

ASSUMED PIPELINE WITHIN DRAINAGE EASEMENT. BUILDER AND/OR PLUMBER TO VERIFY PIPELINE LOCATION AND CONDITION.

EXISTING PIT WITH COVERED SEALED LID. RL: 29.27

NOTE: EXISTING PIT TO BE INSPECTED PRIOR TO CONSTRUCTION BY BUILDER AND/OR PLUMBER AND EXISTING PIPE OUTLET VERIFIED. PIPE TO BE CLEANED OUT, WATER TESTED AND DISCHARGE POINT DETERMINED. ENGINEER TO BE NOTIFIED UPON VERIFICATION.

DRAINAGE EASEMENT.

APPROX. LOCATION OF 150mm SEWER

PROPOSED POOL OVERFLOW TO BE DIRECTED TO SEWER BY OTHERS. (NOT PART OF THIS DEVELOPMENT)

GROUND FLOOR AND SITE DRAINAGE MANAGEMENT PLAN

SCALE = 1:100

NOTE:

EXISTING PIPED SYSTEM WITHIN DRAINAGE EASEMENT IS ASSUMED AND MUST BE VERIFIED PRIOR TO CONSTRUCTION AND ENGINEER NOTIFIED OF ANY FINDINGS. IF NO PIPED SYSTEM EXISTS OR IF DAMAGED, A NEW PIPED SYSTEM MUST BE INSTALLED AND DIRECTED TO COUNCIL'S STORMWATER SYSTEM ON BURRENDONG PLACE TO COUNCIL SPECIFICATIONS AND AS3500.3.

NOTE: SUBSOIL DRAINAGE

SUBSOIL DRAINAGE TO BE INSTALLED WHERE REQUIRED AS PER AS 3500.3

NOTE: EXISTING STORMWATER SYSTEM

EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED. BUILDER TO INSPECT PRIOR TO CONSTRUCTION AND UPGRADE IF REQUIRED IN ACCORDANCE WITH AS 3500.3

STORMWATER NOTES:

- ALL PIPES TO BE 100mm ϕ 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 LAID 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 ϕ UNLESS NOTED OTHERWISE.
- DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT OF 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 12 TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 900 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 12 AT 300 EACH WAY UNLESS NOTED OTHERWISE.
- ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- THE BOUNDARY OR SILT ARRESTOR PIT SHOULD ALWAYS INCORPORATE A SUMP AND MAXI-MESH SCREEN AS PER LOCAL COUNCIL REQUIREMENTS. HOWEVER, UNLESS SPECIFICALLY REQUIRED BY COUNCILS POLICY OR IF THE SITE CONSISTS OF A CLAY OR ROCK SUBGRADE, ALL OTHER DRAINAGE PITS WILL NOT REQUIRE A SUMP.
- 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
- 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 3500-2003 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 OR GUTTER GUARD TO ALL EAVES GUTTERS.
- ORIFICE PLATE MUST BE INSTALLED PRIOR TO INSTALLATION OF THE ROOF DRAINAGE SYSTEM AND CONNECTION OF THE SITE STORMWATER SYSTEM TO THE ONSITE DETENTION TANK.
- 100mm ϕ x 3000 LONG TAIL OUT SUBSOIL LINE TO BE PROVIDED ON THE UPSTREAM SIDE OF ALL PITS. SUBSOIL LINE TO BE COVERED WITH GEOTEXTILE FILTER SOCK FOR THE FULL LENGTH AND END COVERED.

RAINWATER RE-USE TANKS:

- 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, SYDNEY WATER AND NSW HEALTH REQUIREMENTS FOR NON DRINKING USE ONLY AS FOLLOWS:
a) TO WATER GARDEN AREAS b) WASHING CARS
- 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
- PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.
- 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.
- 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.
- BUILDER/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 230-2008. IF IN DOUBT CONTACT ENGINEER.
- RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230-2008

NOTES:

- THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION IF THE ISSUE DATE PRECEDES THE ISSUE DATE ON THE ARCHITECTURAL DRAWINGS.
- DO NOT SCALE FROM THIS DRAWING.
- ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BY THE BUILDER BEFORE COMMENCING WITH ASSOCIATED WORK.

