

BARRENJOEY ROAD

BENCH MARK
NAIL IN KERB
R.L. 41.32

PROVIDE 200 x 100 x 5.0 R.H.S
(H.D. GALVANISED) TO KERB
AT 1% MIN. WITH END TO SUIT
PROPOSED KERB GEOMETRY

450 SQ. BOUNDARY PIT
WITH DEPTH TO SUIT GRADE
OF DRAINAGE OUTLET

PROVIDE $\phi 100$
DOWNPIPE (TYP)

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

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

PROVIDE 100 WIDE GAP IN HOB EACH
SIDE OF TERRACE AS PROVISION
FOR EMERGENCY OVERFLOW

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

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

PROVIDE 300 SQ INLET PIT IN PLANT
ROOM AT LEVEL 3 FOR PROVISION
OF EMERGENCY OVERFLOW

STORMWATER MANAGEMENT PLAN

SCALE 1:100

RAINWATER RETENTION/DETENTION TANKS
STORAGE VOLUME = 4000 LITRES
STORAGE LENGTH = 2000mm
STORAGE WIDTH = 1180mm
STORAGE DEPTH = 1860mm
TANK FLOOR = R.L. 57.20 A.H.D.
ORIFICE = $\phi 40$ mm
TOTAL VOLUME = 8000 LITRES
PROVIDE $\phi 100$ HIGH LEVEL OUTLET TO
PROPOSED STORMWATER SYSTEM

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 ϵ/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 D.A. SUBMISSION TO COUNCIL 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 DRAIN TO THE RAINWATER STORAGE TANKS.
- THE RAINWATER STORAGE TANKS NEEDS TO BE CONNECTED FOR RE-USE AS REQUIRED BY THE OWNER.
- RAINWATER STORAGE TANKS TO BE CONFIGURED IN ACCORDANCE WITH SYDNEY WATER SPECIFICATIONS. GUIDELINES FOR RAINWATER TANK ON RESIDENTIAL PROPERTIES.
- PROVIDE MAINS 'TOP-UP' SUPPLY TO RAINWATER TANKS. 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 TANKS MUST BE SCREENED TO PREVENT THE ENTRY OF FOREIGN MATTER, ANIMALS OR INSECTS.
- A SIGN MUST BE AFFIXED TO THE RAINWATER TANKS 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 TANKS MUST NOT BE INSTALLED OVER ANY MAINTENANCE STRUCTURE OR FITTINGS USED BY A PUBLIC AUTHORITY.
- RAINWATER TANKS 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 = 688 m² (100%)
PROPOSED IMPERVIOUS AREA = 204 m² (30%)
PROPOSED LANDSCAPED AREA = 484 m² (70%)

