

SITE STORMWATER MANAGEMENT LAYOUT

SCALE 1:200/A3

PIPE SCHEDULE

TAG	SIZE	MATERIAL	GRADE	DESCRIPTION
'A'	100 Ø	P.V.C	1% MIN	REGULAR GRAVITY PIPE
'B'	150 Ø	P.V.C	1% MIN	REGULAR GRAVITY PIPE
'X'	100 Ø	P.V.C	CHARGED	TO FEED RAINWATER TANK
'F'	100 Ø	P.V.C	1% MIN	FLUSHING LINE - CAPPED END

NOTE, ALL PIT & PIPELINE LOCATIONS SHOWN ON PLAN ARE INDICATIVE. BUILDER TO DETERMINE BEST POSITION FOR PLACEMENT WITHIN A 1m TOLERANCE OF WHAT IS SHOWN ON PLAN.
THROUGH PITS CAN ALSO BE ADJUSTED TO BE 'END OF LINE' WITH THE OUTLETS TO JUNCTION INTO THE MAIN GRAVITY LINE IF LEVELS PERMIT. TYPE & POSITION OF PITS TO BE TO THE DISCRETION OF THE BUILDER & PLUMBER DURING CONSTRUCTION. IF IN DOUBT CONTACT DESIGN ENGINEER.

alwdesign
CIVIL ENGINEERING CONSULTANTS

P: 02 9802 5509 E: admin@alwdesign.com.au
M: 0413 763 432 69 DELANGE ROAD, PUTNEY NSW 2112

JOB NUMBER:
SW25333
DRAWING NUMBER:
SW25333 - S1

PROJECT:		PROPOSED RESIDENTIAL DWELLING AT LOT 2, # 4 BALTIC STREET, FAIRLIGHT NSW	
DRAWING:		SITE STORMWATER MANAGEMENT LAYOUT	
DESIGNED:	DRAWN:	CHECKED:	ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG
A.W	N.W	DRAWINGS NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY DESIGNING ENGINEER	
B	ISSUED FOR DEVELOPMENT APPLICATION		30/09/25
ISSUE	REVISION DESCRIPTION		APPR. DATE

STORMWATER LAYOUT NOTES

- 1) PITS DEEPER THAN 600mm TO BE 600 X 900 W, ELSE 375 SQ U.N.O.
- 2) ALL PIPES TO HAVE 1% MIN. GRADE U.N.O.
- 3) ALL DOWNPIPES TO BE 100 X 50 BOX OR 90 Ø.
- 4) PIPES TO BE U.P.V.C. OR STORMWATER PIPE TO A.S.1254.
- 5) PITS TO BE STANDARD PRECAST CONCRETE PITS OR BRICK RENDERED WITH CONCRETE HEAVY DUTY GRATES SIZED AS PITS PER PLAN.
- 6) NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS.
- 7) PERSONS UTILISING THIS PLAN FOR ANY PURPOSES SHALL VERIFY THE DATUM & RESPECTIVE LEVELS PRIOR TO COMMENCING ANY WORKS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 8) DRIVEWAY LEVELS PROVIDED FOR DRAINAGE DESIGN PURPOSES ONLY. LEVELS MAY BE ADJUSTED TO SUIT FINAL HOUSE CUT/FILL CONDITIONS BUT NEED TO MAINTAIN INTENT OF DRAINAGE SYSTEM. ENGINEER TO BE CONSULTED PRIOR TO CONSTRUCTION TO ENSURE INTENT MAINTAINED.
- 9) END OF EXISTING DRAINAGE LINE TO BE EXPOSED & LEVELS CONFIRMED BY BUILDER PRIOR TO COMMENCEMENT OF WORKS.
- 10) BUILDERS TO ENSURE SERVICES CONNECTIONS TO HOUSE DO NOT CONFLICT WITH DRAINAGE DESIGN REQUIREMENTS.
- 11) ALL WORKS TO BE CONSTRUCTED TO GOOD BUILDING PRACTICE & MATERIALS TO MEET ACCEPTED SPECIFICATIONS.

