





ARCADIA

HARRINGTON WATERS ESTATE

DEVELOPMENT APPLICATION

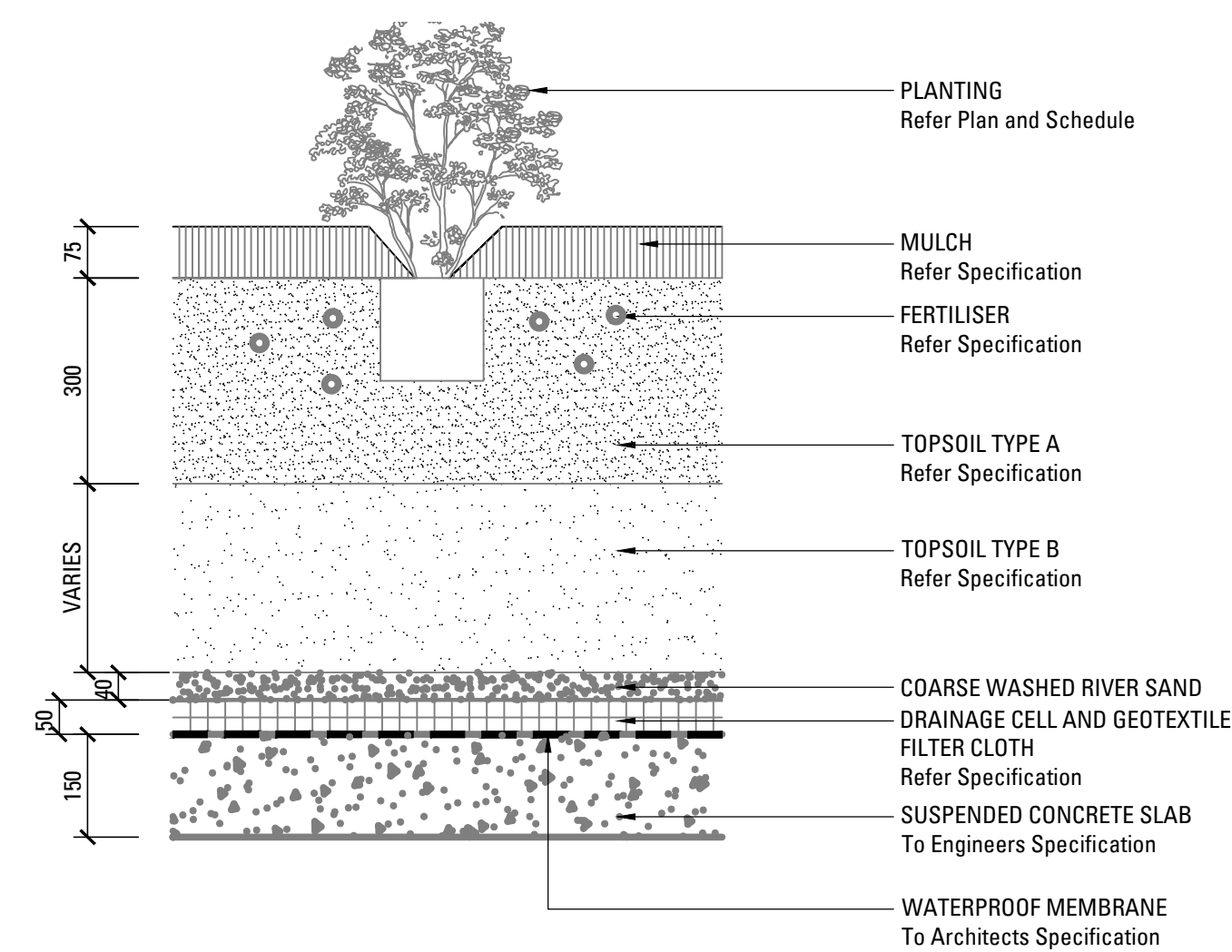


PREPARED BY Arcadia Landscape Architecture
CLIENT Roche Group
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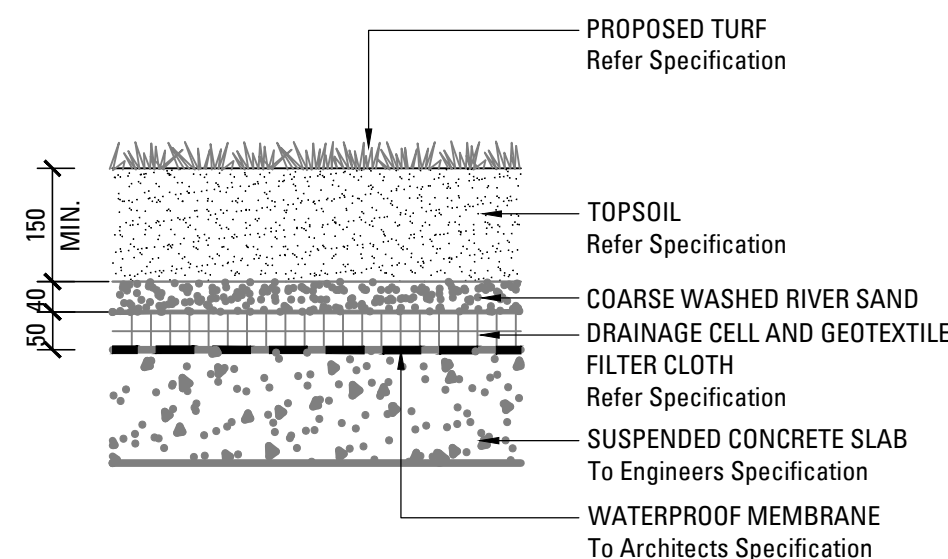
DATE August 2021
SCALE 1:100 @ A1
ISSUE E

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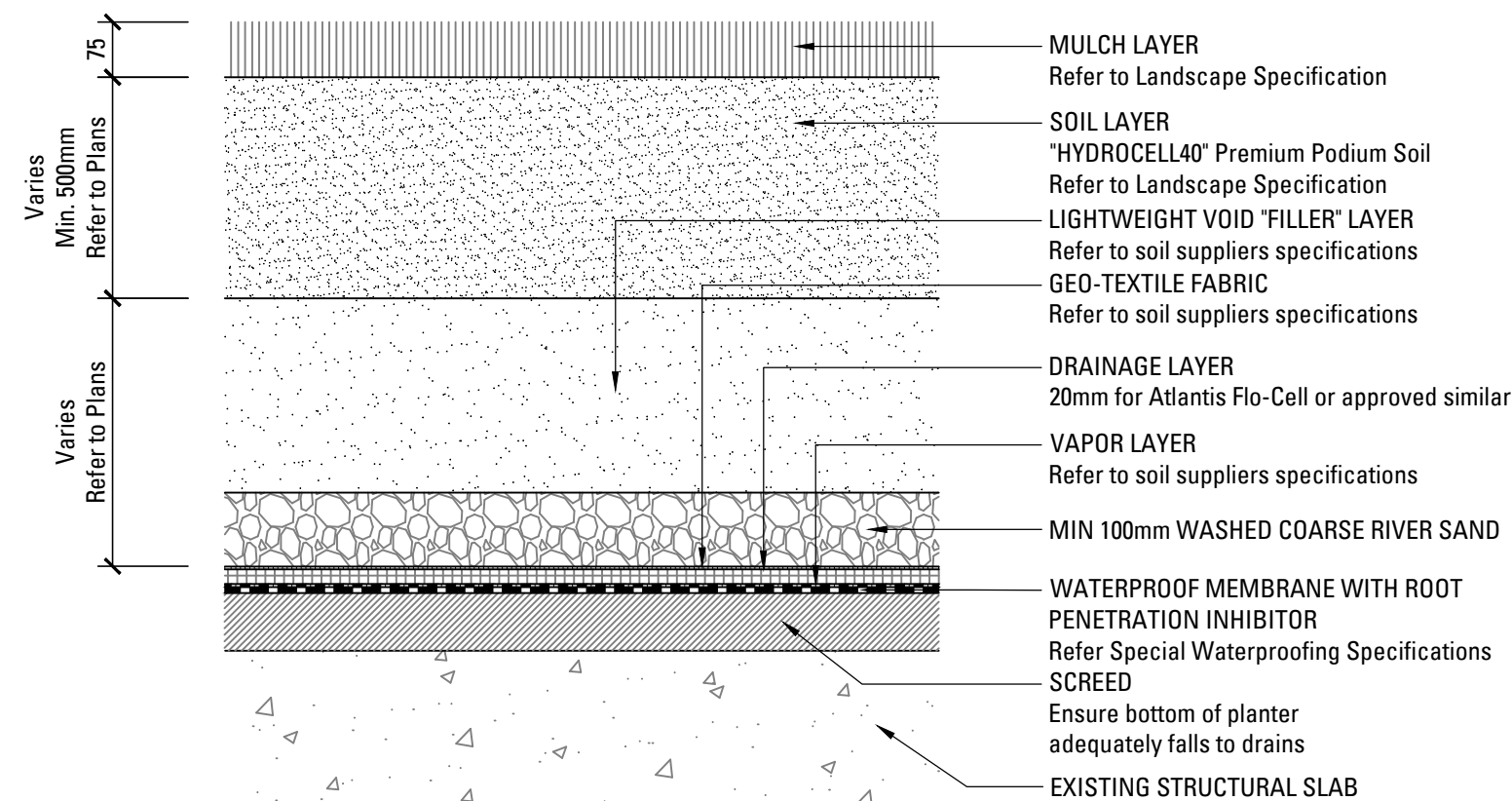
17-498 HARRINGTON WATERS PLANT SCHEDULE					
CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	PROPOSED POT SIZE	QUANTITY
TREES & PALMS					
Ba	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	10 x 5	200L	5
Ca	<i>Cupaniopsis anacardioides</i>	Tuckeroo	8 x 6	200L	22
