37 Graham Road, Highett

Landscape Design Report

320-0732-00_DR01

Prepared by Tract Consultants for Sunkin Group

Tract

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Quality Assurance

37 Graham Road, Highett Landscape Design Report **Prepared for** Sunkin Group Project Number 320-0732-00_DR01

Revisions

lssue	Date	Description	Prepared By	Reviewed By	Project Principal
00	12 February 2021	Draft Town Plan Package For Review	HL	ML	MV
01	24 February 2021	Town Plan Package for Council submission	HL	ML	MV
02	07 July 2021	Town Plan Package - RFI response DRAFT	HL	ML	MV
03	16 July 2021	Town Plan Package - RFI response - draft Council Submission (internal review)	HL	ML	MV
04	16 July 2021	Town Plan Package - RFI response - Council Submission	JL	ML	MV
05	20 July 2021	Sections updated to match DP	SO	ML	MV
06	22 July 2021	Updates to pages 16, 20, 23	JL	ML	MV
07	29 July 2021	Draft issue for review	JL	ML	MV
08	30 July 2021	Updates to various pages in response to Council comments	JL	ML	MV

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1 Site Analysis

1.1 Neighbourhood Context

Highett is a popular bayside suburb 30 minutes away from Melbourne CBD by train. The suburb has a diverse population with many great schools, parks and amenities. Highett Road shopping strip and train station are well located, almost central of the suburb but aging.

In recent years the main street has undergone some modernisation which has been welcomed by locals, thrilled to see new cafés and shops arrive at their doorstep.

















1.2 Site Context

Bookended by contrasting characters, this site is diverse and has many facets to consider. The north of the site abuts highrise residential and commercial developments that face and service Highett Road shopping strip. The south of the site is in complete contrast - an open woodland conservation reserve with scattered large canopy trees that sit on the high side of the site.

The east boundary addresses Graham Road with a large 1Ha park proposed at the front door of the development. The west interfaces boundary fences of exiting mostly 2-storey residential houses that address Middleton Street.

The site is in close proximity to Highett Road shopping strip, train station, restaurants, cafés, RSL and Bowls Club, as well as the Bay Road commercial precinct.







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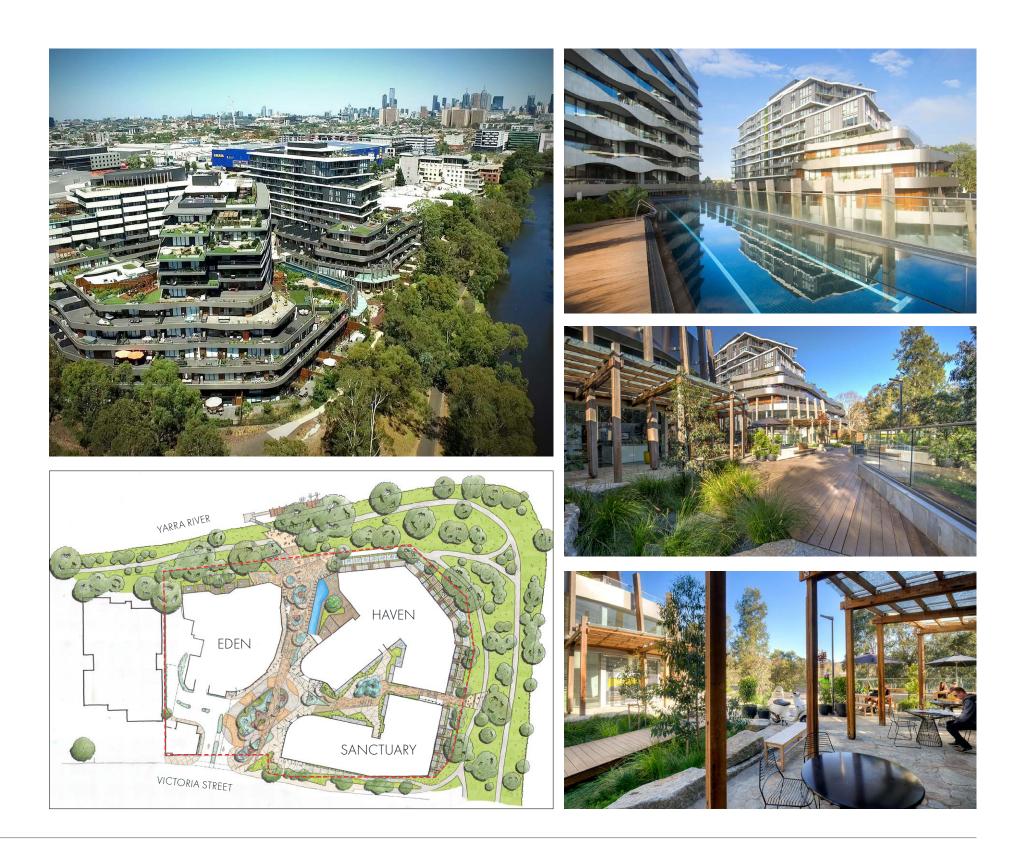




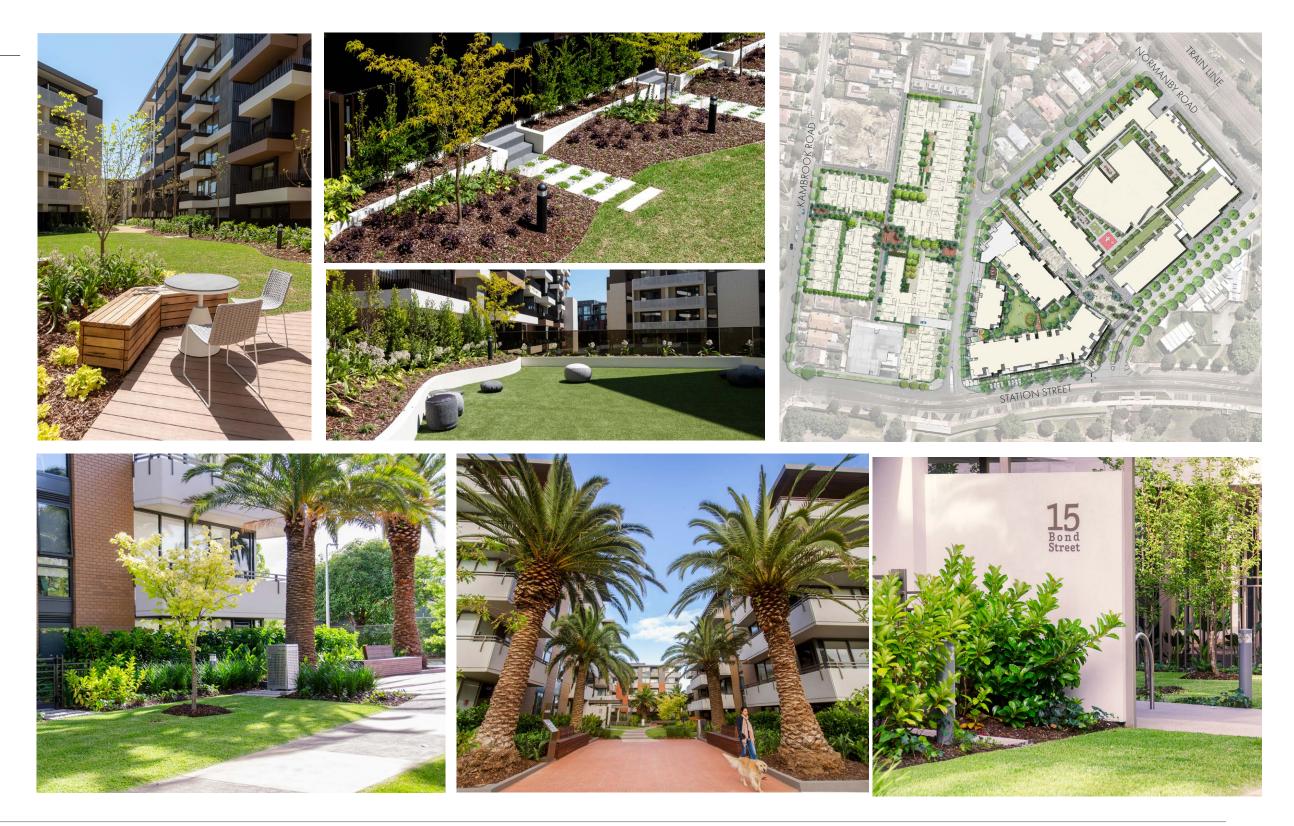


2 Precedents

2.1 Acacia Place, Abbotsford



2.2 Caulfield Village, Caulfield



2.3 Moonee Valley Park, Moonee Valley





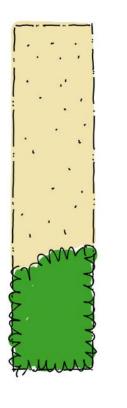
3 Landscape Design Response

3.1 Landscape Design Approach

The landscape design approach aims to establish a clear landscape design philosophy that provides practical benefits such as spatial definition, shade, micro-climate, and visual connection to quality outdoor spaces. The landscape character expresses a transitional form, from the formal urban character of the Highett Road shop, to the organic conservation reserve

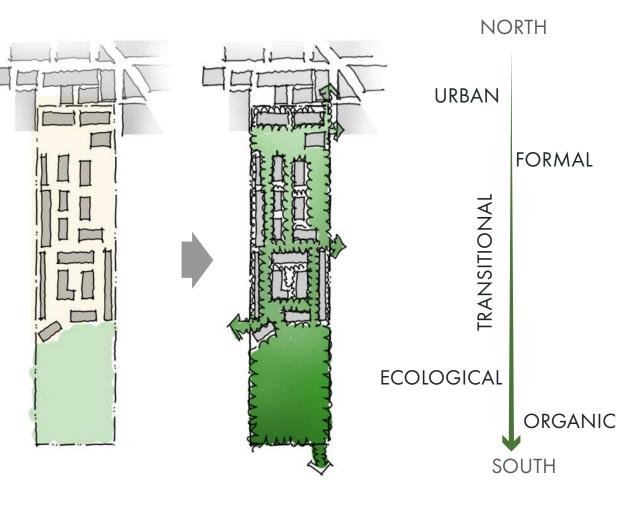
The landscape design response will explore the extension of the existing conservation reserve, as open space and green connections meander through the buildings and connect to the surrounding residential streets. The landscape transitions through the development from a 'structured' landscape (north) to a less formal arrangement (south).

