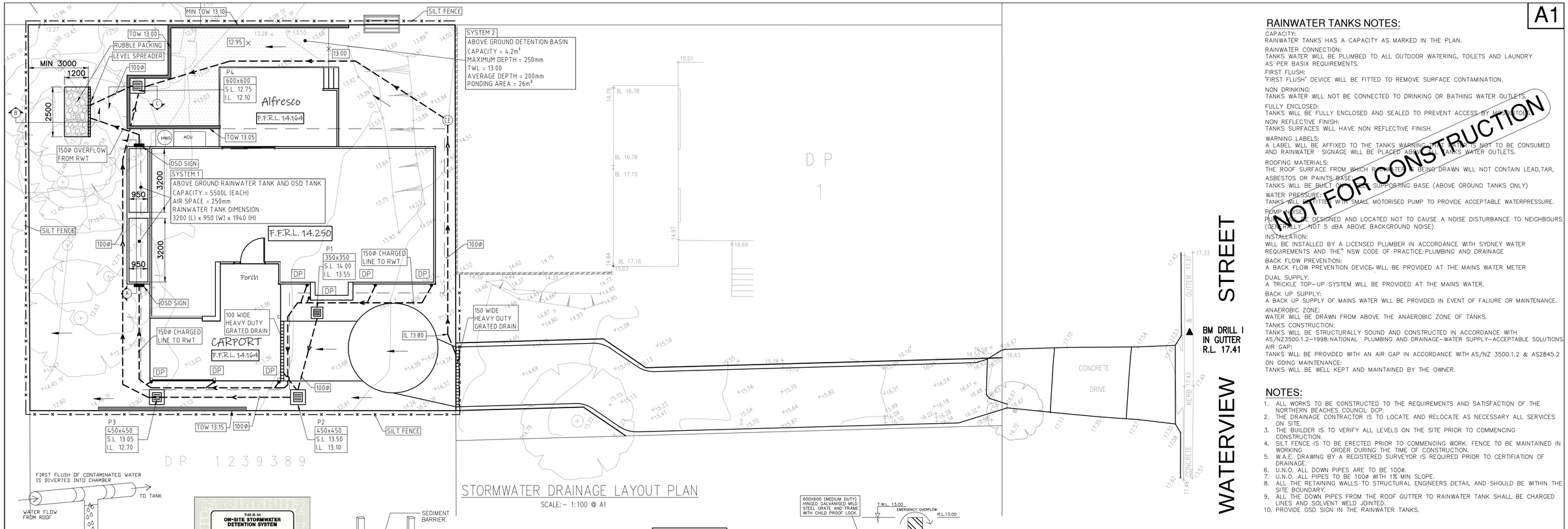
A1



STORMWATER DRAINAGE LAYOUT PLAN

SCALE:- 1:100 @ A1

RAINWATER TANKS NOTES:

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

RAINWATER CONNECTION:
TANKS WATER WILL BE PLUMBED TO ALL OUTDOOR WATERING, TOILETS AND LAUNDRY AS PER BASIX REQUIREMENTS.

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

NON DRINKING:
TANKS 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 TANKS 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 TO SUIT SUPPORTING BASE (ABOVE GROUND TANKS ONLY)

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

POMP 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.

TANKS 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 & AS2845.2

ON GOING MAINTENANCE:
TANKS WILL BE WELL KEPT AND MAINTAINED BY THE OWNER.

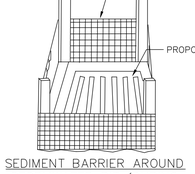
NOTES:

1. ALL WORKS TO BE CONSTRUCTED TO THE REQUIREMENTS AND SATISFACTION OF THE NORTHERN BEACHES COUNCIL DCP.
2. THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.
3. THE BUILDER IS TO VERIFY ALL LEVELS ON THE SITE PRIOR TO COMMENCING CONSTRUCTION.
4. SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING THE TIME OF CONSTRUCTION.
5. W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFIATION OF DRAINAGE.
6. U.N.O. ALL DOWN PIPES ARE TO BE 100ø.
7. U.N.O. ALL PIPES TO BE 100ø WITH 1% MIN SLOPE.
8. ALL THE RETAINING WALLS TO STRUCTURAL ENGINEERS DETAIL AND SHOULD BE WITHIN THE SITE BOUNDARY.
9. ALL THE DOWN PIPES FROM THE ROOF GUTTER TO RAINWATER TANK SHALL BE CHARGED LINES AND SOLVENT WELD JOINTED.
10. PROVIDE OSD SIGN IN THE RAINWATER TANKS.

