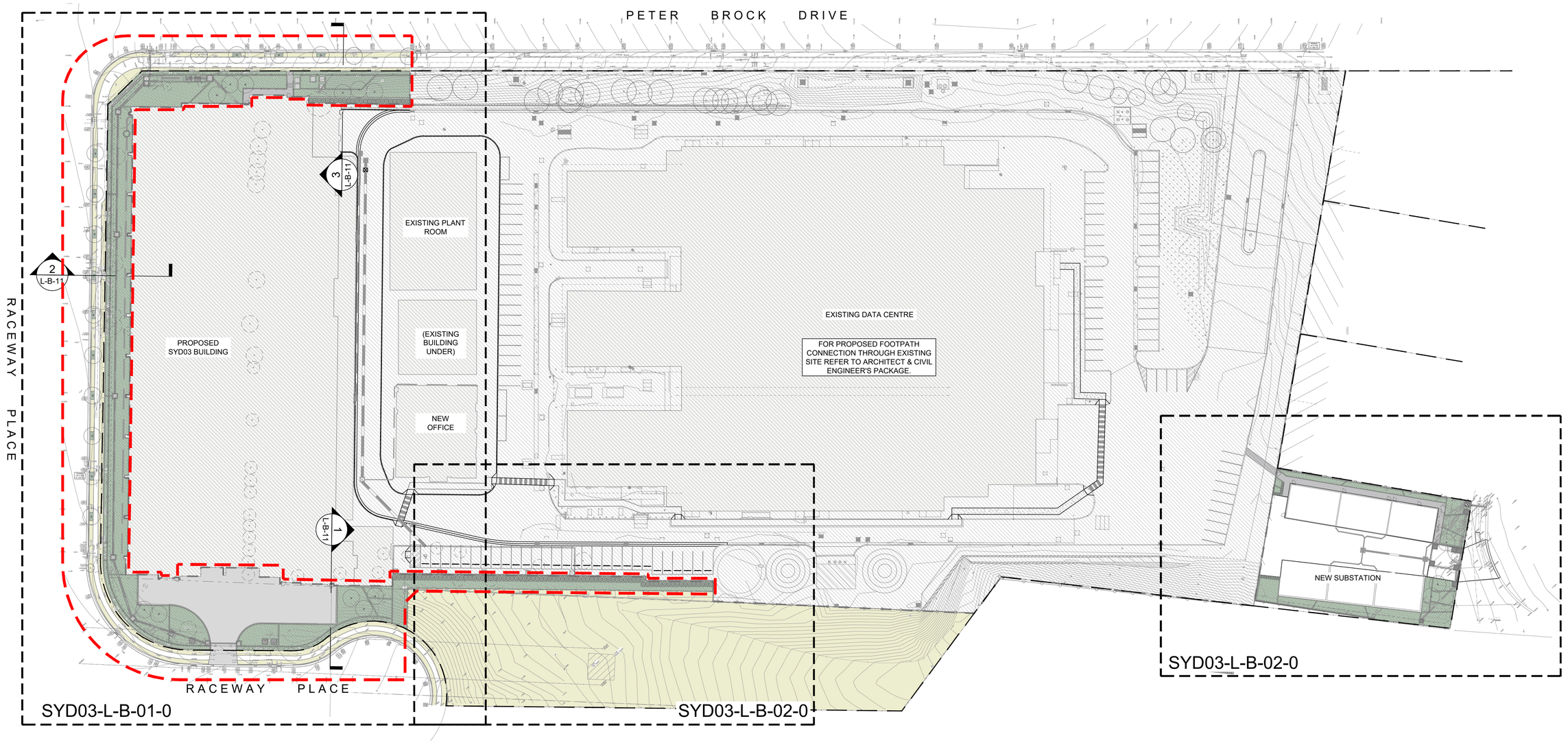
90 Peter Brock Drive, Eastern Creek NSW 2766 (SYD03)

LANDSCAPE DOCUMENTATION SET FOR DA



DRAWING LIST

SYD03-L-A-01-0	LANDSCAPE - COVER SHEET & SITE PLAN	SYD03-L-B-01-0	LANDSCAPE - GENERAL ARRANGEMENT PLAN - SHEET 1	SYD03-L-C-01-0	LANDSCAPE - TYPICAL DETAILS
SYD03-L-A-02-0	LANDSCAPE - LEGEND & GENERAL NOTES	SYD03-L-B-02-0	LANDSCAPE - GENERAL ARRANGEMENT PLAN - SHEET 2	SYD03-L-C-02-0	LANDSCAPE - SPECIFICATION NOTES
		SYD03-L-B-11-0	LANDSCAPE - SECTIONS		

INDICATIVE EXTENT OF LANDSCAPE WORKS

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ISSUE	COMMENTS	DATE
A	DA Submission	13.04.2022
B	DA Submission update	04.08.2022

1:500
A1

0 5 10 20 30 40 50m

90 Peter Brock Drive, Eastern Creek NSW

ARCHITECT: DEM Pty Ltd

DRAWN:	CHECKED:	DATE CREATED:	JOB NUMBER:
JH	KG	MAR. 2022	LA210420

LANDSCAPE -
Cover Sheet & Site Plan

SYD03-L-A-01-0 ISSUE **B**

LEGEND

GENERAL

- PROPERTY BOUNDARY
- EXTENT OF RWORKS
- [75.00] EXISTING CONTOURS & SPOT LEVEL
- 72.95 PROPOSED SPOT LEVEL
- TW73.00 PROPOSED TOP OF WALL LEVELS
- ELECTRICAL EASEMENT

SOFTRWORKS

- EXISTING TREES to be retained and protected
- EXISTING TREES to be removed
- PROPOSED TREES with min.2m clear trunk at planting
- PROPOSED SCREENING SHRUBS to mitigate visual impact
- PROPOSED GROUNDCOVER under 1m in height, refer to plant schedule
- GARDEN EDGE to all junctions of garden bed and turf areas

HARDWORKS

- EW EXISTING RETAINING WALL to be retained
- RW1 PROPOSED RETAINING WALL details refer to civil engineer's drawings
- P1 VEHICULAR GRADE CONCRETE PAVEMENT refer to civil engineer's detail
- P2 PEDESTRIAN GRADE CONCRETE PAVEMENT refer to civil engineer's detail

STORMRWATER DESIGN & PROPOSED LEVELS
refer to civil engineer's package

- STORMWATER PITS & GRATED DRAIN

ELECTRICAL & COMMUNICATIONS
refer to electrical engineer's package

- EXISTING POWER POLE & POWER LINE
- PROPOSED COMMS PIT & SWITCH ROOM

FENCING
refer to architect's drawings

- EF EXISTING FENCE to be retained
- F1 FENCE TYPE 1 2.4m palisade security fence to match existing fence at DCI SYD01
- F2 FENCE TYPE 2 fence to match with existing
- B1 SAFETY BALUSTRADE

NOTE:
REFER TO CIVIL ENGINEER'S DRAWINGS FOR ALL PROPOSED PITS, ROAD ALIGNMENT, SPOT LEVELS, AND RETAINING WALLS.

