



Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088



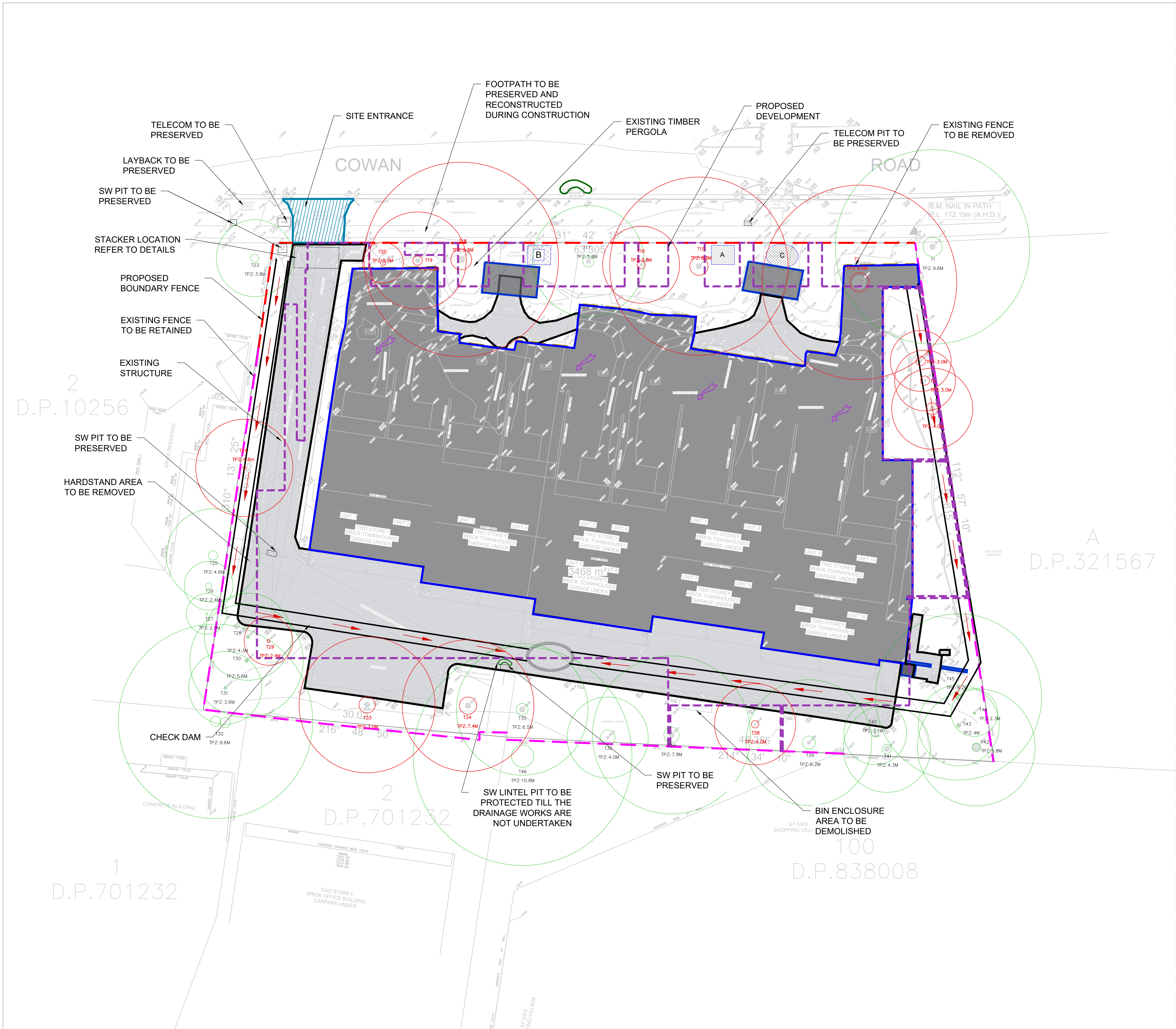
SATELLITE MAP (SOURCE: SIX MAPS)

PROJECT ADDRESS:
5-9 COWAN RD-ST IVES, NSW 2075
DRAWING INDEX & COVER SHEET: **STORMWATER MANAGEMENT PLAN**

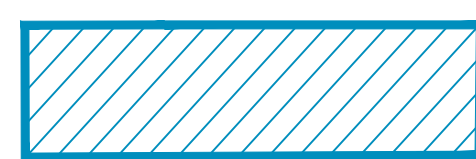
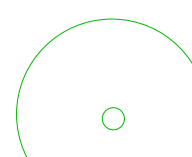
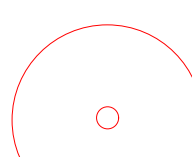
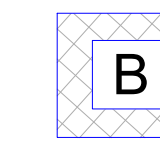
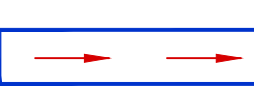
DWG No.	DWG TITLES	REVISION
C000	DRAWING INDEX & COVER SHEET	01
C001	GENERAL NOTES	01
C100	SEDIMENTATION & EROSION CONTROL PLAN	01
C101	SEDIMENTATION & EROSION CONTROL DETAILS	01
C102	AREA ANALYSIS AND ENGINEER NOTES	01
C200	STORMWATER MANAGEMENT PLAN - BASEMENT 3	01
C201	STORMWATER MANAGEMENT PLAN - BASEMENT 2	01
C202	STORMWATER MANAGEMENT PLAN - BASEMENT 1	01
C203	STORMWATER MANAGEMENT PLAN - GROUND FLOOR	01
C204	MISCELLANEOUS STORMWATER DETAILS	01
C205	ON-SITE DETENTION DETAILS	01
C206	BASEMENT PUMP OUT DETAILS	01
C300	POLLUTANT TREATMENT MODEL & OUTCOME	01

FOR APPROVAL

Revision	Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright. DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	Architect	Client	Engineer	Project	Drawn	Designed	Approved
0	ISSUE FOR COORDINATION	HR	31.07.25					5-9 COWAN RD, ST IVES, NSW 2075	HM	HM	HR
1	ISSUE FOR APPROVAL	HR	25.08.25						Project No.	Scale	
									S10751		at A1. N.T.S
								Title	Drawing No.		Revision
								DRAWING INDEX & COVER SHEET	C000		1
								Issued By	Checked By	Date	
								HR	SA	25.08.25	



LEGEND

-  SITE ENTRANCE
-  EXISTING DEVELOPMENT (TO BE DEMOLISHED)
-  HARDSTAND AREA TO BE REMOVED
-  PROPOSED DEVELOPMENT
-  PROPOSED BARRIER FENCE
-  EXISTING BARRIER FENCE TO BE RETAINED
-  EXISTING FENCE TO BE REMOVED
-  TREES TO BE PROTECTED
-  TREES TO BE REMOVED
-  MATERIAL STORAGE
-  TOILET FACILITY
-  STOCKPILE
-  EARTH BASIN
-  SANDBAGS