The Park Village development presents a unique opportunity to make the parklands the dominant design element, particularly in the quantum of publicly accessible open space. The convenient access for people to nature and green open space include benefits such as improved physical and mental fitness, faster healing, reduced stress, improved learning and increased compassion and empathy - positively impacting the quality of life of residents and encouraging a safer and more engaged community.



Existing ecological feature (conservation reserve)

- Vegetated parkland
- Organic
- Ecological function



Proposed development

- Organised
- Formal
- Structured

Extend natural ecology and create a **'Village in a Park'**

- 'Green' connections
- Ecological links
- Healthy, active streets for people

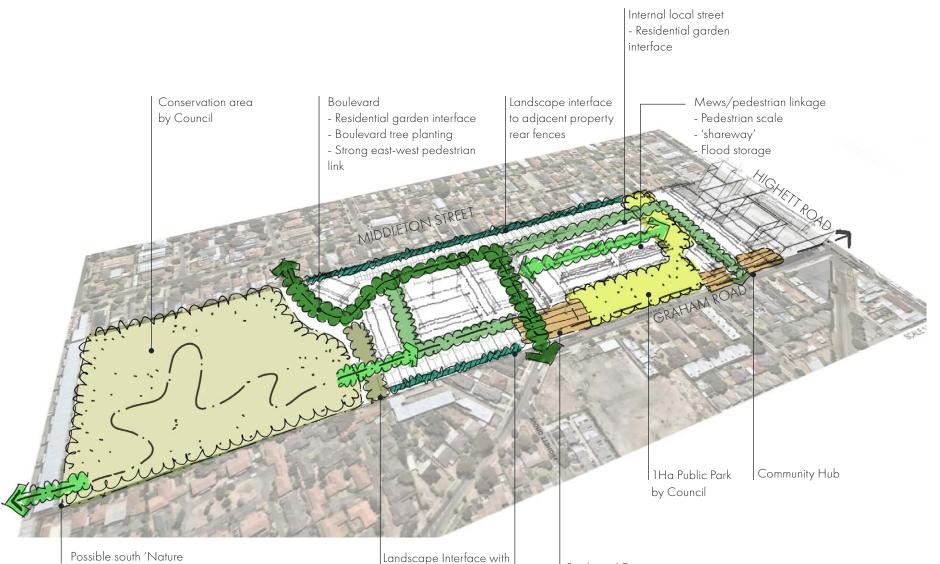
3.2 Landscape Functional Response

The aim of the landscape concept is to create attractive, good quality open spaces that provide high level of amenity for future residents and existing neighbours.

The design of the landscape treatment will engage the wider open space and street character, through design cues and appropriate species selection of trees, shrubs, and groundcovers for the site. Emphasis is placed on green links, used to create meaningful physical and visual connections to the public open space, the conservation area and the surrounding street network.

The challenge will be to create a place offering deep, rich and multi-layered opportunities to ensure the development of an integrated and connected precinct. Effective wayfinding strategies, highly accessible and functional open spaces, efficient vehicle, cyclist and pedestrian movement and protection of amenity for existing and future residents of Highett are of importance to this neighbourhood.

Communal open spaces and shared streets with pedestrian priority form part of the open space network providing accessible public open space for neighbours' social engagement, outdoor retreat, and play.



Link' connection to Bay Road and Southland (by Council)

conservation area. - Organic - Native & indigenous planting

> Landscape interface with adjacent property rear fences

Boulevard Entry High quality public realm Water feature/focal point - Outdoor dining opportunities

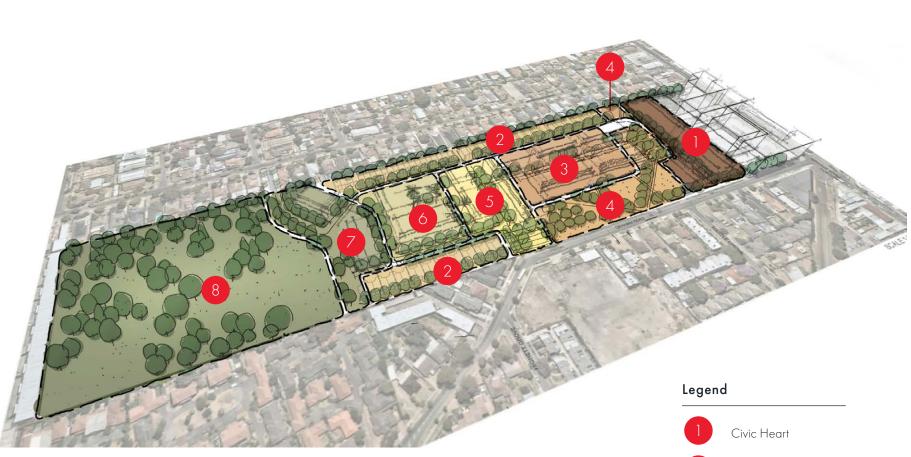
4 Landscape Character Precincts

3.3 Landscape Precincts

The implementation of the various landscape character precincts and features come together to create a high quality landscape that provides a harmonizing overlay to the various housing blocks while embracing the surrounding community.

The precincts offer individualised character that respond to architecture, façades, building scale and existing site features or boundaries. These characters change through planting and materials responding to the specific precincts and/or the neighbouring form or boundary.

Responding to a site in this manner ensures a site responsive design that adds depth and interest for all residents and their neighbours.





4.1 Landscape Character



Civic Heart

Community focused design and features that embody Highett

- Outdoor spaces are robust, functional and high quality
- Wayfinding
- Social
- Civic scale and function



Transitional Density

An intimate scale with garden beds and trees where possible completing the green envelope around the site, which ties into adjacent townhouses and neighbouring rear fences.

- Low fences
- Lush plantings out to kerb where possible
- Trees to offer shade and green street outlooks
- Intimate pedestrian scale



Central Mews

A safe and slow shared zone for vehicles and pedestrians, using good design language as wayfinding.

- Pedestrian/bicycle priority zone
- High quality urban detailing
- No kerbs use furniture and planting to define space
- Minimise vehicle activity and congestion
- Trees to provide amenity and shade
- Species suited to on structure planting



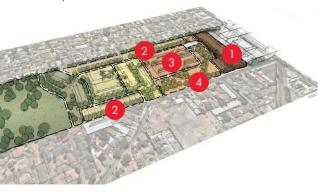




Public Park

A multi-functional and all-year space to service the local residents and wider neighbourhood. A space to have a quiet break, a work-out or socialise.

- Formal language and design
- Open lawn areas
- Social and community event spaces
- Play and active/ recreation space
- Ornamental feature trees to provide amenity and shade





Boulevard Entry

Urban-feel, high-end space that sets the tone of the development on arrival. Inviting, impressive and lined with a boulevard of canopy trees and activated streetscape.

- High quality urban detailing
- Tree lined street / boulevard character
- Focal point/water feature
- Urban plaza
- Cafe outlook



Suburban Hinterland

Transitional zone of mixed low and high-rise built form that links the conservation reserve to the entry.

- Less formal treatment
- Introduction of Indigenous/native planting palette as it transitions toward the conservation reserve
- Tree lined streets with complementary under storey plantings
- Break-out/ seating nodes within wider naturestrip interfaces
- Canopy & habitat link from Conservation Reserve to entry and local park beyond



Conservation Interface

Outlook to existing Conservation area.

- Existing conservation parkland character to be respected
- Provide 'soft' edge to proposed development
- Indigenous planting palette
- Maintain sightlines and connections into conservation area



Conservation Area

Delivered by Council. Not in project scope.

- Vegetated natural character
- Existing vegetation to be retained
- Minimal disturbance

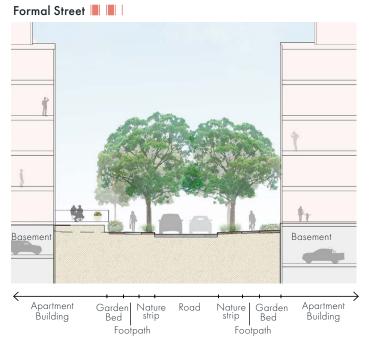


KEY PLAN

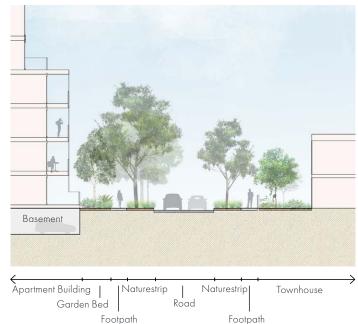
5 Streetspaces & Character

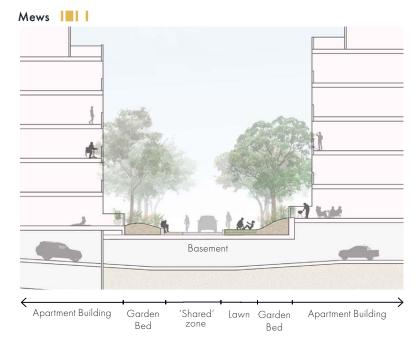
5.1 Streetscape Character & Raingardens





'Green' link Street 🔳 🔳





Typical Street sections (nts)