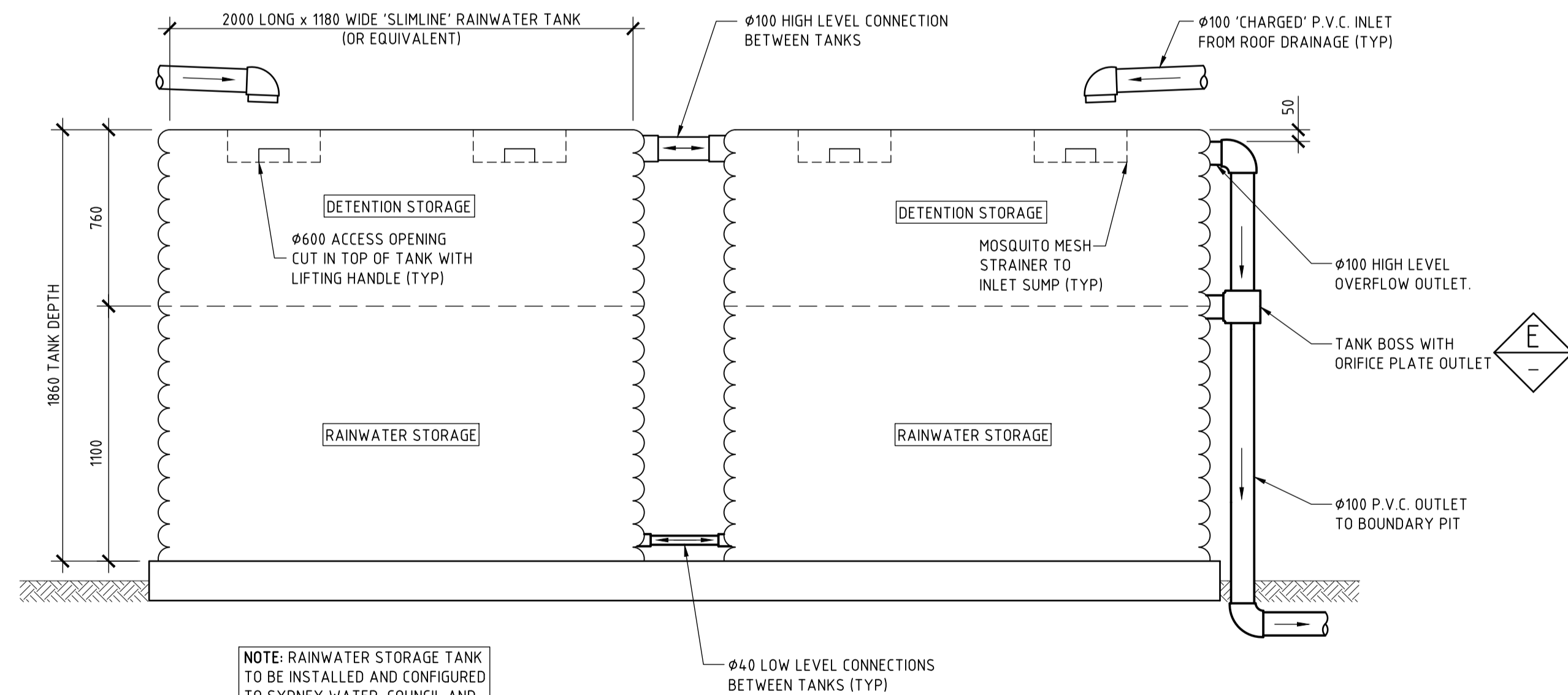
OSD SYSTEM DESIGN DATA
PERMISSIBLE SITE FLOWS (STATE OF NATURE FOR CATCHMENT = 688m²)
5 YR ARI = 23 l/s
100 YR ARI = 41 l/s

DEVELOPED SITE FLOWS (FOR CATCHMENT = 688m²)
5 YR ARI = 20 l/s
100 YR ARI = 36 l/s

DETENTION SYSTEM DATA
AREA DRAINING TO THE TANK = 129 m²
IMPERVIOUS AREA DRAINING TO OSD = 129 m²
ORIFICE DIAM = 40 mm
SSR = 3.3 m³

