

ARATAKI DEVELOPMENT

LANDSCAPE CONCEPT REPORT

20 NOVEMBER 2025

REV 2

Statement of Experience

Boffa Miskell

Boffa Miskell is a leading New Zealand environmental planning and design consultancy. The company is multi-disciplinary, offering expertise in planning, urban design, landscape architecture, landscape planning, transport planning, ecology, cultural advisory and CPTED.

The company was established in 1972 and has extensive experience in residential design across New Zealand, delivering projects that emphasise community wellbeing, integration with the local context, sustainability and cultural sensitivity.

Emma Todd

I am a Partner and Landscape Architect at Boffa Miskell Ltd and I specialise in housing, subdivision and residential design. I have been employed at Boffa Miskell since 2008. Prior to this I worked for three years in London.

I hold the qualifications of Bachelor of Landscape Architecture (Hons) from Lincoln University which I completed in 2001. I am a registered member of the New Zealand Institute of Landscape Architects. I have 23 years experience as a Landscape Architect and have broad experience working across multi-disciplinary projects on behalf of a range of clients including land developers, commercial entities, Councils, iwi authorities and individual landowners.

I have been the lead Landscape Architect on a range of housing developments across the North Island, including the Long Bay Development on Auckland's North Shore, Warkworth Ridge, Unitec Carrington Developments for Te Ākitai and Te Kawerau a Maki and Rangitopuni, Riverhead Forest.

I confirm that, in my capacity as author of parts of this FastTrack Application, I have read and abide by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses Practice Note 2023.



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I am an Associate Principal and Landscape Architect at Boffa Miskell Ltd and I specialise in masterplanning, residential design and streetscapes. I have been employed at Boffa Miskell since 2013.

I hold the qualifications of Bachelor of Landscape Architecture (Hons) from Lincoln University which I completed in 2013. I am a member of the New Zealand Institute of Landscape Architects. I have 11-years experience as a Landscape Architect and have broad project experience working on behalf of Local and Central Government clients, land developers, commercial entities and iwi authorities.

I confirm that, in my capacity as author of parts of this FastTrack Application, I have read and abide by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses Practice Note 2023.

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INTRODUCTION

THE PROPOSAL

The site is located approximately 2km north-east of Havelock North Town Center with the Tukituki River 1km to the east. The proposed development is located between the existing low density residential suburb of Te Mata and the adjacent agricultural landscape.

The site is relatively flat with the eastern boundary following the edge of the river terrace. The terrace sits approximately 2-4m above the adjacent landscape and the flood plain of the Tukituki River, providing opportunities for views over the wider landscape.

LOCATION



LANDSCAPE STATEMENT

INTENT

The landscape design helps to create an attractive, family-friendly neighbourhood with trees, planting and quality materials.

The planting, streets and pedestrian connections, integrates the new residential area to integrate with the existing neighbourhood to the south/west and the rural landscape to the east and north.



STREETSCAPE FRAMEWORK

The streets are designed to be slow speed and prioritise access to houses, rather than through movement. At street corners and mid block there is a material change and planting to support slow speed, pedestrian friendly environment and provide opportunities for informal pedestrian crossing.

Pedestrian connectivity is comprehensive, both within the development and into the existing residential context. There are footpaths provided on both sides of the streets and informal mib-block laneways.

A continuation of the existing shared path on Arataki Rd is provided along the western edge of the development.

OPEN SPACE + PLANTING

A range of spaces have been provided, from the large stormwater reserve to the north, to smaller jointly owned JOALs, and pockets of informal play integrated into the streetscape.

The spaces provide the opportunity for residents to spend time together, host events, walk, play and spend time outdoors. Streets are all planted with trees to provide a comfortable, enjoyable walking experience.

Planting to the rural boundary provides an element of screening, while still allowing views over the wider landscape.

STORMWATER

Stormwater from the internal streets is directed to the stormwater reserve basin at the north-east of the site. Kerb and channel to a piped network is the primary method of conveyance, with overland flow travelling over the street surface and stormwater reserves the run alongside JOALs.

INTEGRATION WITH THE CONTEXT

Fencing to the boundaries of the development is kept to a minimum for security needs only. Where needed, fences are visually permeable and integrated with planting. There are no retaining walls on the boundaries, with planted batters to tie into natural ground levels where required.

Street frontages are have a sense of openness to promote natural surveillance and sense of community, with low, visually permeable fencing if needed for security.

LANDSCAPE MASTERPLAN



KEY FEATURES

- ① STORMWATER RESERVE
- ② LINK TO ARATAKI RD
- ③ CUL-DE-SAC COURTYARD
- ④ MID-BLOCK CROSSING
- ⑤ CENTRAL JOAL AND PRIVATE COMMUNAL SPACE
- ⑥ GREEN STREET WITH 'PLAY ALONG THE WAY'
- ⑦ TYPICAL JOAL WITH OPEN SPACE
- ⑧ EASTERN JOAL
- ⑨ BOUNDARY PLANTING
- ⑩ SHARED PATH CROSSING
- ⑪ POTENTIAL FUTURE BUS STOP

LEGEND

	EXISTING TREES RETAINED		CONCRETE
	PROPOSED TREES		HOGGIN
	PLANTING		ASPHALT
	GRASS		PROPOSED LIGHT POLES
	PLAY ALONG THE WAY		EXISTING LIGHT POLES
	INDICATIVE DRIVEWAY		SOLAR BOLLARDS (IN PRIVATE JOALS)

FENCING STRATEGY

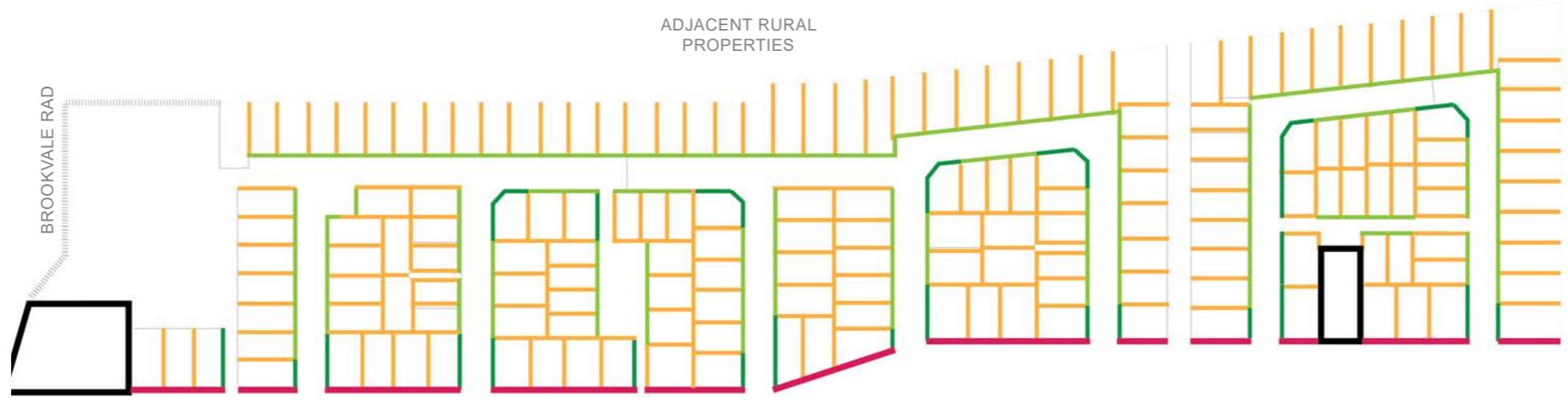
FENCING PLAN 1 - EXTERNAL BOUNDARY FENCING PROVIDED BY THE DEVELOPMENT



Location	Identifier	Maximum Height	Construction Material	Specific Provisions
External Rural Boundary – Permeable Fence		1.8m	Minimum 50% visually permeable	n/a
External Rural Boundary – Acoustic Fence		2m	Closed boarded	Acoustic fence
External Reserve Boundary – Shaggy Range Boundary		1.8m	Minimum 50% visually permeable	50 x 100 mm square mesh (x-fence)
External Reserve Boundary – Shaggy Range Driveway		1.8m	Closed boarded	n/a

FENCING STRATEGY

FENCING PLAN 2 - SITE WIDE FENCING REQUIREMENTS PROVIDED BY THE LOT OWNER



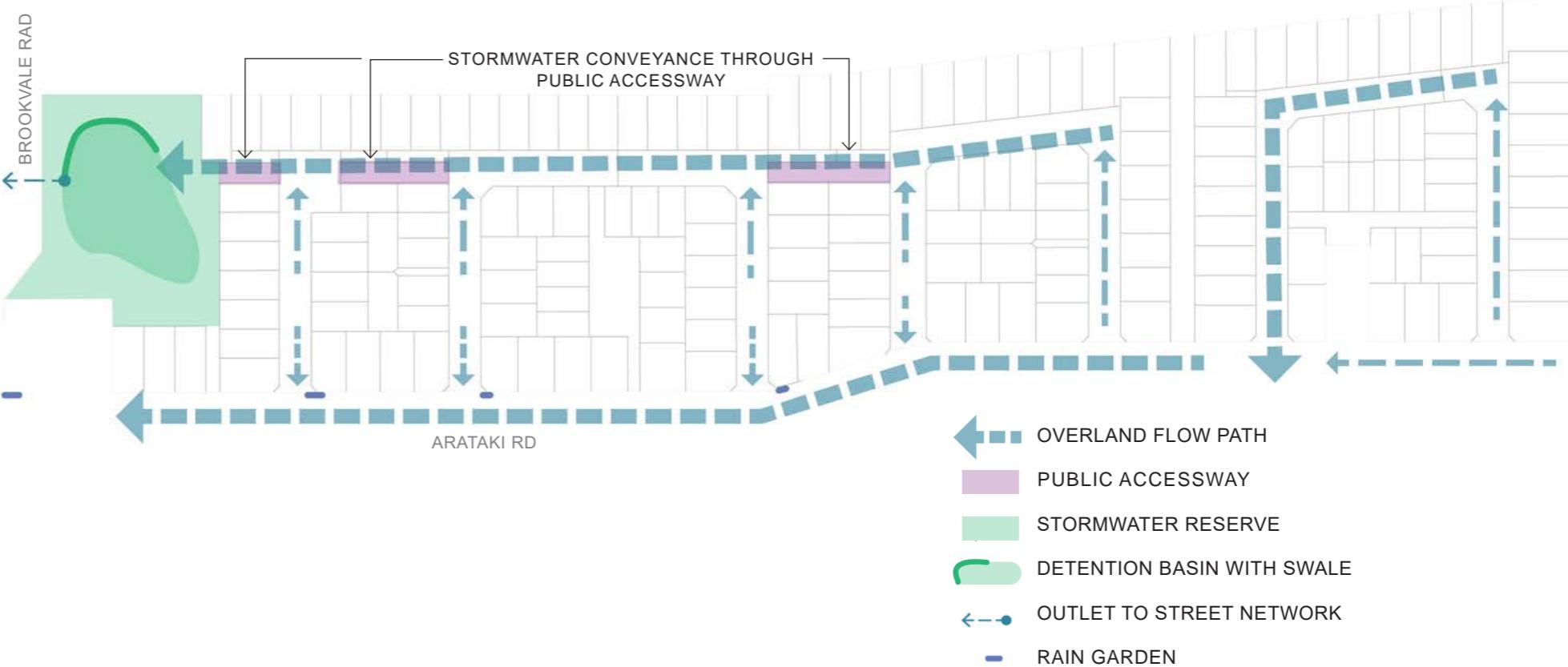
Location	Identifier	Maximum Height	Construction Material	Specific Provisions
Arataki Road Boundary	■	1.2m	Minimum 50% visually permeable	n/a
Road Front Boundary	—	1.2m	Optional	n/a
Side / Rear Boundary	—	1.8m	Optional	Where the side/rear fence abuts the Arataki Road Boundary or Front Boundary: Fence must step down to a maximum 1.2m height for a minimum length of 3m. Where the side/rear fence abuts a Corner site Boundary: Maximum 1.8m height is allowed.
Corner Site Boundary	—	1.2m	Optional	Maximum 1.2m height, with allowable increase to a maximum 1.8m height for a maximum 50% length of the site road or reserve frontage.
Existing Residential Boundary	—	1.8m	Optional	Where an existing boundary fence is in place, no new/additional fencing is required.

LANDSCAPE STRATEGY

STORMWATER

Stormwater is directed via kerb and channel to the piped network, which discharges to the detention basin via a swale.

If the piped network is full or blocked, stormwater will flow overland along the streets and through the public accessways to reach to detention basin. Small areas of streets flow out to Arataki Rd as indicated.



