

ARCADIA

40 The Retreat Bringelly
Development Application

Prepared for Sathio Group
June 2024



We respectfully acknowledge the Traditional Custodians of the lands where we live and work. We acknowledge their unique ability to care for Country and deep spiritual connection to it. We honour Elders past, present and emerging whose knowledge and wisdom has and will ensure the continuation of cultures and traditional practices.

Rev A	Issued 16 Feb 2024	Authorised by AL
Rev B	Issued 10 May 2024	Authorised by AL
Rev C	Issued 07 June 2024	Authorised by AL

Arcadia Sydney
Jones Bay Wharf, Lower Deck, Suite 70
26-32 Pirrama Road, Pyrmont NSW 2009
T 02 8571 2900
E sydney@arcadiala.com.au
arcadiala.com.au
[@arcadialandarch](https://www.instagram.com/arcadialandarch)
Arcadia Landscape Architecture Pty Ltd
ABN 83 148 994 870



SECTION 01 - SITE CONTEXT

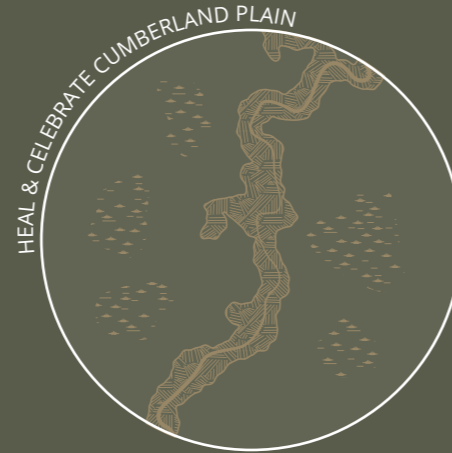
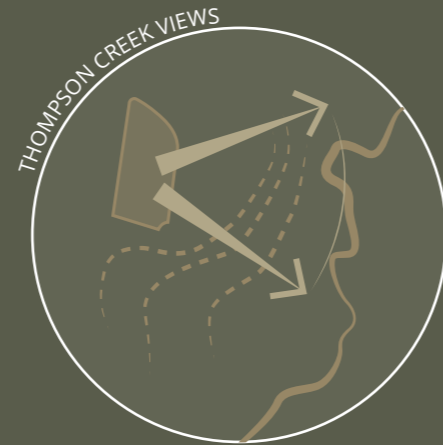
Site Context

Country Themes

This site sits on Country that has been looked after by the Sydney Aboriginal clans since time immemorial. Winnamatta is deeply engrained within the landscape as the mothers place, the giver of life and water. This Country at the foothills of the Blue Mountains is defined by the vast ridges and valleys born of the Nepean floodplain with water that is ephemeral in nature. Also known as “Benkennie” or “Belgenny”, a name which references the vast, dry landscape, this site forms part of the Cumberland Plain and is home to a rich ecology of native grassland and sparse woodlands. Historically, the area was recognised as prime hunting grounds for kangaroos, possums and emus as well as river and creek beds which support yam beds.

The site sits on fertile soil and was dominated by agricultural expansion during colonisation with farmers favouring the Camden region. After a herd of grazing cows were lost in the foothills, it earned the name “cow pastures”.

Colonisation was very destructive to this part of Sydney with the frontier wars between convicts with newly gifted land and the Indigenous people which saw fences and farmland erected destroying their landscape. There was deep trauma imbued in the landscape during this time with high numbers of fatality due to violence and disease.



Site Context

Western Parkland City Vision

Green



Emphasis on promoting green infrastructure through networks of open space and waterways. Australia's first zero carbon city, delivering an increasingly sustainable and biodiverse urban hub.

Connected



The city looks to be connected globally and locally, being both connected to Country while digitally advanced. Rapid transport systems will ensure a moving city stays connected and a social structure comprised of a cultural diverse demographic.

Advanced



Leading in innovation advancements and technology the city's support for clean, green industries will shape the precincts that form the city. Diverse local jobs will rebalance the job district having economic benefits across Greater Sydney.

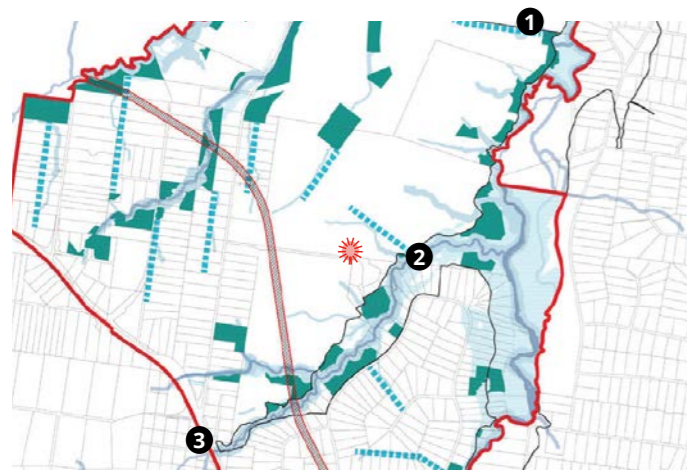
Site Context

Hydrology

Water connects some of the largest natural systems in Western Sydney. These systems are made up of diverse ecosystems and habitats that are constantly in motion, shaping and forming the landscape.











Wianamatta (South Creek) translates to 'the Mother Place' (Dharug), is the longest urban freshwater creek in Western Sydney. South Creek is a distinctive and defining feature of the landscape, it has an incredibly large catchment area running 80 kilometres from western Sydney to the Hawkesbury River covering almost 62,400 hectares.

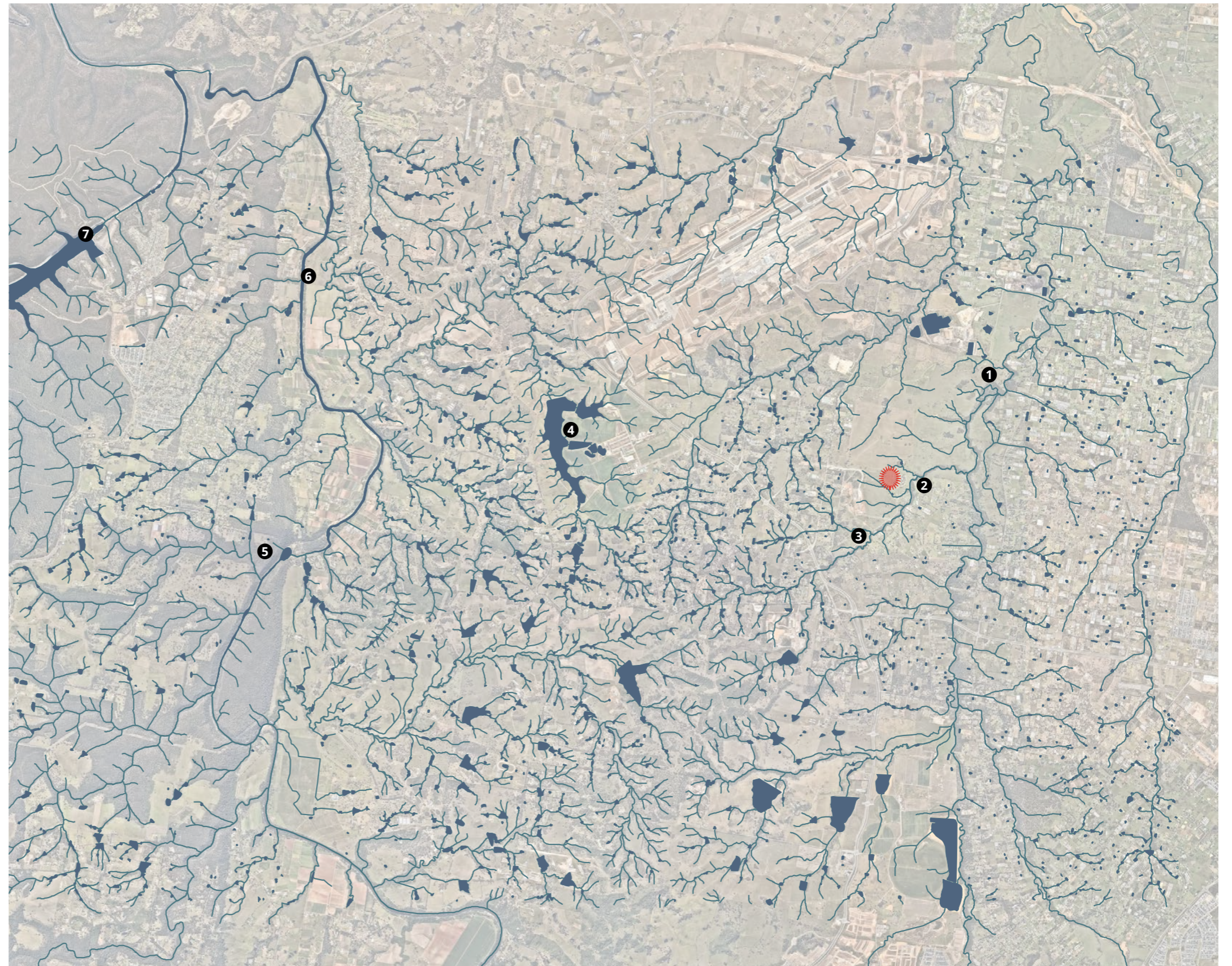
The creek has connections to many ephemeral branches as it dries up during drought and then flows rapidly in times of heavy rainfall. One of these connections is Thompsons Creek, a riparian corridor that frames the landscape of our site.



Water Cycle Management - Western Sydney Aerotropolis Precinct Plan (2021 March)

LEGEND

-  SITE LOCATION
-  SOUTH CREEK
-  THOMPSONS CREEK
-  MOORE GULLY
-  DUNCANS CREEK
-  BENTS BASIN
-  NEPEAN RIVER
-  WARRAGAMBA DAM
-  STORMWATER
-  RIPARIA CORRIDOR



Site Context

Geology

Wianamatta Group, a name derived from the Aboriginal name of South Creek, is formed of Ashfield Shale, Minchinbury Sandstone and Bringelly Shale.

Bringelly Shale is the youngest Triassic sedimentary unit in the Sydney Basin, reaching 250m South is also the thickest. Common exposed rock is a mixture of finely-bedded shale, laminite and siltstone.

This shale is often accompanied with disconnected sandstone which forms intricate escarpments up to 200m high. Interpretation for these eologies has been sen as infill depositis in channels created by rivers.

The importance of this rock lies with it's connection to the landscape that forms the endangered Cumberland Plain Woodland floras. Forming sheltered slopes and valleys this led to the Shale Hills and what separates it from the Shale Plains.







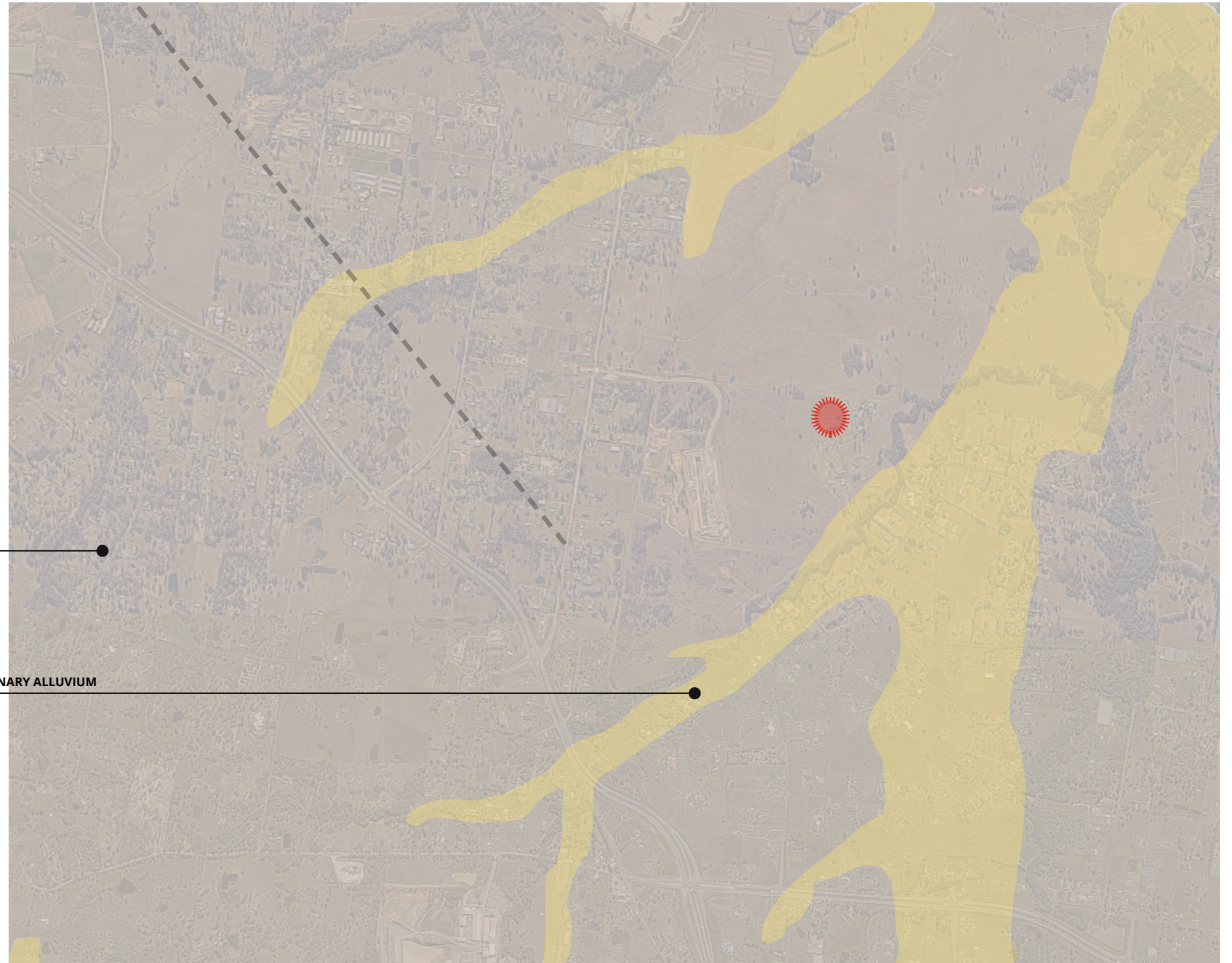
BRINGELLY SHALE



QUATERNARY ALLUVIUM

LEGEND

-  SITE LOCATION
-  BRINGELLY SHALE
-  QUATERNARY ALLUVIUM
-  FRACTURE OF ROCK BODY (DIKE)



Site Context

Vegetation Communities






The Cumberland plain was once covered by a mosaic of eucalypt forest, woodland and wetlands that supported a rich array of flora and fauna. The biota of the Cumberland plain has been dramatically altered due to land clearance, fire regimes and the introduction of new plant and animal species.

