

16 CHAPMAN STREET, WERRINGTON NSW

Open Spaces DA Package

Prepared for





Project Reference: 2519036

February 2020



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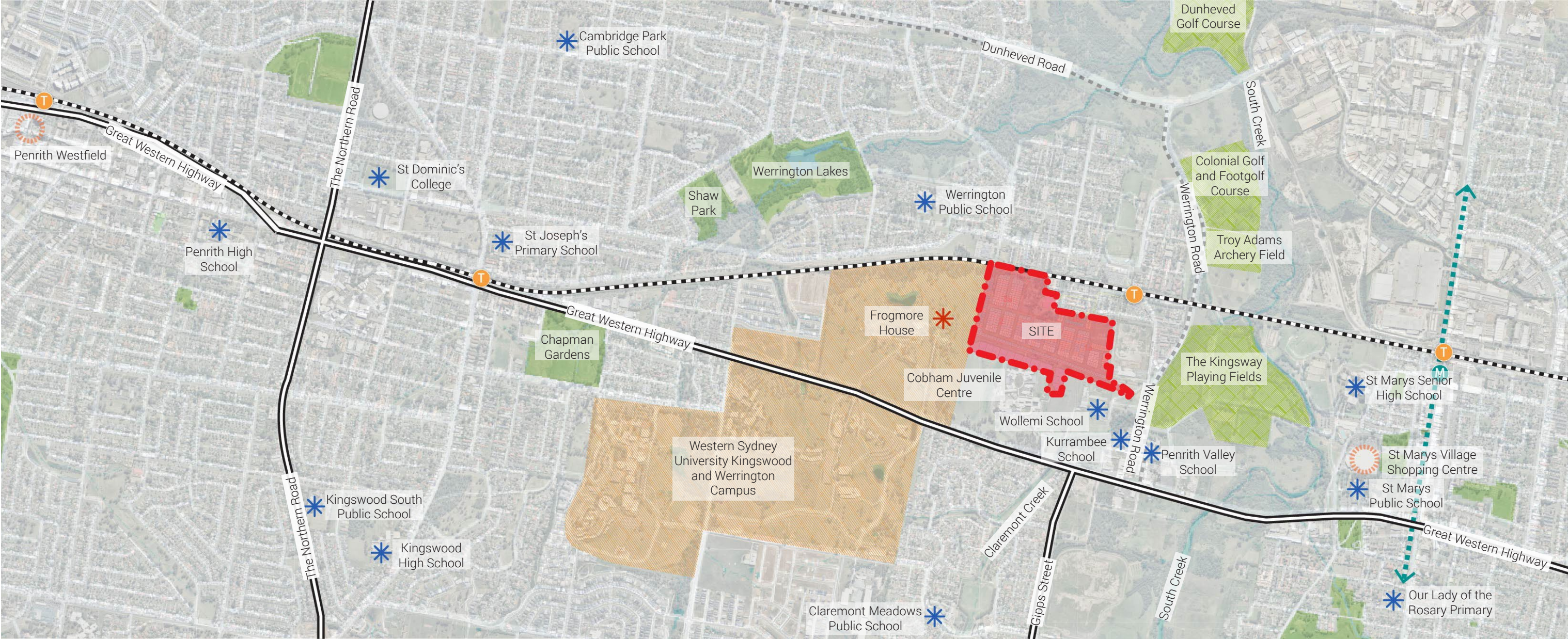
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LEGEND

Train line

Train Station

Major Roads

UWS Werrington Campus

Schools

Major Shopping Centre/Villages

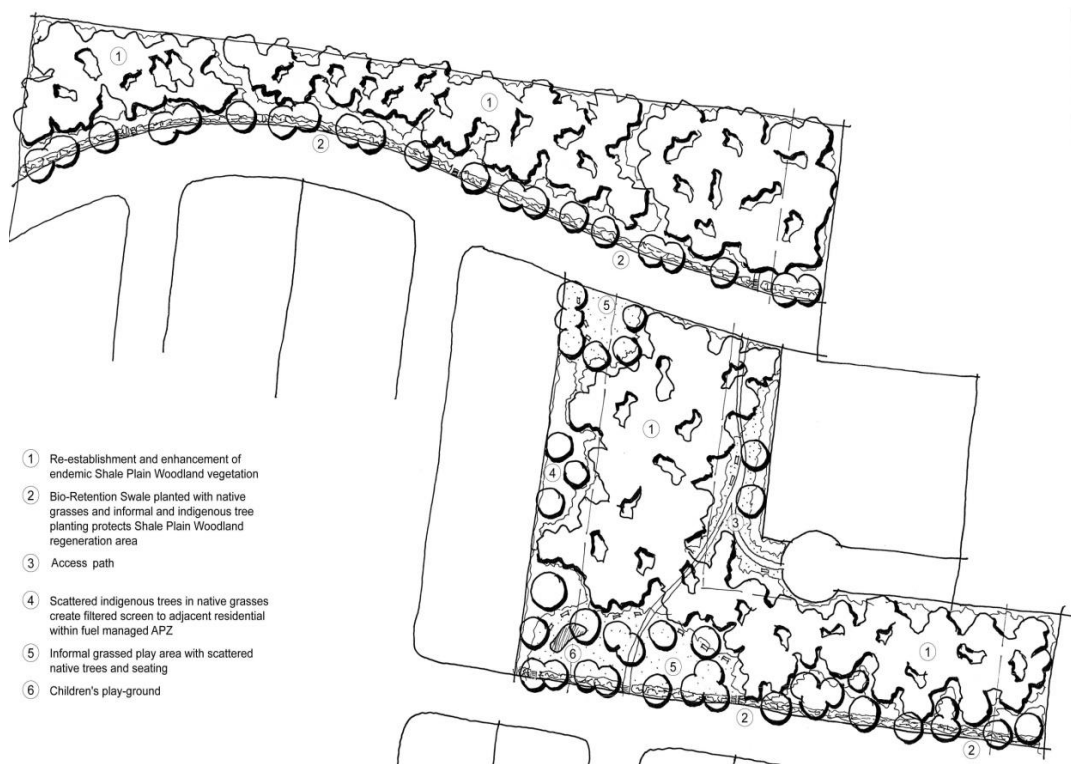
Approximate location of Future Metro Line North-South to Airport

Approximate location of future Metro Stations

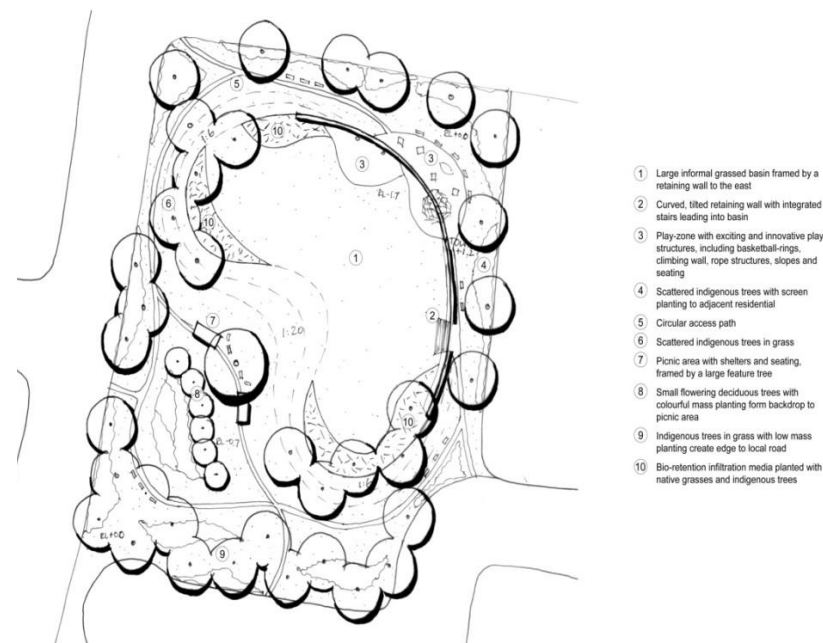
Significant sites

Surrounding public open space

Surrounding active recreational facilities



1. Western Local Park Concept Plan (Figure E 12.18a, Penrith DCP 2014)



2. Eastern Local Park Concept Plan (Figure E 12.18b, Penrith DCP 2014)

The proposed development site is known as 16 Chapman Street Werrington and is located within the suburb of Werrington approximately 5km east of the Penrith Town Centre. The suburbs surrounding Werrington are; Caddens to the south, St Marys to the east, Cambridge Park to the north and Kingswood to the West. Major rail and road infrastructure service the site, with the Sydney Rail Werrington Station located approximately 200m to the north west and the Great Western Highway located approximately 500m to the south of the site. Bordering the site are the Western Sydney University Werrington Campus to the west and Cobham Juvenile Justice Centre to the south with Werrington Rd located to the east. Existing residential lots and environmentally sensitive Cumberland Plain Woodlands form the northern boundary of the site.

The Lendlease site covers an area of approximately 28ha and slopes predominantly towards the north east corner. It is mainly characterised by disturbed, remnant groups of Cumberland Shale Plains Woodland and disused agricultural land. The shale plains woodland is currently identified in the Vegetation Management Plan as a rare and significant ecological community and habitat for native species of fauna. Access to the site is from Chapman and Walker Streets with evidence of informal walking/ vehicular tracks.

Place Design Group were commissioned by Lendlease to undertake a landscape site appraisal and development of a landscape master plan for DA purposes of the site. The proposed development will contain a mix of 1 – 2 storey residential dwellings and a small portion of apartments adjacent to the eastern open space and in closer proximity to the railway station. In accordance with the Penrith City Council DCP two environmental reserves and a drainage reserve were proposed as part of the WELL Precinct's South Werrington Urban Village site wide masterplan. These reserves will provide opportunities for the rehabilitation of the Cumberland Shale Plains Woodland flora, provide habitat sanctuaries for native fauna and public/ recreational facilities for the wider community.

The E2 listed reserve to the north west of the site will be an area predominantly aimed at rehabilitating the Cumberland Shale Plains Woodland. No formal pedestrian access into the reserve is proposed.

The Central Reserve will be the main community open space facility will be nestled in and around the conservation zone proposed within the VMP. Either side of the designated conservation lands will sit an open lawn/ BBQ area, fitness station and half basketball court for active recreational uses. To the south west of the site a multi-age children's playground is proposed, nestled in amongst existing trees. To the north of the playground and separated by the conservation zone is a children's learn to ride track and small open space area. All facilities are linked via an accessible network of shared paths providing excellent circulation through the park and towards the train station, whilst also limiting the impact on existing trees and vegetation. The central reserve also requires the provision of a detention basin and bio-filtration zone to mitigate the impact of stormwater runoff through the site. The basin has been sensitively integrated within the parklands to reduce both its visual impact and disturbance of the surrounding native vegetation. The large open space of the basin doubles as passive open space amenity for use by residents and visitors.

The Eastern Reserve's primary function that of a detention basin to assist with the mitigation of stormwater runoff through the site. Proposed along the perimeter of the basin are a series of small shelters with picnic tables and small open space areas located along a loop path. Structured plantings around the top of the basins provide users with plantings that create visual interest and soften the overall expanse of the basin. Both able and disabled access is proposed to the base of the basin to access the large open space which can be utilised for either passive or unstructured active recreation.

Trees proposed for the open spaces will be predominately native and endemic species with a combination of ornamental and deciduous species. Deciduous species will be selected for colour change and visual interest at different times throughout the year. Evergreen species will be placed throughout the parks and basins providing a green tree canopy.

Place Design Group has worked with the client and all consultants to date to implement a detailed landscape open space concept plans that respond to the needs of future residents and visitors while adhering to Council's open space recommendations for the site and where permissible.

1. Eastern Basin

- Large informal, grassed basin framed by planted embankments to the north-west and south.
- Continuous retaining wall to top of the west, north and east embankments with planted beds to soften internal and external embankments.
- Scattered indigenous trees as screen planting to adjacent future residential development.*
- Continuous access path around basin.* (2.5m and 1.5m verge footpath)
- Small gathering area along the western boundary with shelter, picnic table and seating.
- Bio-retention area planted with sedges and rushes.
- Entry statement to Walker St frontage utilising the blade walls including low feature planting.
- Accessible 1:20 ramp down to basin to turfed passive zone.
- Gross Pollutant Trap with vehicular access from road.
- Native trees within basin including water tolerant species - Eucalyptus Tereticornis, Eucalyptus Moluccana and melaleuca styphelioides.
- Maintenance Access to basin.
- Apartment residents access path .

2. Central Reserve

- Additional/supplement plantings for the re-establishment and enhancement of endemic Shale Plain Woodland vegetation.*
- Stormwater detention and bio-retention basins.
- Access path through site.* (2.5m)
- Scattered indigenous trees in native grasses create filtered screen to adjacent residential with fuel managed APZ.*
- Informal grassed play area with scattered local trees.*
- Children's playground* including climbing structures, swings, slides and sensory play elements.
- Large sheltered picnic area.
- Multi-play area including half basketball court, table tennis and fitness station.
- Raised platforms and turfed mounds for social gathering.
- 'Brooklands Speedway' - Children's learn to ride bicycle circuit
- Picnic areas.
- Residents access path.
- Maintenance access to basin.
- Rural Fire Service vehicle access path outside the conservation area.
- Low grass planting to RFS maintain access path, within fuel managed 16m APZ zone.

3. VMP Area for Protection and Rehabilitation

4. E2 Zone for Protection and Rehabilitation

*Listed items within Penrith DCP 2014, pg. 67

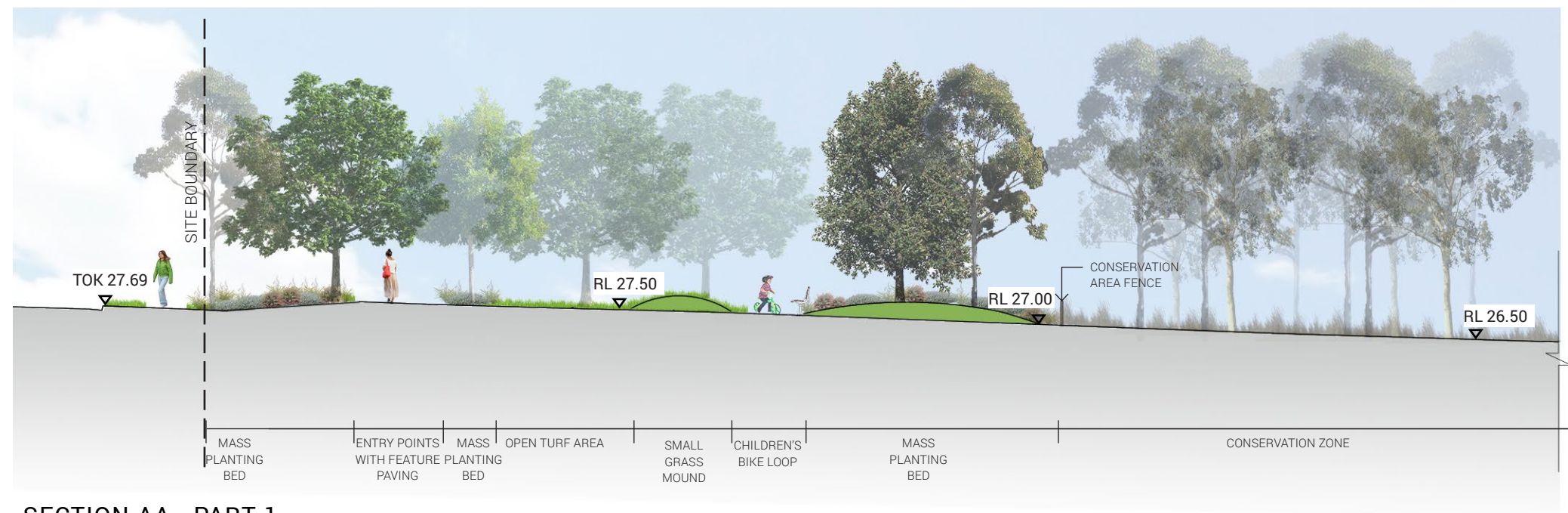




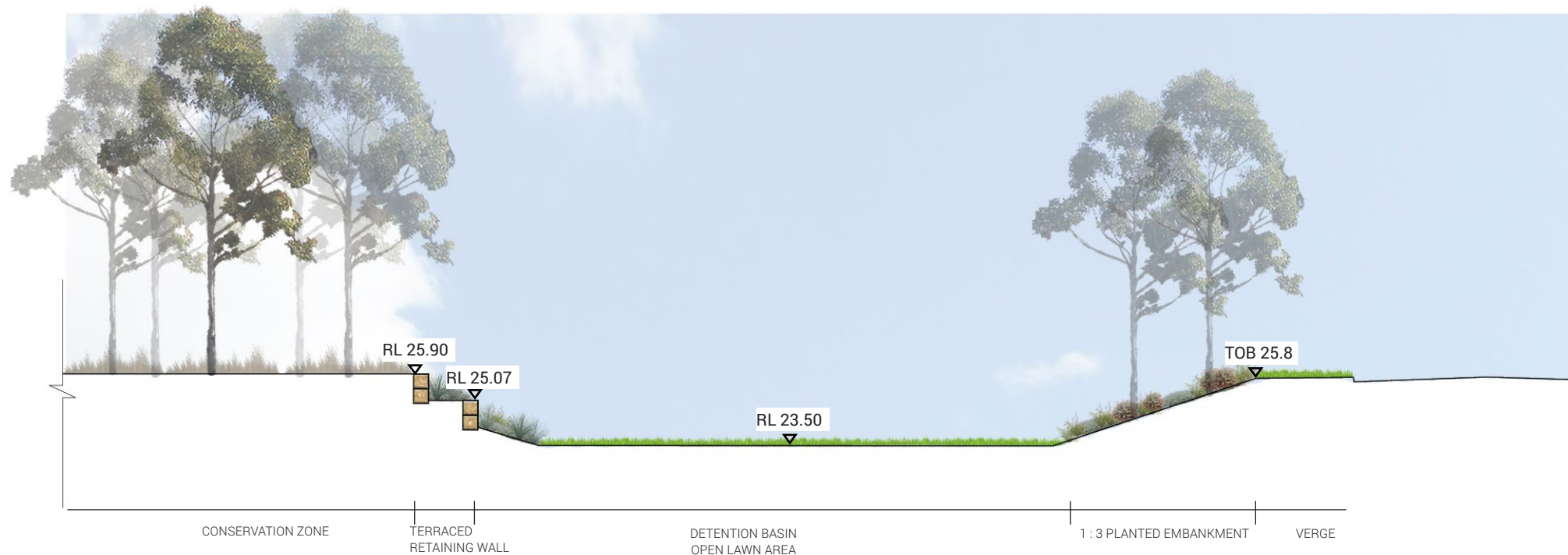
LEGEND

- 01 Main shared access path through site (2.5m)
- 02 Open space entry points with feature paving
- 03 Children's learn to ride bicycle loop 'Brooklands Speedway' interpretation, mounding & open space
- 04 Fenced children's play-space (1-10 years)
- 05 Central open lawn for informal active play or passive use
- 06 Active multi-sports zone with basketball half-court and fitness station
- 07 Sandstone log turf terraces/seating walls
- 08 Key path junction point with feature paving and basin maintenance access track
- 09 Large park shelter with 2 x picnic tables & BBQ
- 9a Small park shelter with 1 x picnic tables
- 10 Concrete seating with mounding to active zone
- 11 Native grass mass planting buffer zone to perimeter of the conservation lands
- 12 Detention basin open lawn area
- 13 Bio filtration zone
- 14 4m wide Reinforced turf maintenance access track into basin.
- 15 1:10 slope
- 16 4m wide Concrete maintenance access track into bio-filtration basin.
- 17 Vegetated 1:3 embankments to reduce impact of basin walling and to sympathetically connect to conservation zone
- 18 CPW Conservation zone
- 19 CPW Conservation zone post & wire fence (1m high)
- 20 1.5m Residents access path to future lots fronting parklands
- 21 Future RFS staging area for access to APZ areas and conservation zones
- Weir between bio-filtration basin and lower detention basin
- 22 Sandstone Log Retaining Wall along conservation zone