GENERAL NOTE

1. ALL LEVELS SHOWN ON DRAWING, INCLUDING EXISTING LEVELS, BUILDING RL AND FFLS ARE BASED ON DA PLAN AND ORIGINAL SURVEY, AND ARE INDICATIVE ONLY. CONTRACTOR TO CHECK AND CONFIRM ALL LEVELS ON SITE.
2. REFER TO CIVIL ENGINEER'S DRAWINGS FOR ALL PROPOSED ROAD LAYOUT, KE RB / GUTTER, DRAINAGE, CROSSFALL, AND PITS DETAILS
3. REFER TO STRUCTURAL ENGINEER'S DRAWINGS FOR ALL STRUCTURAL DESIGN AND DETAILS.
4. THIS DOCUMENTATION SET SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS INCLUDING CIVIL / ARCHITECTURAL / STRUCTURAL / SURVEY ETC.
5. LOCATE AND PROTECT ALL UNDERGROUND SERVICES PRIOR TO ANY EXCAVATION.
6. ANY DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO COMMENCEMENT OF WORKS.
7. DO NOT SCALE DRAWINGS, FIGURED DIMENSIONS HAVE PREFERENCE OVER SCALED DIMENSIONS.
8. CONTRACTOR TO CHECK EXISTING LEVELS ALONG SITE BOUNDARY TO CONFIRM EXTENT. OBTAIN APPROVAL FROM SUPERINTENDENT AND PROJECT LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
9. ALL EXISTING TREES SHOWN AS TO BE RETAINED ARE TO BE RETAINED AND PROTECTED AS PER AS 4970-2009
10. THIS LANDSCAPE DOCUMENTATION SET IS PRODUCED FOR DA PURPOSE ONLY. IT SHALL NOT BE USED SOLELY AS FOR TENDER OR FOR CONSTRUCTION DRAWINGS.

TREE PROTECTION NOTES:

1. THE TREE PROTECTION ZONE (TPZ) IS A RADIAL DISTANCE MEASURED FROM THE CENTRE OF THE TRUNK OF THE TREE AND CALCULATED IN ACCORDANCE WITH AS 4970-2009 (PROTECTION OF TREES ON DEVELOPMENT SITES)
2. THE STRUCTURAL ROOT ZONE (SRZ) PROVIDES THE BULK OF MECHANICAL SUPPORT AND ANCHORAGE FOR A TREE. THIS IS ALSO A RADIAL DISTANCE MEASURED FROM THE CENTRE OF THE TRUNK AND CALCULATED IN ACCORDANCE WITH AS 4970-2009 (PROTECTION OF TREES ON DEVELOPMENT SITES).
3. INCURSIONS WITHIN THE SRZ ARE NOT RECOmmENDED AS THEY ARE LIKELY TO RESULT IN THE SEVERANCE OF WOODY ROOTS WHICH MAY COMPROMISE THE STABILITY OF THE TREE OR LEAD TO ITS DECLINE AND DEMISE.
4. TREE PROTECTION SHALL BE IN ACCORDANCE WITH AS 4970-2009 (PROTECTION OF TREES ON DEVELOPMENT SITES.)
5. TREE PROTECTION FENCE - ALL TREES WITHIN THE SITE TO BE RETAINED SHALL BE PROTECTED PRIOR TO AND DURING CONSTRUCTION FROM ALL ACTIVITIES THAT MAY RESULT IN DETRIMENTAL IMPACT BY ERECTING A SUITABLE PROTECTIVE FENCE BENEATH THE CANOPY TO THE FULL EXTENT OF THE TREE PROTECTION ZONE.
6. AS A MINIMUM, THE FENCE SHOULD CONSIST OF TEMPORARY CHAIN WIRE PANELS OF 1.8M IN HEIGHT, SUPPORTED BY STEEL STAKES AS REQUIRED AND FASTENED TOGETHER AND SUPPORTED TO PREVENT SIDEWAYS MOVEMENT USING CORNER BRACES WHERE REQUIRED. THE FENCE SHALL BE ERECTED PRIOR TO THE COmmENCEMENT OF ANY WORK ON-SITE AND SHALL BE MAINTAINED IN GOOD CONDITION FOR THE DURATION OF CONSTRUCTION. WHERE TREE PROTECTION ZONES MERGE TOGETHER A SINGLE FENCE ENCOMPASSING THE AREA IS DEEMED TO BE ADEQUATE. EXISTING SITE BOUNDARY FENCES MAY FORM PART OF THE ENCLOSURE.
7. TREE PROTECTION SIGNS - SIGNS SHALL BE INSTALLED ON THE TREE PROTECTION FENCE TO PREVENT UNAUTHORISED MOVEMENT OF PLANT AND EQUIPMENT OR ENTRY TO THE TREE PROTECTION ZONE. THE SIGNS SHALL BE SECURELY ATTACHED TO THE FENCE USING CABLE TIES OR EQUIVALENT. SIGNS SHALL BE PLACED AT MINIMUM 10 METRE INTERVALS. THE WORDING AND LAYOUT OF THE SIGN SHALL COMPLY WITH AS 4970-2009
8. TRUNK PROTECTION - WHERE PROVISION OF TREE PROTECTION FENCING IS IN IMPRACTICAL DUE TO ITS PROXIMITY TO THE PROPOSED BUILDING FOOTPRINT, TRUNK PROTECTION SHALL BE ERECTED AROUND NOMINATED TREES TO AVOID ACCIDENTAL DAMAGE. THE TRUNK PROTECTION SHALL CONSIST OF A LAYER OF CARPET UNDERFELT (OR SIMILAR) WRAPPED AROUND THE TRUNK, FOLLOWED BY 1.8M LENGTHS OF SOFTWOOD TIMBERS (90X45mm IN SECTION) ALIGNED VERTICALLY WITH 2mm GALVANISED WIRE OR GALVANISED HOOP STRAP. RECYCLED TIMBER (SUCH AS DEMOLITION WASTE) MAY BE SUITABLE FOR THIS PURPOSE, SUBJECT TO THE APPROVAL OF THE PROJECT ARBORIST. THE TIMBER SHALL BE WRAPPED AROUND THE TRUNK (OVER THE CARPET UNDERFELT), BUT NOT FIXED TO THE TREE TO AVOID MECHANICAL INJURY OR DAMAGE TO THE TRUNK. TRUNK PROTECTION SHOULD BE INSTALLED PRIOR TO ANY SITE WORKS AND MAINTAINED IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION PERIOD. CARPET UNDERFELT (ALONE) IS SUFFICIENT FOR TREES WITH A TRUNK DIAMETRE OF LESS THAN 200mm.
9. DEMOLITION AND EXCAVATION WITHIN THE TREE PROTECTION ZONES OF TREES TO BE RETAINED SHALL BE UNDERTAKEN UNDER THE SUPERVISION OF THE SITE ARBORIST.
10. TREE DAMAGE - CARE SHALL BE TAKEN WHEN OPERATING CRANES, DRILLING RIGS AND SIMILAR EQUIPMENT NEAR TREES TO AVOID DAMAGE TO TREE CANOPIES (FOLIAGE AND BRANCHES). UNDER NO CIRCUMSTANCES SHALL BRANCHES BE TORN-OFF BY CONSTRUCTION EQUIPMENT. WHERE THERE IS POTENTIAL CONFLICT BETWEEN TREE CANOPY AND CONSTRUCTION ACTIVITIES, THE ADVICE OF THE SITE ARBORIST MUST BE SOUGHT.
11. IN THE EVENT OF ANY TREE BECOMING DAMAGED FOR ANY REASON DURING THE CONSTRUCTION PERIOD, A CONSULTING ARBORIST (AUSTRALIAN QUALIFICATION FRAMEWORK LEVEL 5) SHALL BE ENGAGED TO INSPECT AND PROVIDE ADVICE ON ANY REMEDIAL ACTION TO MINIMISE ANY ADVERSE IMPACT. SUCH REMEDIAL ACTION SHALL BE IMPLEMENTED AS SOON AS PRACTICABLE AND CERTIFIED BY THE ARBORIST.