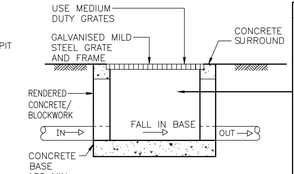
NOT FOR CONSTRUCTION

FIRST FLUSH WATER DIVERTER DETAIL
NOT TO SCALE

OSD SIGN
NOT TO SCALE

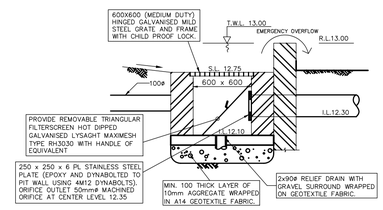


SEDIMENT BARRIER AROUND STORMWATER PIT (DURING CONSTRUCTION)
NOT TO SCALE

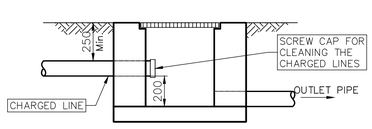


STANDARD PIT DETAIL
NOT TO SCALE

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



O.S.D. BASIN AND CONTROL PIT
SECTION C
SCALE NTS



TYPICAL CHARGED LINE CLEAN OUT CONNECTION TO A PIT
NOT TO SCALE

LEGEND

DRAINAGE LINE
AG. LINE — a — a
SILT FENCE
EXISTING LEVEL x 44.10
DESIGN LEVEL x 45.61
SILT BARRIER AROUND PIT
CLEANING EYE (OR INSEPECTION EYE) CE
SURFACE LEVEL SL 45.50
INVERT LEVEL IL 45.00
REMOVED TREE

SURFACE INLET PIT
JUNCTION PIT
DOWN PIPE DP
SPREADER PIPE SP
PLANTER GRATE PG
FLOOR GRATE FG
DROPPER DR
STEP IN THE RETAINING WALL
FLUSHING POINT FP

OSD CALCULATION (LEVEL SPREADER)

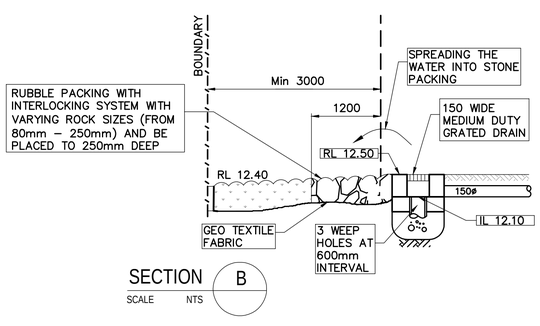
THE DRAINS MODEL HAS BEEN USED TO CALCULATE THE PSD AND THE OSD VOLUME FOR THE LEVEL SPREADER CALCULATION.

1. TOTAL SITE AREA = 415m²
= 1(a). DRIVEWAY AREA = 78m²
2. PRE DEVELOPMENT IMPERVIOUS AREA = 0m²(ASSUMED AS 0)
3. Tc = 7 MIN FOR PREDEVELOPMENT HAS BEEN CALCULATED ARE AS FOLLOWS (FROM APPENDIX 11 OF THE POLICY TABLE A11-1) : L=25M, S=8%
4. PSD (FOR ALL THE STORM EVENTS UP TO 1 IN 100 YEAR ARI) SHALL BE 1 IN 5 YEAR ARI STORM EVENT FLOW AT THE "STATE OF NATURE".
5. PSD = 11 L/S
6. THE OSD HAS BEEN DESIGNED AS ABOVE GROUND RAINWATER TANKS AND ABOVE GROUND BASIN.
7. TOTAL BYPASS AREA FROM THE OSD SYSTEMS ARE 105m² (100% PERVIOUS)
8. TOTAL AREA TO THE ABOVE GROUND OSD TANK IS 166 m² (% IMPERVIOUS AREA IS 100)
9. TOTAL AREA TO THE ABOVE GROUND OSD BASIN IS 222m² (65% IMPERVIOUS)

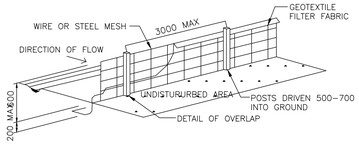
THE RESULTS FROM THE DRAINS MODEL ARE AS FOLLOWS :