Scale 1:750 @ A3



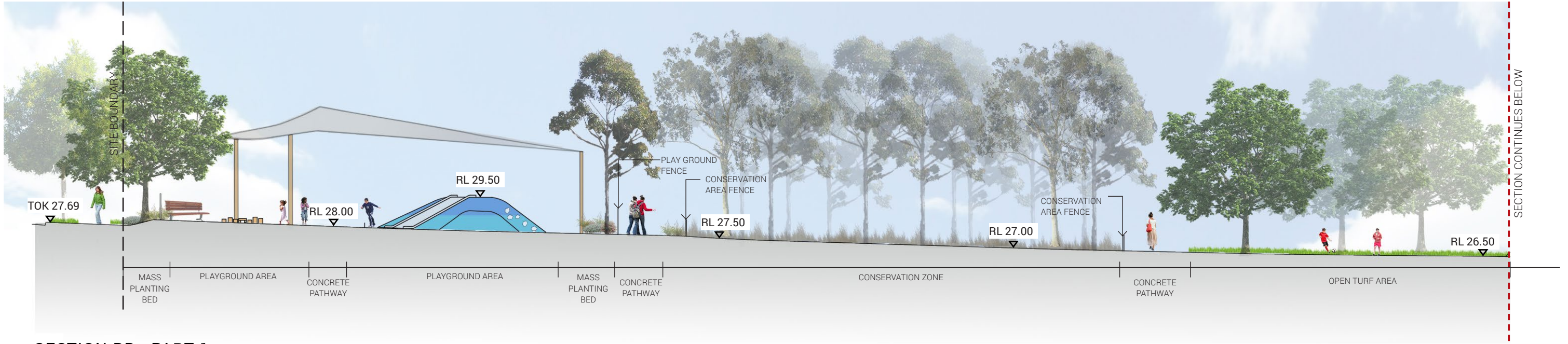
SECTION AA - PART 1



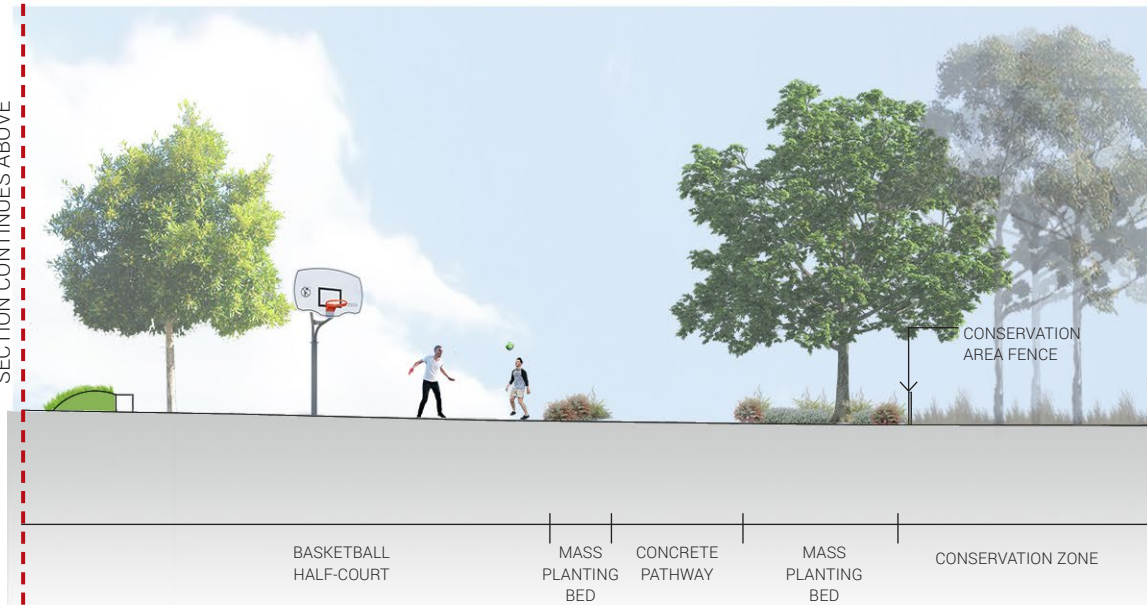
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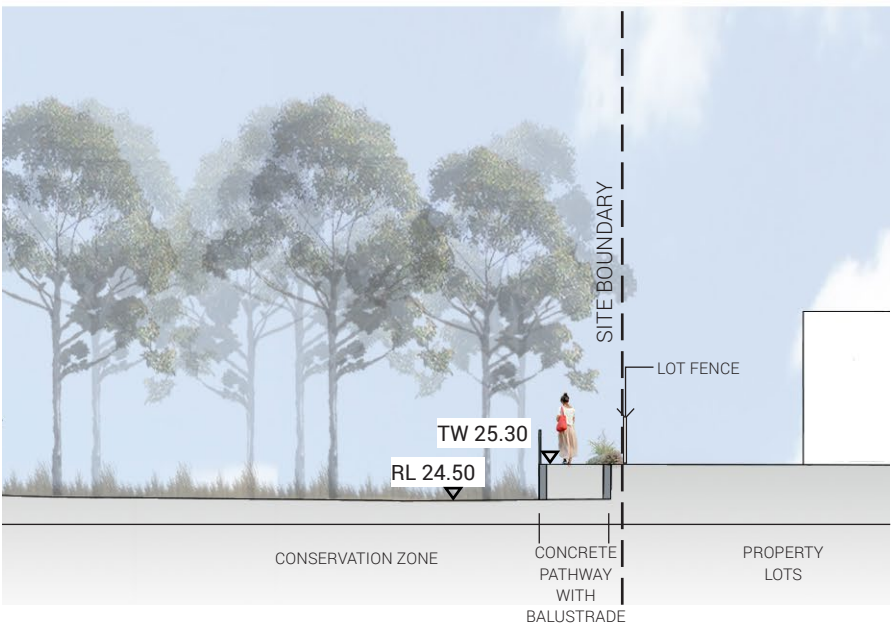
Key plan NTS



SECTION BB - PART 1



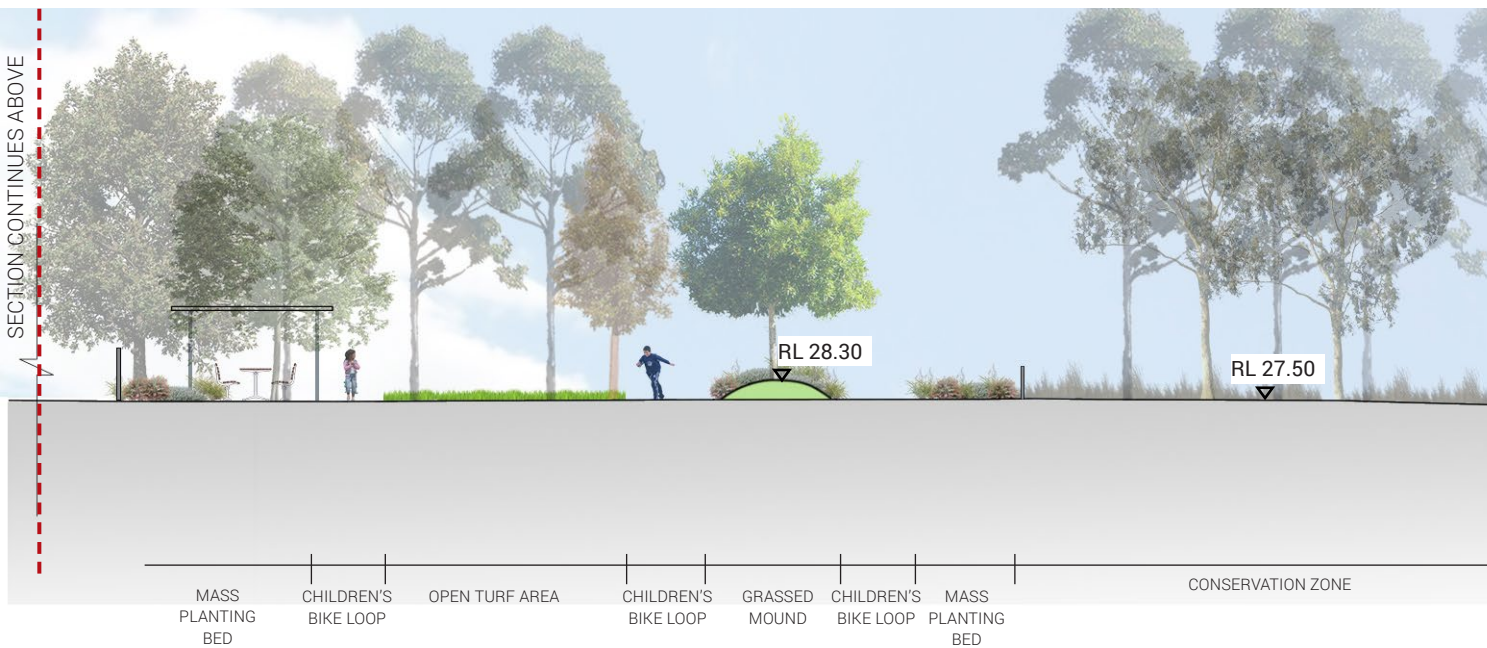
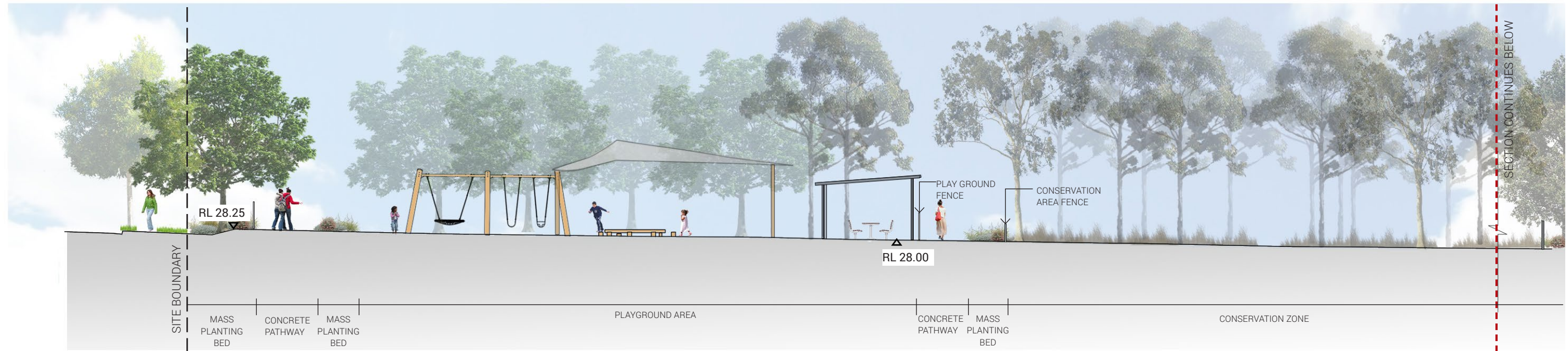
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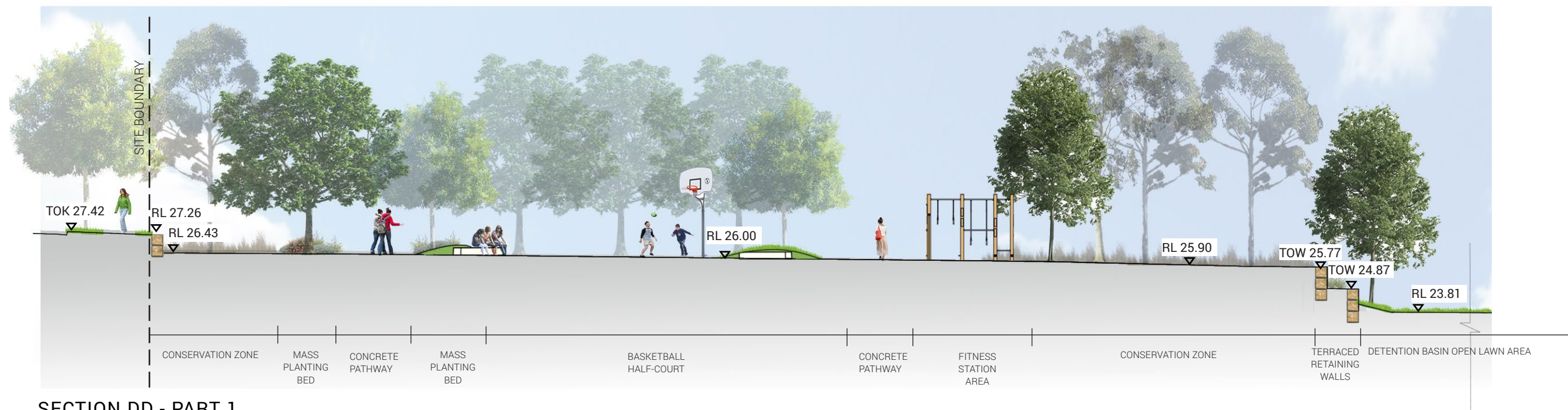


SECTION BB - PART 2



Key plan NTS



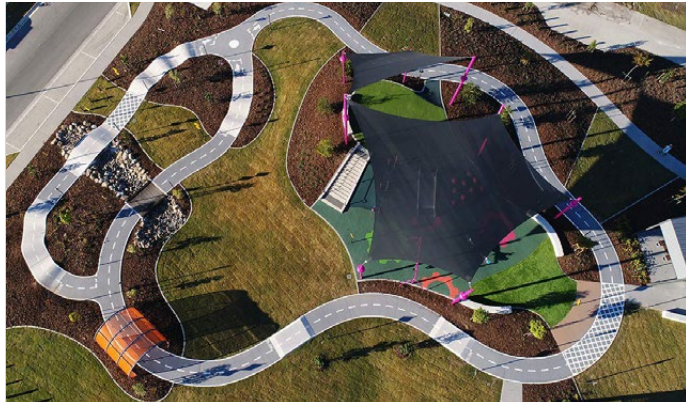


Key plan NTS

ACTIVE ZONES



BBQ AND PICNICKING



INTERPRETATION - 'BROOKLANDS SPEEDWAY' CHILDREN'S LEARN TO RIDE BICYCLE CIRCUIT

INTERPRETATION - GROVES/GRIDS

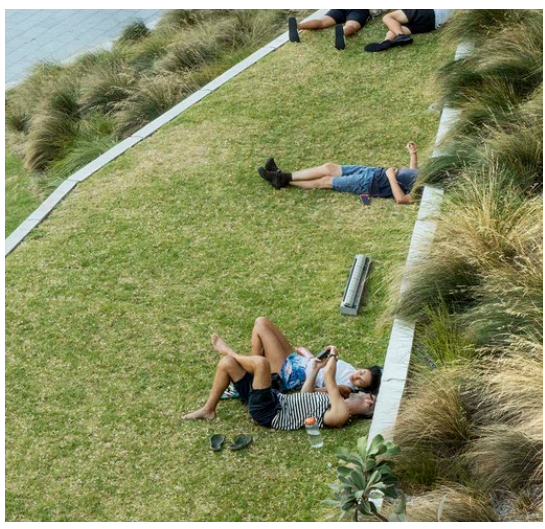


OPEN TURF AREA

SHELTERED PICNIC AREAS



TERRACING



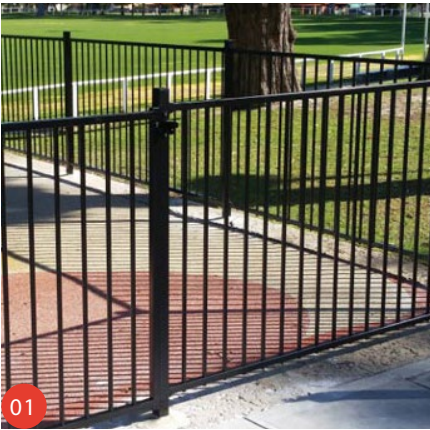


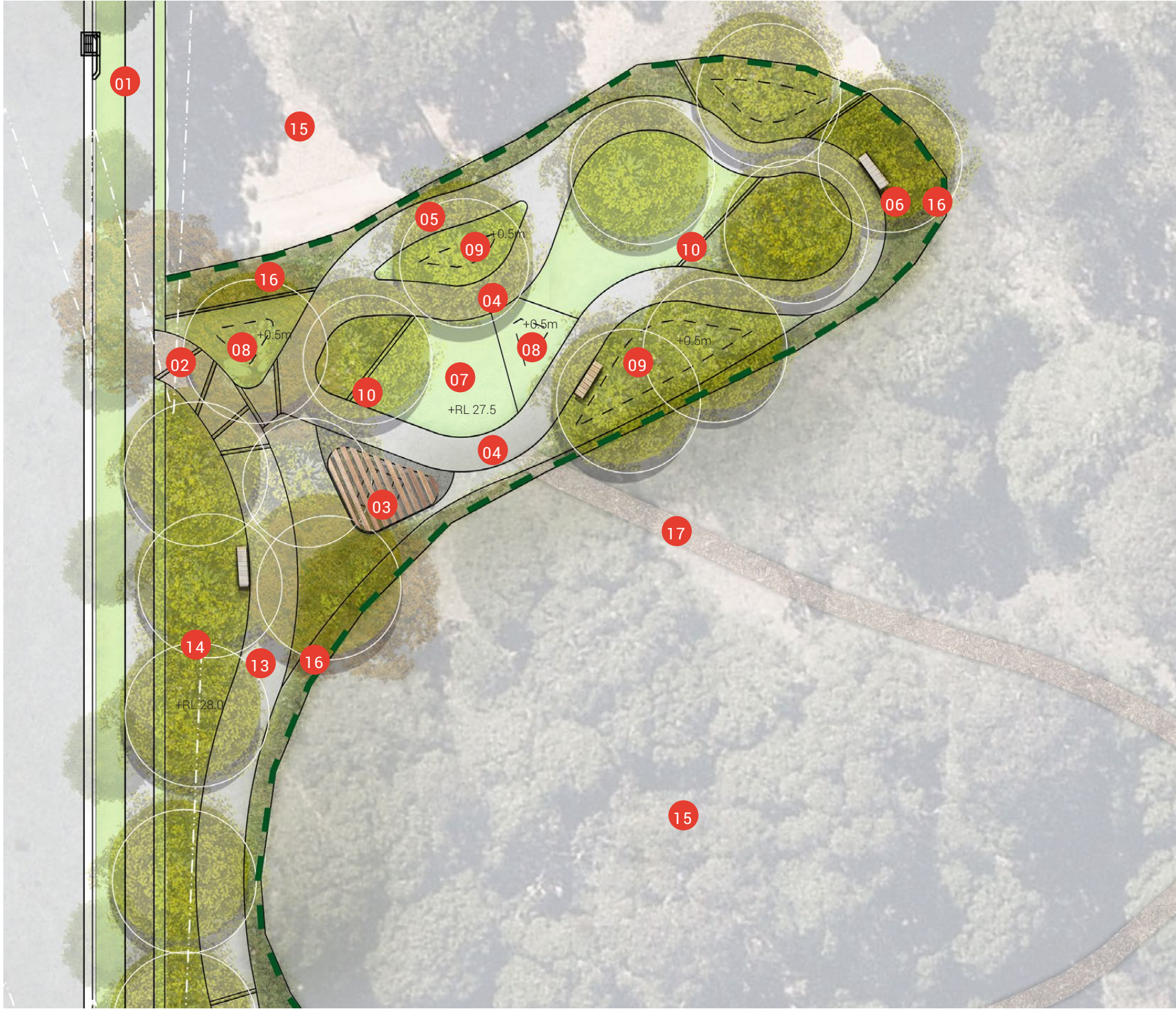
LEGEND

- 01 Playground palisade safety fence
- 02 Playground entry gates
- 03 Small Shelter with picnic setting
- 04 'Explorer Dome' - Multi-play equipment (Corocord)
- 05 Central directional path
- 06 Bench seating to perimeter garden beds
- 07 Triple swing set with birds nest, normal and toddlers swing
- 08 In-ground Trampoline area (Moduplay)
- 09 2m high Rubber soft fall mound with climbing ropes, rock mounds and double slide (Corocord/ Kompan)
- 10 Aeroplane themed equipment (Proludic)
- 11 Timber balance beams and stepper logs
- 12 Granulated rubber soft-fall with interpretive propeller pattern reflecting the sites previous use for joy flights
- 13 External 2.5m shared path
- 14 Street verge and footpath
- 15 Playground screen planting to street
- 16 Conservation area
- 17 Native grasses planting to buffer the conservation area with steel post & wire protection fence
- 18 Possible location for bush track access through the conservation lands to other key areas of the park
- 19 Shade sails over playground in line with Councils shade smart policy

