

309 KING STREET NEWCASTLE

LANDSCAPE ARCHITECTURE
DEVELOPMENT APPLICATION
8 April 2019

OCULUS



309 KING STREET NEWCASTLE
LANDSCAPE DEVELOPMENT APPLICATION

Project Number: S18-011
Project Address: 309 KING STREET, NEWCASTLE

| Revision | Issue | Date | By | Checked |
|----------|--------------|------------|----|---------|
| A | FOR APPROVAL | 05.04.2019 | AS | TM |
| B | FOR APPROVAL | 08.04.2019 | AS | TM |

O C U L U S
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Urban Design
Environmental Planning
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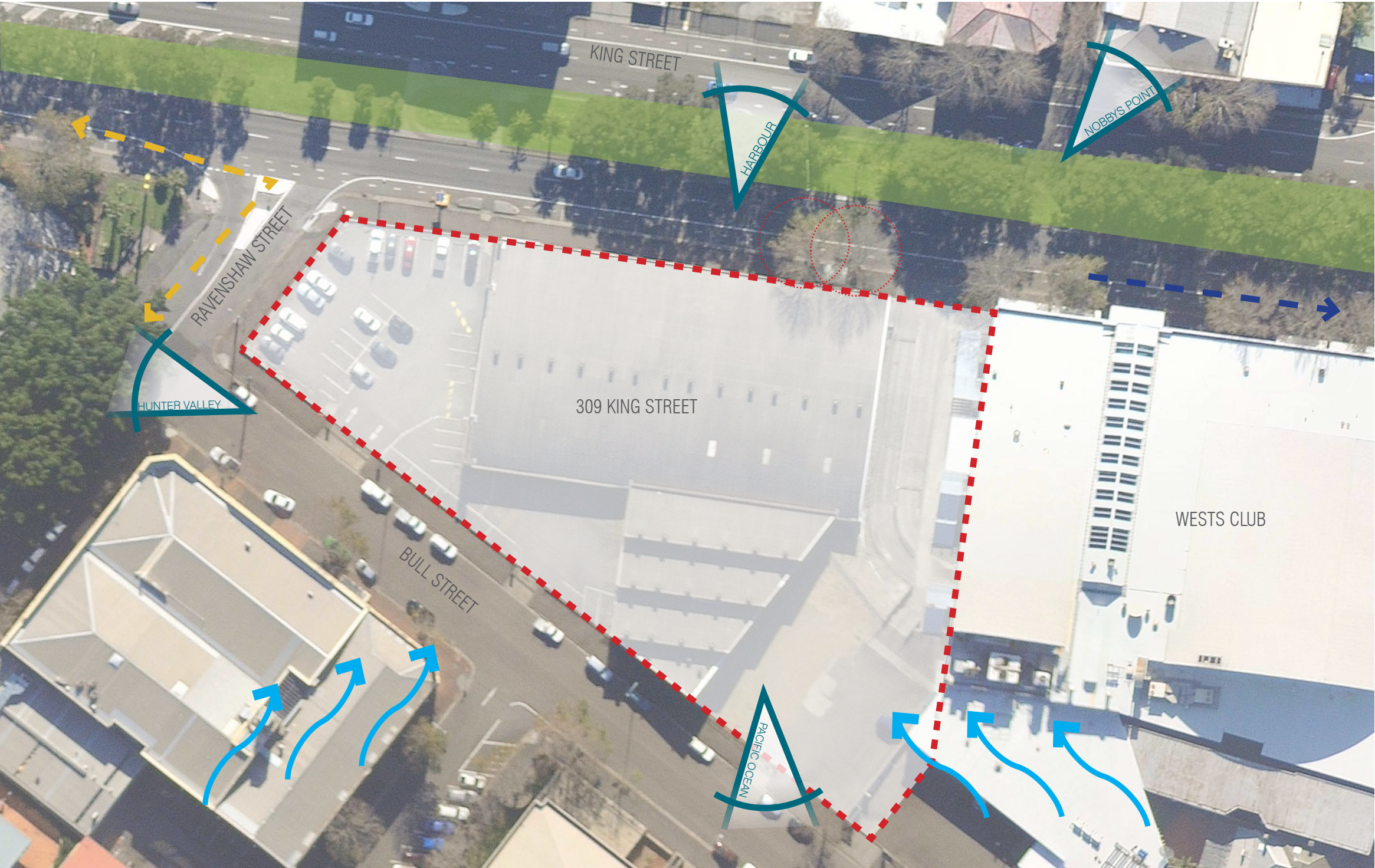
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A coastal landscape photograph. In the foreground, there's a rocky shoreline with waves crashing against the rocks. The water is a deep blue. In the middle ground, a steep, rocky cliff rises from the water's edge. The cliff face is layered and shows signs of erosion. On top of the cliff, there's a line of trees. In the background, another cliff or headland is visible, also with trees on top. The sky is a pale, hazy blue. On the right side of the image, there's a white railing or fence running along the top of the cliff, and a utility pole with wires. The overall scene is serene and natural.

