

# LAAK BOORNDAP PUBLIC GARDEN DESIGN STATEMENT



**Laak Boorndap – a Wurundjeri Woi-wurrung name bestowed on the garden by Traditional Owner, Wurundjeri Woi-wurrung Elder, Aunty Gail Smith – is unique in the world in its scale, planting density and climate resiliency.**

**The Melbourne Arts Precinct, where Laak Boorndap is located, is on Wurundjeri Country.**

**We acknowledge and respect the Wurundjeri people as the original Custodians of the land upon which we work. We honour their Elders past and present whose knowledge and wisdom has, and will, ensure the continuation of cultures and traditional practices.**







Hassell  
61 Little Collins Street  
Melbourne VIC  
Australia 3000  
hassellstudio.com  
@hassell\_studio

Contact  
Ben Duckworth  
Principal, Head of Design  
bduckworth@hassellstudio.com  
+61 3 8102 3000

1.

2.

3.

Introduction

Concept

Proposed Design

- Planting
- A network of pathways
- Art & Activity
- Fixtures & Fittings
- Interfaces
- Sustainability & Regenerative Design
- Consultant Advice

4

7

11

Document Control			
Rev	Date	Approved By	Description
05	20.02.2025	Susie Quinton	For Submission
06	30.04.2025	Susie Quinton	For Submission

# INTRODUCTION



# INTRODUCTION

**Hassell /SO-IL have prepared this report in collaboration with MAP Co, Development Victoria and the Project Partners. It presents the proposed design of the Laak Boorndap Public Garden for the Melbourne Arts Precinct Transformation (MAPT) project. The proposed design responds to the requirements outlined in the Functional Brief for the Melbourne Arts Precinct Transformation (March 2019) and the principles and strategies of the Melbourne Art Precinct Transformation SCO Master Plan (January 2022).**

**This report has been prepared to support the Heritage Impact Statement and application to Heritage Victoria for a permit to carry out works in relation to the registered heritage places.**

**The project is referred to as 'Public Garden' for the purposes of Heritage and Planning applications.**

- This report is arranged into three sections:
- 1. Introduction  
Report purpose and project scope.
  - 2. Concept  
The conceptual basis of the proposed Public Garden.
  - 3. Proposed Design  
The proposed design of MAPT Laak Boorndap Public Garden described in the following subsections:
    - Planting
    - A network of pathways
    - Art & Activity
    - Fixtures & Fittings
    - Interfaces
    - Sustainability & Regenerative Design
    - Consultant Advice

The proposed design represented in this report has been prepared for MAP Co and its Project Partners by Hassell / SO-IL, in collaboration with the following specialist sub-consultants:

- G&M Connellan Consultants
- James Hitchmough & Nigel Dunnett
- Jensen Hughes (formally MGAC)
- Northrop
- Philip Chun
- Purcell
- Steensen Varming
- Super Bloom (Jac Semmler)
- Vipac
- Waterforms
- Waterproofing Compliance
- WSP



# PROJECT SCOPE

The Melbourne Arts Precinct, Southbank, is located to the south of the Yarra River and west of St Kilda Road within the municipality of the City of Melbourne (CoM). It incorporates the National Gallery of Victoria International (NGV International) and the Arts Centre Melbourne (ACM), including the Theatres Building State Theatre, Fairfax Studio and Playhouse, Forward Surge and Hamer Hall.

The site for the project, as defined by the Special Control Overlay (SCO14) City of Melbourne Planning Scheme, incorporates four state heritage places:

- Victorian Arts Centre Heritage Place VHR 1500
- Forward Surge Heritage Place VHR 2378
- National Gallery of Victoria Heritage Place VHR 1499
- St Kilda Road Heritage Place VHR 2359

Following engagement and agreement with the City of Melbourne as the asset owner, a supplementary application for works within the St Kilda Road Heritage Place VHR H2359 has been prepared, to extend the Public Garden approach into the road reserve. This supplementary application references the previously submitted applications and submitted documentation.

## The MAPT Public Garden is a new, approximately 18,000sqm, activated garden in the heart of the precinct, incorporating space for nature, people, art and performances.

The Public Garden is one of a number of projects that make up the MAPT project:

- National Gallery of Victoria Contemporary (NGV Contemporary): a new gallery dedicated to contemporary art and design
- Public Garden: A unique new 18,000sqm immersive public garden in the heart of the precinct.
- Re-imagining Arts Centre Melbourne (RACM) Stage 2A: Upgrade works to the Arts Centre Melbourne Theatres Building including a new loading dock, Studio and Green Room. The RACM Stage 2A deck structure will connect the Theatres Building with the future Centre for Creativity at 1 City Road and support the public garden over
- An integrated network of shared services that will ensure the seamless and sustainable operations

of the precinct and its venues into the future.

- The closure of Sturt Street to public vehicles from City Road to Southbank Boulevard.

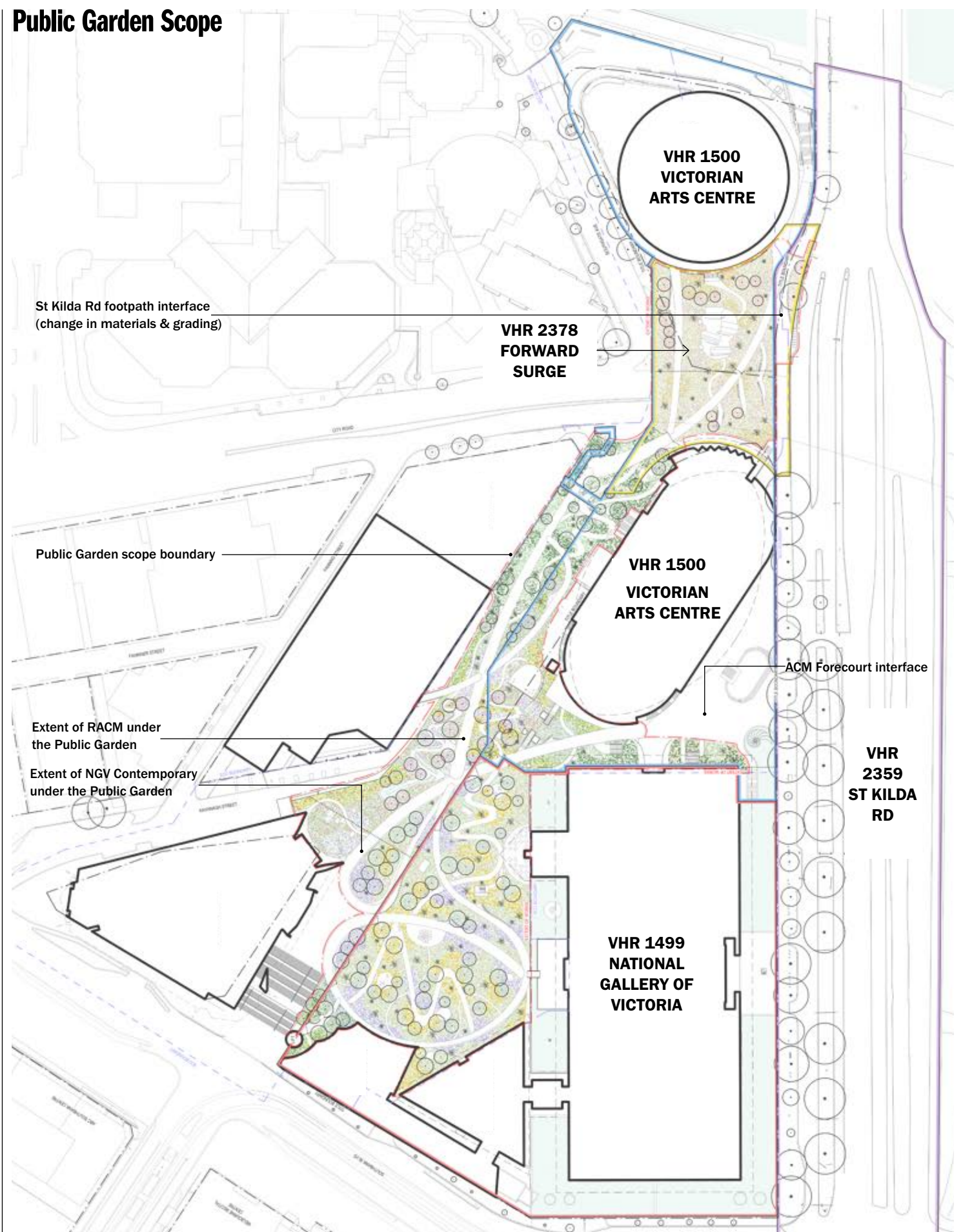
The Public Garden extends from the south of Hamer Hall, around the Theatres Building through to Southbank Boulevard and between the NGV International, The Primrose Potter Australian Ballet Centre and the new NGV Contemporary.

It is predominantly located above existing built form (The Arts Centre Melbourne Theatres Building and Car Park) and the new elevated deck structure over Sturt Street, between City Road and Southbank Boulevard.

The scope of the Public Garden design is from the external walls of the precinct buildings to site edges (either public footpath or deck edge). The structure under the Public Garden is by others, either existing or new. The Public Garden scope including waterproofing, drainage, substrates, hard and soft landscape, outdoor fixtures and art placement (excluding plinth design).

The scope of the Theatres Building Forecourt is limited to a change in the paving material between the Theatres Building and NGV International and the garden to the north of NGV International.

## Public Garden Scope





**CONCEPT**



# Laak Boorndap - An urban garden for people art and performance

The Melbourne Arts Precinct Transformation Public Garden project is creating a new place for Melbourne: an urban garden connecting people with each other, with art and performance. An immersive, ever changing garden, that will be a destination in its own right.

Five gardens, each with their own specific character inspired by the landscapes of Victoria, flow from Hamer Hall, enveloping the Theatres Building and fill the space held between NGV International and NGV Contemporary.

The gardens are full of colour, texture, light and wonder. A scale and complexity of public planting not seen before in Australia that sets a new direction in the creative and ecological use of plants and planting in Australian landscape design.

Pathways sweep and meander through, enticing visitors into the precinct and revealing the garden gently as they move deeper in. Connections between the precincts buildings are made always as a beautiful journey in a garden.

Art and performance find their place both at key moments and in clearings nestled within the garden.

This is not a singular place but a complex arrangement of planting to create an unique and special experience.

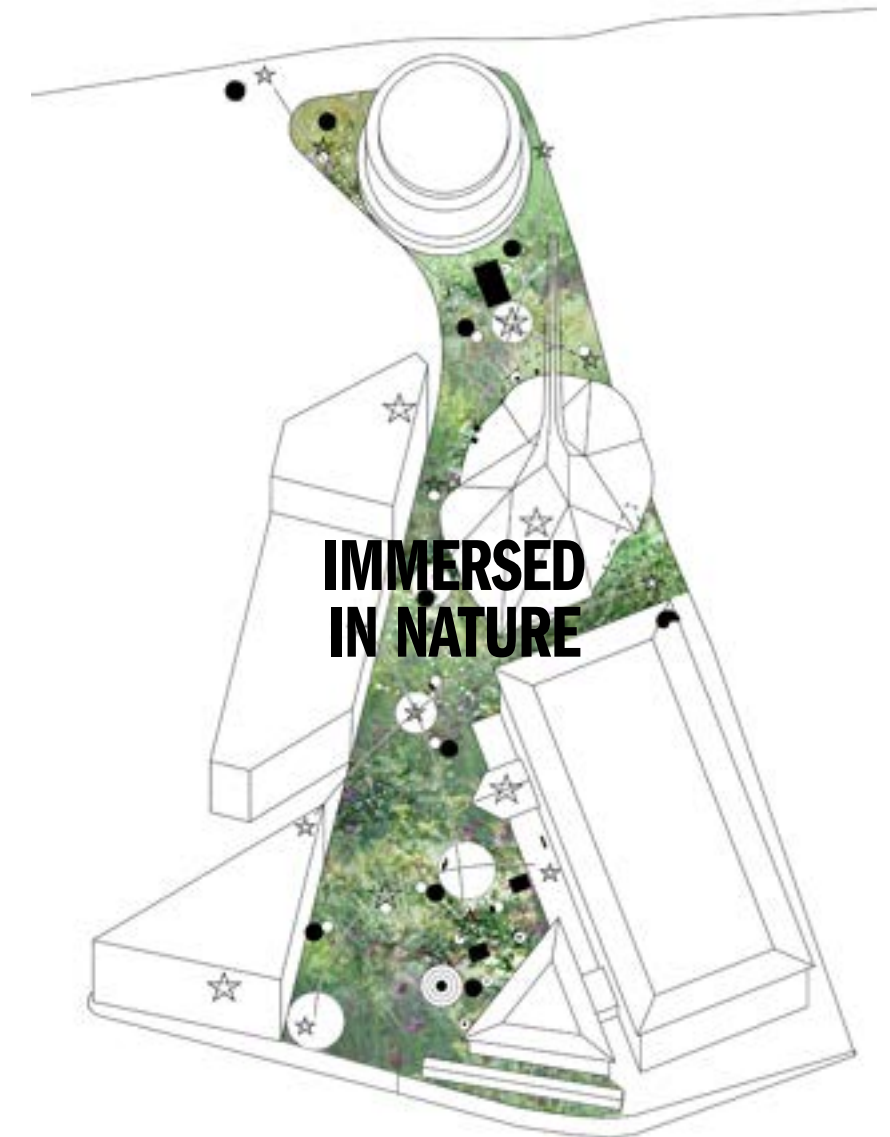
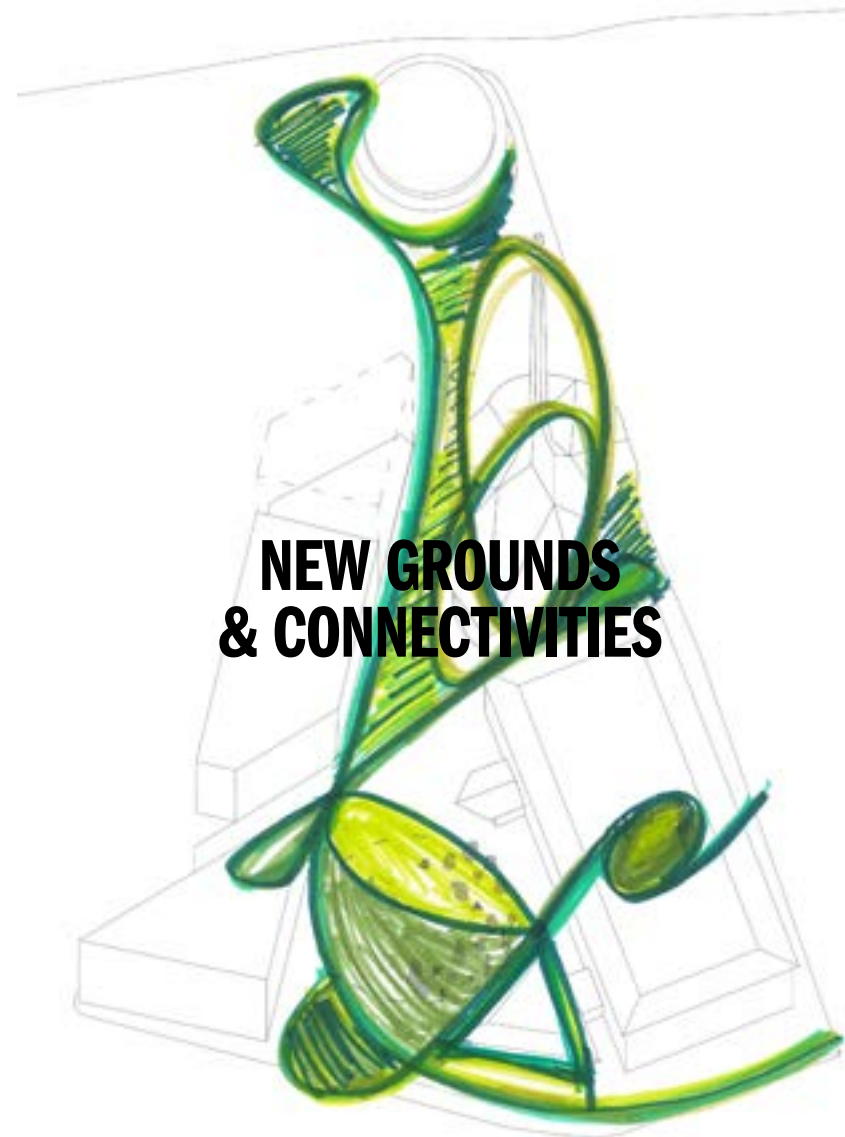
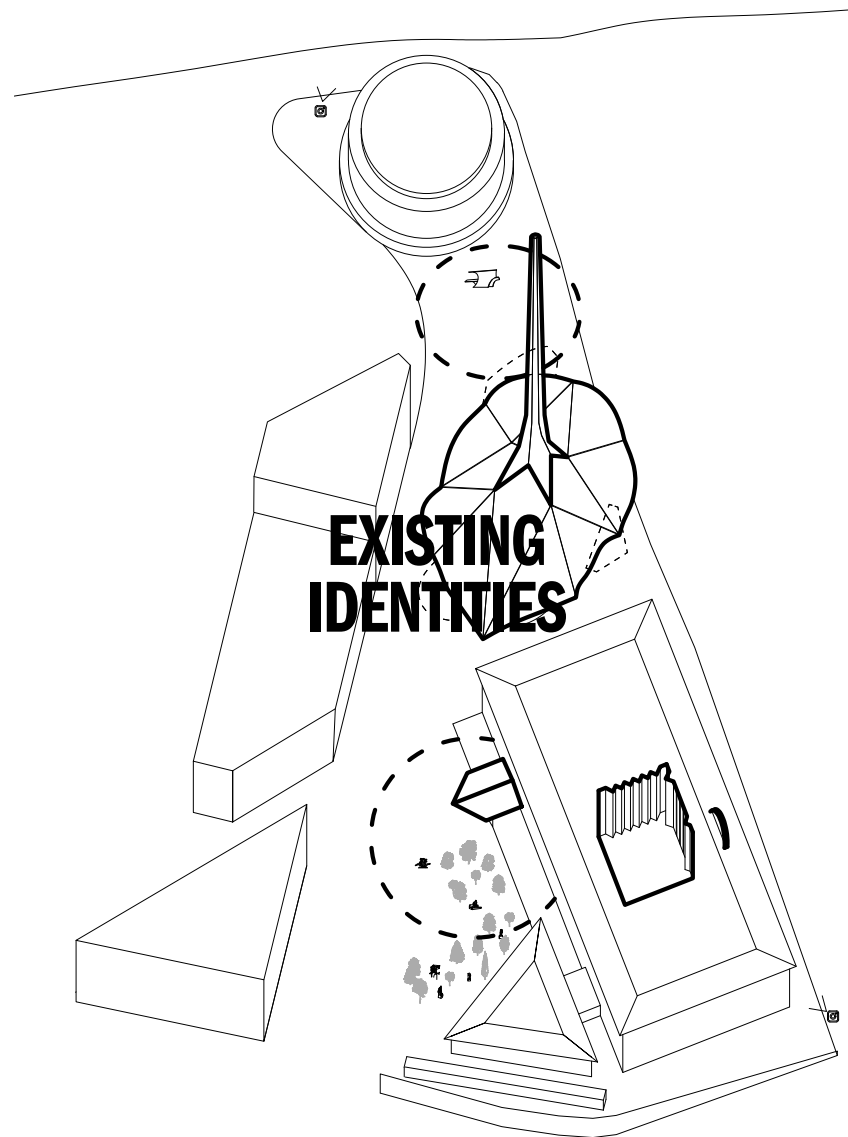
**The Melbourne Arts Precinct will be a destination that encourages regular revisiting. The gardens will have a supercharged seasonality, encouraging the opportunity to visit every month to encounter different experiences.**



Proposed view looking towards Forward Surge and the Theatres Building



## RELATIONSHIP WITH EXISTING

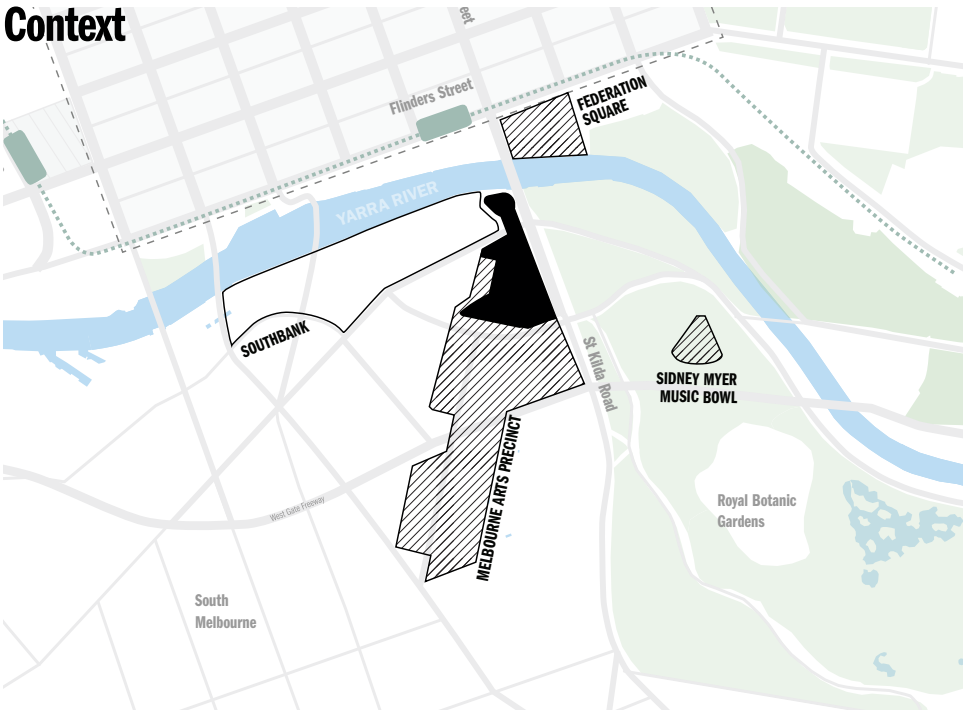




# RESPONSE TO THE MASTER PLAN

The Melbourne Arts Precinct Transformation (MAPT) Master Plan sets out strategies that guide all prospective projects in the precinct, enabling each project to sit within a broader vision and framework. The Master Plan aims to enhance the existing character of the precinct, cement Melbourne’s positioning as the cultural capital of the Asia-Pacific region, and create a must-visit global destination for generations.