PROPOSED PLANT SCHEDULE

ID	BOTANICAL NAME	COMMON NAME	POT SIZE	MATURE HEIGHT	SPREAD	SPACING	NATIVE	LOW WATER USE	QTY
Trees									
Co-sn	*Corymbia ficifolia 'Snowflake'*	Flowering Gum	200mm	5-6m	3-4m	As shown	Yes	Yes	8
Co-wi	*Corymbia ficifolia 'Wildfire'*	Flowering Gum	200mm	4-6m	3-4m	As shown	Yes	Yes	6
Me-br	*Melaleuca bracteata*	Black Tea Tree	250mm	6-15m	3-6m	As shown	Yes	Yes	13
Shrubs									
Ca-li	*Callistemon 'Little John'*	Bottlebrush Little John	200mm	0.8m	0.8m	0.6m centres	Yes	Yes	-
Gr-cr	*Grevillea rosmarinifolia 'Crimson Villea'*	Crimson Villea Grevillea	200mm	0.8m	0.8m	0.6m centres	Yes	Yes	-
Me-th	*Melaleuca thymifolia*	Thyme Honey-myrthle	200mm	0.8m	1.5m	0.7m centres	Yes	Yes	-
We-au	*Westringia 'Aussie Box'*	Aussie Box	200mm	0.8m	0.8m	0.6m centres	Yes	Yes	-
We-fr	*Westringia fruticosa*	Coastal Rosemary	300mm	1.5-2m	1-1.5m	0.6m centres	Yes	Yes	-
Groundcovers and Grasses									
Aj-au	*Ajuga australis*	Australian Bugle	140mm	0.3-0.5m	0.5-3m	3/m2	Yes	Yes	-
Di-re	*Dianella revoluta*	Blueberry Lily	140mm	0.3-0.4m	0.3m	5/m2	Yes	Yes	-
Gr-gc	*Grevillea 'Poorinda Royal Mantle'*	Poorinda Royal Mantle	tube	0.2m	3m	3/m2	Yes	Yes	-
Lo-ta	*Lomandra longifolia 'Tanika'*	Lomandra Tanika	tube	0.5m	0.5m	5/m2	Yes	Yes	-
My-pa	*Myoporum parvifolium*	Creeping Boobialla	140mm	0.2m	1.5m	3/m2	Yes	Yes	-
Th-au	*Themeda australis*	Kangaroo Grass	tube	0.5m	0.5m	6/m2	Yes	Yes	-
Vi-he	*Viola hederacea*	Australian Native Violet	tube	0.1m	1m	3/m2	Yes	Yes	-

* All proposed trees to allow for min. 2m high trunk clearance at date of installaton.
* Plants to be sourced from local nurseries that supply plants of local provenance where possible. Contact landscape architect if any number discrepancies are found. Council compliance controls require that any substitution of species variety or container size MUST be confirmed with project landscape architect to ensure a compliance certificate can be issued.
* All proposed shrubs and groundcovers to be installed at density specified above. Final quantity to be confirmed during CC stage.

PLANT PALETTE

Trees


Corymbia ficifolia 'Wildfire'


Melaleuca bracteata


Corymbia ficifolia 'Snowflake'

Shrubs & Groundcovers


Westringia 'Aussie Box'


Grevillea rosmarinifolia 'Crimson Villea'


Melaleuca thymifolia


Callistemon 'Little John'


Ajuga australis


Westringia fruticosa


Grevillea 'Poorinda Royal Mantle'


Viola hederacea


Lomandra longifolia 'Tanika'


Themeda australis


Myoporum parvifolium


Dianella revoluta

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ISSUE	COMMENTS	DATE
A	DA Submission	13.04.2022
B	DA Submission update	04.08.2022

NTS
A1

90 Peter Brock Drive, Eastern Creek NSW

ARCHITECT: DEM Pty Ltd

DRAWN:	CHECKED:	DATE CREATED:	JOB NUMBER:
JH	KG	MAR. 2022	LA210420

LANDSCAPE - Legend & General Notes

SYD03-L-A-02-0 ISSUE **B**

PETER BROCK DR

RACEWAY PLACE

INDICATIVE LOCATION OF EXISTING WALL (TW APPROX.76.00)

PROPOSED GROUND LEVEL TO TIE IN WITH EXISTING LANDSCAPED EMBANKMENT, ALLOW FOR CONSISTENT TRANSITION WITH MAX. GRADIENT OF 1:5

INDICATIVE EXTENT OF WORKS. PROPOSED RETAINING WALL AND FENCING TO MATCH WITH AND TIE IN WITH EXISTING WALL AND FENCE.