LEGEND

P1	PIT LABEL	G.F.L	GARAGE FLOOR LEVEL
	SUMP PIT	0.00	EXISTING REDUCED LEVEL
	300x300 FLOOR GULLY	R.L 157.00	PROPOSED REDUCED LEVEL
	100/150 Ø GARDEN GULLY	DP	DOWNPIPE
	DRAINAGE PIPE	SP	SPITTER/SPREADER
	AERIAL PIPE	CE	CLEANING EYE
S.L.	SURFACE LEVEL	SF	SEDIMENT FENCE
I.L.	INVERT LEVEL	AG	AG LINE
F.F.L.	FINISHED FLOOR LEVEL	OF	OVERLAND FLOW

THE REQUESTS TO CREATE AN EASEMENT THROUGH THE REAR NEIGHBOURS (15-21 DAINTRY STREET, FAIRLIGHT) HAS BEEN DENIED. REFER TO THE COMPLETED STATUTORY DECLARATION DATED 5/9/2025.
HENCE, A DETAILED ANALYSIS OF THE SITE HAS BEEN CONDUCTED TO MODEL THE SITE FLOWS TO BE LIMITED TO THE UNDEVELOPED STATE-OF-NATURE CONDITIONS. OUR DESIGN SHOWS THAT THE MAJORITY OF THE ROOF AREA IS DIRECTED TO A RAINWATER TANK SYSTEM CONTAINING STORAGE FOR RE-USE AND THE OVERFLOW IS DIRECTED TO AN ON SITE DETENTION SYSTEM ALONG WITH THE UPPER LEVEL SURFACE RUN-OFF. THE CONTROLLED DISCHARGE IS DIRECTED TO A LEVEL SPREADER LOCATED IN THE REAR YARD. THE DESIGN SOLUTION HAS BEEN PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF NORTHERN BEACHES COUNCIL'S WATER MANAGEMENT FOR DEVELOPMENT; SPECIFICALLY PART 5.5 STORMWATER DRAINAGE FROM LOW LEVEL PROPERTIES.

DRAINAGE REQUIREMENT TO NBC POLICY

SITE AREA	= 334 m2
SITE COVERAGE AREA	= 170 m2
SITE COVERAGE	= 54 %

ON-SITE DETENTION IS REQUIRED

AREA ROUTED THROUGH OSD

IMPERVIOUS AREA	= 170 m2
PERVIOUS AREA	= 34 m2

AREA BYPASSING OSD

IMPERVIOUS AREA	= 0 m2
PERVIOUS AREA	= 130 m2

OSD VOLUME REQUIRED	= 13.1 m3
RAINWATER TANK (PER BASIX)	= 3.00 m3
OSD TANK VOLUME STORAGE	= 13.6 m3
RAINWATER TANK STORAGE	= 3.00 m3
TOTAL VOLUME STORAGE	= 16.6 m3

PRE-DEVELOPED DISCHARGE (S.O.N)	= 10.0 L/s
PROPOSED ST. STEEL ORIFICE Ø	= 45 mm
LIMITED DISCHARGE THRU OSD	= 3.00 L/s
UNCONTROLLED FLOW	= 7.00 L/s

OSD PARAMATERS DETERMINED WITH 'DRAINS'. FILE IS AVAILABLE FOR REVIEW. EMAIL REQUESTED TO: admin@alwdesign.com.au

RAINWATER TANK
AS SHOWN ON PLAN

PROVIDE A RAINWATER TANK 3000L IN CAPACITY TO SUIT ALL BASIX REQUIREMENTS. TANK TO BE CONNECTED AS SPECIFIED IN BASIX REPORT.

ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEM ARE SOLVENT WELDED

ALL DOWNPIPES ARE TO BE ENTIRELY PVC. PIPES ARE TO BE SEALED UPTO U/S OF ROOF GUTTERS

ROOF GUTTERS I.L. 22.27
TANK INLET I.L. 20.78
HEAD PRESSURE - 1490mm

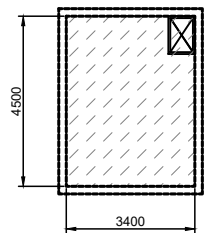
BELOW GROUND DETENTION TANK

SHOWN HATCHED	
MAX POOL RL	= 18.90
MAX DEPTH	= 920mm
VOLUME STORED	= 13.6 m3
VOLUME REQUIRED	= 13.1 m3

DCP

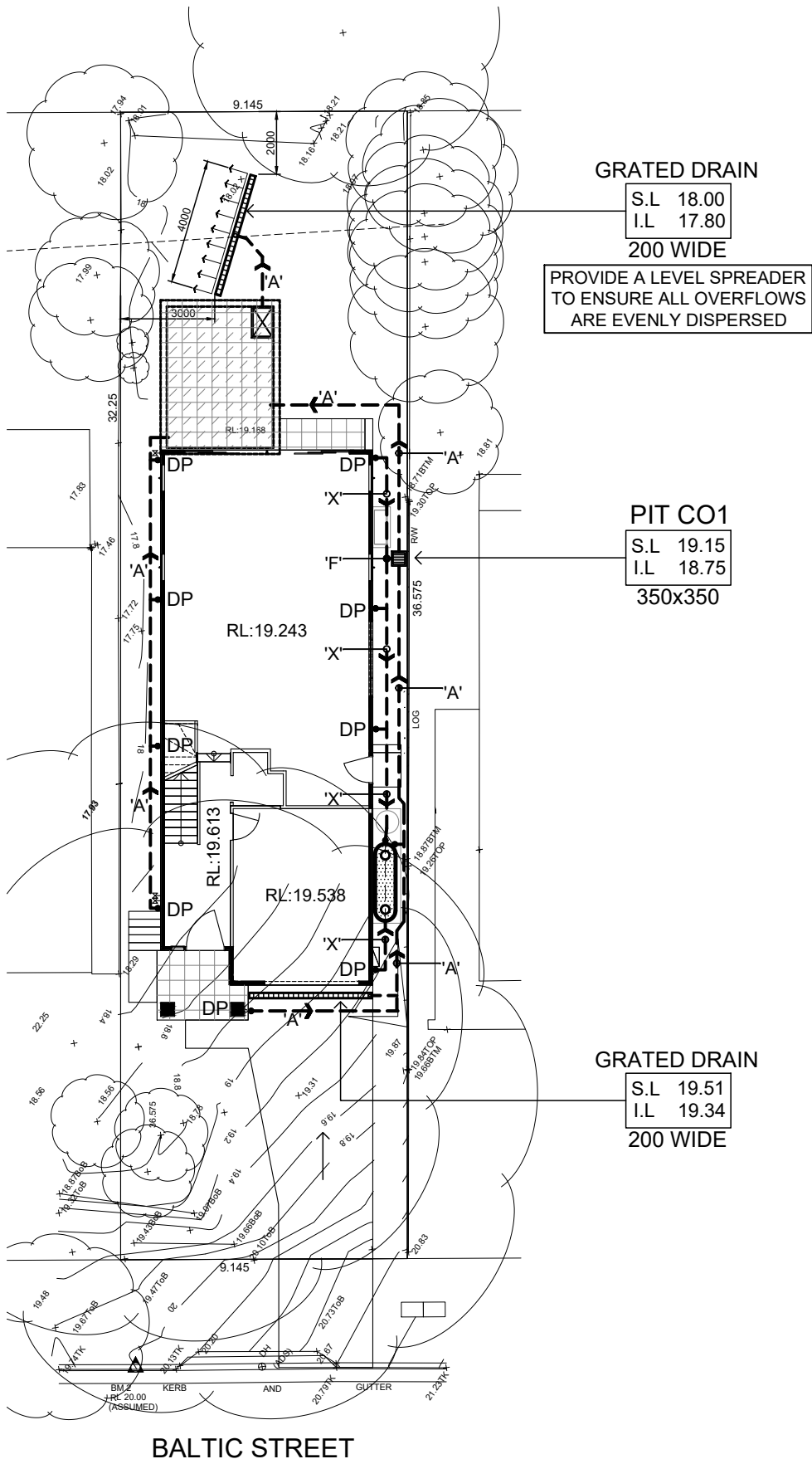
S.L	19.16
C.L	17.98
I.L	17.93

600x900



DETENTION TANK

LENGTH	= 4500mm
