

### STORMWATER LAYOUT NOTES

-PITS UP TO 450 DEEP TO BE 350SQ U.N.O., PITS UP TO 600 DEEP TO BE 450 SQ U.N.O., PITS UP TO 900 DEEP TO BE 600 SQ U.N.O., PITS UP TO 1200 DEEP TO BE 900 x 600 U.N.O., PITS EXCEEDING 1200 DEEP TO BE 900 SQ. U.N.O. PITS TO BE PRECAST CONCRETE OR RENDERED BRICK WITH CONCRETE HEAVY DUTY GRATES. U.N.O. LIGHT DUTY PITS AND GRATES MAY BE USED ONLY IN LIGHT/FOOT TRAFFICABLE AREAS. U.N.O. ALL PITS TO BE BENCH TO DISCHARGE PIPES U.N.O. GAL. STEP IRONS TO ALL PITS EXCEEDING 900 DEPTH.

-COVER AND SUMP GRATES SHALL COMPLY WITH AS2733 & AS4198.

-DOWNPIPES TO BE 90 DIA IF CHARGED AND 100 x 50 BOX IF GRAVITY. U.N.O. DP'S SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3.2:4.11 & AS4198. MAX. ROOF AREA PER DOWNPIPE WITH A NOMINATED GUTTER SIZE TO BE DETERMINED USING MANUFACTURERS SPECIFICATIONS WITH OVERFLOW PROVISIONS BY INSTALLERS.

-PIPES TO HAVE 1% MIN.GRADE U.N.O. BY PIT INVERTS. PIPES TO BE V.C. CLASS 'X' OR U.P.V.C. CLASS STORMWATER PIPE TO AS1254,1260,1273,1477,2179.2 AND WHERE EXPOSED TO DIRECT SUNLIGHT TO HAVE ADEQUATE PROTECTION TO U.V. RADIATION IN ACCORDANCE WITH AS2032. SEWER GRADE/GAL. PIPES AND KERB ADAPTORS TO BE USED WHERE COUNCIL POLICY OR CONSENT REQUIRE SUCH.

-GUTTER OUTLETS SHALL BE FITTED VERTICALLY TO THE SOLE OF THE EAVE GUTTERS. RAINHEADS TO HAVE AN OVERFLOW DUCT OR WEIR 50mm BELOW THEIR CREST.

-PROVIDE OVERFLOW SPITTERS TO ALL COVERED BALCONIES/TERRACES. NOT TO BE DIRECTED ON TO ROOF SURFACES

-RISING MAINS (PRESSURE PIPE) TO BE IN ACCORDANCE WITH AS3500.1:2.

-SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS2439.1 CLASS 100 TO BE USED ONLY IN SINGLE DWELLINGS.

-ALL PIPE JOINTS, VALVES TO BE IN ACCORDANCE WITH AS3500.3.2:2.7 & AS3500.3.2

-EXPANSION JOINTS SHALL COMPLY WITH AS3500.3.2:TABLE 4.1 PVC JOINTS AND ACCESSORIES TO COMPLY WITH AS2179.2 & AS4198

-TRENCHES TO BE IN ACCORDANCE WITH AS3500.3.2:7.2.8-14. EMBEDMENT MATERIAL AND TRENCH FILL TO ALL PIPES & SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS3500.3.2:7, ALL WORKS TO BE IN ACCORDANCE WITH AS1254, 1741, 2032, 2733, 2865, 3996, 1260, 1477, 2179.1 & 2,2566, 6367, 8301, ARR97 & BCA.

-IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM THAT LEVELS AND SURVEYS ARE IN ACCORDANCE WITH LEVELS ON SITE & ARE APPROVED BY COUNCIL & ARCHITECT BEFORE COMMENCING WORK.

-NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS. ALL BASIN WALLS TO BE WATERTIGHT & STRUCTURALLY DESIGNED BY A STRUCTURAL ENGINEER.

-ALL FENCES WHICH MAY DIVERT FLOW FROM PROPOSED DIRECTION TO BE RAISED 100mm.

-BUILDER TO ENSURE ALL DRAINAGE AREAS INCLUDING EXPOSED BALCONIES TO HAVE OVERFLOW MECHANISM IN PLACE IN THE EVENT OF BLOCKAGE WITH ADEQUATE OVERFLOW SECTION THROUGH PLANTERS, PARAPETS ETC.