Today the areas that remain are fragmented and highly disturbed. The dominant canopy trees are the *Eucalyptus moluccana* and *Eucalyptus tereticornis*, with a shrub layer that is dominated by abundant grasses.

Thompson's creek is part of the Cumberland River Gum River-Flat Forest bioregion while the local surrounding vegetation falls into the Cumberland Shale Plains Woodland bioregion.



LEGEND

-  SITE LOCATION
-  SHALE PLAINS WOODLAND
-  SHALE HILLS WOODLAND
-  ALLUVIAL WOODLAND
-  WATERBODIES



Site Context Topography

The topography of the site is typical of the Cumberland Plain area with rolling hills with small peaks and valleys. The creek lines form the main structure of the valleys and create fingers that extend from the north and carve through the landscape. The topography generally ranges from 50 to 70m above sea level with areas that directly surround the site getting up to 100m above sea level.

The ridge lines and ridge tops can be read in the landscape as high points that sit over the waterways and ecological corridors giving expansive views that stretch through the tree tops and into the Cumerland Plain.



LEGEND

-  SITE LOCATION
-  2M CONTOURS

Site Context

Early Colonial Heritage

European exploration and settlement of the Colony along the Hawkesbury-Nepean River system started in 1789. Governor Philip led an expedition to search for arable land. The rich alluvial soils of the Hawkesbury-Nepean River attracted the settlers, to then established their farms at Castlereagh, Emu Plains and Agnes Banks. However, unpredictable flooding and drought in the 1790s caused financial hardship and started the search for suitable land in neighboring districts.

In 1803, an exploration of the Badgerys Creek and Bringelly districts started. Botanist George Caley led an expedition party through the Mulgoa Valley. He then met Indigenous custodians of the Cabrogal clan. In his findings, he described their huts, walking tracks and the effects of burning off on the local environment between Prospect, South Creek and Cowpastures. More private expedition and formal surveys were done following this.

The majority of the south-western Cumberland Plain was densely forested and comprised highly clayey soil, which was ideally suited for stock grazing and wheat cultivation. In this area, settlers with enough capital were granted large parcels of land and ample convict labor to establish and manage substantial rural estates.

Rural capitalists were expected to contribute resources to the colony, raising surplus crops and livestock to feed the growing population. Freehold, substantial and smaller grants were later distributed among Governors and settlers. Badgerys Creek and Bringelly districts had smaller early grants of 200 to 600 acres that typically had river frontage and were distributed to a number of settlers.

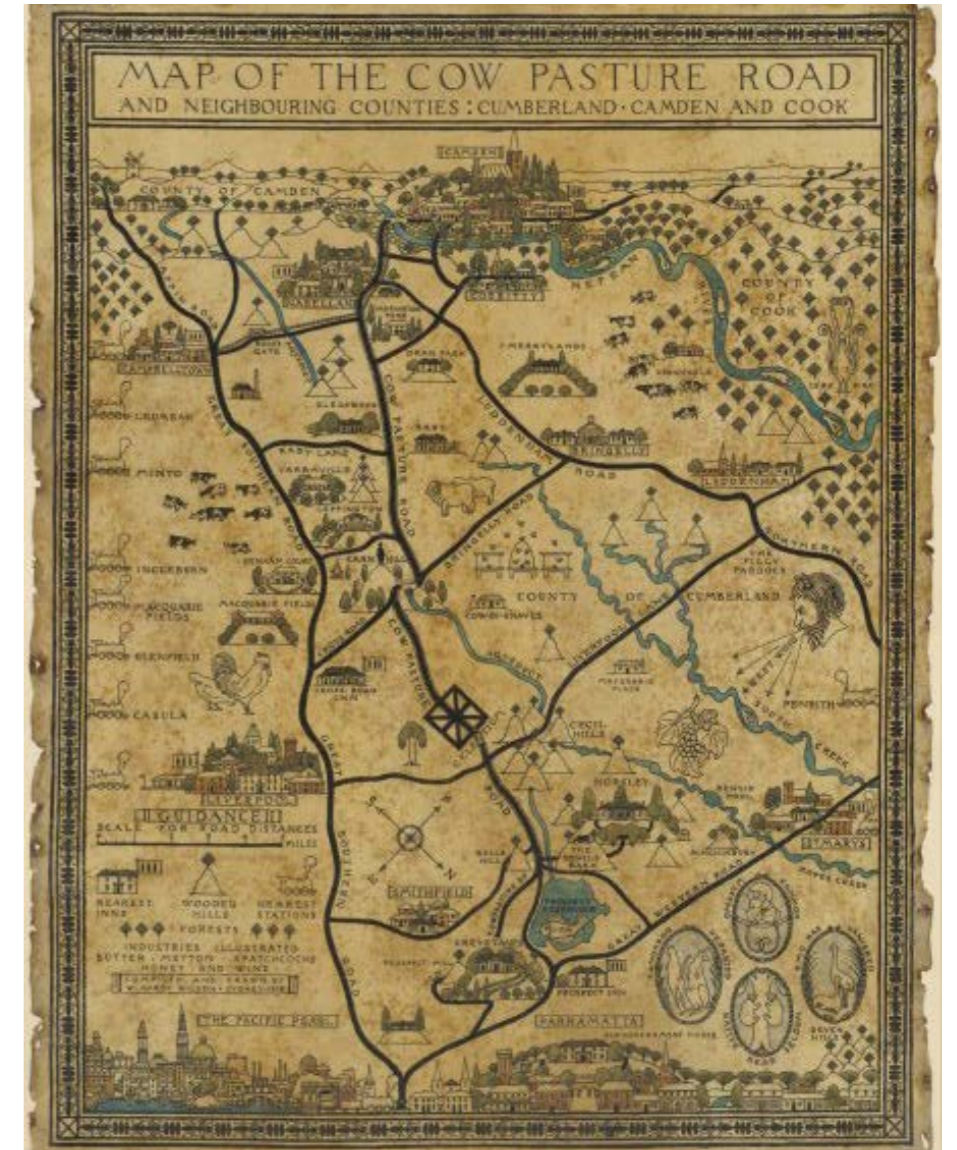
Subdivisions of the mid 19th century changed the pattern of land settlement in the region, breaking up the large estates into much smaller farming lots. Laying out streets and allotments in a regular grid and a uniform street width. These subdivisions were set out by private surveyors often working on different estates.



Exploration of the Hawkesbury River, State Library of NSW



Cowpastures Region 1795-1840, Camden History Notes



Map of the Cow Pasture Road, National Library of Australia

Site Context

Colonial Heritage

Kelvin park (Cottage Vale/ Retreat Farm) was a 468 ha site that was primarily used for agriculture. It has a history of significant people/organisations ownership, namingly Thomas Laycock Junior being the person who established the farm at Bringelly, building the homestead in 1820, and Australian Agricultural Company, the countries oldest agricultural and pastoral development company; 1824.

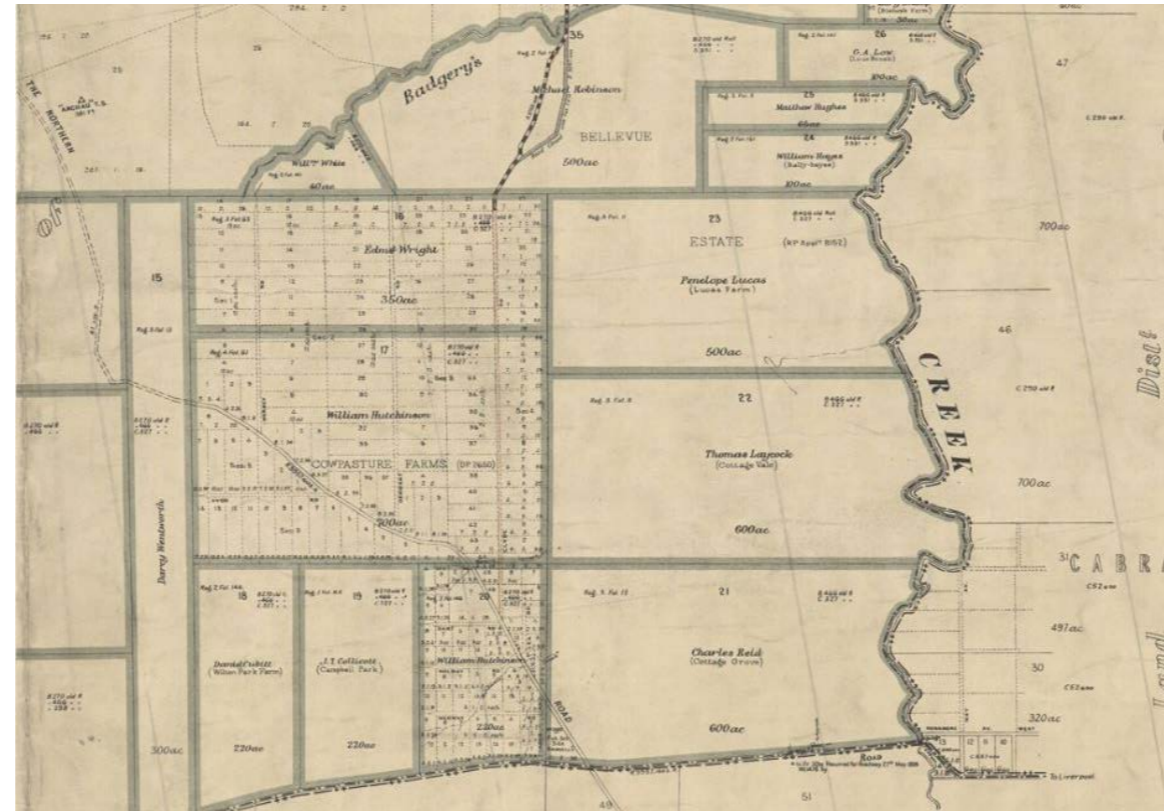
The homestead is the remnant 9.8 ha of Kelvin park and is remarked for its colonial Georgian single-story form and represents 'gentleman's rural residence' (1820's Rural Australia) a style that is understood from historians as a house that centers an estate, mostly observed throught Britain around the late 17th century.

The site retains important historic views to Thompson's Creek/ South Creek and beyond. Looking out on rural landscapes beyond the current boundaries the importance of, stands of trees and pastures currently in the landscape facing north contribute to the site's significance. The design and setting of the house being, sat on a knoll above a creek, with a garden, and mature tall trees (old pines) is characterised as regionally significant.

It is stated in Western Sydney Aerotropolis Precinct Plan (March 2022) that the Heritage should be conserved and managed in a way that maintains visual links, context and significance. Implementation of adaptive re-use and land uses are encouraged to conserve heritage items viably long term.



State Heritage Register (SHR), Kelvin; 30 The Retreat



Parish of Bringelly, County of Cumberland; "Thomas Laycock Cottage Vale 600 acre lot 22", 1908.



Cowpasture Farms, 7-10-acre blocks, view of property from main road, 1892. Bringelly Road looking west



Main homestead with 1800s colonial design, overlooking backyard



Colonial landscape views with strands of trees and pastures



Main homestead sitting on knoll surrounded by large mature trees

Site Context

Existing Site Character

The formation of Aerotropolis will alter how an individual experiences and understands the landscape. Grounding the site to be sympathetic to the existing and retained landscape will intrinsically tie this development to the land. A sensitivity to the landscape is to be explored, drawing out a theme of 'borrowed' views/landscape from a traditional custodian lens to frame Country.



