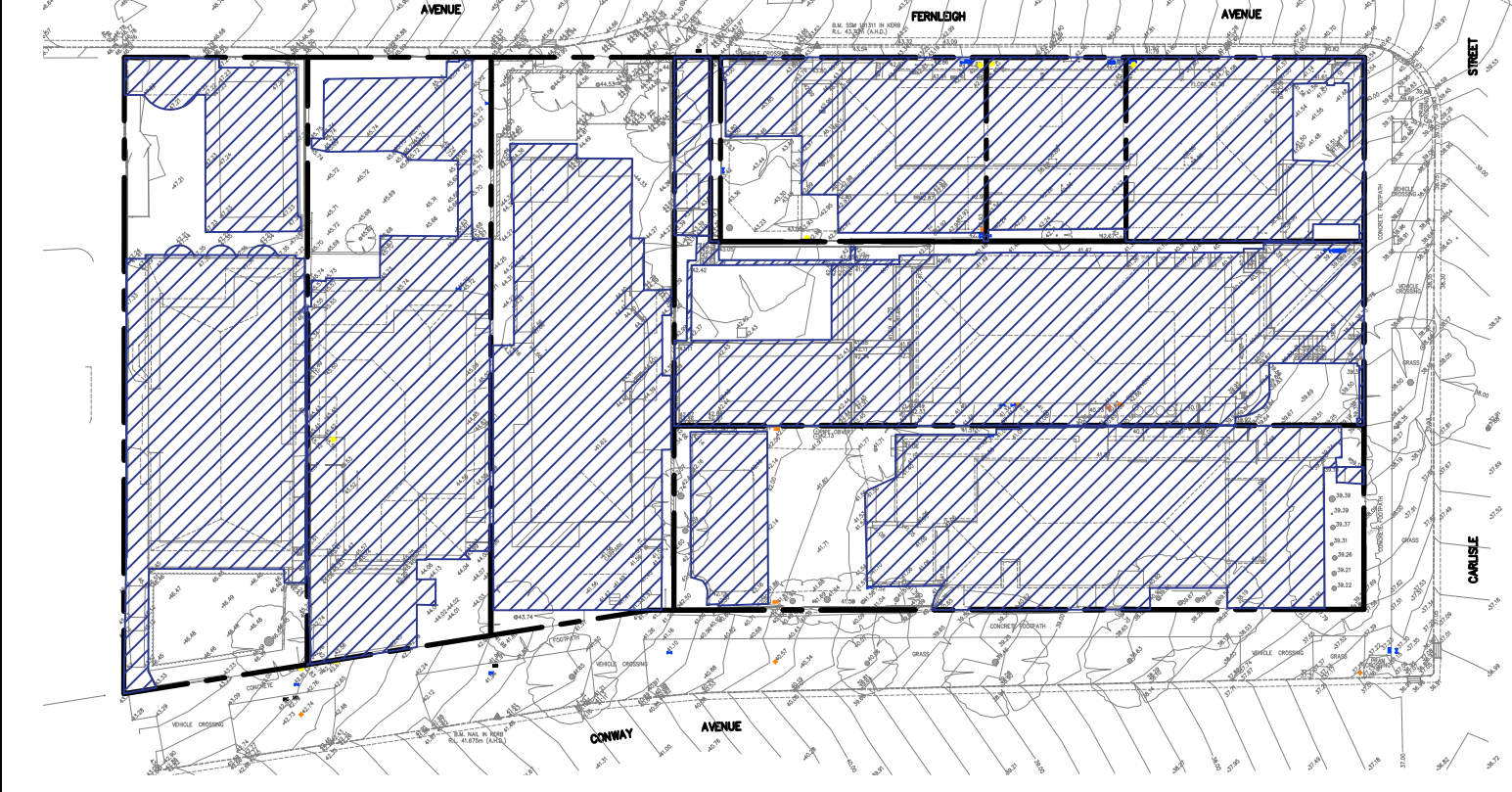




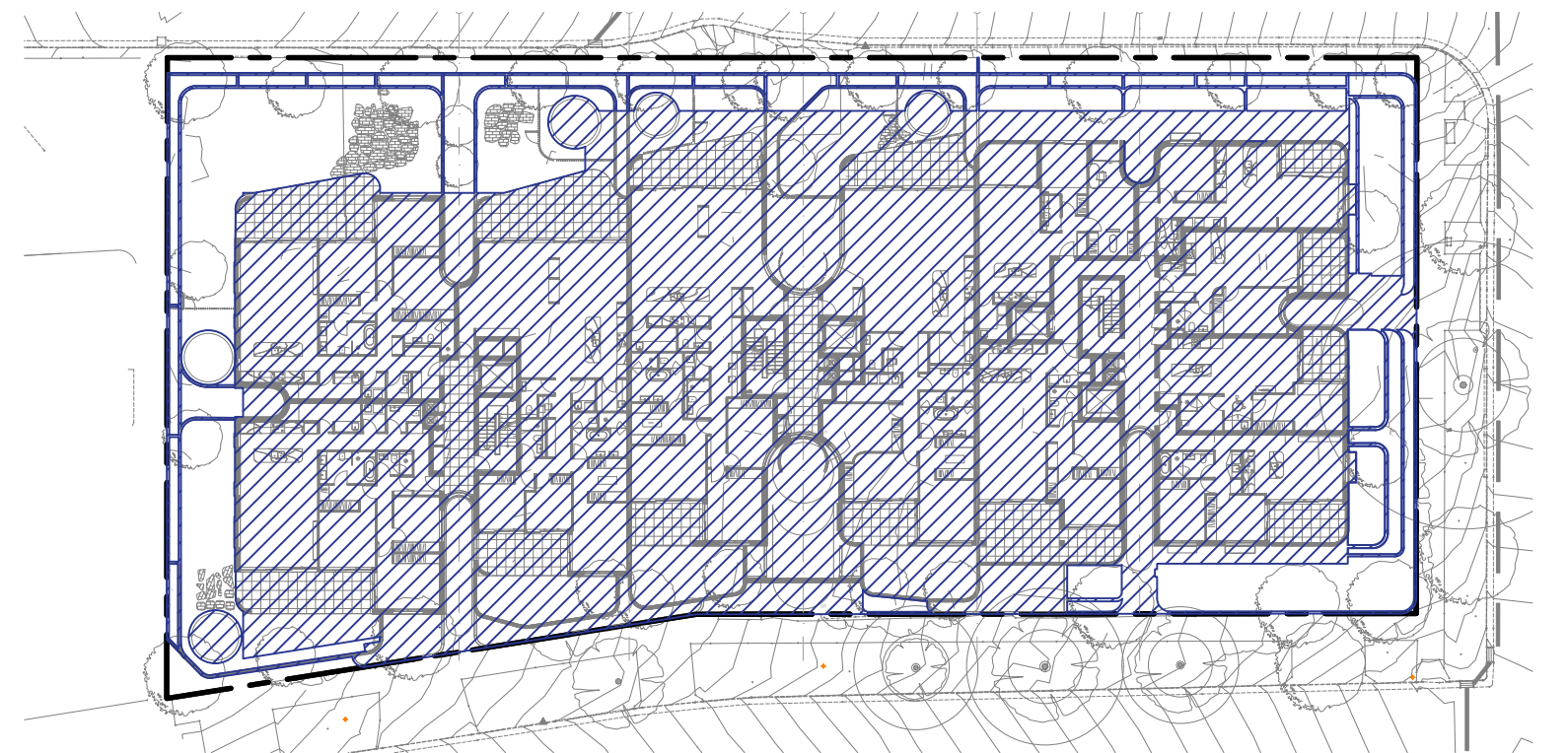
EXISTING IMPERVIOUS AREA: 2324m² (75%)
SCALE = 1 : 500

NOT FOR CONSTRUCTION

RTS

CIVIL CONSULTING ENGINEERS

RESIDENTIAL FLAT BUILDING WITH BASEMENT
DIAN ROSE BAY



PROPOSED IMPERVIOUS AREA: 2452m² (79%)
SCALE = 1 : 500

STORMWATER DRAINAGE NOTES:

- ALL PIPES TO BE 100mm Ø UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE uPVC TO AS 1254–2002 UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
- ALL PIPES SHALL BE LAYED ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS. (NO COMPACTION REQUIRED BELOW LANDSCAPING). COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM. BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
- ALL DOWN PIPES TO BE 100mm Ø UNLESS NOTED OTHERWISE.
- DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
- PROVIDE CLEANING EYES AT ALL DOWNPIPES.
- ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 1 N12 TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 1000 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH N12 AT 250 EACH WAY UNLESS NOTED OTHERWISE.
- ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
- PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
- ALL LEVELS SHOWN ARE TO AHD UNLESS NOTED OTHERWISE.
- ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
- ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
- ALL WORKS TO BE IN ACCORDANCE WITH AS 3500.3:2018 NATIONAL PLUMBING DRAINAGE CODE PART 3 – STORMWATER DRAINAGE.
- UNLESS NOTED OTHERWISE, SUB–SOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.
- IF NOT INDICATED ON PLANS, PROVIDE LEAF CATCHERS TO ALL DOWNPIPES.
- EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED IN ACCORDANCE WITH AS 3500.3:2018.
- CARE SHOULD BE TAKEN WHEN UNDERTAKING WORKS IN THE VICINITY OF SELECTED TREES NOT TO DISTURB THE TREE ROOT SYSTEM. HAND DIGGING OF TRENCHES MAY BE NECESSARY. REFER ARBORISTS REPORT WHERE REQUIRED.
- CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF ANY POTENTIAL CLASHES WITH THE PROPOSED DRAINAGE EASEMENT PIPE LINE.
- ALL SUB–SOIL DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH THE STRUCTURAL AND GEOTECHNICAL REQUIREMENTS, AUSTRALIAN STANDARDS AS 3500.3:2018 AND IS TO BE DIRECTED TO THE SITE DRAINAGE SYSTEM BY MEANS OF GRAVITY DISCHARGE ONLY. DO NOT CONNECT SUB–SOIL PIPES TO AREAS WITH HIGHER SURFACE LEVELS U.N.O..
- ALL PIPES SHOWN ARE INDICATIVE ONLY AND MINIMUM CLEARANCES FROM THE EXTERNAL WALLS OF BUILDINGS, FOR THE EXCAVATION OF TRENCHES, ARE TO BE PROVIDED IN ACCORDANCE WITH AS 3500.3:2018.
- ANY COMPONENTS OF THE EXISTING SYSTEM PROPOSED TO BE RETAINED ARE TO BE CERTIFIED DURING CONSTRUCTION TO BE IN GOOD CONDITION AND OF ADEQUATE CAPACITY TO CONVEY ADDITIONAL RUNOFF AND BE REPLACED OR UPGRADED IF REQUIRED.
- ANY CHARGED PIPES MUST BE A MINIMUM OF 100mm (UNLESS NOTED OTHERWISE) WITH ALL JOINTS MUST BE SOLVENT WELDED. A CLEANING EYE, OR FLUSH OUT POINT, MUST BE PROVIDED AT THE LOW POINT IN THE SYSTEM WITHIN A PIT THAT CAN BE DRAINED TO AN ONSITE DISPERSAL SYSTEM.
- PROVISION IS TO BE MADE FOR THE COLLECTION AND DISPOSAL IN AN APPROVED MANNER OF ANY OVERLAND FLOW OR SUB–SURFACE FLOW ENTERING THE SUBJECT PROPERTY, OR CONCENTRATED AS A RESULT OF THE PROPOSED WORKS. ANY REDIRECTION OR TREATMENT OF FLOWS ENTERING THE PROPERTY SHALL NOT ADVERSELY AFFECT ANY OTHER PROPERTIES.
- PREVENT ANY STORMWATER EGRESS INTO ADJACENT PROPERTIES BY CREATING PHYSICAL BARRIERS AND SURFACE DRAINAGE INTERCEPTION.
- GUTTER GUARDS MUST BE INSTALLED ON ALL GUTTERS TO MINIMISE DEBRIS ENTERING THE SYSTEM.
- ALL SUB–SOIL DRAINAGES, STRIP DRAINS AND DRAINAGE PITS SHALL DISCHARGE TO THE ESTABLISHED SITE DISCHARGE POINT U.N.O AND BE CONSTRUCTED IN ACCORDANCE WITH AS3500.3:2018 REQUIREMENTS.
- OVERFLOW PATHS SHALL BE PROVIDED TO ALLOW FOR FLOWS IN EXCESS OF THE CAPACITY OF THE PIPE/DRAINAGE SYSTEM DRAINING THE SITE.
- WHERE ANY NEW STORMWATER DRAINAGE SYSTEM CROSSES THE FOOTPATH AREA WITHIN ANY ROAD, SEPERATE APPROVAL UNDER SECTION 138 OF THE ROAD ACT 1993 MUST BE OBTAINED FROM COUNCIL FOR THOSE WORKS PRIOR TO THE ISSUE OF ANY CONSTRUCTION CERTIFICATE.
- CONCEALED DOWNPIPES MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.5.6 OF AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS. BUILDER TO ENSURE LOCATIONS DO NOT RESTRICT NORMAL OPERATION OF DOORS, WINDOWS, ACCESS OPENINGS OR OCCUPANCY OF A BUILDING, DO NOT CAUSE NUISANCE OR LEAD TO INJURY OF A PERSON, DO NOT INTERFERE WITH THE STRUCTURAL INTEGRITY OF THE WALL OR COLUMN, AS CLOSE AS PRACTICABLE TO THE SUPPORTING STRUCTURE, ARE PROTECTED FROM MECHANICAL DAMAGE, AT LEAST 100mm CLEAR OF ANY ELECTRICAL CABLE OR GAS PIPE, AT LEAST 50mm FROM ANY OTHER PIPEWORK OR SERVICE. CONCEALED DOWNPIPES TO HAVE INSPECTION OPENINGS THAT EXTEND TO THE FACE OF THE WALL OR SLAB FOR MAINTENANCE. SEAMS AND JOINTS TO BE WATERTIGHT. IF INSPECTION OPENINGS ARE REQUIRED FOR TESTING AND MAINTENANCE PURPOSES, INSPECTION OPENINGS SHALL HAVE A NOMINAL SIZE OF NOT LESS THAN THE NOMINAL DIAMETER OF THE DOWNPIPE.
- WHERE A DOWNPIPE IS CONNECTED TO A SITE STORMWATER DRAIN LOCATED BELOW A SLAB–ON–GROUND, THE CONNECTION OF A CONCEALED DOWNPIPE SHALL BE LOCATED ABOVE THE LEVEL OF THE FLOOR.
- SUPPORT SYSTEMS OF DOWNPIPES OR PIPEWORK MUST BE INSTALLED IN ACCORDANCE AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS.
- FOR CONCEALED EAVES GUTTERS, U.N.O THE TOP EDGE OF THE FASCIA SHOULD NOT BE LESS THAN 25mm BELOW THE TOP OF THE BACK OF THE GUTTER, OR INTEGRAL FLASHING (TAIL) WITH THE TOP EDGE OF THE FLASHING NOT LESS THAN 25mm ABOVE THE TOP OF THE FASCIA.
- THE FOLLOWING ABBREVIATIONS DENOTE:
FSL – FINISHED SURFACE LEVEL OR RL – REDUCED LEVEL
IL – INVERT LEVEL OF PIPE
INV. – INVERT LEVEL OF PIT
CL – CENTRELINE OF ORIFICE
TWL – TOP WATER LEVEL