LEGEND

- DP1 • 100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
- DP2 • 100mm ϕ DOWNPIPE TO DISCHARGE TO BOUNDARY PIT
- STORMWATER PIPE FLOW DIRECTION
- PIT
- GDI GRATED DRAIN
GDI - 150 MIN DEPTH x 150 WIDE GRATED DRAIN
- RWT EXISTING RAINWATER TANK TO COLLECT ALL DP1 DOWNPIPES. TO BE RE-USED AS PER BASIX REQUIREMENTS LOCAL COUNCIL & SYDNEY WATER REQUIREMENTS

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

ONSITE DETENTION CALCULATION SUMMARY NORTHERN BEACHES (PITWATER) COUNCIL

TOTAL SITE AREA	=	707.4 m ²	
PRE DEVELOPMENT IMPERVIOUS AREA	=	196 m ²	(27%)
POST DEVELOPMENT IMPERVIOUS AREA	=	203 m ²	(29%)
INCREASE IN IMPERVIOUS AREA	=	3 m ²	

OSD REQUIREMENT: OSD IS NOT REQUIRED FOR THIS DEVELOPMENT.

BASIX RWT REQUIREMENT = NIL

DISCHARGE METHOD = DIRECT CONNECTION TO EXISTING STORMWATER SYSTEM WITHIN DRAINAGE EASEMENT.

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:

- 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

IF IN DOUBT ASK

DOCUMENT CERTIFICATION

Date: 20/08/20
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(Director NB Consulting Engineers)
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Project: ALTERATIONS AND ADDITIONS
15 BURRENDONG PLACE, AVALON

Drawing Title: GROUND FLOOR & SITE DRAINAGE
MANAGEMENT PLAN

Date: AUGUST '20

Design: CF

Drawn: NP

Job No: 200654

Drawing No: D01

Issue: A

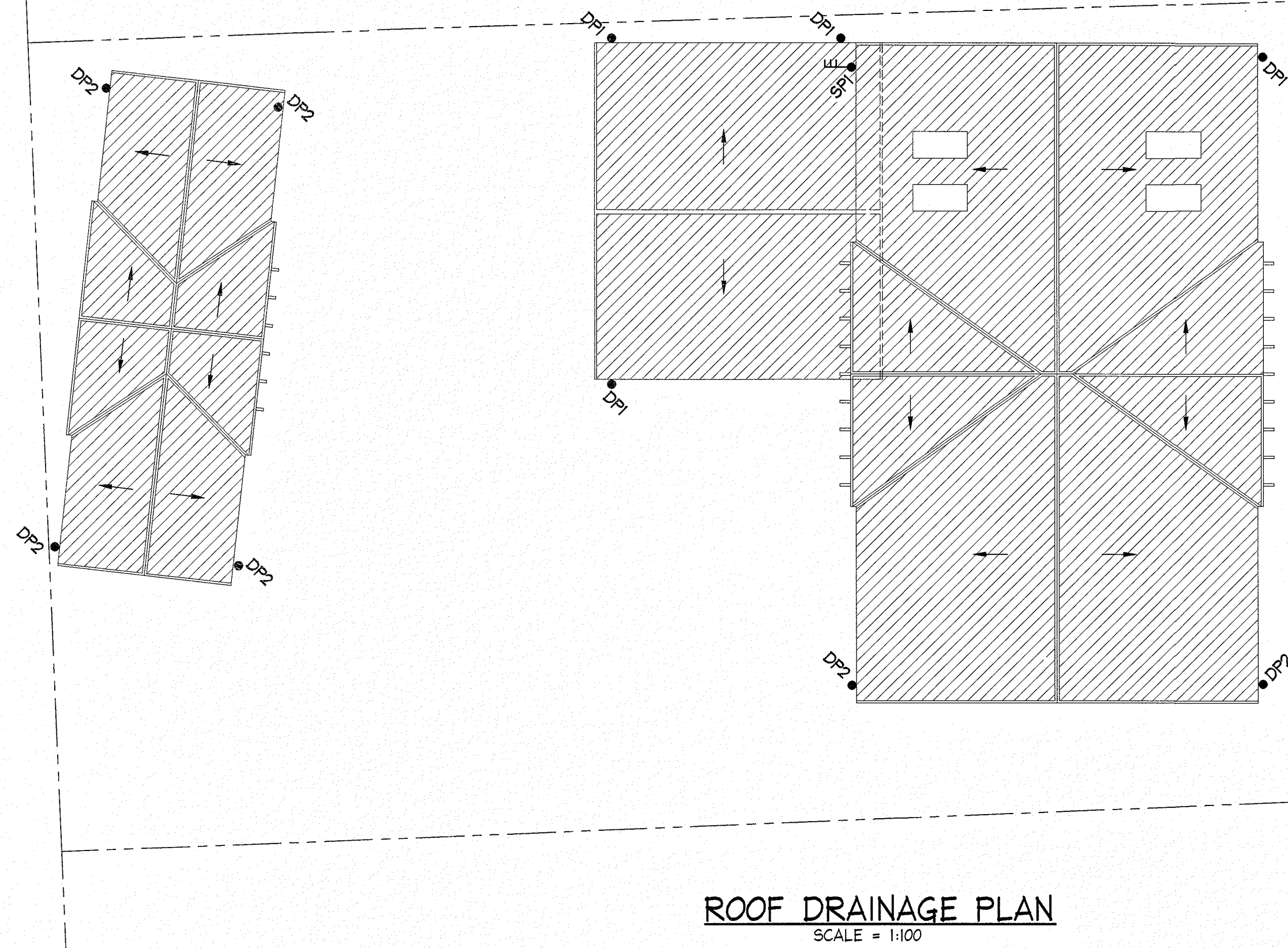
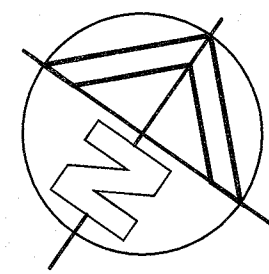
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Scale check - 100mm when printed to scale