LIGHTING

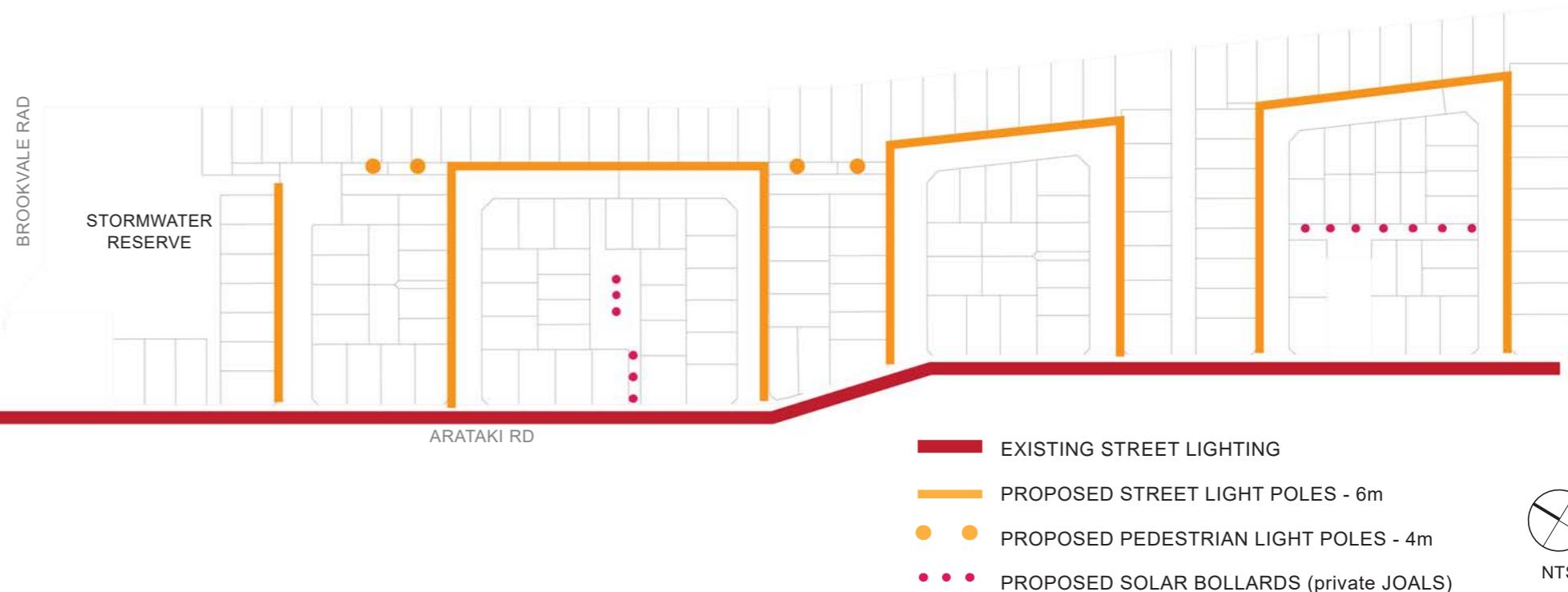
Lighting will be used to create a hierarchy of routes. Arataki Rd has existing tall poles that will remain. New LED pole lights will be installed in the streets of the development at a 6m mounting height.

The footpaths that run alongside JOALs will be lit by the same luminaires and poles as the street, but at a human scale mounting height of 4m.

Solar bollards provide a low level of amenity lighting in private JOALs for safety.

The stormwater reserve is dark at night, including the pedestrian link to Arataki Rd, to encourage people to walk along the streets where there is greater natural surveillance.

Colour temperatures will be a warm white (2700k) to create a comfortable atmosphere and reduce impact on wildlife. Spill and glare will be kept to a minimum.



LANDSCAPE STRATEGY

STREET NETWORK

Streets follow a hierarchy of scale, with Arataki Rd the primary street, connections into the site as a secondary scale. Streets are described in more detail on the following page.

- ARATAKI RD
- GREEN STREET
- GREEN PEDESTRIAN LINK
- TYPICAL STREET
- JOAL 8m
- JOAL 6m (BESIDE PUBLIC ACCESSWAY)
- JOAL 4m
- PAVED CUL-DE-SAC / COURTYARD
- CORNER THRESHOLD TREATMENT



PEDESTRIAN NETWORK

There is a comprehensive network of pedestrian connections both within the site and at a number of locations along Arataki Rd to integrate with the adjacent community.

There is a 'green link' that connects the stormwater reserve to Meissner Reserve. This route features clusters of native trees, wide planted berms and 'play along the way' features such as artistic elements to discover, informal play opportunities and alternative playful routes for young people to interact with.

- FOOTPATHS
- PRIVATE FOOTPATH THROUGH JOAL
- INFORMAL CROSSING
- PLANTED BUILD-OUT
- ↔ GREEN LINK WITH WIDE PLANTED BERMS
- RECREATIONAL PATHWAY
- PEDESTRIAN CROSSING
- OPEN SPACE AND PLANTED THRESHOLDS



STREET TYPOLOGIES

OVERVIEW

A hierarchy of streets are proposed that are illustrated on the following pages. These include:

ARATAKI ROAD - 20.1M

GREEN STREET - 18M

TYPICAL STREET - 16M

GREEN PEDESTRIAN LINK

With 'play along the way' features and native planting

JOAL 8M

JOAL 6M

JOAL 4M

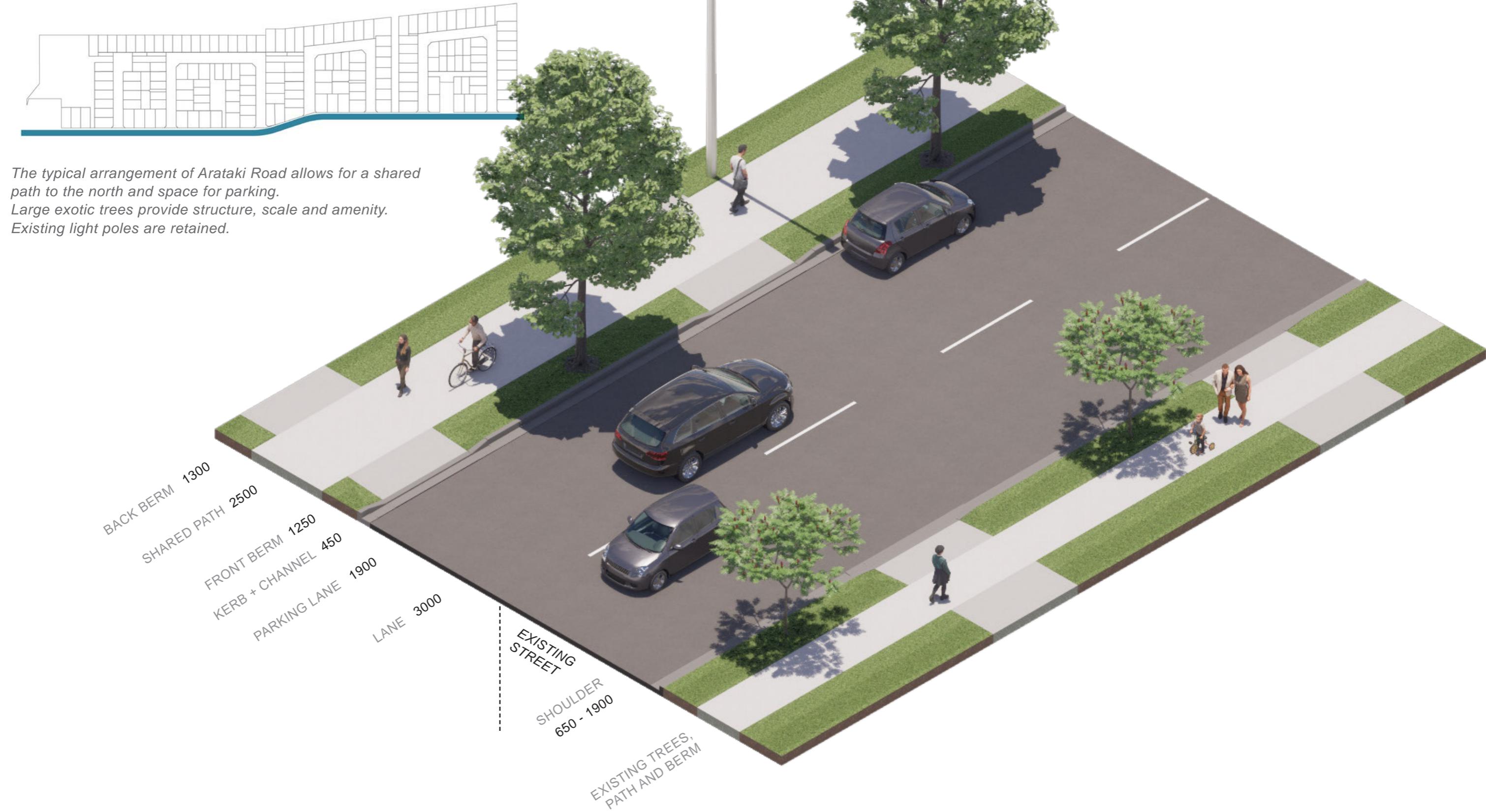
Shared driveway with 500mm planting to either side.



STREET TYPOLOGIES

ARATAKI ROAD - 20.1m

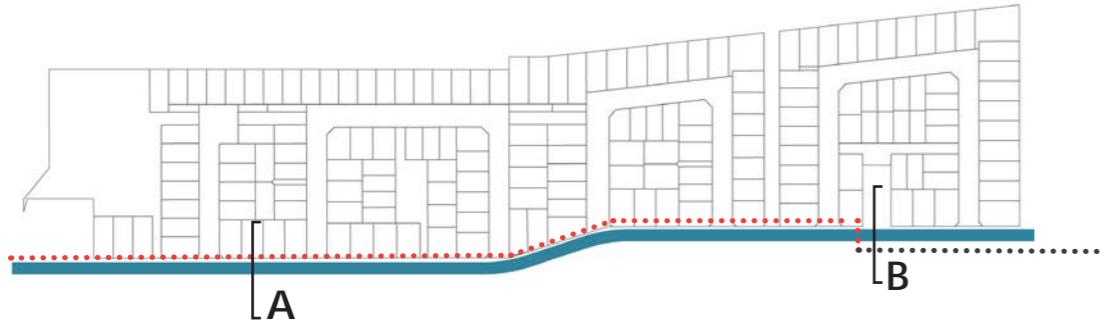
(Refer to Civil drawings - Arataki Road Sections 1-3)



STREET TYPOLOGIES

ARATAKI ROAD - SHARED PATH

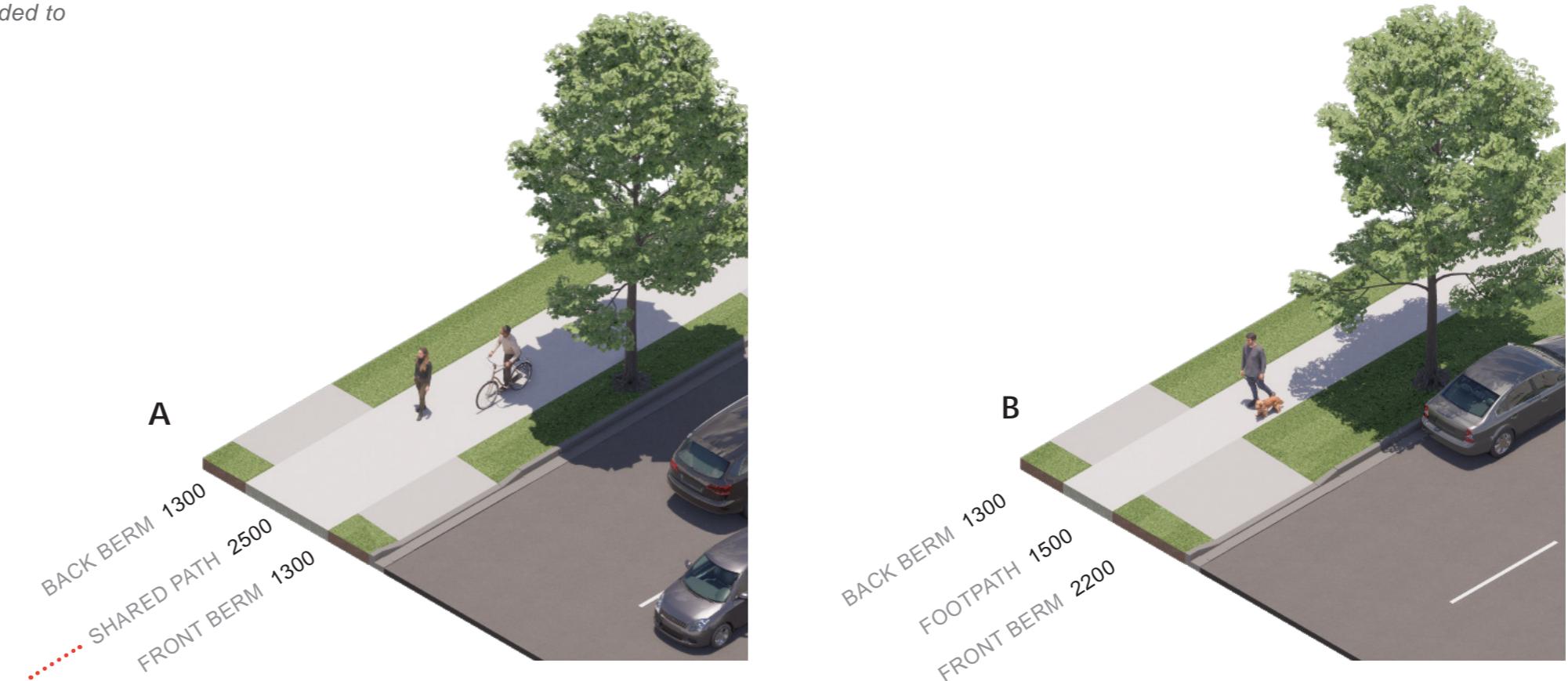
(Refer to Civil drawings - Arataki Road Sections 1-3)