WIDTH	= 3400mm
AVERAGE DEPTH	= 890mm
VOLUME STORED	= 13.6 m3



GRATED DRAIN

S.L	18.00
I.L	17.80

200 WIDE

PROVIDE A LEVEL SPREADER TO ENSURE ALL OVERFLOWS ARE EVENLY DISPERSED

PIT CO1

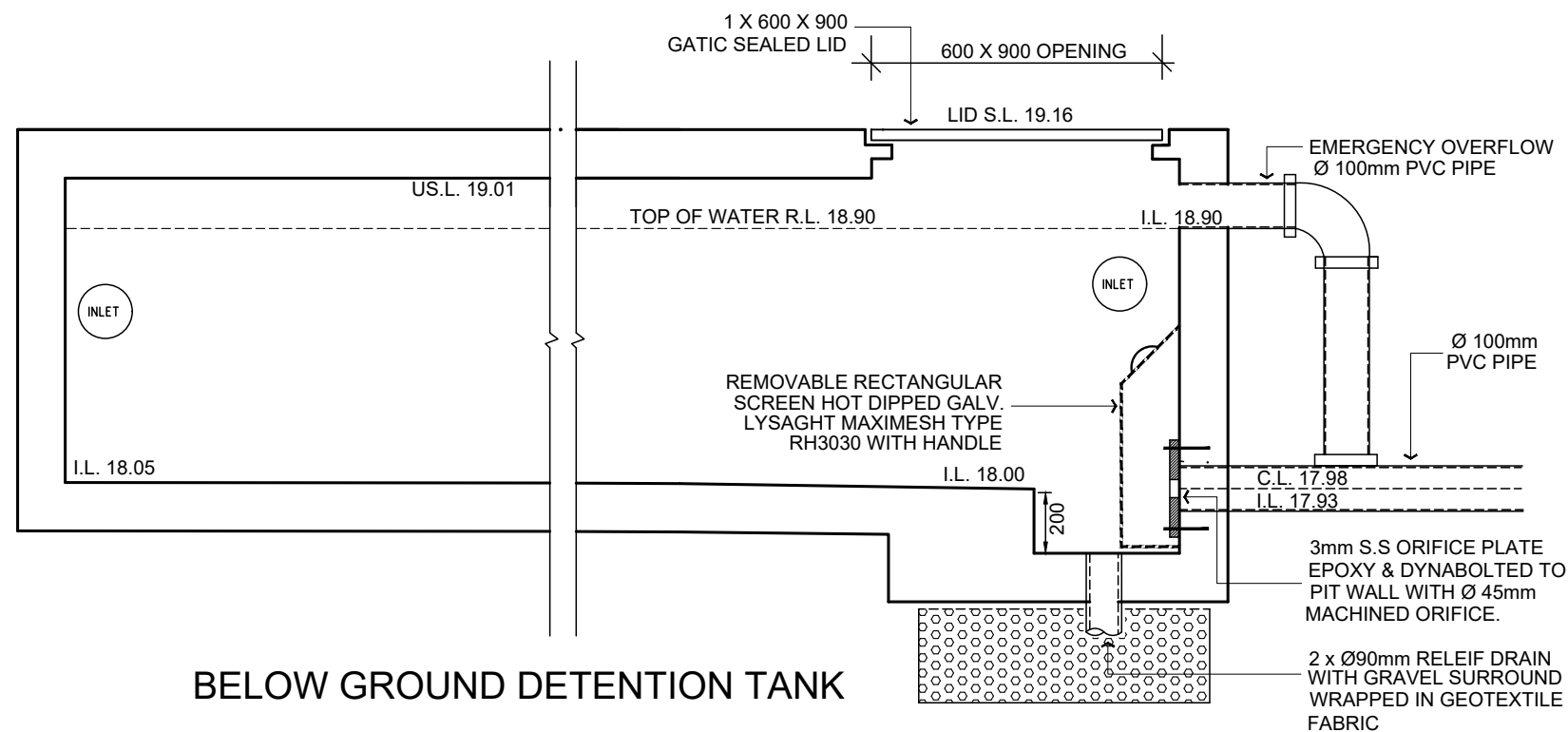
S.L	19.15
I.L	18.75

350x350

GRATED DRAIN

S.L	19.51
I.L	19.34

200 WIDE

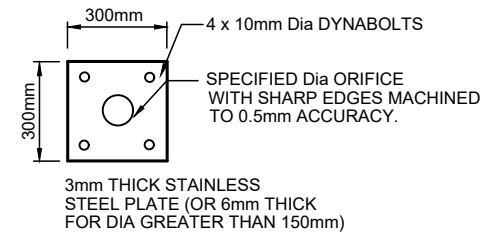


BELOW GROUND DETENTION TANK

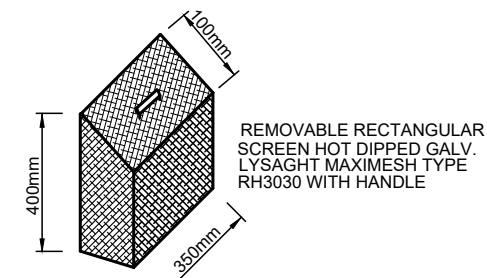
DETENTION TANK	
LENGTH	= 5110mm
WIDTH	= 3000mm
AVERAGE DEPTH	= 890mm
VOLUME STORED	= 13.6 m3



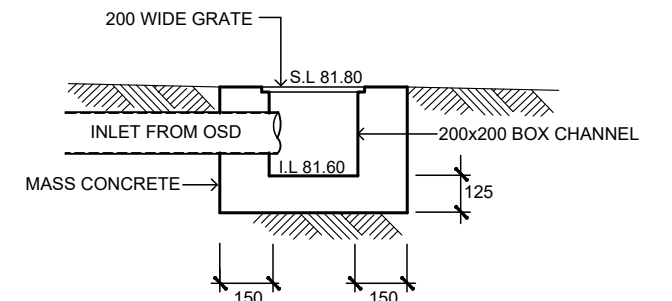