Po	<i>Plumeria obtusa</i>	Frangipani	8 x 4	1000L	9
Re	<i>Rhapis excelsa</i>	Lady Palm	3 x 3	200L	21
La	<i>Livistona australis</i>	Cabbage Tree Palm	15 x 5	200L	46
TI	<i>Tristaniopsis laurina</i>	Luscious Water Gum	10 x 5	200L	19
SHRUBS & ACCENTS					
Apn	<i>Alpinia nutans</i>	Dwarf Cardamon/Cinnamon Ginger	1.5x1.0	200mm	544
Cg	<i>Cordyline 'Glauca'</i>	Cordyline	2 x 1	200mm	4
Dc	<i>Dianella caerulea</i>	Flax Lily	0.5 x 0.5	200mm	425
De	<i>Doryanthes excelsa</i>	Gynea Lily	3 x 1.5	45L	100
Leg	<i>Liriope muscari 'Evergreen Giant'</i>	Lilyturf	0.5 x 0.5	200mm	401
Lv	<i>Lomandra 'Verday'</i>	Mat Rush	0.6 x 0.6	200mm	1689
Pc	<i>Plectranthus ciliatus</i>	Silver Shield	0.4 x 0.3	200mm	245
Prc	<i>Philodendron 'Rojo Congo'</i>	Philodendron	1 x 1	400mm	12
Px	<i>Philodendron xanadu</i>	Philodendron	1 x 1	400mm	1524
Sn	<i>Strelitzia nicolai</i>	Giant White Bird of Paradise	6 x 3	400mm	21
Sel	<i>Syzygium 'Elite'</i>	Lilly Pilly	3 x 1.5	45L	25
Vo	<i>Viburnum odoratissimum</i>	Sweet Viburnum	3 x 2	400mm	57
Wwg	<i>Westringia 'Wynabie gem'</i>	Coastal Rosemary	1.5 x 1.5	45L	206
FERNS & CYCADS					
Aa	<i>Asplenium australasicum</i>	Birds Nest Fern	1.5 x 1.5	300mm	6
Zf	<i>Zamia furfuracea</i>	Cardboard plant	1x1.5	200mm	18
GROUNDCOVERS & CLIMBERS					
Dsf	<i>Dichondra argenta 'Silver Falls'</i>	Silver Pony-Foot	0.2 x 0.5	150mm	181
Mp	<i>Myoporum parvifolium</i>	Creeping Boobialla	0.15 x spreading	150mm	342