..... PROPOSED SHARED PATH

..... EXISTING SHARED PATH

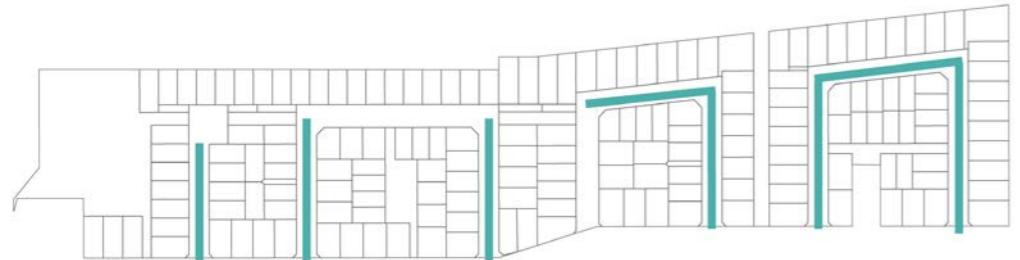
The shared path is extended for the the length of Arataki Rd adjacent to the development. A formal crossing is provided to connect to the existing shared path across Arataki Rd.



STREET TYPOLOGIES

TYPICAL STREET - 16m

Refer to Civil drawings - Access Road Type 1



The typical streets within the development are tree-lined with a footpath to both sides.

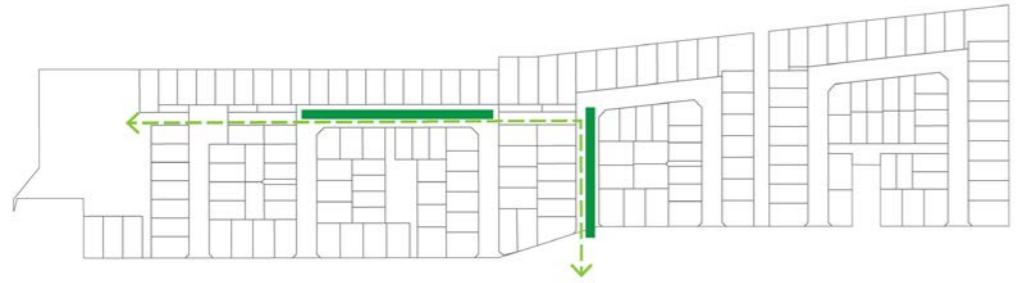
Informal mid-block crossings are provided, with exposed aggregate concrete and planted build-outs to help calm vehicle speeds and increase amenity. The concrete is level with the road surface.



STREET TYPOLOGIES

GREEN STREET - 18m

Refer to Civil drawings - Access Road Type 2



These wider streets form part of the green pedestrian link that connects through the development to the stormwater reserve. They feature a wide planted berm with 'play along the way' features that have a natural aesthetic. Berms are planted with clusters of native trees and swathes of low-growing native planting.



PLAY ALONG THE WAY

To be developed in conjunction with Council and mana whenua.
Elements to be of a natural aesthetic, include small sculptures, learning opportunities, playful linemarking and alternative routes through planted areas.

PLAY ALONG THE WAY



SCULPTURES OF LOCAL CREATURES TO DISCOVER



LEARNING AND INTERACTION



ALTERNATIVE JOURNEYS

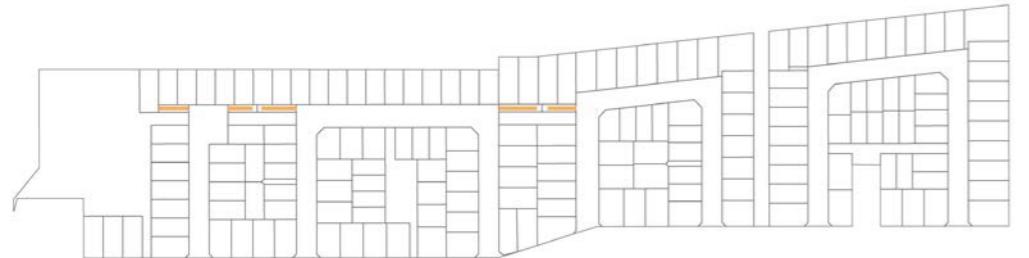
PLAYFUL LINEMARKING



STREET TYPOLOGIES

JOAL - 6m

(Refer to Civil drawings - JOAL Type 3)



The jointly owned access lots are 6m wide and are adjacent to a 10m wide council owned public accessway to convey overland flow. This forms a wide, vegetated laneway.

As part of the 'play along the way' pedestrian link, playful features are integrated into the reserve, such as logs, hopscotch or artistic features to discover.



STREET TYPOLOGIES

JOAL - 8m

(Refer to Civil drawings - JOAL Type 5)



The 8m wide JOAL is a pedestrian friendly lane that provides vehicle access to the adjacent properties.

The surface is exposed aggregate with planting build-outs to reduce through-movement.

Small scale trees and planting are provided to provide amenity, there is bollard lighting and four visitor parks part way along.



DETAIL PLANS

STORMWATER RESERVE



The stormwater reserve provides an open space for the community. It is a predominantly grass space with low planting to create a buffer to the adjoining properties and street.

The gradient is relaxed to the south east, creating an amphitheatre with level ground in the centre of the basin for informal sports or community events.

Houses overlooking the reserve have low, visually permeable fences set in planting to support natural surveillance over the space. Fruit trees are planted for community benefit.

A hoggin path provides a loop walk around the basin, which connects to Arataki Road to the south and to the JOAL to the east.

The reserve is not lit at night to deter use and limit light pollution.

LOCATION



KEY FEATURES

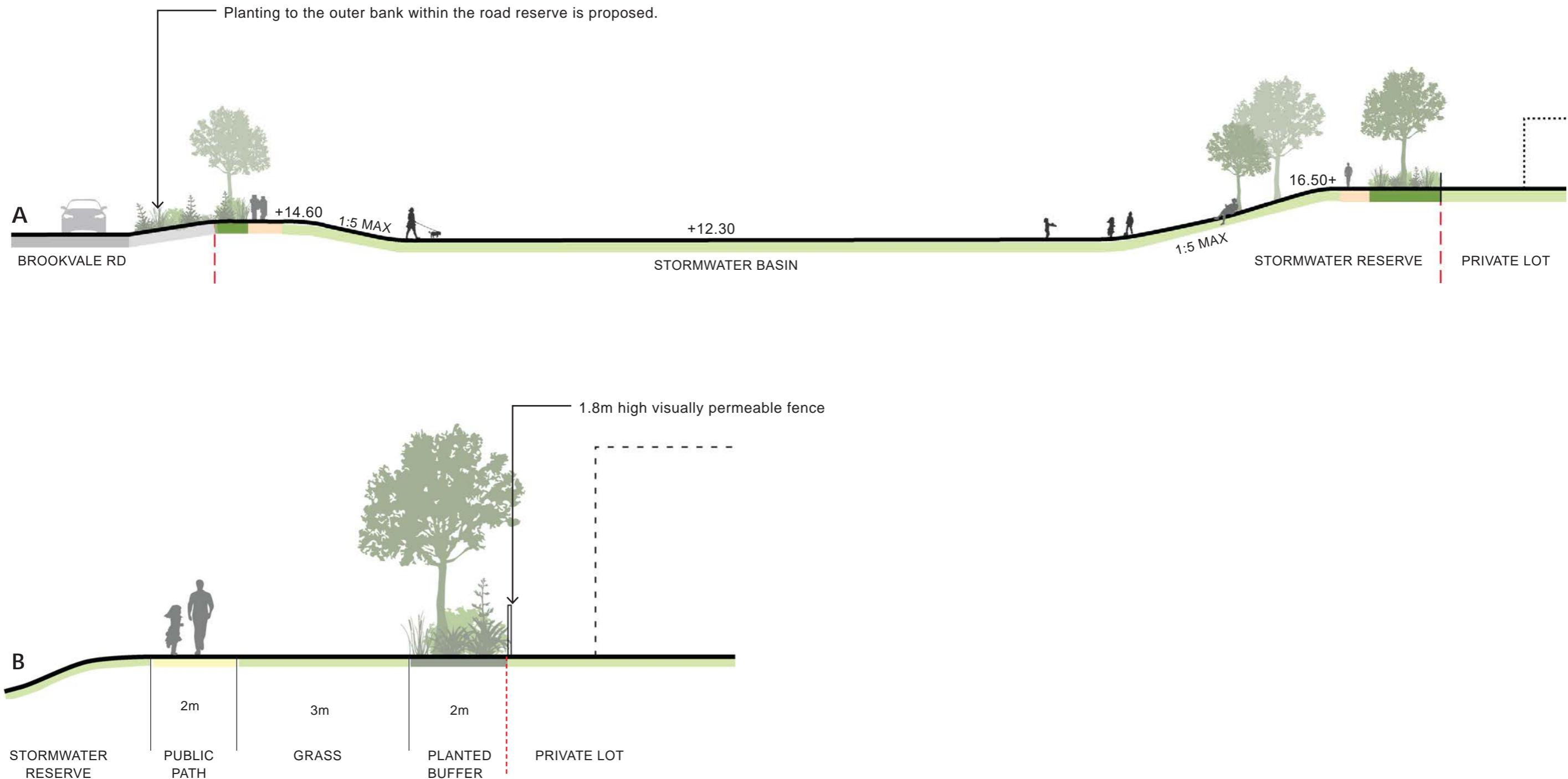
- ① LOOP WALK, 2m WIDE HOGGIN PATH
- ② SEATING SPACE
- ③ FRUIT TREES
- ④ EXISTING TREES TO BE RETAINED
- ⑤ LOW NATIVE PLANTING TO BASIN EDGE AND BANKS ALONGSIDE BROOKVALE RD.

