

PROPOSED INDUSTRIAL UNITS

323-327 WARRINGAH ROAD, FRENCHS FOREST, NSW 2086

LANDSCAPE CONCEPT PLAN REPORT
DA SUBMISSION
30.08.2023
ISSUE E

CLIENT:
LEDA



DRAWING LIST:

L-01	Coversheet
L-02	Design Precedent Images
L-03	Landscape Planting Strategy
L-04	Landscape Masterplan
L-05	Landscape Concept Plan: Communal Staff Area
L-06	Indicative Plant List
L-07	Landscape Sections
L-08	Typical Specification & Maintenance Notes
L-09	Typical Details

ARCHITECT:
WMK

LANDSCAPE ARCHITECT:

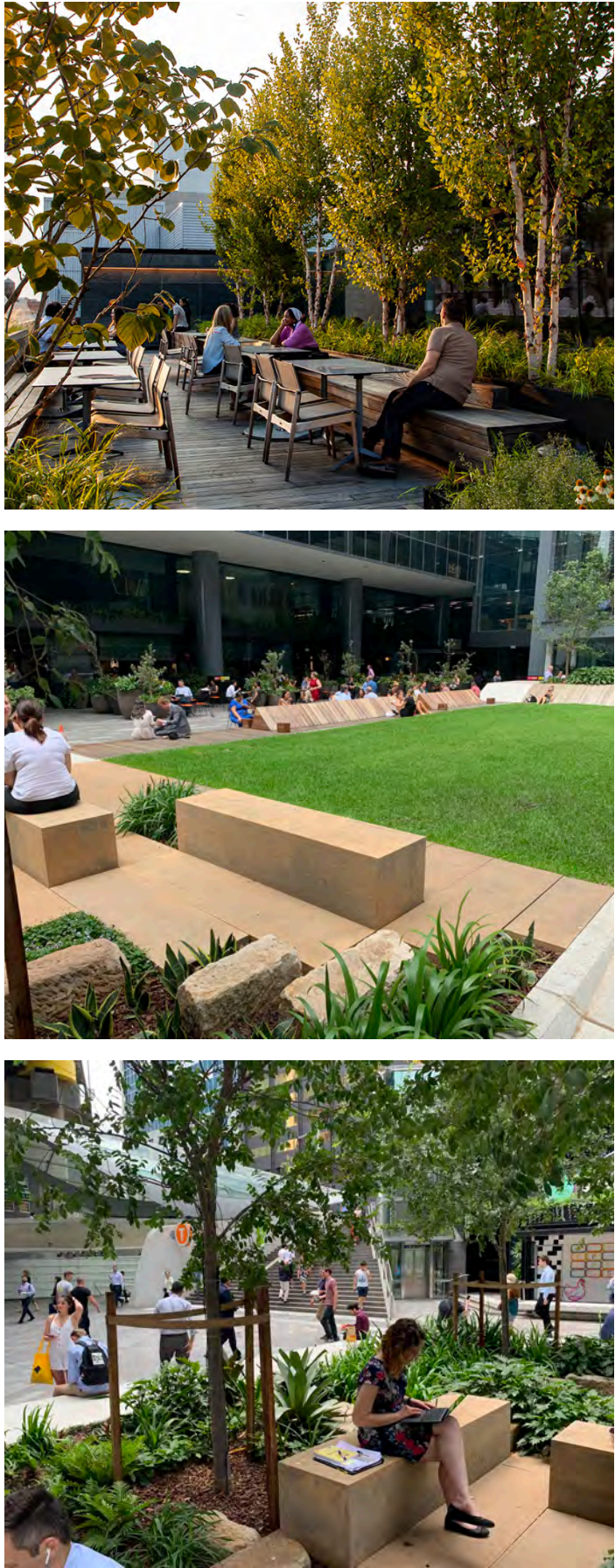
HABIT8
Landscape Architecture & Urbanism
SYDNEY (Gadigal country) BYRON BAY (Bundjalung country)
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DESIGN PRECEDENT IMAGES

CARPARK + OFFICE



COMMUNAL AREA



NORTH FACADE



LANDSCAPE PLANTING STRATEGY

KEY

Carpark and Office Planting

Buffer Planting

Turf (Communal Area)