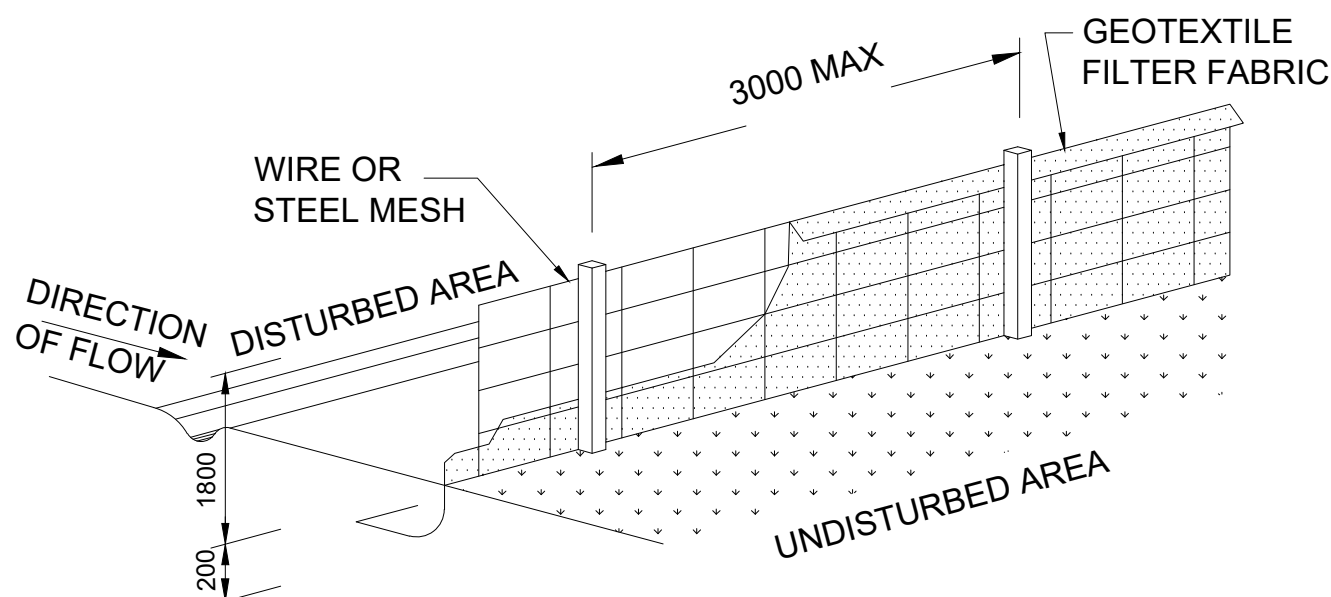
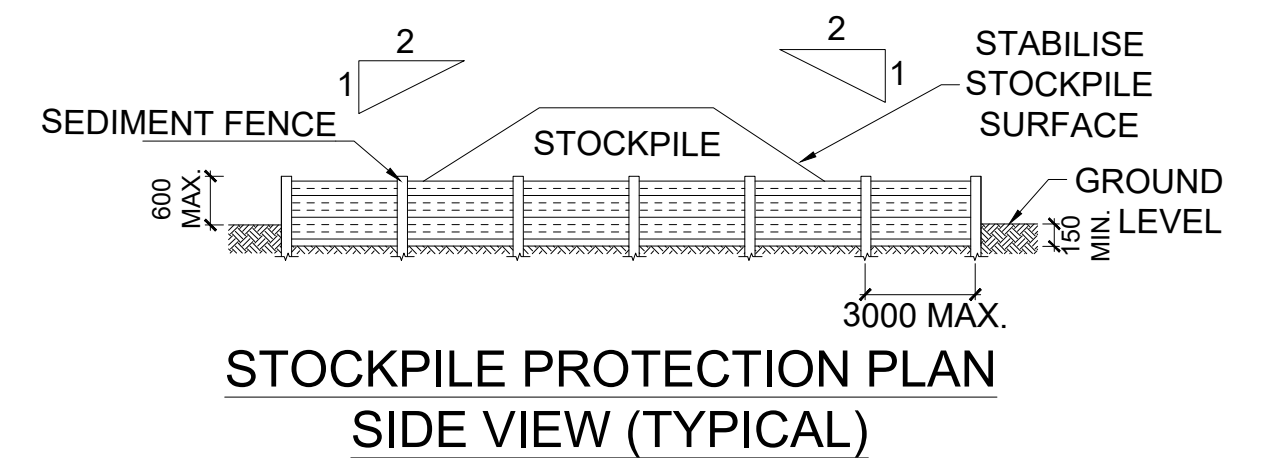
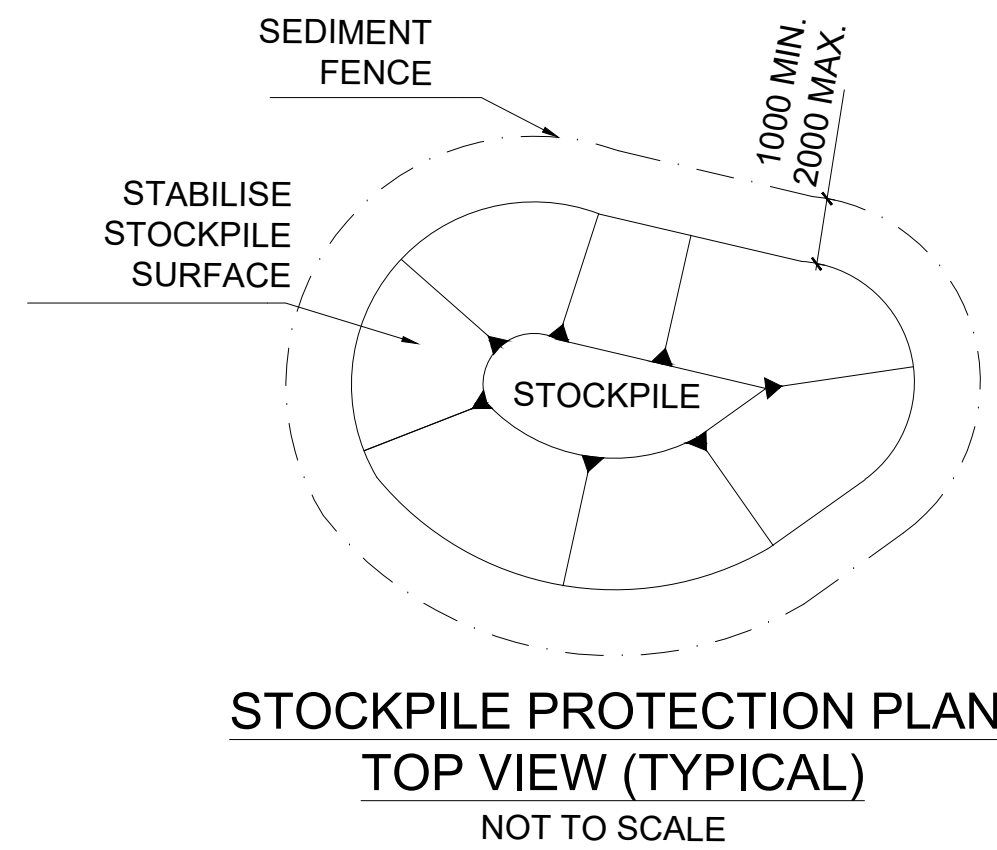
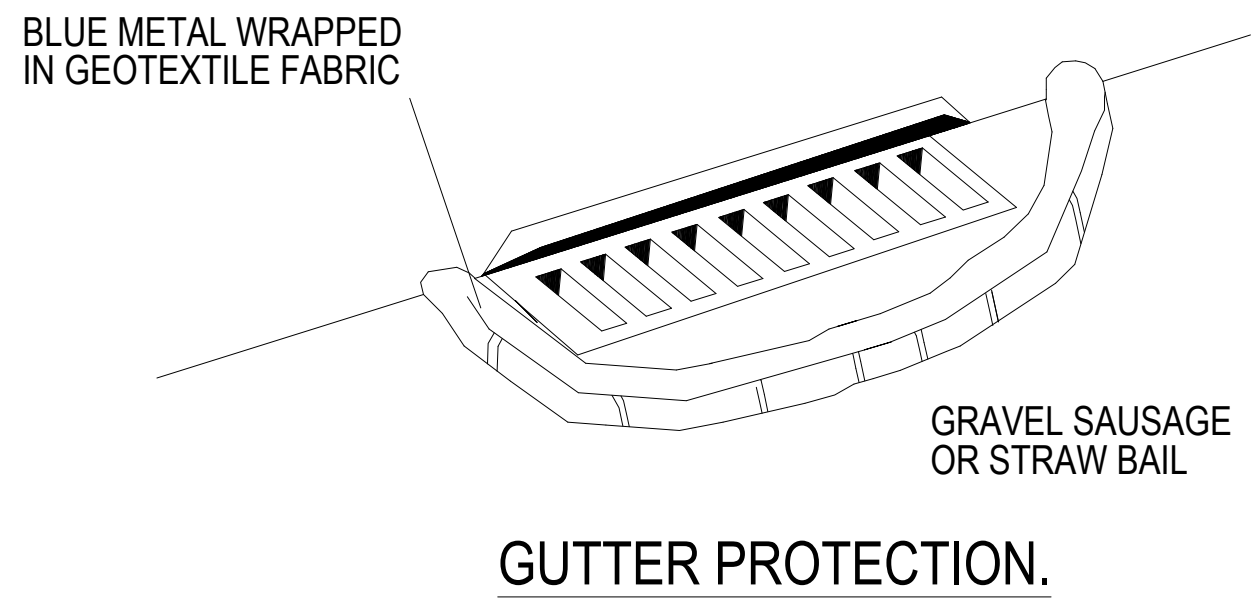
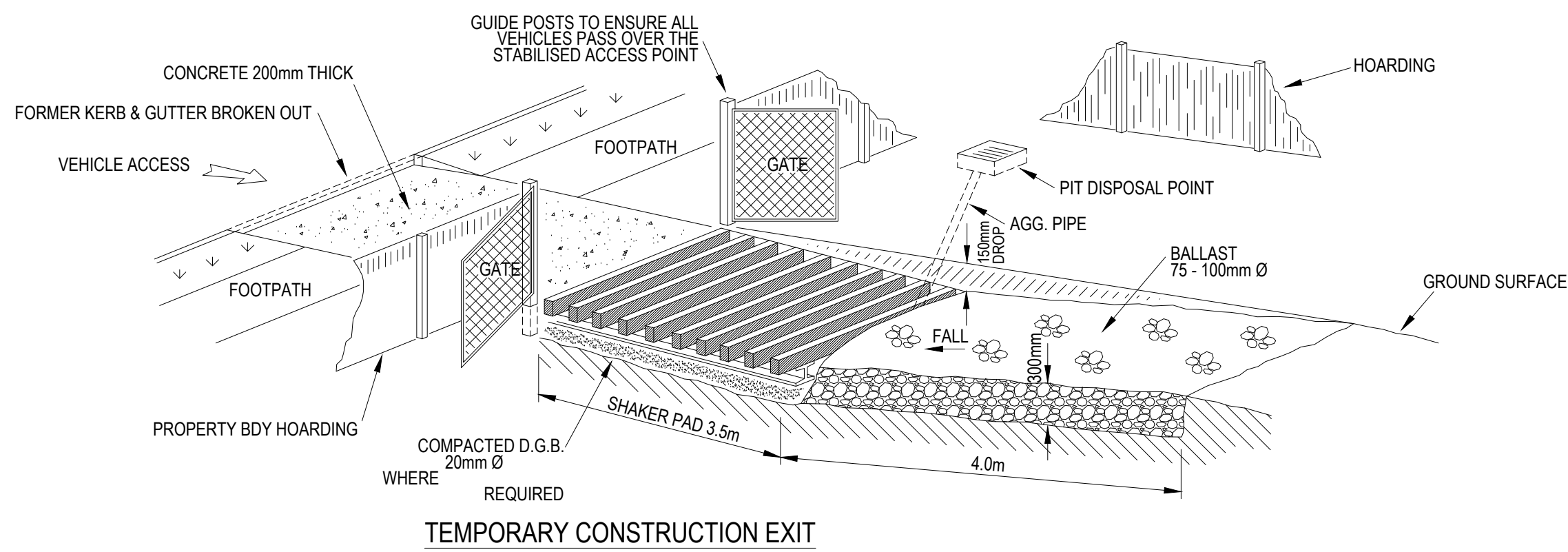
FOR APPROVAL

