

SUB SURFACE DRAINAGE

- SS1. THE GROUND BENEATH A SUSPENDED TIMBER FLOOR MUST BE GRADED SO THAT THE AREA BENEATH THE BUILDING IS ABOVE THE ADJACENT FINISHED GROUND LEVEL TO PREVENT PONDING;
- SS2. AGRICULTURAL (AG) CUT-OFF DRAINS MUST BE INSTALLED AT THE BASE OF ALL EXCAVATIONS AND ALONG THE HIGH SIDE OF A SLOPING SITE AND BE CONNECTED TO THE STORM WATER DRAINAGE SYSTEM VIA A 300mm X
- SS3. AG DRAINS MUST BE LAID A MINIMUM OF 400mm INTO SOIL AND 100mm BELOW ANY ADJACENT FOOTING OR PAVEMENT.

SURFACE DRAINAGE

- S1. INSTALLATION OF THE STORM WATER DRAINAGE SYSTEM MUST COMPLY WITH AS/NZS 3500.5 - DOMESTIC INSTALLATIONS;
- S2. SURFACE WATER DRAINAGE MUST BE GRADED AWAY FROM A BUILDING WITH A MINIMUM GRADIENT OF 1 IN 20 OVER THE FIRST METRE;
- THE FINISHED SLAB HEIGHT (MEASURED AT THE SLAB EDGE) MUST BE NOT LESS THAN 50mm ABOVE ADJACENT PAVING OR CONCRETE OR 100mm ABOVE SANDY WELL DRAINED AREAS;
- S4. INSPECTION OPENINGS (DN 150) SHALL BE INSTALLED AT NOT MORE THAN 30m CENTRES; AND AT LOW POINTS IN CHARGED SYSTEM

EROSION AND SEDIMENT CONTROL NOTES

- ALL BARE SOIL AREAS ARE TO BE PROTECTED FROM EROSION BY TEMPORARY MEASURES AND RE-VEGETATED AT CESSATION OF
- E2. A SEDIMENT CATCHMENT POND IS TO BE PROVIDED AT THE RATE OF 120 m3 CAPACITY PER HECTARE DRAINED. THE DETENTION TANKS MAY BE USED FOR THIS PURPOSE, PROVIDED SUFFICIENT WATER IS RETAINED AS A POOL DURING CONSTRUCTION & ADEQUATE SAFETY FENCING IS PROVIDED.
- E3. THE DOWNHILL BOUNDARY OF THE SITE IS TO BE PROTECTED BY HAY BALE OR FILTER FABRIC FENCE DURING CONSTRUCTION AS SHOWN IN ATTACHED
- E4. THE STREET DRAINAGE PIT LOCATED DOWNHILL OF THE SITE SHALL BE PROTECTED FROM SEDIMENT WITH HAY BALES.
- E5. A SINGLE CONSTRUCTION ENTRANCE SHALL BE ESTABLISHED IN THE MANNER SHOWN IN ATTACHED DETAIL.
- E6. ALL EROSION PROTECTION MEASURES TO MEET THE REQUIREMENTS OF THE DEPT. OF CONSERVATION AND LAND MANAGEMENT AS OUTLINED IN 'URBAN EROSION & SEDIMENT CONTROL', SCS TECH. HANDBOOK No.2 1978 UNLESS