Play Equipment Schedule			
DESCRIPTION	DIMENSIONS	SPECIFICATION	IMAGE
Plane	H: 920mm L: 2140mm W: 730	Description: Stainless Steel Star Picket Fence Product Number: City - J2603 Max free fall height: 0.6m Supplier: Proludic	
Swings	H: 900mm	Description: 2 bay portal swing 2.5m with Birds nest rope swing Product Number: KSW92011 Finish: Powdercoated galvanised steel pipe Fixing: Sub-surface fixed Supplier: Kompan	
Explorer Dome	L: Varies W: 500mm H: Av 0.5m high	Description: Multiplay piece Product Number: COR86300 Supplier: Kompan	
Embankment Slide	W: 2000mm H: 2000mm	Description: Stainless Steel Slide Product Number: CCC 712001-20300 Supplier: Kompan	
Custom Mountaineers Rope	H: 2000mm	Description: Mountaineers Climbing Rope Product Number: COROCORD16-2050-2C1 Supplier: Kompan	
Softfall climbing aids	W: 400mm H: 400mm	Description: Softfall lumps on mound	
In-ground Trampoline	D: 1750mm	Description: Round model in-ground trampoline Product Number: Z-1310 - 02 Supplier: Moduplay	
Timber balancing beams and steppers	Dimensions vary	Description: Nature play Timber balancing beams and steppers Supplier: Timber Creations	

PLAY ELEMENT





LEGEND

- 01 Street verge and footpath
- 02 Park entry with feature paving bands
- 03 Small Shelter with picnic setting
- 04 Children's Learn to ride track (flat)
- 05 Children's Learn to ride track (pump detour)
- 06 Bench seating to perimeter garden beds
- 07 Internal turf open space
- 08 Small turf mounds
- 09 Garden bed mounds
- 10 Concrete edge between turf and gardens
- 13 External 2.5m shared path
- 14 Screen planting to street
- 15 Conservation area
- 16 Native grasses planting to buffer the conservation area with steel post & wire protection fence
- 17 Possible location for bush track access through the conservation lands to other key areas of the park



LEGEND

- 01 2.5m share way path through park
- 02 Park main entry points
- 03 Large shelter with two picnic settings and BBQ amenity
- 04 Main diagonal access path to and from Werrington Station . Path to be lit with 4m post top lights at 20m spacings
- 05 Feature 4m wide paving area to park entry to allow for RFS truck and council maintenance vehicles. Path to be lit with 4m post top lights at 20m spacings
- 06 Bench seating to perimeter garden beds
- 07 Half court basketball area
- 08 Fitness station on granulated rubber soft fall
- 09 Turf slope to back of 450mm high concrete seating walls
- 10 Concrete edging between garden beds and turf
- 11 Turf open space area for active and passive use
- 12 Street verge and footpath
- 13 Retaining wall with screen planting to street
- 14 Conservation area
- 15 Native grasses planting to buffer the conservation area with steel post & wire protection fence
- 16 Possible location for bush track access through the conservation lands to other key areas of the park
- 17 Sandstone log turf terraces/seating walls
- 18 4m wide Reinforced turf maintenance access track into basin. 1:10 slope
- 19 5m high post top LED lights along main connection path to station.

ACTIVE ZONES



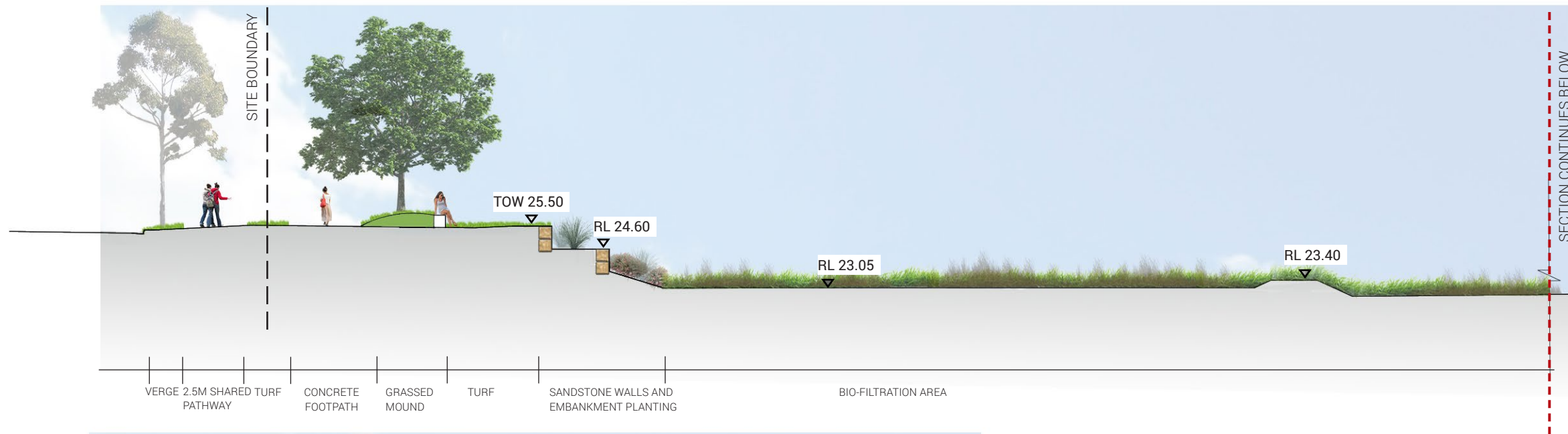
INTERPRETATION - 'BROOKLANDS SPEEDWAY' CHILDREN'S LEARN TO RIDE BICYCLE CIRCUIT





LEGEND

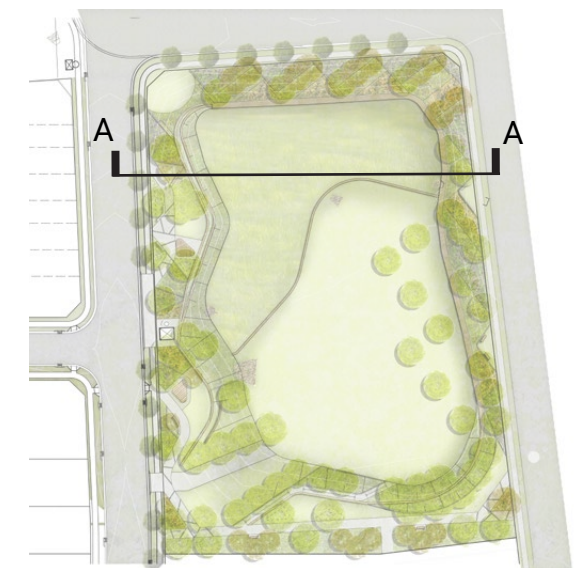
- 01 2.5m share way path through park
- 02 Park main entry points
- 03 Small shelter with picnic setting
- 04 1:20 Equitable access path to basin turf open space
- 05 4m wide Concrete maintenance access track into basin. 1:6 slope
- 06 Concrete bench seating to perimeter garden beds or turf nodes
- 07 Concrete blade walls with diagonal pattern and hedge planting behind to 1:4 embankment
- 08 Wind sock entry feature location. Interpretation of the heritage joy flights undertaken from Brooklands (optional)
- 09 Formal structured planting beds to basin perimeter
- 10 Concrete edging between garden beds and turf
- 11 Turf open space area for active and passive use
- 12 Formal under-story planting, screening hedge and tree screen to residual lot
- 13 Sandstone walls to basin
- 14 Open space turf area to detention basin
- 15 Sandstone bund wall to bio-filtration area
- 16 Bio-filtration area
- 17 Basin lower embankment planting to reduce height of basin walls
- 18 Melaleuca trees species to base of basin
- 19 Storm water outlets and scour protection to basin



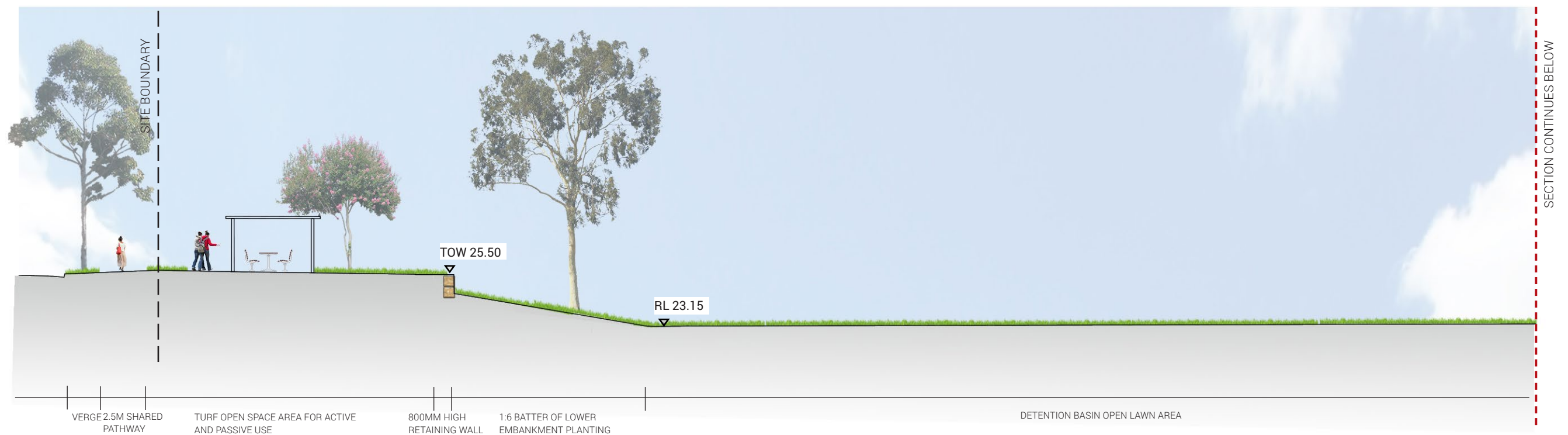
EASTERN BASIN SECTION AA - PART 1



EASTERN BASIN SECTION AA - PART 2



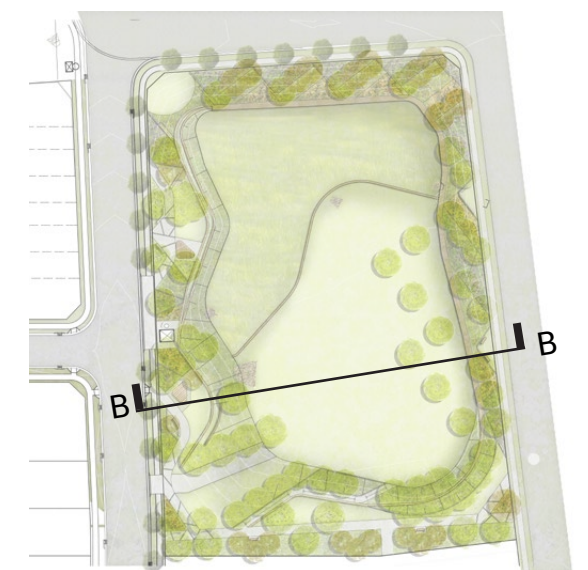
Key plan NTS



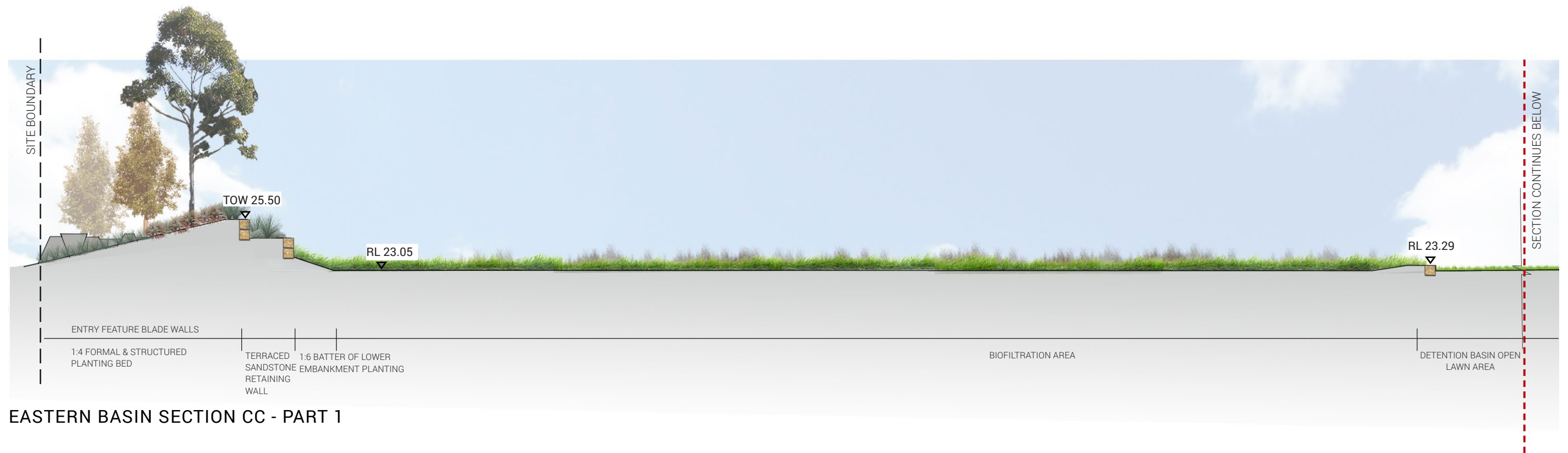
EASTERN BASIN SECTION BB - PART 1



EASTERN BASIN SECTION BB - PART 2



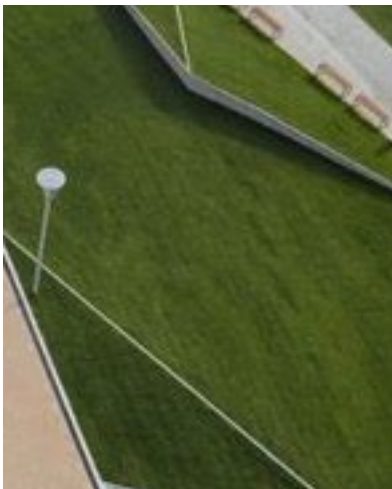
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TURF MOUNDS WITH SEATING EDGE



