WEE WAA HIGH SCHOOL
LANDSCAPE DESIGN

Sheet No.	Drawing Title	Revision	Date
LP01	COVER SHEET	E	7/11/22
LP02	SITE PLAN	E	7/11/22
LP03	LANDSCAPE PLAN - PART A	E	7/11/22
LP04	LANDSCAPE PLAN - PART B	E	7/11/22
LP05	LANDSCAPE PLAN - PART C	E	7/11/22
LP06	LANDSCAPE PLAN - PART D	E	7/11/22
LP07	LANDSCAPE PLAN - PART E	E	7/11/22
LP08	DETAILS	E	7/11/22
LP09	SPECIFICATION	E	7/11/22

LOCALITY PLAN
Scale 1:5000 @ A1

Source: Esri

0 100 200 300m

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NOTES:

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5. CONFIRM LOCATION OF ALL SERVICES ON SITE PRIOR TO EXCAVATION.
6. DRAWINGS TO BE PRINTED IN COLOUR ONLY

Architect: SHAC

Engineer:

No.	Date	REVISION	By
A	4/3/2022	FOR DISCUSSION	CN
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E	7/11/22	FOR APPROVAL	CN

North

Status: FOR APPROVAL
Wee Waa High School

Off Kamilaroi Highway, Wee Waa NSW

BUILT

COVER SHEET

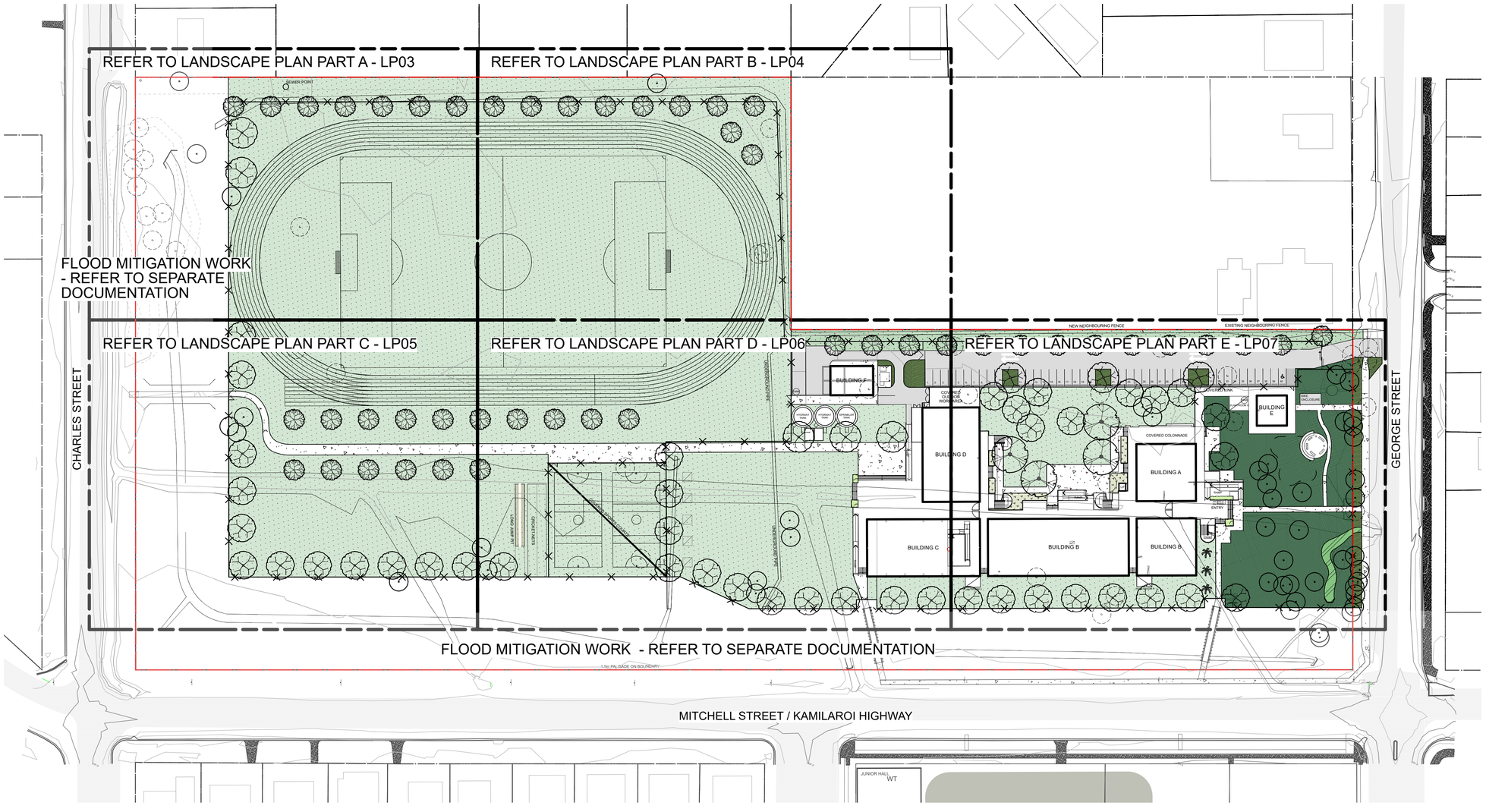
SCALE: 1:5000
ORIGINAL DRAWING AT A1.

