

NOTE: PLUMBER TO PERFORM WATER TESTING OF EXISTING PIPED SYSTEM TO DETERMINE CAPACITY AND STATE OF REPAIR. PLUMBER TO INSPECT & REPAIR DAMAGED SECTIONS OF EXISTING PIPE (INCLUDING DOWNPIPES) AS NECESSARY OR PROVIDE NEW DRAINAGE LINES WHERE NECESSARY SUBJECT TO THE APPROVAL BY THE SUPERVISING ENGINEER.

EXISTING SPREADER FOR DISCHARGE OF RUNOFF FROM UPPER TO LOWER ROOF AREAS (TYP)

PROVIDE ATLANTIS DRAINAGE CELL UNDERLAY (OR EQUIVALENT) TO DRAIN PLANTER BASE (TYP). PLANTER BASE DRAINAGE LAYOUT TO FUTURE SEPARATE DETAIL.

PROVIDE 'SPS TRUFLO 100mm WITH ALL-PURPOSE PLANTER BOX ADAPTER' OR EQUIVALENT TO BALCONY AREAS (TYP)

PROVIDE 100 WIDE GRATED DRAIN (TYP)

PROVIDE 200 SQ INLET TRAY WITH TILED FALLS TO SUIT (TYP)

PROVIDE $\phi 100$ DOWNPIPE (TYP)

NOTE: TURN $\phi 100$ 'CHARGED' P.V.C. DOWNPIPES UP WALL SO ARE WATERTIGHT TO 1.0m ABOVE TOP OF STORMWATER RETENTION/DETENTION STORAGE TANK

300 SQ. BY 300 DEEP INLET PIT
NOTE: ALL PITS TO HAVE 2.0m LONG SUB-SOIL TAIL INLET

STORMWATER RETENTION/DETENTION TANK
 RAINWATER VOLUME = 1086 LITRES
 DETENTION VOLUME = 914 LITRES
 TOTAL VOLUME = 2000 LITRES
 STORAGE LENGTH = 1700mm
 STORAGE WIDTH = 700mm
 STORAGE DEPTH = 1860mm
 TANK FLOOR = R.L. 48.00
 TANK BOSS ORIFICE = R.L. 49.01
 PROVIDE $\phi 100$ HIGH LEVEL OUTLET TO SITE DRAINAGE SYSTEM

PROVIDE NEW 450 SQ BY 450 DEEP BOUNDARY PIT OVER EXISTING DRAINAGE LINE

BENCHMARK NAIL IN TOP OF KERB R.L. 39.74 (A.H.D.)

NOTE: CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS

- DRAINAGE NOTES**
- + DENOTES EXISTING GROUND LEVEL
 - FALL STORMWATER PIPES AT 1% MIN. UNLESS OTHERWISE NOTED.
 - SUB-SOIL DRAINAGE TO BE CONNECTED TO THE SITE DRAINAGE SYSTEM AS NECESSARY.
 - SURFACE GRATES 300 SQ. UNLESS OTHERWISE NOTED.
 - ALL STORMWATER PIPES TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
 - CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS.
 - INSPECTIONS MUST BE UNDERTAKEN BY THIS OFFICE (BY PRIOR ARRANGEMENT WITH ENGINEER) DURING CONSTRUCTION TO ENABLE FULL CERTIFICATION UPON COMPLETION OF WORKS.
 - ALL CONSTRUCTION OF COUNCIL DRAINAGE WORKS TO COMPLY WITH COUNCIL STANDARD.
 - REMOVE REDUNDANT DRAINAGE PITS AND SEAL PIPES.
 - PIT BENCHING TO BE HALF THE OUTGOING PIPE DIAMETER. CONCRETE FOR BENCHING TO BE 20 MPa MASS CONCRETE.
 - APPROVED PRE-CAST PITS MAY BE USED.
 - ALL PIPES TO BE LAID ON COMPACTED FINE CRUSHED ROCK OR SAND BEDDING 75mm THICK & PIPES BACKFILLED WITH COMPACTED SAND TO 300mm ABOVE TOP OF PIPE. ELSE ATTACHED TO UNDERSIDE OF STRUCTURE AT 600mm c/c AS NECESSARY.
 - PIPE ROUTES SHOWN ARE INDICATIVE ONLY AND SHOULD BE AS NECESSARY ACCORDING TO SITE CONDITIONS, TREE POSITIONS ETC. CONFIRM SIGNIFICANT CHANGES IN PIPES SYSTEM DETAILS WITH SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF DRAINAGE CONSTRUCTION WORKS.
 - CONTRACTOR SHALL ENSURE THAT SERVICES TO BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS WHERE REQUIRED. ONCE WORKS ARE COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SERVICES AND MAKE GOOD ALL DISTURBED AREAS.
 - STORMWATER SYSTEM REQUIRES SIGNIFICANT MAINTENANCE DUE TO POTENTIAL HIGH POLLUTANT LOAD. FILTERS AND POLLUTANT TRAPS SHOULD BE CHECKED AFTER LARGE STORM EVENTS AND CLEANED EVERY 6 MONTHS.
 - PLUMBING AND DRAINAGE WORKS TO COMPLY WITH AS-3500, THE NATIONAL DRAINAGE & PLUMBING CODE.
 - WHERE POSSIBLE DRAINAGE LINES SHALL BE LAID IN AREAS PREVIOUSLY DISTURBED BY OTHER SITE WORKS AND FOLLOW TOPOGRAPHICAL FEATURES TO REDUCE IMPACT AND AVOID TREE ROOTS.
 - THIS STORMWATER MANAGEMENT PLAN HAS BEEN PREPARED FOR SUBMISSION TO COUNCIL/CERTIFIER AND DOES NOT NECESSARILY CONTAIN ALL APPROPRIATE INFORMATION TO ENABLE FOR ISSUE TO PLUMBER/BUILDER FOR CONSTRUCTION. CONTACT TAYLOR CONSULTING FOR MORE INFORMATION.