ARI (YEAR)	FLOW FROM ABOVE GROUND RAINWATER TANK OSD (L/S)	FLOW FROM ABOVE GROUND OSD BASIN (L/S)	BY PASS FLOW (L/S)	TOTAL FLOW (L/S)
5	1	4	2	7
20	2	4	4	10
50	2	4	4	10
100	2	4	5	11

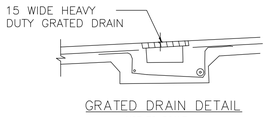
10. TOTAL OSD VOLUME REQUIRED TO CONTROL ALL STORM EVENTS UP TO AND INCLUDING 1 IN 100 YEAR ARI STORM EVENT FOR THE PSD OF 11 L/S IS 12.20m³
11. OSD VOLUME REQUIRED = 12.20m³
12. OSD PROVIDED AS ABOVE GROUND OSD TANK IS 8m³
13. ORIFICE DIAMETER = 30mm
14. OSD PROVIDED AS ABOVE GROUND BASIN = 4.2m³
15. ORIFICE DIAMETER = 50mm



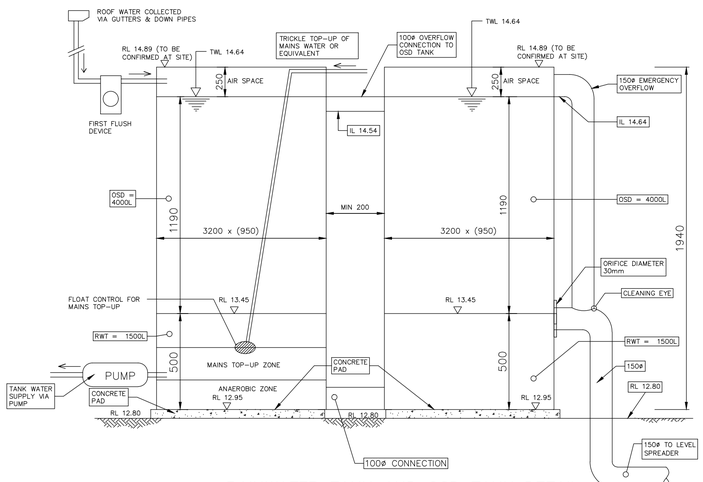
SECTION B
SCALE NTS



SILT FENCE DETAIL (TO BE WITHIN THE PROPERTY BOUNDARY –DURING CONSTRUCTION ONLY)
NOT TO SCALE



GRATED DRAIN DETAIL
NOT TO SCALE



RAINWATER TANK AND OSD TANK DETAIL

SECTION A
SCALE NTS

CAUTION:
ALL THE LEVELS AND DIMENSIONS ARE CRITICAL. PLEASE FOLLOW THE SW PLAN FOR CONSTRUCTION TO AVOID FINAL CERTIFICATION DELAY. IF YOU SEE SOMETHING NOT CORRECT OR NOT SUITED FOR SITE PLEASE CONTACT THE STORMWATER ENGINEER FOR CLARIFICATION AND FURTHER DIRECTIONS.

NOTE:
THE SURFACE INLET PITS SHALL BE HEAVY DUTY PLASTIC PITS IF IT IS LESS THAN 400mm DEEP.

NOTE:
PRIOR TO CONSTRUCTION THE BUILDER IS TO COORDINATE ALL THE PLANS (ARCHITECTURE PLAN, LANDSCAPE PLAN, STRUCTURAL ENGINEER'S PLAN AND THE STORMWATER PLAN) TO MAKE SURE ALL THE DESIGN LEVELS, DOWNPIPE LOCATIONS AND THE FLOOR LEVELS ARE SAME IN ALL THE PLANS.

NOTE:
THE PIT SURFACE LEVELS AND THE TOP OF RETAINING WALLS SHALL BE RE-CONFIRMED AT SITE

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

Issue	Date	Description	BY
B	22.02.2024	RE-ISSUED FOR DA APPROVAL	INO
A	19.11.2023	ISSUED FOR DA APPROVAL	INO

DESIGN BY: VNK CONSULTING PTY LTD
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Mobile: 0401 132 386
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PRINCIPAL ENGINEER: LOGAN N LOGESWARAN
QUALIFICATIONS: BscEng, MEng, MEngStud, M.ASCE, MIEAust, CPEng, NER

Drawing Title: STORMWATER DRAINAGE LAYOUT PLAN

DESIGNED	NL
DRAWN	INO
DATUM	AHD
DATE	19.11.2023

Project:
PROPOSED DWELLING
96A WATERVIEW STREET
MONA VALE NSW 2103

Ref No. 191123-01
Issue: B
SHEET 1 of 1