## Context



The Master Plan has eight foundational principles to achieve this, which the Public Garden design embraces and expands upon in the following ways:

### Civic Generosity

This principle asks that projects facilitate equitable connections between people and places, encouraging people to explore and experience the precinct in both active and passive ways.

To realise this the public garden has:

- Pathways that are equitable and facilitate all ages and abilities.
- Key entry points that are legible and generous.
- Pathways and zones that encourage occupation in a multitude of ways.

### Connectivity

This principle asks that projects unify movement within the precinct to encourage ease of movement and considered wayfinding.

To realise this the public garden has:

- Pathways that connect buildings and public entries in legible ways.
- A structured pathway network that connects people to place in different ways by allowing for and encouraging different speeds of movement.

- Utilised line of sight principles and natural wayfinding along primary paths.
- Consideration for current and future public transport and bicycle networks.

### Identity

This principle aims to create a precinct that engages diverse audience groups, reflecting and enhancing the precinct as a unique cultural destination.

To realise this the public garden:

- Is a beautiful place, with its own identity, that people want to visit.
- Ensures First Peoples feel welcome through meaningful engagement and specific activation.
- Acts as a gateway to other institutions and venues.

### Activation

This principle asks that projects encourage public participation and engagement.

To realise this the public garden:

- Enables activity to be dispersed throughout.
- Enables activation to occur in organic and responsive ways, in both passive and active ways.

- Encourages activity that reinforce the planting experience.
- Allows day and night activity.

### Best Practice

This principle commits the precinct to representing best practice in design and operation.

- The scale and complexity of the planting design of the Urban Garden is a world first.

### Sustainability

The principle requires projects to be highly sustainable in design and operation.

To realise this the public garden:

- Embraces and contributes to the regenerative and sustainable strategies set out in the precinct services strategy.
- Considers water sensitive design in both infrastructure and planting design.
- Is a positive, and unique, contributor to bio-diversity, well-being and social impact.

### Collaboration

The precinct should have a cohesive identity. This is delivered through strategic collaboration on events and audience

development initiatives. To help achieve this, the public garden design process:

- Involves the Project Partners
- Considers how event infrastructure can be connected and efficiently linked across organisations
- Enables opportunity for a broader set of events
- Enables opportunity for specific First Peoples engagement

### Design Excellence

The Master Plan requires projects to facilitate and deliver outcomes that enable excellent visitor experience.

To achieve this the public realm garden:

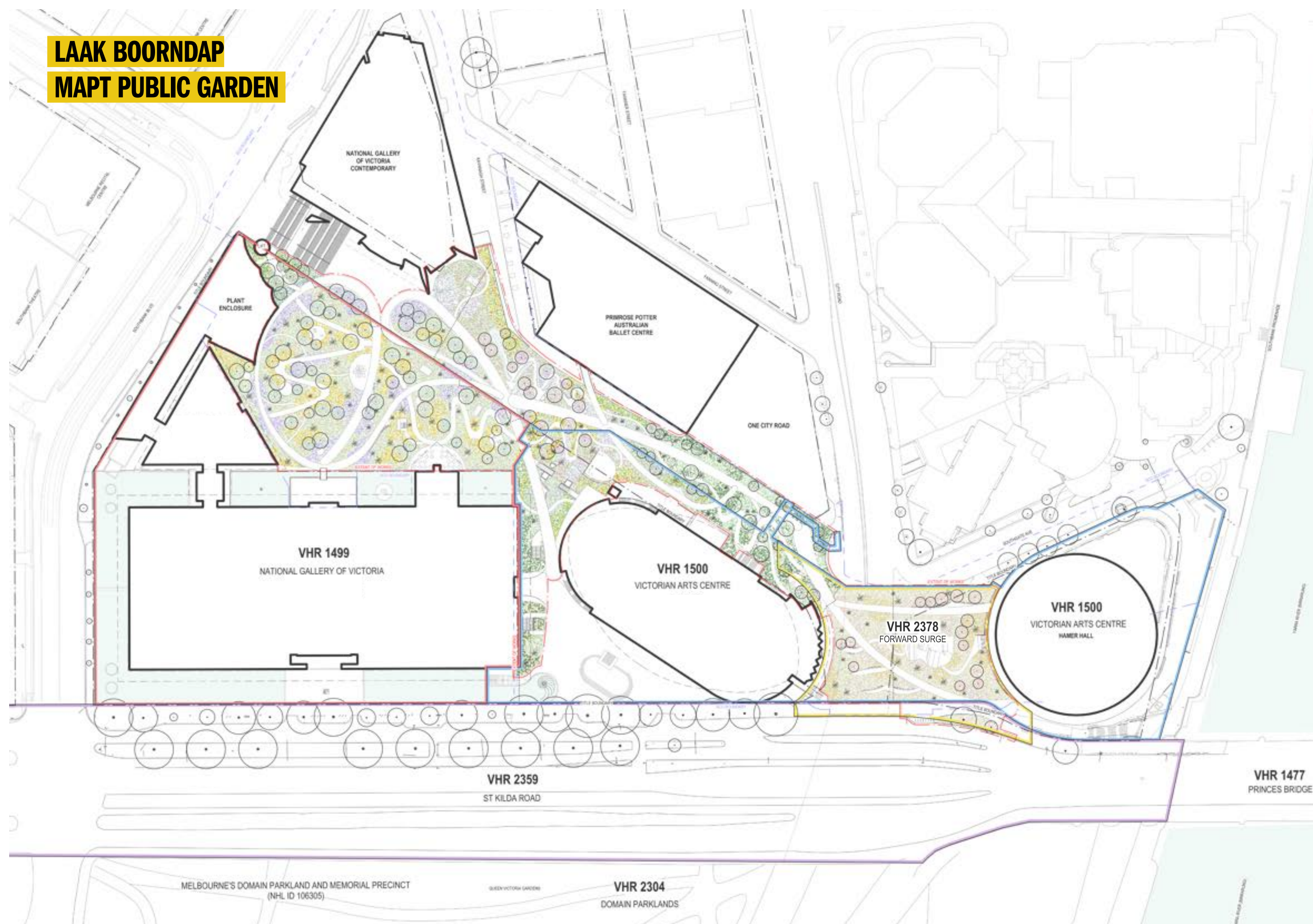
- Enables unique, evocative and diverse experiences. These experiences prioritise the public users and the ways they will use the public garden.
- Supports the aspirations of the NGV Contemporary and RACM projects to achieve their respective visitor experience aspirations, through collaboration and engagement.



# PROPOSED DESIGN



# LAAK BOORNDAP MAPT PUBLIC GARDEN





# LAAK BOORNDAP PLANTING

## A New Australian Naturalism

The landscape and gardens of the Melbourne Arts Precinct will mark a new direction in the creative and ecological use of plants and planting in Australian landscape design. This bold statement is the result of many conversations, workshops, site visits and industry engagement. Taking in this diverse range of voices has ensured that the outcomes for the landscape are ambitious in terms of goals rather than just a style or genre. The unique positioning of the gardens as a linking element between the major cultural institutions of the precinct, provides an exciting jumping off point for developing a planting strategy that will have state, national and international impact and resonance.

### A new Australian Naturalism

Naturalism, being 'inspired by nature', involves emulating the beauty and wonder of natural landscapes while embracing ecological processes. Laak Boorndap Public Garden aims to explore the concept of naturalism through a uniquely Australian lens within a dry summer context.

### A Multitude of Voices

To achieve a landscape and planting scheme, the likes of which has not been seen in Australia, will and has involved a multitude of voices inputting into the process:

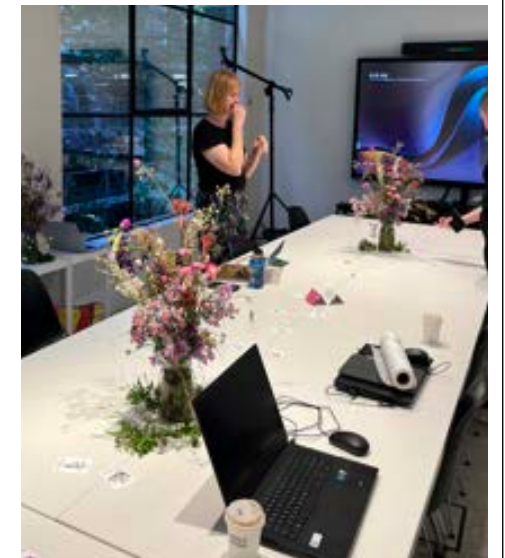
- Cultural voices
- Design voices
- Technical voices
- Local voices
- National voices
- International voices

The current range of collaborators and experts that have been engaged with in the production of the current planting aspirations and lists include:

- Hassell / SO-IL
- James Hitchmough & Nigel Dunnett
- Super Bloom
- University of Melbourne
- MAP Co / Development Victoria
- Wurundjeri Woi Wurrung
- RACM / NGV
- City of Melbourne



*Eryngium ovina*  
Blue Devil



### Agnostic Planting

Australia has over 25,000 native plant species, 10% of the world's total, however only a tiny proportion of these are used in public spaces. This project will challenge the assumption that all sustainable planting is the property of native species. This makes sense in places where ecological processes are extant, and where fire is historically the key disturbance factor. In urban environments and landscapes where fire is now excluded, species that rely on fire to persist and thrive become less achievable.

The proposal includes numerous indigenous and native species, for beauty and aesthetics, food provisions for native fauna, and the maintenance of character and cultural significance. This project also purposefully utilises rarely used species to illustrate the potential and promotion of our native fauna, whilst increasing biodiversity.

We want to also recognise the cultural, and ecological, value of non-native species. The Public Garden is within an urban and creative context linking cultural and creative institutions within international collections and programming. We seek a melding of native and non-native species to maximise the capacity of vegetation to create a curated 'year of wonder' and to deliver aesthetic and ecosystem services over time at low levels of irrigation in a changing climate.



# CONNECTING WITH COUNTRY

"(Plants) tell stories about the cultural belonging of Indigenous peoples and allow a portal into the rich cultural and ecological knowledges held by Indigenous peoples"

Zena Cumpston, Indigenous Plant Use, Clean Air and Urban Landscapes Hub University of Melbourne, Published 2020

Indigenous plants hold cultural and ecological importance for many Aboriginal and Torres Strait Islander people. The on-going conversations and workshops with the Wurundjeri Woi-Wurrung Traditional Owners have identified a number of specific planted elements that are important cultural overlays to the planted outcomes of the precinct. The plants illustrated here are specific requests from this Traditional Owner consultation process.

Whilst there are specific requests regarding totemic flora and fauna species and landscape items, there is also a need for a wider and long term connection in regards to the employment and training opportunities that will arise on the project. The long term management and plant procurement are elements that will have a lasting impact on how the Melbourne Arts Precinct reconnects this place with Wurundjeri Woi Wurrung and the cultural practices that have played out across millennia.

- 1. **Manna Gum**  
*Eucalyptus viminalis*  
The leaves are traditionally used for smoking ceremonies, there is a general shortage of leaves for these ceremonies.<sup>1</sup>
- 2. **Murnong / Yam Daisy**  
*Microseris lanceolata*  
A key cultural species that was the staple food of the Wurundjeri Woi-Wurrung. Of particular importance to Wurundjeri Woi-Wurrung women who traditionally harvested the Yam tubers.<sup>2</sup>
- 3. **Native Raspberry**  
*Rubus probus*
- 4. **Native Mint**  
*Mentha australis*
- 5. **Chocolate Lily**  
*Arthropodium strictum*
- 6. **Kangaroo Grass**  
*Themeda triandra*
- 7. **Bulbine Lily**  
*Bulbine bulbosa*



<sup>1</sup> As described by Aunty Diane Kerr  
Traditional Owner Workshop 13/09/2022

<sup>2</sup> Ibid.



# A YEAR OF WONDER

Time is also important in the design of the plantings within Laak Boorndap, this phenomenon is central to how we see our world and manufacture our sense of experience. The Melbourne Arts Precinct will be a destination that encourages regular revisiting, with gardens that will have a supercharged seasonality, encouraging the opportunity to visit every month and encounter different experiences. This supercharging is why gardens with very high levels of seasonal change are important to individual human well-being. Each species has its phenology (*"the timings of cyclical or seasonal biological events"*) mapped, this is then programmed across the site to ensure there is constant flowering across the site. Along with ensuring constant flowering, "events" are also programmed to create mass spectacle through out the year.

*Echinacea tenesseeensis*  
Tennessee coneflower



Proposed view from southern area of the garden looking north towards the Theatres Building



# INSPIRED BY NATURE

The Melbourne Arts Precinct Laak Boordap gardens chart a new way ahead for gardens and designed landscapes in Australia. In many ways, this mirrors a process that came to prominence in North America in the late 20th Century – the New American Garden movement, that rejected colonial garden norms, and looked instead for inspiration to the native landscapes of a region and to indigenous cultural references. The important point about this movement is that it was an interpretation of those references – a stylised, abstracted representation: a distillation of the essence of those landscape starting points, and not a restoration, copy or recreation. In other words they were artful expressions, with a strong regional identity, and rooted in the place.

The "inspired by nature" approach is partly expressed through the large-scale structuring of the landscape, using the 'Open Savannah' model, with scattered multi-stem and sculptural trees forming a framework within and beneath which the human-scale experience reveals itself. In places, the trees are relatively closely spaced, in others they are more widely scattered. As in the images across, this gives rise to a framework of great

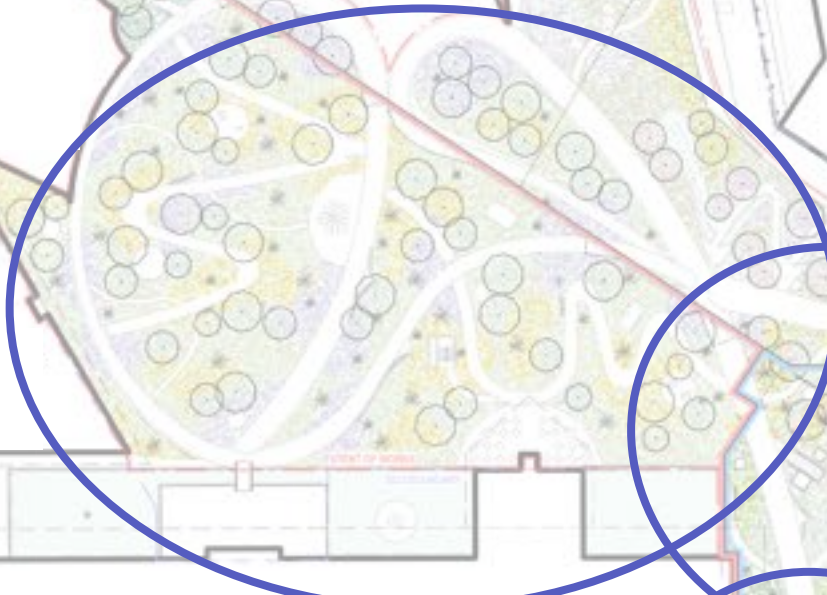
character, and a sequence of spaces and experiences, with open glades and plains in full sun, other areas where there is more shade, and a truly inviting sense of mystery, as you move from one open area to the next. This Savannah framework is multi-layered, with taller emergent tree species that serve as way-markers through the site, and a lower layer of medium and smaller trees, all with the see-through transparent character of the multi-stem Mallee.

This structure will take the people through 'open' spaces and 'closed' spaces (open to the sky, or with overhead plant canopy), from light to shade, and from warm to cool. From narrow passages to wide open plains and flower fields. From bright colours to calm greens. From active buzz to quiet and restful. All this will be achieved through skilful manipulation of plant layers and sight-lines, and by creating human-scale and intimate experiences throughout. The following typologies are starting points to describe the landscape and begin to form the experience of walking through the gardens. We will take these reference landscapes and other plant communities as our starting point, and dramatically increase the visual, structural and ecological diversity by drawing upon species from relevant and appropriate climate-zones that match the current and future conditions within the site.





# INSPIRED BY NATURE



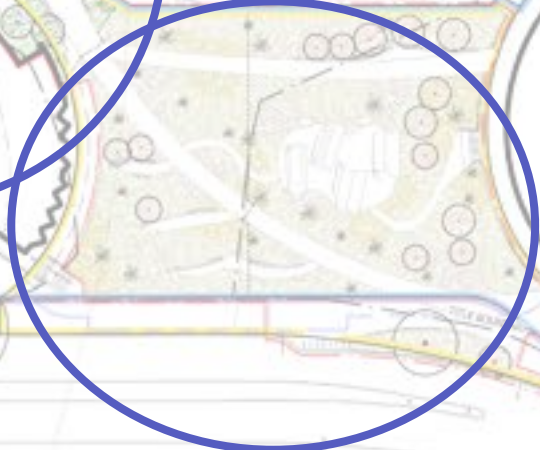
**The Garden State**

**Valley Floor**

**Flowering Slopes**




**Ridges & Ranges**



**Dynamic Grasslands**



# DYNAMIC GRASSLANDS

An architectural rendering of a landscape design. The central feature is a large, irregularly shaped area filled with a dense, colorful pattern of small dots and shapes, representing a grassland with various plants and flowers. This area is bordered by white, curved lines that suggest paths or ridges. To the left, there is a large, curved structure with a grid-like pattern, possibly a seating area or a building facade. To the right, there is a tall, multi-story building with many windows. The overall style is a combination of line art and color, giving it a modern, illustrative feel.

The grass plains ripple in response to the wind of the Arts precinct, tending across the swaying seed heads, fine-textured leaves of Victorian grasses, and the airy, delicate flowers sprinkled at saturation through the grassy plains. The grasslands sweep from formed ridge-lines and around forward surge. Held within the grassland are streams and drifts of emergent and ephemeral wonders which dynamically emerge in bloom through the Australian temperate seasons. Small-scale structure and form are held by perennials that softly mound or rise upwards with flower-clustered stems. The plains of the Arts precinct celebrate the floristic best of Victorian grasslands with seasonal punctuations of climate-compatible pollination and colour.



# DYNAMIC GRASSLANDS

Description

*“Velvet-like grass carpet decked with flowers of most lively hues, most liberally spread over the land....”*

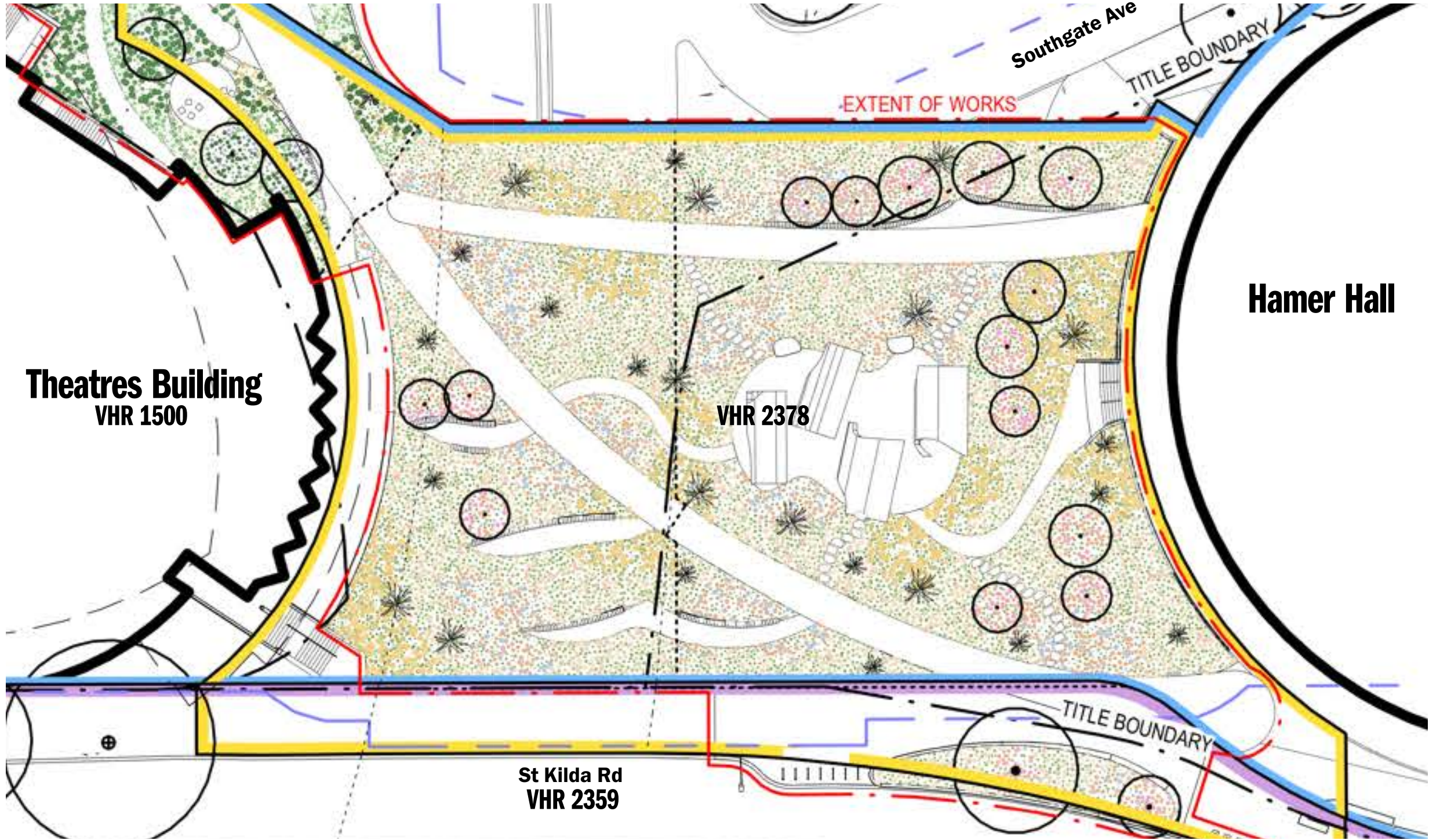
Sir John Pascoe Fawkner 1835

The Dynamic Grasslands fill the space between ACM and Hamer Hall, a memorable Melbourne space that is dominated by the iconic artwork Forward Surge. The new planting will be below knee high typically with seasonal blooms floating below waist height, ensuring clear views across the space. With the tones and textures of Victorian Grasslands, the planting will welcome all visitors to the precinct as they enter from St Kilda Road.