LOCALITY PLAN
NOT TO SCALE

LEGEND

- STORMWATER PIT
 - NEW STORMWATER PIPE
 - STORMWATER PIPE FLOW DIRECTION
 - STORMWATER PIPE TO RWT
 - EXISTING STORMWATER PIPE
 - FLUSH–OUT LINE
 - BOUNDARY LINE
 - S – EXISTING SEWER MAIN
 - OHP – EXISTING OVERHEAD POWER LINES
 - E – EXISTING ELECTRICITY LINE
 - W – EXISTING WATER MAINS
 - T – EXISTING TELECOMMUNICATIONS LINE
 - G – EXISTING GAS MAINS
- DENOTES DOWNPIPE
 - DENOTES SIZE OF DOWNPIPE
 - STORMWATER DOWNPIPE TO OSD – INDICATIVE ONLY
 - STORMWATER VERTICAL PIPE TO PP1 – INDICATIVE ONLY
 - STORMWATER VERTICAL TRANSFER PIPE BETWEEN LEVELS – INDICATIVE ONLY
 - DOWNPIPE OVER
 - DOWNPIPE UNDER
 - 100ø/80 RAINWATER OUTLET (SPS TRUFLO)
 - 100ø/80 RAINWATER OUTLET WITH PLANTER ADAPTOR (SPS TRUFLO)
 - 200mmø RAINWATER OUTLET
 - 200mm WIDE GRATED STRIP DRAIN TO OSD
 - 100mm GRATED STRIP DRAIN TO OSD
 - 100mm GRATED STRIP DRAIN TO BOUNDARY PIT
 - GRATED STRIP DRAIN TO FLOOD GATE REQUIREMENTS – SEE FIRA
 - 200ø CARPARK FLOOR DRAIN
 - 100ø BASEMENT PERIMETER DRAIN
 - 100 MIN. WIDE INTERNAL OPEN DISH DRAIN
 - AH1 900x900 GRATED ACCESS HATCH
 - AH2 300x300 GRATED INSPECTION LID
 - AH3 900x900 SEALED ACCESS HATCH
 - AH4–AH6 900x900 GRATED ACCESS HATCH
 - PP1 9.0m³ MIN. BASEMENT PUMP OUT PIT
 - OSD 77,600L MIN. ONSITE STORMWATER DETENTION TANK
 - RWT 9,000L RAINWATER TANK – 3,000L MIN. BASIX REQUIREMENTS
 - SQID 4 x STORMFILTER 690P sorb FILTERS & 1 x OCEANGUARD200um OR APPROVED EQUIVALENT WITHIN OSD TANK

RAINWATER HARVESTING REQUIREMENTS:

- CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, HCCRENS WATER SMART PRACTICE NOTE (N).4) AND THE NSW HEALTH REQUIRMENTS FOR NON DRINKING USE ONLY AS FOLLOWS:
a) TO WATER GARDEN AREAS b) TO BASIX REQUIREMENTS
- THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
- REFERENCES: COOMBS P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS".
- ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au OR FROM LOCAL COUNCIL GUIDELINES.
- PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX–DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES AND AS3500.1.
- IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m² OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.
- SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4–6mm AND DESIGNED TO BE SELF–CLEANING.
- FIRST FLUSH DEVICES, OR APPROVED ALTERNATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS. THIS SHOULD CATER FOR THE FIRST 1mm OF RAINFALL.
- BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.
- PRE–STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.
- RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230–200B
- BUILDER OR PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK – HB 230–200B. IF IN DOUBT CONTACT ENGINEER.
- NOISE EMISSIONS FROM ANY PUMPS DO NOT EXCEED 5dB(A) ABOVE AMBIENT BACKGROUND NOISE LEVEL MEASURED AT THE ALLOTMENT BOUNDARY.
- AT THE COMPLETION OF THE WATER SERVICE INSTALLATION AND PRIOR TO HYDROSTATIC TESTING, THE SYSTEM SHALL BE THOROUGHLY FLUSHED TO REMOVE ANY FOREIGN MATTER. THE FLUSHING SHALL BE UNDERTAKEN IN ACCORDANCE WITH AS3500.1 REQUIREMENTS – APPENDIX I, PARAGRAPH I3 AND CONTINUE UNTIL THE FLUSHED WATER RUNS COMPLETELY CLEAR. THE SYSTEM SHALL THEN BE PRESSURE TESTED IN ACCORDANCE WITH CLAUSE 16.3.1.
- AT THE COMPLETION OF THE WATER SERVICE INSTALLATION THE RAINWATER STORAGE TANKS ARE TO BE TESTED IN ACCORDANCE WITH SECTION 16 OF AS3500.1.

SURVEY NOTES:

- THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE PROJECT SURVEY. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. RTS CIVIL CONSLTING ENGINEERS PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE.
- SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT THE ENGINEER.
- REFERENCE SHOULD BE MADE DIRECTLY TO THE SURVEYOR BEFORE SETTING OUT.

EXISTING UNDERGROUND SERVICES NOTES:

- THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
- RTS CIVIL CONSULTING ENGINEERS PTY LTD CANNOT GUARANTEE THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
- CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
- CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.
- CONTRACTOR IS TO CONFIRM FINDINGS FOR THE LOCAL COUNCIL OR SYDNEY WATER IN RELATION TO THE SEWER OR WATER MAINS LOCATED. CONFIRMATION OF MAINS IS REQUIRED PRIOR TO CONSTRUCTION. POSSIBLE CONFLICT OF SERVICES ARE TO BE REPORTED TO THE SUPERINTENDENT OR ENGINEER FOR FURTHER DIRECTIONS.

EXTERNAL NOTES:

- ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.
- PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND.
- RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TO THE SATISFACTION OF THE AFFECTED PARTIES.
- WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED BY OTHERS.

DRAWING SCHEDULE:

- SW001 – COVER PAGE, NOTES & CALCULATIONS SHEET 1 OF 2
SW002 – COVER PAGE, NOTES & CALCULATIONS SHEET 2 OF 2
SW100 – BASEMENT 2 STORMWATER MANAGEMENT PLAN
SW101 – BASEMENT 1 STORMWATER MANAGEMENT PLAN
SW102 – LOWER GROUND STORMWATER MANAGEMENT PLAN
SW103 – GROUND STORMWATER MANAGEMENT PLAN
SW104 – SITE STORMWATER CATCHMENT PLAN
SW200 – STORMWATER DRAINAGE DETAILS SHEET 1 OF 4
SW201 – STORMWATER DRAINAGE DETAILS SHEET 2 OF 4
SW202 – STORMWATER DRAINAGE DETAILS SHEET 3 OF 4
SW203 – STORMWATER DRAINAGE DETAILS SHEET 4 OF 4

www.dialbeforeyoudig.com.au



NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE.

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN DIGGING CAN:

- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG. – TEL. 1100

ALL DIMENSIONS MUST BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.

AT ORIGINAL				BY BUILDER BEFORE COMMENCING WITH WORK.																		
				Issued for: DEVELOPMENT APPLICATION			Title:	Initial:	Date:	RTS CIVIL CONSULTING ENGINEERS STORMWATER • CIVIL • FLOOD MITIGATION ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au		Architect:		MHNDUNION Client: TWO CONWAY PTY LTD		Project and Drawing Title: 2–6 CONWAY AVENUE & 38–40 CARLISLE STREET, ROSEBAY COVERPAGE, NOTES & CALCULATIONS SHEET 1 OF 2				Local Council:		
				Approved by:			DESIGN	R.M	28.10.2025			WOOLLAHRA COUNCIL										
B	07.05.26	RESPONSE TO SUBMISSIONS		R.M	Date : 07.05.26			DRAWN	S.M			28.10.2025	Project Number:							Drawing ID:	Issue:	
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION		R.M	Rhys Mikhail			CHECKED	R.M			18.12.2025	251004							SW001	B	
Rev:		Date:	Description:		Reviewed:	Director Principal Engineer NER: 2570082 RPEQ: 17480 BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC INtPE(Aus)			APPROVED	R.M	18.12.2025											

NOTES:
1. U.N.O REFER TO THE COVERPAGE 001 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

STORMWATER PUMP–OUT AND ‘WET WELL’ NOTES:

1. PUMPED SYSTEMS ARE FOR AREAS NORMALLY LESS THAN 2,000m2 WHERE IT IS NOT POSSIBLE FOR THE STORMWATER TO BE DISCHARGED BY GRAVITY THROUGH THE AVAILABLE GRAVITATIONAL POINT OF CONNECTION. ALL WORKS ARE TO BE IN ACCORDANCE WITH AS3500.3 – PLUMBING AND DRAINAGE: STORMWATER DRAINAGE – SECTION 9 – PUMPED SYSTEMS.
2. TO ENSURE THAT SEEPAGE WATER IS NOT BEING PUMPED CONTINUALLY OUT TO THE STREET, THE PUMPS IN THE BASEMENT OR LOWER LEVEL OF PROPERTY SHALL BE ADJUSTED TO PERMIT STORAGE IN THE SYSTEM PRIOR TO THE PUMPS SWITCHING ON (REFER DETAILS FOR STORAGE VOLUME AND LEVELS). THE PUMPS SHOULD THEN DISCHARGE ALL WATER SO THAT ONLY MINIMAL WATER REMAINS OVER THE PUMP INTAKE, AS REQUIRED BY THE MANUFACTURER.
3. THE PUMPS SHALL OPERATE ALTERNATELY TO LEVELS INDICATED ON THE SUPPLIED ENGINEERING DETAILS WITH BOTH PUMPS OPERATING IN UNISON AT THE LEVELS INDICATED (SYSTEM TO BE FITTED WITH ALARM SYSTEM – BY OTHERS). THE SECOND PUMP WILL BEING TO OPERATE IF THE WATER LEVEL CONTINUES TO RISE ABOVE THE MAXIMUM WATER LEVEL AFTER THE FIRST PUMP HAS COME ON. SIGNAGE IS TO BE DISPLAYED WITHIN THE LOW AREA OF THE BASEMENT INDICATING PERMIT ADDITIONAL STORAGE VOLUME IS EXPECTED (UP TO 200mm IN DEPTH) DURING A MAJOR STORM EVENT.
4. THE REQUIRED PUMPING RATE SHALL BE CALCULATED BASED ON AN ASSESSMENT OF THE EXPECTED INFLOW AND, WHERE APPROPRIATE, THE ALLOWABLE DISCHARGE RATE. HOWEVER, UNLESS NOTED OTHERWISE, THE MINIMUM PUMP CAPACITY OF A BASEMENT (BELOWGROUND) SYSTEM SHOULD NOT BE LESS THAN 10 L/s.
5. PUMPS SHALL BE IN DUPLICATE THE MAXIMUM CAPACITY OF EACH PUMP SHALL BE SELECTED SO THAT THE CAPACITY OF THE SYSTEM RECEIVING THE DISCHARGE IS NOT EXCEEDED. THE PUMP CONTROLS SHALL BE SET UP TO ENABLE ALTERNATE PUMP OPERATION AT EACH START IN THE EVENT THAT A PUMP FAILS TO OPERATE WHEN THE WATER LEVEL IN THE WET WELL REACHES THE PUMP START, THE OTHER PUMP SHALL BE ACTIVATED AND A VISIBLE ALARM INITIATED. IF BOTH PUMPS FAIL TO OPERATE AN AUDIBLE ALARM SHALL BE INITIATED IN ACCORDANCE WITH SECTION 8.3.7 OF AS3500.3. LOCATE HIGH AND LOW LEVEL ALARMS CLEAR OF INLETS TO PREVENT FALSE ALARMS. THE HIGH LEVEL ALARM SHOULD BE SET NO HIGHER THAN 100 MM ABOVE THE INVERT OF THE INLET PIPE, PROVIDED THAT FLOODING OF HABITABLE OR STORAGE AREAS AND VEHICLE GARAGES SHALL BE AVOIDED. WHERE FLOODING COULD OCCUR THE OVERFLOW AND HIGH–LEVEL ALARM SHALL BE LOWERED ACCORDINGLY TO PREVENT FLOODING.
6. THE MINIMUM WET WELL STORAGE BETWEEN THE HIGH AND LOW WORKING LEVELS EXPRESSED IN CUBIC METRES SHALL BE 1% OF THE CATCHMENT AREA IN m2 BUT IN ANY CASE SHALL NOT BE LESS THAN 3 m3, OR AS OTHERWISE DIRECTED OR APPROVED BY THE AUTHORITY HAVING JURISDICTION.
7. THE CAPACITY OF THE PUMPED SYSTEM (WET WELL) SHALL BE ACHIEVED BY A COMBINATION OF PUMP CAPACITY AND WET WELL STORAGE BETWEEN THE HIGH AND LOW WORKING LEVELS OF THE WET WELL. THE COMBINED EFFECTIVE STORAGE COMPRISING THE VOLUME ABLE TO BE PUMPED IN 30 MIN PLUS THE WET WELL STORAGE SHALL NOT BE LESS THAN THE VOLUME OF THE RUN–OFF FROM THE STORM OF ARI = 10 YEARS AND DURATION OF 120 MIN, OR AS OTHERWISE DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
8. PUMPING EQUIPMENT SHALL BE SECURELY FIXED TO THE WET WELL USING CORROSION RESISTANT FIXINGS.
9. PUMPS SHALL BE FITTED WITH A GATE VALVE AND NON–RETURN VALVE ON THE DELIVERY SIDE OF EACH PUMP.
10. PUMPS SHALL HAVE FLANGES OR UNIONS INSTALLED TO FACILITATE REMOVAL.
11. PUMPS SHALL BE CONTROLLED SO AS TO LIMIT THE NUMBER OF STARTS PER HOUR TO WITHIN THE CAPACITY OF THE ELECTRICAL MOTORS AND EQUIPMENT, AND SHALL, AS FAR AS PRACTICABLE, EMPTY THE CONTENTS OF THE WET WELL AT EACH OPERATION.
12. PUMPS ARE TO OPERATE ONLY DURING HOURS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION.
13. VALUE OF HEAD IS TO BE CONFIRMED ONCE EXCAVATION COMPLETE AND PRIOR TO ORDERING PUMPS AND EQUIPMENT.
14. PUMP SPECIFICATIONS AND PRESSUE PIPE DIAMETER ARE TO BE DETERMINED BY THE PUMP MANUFACTURER.
15. PROVIDE LITTER SCREEN ABOVE PUMP SET.
16. ALL ELECTRICAL MOTORS AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH AS3000.

INSTALLATION OF PIPEWORK NEAR AND UNDER BUILDINGS NOTES:

- THE FOLLOWING APPLY TO A DRAIN IN CLOSE PROXIMITY TO FOOTINGS OR FOUNDATIONS:
1. WHERE THE DRAIN PASSES UNDER A STRIP FOOTING, ITS ANGLE OF INTERSECTION WITH THE FOOTING IN THE HORIZONTAL PLANE SHALL BE NOT LESS THAN 45°, AND THE MINIMUM CLEARANCE BETWEEN THE TOP OF THE DRAIN TO THE UNDERSIDE OF THE FOOTING SHALL BE 25mm.
2. IF THE DRAIN IS LAID THROUGH FOOTINGS OR WALLS, OTHER THAN BELOW–GROUND EXTERNAL WALLS, IT SHALL BE INSTALLED WITH AN ANNULAR SPACE OF NOT LESS THAN 25mm FILLED WITH A LINER OF FLEXIBLE MATERIAL.
3. THE DRAIN MAY BE LAID THROUGH BELOW–GROUND EXTERNAL WALLS, PROVIDED–
- a. TWO FLEXIBLE JOINTS ARE PROVIDED EXTERNALLY WITHIN 800mm OF THE EXTERNAL FACE OF THE WALL, AND SUCH JOINTS ARE NOT LESS THAN 600mm APART; AND
- b.THE PENETRATION OF THE WALL IS MADE WATERTIGHT.
4. WHERE THE DRAIN IS TO BE LAID PARALLEL TO A FOOTING, THE TRENCH SHALL BE LOCATED AS FOLLOWS:
- a. THE DRAIN SHALL BE LAID–
- b. IN ACCORDANCE WITH NCC VOLUME TWO; AND
- c. FOR SINGLE DWELLINGS, AS SHOWN IN FIGURE 6.2.8 OF AS3500.3.

INSPECTIONS BY ENGINEER

- 48 HOURS NOTICE IS REQUIRED BEFORE ANY SITE INSPECTION. ANY STRUCTURAL ELEMENT NOT INSPECTED BY RTS CIVIL WILL NOT BE CERTIFIED BY RTS CIVIL CONSULTING ENGINEERS PTY LTD.
1. BEARING STRATA OF ALL FOOTINGS PRIOR TO CONCRETE POUR BY GEOTECHNICAL ENGINEER.
2. ANY REINFORCEMENT PRIOR TO CONCRETE POUR.
3. TIMBER AND STEEL FRAMING PRIOR TO CLADDING OR LINING.
4. STEEL LINTELS AFTER INSTALLATION.
5. CONTACT YOUR PCA (PRINCIPAL CERTIFYING AUTHORITY) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE INSPECTIONS IN ACCORDANCE WITH REVISED EP&A ACT REGULATIONS EFFECTIVE JULY 1, 2004.
6. INSPECTION BY GEOTECHNICAL ENGINEER OVER 1.5m OF VERTICAL CUT THROUGH SANDSTONE BED ROCK TO PERMIT IDENTIFICATION OF DEFECTS AND REMEDIAL MEASURES INITIATED.
7. SCHEDULE OF CONSTRUCTION STAGES REQUIRING INSPECTION:
- a. FOLLOWING PLACEMENT OF PIPE BEDDING MATERIAL. CONFIRM TRENCH/PIPE LOCATION, ADEQUACY OF DEPTH OF COVER, BEDDING MATERIAL AND DEPTH.
- b. FOLLOWING JOINING OF PIPES AND CONNECTION TO COUNCIL’S STORMWATER SYSTEM.
- c. FOR DISPERSION TRENCH SYSTEMS:–
- (i) FOLLOWING SET OUT TO CONFIRM LOCATION, LENGTH AND VOLUME OF STORAGE.
8. ALL INSPECTIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION APPROVAL.