-ALL EXTERIOR FINISHED GROUND LEVELS TO BE SLOPING AWAY FROM PERIMETER WALLS IN ALL CASES.

-ALL HEADROOM CLEARANCES TO BE COORDINATED BETWEEN BUILDER & ARCHITECT. NOTIFY ENGINEER FOR APPROVAL IF ANY CHANGES OCCUR.

-ALL GULLY POSITIONS ARE DIAGRAMMATIC ONLY- BUILDER SHOULD CONSULT ARCHITECTURALS FOR DIMENSIONS TO LOCATE STORMWATER ELEMENTS U.N.O.

-FIRE RATING TO ARCHITECT'S SPECIFICATION.

-ALL FINISHED FLOOR LEVELS ARE NOMINATED BY ARCHITECT.

-ALL SITE SAFETY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL ALL WORKERS CARRY OUT SITE INDUCTION, PREPARED AND CARRIED OUT BY BUILDER. ANY HAZARD IDENTIFICATION TO BE REPORTED IMMEDIATELY TO SITE SUPERVISOR TO CARRY OUT NECESSARY PROCEDURES TO ELIMINATE HAZARD, PRIOR TO PROCEEDING WITH WORK. STRUCTURAL AND GEOTECHNICAL ADVICE SHOULD BE SOUGHT IN ALL CASES.

-CONFINED SPACES SIGNAGE TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS. ALL PITS EXCEEDING 600mm DEPTH TO HAVE 'J' BOLTS OR SIMILAR INSTALLED TO GRATES.

-MAINTENANCE DEVICES REQ'D BY AUTHORITIES ARE NOT TO BE ASSUMED SHOWN ON DRAWINGS.

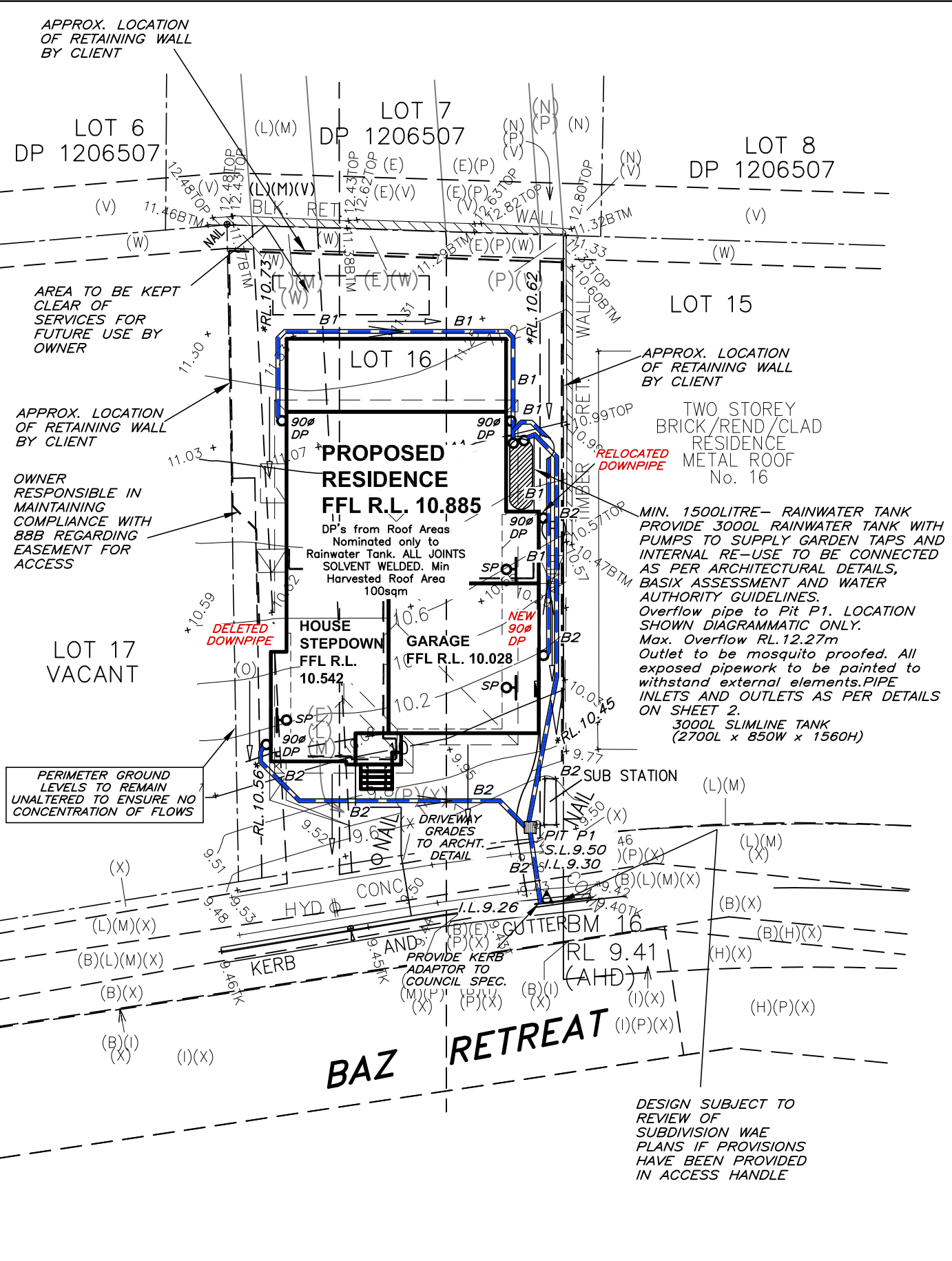
-EARTH MOUNDING SHOWN AS TEMPORARY MEASURE UNTIL LANDSCAPING COMPLETED TO DIRECT FLOWS AS SHOWN.