- Key planting experiences:
- Victorian character in diversity and hero plants.
  - Inspired by the Western Basalt Plains Grasslands.
  - Entry point to gardens from the City.
  - Textural tactile sensory experiences.
  - Fine, delicate, swaying grass seed heads
  - Airy clouds, soft rippling movement
  - Flower and foliage seasonally emerging above the grasses
  - Mass flowering of emergents, demonstrating taller vertical emergent above the grasses and creating fleeting spectacles



Grevillea petrophiloides  
Pink Pokers





# RIDGES & RANGES

An architectural rendering of a landscaped urban area. A winding path leads through a series of terraced ridges and ranges. The ridges are covered in lush, colorful plantings, including various trees, shrubs, and wildflowers. A modern building with a curved, glass facade is visible on the right side of the image. The overall scene is bright and vibrant, with a clear sky and a well-maintained environment.

From the sweeping fine textures and wildflowers, you are drawn to an Australian woodland, the pause and respite of the canopy and the reflective presence of Eucalypts, shaded below the iconic spire of the Arts precinct. The desire for shelter draws you through, and the unmistakable smell of eucalyptus. The forest floor is lush and green, rejuvenating you with a tapestry of abundant foliage, plants and forms. The prominent trunks anchor you to place. A journey through a series of cooling and reflecting ridges and ranges.



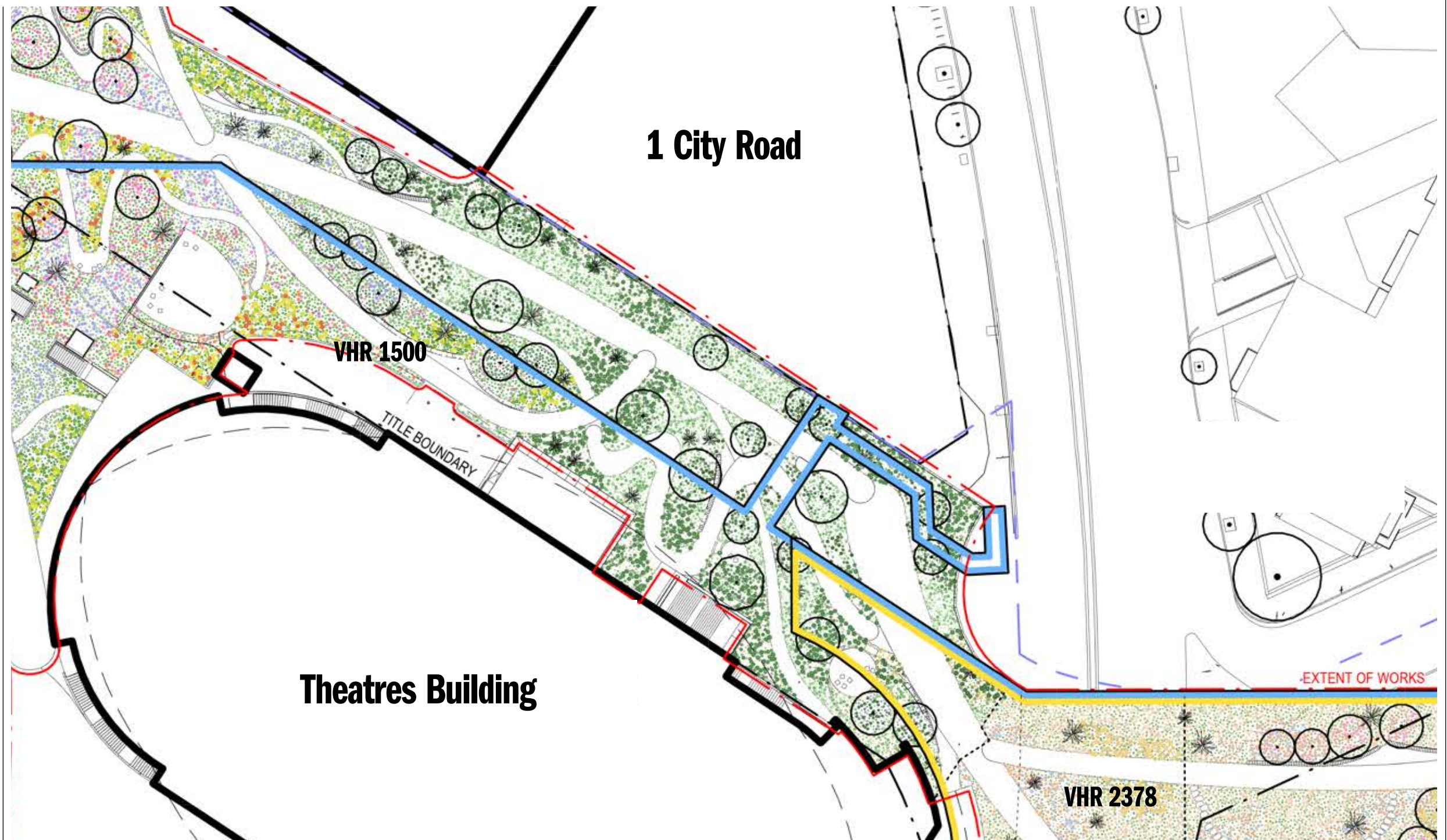
# RIDGES & RANGES

## Description

After the open spectacle of the dynamic grassland, the Ridges and Ranges compresses the visitor experience under tree canopy into calm and lush planting set between the rear of ACM and the western edge of the precinct. The planting responds to the shade condition of much of this area.

## Key planting experiences:

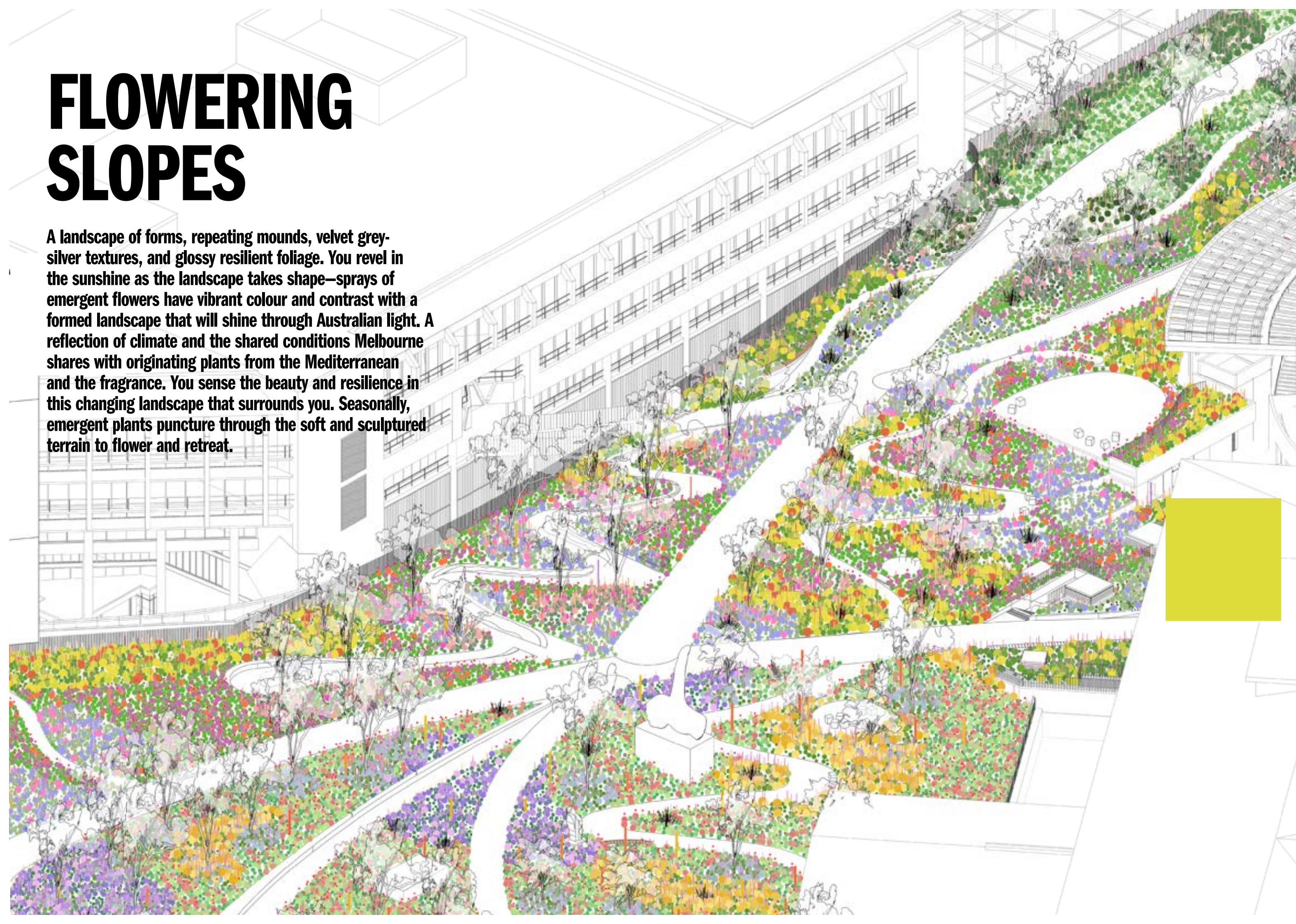
- Sheltered and calm
- Lush, green and diverse
- Colourful emergents rise above fleshy green leaves of the understorey





# FLOWERING SLOPES

A landscape of forms, repeating mounds, velvet grey-silver textures, and glossy resilient foliage. You revel in the sunshine as the landscape takes shape—sprays of emergent flowers have vibrant colour and contrast with a formed landscape that will shine through Australian light. A reflection of climate and the shared conditions Melbourne shares with originating plants from the Mediterranean and the fragrance. You sense the beauty and resilience in this changing landscape that surrounds you. Seasonally, emergent plants puncture through the soft and sculptured terrain to flower and retreat.





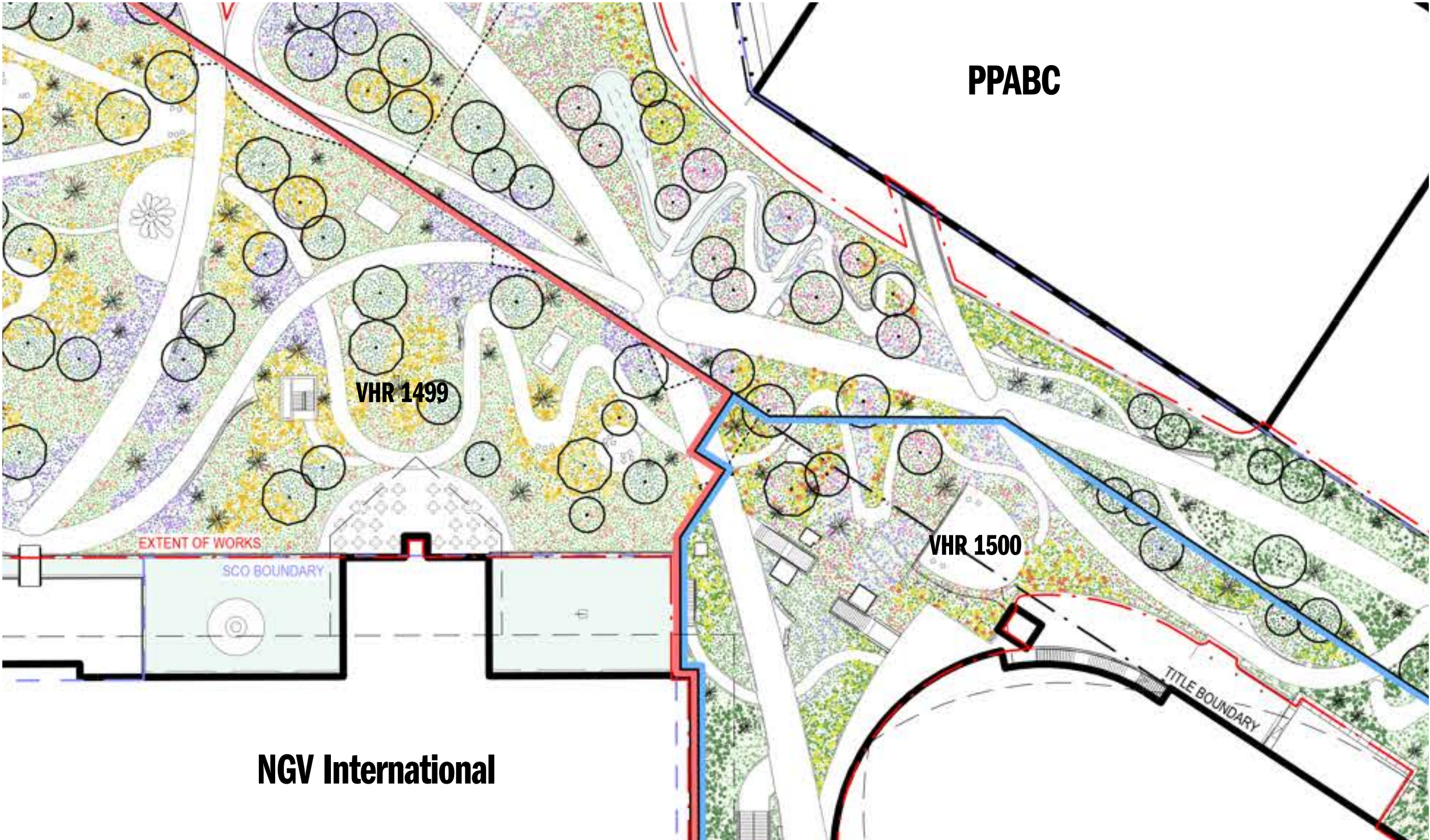
# FLOWERING SLOPES

**Description**

Emerging from the compressed nature of the Ridges and Ranges, the journey opens to a gently sweeping south facing slope with multiple paths of travel. Reflecting the conditions, changing climate and the cosmopolitan nature of the precinct and Melbourne, the planting draws inspiration from dry climate biomes such as the Mediterranean. A landscape of silver mounds and bumps of plants with seasonal, vibrant flowers rising and falling above.

**Key planting experiences:**

- South facing
- Multiple journeys through differing vibrant mixes
- Multiple senses engaged
- Showy, but orchestrated flowering experiences.





# VALLEY FLOOR

An architectural rendering of a landscape design titled 'Valley Floor'. The scene is viewed from an elevated perspective. On the left, a large, angular building with a flat roof and several small, square skylights is shown in a light grey line-art style. To its right, a winding path or road cuts through a lush, colorful garden. The garden is filled with various plants, including tall, thin, yellow and orange stalks, and dense patches of purple and blue flowers. A small, white, sculptural figure stands in the garden. In the foreground, a curved, multi-story building with a glass facade and a series of balconies is visible. The background shows more buildings and a street with a tram. The overall style is a combination of line art and vibrant, hand-painted colors.

**Bold and sculptural foliage greets you as you approach the northern entrance of NGV International. An abundance of foliage forms layers and contrast. The garden luminates from St Kilda Road and draws you to the entry of NGV International. Verdant and appealing contrast from the cityscape into the precinct. The restorative nature allows a pause for a moment and transition into the National Gallery.**



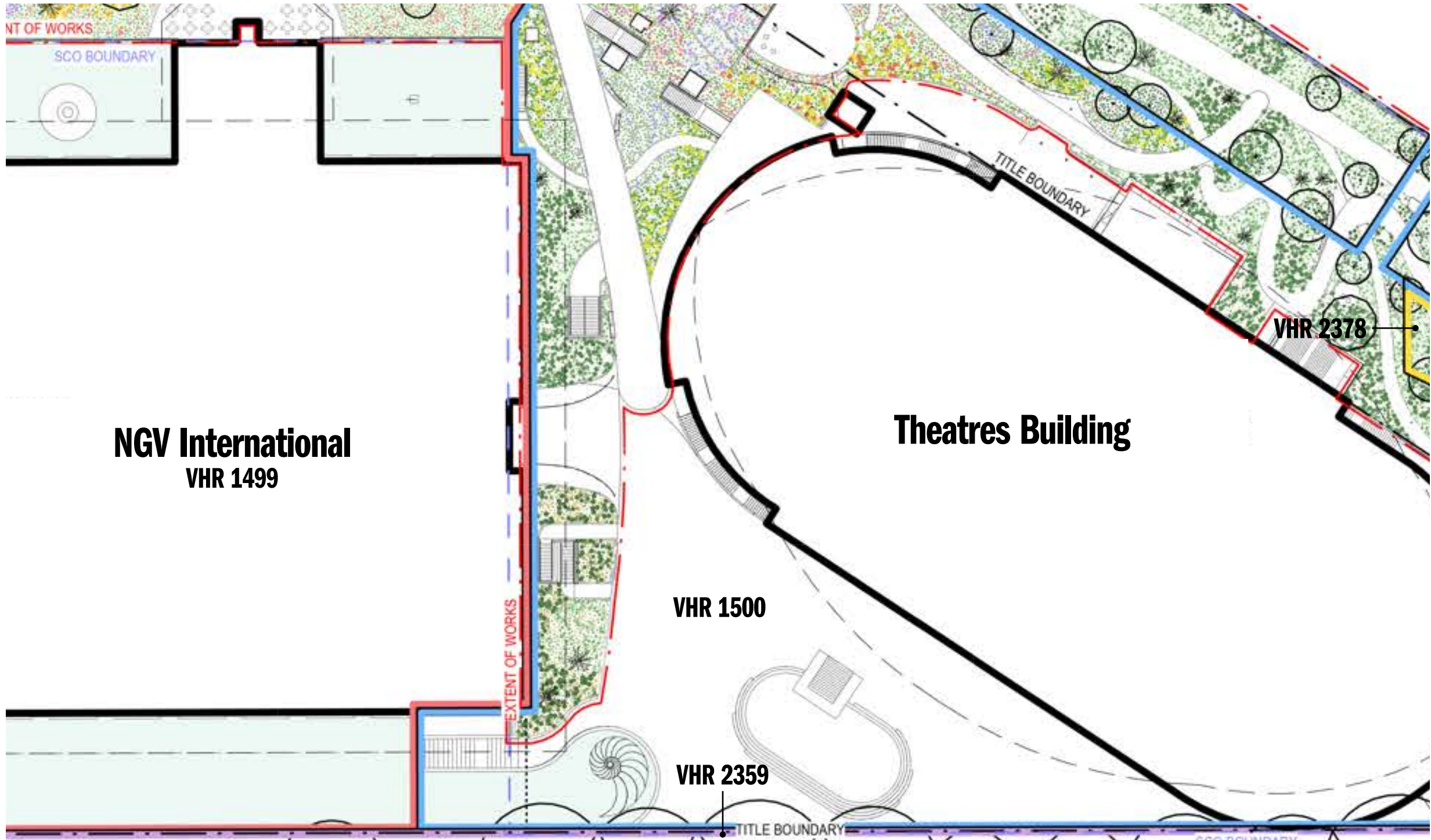
# VALLEY FLOOR

Description

A compressed landscape between NGV International and the Theatres Building that draws in visitors from St Kilda Road. Given the iconic nature of the two buildings, and the shaded condition, this is a landscape that features the delight in plants that evoke foliage and texture. The planting is lush, green with seasonal emergent flowers where possible, and planting is largely contained to a similar extent of the existing planters currently against NGV International.

Key planting experiences:

- Shaded
- Textural and calming
- A cooling backdrop to this busy gathering and meeting area.





# GARDEN STATE



**You become immersed in a new expression of Australian naturalism, bringing the dramatic impact of design and colour in a bright and moving palette of plants - an emotive experience of vibrant naturalism in the Australian context. Your eye is led by repeated colour and texture in a journey between NGV International and NGV Contemporary. The biodiverse, highly flower-driven composition draws in pollinators contributing to the food sources in the city year-round.**



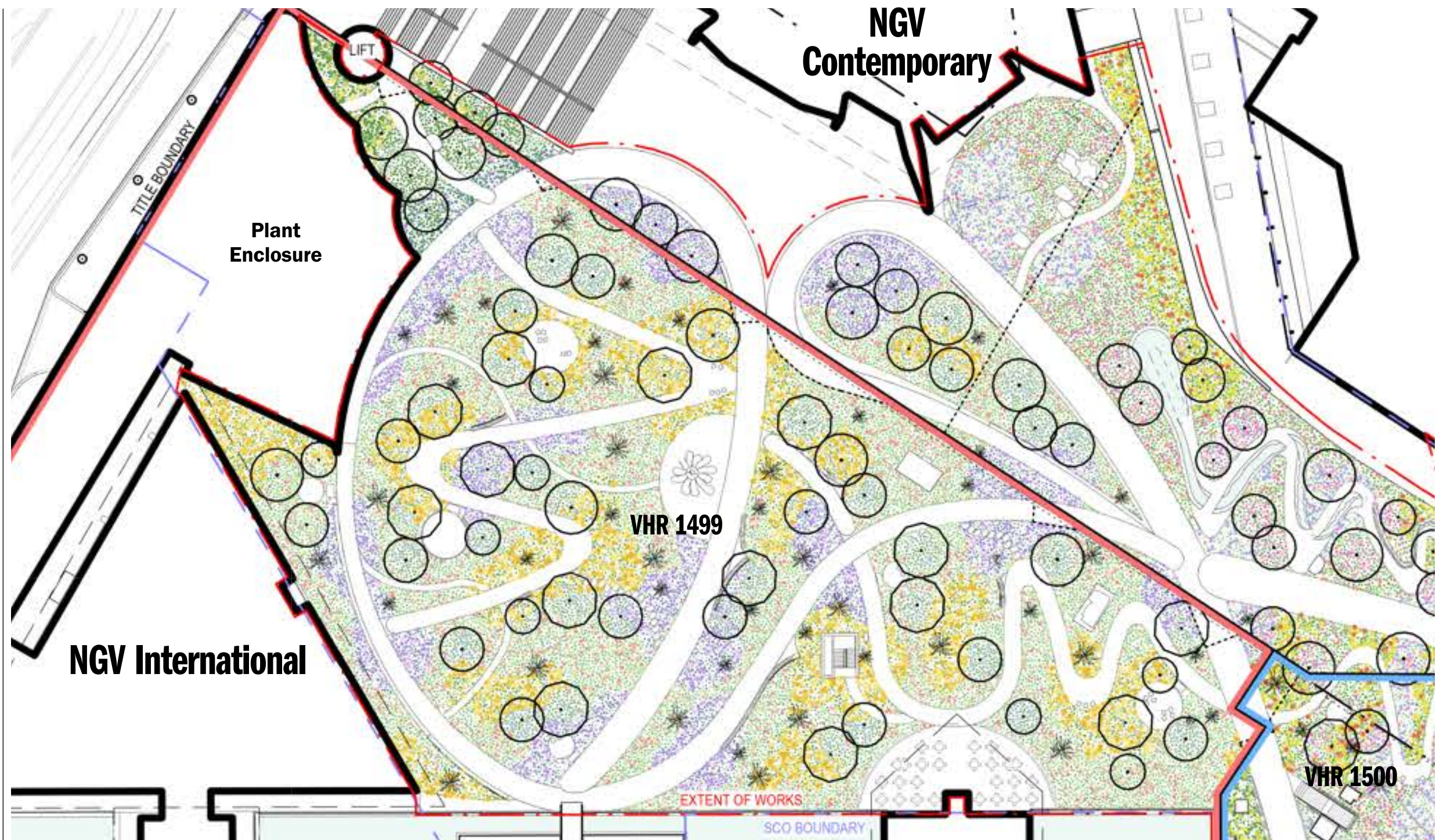
# GARDEN STATE

## Description

The garden between NGV International and the NGV Contemporary will be a celebration of Melbourne's status as the 'Garden State'. A garden of multiple experiences, filled with artwork and small spaces for gathering and contemplation. The heights of plant mixes has been choreographed to create multiple experiences as visitors walk through the gardens, areas of enclosure, areas of expansive colourful views. This will be a globally significant naturalistic garden for a changing climate.

