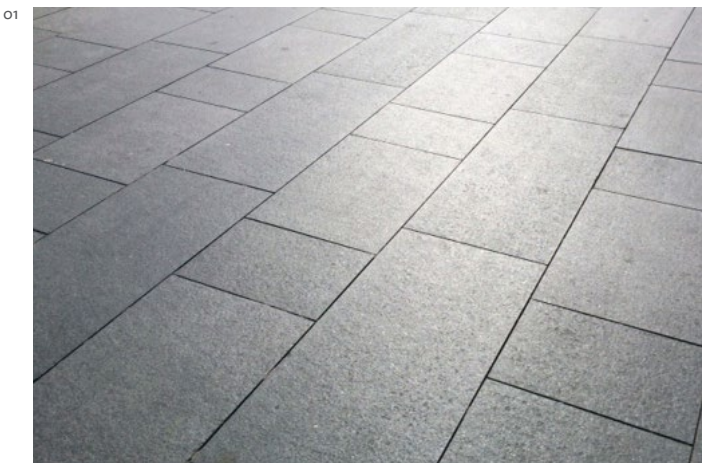
## R4B ground plane

The paving around the building will be a stone unit paver that will seamlessly integrate into the joining public realm and streetscape. External dining areas will be delineated by a finer grain paver (of the same type) with a different finish to clearly identify these zones.

## R4B Level o2 Podium

At the o2 podium level, a simple grid of stone unit paving will be laid on the hard paved areas.

# o6 Hard Materials Strategy



The following images are examples of the existing paving material that have been installed in the public realm in Stage 1A.

o1\_City of Sydney Austral Black Granite

o2 + o3\_City of Sydney Austral Black Granite in a finer grain for external dining areas

07

## Planting Strategy

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# 07 Planting Strategy

## General

The aim of the planting scheme for the level 02 podium is to provide a strong landscape that encourages flexible use, screens, accentuates entries and promotes enclosure. This will include a mixture of low ground cover, and medium sized shrub planting to ensure that the planting design is enriched with diversity of suitable plant types, flowering colour and texture.

In addition, the planting will be used to facilitate important views over Barangaroo, Watermans Quay and beyond.

The proposed planting palette has been selected to include a mix of native and suitable exotic species for accent and diversity of tone and texture. Native species will include those that are known to attract native birds, insects and butterflies. The species selection will be complementary to the native species that have already been planted at Barangaroo Reserve. This will help to complement an overall character of Barangaroo.

For the podium level raised lawn and planting areas (up to 500mm depth of soil) will provide adequate soil volume and drainage provision for the planting of larger shrub species. For technical reasons large tree planting is not possible above the floors below on podium level.

Planting will be installed at a variety of sizes, 300mm pot size will be the smallest size. Mass planting areas will typically be planted at a density of 3 No. per m². Planting will be designed to offer a variety of heights and forms. Plant species height will be restricted to ensure outward views are maintained at podium level.



07\_ Themeda “Mingo”. Small ground cover with blue tinge foliage. Foliage collect by birds for nesting

08\_ NZ Christmas bush. Provides an excellent screen and has vivid red flowers

09\_ Liriope muscari. Distinctive color and foliage



# 07 Planting Strategy

Drought tolerant and selected locally endemic species will reduce the demands for water use and will ensure that plants are particularly suited to the site, its prevailing conditions and adjacent context. Carefully considered plant species will help reduce the demands of maintenance and the risks associated with unwanted invasive species and fauna attraction.



01\_ Grevillias are excellent small native shrubs that attract birds, including the Rainbow Lorikeet

02\_ Crinum Pedunculatum. Stunning architectural form and lush foliage

03\_ Grevillia “Little Gem”

04\_ Lomandra Longifolia

05\_ Trachelospermum jasminoides. Beautiful flowers and distinctive scent

06\_ Hardenbergia. Colourful native ground cover





## Sustainability and Management

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# o8 Sustainability and Management

## Sustainability

Measures to address issues of sustainability are embedded within the principle concept for the design of the landscape. This will be considered at every stage of the project from design through to construction and its on-going management.

These measures include.

- Considering from the outset of the design process how the landscape will be managed and maintained in the long term.
- Creating places that are inherently flexible taking account of the future impacts of climate change, and adaptation measures that may need to be retrofitted.
- Considering the implementation of water management and recycling schemes.
- Developing planting pallettes that have a strong native component and that promote new habitat for birds and butterflies.

Further sustainable initiatives will include.

## Materials Specification

Seek to select materials from sustainable sources where fit for their purpose.

- Aim to use locally sourced materials where practicable.
- Examine the potential for retaining and reusing Site materials.
- Seek to maximise the design life by optimising the use of durable materials that last longer.
- Consider the use of prefabrication and standardisation techniques to minimise waste.
- Consider the use of recycled materials (e.g Planting Mulch).
- Specify Forest Stewardship Council (FSC) certified timber.
- Seek to install energy efficient materials (e.g Lighting).

## Water Conservation

- Seek to install plants that require less irrigation.
- Seek to install water efficient products/features.
- Reduce the volume of water produced over the developments’ life time.

## Biodiversity

- Provide a network of shrubs and green spaces which promote new wildlife habitats in urban areas.
- Promote an environment where quality of life and quality of environment are integral to the development.
- Promote sustainable planting by developing planting designs that are appropriate for their location, including the availability of sunlight and water.
- Improve the local urban biodiversity by selecting appropriate plants with known benefits to local fauna.
- Seek to include locally endemic species.

# o8 Sustainability and Management

## Management

Appropriate public realm management and maintenance is vital to the success of the public realm. Even the best-designed spaces need to be cared for and inappropriate behaviour needs an effective response. The designs should foster perceptions of safety and a degree of self regulation of behaviour through encouraging active, positive uses by a diverse mix of users, while offering specific places for young people to meet.

The following key factors will need to be addressed in order to sustain a high quality public realm.

- Safety and Security
- Cleanliness
- Repair and Replacement
- Horticultural Health

## Safety and Security

A safe environment is one that is accessible to all. As well as adopting Crime Prevention Through Evironmental Design, long term management and maintenance of the redevelopment proposals will be required. Well looked after places are less likely to suffer from crime as they are more likely to be visited or used, with the premise that more ‘eyes on the street’ will deter anti-social behaviour. All street trees will enable clear visibility and will have clear stems to approximately 2.5-3 metres.

## Cleanliness

Cleanliness is the principal indication of the quality of management of the public realm and could be perceived by many as a clear indicator of the success of the proposals. Regular pavement cleaning, litter picking, and the removal of graffiti, bill posters and chewing gum will be a necessity to uphold public realm cleanliness.

## Repair and Replacement

The need for repair and replacement of finishes will be mitigated by the use of appropriate and durable materials. Nevertheless, in the long term a degree of maintenance and replacement is unavoidable. In order to ensure that the public realm remains safe and in good condition, all worn-out, damaged and broken elements will be promptly repaired or replaced. In the short term this will be carried out within the clearly defined defects liability periods of the various contractors who installed the work. The longer term solution will form part of the on going management plan.

## Horticultural Health

The health and general condition of planted areas including trees, shrubs, perennial plants and lawns is clearly indicative of the level of care and attention they recieve. Planting, including any replacements to dead or dying material, will be maintained in accordance with a Landscape Maintenance Specification, the submission and approval of which could be controlled by the imposition of a suitably worded planning condition.

The horticultural health of all tree and shrub planting over the basement slab will be ensured by the provision of adequate soil depth, drainage and soil volume.