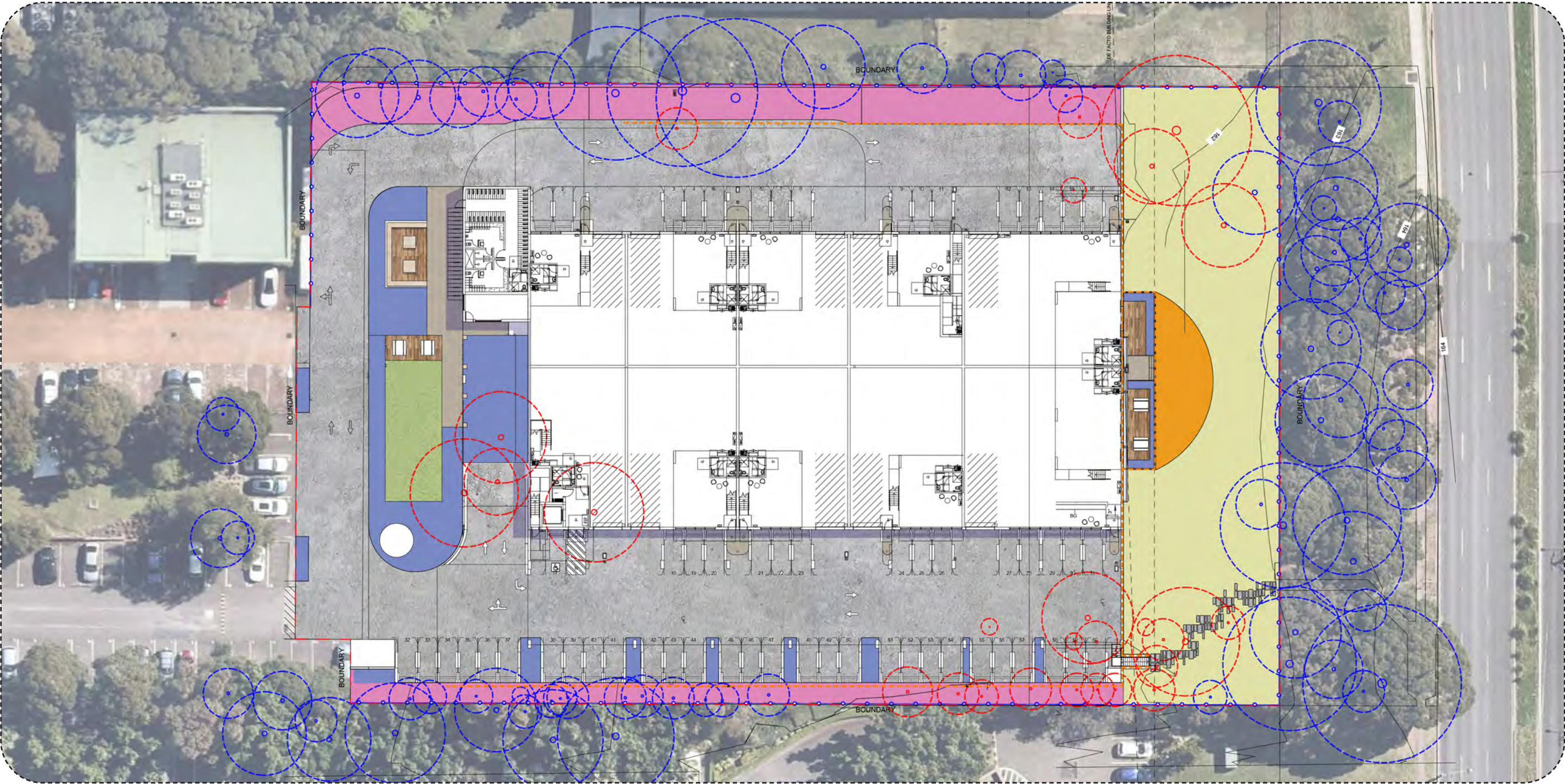
Endemic Bushland Planting on Embankment

Bush Tucker Planting

NOTE:
REFER TO L06 FOR INDICATIVE PLANT LIST



CONTEXT PLAN



LANDSCAPE MASTERPLAN

KEY

- SITE BOUNDARY
- PERIMETER FENCE TO ARCHITECT'S DETAILS
- PROPOSED TREE + PALM PLANTING REFER TO PLANT SCHEDULE
- EXISTING TREE TO BE RETAINED REFER TO ARBORIST REPORT
- EXISTING TREE TO BE REMOVED REFER TO ARBORIST REPORT

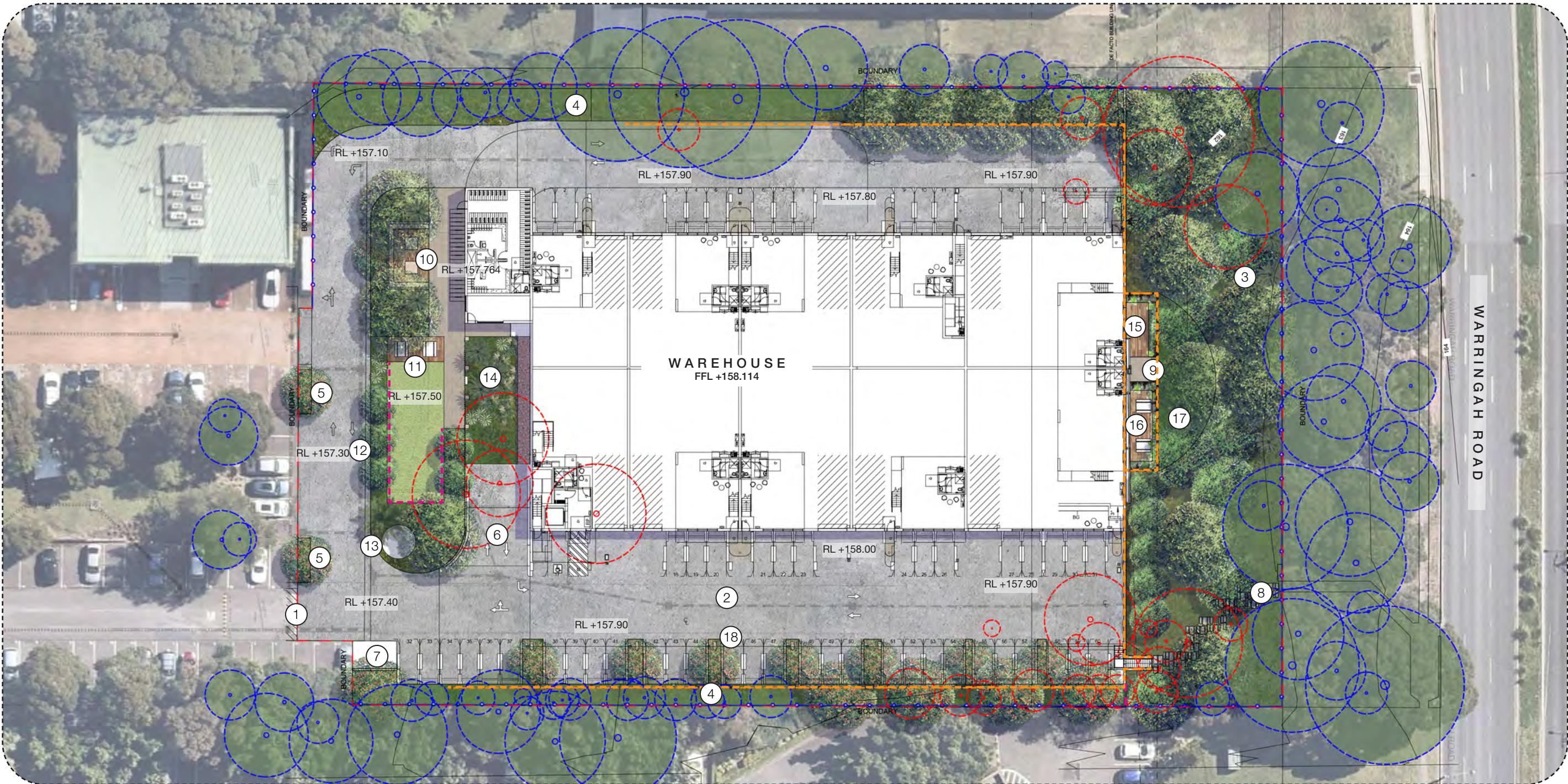
- MASS PLANTING BEDS REFER TO PLANT SCHEDULE
- FEATURE PAVED / TILED SURFACE
- BITUMEN SURFACE
- TURF AREA
- GARDEN EDGING
- RETAINING WALL TO ENGINEER'S DETAIL

