



96-98 Ben Boyd Road, Neutral Bay

Landscape S4.56 Application

Prepared for Podia, on behalf of Aidop No.3 Pty Ltd
April 2023

ARCADIA

MHNDU^NION **podia**

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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.

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01

SITE ANALYSIS

Local Context

LEGEND

- Site
- Metropolitan Centre
- North Sydney LGA
- Metro Line
- Train Line
- Main Roads
- ☀ 'Thrupp's Farm Quarry'



Site History | Connecting to Country

ANCIENT GEOLOGICAL CONTEXT

Neutral Bay is geologically formed from Hawkesbury Sandstone with Wianamatta shales on top. The formation of the harbour coves have been shaped by years of erosion and wind.

12,000BP - 1788

CAMMERAYGAL PEOPLE

The Cammeraygal people of the North Shore used the bountiful resources of the harbour and bush lands that offered them a sustainable lifestyle. Throughout the harbour edges of the North Shore rock shelters “giba gunyahs” were used as places to gather, eat, sleep and tell stories, these areas play an important part of connecting the people, land and water together.

SETTLEMENT - PRESENT DAY

During European settlement, 700 acres of the Lower North Shore was gifted to Alfred Thrupp in 1819 ‘Thrupp’s Farm’. Kurraba Point played an important industrial role in the development of Sydney’s sandstone infrastructure. Between 1860- 1862, 8,000 tonnes of sandstone was quarried to build the Martello Tower at Fort Denison.

In the course of the 1860’s residential development of the area had commenced, during the 20th century, Neutral Bay was developing as an ‘alternative society suburb’ attracting artistic creatives of the time that influenced the evolution of the suburb’s architecture and design.

Today Neutral Bay is a highly sought after suburb of the Lower North shore, where 11,000 people enjoy the harbour side life style and close city access.



Endemic Vegetation Communities

COASTAL SANDSTONE GALLERY RAINFOREST

This endangered warm-temperate rainforest can be found in deep protected sandstone gully systems across Sydney. Due to poorer soil conditions, coastal sandstone gullies lack species diversity in comparison to other Australian rainforest. Common species include Tree ferns, Lilly pillys' and Water Gums, the ground floor is an open cover of ferns growing amongst sandstone boulders.



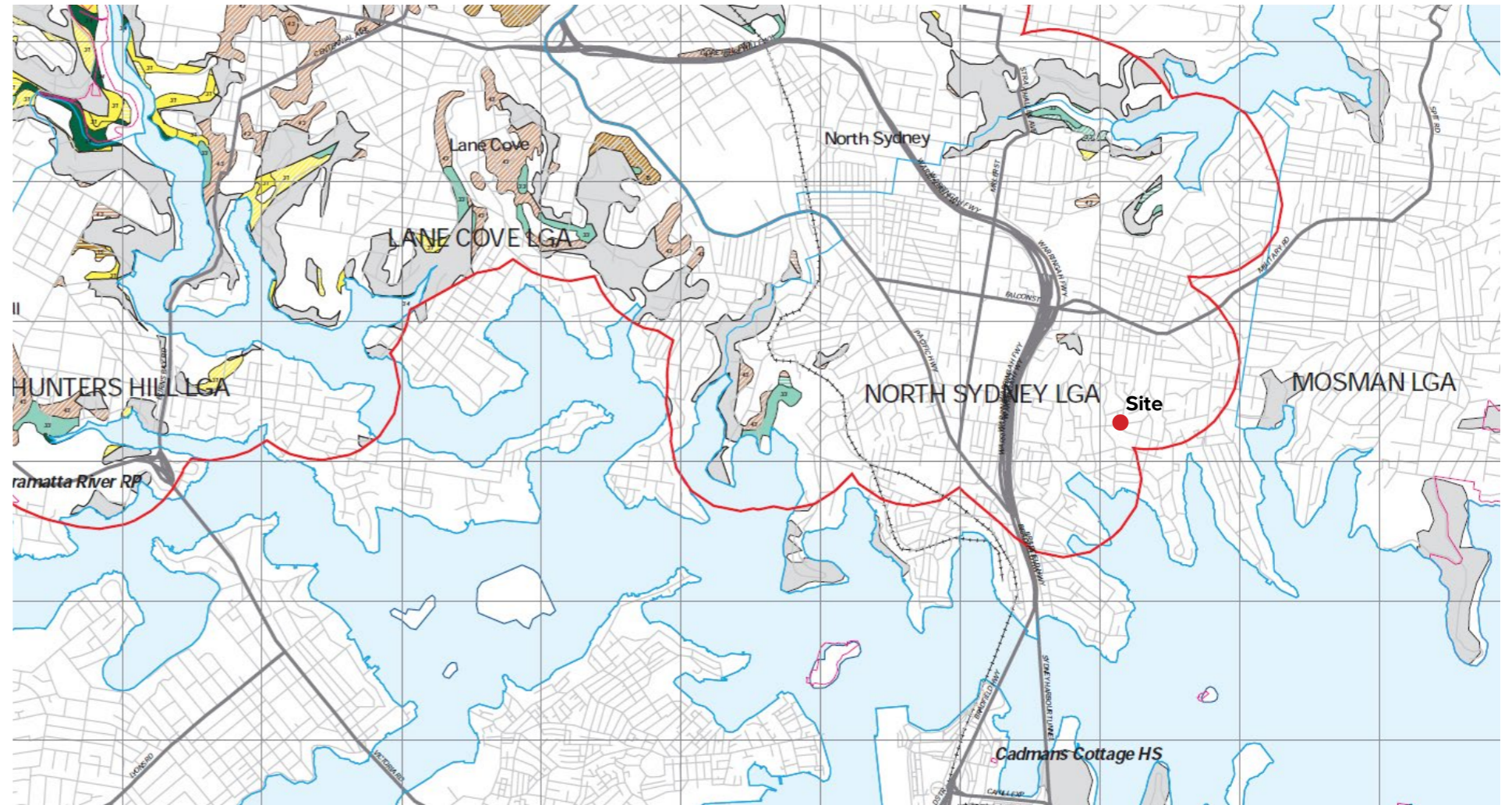
COASTAL SANDSTONE HEATH

This is a common vegetation community found on exposed skeletal soils along narrow ridges and exposed slopes of the Woronoa and Hornsby plateau. Common plants in the community are Banksias, Tea Trees, Hakeas, Wattles and Grevilleas.



XERISCAPE

Xeriscape exists in rocky conditions where soil is limited. Rocky conditions can provide spontaneous growth outcomes.



Ecological communities not listed under the Threatened Species Conservation Act 1995 as of 1 June 2002

- 6 - Casteragh Scribbly Gum Woodland
- 31 - Sandstone Ridgtop Woodland
- 32 - Upper Georges River Sandstone Woodland
- 33 - Western Sandstone Gully Forest
- 34 - Mangrove/Saltmarsh Complex
- 35 - Riparian Scrub
- 36 - Freshwater Wetlands
- 61 - Eastern Gully Forest
- 62 - Woodland Heath Complex
- 67 - Vegetation Of Volcanic Substrates
- 9999 - Unclassified Vegetation, or outside study area
- No native vegetation overstorey
- Water body

Local Landscape Character

LANDFORM

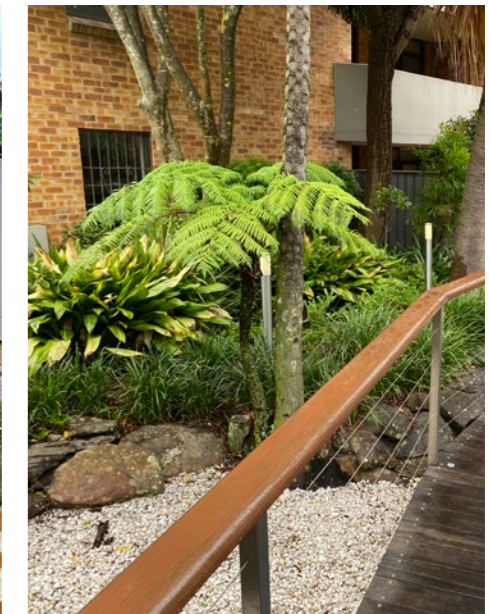
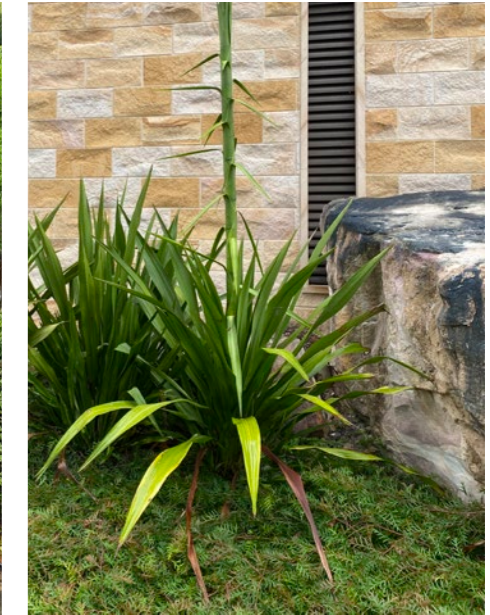
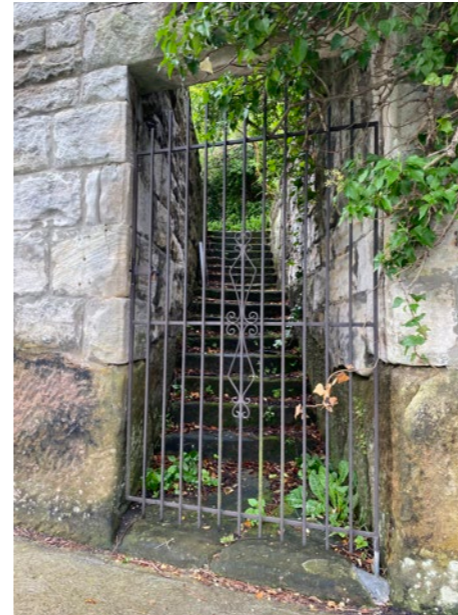
The landform of the local streets surrounding the project site are typical of the Mosman area with significantly undulating topography punctuated by rocky outcrops and escarpments. This has created a diverse road and property layout which tends to express natural landform rather than dilute it. In many cases the existing sandstone bedrock is exposed and forms a datum to the street, on top of which most properties have an additional sandstone retaining wall to negotiate level changes.

MATERIALITY

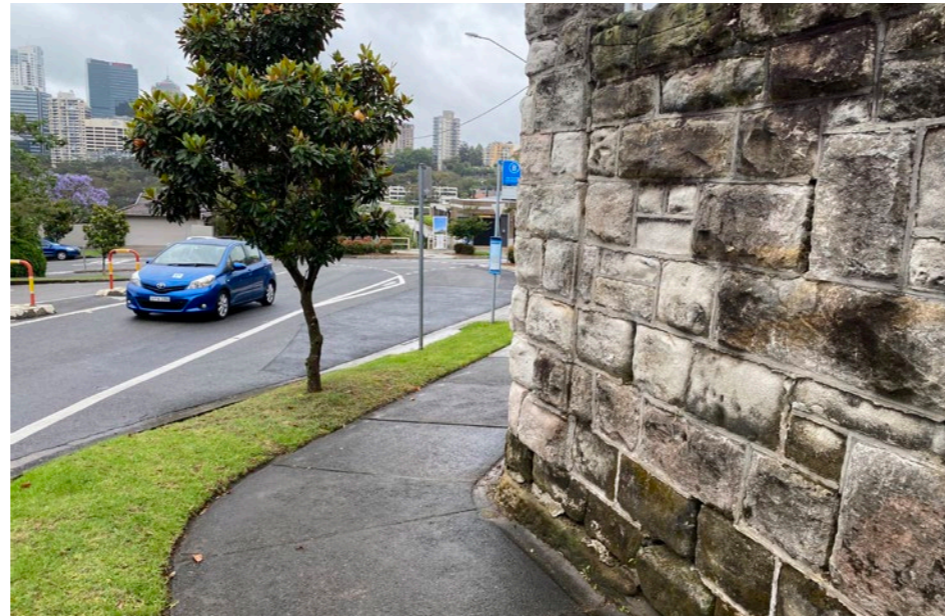
The consistent use of sandstone walling in this fashion has created a very strong local area identity and heritage. Older properties feature sandstone block walls whilst newer developments make use of both sandstone and brick tiling to match in with the overall look and feel of the area. Some properties have been more successful than others at celebrating the exposed sandstone bedrock and its diverse textures and colours.