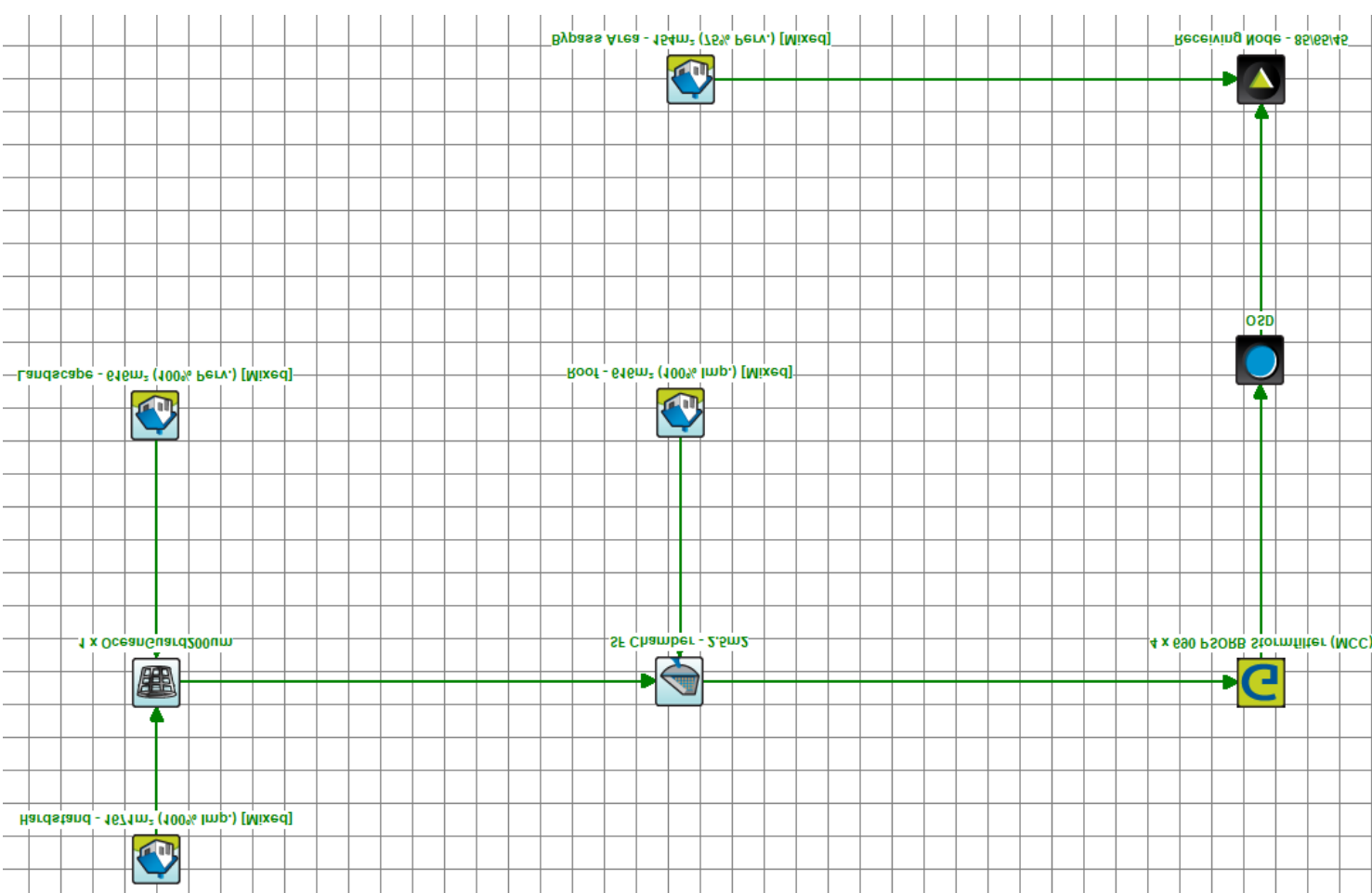
NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

NOT FOR CONSTRUCTION

ONSITE DRAINAGE CALCULATIONS ACCORDING TO WOOLLAHRA COUNCIL (DCP 2015)				
TOTAL SITE AREA		3,105 m ² > 500 m ²		
TOTAL EXISTING SITE IMPERVIOUS AREA		2,324 m ²		
TOTAL PROPOSED SITE IMPERVIOUS AREA		2,452 m ²		
INCREASE IN IMPERVIOUS AREA		128 m ² > 40 m ²		
DEVELOPMENT TYPE		KNOCK –DOWN REBUILD		
THEREFORE ONSITE DETENTION (OSD or SSR) IS NOT REQUIRED FOR THIS DEVELOPMENT.				
COUNCIL OSD REQUIREMENTS PER 1,000 m ² FOR TOTAL SITE AREA:				
ARI EVENT	PSD \ 1,000 m ²	SSR \ 1,000 m ²	PSD \ SITE	SSR \ SITE
1 IN 2 YEAR	24.0 L/s	4.0 m ³	74.5 L/s	12.4 m ³
1 IN 100 YEAR	34.0 L/s	20.0 m ³ 25.0* m ³	105.6 L/s	62.1 m ³ 77.6 m ³
*RATE REQUIRED TO OFFSET RAINGARDEN – APPLIED				
ONSITE DETENTION DETAILS (USING DRAINS MODEL)				
PORTION THROUGH OSD		98 %		
PRE DEVELOPMENT SITE DISCHARGE				
2 YR (39% AEP STORM EVENT)		83 L/s		
20 YR (5% AEP STORM EVENT)		155 L/s		
100 YR (1% AEP STORM EVENT)		213 L/s		
POST DEVELOPMENT SITE DISCHARGE		OSD	OVERFLOW	BYPASS
2 YR (39% AEP STORM EVENT)		58 L/s	0 L/s	1 L/s
20 YR (5% AEP STORM EVENT)		82 L/s	0 L/s	3 L/s
100 YR (1% AEP STORM EVENT)		102 L/s	0 L/s	4 L/s
ONSITE DETENTION TANK DETAILS				
REQUIRED OSD VOLUME		62.1 m ³ (DRAINS MODEL)		
OVERFLOW TO STREET		YES		
OSD TANK VOLUME PROVIDED – NO RAINGARDEN		77.6 m ³ (39.0m ² x 2.0m DEPTH)		
RAINWATER TANK DETAILS				
VOLUME OF RAINWATER (BASIX)		3.0 m ³		
RAINWATER TANK VOLUME PROVIDED		9.0 m ³ (4.5m ² x 2.0m DEPTH)		
WATER SENSITIVE URBAN DESIGN TO WOOLLAHRA DCP 2015 CHAPTER E2 SECTION E.2.2.2 WSUD & E.2.2.3 STORMWATER TREATMENT REQUIREMENTS				
WSUD MUSIC SUMMARY	% REDUCTION OCEAN PROTECT	% REDUCTION ATLAN	TARGET	
TOTAL SUSPENDED SOLIDS (TSS)	88	86 %	85 %	
TOTAL PHOSPHOROUS (TP)	69	66 %	65 %	
TOTAL NITROGEN (TN)	48	64 %	45 %	
GROSS POLUTANTS (GP)	97	97 %	90 %	

NOTE:
THE SUBSTITUTION OF AN "EQUIVALENT" DEVICE FOR THE STORMWATER TREATMENT MEASURE APPROVED UNDER THE DEVELOPMENT CONSENT MUST SUBMITTED TO THE PRINCIPAL CERTIFYING AUTHORITY FOR APPROVAL PRIOR TO INSTALLATION.

ONSITE DRAINAGE PUMP OUT CALCULATIONS – AUSTRALIAN STANDARDS AS3500.3 – PUMP OUT TANK PP1 – REFER TYPICAL DETAILS			
REQUIRED VOLUME:			
AREA DRAINING TO THE PUMPOUT PIT = 55 m ²		(DRIVEWAY + ENTRANCE AREA)	
PRELIMINARY SEEPAGE RATE (PER LOT) = 3 L/min		(DISCUSSED WITH GEOTEC)	
SEEPAGE RATE APPLIED = 24 L/min		(MUST BE CONFIRMED AT CC STAGE)	
		= 0.40 L/s	
VOLUME ACCUMULATED (100 YEAR ARI, 2 HOUR STORM):			
Q = F x C x I x A			
= [1/3600 x 1.08 x 49.8 x 55] + 0.40			
= 1.22 L/s			
VOLUME ACCUMULATED (100 YEAR ARI, 2 HOUR STORM):			
V _{100/120} = (1.22L/s x 2hrs x 3600s)/1000		} WET WELL STORAGE CAPACITY	
= 8.80 m ³			
PUMP OUT RATE (100 YEAR ARI, 5 MIN STORM):			
Q _{PUMPED} = [1/3600 x 1.08 x 265 x 55] + 0.40			
= 4.77 L/s (10.0 L/s MIN.)			
VOLUME PUMPED IN 30 MINS:			
PC ₃₀ = (10.00L/s x 0.5hrs x 3600s)/1000			
= 18.00 m ³		= V _{100/120} – PC ₃₀ = 0.0 m ³	
VOLUME PUMPED IN 5 MINS:			
PC ₅ = (10.00L/s x 0.083hrs x 3600s)/1000			
= 3.00 m ³		= V _{100/120} = 8.80 m ³	
		VOLUME PROVIDED = 9.00 m ³	
DUAL SUBMERSIBLE PUMPS OR EQUIVALENT TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL ALLOWING FOR THE PUMPS TO OPERATE SIMULTANEOUSLY ON HIGH LEVEL ALARMS AT 10.0L/s (PER PUMP) AT 9.0m HEAD. FINAL PUMP SPECIFICATION (DUTY, ELECTRICAL COMPLIANCE, HAZARDOUS AREA CLASSIFICATION IF REQUIRED) TO BE CONFIRMED BY BUILDING HYDRAULIC/ELECTRICAL SERVICES ENGINEER.			



Treatment Train Effectiveness - Receiving Node - 85/65/45			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	3.11	3.11	0
Total Suspended Solids (kg/yr)	422	50.2	88.1
Total Phosphorus (kg/yr)	0.784	0.241	69.2
Total Nitrogen (kg/yr)	6.67	3.46	48.1
Gross Pollutants (kg/yr)	67.5	1.86	97.3

MUSIC MODEL SUMMARY

SEE SW104

SEDIMENT AND EROSION CONTROL NOTES:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. GEOTECHNICAL ENGINEER IS TO PROVIDE SITE STABILITY REQUIREMENTS. CUTS ARE TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. AS A GUIDE, INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0m VERT. TO 1.7m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0m VERT. TO 1.7m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
6. CONTRACTOR TO MINIMISE DISTURBED AREAS.
7. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
8. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
9. ROADS AND FOOTPATH TO BE SWEEP DAILY.
10. CONSTRUCTION VEHICLES ARE TO LEAVE AND ENTER THE SITE OVER AN ALL WEATHER SURFACE CONSISTING OF COURSE CRUSHED STONE OR BLUE METAL CONSTRUCTED WITHIN THE FRONT SETBACK AREA OPPOSITE THE EXISTING FOOTPATH CROSSING UNLESS NOTED OTHERWISE.
11. EXCAVATION MACHINERY ARE TO BE UNLOADED AND LOADED UPON THIS ALL WEATHER SURFACE. CONCRETE PUMPS AND TRUCKS WILL ALSO UTILISE THE ALL WEATHER SURFACE FOR THEIR OPERATIONS.
12. MATERIALS WILL BE UNLOADED UPON THE ALL WEATHER SURFACE WITHIN THE FRONT SETBACK AREA BY MEANS OF CRANES MOUNTED ON THE BACK OF DELIVERY TRUCKS OR UNLOADED BY HAND. A MOBILE CRANE MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS.
13. SOME STOCKPILING OF TOPSOIL REMOVED FROM THE BUILDING AREA MAY BE STORED ON THE SITE DURING THE CONSTRUCTION WITHIN THE PROPERTY IN AN AREA ENCLOSED WITHIN THE SEDIMENT CONTROL FENCING.
14. ALL EXCAVATED & CONSTRUCTION MATERIALS, SHED, SKIP BINS, TEMPORARY WATER CLOSETS, SPOIL AND EQUIPMENT, ETC SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL STAND ON COUNCIL FOOTPATHS FOR LARGE LENGTHS OF TIME.
15. ALL RUBBISH & RECYCLABLE MATERIAL SHALL BE STOCKPILED IN WASTE BINS IN THE AREA NOMINATED ON THE SITE PLAN WITHIN THE SITE BOUNDARY. PUBLIC PROPERTY SHALL BE KEPT FREE OF RUBBISH AND RECYCLABLES AT ALL TIMES ANY WASTE MATERIALS SHALL BE REGULARLY COLLECTED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE FASHION.
16. ANY BUILDING OR DEMOLITION WORKS INVOLVING ASBESTOS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELAVANT STANDARDS.
17. VEHICLES LEAVING THE SITE WILL DO SO VIA THE ALL WEATHER BALLAST DRIVEWAY MADE OF COURSE AGGREGATE OR SIMILAR LOCATED WITHIN THE FRONT SETBACK AREA OF THE DEVELOPMENT. ANY DIRT OR MATERIAL DEPOSITED ON THE ROAD RESERVE OR ROADWAY IS TO BE PROMPTLY CLEANED.
18. ANY EXCAVATED AREA REQUIRING SUPPORT WILL BE UNDERTAKEN BY THE OWNER USING STRUCTURALLY APPROVED RETAINING STRUCTURES.
19. ADEQUATE SAFETY SIGNAGE MUST BE ERECTED IN A PROMINENT POSITION ON THE WORK SITE, WARNING OF UNAUTHORISED ENTRY TO WORK SITE AND INTENDING DANGERS.
20. SAFETY FENCES SHALL BE PROVIDED AROUND ALL BOUNDARIES UNLESS A CONTINUOUS STRUCTURALLY ADEQUATE FENCE PRESENTLY EXISTS. THE FENCING SHALL BE ADEQUATE TO RESTRICT PUBLIC ACCESS TO THE SITE WHEN BUILDING WORK IS NOT IN PROGRESS OR THE SITE IS UNOCCUPIED.
21. NOISE LEVELS SHALL NOT EXCEED COUNCIL REGULATION LEVELS. BUILDING AND DEMOLITION WORKS SHALL ONLY BE CARRIED OUT BETWEEN HOURS AND DAYS SPECIFIED BY COUNCIL.
22. GEOTEXTILE FABRIC SHALL BE PLACED ON THE INSIDE OF THE SITE. FENCING PRIOR TO SITE DISTURBANCE TO PREVENT SEDIMENT WASHING FROM CLEARED AND DISTURBED AREAS OF THE SITE INTO THE STORMWATER SYSTEM. DURING CONSTRUCTION, UNLESS OTHERWISE NOTED, UNCONTAMINATED RUNOFF FROM CLEARED OR DISTURBED AREAS ARE TO BE DIRECTED TO A TEMPORARY SILT ARRESTOR PIT THAT SHALL BE PROVIDED WITHIN THE SITE AT THE STREET BOUNDARY PROCESSING SITE STORMWATER BEFORE IT IS DISCHARGED TO THE STREET DRAINAGE SYSTEM OR WATERCOURSE.
23. ALL TOP SOIL STRIPPED & STOCKPILED ONSITE IS TO BE BE PLACED IN NOMINATED AREAS ON PLAN OR TO COUNCIL REQUIREMENTS. ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS.
24. ALL SEDIMENT CONTROL STRUCTURES ARE TO BE CONTINUALLY MAINTAINED DURING CONSTRUCTION AND INSPECTED FOR STRUCTURAL DAMAGE AFTER EACH RAINFALL EVENT, WITH TRAPPED SEDIMENT BEING REMOVED TO THE TOPSOIL STOCKPILE.
25. WHERE THERE IS THE POTENTIAL OF SITE EROSION TO PRODUCE EXCESSIVE SEDIMENT RUNOFF, SUITABLE GEOTEXTILE BARRIERS SHALL BE PLACED TO ALLEVIATE THE RISK ACCORDINGLY. BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS. GEOTEXTILE FABRIC LOCATED ON THE INSIDE OF FENCES SHALL ALSO BE UTILISED FOR DUST CONTROL WHERE NECESSARY.
26. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
- a) LOCAL AUTHORITY REQUIREMENTS
- b) EPA – POLLUTION CONTROL MANUAL FOR URBAN STORMWATER
- c) LANDCOM NSW – MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION ("BLUE BOOK")
27. PRIOR TO DISCHARGE OF SITE STORMWATER, GROUNDWATER AND SEEPAGE WATER INTO COUNCIL'S STORMWATER SYSTEM, CONTRACTORS MUST UNDERTAKE WATER QUALITY TESTS IN CONJUNCTION WITH A SUITABLY QUALIFIED ENVIRONMENT CONSULTANT OUTLIN THE FOLLOWING:
- a) COMPLIANCE WITH THE CRITERIA OF THE AUSTRALIAN AND NEW ZEALAND GUIDELINES FOR FRESH AND MARINE WATER QUALITY (2000)
- b) IF SUBJECT TO THE ENVIRONMENTAL CONSULTANTS ADVICE, PROVIDE REMEDIAL MEASURES TO IMPROVE THE QUALITY OF WATER THAT IS TO BE DISCHARGED INTO COUNCIL'S STORMWATER DRAINAGE SYSTEM. THIS SHOULD INCLUDE COMMENTS FROM A SUITABLY QUALIFIED ENVIRONMENTAL CONSULTANT CONFIRMING THE SUITABILITY OF THESE REMEDIAL MEASURES TO MANAGE THE WATER DISCHARGED FROM THE SITE INTO COUNCIL'S STORMWATER DRAINAGE SYSTEM. OUTLINING THE PROPOSED, ONGOING MONITORING, CONTINGENCY PLANS AND VALIDATION PROGRAM THAT WILL BE IN PLACE TO CONTINUALLY MONITOR THE QUALITY OF WATER DISCHARGED FROM THE SITE. THIS SHOULD OUTLINE THE FREQUENCY OF WATER QUALITY TESTING THAT WILL BE UNDERTAKEN BY A SUITABLY QUALIFIED ENVIRONMENTAL CONSULTANT.