## Key planting experiences:

- Colour and spectacle
- Compliments artwork
- Multiple heights that guide views and experiences
- Hero and rare Victorian plants celebrated en masse.









# TREES

**The tree planting at the Melbourne Arts Precinct will ground the precinct in its Victorian context and ensure this is a landscape like no other.**

**Trees will be located to act as a key device that draws the visitor into the site and signals changes in character, frames views and creates tension, interest and the desire to explore. Large native trees will mark gateways and thresholds while smaller sculptural trees, a mix of native and exotic species, will reinforce the enclosure of areas and create interest through form, colour and texture.**



## Large Structure Trees

These will be wholly native and will be located at key thresholds of character and used to create glades and clearings and cast shade where required

## Smaller Sculptural Trees

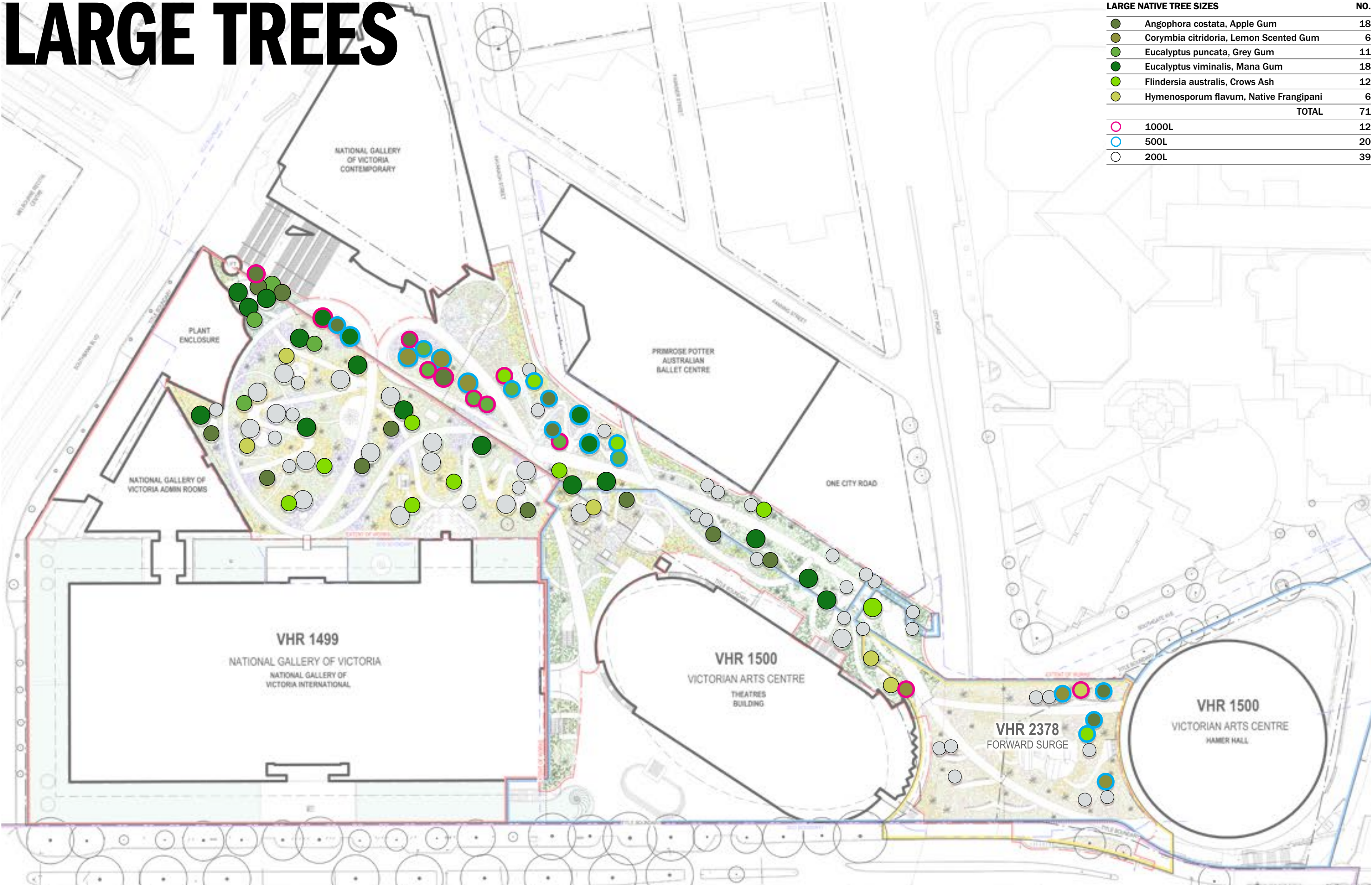
There will be a mix of native and exotic, have a mix of multi-stemmed examples and provide colour through either flower or leaf.

For the larger species the following criteria is being used in the ongoing selection and procurement of the individual trees:

- First Nations narratives
- Climate Change resilience
- Having long term structural visual quality, in particular interesting branching character, rather than the standard lollypop of the street, twisting, curly wurly stems and branches, multi-stems or similar
- Provide shade
- Not be too familiar as a local “street tree”
- Having reasonable to good drought tolerance



# LARGE TREES





# LARGE TREES



**Eucalyptus viminalis**  
**Manna Gum**

The Wurundjeri take their name from the word 'Wurun', their name for Eucalyptus viminalis, which is common along the Yarra River (Birrarung), and djeri, a grub found in the tree. This is a medium to tall tree (30-45m), its trunk with creamy white or grey bark that sheds irregularly. Clusters of small creamy white flowers appear in late winter or early spring.



**Angophora costata**  
**Apple Gum**

First Nations people know the tree as kajimbourra. Angophora costata is a tree that typically grows to a height of 30m. The species has distinctive smooth bark that is pinkish or orange-brown when new and fades to grey with age. Its lance-shaped leaves are arranged in opposite pairs along the stems, with white or creamy white flowers appearing from October to December.



**Corymbia citriformis**  
**Lemon Scented Gum**

Corymbia citriformis, also known as lemon-scented gum, is a tall (30-50m) and aromatic tree. It has a straight trunk with mottled bark that sheds in patches of grey, cream, and pinkish-brown. The lance-shaped leaves emit a strong lemon scent when crushed. The tree produces clusters of creamy white flowers in summer, followed by woody capsules containing small brown seeds.



**Eucalyptus punctata**  
**Grey Gum**

Eucalyptus punctata, is a medium to large-sized (20-35m) eucalyptus tree native to eastern Australia. It has a straight trunk with rough, grey to brown bark that sheds in long strips. The lance-shaped leaves are glossy, dark green on the upper surface and paler on the lower surface. Clusters of creamy white flowers bloom in late spring or early summer. It is ecologically important and provides nectar for pollinators.



**Flindersia australis**  
**Crows Ash**

Flindersia australis is a tree that typically grows to a height up to 40m, larger trees usually having a buttressed trunk. The compound leaves consist of glossy, dark green leaflets, and the tree produces clusters of fragrant cream-coloured flowers. These flowers attract pollinators like bees and butterflies. The blooming period varies, but it usually occurs in spring or summer.



**Hymenosporum flavum**  
**Native Frangipani**

Hymenosporum flavum is a slender rainforest tree native to Queensland and New South Wales, growing up to 10m high in cultivation. It has deep green glossy leaves and delicate, fragrant yellow/white flowers which attract a range of birds and insects. The Native Frangipani is one of the most popular Australian plants in cultivation as it is a hardy plant, growing successfully in both full sun and shaded positions.



# SMALLER TREES





# SMALLER TREES

## Native Species



### Eucalyptus cernua

Commonly known as the red-flowered moort, the mallee typically grows to a height of 1 - 3m but can reach as high as 5m. It has smooth mottled grey to brown coloured bark that can become black over greenish yellow new bark.



### Eucalyptus erythrocorys

Commonly known as illyarrie or red-capped gum. A small mallee, this tree typically grows to a height of up to 6m. The bark is smooth with a creamy colour but can have a few rough brown coloured patches where it persists on the trunk instead of being shed.



### Eucalyptus landsdowneana

Commonly known as the crimson mallee or the red-flowered mallee box, this tree is a species of slender stemmed, straggly mallee that can reach 6m in height. Flowers are dark pink to crimson-red. They make an appearance from autumn to spring.



### Eucalyptus orbifolia

Commonly known as the Round Leaved Mallee, this mallee typically grows to 2–8m and produces showy cream-yellow flowers between July to November. The bark is reddish brown in colour and peels and curls outwards, exposing paler white-grey bark below.



### Eucalyptus pleurocarpa

Commonly known as tallerack, this mallee typically grows to 2–5m and forms a lignotuber (wide stem base) and has smooth, greyish bark. Flowering occurs during summer and the flowers are white.



### Eucalyptus tetraptera

Commonly known as square-fruited mallee, this is a low, spreading mallee that typically grows to a height of 1–3 m. It usually has a single low branching trunk with smooth, grey or whitish-grey bark. Flowering occurs from late winter to mid summer and the flowers are red to pink.



# SMALLER TREES

## Exotic Species



### Albizia julibrissin

Albizia julibrissin, commonly known as the silk tree or mimosa tree, is a deciduous tree that can reach a height of 6 - 12m and has a similar spread. They typically have a broad, umbrella-shaped canopy with a graceful and airy appearance. The tree has delicate leaves composed of numerous small leaflets arranged along multiple branches. The tree produces showy, fluffy, pinkish or purplish flowers in clusters. They are fragrant and attract pollinators such as butterflies and bees.



### Arbutus Unedo

Arbutus unedo, also known as the strawberry tree, is a small tree. It typically grows to a height of 2 - 5m with a rounded, dense canopy. The plant features dark green, leathery leaves that are oval-shaped with toothed edges. It produces clusters of small, urn-shaped white to pinkish flowers that hang downward. The most distinctive feature is its round, fleshy fruits that start green and ripen to a vibrant red or orange. These edible fruits have a texture similar to strawberries and a unique flavour that is slightly sweet and reminiscent of strawberry and mango.



### Ceratonia siliqua

Ceratonia siliqua, commonly known as the carob tree, is a flowering evergreen tree native to the Mediterranean region. The tree has dark green, fern-like foliage and a sturdy trunk with rough bark. The tree has a distinctive appearance with a well-developed crown and a thick, gnarled trunk with rough, grayish-brown bark. It produces small flowers and elongated carob pods.



### Chionanthus virginicus

Chionanthus virginicus, commonly known as white fringe tree, is a deciduous tree native to eastern North America. It typically grows to a height of 4 - 7m with a rounded or pyramidal shape. The tree features dark green, glossy leaves that turn yellow in autumn. In late spring to early summer, it produces abundant clusters of fragrant, white, fringe-like flowers that attract pollinators. The tree bears small, dark blue to black fruits.



### Vitex agnus-cactus

Vitex agnus-cactus, also known as chaste tree or monk's pepper, is a deciduous shrub or small tree. It typically reaches a height of 3 - 5m. The plant features palmate leaves with 5 to 7 lance-shaped grayish-green leaflets. Clusters of fragrant, tubular-shaped flowers in shades of lavender or pale lilac form dense spikes or panicles. The plant develops small, dark purple or black berry-like fruits.



# A NETWORK OF PATHWAYS

**Movement of people into and through the Laak Boordap Public Garden is conceived as a network of pathways. A network to create a multitude of different ways people can engage with this new urban garden: exploring, enjoying a moment of contemplations, gathering before an event, moving between buildings or commuting through on the way to work.**

**A hierarchy of pathways, with different characters, is proposed to give both simple orientation that nudges people into and through the precinct and create different experiences for visitors to the garden. A sweeping and flowing three dimensional geometry reinforces the distinct identity of the Public Garden as a destination as important as the Precinct buildings.**

**Whereas the gardens with their vibrant colour sit in contrast to the buildings, the pathways are to offer a quiet background and a subtle distinction from the City.**



# PATHWAYS

Three characters of pathway are proposed to achieve a specific way people move into and through the Public Garden. These different pathway types offer both intuitive wayfinding along with an invitation to explore. For example, the primary pathways by their width and gentle sweeping curves provide the obvious ways to move to destinations in the precinct. Whereas, the secondary pathways, with their more meandering layout, invite people to step off the clear path and discover shortcuts and other moments of the garden. The tertiary paths create moments of intimacy, discovery and play immersed in the gardens. Just as the pathways differ in their purpose, they also differ in scale, complexity and materials. The widths and location of paths complies with the pedestrian modelling of people movements.

## Primary Paths



Primary pathways provide connections between key entrances to the precinct and the precinct buildings, including:

- The River (to be delivered in Phase 2 of the MAPT Project)
- St Kilda Road (both in the North and the Centre)
- Hamer Hall, both main entrance and the upper terrace
- The Theatres Building western entrance
- NGV Contemporary eastern and NGV International western entrances
- Southbank Boulevard (this is part of the NGV Contemporary Project)

In addition to providing connection, the primary paths also allow people to move through the Public Garden from north to south and vice versa. The primary paths sweep like strokes through the public garden, creating the unhindered flow of people, revealing as the move the different aspects and opportunities the Public Garden offers.

All primary paths allow equitable access with gradients less than 1:20.

## Secondary Paths



Secondary pathways provide connections to entrances (not serviced by the primary paths) of the precinct buildings and key areas of the gardens, including:

- Forward Surge
- The Theatres Building Northern Restaurant
- The Primrose Potter Australian Ballet Centre connection
- The NGV International Garden Restaurant
- Clearings for activities and events within the gardens
- From building fire escapes to primary paths

Secondary paths provide alternative ways to move - shortcuts. They create, as they meander through the gardens, crossing the primary paths, the network of access and opportunity.

All secondary paths allow equitable access with gradients less than 1:20.

## Tertiary Paths



Tertiary pathways are the smallest scale of path. They are the most intimate offering discovery, immersion and intimate experience of the public garden.

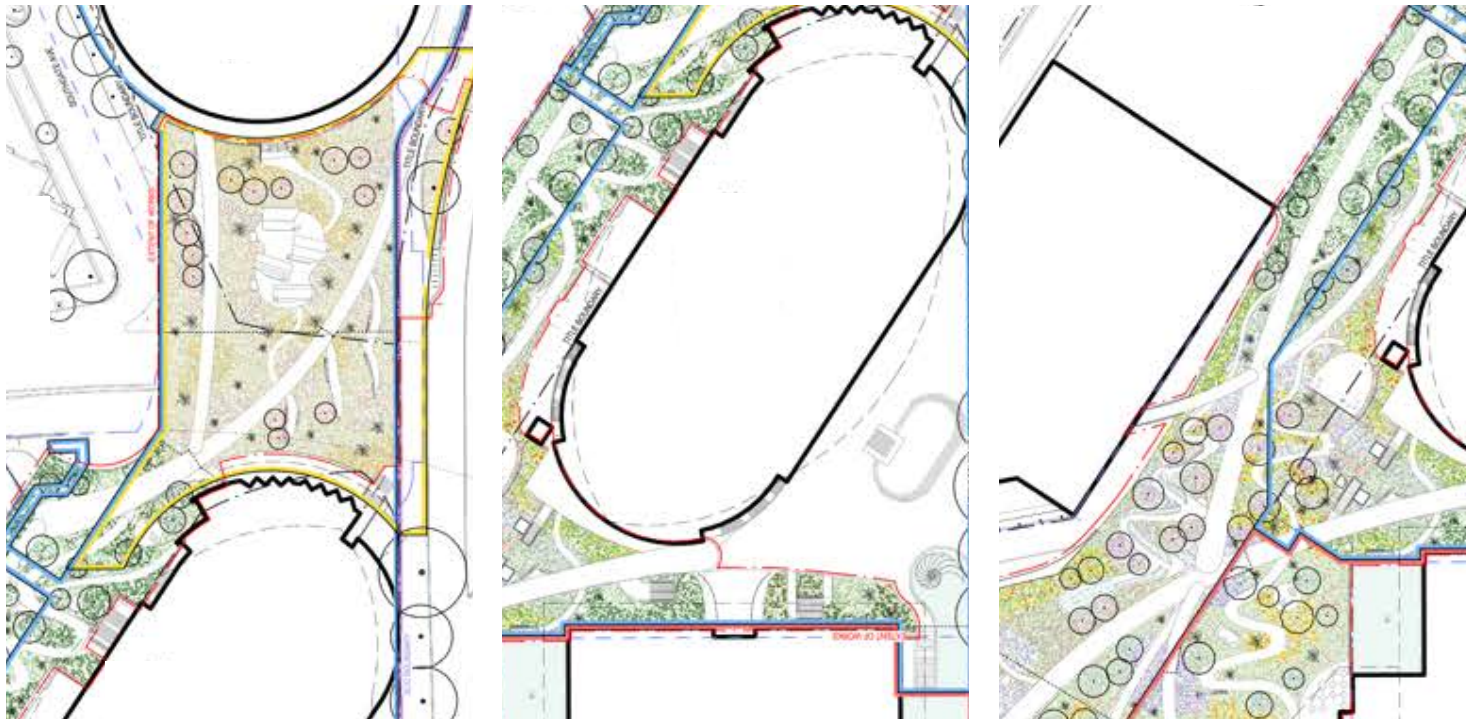
Where primary paths offer connection and secondary paths offer short-cuts, tertiary paths give discrete and diverse experiences. They do not necessarily provide access from one place to another but create journeys within the garden. For example:

- Stepping stones between primary and secondary paths
- Alternate ways to a clearing
- Meandering paths through planting

Tertiary paths are not necessarily universally accessible.



# PRECINCT ENTRANCES



In accordance with the MAPT Master Plan the entry points that form part of the Public Garden are celebrated as gateways and designed as clear thresholds making the movement from the surrounding city into the Arts Precinct.

## The River

Currently there is very restricted access from the Yarra River to the Melbourne Arts Precinct; primary access is from the stair directly adjacent to Hamer Hall and the Princes Bridge or from the ramp south of Hamer Hall connecting St Kilda Road and Southgate Avenue. This is planned to be addressed with a new lift and stair in Phase 2 of the project. Work on this does not form part of this Heritage Application.

## Dynamic Grasslands

With the majority of people approaching the Precinct from the north over the Princes Bridge, a more open inviting gateway is required. The proposal is to remove the current impediments, including the canopy and bluestone hob, to create an obvious and natural invitation up the slope into the precinct. This will welcome people as they come around Hamer Hall to enter into the gardens. The primary path sweeps from St Kilda Road towards the western side of The Theatres Building, drawing people easily in and providing access to 'Forward Surge', Northern Restaurant of the Theatres Building, and beyond to the rest of the precinct. The invitation is further demarcated by the extension of the primary path material, granite, into the bluestone of the footpath with a wide stroke.

## Valley Floor

The Valley Floor garden provides access for differing users and precinct buildings:

- It provides access through the precinct between St Kilda Road and Southbank Boulevard
- Access to the Theatres Building Stage Door
- Access to the NGV International Mouse Hole entrance

There are also a number of precinct building fire escapes and service elements. The primary path in its continuous sweep gives clarity and orientation into (and through) the precinct, providing the way to NGV Contemporary and also to Southbank Boulevard. While the paths to the Mouse Hole and Stage Door both sweep off this main path indicated with a change in geometry of the granite paving. As with the Dynamic Grasslands entrance the granite of the primary path intersects the existing paving with a wide inviting stroke.

## Flowering Slopes

Access to and from the Primrose Potter Australian Ballet Centre, and further through that building to Kavanagh Street, is provided through the Flowering Slopes garden. A new bridge, that meets the building in the exact location of the existing bridge, provides connection and maintains all the existing access including equitable access via the existing public lifts. The bridge, constructed as part of the RACM project is proposed to be clad in granite, as per the primary paths. In this way this entrance, although different in character to the Dynamic Grasslands and Forest Floor entrances (being a bridge) makes entry into the precinct through the consistent material expression.

## Southern Gateway

The Southern Gateway encompasses stairs and a public accessible lift, to provide equitable access between Southbank Boulevard and the Public Garden. The Southern Gateway forms part of the NGV Contemporary heritage application and does not form part of this heritage application. The Laak Boorndap Public Garden project creates a direct path from the Lift to the top of the stairs.



# PATHWAY MATERIALS

Victorian Harcourt Granite, locally sourced from Castlemaine quarries, shaped to reinforce pathway characteristics and indicate different opportunities of immersion within the garden.



## Primary: Granite

Primary paths are of Harcourt Granite laid in 200mm wide strips perpendicular to the movement of travel along the path. Primary paths are all accessible.