PLANTING

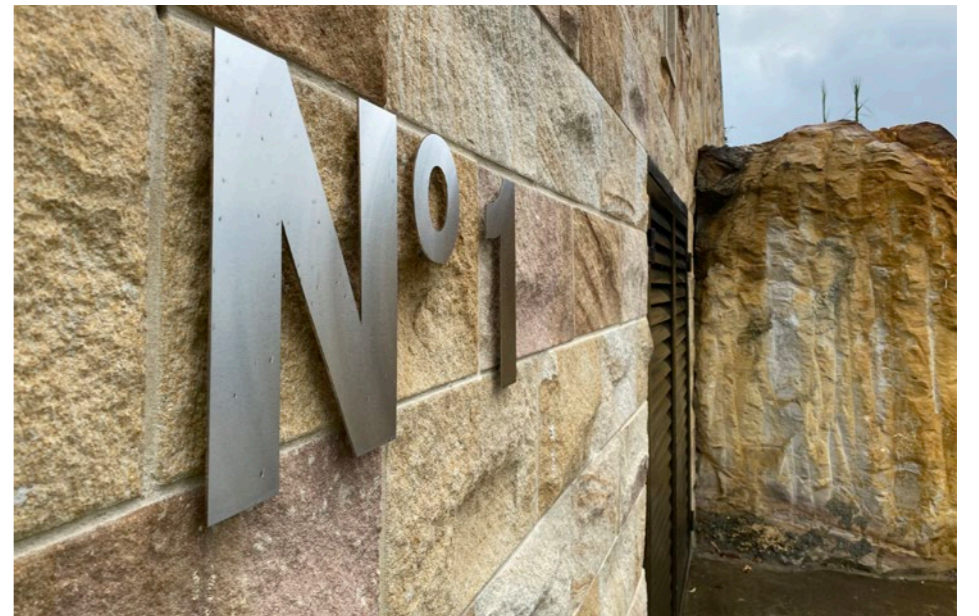
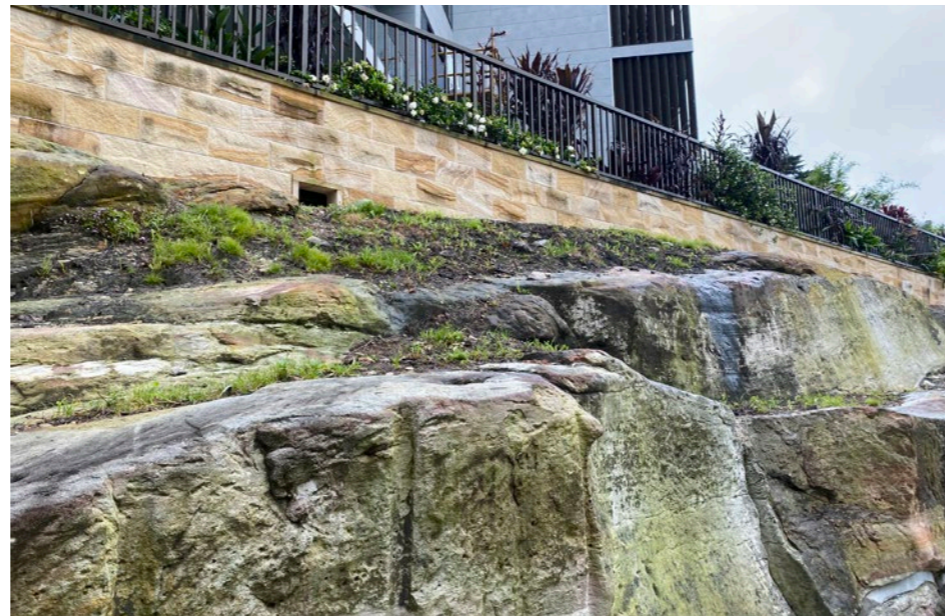
Whilst public domain tree planting provides a degree of consistency to the streetscapes, most local properties feature a heavily diversified and naturalistic palette of planting which complements the natural landform and rock outcrops. This usually consists of a simple and understated understory layer complemented with trees, palms, and ferns which contrast against the rock or architectural backdrops.