				BOWN I 25 ONE T WHICH THE TO BE TEINIED BY BOILDEN.		
LEGEND			P2.	OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPEC		
SYMBOL	DESIGNATION	DESCRIPTION		POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF THOSE WORKS.		
0	DP1-12	100Ø DOWNPIPE OR	P3.	ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS		
	טווב	100 × 75 RECTANGULAR UPVC		3500.3:2003		
<u></u>	SP1-2	SPLITTER/SPREADER	P4.	THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES - REFER TO ARCHITECTURAL DRAWINGS.		
→ø100 PVC	_	NEW STORMWATER PIPE (REFER TO PLAN FOR DETAILS)	P5.	LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED DESIGN		
	DI IC1	150 X 100 X 4 RHS (GALV.) OR 90 X 4 CHS		INTENT OF THIS DRAWING IS MAINTAINED.		
	RHS1	DRAIN TO KERB	HYD	RAULIC NOTES		
	AG1	100¢ AG LINE	H1.	DRAINAGE PIPE SIZES ARE Ø100 mm U.P.V.C @ MIN. 1% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWER GRADE & SEALED.		
EG1	EG1-11	EAVES GUTTER - MIN. 7000mm2	H2.	ALL SERVICES ARE TO BE LOCATED IN THE FIELD IN CONJUNCTION WITH A RESPONSIBLE OFFICER OF EACH RELEVANT AUTHORITY PRIOR TO		
	SF	CEDIMENT FENCE		COMMENCEMENT OF CONSTRUCTION.		
	סר	SEDIMENT FENCE	H3.	DRAINAGE PITS ARE TO BE 450 mm SQUARE OR LARGER AND FITTED WITH		
	GTD 1	150 GRATED TRENCH DRAIN		A GALVANISED GRATE.		
	GTD 2	200 GRATED TRENCH DRAIN	H4.	DRAINAGE PIPES SHALL BE SEWER GRADE PVC UNLESS NOTED.		
•	FW1-8	Ø100 FLOOR WASTE	H5.	PITS LESS THAN 600 DEEP MAY BE BRICK, PRECAST OR CONCRETE.		
	SWP1	300 SQ. STORMWATER PIT	H6.	ALL BALCONIES AND ROOFS TO BE DRAINED AND HAVE SAFETY OVERFLOW IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARD.		
[[]]			H7.	GRATES TO HAVE CHILD PROOF LOCKS.		
	SWP2	450 SQ. STORMWATER PIT	H8.	DRAINAGE WORKS TO AVOID TREE ROOTS.		
	SAP1	600 SQ. SILT ARRESTOR PIT	H9.	DOWNPIPES TO HAVE LEAF GARDS.		
			H10.	EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.		
	PW1	600 SQ. SILT ARRESTOR PIT	H11.	WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL.		
		5000L DAIN (ATED TANK	H12.	EXISTING STORMWATER PIPE LOCATIONS HAVE BEEN ASSUMED. PLUMBER		

5000L RAINWATER TANK

CONSTRUCTION NOTES

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, ARCHITECTURAL DRAWINGS, OTHER CONTRACT DOCUMENTATION AND, THE REQUIREMENTS OF THE RELEVANT
- G2. VERIFY ALL SETTING OUT DIMENSIONS WITH ARCHITECT.
- G3. DO NOT OBTAIN DIMENSIONS BY SCALING THE STRUCTURAL ELEMENTS. SHOULD ANY AMBIGUITY, ERROR, OMISSION, DISCREPANCY, INCONSISTENCY OR OTHER FAULT EXIST OR SEEM TO EXIST IN THE CONTRACT DOCUMENTS,
- IMMEDIATELY NOTIFY IN WRITING TO THE SUPERINTENDENT. MAINTAIN THE STRUCTURE IN A STABLE CONDITION DURING CONSTRUCTION. NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR TO KEEP THE WORKS & EXCAVATIONS
- STABLE AT ALL TIMES. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT SAA CODES AND THE BY-LAWS, ORDINACES, OR OTHER REQUIREMENTS OF THE RELEVANT BUILDING
- G7. WHERE NOTES REFER TO THE SPECIFICATION, COMPLY WITH THE REQUIREMENTS OF NATSPEC BUILDING SPECIFICATION AS A MINIMUM
- UNLESS MODIFIED BY THE CONTRACT DOCUMENT. G8. ABBREVATIONS USED GENERALLY:

-UNLESS NOTED OTHERWISE

TYP. -TYPICALLY

N.S.O.P. -NOT SHOWN ON PLAN

-NOT SHOWN ON ELEVATION

-INDICATES SLAB OR BAND THICKNESS VARIATION ALL PROPRIETARY CHEMICAL & MECHANICAL ANCHORS ARE TO BE

INSTALLED AT SPACINGS, EDGE DISTANCES, & DEPTHS AS INDICATED ON THE DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS INCLUDING DRILLING METHOD, HOLE DIAMETER, CLEANING, CURING, & TIGHTENING.