00 150MM-25L SHRUB PLANTING ON SLAB
SCALE 1:10

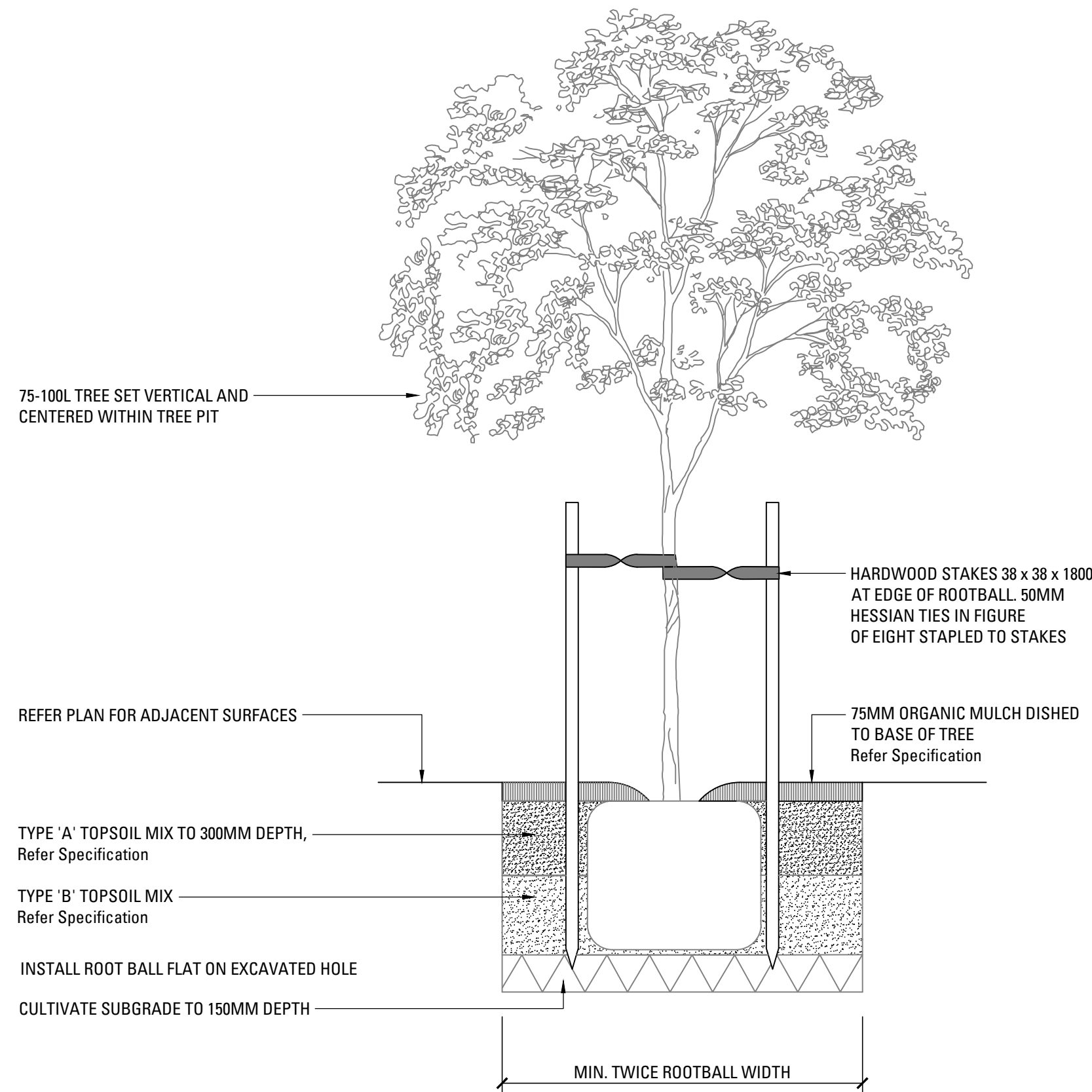


00 TURF ON SLAB
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