CONCRETE EDGE TO PLANTER



PAVING



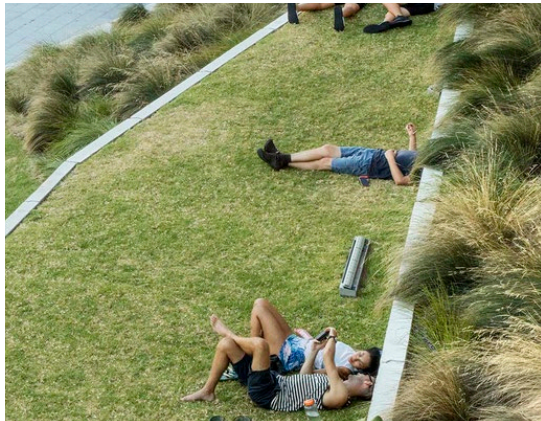
SHELTERED PICNIC AREAS



FEATURE PLANTING



TERRACING



INTERPRETATION - GROVES/GRIDS











OPEN TURF AREA

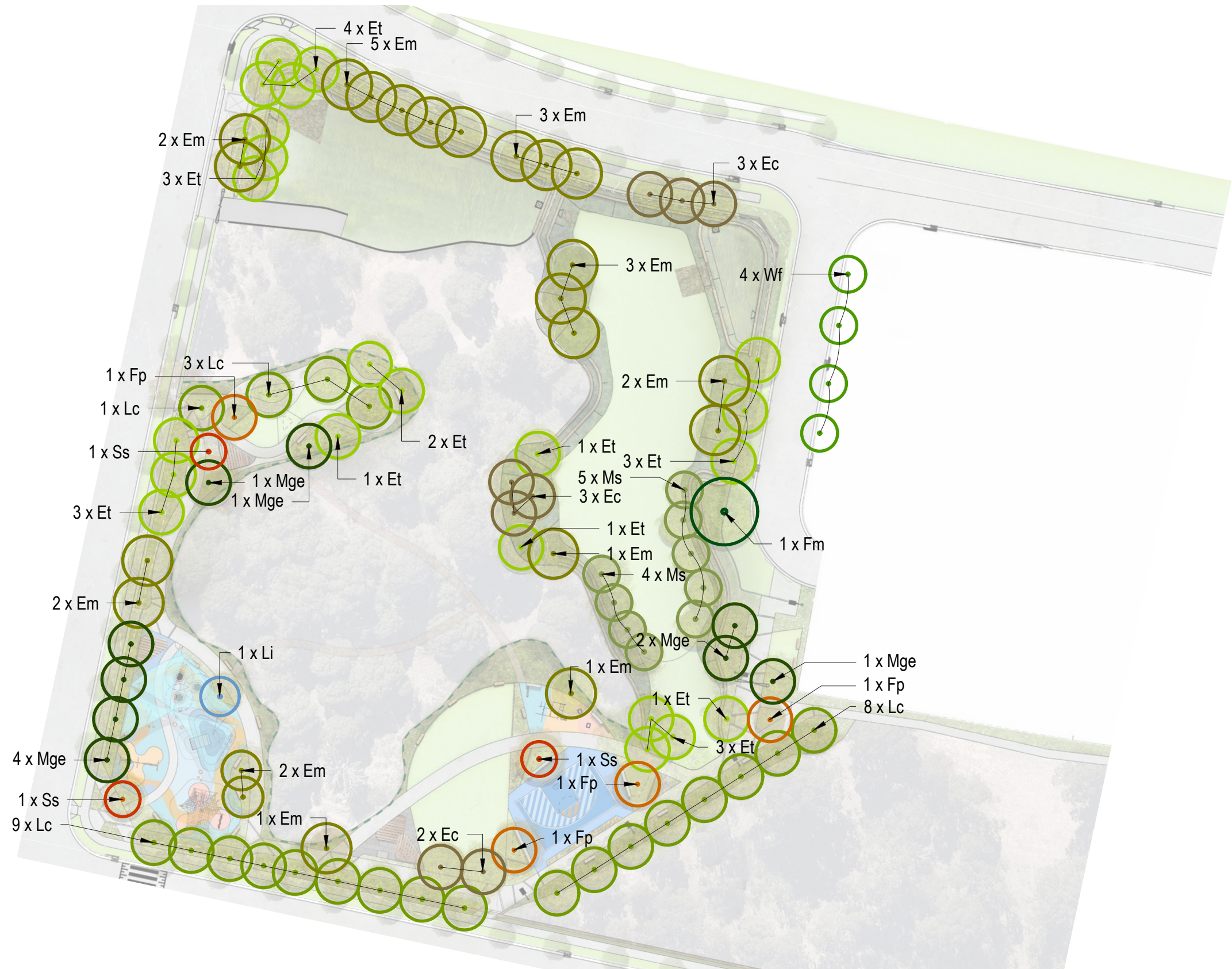


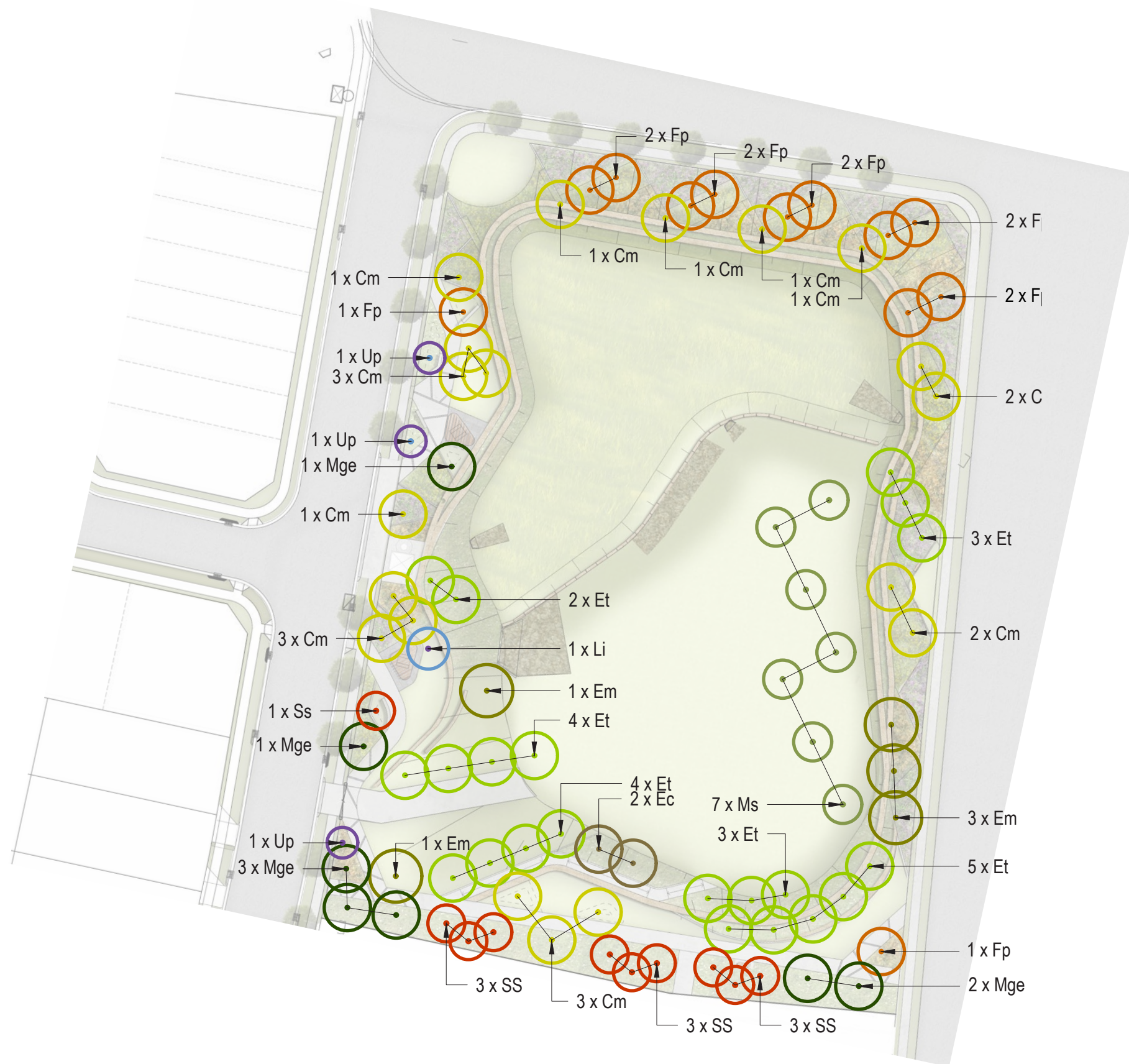
INTERPRETIVE 'WIND SOCK' ENTRY FEATURE



DESCRIPTION	DIMENSIONS	SPECIFICATION	IMAGE
FIXTURES AND BOLLARDS			
Star Picket Fence to Conservation Area	H: 900mm	Description: Star picket galvanised steel and wire fence Finish: Galvanised steel and wire Fixing: As per manufacturers/suppliers recommendations	
Bollard Fencing	H: 700mm	Description: Brolga Bollard Fence Finish: Recycled plastic bollards and wire Fixing: As per manufacturers/suppliers recommendations	
Playground Fence	H: 1200mm L: 1500mm	Description: 1200mm high flat top playground fence Panel length: 2400mm Finish: Polyester powder coat (black) to AS4605 Rail size: 40 x 40 x 1.6mm Post size: 65 x 65 1800mm long (min) SHS Picket spacing: 87mm (19mm dia) Material: Pre galvanised steel to AS1450 Fixing: Concrete footing to engineer's detail	
Steel Removable Bollard	H: 900mm	Description: Removable Bollard Finish: Powdercoated galvanised steel pipe Colour: Black Fixing: Sub-surface fixed as per manufacturers recommendations	
WALLS AND EDGES			
Sandstone Log Retaining Wall	L: 200/1000mm W: 500mm H: 500mm	Description: Sandstone log retaining wall. Finish: Class A sandstone logs with split face and sawn tops and bottoms (Av 0.5m high)	
Concrete Block Wall	L: 400mm W: 200mm H: 200mm	Description: Reinforced concrete block retaining wall to support residents concrete access path - Reinforced concrete footing; formwork; 1 layer of mesh reinforcement and concrete capping Colour: Sandstone Finish: Splitface	
Concrete Edge	L: Varies W: 150mm H: 200mm	Description: Concrete garden edge Details: Refer to drawings Colour: Standard Grey Finish: Steel trowel	
PAVEMENTS AND SURFACES			
Concrete Pavement	W: 1500, 1800, 2500mm T: Min 125mm	Description: Standard Concrete Pavement. 2.5m wide shared path - 25MPa reinforced concrete; formwork; 1 layer of mesh reinforcement. Expansion joints @ 6m centres - Connolly joints to be used. Finish: Sandblasted; expansion joints @ 6m centres - Connolly joints to be used. 125mm thick with SL82 mesh	
Concrete Pavement	W: 3500 - 4500mm T: Min 150mm	Description: Standard Concrete Pavement. 3.5-4.5m vehicular path - 30MPa reinforced concrete; formwork; 1 layer of mesh reinforcement. Expansion joints @ 6m centres - Connolly joints to be used. Finish: Sandblasted; expansion joints @ 6m centres - Connolly joints to be used. 150mm thick with SL82 mesh	
Granite Cobblestone Paving Bands	L: 90mm W: 90mm H: 50mm	Description: Granite Cobblestone bands Finish: Split Face Colour: Raven Joint: 10mm grout joint Slip rating: P5	
Coloured Concrete Pavement	W: 1500mm T: Min 125mm	Description: Coloured concrete path Finish: Sand blasted to expose aggregates Colour: CCS 'Biscuit' Joint: Expansion Joints every 6m, control joints every 1.5m Slip rating: P5	

Softfall Rubber		Description: Ethylene Propylene Diene Monomer (EPDM) granule rubber softfall Thickness: to Critical Fall Height requirements Colour: TBC Rubber softfall is to be certified to AS 4422 -2016.	
Stairs	Varies	Description: In situ reinforced concrete stairs with 20mm recess on face of stair. Class 2 finish Colour: Natural Portland Grey Constrast & nosing strip to AS 1428.4 - Black Handrail: Stainless Steel . 50mm OD.	
FURNITURE AND FIXTURES			
Christie BBQ	L: 1900mm W: 1150mm H: 860mm	Description: Double All-access Barbecue Finish: Stainless Steel	
Litter Bin Enclosure	L: 1165mm W: 660mm H: 1190mm	Description: Bondi Bin Housing Supplier: Botton and Gardiner Finish: sheet steel, zinc primed and powdercoated Colour: Black powdercoat and Australian Hardwood	
Timber Bench	L: 2100mm W: 630mm H: 790mm	Description: Terrain seat Supplier: Botton and Gardiner Finish: Hot-dip galvanised mild steel powdercoated, Colour: Black, Battens: Hardwood Fixing: Surface fixed	
Timber Picnic Setting	L: 2100mm W: 770mm (table top), 390mm (bench) H: 790mm	Description: Terrain setting Supplier: Botton and Gardiner Finish: Hot-dip galvanised mild steel powdercoated, Colour: Black, Battens: Hardwood Fixing: Surface fixed	
Timber Shelter	L: 4000mm W: 4000mm H: 2300mm	Description: Custom shelter Materials: Hardwood timberposts - dark stain. Colourband roofing Fixings: Hot-dipped galvanised brackets and fixings Installation: Bolt down post fixing to manufacturer's specification	
Playground Shade Sails	Varies	Structure: Hypar Shade Sails Heights: Minimum 2.5m above accessible parts of equipment and 1.5m above non-accessible parts Steelwork: CHS (round) posts with anti-climbing devices Surface Coating: Hot dipped galvanised posts Footings: Bored piers to be certified by suitable structural engineer Cover: Architec 400 with minimum 15yr warranty against UV degradation. UV rating of a minimum of 90%. All fittings are rated galvanised chain. No turnbuckles or wire slings. Colours: TBC	
Concrete Seating Wall	L: Varies W: 500mm H: 450mm	Description: Cast in-situ Concrete seating wall Finish: Class 2 finish Colour: Natural Portland Grey	
Fitness - Jump Box	L: 3460mm (extent of fall zone) W: 4900mm (extent of fall zone) H: 450mm and 600mm	Description: Jump box (UrbanFIT Trekko) Product code: UFT -3609 Supplier: Moduplay	
Static Bench	Varies	Description: Urban fit Trekko - Static Bench UFT- 3601 Materials: Steel	
Fitness Station	L: 5440mm W: 3920mm H: 3150mm	Description: Body "Byron" (UrbanFIT Trekko) Product code: UFT -3616 Supplier: Moduplay	





16 Chapman St, Werrington - Central Reserve Open Space Tree Palette						
SYM	Botanical Name	Common Name	Mature Height	Pot Size	Spacing /m2	QTY
TREES - Evergreen						
Ec	<i>Eucalyptus crebra</i>	Forest Red Gum	20m	100L	As Shown	8
Em	<i>Eucalyptus moluccana</i>	Grey Box	20m	100L	As Shown	22
Et	<i>Eucalyptus tereticornis</i>	Forest Red Gum	25m	100L	As Shown	22
Fm	<i>Ficus microcarpa</i> var. 'Hillii'	Hills Weeping Fig	20m	200L	As Shown	1
Lc	<i>Lophostemon confertus</i>	Brush Box	15m	100L	As Shown	21
Mge	<i>Magnolia grandiflora</i> 'Exmouth'	Magnolia	12m	100L	As Shown	9
Ms	<i>Melaleuca styphelioides</i>	Prickly Leafed Paperbark	8m	100L	As Shown	9
Wf	<i>Waterhousia floribunda</i> 'Green Avenue'	Weeping Lilly Pilly	10m	100L	As Shown	4
TREES - Deciduous						
Fp	<i>Fraxinus pennsylvanica</i> 'Cimmzam'	Cimmaron Ash	15m	200L	As Shown	4
Li	<i>Lagerstroemia indica</i> x <i>fauriei</i> 'Natchez'	Crepe Myrtle	6m	100L	As Shown	1
Ss	<i>Sapium serbiferum</i>	Chinese Tallow	10m	200L	As Shown	3

16 Chapman St, Werrington - Eastern Basin Open Space Tree Palette						
SYM	Botanical Name	Common Name	Mature Height	Pot Size	Spacing /m2	QTY
TREES - Evergreen						
Cm	<i>Corymbia maculata</i>	Spotted Gum	20m	100L	As Shown	19
Ec	<i>Eucalyptus crebra</i>	Forest Red Gum	20m	100L	As Shown	2
Em	<i>Eucalyptus moluccana</i>	Grey Box	20m	100L	As Shown	5
Et	<i>Eucalyptus tereticornis</i>	Forest Red Gum	25m	100L	As Shown	21
Mge	<i>Magnolia grandiflora</i> 'Exmouth'	Magnolia	12m	100L	As Shown	7
Ms	<i>Melaleuca styphelioides</i>	Prickly Leafed Paperbark	8m	100L	As Shown	7
TREES - Deciduous						
Fp	<i>Fraxinus pennsylvanica</i> 'Cimmzam'	Cimmaron Ash	15m	200L	As Shown	12
Li	<i>Lagerstroemia indica</i> x <i>fauriei</i> 'Natchez'	Crepe Myrtle	6m	100L	As Shown	1
Ss	<i>Sapium serbiferum</i>	Chinese Tallow	10m	200L	As Shown	10
Up	<i>Ulmus parvifolia</i>	Chinese Elm	10m	200L	As Shown	3

ENDEMIC TREE PLANTING



Corymbia. maculata



E. Crebra



E. Moluccana



E. Tereticornis



M. styphelioides.



Ficus microcarpa 'Hillii'



Lophostemon confertus



Magnolia grandiflora 'Exmouth'



Waterhousia floribunda 'Green Ave'

EVERGREEN TREE PLANTING

DECIDUOUS TREE PLANTING



Fraxinus pennsylvanica 'Cimmzam'



Lagerstroemia indica x frauriei 'Natchez'



Sapium sebiferum



Ulmus parvifolia



SYM	Botanical Name	Common Name	Mature Height	Pot Size	Spacing /m2	QTY
PARK MIXES						
Mix 1						
Dc	<i>Dianella caerulea</i> var. <i>caerulea</i>	Flax Lily	0.8m	75mm	6	475
Dm	<i>Dichelachne micrantha</i>	Short-hair Plume Grass	1.2m	75mm	6	475
HS	<i>Hakea sericea</i>	Needlebush	3m	150mm	3	239
Ju	<i>Juncus usitatus</i>	Common Rush	0.9m	150mm	6	475
Li	<i>Lomandra longifolia</i>	Spiny-headed Matt Rush	0.8m	75mm	6	475
Lf	<i>Lomandra filiformis</i>	Wattle Mat Rush	0.2m	75mm	6	475
MS	<i>Microlaena stipoides</i>	Weeping Meadow Grass	0.2m	75mm	6	475
Ka	<i>Kunzea ambigua</i>	Tick Bush	3m	150mm	3	239

Mix 2						
Cw	<i>Callistemon</i> ‘White Anzac’	White Anzac Bottlebrush	1m	150mm	4	108
Dss	<i>Dianella ensiformis</i> 'Silver Streak'	Silver Streak flax lilly	0.5m	150mm	4	108
Dlj	<i>Dianella caerulea</i> 'Little Jess'	Blue flax lily	0.4m	150mm	5	136
Hm	<i>Hardenbergia violacea</i> 'Meema'	Meema	0.5m	150mm	3	81
Lt	<i>Lomandra longifolia</i> ' Tanika'	Tanika	0.5m	150mm	5	136
Wbg	<i>Westringia</i> 'Blue Gem’	Costal Rosemary	0.9m	150mm	4	108
Wc	<i>Wahlenbergia communis</i>	Turfted Bluebell	0.75m	150mm	5	136
Mix 3						
Cbj	<i>Callistemon viminalis</i> 'Better John'	Bottleburhs	1.2m	150mm	4	80
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	150mm	2	41
Dtr	<i>Dianella tasmanica</i> 'Tasred'	Wide bladed flax lily	0.5m	150mm	4	80
Hs	<i>Hibbertia scandens</i>	Snake vine	0.3m	150mm	4	80
Mct	<i>Melaleuca linariifolia</i> 'Claret Tops'	Honey Myrtle ‘Claret Tops’	0.9m	150mm	4	80
Pa	<i>Pennisetum alopecuroides</i> ‘Nafray’	Swamp Foxtail	0.3m	150mm	6	121
Pe	<i>Poa labillardieri</i> 'Eskdale'	Tussock grass	0.6m	150mm	5	100
Wz	<i>Westringia fruticosa</i> 'Zena'	Coastal Rosemary	0.9m	150mm	4	80
Mix 4						
Abr	<i>Anigozanthos</i> ‘Bush Ranger’	Kangaroo Paw	0.5m	150mm	6	51
Aam	<i>Acmena smithii</i> ‘Allyn Magic’	Lilly Pilly	0.6m	150mm	4	36
Ca	<i>Chrysocephalum apiculatum</i>	Yellow buttons	0.5m	150mm	4	36
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	150mm	2	16
Lt	<i>Lomandra longifolia</i> ' Tanika'	Tanika	0.5m	150mm	5	44
Mt	<i>Melaleuca thymifolia</i>	Thyme honey myrtle	1m	150mm	5	44
My	<i>Myoporum parvifolium</i> 'Yareena'	Boobialla	0.1m	150mm	4	36
Mix 5						
Bft	<i>Baloskion tetraphyllum</i> 'Feather Top'	Feather Rush	0.5m	75mm	6	1006
Ju	<i>Juncus usitatus</i>	Common Rush	0.9m	75mm	6	1006
Lkb	<i>Lomandra</i> 'Katie Belles'	Lomandra Katie Belles	1.5m	75mm	5	806
Ltb	<i>Lomandra</i> 'Tropic Belle'	Lomandra Tropic Belle	0.8m	75mm	5	806
Pe	<i>Poa labillardieri</i> 'Eskdale'	Tussock grass	0.6m	75mm	6	1006
Pn	<i>Pennisetum</i> 'Nafray'	Swamp Foxtail Grass	0.6m	75mm	6	1006
Ta	<i>Themeda australis</i>	Kangaroo Grass	0.5m	75mm	6	1006