### GROUND FLOOR LAYOUT

REFER TO SHEET 2 FOR RAINWATER TANK DETAILS. LEAF GUTTER GUARDS OR SIMILAR SCREENING RECOMMENDED TO ALL GUTTERS.

WHSA HAZARD IDENTIFICATION:  
TRENCHING-ALL PERSONS TO FOLLOW THEIR APPROVED SWMS IN RELATION TO BARRICADING DEEP TRENCHES AND WEARING APPROPRIATE CLOTHING. ANY PERSON WORKING INSIDE A TRENCH MUST BE SUPERVISED BY ANOTHER PERSON.  
DIAL BEFORE YOU DIG 1100 MUST BE CHECKED BEFORE ANY TRENCHING COMMENCES ON SITE. ANY WORKS NEAR IDENTIFIED SERVICES TO BE CARRIED OUT IN ACCORDANCE WITH THE TRADES SWMS.  
INSTALLATION OF DOWNPIPES AND GUTTERING TO BE CARRIED OUT IN ACCORDANCE WITH INSTALLERS APPROVED SWMS.

(B) EASEMENT TO DRAIN WATER 2.5 WIDE (VIDE DP 1206507)  
(E) RIGHT OF CARRIAGEWAY 7.7 WIDE (VIDE DP 1206507)  
(H) EASEMENT FOR SEWERAGE PURPOSES 5 WIDE (VIDE 6390860)  
(I) EASEMENT FOR SEWERAGE PURPOSES 5 WIDE (VIDE 6390790)  
(L) EASEMENT FOR WATER SUPPLY PURPOSES 2.5 WIDE (VIDE DP 1206507)  
(M) EASEMENT FOR ACCESS AND DRAINAGE PURPOSES 2.5 WIDE (VIDE DP 1206507)  
(N) EASEMENT FOR ELECTRICITY PURPOSES VARIABLE WIDTH (VIDE DP 1206507)  
(O) EASEMENT FOR ACCESS, CONSTRUCTION AND MAINTENANCE 0.9 WIDE  
(P) EASEMENT FOR ELECTRICITY AND OTHER PURPOSES 4.5 WIDE (VIDE DP 1206507)  
(V) EASEMENT TO DRAIN WATER 2 WIDE (VIDE DP 1206507)  
(W) EASEMENT FOR ACCESS, MAINTENANCE AND SUPPORT 0.9 WIDE (VIDE DP 1206507)  
(X) RIGHT OF CARRIAGE WAY VARIABLE WIDTH No.8



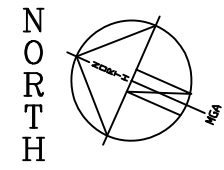
HALF ROUND FLAT BACK GUTTER (7800sqmm)