Drawn By: CN/AG
Checked By: TB

Project No. **2114**

Drawing No. LP01

Rev E



SITE PLAN
Scale 1:750 @ A1

0 10 20 30 40m

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SHAC

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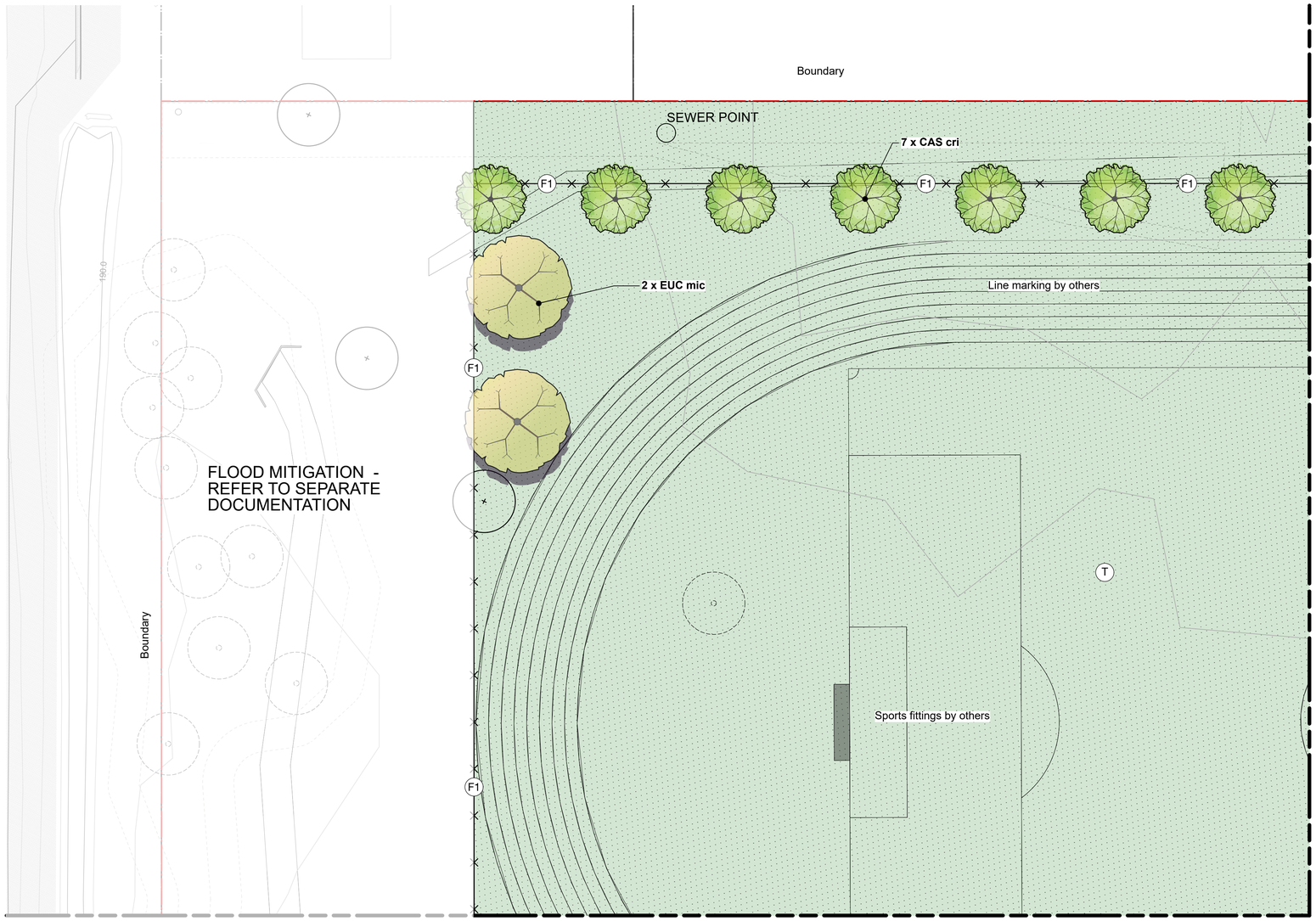
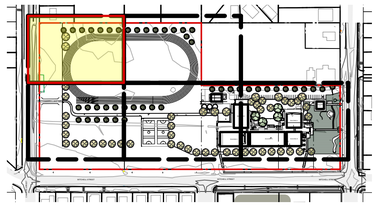
BUILT

SITE PLAN

SCALE: 1:750
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. **2114**
Drawing No. LP02
Rev E





REFERENCE PLAN
Scale 1:4000 @ A1

LANDSCAPE PLAN - PART A
Scale 1:250 @ A1

0 5 10 15 20m

LEGEND

- Extent of work
- Site boundary
- Lot boundaries
- F1 Fencing - By others
- P1 P1 - Concrete paving
- P2 P2 - Asphalt road
- T Turf - Refer to details and specification
- MP1 MP1 - Mass planting 1 Existing grassland to be retained and protected
- MP2 MP2 - Mass planting 2 - Native grasses Refer to plant schedule
- MP3 MP3 - Mass planting 3 - Swale planting Refer to plant schedule
- MP4 MP4 - Mass planting 4 - Courtyard planting Refer to plant schedule
- MP5 MP5 - Mass planting 5 - Planter box planting Refer to plant schedule

TREES

- Existing trees to be removed.
- Existing trees to be retained and protected.
- *Casuarina cristata* Belah
- *Eucalyptus microtheca* Coolabah
- *Washingtonia robusta* Mexicvan Fan Palm
- *Zelkova serrata 'Wireless'* Japanese Zelkova

Note:
Plant Schedule - Refer to LP08

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North

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Wee Waa High School
Off Kamilaroi Highway, Wee Waa NSW
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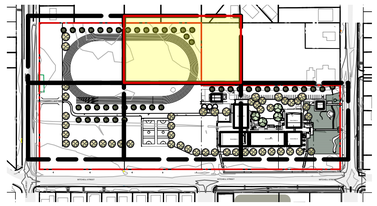
LANDSCAPE PLAN - PART A

SCALE: 1:250
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP03
Rev E



REFERENCE PLAN
Scale 1:4000 @ A1

REFER TO LANDSCAPE PLAN PART D - LP06

LANDSCAPE PLAN - PART B
Scale 1:250 @ A1

0 5 10 15 20m

LEGEND

- Extent of work
- Site boundary
- Lot boundaries
- F1 — Fencing - By others
- P1 — P1 - Concrete paving
- P2 — P2 - Asphalt road
- T — Turf - Refer to details and specification
- MP1 — MP1 - Mass planting 1 Existing grassland to be retained and protected
- MP2 — MP2 - Mass planting 2 - Native grasses Refer to plant schedule
- MP3 — MP3 - Mass planting 3 - Swale planting Refer to plant schedule
- MP4 — MP4 - Mass planting 4 - Courtyard planting Refer to plant schedule
- MP5 — MP5 - Mass planting 5 - Planter box planting Refer to plant schedule