Formal Street and landscape 'Thresholds'

- Tree lined street
- Boulevard character
- Thresholds with feature landscape treatments



Green' link Street

- Connected canopy (biolink)
- Heavily vegetated



Mews

- Pedestrian/bicycle priority zone
- High quality urban detailing
- No kerbs use furniture and planting to define space
- Minimize vehicle activity
- Trees to provide amenity and shade
- Species suited to on structure planting



- Possible Raingarden opportunities
 - Located within naturestrip

5.2 Street Tree Masterplan





Local Street tree



Boulevard Tree







Mews tree





Secondary Boulevard Tree

Feature tree/ node marker / wayfinding Livistona australis (CABBAGE TREE PALM)

Boulevard

Angophora costata (SMOOTH-BARKED APPLE) or Quercus cerris (TURKEY OAK)

Secondary Boulevard

Tristaniopsis laurina (WATER GUM) or Platanus orientalis 'Digitata' (ORIENTAL PLANE) or Ulmus parvifolia (CHINESE ELM)

Local Street

Lophostemon confertus (BRUSH BOX) or Corymbia citriodora 'Scentuous' (LEMON-SCENTED GUM SCENTUOUS)

Mews

Gleditsia triacanthos var. inermis 'Shademaster'(SHADEMASTER HONEY LOCUST) or Tilia cordata 'Greenspire' (Linden Tree) or Elaeocarpus reticulatus (BLUEBERRY ASH)





Tract

Legend



7 Landscape Design

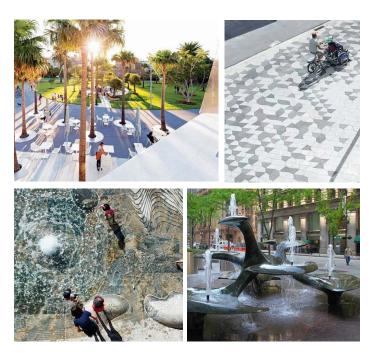
7.1 Entry

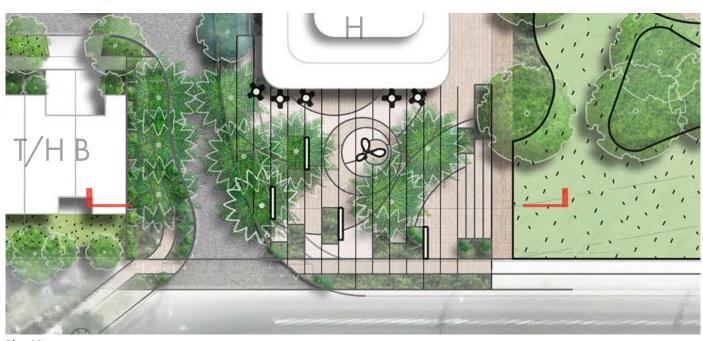
A contemporary sculpture with water feature marks the main entry to Park Village Highett and welcomes residents and guests.

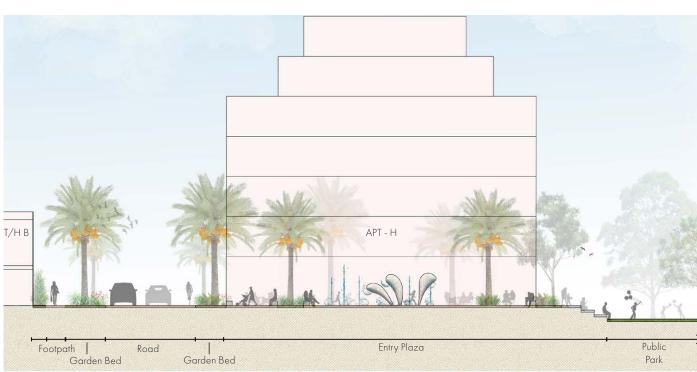
Symbolically, water gives the development life and links the space to Port Phillip Bay whilst assisting as a wayfinding cue to draw people down Graham Road.

Nestled amongst grand palm trees, the sculpture is central to a new urban plaza that sits higher than the new public park - a great vantage point to sit and ponder over a morning coffee.

Materials and planting celebrate coastal living and set the tone of Park Village Highett. Palm trees are paired with low plantings to ensure sightlines are not compromised and pedestrians can walk freely through the space.







Landscape Section - Entry Plaza (nts)



Artist Impression

7.2 Mews

Resembling a suburban laneway with a modern twist, the Mews is a shared zone for pedestrians, cyclists and motorists, to access buildings I & J, as well as accommodating an eastwest connection to the the local park and Graham Road.

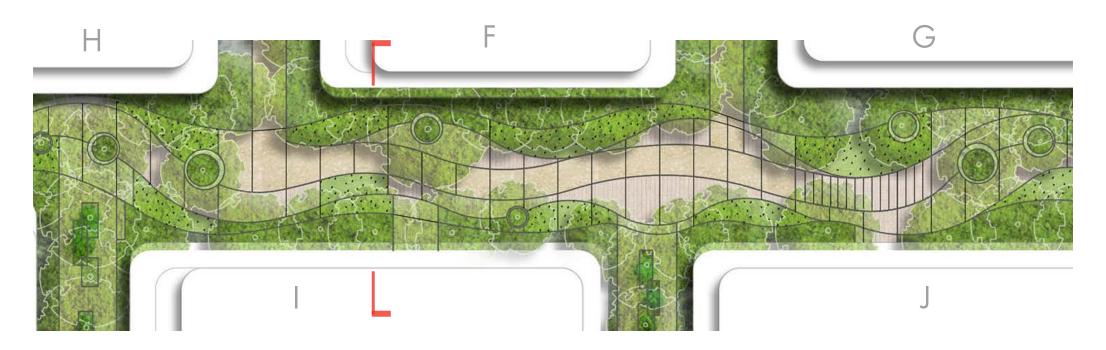
A slow space with minimal vehicular movement where pedestrians take priority and can utilise the space for passive recreation.

The Mews is flanked by plantings hosted in raised planters on the car park lid. Pavement is organic and uses subtle wayfinding techniques such as material contrast and raised kerbs to guide motorists.

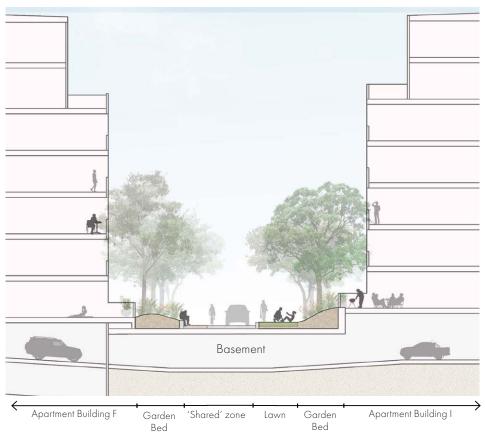
In addition to the above, pavement and planting selection considers the Mews providing flood storage in a 1:100 year flood event.

All basement access points and finished floor levels will satisfy freeboard requirements and the max flood depth will not exceed 300mm. The Mews area will only be inundated in

1:100yr event for approximately 4hrs.



Plan View



Landscape Section (nts)

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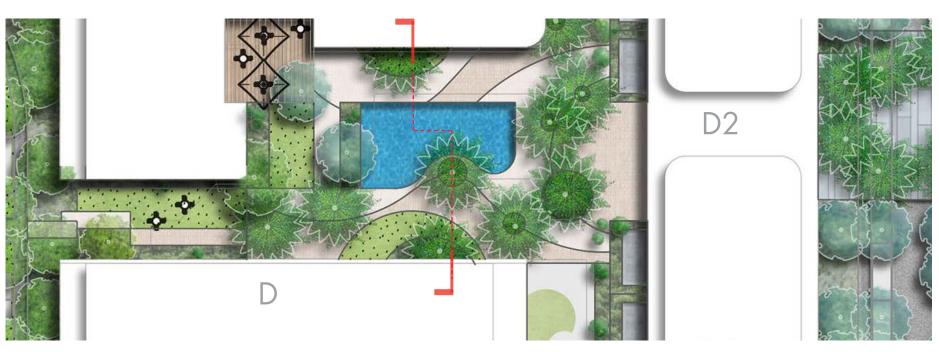
7.3 Amenities

A private health and wellness retreat is nestled within Park Village Highett, offering residents a Coastal oasis to socialise, relax, work and play.

The pool is organic in shape and resort-like, surrounded by palms and lush topical plantings. A space that caters for all ages and bodies to enjoy the outdoors.

Visually the palms connect through building D2, with their fronds visible through the mezzanine floor.

Materials and colours reference a bayside lifestyle and are chosen for their cooling and calming effects.



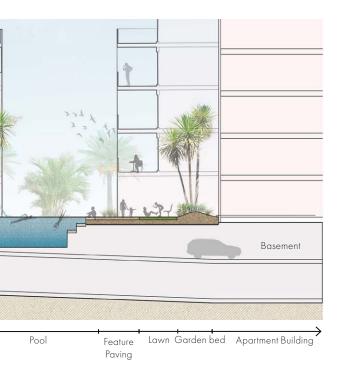
Plan View



Apartment Building Garden Lawn Garder bed Feature Paving

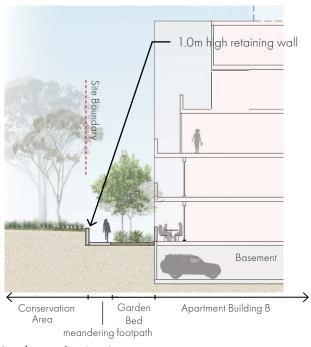
Landscape Section (nts)

С



7.4 Conservation area interface

A sensitive interface area that reflects the native and indigenous plantings that exist here. New plantings are mindful of remnant vegetation and protect or enhance the Conservation Reserve interface with the development.