PLAN SPECIFIC NOTES

- ROOF DRAINAGE NOTE: AS 3500 ROOF DRAINAGE REQUIRES EAVES GUTTERS SLOPE 1:500 OR STEPPER. a) OVERFLOW METHOD FOR FIGURE G1 OF AS AS3500.3:2003
- WITH THIS. THIS DRAWING SHOWS PRELIMINARY LOCATIONS / NUMBERS OF DOWNPIPES ONLY WHICH ARE TO BE VERIFIED BY BUILDER / PLUMBER. TREE PRESERVATION: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO

IT IS THE RESPONSIBILITY OF THE PLUMBER AND/OR BUILDER TO COMPLY

- PRIOR TO THE COMMENCEMENT OF THOSE WORKS. ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS
- THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES REFER TO ARCHITECTURAL DRAWINGS.
- LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED DESIGN INTENT OF THIS DRAWING IS MAINTAINED.

RAULIC NOTES

- DRAINAGE PIPE SIZES ARE Ø100 mm U.P.V.C @ MIN. 1% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWER GRADE & SEALED.
- ALL SERVICES ARE TO BE LOCATED IN THE FIELD IN CONJUNCTION WITH A RESPONSIBLE OFFICER OF EACH RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- DRAINAGE PITS ARE TO BE 450 mm SQUARE OR LARGER AND FITTED WITH A GALVANISED GRATE.
- DRAINAGE PIPES SHALL BE SEWER GRADE PVC UNLESS NOTED.
- PITS LESS THAN 600 DEEP MAY BE BRICK, PRECAST OR CONCRETE.
- ALL BALCONIES AND ROOFS TO BE DRAINED AND HAVE SAFETY OVERFLOW IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARD.
- GRATES TO HAVE CHILD PROOF LOCKS.
- DRAINAGE WORKS TO AVOID TREE ROOTS.
- DOWNPIPES TO HAVE LEAF GARDS.
- EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL.

CC

REVISION DESCRIPTION

2020.06.11

DATE

EXISTING STORMWATER PIPE LOCATIONS HAVE BEEN ASSUMED. PLUMBER TO INSOPECT PRIOR TO WORKS AND UPGRADE AS NECESSARY.

