

# PROPOSED CHILD CARE CENTRE DEVELOPMENT

## 8 CHARLTON AVENUE TURRAMURRA, NSW 2074

### LANDSCAPE CONCEPT DESIGN

#### DRAWING LIST -

SHEET:	TITLE:
G721_LP_00	COVER SHEET
G721_LP_01	COUNCIL MAPPING & CONTEXT
G721_LP_02	TREE RETENTION & REMOVAL PLAN
G721_LP_03	LANDSCAPE CONCEPT PLAN - LOWER GROUND FLOOR
G721_LP_04	LANDSCAPE CONCEPT PLAN - GROUND FLOOR
G721_LP_05	LANDSCAPE CONCEPT PLAN - LEVEL 01
G721_LP_06	LANDSCAPE PLANTING PLAN - LOWER GROUND FLOOR
G721_LP_07	LANDSCAPE PLANTING PLAN - GROUND FLOOR
G721_LP_08	LANDSCAPE PLANTING PLAN - LEVEL 01
G721_LP_09	FENCING ARRANGEMENT PLAN
G721_LP_10	LANDSCAPE CHARACTER IMAGERY
G721_LP_11	PLANTING IMAGERY
G721_LP_12	NOTES & PRELIMINARY SPECIFICATION
G721_LP_13	CONSTRUCTION DETAILS

### LANDSCAPE DESIGN STATEMENT

The intent of the landscape design is to create functional and highly robust landscape that contributes positively to the local landscape character, provides a high level of amenity and allows children to safely explore and experience the natural environment. The landscape design also aims to deliver consistent planning outcomes and design quality for centre-based child care facilities in accordance with the NSW Child Care Planning Guideline 2021 and the Ku-ring-gai Council *DCP Part 10 - Child Care Centres*.

Minimum requirements for unencumbered outdoor play space have been achieved with the design tailored to provide a variety of experiences that facilitate the development of cognitive and physical skills, provide opportunities for social interaction and appreciation of the natural environment. In addition, there has been a focus to enhance outdoor learning, socialisation and recreation by positioning outdoor furniture and play equipment in configurations that facilitate interaction.

Design details, finishes and materials will be complimentary to the architectural style to provide visual consistency throughout the development whilst being low-maintenance and hard wearing to reflect the intended use. The softscape palette has been selected in response to the climatic conditions of the local area with the planting hierarchy reflecting Crime Prevention through Environmental Design (CPTED) principles. A balance of sunlight and shade have been provided to play areas to ensure the health and wellbeing of children and staff with a combination of built and natural shade elements included throughout the play spaces in key locations.

Species have been selected based on their reliability and low maintenance characteristics. A focus has been given to the inclusion of locally endemic species where possible to compliment the landscape character of the area whilst also contribute to the local biodiversity. Where necessary, accent and exotic species have been utilised in key locations to achieve the desired planting effects, amenity and visual interest.

Landscape buffers and screen planting have been implemented to the boundary interfaces with adjoining allotments where possible and to provide a high level of visual and acoustic privacy, prevent overlooking as well as soften the built form to reduce any visual impact and contribute to the public amenity.