NOTE

DETAILED DESIGN TO BE WORKED THROUGH WITH THE HDC PARKS TEAM

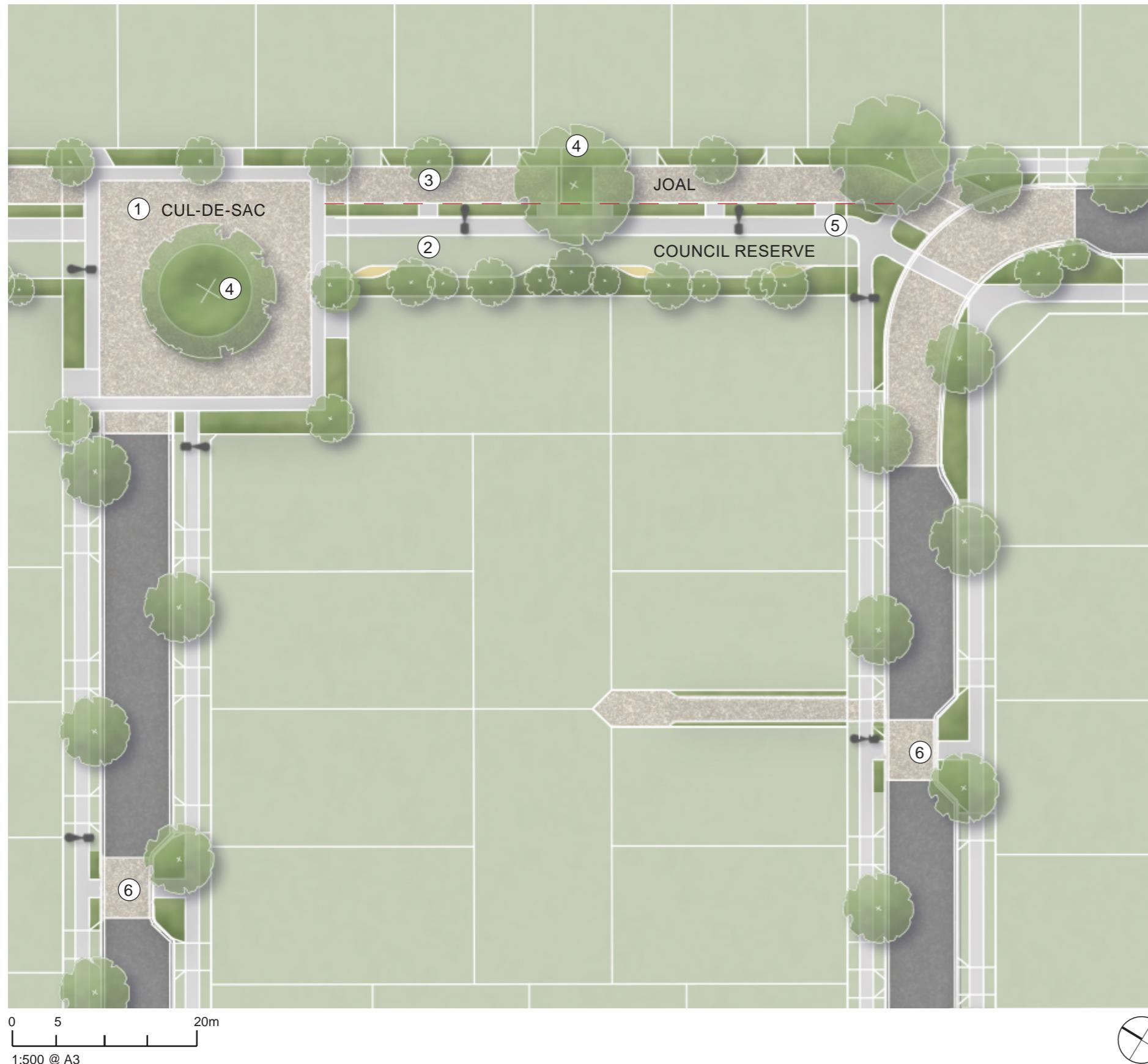
DETAIL PLANS

STORMWATER RESERVE SECTIONS



DETAIL PLANS

CUL-DE-SAC COURTYARD AND TYPICAL JOAL



LOCATION



The turning space at the head of the street is paved with exposed aggregate concrete and framed with low planting and small trees to create a pedestrian friendly courtyard.

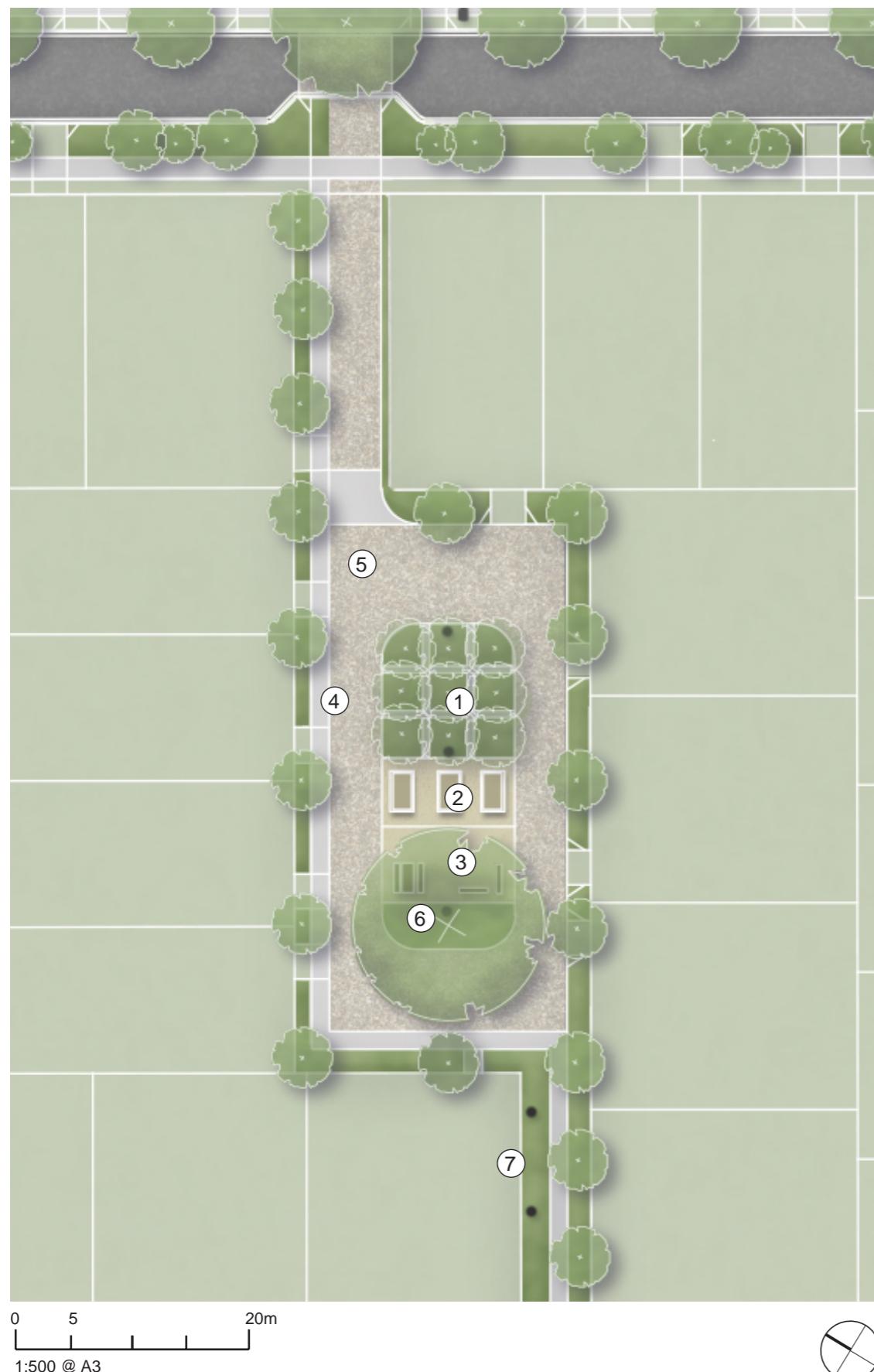
The cul-de-sac forms part of the green pedestrian link across the development, features a large tree in the centre and a level/flush surface for a sense of higher amenity and flexibility of use.

KEY FEATURES

- ① PAVED CUL-DE-SAC WITH CENTRAL PLANTING AND FEATURE TREE.
- ② OPEN SPACE WITH LOW PLANTING AND "PLAY ALONG THE WAY" FEATURES (COUNCIL OWNED).
- ③ JOAL (6m WIDE) WITH EXPOSED AGGREGATE CONCRETE SURFACING.
- ④ LARGE DECIDUOUS FEATURE TREE IN LOW PLANTING.
- ⑤ BOLLARD LIGHTING ALONG FOOTPATH.
- ⑥ INFORMAL MID-BLOCK CROSSING.

DETAIL PLANS

CENTRAL JOAL

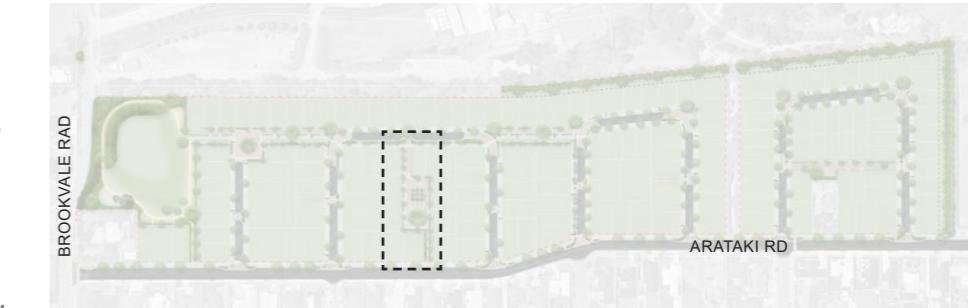


The central JOAL is a space that is shared by the adjoining properties. There is an area of hoggin with picnic table, a seat and low planting. A large deciduous feature tree provides shade while a copse of fruit trees and a raised garden beds provide opportunities for communal use and interaction.

The space is softly lit at night with solar bollard lighting, including the pedestrian walkway to Arataki Rd.

The space is paved with exposed aggregate and has a level surface for flexibility of use. It provides an opportunity for informal social connection, children to play together and grow food, neighbours to host a BBQ, and a quiet green space to look out onto.

LOCATION



KEY FEATURES

- ① FRUIT TREE GROVE
- ② RAISED GARDEN BEDS
- ③ SEATING + TABLE, TABLE TENNIS + CHESS
- ④ CONCRETE FOOTPATH 1.5m WIDE
- ⑤ EXPOSED AGGREGATE CONCRETE SURFACING.
- ⑥ LARGE DECIDUOUS FEATURE TREE IN LOW PLANTING.
- ⑦ LOW PLANTING ALONG 6m WIDE WALKWAY WITH SOLAR BOLLARD LIGHTING.

DETAIL PLANS

EASTERN JOAL



0 5 20m
1:500 @ A3

LOCATION



The shared JOAL is paved with exposed aggregate concrete and has low planting to both sides with small deciduous trees.

There are planting build-outs to reduce through-traffic and speeds, with visitor parking and a large feature behind the existing property.