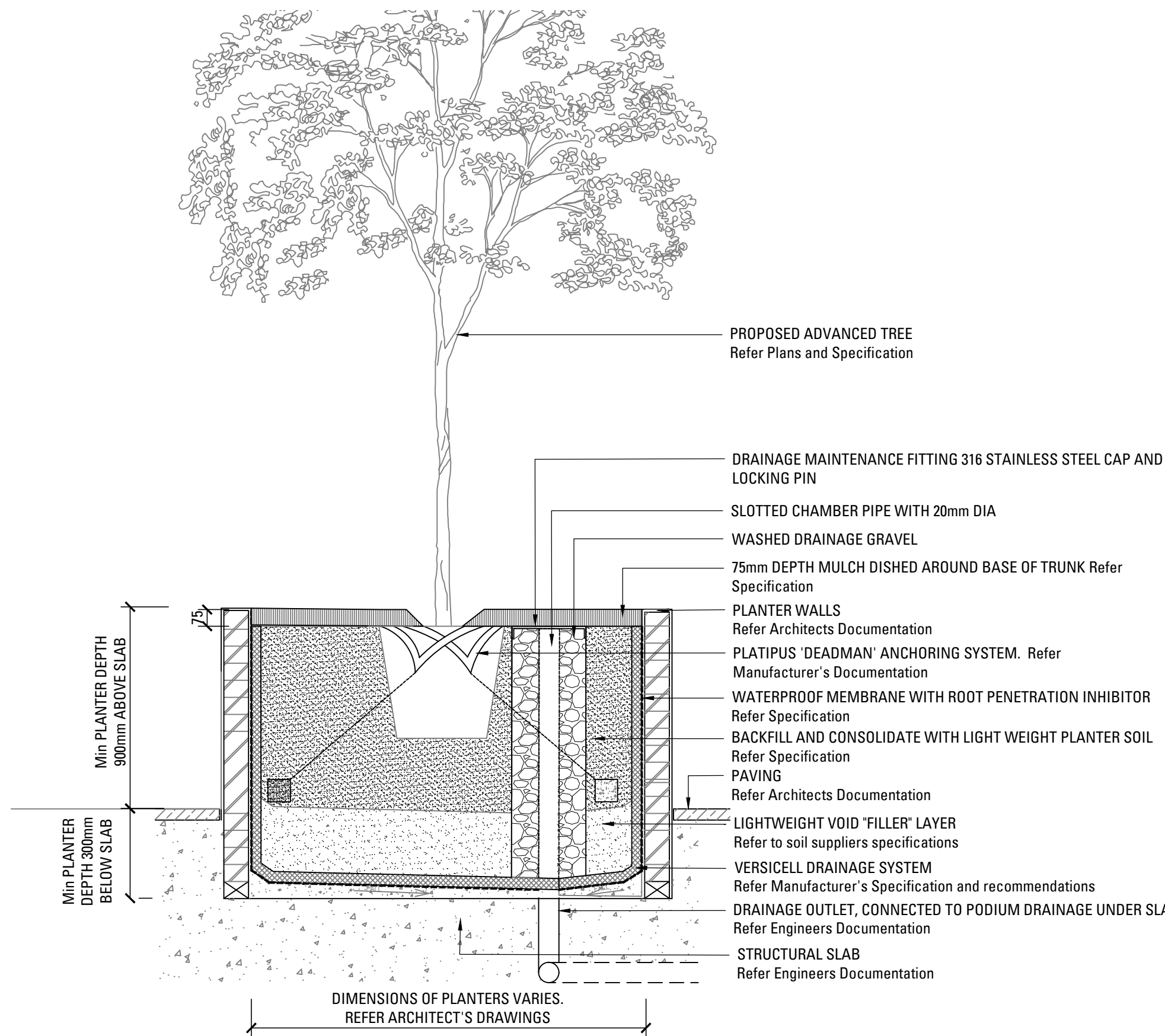


NOTE - Refer to MPN Structural engineer's package for maximum planter heights, podium soil depths and maximum plant species heights.