PIPE SCHEDULE		
REFER TO NOTES FOR PIPE CLASS		
TAG	PIPE DIA.	MIN.GRADE
B1	100	CHARGED
B2	100	2%

LEGEND	
R.L. 0.00	NEW REDUCED LEVEL (NEW FINISHED GROUND LEVEL)
+ 00.00	EXISTING LEVEL
S.L. 0.00	SURFACE LEVEL
I.L. 0.00	INVERT LEVEL
T.O.W.	TOP OF WALL LEVEL
G.F.L. 0.00	GARAGE FLOOR LEVEL
F.F.L. 0.00	FINISHED FLOOR LEVEL
A, B, C etc.	SEE PIPE SCHEDULE
L1	PIPE LABEL
PIT P1	SURFACE INLET PIT
PIT OP1	OVERLAND FLOW PIT
—e—e—	90mm. AG. LINE
○DP	DOWNPIPE-SIZE
REFER TO NOTES FOR DP SIZE	
⊕GP	GULLY PIT
⊕GP	GARDEN GULLY PIT
⊕O/F	OVERFLOW-200x100
⊕RWH/S	RAIN WATER HEAD/SUMP
⊕SP	DP WITH SPREADER
⊕BG	BALCONY GULLY PIT
⊕CE	CLEANING EYE
—>	GROUND FALL
))))	100 HIGH EARTH MOUNDING

ALL OTHER SURFACE WATERS TO BE STRICTLY CONNECTED TO A SEPARATE SYSTEM BY OWNER IN ACCORDANCE WITH AS 3500.3:2003 AND BCA PART 3.1.2.3.

RAINWATER TANKS WITH PUMPS TO SUPPLY GARDEN TAPS AND INTERNAL RE-USE AS PER BASIX ASSESSMENT



REVISIONS	

ISSUE	PRINTS	ISSUED TO	DATE
1	EMAIL	BUILDER/CLIENT	17-5-21

SCALE (A3) 1:200, 100 u.n.o.  
SCALE BAR - 1m INTERVALS  
DATE APRIL . 2021  
DRAWN M.I.  
DESIGNED M.I.  
APPROVED



**IBRAHIM STORMWATER CONSULTANTS**  
**CONSULTING CIVIL ENGINEERS**  
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PROJECT  
**PROPOSED RESIDENCE AT 18 BAZ RETREAT WARRIEWOOD, FOR MR. HERBERT & MS. GRIMSHAW**

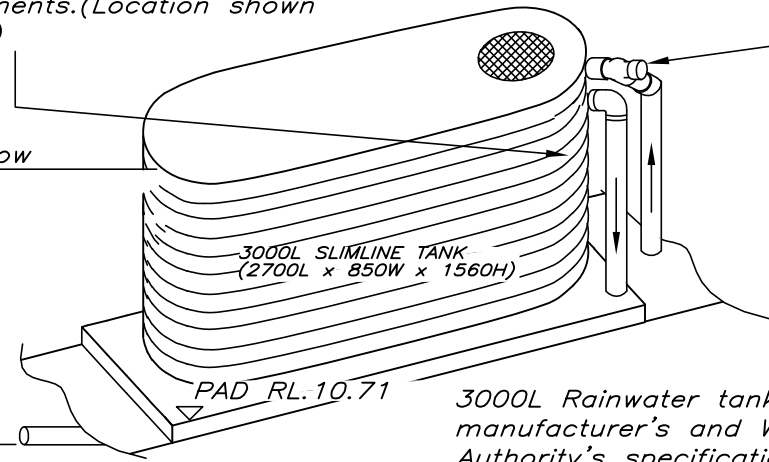
THIS DRAWING  
**STORMWATER LAYOUT SH.1**  
BUILDER  
CLARENDON HOMES

JOB NUMBER  
**C10108-14965**  
SHEET No.  
**1 of 2**  
REVISION

Overflow pipes to Pit P1. Outlet to be mosquito proofed. All exposed pipework to be painted to withstand external elements. (Location shown generic only)

Max. Overflow RL.12.27

IL.10.20



3000L Rainwater tank/s, to manufacturer's and Water Authority's specifications.

Mosquito proof strainer or cover - regular cleaning/maintenance by owner essential

Internal submersible or external pumps to supply garden taps and internal re-use per Basix assessment. Location as per architecturals.

Leaf Gutter Guard or Downpipe Guard recommended.