KEY FEATURES

- ① PAVED THRESHOLD
- ② PLANTING BUILD OUT
- ③ FEATURE TREE
- ④ VISITOR PARKING
- ⑤ BOLLARD LIGHTING

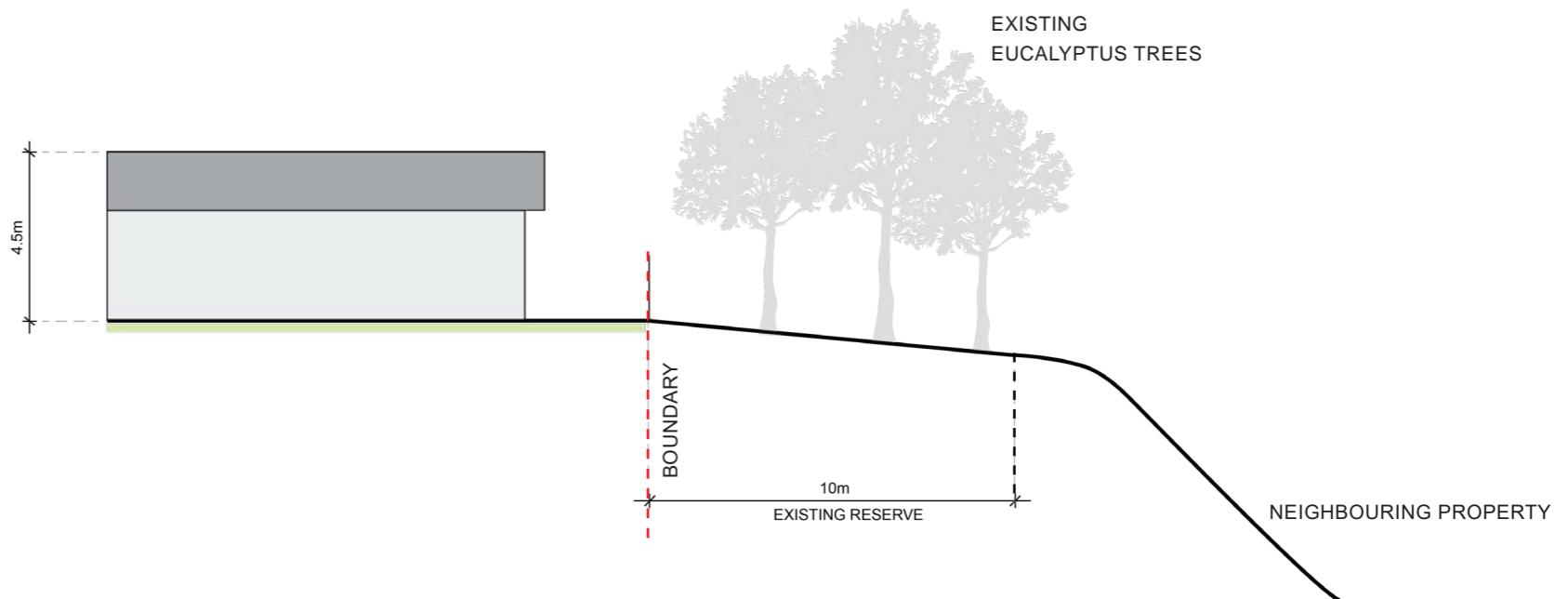
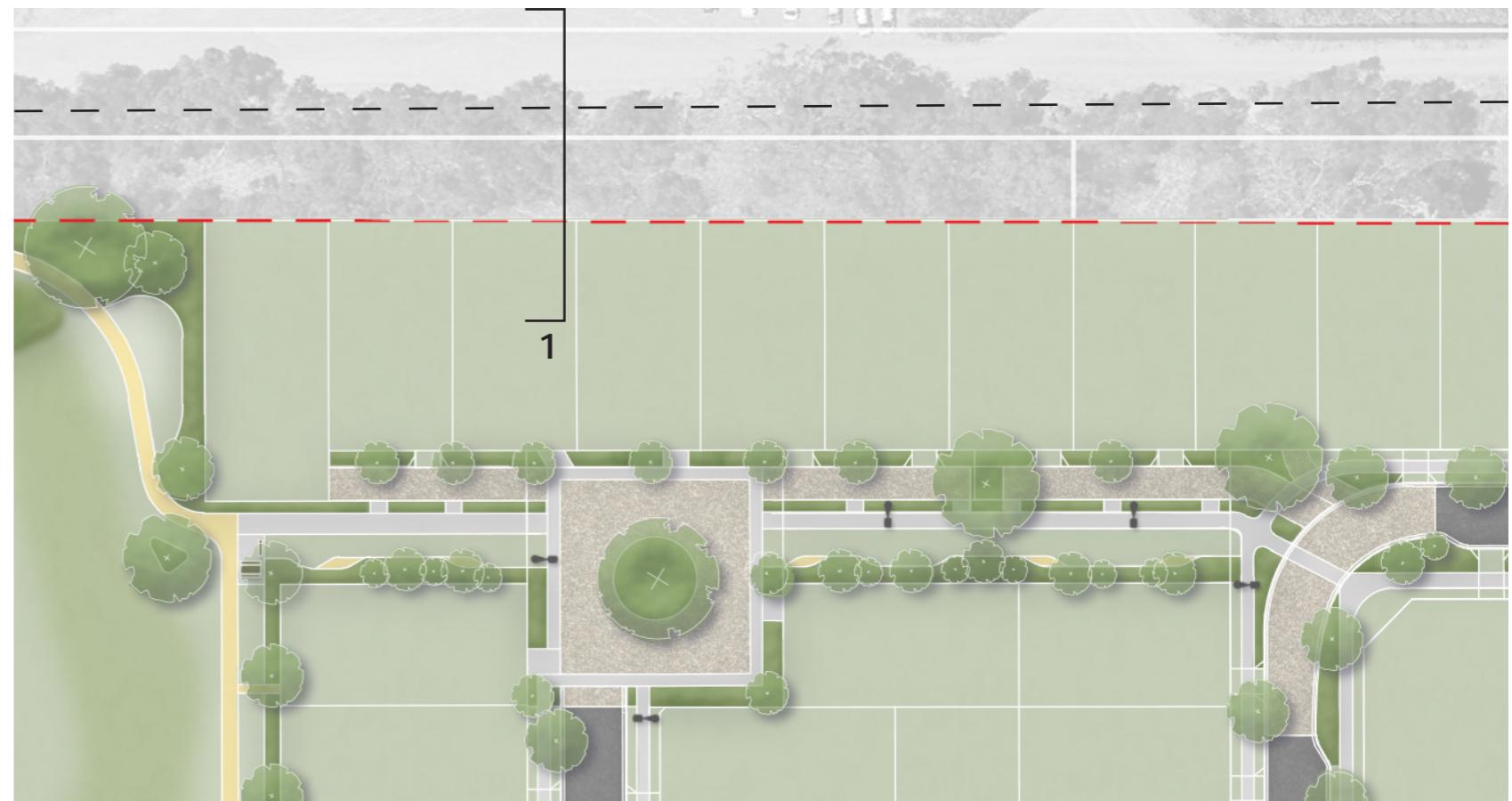
EASTERN BOUNDARY INTERFACE (A)

LOCATION



DESIGN STATEMENT

For boundary interface A, existing Eucalyptus trees within Council Reserve provide visual buffer.



BOUNDARY INTERFACE A - SECTION 1

EASTERN BOUNDARY INTERFACE (B)

LOCATION

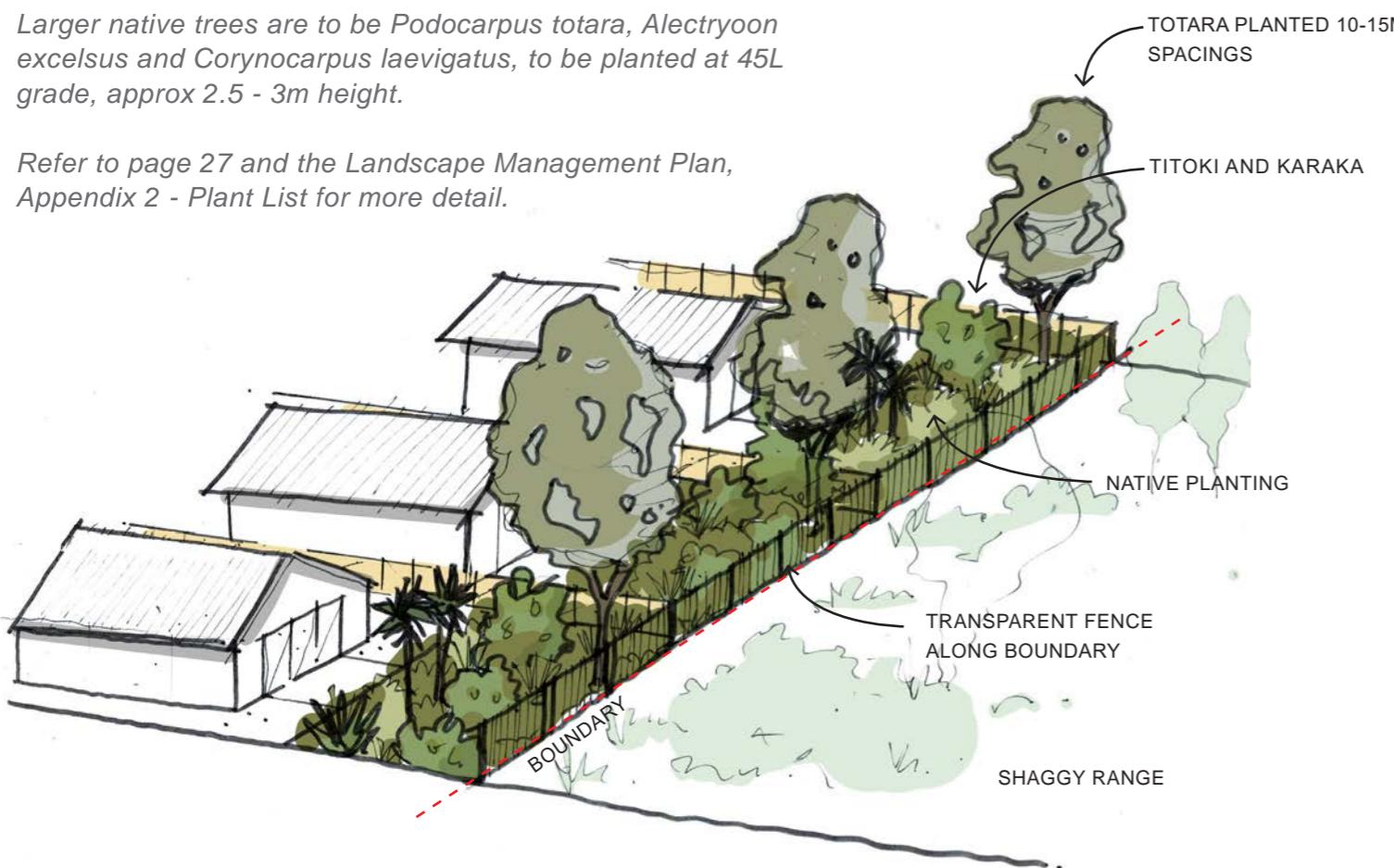


DESIGN INTENT

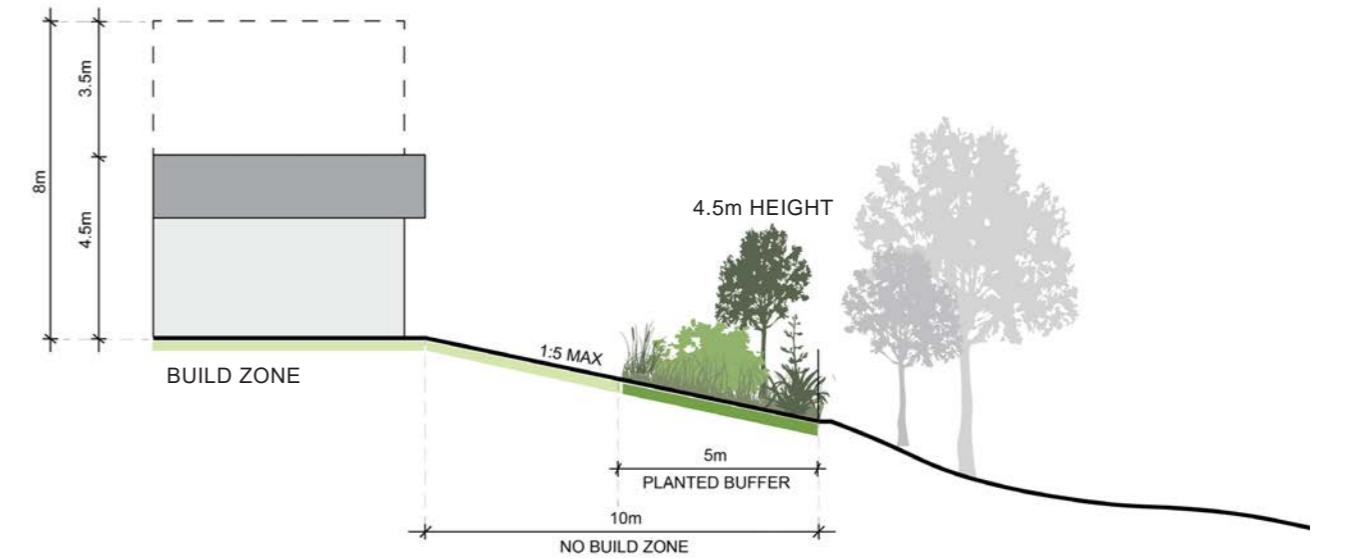
After consultation with Shaggy range neighbours along boundary interface B, native trees and shrubs have been proposed to support bird life in the area. A 5m wide buffer planting comprising of predominantly native shrub and tree planting will also form intermittent screening of houses, interspersed with larger growing native trees that will provide summer shade.

Larger native trees are to be *Podocarpus totara*, *Alectryoön excelsus* and *Corynocarpus laevigatus*, to be planted at 45L grade, approx 2.5 - 3m height.

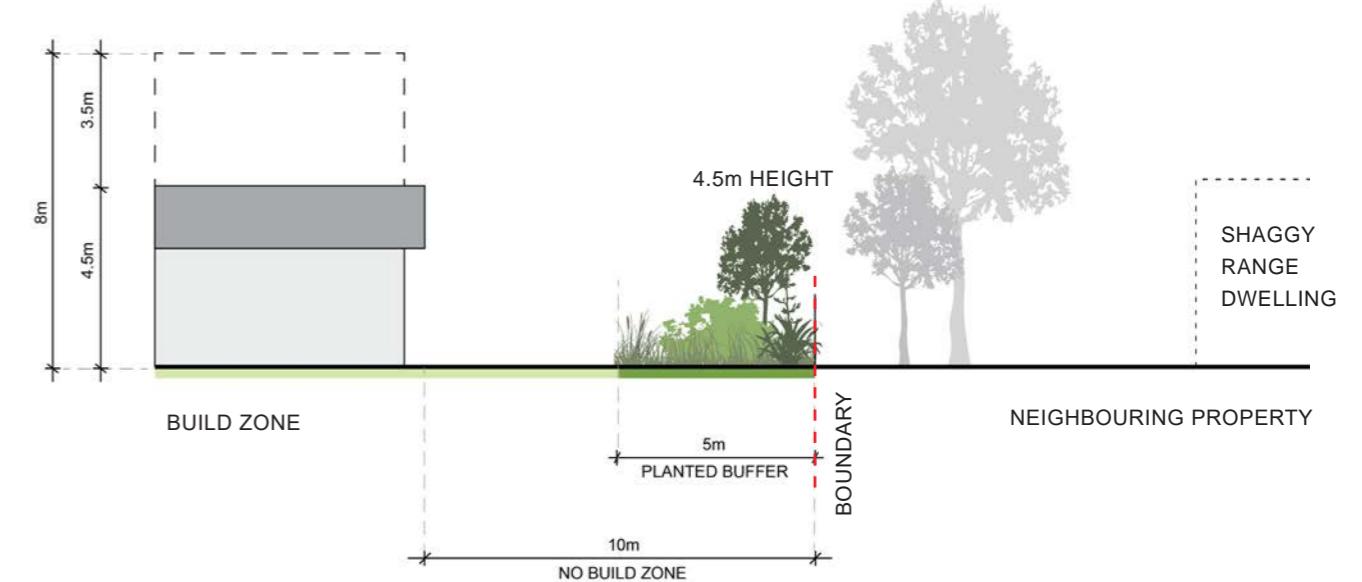
Refer to page 27 and the Landscape Management Plan, Appendix 2 - Plant List for more detail.