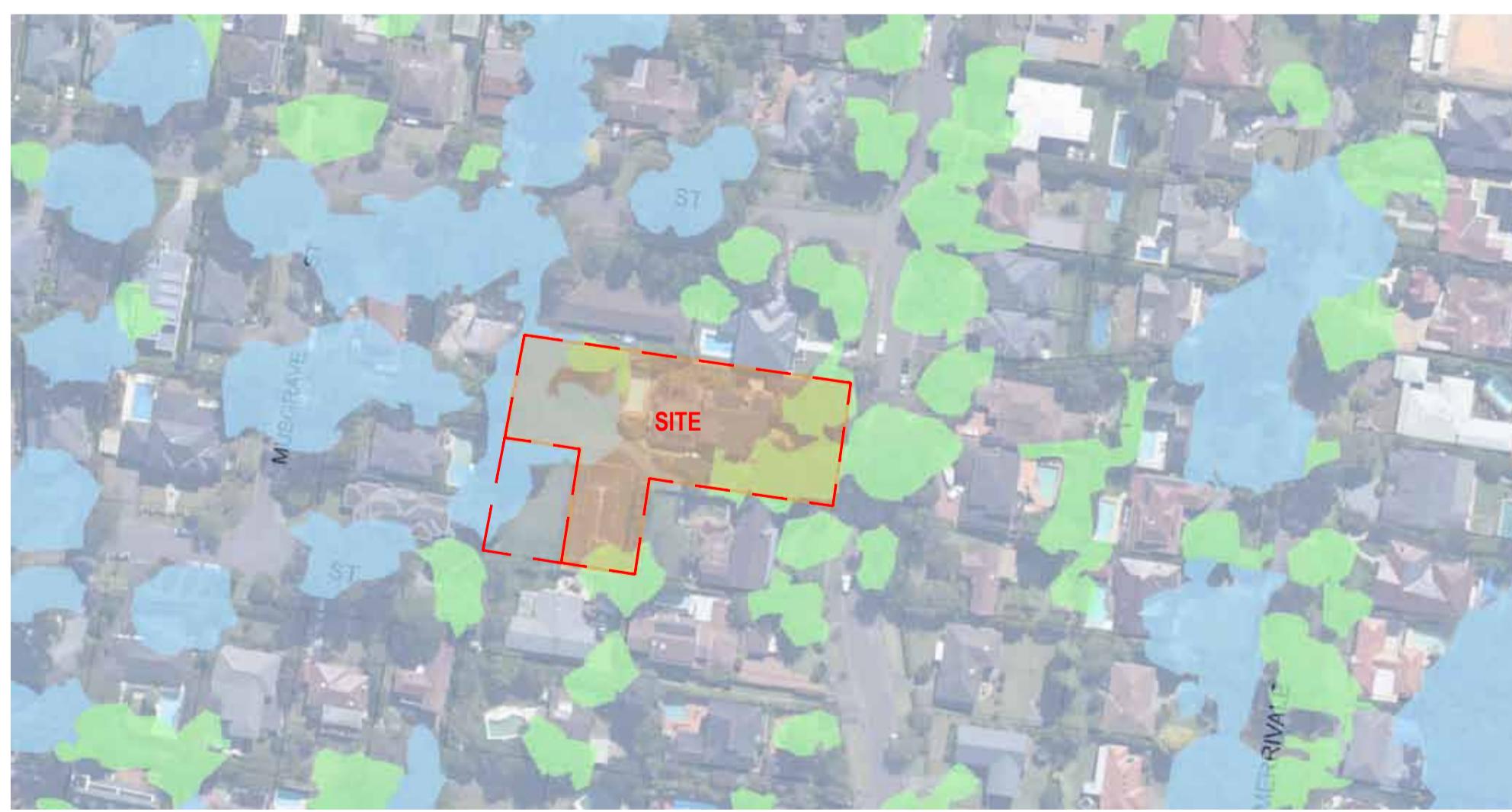




01 BIO-DIVERSITY MAPPING: KU-RING-GAI COUNCIL PLAN



02 GREEN WEB MAPPING: KU-RING-GAI COUNCIL PLAN



03 VEGETATION MAPPING: KU-RING-GAI COUNCIL PLAN

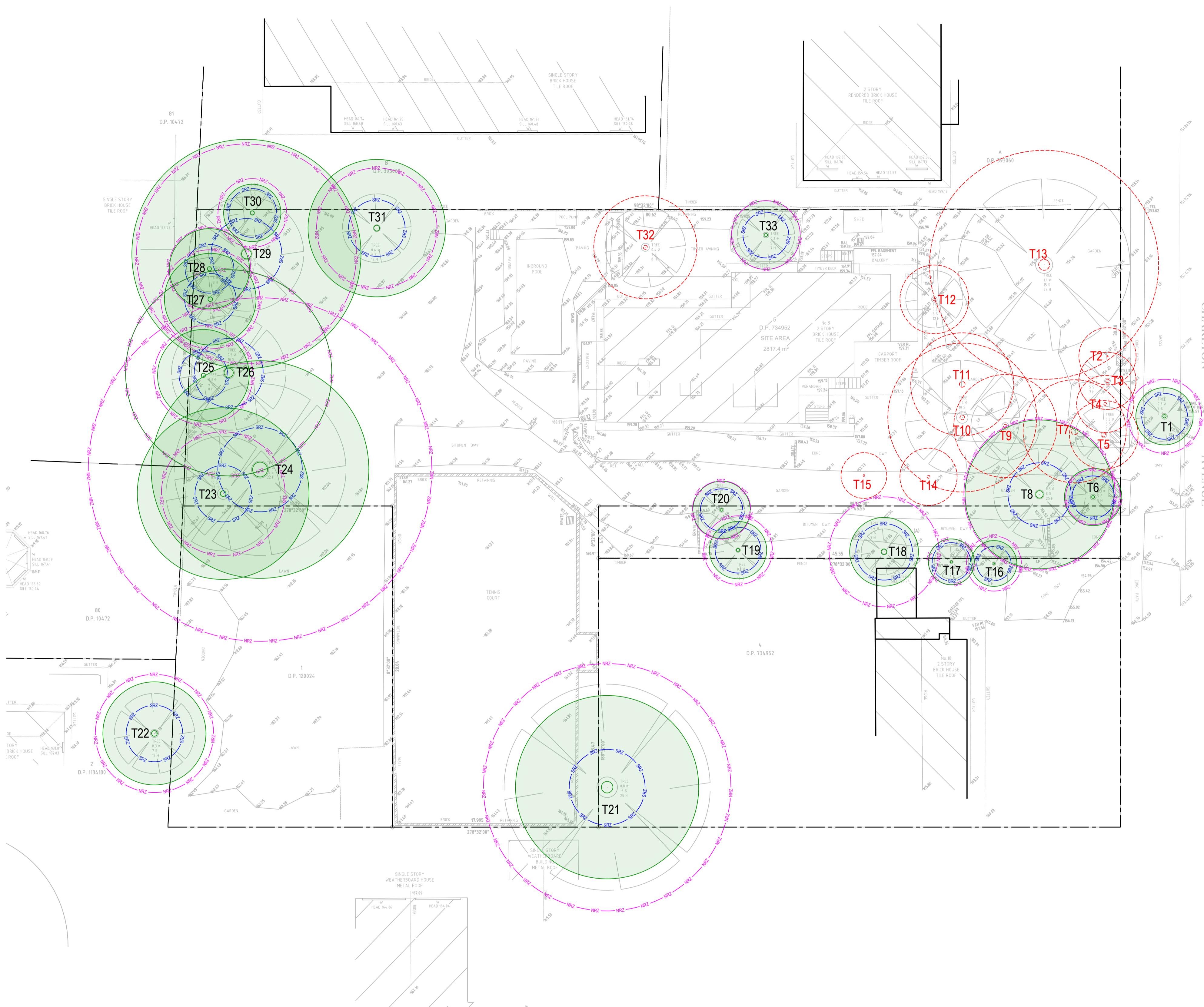


03 LOCAL CONTEXT AERIAL IMAGERY

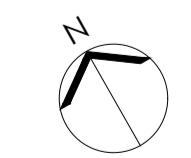
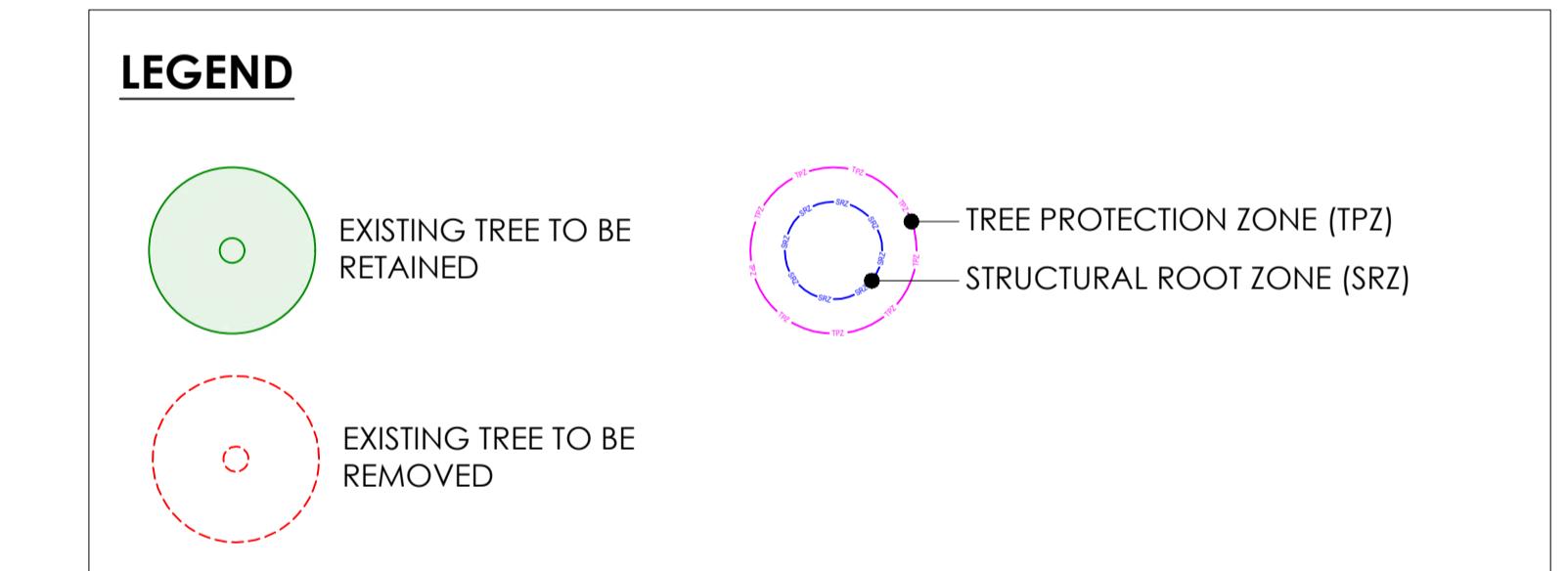


