PROPOSED RESIDENTIAL DEVELOPMENT
14 AVOCA AVENUE, BELFIELD
STORMWATER MANAGEMENT PLANS

GENERAL NOTES:

1. THESE THE PLANS SHALL BE READ IN CONJUCTION WITH OTHER RELEVANT CONSULTANTS'S PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONCEST AND CONSTRUCTION CERTIFICATE REQUIREMENTS. WHERE DISCREPANCIES ARE FOUND NASTASI & ASSOCIATES MUST BE CONTACTED IMMEDIATELY FOR VERIFICATION.
2. WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES.
3. SUBSOIL DRAINAGE SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL ENGINEER. SUBSOIL DRAINAGE SHALL NOT BE CONNECTED INTO THE STORMWATER SYSTEM IDENTIFIED ON THESE PLAN UNLESS APPROVED BY NASTASI & ASSOCIATES ENGINEERS.

STORMWATER CONSTRUCTION NOTES:

1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500 (CURRENT EDITION) AND THE REQUIREMENTS OF THE LOCAL COUNCIL'S POLICIES AND CODES
2. THE MINIMUM SIZE OF THE STORMWATER DRAINS SHALL NOT BE LESS THAN DN 90 FOR CLASS 1 BUILDINGS AND DN100 FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY REGULATORY AUTHORITY
3. THE MINIMUM GRADIENT OF STORMWATER DRAINS SHALL BE 1%, UNLESS NOTED OTHERWISE
4. COUNCIL'S TREE PRESERVATION ORDER IS TO BE STRICTLY ADHERED TO . NO TREES SHALL BE REMOVED UNTIL PERMIT IS OBTAINED
5. PUBLIC UTILITY SERVICES ARE TO BE ADJUSTED AS NECESSARY AT THE CLIENT'S EXPENSE
6. ALL PITS TO BE BENCHED AND STREAMLINED. PROVIDE STEP IRONS FOR ALL PITS OVER 1.2m DEEP
7. ALL PITS IN AN EASEMENT OR TRAFFICABLE AREA ARE TO BE PRE-CAST OR CASTIN-SITU OR APPROVED EQUIVALENT
8. MAKE SMOOTH JUNCTION WITH ALL EXISTING WORK
9. VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION
10. SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATIONS AND ARE NOT GUARANTEED COMPLETE NOR CORRECT. IT IS THE CLIENT & CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PRIOR TO CONSTRUCTION
11. ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY NASTASI & ASSOCIATES PRIOR TO THEIR COMMENCEMENT

RAINWATER RE-USE NOTES:

1. RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
2. TOWN WATER CONNECTION TO RAINWATER TANK TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS WAY REQUIRE PROVISION OF:
   2.1. PERMANENT AIR GAP
   2.2. BACKFLOW PREVENTION DEVICE
3. NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAINWATER SUPPLY
4. AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
5. PROVIDE AT LEAST ONE EXTERNAL HOSE COCK ON THE TOWN WATER SUPPLY FOR FIRE FIGHTING
6. PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL
7. ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE
8. PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN
9. ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT BE CONNECTED
10. PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS/NZE3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2648) OR FOR ABOVE FROUND PIPES BY USING ADHESIVE PIPE MARKERS (MAKE IN ACCORDANCE WITH AS1345)
11. EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1316\9
12. ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY.

EROSION AND SEDIMENT NOTES:

1. THESE THE PLANS SHALL BE READ IN CONJUCTION WITH EROSION AND SEDIMENT CONTROL DETAILS AS ATTACHED
2. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURE AS NECESSARY AND TO THE SATISFACTION OF THE RELEVANT LOCAL AUTHORITY PRIOR TO THE COMMENCEMENT ANY DURING CONSTRUCTION. NO DISTURBANCE TO THE SITE SHALL BE PERMITTED OTHER THAN IN THE IMMEDIATE AREA OF THE WORKS AND NO MATERIAL SHALL BE REMOVED FROM THE SITE WITHOUT THE RELEVANT LOCAL AUTHORITY APPROVAL. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH STANDARDS OUTLINED IN NSW DEPARTMENT OF HOUSING'S "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTIONS"
3. TOPSOIL SHALL BE STRIPPED AND STOCKPILED OUTSIDE HAZARD AREA SUCH AS DRAINAGE LINES. THIS TOPSOIL SHALL BE RESPREAD LATER ON AREAS TO BE REVEGETATED AND STABILIZED ONLY. TOPSOIL SHALL NOT BE RESPREAD ON ANY OTHER AREA UNLESS SPECIFICALLY INSTRUCTED BY THE SUPERINTENDENT. IF THEY ARE TO REMAIN LONGER THAN ONE MONTH STOCK PILES SHALL BE PROTECTED FROM EROSION BY COVERING THEM WITH A MULCH AND HYDROSEEDING AND, IF NECESSARY, BY LOCATING BANKS OR DRAINS DOWNSTREAM OF A STOCKPILE TO RETARD SILT LADEN RUNOFF
4. THE CONTRACTOR SHALL REGULARLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVE ACCUMULATED SILT FROM SUCH DEVICES SUCH THAT MORE THAN 60% OF THEIR CAPACITY IS NOT LOST. ALL THE SILT IS TO BE PLACED OUTSIDE THE LIMIT OF WORKS. THE PERIOD FOR MAINTAINING THESE DEVICES SHALL BE AT LEAST UNTIL ALL DRISTURBED AREAS ARE REVEGETATED AND FURTHER AS MAY BE DIRECTED BY SUPERINTENDENT. OR COUNCIL
5. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING CONSTRUCTION CONFINING ACCESS WHERE POSSIBLE TO NOMINATED STABILISED ACCESS POINTS
6. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL BY REGULAR WETTING DOWN DISTURBED AREA
7. ALL DRAINAGE PIPE INLETS TO BE CAPPED UNTIL
   - DOWNPIPES CONNECTED
   - PITS CONSTRUCTED AND PROTECTED WITH SILT BARRIER

MINIMUM PIPE COVER NOTES:

LOCATION	MINIMUM COVER
NO SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTIAL
SUBJECT TO VEHICLE LOADING	450mm WHERE NOT IN A ROAD
UNDER A SEALED ROAD	600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

SEE AS2032 INSTALLATION OF UPVC PIPES FOR FURTHER INFORMATION.

CONCRETE PIPE COVER SHALL BE IN ACCORDANCE WITH AS3725-1989 LOADS ON BURIED CONCRETE PIPES, HOWEVER A MINIMUM COVER OF 450mm WILL APPLY.

WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL BE PAVED WITH AT LEAST:
- 150 mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC
- 75mm THICKNESS OF BRICK OR 100mm OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC; OR
- 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC

SURFACE STORMWATER PIT NOTES:

PIT DEPTH (mm)	MINIMUM PIT SIZE (mm)
UP TO 600 mm	450 x 450
FROM 600mm TO LESS THAN 900mm	600 x 600
FROM 900mm	900 x 900

ALL BASEMENT PIT TO BE FITTED WITH HEAVY DUTY CLASS C GRATE & FRAME

LEGEND

	DENOTES BELOW GROUND ON-SITE DETENTION TANK
	DENOTES ON-SITE DETENTION BASIN
DP	DENOTES ϕ100 DOWNPIPE (U.N.O)
IP	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL
PB	DENOTED PLANTER BOX DRAINS
FD FD	DENOTED SURFACE DRAINAGE GRATES
CE	DENOTED CLEANING EYE
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN
	DENOTES ABSORPTION TRENCH
	DENOTES NON RETURN VALVE
	DENOTES OVERLAND FLOW PATH
IL	INVERT LEVEL
TK	TOP OF KERB
RL	REDUCED LEVEL/SURFACE LEVEL
RL 17.09 +	PROPOSED FINISH SURFACE LEVEL
100	DENOTED ϕ100mm PVC (SEWER GRADE) @1% MIN. FALL U.N.O FOR RAINWATER RE-USE
100	DENOTED ϕ100mm PVC (SEWER GRADE) @1% MIN. FALL U.N.O
150	DENOTED ϕ150mm PVC (SEWER GRADE) @1% MIN. FALL U.N.O
225	DENOTED ϕ225mm PVC (SEWER GRADE) @0.5% MIN. FALL U.N.O
G	DENOTE AGG PIPE
	DENOTE RAINWATER TANK