- RAINWATER RE-USE NOTES AND SPECIFICATIONS**
- ROOF WATER ONLY TO BE DRAINED TO THE RAINWATER STORAGE TANK.
 - THE RAINWATER STORAGE TANK NEEDS TO BE CONNECTED FOR RE-USE AS REQUIRED BY THE OWNER.
 - RAINWATER STORAGE TANK TO BE CONFIGURED IN ACCORDANCE WITH SYDNEY WATER SPECIFICATIONS 'GUIDELINES FOR RAINWATER TANK ON RESIDENTIAL PROPERTIES'.
 - PROVIDE MAINS 'TOP-UP' SUPPLY TO RAINWATER TANK. MAINS TOP-UP ZONE TO BE BASED ON THE DAILY NON-POTABLE USAGE THAT MAY BE EXPECTED FROM THE TANK.
 - PROVIDE A MECHANICAL PUMPING ARRANGEMENT (IN SOUND-PROOF HOUSING) TO PUMP SUPPLIERS SPECIFICATION TO SUIT INTENDED USAGE OF RAINWATER STORAGE. PUMPING ARRANGEMENTS MUST COMPLY WITH EPA GUIDELINES.
 - INLETS TO RAINWATER TANK MUST BE SCREENED TO PREVENT THE ENTRY OF FOREIGN MATTER, ANIMALS OR INSECTS.
 - A SIGN MUST BE AFFIXED TO THE RAINWATER TANK CLEARLY STATING THAT THE WATER IN THE TANK IS RAINWATER AND IS NOT TO BE USED FOR HUMAN CONSUMPTION.
 - RAINWATER TANK TO BE PLACED ON A STRUCTURALLY ADEQUATE BASE IN ACCORDANCE WITH THE MANUFACTURER'S OR STRUCTURAL ENGINEER'S DETAILS.
 - THE TANK MUST NOT BE INSTALLED OVER ANY MAINTENANCE STRUCTURE OR FITTINGS USED BY A PUBLIC AUTHORITY.
 - RAINWATER TANK AND ASSOCIATED PLUMBING WORKS TO BE INSTALLED AND CONFIGURED BY A LICENSED PLUMBER. PUMP TO BE INSTALLED BY A LICENSED ELECTRICIAN.