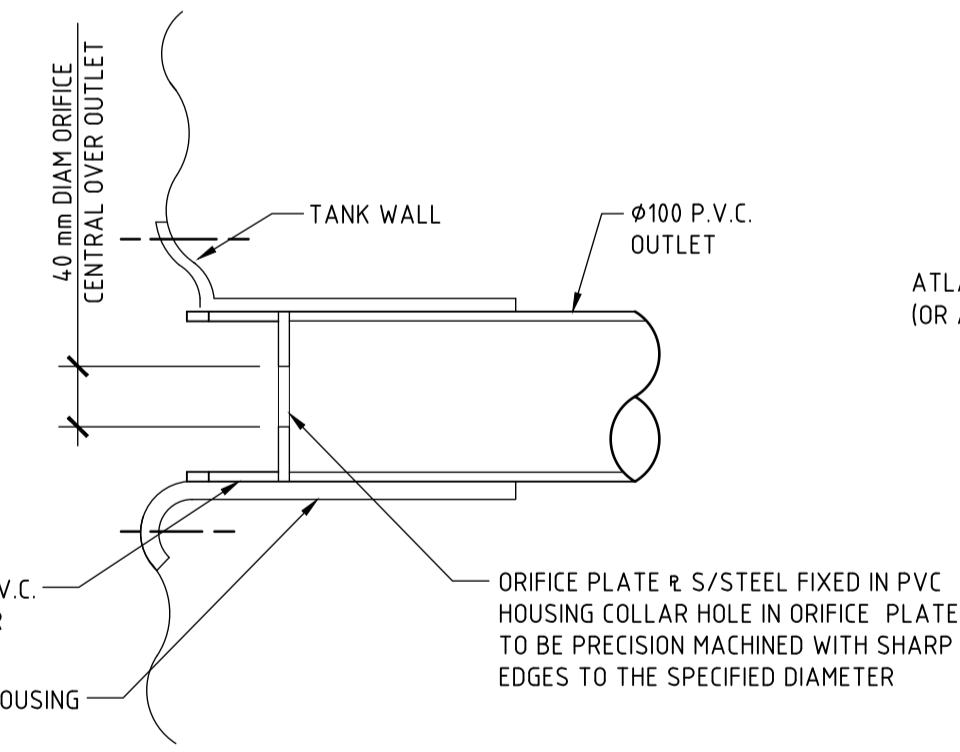
STORMWATER SYSTEM DESIGN DATA

SITE DATA
SITE AREA = 688 m² (100%)
PROPOSED IMPERVIOUS AREA = 204 m² (30%)
PROPOSED LANDSCAPED AREA = 484 m² (70%)
EXISTING IMPERVIOUS AREA = 0 m² (0%)
EXISTING LANDSCAPED AREA = 688 m² (100%)

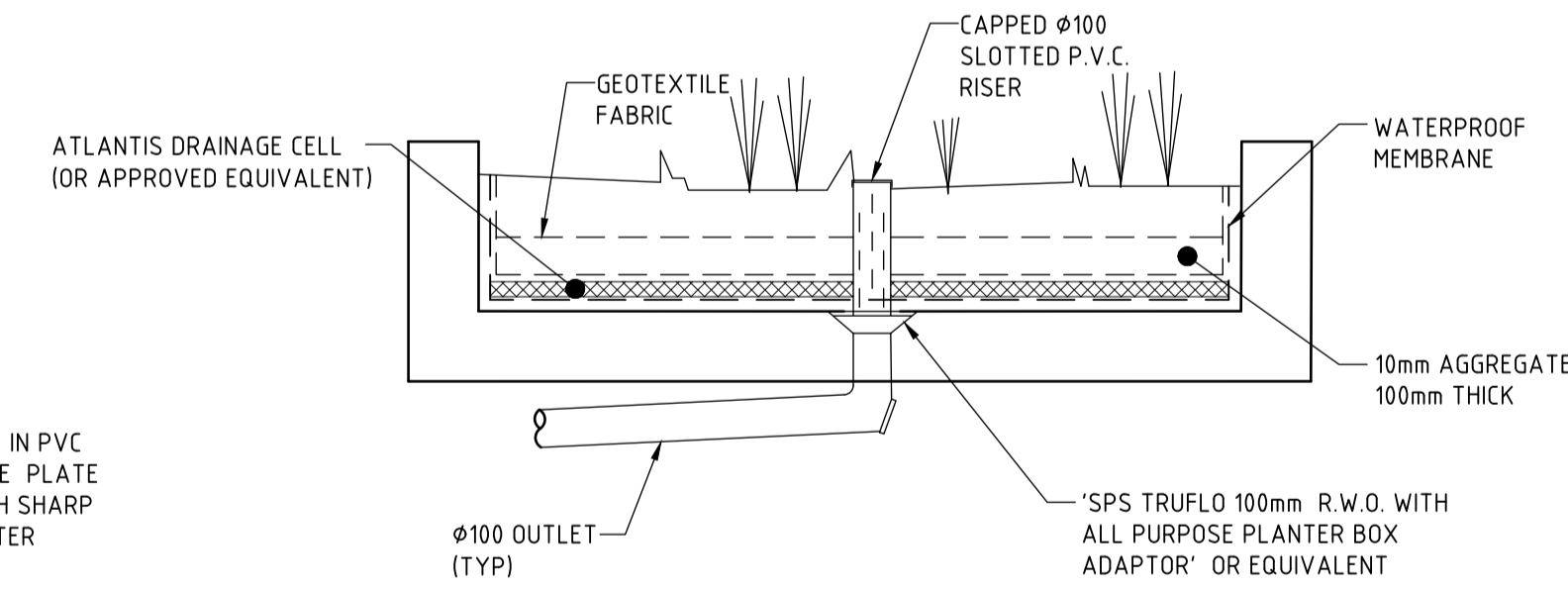


NOTE: RAINWATER STORAGE TANK TO BE INSTALLED AND CONFIGURED TO SYDNEY WATER, COUNCIL AND MANUFACTURER'S REQUIREMENTS.