SCHEDULE OF DRAWING

LOCATION MAP

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QUALITY CONTROL	
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APPROVED:
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CLIENT: WISDOM

ADDRESS: 14 AVOCA AVENUE, BELFIELD

TITLE: COVER SHEET & NOTES

DRAWING STATUS: CONCEPT PLAN FOR APPROVAL

SCALE (AT ORIGINAL SIZE): AS NOTED

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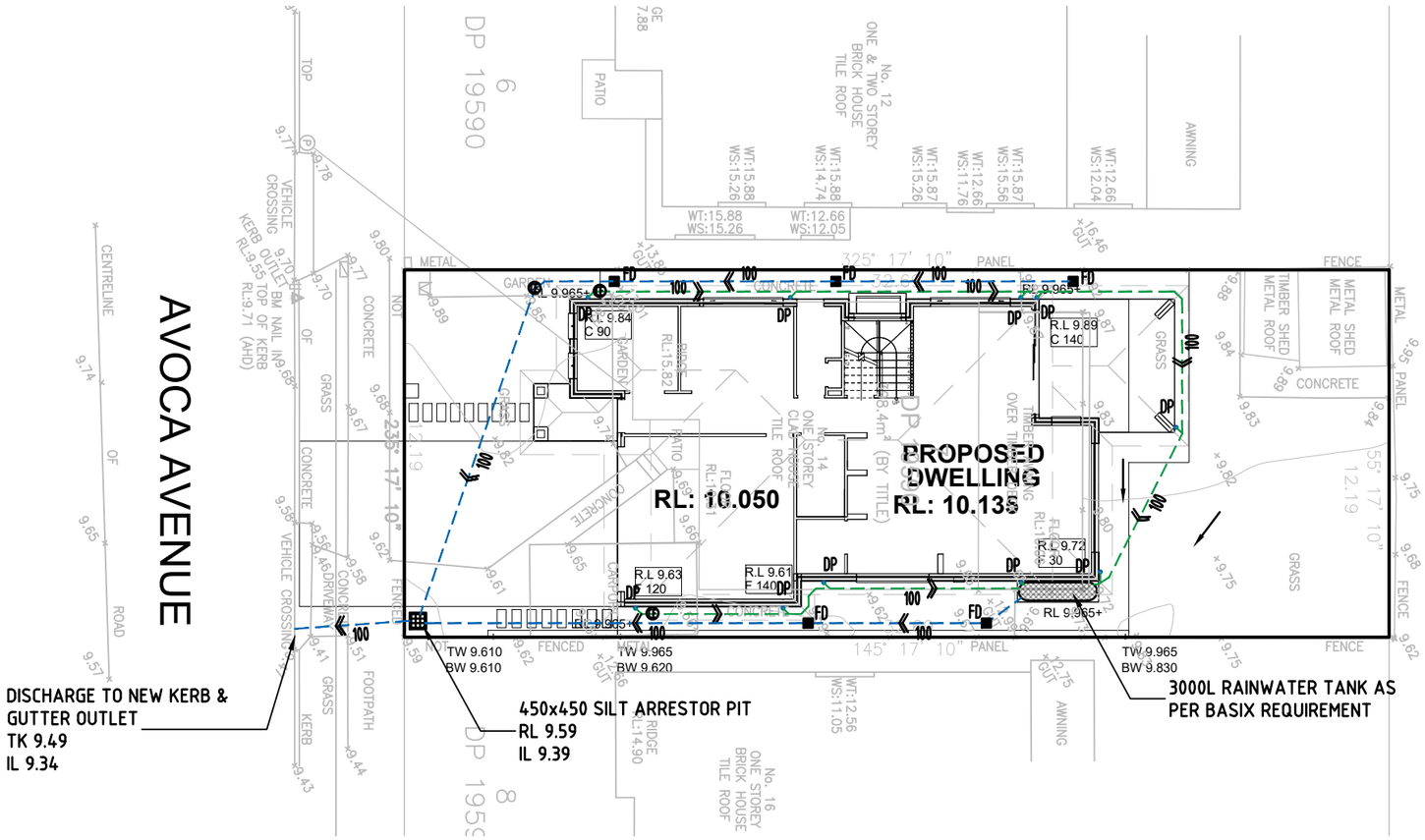