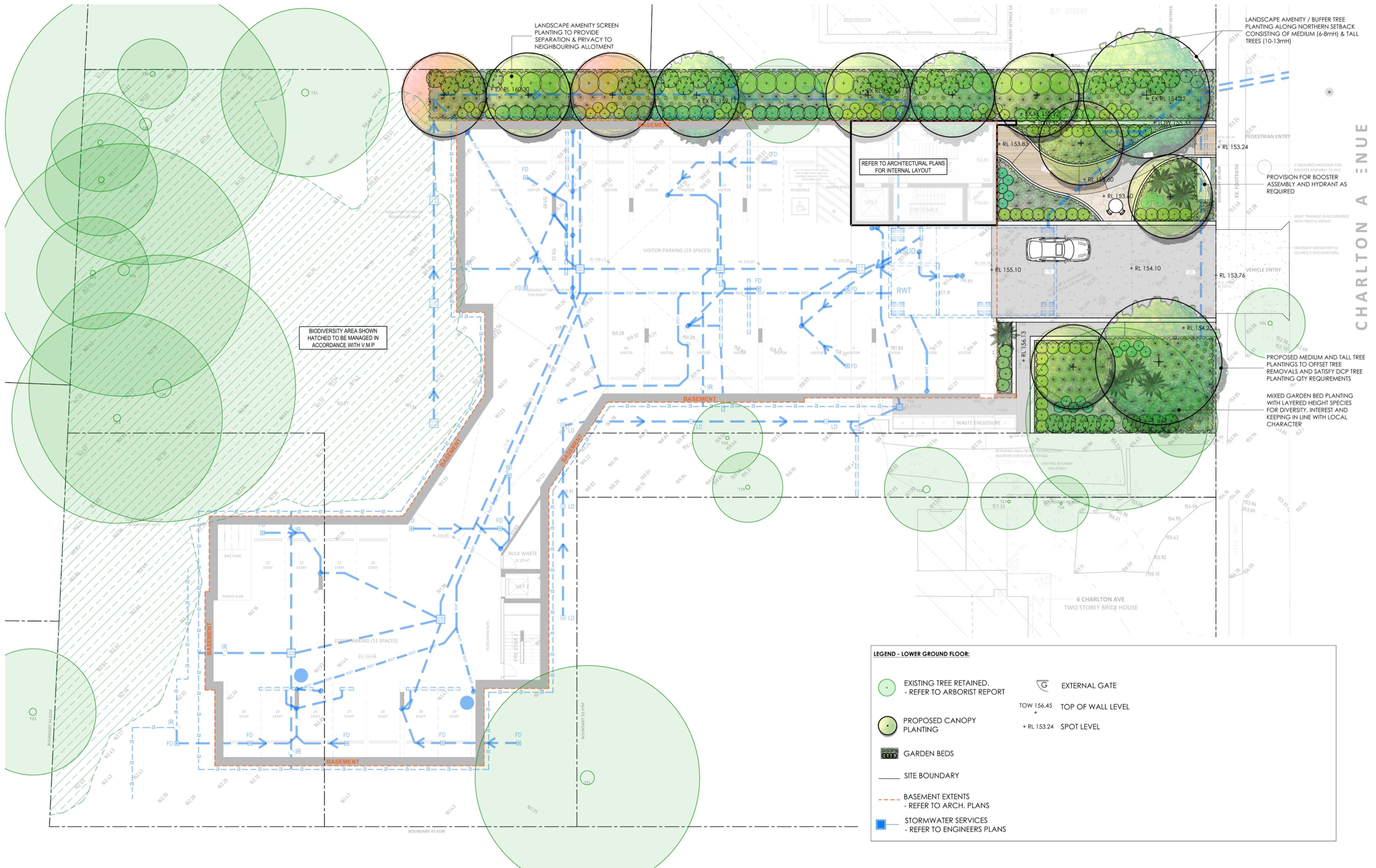
04 SITE CONTEXT AERIAL IMAGERY

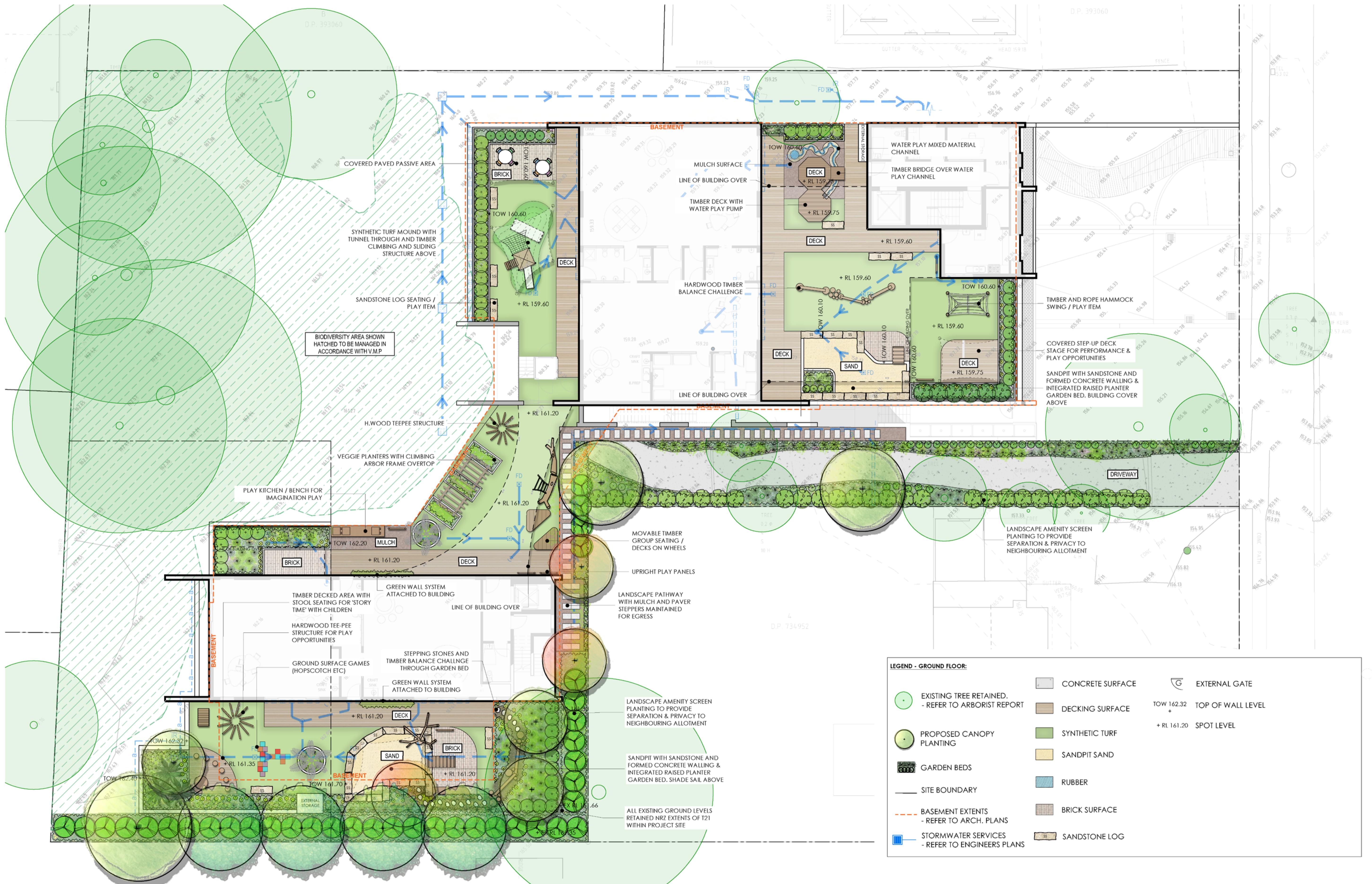
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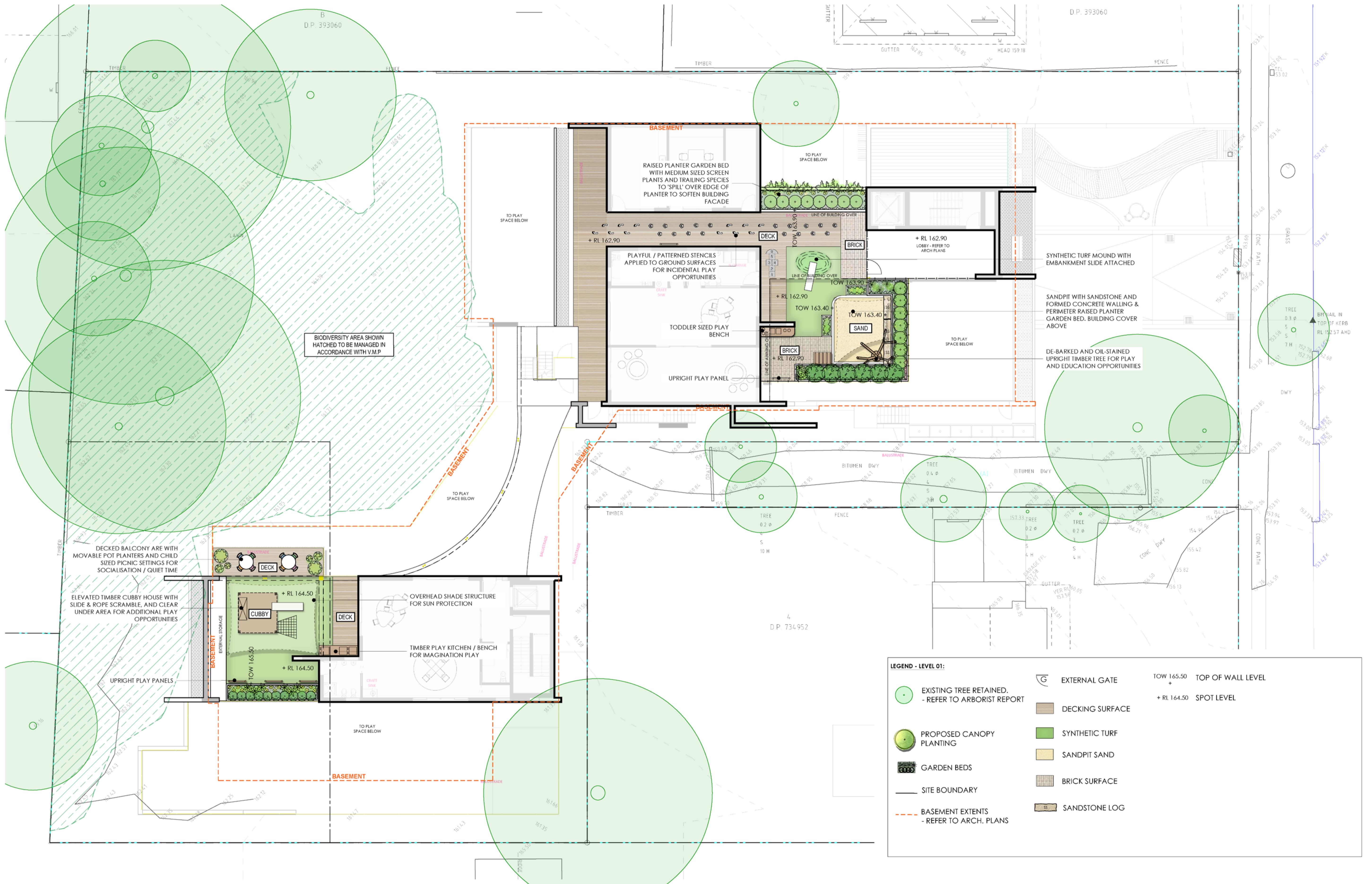


EXISTING TREE SCHEDULE							
Tree No.	Genus and Species	Common Name	Height	Crown Spread	TPZ Radius (m)	SRZ Radius (m)	Retain / Remove
1	Callistemon viminalis	Weeping Bottlebrush	6	5	3.2300	2.0000	Retain
2	Rigiera amoena	Rondeletia	5	5	2.0000	1.5000	Remove
3	Camellia sasanqua	Camellia	6	5	2.7500	2.0000	Remove
4	Camellia sasanqua	Camellia	6	5	2.7500	1.8500	Remove
5	Acer palmatum	Japanese Maple	7	6	3.4500	2.1300	Remove
6	Acer palmatum	Japanese Maple	6	5	2.4000	1.8500	Retain
7	Taxodium distichum	Swamp Cypress	20	9	6.0000	2.6700	Remove
8	Araucaria cunninghamii	Hoop Pine	20	13	6.6000	2.7600	Retain
9	Fraxinus sp.	Flowering Ash	9	9	3.3400	2.0000	Remove
10	Fraxinus sp.	Flowering Ash	16	13	4.2000	2.2500	Remove
11	Cupressus macrocarpa	Monterey Cypress	12	9	4.5300	2.4700	Remove
12	Cupressus sp.	Cypress	13	6	2.4000	1.8500	Remove
13	Liquidambar styraciflua	Sweetgum	18	20	10.5300	3.2400	Remove
14	Malus sp.	Crab Apple Cultivar	4	5	2.4000	1.8500	Remove
15	Olea europaea	European Olive	5	4	2.0000	1.5000	Remove
16	Callistemon viminalis	Weeping Bottlebrush	5	4	2.4000	1.5000	Retain
17	Camellia japonica	Camellia	5	4	2.0000	1.6800	Retain
18	X Cupressocyparis leylandii	Leyland Cypress	9	6	4.8000	2.4700	Retain
19	Banksia integrifolia	Coast Banksia	10	5	3.0000	2.0000	Retain
20	Hymenosporum flavum	Native Frangipani	9	5	2.5500	1.8500	Retain
21	Eucalyptus scoparia	Wallangarra White Gum	18	16	10.8000	3.3100	Retain
22	Jacaranda mimosifolia	Jacaranda	12	9	5.1600	2.4700	Retain
23	Corymbia citriodora	Lemon-scented Gum	20	15	5.4000	2.4700	Retain
24	Harpephyllum caffrum	Kaffir Plum	16	19	15.0000	3.6900	Retain
25	Jacaranda mimosifolia	Jacaranda	10	8	4.3300	2.1300	Retain
26	Eucalyptus microcorys	Tallowood	20	18	9.0000	3.0100	Retain
27	Unknown species	-	11	8	4.3300	2.2500	Retain
28	Brachychiton acerifolius	Illawarra Flame Tree	12	7	3.6000	2.1300	Retain
29	Eucalyptus saligna	Sydney Blue Gum	23	20	9.6000	3.0900	Retain
30	Pittosporum undulatum	Sweet Pittosporum	6	5	3.0000	2.1300	Retain
31	Lophostemon confertus	Brush Box	15	12	5.2600	2.4700	Retain
32	Fraxinus excelsior 'Aurea'	Golden Ash	7	9	3.6000	2.1300	Remove
33	Magnolia x soulangiana	Saucer Magnolia	7	6	3.0000	2.0000	Retain

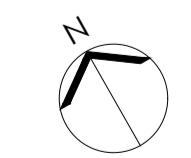
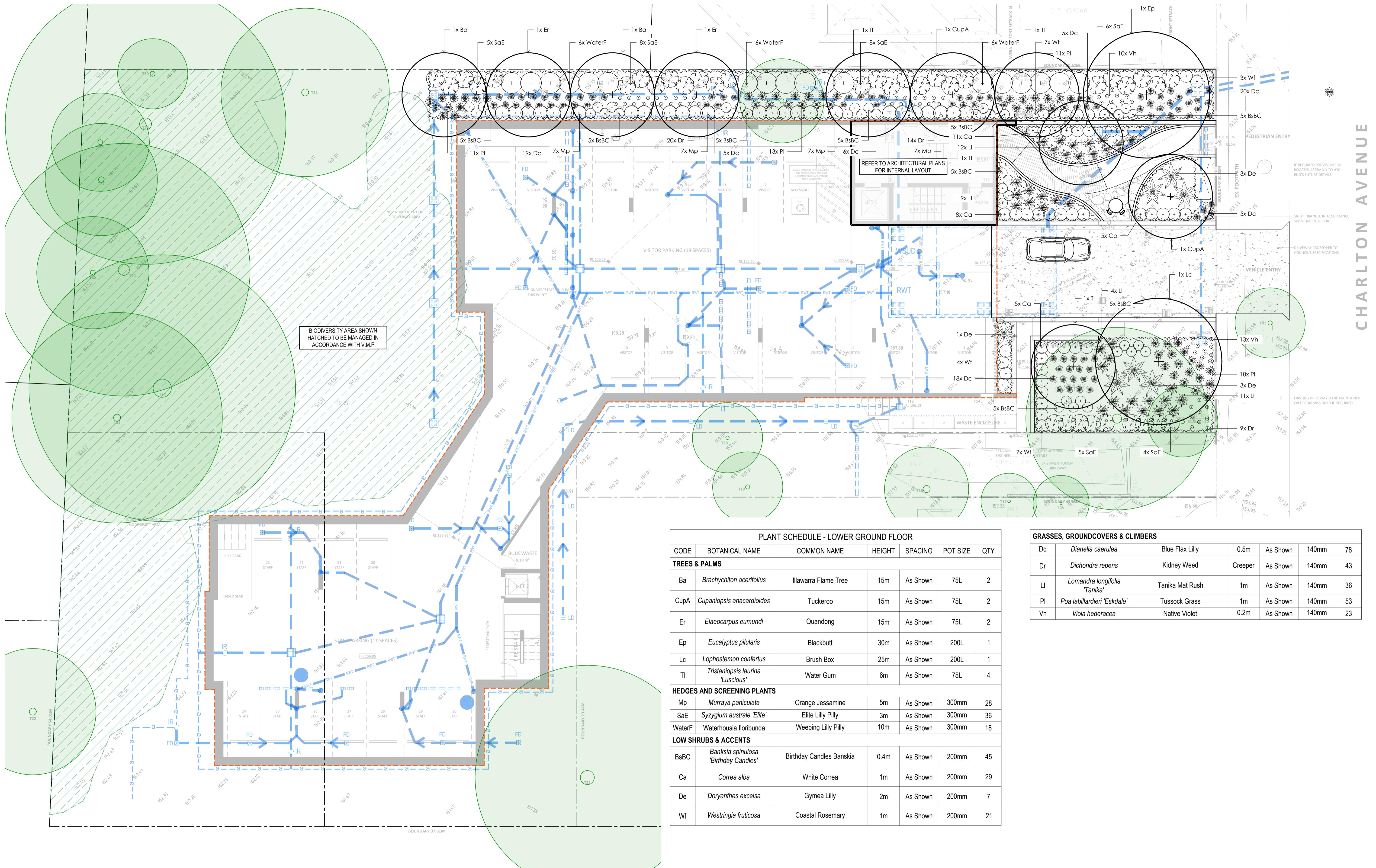