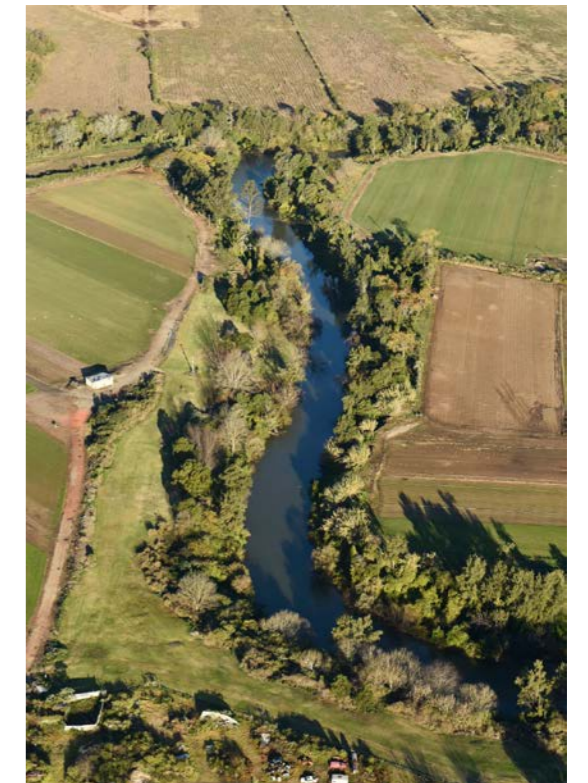
Cumberland Shale Plain (Critically Endangered Ecological Community)



Pockets of vegetation emerge between lots



River Flat Eucalypt Forest (Riparian Forest)



Wianamatta riparian Corridor



Wianamatta ecological corridor



Typography that forms ridge tops in the landscape to look into the valley



Threatened Fauna (Glossy Black-Cockatoo)



SECTION 02 - SITE VISION

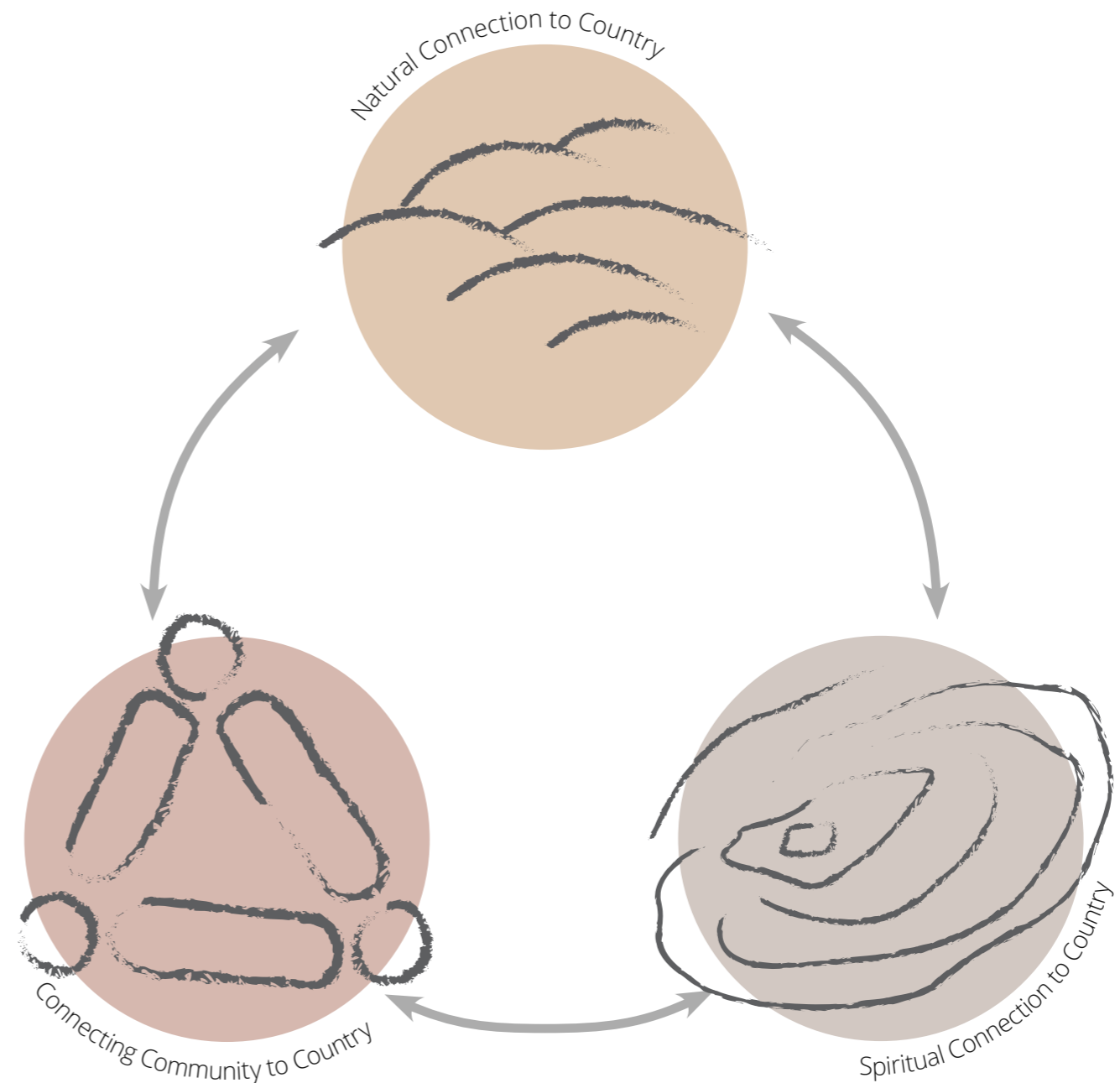
Landscape Vision

Starting With Country

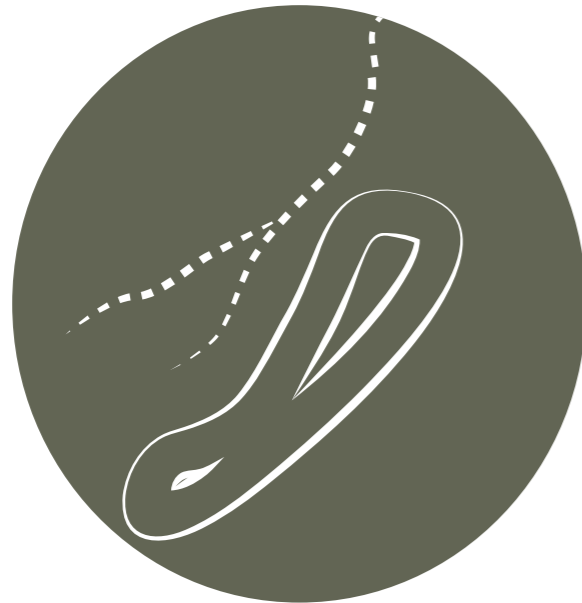
The First People of the lands surrounding Bringelly are Darag, who have been the traditional custodians of these lands since time immemorial. It is a place of undulating hills, woodlands, grasslands, and ephemeral waters that feed Country and everything on it.

As part of this document, we walked Country with Aunty Jacinta Tobin, who shared a deep knowledge of caring for the Cumberland Plain to the forefront. Several themes were brought out in relation to the different ways of engaging with Country:

- / The first approach highlights the critical role of water and non-human custodians, such as trees and animals, in caring for the land through a **natural connection to the Country**. Water appears in many forms, such as creeks, underground aquifers and the water in the sky. If you can heal this water, then you can heal the people.
- / The stories and deep knowledge of the area have been passed on for millennia before the area was even known as Bringelly. This includes knowledge of the plants and animals that rely on the land and form a layer of a **spiritual connection to Country**.
- / Everyone needs to come to the Country to look after it and form a sense of community with custodianship in mind. Not just communities of human but of non-human by providing a place of refuge for them along their journey. The design must take into consideration a **connecting community to Country**.

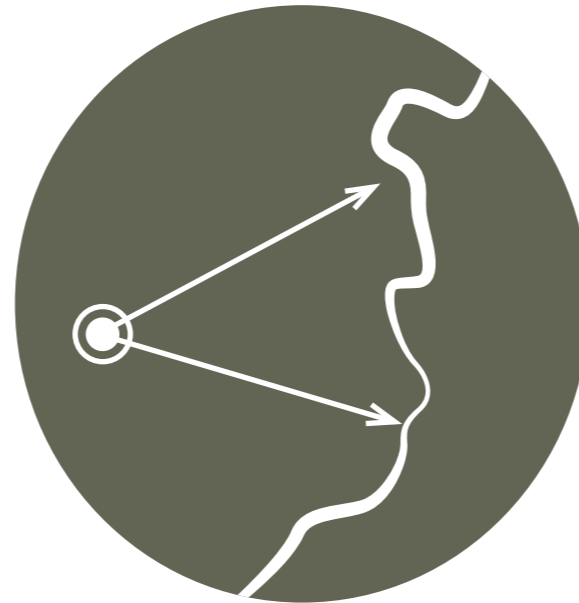


Landscape Vision Design Principles



STARTING WITH COUNTRY

Protecting and restoring the Cumberland Plain connecting the histories through topography, geology, hydrologies and vegetation communities



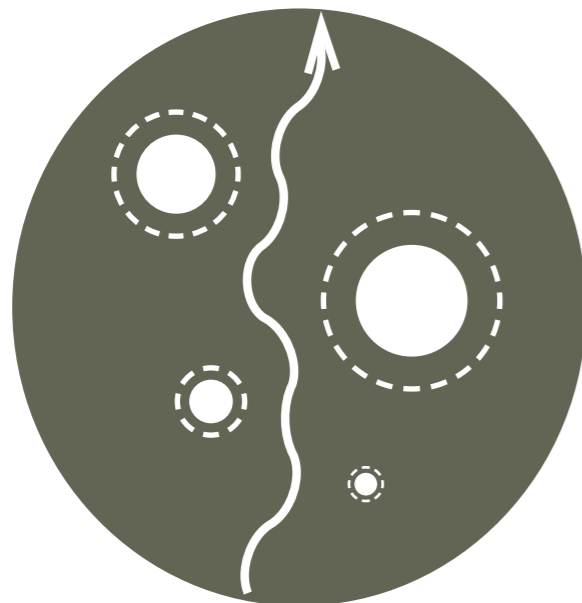
GREEN VISTAS

Ensuring visual connectivity to the Riparian Corridor, and out through the landscape to the expansive Shale Plains



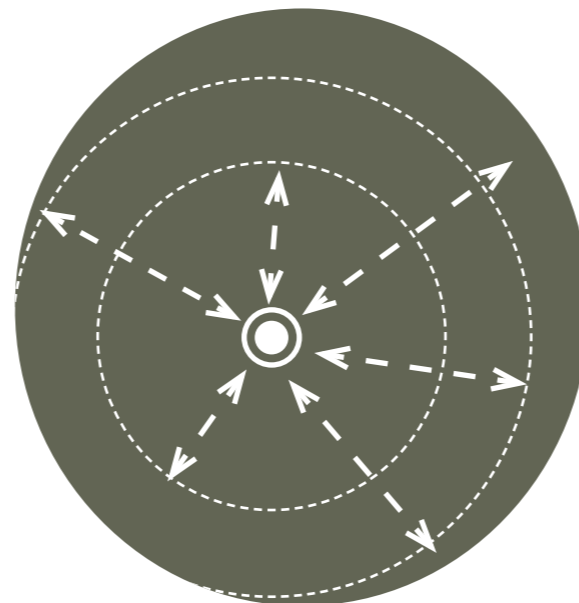
RECONNECTING WATER

Using the surrounding water corridors and riparian streets to connect the the water bodies, ecologies and landscape typologies



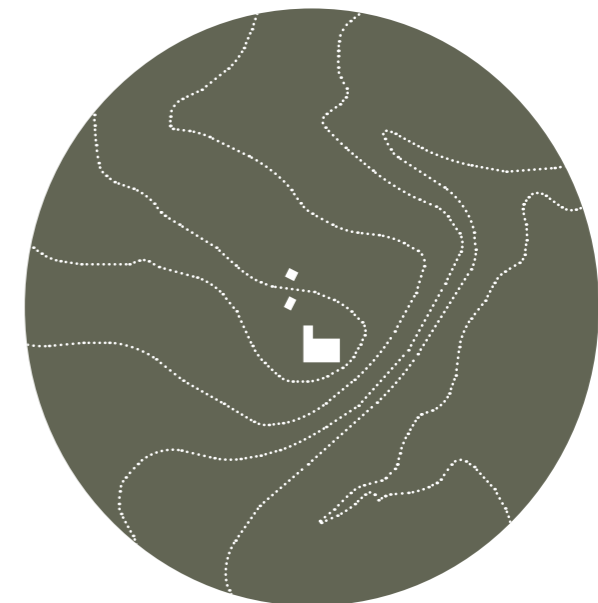
ACTIVATED

A range of diverse active amenity that can be read through the heirarchy of the landscape



LINKING NETWORKS

Informing the local urban language while attributing to the greater urban landscape design of the Aerotropolis precinct