DESIGN NOTES

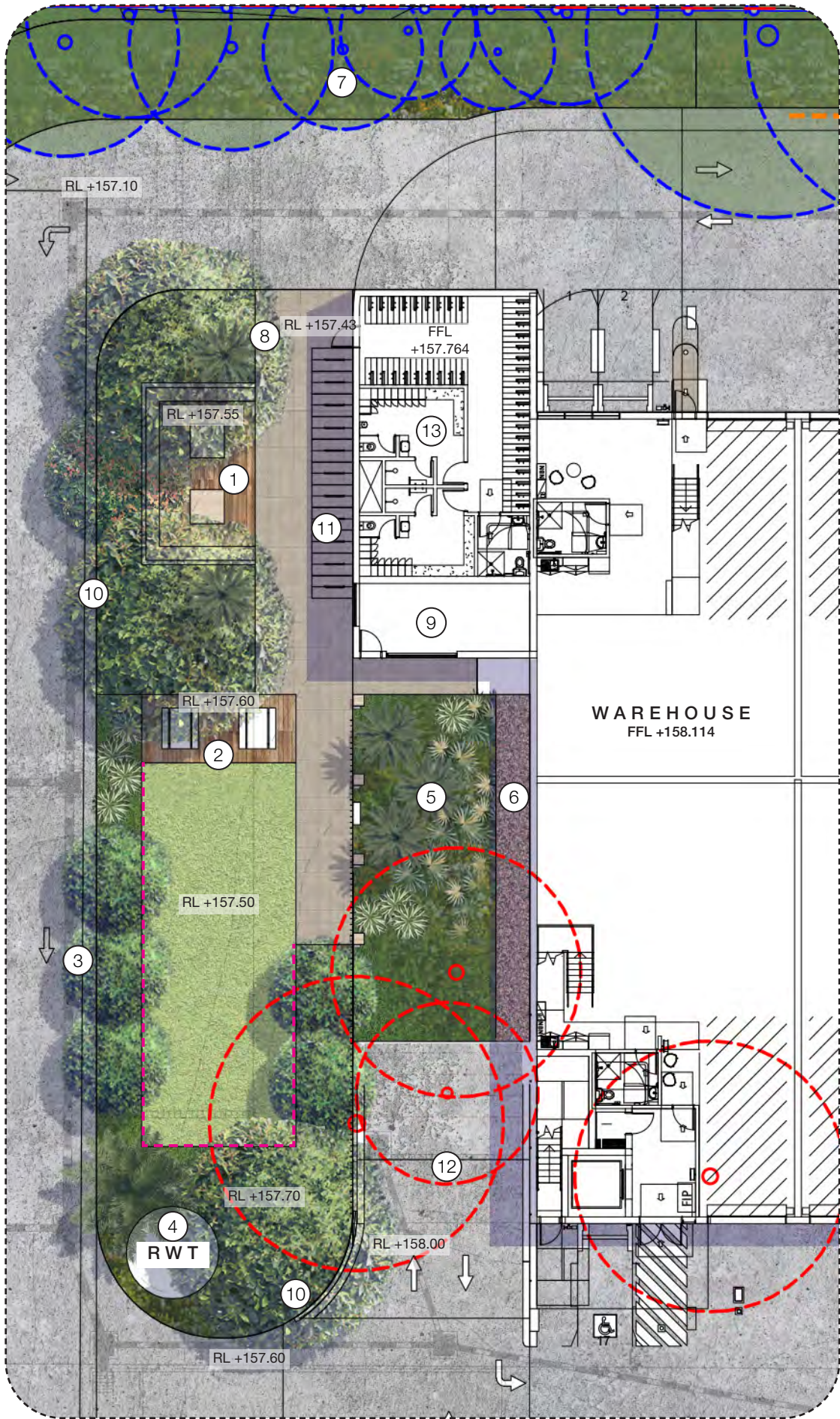
- VEHICULAR ENTRY / EXIT
- COVERED CAR PARK
- ENDEMIC BUSHLAND PLANTING ON EMBANKMENT
- SCREEN PLANTING UNDER EXISTING TREES TO BE RETAINED + EMBELLISHED
- FEATURE TREE PLANTING
- RAMP TO LEVEL ONE
- PROPOSED SUBSTATION
- INFORMAL ACCESS TO WARRINGAH ROAD
- ACCESS TO BUSH TUCKER GARDEN
- RAISED PAVED AREA WITH SEATING WALLS + TABLE SEATS
- RAISED PAVED AREA WITH TABLE SEATS
- SMALL SCREENING TREES (5m HT TREES)
- UNDERGROUND RAINWATER TANK
- SHADE TOLERANT PLANTING UNDER RAMP
- OUTDOOR GARDEN + TIMBER DECK (PERMEABLE) / LOW PLANTING ZONE
- OUTDOOR GARDEN + TIMBER DECK (PERMEABLE) / LOW PLANTING ZONE WITH PICNIC TABLES
- BUSH TUCKER PLANTING AREA
- CAR PARK SHADE TREES



CONTEXT PLAN



LANDSCAPE CONCEPT PLAN: COMMUNAL STAFF AREA



KEY

- SITE BOUNDARY
- PERIMETER FENCE TO ARCHITECT'S DETAILS
- PROPOSED TREE + PALM PLANTING REFER TO PLANT SCHEDULE
- EXISTING TREE TO BE RETAINED REFER TO ARBORIST REPORT
- EXISTING TREE TO BE REMOVED REFER TO ARBORIST REPORT
- MASS PLANTING BEDS REFER TO PLANT SCHEDULE
- PAVED / TILED SURFACE (BLUESTONE PAVING) BY OTHERS
- BITUMEN SURFACE
- TURF AREA
- GARDEN EDGING
- SANDSTONE CUBE BLOCKS (500x500x500mm)



KEYPLAN

DESIGN NOTES

1. RAISED PAVED AREA WITH SEATING WALLS + TABLE SEATS
2. RAISED PAVED AREA WITH TABLE SEATS
3. SMALL SCREENING TREES (5m TREES)
4. UNDERGROUND RAINWATER TANK
5. SHADE PLANTING UNDER RAMP
6. MAINTENANCE ACCESS
7. EXISTING BOUNDARY BUFFER TREES TO BE RETAINED
8. TREE FERNS UNDER LARGE CANOPY TREES
9. SERVICES / PUMP ROOM
10. LARGE CANOPY TREES
11. BIKE RACK TO ARCHITECT'S DETAILS
12. RAMP TO LEVEL ONE
13. END OF TRIP FACILITIES