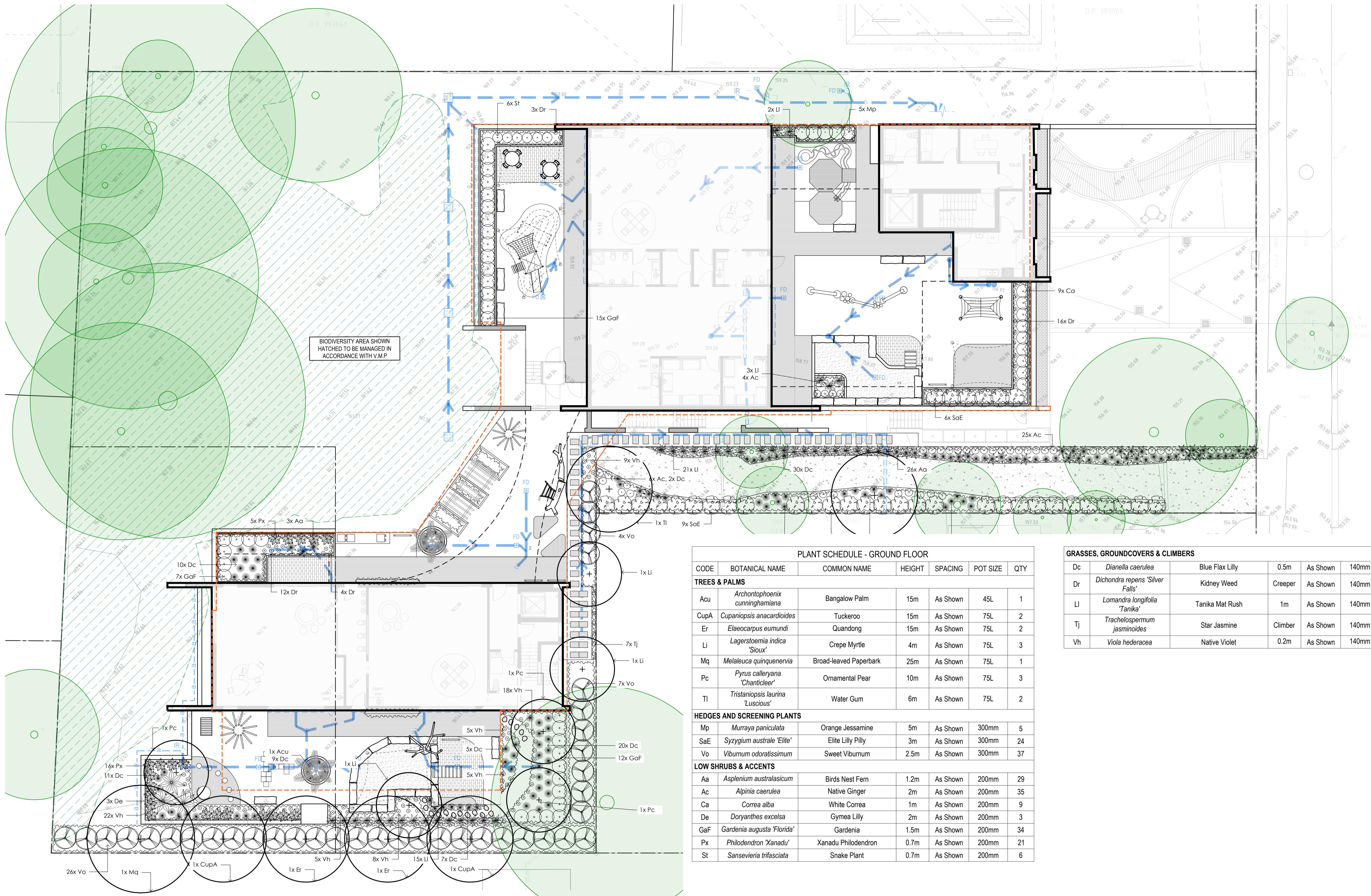


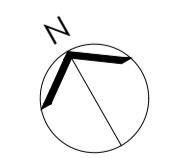
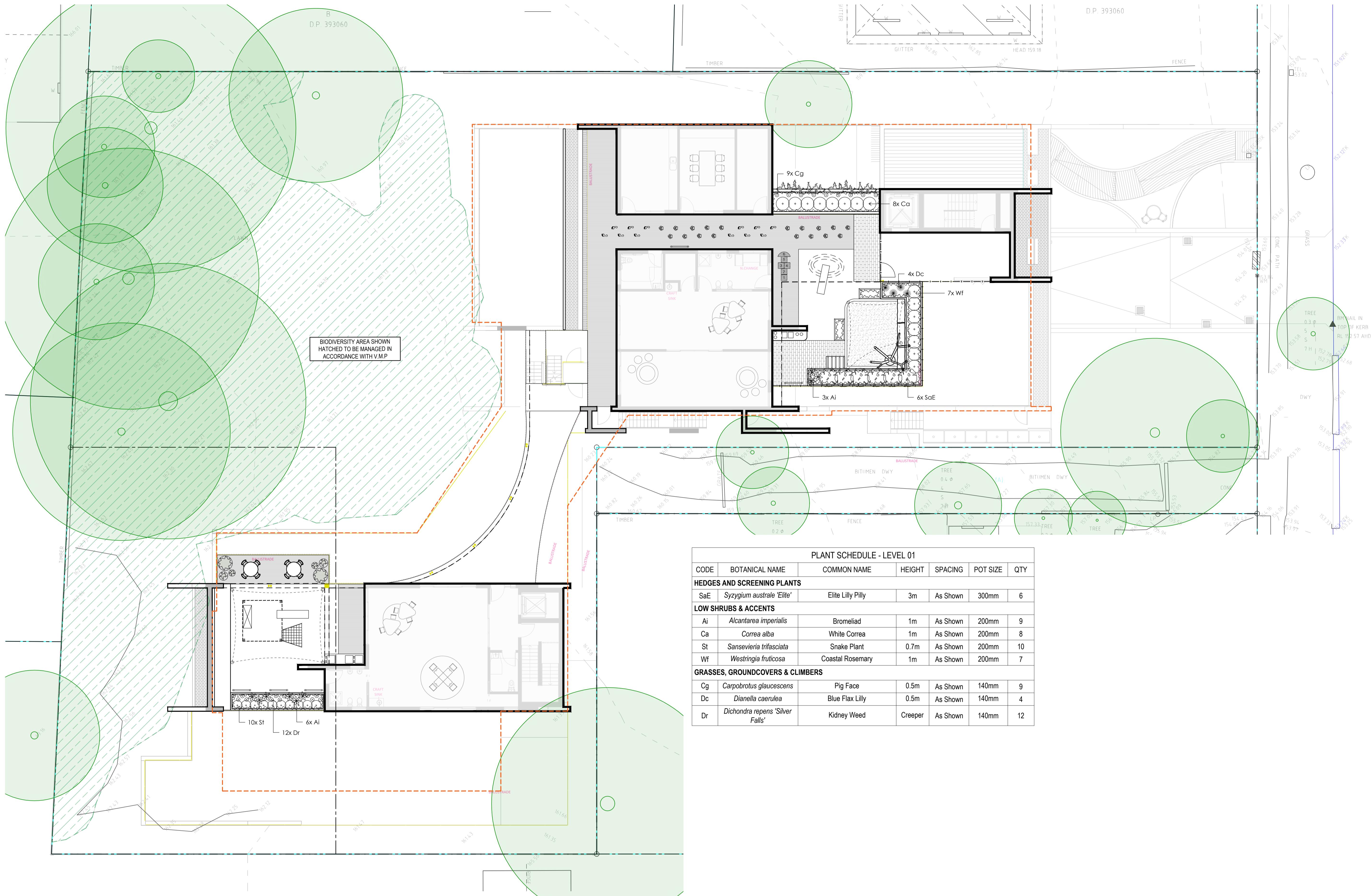