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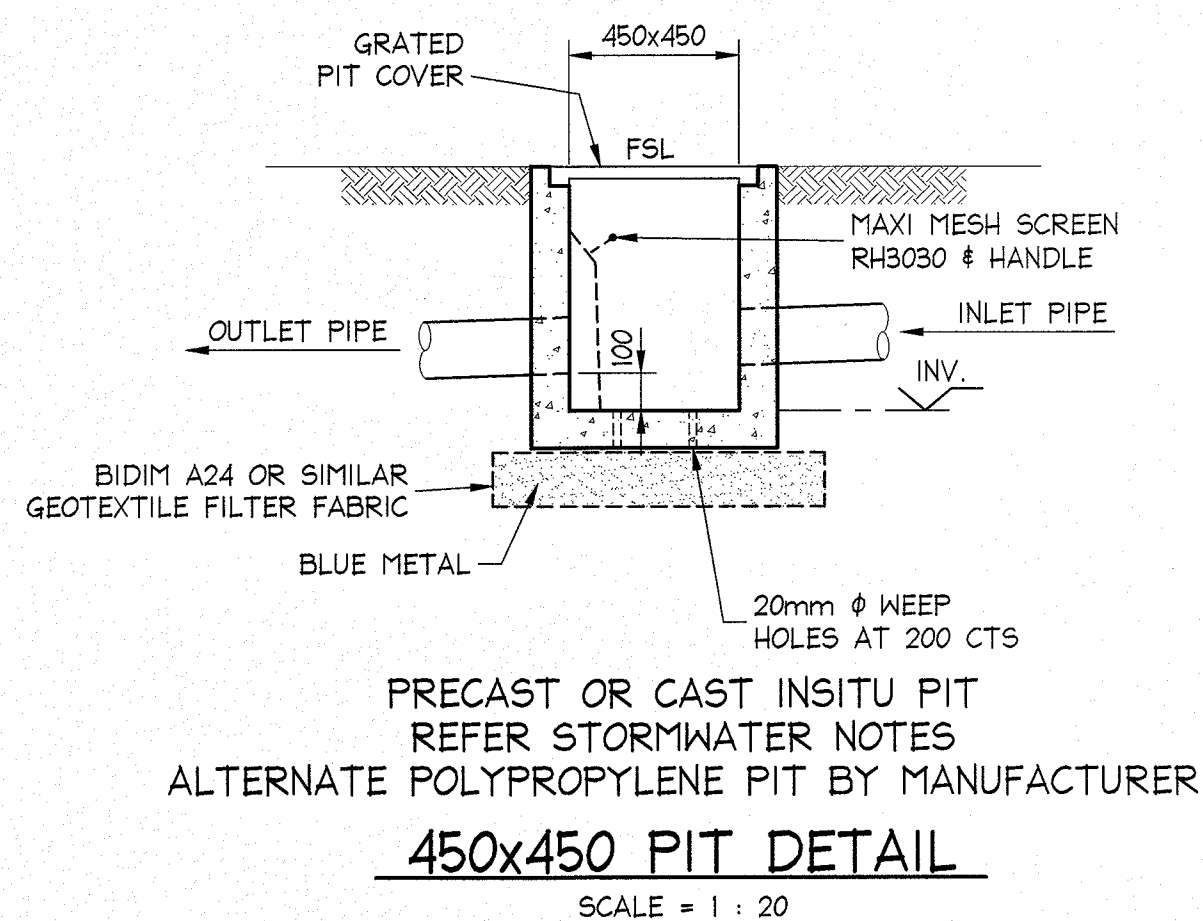
ROOF DRAINAGE PLAN
SCALE = 1:100