INDICATIVE PLANT LIST

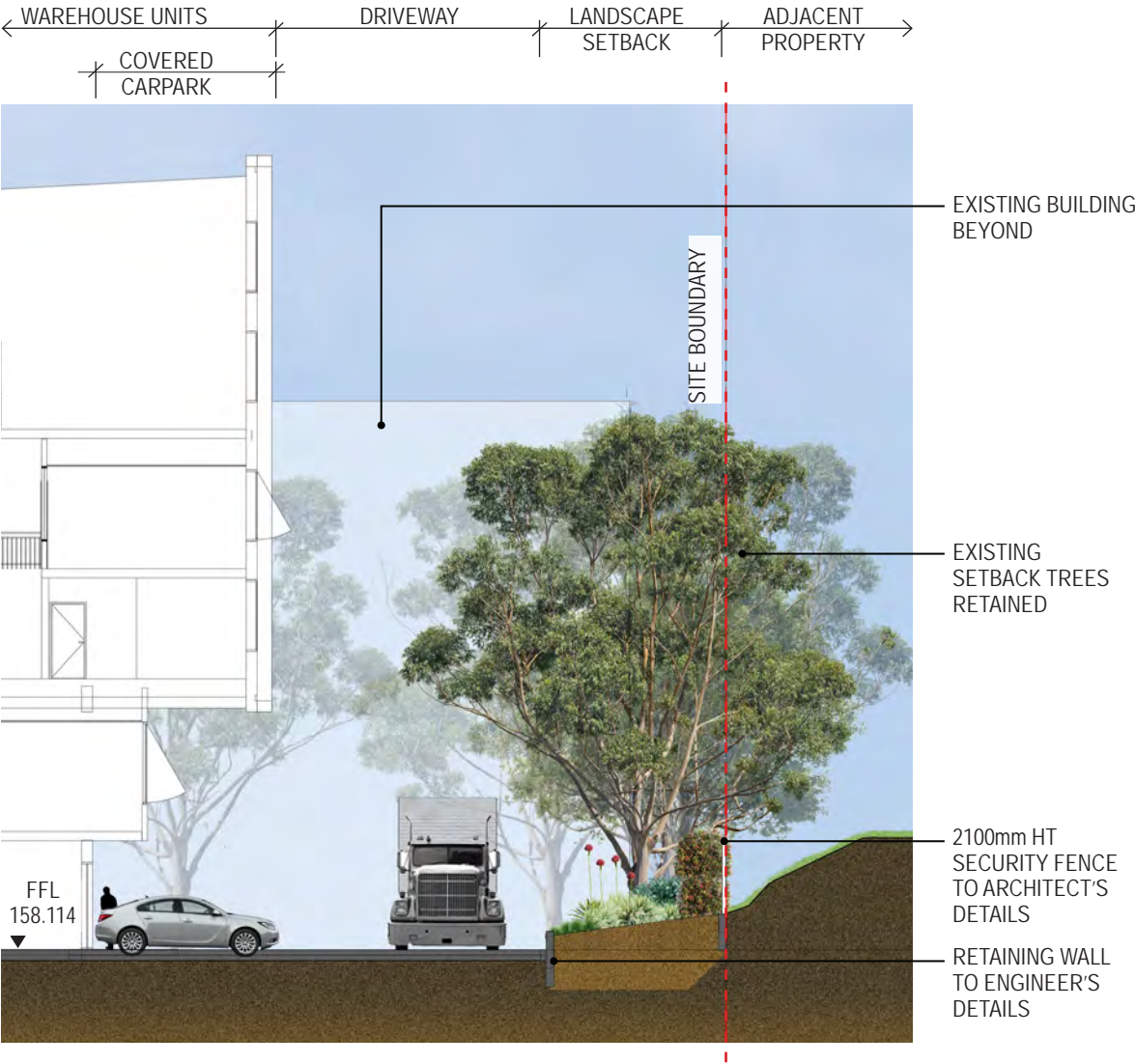
BOTANICAL NAME		COMMON NAME	BOTANICAL NAME		COMMON NAME
TREES AND PALMS					
<div></div>	<div></div>	Angophora costata			Sydney Red Gum
<div></div>	<div></div>	Acacia floribunda			Rough-barked Apple
	<div></div>	Banksia serrata			Old Man Banksia
	<div></div>	Callicoma serratifolia			Black Wattle
	<div></div>	Ceratopetalum apetalum			Coachwood
	<div></div>	Corymbia gummifera			Red Bloodwood
	<div></div>	Eucalyptus botryoides			Bangalay
<div></div>	<div></div>	Eucalyptus haemastoma		<div></div>	Scribbly Gum
	<div></div>	Eucalyptus luehmanniana			Yellow Top Mallee
	<div></div>	Eucalyptus pilularis			Blackbutt
	<div></div>	Eucalyptus piperita			Sydney Peppermint
	<div></div>	Eucalyptus sieberi			Silvertop Ash
	<div></div>	Eucalyptus umbra			Broad-leaved White Mahogany
<div></div>	<div></div>	Tristaniopsis laurina			Water gum
<div></div>	<div></div>	Waterhousea floribunda			Weeping Lilly Pilly
<div></div>	<div></div>	Livistonia australia			Cabbage Tree Palm
	<div></div>	Cyathea australia			Rough Tree Fern
SHRUBS / LOW TREES					
	<div></div>	Acacia terminalis			Sunshine Wattle
	<div></div>	Acacia linifolia			Flax-leaved Wattle
	<div></div>	Acacia longifolia			Sydney Golden Wattle
	<div></div>	Acacia suaveolens			Sweet-scented Wattle
	<div></div>	Acacia ulicifolia			Prickly Moses
<div></div>	<div></div>	Banksia ericifolia			Heath-leaved Banksia
	<div></div>	Banksia oblongifolia			Fern-leaved Banksia
	<div></div>	Banksia robur			Swamp Banksia
<div></div>	<div></div>	Banksia spinulosa			Hairpin Banksia
	<div></div>	Ceratopetalum apetalum			NSW Christmas Bush
	<div></div>	Darwinia fascicularis var. fascicularis			Darwinia
	<div></div>	Dillwynia retorta			Eggs and Bacon
<div></div>	<div></div>	Dodonaea triquetra			Common Hop-Bush
	<div></div>	Epacris longiflora			Native Fuschia
<div></div>	<div></div>	Grevillea buxifolia			Grey Spider Flower
<div></div>	<div></div>	Grevillea linearifolia			White Spider Flower
<div></div>	<div></div>	Grevillea sericea			Pink Spider Flower
<div></div>	<div></div>	Grevillea speciosa			Red Spider Flower
<div></div>	<div></div>	Telopea speciosissima			Waratah
	<div></div>	Trema aspera			Native Peach
<div></div>	<div></div>	Xanthorrhoea australis			Grass Tree