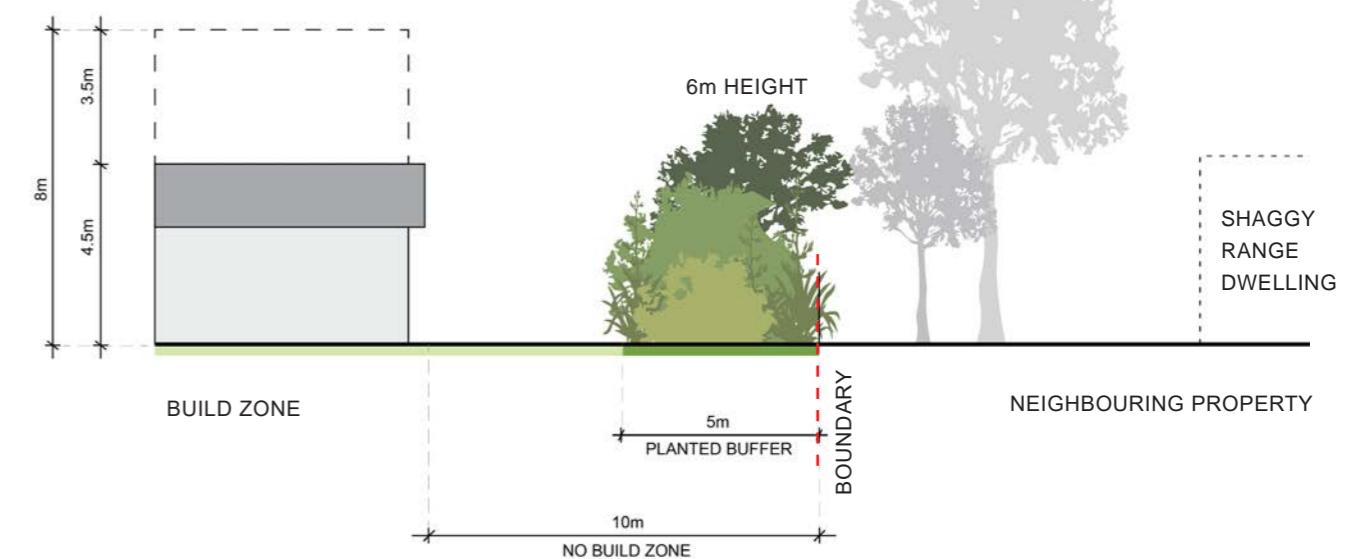
EASTERN BOUNDARY INTERFACE B SKETCH



SECTION 2 (2-YEARS GROWTH)



SECTION 3 (2-YEARS GROWTH)



SECTION 3 (10-YEARS GROWTH)

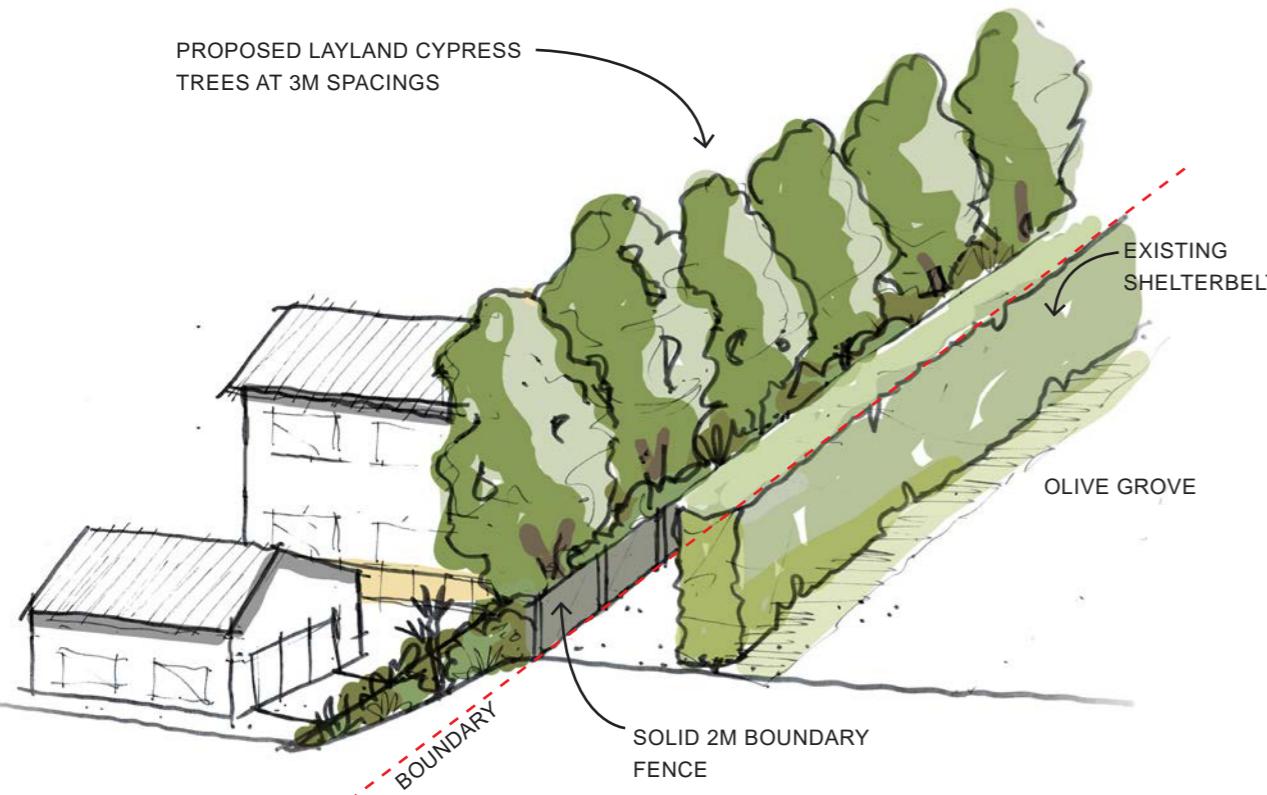
SOUTHERN BOUNDARY INTERFACE (C)



DESIGN INTENT

For boundary interface C, 7m wide buffer planting is proposed comprising of native shrubs and exotic evergreen tree planting. Closely spaced large growing evergreen trees, *Cupressus Ovensii* (Layland Cypress) to form a dense hedge along boundary, with native underplanting dominated by Flax, Coprosma and Hebe species which will grow to a height of 2.5m.

Layland Cypress to be planted at 3m spacings, 45L grade approx. 3m height at planting.



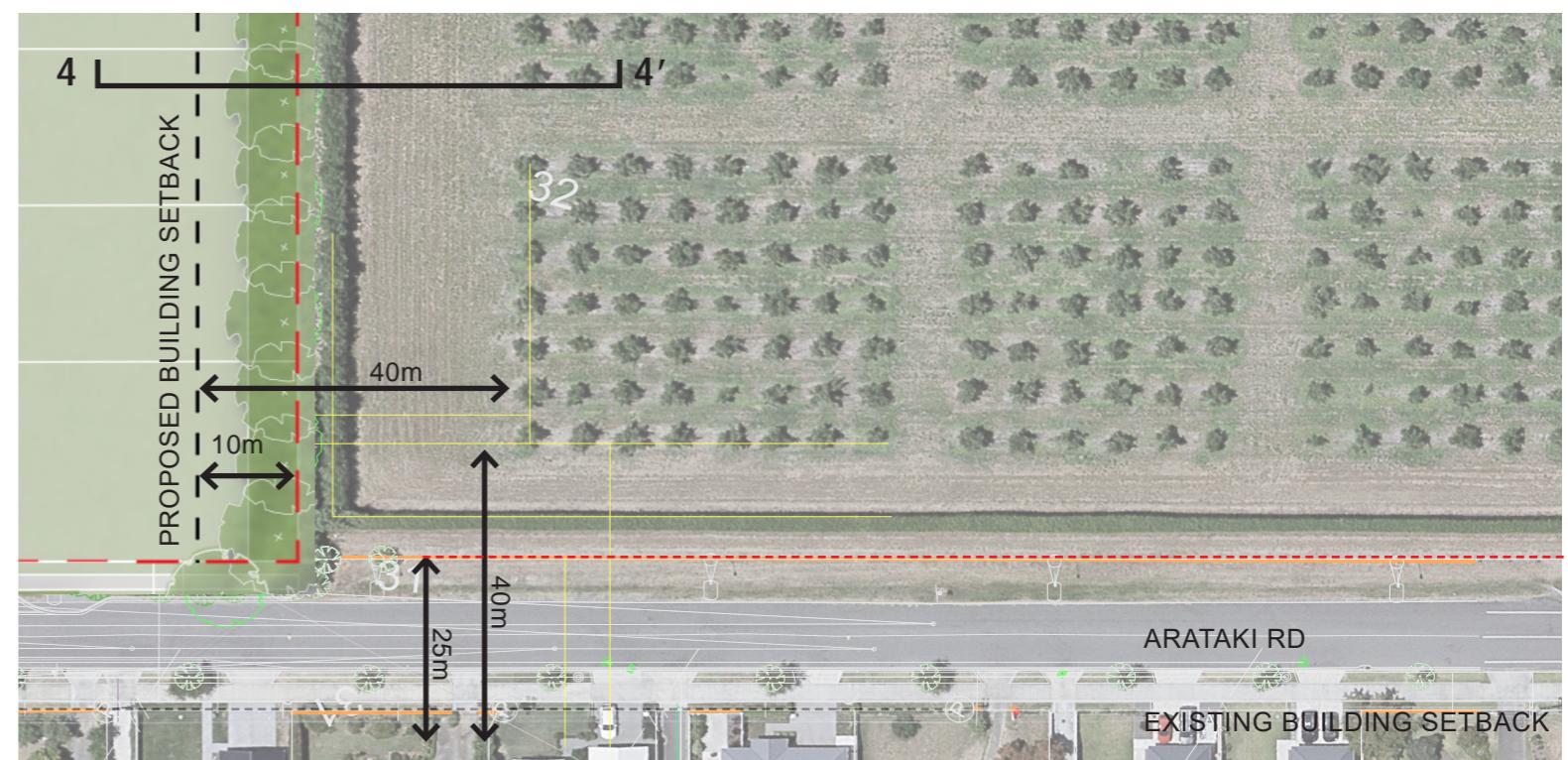
SOUTHERN BOUNDARY INTERFACE C SKETCH



BOUNDARY INTERFACE C - SECTION 4 (2-YEARS GROWTH)



BOUNDARY INTERFACE C - SECTION 4 (10-YEARS GROWTH)



SOUTHERN BOUNDARY INTERFACE PLAN - SETBACK COMPARISON

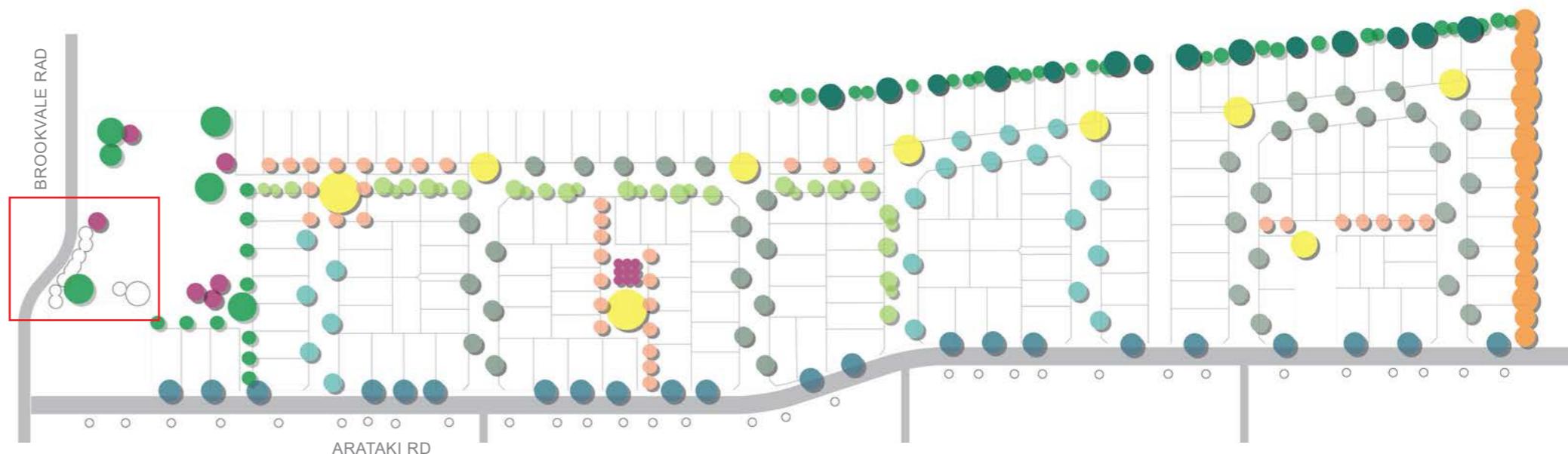
TREE PALETTE

APPROACH

Trees are used to provide a structure to the network of streets, routes and open spaces.

