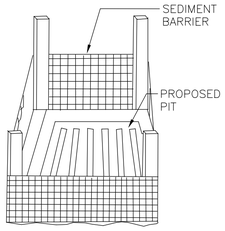
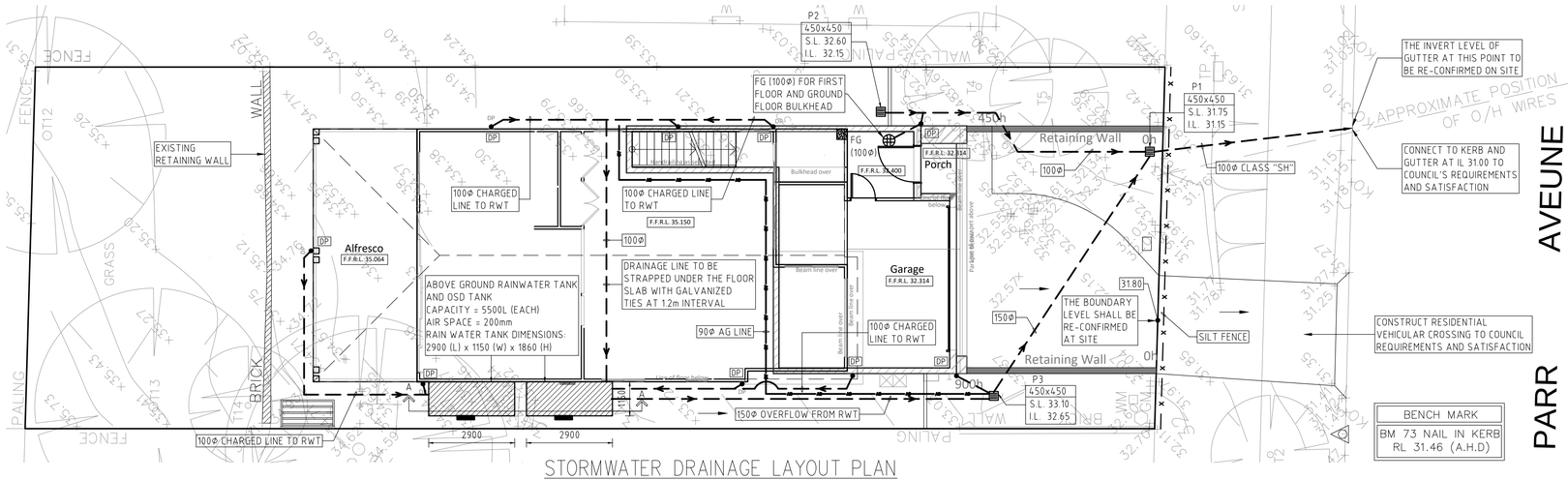
A1



SEDIMENT BARRIER AROUND STORMWATER PIT (DURING CONSTRUCTION)