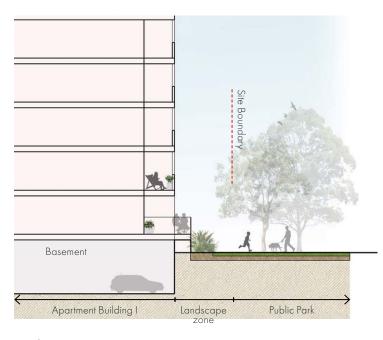




7.5 Public Park interface

The interface with the new public park is important, offering several pedestrian connection opportunities to ensure a truly traversable and integrated development within the current Highett urban fabric.

Park Village Highett also offers good survei in use most times of the day.



Landscape Section B



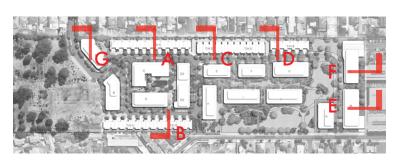
30 July 2021

Park Village Highett also offers good surveillance opportunities for the park and will see the reserve



7.6 Boundary Interfaces

Interfaces mindful of boundary fences and neighbouring dwellings. Plantings along boundaries where possible to soften and buffer new built form and offer a green outlook for existing residential areas.

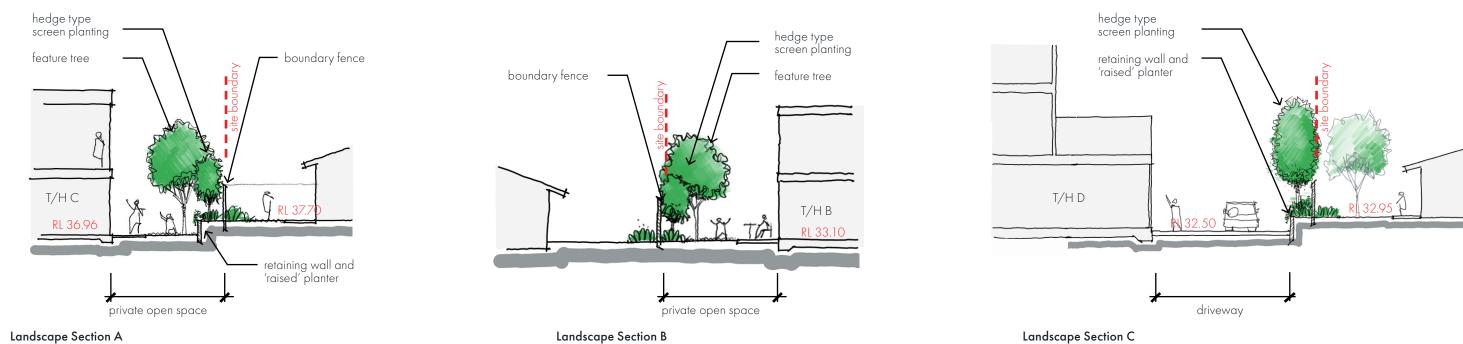




7.6.1 T/H C South West interface

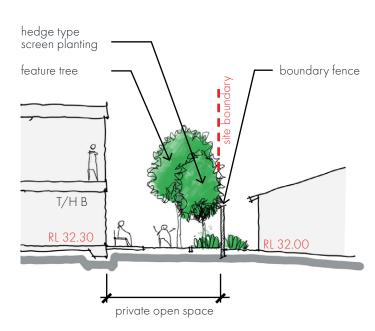


7.6.3 T/H D interface



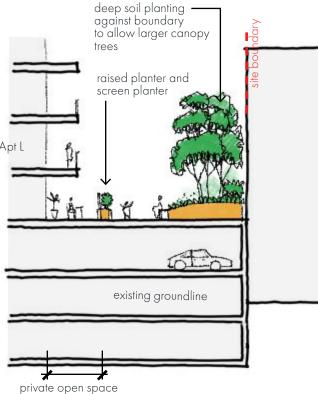
7.6.4 T/H B North West interface

7.6.5 Apt M interface

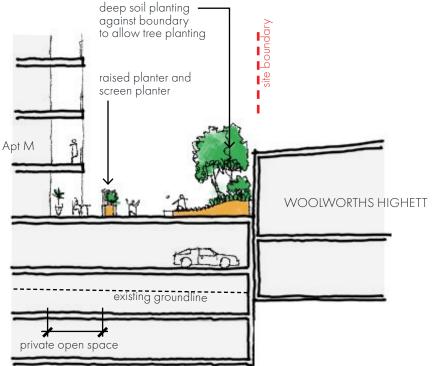


Landscape Section D



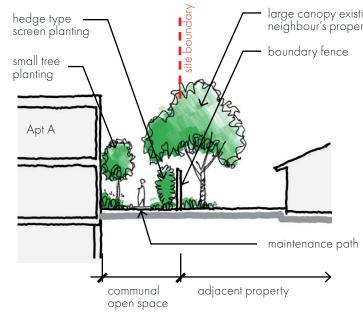


Landscape Section F



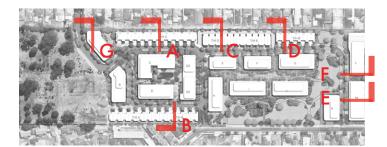
Landscape Section E

7.6.7 Apt A West interface



Landscape Section G





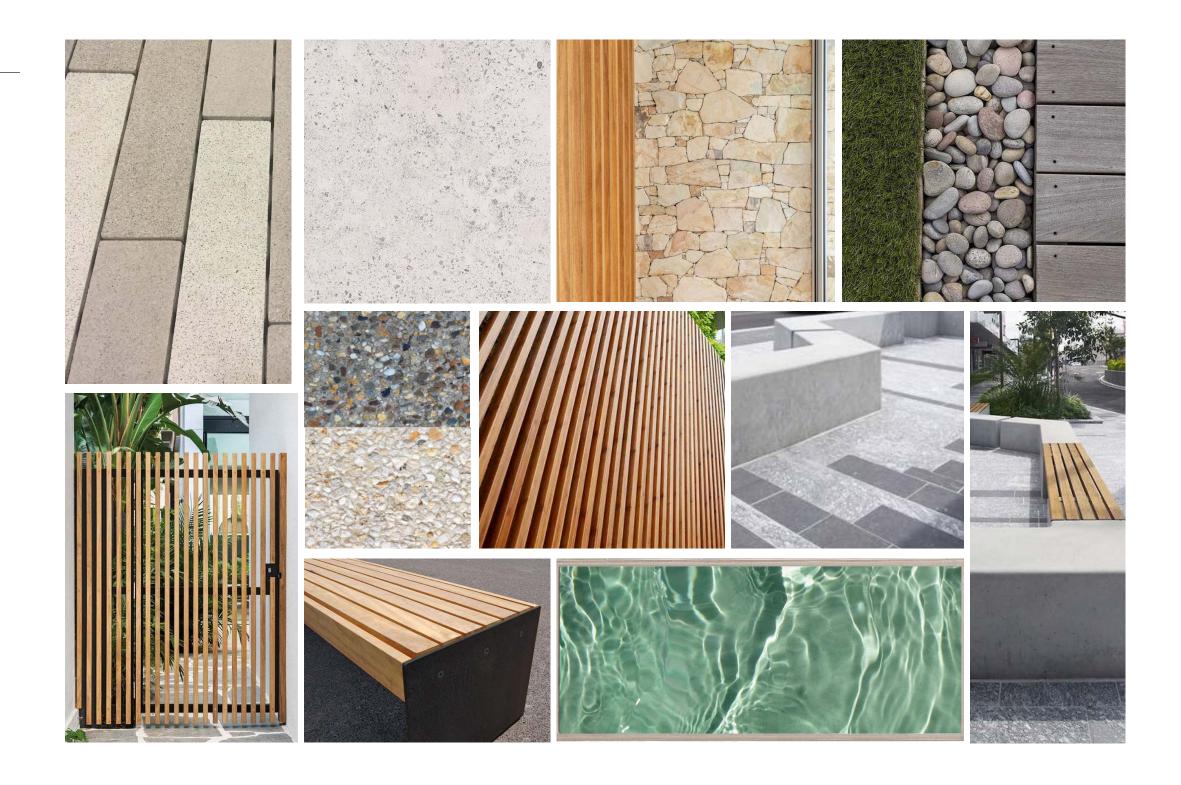


large canopy existing tree in neighbour's property

8 Materials

8.1 Hard Landscape

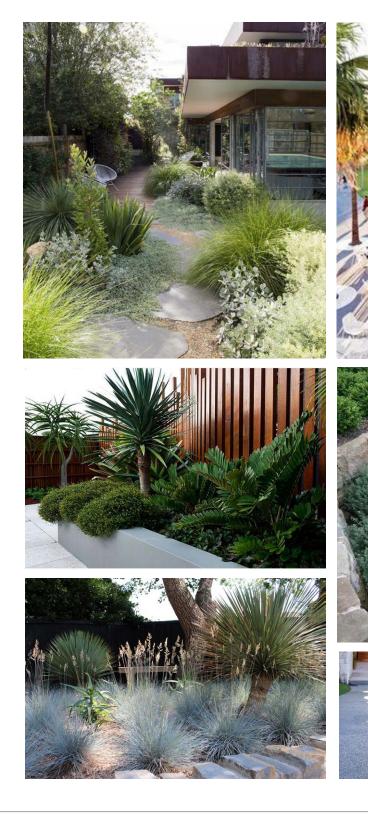
Materials and colours reference the bayside tones and textures. Cooling and soft with mostly natural materials, the palette is calm, relaxed and has a coastal feel.