PROPOSED GUARDRAIL TO TIE IN WITH EXISTING GUARDRAILS

EXISTING STREET TREES TO BE RETAINED AND PROTECTED.

ACCESS TO LOBBY AT UPPER GROUND FLOOR (RL 79.00) REFERS TO ARCHITECT'S DRAWING

UPPER GROUND FLOOR
FFL 79.00

GROUND FLOOR
FFL 72.50

EXISTING GRASSED AREA TO BE RETAINED AND PROTECTED

CONTINUE ON SYD03-L-B-02-0

MIX OF LOW GROUNDCOVERS INCLUDING:
Dianella revoluta
Dianella 'Tas Red'
Viola hederacea

MIX OF LOW SHRUBS AND GROUNDCOVERS INCLUDING:
Callistemon 'Little John'
Dianella revoluta
Dianella 'Tas Red'
Grevillea 'Poorinda Royal Mantle'
Viola hederacea

2 Co-sn
1 Co-wi

MIX OF LOW SHRUBS AND GROUNDCOVERS INCLUDING:
Grevillea 'Crimson Villea'
Westringia 'Aussie Box'
Grevillea 'Poorinda Royal Mantle'

MIX OF WET-FEET TOLERANT GROUNDCOVERS IN SWALE INCLUDING:
Lomandra 'Shara'
Carex appressa

1m WIDE SWALE DRAIN AT MIN 1% REFER TO CIVIL ENGINEER'S DRAWING

ACCESS AT GF
RL 72.50

FOR GROUNDCOVERS BETWEEN BOUNDARY AND FENCING, MIX OF:
Dianella revoluta
Lomandra longifolia 'Tanika'

FOR GROUNDCOVERS BETWEEN BOUNDARY AND FENCING:
30 Di-re

EXISTING VEHICULAR CROSSOVER TO BE DEMOLISHD. INSTALL KERB, GUTTER, FOOTPATH AND GRASS VERGE TO TIE IN WITH EXISTING TO COUNCIL'S STANDARD.

1 Co-sn
2 Co-wi

OVERHEAD ELECTRIC TRANSMISSION LINES

MIN. SOIL DEPTH 300mm

REFER TO ARCHITECTURAL & CIVIL PACKAGE FOR PROPOSED BUILDING, PROPOSED DRIVEWAY, PEDESTRIAN CONNECTIONS, EXTERNAL PLANT LOCATION, FINISHED SURFACES DETAILS, LEVELS, RAMPS & STAIRS, AND DRAINAGE DETAILS

MIX OF LOW SHRUBS AND GROUNDCOVERS INCLUDING:
Grevillea 'Crimson Villea'
Melaleuca thymifolia
Westringia 'Aussie Box'
Dianella revoluta
Myoporum parvifolium

MIX OF WET-FEET TOLERANT GROUNDCOVERS IN SWALE INCLUDING:
Lomandra 'Shara'
Carex appressa

FOR GROUNDCOVERS BETWEEN BOUNDARY AND FENCING, MIX OF:
Dianella revoluta
Lomandra longifolia 'Tanika'

PROPOSED 600mm(H) MASONRY WALL WITH 2.4m(H) SECURITY FENCE ON TOP

EXISTING VEHICULAR CROSSOVER TO BE DEMOLISHED. INSTALL KERB, GUTTER, FOOTPATH AND GRASS VERGE TO TIE IN WITH EXISTING TO COUNCIL'S STANDARD

PROPOSED PERIMETER SECURITY FENCE. SETBACK 1M FROM SITE BOUNDARY AS PER BLACKTOWN COUNCIL'S EMPLOYMENT LANDS PRECINCT PLAN FOR RACEWAY PRECINCT

EXISTING TREES TO BE REMOVED DUE TO CLOSE PROXIMITY WITH BUILDING AND SECURITY FENCE.