TO BE PLACED AT ALL TANK ACCESS GRATES



ORIFICE PLATE DETAIL

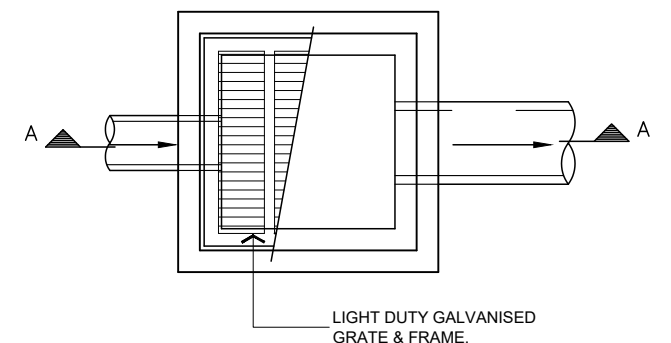


MAXIMESH SCREEN



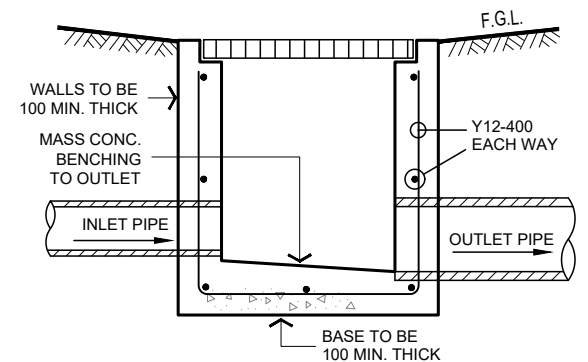
LEVEL SPREADER

NOTE, ALL PIT SIZES SHOWN ON PLAN REFLECT THE REQUIRED GRATE DIMENSION

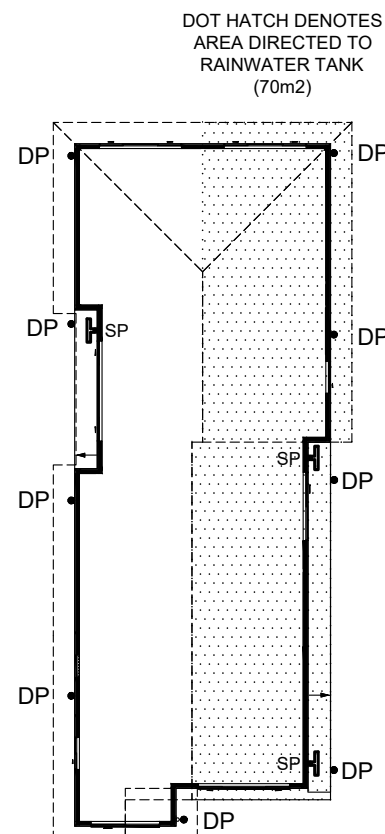


TYPICAL PIT DETAIL

IN TRAFFICABLE AREAS	IN NON-TRAFFICABLE AREAS
BRICKWORK/BLOCKWORK WALLS OR PRECAST CONCRETE PITS MAY BE USED SUBJECT TO APPROVAL	FIBRE-GLASS OR HARD-PLASTIC PITS MAY BE USED SUBJECT TO APPROVAL