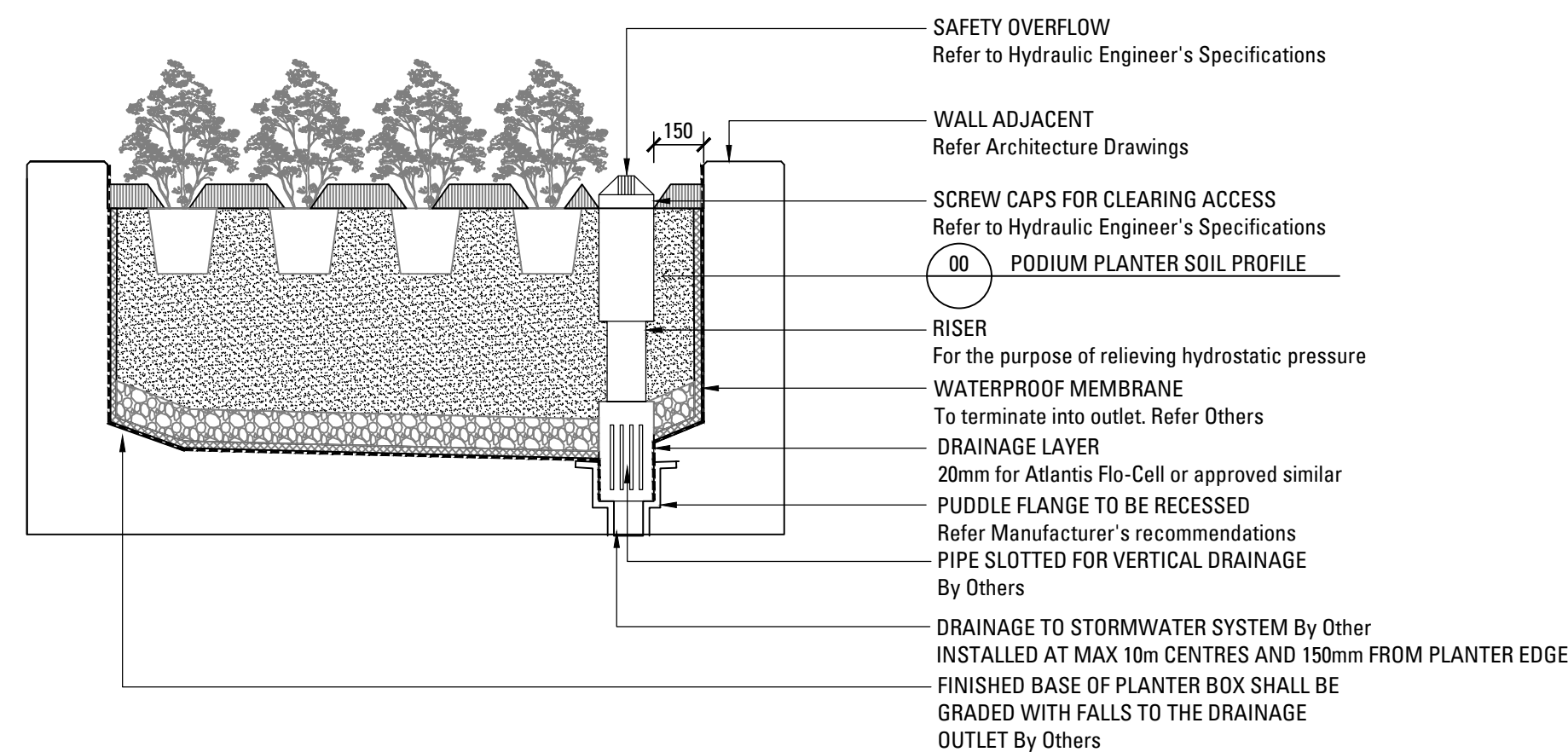
00 TYPICAL DETAIL - PODIUM PLANTER SOIL PROFILE
SCALE 1:10



00 TREE PLANTING 75-100L
SCALE 1:20



00 TYPICAL RAISED PLANTER WITH ADVANCED TREE ON SLAB
SCALE 1:20



00 TYPICAL PODIUM PLANTER DRAINAGE
SCALE 1:20

LANDSCAPE SPECIFICATION NOTES

SERVICES

BEFORE LANDSCAPE WORK IS COMMENCED THE LANDSCAPE CONTRACTOR IS TO ESTABLISH THE POSITION OF ALL SERVICE LINES AND ENSURE TREE PLANTING IS CARRIED OUT AT LEAST 3 METRES AWAY FROM THESE SERVICES. SERVICE LIDS, VENTS AND HYDRANTS SHALL BE LEFT EXPOSED AND NOT COVERED BY ANY LANDSCAPE FINISHES (TURFING, PAVING, GARDEN BEDS ETC.) FINISH ADJOINING SURFACES FLUSH WITH PIT LIDS.

ABORIST MANAGEMENT OF TREE PROTECTION

A QUALIFIED AND APPROVED ABORIST IS TO BE CONTRACTED TO UNDERTAKE OR MANAGE THE INSTALLATION OF PROTECTIVE FENCING, AND TO UNDERTAKE SUCH MEASURES AS HE DEEMS APPROPRIATE TO PRESERVE THE SUBJECT TREES TO BE RETAINED. THE ARBORIST IS TO BE RETAINED FOR THE ENTIRE CONTRACT PERIOD TO UNDERTAKE ONGOING MANAGEMENT AND REVIEW OF THE TREES.

DRAINAGE CELL AND FILTER FABRIC

FOR ON-SLAB AREAS INSTALL AN APPROVED 'DRAINAGE CELL' PRODUCT TO COMPREHENSIVELY COVER THE BOTTOM OF ALL PLANTERS. OVER DRAINAGE CELL TO ON-SLAB AREAS, A POLYFELT GEOTEXTILE LINING (AS SUPPLIED BY 'POLYFELT TS' OR APPROVED EQUIVALENT) IS TO BE INSTALLED TO COVER THE BOTTOM OF ALL PLANTERS, TURNED UP 300MM AND TAPED TO THE PLANTER SIDES TO ENSURE SOIL MIX DOES NOT ESCAPE INTO DRAINAGE OUTLETS/HOLES. INSTALL MIN. 50MM COARSE RIVER SAND OVER ALL GEOTEXTILE LINING PRIOR TO INSTALLATION OF SOIL MIX.

PLANTING MIXTURE

SHALL BE HOMOGENOUS BLEND OF SOIL AND ADDITIVES IN THE FOLLOWING PROPORTIONS:

EXISTING SITE SOIL IF SUITABLE OR

IMPORTED TOPSOIL 50%

COMPOST 30%

D/W SAND 20%

SOIL TESTING OF EXISTING SITE SOIL IS TO BE UNDERTAKEN TO ASSESS SUITABILITY OF USE AS PLANTING TOPSOIL AND COMPLIANCE WITH AUSTRALIAN STANDARDS.