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LANDSCAPE PLAN - PART B

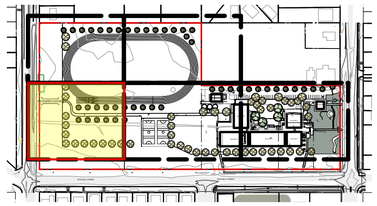
SCALE: 1:250
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP04
Rev E

REFER TO LANDSCAPE PLAN PART A - LP03

REFER TO LANDSCAPE PLAN PART D - LP06

FLOOD MITIGATION - REFER TO SEPARATE DOCUMENTATION



REFERENCE PLAN
Scale 1:4000 @ A1

LANDSCAPE PLAN - PART C
Scale 1:250 @ A1

0 5 10 15 20m

LEGEND

- Extent of work
- Site boundary
- Lot boundaries
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- MP4 — MP4 - Mass planting 4 - Courtyard planting Refer to plant schedule
- MP5 — MP5 - Mass planting 5 - Planter box planting Refer to plant schedule

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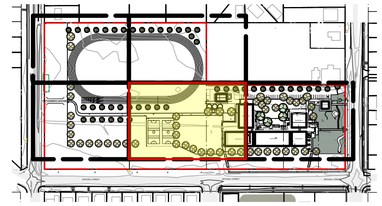
LANDSCAPE PLAN - PART C

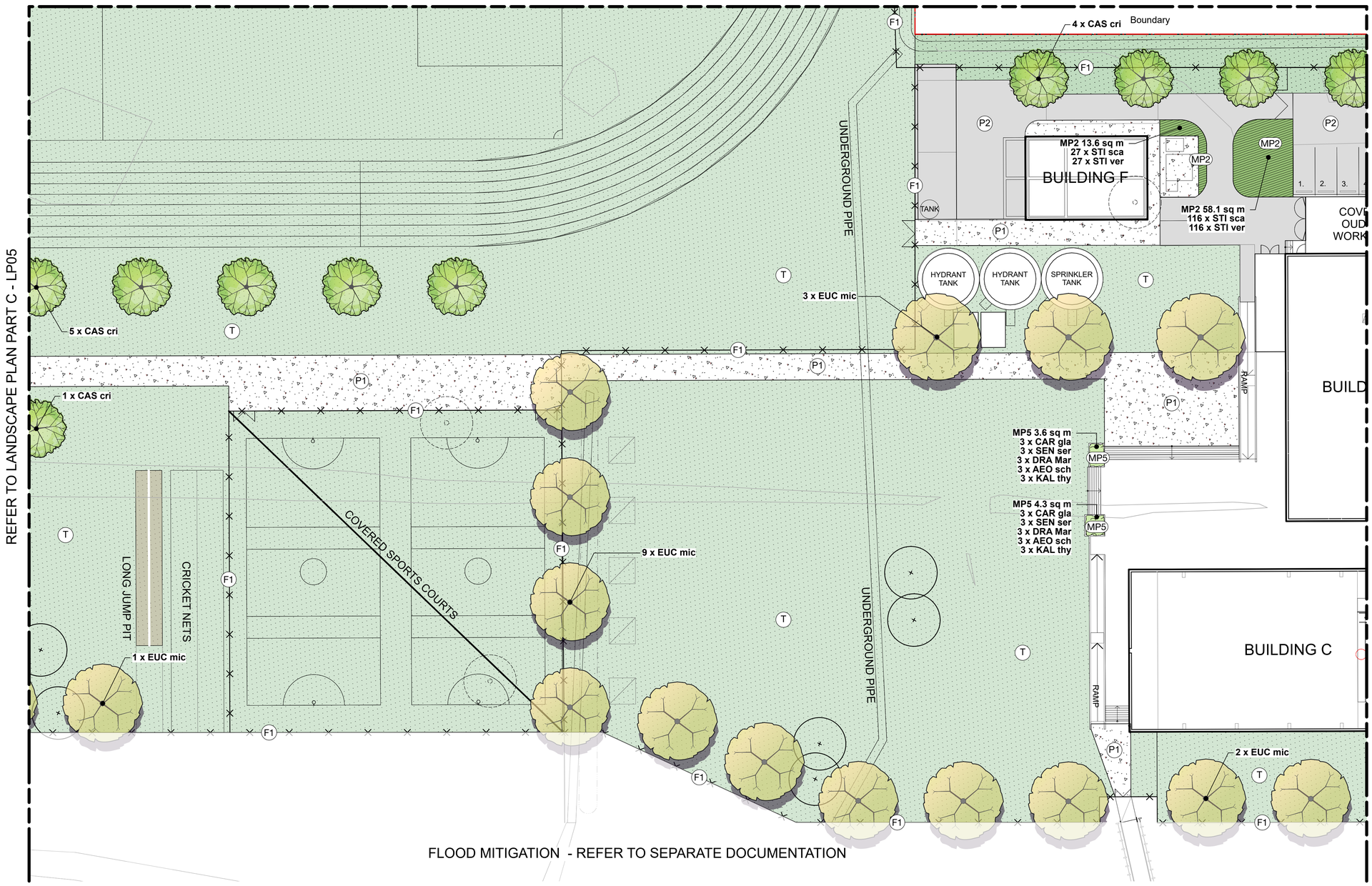
SCALE: 1:250
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP05
Rev E

REFER TO LANDSCAPE PLAN PART B - LP04



REFERENCE PLAN
Scale 1:4000 @ A1



LANDSCAPE PLAN - PART D
Scale 1:250 @ A1

0 5 10 15 20m

LEGEND

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North

Status
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Wee Waa High School

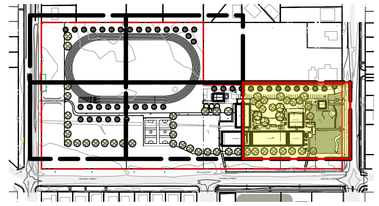
Off Kamilaroi Highway, Wee Waa NSW

BUILT

LANDSCAPE PLAN - PART D

SCALE: 1:250
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP06
Rev E



REFERENCE PLAN
Scale 1:4000 @ A1

LANDSCAPE PLAN - PART E
Scale 1:250 @ A1

0 5 10 15 20m

Note:
Install 5 nesting boxes into existing trees at locations to be advised by ecologist.