STORMWATER SYSTEM DESIGN DATA

SITE DATA
 SITE AREA = 517.4 m² (100%)
 PROPOSED IMPERVIOUS AREA = 266.8 m² (51%)
 PROPOSED LANDSCAPED AREA = 250.6 m² (49%)

NORTHERN BEACHES COUNCIL - REGION 3 NORTHERN CATCHMENTS
 TOTAL INCREASE IN IMPERVIOUS AREA = 50m², OSD REQUIRED

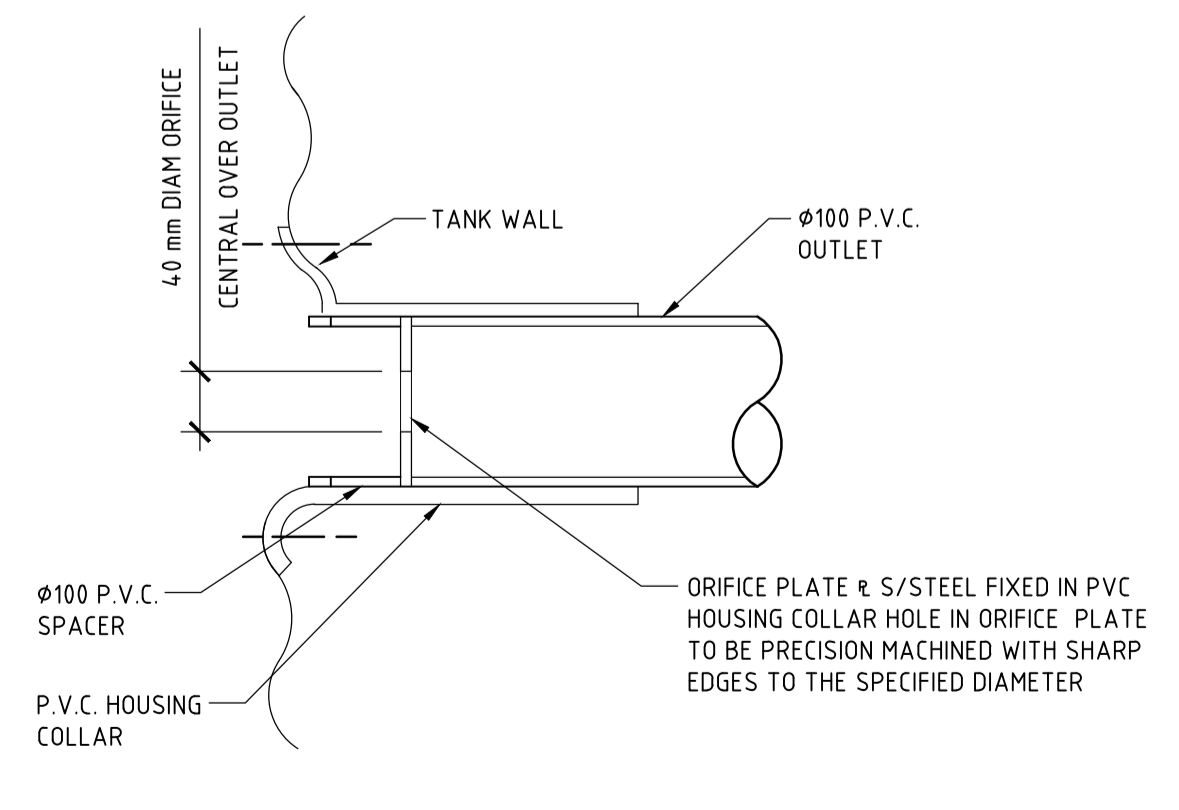
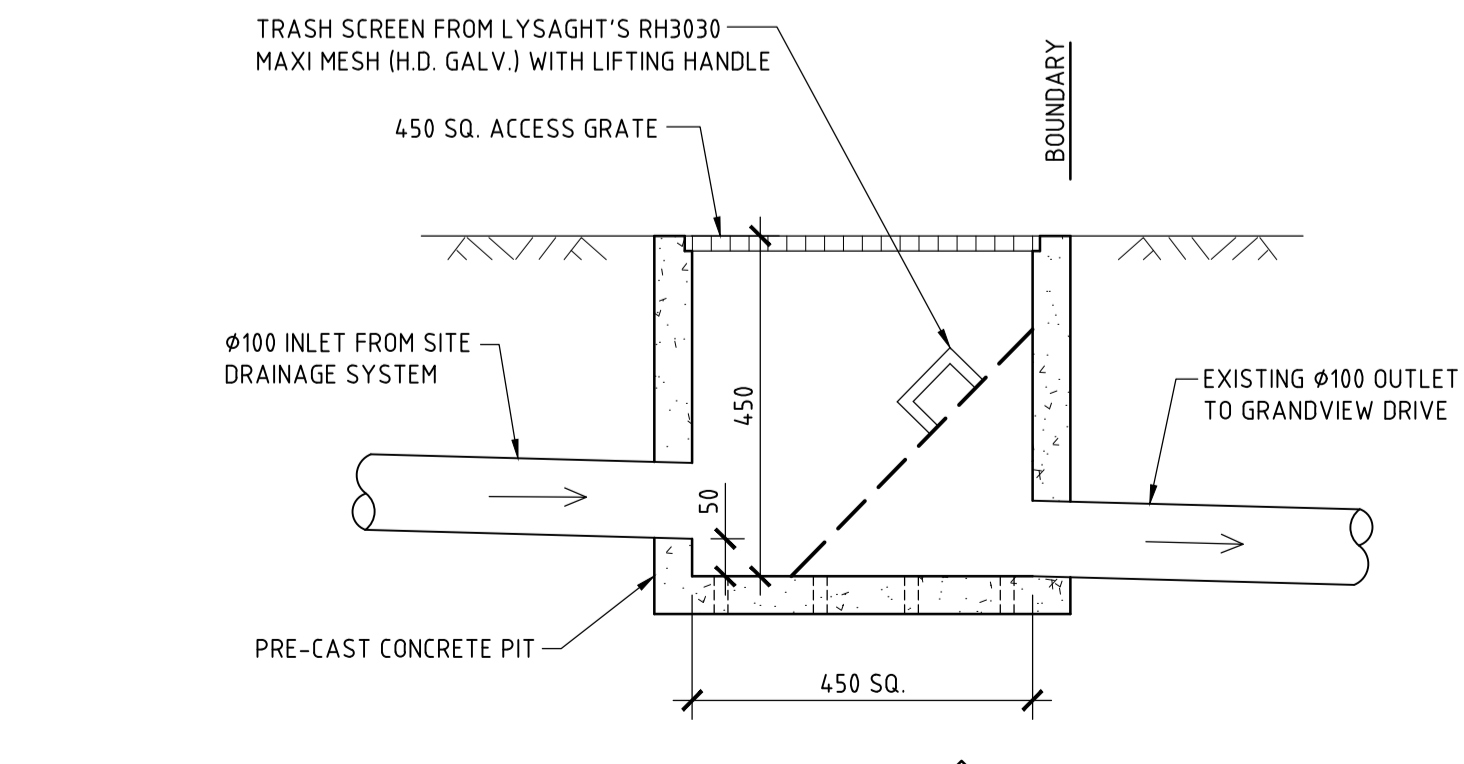
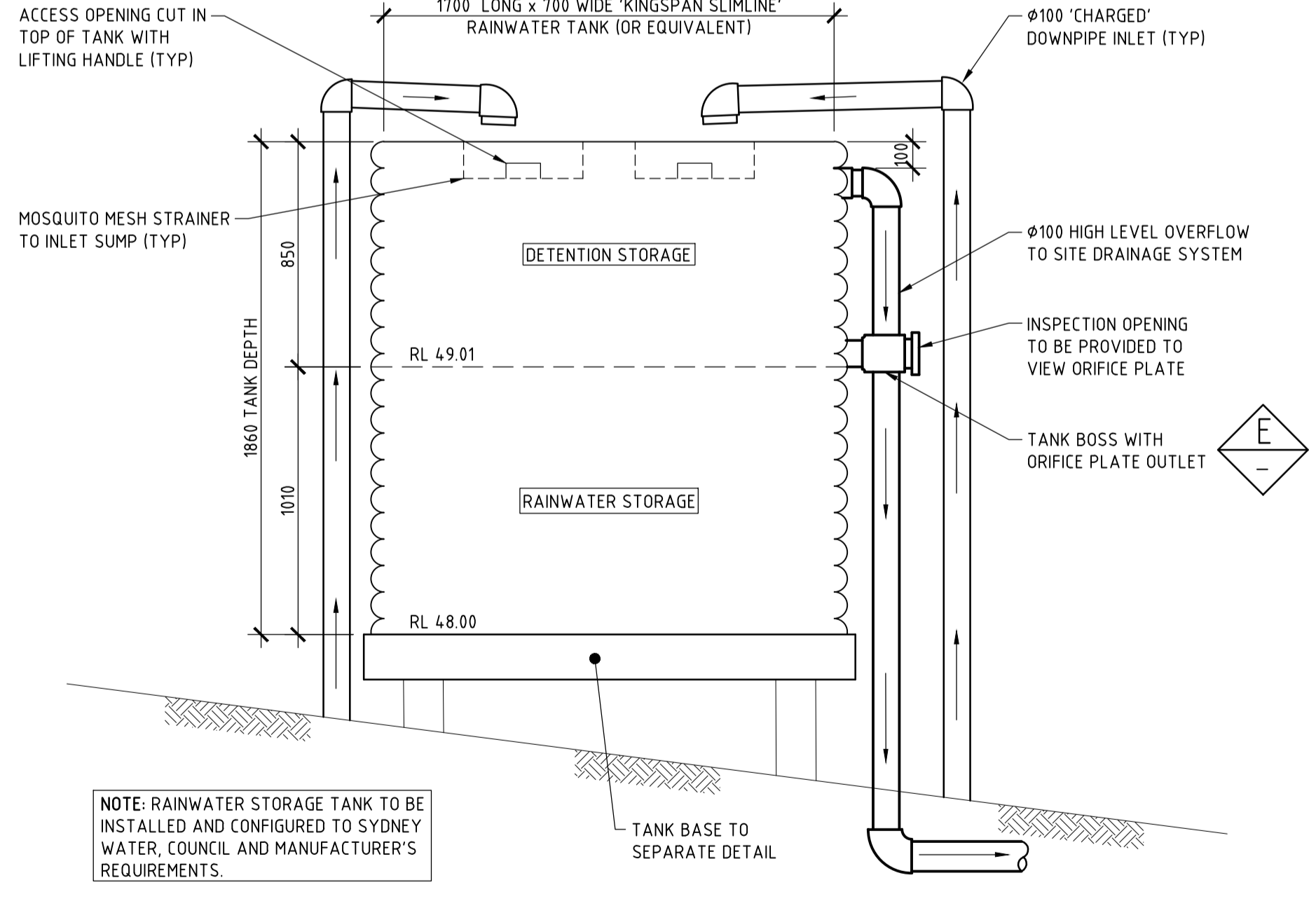