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9 July 2020

IF SITE CONDITIONS VARY, OR IF IN DOUBT. CONSULT ENGINEER



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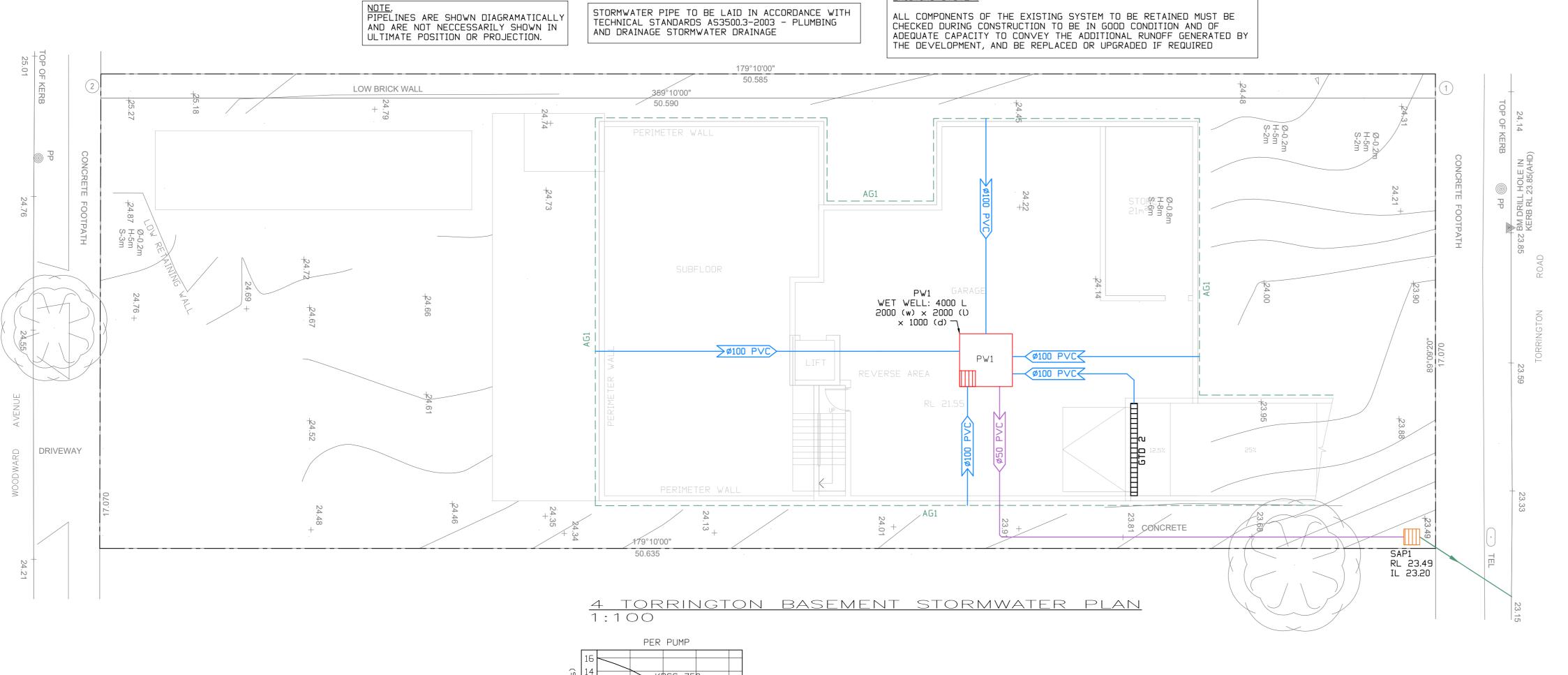
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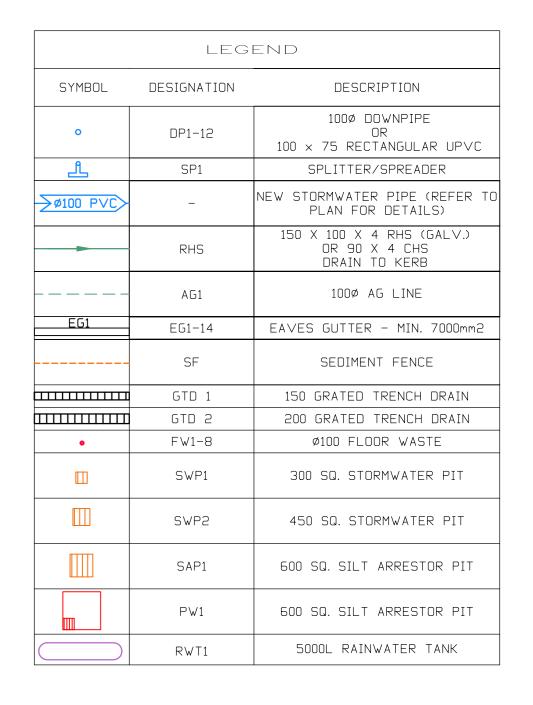
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STORMWATER PLANS