1.0 EXISTING CONDITIONS

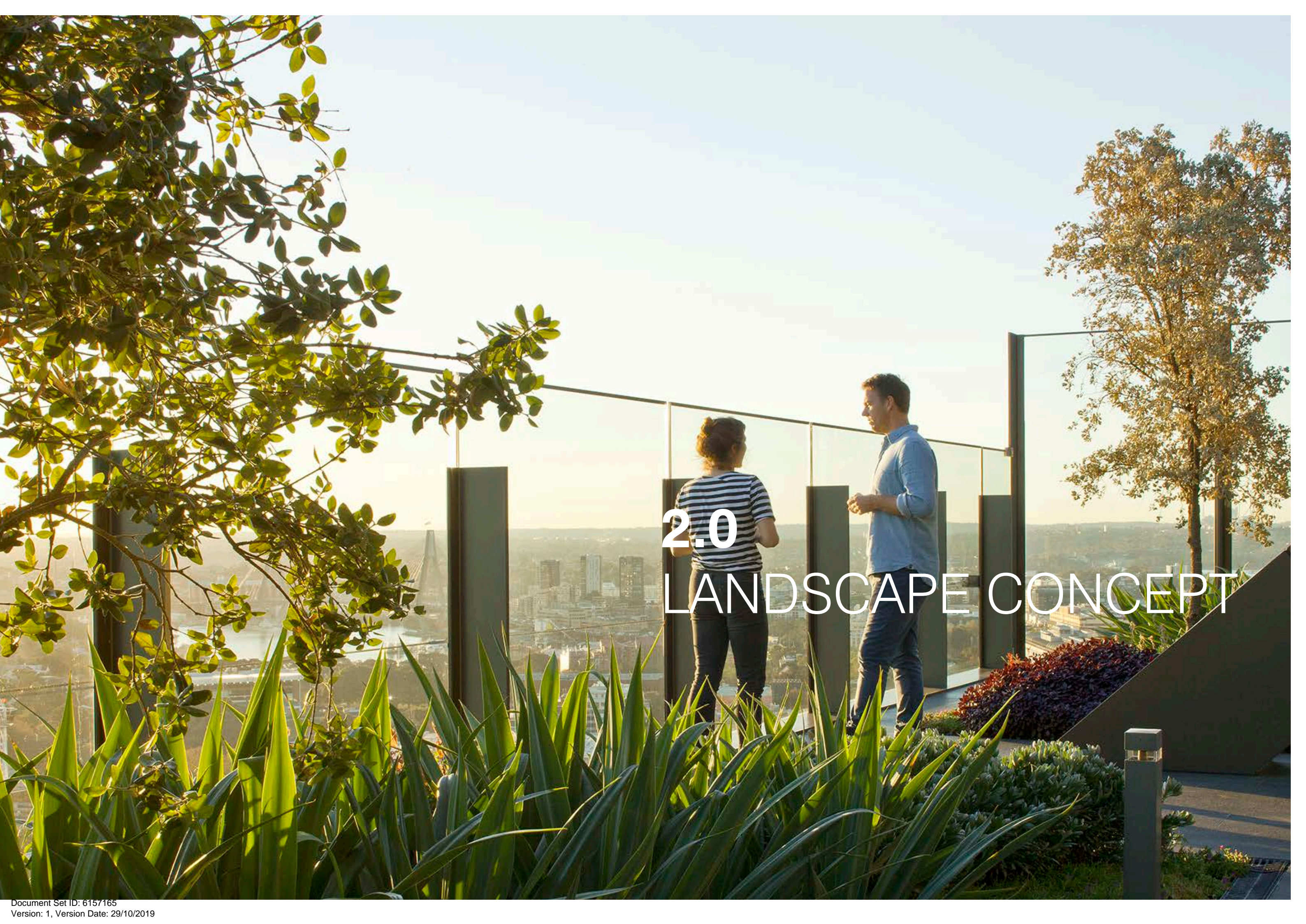
1.1 SITE PLAN



LEGEND

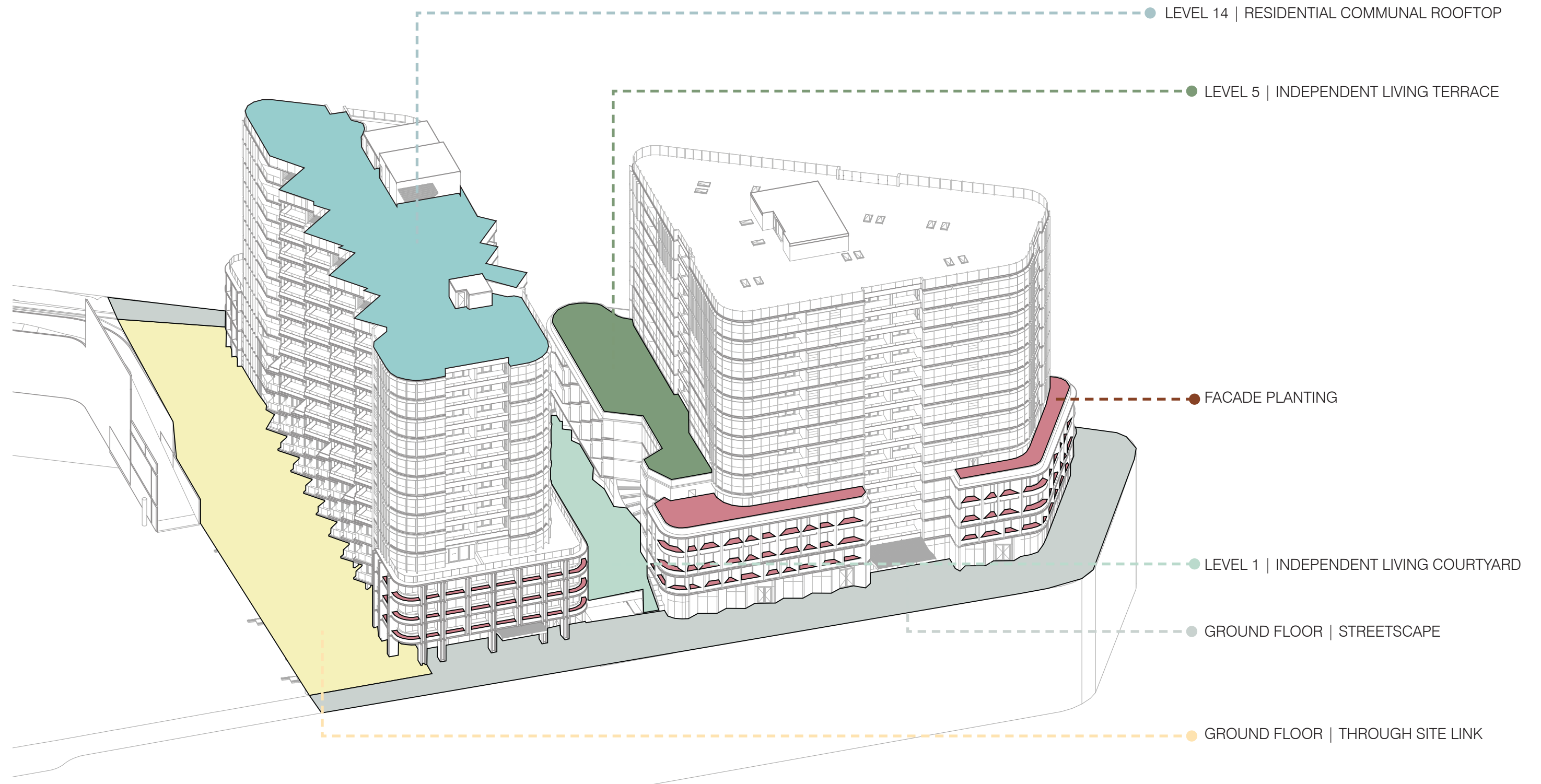
- ■ ■ Subject site
- Broad-leaf Paperbark and Phoenix Palms along King Street median offer green amenity
- Existing London Planes trees to be removed. Opportunity for additional street tree planting in line with City of Newcastle Urban Forest Strategy
- ➡ Connectivity to existing and future civic precinct
- ➡ Connection to Marketown Shopping centre
- △ Key view opportunities
- ➡ Prevailing winds





2.0 LANDSCAPE CONCEPT

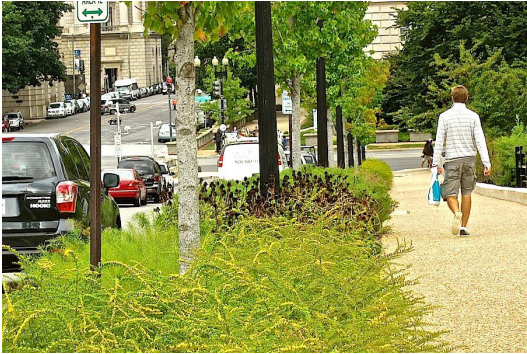
2.1 LANDSCAPE SPACES



2.2 DESIGN PRINCIPALS

STREETSCAPE

- HIGH QUALITY HARDSCAPE
- SIMPLE ROBUST URBAN MATERIALS
- STREET TREES
- PLANTED EDGES
- OPEN CIRCULATION
- SIMPLE STREET FURNITURE



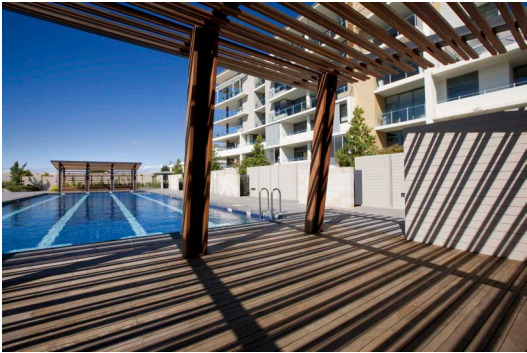
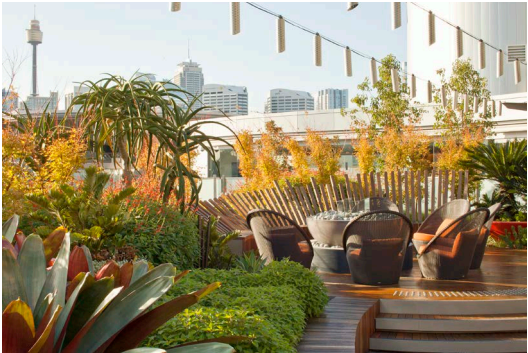
PUBLIC DOMAIN / RETAIL

- CIVIC SPACE
- PUBLIC SEATING OPPORTUNITIES
- GREEN EDGES
- SHADE AND SHELTER
- SAFETY
- CLEAR VISUAL CONNECTIONS
- EQUATABLE ACCESS



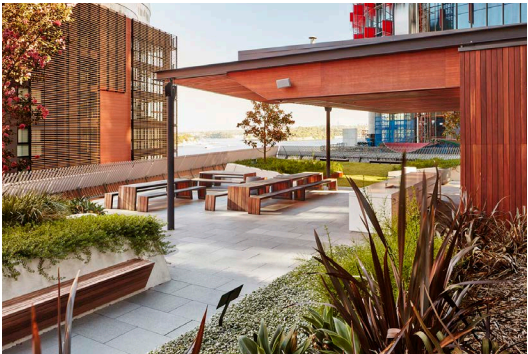
RESIDENTIAL APARTMENTS

- SPACES FOR SANCTUARY
- CONNECTION TO NATURE
- VIEWS TO THE COAST AND CITY
- SPACES FOR ENTERTAINING
- COMMUNAL GATHERING SPACES
- LUXURY



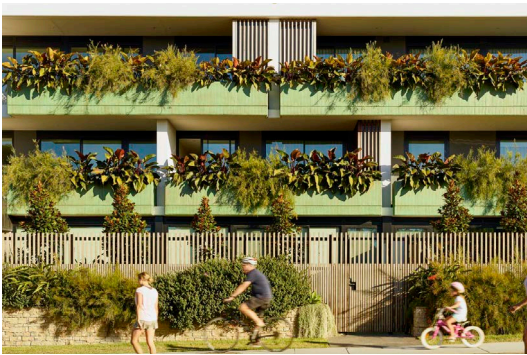
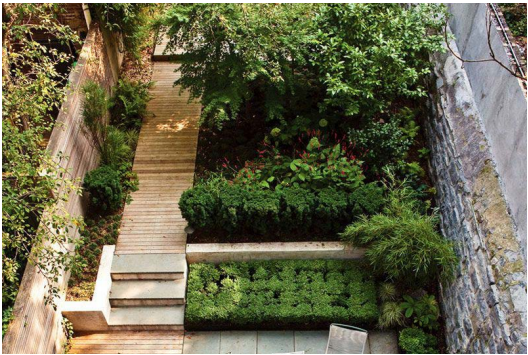
INDEPENDENT LIVING

- RELAXATION
- SOCIALISING / ENTERTAINING SPACES
- COMMUNAL GATHERING SPACES
- PEACE AND QUIET



FACADE PLANTING

- GREEN OUTLOOK
- BIOPHILIA PRINCIPLES
- GREEN EDGES
- SIMPLE AND SAFE BALCONIES

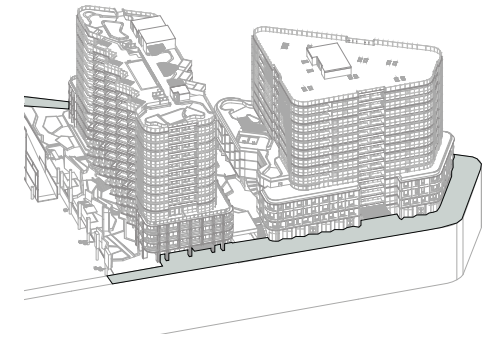


2.3 GROUND FLOOR | GREEN SETBACK AND STREETSCAPE

GREEN SETBACK AND STREETSCAPES | PLAN



KEY PLAN

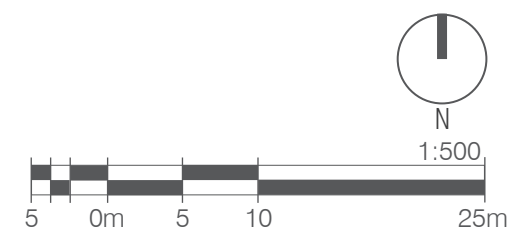


LEGEND

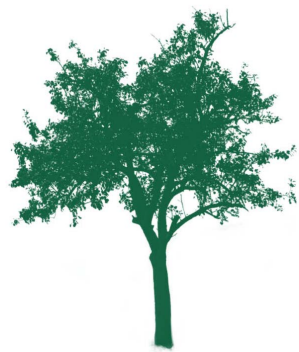
- Streetscape paving
- Granite unit paving
- Decking
- Lawn
- Mass planting
- Proposed tree planting

KEY FEATURES

- 1 Refer 2.4 Through Site Link
- 2 Refer 2.4 Independent living courtyard
- 3 King St trees *Caesalpinia ferrea*
- 4 Ravenshaw St trees *Elaeocarpus eumundii*
- 5 Bull St trees *Lophostemon confertus*
- 6 Low shrubs and grasses green setback
- 7 Existing London Plane trees to be removed (*Platanus acerifolia*)



GREEN SETBACK AND STREETScape | INDICATIVE PLANTING PALETTE



TREES



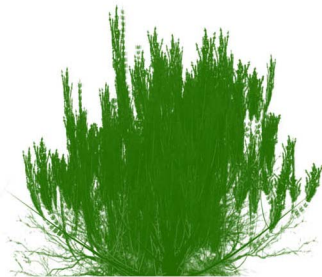
Caesalpinia ferrea



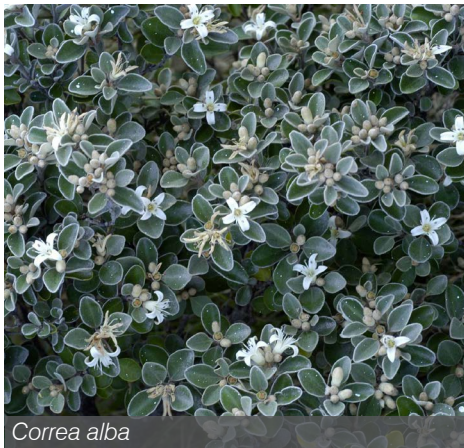
Elaeocarpus eumundii



Lophostemon confertus



SHRUB MASS



Correa alba



Philodendron xanadu



Westringia fruticosa 'Zena'



Lomandra longifolia 'Verday'



GROUNDCOVER



Myoporum parvifolium 'Yareena'



Dichondra 'Silver Falls'