DRAINAGE PLAN

SCALE 1:200

- LOCATION OF PITS AND PIPES SHOWED ON PLAN ARE INDICATIVE ONLY.

DESIGN SUMMARY

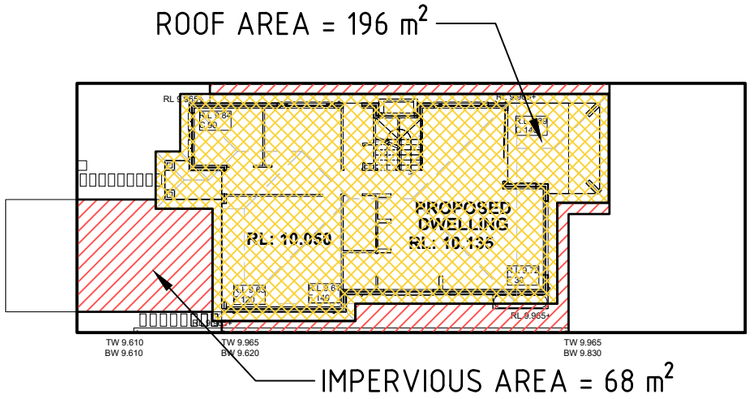
CANTERBURY-BANKSTOWN COUNCIL (CANTERBURY DCP)

SINGLE DWELLING DEVELOPMENT
SITE AREA = 398 m^2
ROOF AREA = 196 m^2
IMPERVIOUS AREA = 68m^2
TOTAL IMPERVIOUS AREA = 264m^2 (66.3%)

1:100 ARI 5MIN. = 213 mm/hr
1:20 ARI 5MIN. = 170 mm/hr

SINCE TOTAL IMPERVIOUS AREA IS LESS THAN 70%, NO OSD IS REQUIRED.

1. DOWNPIPE SIZE MIN. ø90, GUTTER SIZE MIN.115 HI FRONT
2. ROOF AREA WILL BE COLLECTED INTO RAINWATER TANK, OVERFLOW FROM RAINWATER TANK WILL DRAINS TO EXISTING KERB & GUTTER VIA SEDIMENT CONTROL PIT.
3. ALL CHARGED LINES MUST BE OF PRESSURE GRADE AND JOINTS ARE TO BE SOLVENT WELDED
4. THE PIPE SYSTEM INCLUDING DOWNPIPES MUST BE CONSTRUCTED FROM SUITABLY DURABLE MATERIALS.
5. SEALED CLEANING EYES ARE TO BE PROVIDED AT LOWEST POINTS IN THE SYSTEM AND AT FRONT BOUNDARY PRIOR TO COUNCIL LAND AND SHOULD BE EASE TO ACCESS.
6. ENSURE MINIMUM 1% SLOPE IS PROVIDED FOR ALL GRAVITY FED PIPES



CATHCMENT PLAN

SCALE 1:300

- LOCATION OF PITS AND PIPES SHOWED ON PLAN ARE INDICATIVE ONLY.