A 'right tree for the right place' approach has been taken that sees a mix of native and exotic species being used in locations that suit the scale, form and environmental preferences of the tree.

The streets and JOALs have predominately deciduous exotic species while the stormwater reserve, boundary planting and 'play along the way' route features clusters of native trees local to the area. The strategy and species palette are described in more detail in the following pages.



TREES TO RETAIN

Along the boundary of Brookvale Rd there are a number of mature trees that are to be protected and retained.

There is a cluster of small citrus bushes located within the area that will become the stormwater basin. Efforts will be made to relocate suitable bushes (approx 4) to spaces within the reserve along walking routes. Note that survival cannot be guaranteed.



TREES TO RETAIN

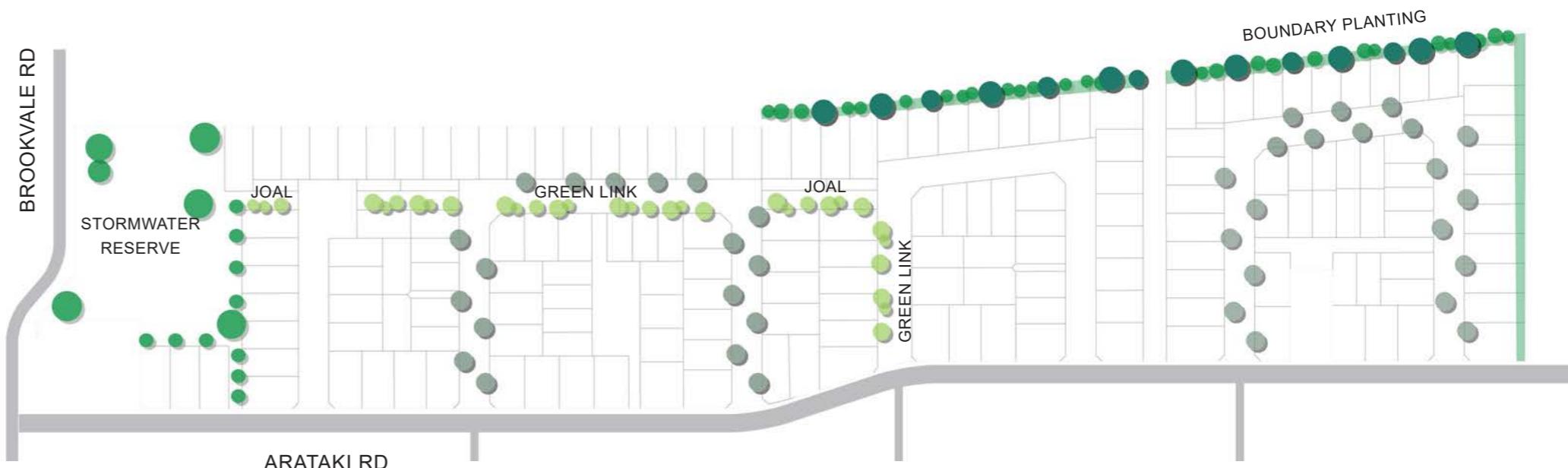
1. *Pittosporum eugenoides*, Tarata / lemonwood
2. *Gleditsia triacanthos 'Inermis cultivar'*, Spineless honey locust cultivar
3. *Magnolia grandiflora*, Evergreen Magnolia
4. *Magnolia × soulangeana*, Magnolia
5. *Malus sp.*, Apple sp.
6. *Magnolia × soulangeana*, Magnolia
7. *Plagianthus regius*, Manatu / Ribbonwood
8. *Prunus sp.*, Cherry sp.
9. *Prunus sp.*, Cherry sp.
10. *Ulmus carpinifolia "Variegata"*, Spotted elm

TREE PALETTE

NATIVE TREES

Native trees are planted in clusters in the stormwater reserve, boundary to the adjacent rural properties and the green pedestrian link. Species are selected from trees that would naturally occur on this site and connect with the river terrace landscape context.

Refer to page 27 and the Landscape Management Plan, Appendix 2 - Plant List for more detail.



STORMWATER RESERVE



TŌTARA

Podocarpus totara



PUTAPUTAWETA

Carpodetus serratus



MATAI

Prumnopitys taxifolia



KĀNUKA

Kunzea ericoides



KAHIKATEA

Dacrycarpus dacrydioides



TŌTARA

Podocarpus totara



KARAKA

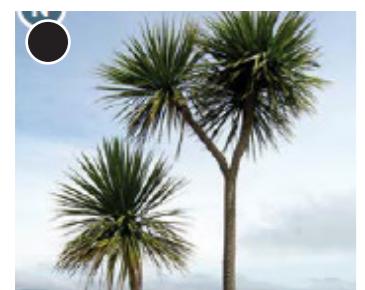
Corynocarpus laevigatus



TĪTOKI

Alectryon excelsus

EASTERN AND SOUTHERN BOUNDARY, GREEN LINK AND JOALS



TĪ KOUKA

Cordyline australis



MAHOE

Melicytus ramiflorus



HŌHERE

Hoheria sexstylosa



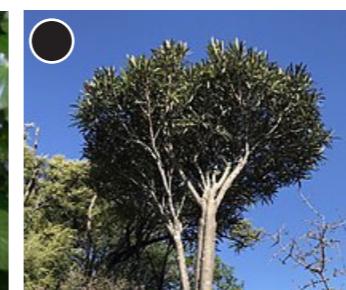
MĀNATU

Plagianthus regius



KAWAKAWA

Piper excelsum



LANCEWOOD

Pseudopanax crassifolius



KOWHAI

Sophora microphylla



FIVE FINGER

Pseudopanax arboreus

From the Hastings Residential Intensification Design Guide 2020.

TREE PALETTE

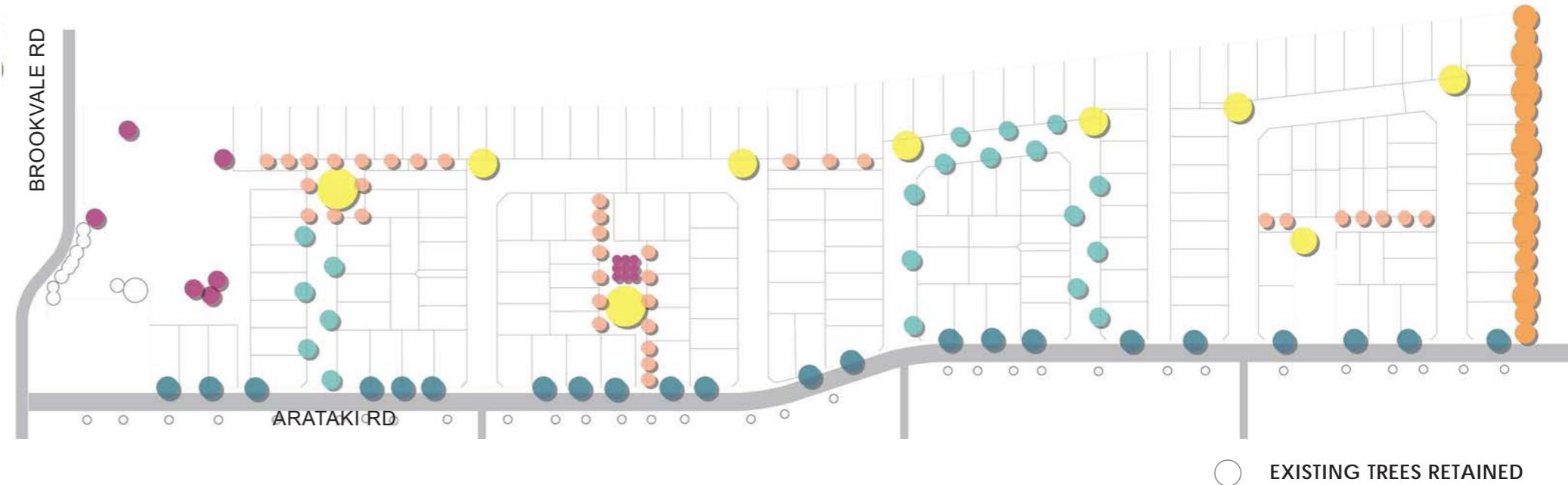
EXOTIC TREES

Trees are used to provide structure, communicate a hierarchy of streets, and help to integrate the development with the existing rural/residential context.

For street planting, the scale of the tree is relative to the scale of the street, with Arataki Road lined with the largest trees, the internal streets receiving a second tier, and the courtyards/JOALs featuring smaller flowering and fruiting trees.

Deciduous exotic species are selected for use in streets for overall suitability, including a canopy forming shape, speed of growth to achieve the desired scale within 10-years, ability to have a clear trunk from a young age for vehicle visibility, and ability to survive in the tougher urban street environment.

The trees selected provide a range of seasonal changes, including fruit, flowers and beautiful autumn colour, with leaves falling to allow sunlight into properties in winter. Refer to page 27 and the Landscape Management Plan, Appendix 2 - Plant List for more detail.



SOUTH BOUNDARY



LEYLAND CYPRESS

Cupressus leylandii



PEACH

Prunus spp.



NECTARINE

Prunus spp.



QUINCE

Cydonia oblonga



APRICOT

Prunus spp.



APPLE

Malus spp.

FEATURE TREES



GINGKO
(non fruit bearing)



TUPELO
Nyssa sylvatica

STREET TREES

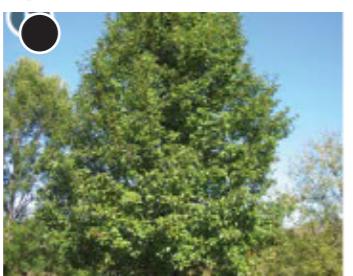
ARATAKI RD



COMMON LIME

Tilia europaea

TYPICAL STREET



ORNAMENTAL PEAR

Pyrus calleryana 'Aristocrat'

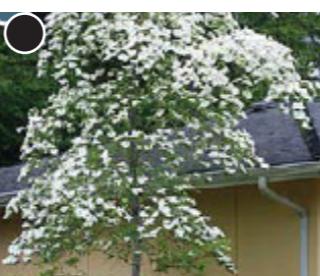
JOALS / COURTYARDS



MAGNOLIA

Magnolia spp.

JOALS / COURTYARDS



FLOWERING DOGWOOD

Cornus spp.

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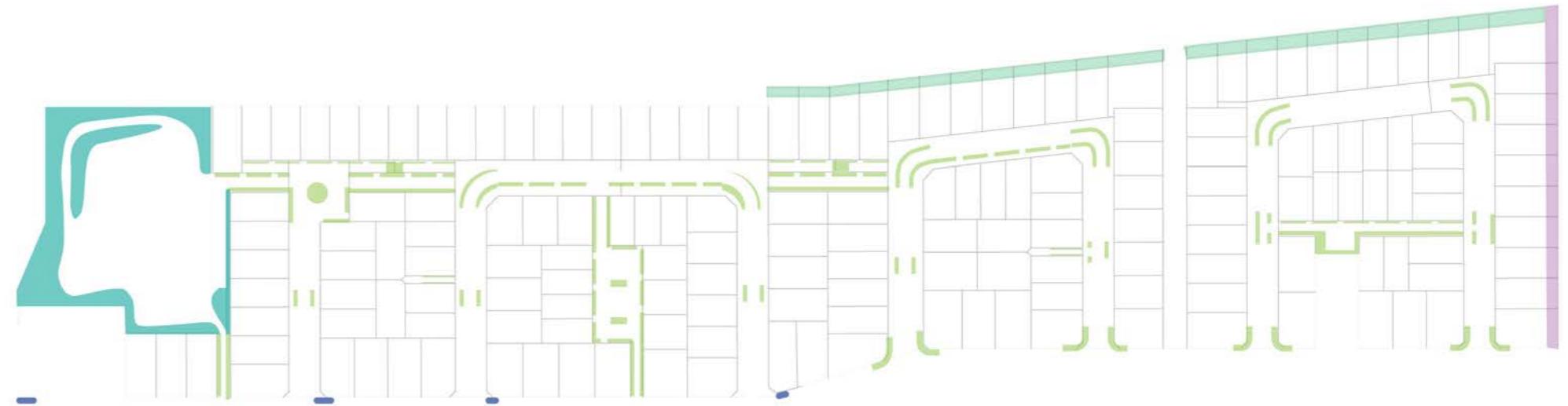
PLANTING PALETTE

DESIGN INTENT

Planting is used to integrate the development into the context and provide amenity in the streets and JOALs. There are three broad planting areas that perform different roles.