LEGEND

- Extent of work
- Site boundary
- Lot boundaries
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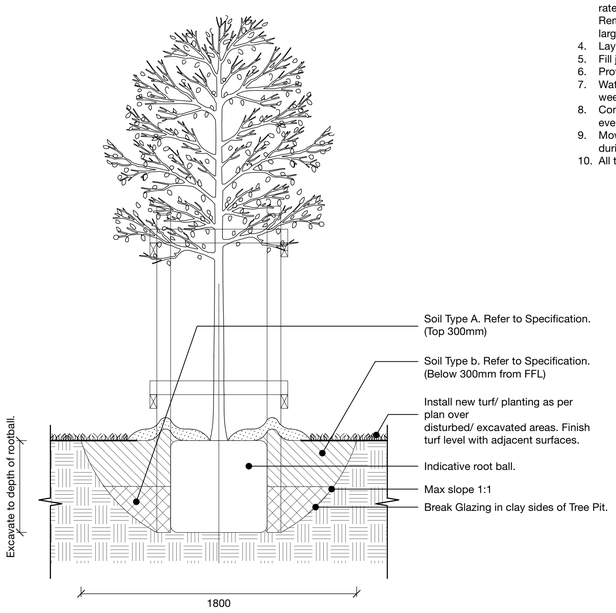
LANDSCAPE PLAN - PART E

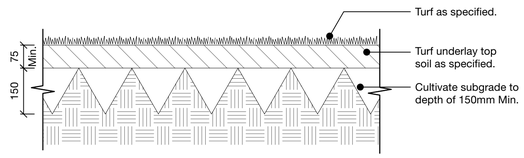
SCALE: 1:250
ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP07
Rev E

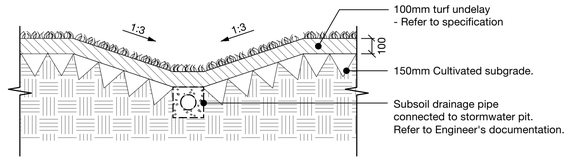


01 LP08 TYPICAL TREE IN MASS TURF PLANTING DETAIL
Scale: 1:20

NOTES:
1. Finish crossfall to turf shall be 1:80 min. Finish flush with adjoining surfaces.
2. Ameliorate site soil or import topsoil to provide a turf underlay that complies with AS4419.
3. Ameliorate clay subsoil with gypsum applied at the rate specified by the manufacturer. Remove contaminated areas, deleterious material such as large rocks greater than 50mm, rubbish and large twigs.
4. Lay turf parallel to contour, close butted and lightly tamp.
5. Fill joints with top dressing soil.
6. Provide subsoil drainage to address any poorly draining areas.
7. Water in and maintain consistent deep watering for 14 weeks minimum.
8. Consistently top dress depressions to provide an even surface.
9. Mow, top dress and control pests and disease consistently during the remainder of the planting establishment period.
10. All turf orders to be supplied free of plastic reinforcement mesh.



03 LP08 TYPICAL TURF PLANTING DETAIL
Scale: 1:10



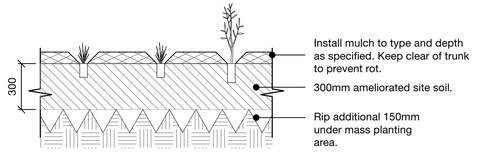
04 LP08 TYPICAL TURF SWALE DETAIL
Scale: 1:20