<div></div>	<div></div>	Syzygium sp			Lilly Pilly
<div></div>	<div></div>	Westringia fruticosa			Coastal Rosemary
<div></div>	<div></div>	Pittosporum "Miss Muffett"			Japanese Pittosporum
BUSH TUCKER PLANTING					
<div></div>		Backhousia citriodora			Lemon Myrtle
<div></div>		Austromyrtus dulcis			Midgen Berry or Midyim
<div></div>		Macadamia integrifolia			Macadamia Nut
<div></div>		Davidsonia pruriens			Davidson's Plum
<div></div>		Backhousia anisata			Aniseed Myrtle
<div></div>		Syzygium paniculatum			Magenta Cherry
<div></div>		Syzygium australe			Scrub Cherry
<div></div>		Acronychia acidula			Lemon Aspen
<div></div>		Disphyma crassifolium 'Hot Stuff'			
<div></div>		Carpobrotus glaucescens			Pigface
<div></div>		Carpobrotus rossii			Australian pig face
<div></div>		Davidsonia jerseyana			Davidson's plum
NOTES:					
Plants sourced from 'Northern Beaches Council Native Planting Guide - Frenchs Forest Ward'					
BOTANICAL NAME		COMMON NAME	BOTANICAL NAME		COMMON NAME
GROUNDCOVERS, HERBS, CLIMBERS AND GRASSES					
<div></div>	<div></div>	Actinotus helianthi			Flannel Flower
<div></div>	<div></div>	Adiantum aethiopicum			Common Maidenhair
<div></div>	<div></div>	Blechnum sp.			Blechnum
<div></div>	<div></div>	Billardiera scandens			Apple Berry Dumplings
<div></div>	<div></div>	Cissus antarctica			Kangaroo Grape
<div></div>	<div></div>	Clematis glycinoides			Native Clematis
<div></div>	<div></div>	Cymbopogon refractus			Barbed Wire Grass
<div></div>	<div></div>	Danthonia sp.			Wallaby Grass
<div></div>	<div></div>	Dianella caerulea			Blue Flax Lily
<div></div>	<div></div>	Dichelachne sp.			Plume Grass
<div></div>	<div></div>	Doodia aspera			Rasp Fern
<div></div>	<div></div>	Ficinia nodosa			Knobby Club Rush
<div></div>	<div></div>	Glycine clandestina			Love Creeper
<div></div>	<div></div>	Goodenia ovata			Hop Goodenia
<div></div>	<div></div>	Hibbertia scandens			Golden Guinea Flower
<div></div>	<div></div>	Kennedia rubicundra			Dusky Coral Pea
<div></div>	<div></div>	Lomandra longifolia			Spiny-headed Mat-rush
<div></div>	<div></div>	Themeda australis			Kangaroo Grass
<div></div>	<div></div>	Carpobrotus sp.			Pigface
<div></div>	<div></div>	Hardenbergia violacea			Native Sarsoparilla
<div></div>	<div></div>	Lomandra 'Tanika'			Basket Grass