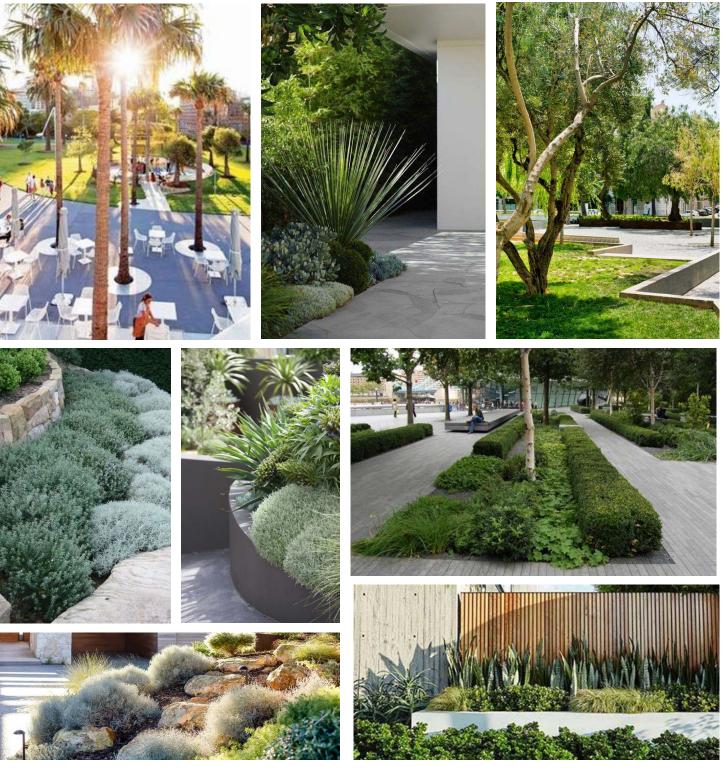


8.2 Soft Landscape

Enhancing the hard landscape materials, the soft landscape palette also reflects the tones and textures of bayside living.

Colours and textures compliment or contrast materials and will be composed in structured and formal arrangements in some areas, and relaxed and organic arrangements in others, to reflect the precincts within the development.





9 Planting Palette (Public areas)



Civic Heart

Large feature trees to reflect civic nature. Shade tolerant, ornamental shrubs and groundcovers.



Transitional density

Foliage and texture with coastal influences. Small to medium sized trees to transition to lower density neighbourhood.

Civic Heart					~~~
Botanic Name	Common Name	Mature (H x W)	Install Size		QT
Trees					
Ginkgo biloba	Maidenhair Tree	12 x 5m	45Lt	E	0
Lagerstroemia indica x fauriei 'Natchez'	White Crepe Myrtle	6 x 4m	45Lt	E	0
Magnolia grandiflora 'Exmouth'	Southern Magnolia	12-15 x 5-8m	45Lt	E	0
Platanus orientalis 'Digitata'	Oriental Plane cultivar	15-20 x 10m	45Lt	E	0
Tristaniopsis laurina	Water Gum	10 x 6m	45Lt	Ν	0
Ulmus glabra 'Lutescens'	Golden Elm	15 x 12m	45Lt	E	0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Alocasia macrorrhizos	Elephant Ears	1 x 0.8m	150mm pot	Ν	0
Arthropodium cirratum	Renga Renga Lily	lxlm	150mm pot	E	0
Acacia cognata 'Limelight'	River Wattle	0.5m x 1m	150mm pot	Ν	0
Clivia miniata	Kaffir lily	0.5 x 0.5m	150mm pot	E	0
Cycas revoluta	Sago Palm	1-2 x 1-2m	300mm pot	E	0
Dianella tasmanica	Tasman Flax Lily	0.6 x 0.5m	150mm pot	Ν	0
Liriope muscari 'Amethyst'	Amethyst Evergreen Giant	0.4 x 0.4m	150mm pot	E	0
Lomandra 'Little Con'	Mat Rush	0.4 x 0.4m	150mm pot	Ν	0
Senecio mandraliscae	Blue Chalk Sticks	0.2 x 1.2m	150mm pot	Ν	0
			Total Plants		0
Transitional density					
Botanic Name	Common Name	Mature (H x W)	Install Size		QT
Trees					
Banksia integrifolia	Coast Banksia	15 x 6m	45Lt	Ν	0
Corymbia citriodora 'Scen tuous'	Lemon-scented Gum	12 x 6m	45Lt	Ν	0
Hymenosporum flavum	Native frangipani	7 x 6m	45Lt	Ν	0
Prunus Iusitanica	Portuguese Laurel	5 x 3m	45Lt	Е	0
Pyrus calleryana 'Chanticleer'	Chanticleer Pear	10 x 5m	45Lt	E	0
Syzygium australe 'Pinnacle'	Pinnacle Lilly Pilly	6 – 10m x 1 – 1.5m	45Lt	Ν	0
Tristaniopsis laurina	Water Gum	10 x 6m	45Lt	Ν	0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Acacia cognata 'Limelight'	River Wattle	0.5m x 1m	150mm pot	Ν	0
Austrostipa stipoides	Coastal Spear Grass	0.6 x 0.6m	150mm pot		0
Banksia spinulosa	Hairpin Banksia	0.5 x 0.5m	150mm pot	Ν	0
Casuarina glauca 'Cousin It'	Swamp Oak	0.2 x 1.5m	150mm pot	Ν	0
Correa alba	White Correa	lxlm	150mm pot	Ν	0
Leucophyta brownii	Cushion Bush	0.75 x 0.75m	150mm pot	Ν	0

















Central Mews

Shady, forested garden walk. Shade tolerant shrubs and groundcovers with hedging species for privacy. Textured foliage with silver and white highlights.

Liriope muscari 'Amethyst'	Amethyst Evergreen Giant	0.4 x 0.4m	150mm pot	E	0
Lomandra 'Tanika'	Tanika Mat Rush	lxlm	150mm pot	Ν	0
Ophiopogon japonicus 'Nana'	Dwarf Mondo Grass	0.15 x 0.15m	150mm pot	Ν	0
Senecio serpens	Blue Chalksticks	0.2 x 1.5m	150mm pot	Ν	0
Stachys byzantina	Lamb's Ears	0.3 x 1m	150mm pot	E	0
Westringia fruticosa	Coastal Rosemary	1.5 x 1.5m	150mm pot	Ν	0
	·		Total Plants		0

Botanic Name	Common Name	Mature (H x W)	Install Size		QTY
Trees					
Angophora costata	Smooth-barked Apple	20 x 12m	45Lt	Ν	0
Elaeocarpus reticulatus	Blueberry Ash	9 x 4m	45Lt	Ν	0
Gleditsia triacanthos var. inermis 'Shademaster'	Green Honey Locust	12 x 10m	45Lt	E	
Jacaranda mimosifolia	Jacaranda	10 x 8m	45Lt	Ν	0
Magnolia loebneri 'Ballerina'	Magnolia	5 x 3m	45Lt	Ν	0
Syzygium australe 'Pinnacle'	Pinnacle Lilly Pilly	6 – 10m x 1 – 1.5m	45Lt	Ν	0
Tilia cordata 'Greenspire'	Small-leaved Lime	9 x 5m	45Lt	Е	0
Waterhousea floribunda 'Sweeper'	Sweeper Lilly Pilly	10 x 5-8m	45Lt	Ν	0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Acacia cognata 'Green Mist'	River Wattle	1.5 x 1.5m	150mm pot	Ν	0
Acmena smithii 'Minor'	Dwarf Lilly Pilly	3 x 3m	150mm pot	Ν	0
Anemone hupehensis	Japanese Wind Flower	1.2 x lm	150mm pot	Е	0
Arthropodium cirratum	Renga Renga Lily	lxlm	150mm pot	Е	0
Daphne odora 'Alba'	Crystal White Daphne	1.2 x 1.2m	150mm pot	Е	0
Liriope muscari 'Variegated'	Variegated Lily Turf	0.3 x 0.3m	150mm pot	Ν	0
Clivia miniata	Kaffır lily	0.5 x 0.5m	150mm pot	Е	0
Murraya paniculata	Orange Jasmine	3 x 3m	150mm pot	Е	0
Pittosporum tobira 'Miss Muffet'	Miss Muffet Pittosporum	1 x 1.5m	150mm pot	Е	0
Plectranthus argentatus	Silver Plectranthus	0.3 x lm	150mm pot	Ν	0
Rhaphiolepis 'Cosmic White'	Cosmic White	1.5 x 1.5m	150mm pot	Е	0
Stachys byzantina	Lamb's Ears	0.3 x lm	150mm pot	E	0
Trachelospermum asiaticum 'Flat Mat'	Flat Mat	0.4 x 3m	150mm pot	Ν	0
			Total Plants		0