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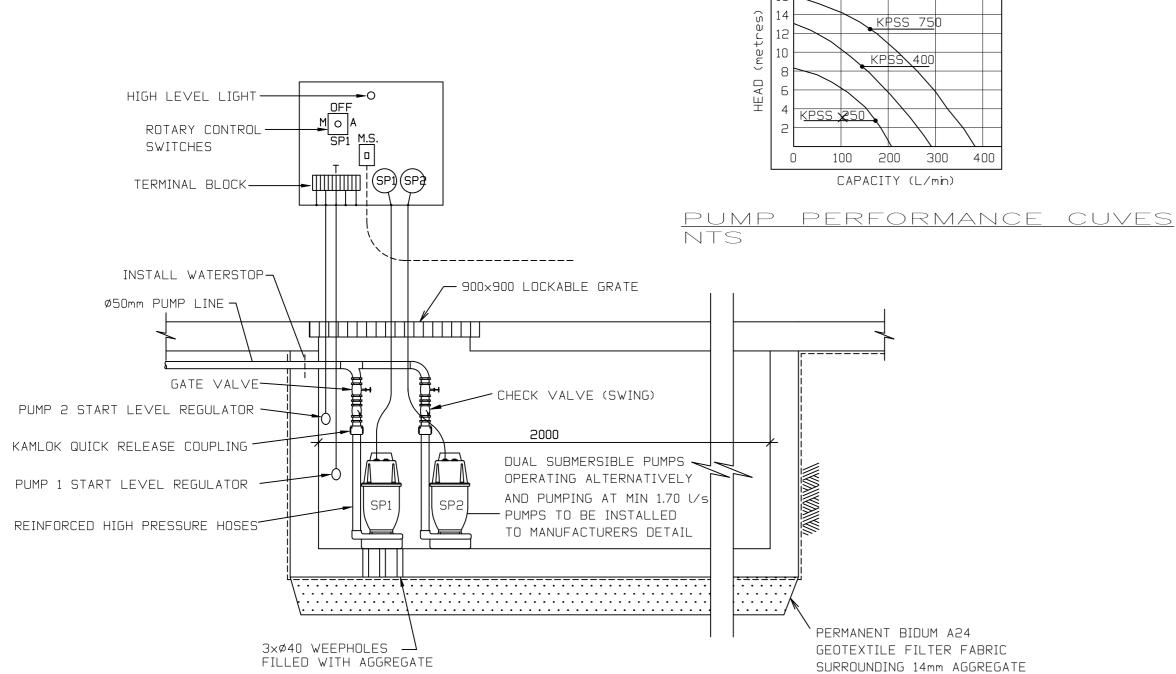


EXISTING SYSTEM:



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SECTION THROUGH PUMP NTS PUMP WELL DETAILS

SUMP SIZE BASE ON 10 YEAR 2 HOUR STORM

PEAK DISCHARGE AND VOLUME OF SUMP

Q = Cr x I

Q = 0.9 x 39.1 = 36 L/h/m2

VOLUME REQUIRED FOR 2 HR STORM

V = Q(mL) x T(hrs) x A(m2)

V = (36/1000) x 2 x 31 = 2.232 m3 < 3 m3

(min 3 m3 design wet well storage capacity)

Sump volume of 4 m3 chosen satisfies

USE DUAL KPSS 250 PUMPS PRODUCT OF KWIKFLO SUBMERSIBLE PUMPS OR SIMILAR TO BE INSTALLED IN SUMP AND CONNECTED TO CONTROL PANEL WHICH WILL ALLOW FOR THE PUMPS TO ACT ALTERNATIVELY AT 0.00m HEAD

PUMP SPECIFICATION

COMPONENTS

- 1. TWO(2) PUMPS KWIKFLO SUBMERSIBLE PUMPS (415v OR 240v)
- 2. ONE(1) PUMPS KWIK START CONTROL PANEL (CONTROL DESIGN TO ALTERNATE PUMPS ON START ON CONSECUTIVE START OPERATION)
- 3. TWO(2) GATE VALVES (BRONZE)
- 4. TWO(2) CHECK VALVES (SWING TYPE) (BRONZE)
- 5. TWO(2) SETS OF DISCHARGE HOSES WITH KAMLOK QUICK RELEASE COUPLINGS
- 6. ALL IN TANK PIT/PIPE AND PIPE FITTINGS, BRACKETS/SUPPORTS, HD GAL. CHAINS 7. FOUR(4) KWIK START KENRAHN MERCURY LEVEL FLOAT REGULATORS
- 8. INSTALLATION IN PROVIDED TANK/PIT
- 1. TANK PACKAGE/COVERS/MANHOLE, ALARM BELL, LOW LEVEL ALARM REGULATOR

KPSS 400 50mm BSP 50mm BSP 0.40 240v 290 L/min 13 metres 19 5.2metre	MODEL	DIS.	SIZE	DIS.	SIZE	MOTOR	Кw	POWER	Max Capacity	Max HeadWt. kgs	CABLE m
	KPSS 250	40mm	BSP	40mm	BSP	0.25		240v	220 L/min	8 metres 17	5.2metre
KPSS 750 0.75 240or415v 380 L/min 16 metres 20 5.2metre	KPSS 400	50mm	BSP	50mm	BSP	0.40		240v	290 L/min	13 metres 19	5.2metre
	KPSS 750					0.75		240or415v	380 L/min	16 metres 20	5.2metre