HATCHED AREA DENOTES NEW ROOF

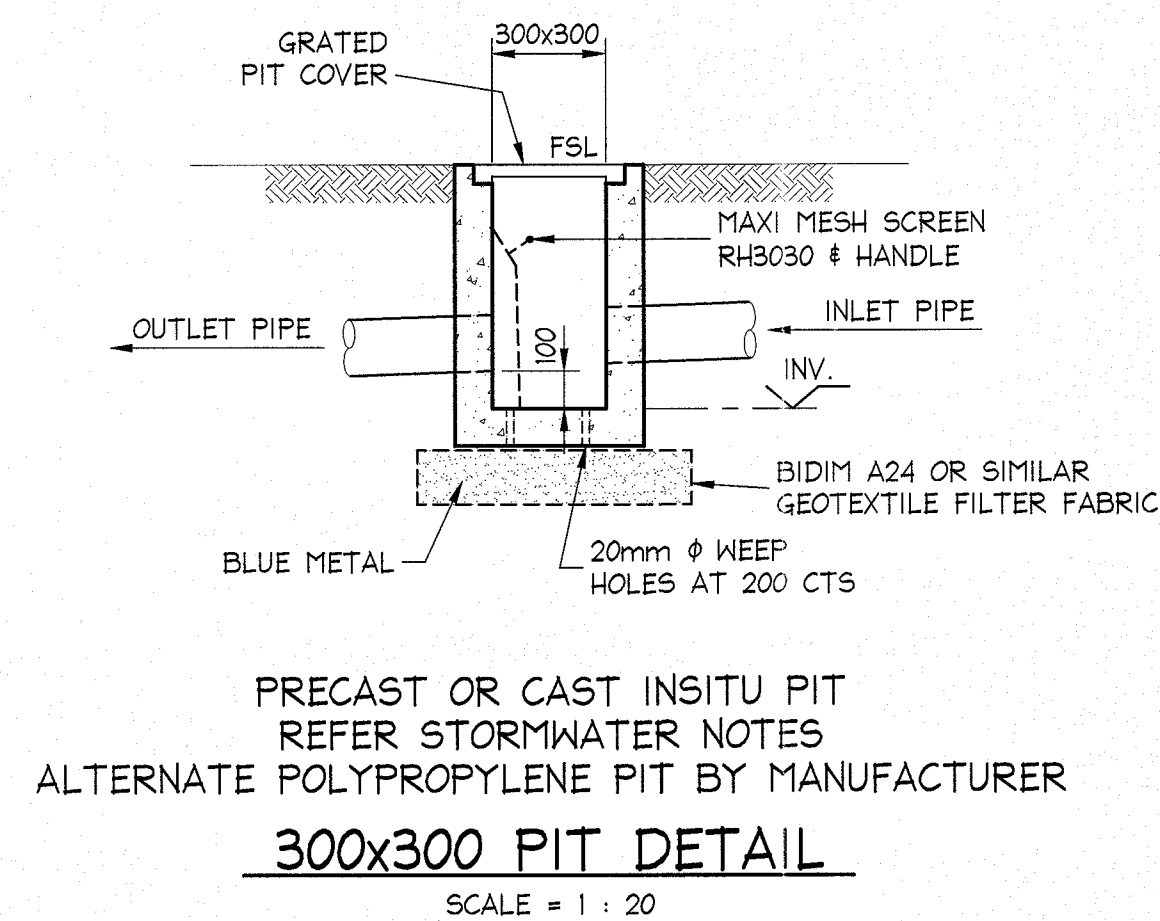
LEGEND

- DP1 • 100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
- DP2 • 100mm ϕ DOWNPIPE TO DISCHARGE TO BOUNDARY PIT