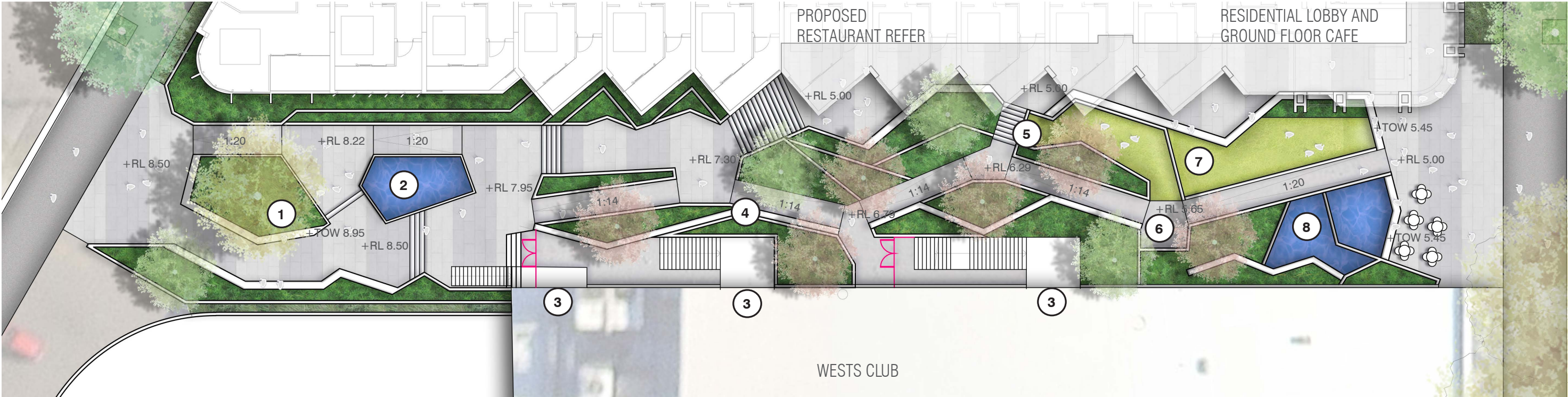
Pratia pedunculata



Juniperus sabina 'Tamariscifolia'

2.4 GROUND FLOOR | THROUGH SITE LINK

THROUGH SITE LINK | PLAN



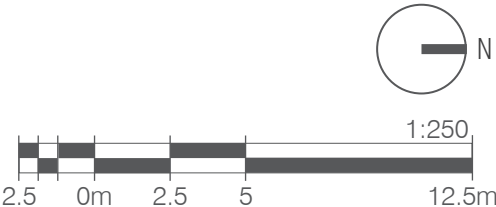
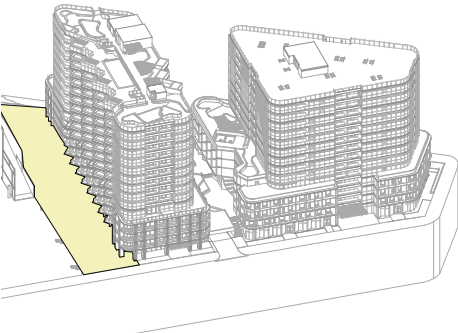
LEGEND

- Streetscape paving
- Granite unit paving
- Decking
- Lawn
- Mass planting
- Water feature
- Proposed tree planting

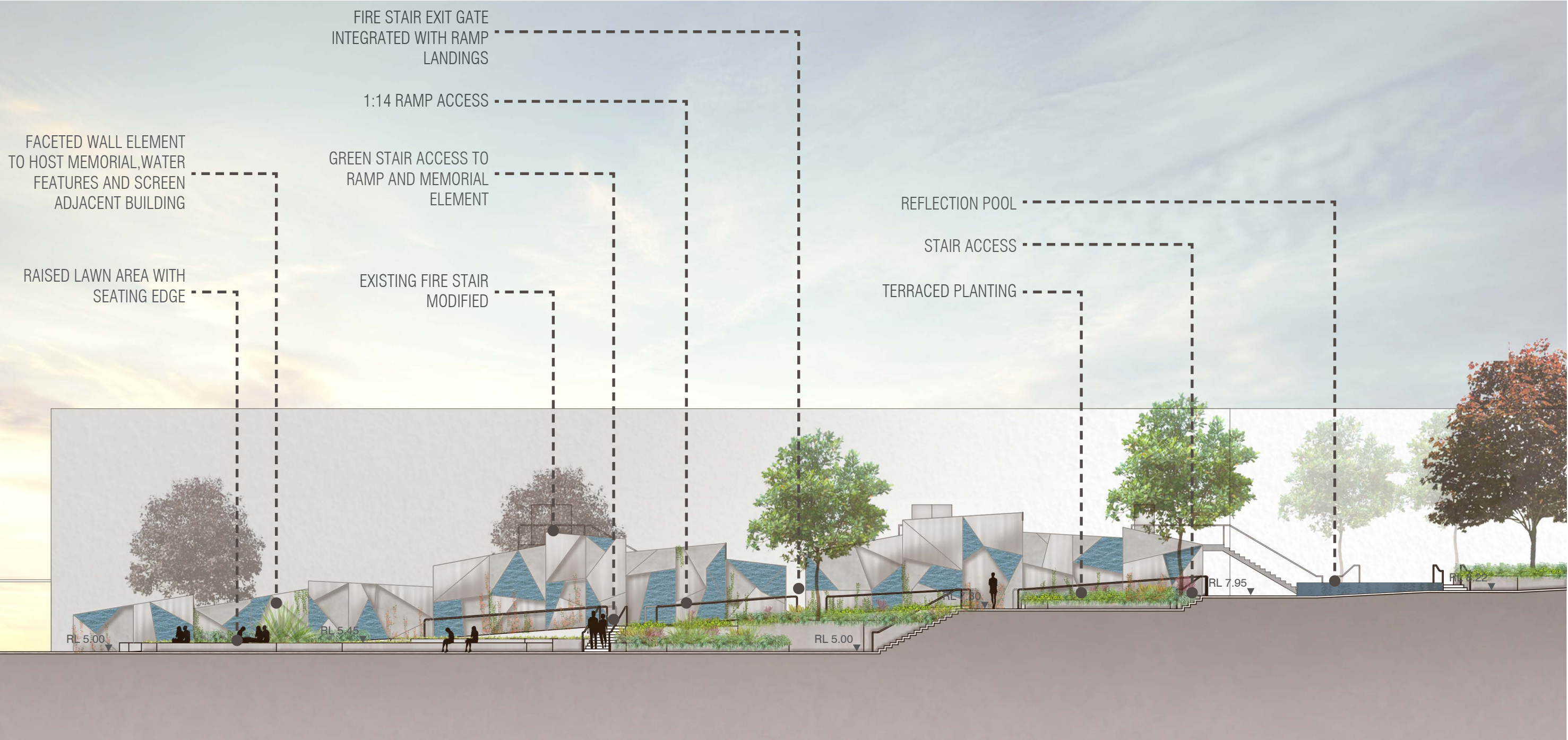
KEY FEATURES

- 1 Feature tree in raised planter
- 2 Memorial reflection pool
- 3 Wests club fire egress
- 4 Feature wall to host memorial interpretation
- 5 Green staircase
- 6 DDA compliant access ramps
- 7 Lawn picnic area interfacing cafe plaza
- 8 Water feature

KEY PLAN



THROUGH SITE LINK | SECTION



THROUGH SITE LINK | INDICATIVE PLANTING PALETTE



TREES



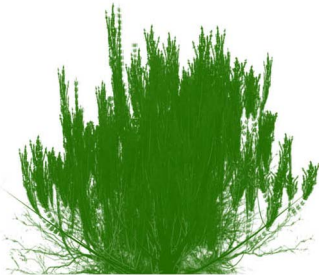
Waterhousia floribunda



Zelkova serrata 'Green Vase'



Ficus microcarpa var. 'Hilli'



SHRUB MASS



Ctananthe setosa 'Grey Star'



Philodendron xandadu



Cordyline 'Morning Diamond'



Liriope muscari 'Amethyst'



GROUNDCOVER



Viola hederacea



Dichondra 'Silver Falls'



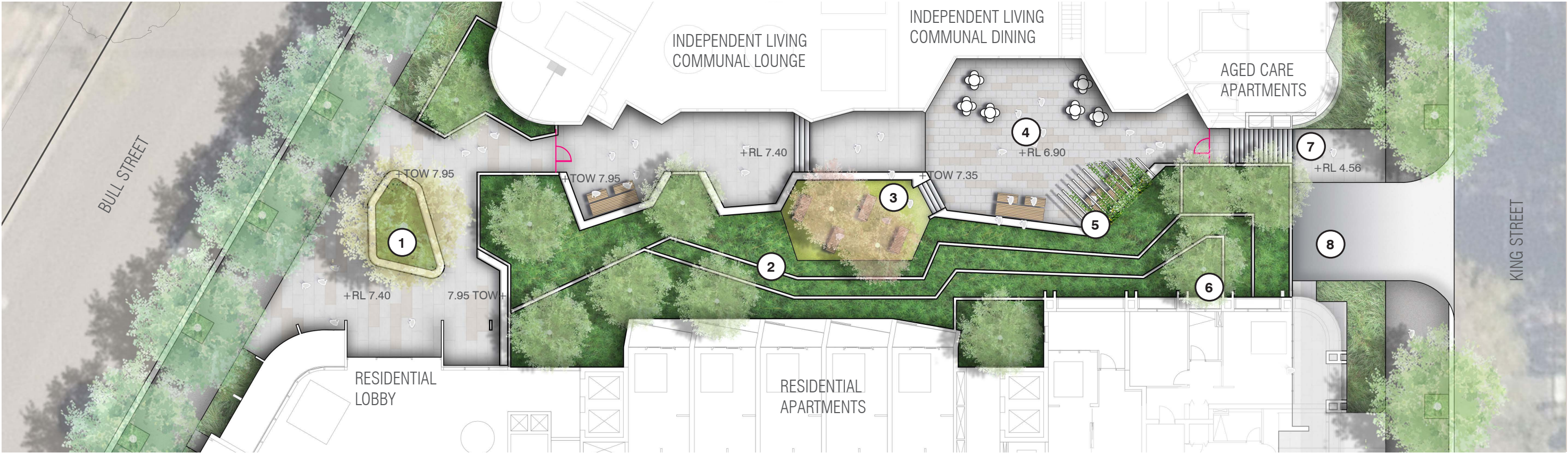
Pratia pedunculata



Thymus x citriodorus

2.5 LEVEL 1 - INDEPENDENT LIVING COURTYARD

INDEPENDENT LIVING COURTYARD | PLAN



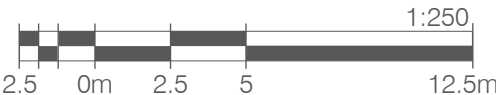
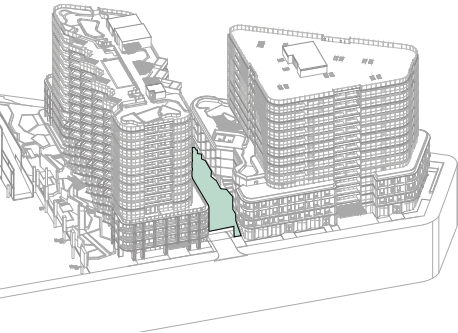
LEGEND