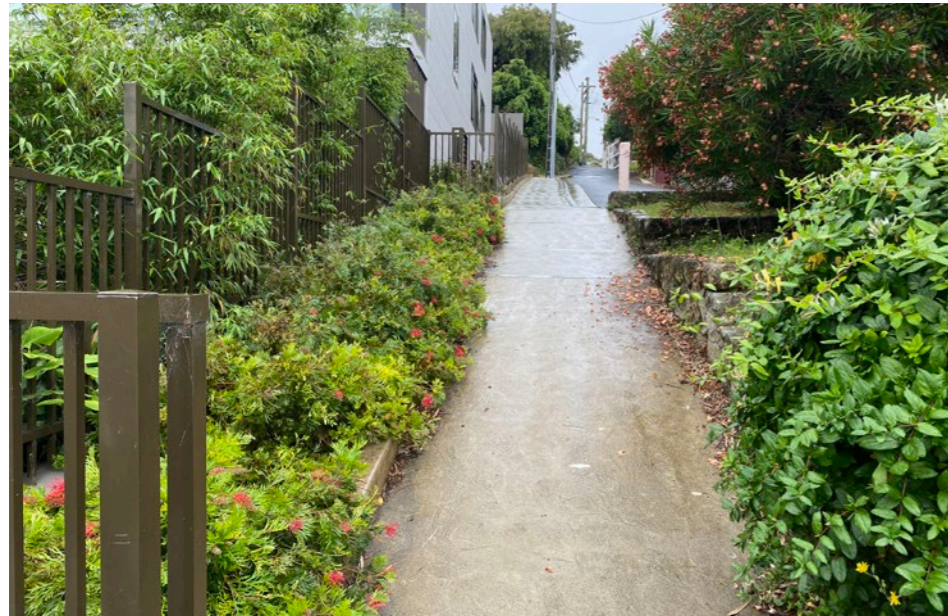
Existing Site Condition



Existing Site Condition



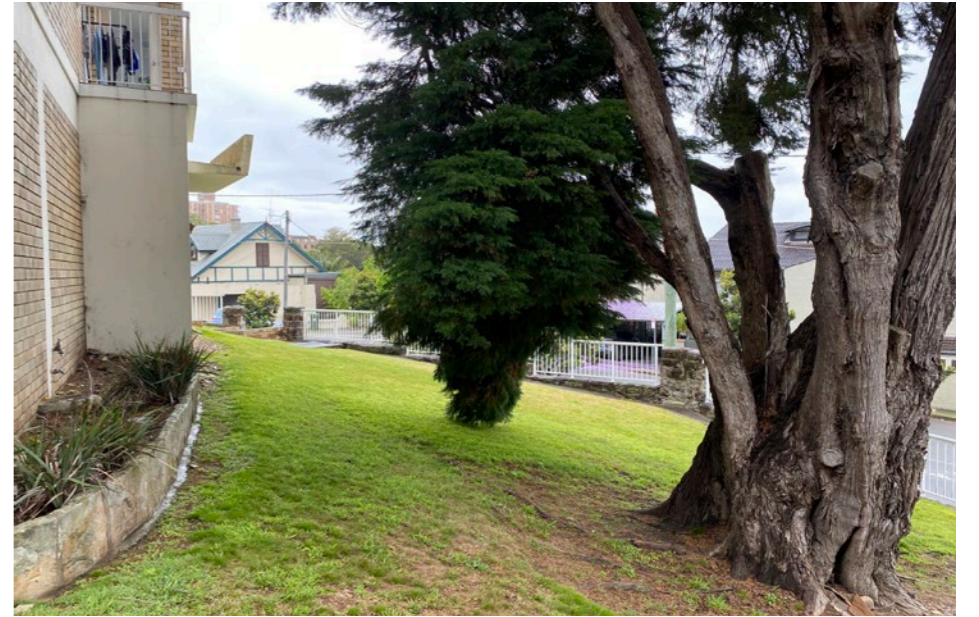
Existing Site Condition



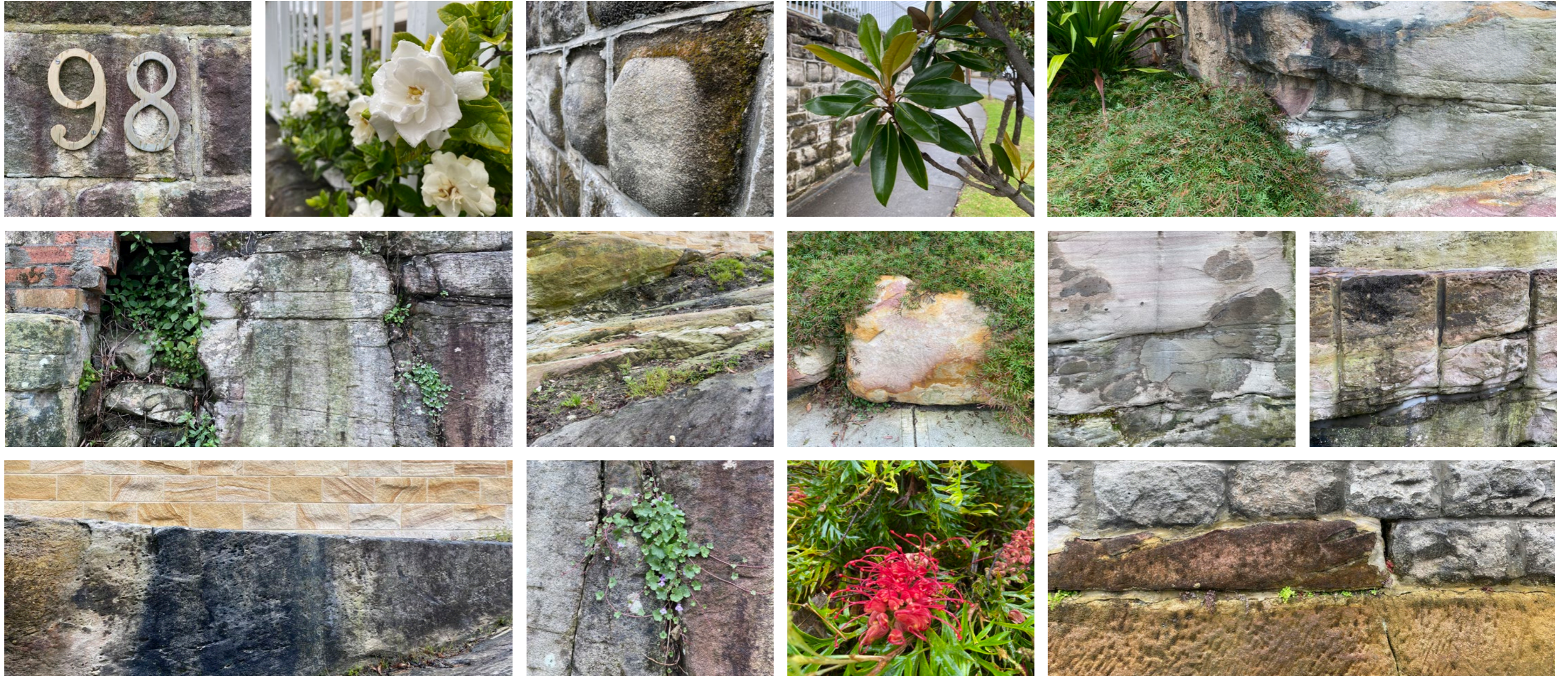
Existing Site Condition

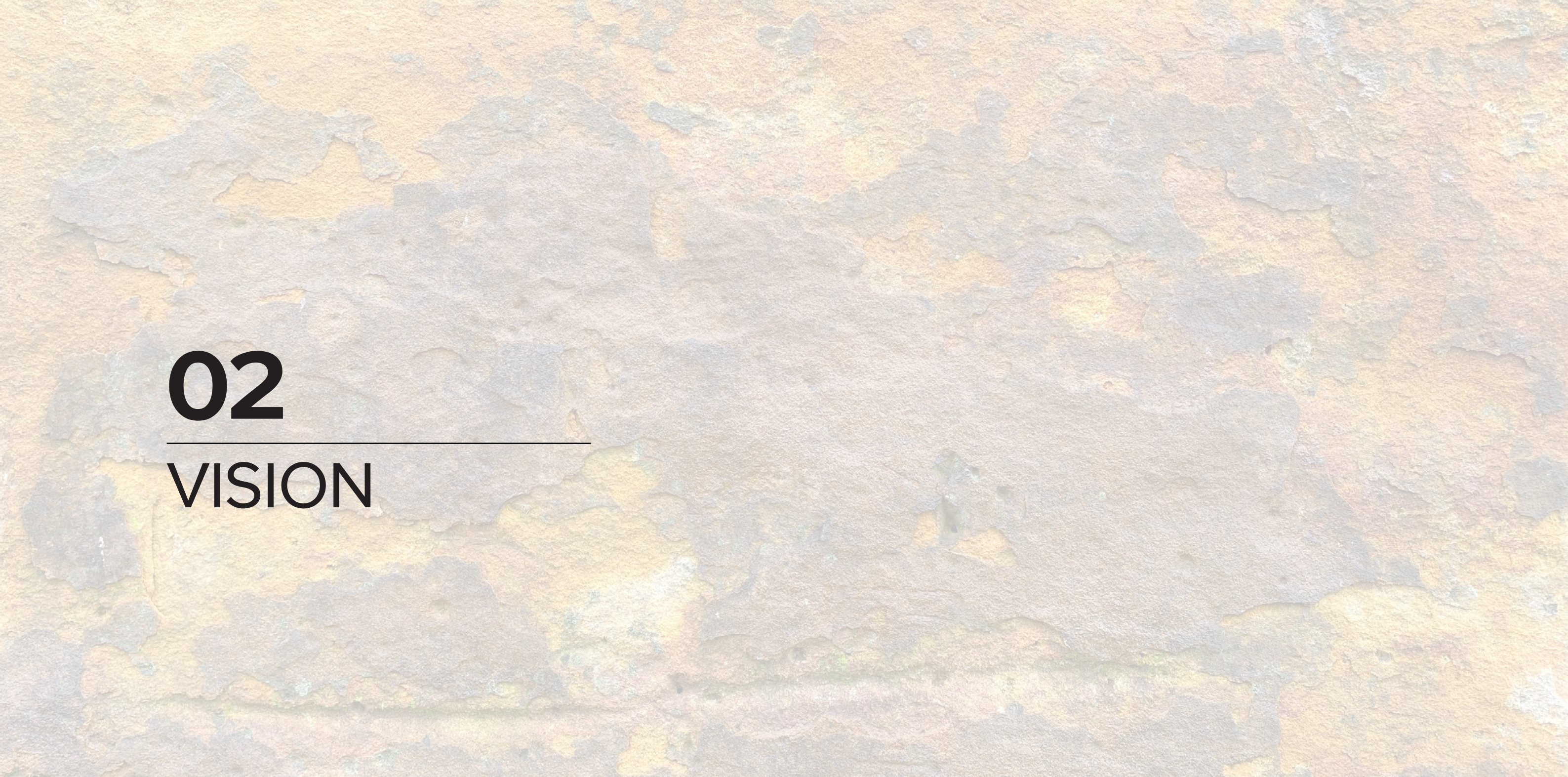


Existing Site Condition



Existing Site Material Character





02

VISION

Vision



Keying into the unique site topography and geomorphology, we seek to foster a primal and intimate sense of belonging, a shared experience which connects the past to the present by expressing the bones of the site

Design Principles



Celebrate Topography

- Provide multi-leveled spaces that provide a diversity of user experience
- Above and below the earth, opportunities for diverse open space program which maximises site potential



Reinforce Unique Site Identity

- Define open spaces that celebrate the geological and cultural heritage of the site and locality
- Celebrating views



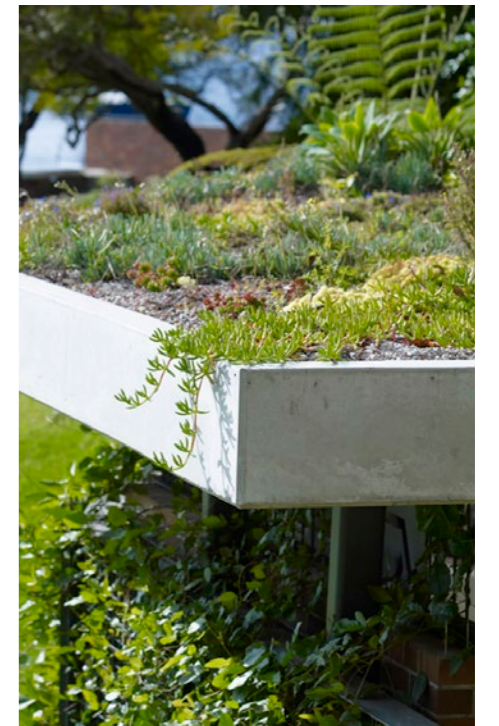
Connect to Nature

- Leverage microclimates to create engaging and comfortable spaces throughout the year
- Champion locally endemic ecologies

Look and Feel



Look and Feel





03

CONCEPT

Concepts | Landscape Plan

LEGEND

01 Existing public domain retained / made good as required

02 Retention and re-use of existing sandstone wall on site boundary

03 Existing ramp and balustrade retained to High View Lane

04 Large native canopy trees in true deep soil

05 Entry courtyard with stair and platform lift access to street

06 Shade loving lawn alternatives such as native violet or kidney weed to create lawn effect and extend apparent private open space

07 Medium evergreen trees to garden beds on podium with minimum 1000mm soil mounded to 1500mm depth

08 Generous private patios

09 Palm planting to complement canopy tree planting and provide additional screening and green outlook to upper floor apartments

10 Flagstone pavers form seating nooks in rear gardens, accessed via stepping pavers. Can be used for small outdoor furniture settings

11 Min 600mm wide strip of pebble mulch to building perimeter for maintenance access purposes

12 Tall layered native planting and ferns to perimeter of gardens



Concepts | Entry Forecourt

LEGEND

01 Existing public domain retained / made good as required

02 Retention and re-use of existing sandstone wall on site boundary

03 Secure gated entrance from Ben Boyd Road

04 Platform lift with turning bay

05 Carved sandstone 'shard' entry feature and stair

06 Tall layered native planting and ferns to perimeter of gardens

07 Low mass planting of shade loving ferns and ground covers creates a consistent canvas to contrast the built form against, and allow maximum light into ground floor units

08 Medium evergreen trees to garden beds on podium with minimum 1000mm soil mounded to 1500mm depth

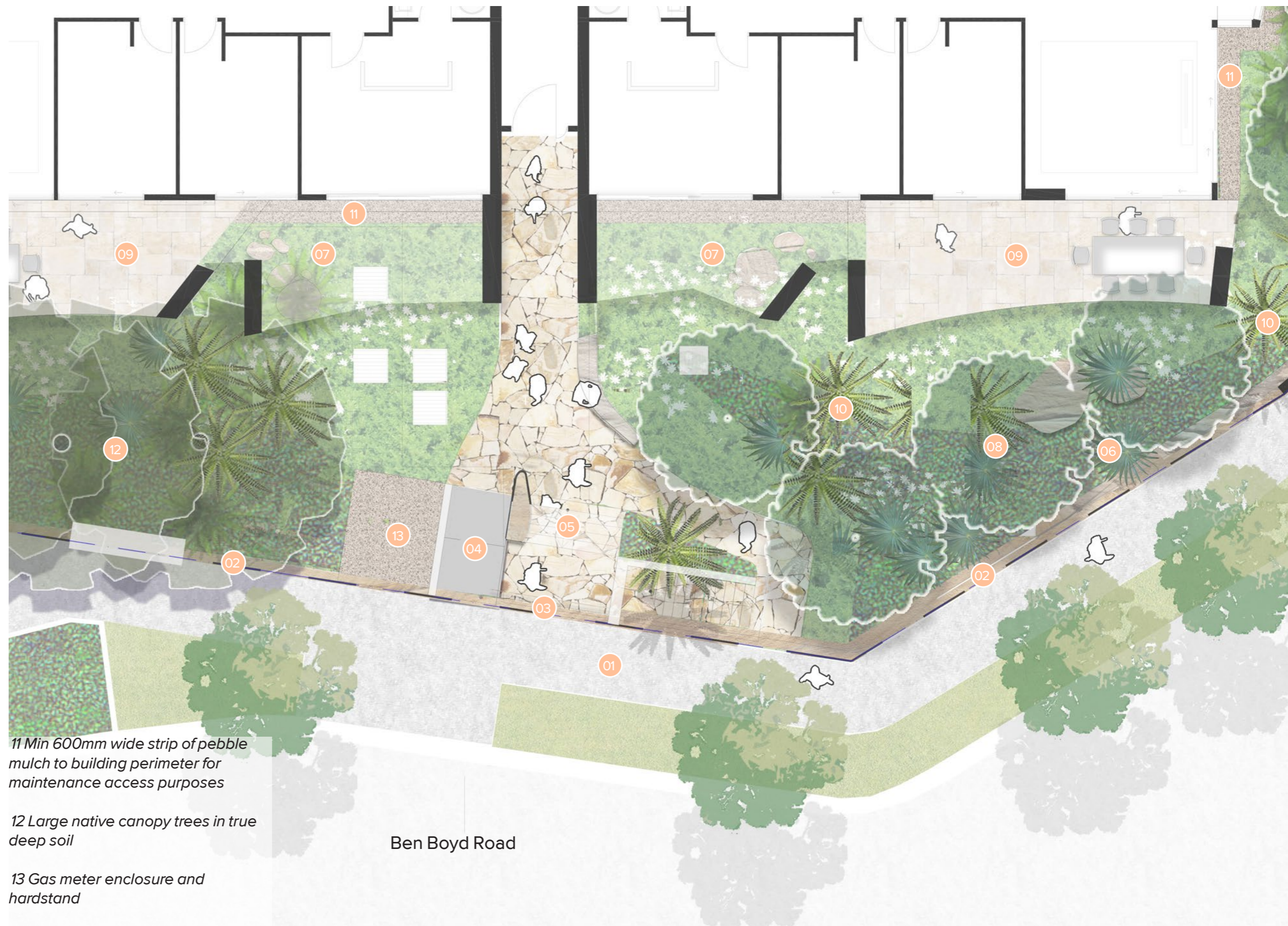
09 Generous private courtyards provide solar access to ground floor units, recessed into lush sandstone gully planting

10 Palm planting to complement canopy tree planting and provide additional screening and green outlook to upper floor apartments

11 Min 600mm wide strip of pebble mulch to building perimeter for maintenance access purposes

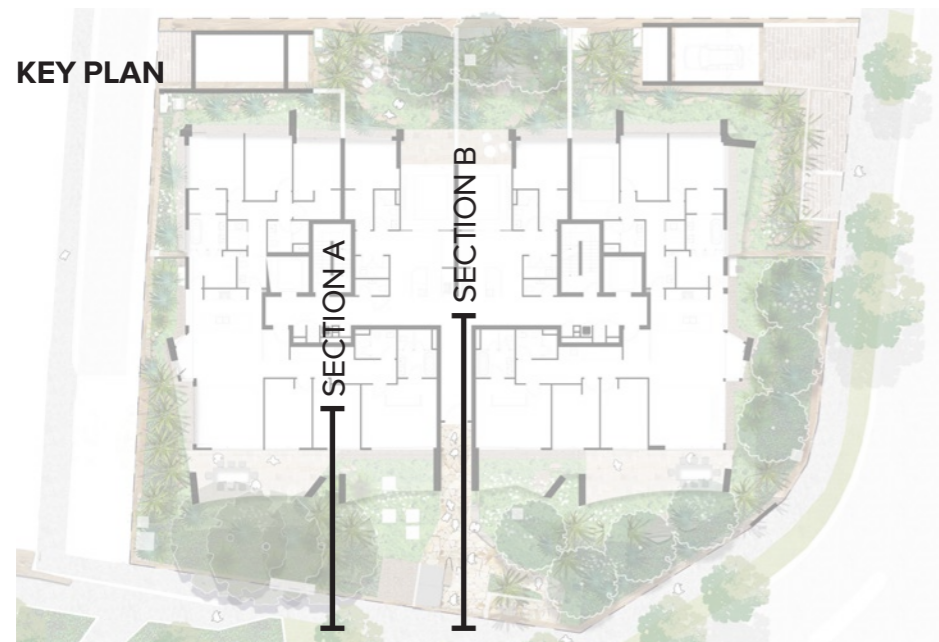
12 Large native canopy trees in true deep soil