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ϕ
≤ 450	350	350	–
≤ 600	450	450	600
$> 600 \leq 900$	600	600	900
$> 900 \leq 1200$	600	900	1000
> 1200	900	900	1000

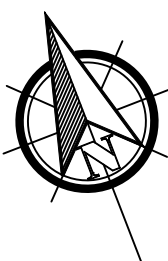


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				Approved by:	DESIGN	R.M	28.10.2025												
					DRAWN	S.M	28.10.2025												
B	07.05.26	RESPONSE TO SUBMISSIONS	R.M	Date : 07.05.26	CHECKED	R.M	18.12.2025												
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M	Rhys Mikhail Director Principal Engineer NER: 2570082 RPEQ: 17480 BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC INtPE(Aus)	APPROVED	R.M	18.12.2025												
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Rev:	Date:	Description:	Reviewed:	APPROVED			R.M	18.12.2025												

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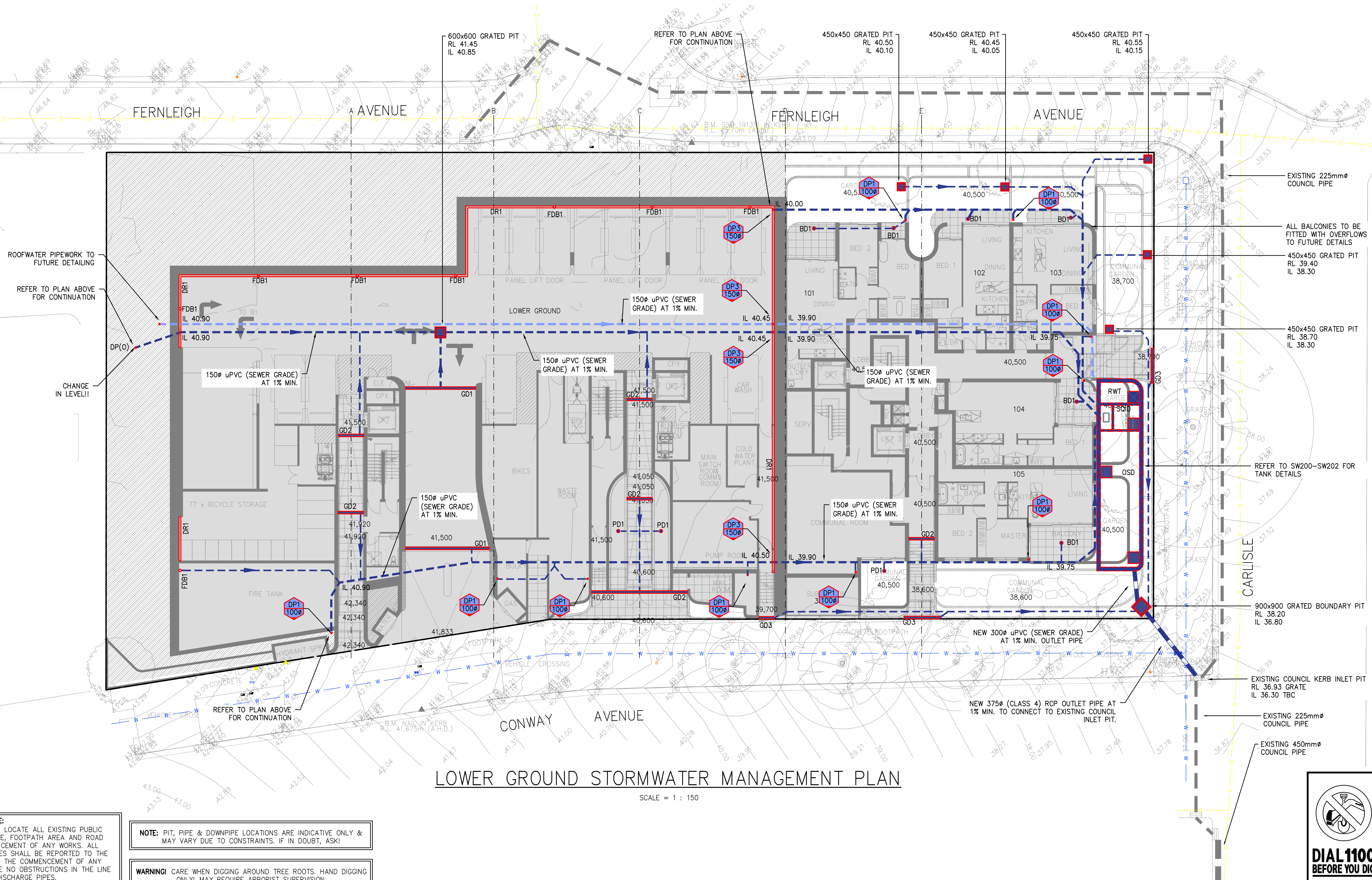
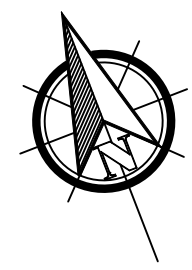
NOTE: PIT, PIPE & DOWNPIPE LOCATIONS ARE INDICATIVE ONLY & MAY VARY DUE TO CONSTRAINTS. IF IN DOUBT, ASK!

WARNING: CARE WHEN DIGGING AROUND TREE ROOTS. HAND DIGGING ONLY! MAY REQUIRE ARBORIST SUPERVISION.

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Rev:	Date:	Description:	Reviewed:			APPROVED	R.M	18.12.2025			Issue:					
											251004		SW101		B	

NOTES:
1. U.N.O REFER TO THE COVERPAGE 001 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION



LOWER GROUND STORMWATER MANAGEMENT PLAN

SCALE = 1 : 150

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

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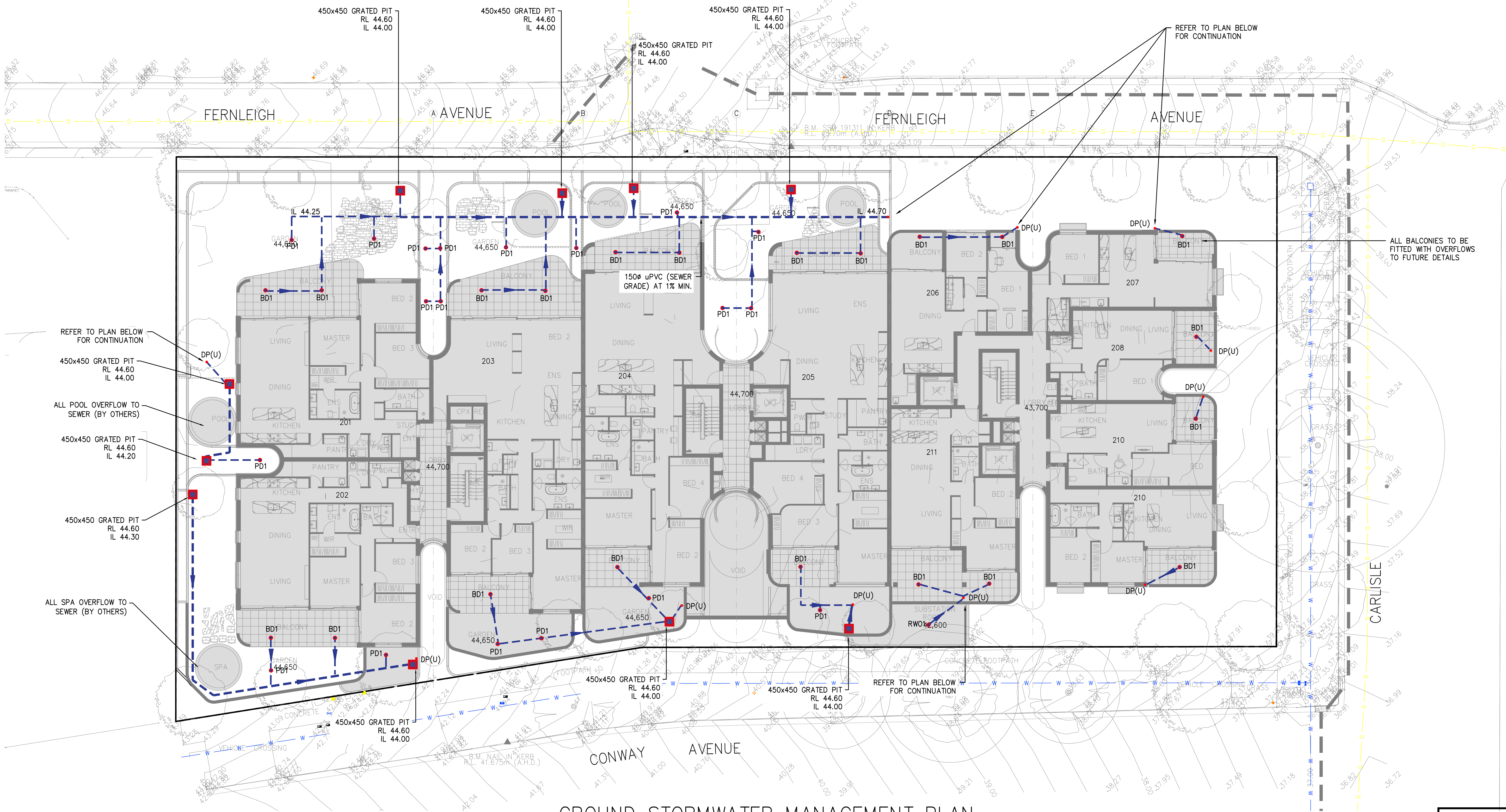
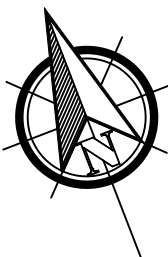
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NOTES:
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2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION



GROUND STORMWATER MANAGEMENT PLAN

SCALE = 1 : 150

NOTE:
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NOTE: PIT, PIPE & DOWNPIPE LOCATIONS ARE INDICATIVE ONLY & MAY VARY DUE TO CONSTRAINTS. IF IN DOUBT, ASK!

WARNING! CARE WHEN DIGGING AROUND TREE ROOTS. HAND DIGGING ONLY! MAY REQUIRE ARBORIST SUPERVISION.



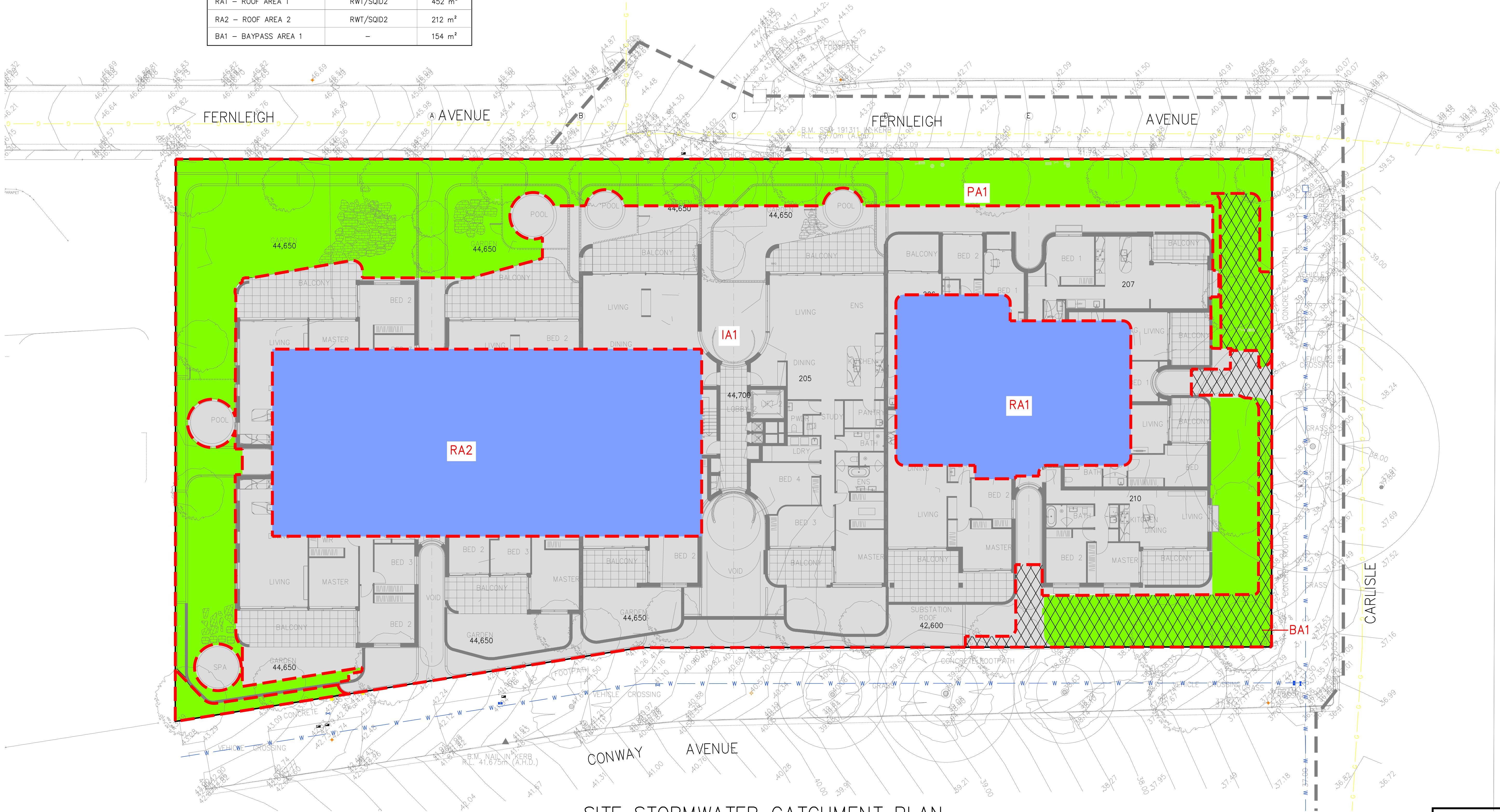
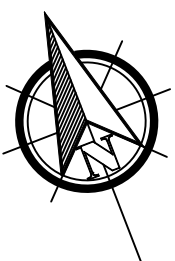
DIAL 1100
BEFORE YOU DIG

A1 ORIGINAL																								
				Issued for: DEVELOPMENT APPLICATION			Title:	Initial:	Date:	RTS CIVIL CONSULTING ENGINEERS STORMWATER • CIVIL • FLOOD MITIGATION ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au			Architect: MHNDUNION		Project and Drawing Title: 2-6 CONWAY AVENUE & 38-40 CARLISLE STREET, ROSEBAY GROUND STORMWATER MANAGEMENT PLAN			Local Council: WOOLLAHRA COUNCIL						
Approved by:			DESIGN	R.M	28.10.2025																			
Date : 07.05.26 Rhys Mikhail Director Principal Engineer NER: 2570082 RPEQ: 17480 BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)			DRAWN	S.M	28.10.2025																			
			CHECKED	R.M	18.12.2025																			
B	07.05.26	RESPONSE TO SUBMISSIONS	R.M				APPROVED	R.M	18.12.2025	The document is produced by RTS Civil Consulting Engineers Pty Ltd (RTS) solely for the benefit of and use by the client in accordance with the terms and conditions of RTS. RTS does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by the content of this document.			Client: TWO CONWAY PTY LTD											
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M													Project Number: 251004			Drawing ID: SW103			Issue: B		
Rev:	Date:	Description:	Reviewed:																					

NOTES:
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2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

WSUD MUSIC MODELLING CATCHMENT DETAILS		
CATCHMENT	TREATMENT DEVICE	AREA
IA1 – IMPERVIOUS AREA 1	SQID1	1,671 m ²
PA1 – PERVIOUS AREA 1	SQID1	616 m ²
RA1 – ROOF AREA 1	RWT/SQID2	452 m ²
RA2 – ROOF AREA 2	RWT/SQID2	212 m ²
BA1 – BAYPASS AREA 1	–	154 m ²

NOT FOR CONSTRUCTION



SITE STORMWATER CATCHMENT PLAN

SCALE = 1 : 150

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

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WARNING! CARE WHEN DIGGING AROUND TREE ROOTS. HAND DIGGING ONLY! MAY REQUIRE ARBORIST SUPERVISION.