- Streetscape paving
- Granite unit paving
- Decking
- Lawn
- Mass planting
- Proposed tree planting

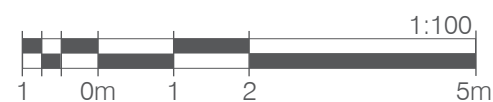
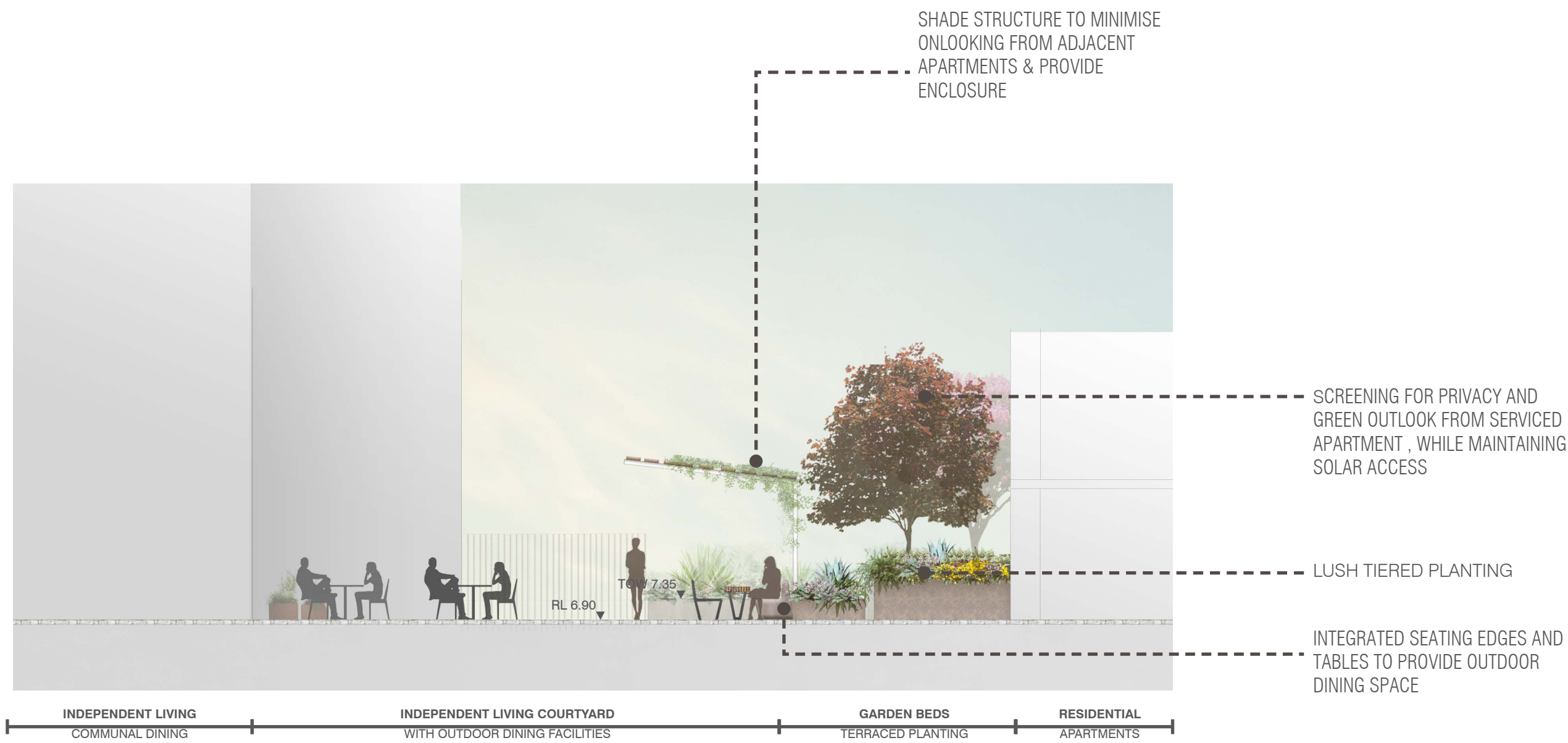
KEY FEATURES

- 1 Feature tree in raised planter outside Residential Lobby
- 2 Terraced planting between Apartment balconies and paved areas
- 3 Raised lawn space with sun lounges and garden planting
- 4 Outdoor dining and gathering space
- 5 Pergola structure with picnic settings and BBQ under
- 6 800mm depth planters adjacent residential apartments for trees and lush screen planting
- 7 Stair access from King St, though lockable gate
- 8 Carpark entrance

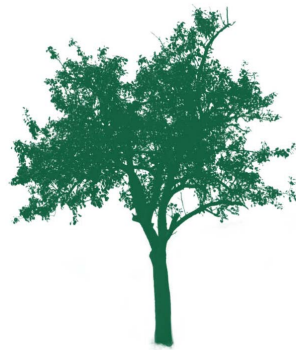
KEY PLAN



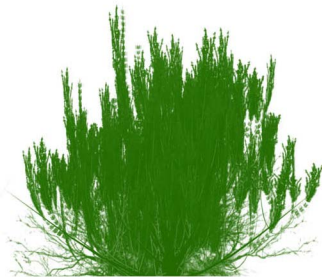
INDEPENDENT LIVING COURTYARD | SECTIONS



INDEPENDENT LIVING COURTYARD | INDICATIVE PLANTING PALETTE



TREES



SHRUB MASS



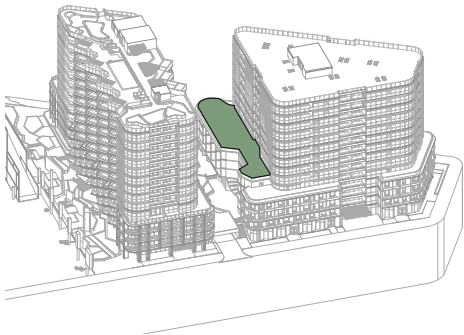
GROUNDCOVER



2.6 LEVEL 5 - INDEPENDENT LIVING TERRACE

INDEPENDENT LIVING TERRACE | PLAN

KEY PLAN

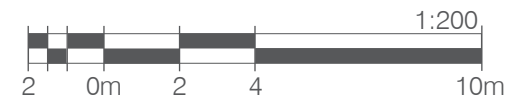
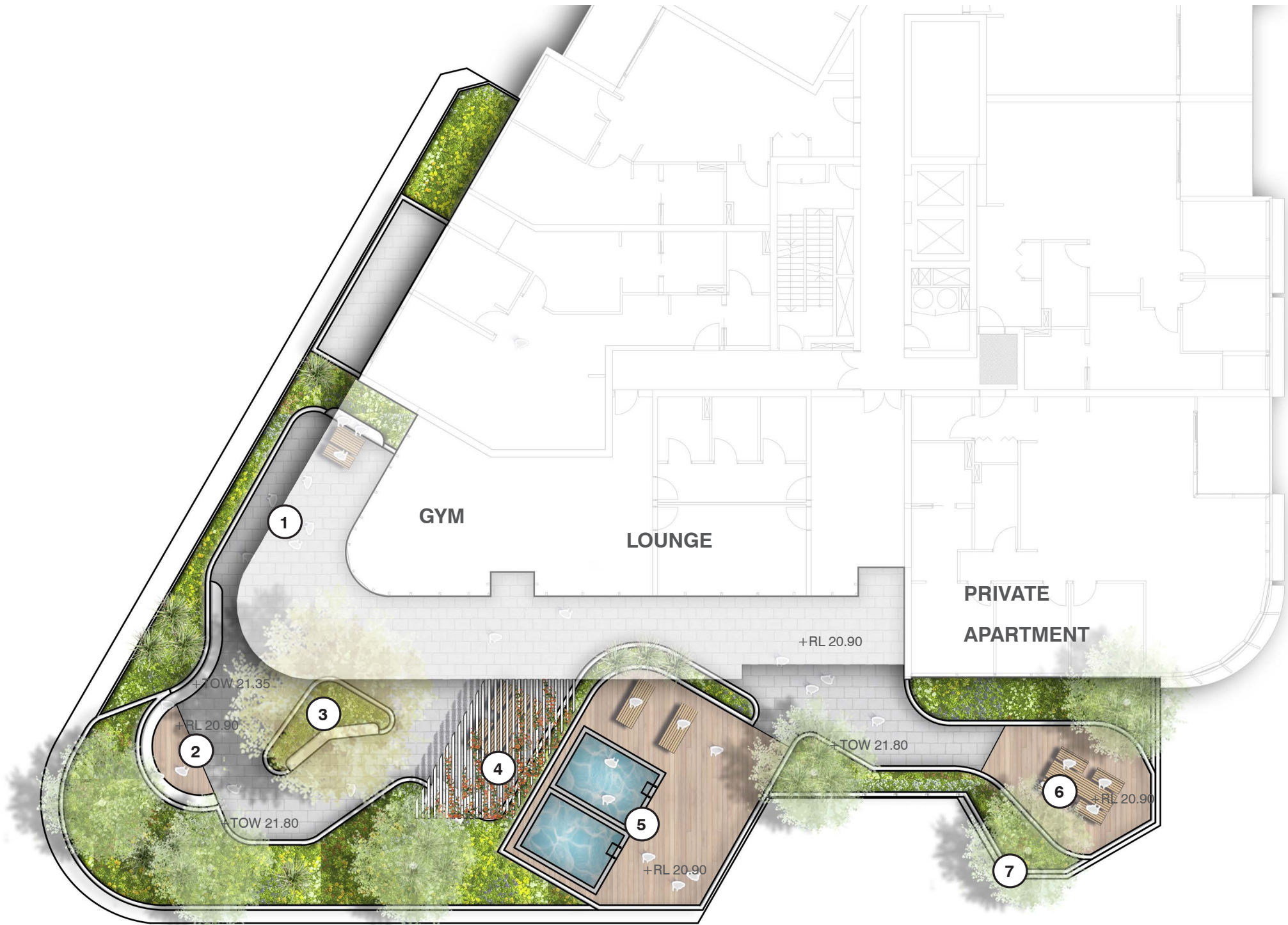