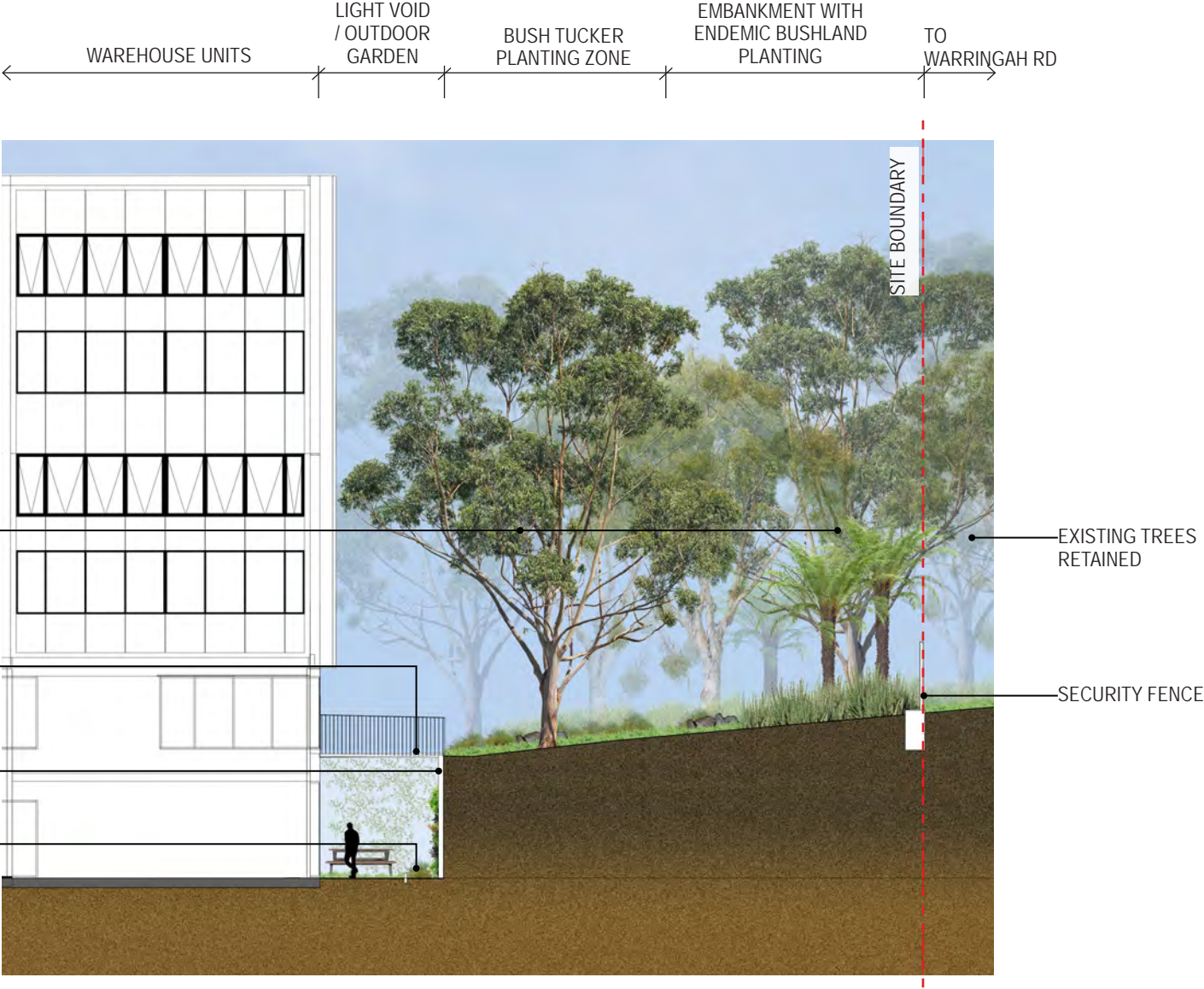
LANDSCAPE SECTIONS



KEYPLAN



01 SECTION A-A
Scale 1:200@A3



02 SECTION B-B
Scale 1:200@A3

TYPICAL SPECIFICATION + MAINTENANCE NOTES

SERVICES

Before landscape work is commenced the Landscape Contractor is to establish the position of all service lines and ensure tree planting is carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.) Finish adjoining surfaces flush with pit lids.

PLANTING MIXTURE - (300mm DEPTH)
Imported Garden Mix.
Type: Premium
Available: Australian Native Landscapes (ANL)

TURF SOIL MIX (150mm DEPTH)
Type: Turf underlay
Available: Australian Native Landscapes (ANL)

MULCH
APPLICATION: Place mulch to the required depth, (refer to drawings) clear of plant stems, and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during installation.
MULCH TYPE: (75mm DEPTH)
Type 1 (Base of Trees):
Pine bark: From mature trees, graded in size from 15mm to 30mm, free from wood slivers. Dark brown in colour and texture.
Type 2:
Batters and Edges Re-vegetation Mulch

COMPOST
Shall be “GO Compost” as available from Soilco or approved equal.

PLANT MATERIAL
All plants supplied are to conform with those species listed in the Plant Schedule on the drawings. Generally plants shall be vigorous, well established, hardened off, of good form consistent with species or variety, not soft or forced, free from disease or insect pests with large healthy root systems and no evidence of having been restricted or damaged. Trees shall have a leading shoot. Immediately reject dried out, damaged or unhealthy plant material before planting. All stock is to be container grown for a minimum of six (6) months prior to delivery to site.

FERTILISER
MASS PLANTING AREAS: Fertiliser shall be ‘Nutricote’ or approved equivalent in granule form intended for slow release of plant nutrients over a period of approximately nine months. Thoroughly mix fertiliser with planting mixture at the recommended rate, prior to installing plants.
TURF: Shall be Shirleys No. 17 or approved equal thoroughly mixed into the topsoil prior to placing turf.
TREES IN GRASS AND SUPER ADVANCED TREES: Pellets shall be in the form intended to uniformly release plant food elements for a period of approximately nine months equal to Shirleys Kokei pellets, analysis 6.3:1.8:2.9. Kokei pellets shall be placed at the time of planting to the base of the plant, 50mm minimum from the root ball at a rate of two pellets per 300mm of top growth to a maximum of 8 pellets per tree.

STAKING AND TYING
Stakes shall be straight hardwood, free from knots and twists, pointed at one end and sized according to size of plants to be staked.
a. 100-greater than 200litre 3x(1800x50x50mm)
Ties shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

TURF
Obtain turf from a specialist grower of cultivated turf. turf shall be of even thickness, free from weeds and other foreign matter; lay in stretcher pattern with joints staggered and close butted, perpendicular to gradient of FSL. Water immediately after laying.
TURF TYPE: Couch (Confirm with council prior to construction)

LANDSCAPE MAINTENANCE PROGRAM

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, re-seeding, returfing, weed-ing, pest and disease control, staking and tying, replanting, cultivation, pruning, aerating, renovating, top dressing, maintaining the site in a neat and tidy condition as follows:-

GENERAL
The landscape contractor shall maintain the landscape works for the term of the maintenance (or Plant establishment) period to the satisfaction of the council. The landscape contractor shall attend to the site on a weekly basis. Landlord to maintain all landscape areas in perpetuity (life of the development).

WATERING
Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth.

RUBBISH REMOVAL
During the term of the maintenance period the landscape contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

REPLACEMENTS
The landscape contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor’s cost. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis after the plant has died or is seen to be missing.

STAKES AND TIES
The landscape contractor shall replace or adjust plant stakes, and tree guards as necessary or as directed by the Landscape Architect. Remove stakes and ties at the end of the maintenance period if so directed.

PRUNING
General: Prune to reflect the natural growth flowering and regrowth habit of the individual species.
Shrubs: Prune after flowering - Spring and Summer and on a spot basis as required.
Hedge trimming: Schedule trimming at times which will maintain the character and design of hedges. Allow up to three times per season.
Tip pruning: To encourage development of new shoots during the active growing season. Do not remove buds before the flowering season in those plants that have terminal flowers.
Radical pruning: To maintain a hedge or formal shape or when a particular problem, growth habit, damage, or disease requires branch removal.
Trees: Prune to eliminate diseased or damaged growth, avoid inter-branch contact and thin out crowns in a natural manner, maintain sight lines to signs and lights, or maintain visibility for personal security. Tree branch removal to AS 4373. Give notice and engage a suitably qualified ‘arborist’.

MULCHED SURFACES
All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times. Remove all mulching materials off lawn or paved areas and maintain a clean and tidy appearance when viewed on a weekly basis.

PEST AND DISEASE CONTROL
The landscape contractor shall spray against insect and fungus infestation with all spraying to be carried out in accordance with the manufacturer’s directions. Report all instances of pests and diseases (immediately that they are detected) to the Landscape Architect.

GRASS AND TURF AREAS
The landscape contractor shall maintain all grass and turf areas by watering, weeding, re-seeding, rolling, mowing, trimming or other operations as necessary. Seed and turf species shall be the same as the original specified mixture. Grass and turf areas shall be sprayed with approved selective herbicide against broad leafed weeds as required by the Landscape Architect and in accordance with the manufacturer’s directions. Grass and turf areas shall be fertilised once a year in autumn with “Dynamic Lifter” for lawns at a rate of 20kg per 100m2. Fertiliser shall be watered in immediately after application. Irregularities in the grass and turf shall be watered in immediately after application. Grass and turf areas shall be kept mown to maintain a healthy and vigorous sward. Mowing height: 30-50mm.