Revision		Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EIA Australia constitutes an infringement of copyright. DISCLAIMER EIA Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EIA. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	Architect	Client	Engineer	Project		Drawn	Designed	Approved
0	ISSUE FOR COORDINATION		HR	31.07.25					5-9 COWAN RD, ST IVES, NSW 2075		HM	HM	HR
1	ISSUE FOR APPROVAL		HR	25.08.25					S10751		Scale at A1. 1:200		
									C100		Revision 1		
									Issued By		Checked By		Date
									HR		SA		25.08.25



EI Australia
Suite 6.01
55 Miller Street
Pyrmont, NSW 2009
T 02 9516 0722

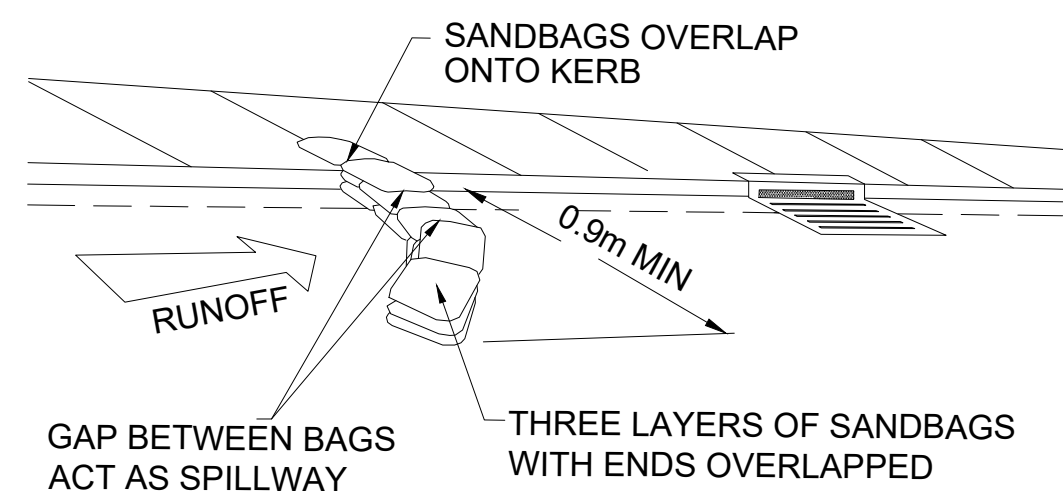
300mm
200mm
100
50
0 10mm



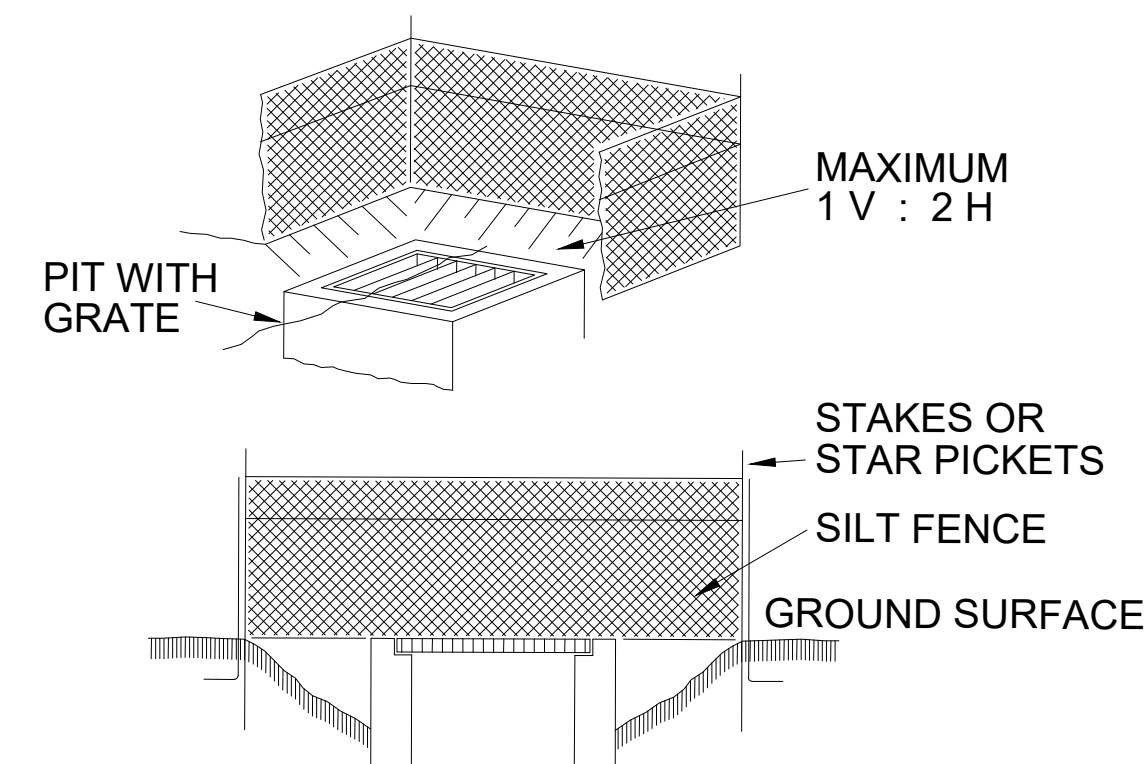
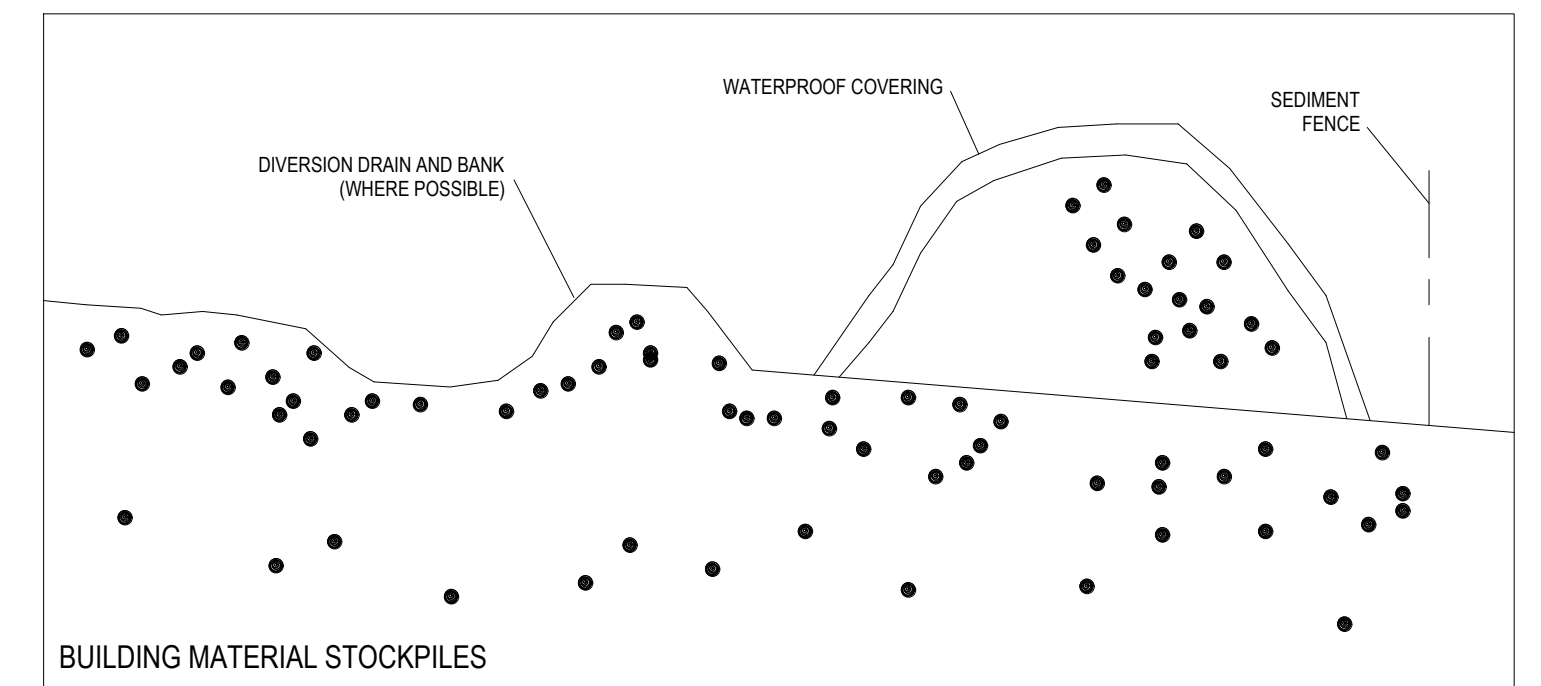
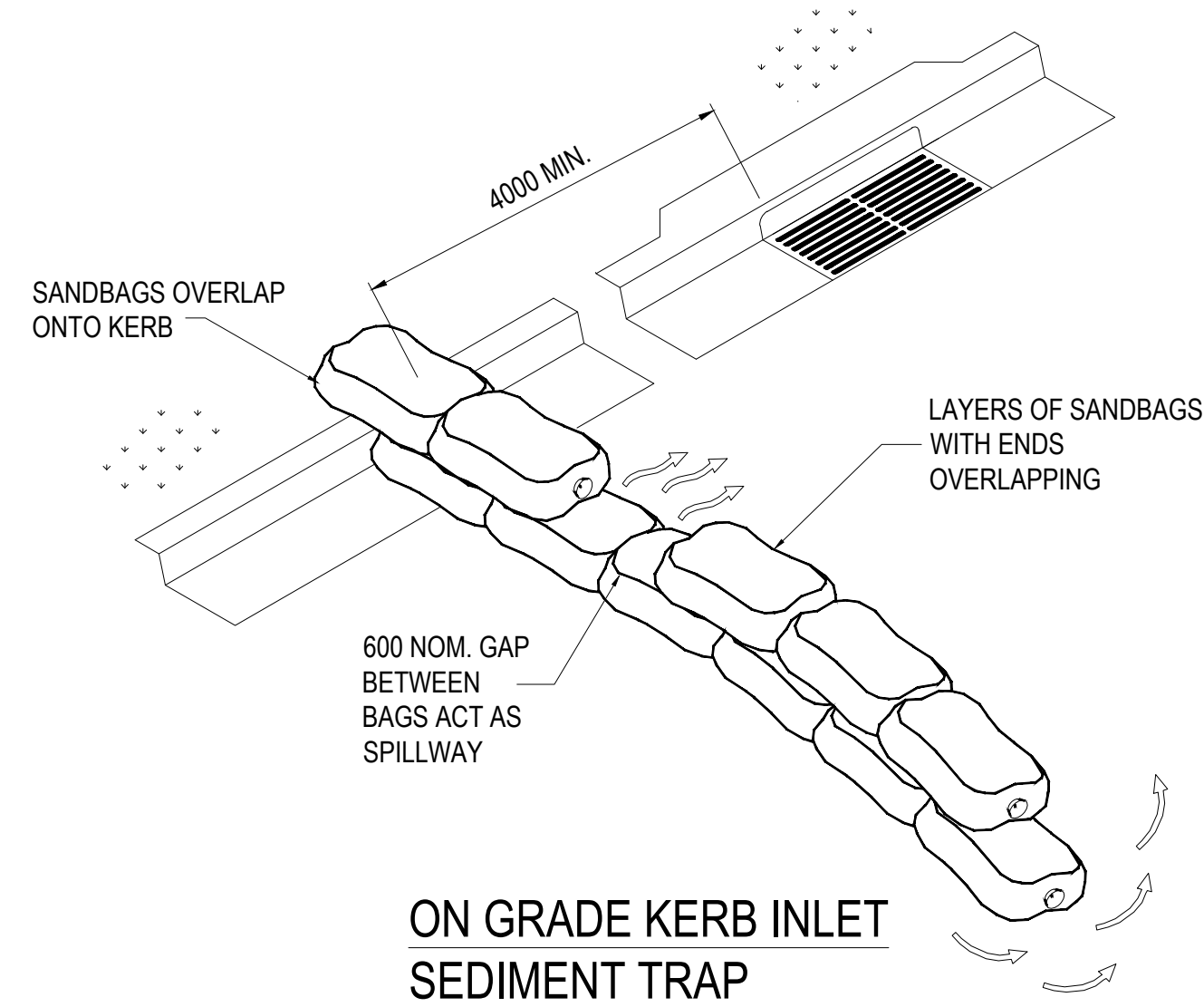
SEDIMENT FENCE

1. TO BE USED AS A TEMPORARY BARRIER TO INTERCEPT SEDIMENT LADEN RUN-OFF FROM SMALL DRAINAGE AREAS
2. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 0.6ha PER LINE OF FENCE
3. DO NOT USE IF CONCENTRATED FLOW IS DIRECTED TO SILT FENCE
4. MAXIMUM ALLOWABLE DISTANCE BETWEEN SILT FENCE FOR VARIOUS GRADES LISTED BELOW:

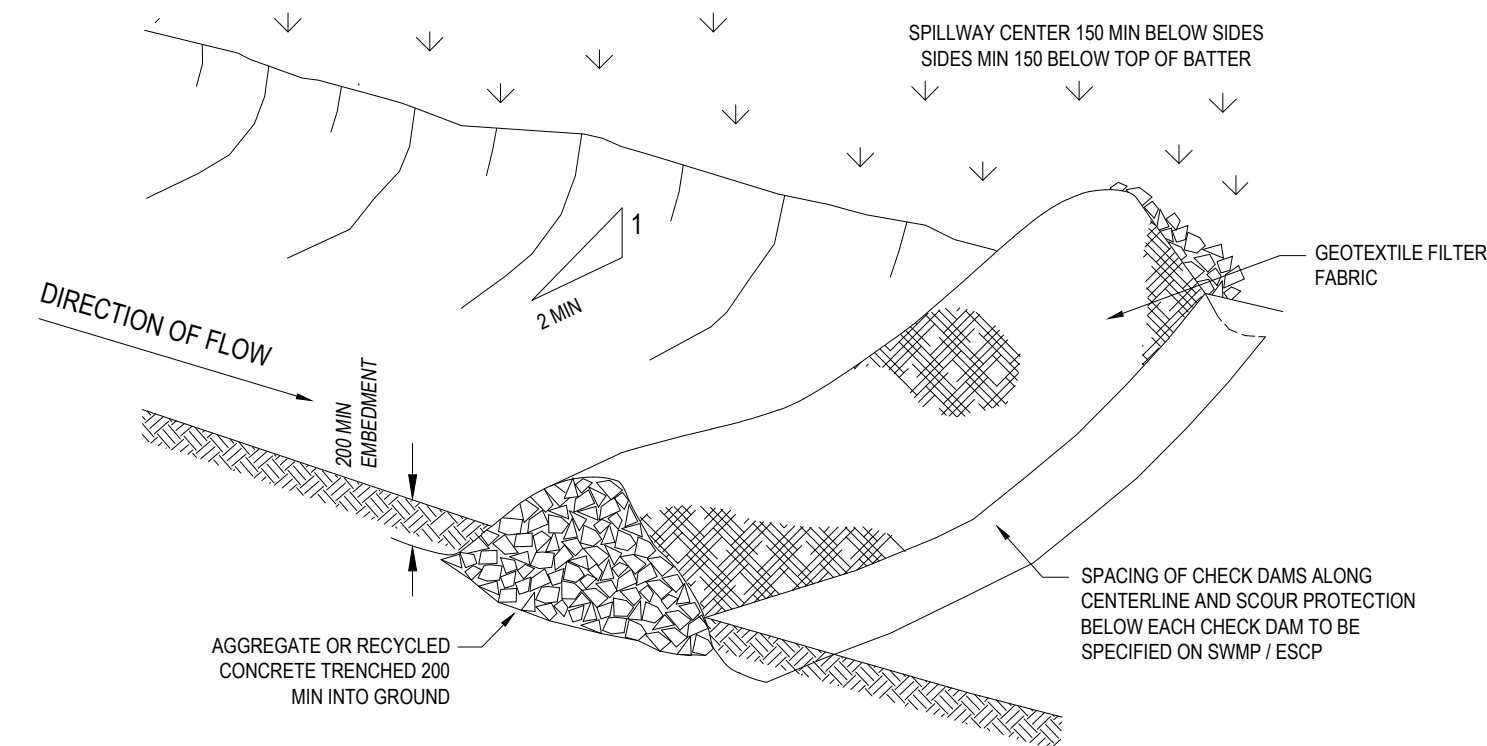
SLOPE V:H	MAX. SLOPE LENGTH (m)
1:2	15
1:3	25
1:4	40
1:5	50
FLATTER THAN 1:5	60



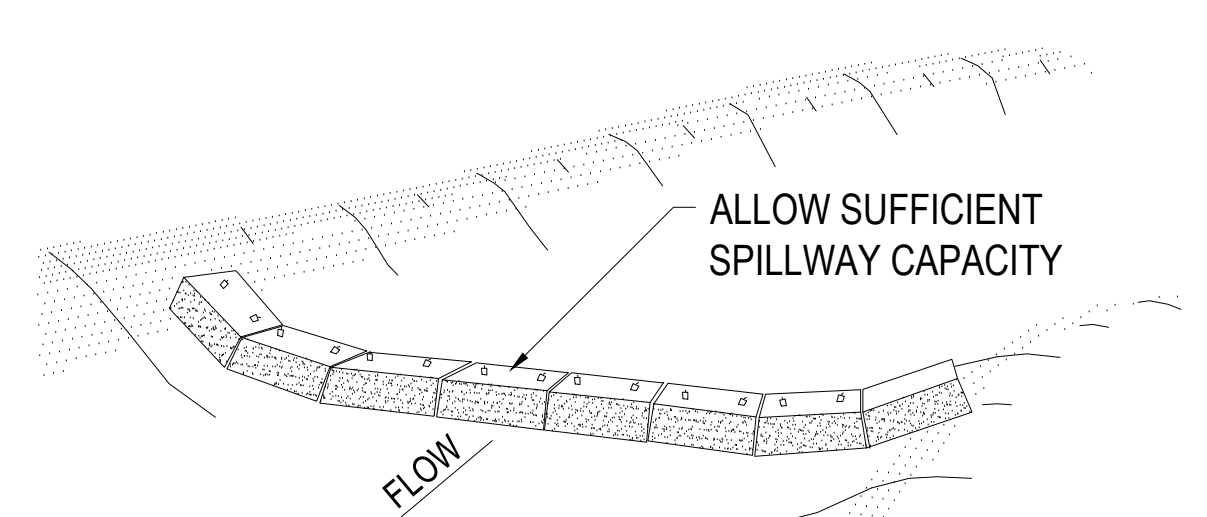
SANDBAG SEDIMENT TRAP FOR KERB INLET ON GRADE
NOT TO SCALE



SURFACE INLET PIT PROTECTION
NOT TO SCALE



EARTH BASIN FOR EXTERNAL AREAS



CHECK DAM - STRAW BALE

Revision	Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED
0	ISSUE FOR COORDINATION	HR	31.07.25	Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright.
1	ISSUE FOR APPROVAL	HR	25.08.25	DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI.
				DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.

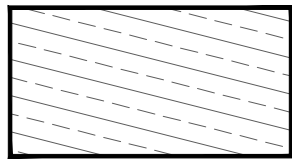
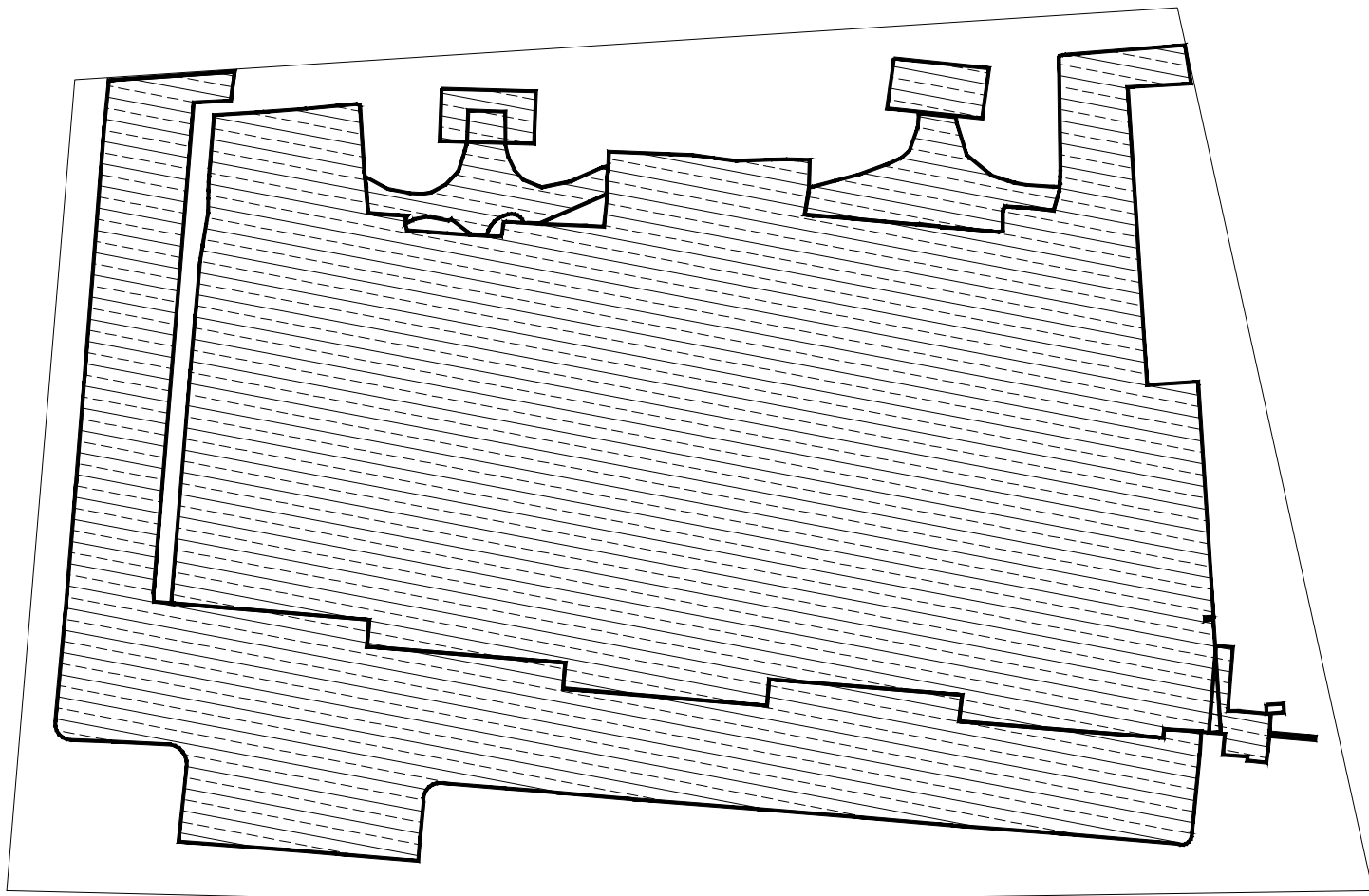
Architect	Client	Engineer