13 Gas meter enclosure and hardstand



Ben Boyd Road

Concepts | Entry Forecourt



LEGEND

01 Existing public domain retained / made good as required

02 Retention and re-use of existing sandstone wall on site boundary

03 Large native canopy trees in true deep soil

04 Stair and platform lift, secure gated entrance

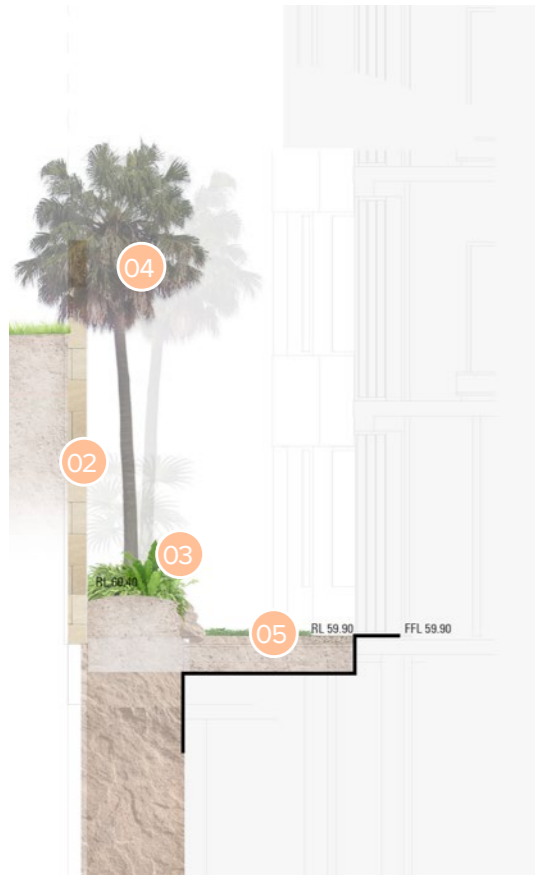
05 Stone paving to entrance forecourt

06 Garden beds minimum 500mm depth over structural slab or bedrock with low mass planting of shade loving ferns and ground covers, creates a consistent canvas to contrast the built form against, and allow maximum light into ground floor units

07 Tall layered native planting and ferns to perimeter of gardens

Concepts | Private Courtyards

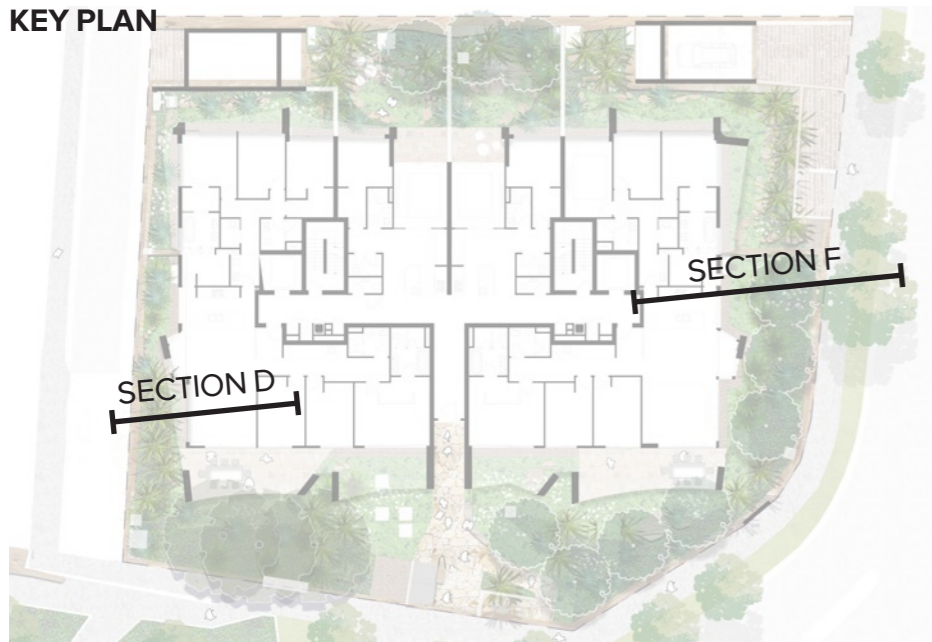
SECTION D



SECTION F

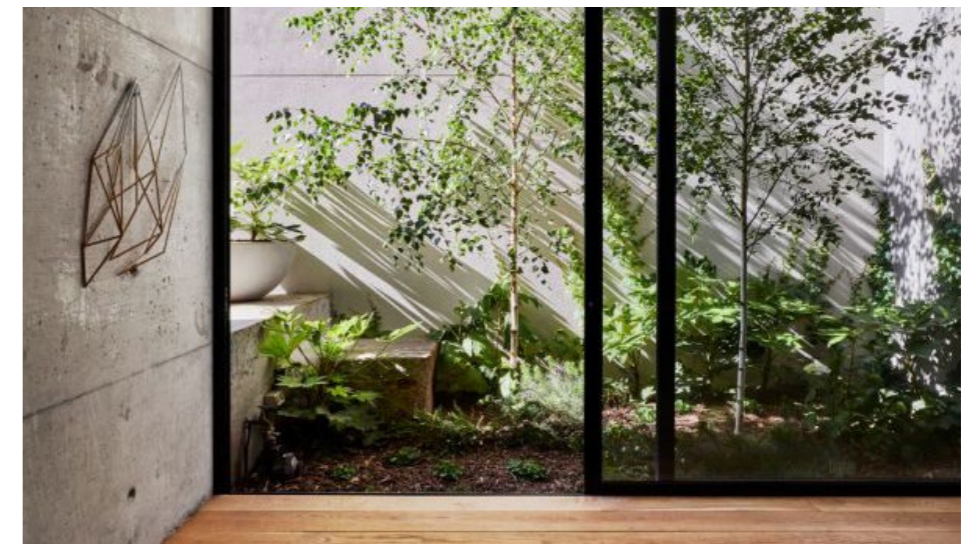
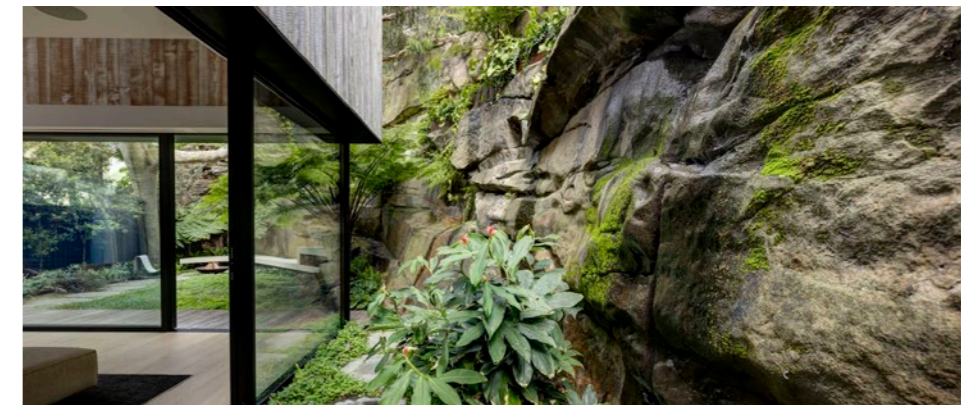


KEY PLAN



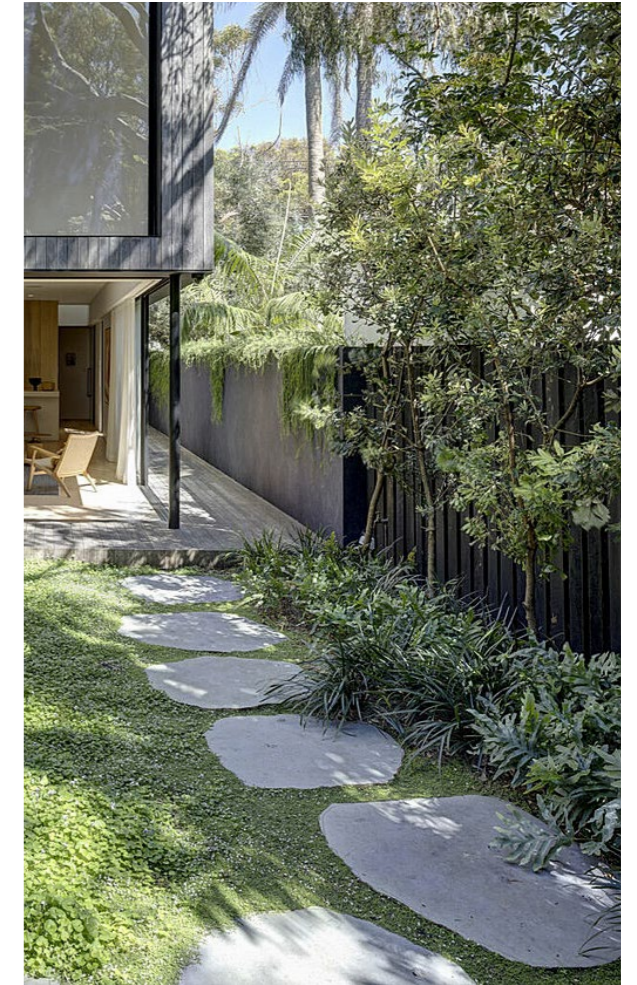
LEGEND

- 01 Retention and re-use of existing sandstone wall on site boundary
- 02 Exposed sandstone bedrock with quarried finish, rock planting to colonise face
- 03 Low rock retaining walls build up soil depth to min 1000mm for palm and tree fern planting, and min 1500mm for medium trees
- 04 Palm planting to complement canopy tree planting and provide additional screening and green outlook to upper floor apartments
- 05 Garden beds minimum 500mm depth over structural slab or bedrock with low mass planting of shade loving ferns and ground covers

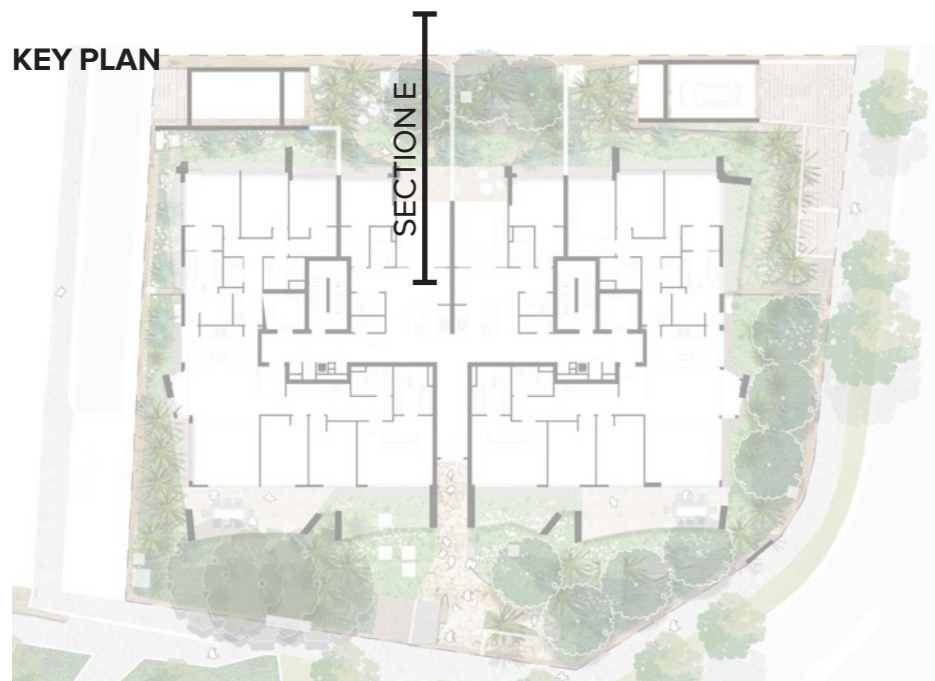


Concepts | Private Courtyards

SECTION E



KEY PLAN



LEGEND

01 Generous private courtyards

02 Shade loving lawn alternatives such as native violet or kidney weed to create lawn effect and extend apparent private open space. Meandering pathway of stepping stones provides access through 'lawn' to small outdoor furniture settings nestled among lush sandstone gully planting