<u>NOTE:</u> IF SITE CONDITIONS VARY, OR IF IN DOUBT, CONSULT ENGINEER



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ENGINEERS

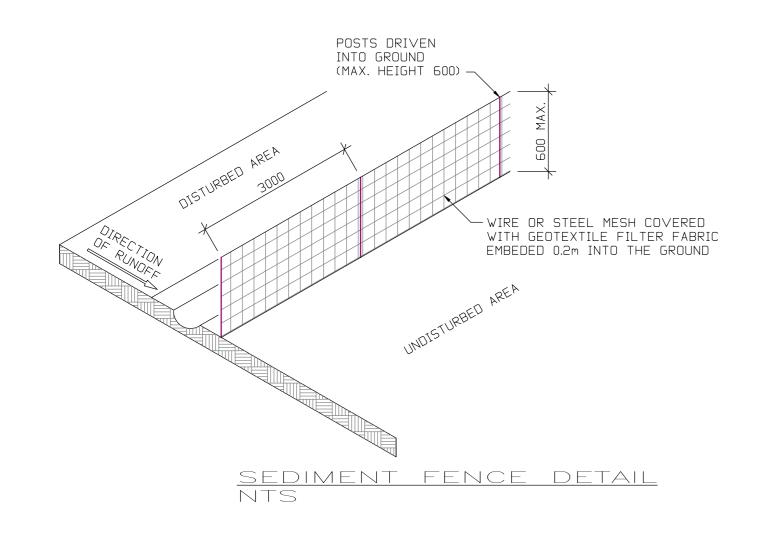
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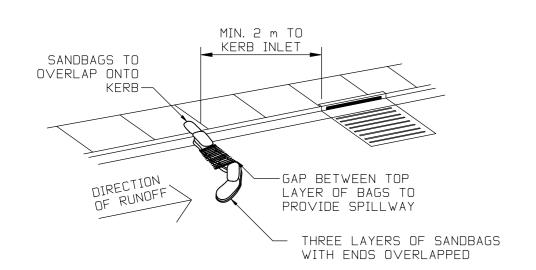
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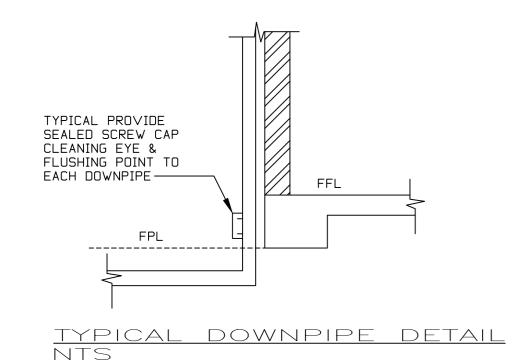
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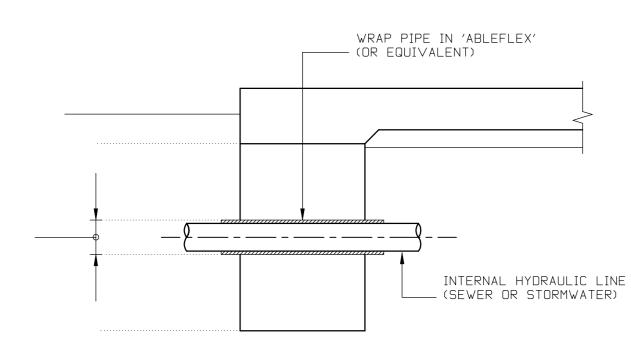
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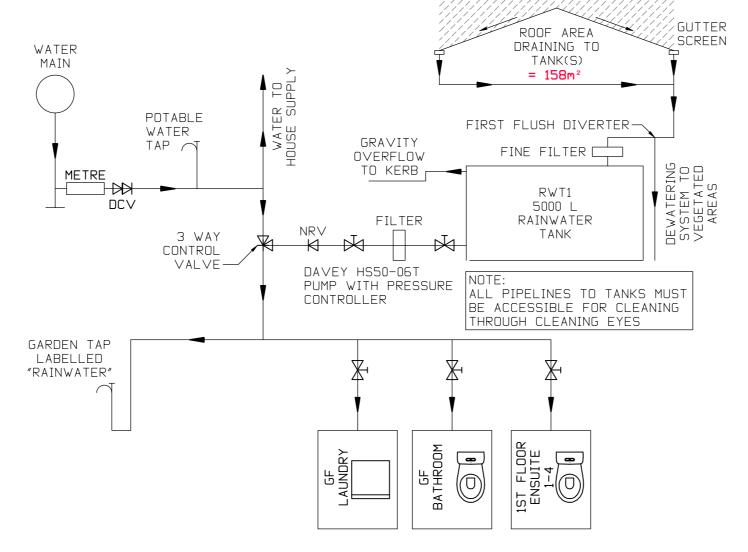