Mix 6						
Ca	<i>Carex appressa</i>	Sedge	1.3m	75mm	6	808
Dc	<i>Dianella caerulea</i>	Blue flax lily	0.5m	75mm	6	808
Fn	<i>Ficinia nodosa</i>	Knobby Club Rush	0.8m	75mm	6	808
Jf	<i>Juncus flavidus</i>	Mat Rush	1.0m	75mm	6	808
Ju	<i>Juncus usitatus</i>	Common Rush	1.0m	75mm	6	808
La	<i>Lepironia articulata</i>	Grey rush	0.9m	75mm	6	808
Li	<i>Lomandra longifolia</i>	Mat Rush	1.2m	75mm	6	808
Mix 7						
Bs	<i>Banksia spinulosa</i> ' Birthday candles'	Banksia	0.5m	150mm	3	34
Ca	<i>Chrysocephalum apiculatum</i>	Yellow buttons	0.5m	150mm	4	43
Dlj	<i>Dianella caerulea</i> 'Little Jess'	Blue flax lily	0.4m	150mm	4	43
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	300mm	2	22
Hs	<i>Hibbertia scandens</i>	Snake vine	1m	150mm	4	43
Ljr	<i>Liriope muscari</i> 'Just right'	Turf Lilly	0.65m	150mm	4	43
LKB	<i>Lomandra</i> 'Katie Belles'	Lomandra Katie Belles	1.5m	150mm	4	43
Pa	<i>Pennisetum alopecuroides</i> ‘Nafray’	Swamp Foxtail	0.3m	150mm	6	66
Sh	<i>Scaevola humilis</i> 'Purple Fusion'	Scaevola	0.2m	150mm	5	56
Mix 8						
Aam	<i>Acmena smithii</i> ‘Allyn Magic’	Lilly Pilly	0.6m	150mm	4	355
Lt	<i>Lomandra longifolia</i> ' Tanika'	Tanika	0.5m	150mm	6	635
LL	<i>Lomandra longifolia</i>	Spiny-headed Matt Rush	0.8m	150mm	4	355
Mct	<i>Melaleuca linariifolia</i> 'Claret Tops'	Honey Myrtle ‘Claret Tops’	0.9m	150mm	4	355
Pe	<i>Poa labillardieri</i> 'Eskdale'	Tussock grass	0.6m	150mm	6	635
Wz	<i>Westringia fruticosa</i> 'Zena'	Coastal Rosemary	0.9m	150mm	4	355

FEATURE PLANTING



Beschorneria yuccoides
Mexican Lily



Lomandra longifolia 'Tanika'
Tanika



Dietes grandiflora
Wild Iris



Doryanthes excelsa
Gynea Lily



Westringia fruticosa 'Zena'
Coastal Rosemary



Hardenbergia violacea 'Meema'
Meema



Liriope muscari 'Just right'
Turf Lily



Dianella 'Little Jess'
Blue Flax Lily Little Jess



Anigozanthos 'Bush Bonanza'
Kangaroo Paw

MIX 1



Dietes grandiflora
Wild Iris



Dianella revoluta 'Little Rev'
Blue Flax Lily



Pennisetum alopecuroides
Swamp Foxtail

MIX 2



Lavandula dentata
French Lavender



Raphiolepis delacourii
Hybrid Indian Hawthorn



Liriope muscari 'Isabella'
Lilly Turf 'Isabella'



Philodendron xanadu
Xanadu

MIX 3



Alternanthera dentata 'Little Ruby'
Little Ruby



Chrysocephalum apiculatum
Yellow buttons



Echium candicans
Pride of Madeira

MIX 4



Strelitzia reginae
bird of paradise



Carpobrotus rossii
Pig Face



Murraya paniculata
Orange jessamine

BANK PLANTING



Baloskion tetraphyllum
Feather Rush



Juncus usitatus
Common Rush



Poa labillardieri 'Eskdale'
Tussock grass



Themeda australis
Kangaroo grass



Carex appressa
Sedge



Ficinia nodosa
Knobby Club Rush



Lepironia articulata
Grey rush



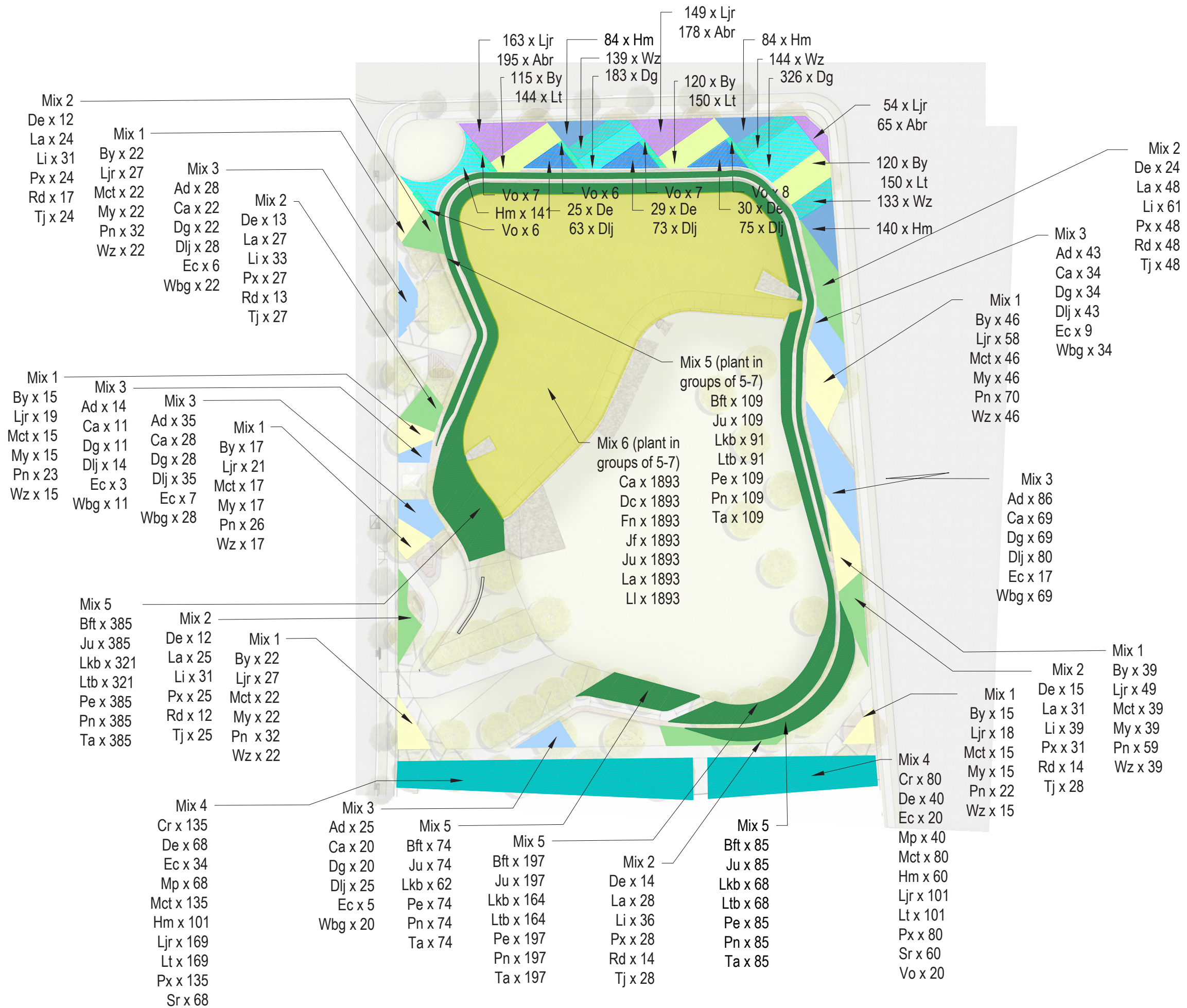
Juncus flavidus
Mat Rush

FILTRATION MEDIUM

16 Chapman Street, Werrington Open Space DA Report

Central Reserve Planting Images

DATE	PROJECT NO.	REVISION	DWG NO.
14/02/2020	2519036	03	SK - 29



SYM	Botanical Name	Common Name	Mature Height	Pot Size	Spacing /m2	QTY
FEATURE PLANTING						
Abr	<i>Anigozanthos 'Bush Bonanza'</i>	Kangaroo Paw	0.6m	150mm	6	438
By	<i>Beschorneria yuccoides</i>	Mexican Lily	1.5m	150mm	4	355
Dg	<i>Dietes grandiflora</i>	Wild Iris	0.5m	150mm	4	509
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	300mm	2	84
Dlj	<i>Dianella caerulea 'Little Jess'</i>	Blue flax lily	0.4m	150mm	5	211
Hm	<i>Hardenbergia violacea 'Meema'</i>	Meema	0.5m	150mm	3	449
Ljr	<i>Liriope muscari 'Just right'</i>	Turf Lilly	0.65m	150mm	5	366
Lt	<i>Lomandra longifolia 'Tanika'</i>	Tanika	0.5m	150mm	5	444
Wz	<i>Westringia fruticosa 'Zena'</i>	Coastal Rosemary	0.9m	150mm	4	416
Vo	<i>Viburnum odoratissimum</i>	Sweet Viburnum	4m	300mm	1	34
Mix 1						
By	<i>Beschorneria yuccoides</i>	Mexican Lily	1.5m	150mm	4	176
Ljr	<i>Liriope muscari 'Just right'</i>	Turf Lilly	0.65m	150mm	5	219
Mct	<i>Melaleuca linariifolia 'Claret Tops'</i>	Honey Myrtle 'Claret Tops'	0.9m	150mm	4	176
My	<i>Myoporum parvifolium 'Yareena'</i>	Boobialla	0.1m	150mm	4	176
Pn	<i>Pennisetum alopecuroides 'Nafray'</i>	Swamp Foxtail	0.3m	150mm	6	219
Wz	<i>Westringia fruticosa 'Zena'</i>	Coastal Rosemary	0.9m	150mm	4	176
Mix 2						
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	300mm	2	90
La	<i>Lavandula dentata</i>	French Lavender	0.5m	150mm	4	183
Li	<i>Liriope muscari 'Isabella'</i>	Lilly Turf 'Isabella'	0.4m	150mm	5	231
Px	<i>Philodendron xanadu</i>	Xanadu	0.5m	150mm	4	183
Rd	<i>Rhaphiolepis delacourii</i>	Hybrid Indian Hawthorn	1m	150mm	2	90
Tj	<i>Trachelospermum jasminoides</i>	Star Jasmine	0.5m	150mm	4	183
Mix 3						
Ad	<i>Alternanthera dentata 'Little ruby'</i>	Little ruby	0.6m	150mm	5	21
Ca	<i>Chrysocephalum apiculatum</i>	Yellow buttons	0.5m	150mm	4	184
Dg	<i>Dietes grandiflora</i>	Wild Iris	0.5m	150mm	4	184
Dlj	<i>Dianella caerulea 'Little Jess'</i>	Blue flax lily	0.4m	150mm	5	231
Ec	<i>Echium candicans</i>	Pride of Madeira	1m	300mm	1	47
Wbg	<i>Westringia 'Blue Gem'</i>	Costal Rosemary	0.9m	150mm	4	184
Mix 4						
Cr	<i>Carpobrotus rossii</i>	Pig Face	0.2m	150mm	4	215
De	<i>Doryanthes excelsa</i>	Gymea Lily	2m	300mm	2	108
Ec	<i>Echium candicans</i>	Pride of Madeira	1m	300mm	1	54
Mp	<i>Murraya paniculata</i>	Orange jassamine	3m	300mm	2	108
Mct	<i>Melaleuca linariifolia 'Claret Tops'</i>	Honey Myrtle 'Claret Tops'	0.9m	150mm	4	215
Hm	<i>Hardenbergia violacea 'Meema'</i>	Meema	0.5m	150mm	3	167
Ljr	<i>Liriope muscari 'Just right'</i>	Turf Lilly	0.65m	150mm	5	270
Lt	<i>Lomandra longifolia 'Tanika'</i>	Tanika	0.5m	150mm	5	270
Px	<i>Philodendron xanadu</i>	Xanadu	0.5m	150mm	4	215
Sr	<i>Strelitzia reginae</i>	bird of paradise	1m	300mm	2	108
Vo	<i>Viburnum odoratissimum</i>	Sweet Viburnum	4m	300mm	1	54

Refer to Planting Plan - Shrubs, Grasses and Ground-covers on page 16

Mix 5						
Bft	<i>Baloskion tetraphyllum 'Feather Top'</i>	Feather Rush	0.5m	75mm	6	850
Ju	<i>Juncus usitatus</i>	Common Rush	0.9m	75mm	6	850
Lkb	<i>Lomandra 'Katie Belles'</i>	Lomandra Katie Belles	1.5m	75mm	5	706
Ltb	<i>Lomandra 'Tropic Belle'</i>	Lomandra Tropic Belle	0.8m	75mm	5	706
Pe	<i>Poa labillardieri 'Eskdale'</i>	Tussock grass	0.6m	75mm	6	850
Pn	<i>Pennisetum 'Nafray'</i>	Swamp Foxtail Grass	0.6m	75mm	6	850
Ta	<i>Themeda australis</i>	Kangaroo Grass	0.5m	75mm	6	850
Mix 6						
Ca	<i>Carex appressa</i>	Sedge	1.3m	75mm	6	1893
Dc	<i>Dianella caerulea</i>	Blue flax lily	0.5m	75mm	6	1893
Fn	<i>Ficinia nodosa</i>	Knobby Club Rush	0.8m	75mm	6	1893
Jf	<i>Juncus flavidus</i>	Mat Rush	1.0m	75mm	6	1893
Ju	<i>Juncus usitatus</i>	Common Rush	1.0m	75mm	6	1893
La	<i>Lepironia articulata</i>	Grey rush	0.9m	75mm	6	1893
Li	<i>Lomandra longifolia</i>	Mat Rush	1.2m	75mm	6	1893

MIX 1



Dichelachne micrantha
Short-hair Plume Grass



Kunzea ambigua
Tick Bush



Microlaena stipoides
Weeping Meadow



Hakea sericea
Needlebush

MIX 2



Callistemon 'White Anzac'
White Anzac Bottle-



Westringia 'Blue Gem'
Costal Rosemary



Dianella ensiformis 'Silver Streak'
Silver Streak flax lilly



Wahlenbergia communis
Turfted Bluebell

MIX 3



Doryanthes excelsa
Gymea Lily



Dietes grandiflora
Wild Iris



Myoporum parvifolium
Creeping boobialla



Lomandra longifolia
'Tanika'

MIX 4



Lomandra longifolia
'Tanika'



Acmena smithii 'Allyn Magic'
Lilly Pilly



Anigozanthos 'Bush Bonanza'
Kangaroo Paw



Chrysocephalum apiculatum
Yellow buttons

MIX 5 - BANKS



Baloskion tetraphyllum
Feather Rush



Juncus usitatus
Common Rush



Poa labillardieri 'Eskdale'
Tussock grass



Themeda australis
Kangaroo grass



Carex appressa
Sedge



Ficinia nodosa
Knobby Club Rush



Lepironia articulata
Grey rush



Juncus flavidus
Mat Rush

MIX 6 FILTRATION MEDIUM

MIX 7 - PLAYGROUND PLANTING



Pennisetum alopecuroides
Swamp Foxtail



Dianella 'Little Jess'
Blue Flax Lily Little Jess



Banksia spinulosa 'Birthday candles'
Blue Flax Lily Little Jess



Hibbertia scandens
Snake vine



Scaevola humilis 'Purple Fusion'
Scaevola



Acmena smithii 'Allyn Magic'
Lilly Pilly

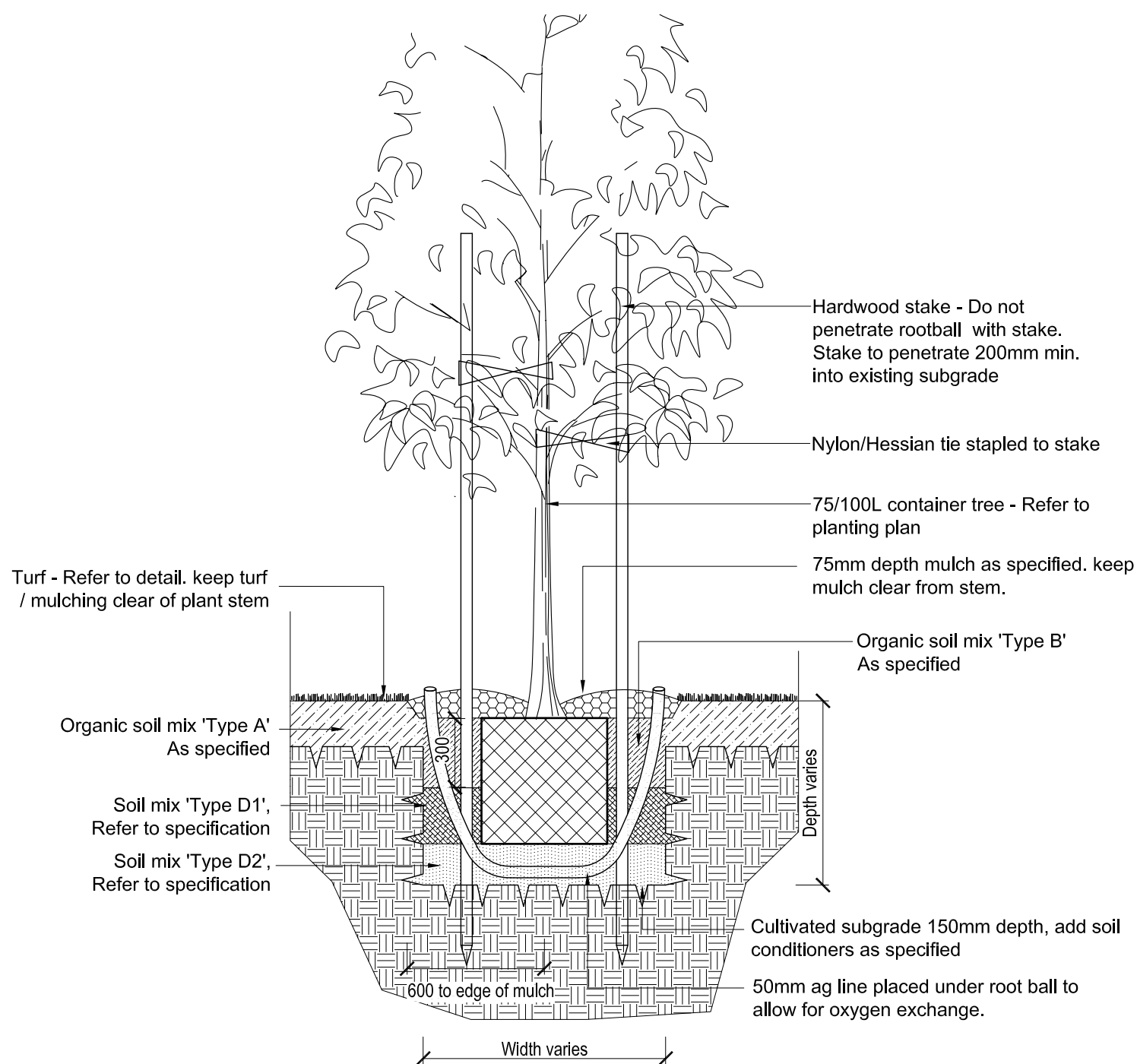


Lomandra longifolia
'Tanika'