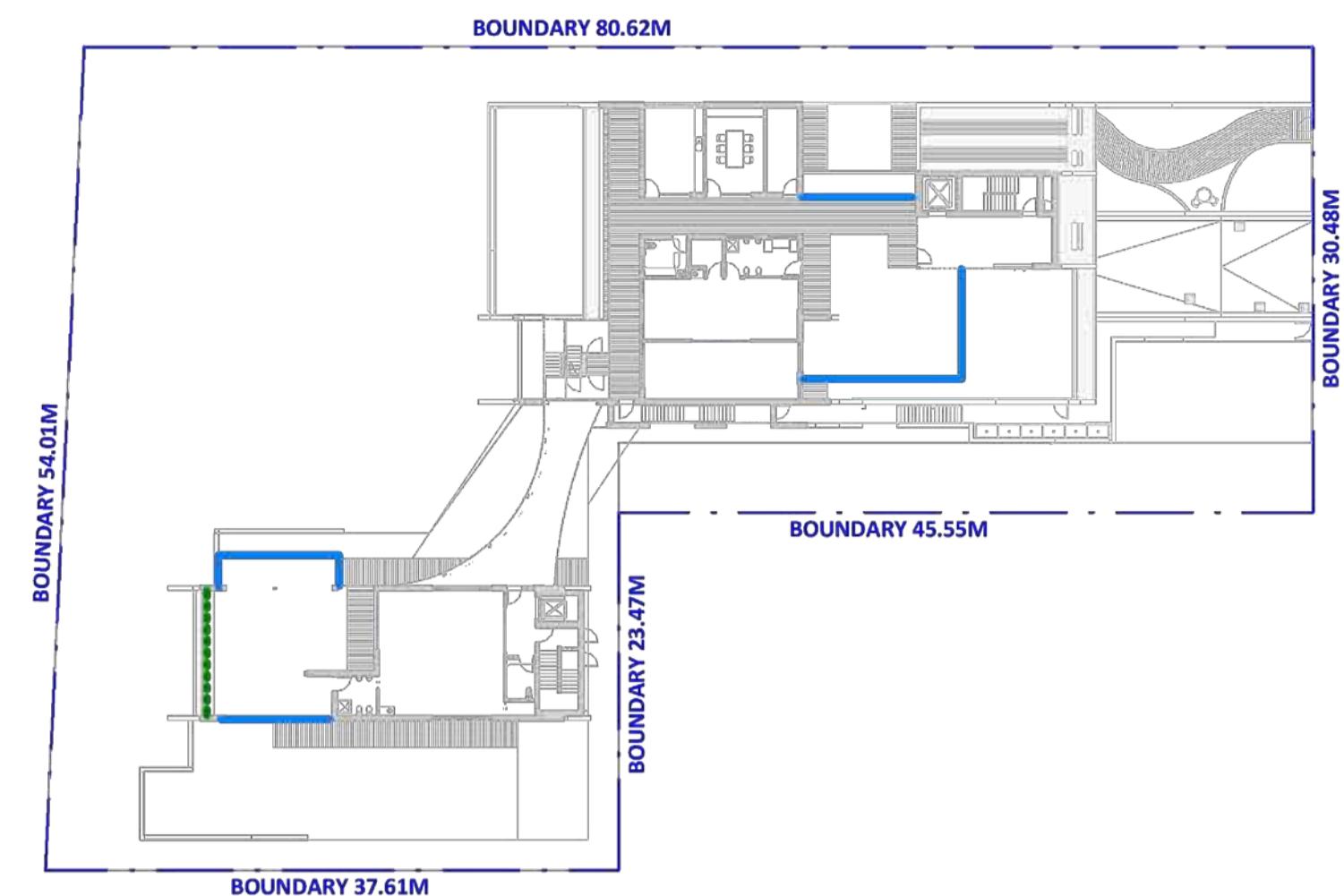


# CHARLTON AVENUE









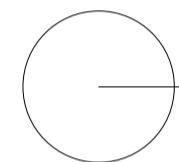
CHARLTON AVENUE

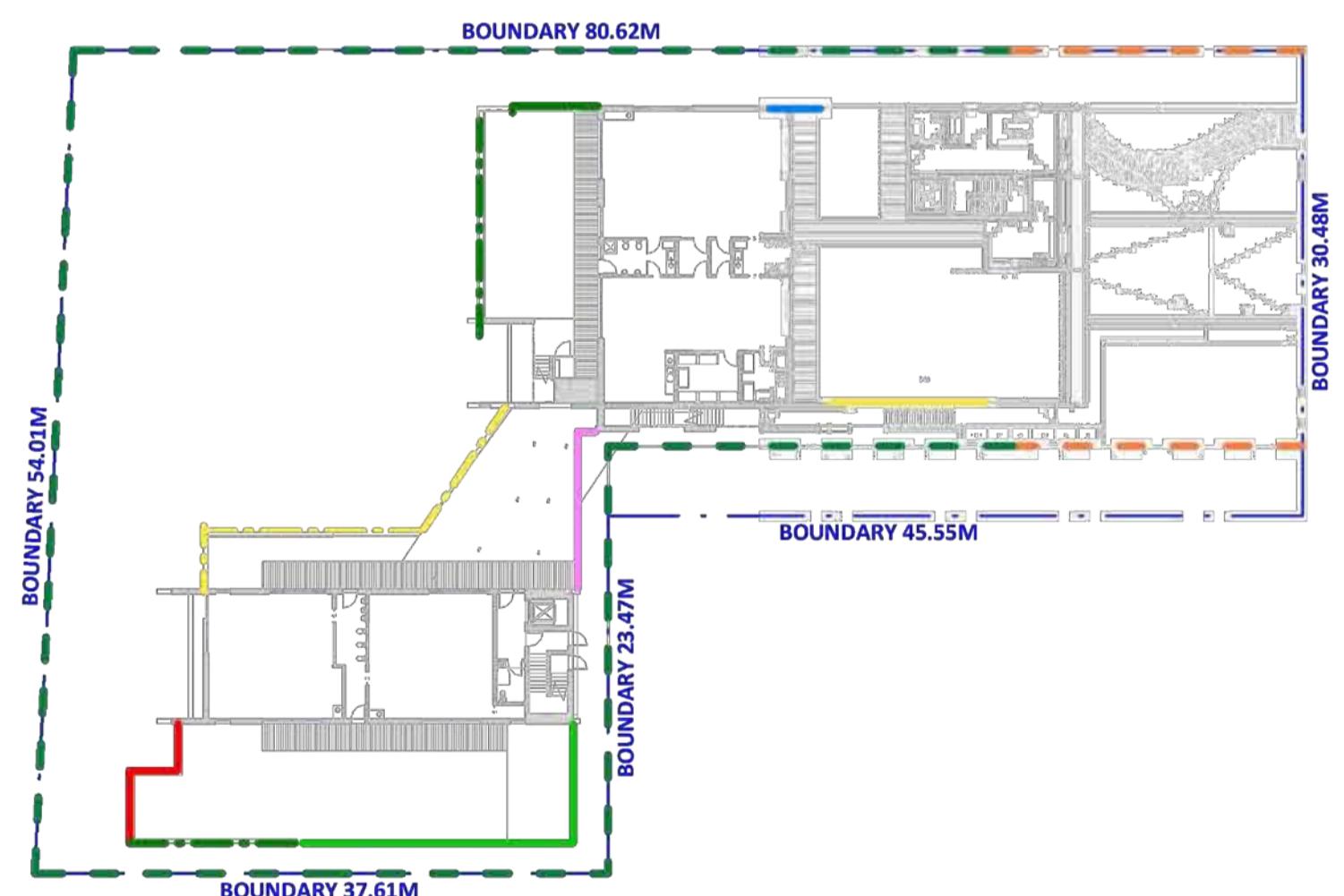
**FENCE LEGEND**

- 1.2M BOUNDARY FENCE
- 1.39M HT ACOUSTIC BARRIER ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA
- 1.8M HIGH ACOUSTIC BARRIER ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA
- 1.8M HIGH ACOUSTIC BARRIER ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA
- 1.8M HIGH ACOUSTIC BARRIER (ON RETAINING WALL) ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA
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- 1.8M BOUNDARY FENCE
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- 2.3M HIGH ACOUSTIC BARRIER ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA
- 2.4M HIGH ACOUSTIC BARRIER (ON RETAINING WALL) ABOVE GROUND LEVEL OF OUTDOOR PLAY AREA

NOTE:

- ALL ACOUSTIC BARRIERS IN ACCORDANCE WITH ACOUSTIC REPORT.

 FIRST FLOOR  
FENCING ARRANGEMENT PLAN



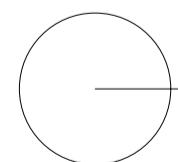
CHARLTON AVENUE

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 GROUND FLOOR  
FENCING ARRANGEMENT PLAN