Planting Schedule

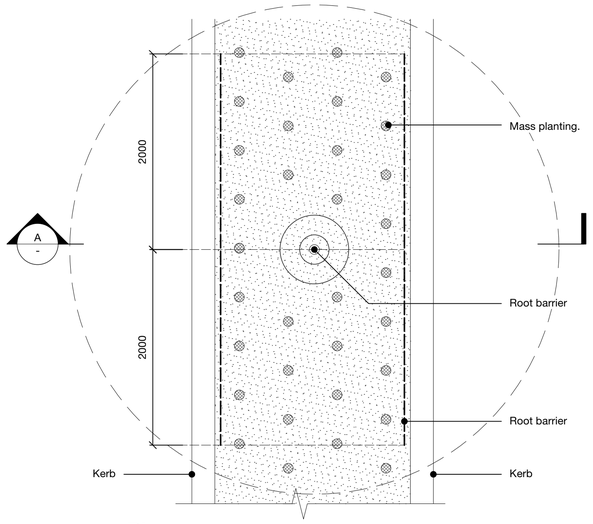
Code	Botanical Name	Common Name	Pot Size	Mature Height	Mature Width	Qty	Notes
Trees							
CAS cri	*Casuarina cristata*	Belah	45 litre	10 - 15m	3.5 - 6m	47	N
EUC mic	*Eucalyptus microtheca*	Coolabah	45 litre	15 - 25m	6 - 10m	50	N / LF
WAS rob	*Washingtonia robusta*	Mexican Fan Palm	45 litre	20 - 25m	2.0 - 3.5m	3	E
ZEL ser	*Zelkova serrata 'Wireless'*	Japanese Zelkova	45 litre	14m	12m	4	E
MP1 Mass Planting							
	Existing grassland						
MP2 Mass Planting							
STI sca	*Stipa scabra*	Rough Speargrass	Tubestock	0.3 - 0.45m	0.3 - 0.6m	796	4 per m²
STI ver	*Stipa verticillata*	Slender Bamboo Grass	Tubestock	1.5 - 2.0m	0.8 - 1.0m	796	4 per m²
MP3 Mass Planting							
BOL flu	*Bolboschoenus fluviatilis*	Stream Club-rush	Tubestock	0.75 - 0.9m	0.3 - 0.6m	64	4 per m²
CAR app	*Carex appressa*	Tall Sedge	Tubestock	0.8 - 1.0m	0.6 - 0.9m	64	4 per m²
ENT str	*Entolasia stricta*	Wiry Panic	Tubestock	0.75 - 0.90m	0.3 - 0.6m	64	4 per m²
JOY pal	*Joycea pallida*	Red Anther Wallaby Grass	Tubestock	0.9 - 1.5m	0.6 - 0.9m	64	4 per m²
JUN usi	*Juncus usitatus*	Common Rush	Tubestock	0.9 - 1.5m	0.6 - 0.9m	64	4 per m²
MP4 Mass Planting							
DIA jes	*Dianella caerulea 'Little Jess'*	Blue Flax-lily	Tubestock	0.45 - 0.6m	0.3 - 0.6m	84	4 per m²
LOM flu	*Lomandra fluviatilis 'Shara'*	River Lomandra	Tubestock	0.45 - 0.6m	0.3 - 0.6m	168	4 per m²
MYO par	*Myoporum parvifolium*	Boobialla	Tubestock	0.45 - 0.6m	0.9 - 1.2m	95	3 per m²
RHA spi	*Rhagodia spinescens*	Thorney Saltbush	200mm	1.0 - 1.5m	1.0 - 2.0m	3	0.5 per m²
RHA sno	*Rhaphiolepis 'Snow Maiden'*	Indian Hawthorn	200mm	0.60 - 0.75m	0.3 - 0.6m	3	0.5 per m²
MP5 Mass Planting							
CAR gla	*Carpobrotus glaucescens*	Pigface	Tubestock	0.0 - 0.3m	1.2 - 2.0m	16	4 per m²
SEN ser	*Senecio serpens*	Blue Chalk Sticks	Tubestock	0.1 - 0.2m	0.6 - 1.0m	16	4 per m²
DRA Mar	*Dracaena marginata*	Red edged dragon tree	200mm	3 - 5m	1.2 - 2.0m	16	4 per m²
AEO sch	*Aeonium arboreum 'Schwarzkopf'*	Aeonium Schwarzkopf	140mm	0.3-0.6m	0.6-0.9m	16	4 per m²
KAL thy	*Kalanchoe thyrsiflora 'flapjack'*	Kalanchoe flapjack	140mm	0.3-0.6m	0.6-0.9m	16	4 per m²

Note:
N - Native
E - Exotic
LF - Low flammable

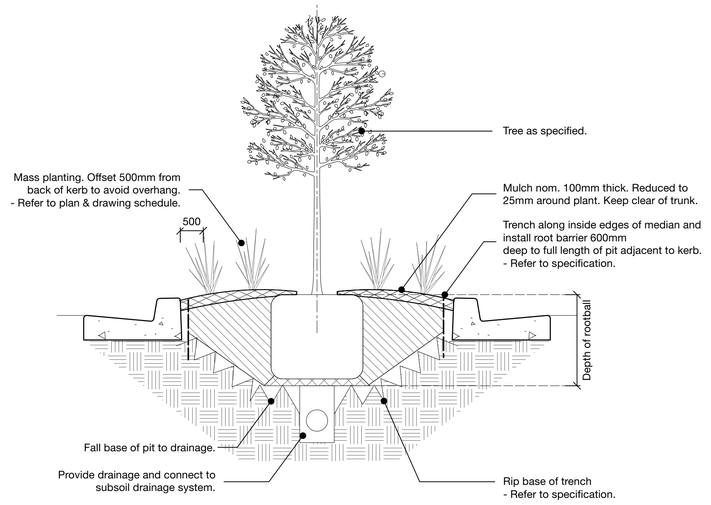
NOTE:
CONTRACTOR IS REQUIRED TO CHECK ALL NUMBERS ON DRAWINGS AND CONFIRM WITH SCHEDULE PRIOR TO ORDERING. NUMBERS ON DRAWINGS TO TAKE PRECEDENT ALONG WITH SQUARE METRE RATES. ALL CONTAINER SIZES SUBJECT TO COMMERCIAL AVAILABILITY AT TIME OF ORDERING.



05 LP08 TYPICAL MASS PLANTING DETAIL
Scale: 1:20



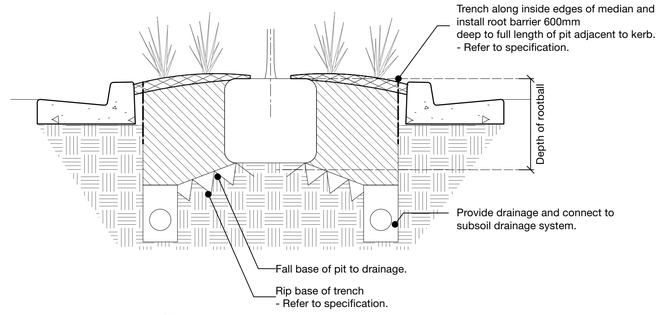
Plan
Scale 1:20



Section A
Scale 1:20

02 LP08 TREE IN MEDIAN PLANTING DETAIL
Scale: 1:20

NOTES:
- Comply with all relevant Australian Standards.
- Comply with RMS requirements and guidelines.
- Obtain DBYD drawings prior to starting work.
- Ground truth all possible conflicts with underground and overhead services and structures prior to commencement of works.
- Confirm locations of subsoil drainage system prior to starting work.
- Minimum tree installation size is 75 litres unless indicated otherwise on Conditions of Consent.
- Tree species substitution requires written consent from LMCC.