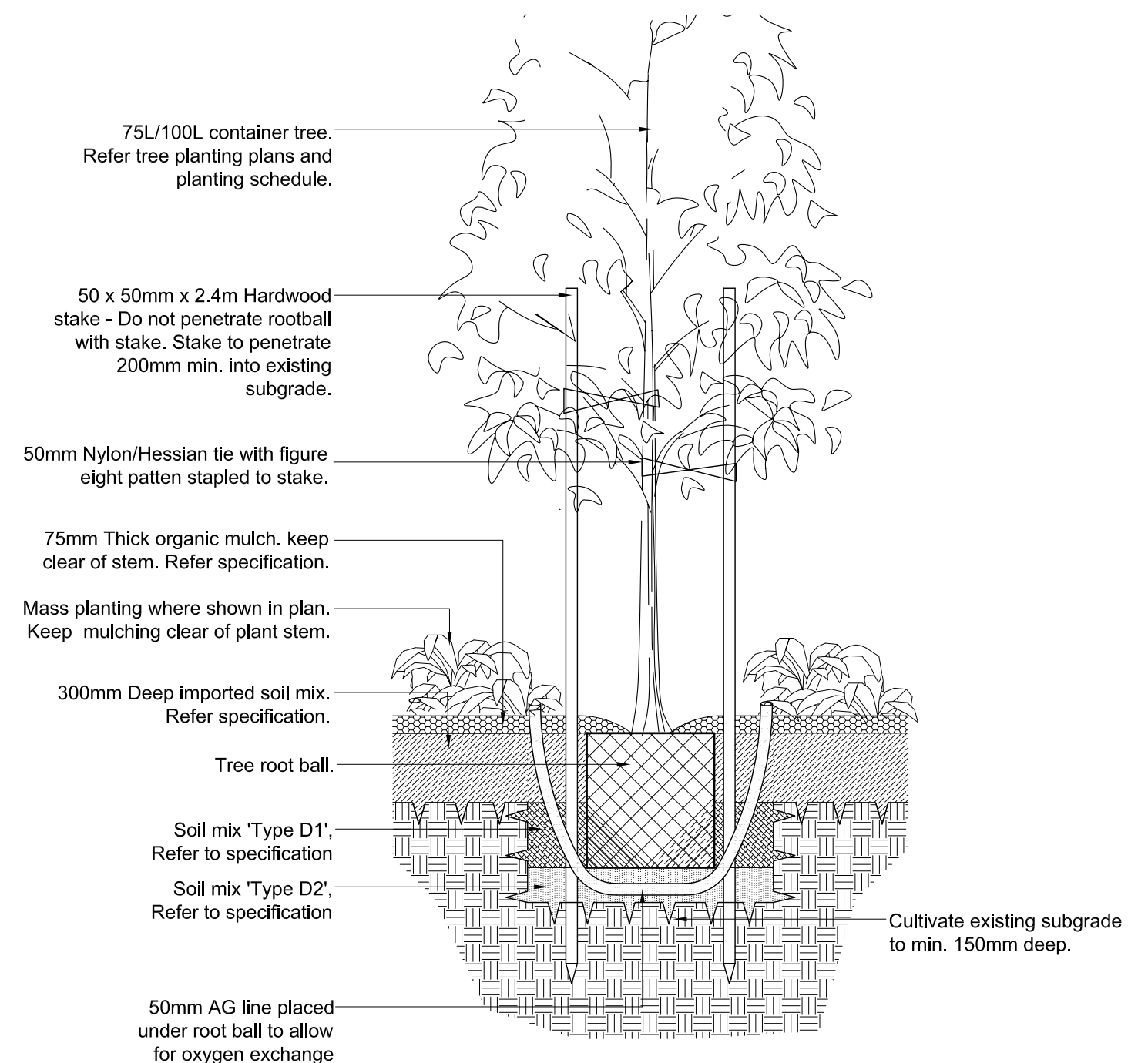


Poa labillardieri 'Eskdale'
Tussock grass

MIX 8



Note: Tree planting hole dimensions according to container size: Width min. 2 x root ball diameter (min. 820 / 1100 / 1400mm for 45/75/100L containers) and depth min. 150mm below root ball depth.



Note: Tree planting hole dimensions according to container size: Width min. 2 x root ball diameter (min. 820 / 1100 / 1400mm for 45/75/100L containers) and depth min. 150mm below root ball depth.

1

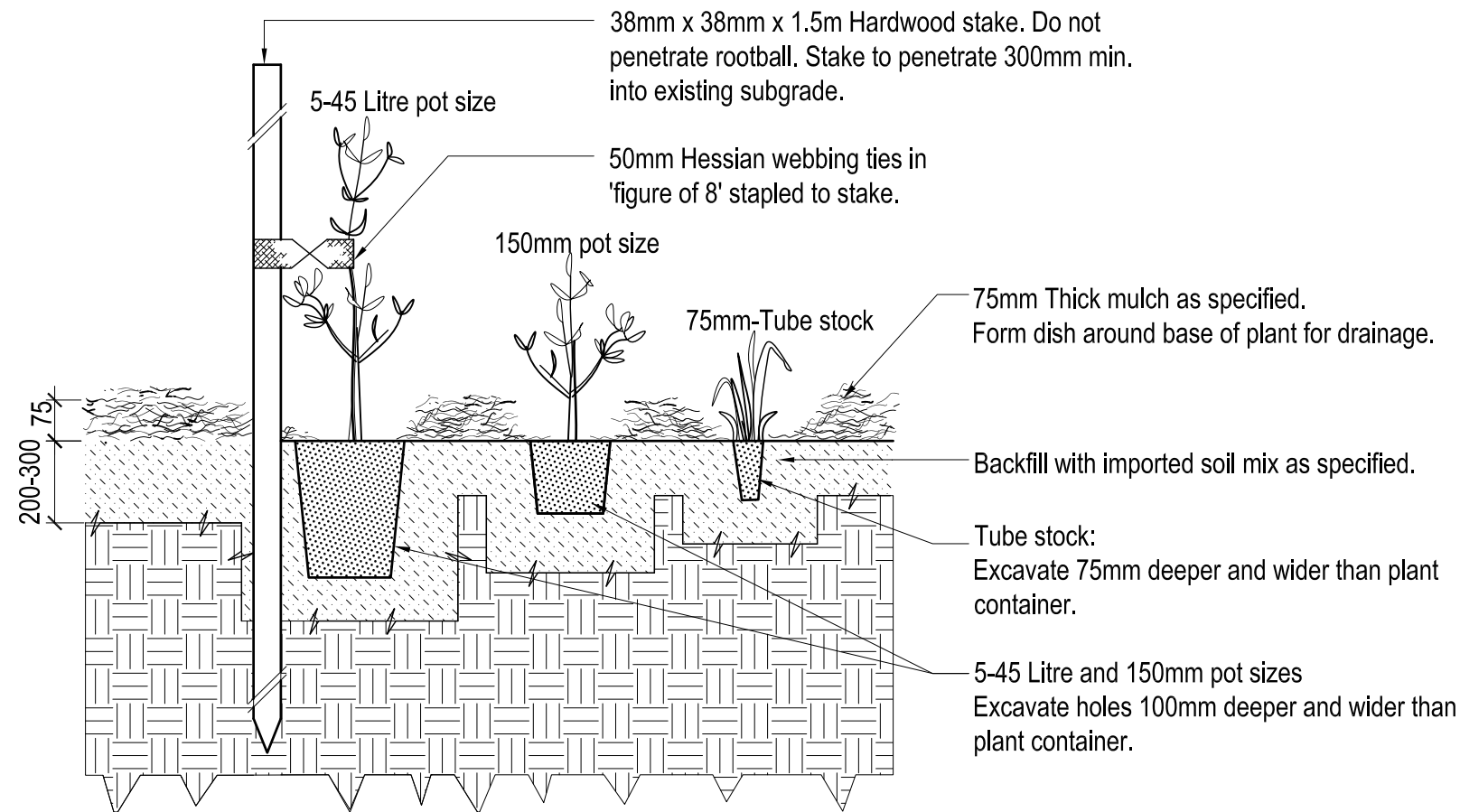
TYPICAL TREE PLANTING IN TURF DETAIL

SCALE 1:25

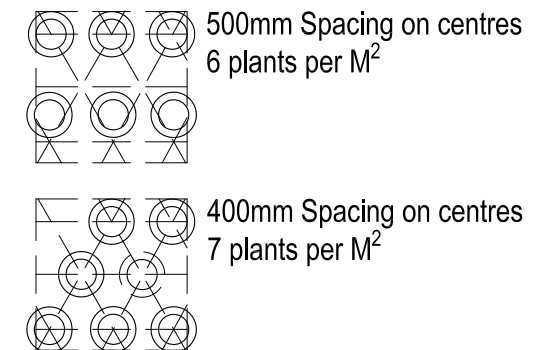
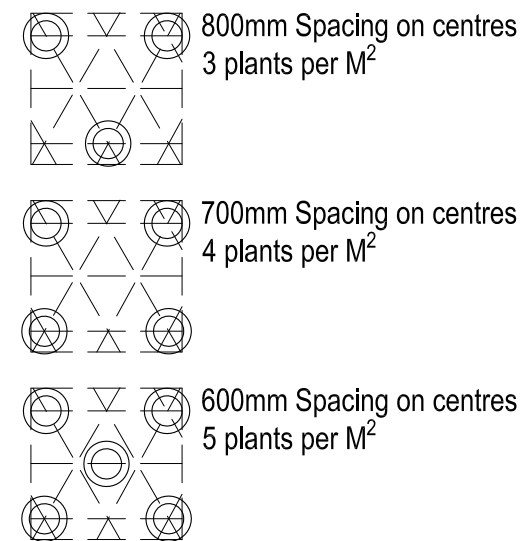
2

TYPICAL TREE PLANTING IN MASS PLANTING DETAIL

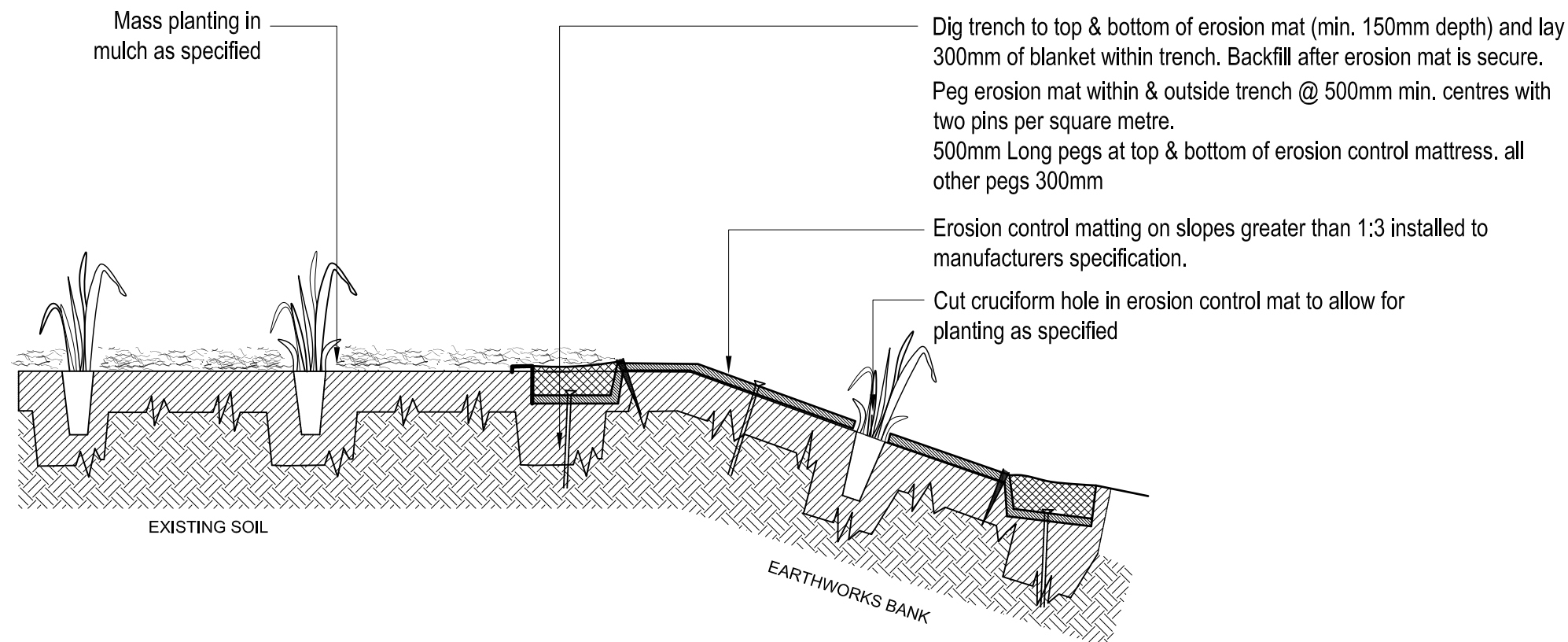
SCALE 1:25



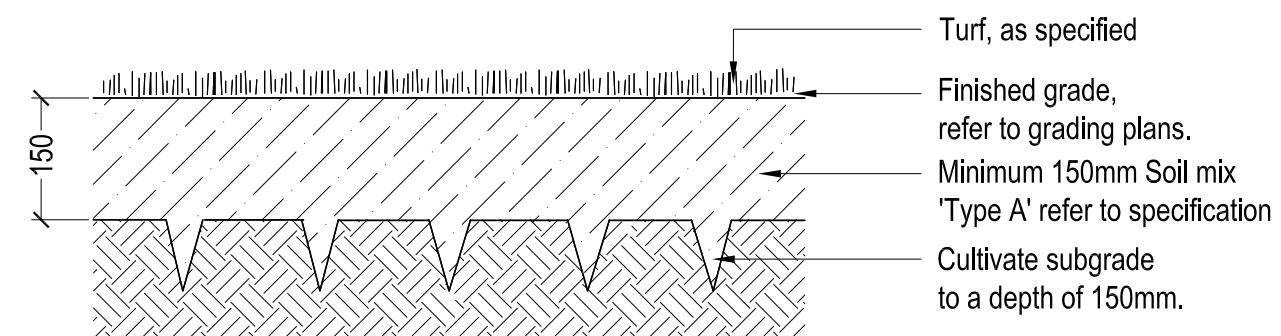
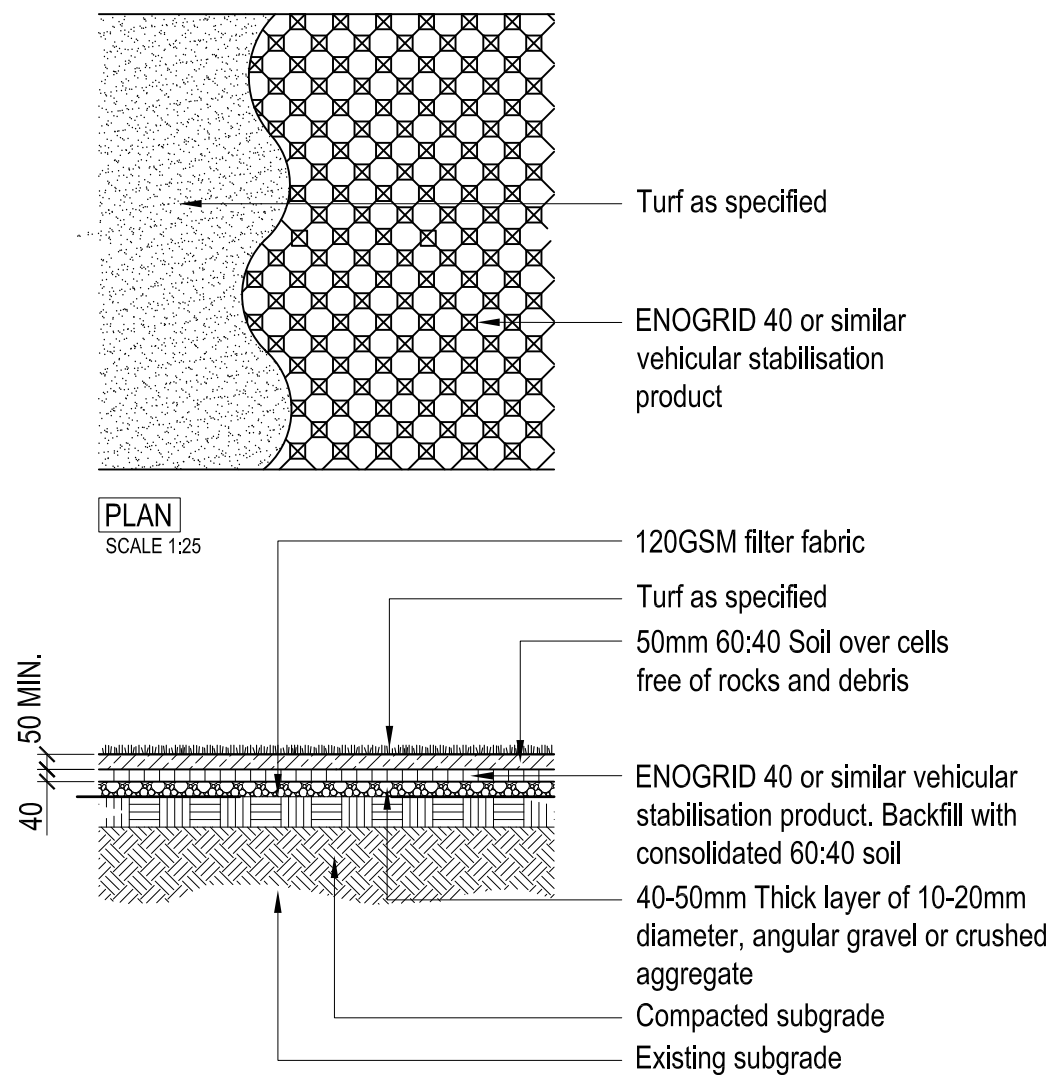
1 TYPICAL MASS PLANTING DETAIL
SCALE 1:25



2 TYPICAL PLANTING ARRANGEMENT DETAIL
SCALE 1:50



3 TYPICAL STEEP EMBANKMENT PLANTING DETAIL
SCALE 1:25



General Notes:

Regularly remove weed growth throughout planted and mulched areas during the course of project construction.

Lightly tamp or roll surface of turf after installation to ensure that turf roots are in contact with topsoil.