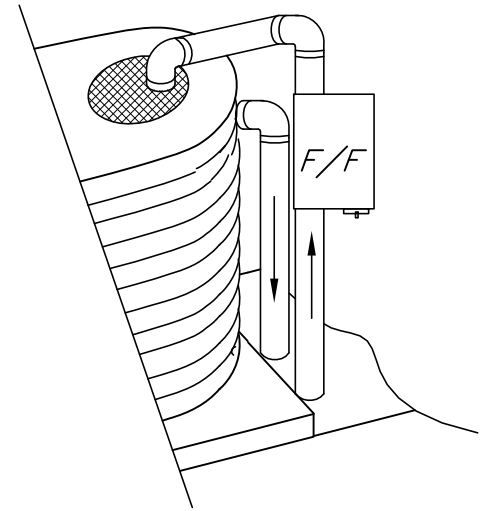
600 MIN

Charged pipes shown

INLET LEVEL OF CHARGED LINES TO BE A MINIMUM AS SHOWN BELOW ALL CONNECTED GUTTERS.

First flush water diverter or equivalent at tank as req'd by L.G.A. F/F

I.O. - Cleaning eye to all charged pipelines for maintenance of charged system.



TYPICAL ALTERNATIVE INLET SYSTEM SHOWN DIAGRAMMATICALLY ONLY

## RAINWATER TANK

TANK DETAILS SHOWN ARE A SUGGESTED CONFIGURATION ONLY. ANY MODIFICATIONS TO TANK VOLUME OR INLET AND OUTLET LEVELS MUST BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. TANK SHAPE, & DEVICES SHOWN ARE DIAGRAMMATIC ONLY. MINIMUM OF 450 CLEARANCE (UNLESS L.G.A. REQUIRES LARGER SETBACK) TO SIDE BOUNDARIES MUST BE MAINTAINED. CLIENT IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS IN THE INSTALLED STATE.

Charged stormwater lines from Roof Areas ONLY to rainwater tank.

All joints to be solvent welded. All exposed pipework to be painted to withstand external elements.

First flush water diverter at tank to comply with Water Authority and council DCP's. An approved switch system similar to 'Rainbank' to be used via mains. Pumps to manuf. specs.

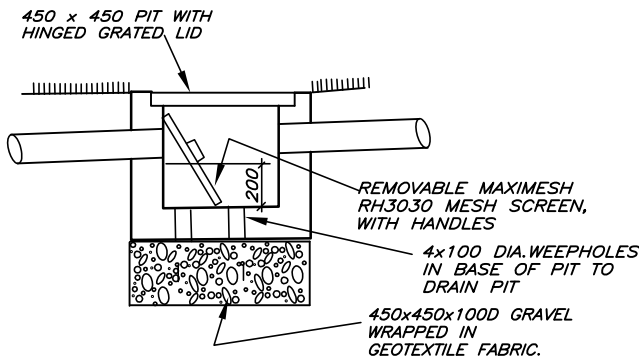
Rain Tank to be installed and maintained to manufacturer's specifications and to comply with all Water Authority Guidelines.

Client to be responsible for maintenance system of charged pipelines. Debris accumulation significantly affects systems performance. Maintenance program essential.

Structural details for tank base by manufacturer or others.

WHSA HAZARD IDENTIFICATION:

INSTALLATION OF RAIN TANKS: PLUMBER/SITE SUPERVISOR TO ASSESS ACCESS SUITABILITY PRIOR OR POST SLAB CONSTRUCTION. INSTALLATION OF TANKS TO BE CARRIED OUT FOLLOWING SWMS OF TANK SUPPLIER AND PLUMBER. APPROPRIATE GLOVES TO BE WORN AT ALL TIMES WHILE HANDLING TANKS.



## SILT ARRESTOR PIT - P1

WHSA

ALL NEARBY SERVICES TO BE LOCATED PRIOR EXCAVATIONS.  
ALL PIPES TO BE CUT FLUSH WITH PIT WALLS AND SPARGED.  
PITS EXCEEDING 600mm IN DEPTH TO HAVE LOCK DOWN MECHANISM.  
SAFETY GEAR TO BE WORN AT ALL TIMES. INCLUDING FOOTWEAR, CLOTHING AND GLOVES AS PER SWMS.

BUILDER/CLIENT TO ENSURE THAT ALL SAFETY MEASURES ARE TAKEN DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SAFETY FENCING, SIGNAGE, OBTAINING STRUCTURAL AND GEOTECHNICAL ADVICE WHERE EXCAVATIONS ARE NEAR STRUCTURES OR SERVICES, SAFETY MEASURES RECOMMENDED BY PRODUCT SUPPLIERS ETC.

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**2 of 2**

REVISION