HERITAGE AND CULTURE

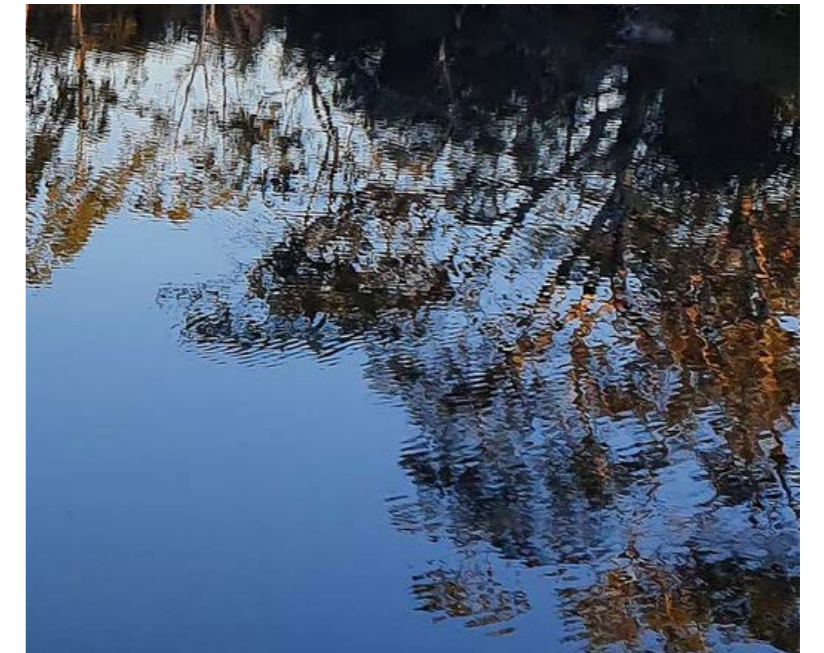
Retaining and activating the heritage and culture of the sites history in a contemporary landscape

Landscape Vision

Water Narrative



REFLECT | SPIRIT
Wianamatta; the underground networks, ephemeral and the physical existence of water and it's movement through the Plains



CASCADE | GROWTH/TIME
The flow and layers of the water carved into the landscape, constantly moving, forming

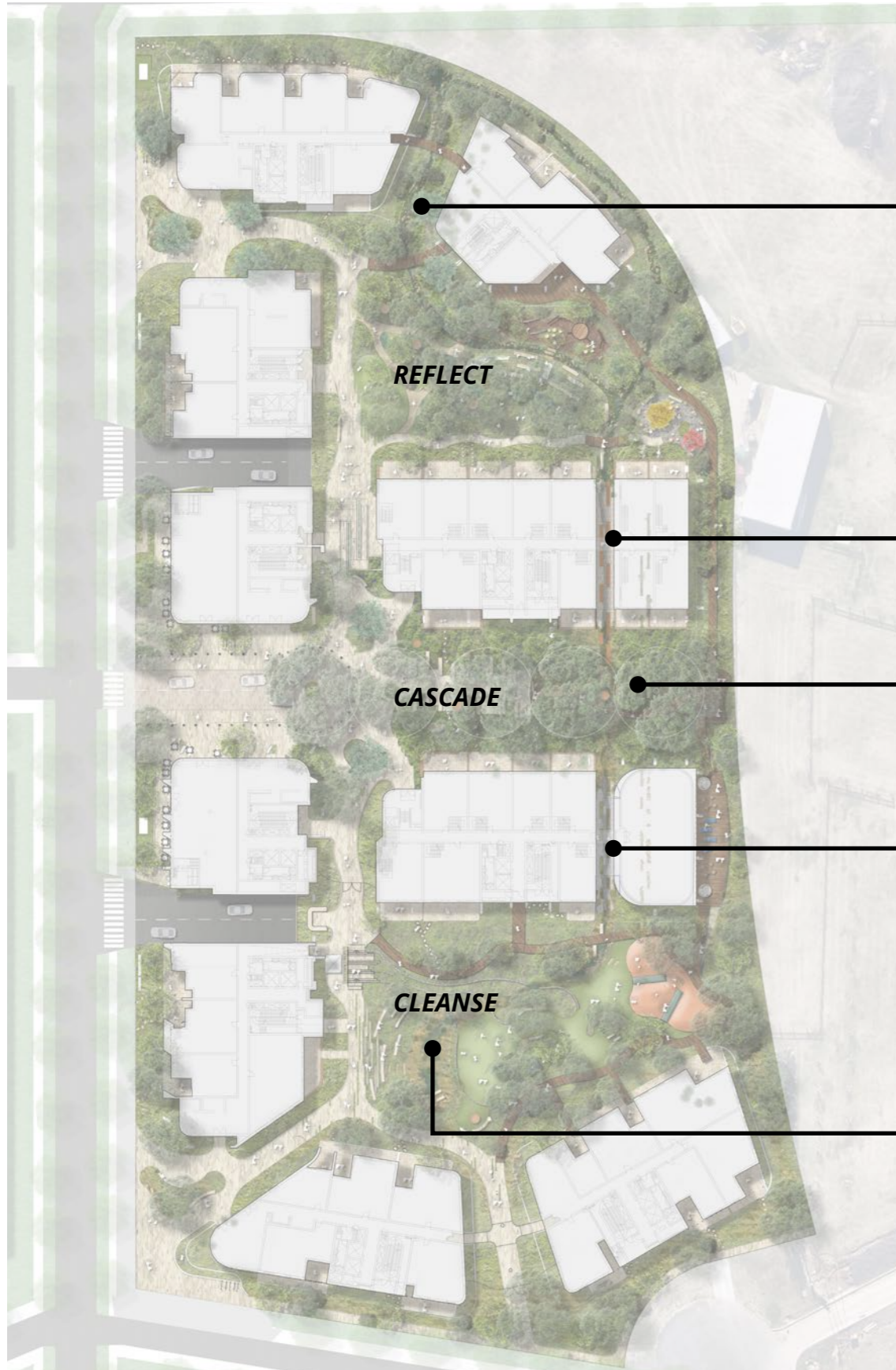


CLEANSE | CARING/MANAGEMENT
A natural resource that is to be conserved, protected and the peoples use is to be managed



Landscape Vision

Water Narrative



Canal Type 1



Limited Planter Boxes with WSUD planting; set stone pavement

Canal Type 2



Planter Boxes with fetare planting, lighting and further integrated into the wellness center; textured pavement to emulate movement

Swale



Loose rock bed swale with WSUD sensitive planting

Feature



Rock cascade feature that transitions the two typologies between the buildings

Rain Garden

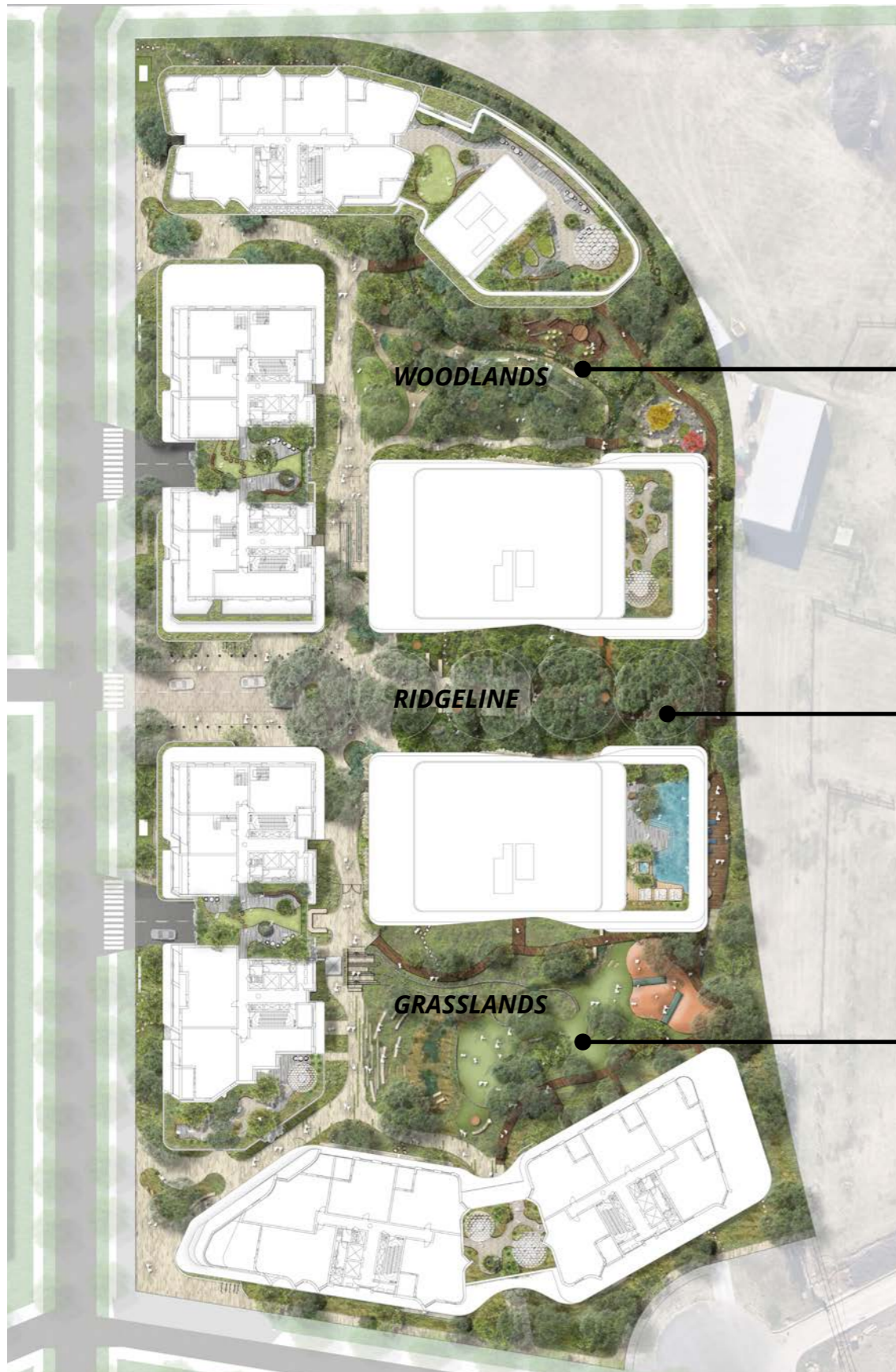


Densely planted rain gardens that work to filtrate and hold the water in the plants forming a habitat; large boulder features through the garden bed



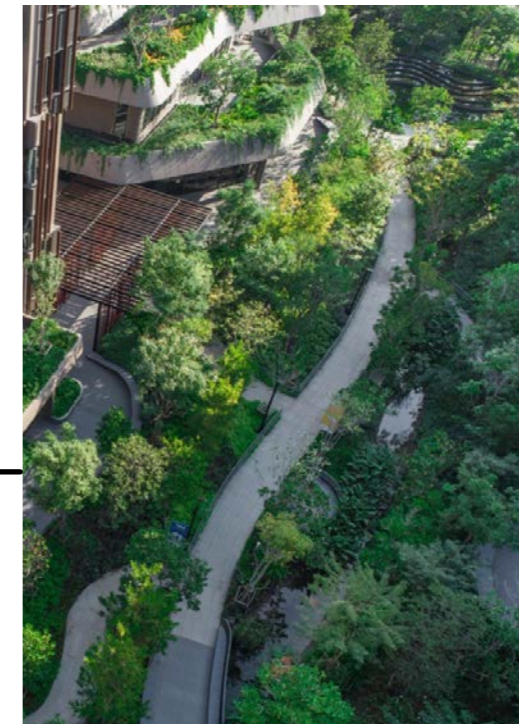
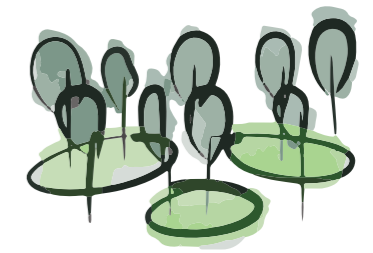
Landscape Vision

Landscape Narrative Ground Floor



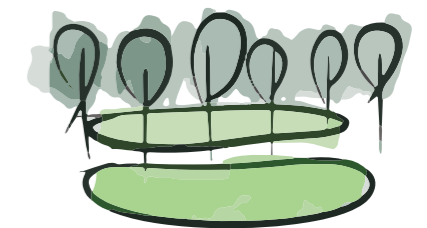
WOODLANDS

The Woodlands are to be built around and incorporate the swale that goes through the landscape allowing for intimate moments and trails of discovery that enable the users to feel enveloped within the landscape.



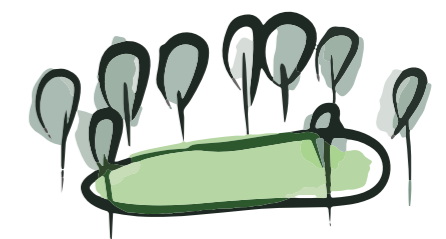
RIDGELINE

Between buildings The Ridgeline connects both the vertical landscape of the green facades and rooftops with the tall canopy of the trees, whilst also forming a green corridor that forms a desinational place that encourages the public to explore and experience the vista through to Thompsons Creek.