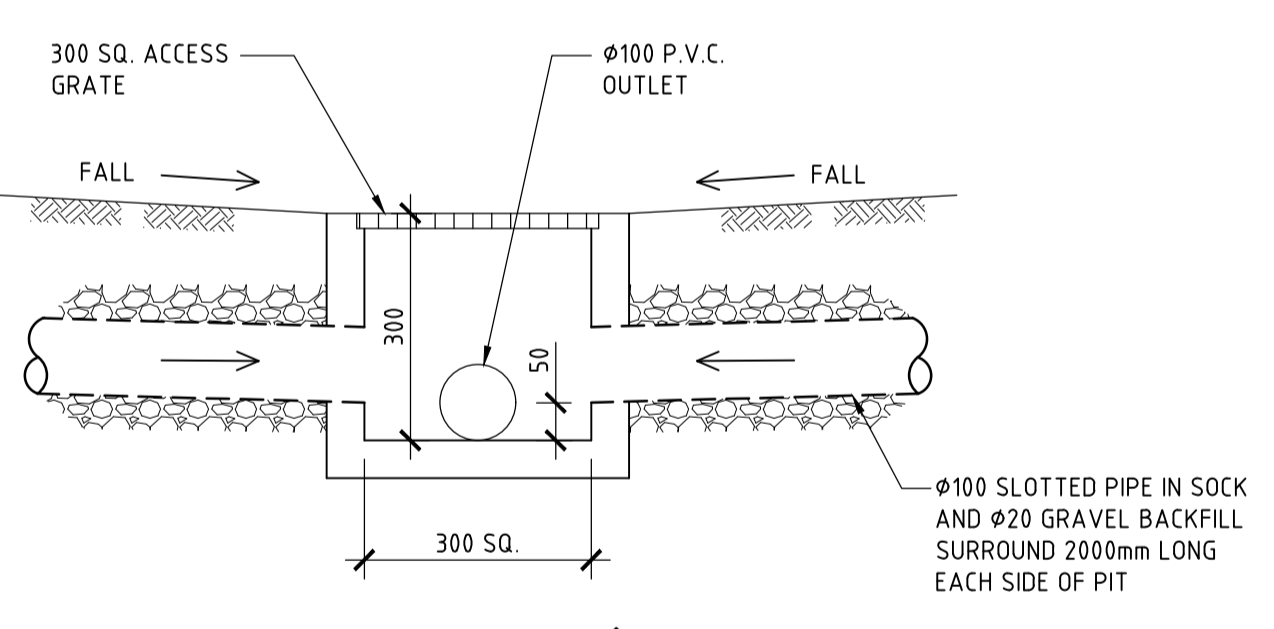
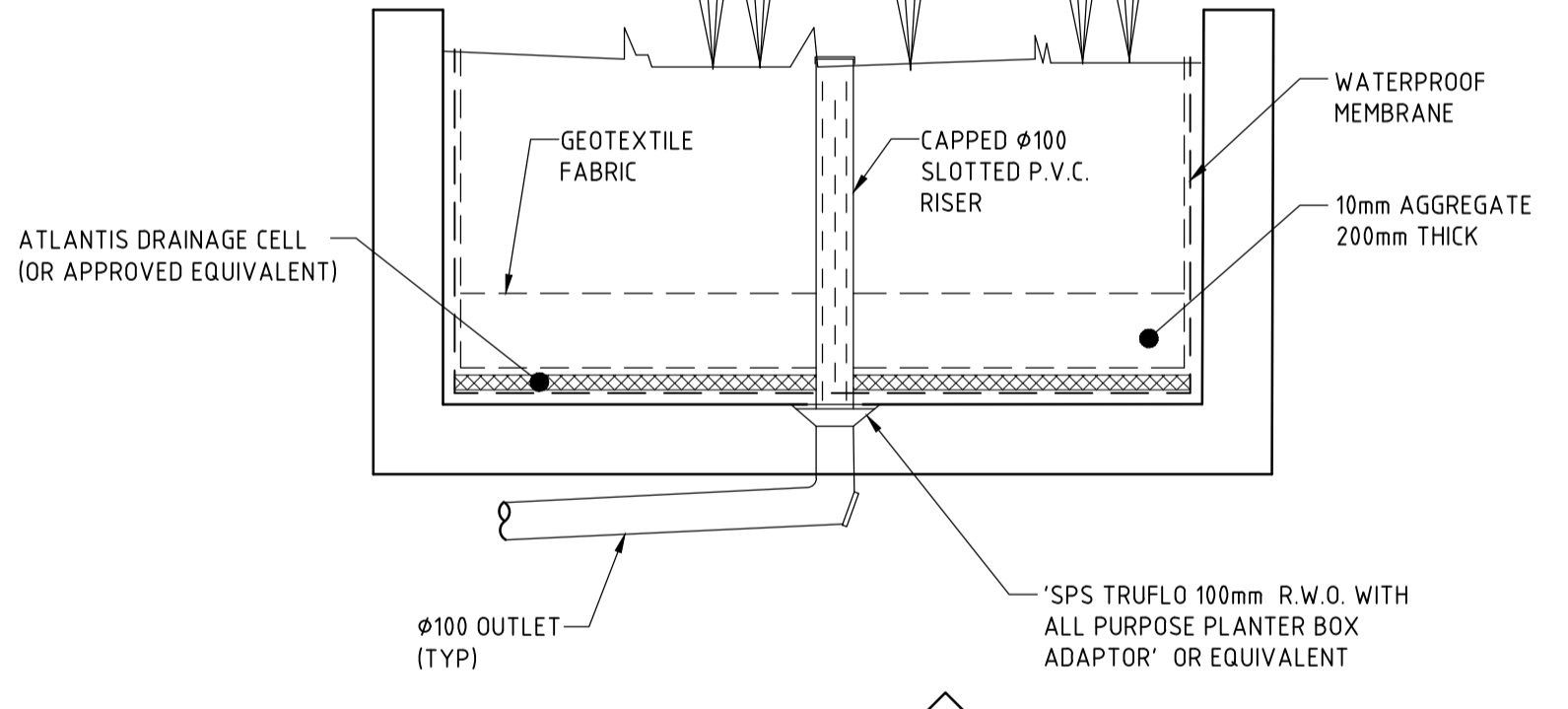
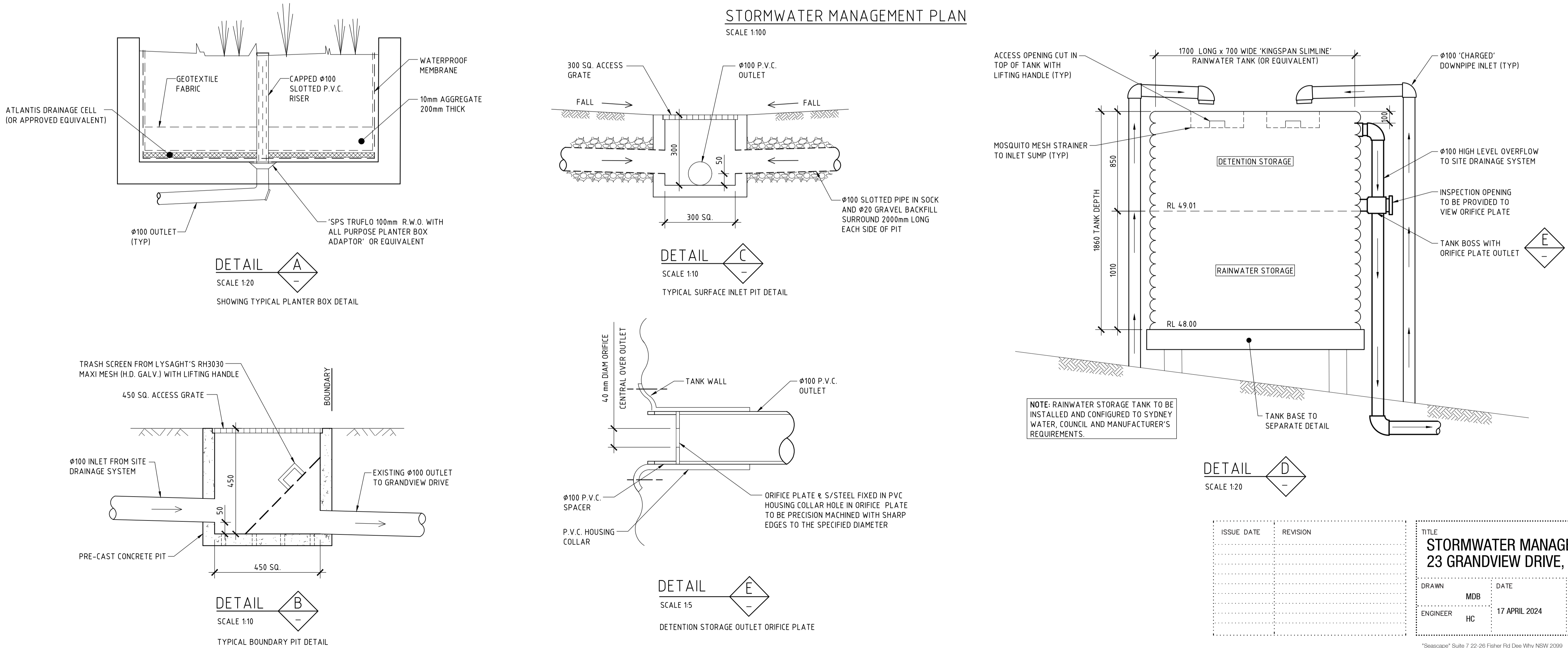
OSD SYSTEM DESIGN DATA