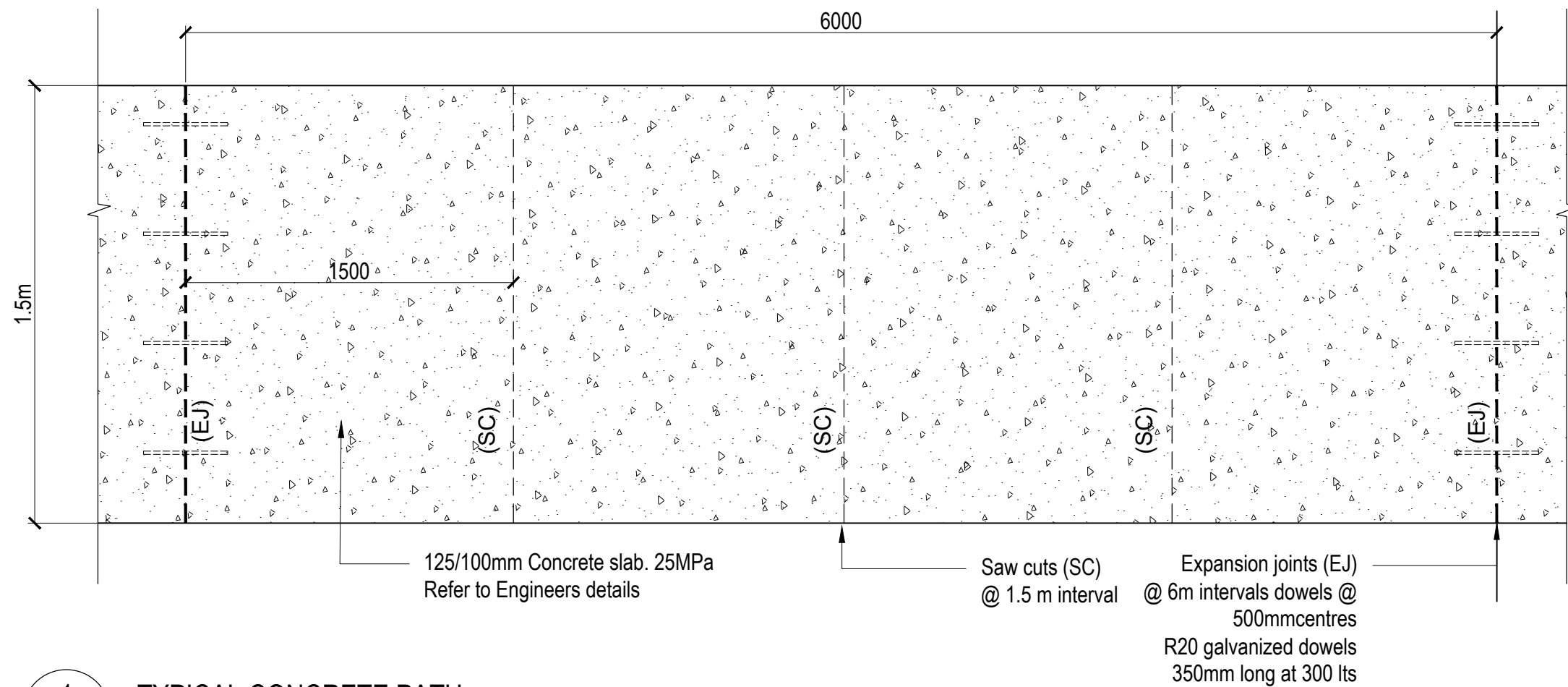
Turf on low side of any path or edge to finish 10mm below finished path/edge level.

1

TYPICAL REINFORCED TURF DETAIL
SCALE 1:25

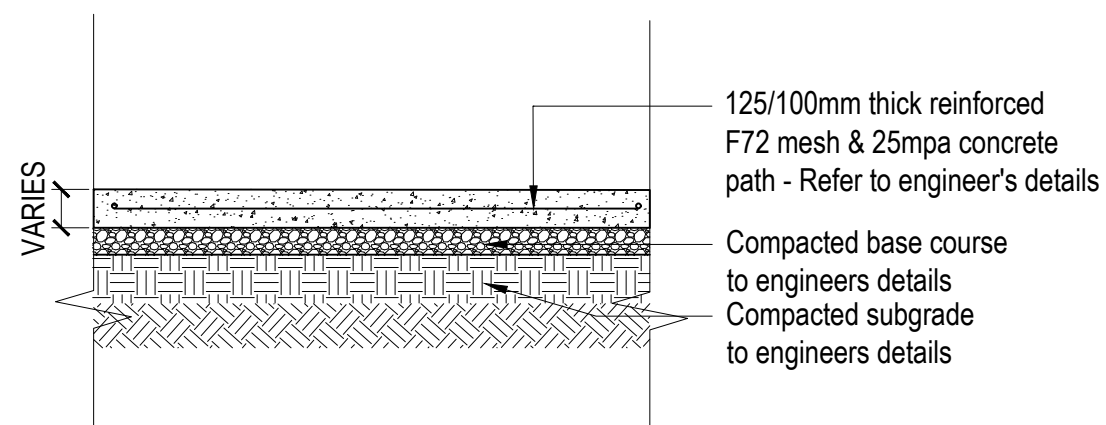
2

TYPICAL TURF DETAIL
SCALE 1:10

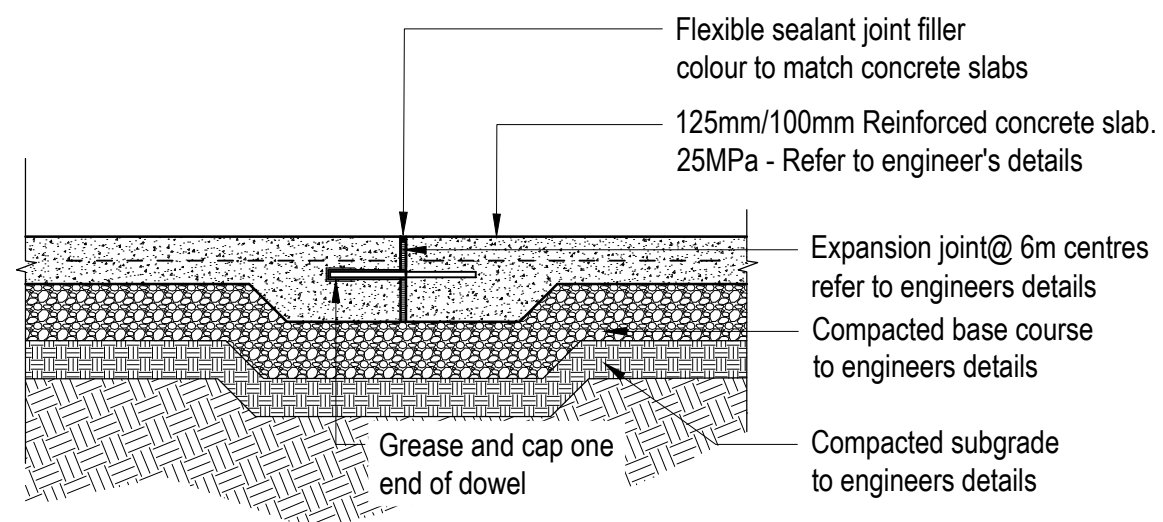


1 TYPICAL CONCRETE PATH
SCALE 1:25

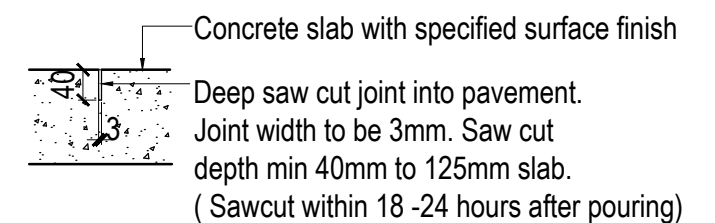
Note:
Expansion joint to extend across the
path width every 6 meters.
Control joints (saw cut joints) to
extend across the path every 1.5m.



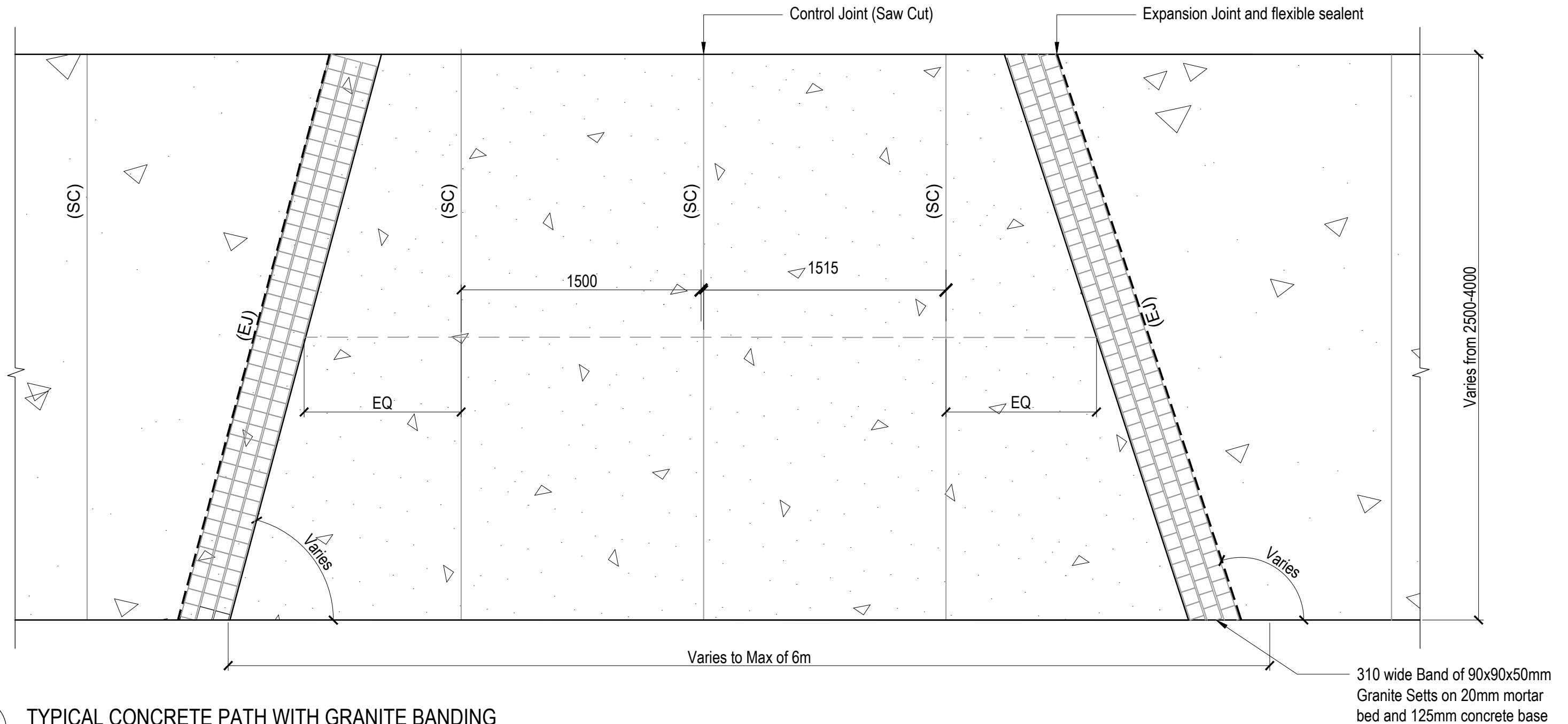
2 TYPICAL CONCRETE PATH
SCALE 1:20



3 TYPICAL EXPANSION JOINT
SCALE 1:20



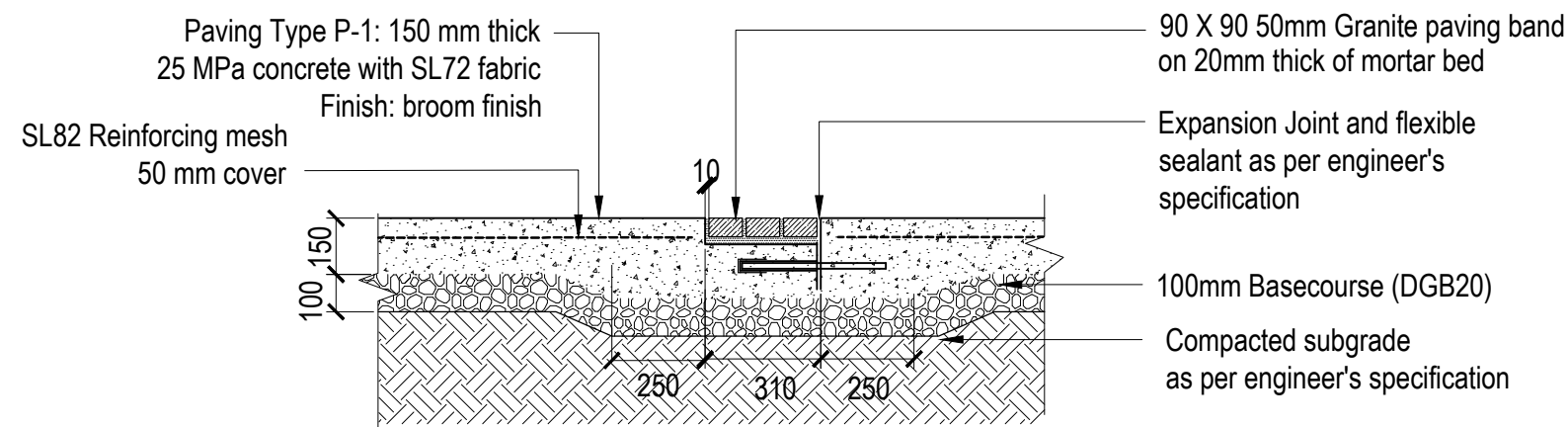
4 TYPICAL CONCRETE SAW CUT
SCALE 1:10



1

TYPICAL CONCRETE PATH WITH GRANITE BANDING

SCALE 1:25



2

TYPICAL CONCRETE PATH WITH GRANITE BANDING

SCALE 1:20

Note: Installation refer to manufacturers detail by certified installer

Impact attenuation layer black rubber set with polyurethane binder, to manufacturers details. Layer thickness varies depending on the free height of fall of the equipment installed. Typical thicknesses for this layer are between 20mm - 80mm

Base material layer DGB or recycled concrete. Sometimes shaped to create sections of differing critical fall heights. Mechanically compacted to create a rigid layer on to which upper layers are installed. Layer thickness typically 100mm +/- 20mm. Existing hard surfaces such as concrete or bitumen may preclude the requirement of a base material layer.

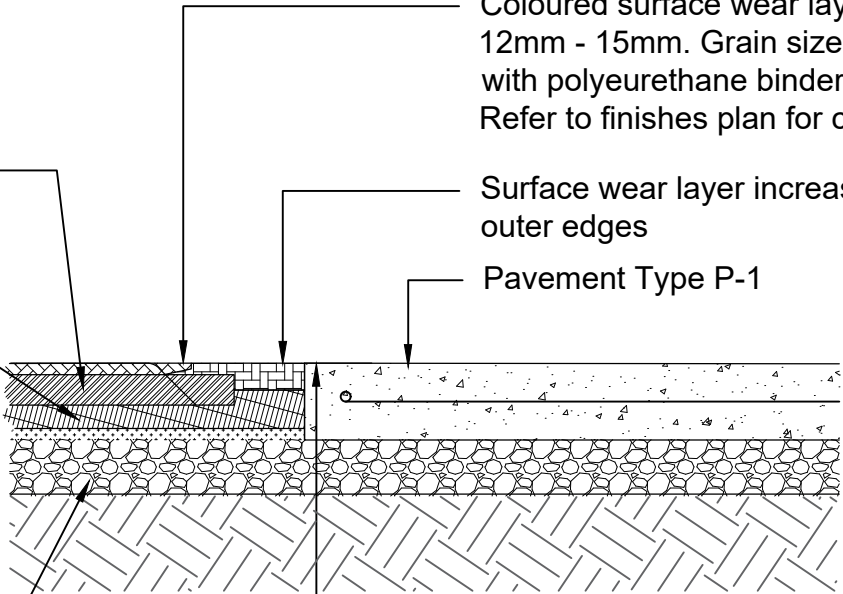
Compacted sub base layer

Coloured surface wear layer thickness typically from 12mm - 15mm. Grain size between 1mm - 4mm. Set with polyurethane binder. Refer to finishes plan for colours and pattern

Surface wear layer increases in depth to min 35mm at outer edges

Pavement Type P-1

Hard surface concrete edge must be pre-coated with binder to ensure long-term adhesion. Refer to manufacturers instructions for details



1

TYPICAL RUBBER SOFT FALL DETAIL

SCALE 1:10

Coloured surface wear layer, refer to detail 1 this sheet
Impact attenuation layer

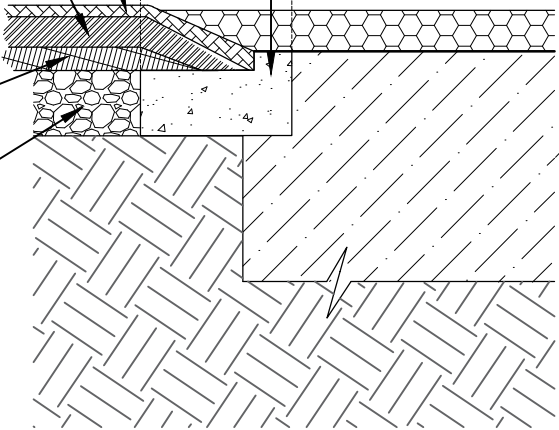
Base material layer
DGB

Compacted sub base layer

200

200mm wide concrete beam / haunching to edge of rubber softfall

Mulch to be spread over rubber softfall where it roll down at the edges

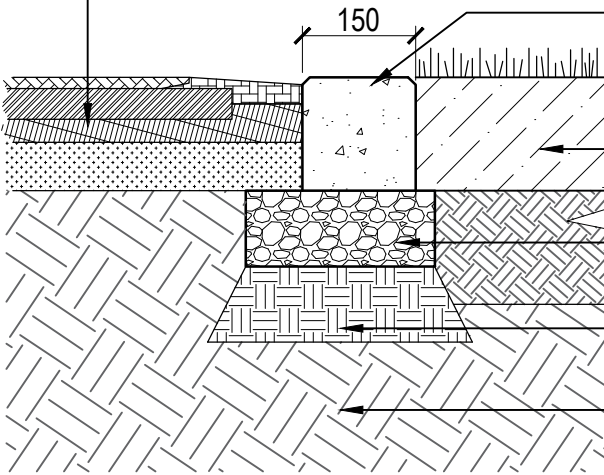


2

TYPICAL RUBBER SOFT FALL WITH ROLLED EDGE

SCALE 1:10

Rubber softfall. Refer to detail 1 this sheet



150x150mm concrete edge. 20 mpa strength grade. 10mm bevel to top edges to prevent sharp corners