SANDBAG SEDIMENTARY
TRAP FOR KERB INLET
ON GRADE
NTS

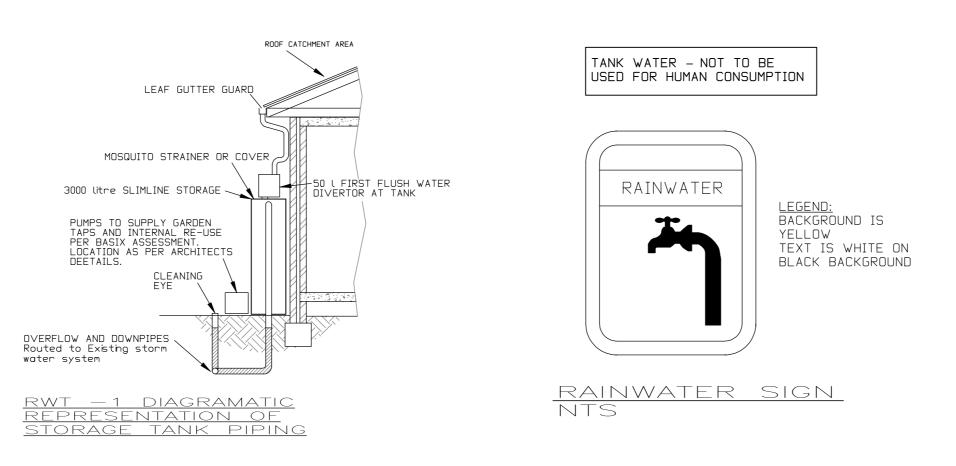


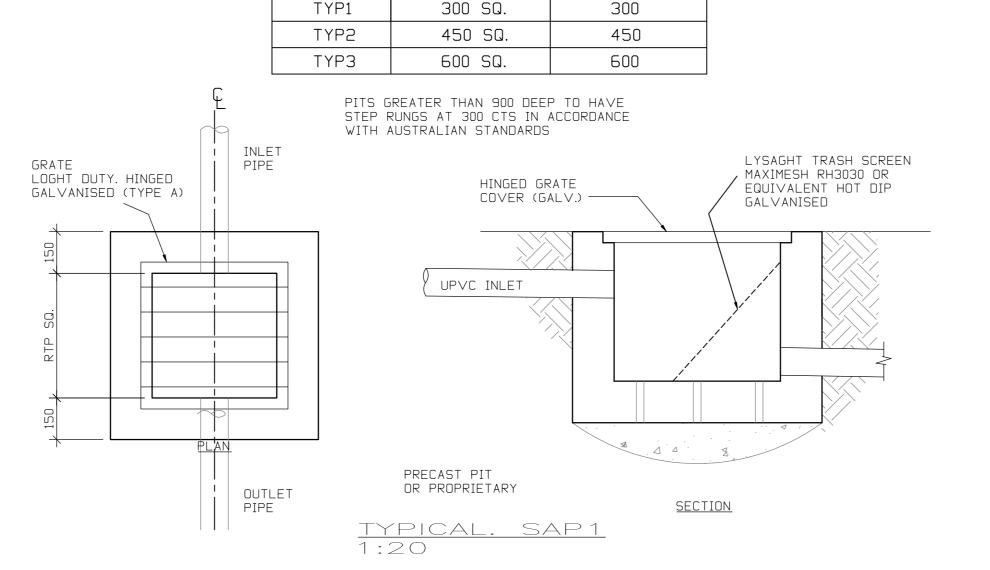


TYPICAL PENETRATION THROUGH FOOTING DETAILS
NTS



<u>rainwater re-use flow schematic diagram</u> NTS



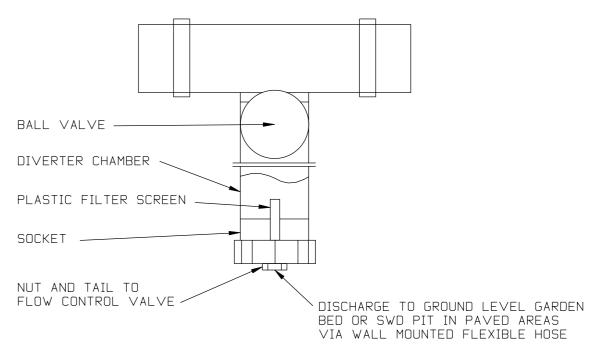


STORMWATER PITS

DEPTH

SIZE

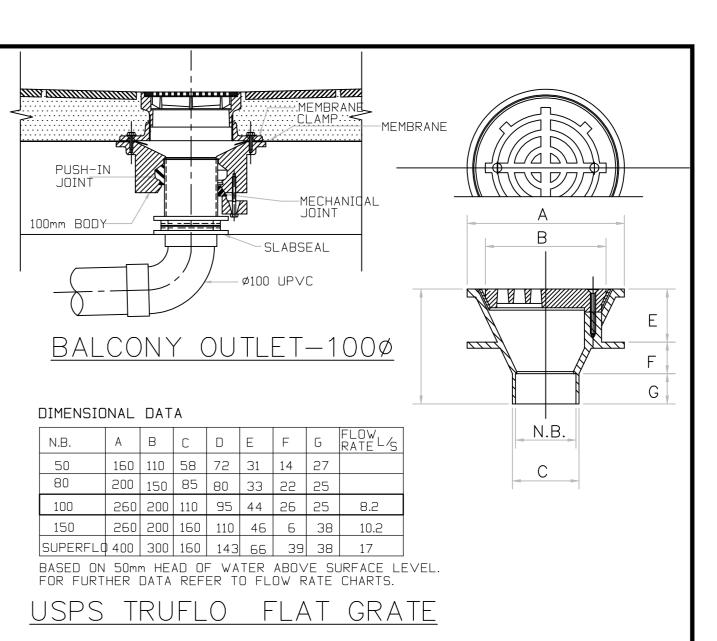
SIZE



FIRST FLUSH DIVERTER MAKE PROVISION FOR THE TREATMENT OF SLOW RELEASE WATER DISCHARGE FROM DIVERTER OUTLET. DO NOT ALLOW DISCHARGE TO POND ON SOIL