MULCH APPLICATION

PLACE MULCH TO THE REQUIRED DEPTH, (REFER TO DRAWINGS) CLEAR OF PLANT STEMS, AND RAKE TO AN EVEN SURFACE FINISHING 25MM BELOW ADJOINING LEVELS. ENSURE MULCH IS WATERED IN AND TAMPED DOWN DURING INSTALLATION.

MULCH TYPE

PINE BARK: FROM MATURE TREES, GRADED IN SIZE FROM 15MM TO 30MM, FREE FROM WOOD SLIVERS. DARK BROWN IN COLOUR AND TEXTURE.

COMPOST

SHALL BE WELL ROTTED VEGETATIVE MATERIAL OR ANIMAL MANURE, OR OTHER APPROVED MATERIAL, FREE FROM HARMFUL CHEMICALS, GRASS AND WEED GROWTH AND WITH NEUTRAL PH. PROVIDE A CERTIFICATE OF PROOF OF PH UPON REQUEST.

PLANT MATERIAL

ALL PLANTS SUPPLIED ARE TO CONFORM WITH THOSE SPECIES LISTED IN THE PLANT SCHEDULE ON THE DRAWINGS. GENERALLY PLANTS SHALL BE VIGOROUS, WELL ESTABLISHED, HARDENED OFF, OF GOOD FORM CONSISTENT WITH SPECIES OR VARIETY, NOT SOFT OR FORCED, FREE FROM DISEASE OR INSECT PESTS WITH LARGE HEALTHY ROOT SYSTEMS AND NO EVIDENCE OF HAVING BEEN RESTRICTED OR DAMAGED. TREES SHALL HAVE A LEADING SHOOT. IMMEDIATELY REJECT DRIED OUT, DAMAGED OR UNHEALTHY PLANT MATERIAL BEFORE PLANTING. ALL STOCK IS TO BE CONTAINER GROWN FOR A MINIMUM OF SIX (6) MONTHS PRIOR TO DELIVERY TO SITE

FERTILISER MASS PLANTING AREAS:

FERTILISER SHALL BE 'NUTRICOTE' OR APPROVED EQUIVALENT IN GRANULE FORM INTENDED FOR SLOW RELEASE OF PLANT NUTRIENTS OVER A PERIOD OF APPROXIMATELY NINE MONTHS. THOROUGHLY MIX FERTILISER WITH PLANTING MIXTURE AT THE RECOMMENDED RATE, PRIOR TO INSTALLING PLANTS.

TURF

SHALL BE SIR WALTER BUFFALO. SHIRLEYS NO. 17 OR APPROVED EQUAL LAWN FOOD SHALL BE THOROUGHLY MIXED INTO THE TOPSOIL PRIOR TO PLACING TURF.

TREES IN GRASS AND SUPER ADVANCED TREES:

PELLETS SHALL BE IN THE FORM INTENDED TO UNIFORMLY RELEASE PLANT FOOD ELEMENTS FOR A PERIOD OF APPROXIMATELY NINE MONTHS EQUAL TO SHIRLEYS KOKEI PELLETS, ANALYSIS 6.3:1.8:2.9. KOKEI PELLETS SHALL BE PLACED AT THE TIME OF PLANTING TO THE BASE OF THE PLANT, 50MM MINIMUM FROM THE ROOT BALL AT A RATE OF TWO PELLETS PER 300MM OF TOP GROWTH TO A MAXIMUM OF 8 PELLETS PER TREE.

STAKING AND TYING

STAKES SHALL BE STRAIGHT HARDWOOD, FREE FROM KNOTS AND TWISTS, POINTED AT ONE END AND

SIZED ACCORDING TO SIZE

OF PLANTS TO BE STAKED.

A. 5-15 LITRE SIZE PLANT 1X(1200X25X25MM)

B. 35-75 LITRE SIZE PLANT 2X(1500X38X38MM)

C. 100- GREATER THAN 200LITRE 3X(1800X50X50MM)

TIES SHALL BE 50MM WIDE HESSIAN WEBBING OR APPROVED EQUIVALENT NAILED OR STAPLED TO STAKE. DRIVE STAKES A MINIMUM ONE THIRD OF THEIR LENGTH, AVOIDING DAMAGE TO THE ROOT SYSTEM, ON THE WINDWARD SIDE OF THE PLANT.