Turf as per specification

Compacted base course

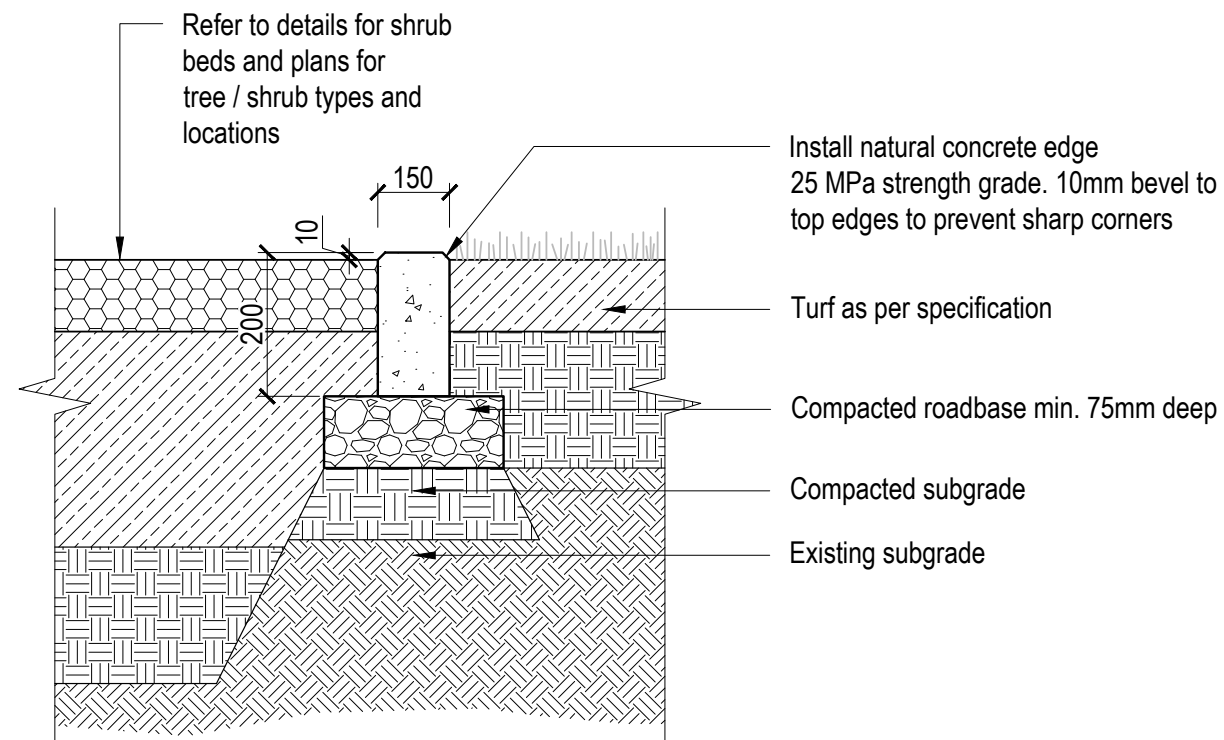
Compacted subgrade

Existing subgrade

3

TYPICAL RUBBER SOFT FALL WITH CONCRETE EDGE

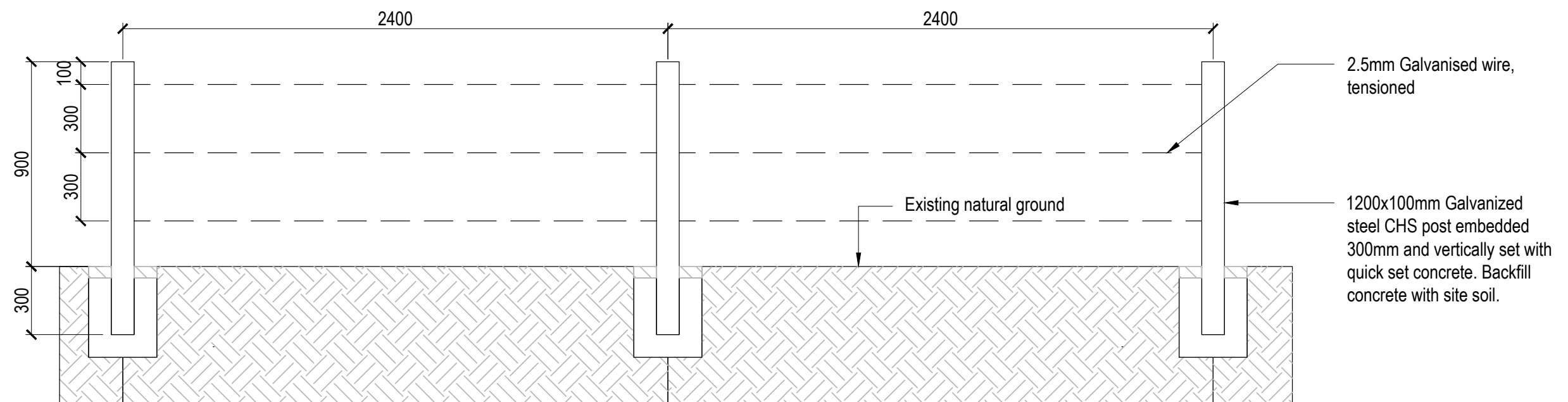
SCALE 1:10



Note:

1. Garden edges to be installed to all junctions between planted areas and turf refer to plans for locations;
2. The edging section is increased to 200x300 mm at the locations where maintenance vehicles are proposed to access gardens;
3. Dummy joints every 1.5m, expansion joints every 6.0m

1 TYPICAL CONCRETE EDGE DETAIL
SCALE 1:10










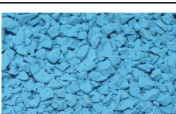











2 TYPICAL GALV. STEEL POST & WIRE FENCE DETAIL FOR CONSERVATION AREA
SCALE 1:20

Place Design Group Pty Ltd		
DEVELOPER MAINTENANCE & DEFECTS LIABILITY PROGRAM		
Client:	Lendlease	
Project Name:	16 Chapman Street, Werrington NSW	
Precinct Name:	Central reserve & Eastern Basin Open Space	
Works Description:	Maintenance for all Hard Landscape areas	
Maintenance Period:	12 Months from Practical Completion	
HARDSCAPE AREAS:		
TASK DESCRIPTION:	FREQUENCY: 0-6 Months	FREQUENCY: 6 - 12 Months
Concrete pavements, walls & edging		
Visual inspection of all pavements for damage, cracks or chips	Fortnightly	Monthly
Visual inspection of all pavements for efflorescence (Salt deposits)	Fortnightly	Monthly
Visual inspection of all pavements for colour consistency and stains	As Required	As Required
Leaf and debris clearance with blower	Monthly	Quarterly
Paved Surfaces		
Visual inspection of all paving for damage, cracks or stains	Fortnightly	Monthly
Visual inspection of all paving for lifting of sub base	Fortnightly	Monthly
Visual inspection of all paving for mortar damage / re-pointing		
Clean in accordance with manufacturers recommendations and warranties	As required	As required
Replace failed or damaged paving and resin bound gravels	As required	As required
Soft Fall Surfaces		
Visual inspection of all rubber soft fall for damage, cracks, joint separation or stains	Fortnightly	Monthly
Visual inspection of all rubber soft fall for lifting of sub base and wearing course	Fortnightly	Monthly
Visual inspection of all rubber soft fall for colour fade	Fortnightly	Monthly
Clean and repair in accordance with manufacturers recommendations and warranties	As required	As required
Shelter and Play Equipment		
Inspect, maintain & repair all defects to steel shelter and roof in accordance to the manufacturers recommendations and warranties	Monthly/ As required	Quarterly
Inspect, maintain & repair all defects to all play equipment in accordance to the manufacturers recommendations and warranties	Monthly/ As required	Quarterly
Clean in accordance with manufacturers recommendations and warranties	As Required	As Required
Allow for re-application of timber exterior paint or oil based stain every two years where timber is used		2 years
Furniture		
Inspect, maintain & repair all furniture elements in accordance to the manufacturers recommendations and warranties	Monthly/ As required	Monthly/ As required
Allow for re-application of timber exterior paint or oil based stain every two years where timber is used		2 years
Bollards		
Inspect, maintain & repair all defects to removable Steel bollards & collars	Monthly	Monthly/ As required
Clean stains in accordance with manufacturers recommendations	As Required	As Required
Allow for re-application of timber exterior paint or oil based stain every two years where timber is used		2 years
Drainage		
Replace failed or damaged surface drains or grates	As required	As required
Replace failed or damaged sub surface drains or outlets	As required	As required
Remove all leaf and debris from field gullies & surface drains	Monthly	Quarterly
Clear away all Leaf and debris with blower	Monthly	Quarterly
Irrigation (if required)		
Inspect, maintain & repair all defects to lines & emitters	Monthly/ As required	Quarterly
Inspection of water storage tank	Bi-Annually	Annually/ As Required
Inspection & service of irrigation pump and UV filter	Monthly	Quarterly
Inspection & service of irrigation control panel	Monthly	Quarterly
Urgent works		
Report any theft, damage or vandalism	Weekly	As required
ADDITIONAL WORKS / COMMENTS:		
.....		
.....		
.....		
Site Foreman		

Place Design Group Pty Ltd		
PROPOSED MAINTENANCE SCHEDULE		
Client:	Lendlease	
Project Name:	16 Chapman Street, Werrington NSW	
Precinct Name:	Central reserve & Eastern Basin Open Space	
Works Description:	Maintenance of Hard and Soft Landscape Areas	
Maintenance Period:	12 Months from Practical Completion	
SOFTSCAPE AREAS:		
TASK DESCRIPTION:	FREQUENCY: 0-6 Months	FREQUENCY: 6 - 12 Months
Trees		
Visual inspection of all trees	Fortnightly in summer/ Monthly in Winter	Monthly in summer/ Once in Winter
Manually inspect water levels to trees	Fortnightly in summer/ Monthly in Winter	Monthly in summer/ Once in Winter
Inspect damage to trees	Fortnightly in summer/ Monthly in Winter	Monthly in summer/ Once in Winter
Replace any taping to trees	Fortnightly in summer/ Monthly in Winter	Monthly in summer/ Once in Winter
Prune dead or damaged branches	Fortnightly in summer/ Monthly in Winter	Monthly in summer/ Once in Winter
Check for and report pests & diseases	Fortnightly	Monthly
Replace failed or damaged trees	Fortnightly/ As required	Monthly/ As required
Spray in accordance with manufacturers recommendations	As required	As required
Adjust &/ or replace stakes & ties where necessary	As required	As required
Turf		
Mow all turf areas to maintain height between 25-35mm	Weekly in Summer/ Monthly in Winter	Fortnightly in Summer/ Every 2 Months in Winter
Trim edges of all turf areas	Weekly in Summer/ Monthly in Winter	Fortnightly in Summer/ Every 2 Months in Winter
Remove clippings from site	Weekly in Summer/ Monthly in Winter	Fortnightly in Summer/ Every 2 Months in Winter
Remove litter & debris from turf areas	Weekly in Summer/ Monthly in Winter	Fortnightly in Summer/ Every 2 Months in Winter
Check for and report pests & diseases	Fortnightly	Monthly
Spray in accordance with manufacturers recommendations	As required	As required
Monitor and apply fertiliser to turf areas	6 month intervals - Autumn/ Spring	Yearly - Spring
Mulch		
Remove litter & debris from mulch areas	Fortnightly	Monthly
Remove weed growth in mulch areas	Fortnightly	Monthly
Top up mulch levels	Annually	Annually
Plants		
Check for and report pests & diseases	Fortnightly	Monthly
Spray in accordance with manufacturers recommendations	Fortnightly	Monthly
Prune damaged or dead branches	Fortnightly	Monthly
Remove weed growth in plant areas	Fortnightly	Monthly
Replace failed or damaged plants	Fortnightly/ As required	Monthly/ As required
Adjust &/ or replace stakes & ties where necessary	Fortnightly/ As required	Monthly/ As required
General Watering to all street trees		
Irrigation by water cart or hosecock as required to maintain plant vigor & health	Weekly first 6 months/ Fortnightly there after dependent on rainfall conditions	Monthly dependent on rainfall conditions
Urgent works		
Report any theft, damage or vandalism	Weekly	As required
ADDITIONAL WORKS / COMMENTS:		
Site Foreman		

Playground / Amenities Maintenance Schedule & Opinion of Probable Life Cycle Costs

DESCRIPTION	DIMENSIONS	SPECIFICATION	IMAGE	WARRANTY INFORMATION	NUMBER	TOTAL REPLACEMENT COST (PER ITEM)
Plane	H: 920mm L: 2140mm W: 730	Description: City Plane Product Number: City - J2603 Max free fall height: 0.6m Supplier: Proludic		Warranty Standard guarantee: 2 years for any defect or manufacturing fault of component parts Extended guarantee: Panels: 25 Years Steel Posts : 25 Years High density plastic: 10 Years Metal components: 10 Years	1	\$ 5,800.00
Swings	H: 900mm	Description: 2 bay portal swing 2.5m with Birds nest rope swing Product Number: KSW92011 Finish: Powdercoated galvanised steel pipe Fixing: Sub-surface fixed Supplier: Kompan		Warranty Corocord Rope: 10 Years Aluminium : 10 Years Plastic Activities: 5 Years Spare parts guaranteed: 10 Years	1	\$ 8,300.00
Explorer Dome	L: Varies W: 500mm H: Av 0.5m high	Description: Multiplay piece Product Number: COR86300 Supplier: Kompan		Warranty Corocord Rope: 10 Years S-Clamps: 10 Years Aluminium Clamps: 10 Years Plastic Activities: 5 Years Spare parts guaranteed: 10 Years	1	\$ 73,500.00
Embankment Slide	W: 2000mm H: 2000mm	Description: Stainless Steel Slide Product Number: CCC 712001-20300 Supplier: Kompan		Warranty Panels: Lifetime Post: 10 Years Spare parts guaranteed 10 Years		\$ 22,000.00
Custom Mountaineers Rope	H: 2000mm	Description: Mountaineers Climbing Rope Product Number: COROCORD 16-2050-2C1 Supplier: Kompan		Warranty Corocord Rope: 10 Years Post: 10 Years Plastic Activities: 5 Years Spare parts guaranteed: 10 Years	1	\$ 6,500.00
Softfall climbing aids	W: 400mm H: 400mm	Description: Softfall lumps on mound		Warranty Mechanical and chemical integrity Durapol-28 EPDM for a period of 5 years	Approx 4-7	\$ 400.00
In-ground Trampoline	D: 1750mm	Description: Round model in-ground trampoline Product Number: Z-1310 - 02 Supplier: Moduplay			3	\$ 10,000.00
Timber balancing beams and steppers	Dimensions vary	Description: Timber balancing beams and steppers Supplier: Timber Creations		Life span: In-Ground: 15 - 25 yrs Above ground: more than 40 yrs	Multiple	\$ 5,000.00
Playground Fence	H: 1200mm L: 1500mm	Description: 1200mm high flat top playground fence Panel length: 2400mm Finish: Polyester powder coat (black) to AS4605 Rail size: 40 x 40 x 1.6mm Post size: 65 x 65 1800mm long (min) SHS Picket spacing: 87mm (19mm dia) Material: Pre galvanised steel to AS1450 Fixing: Concrete footing to engineer's detail		Warranty 10 year colour warranty		\$450 per 1m
Softfall Rubber		Description: Ethylene Propylene Diene Monomer (EPDM) granule rubber softfall Thickness: to Critical Fall Height requirements Colour: TBC Rubber softfall is to be certified to AS 4422 -2016.		Warranty Mechanical and chemical integrity Durapol-28 EPDM for a period of 5 years		\$350 per m2

FURNITURE AND FIXTURES						
Christie BBQ	L: 1900mm W: 1150mm H: 860mm	Description: Double All-access Barbecue Finish: Stainless Steel		Warranty 2 year warranty	1	\$ 12,000.00
Litter Bin Enclosure	L: 1165mm W: 660mm H: 1190mm	Description: Bondi Bin Housing Supplier: Botton and Gardiner Finish: sheet steel, zinc primed and powdercoated Colour: Black powdercoat and Australian Hardwood		Warranty 5 year warranty	3	\$ 5,000.00
Timber Bench	L: 2100mm W: 630mm H: 790mm	Description: Terrain seat Supplier: Botton and Gardiner Finish: Hot-dip galvanised mild steel powdercoated, Colour: Black, Battens: Spotted Gum Fixing: Surface fixed		Warranty 5 year warranty	20	\$ 3,500.00
Picnic Setting	Varies	Description: Terrain Picnic Setting Supplier: Botton and Gardiner Finish: Hot-dip galvanised mild steel powdercoated, Colour: Black, Battens: Spotted Gum Fixing: Surface fixed		Warranty 5 year warranty	4	\$ 5,500.00
Timber Shelter	L: 4000mm W: 4000mm H: 2300mm	Description: Custom shelter Materials: Hardwood timberposts - dark stain. Colourband roofing Fixings: Hot-dipped galvanised brackets and fixings Installation: Bolt down post fixing to manufacturer's specification			3	\$80,000-\$12,5000
Playground Shade Sails		Structure: Hypar Shade Sails Heights: Minimum 2.5m above accessible parts of equipment and 1.5m above non-accessible parts Steelwork: CHS (round) posts with anti-climbing devices Surface Coating: Hot dipped galvanised posts Footings: Bored piers to be certified by suitable structural engineer Cover: Architec 400 with minimum 15yr warranty against UV degradation. UV rating of a minimum of 90%. All fittings are rated galvanised chain. No turnbuckles or wire slings. Colours: TBC		Warranty Shade Australia: 10 Years Pro rata against UV + stitching degradation.		\$ 80,000.00
FITNESS EQUIPMENT						
Fitness Station	Varies	Description: Urban fit Trekko - Body "Byron" UFT- 3616 Materials: Steel			1	\$ 16,000.00
Jump Box	Varies	Description: Urban fit Trekko - Jump Box UFT- 3609 Materials: Steel			1	\$ 3,000.00
Static Bench	Varies	Description: Urban fit Trekko - Static Bench UFT- 3601 Materials: Steel			1	\$ 3,400.00

Note:

Costs provided are approximate only and informed by current supplier costs (February 2020). These costs are subject to change based on supply, lead times, and availability of products, construction methodology, final design and Council requirements.

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Plane															
Swings											\$ 1,000				
Explorer Dome													\$ 5,000		
Embankment Slide															
Custom Mountaineers Rope							\$ 1,500			\$ 1,500					
Softfall climbing aids						\$ 2,000						\$ 2,000			
In-ground Trampoline									\$ 1,000				\$ 10,000		
Timber balancing beams and steppers															
Playground Fence													\$ 2,000		
Softfall Rubber								\$ 3,000							\$ 50,000
Christie BBQ	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Litter Bin Enclosure			\$ 1,000			\$ 1,000			\$ 1,000			\$ 1,000			
Timber Bench			\$ 1,000			\$ 1,000			\$ 1,000			\$ 1,000			
Picnic Setting			\$ 1,000			\$ 1,000			\$ 1,000			\$ 1,000			
Timber Shelter					\$ 2,000					\$ 2,000					\$ 1,000
Playground Shade Sails														\$ 40,000	
Fitness Station				\$ 500							\$ 500				
Jump Box				\$ 500							\$ 500				
Static Bench				\$ 500							\$ 500				

Total	\$ 1,500	\$ 1,500	\$ 4,500	\$ 3,000	\$ 3,500	\$ 6,500	\$ 3,000	\$ 4,500	\$ 5,500	\$ 5,000	\$ 4,000	\$ 6,500	\$ 18,500	\$ 41,500	\$ 52,500
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Note:
Costs provided are approximate only and informed by current supplier costs (February 2020). These costs are subject to change based on supply, lead times, and availability of products, construction methodology, final design and Council requirements.