Section A
Scale 1:20

Alternative drainage layout

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2. VERIFY ALL DIMENSIONS ON SITE.
3. TO BE READ IN CONJUNCTION WITH THE SPECIFICATION.
4. READ IN CONJUNCTION WITH ALL ARCHITECTURAL, CIVIL, STRUCTURAL, HYDRAULIC, MECHANICAL AND ELECTRICAL ENGINEER'S DRAWINGS AND SPECIFICATIONS.
5. CONFIRM LOCATION OF ALL SERVICES ON SITE PRIOR TO EXCAVATION.
6. DRAWINGS TO BE PRINTED IN COLOUR ONLY

Architect:
SHAC

Engineer:

No.	Date	REVISION	By
A	4/3/2022	FOR DISCUSSION	CN
B	19/07/22	FOR APPROVAL	AS
C	4/10/2022	FOR APPROVAL	AG
D	19/10/2022	FOR APPROVAL	CN
E	7/11/22	FOR APPROVAL	CN

North

Status
FOR APPROVAL
Wee Waa High School

Off Kamilaroi Highway, Wee Waa NSW

BUILT

DETAILS

SCALE: AS SHOWN
ORIGINAL DRAWING AT A1.

Drawn By: CN/AG
Checked By: TB

Project No. **2114**
Drawing No. LP08
Rev E

SPECIFICATION

1.0 GENERAL

1.1 EXISTING SERVICES
Existing services on site include stormwater drainage, water, and associated power service conduits. Locations of all services should be established prior to excavation of planting holes and installation of trees. The drawings DO NOT indicate the extent of existing services. Existing services must be confirmed by the contractor prior to excavation. Do not excavate by machine within 1m of existing underground services without prior approval or identification of service location by the site superintendant.

1.2 PROTECTION OF EXISTING FEATURES
During installation protect all existing trees, shrubs and other specified vegetation, features and improvements, structures and utilities. Protect trees to be retained from damage from groundworks. Take necessary precautions, including the following:

Harmful Materials: Do not store or otherwise place bulk materials and harmful materials under or near trees. Do not place spoil from excavations against tree trunks, even for short periods. Prevent wind blown materials such as cement from harming trees and plants.
Damage: prevent damage to tree bark. Do not attach stays, guys and the like to trees.
Work under trees: Do not add or remove topsoil within the drip line, use hand methods such that root systems are preserved intact and undamaged. Open up excavations under tree canopies for as short a period as possible.
Roots: Where it is necessary to cut tree roots, use means such that the cutting does not unduly disturb the remaining root system.
Compacted Ground: Avoid compaction of the ground under trees.

1.3 GENERAL HOLD POINTS
During the pre-construction, construction and post construction phases a series of hold & witness points have been laid out to ensure compliance with the specification.

NOTE: Inspections are to be arranged with at least 10 working days notice before the inspection.

Hold Point	Completed	Notes:
Pre-ordering of plant stock in accordance with the specification	YES/NO	Inspection required by Landscape Architect.
Certification that trees comply with the Tree Supply Specification from supplying nursery.	YES/NO	Provide 2 weeks lead time. Supply certification to Landscape Architect.
Completion of subgrade preparation prior to spreading of any imported soil or ameliorated site soil (in accordance with AS4419-2018)	YES/NO	Delivery dockets, receipts must be provided. Inspection required by Landscape Architect.
Batch Certificates for all imported soil in accordance with AS4419 - 2018. Should site soil be utilised for planting purposes, soil testing must be conducted in accordance with AS4419 – 2018. A copy of the results must be provided to the superintendent, where amelioration of the soil is required, evidence of this application must be communicated and will form a hold point.	YES/NO	Test results to be supplied to Landscape Architect.
Where ameliorated stockpiled soil or site soil is required and utilised for planting purposes in accordance with AS4419-2018, evidence of associated amelioration measures must be provided	YES/NO	Test results, delivery dockets, receipts must be provided. Inspection required by Landscape Architect.
Evidence of certification of all associated imported topsoil for street tree planting in accordance with AS4419- 2018.	YES/NO	Delivery dockets, receipts must be provided to Landscape Architect.
Completion of nominated soil spreading, mulching, associated proprietary products and beginning of planting in accordance with the landscape specifications.	YES/NO	Inspection and sign off required by landscape architect.
Tree delivery prior to installation and certification that trees comply with AS2303- 2018 Tree Stock for Landscape Use.	YES/NO	Inspection and sign off requiredby landscape architect.
Set out tree pits with existing concrete footpath.	YES/NO	Notify Landscape Architect of any potential problems.
Excavation of tree pits with root barrier and sub-surface drainage installed in accordance with Detail Drawings.	YES/NO	Inspection and sign off required by landscape architect.
Commencement of tree planting.	YES/NO	Inspection and sign off required by landscape architect.
Completion of all landscape works in accordance with the Landscape Construction Specification and subject DA approval consent.	YES/NO	Inspection required by Landscape Architect at practical completion to issue Defects Report and Compliance Report/Practical Completion Certificate.
Manufacturer's warranty and maintenance information for all proprietary products.	YES/NO	Supply all warranties and information for proprietary products to Landscape Architect. To be provided within 1 month of Practical Completion.

2.0 MATERIALS

2.1 PLANT MATERIAL
Discrepancies within the planting schedule and the drawing should be referred to Moir Landscape Architecture for clarification. Make no substitutions unless approved. Substitutions shall not be approved unless the contractor complies with this specification. Contractor to verify quantities against plant rates and quantities on drawings prior to comencement of work.

Contractor is required to check all numbers on drawings and confirm with schedule prior to ordering. Numbers on drawings to take precedent along with square metre rates.

Plant material: Plants shall be of the species, sizes and quantities as shown on the drawing. Plants shall be vigorous, well established, of good form, not soft or forced, free from disease and insect pests. Plants shall have large healthy root systems.

Trees are to be supplied in accordance with 'AS2303:2018 Tree Stock for landscape Use'.

2.2 SOILS
Top 300mm soil to be equal to AS4419-2018 'Organic Soil' with texture to AS4419-2018 Table K1- Sandy Loam.
Below 300mm do not incorporate organic matter. Below 300mm soil to be equal to AS4419-2018 'Soil blend' with max 5% organic matter content. Texture to AS4419-2018 Table K1- Sandy Loam.

2.2.1 DEFINITIONS
Site topsoil: Soil excavated from the site which has the following characteristics:
Contains minimum 2% organic matter, supports plant life, and is free from unwanted matter
Unwanted matter (in topsoil): Stones over 25mm diameter, clay lumps, weeds and tree roots, sticks and rubbish and material toxic to plants.