NOT TO SCALE



STORMWATER DRAINAGE LAYOUT PLAN

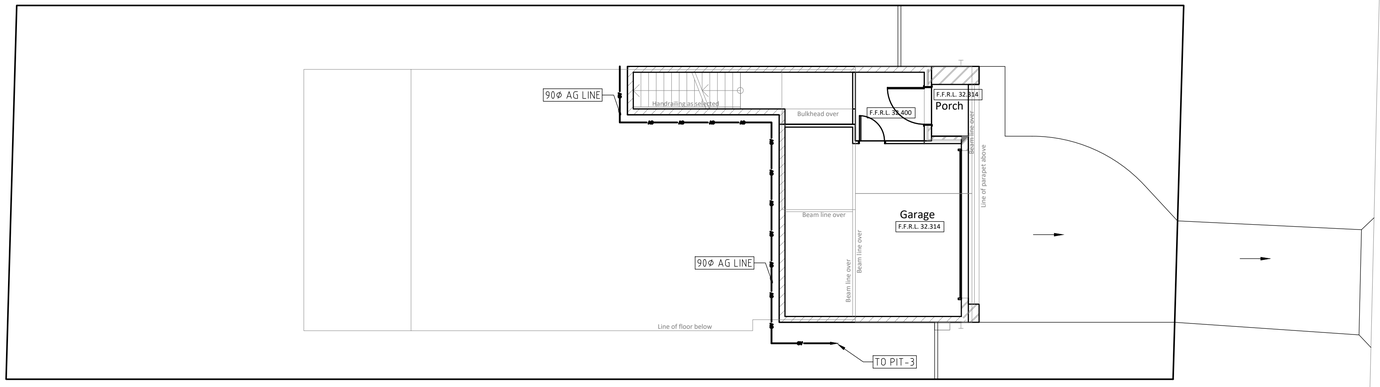
SCALE:- 1:100 @ A1

THIS IS AN
ON-SITE STORMWATER DETENTION SYSTEM
REQUIRED BY YOUR LOCAL COUNCIL

IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE TANK OR BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW

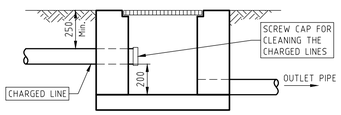
THE BASE OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY THE OWNER

THIS PLATE MUST NOT BE REMOVED



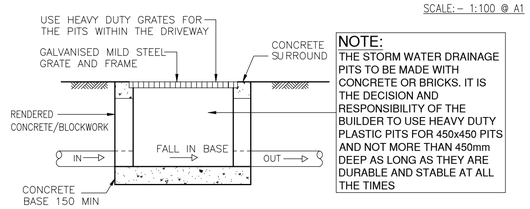
GARAGE PLAN

SCALE:- 1:100 @ A1



TYPICAL CHARGED LINE CLEAN OUT CONNECTION TO A PIT

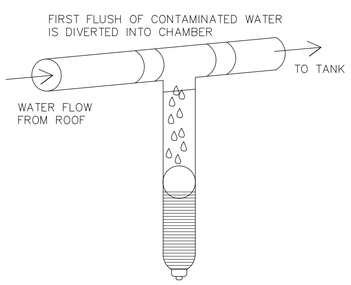
NOT TO SCALE



NOTE:
THE STORM WATER DRAINAGE PITS TO BE MADE WITH CONCRETE OR BRICKS. IT IS THE DECISION AND RESPONSIBILITY OF THE BUILDER TO USE HEAVY DUTY PLASTIC PITS FOR 450x450 PITS AND NOT MORE THAN 450mm DEEP AS LONG AS THEY ARE DURABLE AND STABLE AT ALL THE TIMES

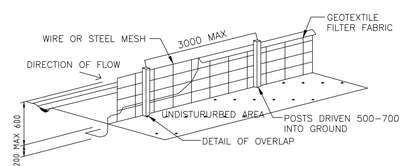
STANDARD PIT DETAIL (PROVIDE STEP IRONS @ 300 CENTRES FOR PITS WHERE THE DEPTH EXCEEDS 900mm)

NOT TO SCALE



FIRST FLUSH WATER DIVERTER DETAIL

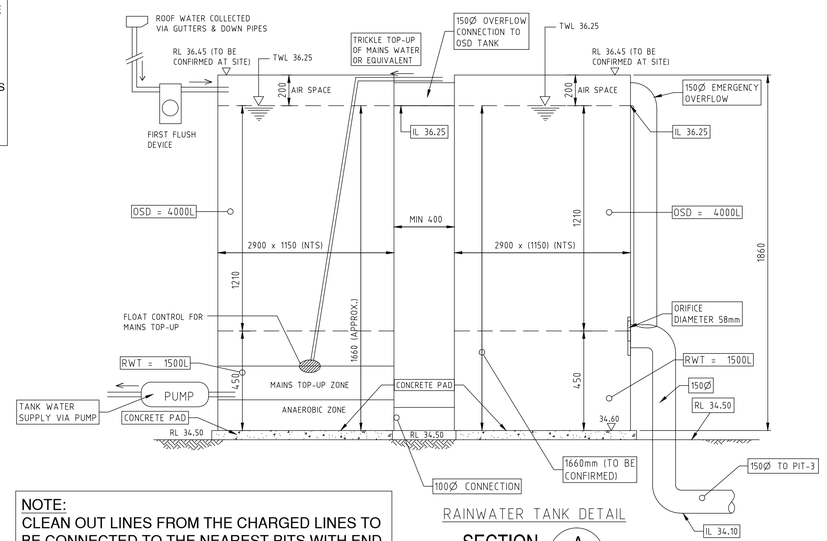
NOT TO SCALE



SILT FENCE DETAIL (TO BE WITHIN THE PROPERTY BOUNDARY -DURING CONSTRUCTION ONLY)