PROJECT

**PROPOSED CHILDCARE CENTRE**  
8 CHARLTON AVENUE,  
TURRAMURRA

DRAWING TITLE

FENCING ARRANGEMENT  
PLAN

CLIENT

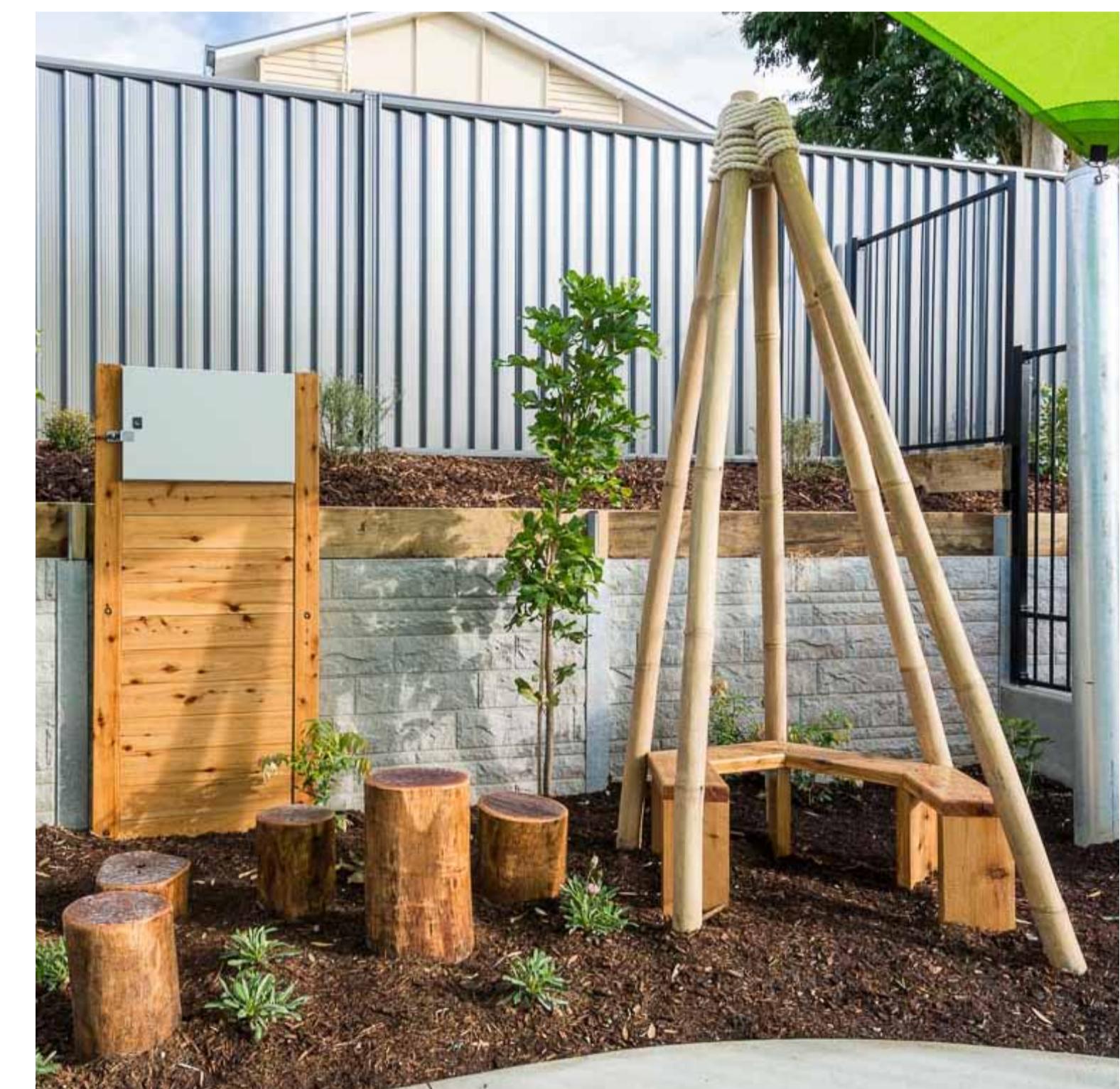
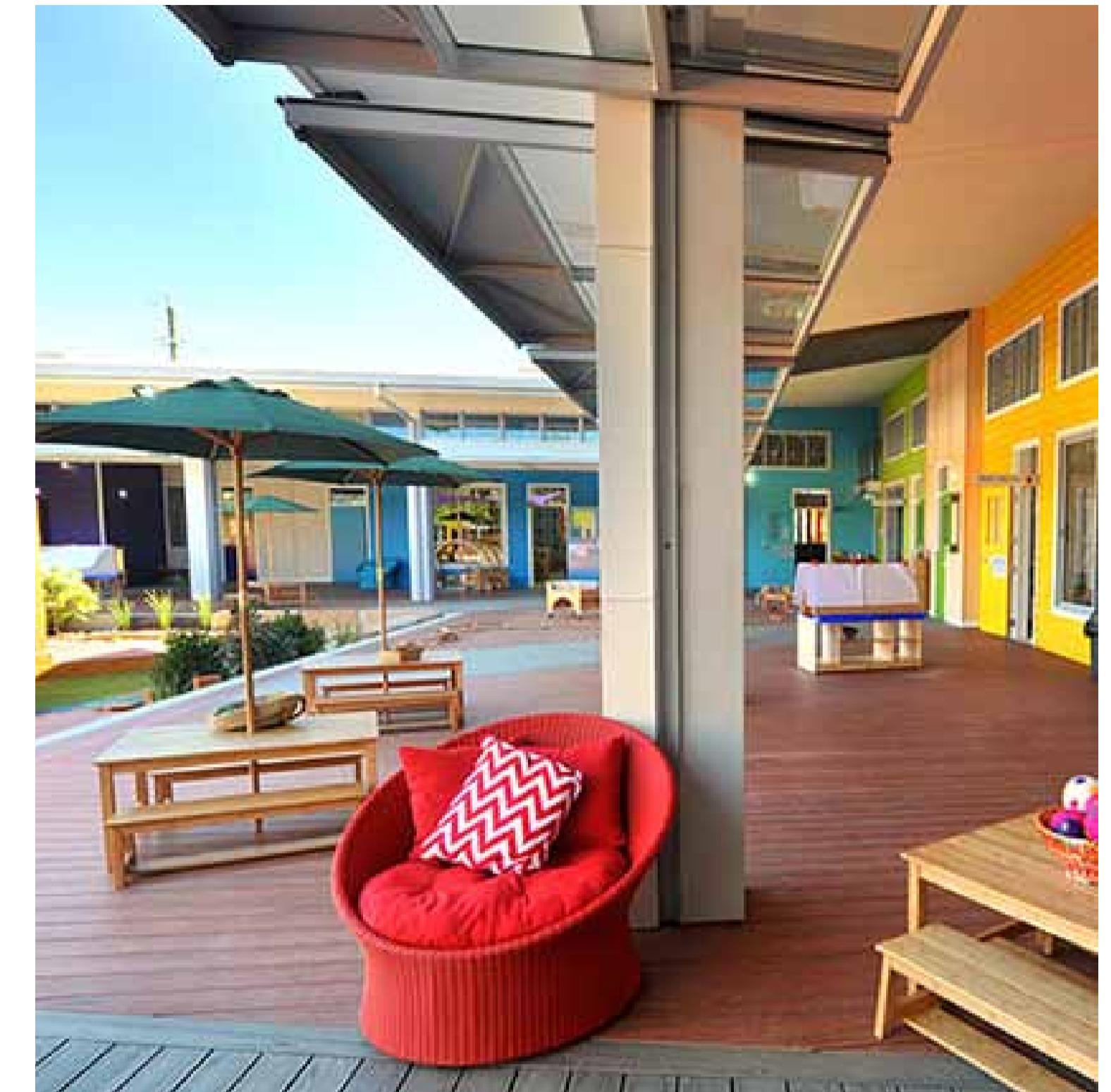
WAKEFIELD  
INTERNATIONAL  
BUSINESS SCHOOL

NOTE: REFER TO ENVIRONMENTAL NOISE IMPACT ASSESSMENT REPORT & ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION

Drawn : NZ  
Designed : NZ  
Project No. : G721

SHEET NUMBER  
G721\_LP\_09

REVISION  
C





## PRELIMINARY SPECIFICATION

### 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 A SUFFICIENT DISTANCE AWAY FROM THESE SERVICES TO AVOID CONFLICT. 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.

**ARBORETUM MANAGEMENT AND PROTECTION**  
AN ARBORETUM WITH A MINIMUM AQFS QUALIFICATIONS IS TO BE CONTRACTED TO UNDERTAKE OR MANAGE THE INSTALLATION OF PROTECTIVE FENCING AND TO UNDERTAKE SUCH MEASURES AS THEY DEEM APPROPRIATE TO PRESERVE THE SUBJECT TREES TO BE RETAINED. THE ARBORETUM IS TO BE RETAINED FOR THE ENTIRE CONTRACT PERIOD TO UNDERTAKE ONGOING MANAGEMENT AND REVIEW OF THE TREES.

**POLYDUM PLANTING**  
ENSURE AN ADEQUATE WATERPROOFING MEMBRANE TO ENGINEER'S DETAIL HAS BEEN APPLIED TO ALL PODIUM PLANTERS ON SITE. FOLLOWING APPLICATION OF THE MEMBRANE, CORFLUTE SHEETING IS TO BE APPLIED TO THE BOTTOM AND SIDES OF ALL PLANTERS TO PREVENT FUTURE RUPERTURE. PODIUM PLANTERS ARE TO THEN INCLUDE AN APPROVED 'DRAINAGE CELL' PRODUCT TO COMPREHENSIVELY COVER THE BOTTOM OF THE STRUCTURE. OVER THE DRAINAGE CELL, A GEOTEXTILE LINING IS TO BE INSTALLED, TURNED UP 300MM AND TAPED TO THE PLANTER SIDES TO ENSURE SOIL MIX DOES NOT ESCAPE INTO DRAINAGE OUTLETS.  
PODIUM PLANTERS: INSTALL MIN. 50MM COARSE RIVER SAND OVER ALL GEOTEXTILE LINING PRIOR TO INSTALLATION OF A SUITABLE PLANTER SOIL MIX.

**RETAINING WALLS**  
RETAINING WALLS AND ASSOCIATED DRAINAGE MATERIAL IS TO BE CONSTRUCTED TO THE STRUCTURAL ENGINEER'S DETAIL.

**EXISTING SUB-GRADE IN PLANTING AREAS**  
TEST SUBSOIL DRAINAGE TO ALL TREE PLANTING POSITIONS AND PLANTING AREAS. IF NECESSARY EXCAVATE UNDER TREE PLANTING POSITION DOWN THROUGH IMPERMEABLE MATERIAL TO A PERMEABLE SUB-GRADE DEPTH. REMOVE EXCAVATED MATERIAL FROM SITE AND REPLACE WITH A POROUS MATERIAL AND SUITABLE GROWING MEDIUM FOR NOMINATED SPECIES. SETTLE BACKFILL TO PREVENT SUBSIDENCE.

**FINISHED LEVELS AND GRADERS**  
CONSTRUCT FINISHED GRADERS TO THE FINISHED LEVELS SHOWN ON THE CIVIL DRAWINGS. ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PLANTED AREAS AND PATHWAYS ARE TO DRAIN TO SPECIFIED DRAINAGE COLLECTION POINTS AS INDICATED ON THE HYDRAULIC ENGINEER'S DRAWINGS. ENSURE A MAXIMUM GRADE OF 1:4 TO ALL PLANTED AND TURFED AREAS.

**DRAINAGE PITS**  
INSTALL METAL GRATE, PVC BODY DRAINAGE PITS AS INDICATED ON THE HYDRAULIC ENGINEER'S DRAWINGS. CONNECT PITS TO STORMWATER SYSTEM - BY PLUMBER.

**PAVING**  
PAVEMENT SETOUT AS PER SETOUT PLAN. FINISHED LEVELS, MATERIALS AND PAVING INSTALLATION TO ARCHITECT'S SPECIFICATION.

**SOIL**  
CULTIVATE ALL PLANTING AREAS AND SET DOWN SUB-GRADE TO ACCOMMODATE IMPORTED TOPSOIL TO BE INSTALLED AT A MINIMUM 300MM DEPTH. IF DEEMED SUITABLE BY THE LANDSCAPE ARCHITECT, IMPORTED SITE SOIL MAY BE USED IN PLACE OF IMPORTED TOPSOIL PENDING COMPLIANCE WITH THE PROVISIONS OUTLINED IN AS4419.

**MULCH**  
APPLY APPROVED ORGANIC MULCH (ANL FOREST FINES' OR SIMILAR) TO A DEPTH OF 75MM TO ALL PLANTED AREAS. ENSURE CLEARANCE TO PLANT STEMS AND RAKE TO AN EVEN SURFACE FINISHING 25MM BELOW ADJOINING LEVELS. ENSURE MULCH IS WATERED IN DURING INSTALLATION.

**FERTILISER:**  
FOR GENERAL PLANTED AREAS: APPLY APPROVED FERTILISER INTENDED FOR SLOW RELEASE OF PLANT NUTRIENTS OVER A PERIOD OF APPROXIMATELY NINE (9) MONTHS. THOROUGHLY MIX FERTILISER WITH PLANTING MEDIUM AS RECOMMENDED, AND IN ACCORDANCE WITH RECOGNISED HORTICULTURAL PRACTICE PRIOR TO INSTALLING PLANTS. FOR LAWN AREAS: APPROVED 'LAWN FOOD' OR EQUIVALENT SHALL BE THOROUGHLY MIXED THROUGH TOPSOIL PRIOR TO PLACING TURF. FOR ESTABLISHED TREE PLANTING, 'AGRFORM PLANTING TABLETS' OR EQUIVALENT ARE TO BE APPLIED AT THE RECOMMENDED RATE WITHIN THE PLANTING MEDIUM ADJACENT TO THE BASE OF THE ROOT BALL AT TIME OF PLANTING.

**PLANT MATERIAL**  
ALL PLANTS SUPPLIED ARE TO CONFORM WITH THOSE SPECIES LISTED IN THE PLANT SCHEDULE ON THE LANDSCAPE 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 PESTS, HAVE 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.

**STAKING AND TYING**  
STAKES SHALL BE STRAIGHT, UNPAINTED HARDWOOD FREE FROM KNOTS AND TWISTS, POINTED AT ONE END AND SIZED ACCORDING TO SIZE OF PLANTS TO BE STAKED.