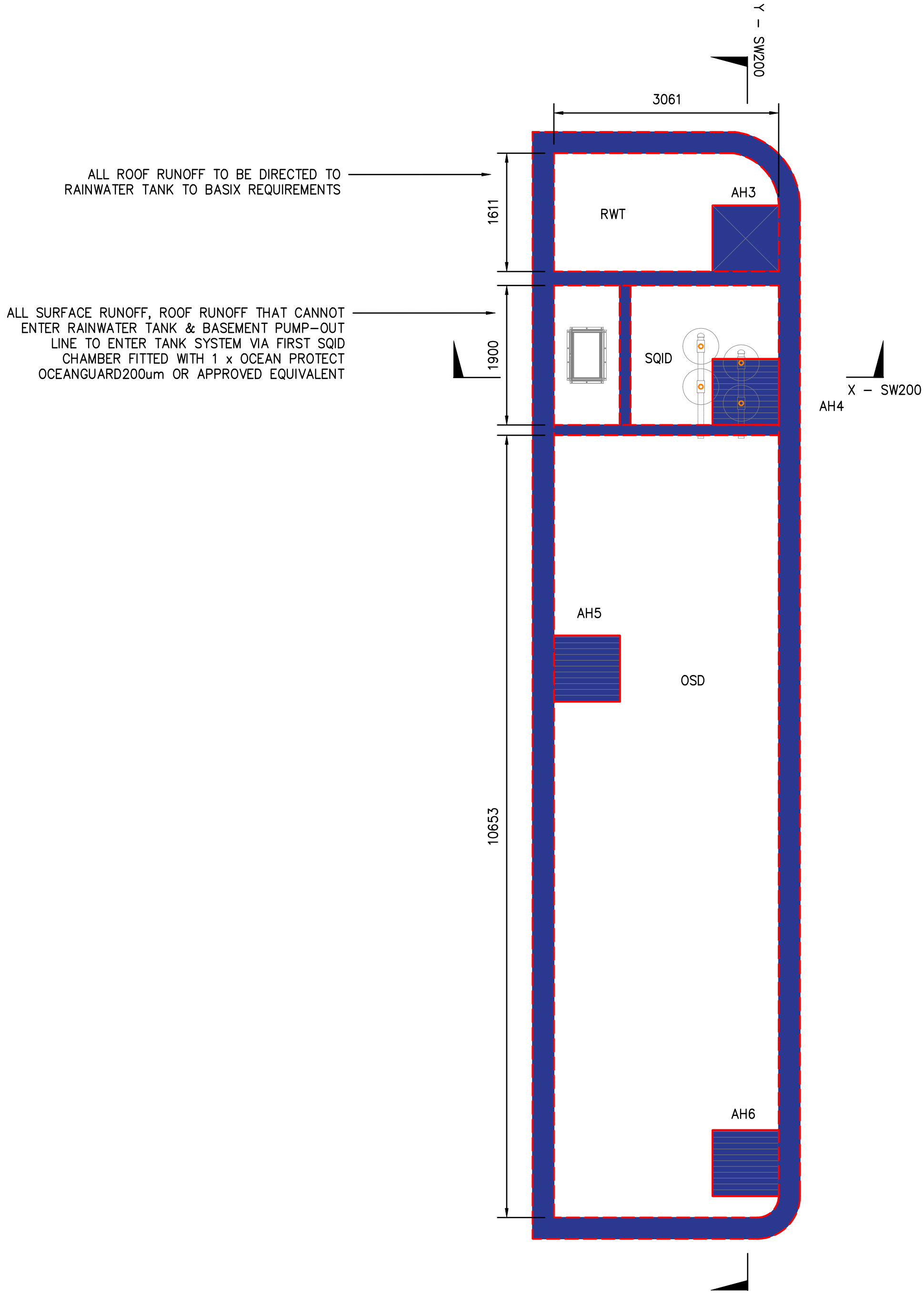


DIAL 1100
BEFORE YOU DIE

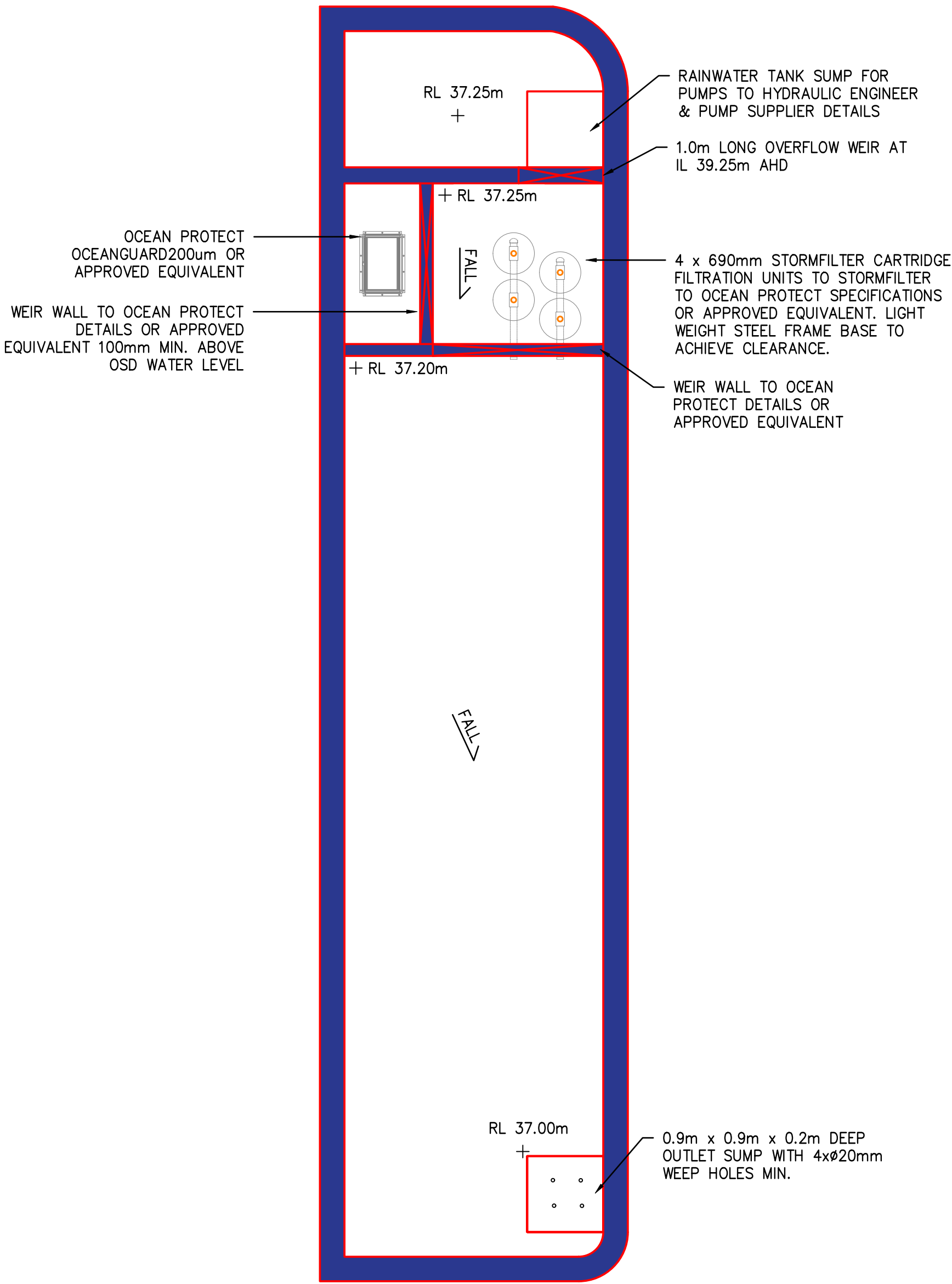
A1 ORIGINAL																	
				Issued for: DEVELOPMENT APPLICATION	Title:	Initial:	Date:	RTS CIVIL CONSULTING ENGINEERS STORMWATER • CIVIL • FLOOD MITIGATION ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au	Architect:	Project and Drawing Title:			Local Council:				
				Approved by:	DESIGN	R.M	28.10.2025		MHNDUNION Client: TWO CONWAY PTY LTD								
B	07.05.26	RESPONSE TO SUBMISSIONS	R.M	Date : 07.05.26  Rhys Mikhail Director Principal Engineer NER: 2570082 RPEQ: 17480 BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC INPE(Aus)	DRAWN	S.M	28.10.2025			2-6 CONWAY AVENUE & 38-40			WOOLLAHRA COUNCIL				
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M		CHECKED	R.M	18.12.2025			CARLISLE STREET, ROSEBAY			Project Number:				
Rev:	Date:	Description:	Reviewed:		APPROVED	R.M	18.12.2025			SITE STORMWATER CATCHMENT PLAN			Drawing ID:				
								The document is produced by RTS Civil Consulting Engineers Pty Ltd (RTS) solely for the benefit of and use by the client in accordance with the terms and conditions of RTS. RTS does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.				Issue:					
									251004			SW104			B		

NOTES:
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NOT FOR CONSTRUCTION



TANK LID PLAN
SCALE = 1 : 50



TANK BASE PLAN
SCALE = 1 : 50

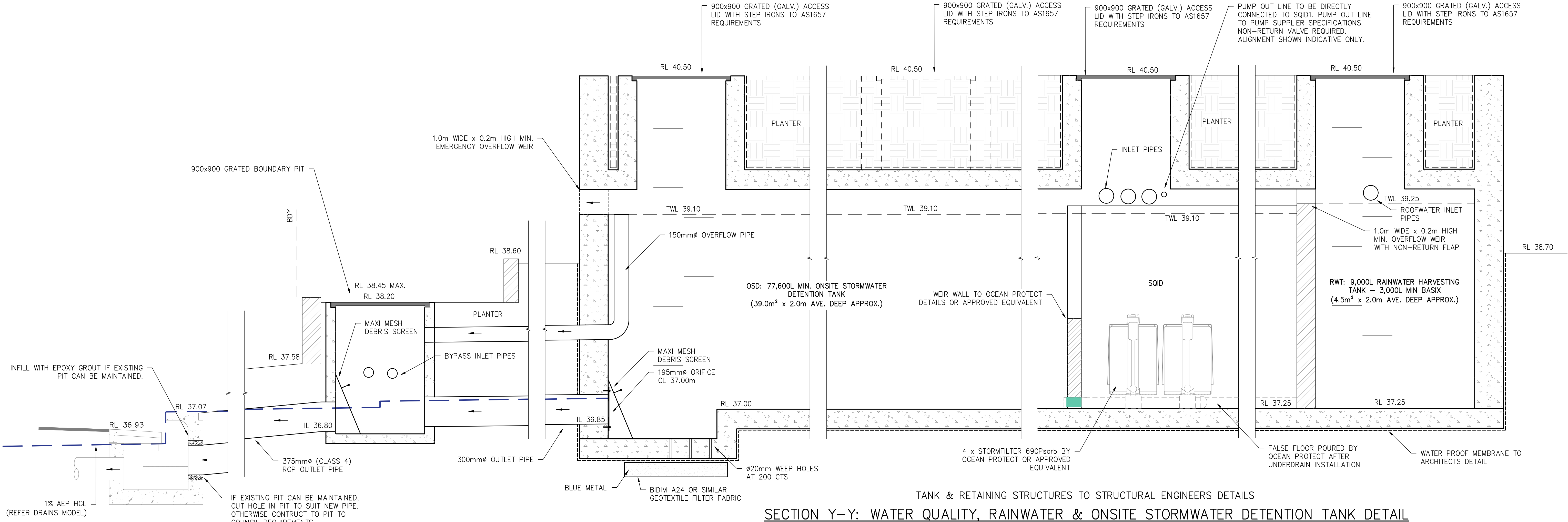
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				Approved by:			DESIGN	R.M	28.10.2025		WOOLLAHRA COUNCIL												
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Rev:	Date:	Description:	Reviewed:				APPROVED	R.M	18.12.2025		Issue:												
										Client:		TWO CONWAY PTY LTD			251004			SW200			B		

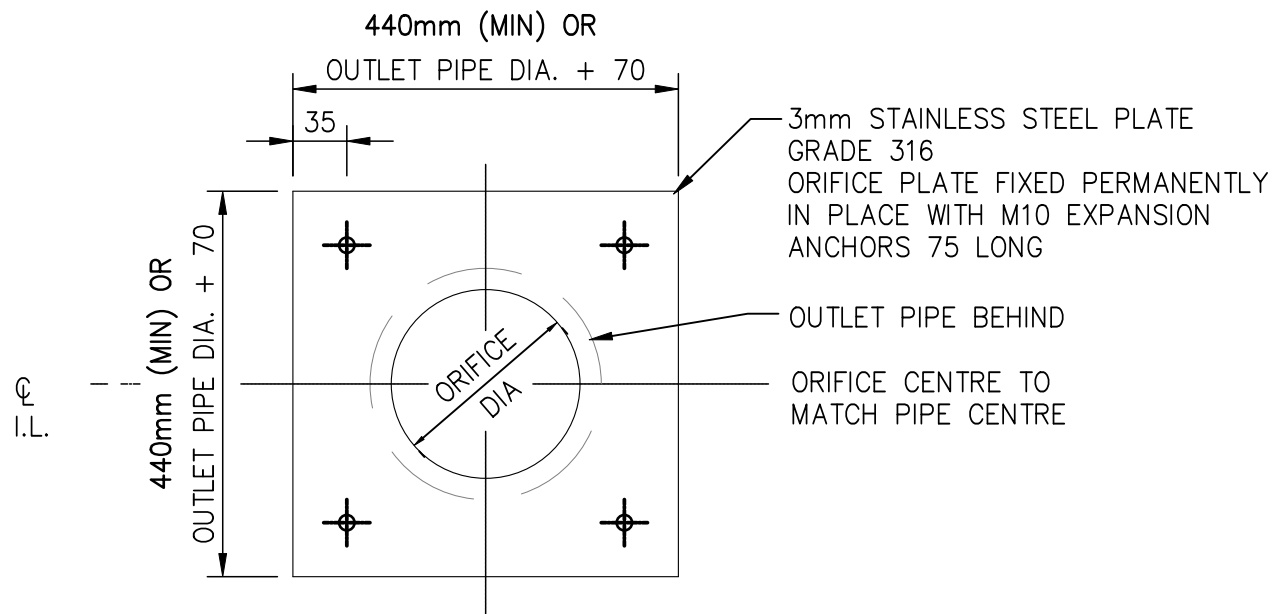
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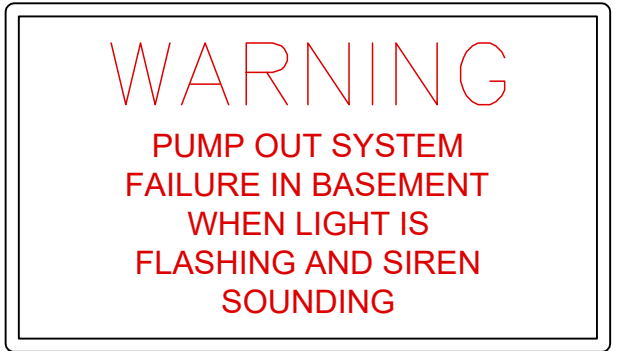
EXISTING KERB INLET SECTION (TYP.)