NOT TO SCALE

NOTE:
CLEAN OUT LINES FROM THE CHARGED LINES TO BE CONNECTED TO THE NEAREST PITS WITH END CAP AT THE PIT END



RAINWATER TANK DETAIL

SECTION A - SCALE NTS

BENCH MARK
BM 73 NAIL IN KERB
RL 31.46 (A.H.D)

RAINWATER TANK NOTES:

CAPACITY:
RAINWATER TANK HAS A CAPACITY AS MARKED IN THE PLAN.

RAINWATER CONNECTION:
TANK WATER WILL BE PLUMBED TO ALL OUTDOOR WATERING, TOILETS AND LAUNDRY AS PER BASIX REQUIREMENT (TO BE RE-CONFIRMED FROM BASIX REPORT).

FIRST FLUSH:
'FIRST FLUSH' DEVICE WILL BE FITTED TO REMOVE SURFACE CONTAMINATION.

NON DRINKING:
TANK WATER WILL NOT BE CONNECTED TO DRINKING OR BATHING WATER OUTLETS.

FULLY ENCLOSED:
TANKS WILL BE FULLY ENCLOSED AND SEALED TO PREVENT ACCESS BY MOSQUITOES.

NON REFLECTIVE FINISH:
TANKS SURFACES WILL HAVE NON REFLECTIVE FINISH.

WARNING LABELS:
A LABEL WILL BE AFFIXED TO THE TANKS WARNING THAT WATER IS NOT TO BE CONSUMED AND RAINWATER SIGNAGE WILL BE PLACED ABOVE ALL TANK WATER OUTLETS.

ROOFING MATERIALS:
THE ROOF SURFACE FROM WHICH RAINWATER IS BEING DRAWN WILL NOT CONTAIN LEAD,TAR,ASBESTOS OR PAINTS

BASE:
TANKS WILL BE BUILT ON A SELF SUPPORTING BASE (ABOVE TANKS GROUND ONLY)

WATER PRESSURE:
TANKS WILL BE FITTED WITH SMALL MOTORISED PUMP TO PROVIDE ACCEPTABLE WATER PRESSURE.

PUMP NOISE.
PUMP WILL BE DESIGNED AND LOCATED NOT TO CAUSE A NOISE DISTURBANCE TO NEIGHBOURS (GENERALLY NOT 5 dBA ABOVE BACKGROUND NOISE)

INSTALLATION.
WILL BE INSTALLED BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS AND THE" NSW CODE OF PRACTICE-PLUMBING AND DRAINAGE

BACK FLOW PREVENTION.
A BACK FLOW PREVENTION DEVICE WILL BE PROVIDED AT THE MAINS WATER METER

DUAL SUPPLY.
A TRICKLE TOP-UP SYSTEM WILL BE PROVIDED AT THE MAINS WATER.

BACK UP SUPPLY.
A BACK UP SUPPLY OF MAINS WATER WILL BE PROVIDED IN EVENT OF FALIURE OR MAINTENANCE.

ANAEROBIC ZONE.
WATER WILL BE DRAWN FROM ABOVE THE ANAEROBIC ZONE OF TANKS.

TANK CONSTRUCTION.
TANKS WILL BE STRUCTURALLY SOUND AND CONSTRUCTED IN ACCORDANCE WITH AS/NZ3500.1.2-1998.NATIONAL PLUMBING AND DRAINAGE-WATER SUPPLY-ACCEPTABLE SOLUTIONS.

AIR GAP.
TANKS WILL BE PROVIDED WITH AN AIR GAP IN ACCORDANCE WITH AS/NZ 3500.1.2 AND AS2845.2

ON GOING MAINTENANCE.
TANKS WILL BE WELL KEPT AND MAINTAINED.