WEED ERADICATION
Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg. ‘Roundup’) in any of its registered formulae, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

SOIL SUBSIDENCE
Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the landscape contractor at no cost to the client.

MAITENANCE PERIOD: (26 Weeks) - Confirm with Project Manager

IRRIGATION PERFORMANCE SPECIFICATION NOTES

IRRIGATION OVERVIEW - Confirm with Project Manager at tender stage

EXTENT (Setback and Landscape Areas)
All mass planting landscape areas and trees are to have full coverage by a fully automatic irrigation system. The design, materials and installation are to be in accordance with Sydney Water Codes and all relevant Australian Standards.

1. An automatic irrigation system is to be installed to all turf and garden bed areas.
2. The irrigation system shall be designed and installed by a licensed contractor to relevant Australian standards and Sydney water guidelines.
3. The irrigation system shall be connected into the rainwater tank system and pump

DRIPLINE
Provide 13mm dripline to all garden bed areas with appropriate 13mm joiners. Dripline to be Toro drip or similar with 400mm centre drippers. Install line at 500mm spacings with the first line to be 150mm in from edge. Install dripline after planting and prior to mulching to allow for an adequate mulch cover. Anchor at 1.5m maximum intervals with u-shaped stakes. Dripline pattern to suit planting.

CONTROL VALVES
24v solenoid actuated hydraulic valve with flow control. Control valves to be Toro ezflow series solenoids 25mm or approved equal. Provide a gate valve of the same size immediately upstream of each valve. House both valves in a high impact plastic valve box with a high impact plastic cover at finished ground level. Support the box with bricks on each side. Controller to be Toro greenkeeper or approved equal with a rain switch. Install a master valve/pressure regulating valve equal to Toro p220 with exreg pressure regulation valve. Filter to be installed equal to Toro y filter 75mm screen filter.

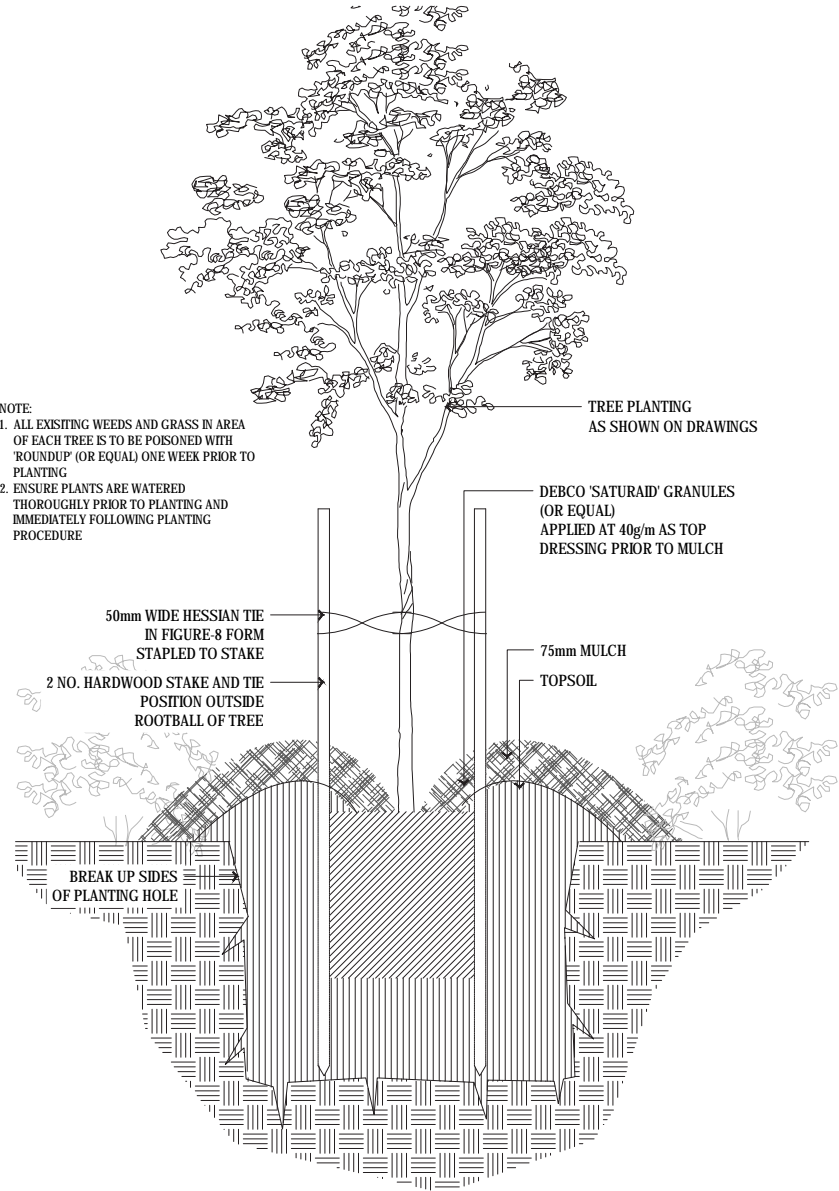
CONTROL WIRES
Connect the control valves and soil moisture sensor to the controller with double insulated underground cables laid alongside piping where possible. Lay intertwined for their full length without joints except at the valves and branches off common wires. Provide waterproof connectors.

Provide a backflow prevention device to Sydney water standards AS 3500.