PROPOSED STREET TREES FOR STREETSCAPE ENHANCEMENT AND MITIGATION OF VISUAL IMPACT BY PROPOSED DEVELOPMENT.
13 Me-br

EXISTING FOOTPATH AND GRASS VERGE TO BE RETAINED

RACEWAY PLACE

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1:200
A1

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ARCHITECT: DEM Pty Ltd

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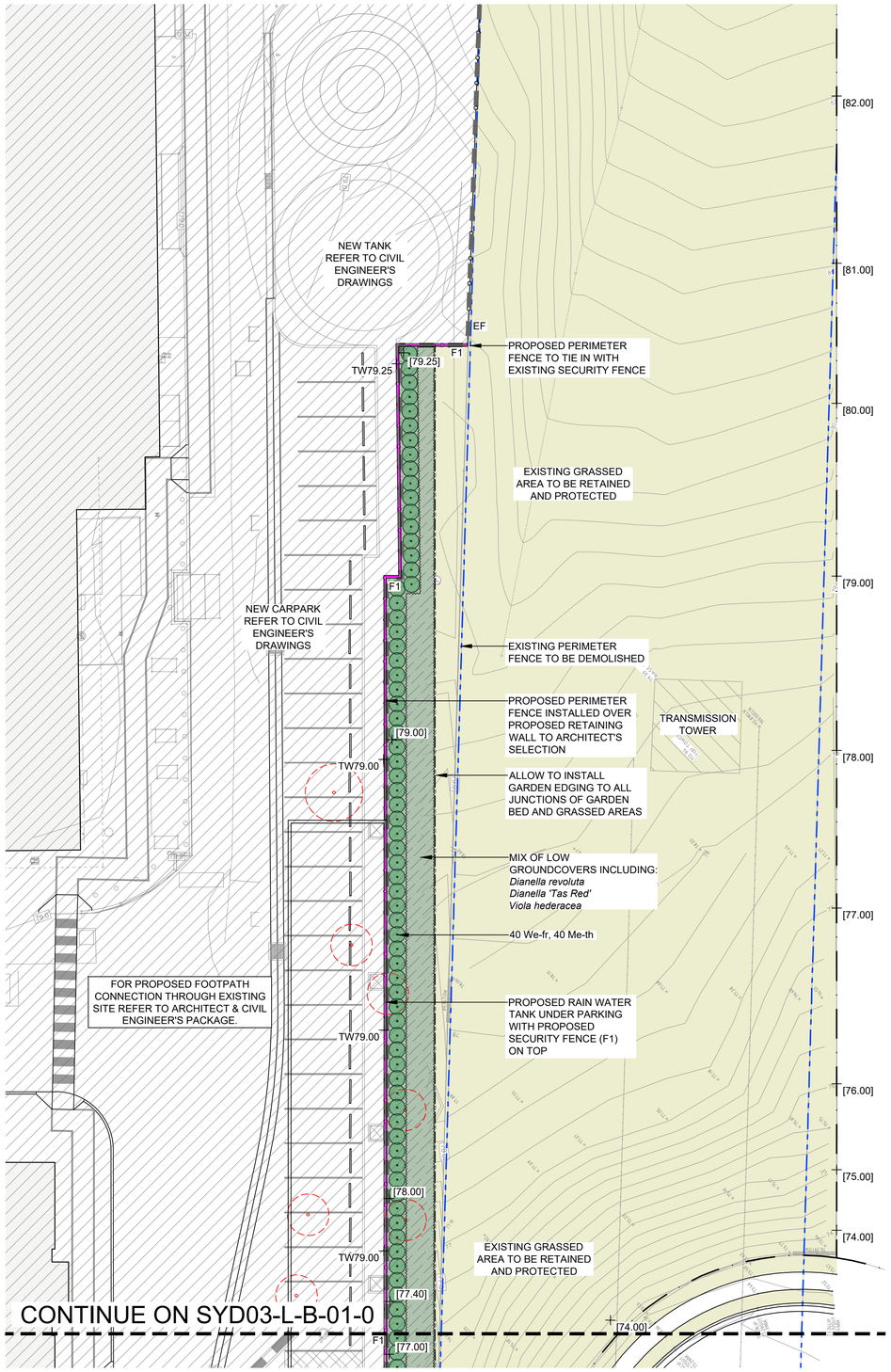
LANDSCAPE -
General Arrangement Plan - Sheet 1

ISSUE

SYD03-L-B-01-0 B



1 GENERAL ARRANGEMENT PLAN - SOUTHERN CARPARK
1:200 @ A1

2 GENERAL ARRANGEMENT PLAN - SUBSTATION
1:200 @ A1

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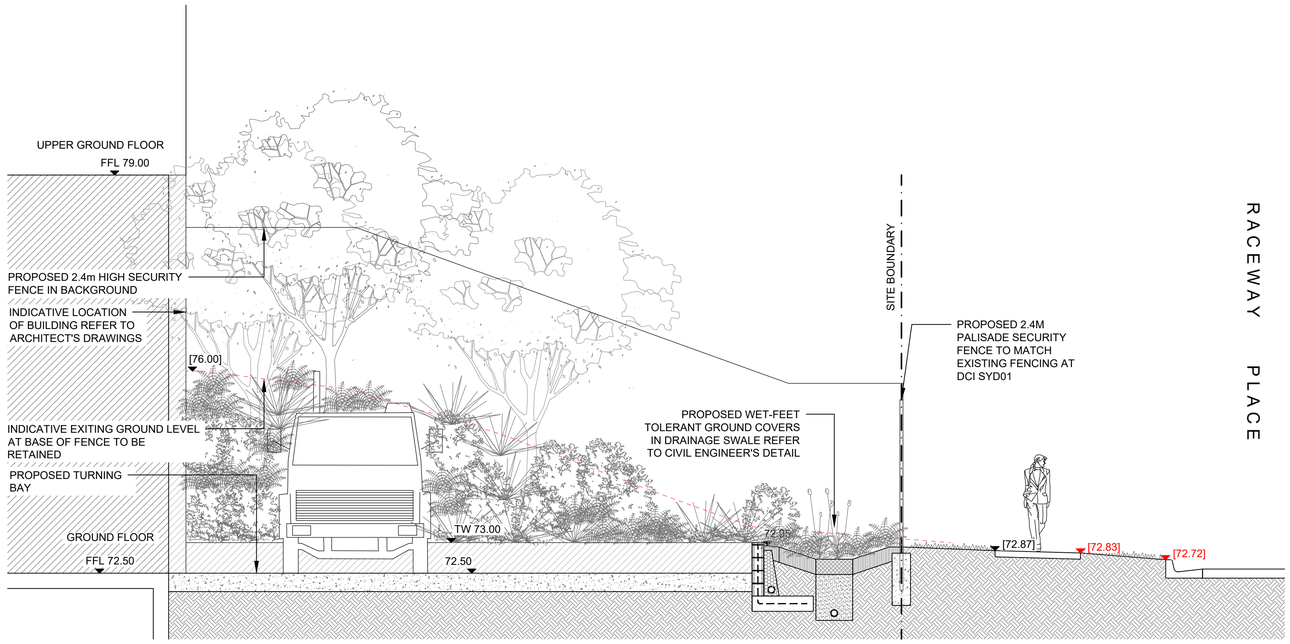
LANDSCAPE -
General Arrangement Plan - Sheet 2

ISSUE
SYD03-L-B-02-0 B



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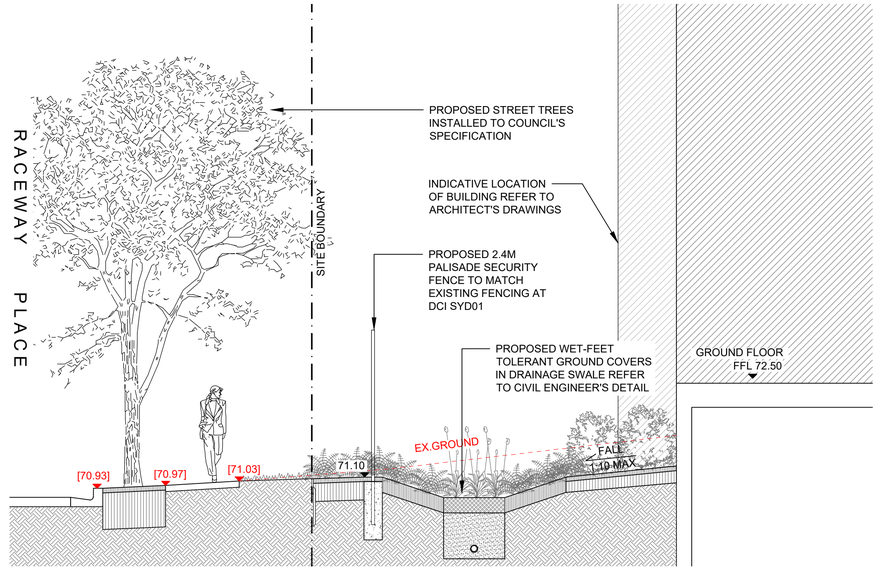