SCALE = 1 : 20



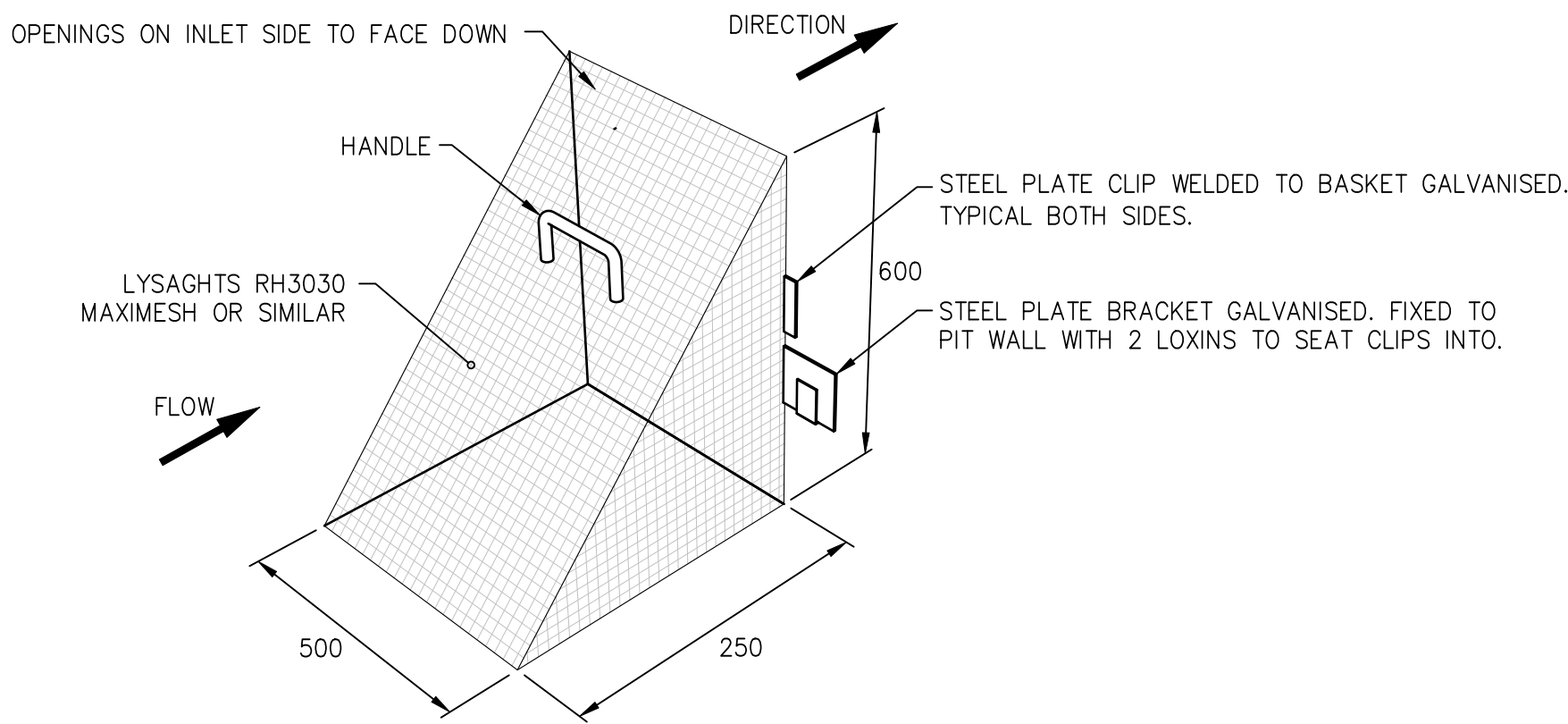
ORIFICE PLATE DETAIL

SCALE = N.T.S.



TYPICAL TANK SIGNAGE

N.T.S



MAXI MESH SCREEN DETAIL

SCALE = N.T.S.

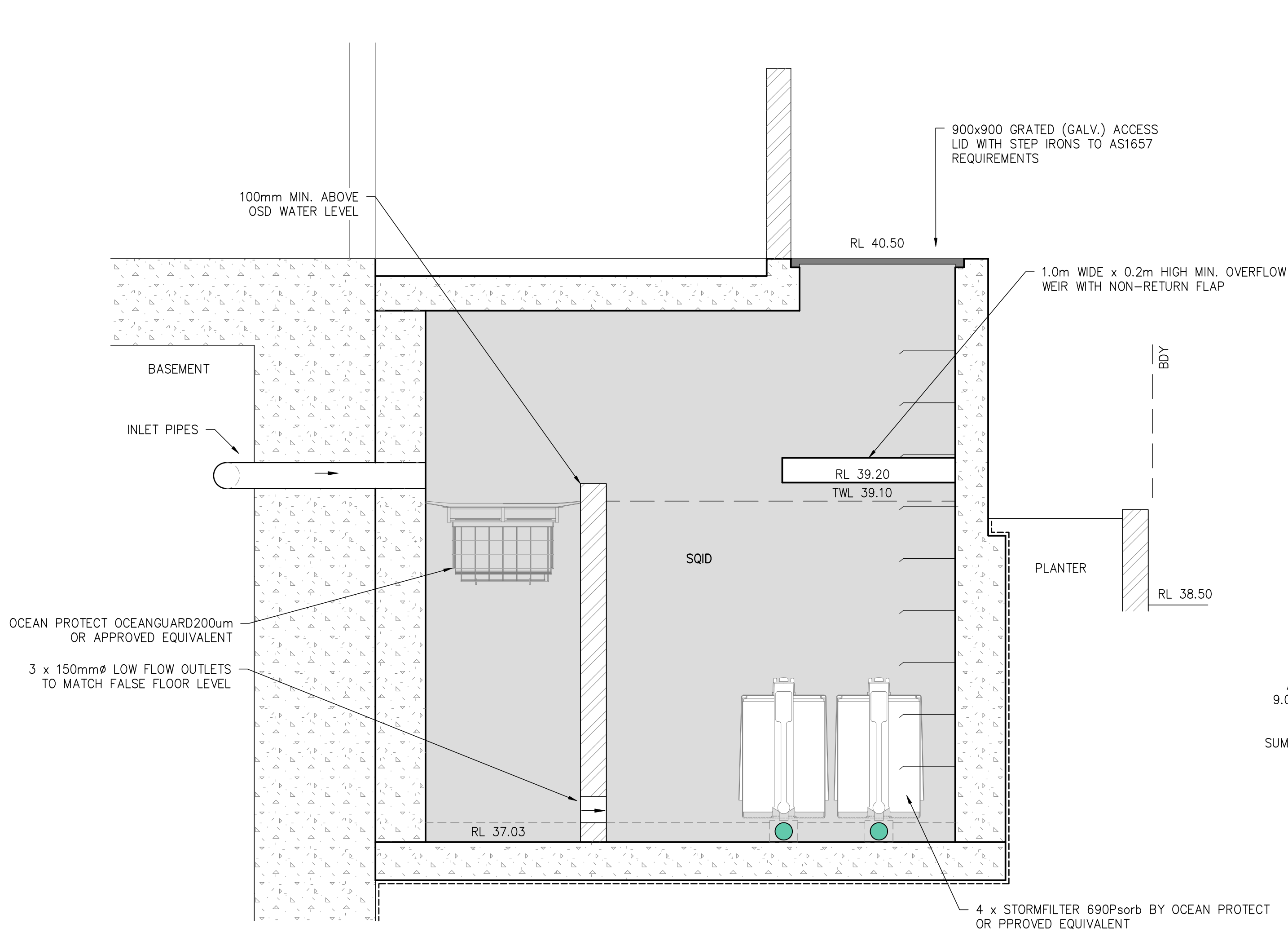


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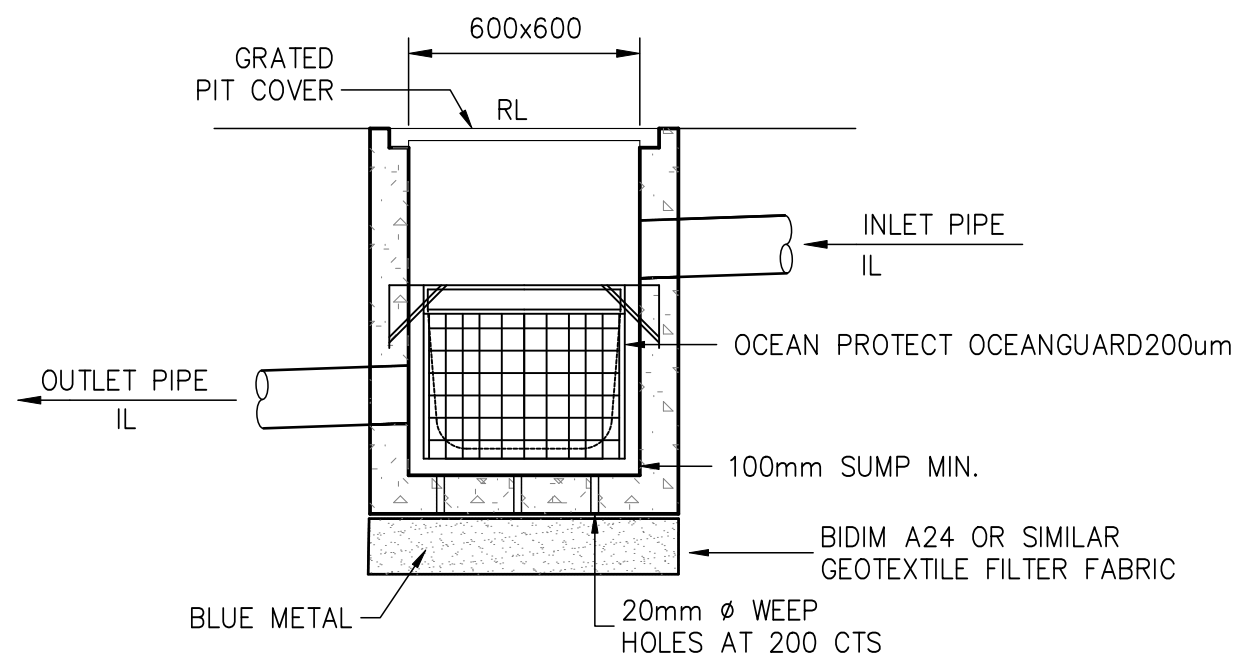
A1 ORIGINAL				Issued for: DEVELOPMENT APPLICATION			Title:		Initial:	Date:	 RTS CIVIL CONSULTING ENGINEERS STORMWATER • CIVIL • FLOOD MITIGATION ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au	Architect:		Project and Drawing Title:			Local Council:		
				Approved by:			DESIGN		R.M	28.10.2025		MHNDUNION		2-6 CONWAY AVENUE & 38-40 CARLISLE STREET, ROSEBAY			WOOLLAHRA COUNCIL		
B 07.05.26 RESPONSE TO SUBMISSIONS R.M				Date : 07.05.26			DRAWN		S.M	28.10.2025		Client:		STORMWATER DRAINAGE DETAILS			Project Number:		
A 18.12.25 STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION R.M				Rhys Mikhail			CHECKED		R.M	18.12.2025		TWO CONWAY PTY LTD		SHEET 2 OF 4			Drawing ID:		
Rev: Date: Description:				Reviewed:			APPROVED		R.M	18.12.2025							Issue:		

NOTES:
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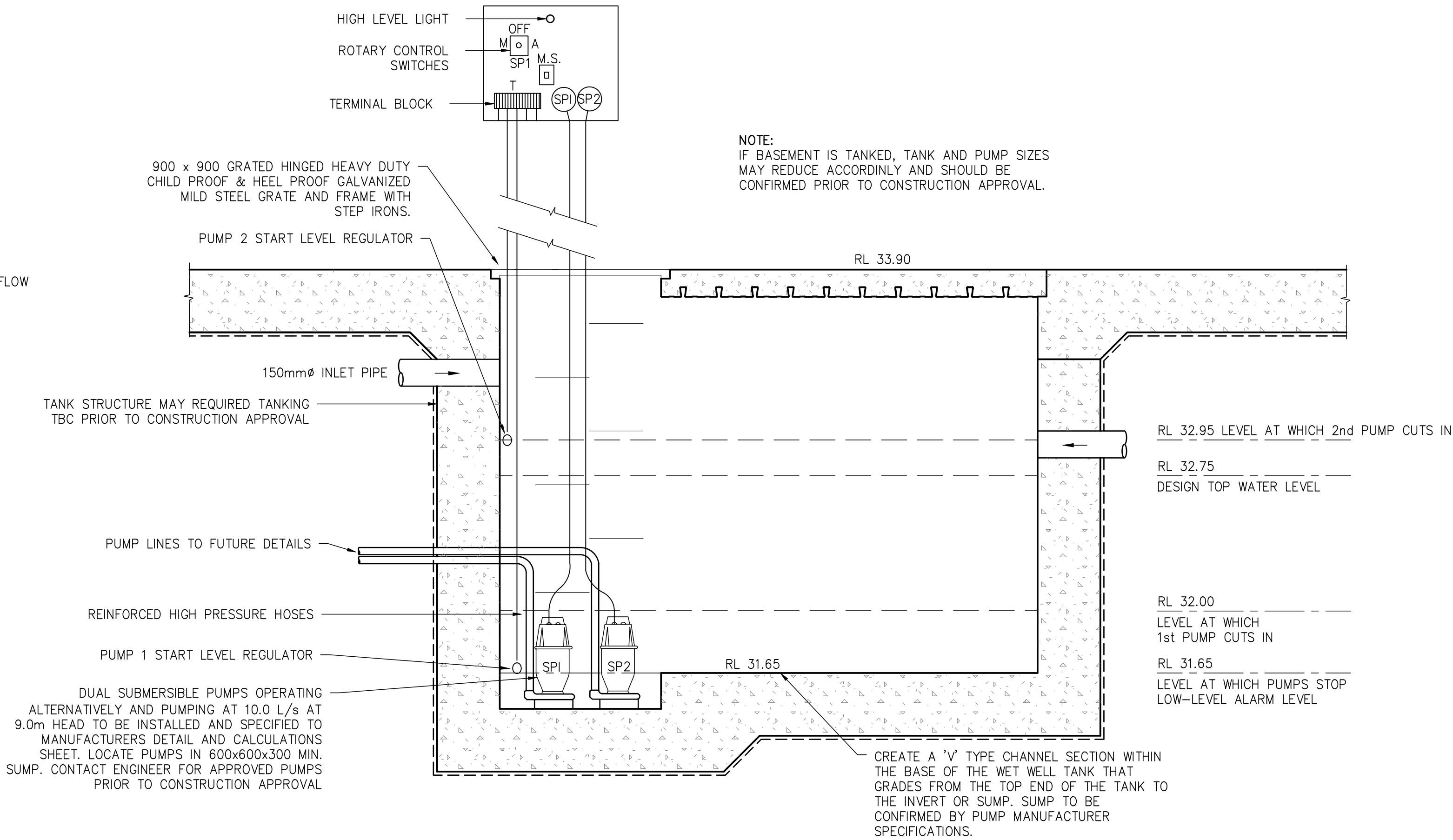
TANK & RETAINING STRUCTURES TO STRUCTURAL ENGINEERS DETAILS
SECTION X-X: WATER QUALITY & ONSITE STORMWATER DETENTION TANK DETAIL
SCALE 1:20



NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

PITS WITH SQID FILTER DETAIL
SCALE = 1 : 20

NOTE:
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TANK STRUCTURE TO STRUCTURAL ENGINEERS DETAILS
BASEMENT WET WELL (PP1 PUMP-OUT TANK) DETAIL
SCALE = 1 : 20