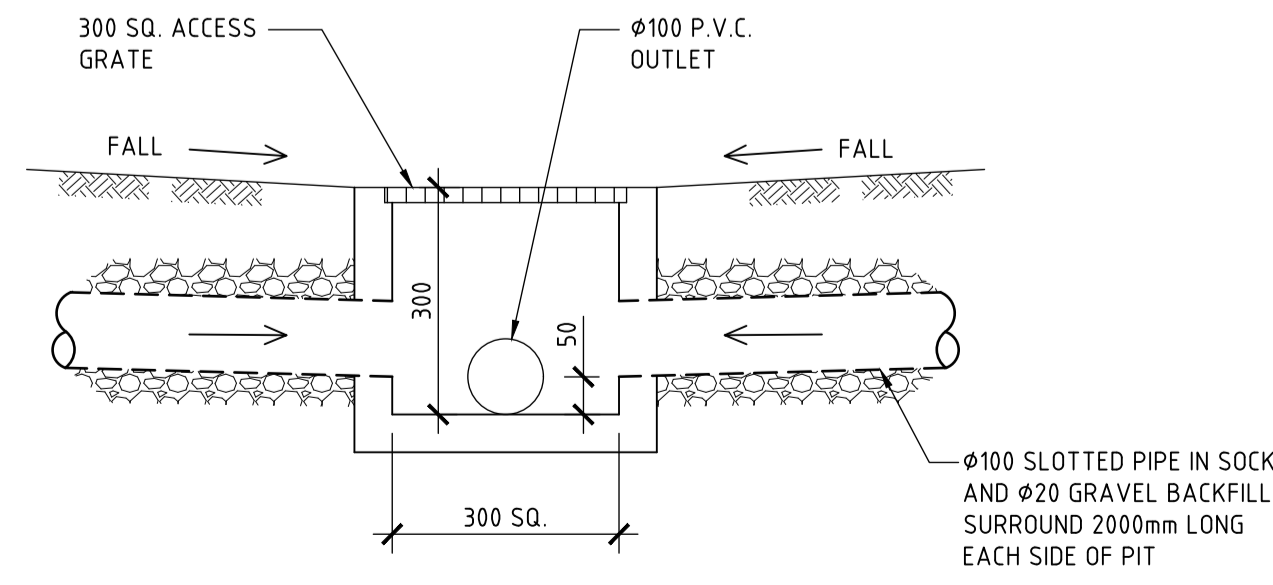
DETAIL A
SCALE 1:20



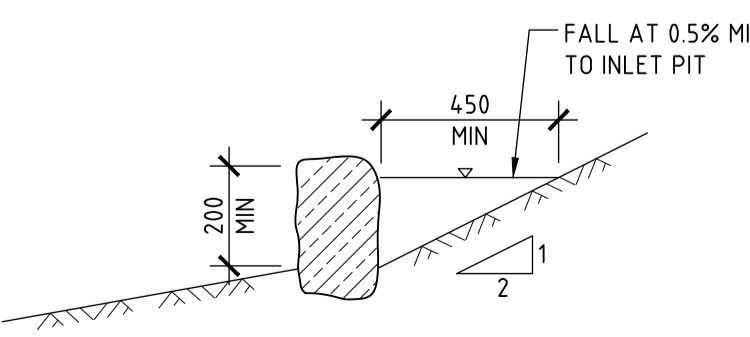
DETAIL E
SCALE 1:5
DETENTION STORAGE OUTLET ORIFICE PLATE



DETAIL C
SCALE 1:20
SHOWING TYPICAL PLANTER BOX DETAIL



DETAIL B
SCALE 1:10
TYPICAL SURFACE INLET PIT DETAIL



DETAIL D
SCALE 1:20
SHOWING TYPICAL SANDSTONE CATCH DRAIN DETAIL

ISSUE DATE	REVISION
23/6/21	CHANGES MADE TO SUIT ARCHITECTURAL COMMENTS

TITLE			
STORMWATER MANAGEMENT PLAN 521 BARRENJOEY ROAD, BILGOLA BEACH			
DRAWN	DATE	CHECKED	SCALE @ A1
JBP	8 JUNE 2021	<i>[Signature]</i>	1:100 1:20 1:10

TAYLOR CONSULTING CIVIL & STRUCTURAL ENGINEERS

SHEET - 1/A