A. 5 - 15 LITRE SIZE PLANT 1 x (1200x25x25MM)  
B. 35 - 75 LITRE SIZE PLANT 2 x (1500x38x38MM)  
C. 100 - 200 LITRE 3 x (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**  
TURF IS TO BE OF A SPECIES CONSISTENT WITH THAT SHOWN ON THE LANDSCAPE DRAWINGS AND IS TO HAVE AN EVEN THICKNESS OF NOT LESS THAN 25MM. OBTAIN TURF FROM AN APPROVED GROWER, DELIVER TO SITE WITHIN TWENTY FOUR (24) HOURS OF BEING CUT, AND LAY WITHIN TWENTY FOUR (24) HOURS OF BEING DELIVERED. TO PREPARE GRADED AREAS TO RECEIVE TURF, EXCAVATE THE AREA AND CULTIVATE SO AS TO ALLOW FOR IMPORTING OF 100MM OF TURF UNDERLAY SOIL. REMOVE ALL STONES OVER 20MM Ø AS WELL AS ALL WEEDS AND FOREIGN MATTER. SPREAD TURF UNDERLAY SOIL TO A DEPTH OF 100MM AND GRADE TO APPROPRIATE LEVELS TO ACHIEVE GENERAL EVEN GRADES TO DRAINAGE OUTLETS INSTALLED BY OTHERS - TURF AREAS ARE TO HAVE MINIMUM 1:50 CROSSLFALL TO ENSURE MINIMUM DRAINAGE REQUIREMENTS. TURF IS TO BE LAID ALONG RESOLVED LAND CONTOURS WITH STAGGERED, CLOSE BUTTED, JOINTS SO THAT THE FINISHED TURF SURFACE IS FLUSH WITH ADJACENT FINISHED SURFACES OF PAVING AND THE LIKE. AS SOON AS PRACTICAL AFTER LAYING, ROLL THE TURF WITH A ROLLER WEIGHING NOT MORE THAN 90KG PER METRE OF WIDTH. WATER AS NECESSARY TO KEEP THE SOIL MOIST TO A DEPTH OF 100MM. PROTECT NEWLY TURFED AREAS AGAINST TRAFFIC UNTIL GRASS IS ESTABLISHED. TWO (2) WEEKS AFTER INSTALLATION, APPLY APPROVED ORGANIC TOP DRESSING SOIL (ANL 'ORGANIC TOP DRESSING' OR SIMILAR) TO A DEPTH OF 15MM TO ALL TURFED AREAS. RUB THE DRESSING WELL INTO THE JOINTS AND CORRECT ANY UNLEVELNESS IN THE TURF SURFACES.

**TREATED PINE TIMBER EDGING**  
TIMBER EDGE: 100 X 25MM H4 TREATED PINE.  
TIMBER STAKES: 50 X 50 X 50MM H4 TREATED PINE-SHARPENED AT ONE END.  
INSTALL IN LOCATIONS SHOWN ON THE DRAWINGS FLUSH TO FINISHED SURFACE LEVELS.

**TREES TO BE RETAINED**  
MARK TREES AND SHRUBS TO BE RETAINED WITH SUITABLE NON-INJURIOUS, EASILY VISIBLE AND REMOVABLE MEANS OF IDENTIFICATION CONSISTENT WITH THE TREE NUMBERING SYSTEM INDICATED ON THE LANDSCAPE DRAWINGS.

## GENERAL TREE PROTECTION NOTES\*

\*PLEASE NOTE: THE FOLLOWING INFORMATION IS FOR GUIDANCE PURPOSES ONLY. WHERE EXISTING TREES ARE TO BE RETAINED, IT IS RECOMMENDED THAT A PROJECT ARBORIST WITH MINIMUM AQFS QUALIFICATIONS BE ENGAGED TO PREPARE A DEDICATED TREE PROTECTION SPECIFICATION PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR LANDSCAPE WORKS.

**PROTECTION AND REPAIR:** PROTECT TREES AND SHRUBS TO BE RETAINED FROM DAMAGE INCLUDING THOSE BEYOND THE SITE AREA, BOTH ABOVE AND BELOW GROUND. REPAIR ANY DAMAGE TO THE TREES DURING THIS WORK.

**TREES AND SHRUBS:** PROVIDE TEMPORARY PROTECTIVE FENCING TO THE TREE DROPO LINE PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR LANDSCAPE WORKS. FENCING IS TO BE OF CLOTH/WIRE MESH PANELS WITH SHADE CLOTH ATTACHED AND IS TO BE HELD IN PLACE WITH CONCRETE FEET.

**WORK NEAR TREES:** THE AREAS WITHIN THE DRIPLINE OF THE TREES ARE TO BE KEPT FREE OF CONSTRUCTION MATERIALS AND DEBRIS. DO NOT PLACE BULK MATERIALS AND HARMFUL MATERIALS UNDER OR NEAR TREES. DO NOT PLACE TOPSOIL FROM, OR ADD TOPSOIL TO THE AREAS WITHIN THE DRIPLINE OF THE TREES. IF EXCAVATION IS REQUIRED NEAR TREES TO BE RETAINED, GIVE NOTICE AND OBTAIN INSTRUCTIONS FROM A SUITABLY QUALIFIED AQFS ARBORIST. OPEN UP EXCAVATIONS UNDER TREE CANOPIES FOR AS SHORT A PERIOD AS POSSIBLE. USE HAND METHODS TO LOCATE, EXPOSE AND CLEANLY REMOVE THE ROOTS ON THE LINE OF EXCAVATION. IF IT IS NECESSARY TO EXCAVATE WITHIN THE DRIPLINE USE HAND METHODS SUCH THAT ROOT SYSTEMS ARE PRESERVED INTACT AND UNDAMAGED. DO NOT USE MECHANICAL EQUIPMENT TO EXCAVATE NEAR TREES. IF IT IS NECESSARY TO EXCAVATE NEAR TREES, USE A SUITABLY QUALIFIED AQFS ARBORIST. BACKFILL THE EXCAVATION WITH A MIXTURE OF 3 PARTS BY VOLUME OF TOPSOIL AND 1 PART OF WELL ROTTED COMPOST WITH A NEUTRAL PH VALUE, FREE FROM WEED GROWTH AND HARMFUL MATERIALS. PLACE THE BACKFILL LAYERS, EACH OF 300MM MAXIMUM DEPTH COMPACTED TO A DRY DENSITY, SIMILAR TO THAT OF THE ORIGINAL STATE. DO NOT BACKFILL AROUND TRUNKS TO A HEIGHT GREATER THAN 50MM ABOVE THE ORIGINAL GROUND SURFACE. IMMEDIATELY AFTER BACKFILLING THOROUGHLY WATER THE ROOT ZONE SURROUNDING THE TREE. DO NOT COMPACT THE GROUND UNDER TREES. IF COMPACTION OCCURS, GIVE NOTICE AND OBTAIN INSTRUCTIONS. WATER THE TREES AS NECESSARY INCLUDING WHERE ROOTS ARE EXPOSED AT AN AMBIENT TEMPERATURE.

**COMPLIANCE WITH AUSTRALIAN STANDARDS:** ALL TREE PROTECTION WORKS ARE TO BE COMPLIANT WITH THE PROVISIONS OUTLINED WITHIN AS4970-2009 - PROTECTION OF TREES ON DEVELOPMENT SITES

## 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, reseeding, returfing, weeding, 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 maintenance contractor shall maintain the landscape works for the term of the maintenance (or plant establishment) period to the satisfaction of the council. The landscape maintenance contractor shall attend to the site on a fortnightly basis. The maintenance period shall commence at practical completion and continue for a period of twenty six (26) weeks.

**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 maintenance contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at fortnightly intervals the area may be observed in a completely clean and tidy condition.

**REPLACEMENTS**

The landscape maintenance contractor shall replace all plants that are missing, unhealthy or dead at the landscape maintenance 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, not exceeding two (2) weeks after the plant has died or is seen to be missing, until the end of the maintenance period.

**STAKES AND TIES**  
The landscape maintenance 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**  
Trees and shrubs shall be pruned as directed by the landscape architect and project arborist. Pruning will be directed at the maintenance of the dense foliage or miscellaneous pruning and beneficial to the condition of the plants. Any damaged growth shall be pruned. All pruned material shall be removed from the site.

**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.

**PEST AND DISEASE CONTROL**

The landscape maintenance 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 as they are detected) to the landscape architect.

**GRASS AND TURF AREA**

The landscape maintenance contractor shall maintain all grass and turf areas by watering, weeding, dressing, 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-leaved 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' (or similar) for lawns at a rate of 20kg per 100m<sup>2</sup>. 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.

## IRRIGATION SYSTEM

**IRRIGATION SYSTEM:** SUPPLY AN AUTOMATIC WATERING SYSTEM USING 'TORO IRRIGATION SYSTEM' OR SIMILAR APPROVED, WITH AREA-SPECIFIC SPRINKLER HEADS AND LOW DENSITY, RUBBER MODIFIED POLYPROPYLENE RIGIDULATION TO INCLUDE FILTERS, BENDS, JUNCTIONS, ENDS AND OTHER ANCILLARY EQUIPMENT. A SCHEMATIC PLAN OF THE PROPOSED IRRIGATION SYSTEM IS TO BE PREPARED BY A SUITABLY QUALIFIED IRRIGATION CONTRACTOR; SHOWING SOLENOIDS, PIPE DIAMETERS, AND ALL NOZZLE AND TRICKLE ATTACHMENT TYPES (INCLUDING SPRAY/HEAD ANGLE). FOR REVIEW BY THE SUPERINTENDENT PRIOR TO INSTALLATION.

THE IRRIGATION CONTRACTOR IS TO LIAISE WITH THE HYDRAULIC ENGINEER AND COUNCIL AS NECESSARY TO ENSURE THE IRRIGATION SYSTEM CONFORMS WITH ALL COUNCIL AND WATER BOARD CODES AND REQUIREMENTS.

THE IRRIGATION SYSTEM IS TO INCLUDE AN AUTOMATIC CONTROLLER THAT PROVIDES FOR CUSTOMIZABLE SCHEDULING AND HOURLY MULTI-CYCLE OPERATION. THE CONTROLLER SHALL FEATURE A MANUAL OVERRIDE FUNCTION AND PROGRAMMING SHALL BE UNDERTAKEN BY THE IRRIGATION CONTRACTOR WHO SHALL ADVISE ALL RELEVANT PARTIES ON THE OPERATION OF THE SYSTEM. PROVISION OF SECURE HOUSING FOR THE AUTOMATIC IRRIGATION CONTROLLER IS TO BE POSITIONED IN A LOCATION CONFIRMED BY THE SUPERINTENDENT. WIRING TO CONNECT REMOTE SOLENOID LOCATIONS IS TO BE PROVIDED. THE CONTROLLER SHALL BE LOCATED IN A DRY PLACE, PROTECTED FROM THE WEATHER, AND ALL CABLE CONNECTIONS SHALL BE MADE WITH WATERPROOF CONNECTORS.