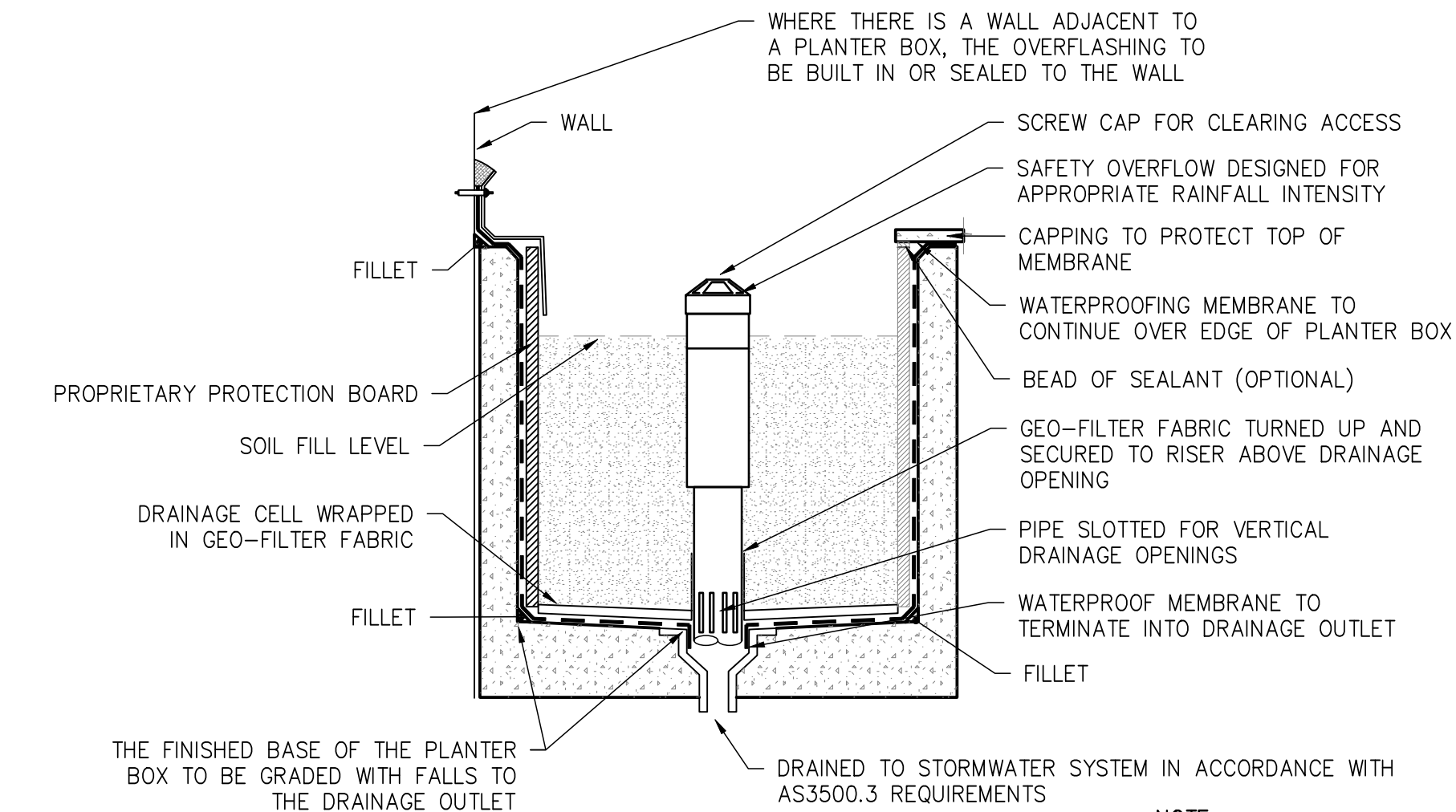
TYPICAL PUMP-OUT NOTES:

- THE PUMP-OUT SYSTEM IS DESIGNED TO WORK IN THE FOLLOWING MANNER:
1. A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD LOW LEVEL FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMP AND TO SET 100mm ABOVE BOTTOM OF TANK TO ALLOW 100mm DEPTH OF WATER MAINTAINED AT ALL TIMES.
 2. A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL (I.E. 300mm ABOVE LOWER LEVEL FLOAT), WHEREBY THE PUMP WILL OPERATE & DRAIN THE TANK TO THE LEVEL OF THE LOW LEVEL FLOAT.
 3. A THIRD FLOAT SHALL BE SET NOT HIGHER THAN 100mm ABOVE THE INVERT OF THE INLET PIPE. THIS FLOAT SHOULD ACTIVATE THE ALARM.
 4. AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT ALARM AND AN AUDIBLE ALARM WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.
 5. THE PUMP CONTROLS SHALL BE SET UP TO ENABLE ALTERNATE PUMP OPERATION AT EACH START. IN THE EVENT A PUMP FAILS TO OPERATE WHEN THE WATER LEVEL IN THE WET WELL REACHES THE PUMP START, THE OTHER PUMP SHALL BE ACTIVATED, AND A FLASHING STROBE LIGHT ALARM INITIATED. IN THE EVENT THAT BOTH PUMPS FAIL TO OPERATE, AN AUDIBLE ALARM SHALL BE INITIATED.
 6. PUMPS SHALL BE FITTED WITH A GATE VALVE AND NON-RETURN VALVE ON THE DELIVERY SIDE OF EACH PUMP. THE VALVES SHOULD BE ACCESSIBLE WITHOUT HAVING TO ENTER THE WELL.
 7. WET-WELL STRUCTURE TO STRUCTURAL ENGINEERS DETAILS. SUB-SOIL OR TANKING DETAILS TO BE CONFIRMED BY GEOTECHNICAL AND STRUCTURAL ENGINEERS PRIOR TO DETAILED DESIGN.
 8. FINAL PUMP SPECIFICATION (DUTY, ELECTRICAL COMPLIANCE, HAZARDOUS AREA CLASSIFICATION IF REQUIRED) TO BE CONFIRMED BY BUILDING HYDRAULIC/ELECTRICAL SERVICES ENGINEER.
 9. REFER TO THE COVERPAGE 001 SERIES FOR ONSITE DRAINAGE PUMP OUT CALCULATIONS AND ADDITIONAL DETAILS.



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				Approved by:			DESIGN	R.M	28.10.2025		2-6 CONWAY AVENUE & 38-40 CARLISLE STREET, ROSEBAY							
B	07.05.26	RESPONSE TO SUBMISSIONS		R.M	Date : 07.05.26		DRAWN	S.M	28.10.2025		Client:		STORMWATER DRAINAGE DETAILS			Project Number:	Drawing ID:	Issue:
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION		R.M	Rhys Mikhail		CHECKED	R.M	18.12.2025		TWO CONWAY PTY LTD		SHEET 3 OF 4			251004	SW202	B
Rev:	Date:	Description:		Reviewed:	Director Principal Engineer NER: 2570082 RPEQ: 17480 BEng (Civil) Hons MIEAust CPeng NER RPEQ APQC IntPE(Aus)			APPROVED	R.M		18.12.2025							

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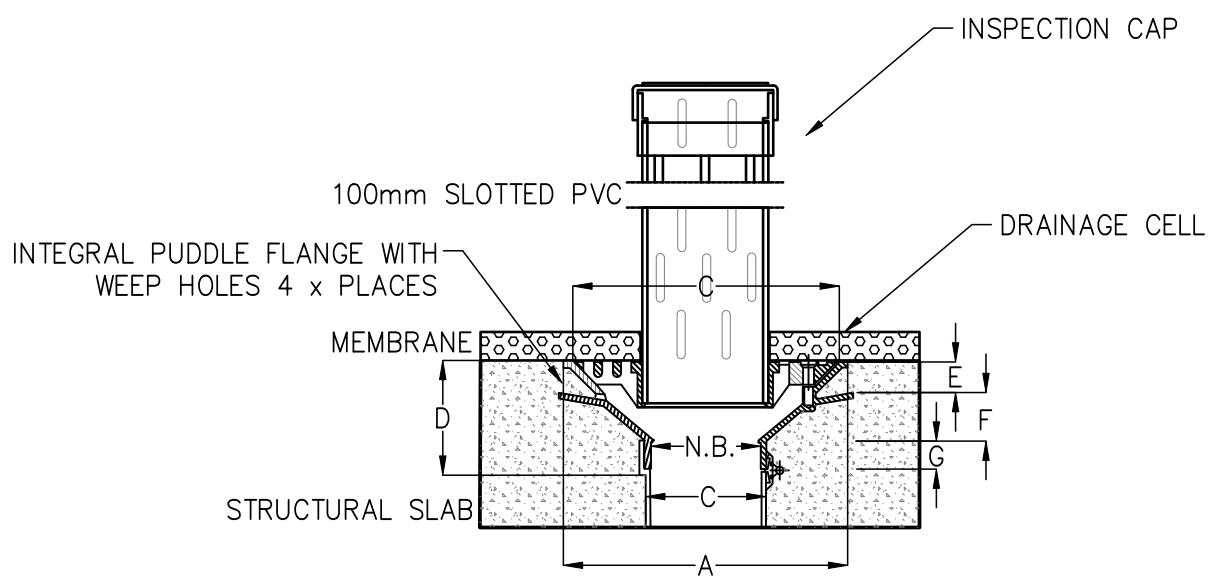


TYPICAL PLANTER BOX CONSTRUCTION

SCALE = NTS

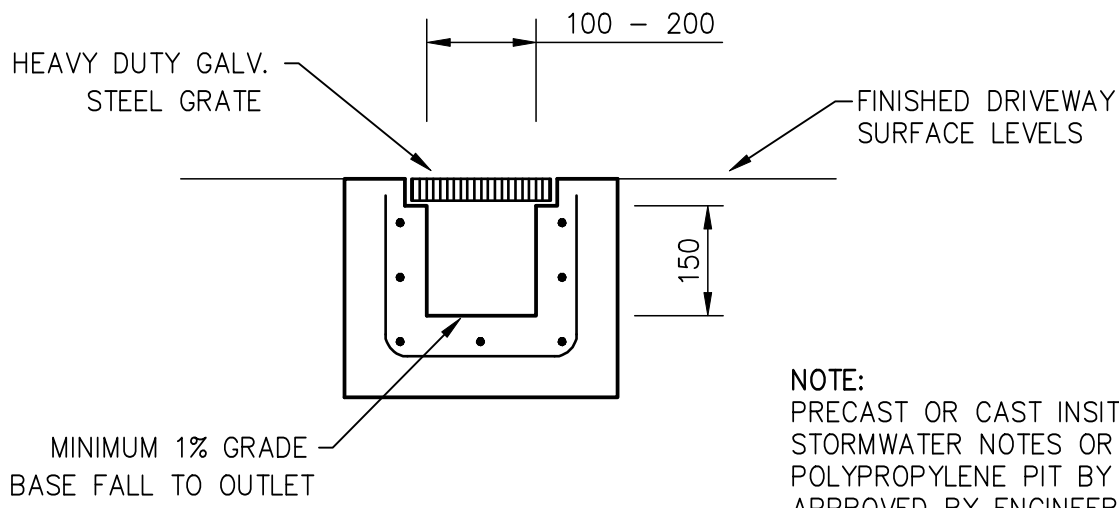
NOTE:
REFER TO ARCHITECT FOR SITE SPECIFIC DETAILS.

DIMENSIONS (mm)							
N.B.	A	B	C	D	E	F	G
100	260	240	103	106	28	45	25



PLANTER OUTLET WITH ADAPTER

SCALE = N.T.S.



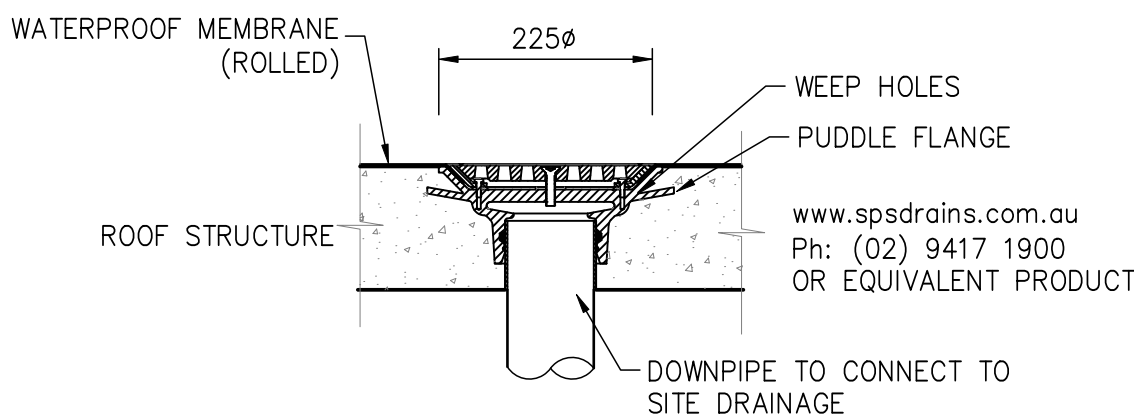
TYPICAL DRIVEWAY GRATED DRAIN (GD)

SCALE = 1 : 20

NOTE:
FLOOR DRAINS TO BE INSTALLED WITHIN ALL PLANTERS AND PATIOS TO ARCHITECTS DETAILS AND AS3500.3 REQUIREMENTS. FLOOR DRAINS ARE TO DRAIN BY GRAVITY TO THE NEAREST DRAINAGE STRUCTURE AND MUST BE LOCATED AT LEAST 500mm ABOVE CONNECTION POINT. BALCONY HOBS TO ARCHITECT DETAILS. ENSURE ALL BALCONIES ARE FITTED WITH 2 x 50mmØ SPITTER PIPES TO ACT AS OVERFLOW POINT IN ACCORDANCE WITH AS4564.2:2012 REQUIREMENTS.
IF IN DOUBT, CONTACT THE ENGINEER.