Widths vary from 2.5m to 7m and are typically 4m



## Secondary: Compacted Gravel or Cobbles

Secondary pathways match the materiality of Primary paths with a softer and finer definition: Harcourt Granite in cobble or compacted gravel format. Secondary paths are all accessible.

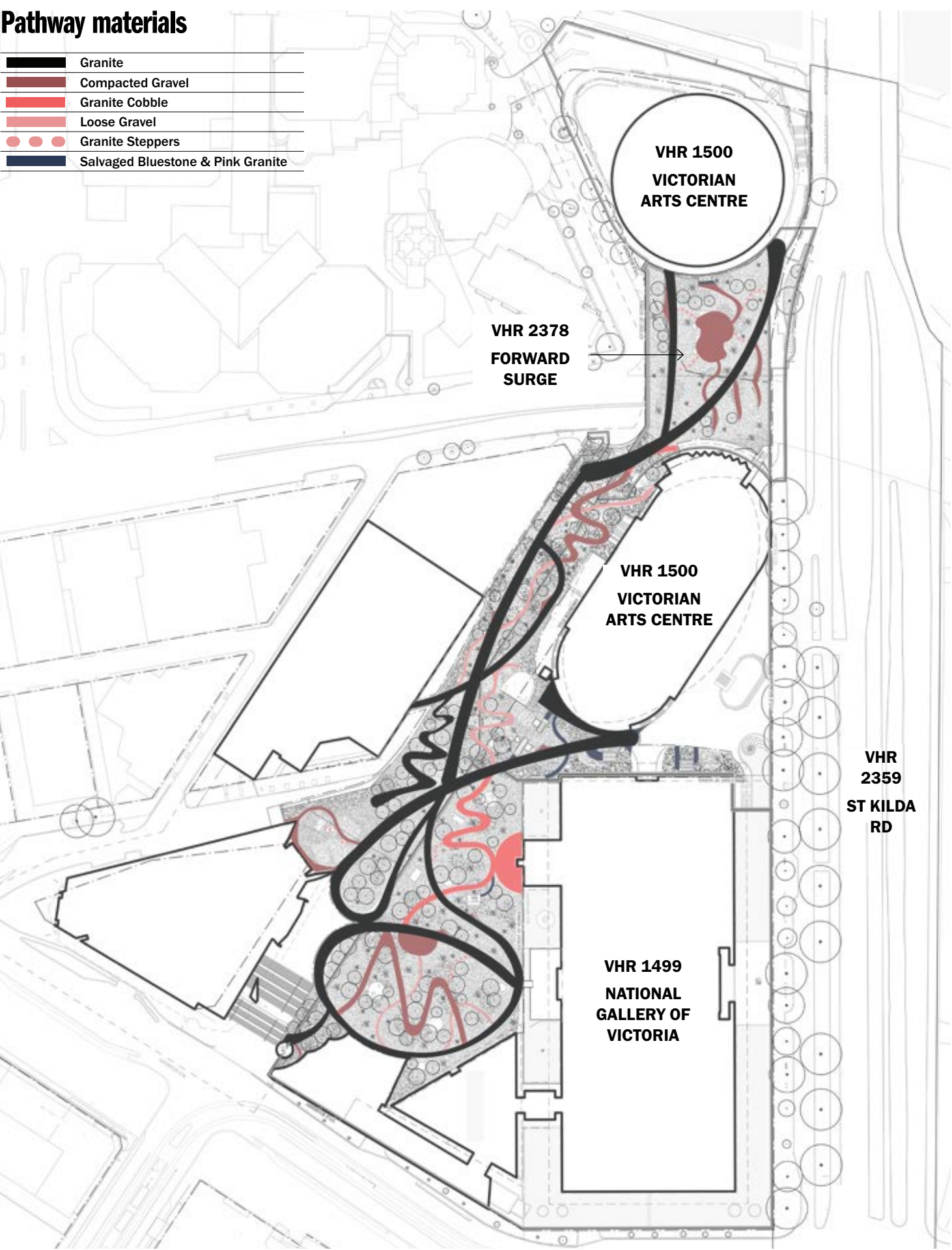
Widths vary from 1.2m to 4m and are typically 2m



## Tertiary: Gravel or Stepping Stones

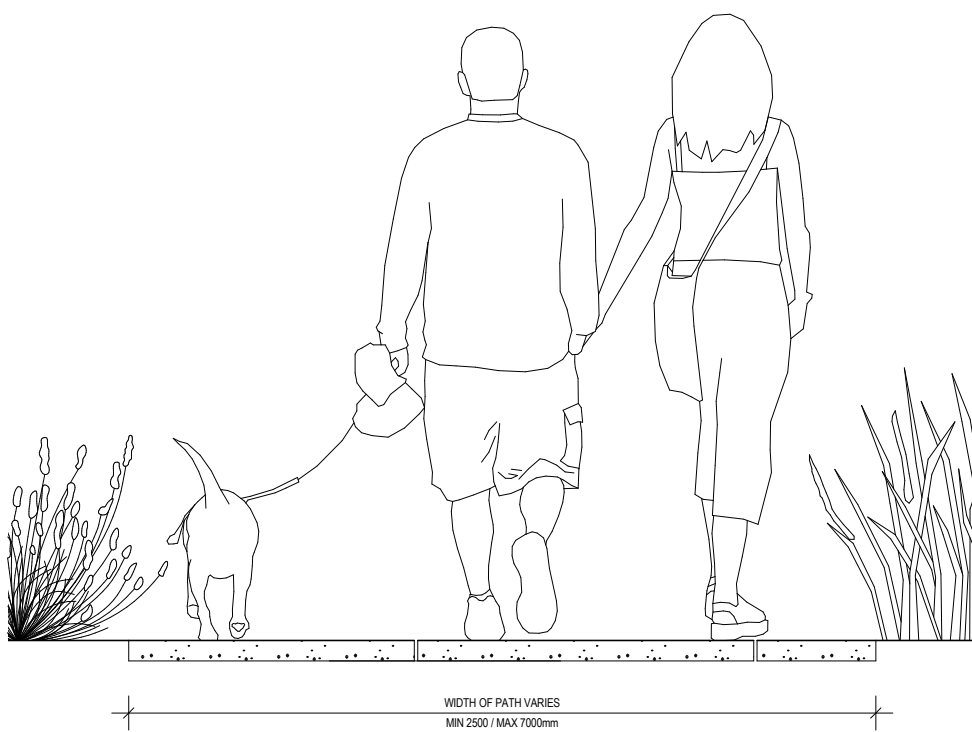
Tertiary paths made of gravel or stone steppers to will create meandering and incidental movement through gardens and spaces. Tertiary paths are not considered universally accessible.

Widths vary from 1m to 2m and are typically 1m

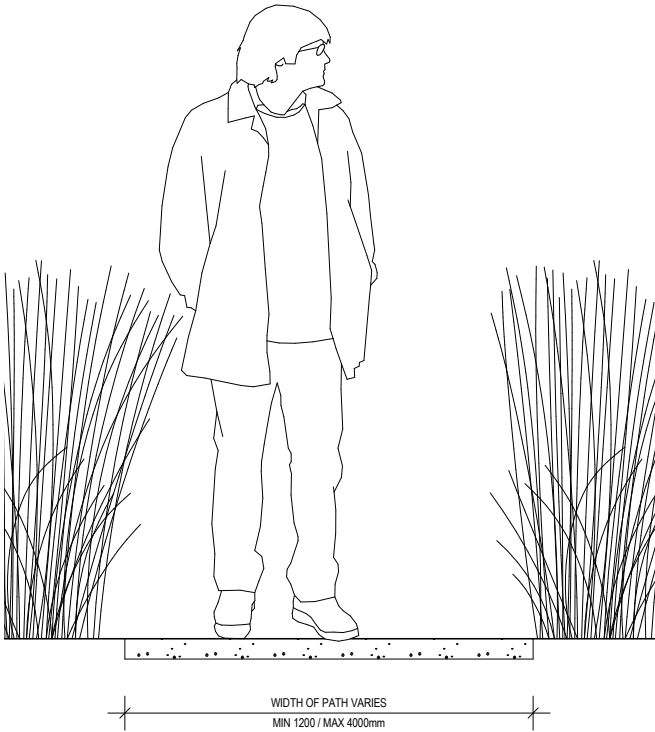




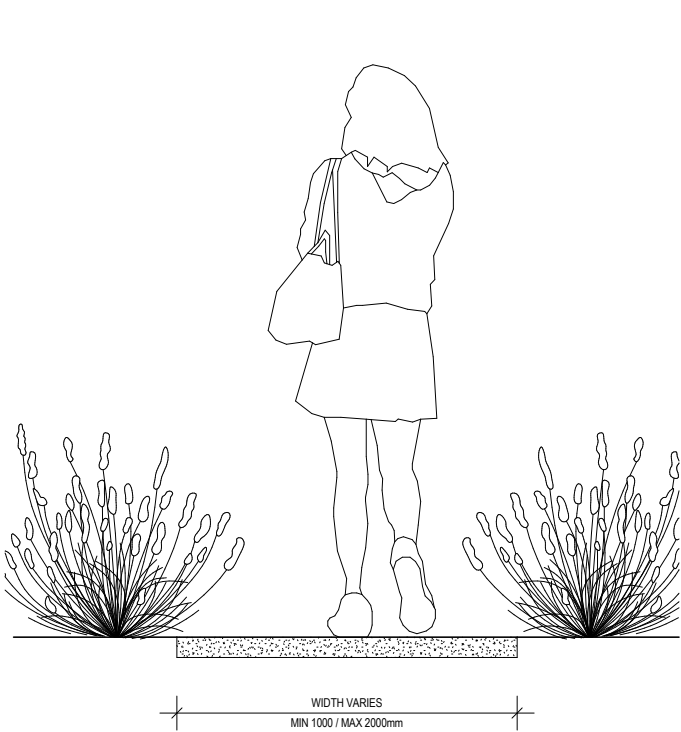
PATHWAY TYPES



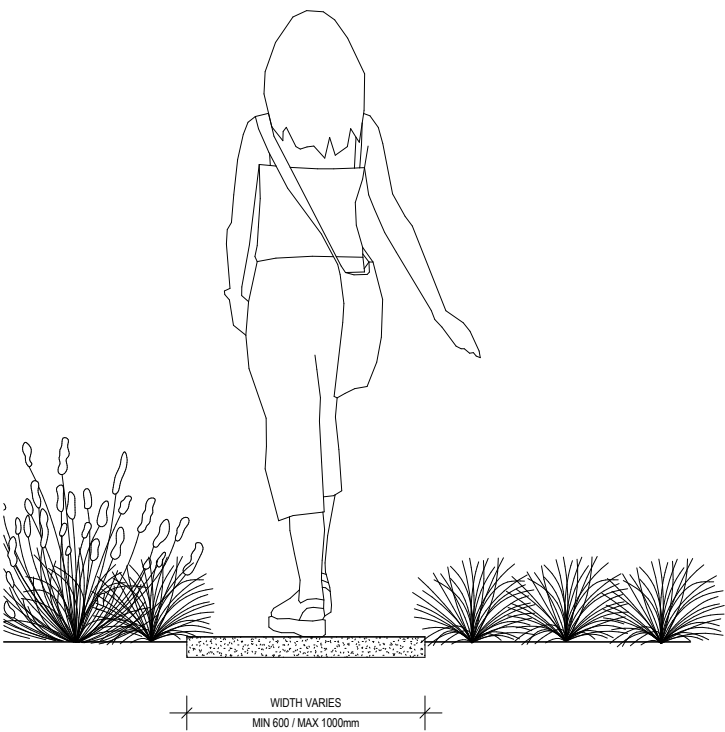
Primary



Secondary



Tertiary





# PATHWAY DETAILS

**As people move deeper into the garden the definition of the granite they walk on becomes finer and the edges of becomes more blurred.**

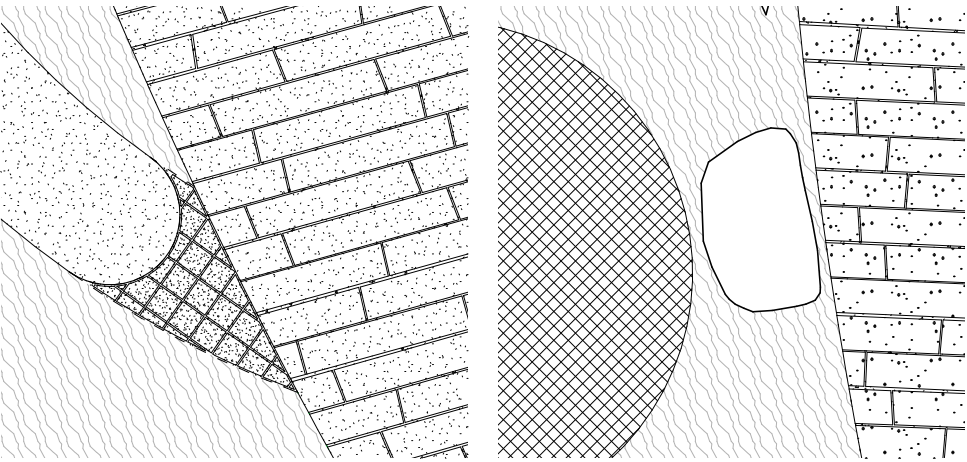
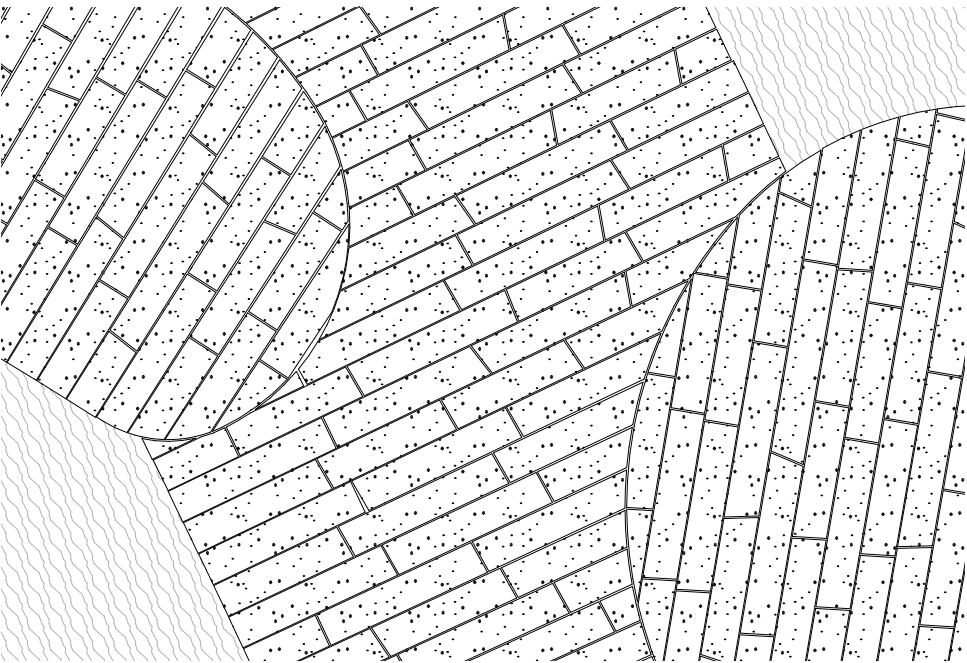
The primary paths are the most clearly defined, wide planks of Harcourt granite running perpendicular to the direction of movement. This, along with their clean edge, represent the most direct ways to move into and through the urban garden.

When primary paths meet, the stroke of the path terminating overlaps the path that continues, indicating the choice people have to change direction.

Secondary paths abut primary paths with a cobble stone threshold that indicates the choice to leave the direct path and take a different journey. The cobble threshold typically introduces a finer compacted gravel path, except for when the path leads to a hospitality offering such as the Northern Restaurant and the Garden Restaurant.

Whereas the edge of the primary paths is clear the edges of the compacted gravel, the loose gravel and stepping stones of the tertiary paths blend and blur into the Harcourt Granite inorganic gravel mulch of the garden.

## Paths & Garden Junction



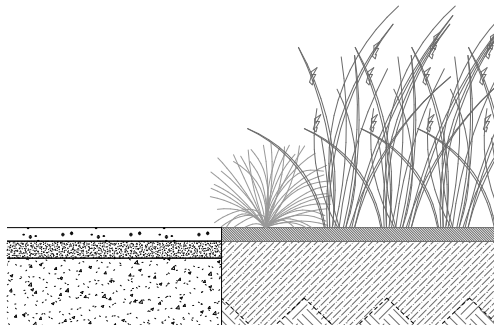
Pathway junctions and transitions throughout the precinct.



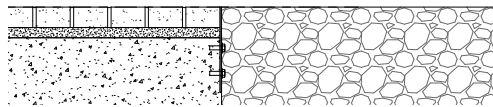
Proposed view from the southern area of the garden looking northeast towards NGV International, showing NGV Contemporary to west



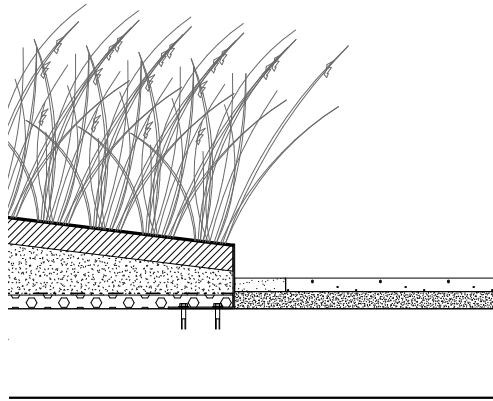
WALL & EDGE TYPES



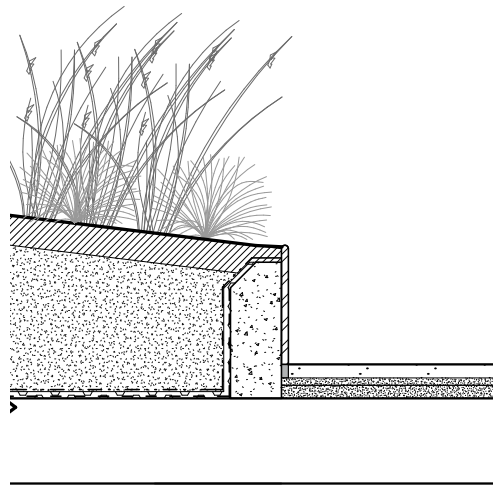
Garden Dissolved Edge



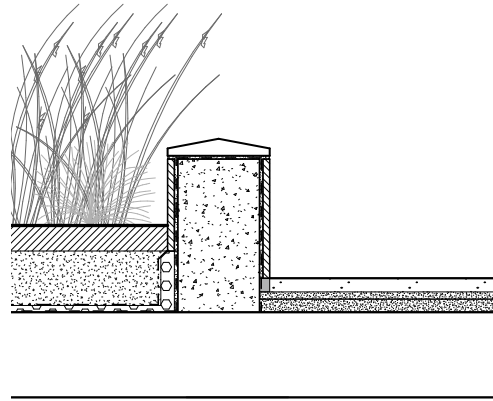
Flush Steel Edge



Raised Steel Edge



Granite Edge



Bluestone Wall



# ART & ACTIVITY

Moments of activation, through performance, art or pop-up events, will add to the experience of the urban garden. Art placement and activities will be site responsive and unique. These moments won't add visible clutter, overbearing infrastructure or even feel like event spaces when not programmed. To enable this there are clear areas dispersed through the site with access to power, that support passive and active activities - called clearings.

Outside of clearings there are extensive moments of opportunity; pathways, edges and stairs can be activated with site specific performance or events.

Seating is incorporated into the garden to create locations for people to enjoy it either for short stays or longer periods.





# CLEARINGS

Clearings are dispersed throughout the Urban Garden. They offer opportunity to be immersed in the garden. They offer places to gather and areas for art and activation.

Grass covered clearings range in size from 7sqm to 96sqm. They are typically, although not exclusively, located off secondary paths - creating found spaces, and increasing the feeling of being immersed within the garden. A single large stepping stone creates a threshold into each grass clearing.

Hard paved areas, the forecourts to buildings, and gravel clearings around significant sculptures are of larger scale. These spaces range from 80sqm to 420sqm.

The table adjacent shows the location, approximate scale and audience potential of each clearing.