- SP1 • 100mm ϕ DOWNPIPE WITH A SPREADER PIPE

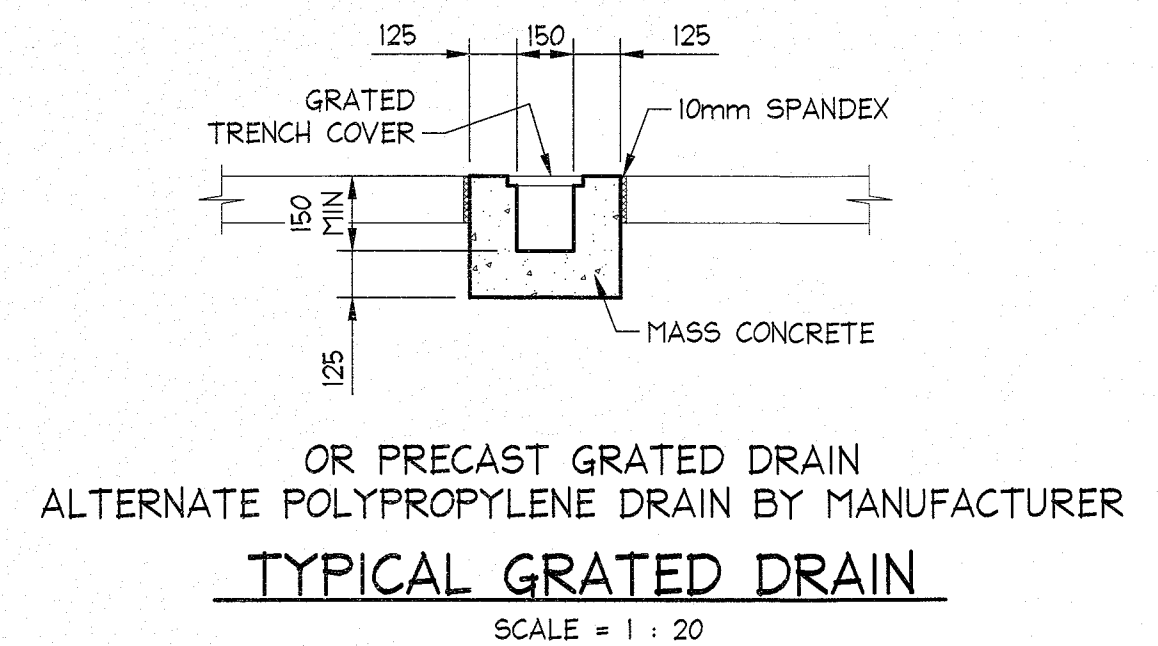
NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY.
LOCATION MAY VARY DUE TO CONSTRAINTS.