03 Tall layered native planting and ferns to perimeter of gardens

04 Medium native evergreen trees

05 Engineered deep soil zone over basement, with minimum 1500mm soil depth to support medium sized native trees

06 Exposed sandstone bedrock with quarried finish, rock planting to colonise face

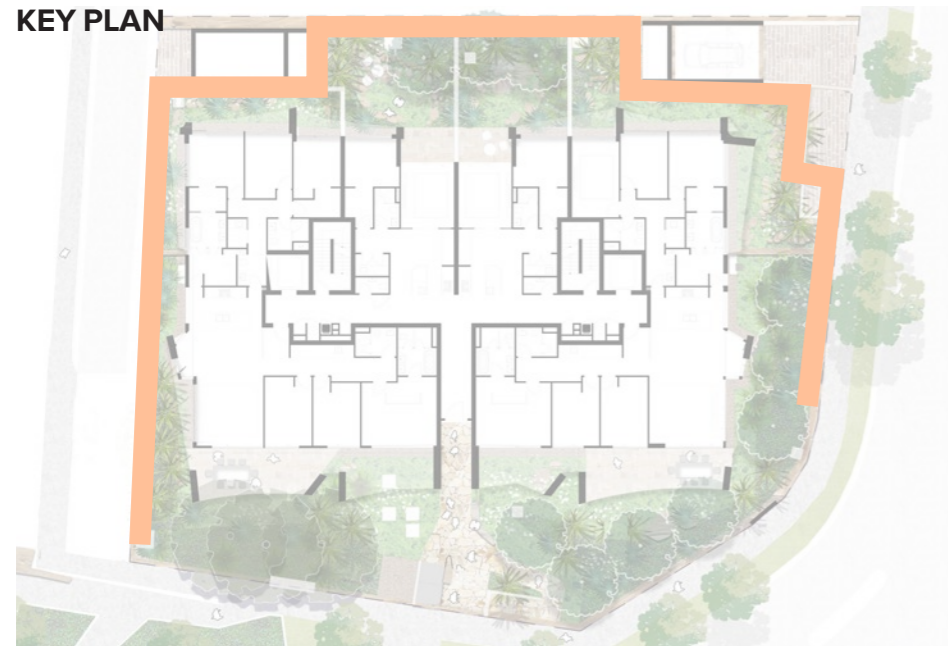
Concepts | Sandstone Edge Conditions

EXCAVATED ROCK FACE

The exposed sandstone of the proposed site excavation provides an opportunity to express the 'bones' of the site and create a unique micro-climatic experience for residents and visitors.

The final appearance of the sandstone faces will be dependent on geotechnical investigations, however if the sandstone is of acceptable standard then several typologies are possible. These are illustrated on this page.

KEY PLAN



TYPE A - NATURAL

Quarried and worked face requiring specialist stonemasonry tooling and finishing, to replicate more naturalistic undulating forms in the rock. Potentially seeded with pioneering plants.



TYPE B - TERRACED

Quarried face with stepped or terraced layers, which could be used to integrate planting to scramble down the face of the rock.



TYPE C - VERTICAL QUARRIED

Quarried face with straight vertical cut, ideal for more space constrained edges where solar access and setback is to be prioritised.



Concepts | Rooftop Planting

LEGEND

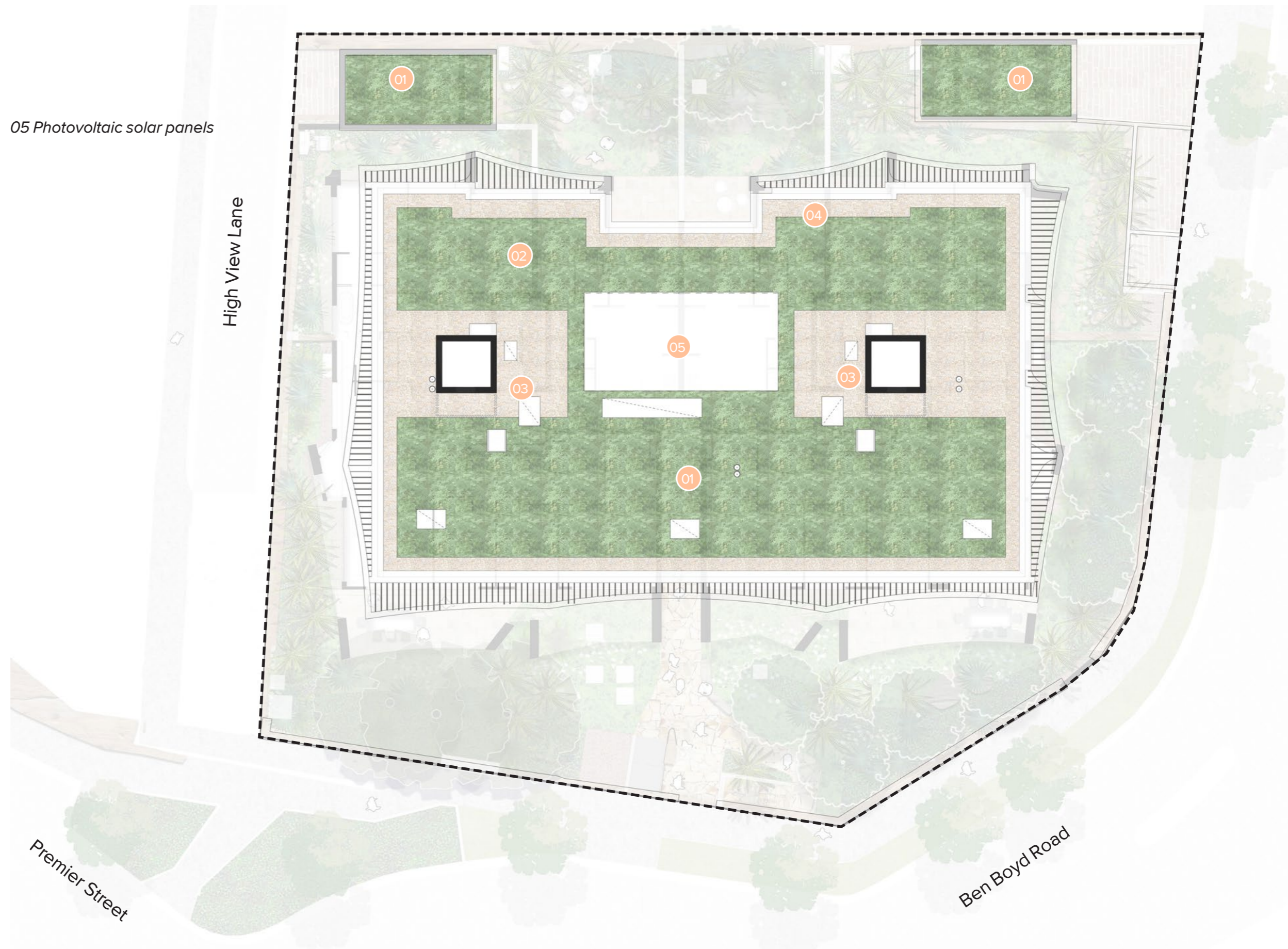
01 Extensive irrigated rooftop garden to car elevator roofs - maintenance access only. 150mm soil depth extensive roof garden 'Junglify Green Roof' or similar

02 Extensive irrigated rooftop garden to building rooftop - maintenance access only

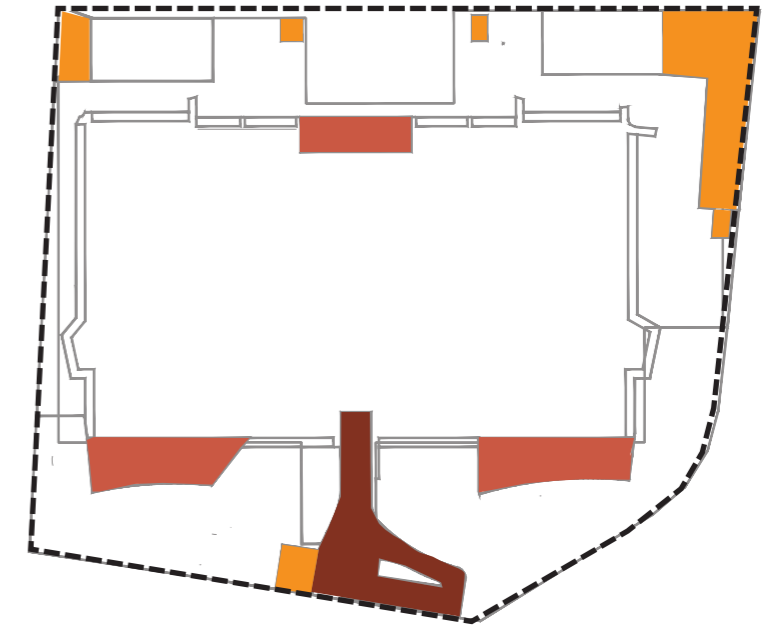
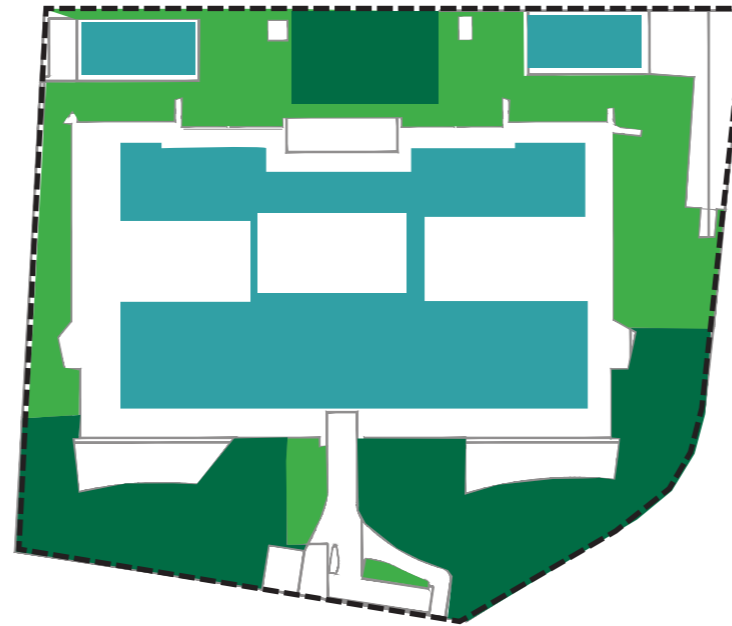
03 Roof hatch for maintenance access

04 Stabilised pebble ballast maintenance access path around perimeter of rooftop, with integrated anchor points



05 Photovoltaic solar panels




Landscape Areas





TREE LAYER

-  Canopy Trees
-  Palms

 Deep Soil Zone (excludes basement, building footprint, and landscape hard pavements)*


*In most areas there are dense rock formations present within the proposed deep soil zone. We propose excavating down as required to build up to 1500mm depth of engineered deep soil to support canopy trees, palms, and layered understorey vegetation, in alignment with industry best practice.