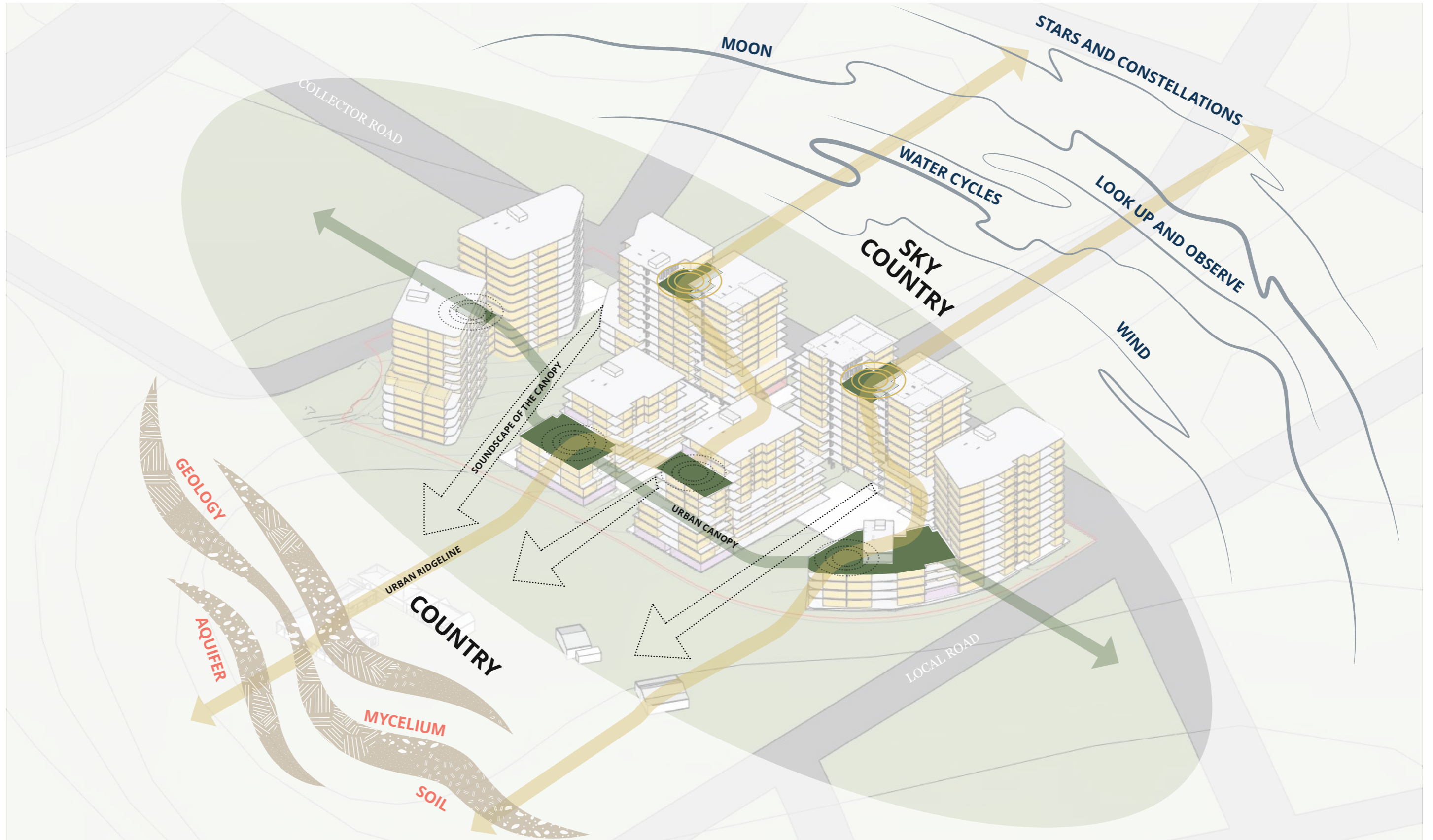
GRASSLANDS

The Grasslands emulate the experience of the cumberland plains, large open spaces with pockets of vegetation and stands of trees. As the creekline forms into the rain garden the landscape becomes a lush green that welcomes community activities.



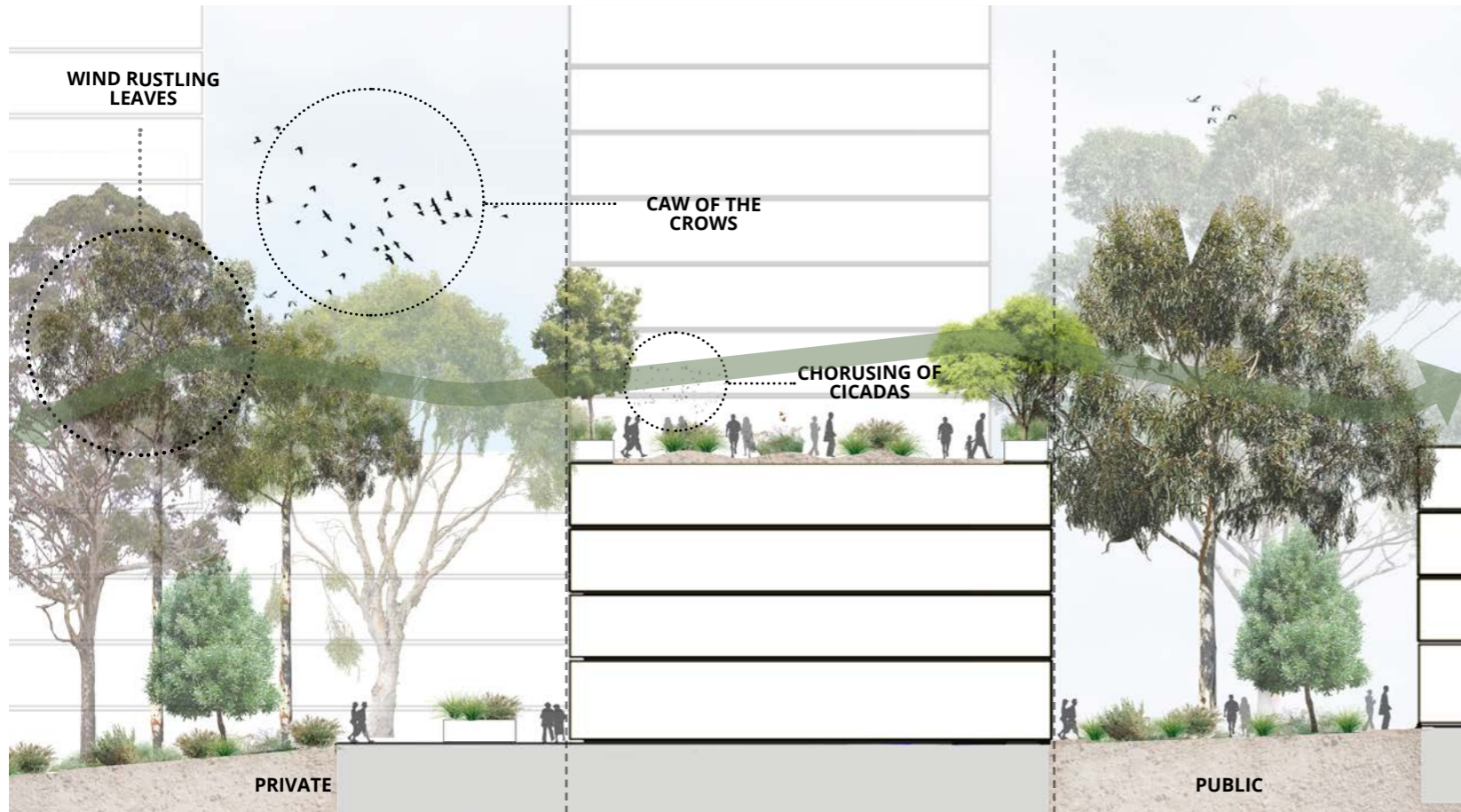
Landscape Vision

Landscape Narrative Rooftop

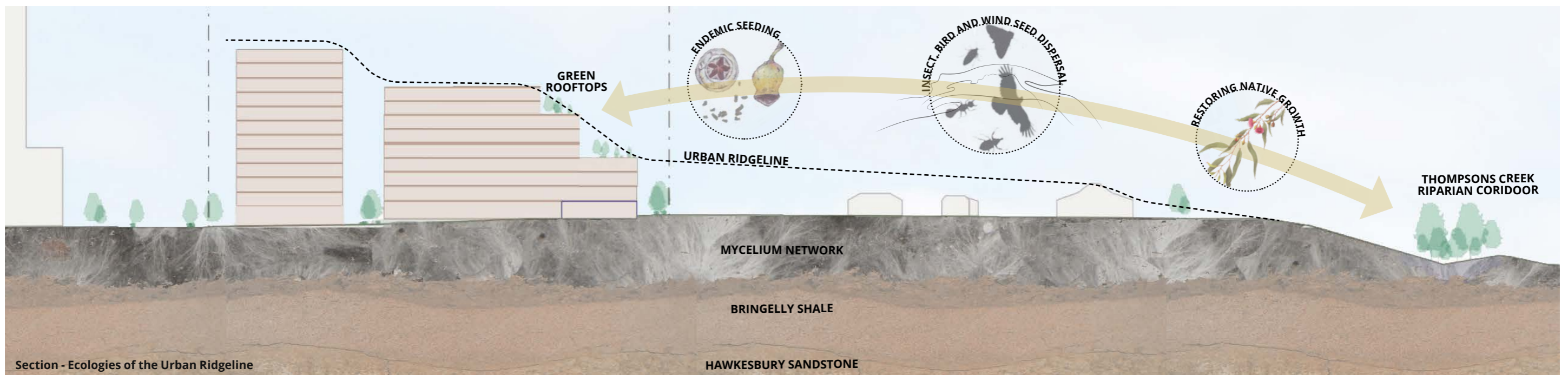


Landscape Vision

Landscape Narrative Rooftop

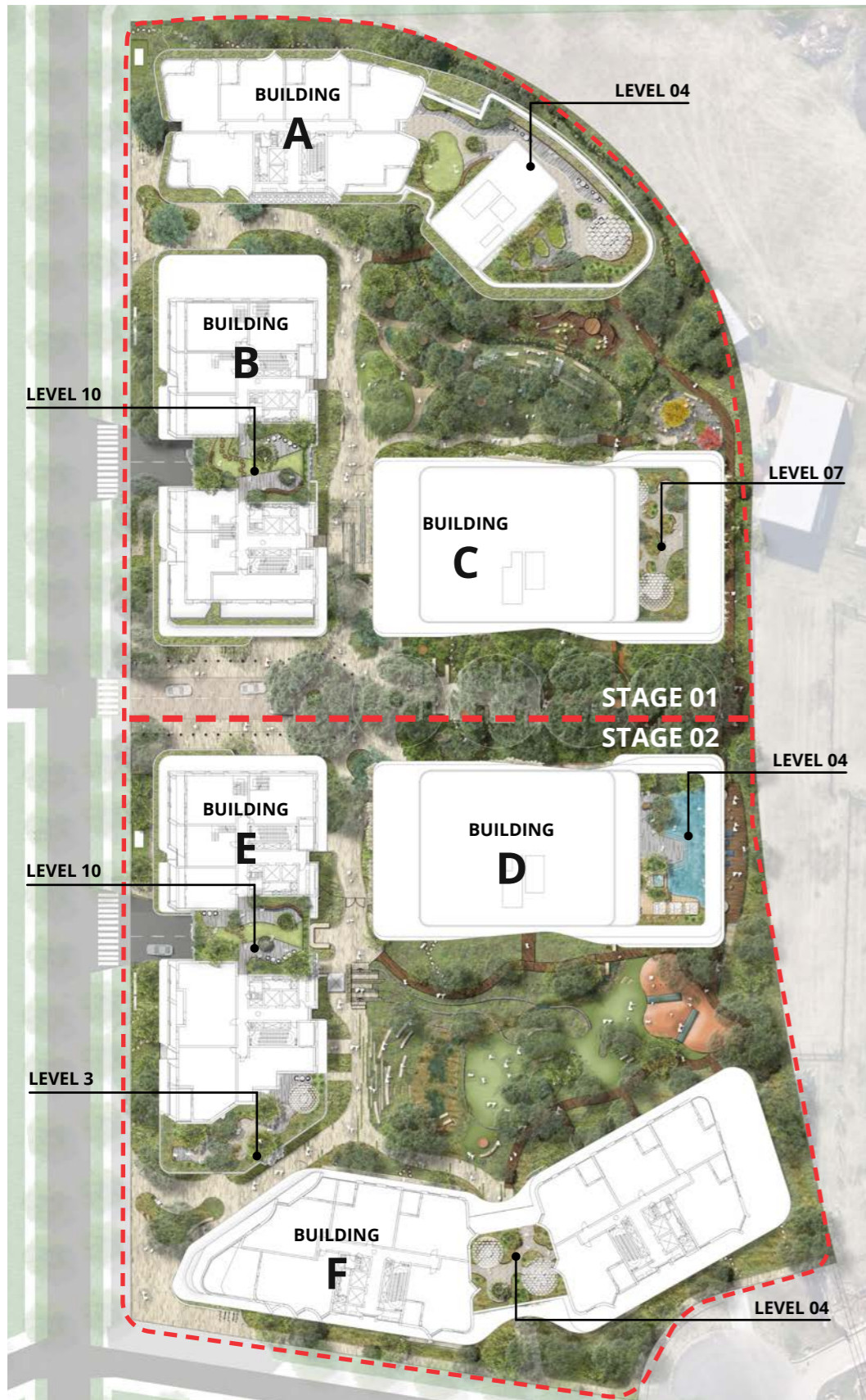


Level 04 Section - Soundscape of the Urban Canopy



Section - Ecologies of the Urban Ridgeline

Landscape Vision Levels & Staging Masterplan



All Levels with Landscape Design

LEVEL 01 - PLANTER BOXES ONLY



LEVEL 02 - PLANTER BOXES ONLY



LEVEL 03 - PLANTER BOXES + C.O.S



LEVEL 04 - PLANTER BOXES + C.O.S



LEVEL 07 - C.O.S ONLY



LEVEL 10 - PLANTER BOXES + C.O.S

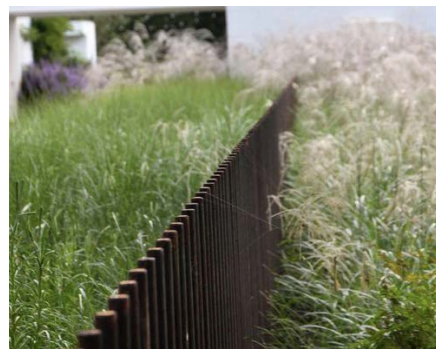


Landscape Vision Access & Fence Strategy Ground Floor

KEY

////// BOUNDARY FENCE

||||||| INTERNAL FENCE



1 Internal Fence

Curve shaped mimicking pathway geometry and dense planting to soften the fencing in private area