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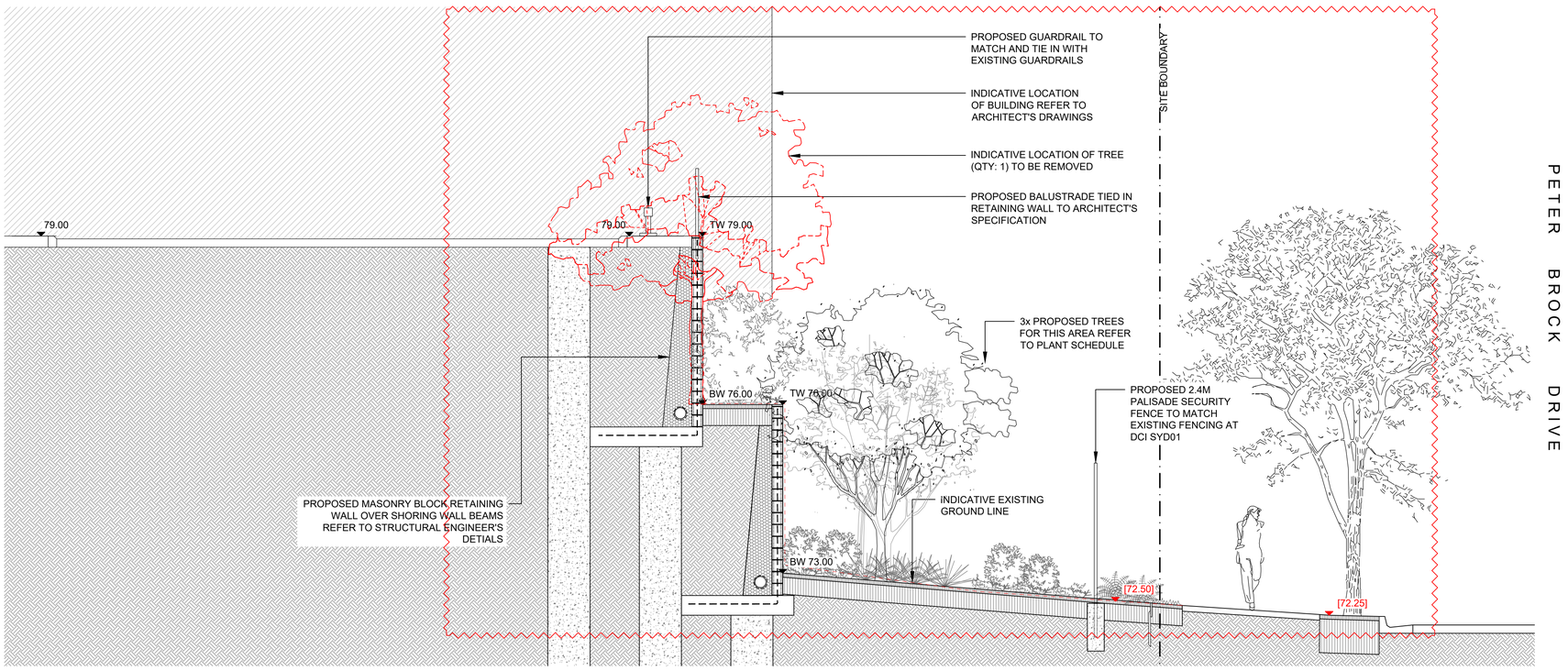

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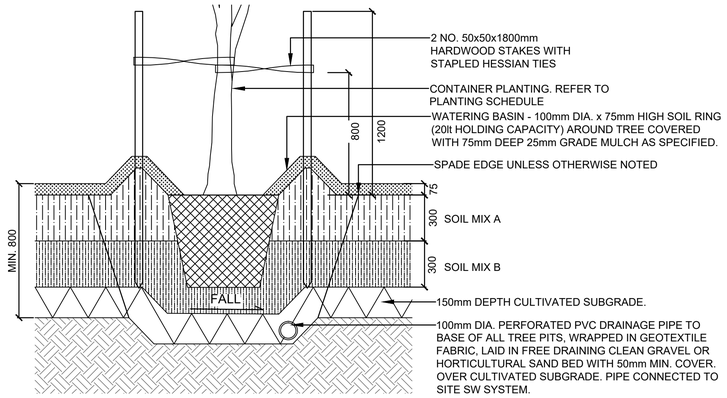
LANDSCAPE - Sections

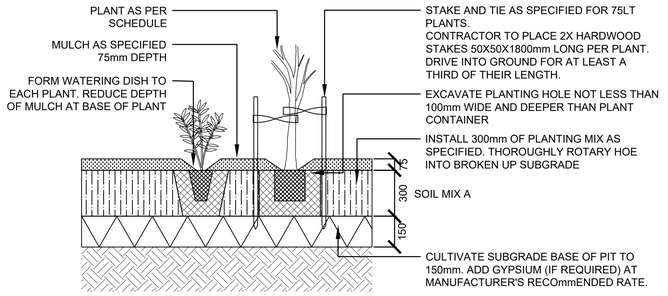
SYD03-L-B-11-0

ISSUE **B**



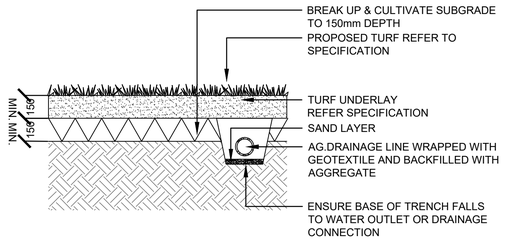
01 TREE PLANTING

TYPICAL DETAIL 1:20



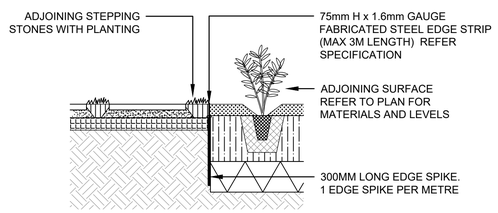
02 MASS PLANTING

TYPICAL DETAIL 1:20



03 TURF

TYPICAL DETAIL 1:20



04 STEEL GARDEN EDGE

TYPICAL DETAIL 1:20

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LANDSCAPE - Typical Details

SYD03-L-C-01-0

ISSUE **B**

SPECIFICATION NOTES

GENERAL NOTES

References
All plans and details included in the project documents shall be read in conjunction with this specification. All structural and civil works components of the landscape design shall be referenced to engineers' details and specifications. Read this specification in conjunction with the plant and materials schedules on the drawings. If in doubt about any detail or if conflicts are found in the documents, seek advice.