SOFT LANDSCAPE LAYER




-  Soft Landscape on Deep Soil/Engineered Deep Soil*
1000-1500mm soil depth
296 (17%)
-  Soft Landscape on Podium
Min 500mm soil depth for shrubs, ferns, and groundcovers,
mounding to 1000mm for palms and tree ferns, and 1500mm for trees
401m² (24%)

Total Soft Landscape Area at ground level: 697m²
(41% of total site area)

Additionally:

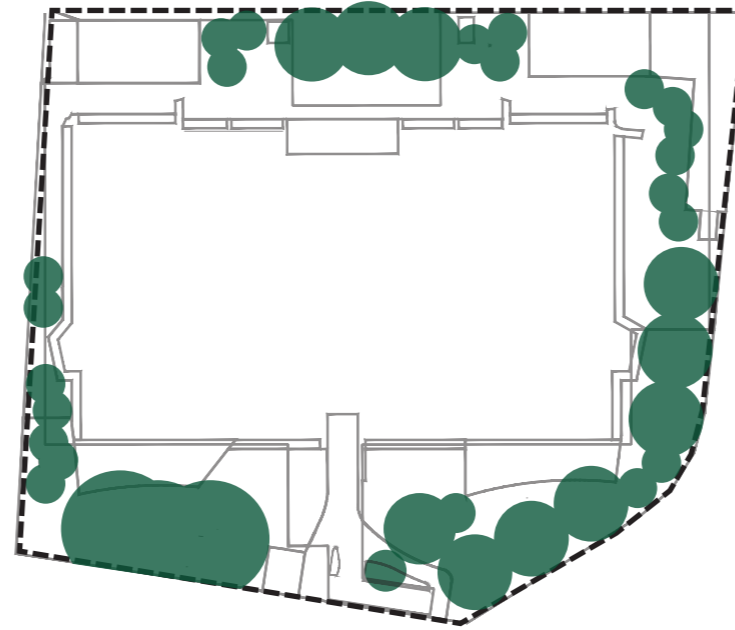
-  Planting on Rooftop
150mm soil depth extensive roof garden
'Junglify Green Roof' or similar
426m² (25%)

OPEN SPACE PROGRAM



-  Paved Communal Open Space (accessible)
54 m²
-  Paved Private Open Space
76 m²
-  Paved Driveways / Utility Spaces
74m²

Total Hard Paved Landscape Area at ground level: 204m²
(12% of total site area)



Canopy Cover



EXISTING CANOPY COVER

-  Site Area - 1700m²
-  Existing Tree Canopy Area - 370m²
(22% of site area)

PROPOSED CANOPY COVER

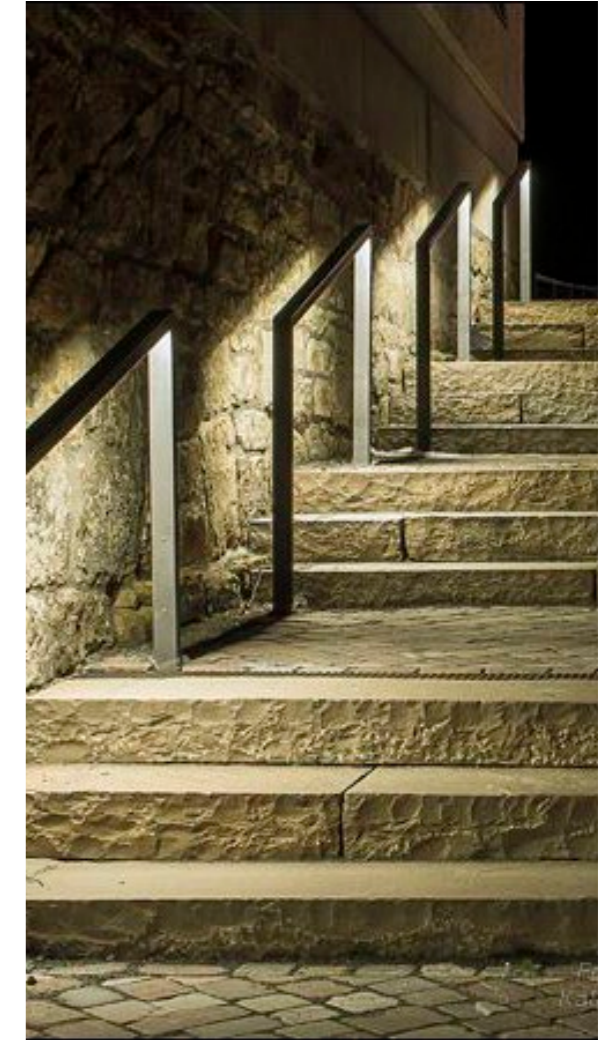
-  Site Area - 1700m²
-  Proposed Tree Canopy Area - 374m²
(22% of site area)

NOTE:
 Assumes at maturity -
 Large tree 10m diameter equal to *Angophora costata*,
 Medium tree 5m diameter equal to *Cupaniopsis anacardioides*
 Palm tree 2.5m diameter equal to *Livistona australis*

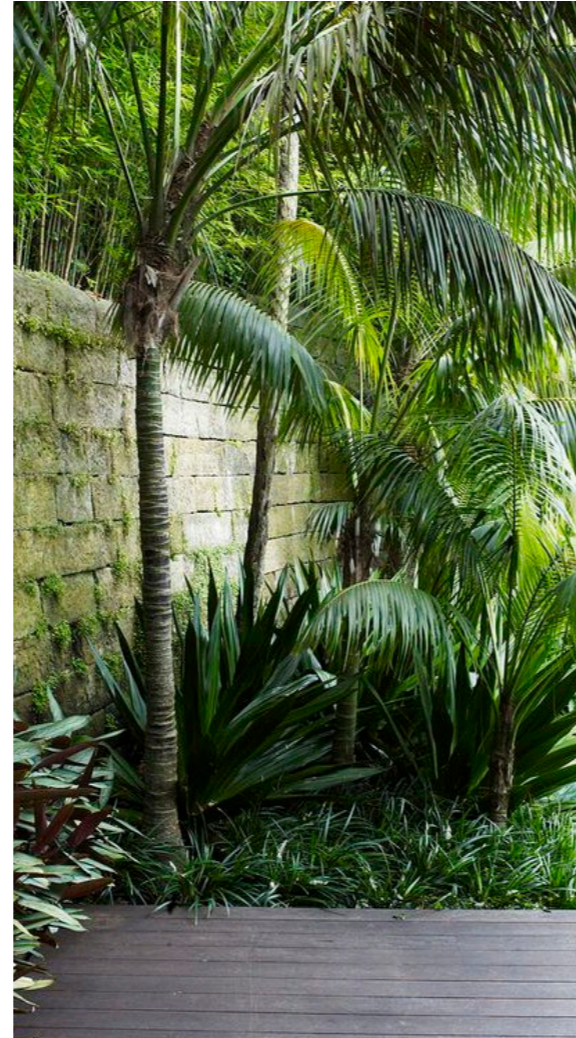
Design Strategies | Material Look and Feel



Design Strategies | Indicative Lighting Strategy



Design Strategies | Planting Look and Feel



Design Strategies | Planting Palette

ESCARPMENT - ROOFTOPS



Dichondra argentea 'Silver Falls'



Myoporum parvifolium 'Yareena'



Echeveria imbricata



Westringia fruticosa 'Low Horizon'



Carpobrotus glaucescens



Westringia 'Grey Box'



Casuarina glauca 'Shagpile'



Grevillea 'Royal Rambler'



Actinotus helianthi



Dianella caerulea

SANDSTONE GULLY FOREST - GROUND



Cyathea australis



Blechnum Cartilagineum



Doryanthes excelsa



Todea barbara



Platycerium bifurcatum



Asplenium australasicum



Hibbertia scandens



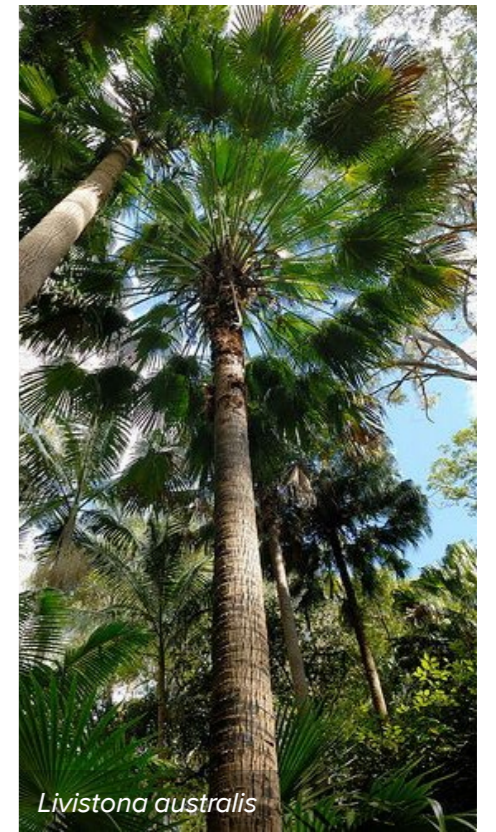
Howea forsteriana



Thelychiton speciosus



Angophora costata



Livistona australis

Design Strategies | Planting Schedule

21-805 96-98 BEN BOYD ROAD PLANT SCHEDULE

CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	PROPOSED POT SIZE	DENSITY
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SANDSTONE GULLY - GROUND LEVEL

TREES					
Ac	<i>Angophora costata</i>	Smooth Barked Apple	25 x 10	Min 1m trunk	As Shown
TI	<i>Tristaniopsis laurina</i>	Water Gum	10 x 6	Min 2m trunk	As Shown
La (6m)	<i>Livistona australis</i>	Cabbage Tree Palm	20 x 6	Min 6m trunk	As Shown

Mix 1 - Low Planting					
Vhe	<i>Viola hederacea</i>	Native Violet	0.1 x 1	140mm	8/sqm
Aam	<i>Adiantum aethiopicum</i>	Maidenhair Fern	0.2 x 0.3	140mm	8/sqm
Dc	<i>Dianella caerulea</i>	Flax Lily	0.6 x 0.6	140mm	8/sqm
Di	<i>Dianella revoluta</i>	Blue Flax Lily	0.6 x 0.6	140mm	8/sqm
Do	<i>Doodia aspera</i>	Rasp Fern	0.5 x 0.5	140mm	8/sqm
Hs	<i>Hibbertia scandens</i>	Guinea Flower	0.5 x 3	140mm	8/sqm

Mix 2 - Tall Planting					
Dr	<i>Dichondra repens</i>	Kidney Weed	0.3 x 5	140mm	8/sqm
Aa	<i>Asplenium australasicum</i>	Bird's Nest Fern	1.3 x 0.8	45LT	As Shown
Bc	<i>Blechnum Cartilagineum</i>	Gristle Fern	1 x 1	45LT	As Shown
CGJ	<i>Callistemon 'Green John'</i>	Green John	1 x 1	25L	As Shown
LT	<i>Lomandra longifolia 'Tanika'</i>	Tanika	0.5 x 0.6	140mm	8/sqm
Pu	<i>Pteris umbrosa</i>	Jungle Break	0.8 x 0.8	140mm	As Shown
Og	<i>Occhiopteris gibba</i>	Silver Lady	0.9 x 1.2	45LT	As Shown

Accents					
Ca	<i>Cyathea australis</i>	Rough Tree Fern	6 x 5	Min 2m trunk	As Shown
Da	<i>Dicksonia antarctica</i>	Soft Tree Fern	8 x 4	Min 2m trunk	As Shown
Tb	<i>Todea barbara</i>	King Fern	2 x 2	45LT	As Shown
Pb	<i>Platynerium bifurcatum</i>	Elkhorn Fern	2 x 2	45LT	As Shown

Ground Covers & Mass Planting					
Dr	<i>Dichondra repens</i>	Kidney Weed	0.3 x 5	140mm	8/sqm
Aa	<i>Asplenium australasicum</i>	Bird's Nest Fern	1.3 x 0.8	45LT	As Shown