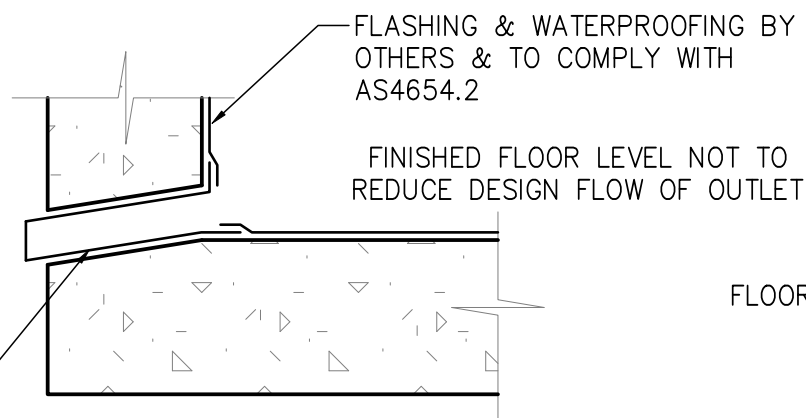
TYPICAL RAINWATER OUTLET (RWO) DETAIL

SCALE = 1 : 20



PREFORMED OUTLET TO PARAPET OR BALCONY OVERFLOW

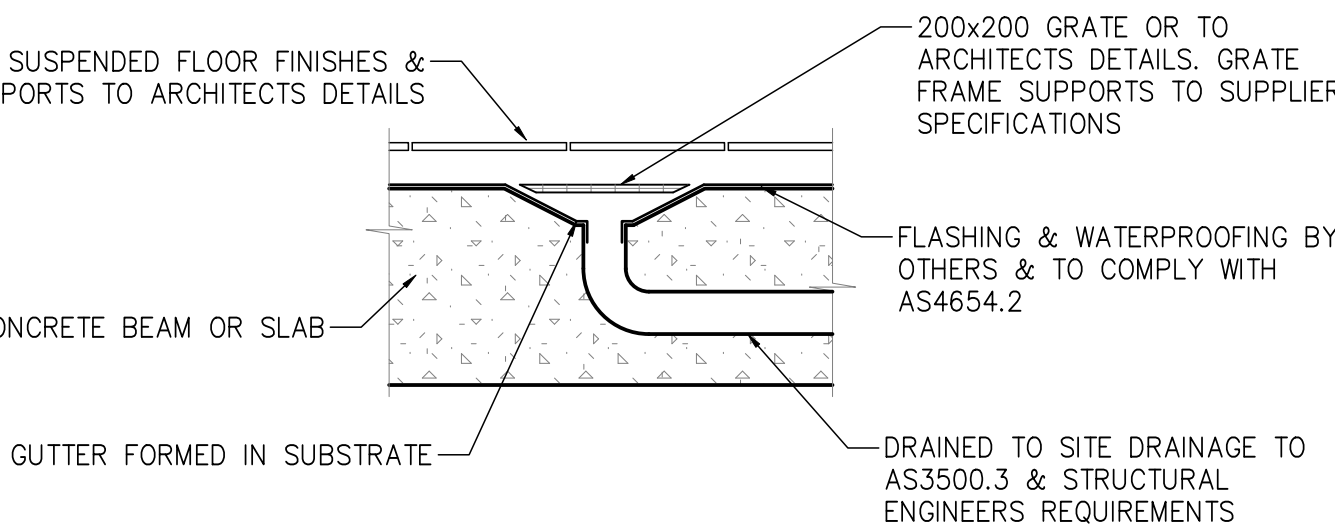
NOT TO SCALE



STANDARD FLOOR PATIO DRAIN

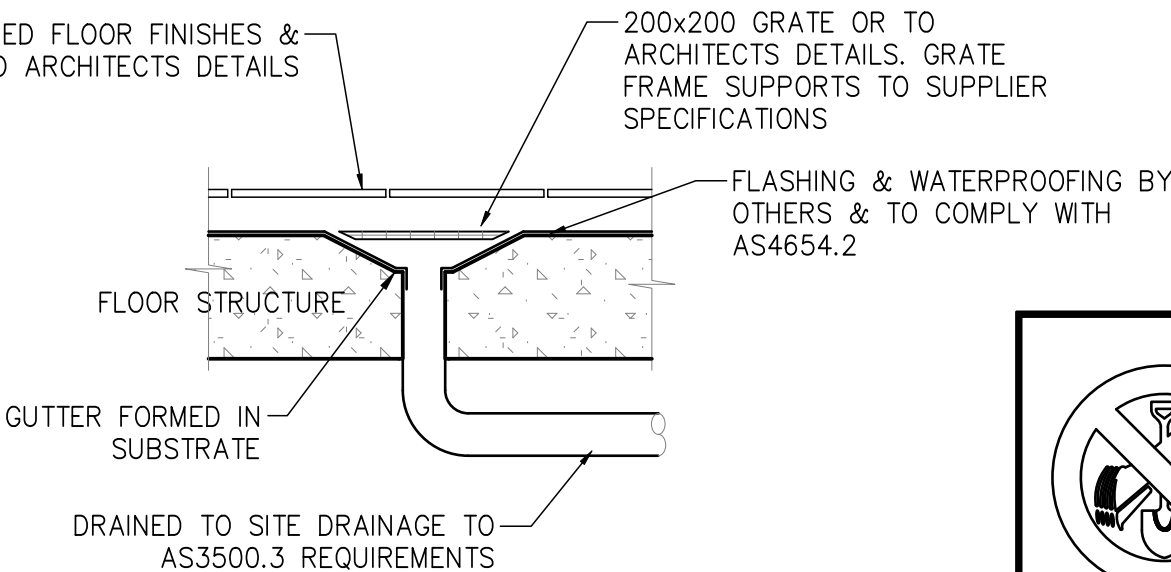
SCALE = 1 : 20

NOTE:
REFER TO ARCHITECT DETAILS FOR PLANTER & BALCONY DRAINAGE & WATERPROOFING REQUIREMENTS



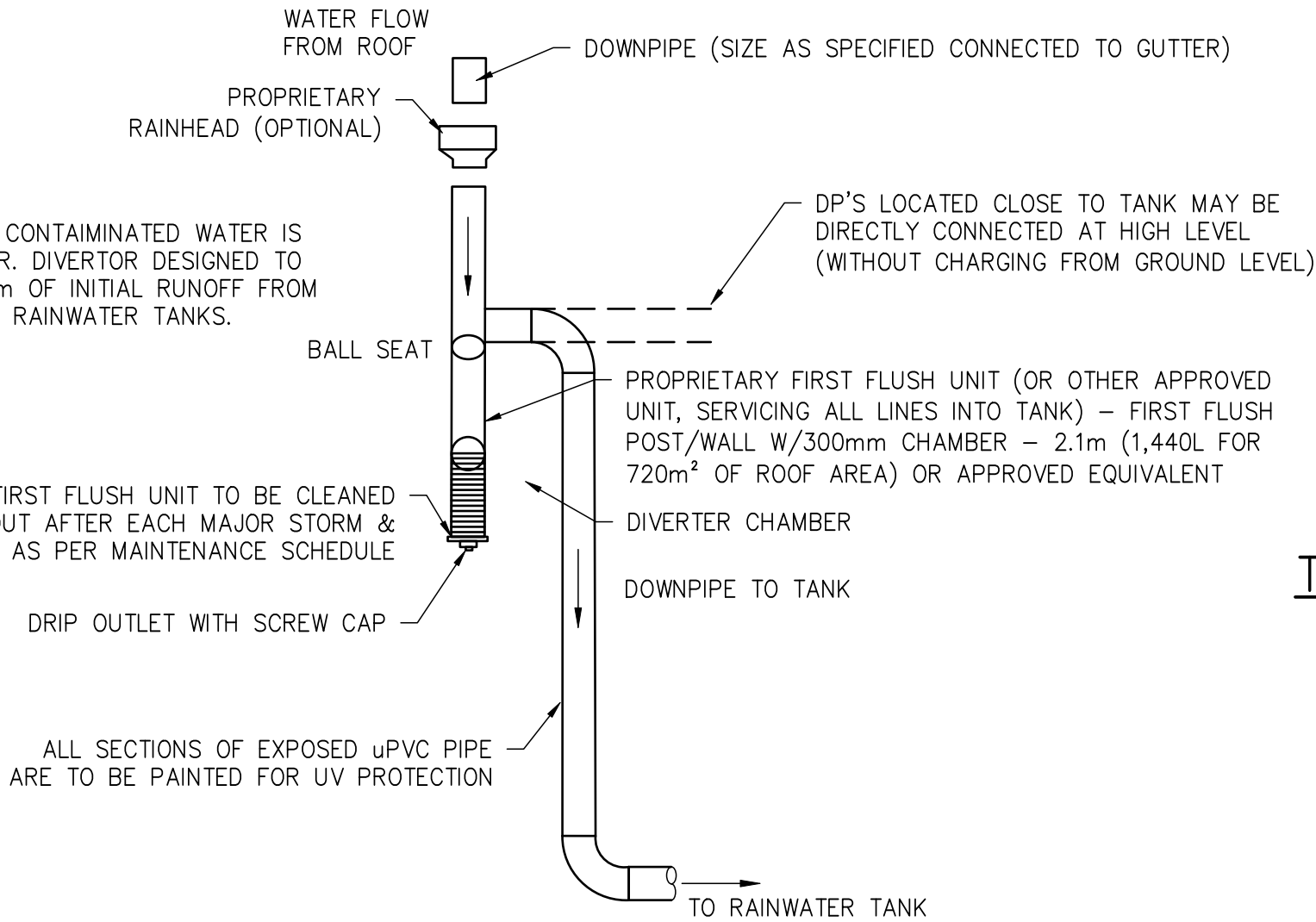
STANDARD FLOOR DRAIN (OPTION FOR BALCONIES ONLY)

SCALE = 1 : 20



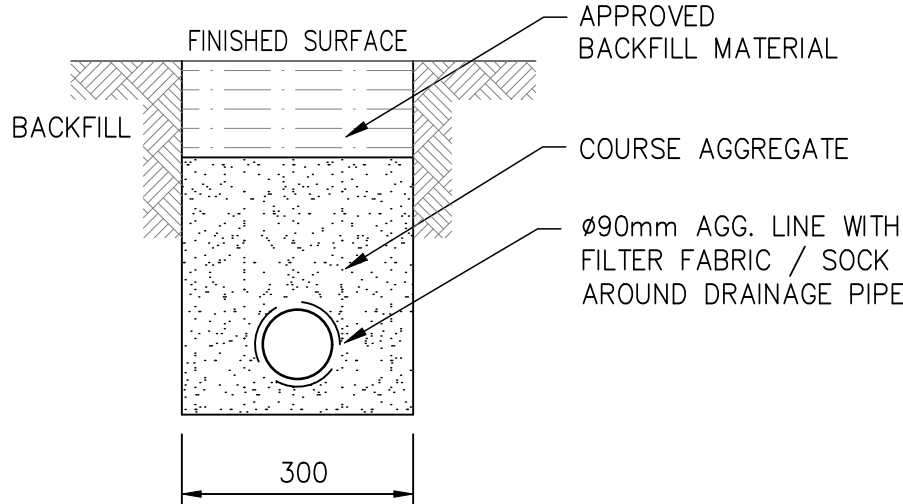
NOT FOR CONSTRUCTION

NOTE: FIRST FLUSH OF CONTAMINATED WATER IS DIVERTED INTO CHAMBER. DIVERTOR DESIGNED TO CAUSE MINIMUM OF 1mm OF INITIAL RUNOFF FROM ROOF AREA TO BYPASS RAINWATER TANKS.



TYPICAL WALL MOUNTED FIRST FLUSH DETAIL

NOT TO SCALE

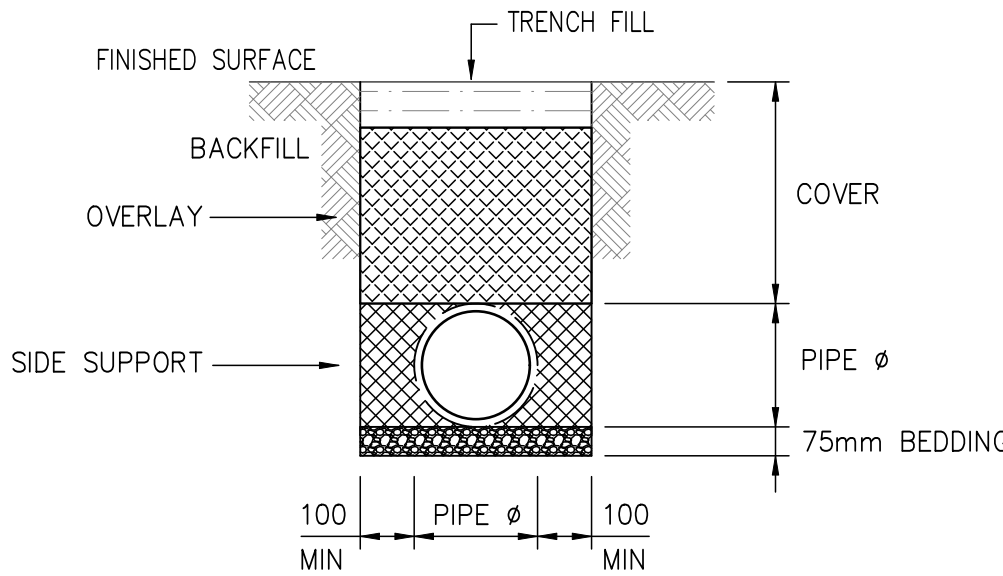


TYPICAL SUB-SOIL TRENCH DETAIL

SCALE = N.T.S.

NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

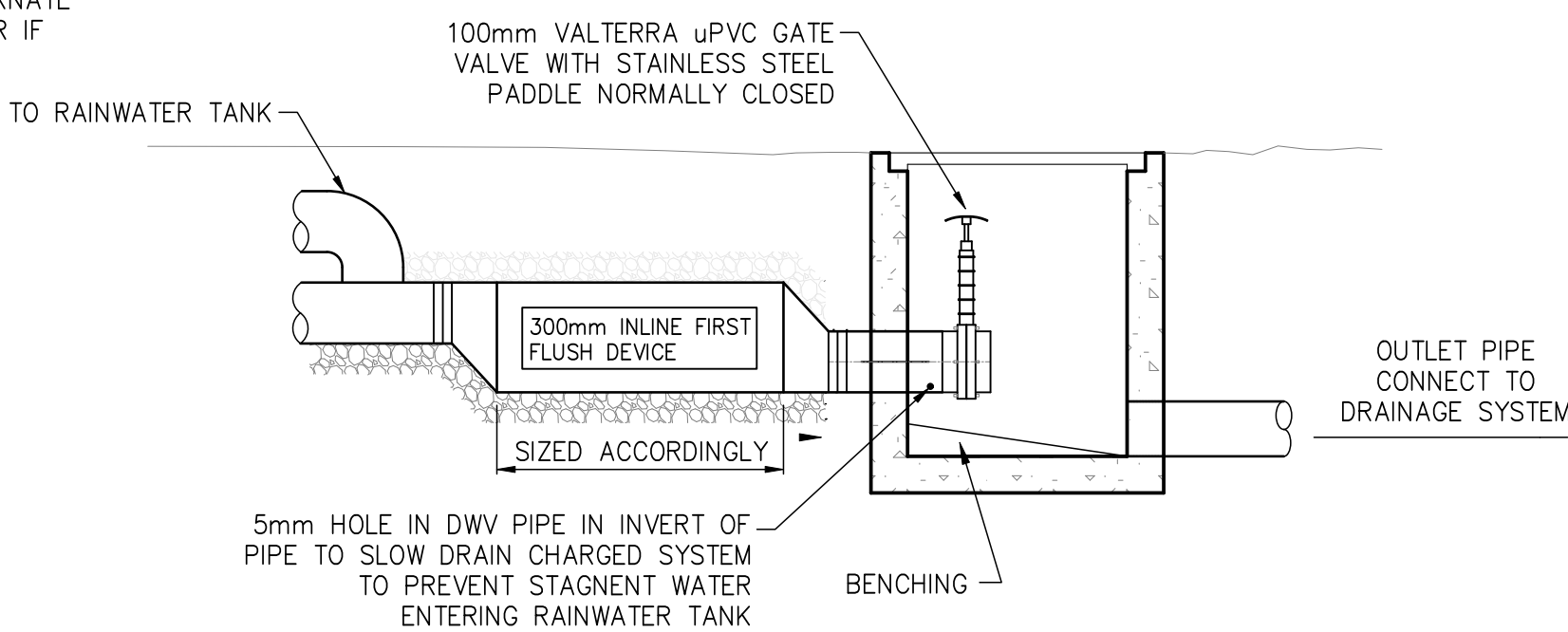
NOTE:
THIS CAN BE ANY TYPICAL PIT PROVIDED OR IF NEEDED TO BE FITTED AT LOW POINT OF SITE AND THERE IS NO ADEQUATE DISCHARGE POINT NEARBY, PROVIDE 300mm SUMP. CONTACT ENGINEER IF IN DOUBT.



TYPICAL uPVC PIPE TRENCH DETAIL

SCALE = N.T.S.

NOTE - STANDARD uPVC PIPE TRENCH:
SUITABLE BEDDING TO AS2032:
1. SAND FREE FROM ROCK OR OTHER HARD AND SHARP OBJECTS THAT WOULD BE RETAINED ON 13.2 SIEVE.
2. CRUSHED ROCK OR GRAVEL OF APPROVED GRADING UP TO MAXIMUM SIZE OF 14mm.
3. THE EXCAVATED MATERIAL MAY BE USED IF IT IS FREE FROM ROCK OR HARD MATTER AND BROKEN UP SO THAT IT CONTAINS NO SOIL LUMPS HAVING ANY DIMENSIONS GREATER THAN 75mm WHICH WOULD PREVENT ADEQUATE COMPACTION OF THE BEDDING.
SIDE SUPPORT: MATERIAL FOR PIPE SUPPORT SHOULD BE ADEQUATELY TAMPED IN LAYERS OF NOT MORE THAN 150mm.
OVERLAY: PIPE OVERLAY MATERIAL SHOULD BE LEVELED AND TAMPED IN LAYERS TO A MINIMUM HEIGHT OF 150mm ABOVE THE CROWN OF PIPE.
COVER: FOR MIN COVER REFER TO AS3500.3.



FIRST FLUSH DETAIL - INGROUND (OPTIONAL)

SCALE = 1 : 20



DIAL 1100
BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
B	07.05.26	RESPONSE TO SUBMISSIONS	R.M
A	18.12.25	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for:	DEVELOPMENT APPLICATION	Title:		Initial:		Date:	
Approved by:		DESIGN	R.M	28.10.2025			
		DRAWN	S.M	28.10.2025			
Date : 07.05.26		CHECKED	R.M	18.12.2025			
Rhys Mikhail		APPROVED	R.M	18.12.2025			
Director Principal Engineer NER: 2570082 RPEQ: 17480							
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Architect:	MHNDUNION
Client:	TWO CONWAY PTY LTD

Project and Drawing Title:	2-6 CONWAY AVENUE & 38-40 CARLISLE STREET, ROSEBAY STORMWATER DRAINAGE DETAILS SHEET 4 OF 4
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Local Council:	WOOLLAHRA COUNCIL
Project Number:	251004
Drawing ID:	SW203
Issue:	B