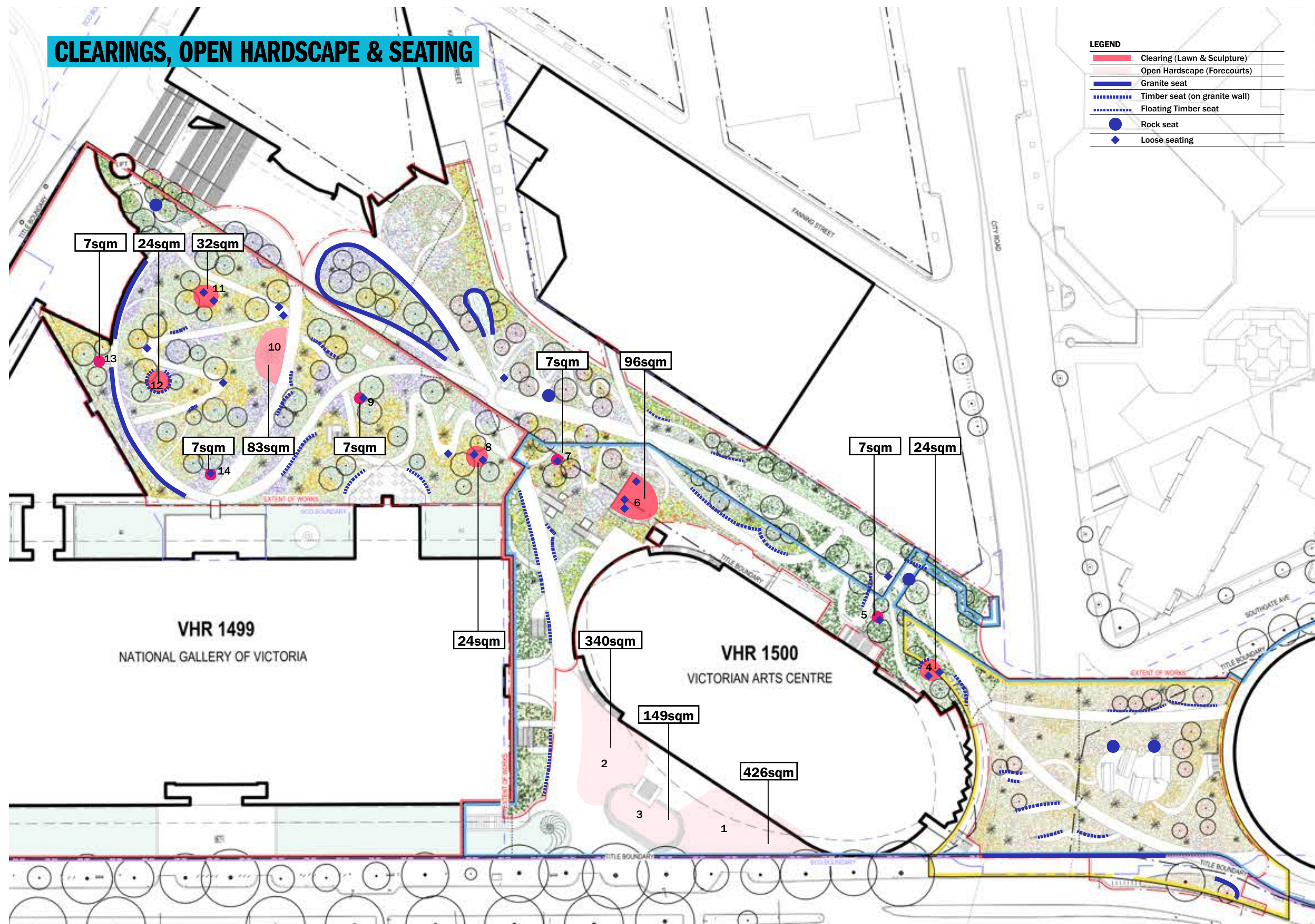
- Clarifications
- Pathways are not included in the above areas.
  - Terraces and F&B are not included in the above areas
  - The Theatres Building forecourt is shown above as three potential separate areas noting that the entire 1,700sqm of the forecourt could be activated.
  - The Southern stair and the hard surface area adjacent to Southbank Boulevard and the hardscape adjacent the NGV Contemporary is not included above
  - The Water Feature Bay is not included in the above however offers another unique activation area opportunity
  - The Garden Restaurant outdoor seating area is not included

LOCATION/TYPE	SIZE	CAPACITY (sqm PER PERSON)		
		0.5sqm Crowded	0.7sqm Standing	1.1sqm Spaced
Clearings & Open space				
1 ACM Forecourt North	426sqm	852	609	387
2 ACM Forecourt South	340sqm	680	486	309
3 ACM Forecourt Stage	149sqm	298	213	176
4 Lawn Clearing (M)	24sqm	48	34	21
5 Lawn Clearing (S)	7sqm	14	10	6
6 Lawn Clearing (L)	96sqm	192	137	87
7 Lawn Clearing (S)	7sqm	14	10	6
8 Lawn Clearing (M)	24sqm	48	34	21
9 Lawn Clearing (S)	7sqm	14	10	6
10 Sculpture Clearing	83sqm	166	119	75
11 Lawn Clearing (M)	32sqm	64	46	29
12 Lawn Clearing (M)	24sqm	48	34	21
13 Lawn Clearing (S)	7sqm	14	10	6
14 Lawn Clearing (S)	7sqm	14	10	6
TOTAL	1,233sqm	2,466	1,762	1155



# CLEARINGS, OPEN HARDSCAPE & SEATING

<span style="color: red;">—</span>	Clearing (Lawn & Sculpture)
<span style="color: lightcoral;">—</span>	Open Hardscape (Forecourts)
<span style="color: blue;">—</span>	Granite seat
<span style="color: blue;">- - - - -</span>	Timber seat (on granite wall)
<span style="color: blue;">- - - - -</span>	Floating Timber seat
<span style="color: blue;">●</span>	Rock seat
<span style="color: blue;">◆</span>	Loose seating





# SEATING

The seating approach and detailing is designed to strengthen visitors appreciation of the planting, through analysing location, view lines, geometry, and material choices.

Seating is now located in a nuanced manner, situated to provide opportunity for people to perch as well as spend time. Seating is positioned in places where people will want to be, adjacent to entrances as well as locations that offer prospect over the garden and views within and beyond the precinct. Seating is positioned in relationship with the garden, and in the shade of trees wherever possible.

The seating design follows the sweeping geometry of the paths. Typically two 'sweeps' of seating pull off from a path to create a little space and a separation from people moving past. This enhances the connection with the garden and provision of amenity for the public.

Timber has been introduced to invite warmth, increase comfort and as another means to visually integrate the seating into the garden. The seating design is to be further resolved.

Seating Typologies

Four different types of seating are proposed to both blend seating into the garden (reduce its visual impact) and also to offer different experiences relative to the specific garden settings:

- 1. Retained - Timber on Granite  
Retaining walls are required in many areas of the garden to deal with slopes and the build-up of soil depths. The detailing of these has been developed to be a thin curved line of granite (in the same 200mm wide planks as the primary paths). Where these retaining walls correspond with optimal seating locations, a timber 'cushion' is proposed on top of the granite.
- 2. Floating Timber  
The same timber cushion is used to create seating that floats (held aloft by a thin metal structure), minimising the visual impact and allowing the garden to grow underneath the seat.
- 3. Retained Granite  
Shaped granite is proposed as the seating element, in three distinct locations, where a seat of more substantial scale is appropriate.
  - Along St Kilda Road
  - Around the Tear Drop and,
  - Along the southern most primary path.
- 4. In each of these locations, a seat of Found Object  
Three large rocks, at the Southern Lift, the water feature and in the Ridges and Ranges garden, are proposed. Harcourt granite boulders are carved to provide a special place to sit. There are also two stepping stones to the south of *Forward Surge* that offer moments to perch.

Loose Seating

The brief and design of loose furniture (proprietary/custom designed) in the garden is yet to be determined.

Capacity

509m of linear seating is currently proposed across the precinct.

Compliance

Seating is provided at every 50-60m with back and arm rests proposed to at least 50% of all seats.

Images:  
1. Found object - Rock seat  
2. Retained - Granite  
3. Retained - Timber on granite





# FIXTURES & FITTINGS

**This section describes the detail of fixtures and fittings throughout the Public Garden not covered in previous sections. As with pathways and seating, material choices have been made to make the garden the special experience of the Laak Boorndap Public Garden.**

**Transparency, thinness and reflectivity coupled with a detailed elemental construction of metalwork elements is proposed.**



# WESTERN EDGE

**The western edge of the Laak Boordap Public Garden extends from Hamer Hall south to NGV Contemporary. The entire extent of this edge is elevated with a variety of different conditions. The Public Garden scope is focused on the section required above the structural deck.**

From north to south the different build-ups of the western edge are:

- The existing pre-cast concrete deck structure and edge treatment that starts at Hamer Hall and spans over City Road to the Theatres Building.
- The new structure of the RACM project bounding the 1 City Road site consisting of exposed concrete slabs with infill walls of blockwork and louvres elevated above the loading areas of the former Sturt Street.
- The new structure of the RACM project across from the PPABC that consists of pre-cast concrete panels in front of an in-situ concrete structure.
- Over Kavanagh Street the western edge is the metal clad plenum of the RACM and NGV Contemporary projects.

There are different requirements for the Public Garden edge. For the full length it is required to provide safety and fall protection. For the section from Hamer Hall to the north-eastern corner of the PPABC it needs to provide wind mitigations (this would also be the case over Kavanagh Street if the plenum was not present and providing a solid barrier). The section in front of PPABC does not need to provide wind mitigation.

## Western Edge Proposal

To minimise visual impact and achieve cost reduction targets, the proposed design is of a finely detailed balustrade that provides a quiet backdrop to the garden and is as transparent as possible where feasible.

The height of the edge treatment is consistent at 1.5m above finished levels, with pathways located away from the balustrade and separated by dense planting.

The western edge is detailed to allow construction from the Public Garden side minimising construction issues and complexity due to the elevation and active roadways below much of the edge.

In front of the PPABC the balustrade can be most transparent as wind mitigation is not required. Here the balustrade is a repetition of slender 1500mm high vertical 42mm diameter metal tubes spaced with a 120mm gap between them. A cylindrical rail running horizontal close to the top of the balustrade provides stiffness.

In the other areas, where wind mitigation is required, the vertical tubes are spaced out to 1200mm centres typically and a solid folded metal panel spans between. The panel is pleated referencing the zig zag forms found in the existing buildings and the design of the next Theatres Building restaurant.

The balustrade is proposed to be a dark colour to assist it being recessive.





# BALUSTRADES, RAILINGS & FIXTURES

**A fine detailed elemental construction of metalwork elements is proposed for all balustrades, handrails and garden protection items**

There are requirements throughout the garden for balustrades and handrails to provide mobility assistance and protection from falls. Over time a wide variety of these have been introduced into the precinct, varying from painted metal to glass to stainless steel. With the Public Garden there is the opportunity to introduce a consistent treatment that compliments the buildings and amplifies the garden.

The proposed design uses thin rods individually detailed in a manner where each piece 'passes by' its adjoining pieces. This creates a light and delicate expression that minimises the visual impact of these architectural elements on the plants of the garden.

**Balustrades**

Levels and grading has been designed wherever possible, to remove fall risk issues. However, in a small number of instances balustrades are required:

- Stage Door Clearing
- Southern Lift
- Hamer Hall (replacement for existing)
- NGV International Moat (replacement for existing)

Balustrades are also required around the openings of most existing fire escapes. The proposal is to remove any existing elements above bluestone walls and replace with the new design. Existing handrails are to be retained.

**Drinking Fountain**

Four custom designed wheelchair accessible drinking fountains are proposed within the garden providing drinking water, dog bowl and a bottle refill station.

**Garden Protection**

Temporary garden protection is designed for plants, predominantly during plant establishment or management activities, or events and high use activities, where protection is needed. The protective edging can be inserted and removed to suit activity within the precinct.

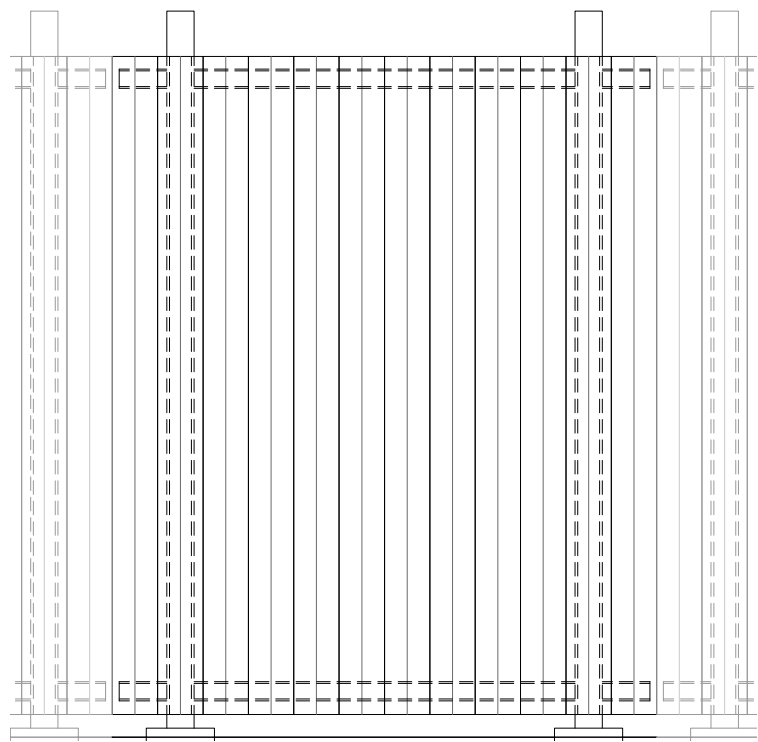


Images:  
1. 'Passing By' balustrade detail  
2. Balustrade - Stage Door Clearing

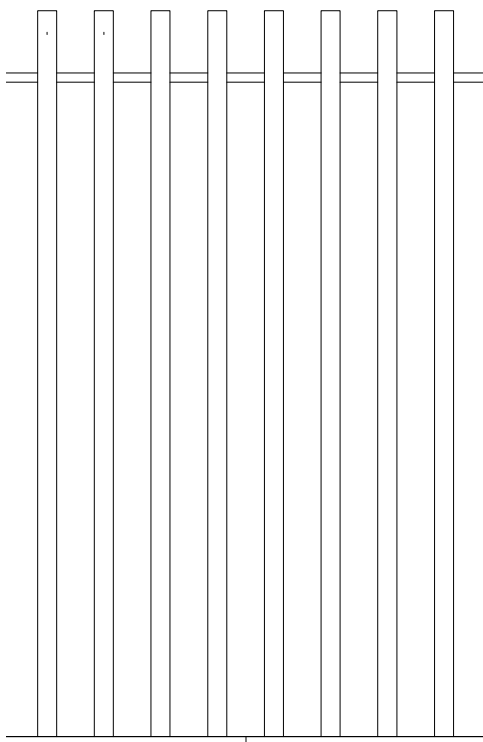




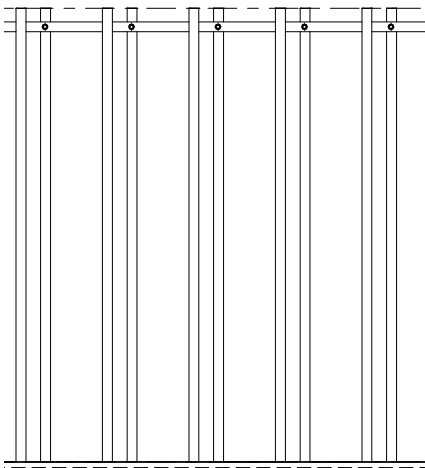
**BALUSTRADES & EDGES**



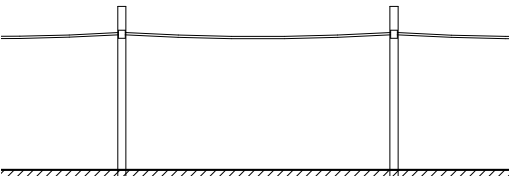
**Western Edge**



**Balustrade**



**Garden Protection**





# LIGHTING

**A layered lighting approach is proposed to gently light the Public Garden. Rather than focusing solely on pathways a balance of lighting paths and the garden will create a night-time experience that is welcoming for visitors.**

The detailed lighting approach has been developed based on the principles that were established during the Functional Brief, Master Plan and Schematic Design stages. Light fittings are located in relation to the garden features to minimise fittings whilst providing adequate illumination. The layout is nuanced and specific to the arrangement of plants and the geometry of pathways.

Where possible, the light fittings have been co-located with other services such as CCTV to reduce the overall number of fittings within the precinct.

The light fittings are proposed in a dark recessive material with a golden, ambient colour of light.

The below principles continue to form the foundations of detailed design for the lighting in the public garden:

- Safety and user inclusive
- Legibility and way finding
- Existing building and heritage context
- Night-time activities
- Unique sense of place and identity
- Dark-skies
- Flora and fauna
- Contemplation
- Enjoyment of public space and
- Well-being
- Sustainability and energy
- Adaptability and flexibility
- Robustness and maintenance
- Timeless elegance



Post-top dark-sky lighting along primary pathways provide warm and well distributed illumination, whilst minimising impact on flora and fauna.



Bollard lighting offers low intensity and low height along secondary paths to provide legible, clear that are comfortable and safe without light pollution or glare.



Garden lighting that visually connects the planting with the pathways; offering depth and moments of visual delight.



Feature lighting of the key elements such as trees and artworks, to enrich the experience and provide scenic illumination and nightscape interest.

## Example Lighting Arrangement





# MATERIAL SCHEDULE



**PV-01**  
Granite Plank



**PV-02/A**  
Compacted Gravel



**PV-03**  
Loose Gravel



**PV-04**  
Granite Cobblestone



**PV-05/7**  
Granite Steppers



**PV-06**  
Bluestone Paver - Small



**PV-08**  
Salvaged Granite & Basalt Cobblestone



**TT-01**  
Granite & Bluestone Tactile Ground  
Surface Indicator



**WL-01**  
Granite Cladding



**WL-02**  
Salvaged Bluestone Cladding



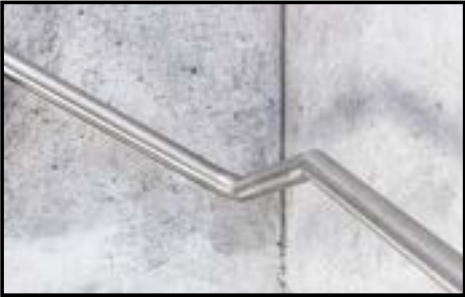
**WL-03**  
Metal Cladding



**ED-01**  
Steel Edge - Flush



**ED-02/3**  
Steel Edge - Raised



**RA-01**  
Steel - Handrail



**RA-02/4**  
Steel - Handrail/Balustrade



**WE-01**  
Western Edge - Transparent

The Material Schedule is to be reviewed in conjunction with Appendix A drawings for further clarification. Image references are representative only.



# MATERIAL SCHEDULE



**WE-02**  
Western Edge - Solid



**FU-01A/B**  
Clearing Seating  
(Reference Sample Only - HAY Palissade)



**FU-02A/B**  
Timber on Granite Clad Wall



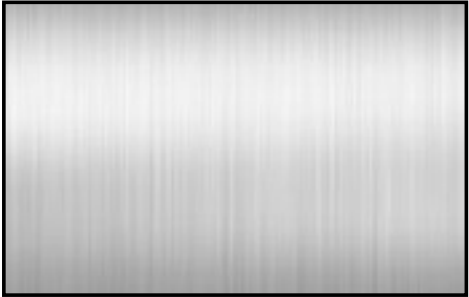
**FU-03A/B**  
Floating Timber on Steel Frame



**FU-04A/B**  
Granite Clad Seating



**FU-06**  
Rock Seating



**FI-01B**  
Water Fountain



**FI-02/4**  
Fire Hydrant Cabinet /  
Mechanical Vent Cover



**Fog Pods**

The Material Schedule is to be reviewed in conjunction with Appendix A drawings for further clarification. Image references are representative only.



# INTERFACES

**The following describes the relationships between Laak Boorndap Public Garden and the buildings of the precinct. The current state of the interfaces and the issues for further development and coordination are outlined.**



# HAMER HALL

Completed in 1982, Hamer Hall is part of the Arts Centre Melbourne and houses its largest indoor concert hall used for orchestra and contemporary music performances.

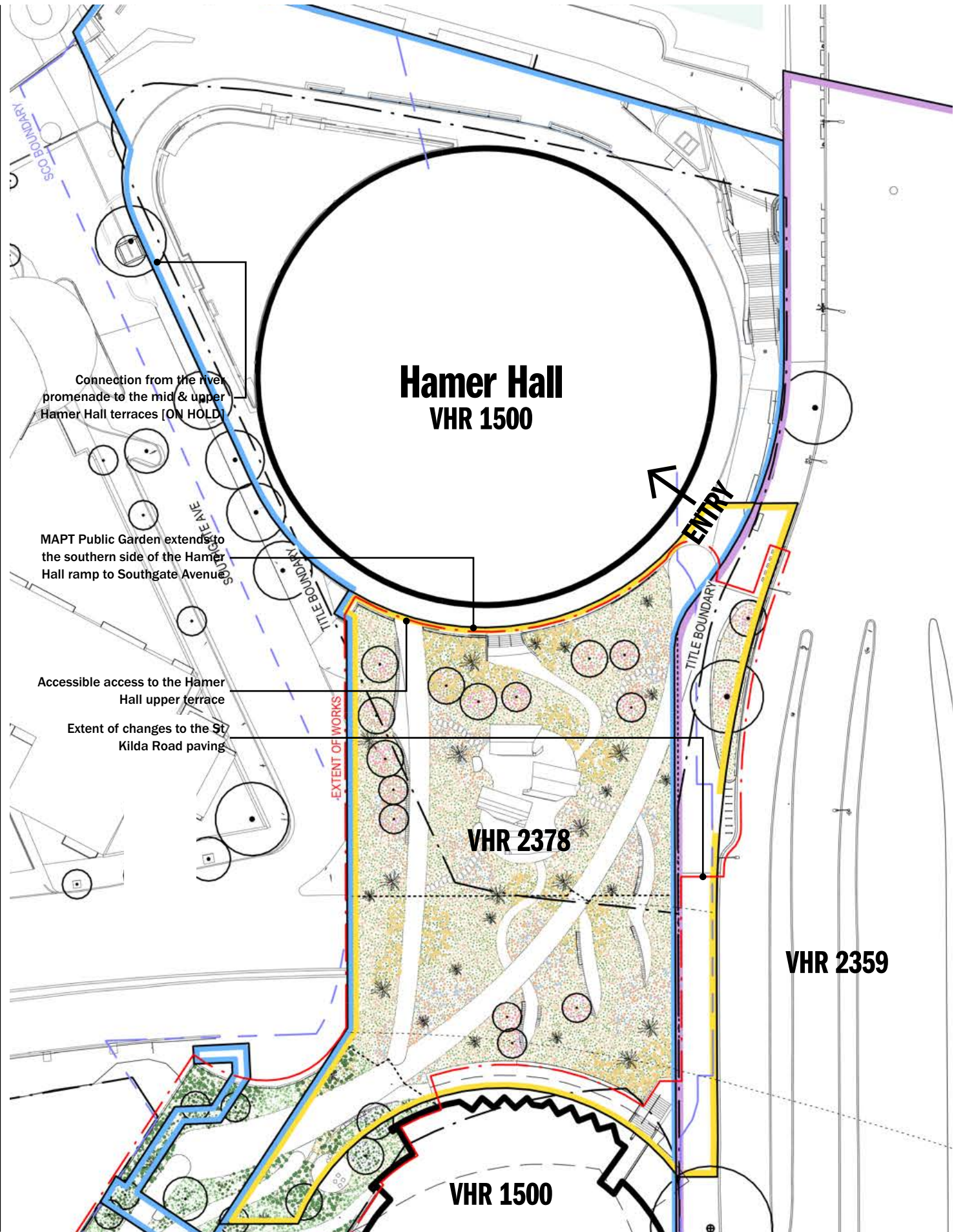
The following are key interface topics between Hamer Hall and the Public Garden:

**Northern connection to the river**

→ Access to the upper terrace to facilitate this potential future improvement of public amenity in part of MAPT Public Garden project.