Engineer

Project
5-9 COWAN RD, ST IVES, NSW 2075

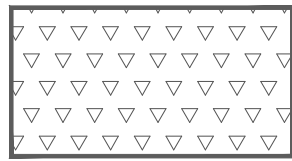
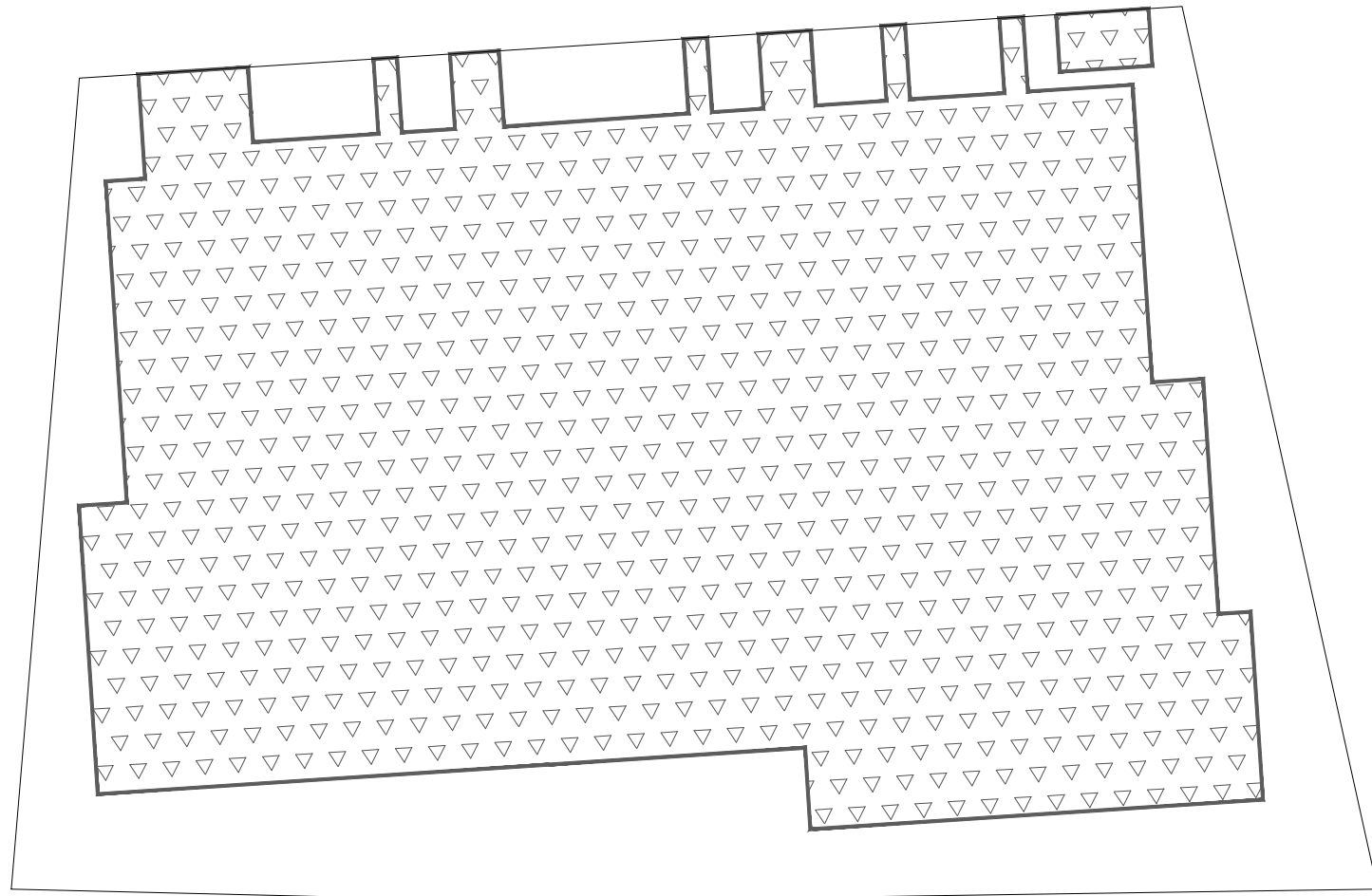
Drawn	Designed	Approved
HM	HM	HR
Project No.	Scale	
S10751	at A1. NTS	
Title	Drawing No.	Revision
SEDIMENTATION & EROSION CONTROL DETAILS	C101	1
Issued By	Checked By	Date
HR	SA	25.08.25

FOR APPROVAL



PRE DEVELOPMENT PAVED AREA

SITE AREA	3467.96 m² (AS PER CAD)
IMPERVIOUS AREA	2460.86 m² (70.95%)
PERVIOUS AREA	1007.1 m² (29.05%)



POST DEVELOPMENT PAVED AREA

SITE AREA	3467.96 m² (AS PER CAD)
IMPERVIOUS AREA	2193.32 m² (63.26%)
PERVIOUS AREA	1247.29 m² (36.74%)

CATCHMENT ANALYSIS

EVALUATION OF THE CATCHMENTS REVEALS THAT THERE IS A NET DECREASE OF 7.69% IN THE IMPERVIOUS AREA IN THE POST-DEVELOPMENT SITE AS COMPARED TO THE PRE-DEVELOPMENT SITE. THEREFORE, AS PER COUNCIL GUIDELINES, STORMWATER MANAGEMENT PLANS HAVE BEEN DEVELOPED WITH AN OSD & WSUD SYSTEM WITH CONTROLLED DISCHARGE TO THE EXISTING COUNCIL LEGAL POINT OF DISCHARGE AT THE REAR OF THE SITE.

EXISTING DRAINAGE SCENARIO

ANALYSIS OF THE SITE SURVEY AND A SITE VISIT REVEALS THAT THE SITE FALLS GENERALLY TO THE REAR, AWAY FROM THE STREET FRONTAGE. IT IS OBSERVED THAT THERE IS ALSO A NETWORK OF PITS AND PIPES SERVICING THE EXISTING DEVELOPMENT, WHICH IS PROPOSED TO BE DISCONNECTED, REMOVED AND REPLACED IN THE PROPOSED DEVELOPMET.

FURTHERMORE, THERE IS AN EXISTING EASEMENT RUNNING ALONG THE WESTERN BOUNDARY WHICH IS CONVEYING STORMWATER FROM THE EXISTING COUNCIL DRAINAGE NETWORK ON COWAN ROAD AND THE ADJACENT DEVELOPMENT LOT (D.P 10256) TO THE DOWNSTREAM NETWORK ON MONA VALE ROAD.

PROPOSED DRAINAGE SCENARIO

THE PROPOSED STORMWATER NETWORK ON SITE CONSISTS OF AN IN-GROUND DRAINAGE NETWORK BEING CONVEYED TO THE ON-SITE DETENTION (OSD) SYSTEM AT THE SOUTHERN LOW POINT OF SITE FOR A CONTROLLED DISCHARGE VIA GRAVITY FROM THE DEVELOPMENT TO THE LEGAL POINT OF DISCHARGE (LPOD) AS PER COUNCIL GUIDELINES, I.E. THE EASEMENT DRAINAGE NETWORK.