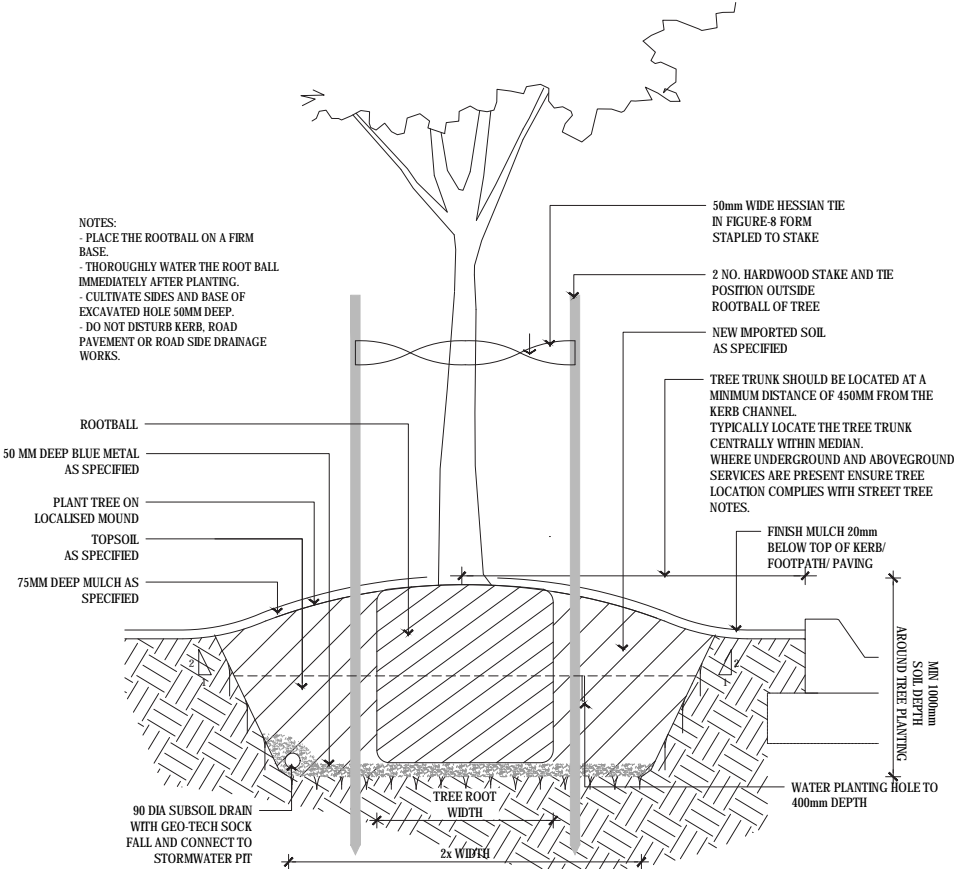
RELEVANT AUSTRALIAN STANDARDS

Soil: AS4419, AS3743, AS4454.
Mulch: AS4454.
Tree Stock: AS2303.
Pruning: AS4373.
Tree Protection: AS4970.
Contractors to comply with the above Australian Standards.

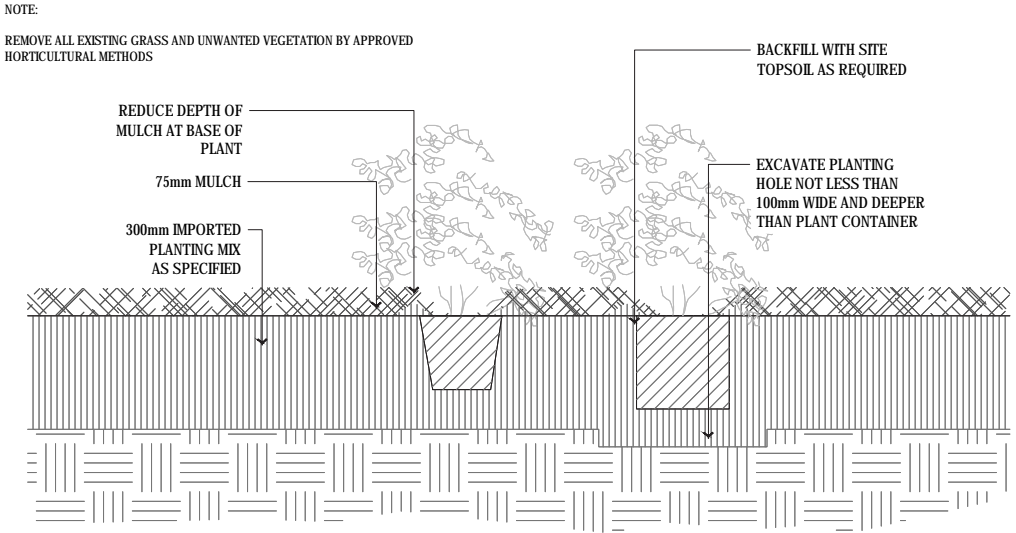
TYPICAL DETAILS



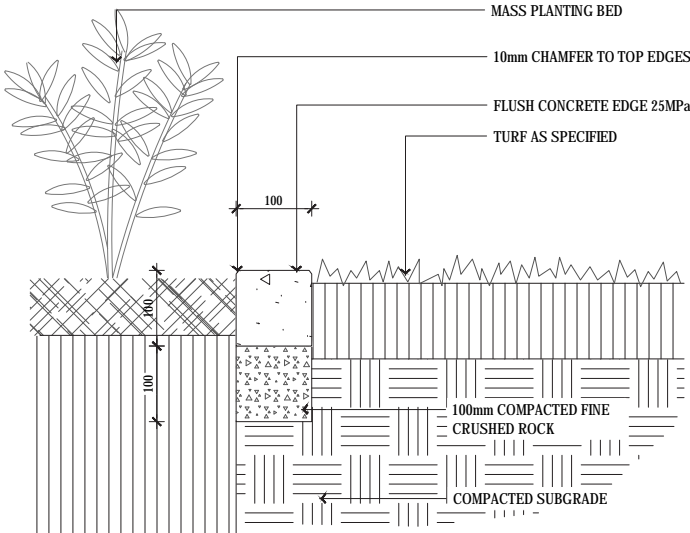
01 TREE PLANTING DETAIL (UP TO 100L)
1:10 @ A1 / 1:20 @ A3



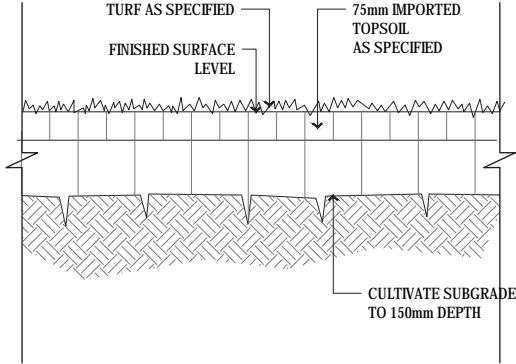
02 TREE PLANTING DETAIL (200L+)
1:15 @ A1 / 1:30 @ A3



03 MASS PLANTING BED
1:10 @ A1 / 1:20 @ A3



04 CONCRETE EDGE DETAIL
1:05 @ A1 / 1:10 @ A3



05 TURF DETAIL
1:10 @ A1 / 1:20 @ A3