2 Boundary Fence

Tucked into the landscape, to be located away from public area



Landscape Vision

Canopy Coverage & Deep Soil

KEY

- SITE AREA - 20,902m²
- DEEP SOIL - 6,807m² (33%)
- CANOPY COVERAGE - 7,923m² (38%)

Canopy Breakdown

- Large Trees 20-15m - 32
- Medium Trees 10m - 40
- Small Trees 5m - 8

Total Trees Shown - 80
 Total Soil Volume required - 4,280m³

All canopy sizes are estimated from relevant Cumberland Plain tree species

1 Large Tree or 2 medium trees per 80m³, small trees need 15m³ for deep soil zones greater than 1500m²

Deep Soil to have a minimum 6m width required for sites greater than 1,500m²



Landscape Vision Masterplan Ground Floor

KEY

- 1 PRIMARY SITE ENTRY POINTS
- 2 THE NORTHERN WOODLANDS
- 3 THE CENTRAL RIDGELINE (LINEAR PARK)
- 4 THE SOUTHERN GRASSLANDS
- 5 BOARDWALK (FLUSH WITH SURROUNDING RL, ELEVATED ONLY TO WATER CROSSING OR TO MEET DDA)
- 6 ROUND-A-BOUT/ PICK UP AND DROP OFF ZONE
- 7 UNDERGROUND CARPARK ENTRY POINTS
- 8 FEATURE PLANTER TO LOBBY ENTRIES
- 9 OPEN TURF AREA
- 10 VEGETATION BASIN
- 11 POTENTIAL WSUD TREATMENT TO KERB EDGE
- 12 SWALE



Landscape Vision

The Northern Woodlands - Detail Plan



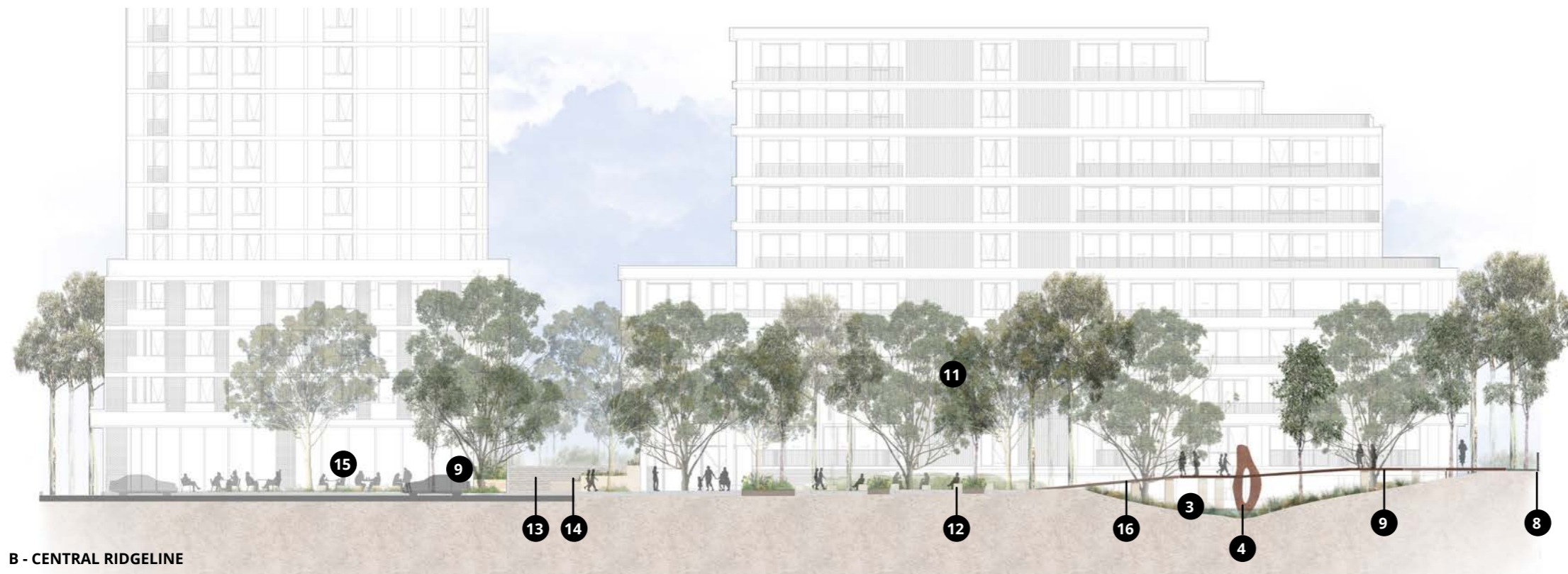
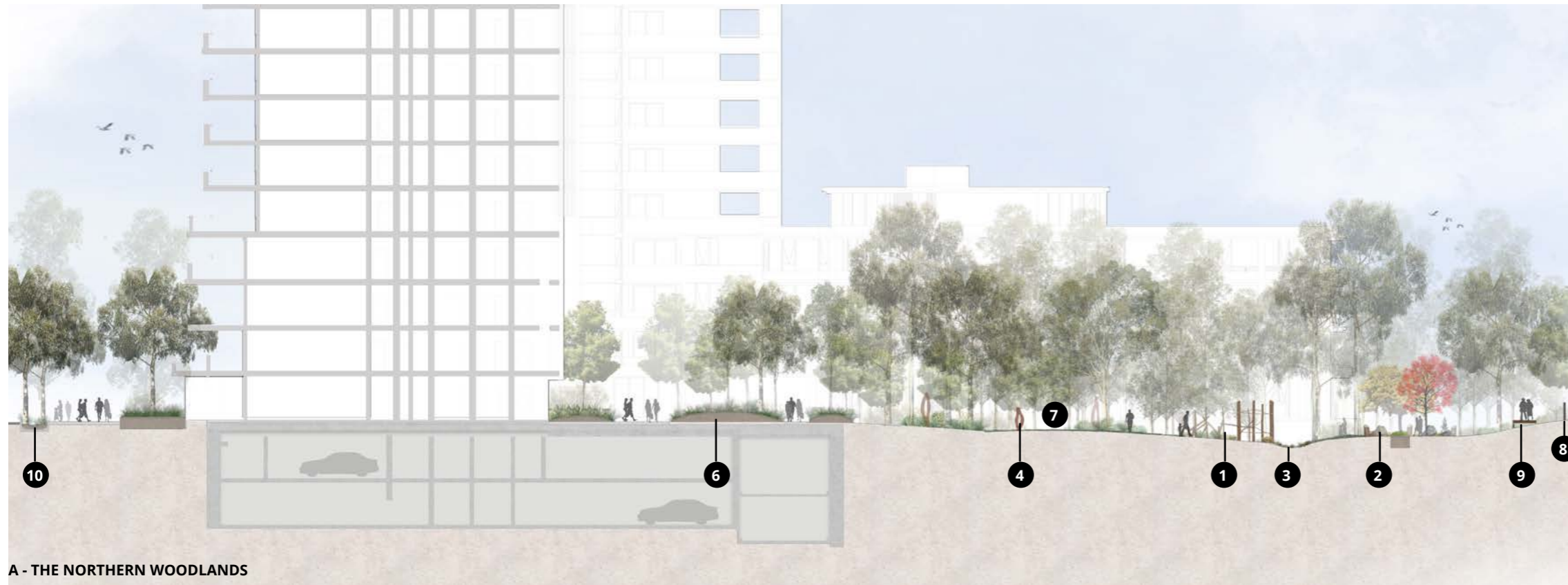
KEY PLAN



KEY

- 1 FEATURE ENTRY SEATING
- 2 SEATING NOOK
- 3 LAWN AREA
- 4 NATURE PLAY
- 5 THE WOODLANDS
- 6 MEDITATION GARDEN
- 7 SWALE FEATURE
- 8 BOARDWALK
- 9 BRIDGE OVER SWALE
- 10 TRANSPARENT CATWALK
- 11 SEATING LOGS
- 12 MEDITATION ROCKS
- 13 PLANTER BOXES
- 14 CLIMBING STRUCTURE
- 15 FEATURE CHANNEL OVER SLAB

Landscape Vision Sections



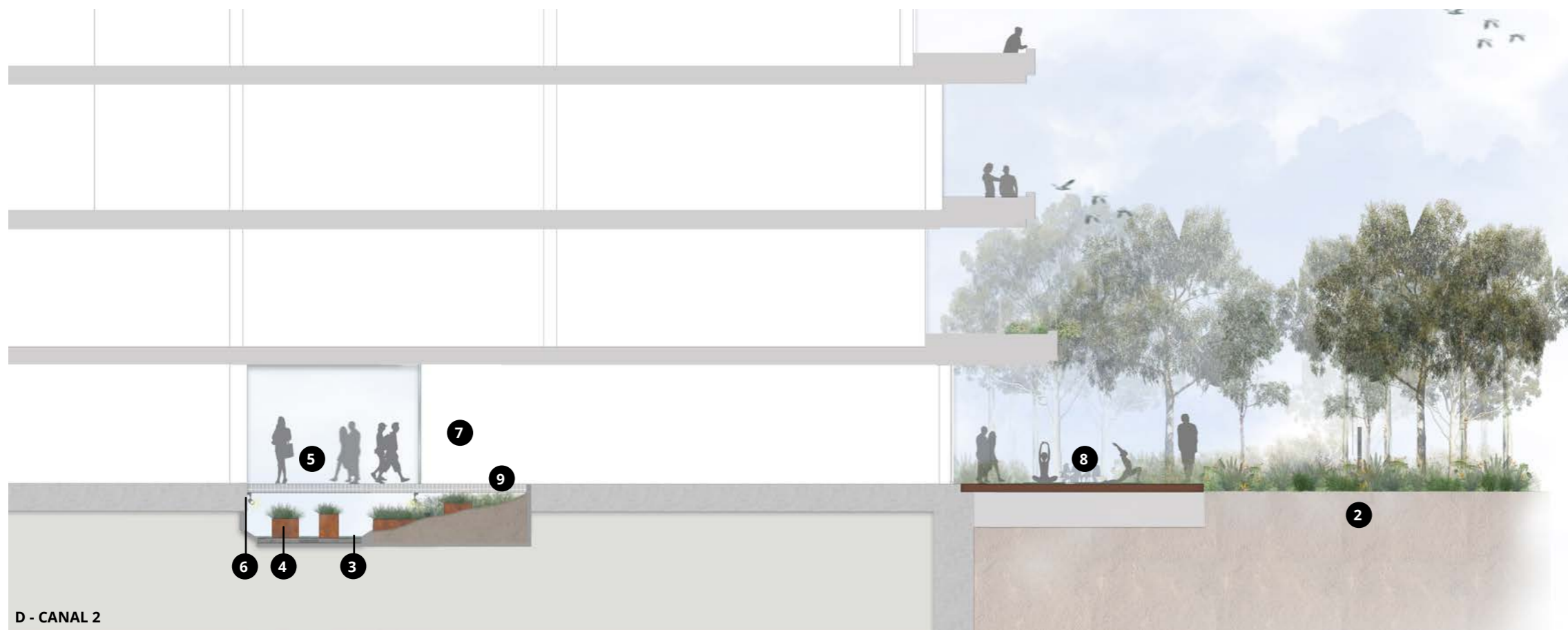
KEY PLAN



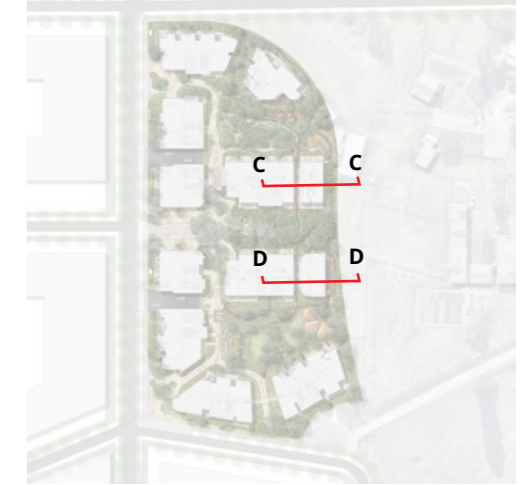
KEY

- 1 NATURE PLAY
- 2 CONTEMPLATION GARDEN
- 3 DRY CREEK
- 4 ART SCULPTURE
- 5 WOODLAND TREES
- 6 MOUNDED PLANTER
- 7 WALKING TRACKS
- 8 FENCE
- 9 BOARDWALK
- 10 WSUD TO STREETScape (TBC)
- 11 FEATURE TREE TO REDGE LINE
- 12 SEATING
- 13 STAIRS
- 14 DDA RAMP
- 15 F&B
- 16 DROPOFF

Landscape Vision Canals - Section



KEY PLAN



KEY

- 1 BOARDWALK
- 2 FENCE
- 3 CHANNEL
- 4 RAISED PLANTER
- 5 ELEVATE WALKWAY CONNECTION FOR HALLWAY
- 6 GROWLIGHT
- 7 WELLNESS CENTRE ENTRY
- 8 WELLNESS CENTRE YOGA DECK
- 9 BALCONY PLANTER