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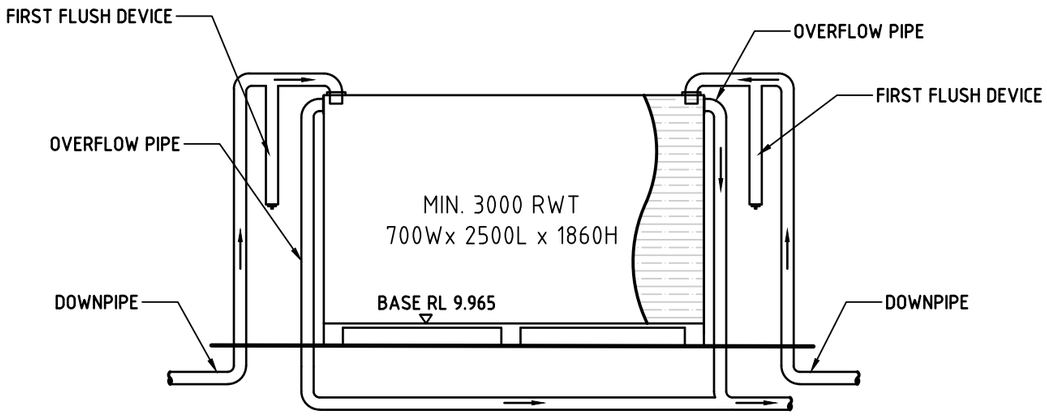
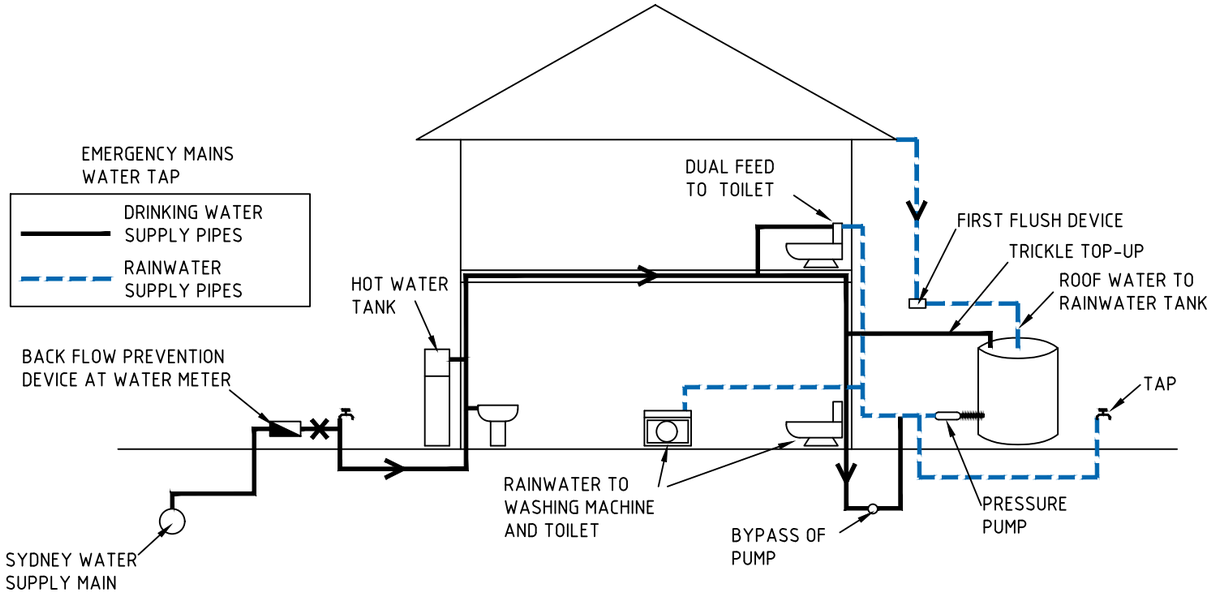
RAINWATER TANK NOTES:

1. A FIRST FLUSH DEVICE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS SHALL BE FITTED TO RAINWATER TANK SYSTEM TO FLUSH OUT THE FIRST 0.5mm OF RUN-OFF FROM THE ROOF AREA THAT DRAINED INTO THE TANK (E.G. 0.5L/m2).
2. PUMP SIZE & SPECIFICATION TO BE NOMINATED BY MANUFACTURER.
3. DIMENSIONS ARE INDICATIVE ONLY. EXACT DETAILS TO MANUFACTURER'S SPECIFICATIONS.