WATER SUPPLY POINTS ARE TO BE SUPPLIED BY THE BUILDER.

IT SHALL BE THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO ENSURE AND GUARANTEE SATISFACTORY OPERATION OF THE IRRIGATION SYSTEM. AFTER THE SYSTEM HAS BEEN INSTALLED TO THE SATISFACTION OF THE SUPERINTENDENT, THE INSTALLATION SHALL BE TESTED UNDER KNOWN WORKING CONDITIONS. ACCEPTANCE OF THE INSTALLED PLANT AND EQUIPMENT SHALL BE SUBJECT TO THESE BEING SATISFACTORY.

## PROJECT

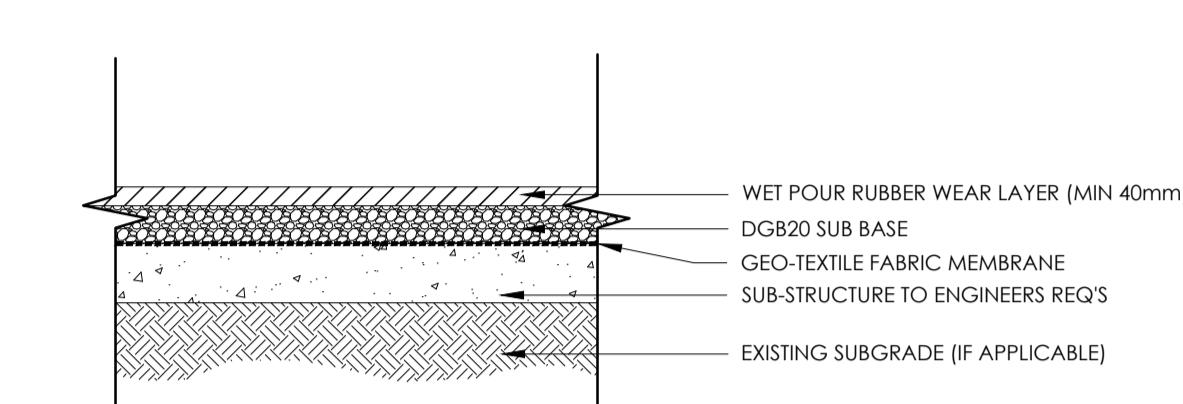
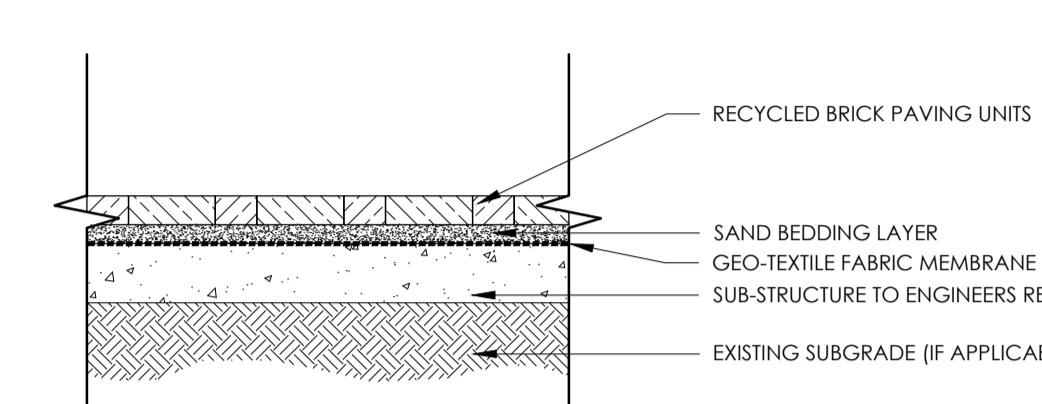
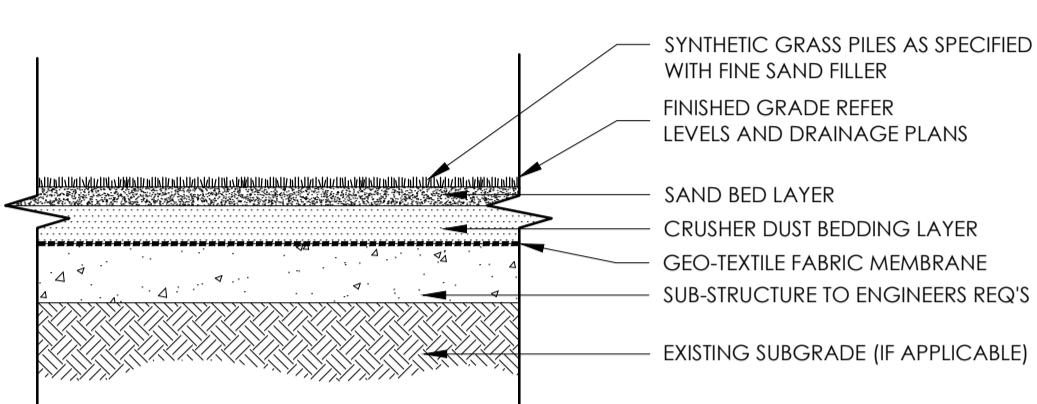
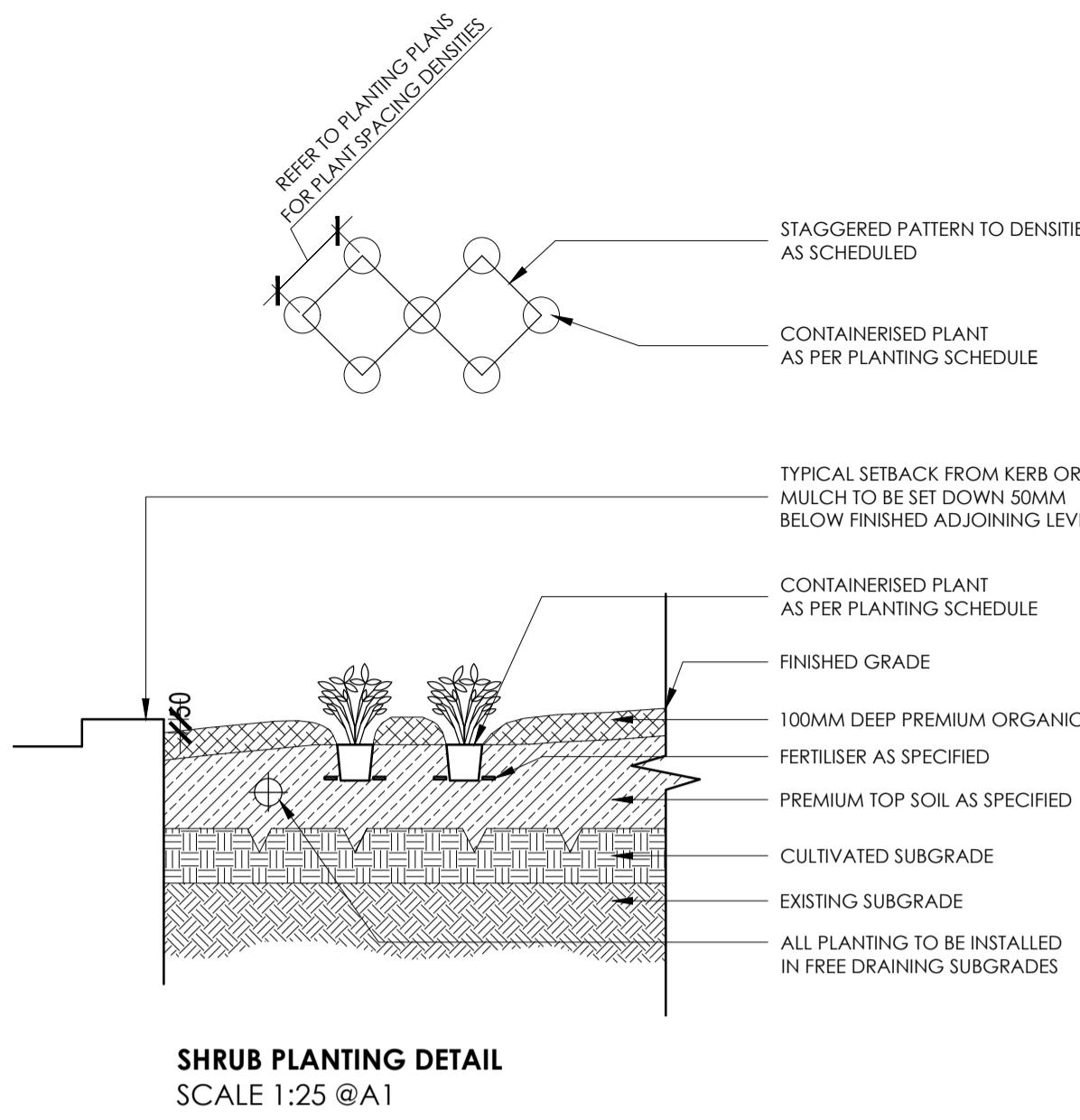
## PROPOSED CHILDCARE CENTRE 8 CHARLTON AVENUE, TURRAMURRA

## DRAWING TITLE

## NOTES & PRELIMINARY SPECIFICATION

## CLIENT

## WAKEFIELD INTERNATIONAL BUSINESS SCHOOL



GENERAL NOTES:  
 -ENVIRONMENTALLY ACCEPTABLE METHODS FOR THE ERADICATION OF WEEDS FROM GROWN PLANTS AND SOIL ARE TO BE USED. A NON-RESIDUAL HERBICIDE MAY BE APPLIED TO AREAS AFFECTED BY WEEDS.  
 -REFRESH SOIL AND PLANT GROWTH THROUGHOUT PLANTED AND MULCHED AREAS DURING THE COURSE OF PROJECT CONSTRUCTION.  
 -AMEND TOPSOIL TO PROVIDE THE APPROPRIATE PH, ORGANIC MATTER, FERTILIZER AND PH LEVEL. EXCAVATE AND REMOVE HEAVY CLAY SOILS, ROCK AND OTHER MATERIALS THAT WILL IMPAIR PROPER GROWTH.  
 -MAINTAIN MINIMUM 50MM SEPARATION BETWEEN ORGANIC GROWTH AND PLANT.  
 -FORM SHALLOW DEPRESSION IN SOIL AROUND TOP OF ROOTBALL TO IMPROVE WATER RETENTION.