Workmanship and Materials
The whole of the landscape works shall be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques. The landscape contractor shall hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

HARDWORKS

Furniture, Handrails, Balustrades
Supply and install the scheduled items in accordance with the manufacturer's recommendations, as detailed and in the locations shown on Provide all footings and fixings required for the items to be stable and in accordance with applicable codes, BCA, and Australian standards.

Garden walls, fences, steps, and Edging
Construct garden walls, fences, steps, and edging as shown on plan, as detailed and of the material scheduled. Provide footings, step nosings, to comply with BCA, Australian Standards and applicable legislation. Refer to engineer's details for structural retaining walls, heavy duty slabs, concrete stairs, concrete strength, reinforcing and joint placement.

Continuous, Unit and Loose Pavement
Install the scheduled material pavement to the locations shown on plan. Ensure that all sub-grade / subsurface works are complete prior to commencing paving. Confer with the engineer to ensure the structural integrity of the sub-grade. Ensure that the base course under paved surfaces is a continuous plane offering a constant depth of bedding material not exceeding 50mm.

Samples
Samples to be provided for each type of landscape material for client's approval prior to ordering and installation. Confirm with superintendent for quantity of samples to be provided.

IRRIGATION

All proposed landscape areas shall be irrigated.

The irrigation system shall be an automatic permanent system, with an irrigation controller self operated via a soil moisture sensor. The system shall be calibrated to deliver the optimum rate and volume of water appropriate to the type of plants in the design. The system shall be adjustable and fully serviceable. The layout of the entire irrigation system shall focus on delivering the required amount of water to maintain healthy and vigorous growth. The irrigation system shall be such that, component theft, vandalism, over-spray and wetting of paths shall be reduced to a minimum or completely eliminated by the use of drip, pop-up sprinklers and judiciously placed fixed spray emitters. Generally do not use fine mist emitters that provide a drifting mist that may wet paths and the buildings unless specifically required by the design.

SOFTWORKS

Soil Testing
Where site soil is to be retrieved from and stored for reuse on site, undertake at least two (2) soil tests, in locations as advised by the Project Manager. Provide results and recommendations regarding soil additives for the benefit of healthy plant growth and to adjust the soil components to achieve an appropriate planting medium for successful plant development.

Subsoil
Excavate and/or fill all garden beds to bring the top of subsoil to at least 300mm below finished design soil levels. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. In all areas shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees and shrubs to be retained. Cultivate or rip the subsoil to a further depth of 100mm before placing top soil. Remove stones of size exceeding 25mm, clods of earth exceeding 50mm, and weeds, rubbish or other deleterious material brought to the surface during cultivation. Do not disturb services or existing tree roots. If necessary cultivate these areas by During cultivation, thoroughly mix in materials required to be incorporated into the subsoil, as recommended in the soil testing results and to manufacturer's recommendations. Trim the surface to design levels again after cultivation.

Topsoil
Import topsoil for the garden and turf areas, unless the topsoil can be provided from material recovered from the site, as recommended in the soil testing results. Spread the topsoil on the prepared subsoil and grade evenly, compact lightly and uniformly in 150mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface
which has the following characteristics:

- Finished to design levels, allowing for mulch or turf, which is to finish flush with adjoining hard surfaces such as paths and edges
- Smooth and free from inorganic matter, stones or clods of soil
- Graded to drain freely, without ponding, to catchment and/or sub-soil drains
- Graded evenly to adjoining surfaces Ready for planting

Non-Australian native garden beds to have soil installed consisting of 50% existing site topsoil and 50% new topsoil equal or equivalent to 'Organic Garden Mix' as supplied by Australian Native Landscapes. Australian native garden beds to have soil installed consisting of 50% existing site topsoil and 50% new topsoil equal or equivalent to 'Native Low 'P' Mix' as supplied by Australian Native Landscapes. Topsoil to be installed to depth of 300mm for tree and mass planting garden beds, 100mm of turf underlay should be used under turf areas.

Compost
Provide, in accordance with AS 4454, well rotted vegetative material or animal manure, free from harmful chemicals, inorganic matter, grass, weeds and the reproductive parts of unwanted plants.

Fertiliser
Provide proprietary fertilisers, delivered to the site in sealed containers marked to show manufacturer or vendor, weight, fertiliser type, N:P:K ratio, recommended uses, application rates and safety procedures. Apply appropriate fertiliser suited to the provenance of plants (indigenous or exotic) included in the design.

Plants
Supply plants in accordance with the landscape design drawings and schedules, which have the following characteristics:

- Large healthy root systems, with no evidence of root curl, restriction or damage;
- Vigorous, well established, free from disease and pests, of good form consistent with the species/variety;
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site in full sun, partial shade or full shade conditions;
- Grown in final containers for not less than twelve weeks;
- Trees, unless required to be multi-stemmed, shall have a single leading shoot; and
- Containers shall be free from weeds and of appropriate size in relation to the specified plant size.

Plant Installation
Following excavation of the planting hole, place and spread 15gms of wetting agent pre-mixed with one (1) litre of water. Place the plant correctly orientated to north or for best presentation. Backfill the planting holes with specified topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure that the backfill soil is not placed over the top of the root ball and that the root ball is not higher than the soil in which it is planted. Apply fertiliser, as specified around the plants in the soil at the time of planting.