RAINWATER TANK DETAIL
NTS



RAINWATER TANK RE-USE DIAGRAM
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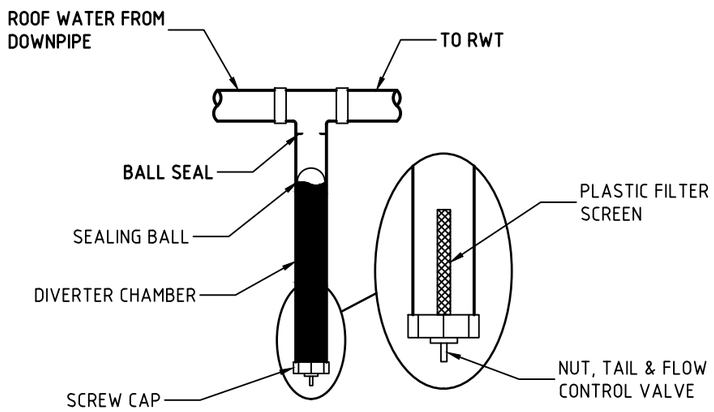
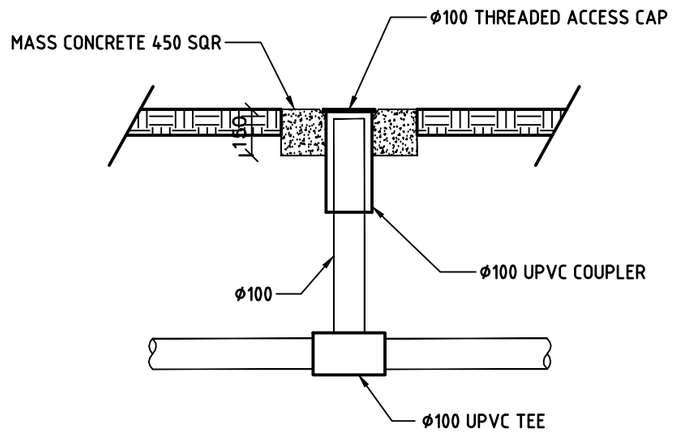