Botanic Name	Common Name	Mature (H x W)	Install Size		QTY
Trees					
Angophora costata	Smooth-barked Apple	20 x 12m	45Lt	Ν	0
Elaeocarpus reticulatus	Blueberry Ash	9 x 4m	45Lt	Ν	0
Gleditsia triacanthos var. inermis 'Shademaster'	Green Honey Locust	12 x 10m	45Lt	E	
Jacaranda mimosifolia	Jacaranda	10 x 8m	45Lt	Ν	0
Magnolia loebneri 'Ballerina'	Magnolia	5 x 3m	45Lt	Ν	0
Syzygium australe 'Pinnacle'	Pinnacle Lilly Pilly	6 – 10m x 1 – 1.5m	45Lt	Ν	0
Tilia cordata 'Greenspire'	Small-leaved Lime	9 x 5m	45Lt	E	0
Waterhousea floribunda 'Sweeper'	Sweeper Lilly Pilly	10 x 5-8m	45Lt	Ν	0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Acacia cognata 'Green Mist'	River Wattle	1.5 x 1.5m	150mm pot	Ν	0
Acmena smithii 'Minor'	Dwarf Lilly Pilly	3 x 3m	150mm pot	Ν	0
Anemone hupehensis	Japanese Wind Flower	1.2 x lm	150mm pot	E	0
Arthropodium cirratum	Renga Renga Lily	lxlm	150mm pot	E	0
Daphne odora 'Alba'	Crystal White Daphne	1.2 x 1.2m	150mm pot	E	0
Liriope muscari 'Variegated'	Variegated Lily Turf	0.3 x 0.3m	150mm pot	Ν	0
Clivia miniata	Kaffır lily	0.5 x 0.5m	150mm pot	E	0
Murraya paniculata	Orange Jasmine	3 x 3m	150mm pot	E	0
Pittosporum tobira 'Miss Muffet'	Miss Muffet Pittosporum	1 x 1.5m	150mm pot	E	0
Plectranthus argentatus	Silver Plectranthus	0.3 x lm	150mm pot	Ν	0
Rhaphiolepis 'Cosmic White'	Cosmic White	1.5 x 1.5m	150mm pot	E	0
Stachys byzantina	Lamb's Ears	0.3 x 1m	150mm pot	E	0
Trachelospermum asiaticum 'Flat Mat'	Flat Mat	0.4 x 3m	150mm pot	Ν	0
			Total Plants		0

Yublic Park By Others















Boulevard Entry

Eye-catching, high profile, evergreen ornamental species marking the entry to the precinct.



Suburban Hinterland

Mix of exotics, natives and indigenous species, transitioning to Conservation Interface

Botanic Name	Common Name	Mature (H x W)	Install Size		QTY
Trees		, , ,			
Agathis robusta	Queensland Kauri Pine	30 x 15m	45Lt	Ν	0
Angophora costata	Smooth Bark Apple	20 x12m	45Lt	Ν	0
Livistona australis	Cabbage-tree palm	to 30m	100Lt - 500Lt	Ν	0
Quercus cerris	Turkey Oak	30 x 15m	45Lt	E	0
	//		Total Trees		0
Shrubs, Grasses & Groundcovers					
Carpobrotus rossii	Karkalla	Prostrate 2–3m	150mm pot		0
Casuarina glauca 'Cousin It'	Swamp Oak	0.2 x 1.5m	150mm pot	Ν	0
Doryanthes excelsa	Gymea Lily	2 x 4m	300mm pot	Ν	0
.omandra 'Tanika'	Tanika Mat Rush	l×lm	150mm pot	Ν	0
Olearia axillaris	Coastal Daisy Bush	1m x 1m (clipped ball)	150mm pot		0
Pennisetum advena 'Rubrum'	Purple Fountain Grass	1.5 x lm	150mm pot	E	0
Senecio mandraliscae	Blue Chalk Sticks	0.2 x 1.2m	150mm pot	Ν	0
Strelitzia nicolai	Giant Bird of Paradise	6 x 3.5m	300mm pot	E	0
Strelitzia reginae	Bird or Paradise	1.5 x lm	300mm pot	E	0
Frachelospermum asiaticum 'Flat Mat'	Flat Mat	0.4 x 3m	150mm pot	Ν	0
/iola hederacea	Native Violet	0.1 x lm	150mm pot		0
					~
			Total Plants		0
	Common Name	Mature (H x W)	Iotal Plants		
Botanic Name	Common Name	Mature (H x W)			
Botanic Name Trees	Common Name Black Wattle	Mature (H x W) 8-10m x 6-10m			
Botanic Name Trees Acacia mearnsii		· · ·	Install Size		QTY
Botanic Name Trees Acacia mearnsii Acacia melanoxylon	Black Wattle	8–10m x 6–10m	Install Size 45Lt		
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis	Black Wattle Blackwood	8–10m x 6–10m 8–10m x 6–15m	Install Size 45Lt 45Lt		QTY 0 0
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata	Black Wattle Blackwood Black She-oak	8–10m x 6–10m 8–10m x 6–15m 8m x 2–6m	Install Size 45Lt 45Lt 45Lt	 	QTY 0 0 0
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana	Black Wattle Blackwood Black She-oak Drooping She-oak	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m	Install Size 45Lt 45Lt 45Lt 45Lt	 	QTY 0 0 0 0
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt		QTY 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp.	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt	Ν	QTY 0 0 0 0 0 0 0
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 45Lt	N N	QTY 0 0 0 0 0 0 0 0
Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 45Lt 45Lt 45Lt	N N N	QTY 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 45Lt 45Lt 100Lt - 500Lt	N N N	QTY 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata ivistona australis ophostemon confertus Prunus lusitanica	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 100Lt - 500Lt	N N N N	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer'	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m	Install Size 451t 451t 451t 451t 1001t - 5001t 451t 451t 1001t - 5001t 451t 1001t - 5001t 451t	N N N N E	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer'	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel Chanticleer Pear	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m 10 x 5m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 45Lt 100Lt - 500Lt 45Lt 100Lt - 500Lt 45Lt 45Lt 45Lt	N N N E E	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer' Syzygium australe 'Pinnacle'	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel Chanticleer Pear	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m 10 x 5m	Install Size 451t 451t 451t 451t 451t 1001t - 5001t 451t 451t 1001t - 5001t 451t 451t 451t 451t 451t 451t	N N N E E	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis ophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer' Syzygium australe 'Pinnacle' Shrubs, Grasses & Groundcovers	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel Chanticleer Pear	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m 10 x 5m	Install Size 45lt	N N N E E	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Botanic Name Frees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer' Syzygium australe 'Pinnacle' Shrubs, Grasses & Groundcovers	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel Chanticleer Pear Pinnacle Lilly Pilly	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m 10 x 5m 6 - 10m x 1 - 1.5m	Install Size 45Lt 45Lt 45Lt 45Lt 100Lt - 500Lt	N N N E E	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Suburban Hinterland Botanic Name Trees Acacia mearnsii Acacia melanoxylon Allocasuarina littoralis Allocasuarina verticillata Archontophoenix cunninghamiana Brachychiton acerifolius Cupaniopsis anacardioides Eucalyptus leucoxylon subsp. connata Livistona australis Lophostemon confertus Prunus lusitanica Pyrus calleryana 'Chanticleer' Syzygium australe 'Pinnacle' Shrubs, Grasses & Groundcovers Alyxia buxifolia Arthropodium cirratum Atriplex cinerea	Black Wattle Blackwood Black She-oak Drooping She-oak Bangalow palm Illawarra Flame Tree Tuckeroo Yellow Gum Cabbage-tree palm Queensland Box Portuguese Laurel Chanticleer Pear Pinnacle Lilly Pilly Sea Box	8-10m x 6-10m 8-10m x 6-15m 8m x 2-6m 10-11m x 3-8m to 20m 12 x 6m 10 x 8m 12 x 10m to 30m 15 x 10m 5 x 3m 10 x 5m 6 - 10m x 1 - 1.5m 1 x 1m (clipped ball)	Install Size 451t 51t 451t 51t 451t 51t 451t 451t 451t 451t 451t 451t 451t 451t 50mm pot	N N N E E N	QTY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0









Conservation Interface

Tract

Indigenous plants to provide a transition from conservation zone.

Dianella tasmanica	Tasman Flax Lily	0.6 x 0.5m	150mm pot	Ν	0
Dichondra repens	Kidney Weed	0.1 x 1.5m	150mm pot		0
Doryanthes excelsa	Gymea Lily	2 x 4m	300mm pot	Ν	0
Hardenbergia violacea	Purple Coral Pea	climber	150mm pot		0
Indigofera australis	Austral indigo	1–2m x 1–2m	150mm pot		0
Liriope muscari 'Amethyst'	Amethyst Evergreen Giant	0.4 x 0.4m	150mm pot	E	0
Murraya paniculata	Orange Jasmine	3 x 3m	150mm pot	Е	0
Olearia axillaris	Coastal Daisy Bush	1m x 1m (clipped ball)	150mm pot		0
Pennisetum advena 'Rubrum'	Purple Fountain Grass	1.5 x lm	150mm pot	E	0
Trachelospermum asiaticum 'Flat Mat'	Flat Mat	0.4 x 3m	150mm pot	Ν	0
Viola hederacea	Native Violet	0.1 x lm	150mm pot		0
			Total Plants		0