Embankment Stabilisation
Where necessary and shown on the drawings prevent soil erosion or soil movement by stabilising embankments as follows. As a minimum this should be on slopes steeper than or equal to 1:3 gradient. Stabilise embankments using biodegradable fibre reinforced heavy weight jute fabric. Lay fabric from top to bottom of slope. Install in accordance with manufacturer's specification, including 300 x 300mm anchor trench at top and bottom of slope, backfilled with soil over the fabric and compacted into the trenches. Using U-shaped galvanised steel pegs at 1000 mm centres generally and 250mm centres at edge overlaps, secure the fabric to the prepared soil surface. Plant through the fabric after it is installed.

Root Barrier
Supply and install root control barriers to all new tree plantings adjacent to walls, paths, kerbs and all service trenches, where their proximity poses a threat to the stability of the built infrastructure. Install in accordance with manufacturer's recommendations.

Mulch
Unless noted otherwise, mulch shall be approved proprietary recycled wood fibre or pine bark material. Place mulch in all garden beds to a depth of 75mm after all specified plants are installed. Keep mulch clear of all plant stems and rake to an even plane, flush with the surrounding surfaces evenly graded between design surface levels. Over fill to allow mulch to settle to the specified depth. Mulching to be:

Pine Bark Mini Nuggets by ANL (or approved equivalent)
https://anlscape.com.au/Products/garden-mulch/pine-bark-mini-nuggets

Stakes and ties
Stakes shall be durable hardwood, straight, free of knots and twists, pointed at one end, in the following quantities and sizes for each of the various plant pot sizes:

- Plants (>25 lt): 1 off 38 x 38 x 1200mm;
- Semi-advanced plants (>75 lt): 2 off 50x50x 1800mm;
- Advanced (>100 lt): 3 off 50 x 50 x 2400mm.

Turfing
Turf shall be delivered to site as 25mm minimum thick cut rolls. Obtain turf from a specialist grower of cultivated turf. Turf shall have an even thickness, free from weeds and other foreign matter. Deliver turf to the site within 24 hours of being cut and lay it within 24 hours of delivery. Prevent it from drying out between cutting and laying. Lay the turf in the following manner:

- In stretcher pattern, joints staggered and close butted;
- Parallel long sides of level areas, with contours on slopes; and
- To finish flush, after lightly tamping, with adjacent finished surfaces and design levels.

Turf to be:
'Sapphire' Soft Leaf Buffalo - by All About Turf (or approved similar)
https://allaboutturf.com.au/turf-variety/sapphire-buffalo-turf/

DRAINAGE

All landscape areas are to have positive drainage to SW systems. If areas of poor drainage are identified on site then this should be brought to the site superintendents attention. Install agg lines if required.

LANDSCAPE MAINTENANCE

The Landscape Contractor shall rectify defects during installation and that become apparent in the works under normal use for the duration of the contract Defects Liability Period. Unless contracted otherwise, the Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks from Practical Completion of the works. The landscape maintenance works shall include, but not be limited to:

- Replacing failed plants
- Pruning
- Insect and pest control
- Fertilising
- Maintaining and removing stakes and ties
- Maintaining mulch
- Mowing and top dressing
- Irrigation and watering
- Erosion control
- Weed and rubbish removal

Maintenance Log Book
Implement and keep a maintenance log book recording when and what maintenance work has been undertaken and what materials, actions and decisions have been used, implemented and concluded to keep the landscape always looking its best. Enter data daily and review information every 2 weeks. Observe trends and develop a maintenance regime around seasonal and observed event occurrences.

Maintenance Activities
During the defects maintenance period schedule the following activities to occur on a timely basis.

- **Plant replacement** - Replace plants that have failed to mature, die or are damaged. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the landscape contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants. Observe and replace failed plants within 2 weeks of observation.

- **Pruning** - Prune dead wood, broken limbs, dead or infected foliage and as needed to develop strong, healthy plants to achieve the shape and form expected of the plant type. Observe daily and prune plants on a needs basis.

- **Insect, disease and pest control** - Avoid spraying:
  a. if ever possible
  b. in wet weather or if wet weather is imminent
  c. if target plants are still wet after rain
  d. in windy weather
  e. if non-target species are too close

Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work. When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Observe daily and act as necessary to control any infestation or disease. Record in the logbook all relevant details of spraying activities including:
  a. Product brand / manufacturer's name
  b. chemical / product name
  c. chemical contents
  d. application quantity and rate
  e. date of application and location
  f. results of application, and
  g. use approval authority

- **Fertilising** - Fertilise gardens with a proprietary slow release fertiliser applied in accordance with the manufacturer's directions and recommendations. Apply 6-12 monthly. Record in the logbook all relevant details of fertilising including:
  a. Product brand / manufacturer's name
  b. Fertiliser / product name
  c. Application quantity and rate, and
  d. Date of application and location

- **Stakes and ties** - Adjust and replace as required to ensure plants remain correctly staked. Remove those not required at the end of the planting establishment period (Defects Liability Period). Inspect and act at least every 2 weeks.

- **Maintaining mulch** - Maintain the surface in a clean, tidy and weed free condition and reinstate the mulch as necessary to ensure correct depth as specified. Observe weekly and replenish mulch as required.

- **Mowing and top dressing** - Mow the turf to maintain a grass height of between 30-50mm. Do not remove more than one third of the grass height at any one time. Remove grass clippings from the site after each Top dress to a maximum of 10mm to fill depressions and hollows in the surface. Mow weekly/fortnightly in warmer months. Mow monthly or as required in cooler months. Top dress at approximately 6 monthly intervals.

- **Irrigation and watering** - Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. Adjust and calibrate as required. Provide additional watering, if necessary but inspect irrigation weekly and make repairs as necessary.

- **Erosion control** - Where necessary, maintain the erosion control fabric in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. Inspect every 2 weeks and act to repair any damage as soon as possible.

- **Weeding and rubbish removal** - During the plant establishment period remove by hand, rubbish and weed growth that may occur or re-occur throughout all planted, mulched and paved areas. The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set. Constant observation and removal of weeds is essential.

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PRELIMINARY
NOT TO BE USED FOR TENDER OR FOR CONSTRUCTION

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ISSUE	COMMENTS	DATE
A	DA Submission	13.04.2022
B	DA Submission update	04.08.2022

NTS
A1

90 Peter Brock Drive, Eastern Creek NSW

ARCHITECT: DEM Pty Ltd

DRAWN:	CHECKED:	DATE CREATED:	JOB NUMBER:
JH	KG	MAR. 2022	LA210420

LANDSCAPE - Specification Notes

SYD03-L-C-02-0

ISSUE **B**