LEGEND

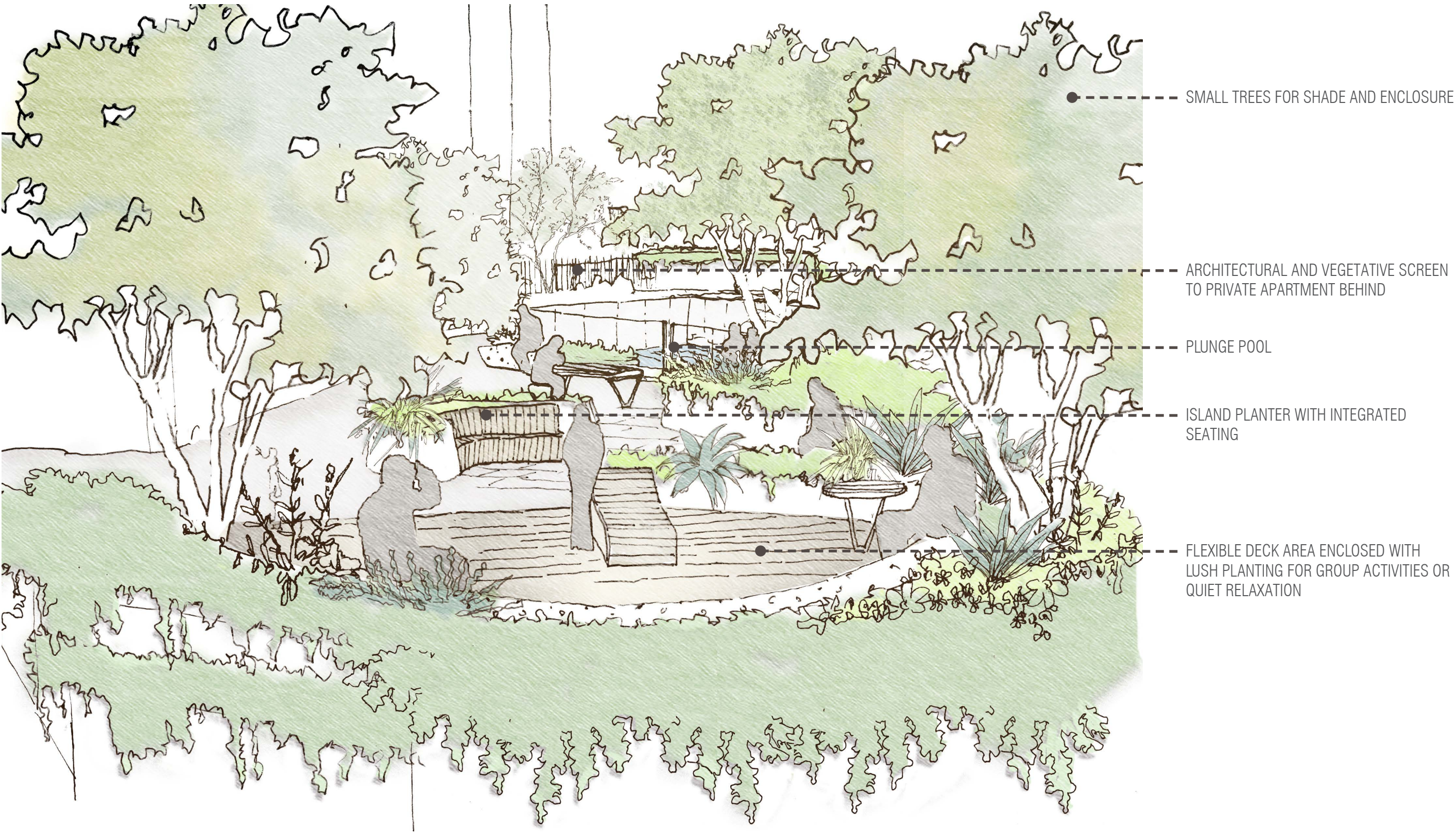
- Granite unit paving
- Decking
- Lawn
- Mass planting
- Plunge pool
- Proposed tree planting

KEY FEATURES

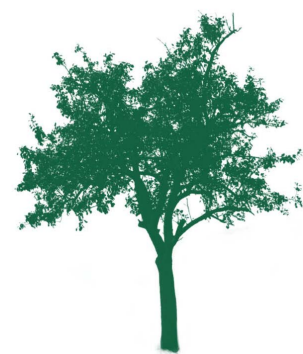
- Adaptable space for passive recreation or organised activities such as outdoor yoga classes
- Seating nook enclosed with lush planting.
- Island planter with feature tree
- Undercover BBQ and dining area
- Fenced deck area with plunge pools and lounge seating
- Space for quiet reflection with views toward harbour
- Facade planting to edges, with cascading species to be seen from below



INDEPENDENT LIVING TERRACE | PERSPECTIVE



INDEPENDENT LIVING TERRACE | INDICATIVE PLANTING PALETTE



TREES



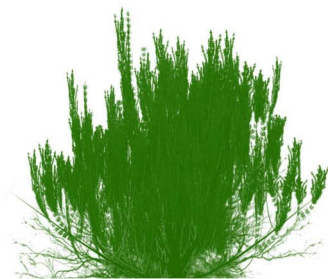
Hibiscus tiliaceus 'Rubra'



Fraxinus griffithii



Koelreuteria paniculata



SHRUB MASS



Ctananthe setosa 'Grey Star'



Philodendron xandadu



Phormium tenax



Liriope muscari 'Amethyst'



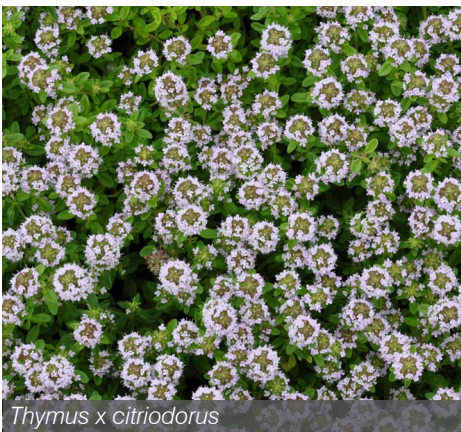
GROUNDCOVER



Myoporum parvifolium 'Yareena'



Dichondra 'Silver Falls'



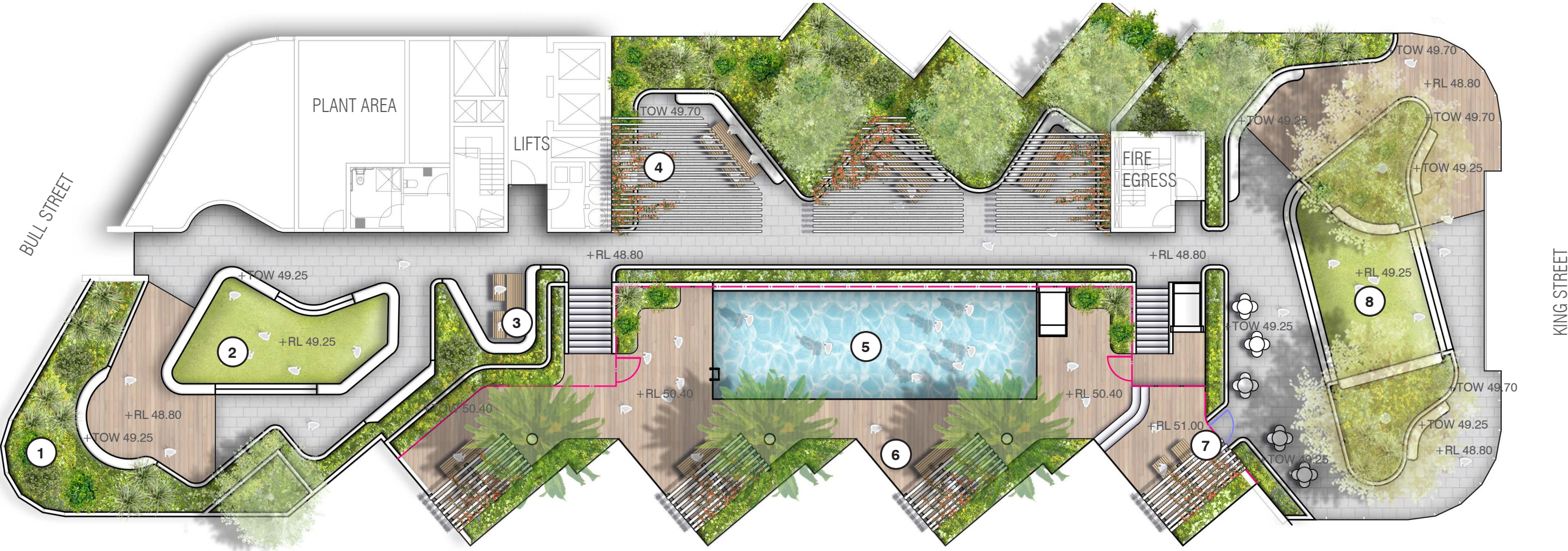
Thymus x citriodorus



Juniperus sabina 'Tamariscifolia'

2.7 LEVEL 14 - RESIDENTIAL COMMUNAL ROOFTOP

RESIDENTIAL COMMUNAL ROOFTOP | PLAN



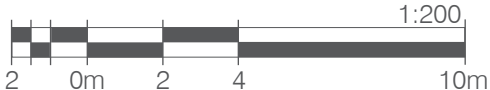
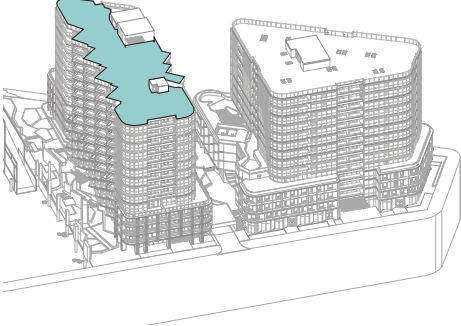
LEGEND

- Granite unit paving
- Decking
- Lawn
- Mass planting
- Pool
- Proposed tree planting
- Proposed palm tree planting

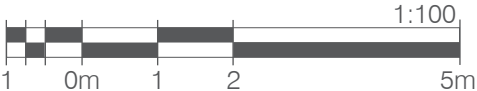
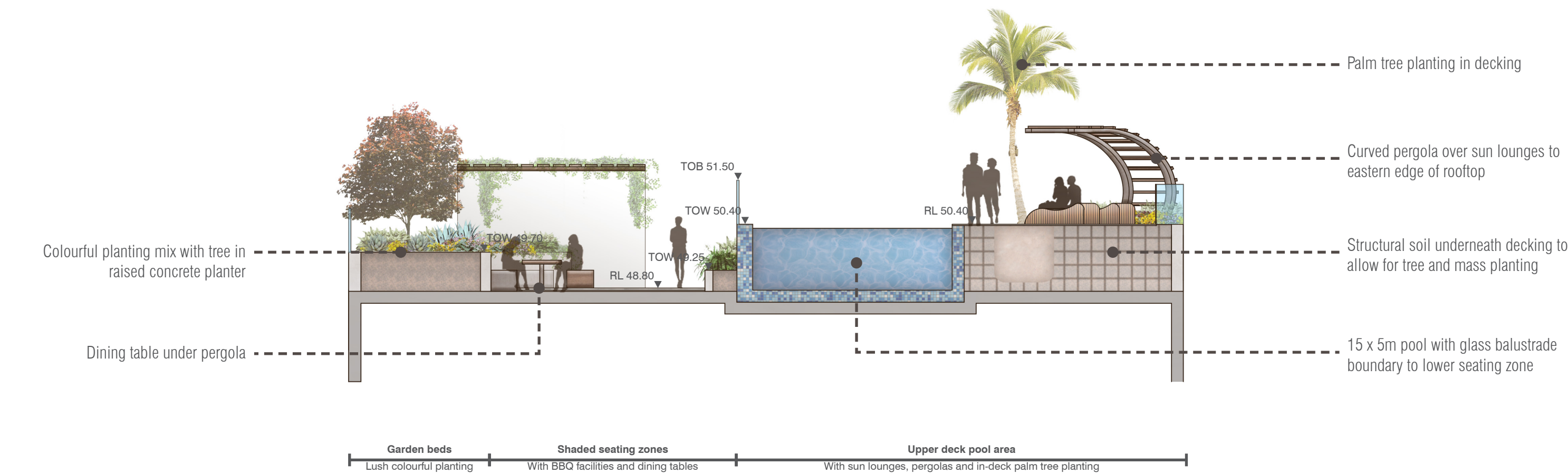
KEY FEATURES