- Southern egress**
- Existing egress points are maintained from Hamer Hall into the Public Garden.
  - The egress point is connected by secondary and tertiary paths. Due to the level changes and grade requirements, the pathway leads south into the Public Garden, rather than directly to St Kilda Road
- Ramp to Southgate Avenue**
- No structural or ramp grade reconfigurations are included in the MAPT Public Garden project.

- St Kilda Road Footpath**
- To enable a smooth transition from the Hamer Hall entrance in to the Urban Garden, the existing canopy and bluestone plinth is removed. This opens up the access into the garden towards Forward Surge. Amendment of the levels of the existing footpath and the height of the St Kilda Road kerb is required.





# THEATRES BUILDING

Designed by architect Sir Roy Grounds, the Theatres Building of the Arts Centre Melbourne was completed in 1984 and houses the State Theatre, Playhouse and Fairfax Studio. It is one of the most important performing arts venues in the Southern Hemisphere, and its tall steel spire has become one of Melbourne's most recognisable landmarks. Comprehensive upgrading works to the Theatres Building (Re-imagining Arts Centre Melbourne or RACM) is being undertaken by the NH+Snohetta design team with FKA completing the northern and western canopies.

The following are key interface topics between the Theatres Building and the Public Garden

## Northern restaurant

- The revised design of the Northern Restaurant and canopy is now reflected in the MAPT Public Garden design.
- Planting and seating has been developed to balance views from the restaurant with creating space for people to sit in the adjacent area of the garden.
- The existing stair access is proposed for retention (refer RACM application) with the public realm incorporating a short cobble path connecting the western end of the terrace with the primary path to provide an alternative equitable access route.
- Further coordination is required with the RACM team regarding the current finish of the terrace wall, the terrace edge treatment and wind mitigation.

## Greenroom courtyard

- Screening of the courtyard from the garden is a solid balustrade (part of the RACM project scope).

## The western entry and cafe

- The new Theatres Building western entry is not a main public entry, but it is publicly accessible in Phase 1 of the MAPT Project.
- The MAPT Public Garden project is designing to the Phase 1 of the MAPT Project funded condition, which provides for a new canopy (revised design) and terrace for informal cafe seating.
- Access to the western entry is by a primary path that loops off the north south path and sweeps south to the bridge to the Primrose Potter Australian Ballet Building.
- In a future phase, it is understood this entry may be reconfigured to enable a wider pathway.
- The garden follows the curve of the canopy and terrace incorporating a large grass clearing with views to the gardens to the south. Access to this clearing is from both the primary path and the terrace.

## Theatres Building Stage Door

- The revised design of Stage Door is reflected within the MAPT Public Garden design.
- Stage door is a staff and performer entry point, and is required to feel welcoming and inviting, but also discourage accidental entry by the public.

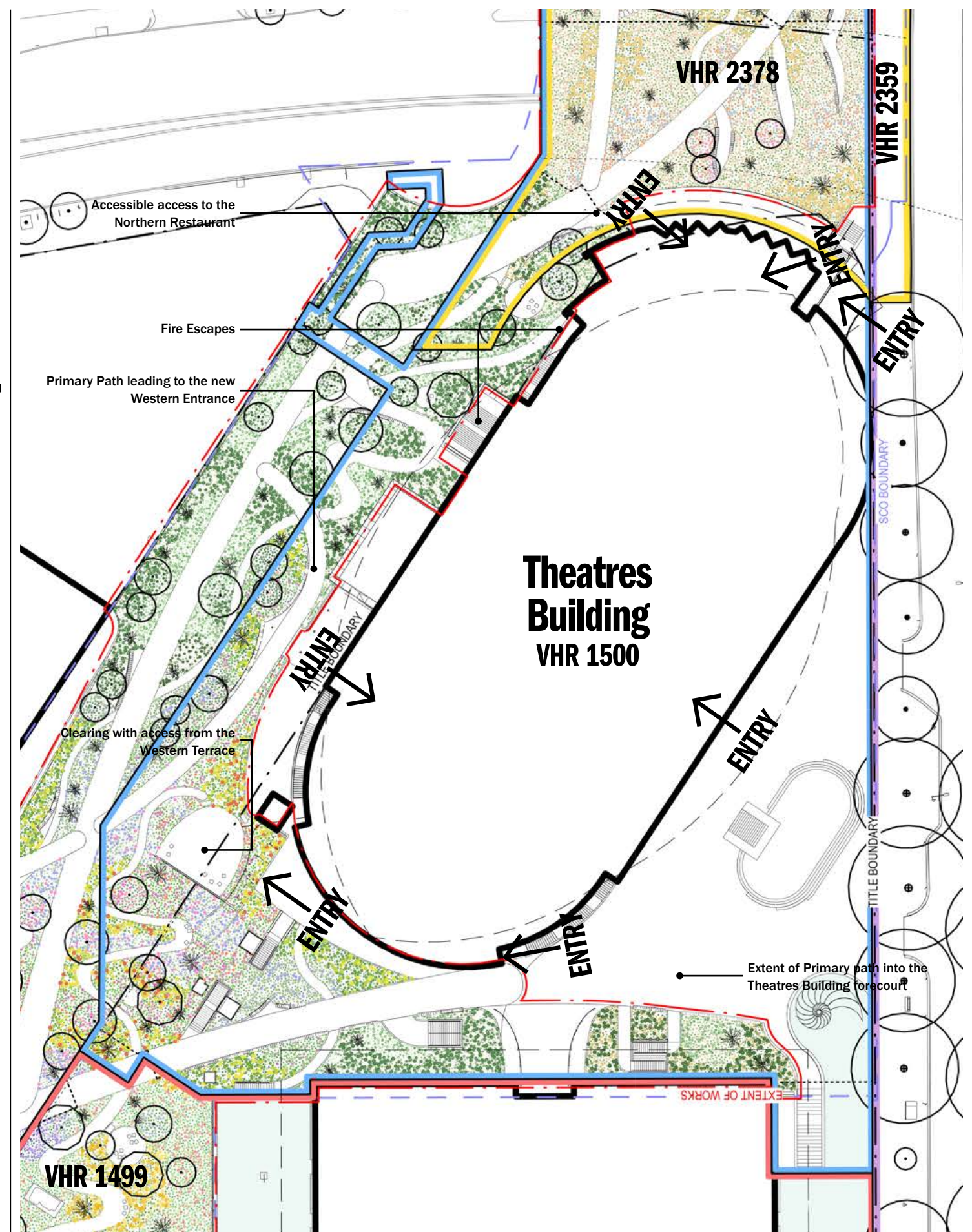
- The primary pathway sweeping towards the southern gardens is wider, and visually connects way-finding moments. This naturally encourages the public to move into the Public Garden, past Stage Door. At the pathway decision point, Stage Door is clearly visible from the primary pathway, but not an obvious public entry or route.
- The planting above stage door is intended to be visible from the east incorporating Stage Door as much as possible into the garden.

## Barre

- There was no requirement for outdoor seating to the Barre. The garden has maximised planting and minimised retaining elements in this area.

## Forecourt

- Intervention into the Theatres Building forecourt is limited to the repaving in the area of the primary path





# PRIMROSE POTTER AUSTRALIAN BALLET CENTRE

The Primrose Potter Australian Ballet Centre (PPABC) is bounded by Sturt St, Kavanagh St, and Fanning St, and is located to the west of the Public Garden. PPABC is a privately owned building, and provides a central western backdrop to the MAPT Public Garden. The MAPT Project aims to minimise the operational impact to the school, where possible.

The following are key interface topics between PPABC and the MAPT Project:

**Gap**

- The PPABC carpark (first 3 levels) is a naturally ventilated carpark, and is open louvred to the south, east and west
- The project brief requires PPABC carpark to continue to be naturally

- ventilated, and avoid the need for mechanical ventilation
- To do this, the Public Garden deck must not be built closer than 3m (to an opening) per Australian Standards.
- The RACM Project takes responsibility for the coordination and compliance of this separation.

**Existing footbridge**

- The existing entry point on Level 4 is retained
- A new footbridge replace the now demolished existing will connect the Urban Garden and PPABC.

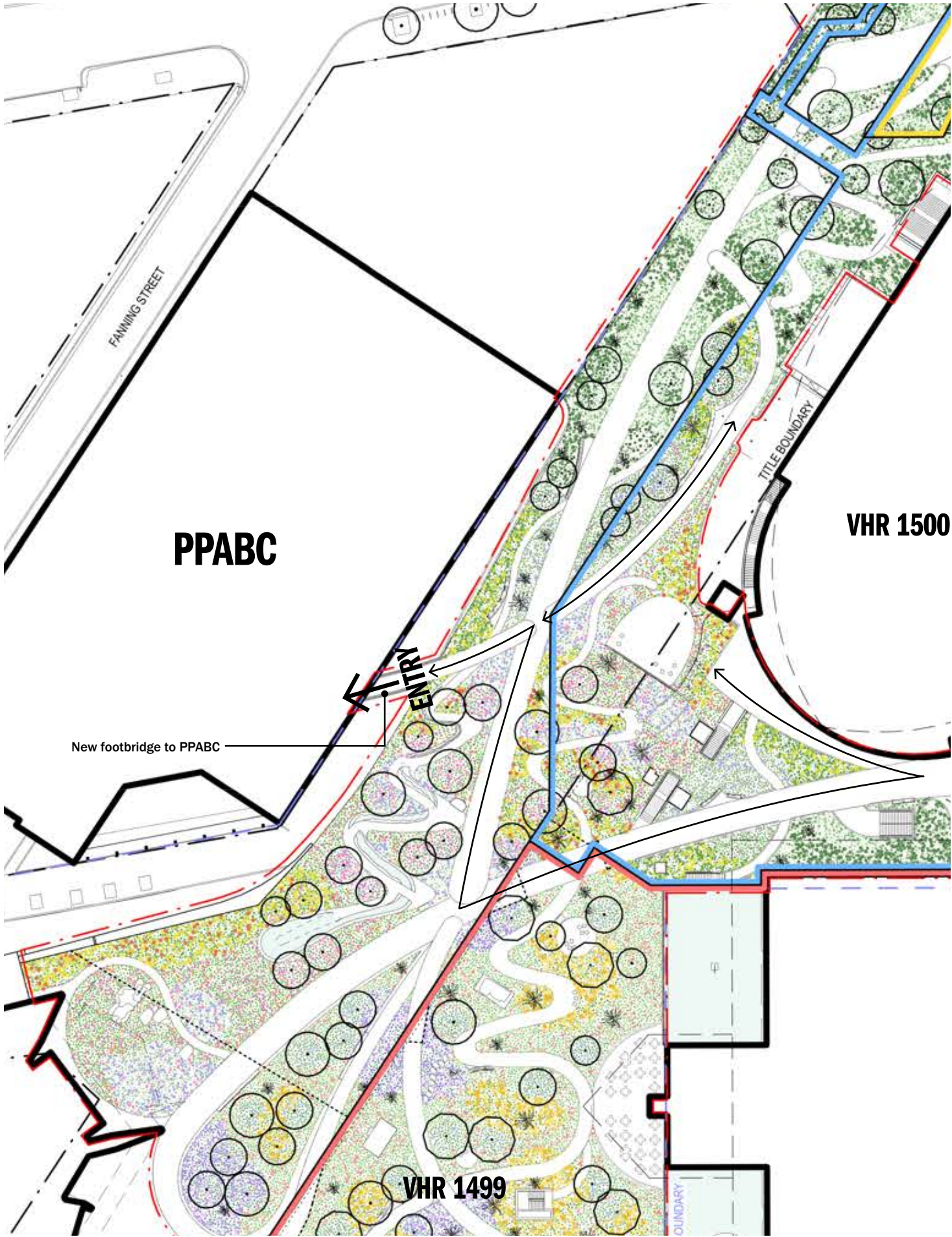
**PPABC movement**

- Pathways connecting to PPABC are a gentle slope.

- PPABC staff and performers will be able to move to The Theatres Building Stage Door along 1:21 grade walkways
- Alternatively will be able to move to the new western entrance.

**PPABC internal lift**

- The existing PPABC lift connection within the building will continue to provide public access from the Urban Garden to Kavanagh Street.





# NGV INTERNATIONAL

NGV International was designed by architect Sir Roy Grounds and opened in 1968. It is Australia's oldest and most visited art gallery, home to an extraordinary collection of international art and a venue for hosting international art exhibits. A moat wraps around the east, south and west and reinforces its pure rectangular geometry. A heritage listed bluestone clad wall forms the podium base.

The MAPT Public Garden interfaces with NGV International on its northern and western sides, and the existing NGV garden will be redeveloped to become the Southern Gardens of the Public Garden.

The following are key interface topics

### The Mouse Hole

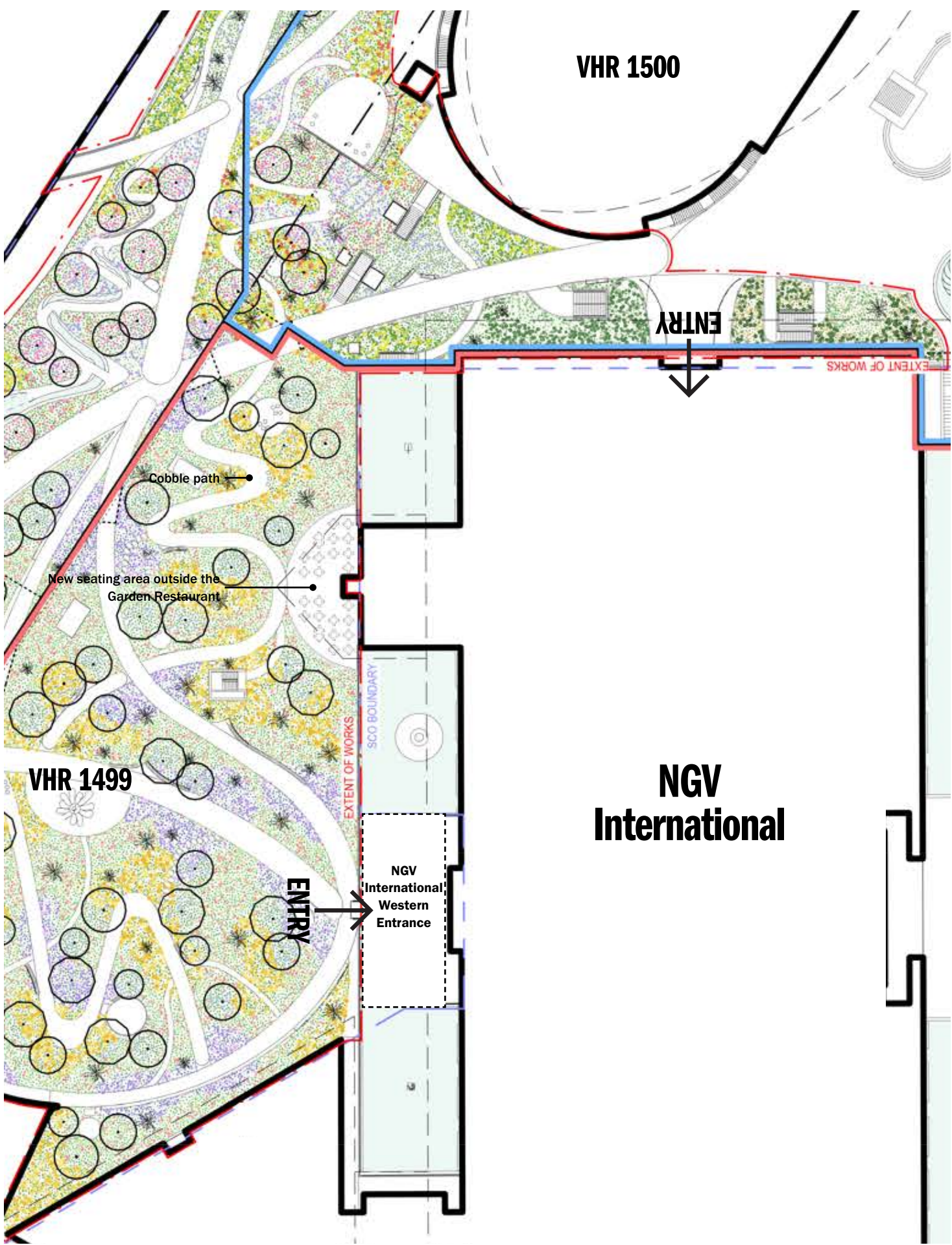
- The Mouse Hole (northern entry) will continue to facilitate staff, administration and loading into the NGV International
- Grading, falls and repaving has been incorporated to align to primary pathway connections.
- The handrails are also to be replaced.

### Garden Restaurant

- The Garden Restaurant will become accessible to the public (via the Urban Garden) with a cobble path coming directly of the primary paths north and south of the restaurant
- The restaurant is intended to be intimate and nestled into the surrounding garden.
- Seating provision outside the restaurant is proposed under the existing canopy.

### The Western Entrance

- Two primary paths connect the western entrance with the main entrance of NGV Contemporary.





# NGV CONTEMPORARY

Scheduled for completion in 2028, NGV Contemporary will be a new landmark dedicated to local, national and international contemporary art and design. The building is located at 77 Southbank Boulevard at the southwest corner of the Melbourne Arts Precinct. The following are key interface topics:

**Levels**

- The Public Garden aligns with the NGV Contemporary 10.3 interface level
- This raises the Public Garden above the top of the heritage bluestone wall

**Eastern archway (Main entrance)**

- The Public Garden connects NGV Contemporary and NGV International through a layered, planted experience.
- The eastern archway revealed along a sweeping east/west path as the public move between NGV International and NGV Contemporary.
- An open hard surface area,

equivalent to the forecourt of NGV International, of 30x14m is to be maintained.

**Northern archway**

- Planting and sculpture will be visible through the northern archway. The design intent is to bring the garden as close to the NGV Contemporary as possible whilst maintaining the ability for facade cleaning.
- The garden has a proposed minimum offset of 1.5m from the glass line of the building.
- An egress path, 1.2m wide, running northeast from the NGV Contemporary northern egress stair is provided through the garden to the primary path.
- The planting layout in this area will be designed to accommodate occasional impact from cleaning and maintenance activities.

**Construction**

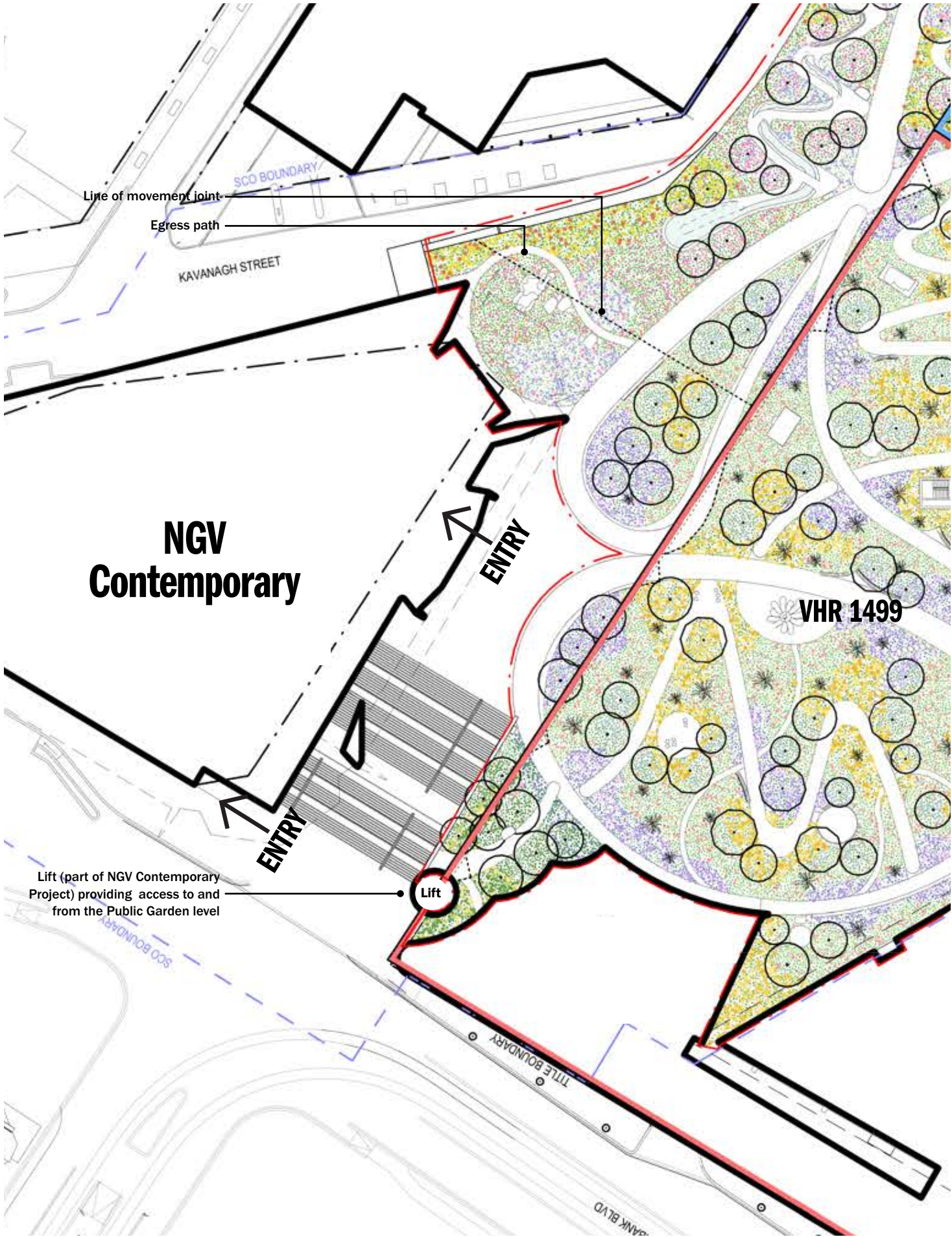
- Structural movement between the

new NGV Contemporary structure and the existing NGV International structure has been considered .

- The MAPT Public Garden waterproofing design is compatible with the proposed approach of the adjacent precinct projects.