Botanic Name	Common Name	Mature (H x W)	Install Size		QTY
Trees					
Acacia mearnsii	Black Wattle	8–10m x 6–10m	45Lt		0
Allocasuarina verticillata	Drooping She-oak	10–11m x 3–8m	45Lt		0
Acacia melanoxylon	Blackwood	12-15 x 5m	45Lt		0
Allocasuarina littoralis	Black Sheoak	10 x 4m	45Lt		0
Banksia integrifolia	Coastal Banksia	15–20m x 5–12m	45Lt		0
Eucalyptus melliodora	Yellow Box	10-15 x 8-10m	45Lt		0
Eucalyptus pauciflora	Snow Gum	10m x 6-10m	45Lt		0
Eucalyptus viminalis ssp. Pryoriana	Coast Manna-gum	15–16m x 5–12m	45Lt		0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Acacia stricta	Hop Wattle	2–5m x 2–4m	tube/ 150mm pot		10
Acrotriche serrulata	Honey-pots	10-30cm x 30cm-1m	tube/ 150mm pot		0
Alyxia buxifolia	Sea Box	1–3m x 1–3m	tube/ 150mm pot		0
Atriplex cinerea	Coast Saltbush	1–2m x 2–3m	tube/ 150mm pot		0
Allocasuarina paradoxa	Dwarf She-oak	50cm-2m x 1-2m	tube/ 150mm pot		0
Austrostipa stipoides	Coastal Spear Grass	0.6 x 0.6m	tube/ 150mm pot		0
Banksia marginata	Silver Banksia	1–6m x 1–4m	tube/ 150mm pot		0
Brachyscome parvula	Coast Daisy	10-45cm x 1-2m	tube/ 150mm pot		0
Cassinia aculeata	Common Cassinia	4m x 2m	tube/ 150mm pot		0
Kunzea leptospermoides	Yarra Burgan	2–5m x 2–4m	tube/ 150mm pot		0
Correa alba	White Correa	l x lm	tube/ 150mm pot		0
Ficinia nodosa	Knobby Club Rush	0.7 x 0.7m	tube/ 150mm pot		0
Goodenia ovata	Hop Goodenia	1–2.5m x 1–3m	tube/ 150mm pot		0
omandra longifolia	Spiny-headed Mat-rush	50cm-1.2m x 50cm- 1.2m	tube/ 150mm pot	I	0
Nyoporum parvifolium	Creeping Boobiala	0.2 x 2m	tube/ 150mm pot		0
Olearia axillaris	Coastal Daisy Bush	1–2m x 1–2m	tube/ 150mm pot		0
Solanum laciniatum	Large Kangaroo Apple	1–3m x 1–3m	tube/ 150mm pot		0
/iminaria juncea	Golden Spray	2.5–5m x 1–3m	tube/ 150mm pot		0
·	· ·		Total Plants		0

Botanic Name	Common Name	Mature (H x W)	Install Size		QTY
Trees					
Acacia mearnsii	Black Wattle	8–10m x 6–10m	45Lt		0
Allocasuarina verticillata	Drooping She-oak	10-11m x 3-8m	45Lt		0
Acacia melanoxylon	Blackwood	12-15 x 5m	45Lt		0
Allocasuarina littoralis	Black Sheoak	10 x 4m	45Lt		0
Banksia integrifolia	Coastal Banksia	15–20m x 5–12m	45Lt		0
Eucalyptus melliodora	Yellow Box	10-15 x 8-10m	45Lt		0
Eucalyptus pauciflora	Snow Gum	10m x 6-10m	45Lt	I	0
Eucalyptus viminalis ssp. Pryoriana	Coast Manna-gum	15–16m x 5–12m	45Lt	I	0
			Total Trees		0
Shrubs, Grasses & Groundcovers					
Acacia stricta	Hop Wattle	2–5m x 2–4m	tube/ 150mm pot	I	10
Acrotriche serrulata	Honey-pots	10-30cm x 30cm-1m	tube/ 150mm pot	I	0
Alyxia buxifolia	Sea Box	1-3m x 1-3m	tube/ 150mm pot	I	0
Atriplex cinerea	Coast Saltbush	1–2m x 2–3m	tube/ 150mm pot	I	0
Allocasuarina paradoxa	Dwarf She-oak	50cm-2m x 1-2m	tube/ 150mm pot		0
Austrostipa stipoides	Coastal Spear Grass	0.6 x 0.6m	tube/ 150mm pot		0
Banksia marginata	Silver Banksia	1–6m x 1–4m	tube/ 150mm pot		0
Brachyscome parvula	Coast Daisy	10-45cm x 1-2m	tube/ 150mm pot		0
Cassinia aculeata	Common Cassinia	4m x 2m	tube/ 150mm pot		0
Kunzea leptospermoides	Yarra Burgan	2–5m x 2–4m	tube/ 150mm pot		0
Correa alba	White Correa	l x lm	tube/ 150mm pot		0
Ficinia nodosa	Knobby Club Rush	0.7 x 0.7m	tube/ 150mm pot		0
Goodenia ovata	Hop Goodenia	1–2.5m x 1–3m	tube/ 150mm pot		0
Lomandra longifolia	Spiny-headed Mat-rush	50cm-1.2m x 50cm- 1.2m	tube/ 150mm pot	I	0
Myoporum parvifolium	Creeping Boobiala	0.2 x 2m	tube/ 150mm pot	I	0
Olearia axillaris	Coastal Daisy Bush	1–2m x 1–2m	tube/ 150mm pot	I	0
Solanum laciniatum	Large Kangaroo Apple	1–3m x 1–3m	tube/ 150mm pot	I	0
Viminaria juncea	Golden Spray	2.5-5m x 1-3m	tube/ 150mm pot	I	0
			Total Plants		0









10 Appendix - Examples of Tree planting on structure

Tract have reviewed and limit their concern to Tree Planter Volume requirements on structure. (Ref Table 1 Soil requirements for trees extracted from BADS guidelines).

BADS guidelines would require small trees (type A) on structure to have access at least 12m3 of soil volume. And medium size tree (type B) to have access at least 28m3 of soil volume

The current scheme would allow for volumes to accommodate both small and medium size trees. Table 1 also shows indicative tree dimensions at maturity.

Table 1 Soil requirements for trees (extracted from BADS guidelines)

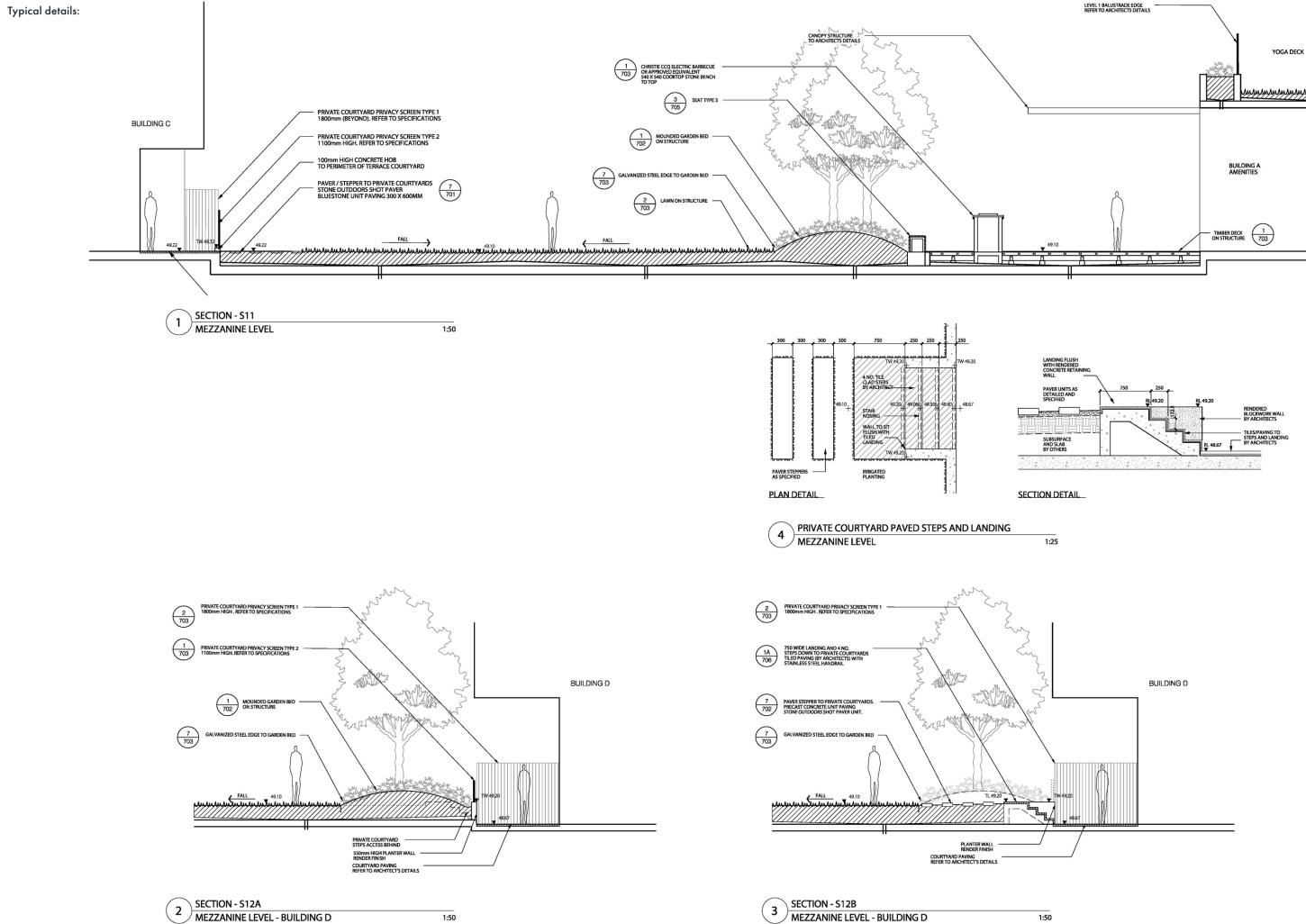
Тгее Туре	Tree in deep soil	Tree in planter		Minimum canopy diameter at maturity	Minimum height at maturit	
	Area of deep soil	Volume of planter soil	Depth of planter soil	minimum canopy diameter at matarity	inning neight at maturity	
Туре А	12 square metres	12 cubic metres	0.8 m	4 metres	6 metres	
Туре В	49 square metres	28 square metres	1.0m	8 metres	8 metres	

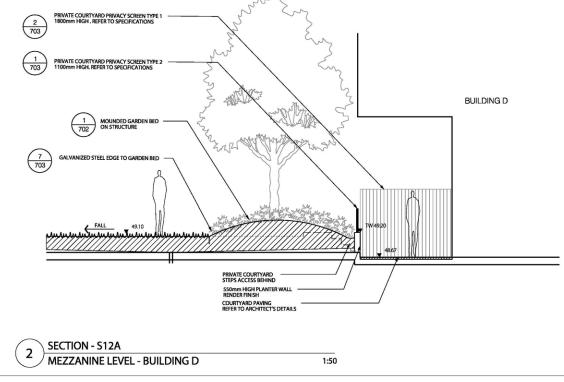
10.1 Example 1: Caulfield Village

- Small to medium canopy trees
- 800mm minimum depth mounded soil

Images taken 12 months post installation:







10.2 Example 2: Acacia Place, Abbotsford

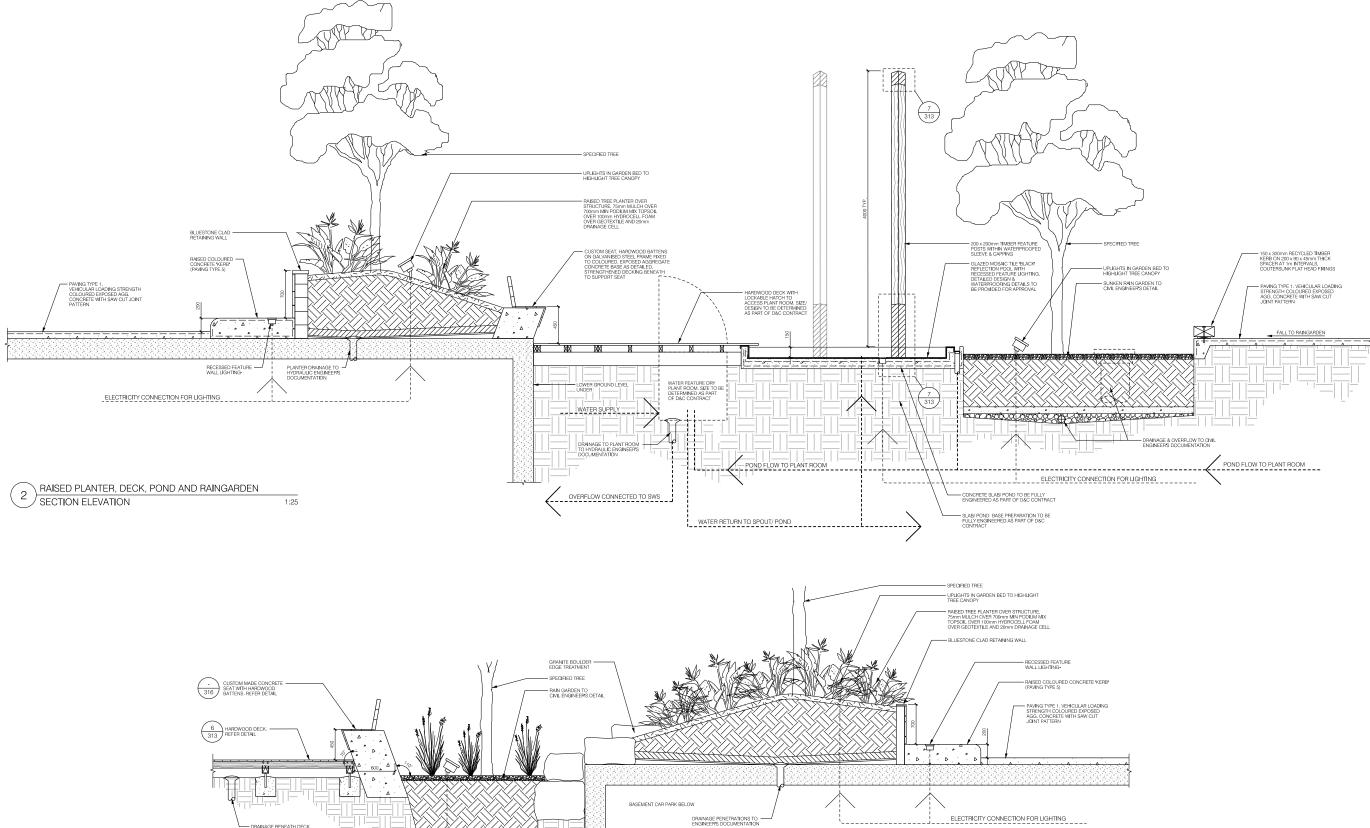
- Medium to large canopy trees

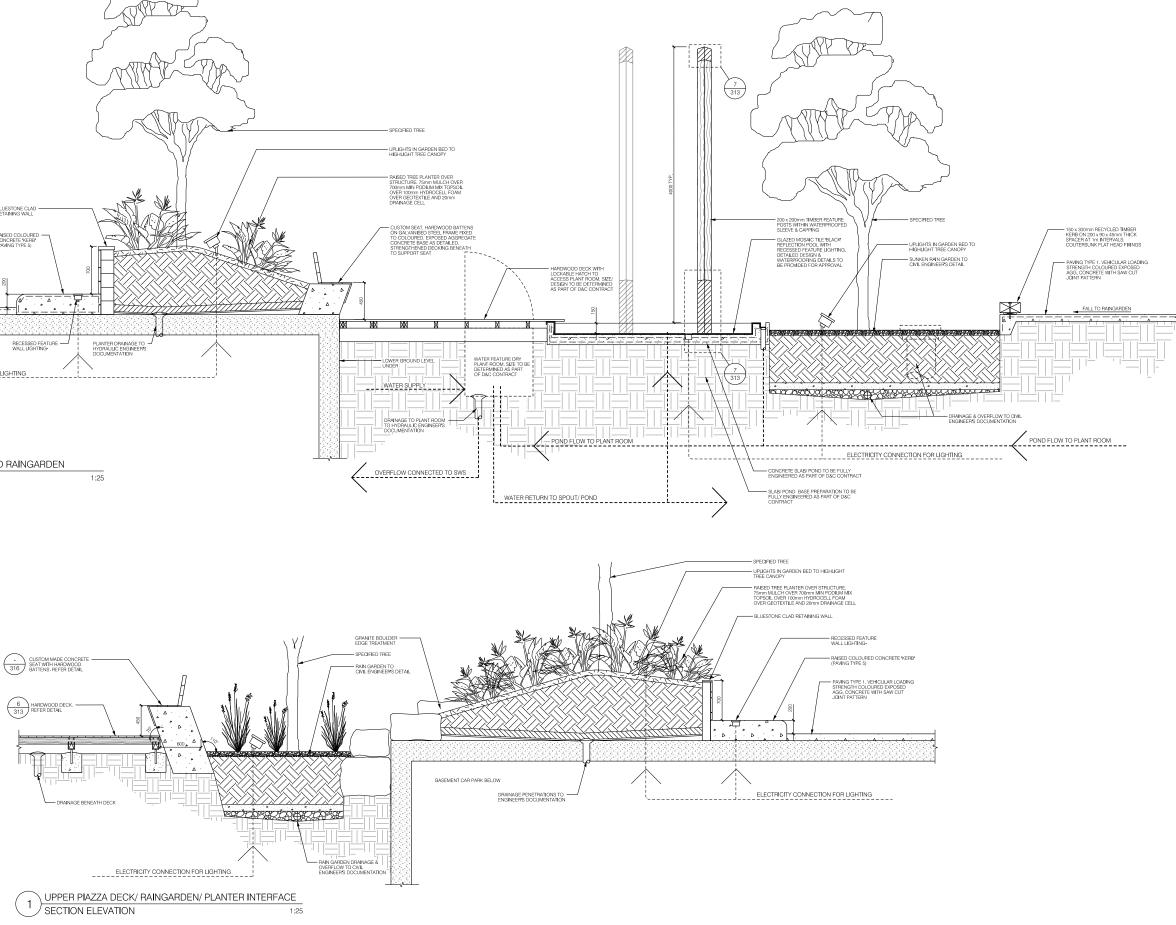
- 900mm average depth mounded soil











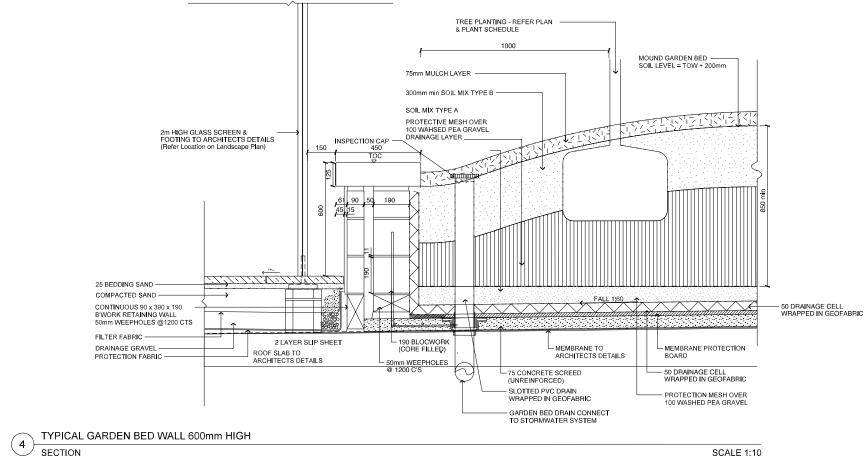
10.3 Example 3: Star City Casino, Sydney

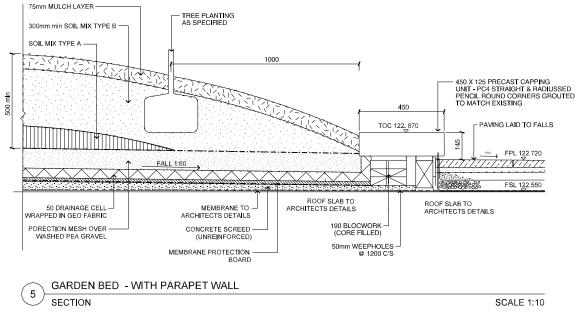
- Medium to large canopy trees

- 700 - 900mm depth soils









30 July 2021

SCALE 1:10