IRRIGATION SYSTEM

SUPPLY AN AUTOMATIC WATERING SYSTEM USING 'TORO IRRIGATION SYSTEM' OR SIMILAR APPROVED, WITH MICRO-JET SPRINKLER HEADS AND LOW DENSITY, RUBBER MODIFIED POLYPROPYLENE RETICULATION, TO INCLUDE FILTERS, BENDS JUNCTIONS, ENDS AND OTHER ANCILLARY EQUIPMENT. THE LANDSCAPER SHALL NOMINATE HIS SOURCE OF SUPPLY FOR THE WATERING SYSTEM AND OBTAIN APPROVAL FROM THE SUPERINTENDENT BEFORE PLACING ORDERS FOR EQUIPMENT OR SUPPLY.

A SCHEMATIC PLAN OF THE PROPOSED IRRIGATION SYSTEM IS TO BE PREPARED BY THE 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 CONTRACTOR IS TO LIASE WITH THE HYDRAULIC ENGINEER AND COUNCIL AS NECESSARY, TO ENSURE THE THE IRRIGATION SYSTEM CONFORMS WITH ALL THE COUNCIL AND WATER BOARD CODES AND REQUIREMENTS.

PROVIDE AN AUTOMATIC CONTROLLER THAT PROVIDES FOR TWO WEEK SCHEDULING AND HOURLY MULTI-CYCLE OPERATION. THE CONTROLLER SHALL MANUAL OVERRIDE. PROGRAMMING SHALL BE UNDERTAKEN BY THE CONTRACTOR WHO SHALL ADVISE ON THE OPERATION OF THE SYSTEM.

PROVISION OF SECURE HOUSING FOR THE AUTOMATIC IRRIGATION CONTROLLER TO BE LOCATED IN ASSOCIATION WITH THE LANDSCAPE CONTRACTOR AND 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 TO BE SUPPLIED BY BUILDER.

IT SHALL BE THE 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.

TREATED PINE TIMBER EDGING

TIMBER EDGE: 100 X 25MM CCA TREATED RADIATA PINE TIMBER STAKES: 50 X 50 X 500MM CCA TREATED RADIATA PINE-SHARPENED AT ONE END. INSTALL IN LOCATIONS SHOWN ON THE DRAWINGS FLUSH TO FINISHED SURFACE LEVELS.

TURF

TURF ALL LANDSCAPE AREAS AS SHOWN ON THE LANDSCAPE DRAWINGS. TURF IS TO HAVE AN EVEN THICKNESS OF NOT LESS THAN 25MM. OBTAIN TURF FROM AN APPROVED GROWER, FURNISH A WARRANTY FROM THE GROWER THAT THE TURF IS 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 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 50MM Ø AND REMOVE ALL WEEDS AND FOREIGN MATTER. SPREAD SOIL MIX A.B.S TO A DEPTH OF 100MM AND GRADE TO APPROPRIATE LEVELS TO ACHIEVE GENERAL EVEN GRADES TO DRAINAGE OUTLETS INSTALLED BY OTHERS.

LAY THE TURF ALONG THE 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 PRACTICABLE AFTER LAYING, ROLL THE TURF WITH A ROLLER WEIGHING NOT MORE THAN 90KG PER METRE OF WIDTH FOR SANDY OR LIGHT SOILS.

WATER AS NECESSARY TO KEEP THE SOIL MOIST TO A DEPTH OF 100MM. PROTECT NEWLY TURFED AREAS AGAINST TRAFFIC UNTIL GRASS IS ESTABLISHED. FERTILISE TWO WEEKS AFTER LAYING FERTILISE A.B.S

'TOP DRESS' THE TURF WHEN IT IS ESTABLISHED TO A DEPTH OF 10MM WITH COARSE WASHED RIVER SAND. RUB THE DRESSING WELL INTO THE JOINTS AND CORRECT ANY UNEVENNESS IN THE TURF SURFACES.

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 CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. 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 CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

REPLACEMENTS

THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

STAKES AND TIES

THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES, AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

PRUNING

TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. 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 DISEASED CONTROL

THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

GRASS AND TURF AREAS

THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL GRASS AND TURF AREAS BY WATERING, WEEDING, 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 LEAFED WEEDS AS REQUIRED BY THE LANDSCAPE ARCHITECT AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. GRASS AND TURF AREAS SHALL BE FERTILISED ONCE A YEAR IN AUTUMN WITH 'DYNAMIC LIFTER' FOR LAWNS AT A RATE OF 20KG PER 100M2. FERTILISER SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. IRREGULARITIES IN THE GRASS AND TURF SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. GRASS AND TURF AREAS SHALL BE KEPT MOWN TO MAINTAIN A HEALTHY AND VIGOROUS SWARD. MOWING HEIGHT: 30-50MM.

WEED ERADICATION

ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (EG. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE, AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

SOIL SUBSIDENCE

ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.