Topsoil:
Where available use ameliorated site topsoil. Where unavailable, import topsoil from an off-site source approved by the Superintendent, equivalent to specification above.

Source Landscape Soil:
Soil to be used for these landscape works shall be: Ameliorated Site Topsoil or Imported General Purpose Soil to the areas and locations as specified. Soil for the works shall be free from noxious weeds etc. Soil shall be assumed to be placed to all revegetated areas and backfill to all plantings. Unless otherwise directed by site superintendent, the landscape contractor is responsible for the removal and or disposal of all spoil or excess soil excavated in the process of implementing the landscape works.

2.2.2 SOIL TESTS
Test soil and ameliorate in accordance with soil test results. Where unavailable for reuse import suitable topsoil to support native plant growth.

Sampling: As recommended in AS 4419 (2018) Appendix A (when on site soil is to be used).
Sampling technique: Follow sampling techniques and guidelines according to AS 4419 (2018).
Where discrepancies arise, refer to the Superintendent for clarification prior to proceeding with any works.

The Contractor shall arrange for the following soil tests to be carried out:
- One test of any proposed imported topsoil; and
- Where site topsoil is to be used, one site topsoil test by an approved soil testing laboratory as specified, from topsoil stockpiles.

Type of Soil Test Required: The Contractor shall specify that a 'major soil test' is required, for the purpose of analysing the characteristics and recommendations for use as a landscaping topsoil for native species.

Results: The results of all soil tests should be submitted to the superintendent prior to work commencing.

Lead time: Allow a minimum of 10 full working days for completion of soil testing, and check with laboratory to ensure testing will not delay landscaping works. Supply soil tests to site superintendent once available and according to the hold and witness point schedule.

Soil test results are only valid if soil is stockpiled for less than 12 months. If soil has been stockpiled for a longer period, new tests need to be done as described in AS 4419 (2018)

2.2.3 SUBSOIL
Excavated Planting Beds: Where defined planting beds are indicated on the landscape drawings with specific species scheduled and no turfing shown, treat as an excavated landscape planting bed

Excavation technique: Excavate to backfill with ameliorated site soil or imported general purpose soil to bring to levels shown on the drawings to allow for mulching and placement of imported soil. Rip and cultivate to depths as shown on the drawings.

2.2.4 SOIL TEXTURES
Use soils described by the following terms (or their equivalents) which comply generally with the texture classifications and typical uses of AS 4419 – (2018) Table K1 Medium textured - Sandy loam

2.2.5 SOIL LEVELS
Finished soil levels shall allow turf or mulch to be finished to top of kerb, gravel pavement, existing levels or as otherwise shown on drawings.

Consolidation
Tamp lightly and uniformly in 150 mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:
- Finished to design levels.
- Smooth and free from stones or lumps of soil.
- Graded to drain freely, without ponding, to catchment points.
- Graded evenly into adjoining ground surfaces.
- Ready for planting.

Backfill Soil: Backfill holes using ameliorated site topsoil. Stock pile site soil onsite. Confirm stockpiles of site soil with superintendent prior to placement of materials. Site soil to be free from debris and weeds.

2.2.6 ADDITIVES
Additive types and rates: The Contractor shall incorporate additives to the subsoil or topsoil at rates recommended by the soil test results. This may include but not limited to PH neutral compost, lime, gypsum, urea, potash.

Application: Where subsoil additives are recommended by the soil tests apply additives after cultivation of the subsoil.

Where site topsoil is to be stockpiled for reuse, incorporate additives as recommended in soil tests by cultivating through the topsoil. For excavated garden beds or backfill to planting holes, incorporate additives into stockpiled topsoil prior to placement. In all situations, ensure additives are thoroughly mixed through topsoil.

2.2.7 FERTILISERS AND SOIL CONDITIONERS
Fertiliser: Apply fertilisers according to the manufacturer's recommendations and recommended rates. Native plant slow release fertiliser applied at manufacturers recommendation - N:P:K 17:1.6:8.7

2.3 MULCH
The use of mulch shall be limited to those areas which are specified on the plans, highly disturbed areas, and in locations where there is low erosion potential. Composted site mulch or an approved equivalent product (approved by site superintendant) spread to a depth of 75mm, is to be used. Where there is risk of mobilisation of surface materials due to weed management and/or planting works coir logs shall be used. For planting on slopes greater than 1:3 - Refer to relevant details. Depending on site conditions, coir logs may be necessary in combination with biodegradable mulch mat. All mulch to conform to AS4419-2018 with certification supplied to the Landscape Architect to verify it's compliance.

Where composted site mulch is to be used, to comply with Table 3.1 (A), 3.1(B) and 3.1(C) "Composted Product", compliance to be demonstrated according to Appendix Q of AS4454-2012 and results supplied to the Landscape Architect.

Note: this does not apply to playground softfall mulch.

2.4 TURF
Supplier: Obtain turf from a specialist grower of cultivated turf. Provide turf of even thickness, free from weeds and other foreign matter. Turfing to make good any additional areas disturbed during construction works. In areas where this is not possible due to vegetation management works or other, contractor to consult with Landscape Architect.

TURF TYPE SHALL BE: Kikuyu
Selected turf must be 25 mm thick of dense, well rooted grass. Turf must be verdant and fresh when delivered and be free of weeds, soil pests and disease and must be accompanied with a "Certificate of Authenticity" from the supplier. The turf must be mown and freshly cut in long lengths, of uniform width not less than 300 mm, and in sound unbroken condition.

2.5 TIMBER GARDEN EDGE
Edging to be used as a separation between gardens (including tree planting) and lawns.
Timber edging shall be provided at the interface of gravel, turf, mass planting and other soft landscaping areas.
Use 50 x 100 mm H4 treated pine edging with 600 x 50 x 50mm stakes (with 2 galvanised nails per fixing) finished 25 mm below top of edging.
Refer to Timber Garden Edge detail.