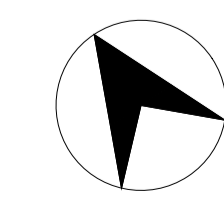
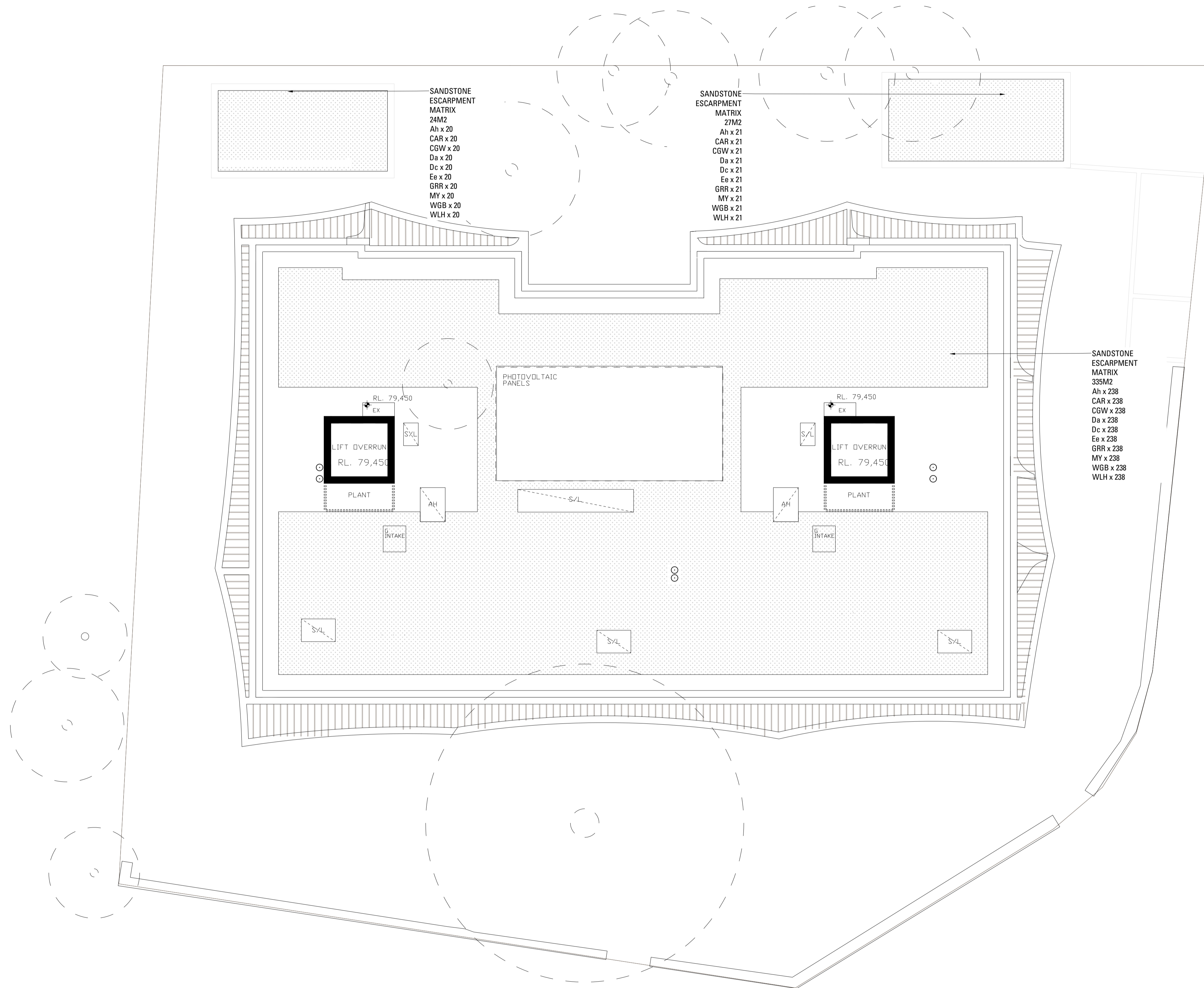
SANDSTONE ESCARPMENT - ROOFTOPS