**Southern Gateway**

- The public realm lift (part of NGV Contemporary Scope and separate application) provides accessible access between Southbank Boulevard and the Public Garden level. A primary path has been introduced to connect the lift with the top of the southern stairs. Seating is included along this path adjacent to the lift opening.





# SUSTAINABILITY & REGENERATIVE DESIGN

**This section describes how different key strategies of regenerative design for Public Garden are proposed to be approached, managed and facilitated.**



# REGENERATIVE DESIGN

## Regenerative Design

A sustainable and resilient Public Garden is crucial to the longevity and use of the site, and is at the core of our approach. By creating a vibrant, comfortable, usable, and inspirational environment for all users throughout the year, the Public Garden will be a positive contributor to the city.

Being primarily a public garden, the garden design looks to maximise the benefits and strategies appropriate to this type of space

- Bio-diversity
- Resilience
- Water management
- Community and well-being
- Materials

In addition to these key strategies, the Public Garden aligns with the overall regenerative & sustainable as proposed within the Master Plan strategies:

- **Energy**  
Energy demands of the Public Garden are low relative to the precinct buildings. However where energy supply is needed, the infrastructure design for the Public Garden taps into the precinct wide, shared energy system.
- **Waste**  
The public will need to take their waste with them when they leave the Public Garden.
- **Transport**  
The Public Garden is a walkable place and is situated in a highly connected area and allows easy access to cycle routes, tram lines, and Flinders Street Station.

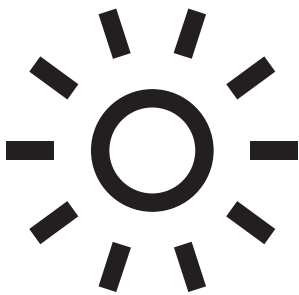
## Key strategies



## Biodiversity

The extensive planting design, and the fauna attracted to it, will significantly increase the ecological value of the site and extent of biodiversity. Efforts have been made to maximise green space within the Public Garden. The key strategies to enhance bio-diversity include:

- Protect high value features of the site and create new habitats
- Careful selection of plant species to encourage native and indigenous fauna adaptive to the local climate
- Optimise design to enhance micro-climate throughout the year and create comfortable and usable spaces
- Introduce a hierarchical planting strategy in the sub-canopy to create seasonal variability mimicking natural cycles of change
- The planting selection aims to enhance the character and cultural significance of the precinct and to provide food for native fauna.



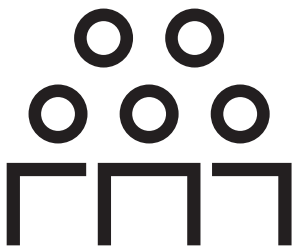
## Resilience

- The Public Garden design has been developed to provide resilience against extreme conditions such as heat waves and prolonged drought conditions, with plants selected to be drought resistant and to minimise water demand for irrigation.
- Planting design that can better withstand an unpredictable than typical planting design
- Spaces that are flexible can be used in a multitude of ways
- Being connected to the precinct wide services strategy



## Water management

Water plays an important role for many elements of the Public Garden. The planting selection embraces species with low irrigation demands and those resilient to changing climatic conditions and weather patterns. Water is then used sparingly, integrating efficient irrigation supply and control systems, and collecting, treating, and recycling rainwater. Water Sensitive Urban Design features within the landscape provide passive collection and treatment of stormwater



## Community and well-being

The Public Garden will be a safe and enjoyable place where people can meet and connect. Key aspects to the design are:

- Spaces are designed for equality, diversity and inclusion. They are legible and accessible, and allow for diverse experiences
- Engagement with stakeholders and Traditional Owners. Many conversations with Traditional Owners to inform the Public Garden design and planting selection process. Discussions also highlighted the need for long term connection with the precinct, including employment and training opportunities
- Spatial opportunities to help facilitate community activities
- Use of signage or digital displays to help support sustainability education
- Provide incentives to help support local economy and affordability
- Connection with greenery within the Public Garden can help improve well-being of visitors.



## Materials

Design intent is a preference for locally sourced, ethically produced and low embodied carbon materials.

Investigations are being undertaken, for example:

- The research of granite and the selection of Harcourt Granite from Castlemaine as the material for pathways, stepping stones, seating, gravel and mulch.
- Investigation in the use of timber reclaimed from the site - not suitable for external use in the garden due to its very low rot resistance, however proposed for use in habitat creation.



# BIODIVERSITY TARGETS

The University of Melbourne's Baseline Biodiversity Survey (2023) was commissioned to establish a baseline understanding of the biodiversity present on the Arts Precinct site prior to development. Based on the findings of this study, numerous simple design opportunities were identified to support stronger biodiversity outcomes within the Public Garden. These considerations have been incorporated into the design of the Public Garden.



## Complex Understorey

### Recommendations

Complex understorey planting encourages diverse insect communities and reduces competition with aggressive species such as *Noisy Miners* and honey-eaters.

- Diversity of flower forms and colours.
- Inclusion of locally indigenous plants due to strong eco-evolutionary relationships with short tongued bees and other invertebrate pollinators.
- Availability of flowers across the seasons.
- Clustering flower resources to increase foraging efficiency.
- Plant species to host butterfly larvae, for example, native and introduced grasses for the *Common Brown Butterfly*.

### Design Application

- Extensive planting list of indigenous, native and introduced species across a diverse range of forms and colours, densely planted at 35 plants / sqm.
- Planting design revolves around the 'Year of Wonder' accommodating pollinators through year-round flowering.



## Shrubs

### Recommendations

Within the understorey, shrubs with dense foliage of 1-2m height offer fauna protection from predators and act as perching and nesting sites. Shrubs adjacent to areas of lawn or low vegetation support feeding for species such as the *Willie Wagtail*.

### Design Application

- The structural and large scale planting mixes consist of bumps/ mounds between 450-600mm high.
- High planting density provides fauna protection and nesting opportunities.
- 30 x reclaimed timber logs scattered within the Public Garden provide habitat for ground-dwelling species.
- 5 x bee hotels are distributed throughout each garden typology.
- Exact design and placement to be resolved during Construction Documentation.



## Fresh Water Sources

### Recommendations

Access to fresh water close to refuge shrubs and low trees will support insect and bird populations, particularly during summer.

### Design Application

- 10 x granite boulders carved with a shallow bowl are positioned throughout the site to capture fresh water for birds and insects.
- Exact design and placement to be resolved during Construction Documentation.



## Eucalyptus Trees

### Recommendations

Clusters of Eucalyptus trees will support the presence of *Spotted Pardalotes* on site, which spend most of the time in the tree canopy feeding on small invertebrates.

### Design Application

- 60 x Eucalyptus trees across 8 different species are clustered throughout the Public Garden in varied sizes to support bird and other fauna populations.



## Wind Protection

### Recommendations

Strong winds can be mitigated on site through; mounding, planting and balustrades. This increases human amenity within the Public Garden, but also supports higher populations of insect pollinators as they can remain active for longer periods of time.

### Design Application

- Strong winds are mitigated through the Western Edge balustrade design.
- Planting is mounded across the site.
- Structural shrubs and large scale planting mixes are positioned adjacent to pathways to improve human amenity.



# CONSULTANT ADVICE

**This section summarises the current specialist advice that has informed and underpins the proposed Public Garden design.**



# CONSULTANT ADVICE

## Structure Northrop

The design of the structural components of the Public Garden has been based on the desire to create an extensive planted parkland across the existing and proposed structures, whilst creating the necessary connectivity between the existing buildings and the proposed projects. The desired soil depths along with the imposed live loads on the slab, including sculptural loads, are driving the structural response to the Public Garden podium.

The landscape design has been carefully curated throughout the project, with consideration given to the limited capacity of the existing structures to the NGV International and Northern lawn areas, whilst looking to maximise the impact of planting on the new slabs that form part of the MAPT North and MAPT South projects, with the Public Garden design requirements forming one of the key inputs to the design of these projects. To accommodate the vast level changes across the site and to avoid overloading the existing structures, or the need for wholesale strengthening works, void formers have been proposed over the existing slabs to limit the loads being applied to the structures whilst achieving the required surface levels.

Whilst the detailed design responsibility of the Public Garden podium slabs fall within the MAPT North and MAPT South scopes, the design loads for these structures have been nominated by Northrop within the Public Garden design. This is to ensure the aspirations of the Public Garden design are achieved in terms of soil depth for tall canopy trees and diversity of gardens whilst providing extensive parkland that connects the Melbourne Arts Precinct.

## Civil Northrop

The Public Garden is an extensive parkland and public space located central to the Melbourne Arts Precinct Transformation Project, being uniquely located across new and existing structures from Hamer Hall to the north through to the existing NGV International garden and Southbank Boulevard to the south. The design has been based on the desire to create an extensive planted parkland, whilst creating the necessary connectivity between the existing buildings, street frontages and the proposed projects. The project will create a space for people to visit and interact with the landscape and as a destination within the precinct. The Public Garden will provide a varied experience with a vast mixture of planting types, waterplay and sculptures, combined with natural seating and furniture items such a large free-form rocks and more traditional furniture items.

The stormwater design strategy involves the use of passive irrigation and passive treatment of stormwater prior to collection, which also helps to reduce the risk of overland flow in low flow situations. The collected stormwater is to be directed to rainwater reuse tanks and water treatment to be located within Sturt Street, with the subsequent outflow to be connected to the Council stormwater network within Southbank Boulevard. Portions of the site, due to the existing conditions such as the Northern Lawn and the NGV International garden, will continue to be drained to the existing drainage points. This is important with respect to NGV International to allow the stormwater to continue to supply the existing moat reticulation system, however improvements to the drainage of the existing tree pits are proposed.

## Services WSP

The main elements addressed in building services include:

- Provision of power, communications, fire fighting equipment and water supply to the Public Garden
- Identifying & reinstating existing mechanical services intakes and exhausts serving NGV International, Theatres Building and Hamer Hall, and integration with the Public Garden design to enable their continued access and operation
- Rainwater collection and water re-use strategies to feed into the broader irrigation design of the precinct
- Providing services design advice for integrated built elements within the Public Garden such as power nodes, comms nodes
- Coordinating with external security consultant & Hassell to aesthetically integrate security elements such as CCTV & help points into the Public Garden

Design coordination will continue into construction documentation phase to ensure integration of services in the Public Garden architecture to achieve desired outcomes.



# CONSULTANT ADVICE

## Waste WSP

To align with the Regenerative & Sustainable policies that apply across the broader MAPT precinct, the 'Leave No Trace' approach was recommended as the waste strategy for the Public Garden.

The intention is to have no bins in the Public Garden, which is closely aligned with the current public bin provisions in other City of Melbourne parks and gardens. The Public Garden is already bounded by a considerable number of public place bins provided at key pedestrian entry/egress points. Hence, this option promotes the idea to make the Public Garden a 'waste free' zone that visitors would carry any waste items with them to the nearest existing public place bin surrounding the boundary of the Public Garden itself.

## Sustainability Steensen Varming

While fulfilling the broader vision of creating a vibrant and inspirational place for people, the Public Garden plays an integral role with focus on several key areas:

- Connection with Country
- Health, Well-being & Place
- Environment, Biodiversity & Resilience
- Water Management & Materials Selection
- Community, Education & Accessibility

The precinct must deliver 6-Star Certification under the Master Plan. It is registered under the current GreenStar Communities v1.1 with aim to upgrade to the new GreenStar Communities version once it is released. As the details of the new rating system have not been confirmed, the team has been working towards expected credit categories and targets based on the current version with some additional likely credits and associated requirements, and how the Public Garden design and future operation support the achievement of these targets.

Once the new tool is released, a revised scorecard can be adopted and used to manage the sustainability strategies moving forward.

## Lighting Steensen Varming

The lighting design within the Melbourne Arts Precinct consists of several layers of lighting elements which complement one another and work as one coherent solution. Primary and secondary pathways are illuminated using warm white cylindrical integrated pole type lighting structures and bollards. Gardens are illuminated using lights that provide shielded downwards illumination to showcase the plants effectively.

A range of tree uplights add to the overall scenery highlighting key trees and higher foliage in the public domain. Artworks are illuminated using dedicated lighting elements. Tree lighting and artwork lighting layers provide tuneable white illumination to highlight these key features as best as possible and can be altered over time if needed. Functional lighting to stairs and egress points are provided via handrails and bulkhead luminaires that effectively illuminate these elements within proximity however refrain from impeding on the overall lighting harmony of the site. All lighting will be interconnected and adjustable to various scenarios and can respond to changes on a daily or seasonal basis as needed, or can cater for special settings for occasional events. Lighting control methodology has been developed with the end-users in mind, and with the aim to integrate with other existing infrastructure to achieve interoperability.

The lighting elements are specified and planned with minimalistic aesthetics in mind, featuring materials and finishes that visually disappear into the landscape. The luminaires have darker matte surface palette, helping them to blend into the surroundings as much as possible, both day and night. These finishes ensure that the lighting elements remain discreet and unobtrusive. Strategically located to provide the necessary illumination, these lights minimize their visual presence while effectively lighting the focal elements within the site. Most light sources are shielded to reduce glare, to provide a comfortable and visually appealing experience.



# CONSULTANT ADVICE

## Heritage Purcell

The refinement of the Public Garden design has continued to be developed between Hassell, Purcell and DV with reference to applicable statutory built heritage controls, previous built heritage studies and engagement with Heritage Victoria.

The design refines the articulated precinct-wide design principles and strategies from the Master Plan whilst maintaining the visual primacy of the significant, monumental built form and Forward Surge sculpture, contained within the state heritage place registrations. With reference to earlier design intent, placement of sculpture and previously realised hard and soft landscape treatments the current Public Garden provides a setting for this built form that has remained largely static and subservient to the built form, despite previous change or temporary installations/ exhibitions.

The design provides a cohesive, active landscape between the current and new facilitates across the Site and to the enlarged Arts Precinct, the design evolves qualities of the existing whilst improving amenity for visitors to encourage greater movement and longer stays. Concurrent with other upgrades to the built form which supports their current use, the Proposal integrates a connected, contemporary landscape, incorporating a principally Victorian planting and materials palette based on ecological and indigenous design principles. The new landscape layer, clearly legible as a reversible, contemporary change, references previous design intent, current conditions and broader contemporary approaches to landscape design to integrate with retained sections of earlier landscape treatments.

As the Proposal has continued to be refined, potential built heritage impacts are identified and considered which balance the retention and conservation of extant significant fabric and views and the realisation of the broader precinct-wide vision to support the enhanced use of the buildings.

## Universal Access Jensen Hughes (formally MGAC)

MGAC has conducted a design review from accessibility perspective on the Public Garden design as it applies to Australian Standard 1428, Disabilities Discrimination Act (DDA), National Construction Code (NCC) and the principles of Universal Design (UD). The design highlights a high level of Universal Design and technical requirements of AS 1428.1 2009 that have been applied across the site. These design features include:

- Intuitive entrances to the precinct
- Accessible paths that link key features, hubs and entrances
- Pathway design (material finishes, gradient, sightlines)
- Vertical accessibility (lift & stairs)
- Provision of stairs and handrails
- Meeting / waiting spaces
- Seating hubs with provision of backrests & armrests

Recommendations have been incorporated into the design, noting that more precise measures will be put in place during the construction documentation phase to ensure equitable access across the Melbourne Arts Precinct.

## Building Surveyor Philip Chun

Philip Chun Building Code Consulting have conducted a review of the design drawings of the Public Garden and undertaken workshops with the design team to work through particular issues surrounding compliance. The area has been classified as 9b associated with Class 9b, Type A construction buildings. Design aspects which require further review at the construction documentation phase are identified as follows:

- Access for people with disabilities in accordance with AS1428.1
- Aggregate exit widths, noting information and FERs are required for the surrounding and adjacent buildings - not all of which were available at the time of this application.
- 2 hours FRL to be achieved for the ground
- Non-combustible materials to be used for external finishes
- Travel distances from the area to a road or distance between exits



# CONSULTANT ADVICE

## Waterproofing Waterproofing Compliance

Waterproofing Compliance has considered the waterproofing membrane selection for all adjacent projects in the Melbourne Arts Precinct, which includes the MAPT North & MAPT South project.

Throughout all projects within the Melbourne Arts Precinct a bitumen membrane was selected to ensure interface details throughout are typical, noting that there are specialized joint systems that have been considered where earthquake movement joints are required across the project. The bitumen membrane system selected can be installed by a Somprema automatic welding machine providing a continuous quality of installation while also speeding up the installation process to approx 1000sqm per day, pending site conditions.

The overall substrate is to have a fall of 1:100 to comply with AS4654 which is applied on top of the MAPT North & MAPT South waterproofing & screed, essentially providing a double layer of waterproofing across the precinct where there is new structure.

## Wind Vipac

Vipac has carried out an assessment of the pedestrian level winds for the existing site wind conditions of the Public Garden based on a scaled wind tunnel test. The results of the existing site wind conditions are:

- Fulfils the recommended criterion for safety at all test locations
- Fulfils the recommended criterion for walking at all pathways
- Fulfils the recommended criteria for standing or sitting at all activated areas, or if the criterion was exceeded, recommended mitigation measures such as higher balustrades and earth mounds were proposed at localised areas

The test results also concluded that the proposed NGV Contemporary massing and RACM F&B canopy (separate applications) does not have significant adverse wind impact on the Public Garden when compared to existing wind conditions. An at-scale wind tunnel test was undertaken to facilitate design updates and ensure the proposed architectural design meets comfortable & safe sitting & walking throughout the precinct.

## Fire Engineering WSP

A fire engineering assessment was undertaken to ensure the relevant Performance Requirements of the National Construction Code (NCC) 2019 Amendment 1 [1], Building Code of Australia (BCA) for Class 2 to Class 9 Buildings will be satisfied.

The proposed development is an open outdoor area where a deck supports the Public Garden. According to advice from the Building Surveyor, the Public Garden is classified as Class 9b 'occupiable outdoor area'. NCC departures include extension of travel distances and reduction of total aggregate egress widths, with performance solutions to be provided. All aspects of the design are understood to be in accordance with the NCC DtS provisions except where modified by a performance solution.

Based on the analysis and assessment undertaken throughout the document, and implementation of the Fire Engineering Provision, the Public Garden is considered to meet the relevant NCC Performance Requirements.



# CONSULTANT ADVICE

## Water Feature Waterforms

Waterforms has developed the detailed design of the water feature in conjunction with Hassell to refine and evolve the concept.

The design has been considered the following elements:

- Edge detail
- Refine and develop the water display, flow and effect design options
- Resolve the water feature's functional relationship to its context in relation to wind, sound and splash issues
- Refinement and development of the edge condition details to support constructibility and cost effectiveness
- Develop the hydraulic reticulation principles,
- Define appropriate water quality and suitable treatment types,
- Establish plant equipment space requirements and access, noting the location is to be determined.
- Advice on maintenance requirements
- Confirm & co-ordinate mains services & drainage provisions
- Confirm hydraulics, filtration, water treatment & make-up systems
- Confirm electrical controls & power loads

The documentation is to be further refined once the plant room location is determined. Refer to the high level options analysis for further information.

## Irrigation Geoff Connellan

Geoff Connellan has developed the irrigation schematic strategy for the precinct, to determine and work through merits of alternative methods of watering the MAPT landscape. The recommendation and preferred method of irrigating, is:

- Spray system to understorey planting, with
- Drip system to the trees.

Through consultation with University of Melbourne, Hassell and Superbloom, the irrigation strategy steps out the elements suitable for costing.

The irrigation strategy will be documented in detail as part of the next phase of design, once the general arrangement of all garden beds, hard surfaces and levels are confirmed.

## Pedestrian Arup

The aim of the pedestrian planning assessments and input to the design has been to evaluate the expected movement of people to and from the precinct in order to test and inform the necessary spatial provisions for the Public Garden.

Pedestrian modelling was used to simulate and assess the proposed design, with two modelling scenarios: Friday night and Saturday daytime. The scenarios considered a combination of venue events, programming and demands. The analysis focused on peak movements to/from buildings and activity spaces.

The results of the simulations indicate that the Public Garden path network operates within the target Level of Service (LoS) B-C (or better) during the busiest peak event periods. However, local areas such as the St. Kilda Road footpath between Hamer Hall and Theatres Building, and the area south of the Public Garden can be strained with reduced LoS. School Group demands were also analysed, with Public Garden amenities able to accommodate average day scenarios while opportunities to use surrounding facilities are suggested for peak day scenario.

Overall, the Public Garden design at 100% SD is a successful response in terms of pedestrian planning, but it is important to take into account these additional considerations.



**AUSTRALIA**  
**BRISBANE**  
  
Yuggera and Turrbal Country  
Level 2, The Ice Cream Factory  
45 Mollison Street  
West End QLD  
Australia 4101  
T +61 7 3914 4000  
E brisbane@hassellstudio.com

**MELBOURNE**  
  
Wurundjeri Country  
61 Little Collins Street  
Melbourne VIC  
Australia 3000  
T +61 3 8102 3000  
E melbourne@hassellstudio.com

**PERTH**  
  
Whadjuk Country  
Level 1  
Commonwealth Bank Building  
242 Murray Street  
Perth WA  
Australia 6000  
T +61 8 6477 6000  
E perth@hassellstudio.com

**SYDNEY**  
  
Gadigal Country  
Level 2  
Pier 8/9, 23 Hickson Road  
Sydney NSW  
Australia 2000  
T +61 2 9101 2000  
E sydney@hassellstudio.com

**ASIA**  
**HONG KONG**  
  
22F, 169 Electric Road  
North Point Hong Kong  
T +852 2552 9098  
E hongkong@hassellstudio.com

**SHANGHAI**  
  
12F, 45 Caoxi North Road  
Xuhui District  
Shanghai 200030 China  
T+8621 5456 3666  
E shanghai@hassellstudio.com

**SINGAPORE**  
  
33 Tras Street #02-01  
Singapore 078973  
T +65 6224 4688  
E singapore@hassellstudio.com

**UNITED KINGDOM**  
**LONDON**  
  
Level 1  
6–14 Underwood Street  
London N1 7JQ  
United Kingdom  
T +44 20 7490 7669  
E london@hassellstudio.com

**UNITED STATES**  
**SAN FRANCISCO**  
  
650 California Street  
Level 7  
San Francisco CA 94108  
United States of America  
T +1 415 860 7067  
E sanfrancisco@hassellstudio.com