2.6 ROOT BARRIER
Material: Root barriers shall be manufactured from a 100% recycled HDPE. with a minimum barrier thickness of 1mm.
Depth: As shown on approved drawings. Refer to Details.
Installation: Install in accordance with approved project plans and manufacturer's specifications.
Overlap and the seal joins in accordance with manufacturer's specification.
Supplier: Arborgreen or equivalent

3.0 CRITERIA FOR TREE STOCK ASSESSMENT

3.1 GENERALLY
Tree stock to conform to AS2303-2018
Trees will be assessed against AS2303-2018 and rejected if not in accordance with the specification.

4.0 EXECUTION

4.1 EXCAVATION OF PLANTING HOLES
Locations for plants and/or outlines of areas to be planted are to be staked out at the site. Locate and mark all subsurface utility lines. Approval of the stakeout by the supervisor is required before excavation begins. Tree pits are to be excavated to the depth and widths indicated on the drawings. If the planting area under any tree is initially dug too deep, the soil added to bring it up to the correct level should be thoroughly tamped. The bottom of the planting hole shall slope parallel to the proposed grades or toward any subsurface drain lines within the planting bed.

Maintain all required angles of repose of the adjacent materials as shown on the drawings. Do not excavate compacted subgrades of adjacent pavement or structures.

Subgrade soils shall be separated from the topsoil, removed from the area, and not used as backfill in any planted or lawn area. Excavations shall not be left uncovered or unprotected. For trees and shrubs planted in individual holes in areas of good soil that is to remain in place and/or to receive amendment in the top 150mm layer, excavate the hole to the depth of the root ball and to widths shown on the drawing. (Slope the sides of the excavation at a 45 degree angle up and away from the bottom of the excavation.)

Preparation of subgrades to be inspected prior to the installation or modification of topsoil or planting mix. Till the subsoil into the bottom layer of topsoil or planting mix. Loosen the soil of the subgrade to a depth of 50 to 75 mm with a rototiller or other suitable device.

Detrimental soil conditions: The supervisor is to be notified, in writing, of soil conditions encountered, including poor drainage, that the contractor considers detrimental to the growth of plant material. When detrimental conditions are uncovered, planting shall be discontinued until instructions to resolve the conditions are received.

Obstructions: If rock, underground construction work, utilities, tree roots, or other obstructions are encountered in the excavation of planting areas, alternate locations for any planting shall be determined by the landscape architect.

4.2 PLANTING OPERATIONS
Before planting begins thoroughly water the plants and planting areas. Water plants again immediately after planting.

Subsurface drainage etc
Install subsurface drains as shown on the details and connect to Stormwater. All tree planting holes and mass planting areas shall have subsurface drainage.

Trees
Plants shall be set on flat-tamped or unexcavated pads at the same relationship to finished grade as they were to the ground from which they were dug, unless otherwise noted on the drawings. Plants must be set plumb and braced in position until topsoil or planting mix has been placed and tamped around the base of the root ball. Improper tamping of the soil around the root ball may result in the tree settling or leaning. Plants shall be set so that they will be at the same depth and so that the root ball does not shift or move laterally one year later.

Determine the elevation of the root flare and ensure that it is planted at grade. This may require that the tree be set higher than the grade in the nursery. If the root flare is less than 50mm below the soil level of the root ball, plant the tree at the appropriate level above the grade to set the flare even with the grade. If the flare is more than 50mm at the centre of the root ball the tree shall be rejected.

Lift plants only from the bottom of the root balls or with belts or lifting harnesses of sufficient width not to damage the root balls. Do not lift trees by their trunk or use the trunk as a lever in positioning or moving the tree in the planting area.

Remove plastic, paper, or fibre pots from containerised plant material. Score the side of the root ball with a sharp knife and tease out roots. Immediately after removing the container, install the plant such that the roots do not dry out. Pack planting mix around the exposed roots while planting. Completely remove any waterproof or water-repellant strings or wrappings from the root ball and trunk before backfilling.

Soils and mulch
Place soil mixes, tamping lightly to reduce settlement. Ensure that the backfill immediately around the base of the root ball is tamped with foot pressure sufficient to prevent the root ball from shifting or leaning, in layers of 150mm deep.

Thoroughly water all plants immediately after planting. Apply water by hose directly to the root ball and the adjacent soil. Remove all tags, labels, strings, etc. from all plants. Following installation of stakes and ties according to the detail drawings, remove nursery/ formative stakes and ties from trees. Remove any excess soil, debris, and planting material from the job site at the end of each workday.

Fine Grading
Provide smooth transitions between slopes of different gradients and direction. Modify the grade so that the finish grade is flush with all paving surfaces or as directed by the drawings. Fill all dips and remove any bumps in the overall plane of the slope.

Staking and Guying
Stake or guy a tree as shown on the details.

Pruning
Plants shall not be heavily pruned at the time of planting. Pruning is required at planting time to correct defects in the tree structure, including removal of injured branches, double leaders, waterspouts, suckers, and interfering branches. Healthy lower branches and interior small twigs should not be removed except as necessary to clear paths and roads. In no case should more than one-quarter of the branching structure be removed. Retain the normal or natural shape of the plant. All pruning shall be completed using clean, sharp tools. All cuts shall be clean and smooth, with the bark intact with no rough edges or tears.

Pruning of trees to comply with AS4373-2007 with emphasis on deadwooding, formative pruning and crown lifting to comply with AS2303-2018

Mulching
All trees are to be mulched to the depths shown on the drawing. Mulch must not be placed within 8 cm of the trunks of trees. Spread 75mm layer mulch to all mass planting beds and individual plantings in turf. Finish to the required levels. Keep mulch away from the plant stems. No mulch to creek banks.

Turf Underlay: Turf underlay used must be topsoil material, but may be general purpose topsoil in accordance with AS4419-2018.
The soil mix must not contain any of the following:
- Materials toxic to humans and plant health.
- Plant roots of diameter greater than 12 mm.
- Clay lumps.
- Stones greater than 10 mm size.

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ORIGINAL DRAWING AT A1.
Drawn By: CN/AG
Checked By: TB

Project No. 2114
Drawing No. LP09
Rev E