FIRST FLUSH DEVICE DETAIL
1:20



CLEANNING EYE DETAILS
SCALE 1:20

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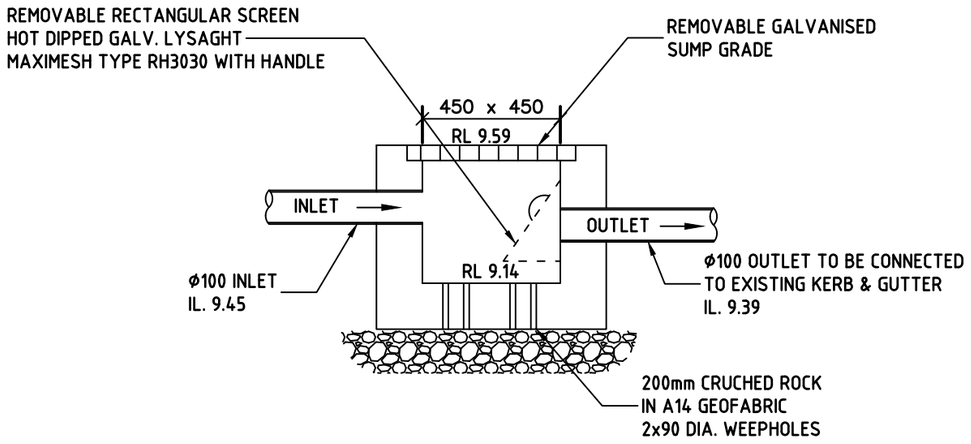
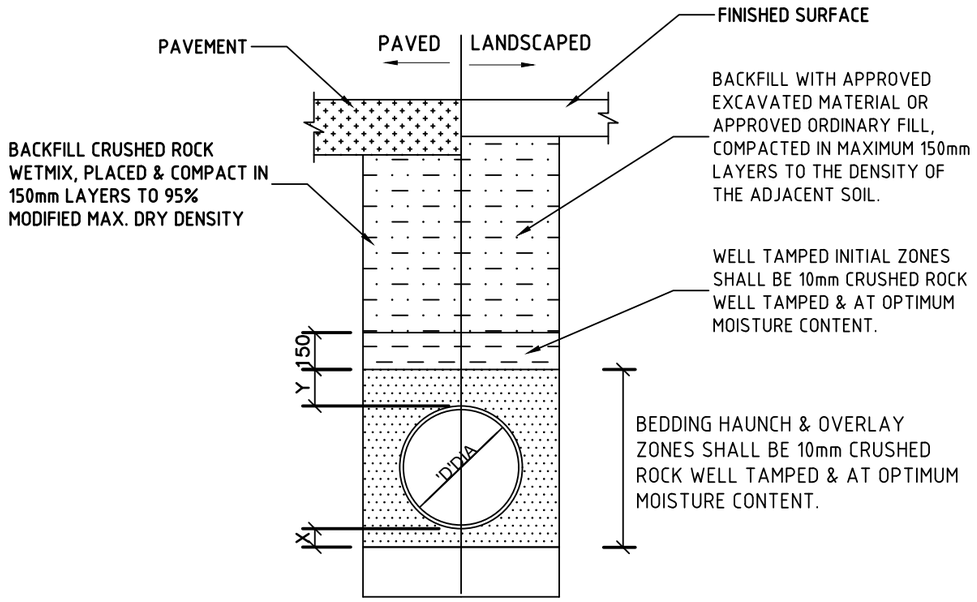
POLLUTION CONTROL PIT NOTES:

1. MESH SCREEN IS TO BE GALVANISED LYSAGHT RH3030 MAXI MESH COVERED WITH GEOTEXTILE IN GALVANISED STEEL FRAME WITH LIFTING HANDLES ACROSS BASE.
2. GEOTEXTILE IS TO BE BIDIM A14, PROPEX 4550 OR SIMILAR WITH COEFFICIENT OF PERMEABILITY GREATER THAN 50E-4m/s.



SILT ARRESTOR PIT DETAILS

SCALE 1:20



NOTE:
1 REFER TO PIPE LAYING SPECIFICATIONS FOR DETAILS.

PIPE DIA 'D'	W	X MIN.	Y
100-150	300	75	75
225-300	600	75	75

UPVC PIPE

TYPICAL PIPE LAYING DETAIL

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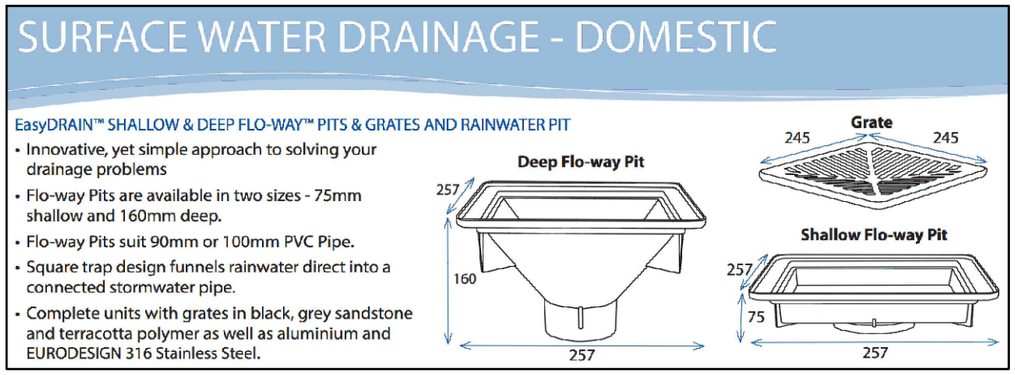

TYPICAL SURFACE DRAINS

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WISDOM

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14 AVOCA AVENUE, BELFIELD

TITLE:
STORMWATER DETAILS

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