NOTE: FIRST FLUSH DIVERTER SHOWN ALTERNATE APPROVED FIRST FLUSHING SYSTEM MAY BE INSTALLED

DETAIL 'A' — FIRST FLUSH DIVERTER



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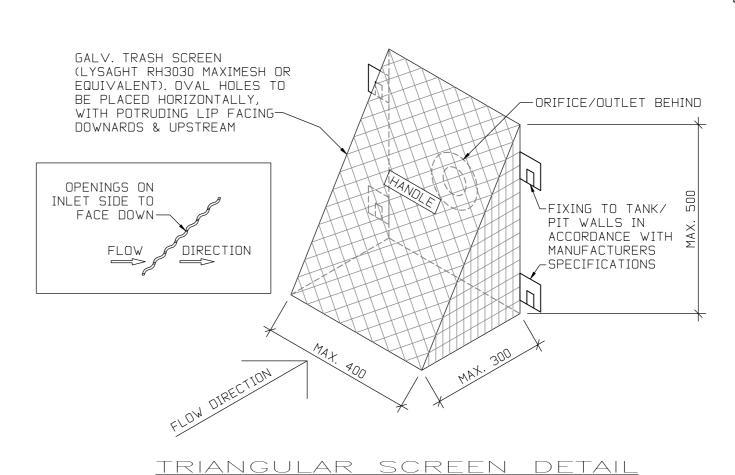
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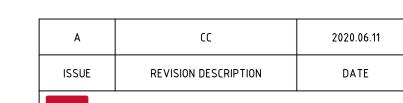
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STORMWATER DETAILS

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