TYPICAL SECTION A



GUTTER SELECTED: LYSAGHT QUAD 115 HI FRONT NSW SLOTTED;
AREA = 5225 SQ.MM

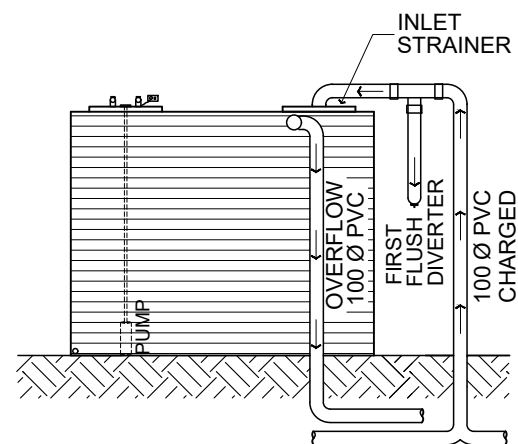
ALL DOWNPIPES TO BE 90 Ø MIN

ROOF & FIRST FLOOR LAYOUT
SCALE 1:200/A3

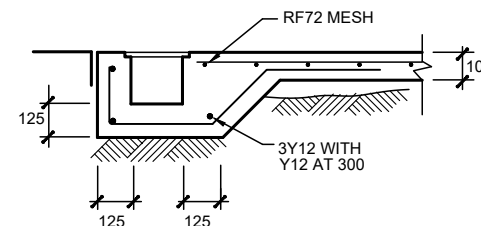
ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEM ARE SOLVENT WELDED

ALL DOWNPIPES ARE TO BE ENTIRELY PVC. PIPES ARE TO BE SEALED UPTO U/S OF ROOF GUTTERS

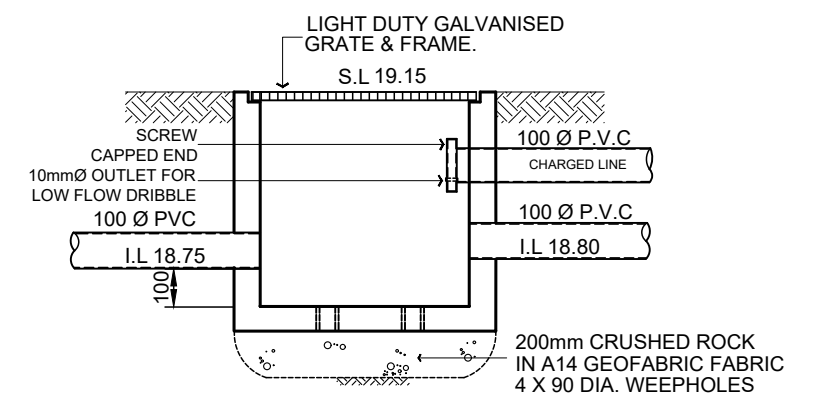
ROOF GUTTERS I.L. 22.27
TANK INLET I.L. 20.78
HEAD PRESSURE - 1490mm



EVOLUTION MKIII RAINWATER TANK
CONFIGURATION BY KINGSPAN



GRATED DRAIN



PIT CO1 - 350x350
CLEAN-OUT PIT
FOR CHARGED LINE SYSTEMS

alwdesign
CIVIL ENGINEERING CONSULTANTS

P: 02 9802 5509 E: admin@alwdesign.com.au
M: 0413 763 432 69 DELANGE ROAD, PUTNEY NSW 2112

JOB NUMBER: SW25333	DRAWING NUMBER: SW25333 - S2	PROJECT: PROPOSED RESIDENTIAL DWELLING AT LOT 2, # 4 BALTIC STREET, FAIRLIGHT NSW
DESIGNED A.W	DRAWN N.W	CHECKED: ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG
B	ISSUED FOR DEVELOPMENT APPLICATION	30/09/25
ISSUE	REVISION DESCRIPTION	APPR. DATE