- 1 Planted edges with glass balustrade to building perimeter
- 2 Raised lawn picnic area
- 3 Sunken seating niche enclosed by terrace planting
- 4 Undercover BBQ area with picnic setting beneath pergola structures
- 5 15 x 5m swimming pool
- 6 Raised deck space with feature shelters and sun lounges under
- 7 Gate access to pool pump enclosure below raised deck space
- 8 Raised lawn picnic area

KEY PLAN



RESIDENTIAL COMMUNAL ROOFTOP | SECTIONS



RESIDENTIAL COMMUNAL ROOFTOP | INDICATIVE PLANTING PALETTE



TREES



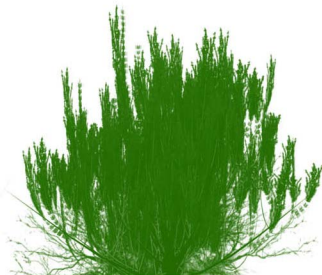
Archotophoenix cunninghamiana



Fraxinus griffithii



Koelreuteria paniculata



SHRUB MASS



Phormium tenax



Agave attenuata



Liriope muscari 'Amethyst'



Westringia fruticosa 'Zena'



GROUNDCOVER



Myoporum parvifolium 'Yareena'



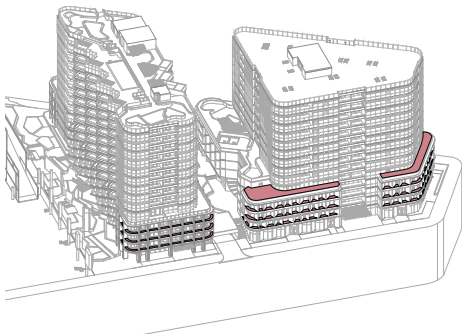
Dichondra 'Silver Falls'



Thymus x citriodorus

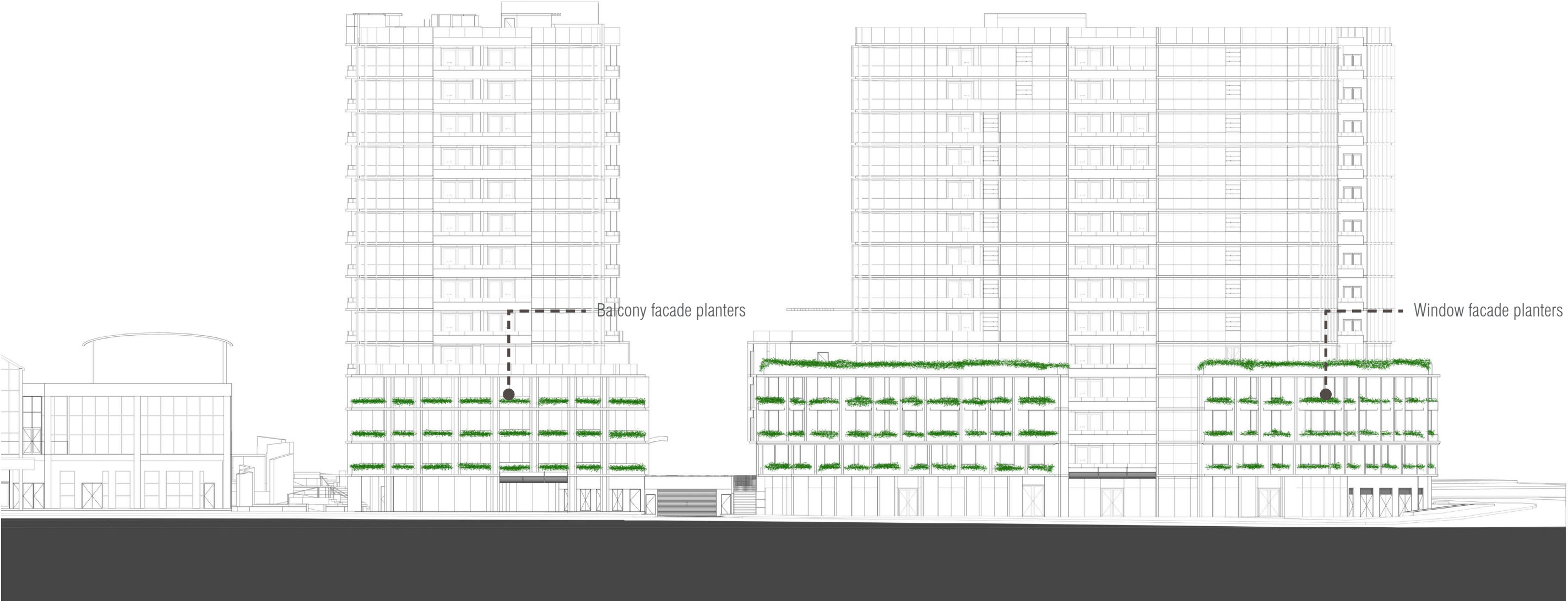


Juniperus sabina 'Tamariscifolia'

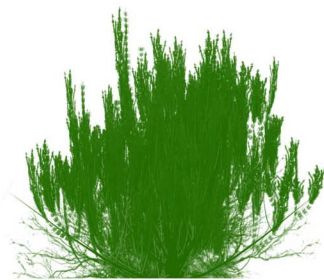


2.8 FACADE PLANTING

FACADE PLANTING | NORTH ELEVATION



FACADE PLANTING | INDICATIVE PLANTING PALETTE



SHRUB MASS



Westringia fruticosa 'Zena'



Nandina domestica 'Obsession'



Russelia equisetiformis 'Tangerine Falls'



Acacia 'Mini Cog'



VERTICAL ACCENTS



Kniphofia 'Lime Glow'



Kniphofia 'Winter Cheer'



Aloe 'Always Red'



Sanseveria trifasciata



CASCADING



Hardenbergia 'Meema'



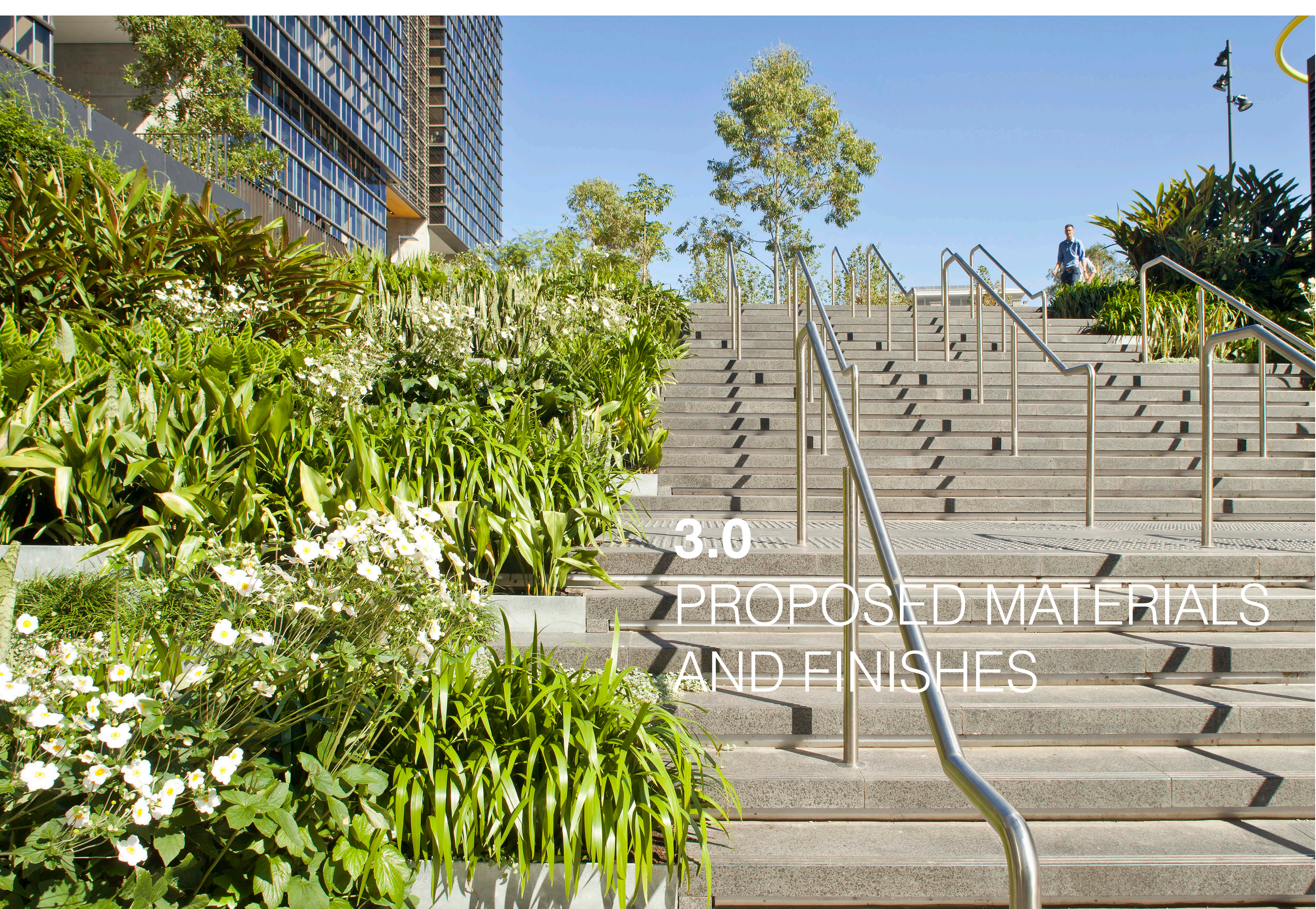
Convolvulus sabatius 'Two Moons'



Carprobrutus glaucescens



Juniperus conferta 'All Gold'