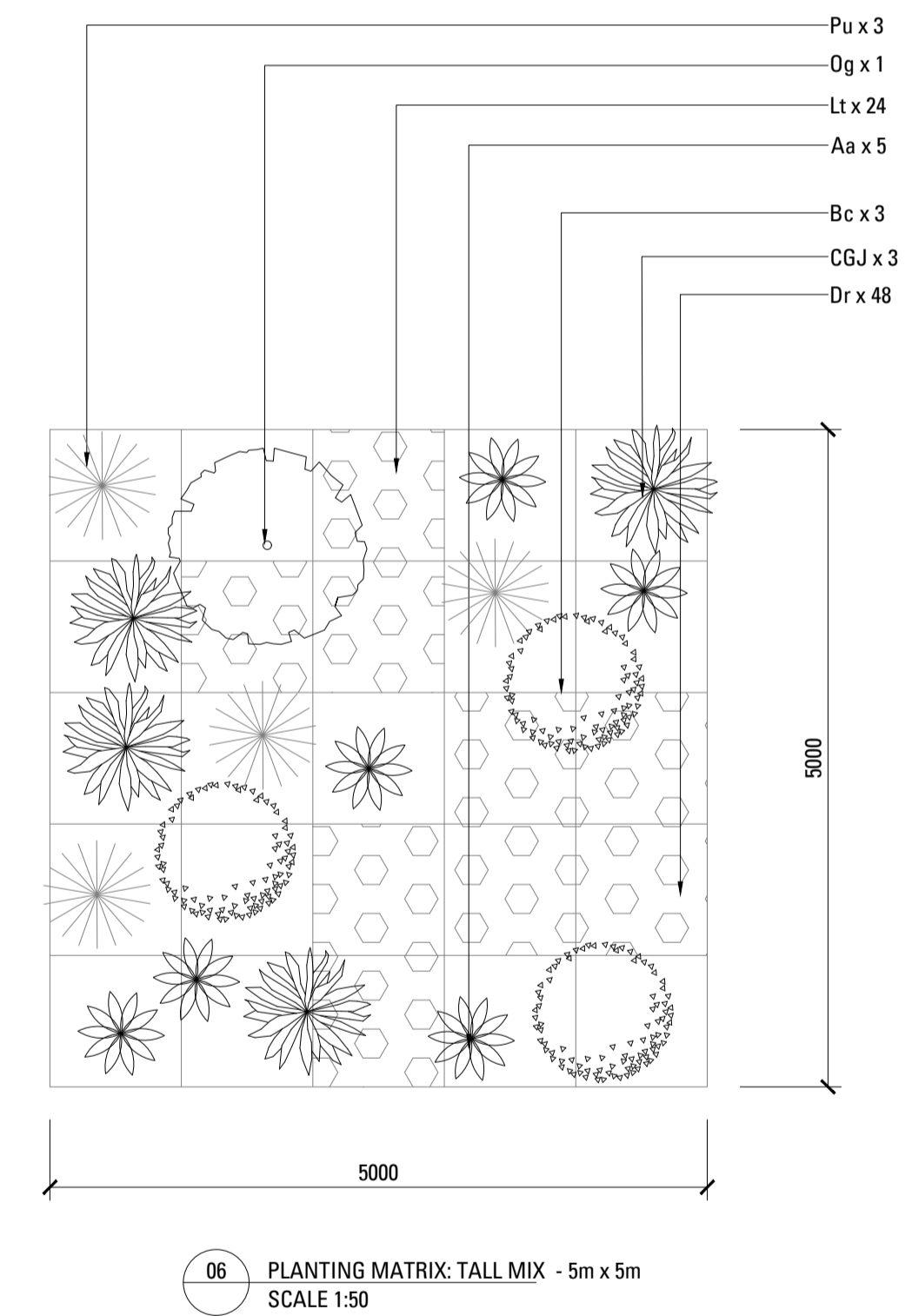
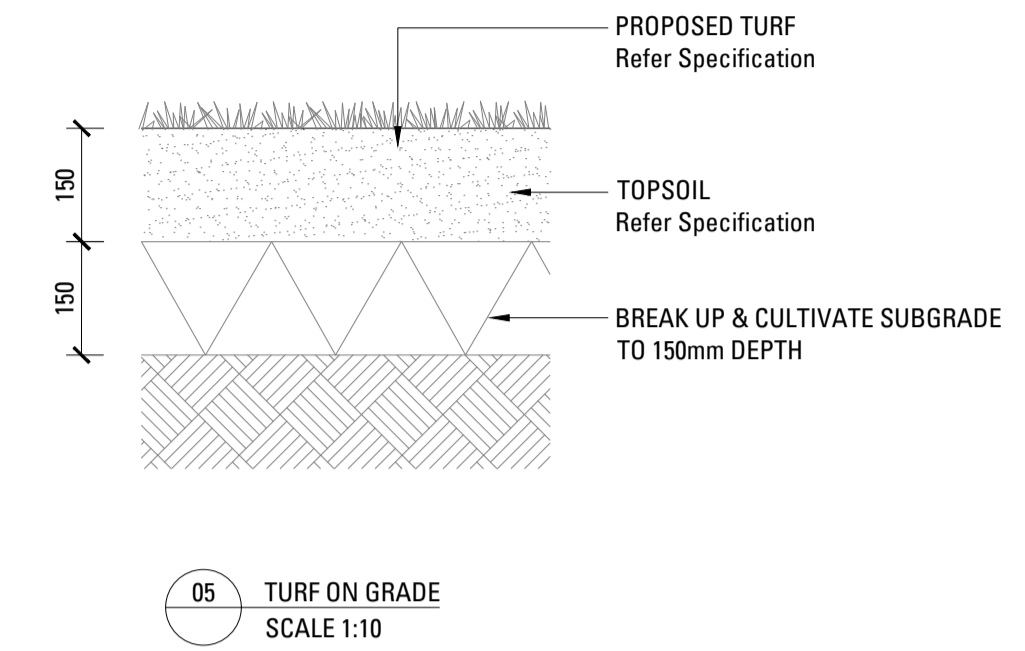
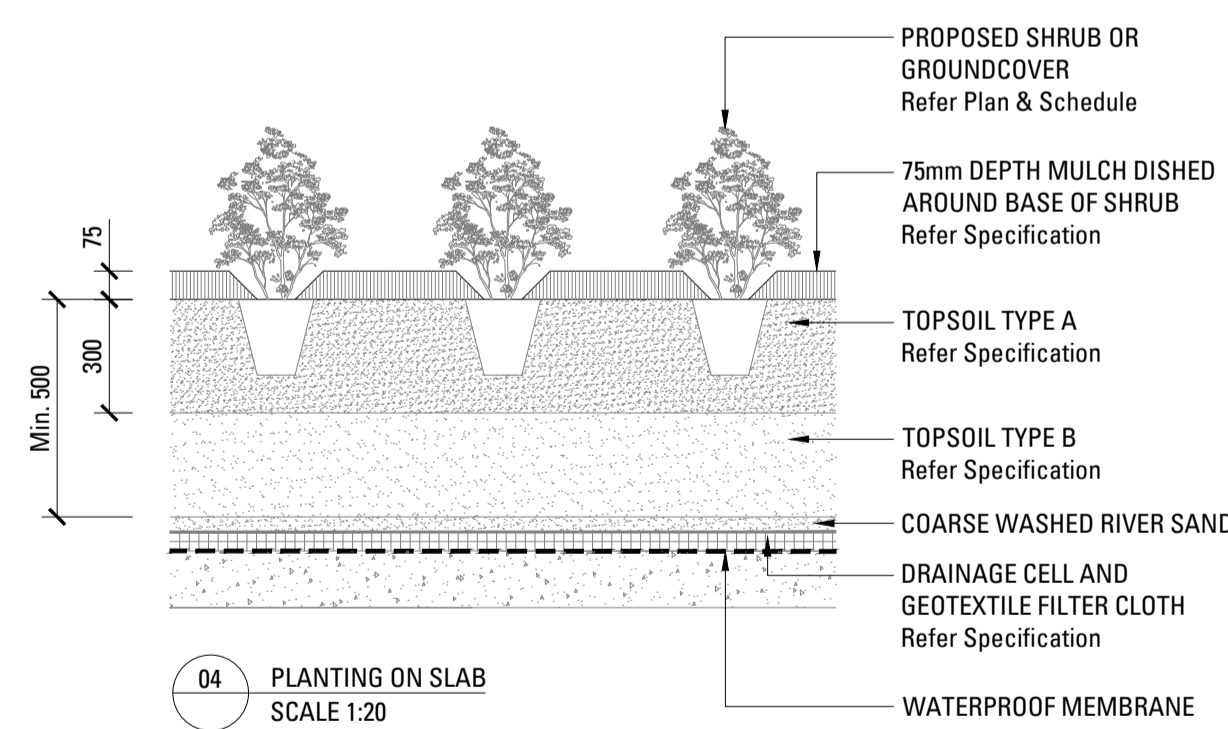
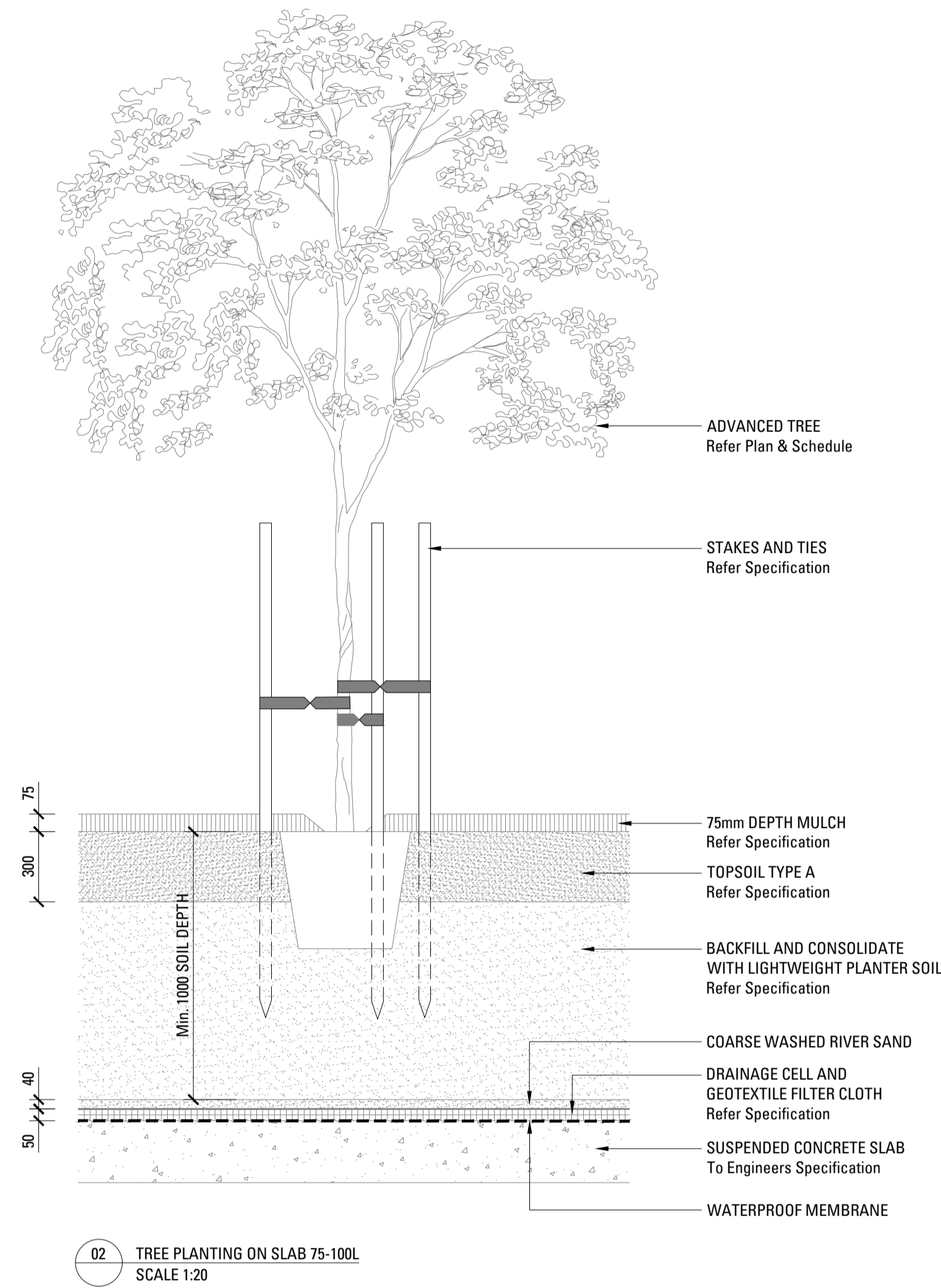
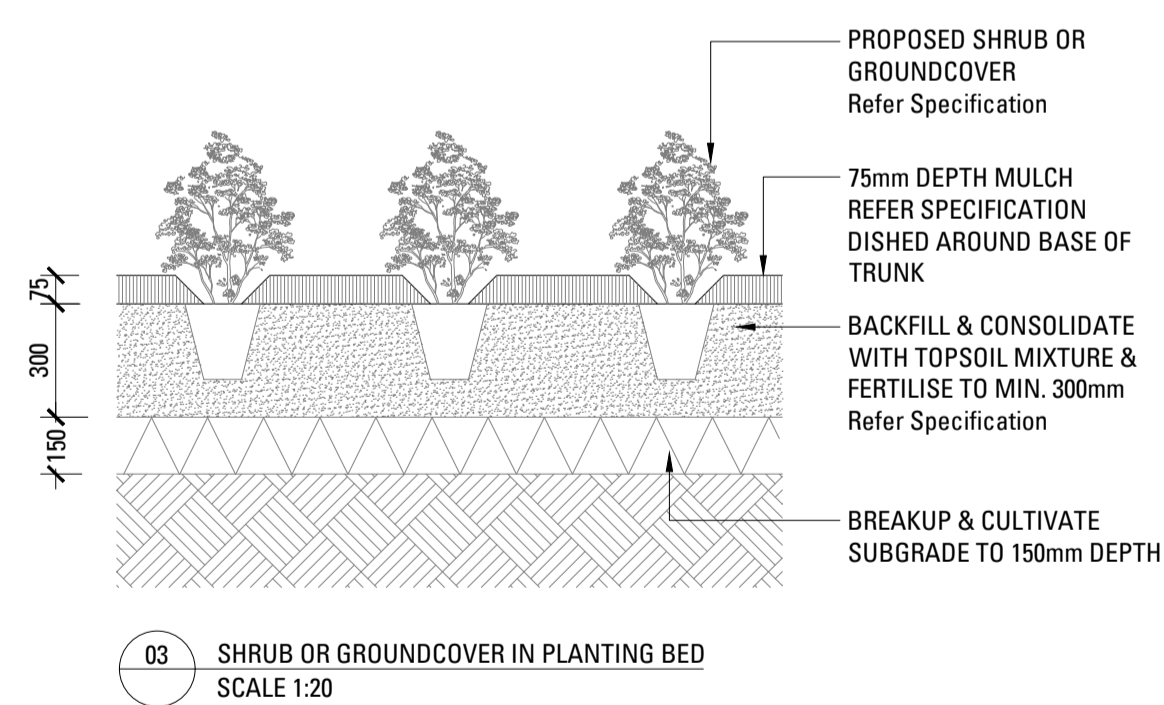
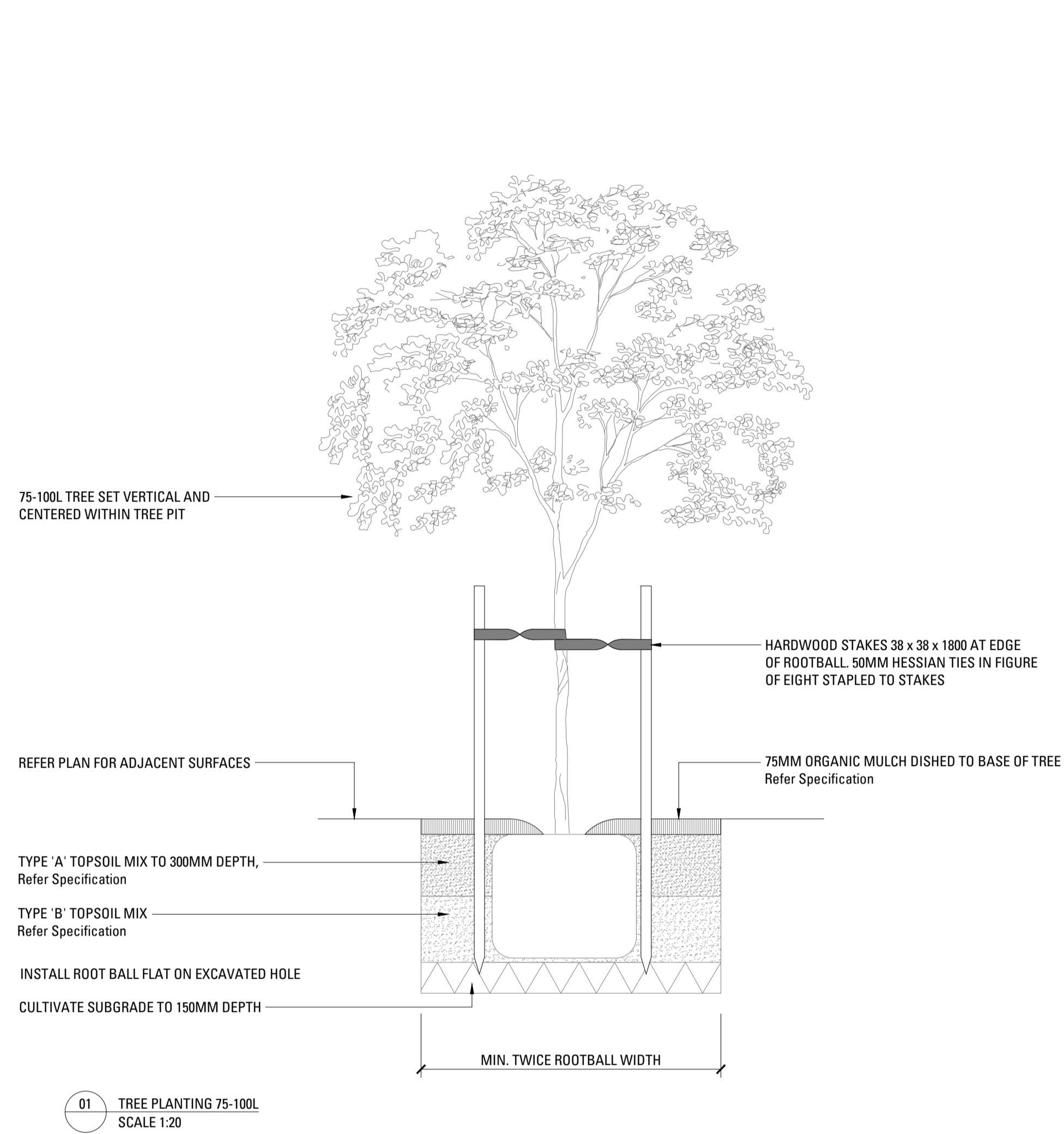
SHRUBS & ACCENTS					
Ah	<i>Actinotus helianthi</i>	Flannel Flower	0.5 x 0.5	140mm	8/sqm
CAR	<i>Carpobrotus 'Aussie Rambler'</i>	Aussie Rambler	0.25 x 0.5	140mm	8/sqm
CGW	<i>Casuarina glauca 'Shagpile'</i>	Shagpile	0.25 x 1.5	140mm	8/sqm
Da	<i>Dichondra argentea</i>	Silver Falls	0.2 x 2	140mm	8/sqm
Dc	<i>Dianella caerulea</i>	Flax Lily	0.6 x 0.6	140mm	8/sqm
Ee	<i>Echeveria elegans</i>	Hens and Chickens	0.2 x 0.3	140mm	8/sqm
GRR	<i>Grevillea 'Royal Rambler'</i>	Royal Rambler	0.2 x 0.5	140mm	8/sqm
MY	<i>Myoporum parvifolium 'Yareena'</i>	Creeping Boobialla	0.3 x 3	140mm	8/sqm
WGB	<i>Westringia fruticosa 'Grey Box'</i>	Grey Box Coastal Rosemary	0.5 x 0.5	140mm	8/sqm
WLH	<i>Westringia fruticosa 'Low Horizon'</i>	Low Horizon	0.5 x 1	140mm	8/sqm



04

APPENDIX





DESIGN STATEMENT BY THE CONSULTANT

PROJECT: Residential Development - 96-98 Ben Boyd Road, Neutral Bay
DISCIPLINE: Landscape Architecture
SUBJECT PREMISES: 96-98 Ben Boyd Road Neutral Bay, Sydney NSW
DEVELOPMENT REFERENCE NO: DA 86/22

LANDSCAPE ARCHITECTS: Arcadia Landscape Architecture Pty Ltd.
ABN: 83 148 994 870

To whom it may concern,

As the contracted Landscape Architect, Arcadia has prepared this letter of support to accompany the proposed S4.56 Modification Application for 96-98 Ben Boyd Road, Neutral Bay which seeks to modify the approved architectural design.

The modifications proposed in this application include changes to the basement profile, including reconfiguration and reallocation of car parking spaces, storage areas and fire egress pathway which will result in minor adjustments to the perimeter landscape planter beds located above the basement along the northern & southern boundary. The impact on the approved landscape design is negligible and the approved high quality landscaped setting will remain unchanged.

As illustrated below in Section E of the landscape S4.56 Application, the perimeter landscaped areas at Level 01, adjoining units 1.02 and 1.03, will remain sited over a substantial amount of engineered deep soil. This engineered deep soil zone provides 60m² of soil at a total potential depth of 6.2m, for a total of 320m³ of potential soil volume. The trees and landscaping in this area are also able to access additional soil depth on podium beyond the pocket of engineered deep soil. This allows for provision of up to 106m³ for each of the 3 medium sized native trees proposed to this zone, which is well in excess of the 35m³ minimum requirement per tree by industry best practice guidelines such as the Apartment Design Guide Part 4, and the Sydney Landscape Code Volume 2.



Arcadia Landscape Architecture Pty Ltd

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Based on these considerations, Arcadia supports the minor modification to the basement proposed in this application.

Yours Faithfully - For Arcadia Landscape Architecture Pty Ltd.

A handwritten signature in black ink, appearing to read "Alex Longley". The signature is written in a cursive, flowing style.

Alex Longley
Principal

12th April 2023