450x450 PIT DETAIL
SCALE = 1 : 20



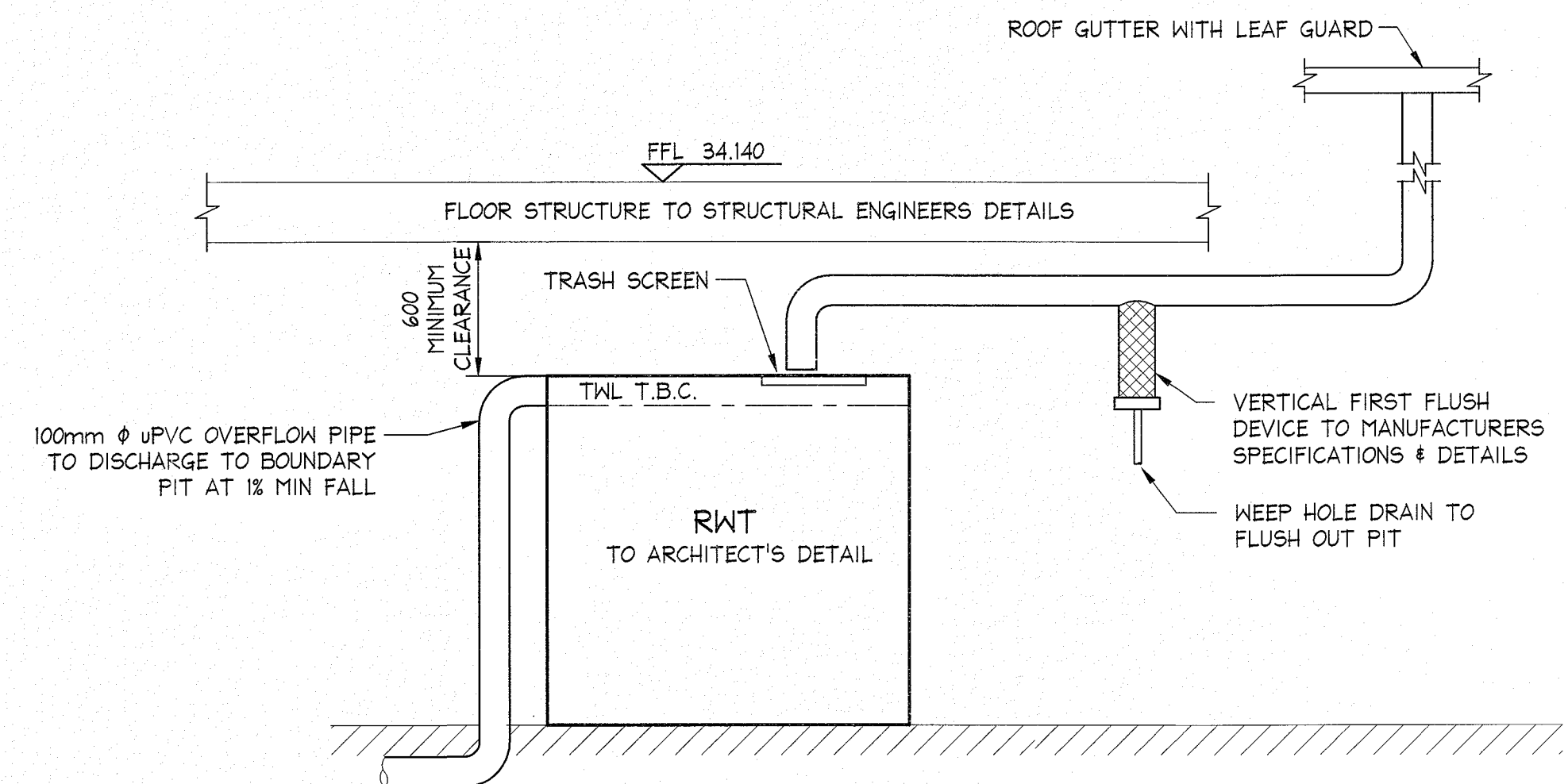
300x300 PIT DETAIL
SCALE = 1 : 20



TYPICAL GRATED DRAIN
SCALE = 1 : 20

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TANKS SPECIFIED ARE BY WATERPLEX OR APPROVED EQUIVALENT
TYPICAL RAIN WATER TANK 'RWT' DETAIL
NOT TO SCALE

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