Landscape Vision

The Central Ridgeline - Detail Plan



KEY PLAN

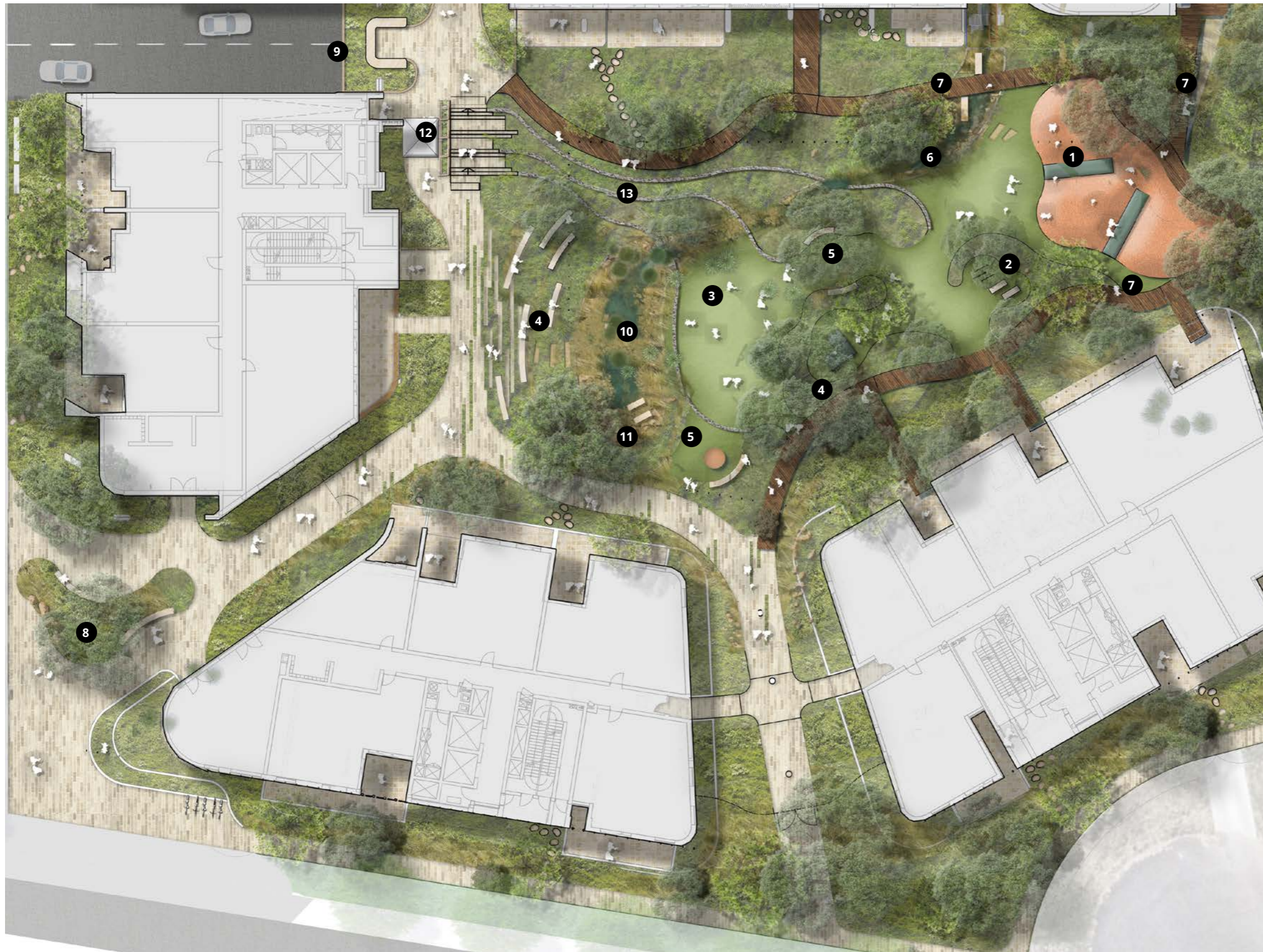


KEY

- 1 1:14 ACCESS RAMP
- 2 VIEWING DECK
- 3 WATER FEATURE
- 4 CIVIC RIDGELINE
- 5 FEATURE TREES
- 6 TRANSPARENT CATWALK
- 7 FLEXIBLE DECK SPACE
- 8 BOARDWALK
- 9 ROUND-A-BOUT/PICK UP AND DROP OFF ZONE
- 10 UNDERGROUND CAR PARK ENTRY
- 11 SEATING ELEMENTS
- 12 PLANTER BOXES

Landscape Vision

The Grasslands - Detail Plan



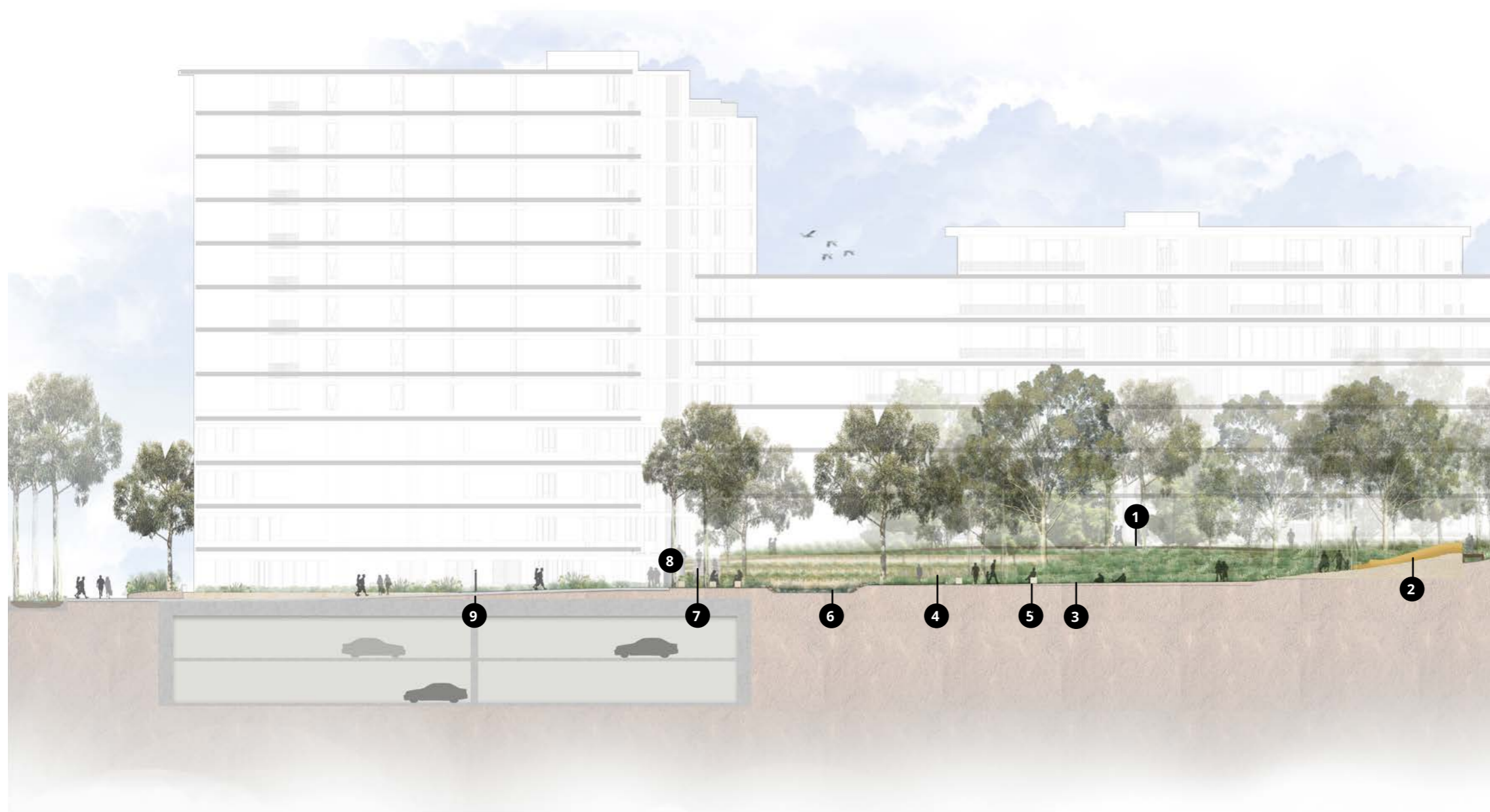
KEY PLAN



KEY

- 1 SOFTFALL PLAY AREA (SLIDES)
- 2 FITNESS STATIONS
- 3 OPEN TURF AREA
- 4 SEATING ELEMENTS
- 5 SEATING NOOKS
- 6 SWALE FEATURE
- 7 BOARDWALK
- 8 FEATURE ENTRY SEATING
- 9 UNDERGROUND CAR PARK ENTRY
- 10 RETAINION BASIN (APPROX 300MM)
- 11 OVERFLOW PIT
- 12 LIFT
- 13 TERRACE

Landscape Vision The Grasslands - Section



KEY PLAN



KEY

- 1 BOARDWALK
- 2 RUBBERISED PLAY AREA WITH SLIDES
- 3 OPEN TURF AREA
- 4 SANDSTONE TERRACE
- 5 SEATING NOOKS
- 6 RETAINION BASIN
- 7 STAIRS
- 8 LIFT
- 9 FENCE

E - THE GRASSLANDS

Landscape Vision

Level 03 & 04 Garden Detail Plans



KEY PLAN



KEY

- 1 INTEGRATED SEATING
- 2 CORTEN STEEL GARDEN BEDS
- 3 FEATURE SHADE STRUCTURE
- 4 FEATURE PAVING ELEMENT
- 5 CANOPY TREES
- 6 RAISED FEATURE PLANTER (SHAPE TO MIMIC SEATING ELEMENTS)
- 7 BBQ
- 8 2.0M SCREENING (REFER TO ARCH)