MOREOVER, RAINWATER TANKING HAS BEEN PROPOSED AND INTEGRATED WITHIN THE OSD AS PER BASIX REQUIREMENTS. A 10,000L RAINWATER TANK WILL INTAKE STORMWATER FROM THE ROOF VIA DOWNPIPES FOR REUSE, TO BE DETAILED BY THE HYDRAULIC ENGINEER AT THE CC STAGE OF DEVELOPMENT.

ON-SITE DETENTION DESIGN

SINCE THE DEVELOPMENT SITE LIES IN THE KU-RING-GAI COUNCIL LOCAL GOVERNMENT AREA, THE ON-SITE DETENTION SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE KU-RING-GAI COUNCIL TECHNICAL GUIDELINE FOR WATER MANAGEMENT.

DISCHARGE FROM THE SITE DRAINS TO THE COUNCIL SYSTEM, WHICH ULTIMATELY DRAINS TO THE ROCKY CREEK CATCHMENT. THEREFORE, THE SITE HAS IS SUBJECT TO THE FOLLOWING COUNCIL REQUIREMENTS:

- PERMISSIBLE SITE DISCHARGE (PSD) OF 124 l/s/ha
- SITE STORAGE REQUIREMENT (SSR) OF 345 m³/ha.

TO COMPLY WITH THESE REQUIREMENTS, THE ON-SITE DETENTION TANK PROPOSED FOR THE DEVELOPMENT HAS BEEN DESIGNED WITH A VOLUME OF 72.25 m³ AND AN ORIFICE PLATE WITH A 93mm OPENING FOR CONTROLLED DISCHARGE. REFER TO C205 OF THIS PACKAGE FOR DETAILS AND CALCULATIONS.

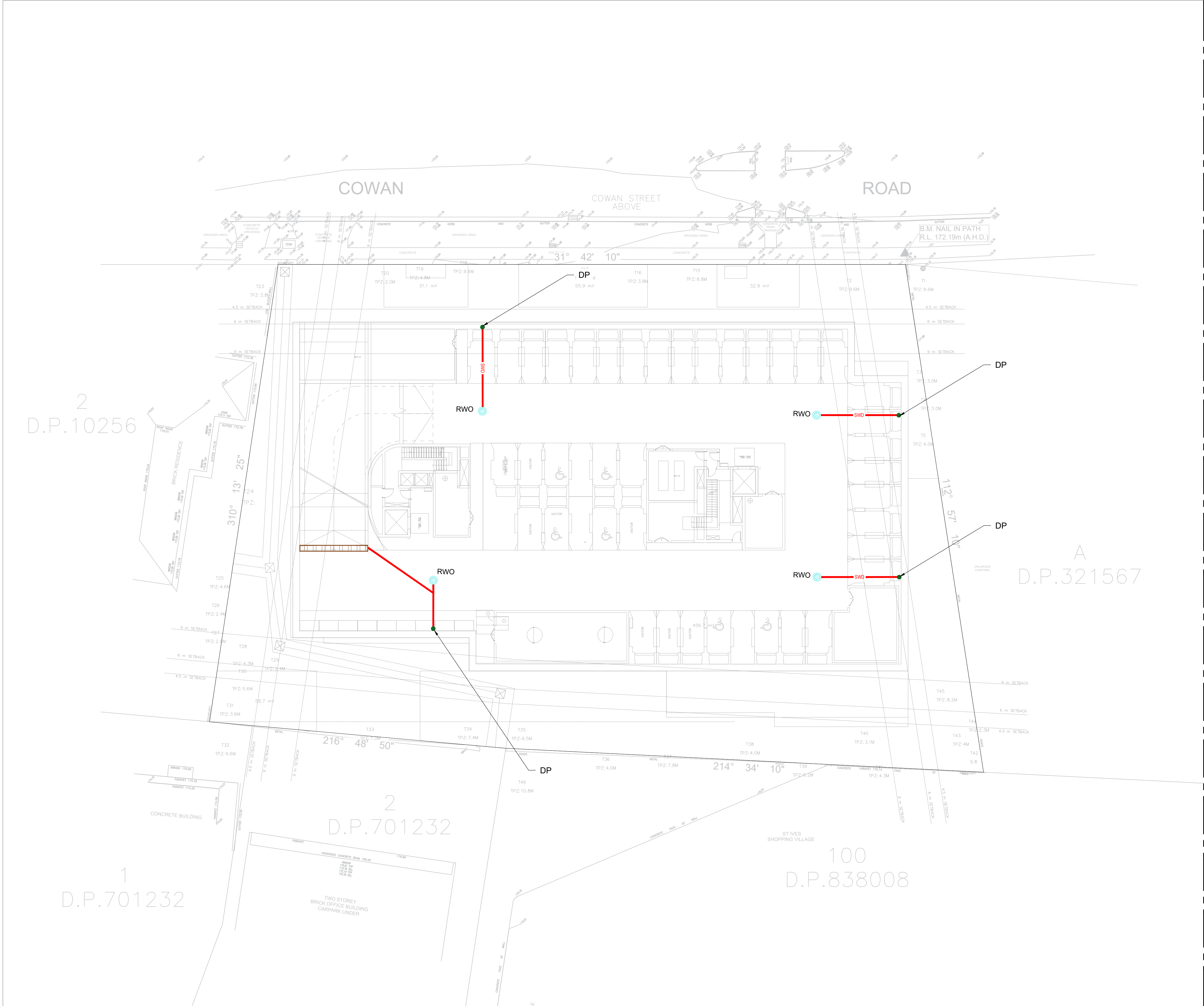
WATER SENSITIVE URBAN DESIGN (WSUD)

AS PER COUNCIL GUIDELINES, WE HAVE INITIATED A STORMWATER QUALITY POLLUTANT LOAD MODEL USING MUSIC SOFTWARE (VERSION 6.3), AND PROPOSED TREATMENT CARTRIDGES IN THE OSD TANK AS REQUIRED. THIS HAS BEEN UNDERTAKEN TO ENSURE POLLUTANT REDUCTION AT THE SOURCE PRIOR TO DISCHARGE TO THE DOWNSTREAM WATERWAY. MOREOVER, OCEANGUARDS HAVE BEEN PROPOSED IN PITS TO ENSURE SEDIMENT CONTROL AT THE ENTRY POINT.

REFER TO C300 OF THIS PACKAGE FOR THE POLLUTANT TREATMENT NETWORK & OUTCOME

FOR APPROVAL

Revision	Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright. DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	Architect	Client	Engineer	Project	Drawn	Designed	Approved
0	ISSUE FOR COORDINATION	HR	31.07.25					5-9 COWAN RD, ST IVES, NSW 2075	HM	SA	HR
1	ISSUE FOR APPROVAL	HR	25.08.25						Project No. S10751 at A1. NTS		
									Drawing No. C102		
								AREA ANALYSIS AND ENGINEER NOTES	Revision 1		
									Issued By	Checked By	Date
									HR	SA	25.08.25