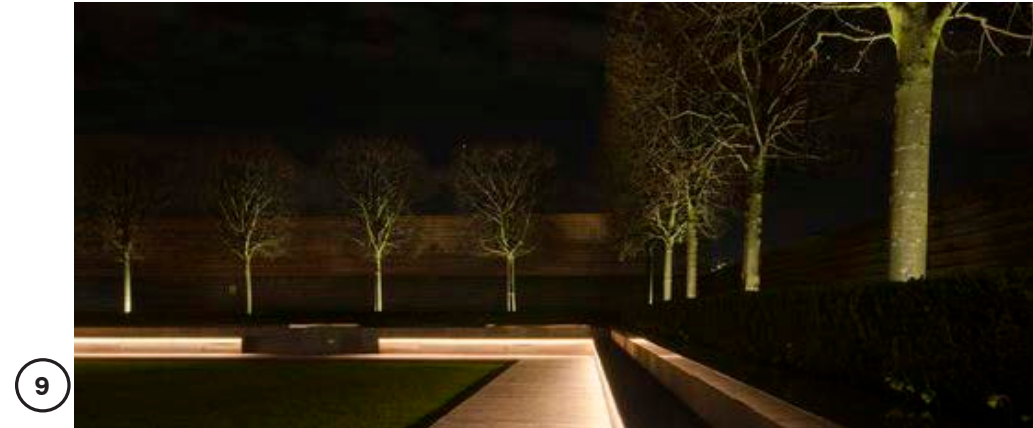
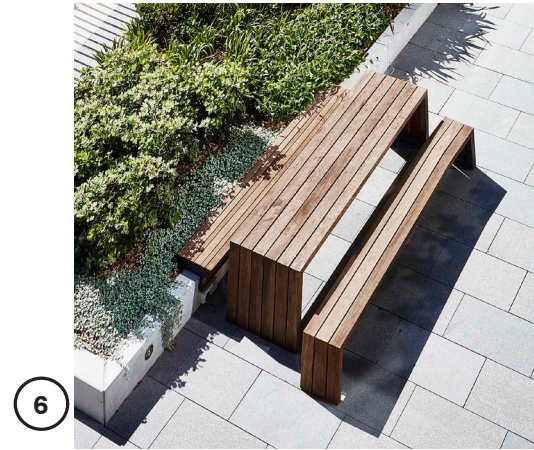
3.0

PROPOSED MATERIALS
AND FINISHES

3.1 PROPOSED MATERIALS AND FINISHES

A select number of traditional building materials (concrete, steel and timber), have been chosen for the landscape terraces to complement the architectural design to create comfortable, inhabitable spaces. These simple materials, in neutral tones, aim to create structure that will sit beneath a verdant display of greenery covering the building.

| Image | Material | Description |
|-------|------------------------|----------------------------------------------------------------------------------|
| 01 | Asphalt Paving | Streetscape paving in accordance with City of Newcastle Public Domain guidelines |
| 02 | Granite Unit Paving | Natural stone pavers in a variety of textures and unit sizes |
| 03 | Timber Decking | Mod-wood or similar decking product |
| 04 | Water features | Reflection pool and memorial water wall |
| 05 | Custom Seating | Concrete seating benches with natural timber inlays |
| 06 | Custom Picnic settings | Natural timber with powdercoated steel frame |
| 07 | Custom Shelters | Natural timber with powdercoated steel frame |
| 08 | Concrete planter walls | Faceted concrete walls in exposed aggregate finish |
| 09 | Lighting | Lighting to comply with AS1158.3.2 and AS4282 |

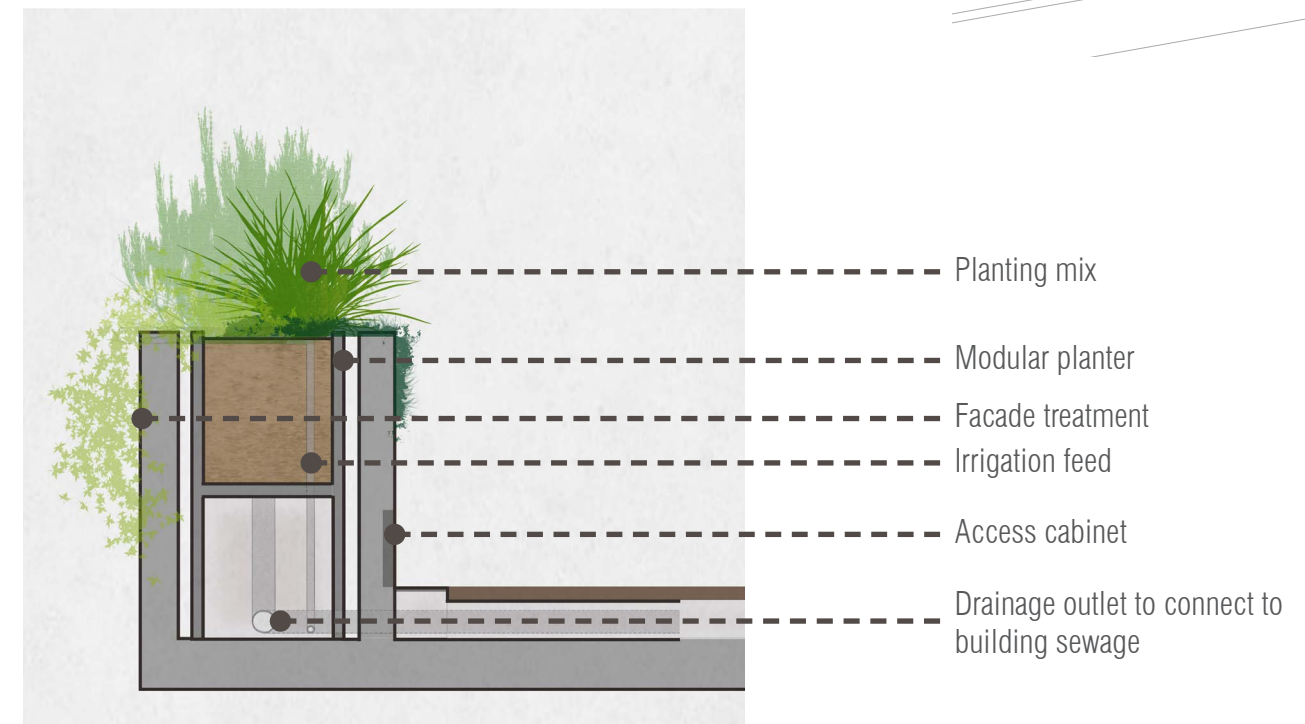
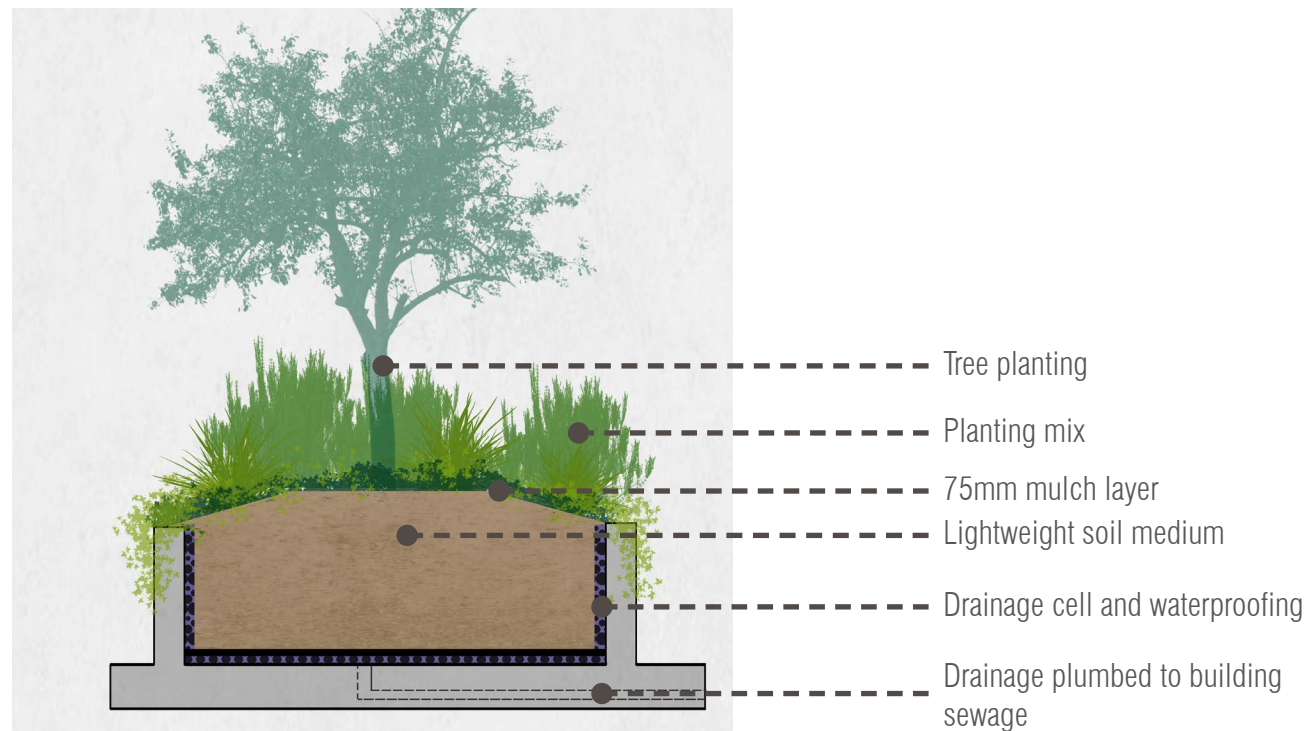