EXISTING SITE FLOWS
 5 YR ARI = 12 l/s
 100 YR ARI = 26 l/s

DEVELOPED SITE FLOWS
 5 YR ARI = 12 l/s
 100 YR ARI = 26 l/s

DETENTION SYSTEM DATA
 AREA DRAINING TO THE TANK = 72.4 m²
 MAX. 100YR TWL = R.L. 49.76
 ORIFICE DIAM = 40 mm
 SSR = 0.8065 m³

STORMWATER MANAGEMENT PLAN
SCALE 1:100



STORMWATER SYSTEM DESIGN DATA

SITE DATA
 SITE AREA = 517.4 m² (100%)
 PROPOSED IMPERVIOUS AREA = 266.8 m² (51%)
 PROPOSED LANDSCAPED AREA = 250.6 m² (49%)
 EXISTING IMPERVIOUS AREA = 175.1 m² (34%)
 EXISTING LANDSCAPED AREA = 342.3 m² (66%)

ISSUE DATE	REVISION

TITLE
STORMWATER MANAGEMENT PLAN
23 GRANDVIEW DRIVE, NEWPORT

TAYLOR CONSULTING
 CIVIL & STRUCTURAL ENGINEERS

STORM-1

DRAWN: MDB
 ENGINEER: HC
 DATE: 17 APRIL 2024
 CHECKED: [Signature]
 SCALE: A1
 1:100
 1:20
 1:10

ISSUE DATE: 17 APRIL 2024
 REVISION: [Signature]
 BE Civil (Hons) MIE Aust.