Landscape Vision

Level 04 Gathering Deck - Detail Plan



KEY PLAN

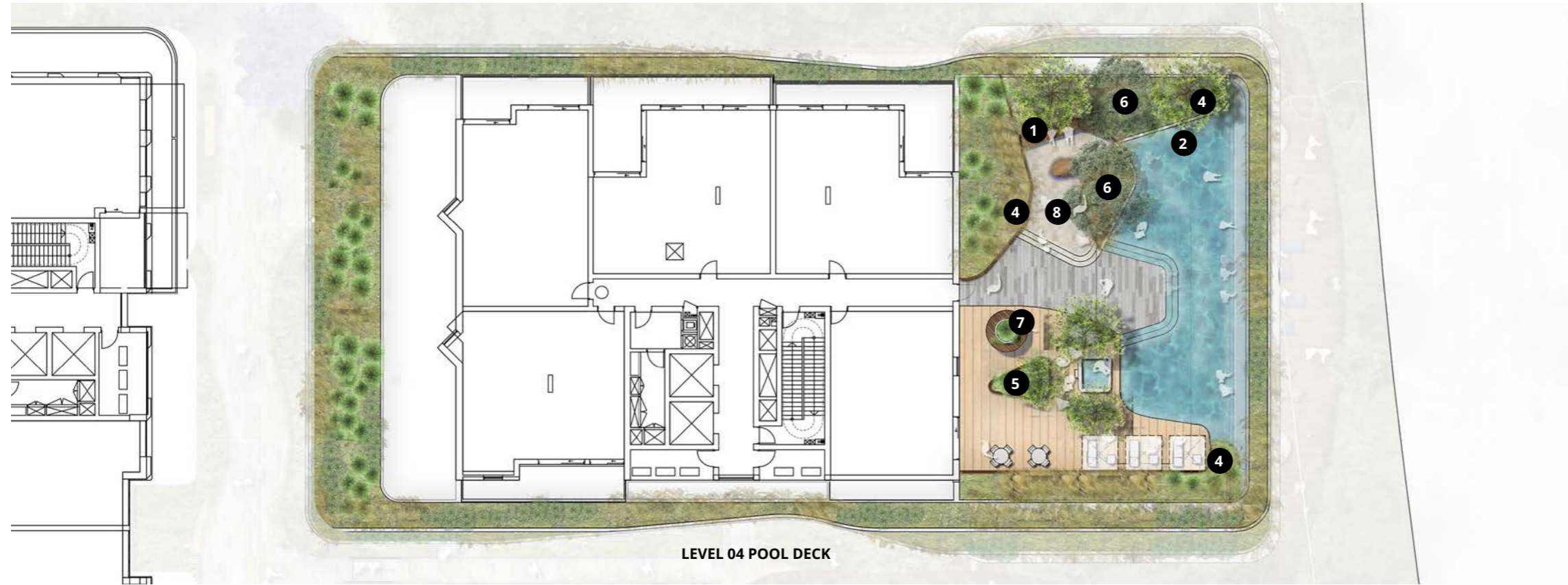


KEY

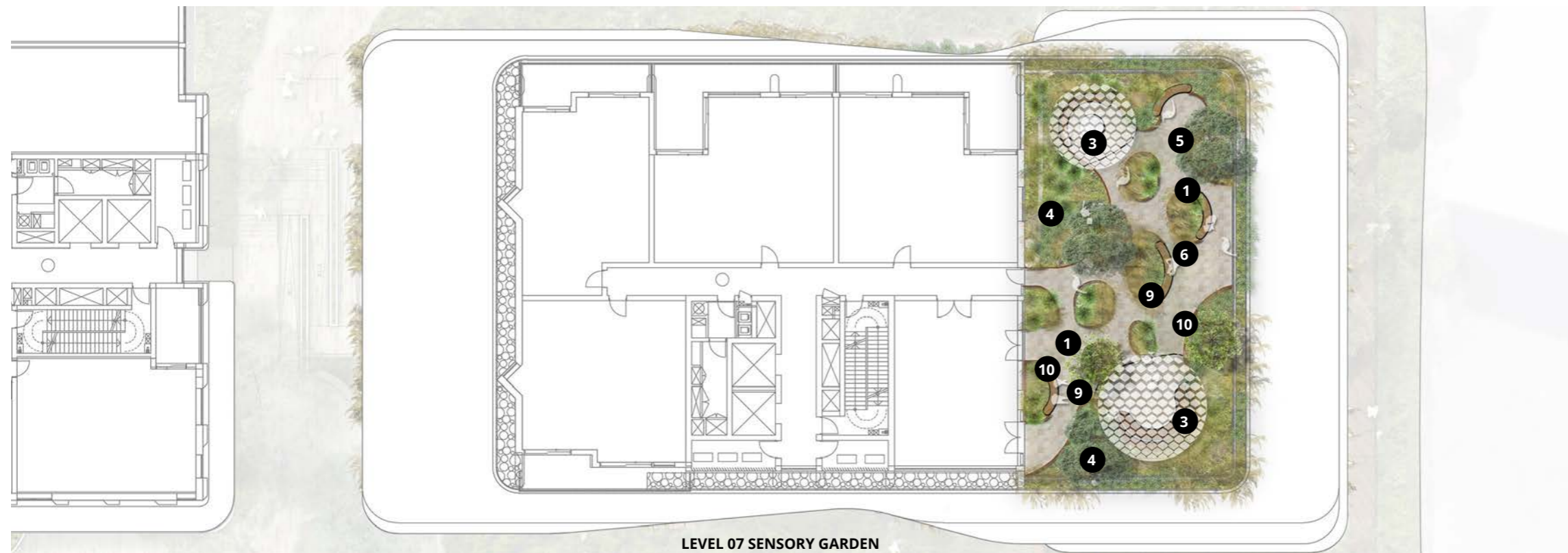
- 1 OPEN LAWN AREA
- 2 BAR-STYLE SEATING
- 3 CORTEN STEEL GARDEN BEDS
- 4 FEATURE SHADE STRUCTURE
- 5 INTEGRATED SEATING ELEMENTS
- 6 CANOPY TREES
- 7 FEATURE PAVING ELEMENT
- 8 VEGETABLE GARDEN
- 9 BBQ

Landscape Vision

Level 04 & 07 - Detail Plan



LEVEL 04 POOL DECK



LEVEL 07 SENSORY GARDEN

KEY PLAN

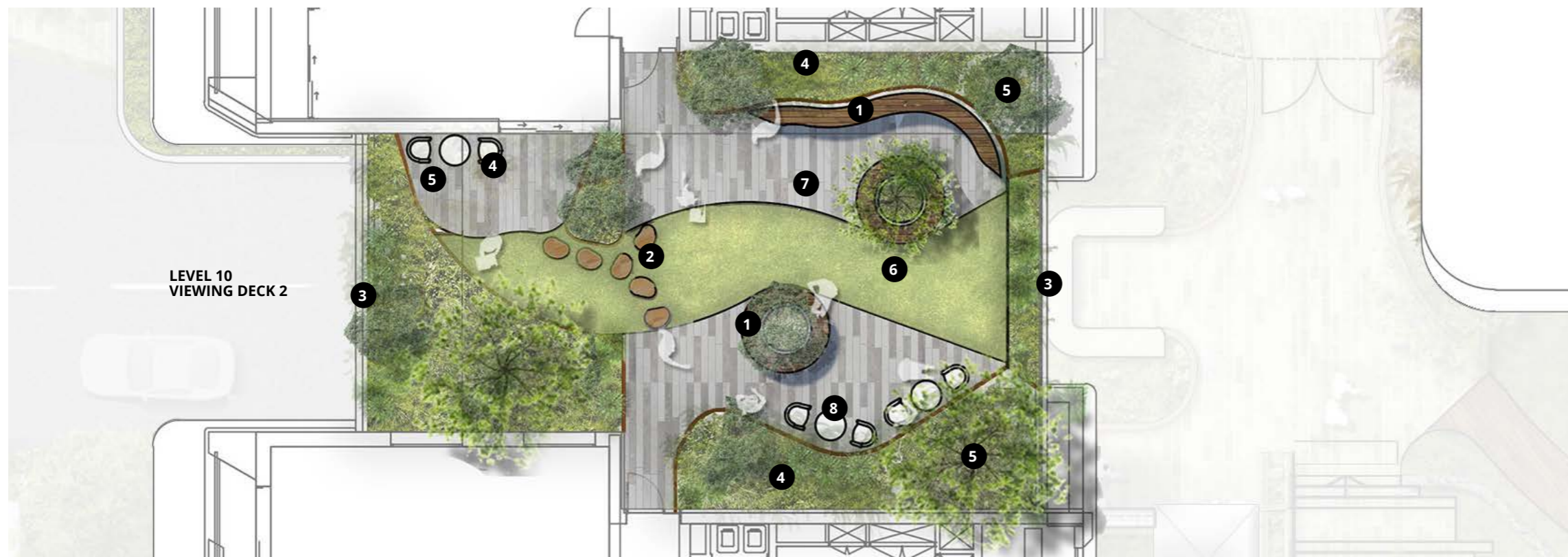
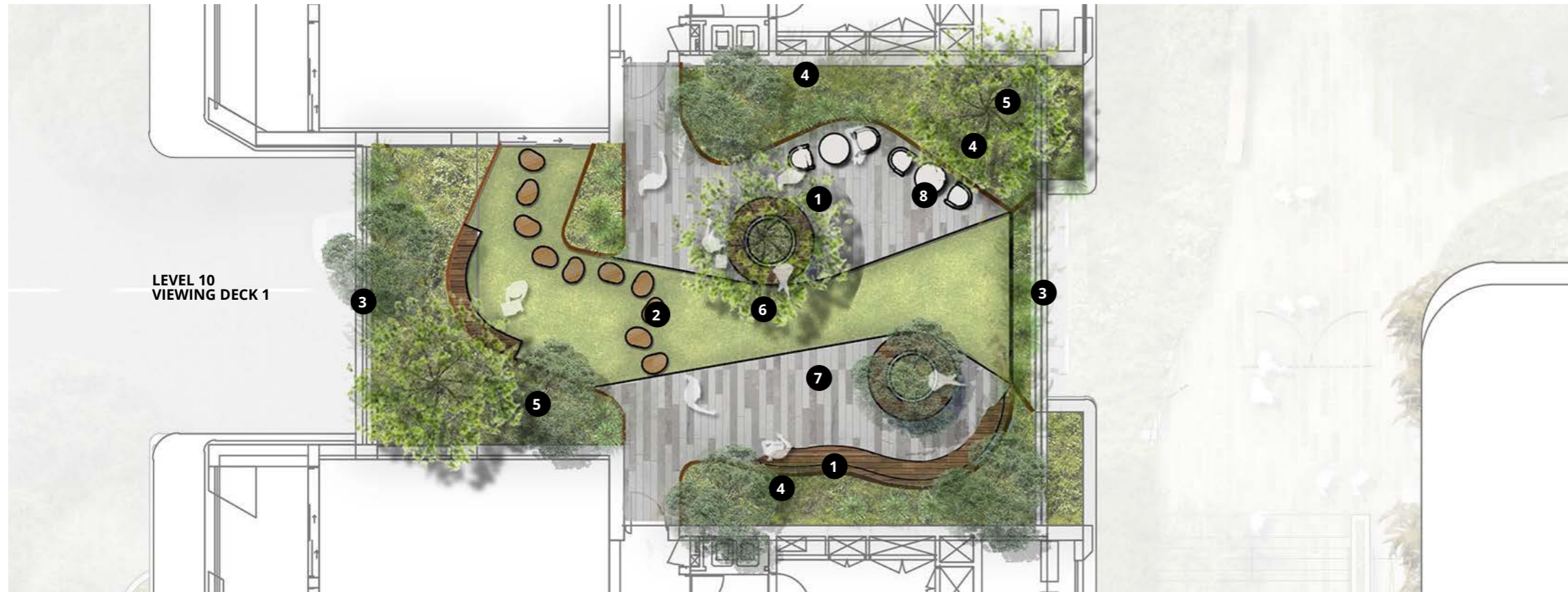


KEY

- 1 INTEGRATED SEATING ELEMENT
- 2 POOL
- 3 FEATURE SHADE ELEMENT
- 4 CORTEN STEEL GARDEN BEDS
- 5 POOL DECK
- 6 CANOPY TREES
- 7 PLANTER POTS
- 8 SUNKEN LOUNGE
- 9 STEPPING STONES
- 10 NATIVE SENSORY GARDEN PLANTING

Landscape Vision

Level 10 Viewing Decks - Detail Plan



KEY PLAN

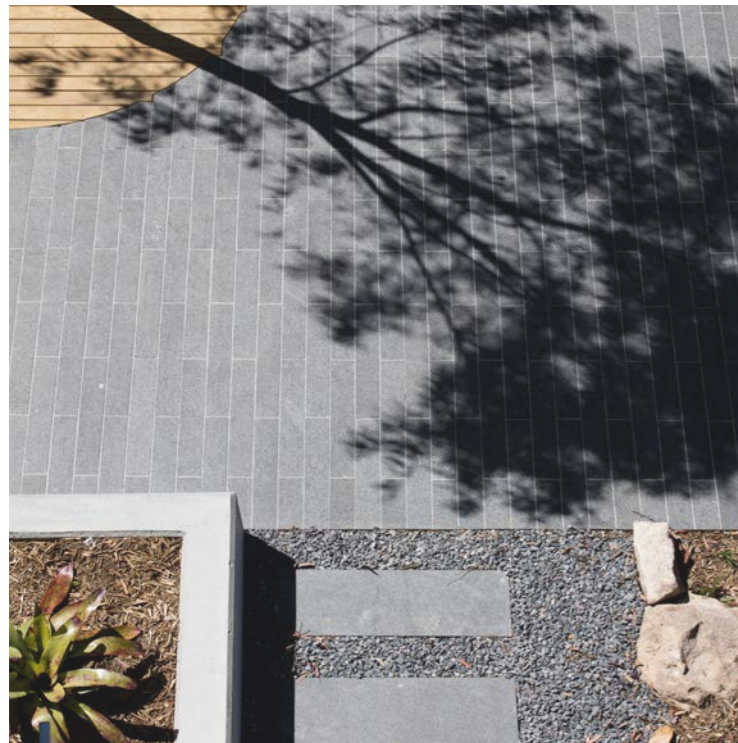


KEY

- 1 INTEGRATED SEATING ELEMENT
- 2 STEPPING STONES
- 3 2.0M SCREENING (REFER TO ARCH)
- 4 CORTEN STEEL GARDEN BEDS
- 5 CANOPY TREES
- 6 OPEN LAWN SPACE
- 7 FEATURE PAVING
- 8 FORMALISED SEATING ELEMENTS

Landscape Vision Materials Palette

The selection of materials can communicate different qualities of textures and colours that appear in Country. This can include the use of materials in their raw form, engraved patterns of plants, light and shadow.



Landscape Vision

Planting Palette

Trees	 <p><i>Acacia binervata</i></p>	 <p><i>Acacia decurrens</i></p>	 <p><i>Acacia parramattensis</i></p>	 <p><i>Eucalyptus cebra</i></p>	 <p><i>Eucalyptus eugenioides</i></p>	 <p><i>Eucalyptus tereticornis</i></p>	 <p><i>Eucalyptus baueriana</i></p>			
Shrubs	 <p><i>Acacia brownii</i></p>	 <p><i>Acacia linifolia</i></p>	 <p><i>Acacia myrtifolia</i></p>	 <p><i>Banksia spinulosa</i></p>	 <p><i>Bossiaea obcordata</i></p>	 <p><i>Brachyloma daphnoides</i></p>	 <p><i>Dillwynia retorta</i></p>			
Grasses	 <p><i>Austrostipa pubescens</i></p>	 <p><i>Dichelachne micrantha</i></p>	 <p><i>Eragrostis brownii</i></p>	 <p><i>Echinopogon ovatus</i></p>	 <p><i>Lomandra confertifolia</i></p>	 <p><i>Lomandra cylindrica</i></p>	 <p><i>Lomandra glauca</i></p>		 <p><i>Lomandra gracilis</i></p>	 <p><i>Lomandra multiflora</i></p>
Groundcovers	 <p><i>Acianthus fornicatus</i></p>	 <p><i>Calotis dentex</i></p>	 <p><i>Dampiera purpurea</i></p>	 <p><i>Gonocarpus tetragynus</i></p>	 <p><i>Laxmannia gracilis</i></p>	 <p><i>Lomandra obliqua</i></p>	 <p><i>Lobelia purpurascens</i></p>		 <p><i>Mirbelia rubiifolia</i></p>	 <p><i>Phyllanthus virgatus</i></p>

ARCADIA