NOTES:

1. ALL WORKS TO BE CONSTRUCTED TO THE REQUIREMENTS AND SATISFACTION OF NORTHERN BEACHES COUNCIL.
2. PRIOR TO COMMENCEMENT OF ANY SITE WORKS,THE BUILDING CONTRACTOR/PLUMBER HAS TO EXPOSE ALL SERVICES IN THE FULL WIDTH OF THE FOOTPATH TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPE.
3. THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.
4. THE BUILDER IS TO VERIFY ALL LEVELS ON THE SITE PRIOR TO COMMENCING CONSTRUCTION.
5. SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING THE TIME OF CONSTRUCTION.
6. W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFIATION OF DRAINAGE.
7. U.N.O. ALL DOWN PIPES ARE TO BE 100Ø.
8. U.N.O. ALL PIPES TO BE 100Ø CLASS 'SH' WITH 1% MIN SLOPE.
9. ALL THE RETAINING WALLS TO STRUCTURAL ENGINEERS DETAIL AND SHOULD BE WITHIN THE SITE BOUNDARY.
10. ALL THE DOWN PIPES FROM THE ROOF GUTTER TO RAINWATER TANK SHALL BE CHARGED LINES AND SOLVENT WELD JOINTED.
11. PROVIDE OSD SIGNS ON THE RAIN WATER TANKS.

LEGEND

DRAINAGE LINE		SURFACE INLET PIT	
AG. LINE	a a	JUNCTION PIT	
SILT FENCE		DOWN PIPE	DP
EXISTING LEVEL x 44.10	DESIGN LEVEL x 43.81	SPREADER PIPE	SP
SILT BARRIER AROUND PIT		PLANTER GRATE	PG
CLEANING EYE (OR INSEPECTION EYE)	CE	FLOOR GRATE	FG
SURFACE LEVEL	SL 45.50	DROPPER	DR
INVERT LEVEL	IL 45.00	STEP IN THE RETAINING WALL	
REMOVED TREE			

OSD CALCULATION

1. TOTAL SITE AREA = 464.7m^2
2. TOTAL PROPOSED IMPERVIOUS AREA = 248m^2
3. PERCENTAGE IMPERVIOUS AREA = $\frac{248}{464.70}$ x 100 = 54%
4. OSD IS REQUIRED FOR THIS SITE.
5. STORAGE REQUIRED = 0.0464 x 200 = 9.28m^3
6. ALLOWABLE DISCHARGE = 0.0464 x 400 = 18.56 L/S
7. ROOF CATCHMENT AREA TO RAINWATER TANK = 192m^2
8. ALLOWABLE DISCHARGE FROM OSD = $\frac{18.56}{464.70}$ x 192 = 7.70 L/S
9. MAXIMUM HEIGHT TO ORIFICE CENTRE = 1.21m
10. ORIFICE DIAMETER = 58mm
11. VOLUME OF THE RWT = 3.0m^3
12. OSD VOLUME PROVIDED = (9.28-1.50)= 7.78m^3
13. TOTAL VOLUME OF OSD AND RAIN WATER TANK = 11m^3
14. USE 2Nr 5500 RAIN WATER TANK.

Issue	Date	Description	BY
A	28.02.2020	ISSUED FOR DA APPROVAL	AJ

DESIGN BY: VNK CONSULTING Pty Ltd
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Mobile: 0401 132 386
Email: VNKCONSULTING@GMAIL.COM
PRINCIPAL ENGINEER: LOGAN N LOGESWARAN
QUALIFICATIONS: BscEng, MEng, MEngStud, M.ASCE, MIEAust, CPEng, NER

Drawing Title: STORMWATER DRAINAGE LAYOUT PLAN

DESIGNED	NL
DRAWN	AJ
DATUM	AHD
DATE	28.02.2020

Project: PROPOSED DWELLING
LOT 17 (No. 32) PARR AVENUE
NORTH CURL CURL NSW 2099

Ref No. 280220-01

Issue: A

SHEET 1 of 1