STREET / JOAL

Low maintenance, low-growing, drought tolerant, predominantly native shrubs and grasses.



STORMWATER RESERVE

Swathes of low growing predominantly native grasses, flaxes and ground covers. Provide clear sight lines across the reserve.

Some clusters of native trees with occasional fruit and exotic specimen trees.

EASTERN BOUNDARY BUFFER PLANTING

5m wide buffer planting of predominantly native shrub and tree planting to form intermittent screening of houses, interspersed with of large growing exotic deciduous trees that will provide summer shade and autumn colour.

SOUTHERN BOUNDARY BUFFER PLANTING

7m wide buffer planting of native shrubs and exotic evergreen trees. Closely spaced large growing evergreen trees, *Cupressus leylandii* (Leyland Cypress) to form a dense hedge along boundary, with native underplanting dominated by Flax, Coprosma and Hebe species.

RAINGARDENS

Native shrub planting that can tolerate inundation and drought. Low growing to keep clear sightlines.

A detailed planting palette is provided on page 26 as an appendix to the Landscape Management Plan. Refer to this for information on plant distribution, sizes, spacing and height at planting and maturity.

KEY SPECIES

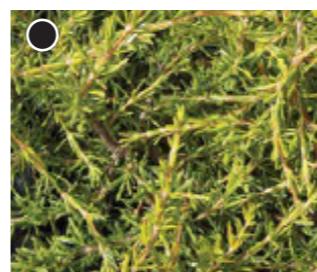
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DWARF FLAX
Phormium 'Emerald Gem'



MIKOIMIKOI
Libertia ixoides



COPROSMA ACEROSA
spp.



SCRAMBLING FUCHSIA
Fuchsia perscandens



FARIY IRIS
Diites grandiflora



MINGIMINGI
Coprosma lucida



RED TUSSOCK
Chionochloa rubra



WHĪ
Poa cita



MAKURA
Carex secta



RENGARENGA
Arthropodium cirratum



OIOI
Apodasmia similis



TURUTU
Dianella nigra



TARATA
Pittosporum eugenoides



TOETOE
Austroderia fulvida



KOROMIKO
Hebe stricta



HARAKEKE
Phormium tenax



KAHAKAHA
Astelia nervosa

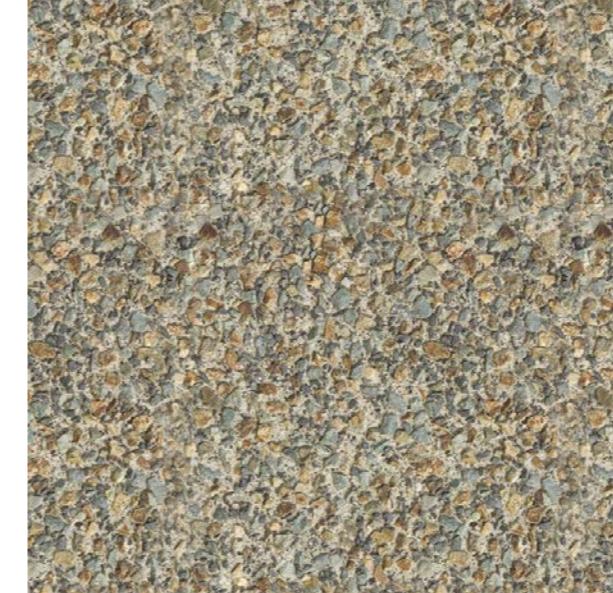
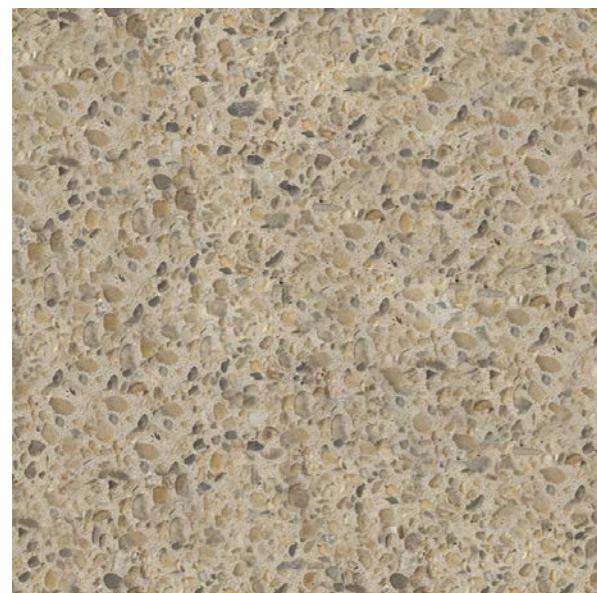


POHUEHUE
Muehlenbeckia axillaris

PLANT LIST

Type	Botanical name	Common name	Deciduous	Evergreen	Palettes							Plant size and spacing					Environmental tolerances								
					JOALs and Feature Trees	Arataki Rd	Typical street	Green Street	Public Accessway	Perimeter Boundary - North - East	Perimeter Boundary - South	Raingarden	Height at planting (m)	Grade	Spacing (m)	Height (m) at 2-years	Height (m) at 10-years	Drainage	Wet - can tolerate clay	Moist but free draining	Dry	Shade	Partial Shade	Full sun	Can be exposed
Ground covers																									
Coprosma acerosa	Coprosma acerosa		x	x	x	x	x	x					0.2	1	0.8	0.3	0.4	x	x		x	x	x	x	x
Coprosma repens	Coprosma 'Poor Knights'		x	x	x	x	x	x					0.2	1	0.8	0.3	0.4	x	x		x	x	x	x	x
Lobelia angulata	Panakenake		x	x	x	x	x	x					0.2	1	0.8	0.3	0.3	x			x		x	x	x
Muehlenbeckia axillaris	Pohuehue		x	x	x	x	x	x					0.2	1	0.8	0.3	0.4	x	x		x	x	x	x	x
Thymus serpyllum	Creeping thyme		x	x									0.1	1	0.8	0.1	0.2	x	x		x	x	x	x	x
Grasses/reeds																									
Apodasmia similis	Oioi		x	x	x	x	x	x	x				0.3	1	0.8	0.8	0.8	x	x	x	x	x	x	x	x
Arthropodium cirratum	Rengarenga		x	x	x	x	x	x	x				0.3	1	0.5	0.5	0.5	x	x	x	x	x	x	x	x
Carex secta	Makura		x										0.3	1	0.8	0.8	0.8	x	x		x	x	x	x	x
Carex uncinata	Hooks sedge		x										0.2	1	0.6	0.5	0.8	x	x	x	x	x	x	x	x
Carex virgata	Purei		x	x	x	x	x	x	x				0.2	1	0.6	0.5	0.6	x	x		x	x	x	x	x
Chionacloa rubra	Red tussock		x										0.3	1	0.6	0.6	0.6		x					x	x
Dianella nigra	Turutu								x				0.3	1	0.6	0.6	0.6	x		x	x	x	x	x	x
Dites grandiflora	Fairy iris		x	x	x	x	x	x					0.2	1	0.8	0.5	0.8	x	x		x	x	x	x	x
Lomandra nyalla	Lomandra		x	x	x	x	x	x					0.3	1	0.6	0.6	0.8				x	x	x	x	x
Libertia ixioides	Mikoimikoi		x	x	x	x	x	x	x				0.2	1	0.4	0.4	0.4	x	x		x	x	x	x	x
Poa cita	Wi		x	x	x	x	x	x	x				0.3	1	0.5	0.5	0.5	x			x	x	x	x	x
Small shrubs <2m																									
Astelia nervosa	Kahakaha		x	x		x	x	x					0.3	2.5	0.8	0.8	1.2	x		x	x	x	x	x	x
Austroderia fulvida	Toetoe		x			x	x	x	x				0.5	2.5	1.5	1.5	2	x	x	x	x	x	x	x	x
Coprosma rigida	Coprosma		x				x	x	x				0.3	2.5	0.5	0.6	0.6	x						x	x
Hebe stricta	Koromiko		x				x	x	x				0.5	2.5	1.2	1	2	x	x		x	x	x	x	x
Phormium cookianum ssp. hookerii	Coastal flax		x			x	x	x	x				0.3	2.5	1.2	1	1.5	x	x		x	x	x	x	x
Phormium cookianum 'Emerald Gem'	Mountain flax		x	x	x	x	x	x	x				0.3	2.5	1	0.8	1.2	x	x	x	x	x	x	x	x
Large shrubs/small trees																									
Coprosma lucida	Karanga		x	x		x	x	x					0.5	2.5	1.5	1	6	x	x		x	x	x	x	x
Coprosma propinqua	Mingimingi		x			x	x	x	x				0.5	2.5	1	1	3	x	x	x	x	x	x	x	x
Coprosma robusta	Karamu		x			x	x	x	x				0.8	2.5	3	2	5	x	x	x	x	x	x	x	x
Geniostoma ligustrifolium	Hangehange					x							0.5	2.5	1	1	3	x	x		x	x	x	x	x
Kunzea ericoides	Kānuka		x				x						1.2	2.5	2	2	5	x	x		x	x	x	x	x
Phormium tenax	Harakeke		x			x	x	x	x				0.5	2.5	1.5	1.5	2.5	x	x	x	x	x	x	x	x
Pittosporum colensoi	Pittosporum		x				x						0.5	2.5	1.5	2	5	x	x		x	x	x	x	x
Pittosporum eugenioides	Tarata		x				x						1	2.5		1.8	4	x	x		x	x	x	x	x
Pseudopanax arboreus	Five-finger		x				x						0.8	2.5	1.5	2	12	x			x	x	x	x	x
Pseudopanax crassifolius	Lancewood		x			x	x	x	x				0.8	2.5	1.5	1.2	4	x	x	x	x	x	x	x	x
Pseudopanax lessonii	Houpara		x				x	x	x				0.5	2.5	1.5	2	6	x	x		x	x	x	x	x
Trees native																									
Alectryon excelsa	Titoki		x	x		x	x	x	x				2.5	45	5	4	6	x			x	x	x	x	x
Corynocarpus laevigatus	Karaka					x	x	x	x				2.5	45	5	5	6				x	x	x	x	x
Carpodetus serratus	Putaputaweta		x				x						1.2	12	3	2	6	x			x	x	x	x	x
Cordyline australis	Tī kouka		x	x		x	x	x	x				1	12	2	1.5	6	x	x	x	x	x	x	x	x
Dacrycarpus dacrydioides	Kahikatea		x				x	x	x				2	12	3	2	6	x	x		x	x	x	x	x
Hoheria sexstylosa	Houhere		x	x		x	x	x	x	</															

HARD MATERIALS PALETTE



STREET THRESHOLDS

Eg. Mangatangi Pebble 20mm

Exposed aggregate paving is used with different textures to differentiate between trafficable and pedestrian surfaces.

Locally sourced aggregate is preferred with a warm tone, such as the examples above.

FOOTPATHS

Eg. Maungaturoto chip 16mm

RECREATIONAL PATH

Compacted lime chip hoggin.

INDICATIVE FURNITURE / ELEMENTS



LIGHT POLE



LIGHT BOLLARD



SOCIAL SEATING

Back and arm rests for accessibility, Mild steel frame and hardwood timber

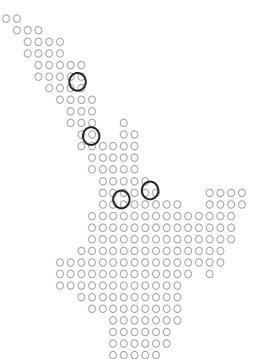


PICNIC SET

Mild steel frame and hardwood timber

Refer to Woods lighting drawings in substantive application appendices.

Final furniture to be selected in detailed design with HDC.



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