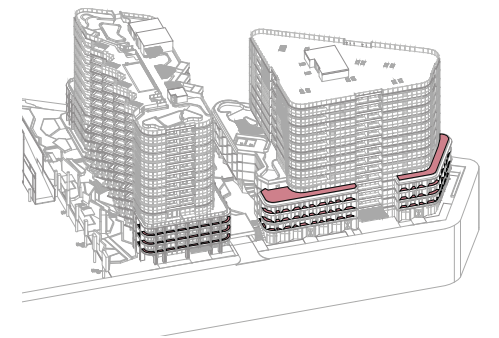
4.0 LANDSCAPE MAINTENANCE STRATEGY

4.1 PLANTER DESIGN MAINTENANCE ACCESS CONSIDERATIONS

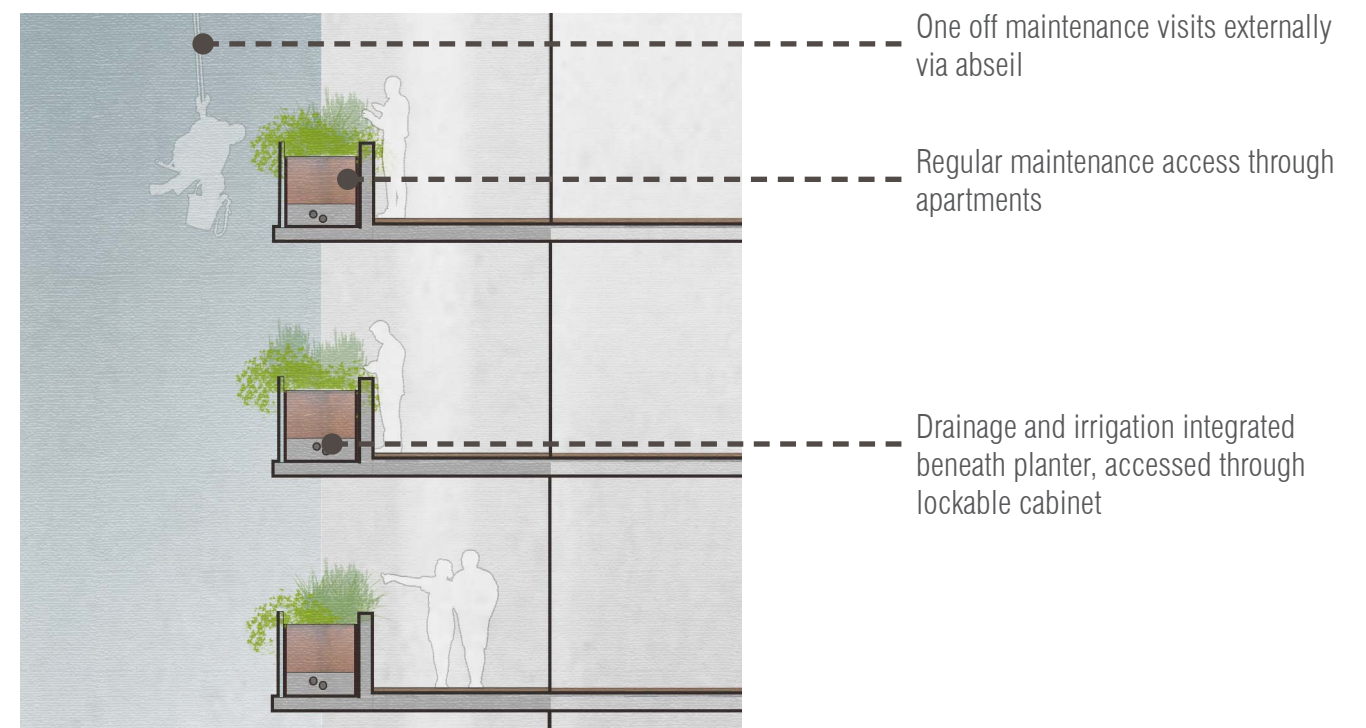
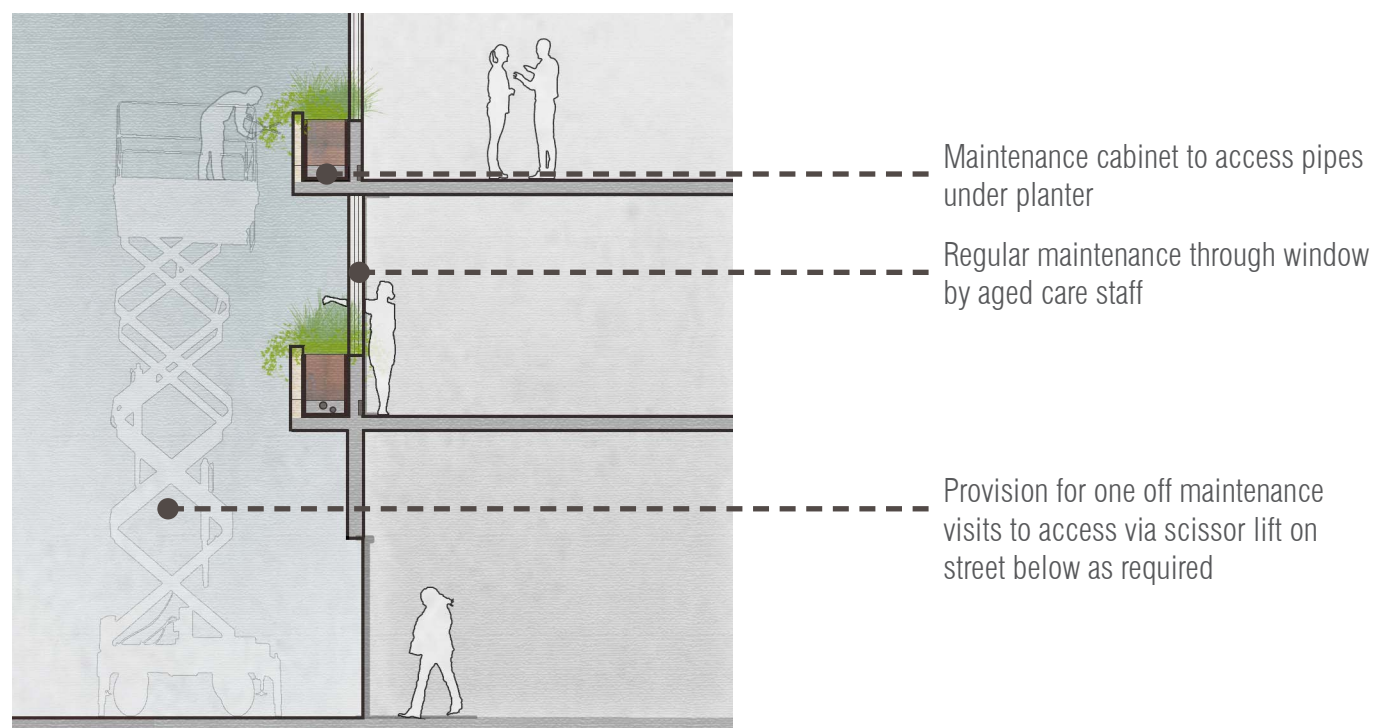
INDICATIVE FACADE PLANTER DETAILS



KEY PLAN



INDICATIVE MAINTENANCE ACCESS CONSIDERATIONS



4.2 MAINTENANCE SCHEDULE

PLANTER SYSTEMS



FACADE PLANTERS

- Modular planters recessed into balustrade walls with maintenance access cabinets
- Connected to irrigation system in basement for optimal dosage of water and nutrients year round
- Irrigation from harvested rainwater (topped up with potable when required)
- Rainwater outlets plumbed to building drainage
- Wifi controlled irrigation system, with ability to control each facade separately
- Moisture sensors in planter boxes to ensure irrigation is applied efficiently for optimal plant growth / minimal water use
- Planting carefully selected to suit soil volume and environmental constraints



TERRACE PLANTERS

- Built in concrete planter walls on structure
- Layered, full planting arrangements
- Irrigation from basement rainwater tank (topped up with potable when required)
- Connected to automated irrigation system for optimal dosage of water and nutrients year round
- Soil depths adequate to support varying plant typologies, in accordance with Apartment Design Guidelines
- Rainwater outlets plumbed to building drainage

MAINTENANCE SCHEDULE

| Façade Planters | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low maintenance small shrubs, ground covers and cascading | | |
| Maintenance Action | Timing | Access and monitoring considerations |
| Monitoring of plant health | Min. monthly inspections in person. SMS notification system constant | Close visual access, supplemented with SMS notifications from monitoring system (moisture sensors, irrigation / drainage failures etc) Residents can also report plant deaths directly to body corporate |
| General pruning of plant material (including cutting back, dead heading flowers and removal of dead plant material) | Minimum twice per year / as required | Physical access (two hands) to cut stems with secateurs Removal of green waste |
| Replacement of dead plants with new plant stock | As required for sporadic plant failure General life expectancy of plants minum 10 years. | Physical access (two hands) to install plants Transport plant stock and potting media to planters Removal of green waste |
| Hand weeding | Min. monthly during establishment then min. once per season as required | Physical access (two hands) to cut stems with secateurs Removal of green waste |
| Pest and disease control | Ongoing Min. monthly during establishment then min. once per season as required | Access for application of treatment (i.e. spray gun) Implementation of IPM system for healthy habitat Removal of infected material and transportation of green waste off site |
| Maintenance of mulch matt | Monitor and upkeep monthly Replacement only required if soil and planting replaced | Access to surface of planter Transportation of new mulch matt for replacements Removal of spent fabric off site |
| Maintenance of irrigation infrastructure | Min. monthly inspections in person. SMS notification system constant | Access to irrigation lines located under surface of mulch matt |
| Maintenance of drainage infrastructure | Min. monthly inspections in person. SMS notification system constant | Access to outlet under planter box (via surface inspection pit) Transport tools (i.e. handheld drain snake) Removal of debris and transportation of waste off site |
| Removal of litter | Monitor and upkeep monthly | Access to void between building and planter Removal of debris and transportation of waste off site |
| Replacement of soil media | Monitor and top up monthly if required Full soil replacement every 10-15 years | Remove full volume of planter media Transport in new soil planter media |

| Terrace Planters | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Small trees, large flowering shrubs, grasses and groundcovers | | |
| Maintenance Action | Access considerations | Access considerations |
| Monitoring of plant health | Min. monthly inspections in person. SMS notification system constant | Visual access |
| Formative / hazard pruning of trees | Minimum twice per year / as required | Physical access (two hands) to cut stems with secateurs Removal of woody green waste (heavy / bulky) |
| Hedging and cutting back of shrubs | Minimum twice per year / as required | Physical access (two hands) to cut stems with secateurs Removal of green waste (bulky) |
| General pruning of plant material (including cutting back, dead heading flowers and removal of dead plant material) | Minimum twice per year / as required | Physical access (two hands) to cut stems with secateurs Removal of green waste |
| Replacement of dead plants with new plant stock | As required for sporadic plant failure General life expectancy of plants minum 10 years. | Physical access (two hands) to install plants Transport plant stock and potting media to planters Removal of green waste |
| Replacement of dead or damaged trees | As required for sporadic plant failure General life expectancy of trees 30+ years. | Mobile Crane, parked on street below (suitable for up to 200L replacement stock) Removable of soil to accommodate new tree planting Removal of green waste |
| Hand weeding | Min. monthly during establishment then min. once per season as required | Physical access (two hands) to cut stems with secateurs Removal of green waste |
| Pest and disease control | Ongoing Min. monthly during establishment then min. once per season as required | Access for application of treatment (i.e. spray gun) Implementation of IPM system for healthy habitat Removal of infected material and transportation of green waste off site |
| Maintenance of mulch | Monitor and upkeep monthly Replacement only required if soil and planting replaced | Access to surface of planter Transportation of new mulch matt for replacements Removal of spent fabric off site |
| Maintenance of irrigation infrastructure | Min. monthly inspections in person. SMS notification system constant | Access to irrigation lines located under surface of mulch matt |
| Maintenance of drainage infrastructure | Min. monthly inspections in person. SMS notification system constant | Access to outlet under planter box (via inspection pit) Transport tools (i.e. handheld drain snake) Removal of debris and transportation of waste off site |
| Removal of litter | Monitor and upkeep monthly | Access to void between building and planter Removal of debris and transportation of waste off site |
| Replacement of soil media | Monitor and top up monthly if required Full soil replacement every 10-15 years | Remove full volume of planter media Transport in new soil planter media (for amelioration, top up or full replacement if required) |