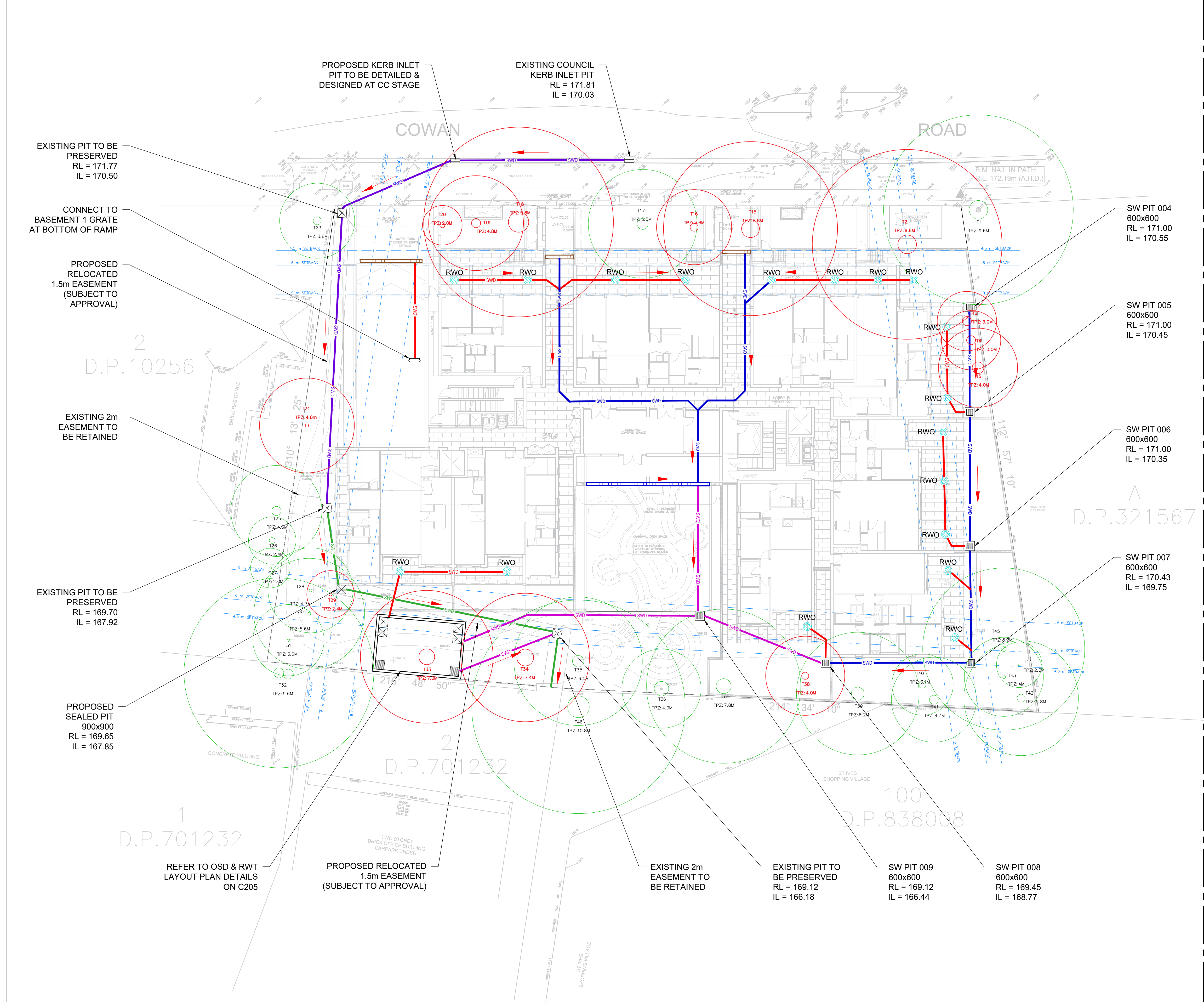


LEGEND

- SWD Ø100mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD Ø150mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD Ø225mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD 375mm EXISTING DRAINAGE PIPE TO BE INVESTIGATED AT CC
- SWD 450mm EXISTING DRAINAGE PIPE TO BE INVESTIGATED AT CC
- STORMWATER PIT(TYP.)
- RWO RAIN WATER OUTLET
- 150mm HEELSAFE TRENCH DRAIN WITH MIN.1% BTM SLOPE
- 300mm HEELSAFE TRENCH DRAIN WITH MIN.1% BTM SLOPE
- Ø100mm DP DOWNPIPE

FOR APPROVAL

Revision /Amendment		Issued By/Revision Date		Architect	Client	Engineer	Project			Drawn	Designed	Approved	
0	ISSUE FOR COORDINATION	HR	31.07.25				COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright. DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	5-9 COWAN RD, ST IVES, NSW 2075			HM	SA	HR
1	ISSUE FOR APPROVAL	HR	25.08.25					Project No.	Scale		at A1. 1:200		
								Title	Revision				
								STORMWATER MANAGEMENT PLAN BASEMENT 1			Drawing No.	1	
							Issued By	Checked By	Date				
							HR	SA	25.08.25				



LEGEND

- SWD Ø100mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD Ø150mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD Ø225mm UPVC PIPE FOR STORMWATER DRAINAGE
- SWD 375mm EXISTING DRAINAGE PIPE TO BE INVESTIGATED AT CC
- SWD 450mm EXISTING DRAINAGE PIPE TO BE INVESTIGATED AT CC
- STORMWATER PIT(TYP.)
- RWO RAIN WATER OUTLET
- 150mm HEELSAFE TRENCH DRAIN WITH MIN.1% BTM SLOPE
- 300mm HEELSAFE TRENCH DRAIN WITH MIN.1% BTM SLOPE
- Ø100mm DP DOWNPIPE

FOR APPROVAL

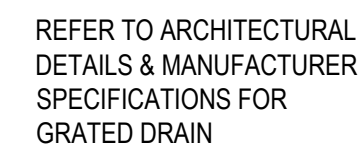
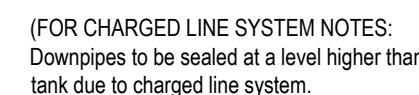
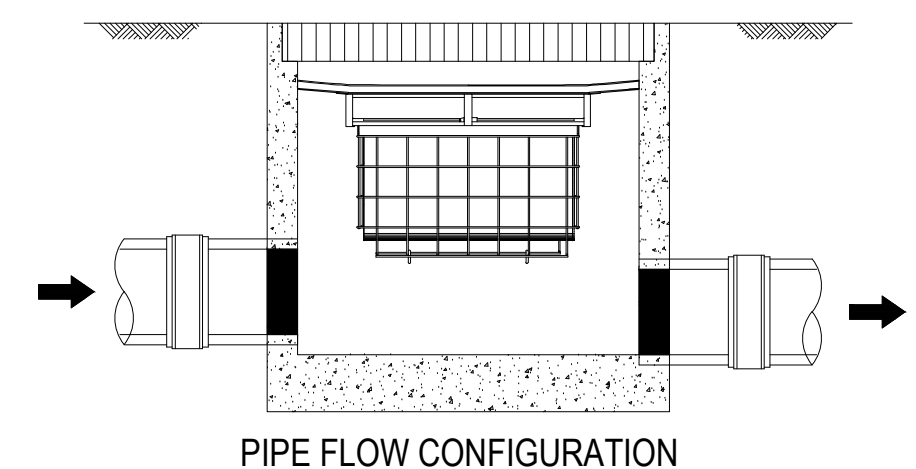
Revision		Amendment		Issued By/Revision Date		Copyright - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright. DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.		Architect		Client		Engineer		Project		Drawn		Designed		Approved	
0		ISSUE FOR COORDINATION		HR	31.07.25									5-9 COWAN RD, ST IVES, NSW 2075		HM		SA		HR	
1		ISSUE FOR APPROVAL		HR	25.08.25											Project No.		Scale		Revision	
																S10751				at A1. 1:200	
																Drawing No.				1	
																C203					
																Issued By		Checked By		Date	
																HR		SA		25.08.25	

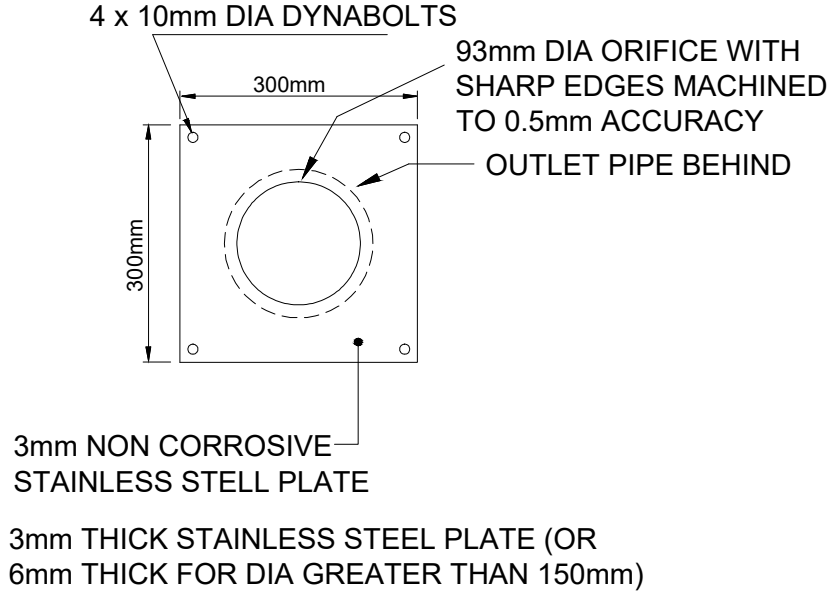
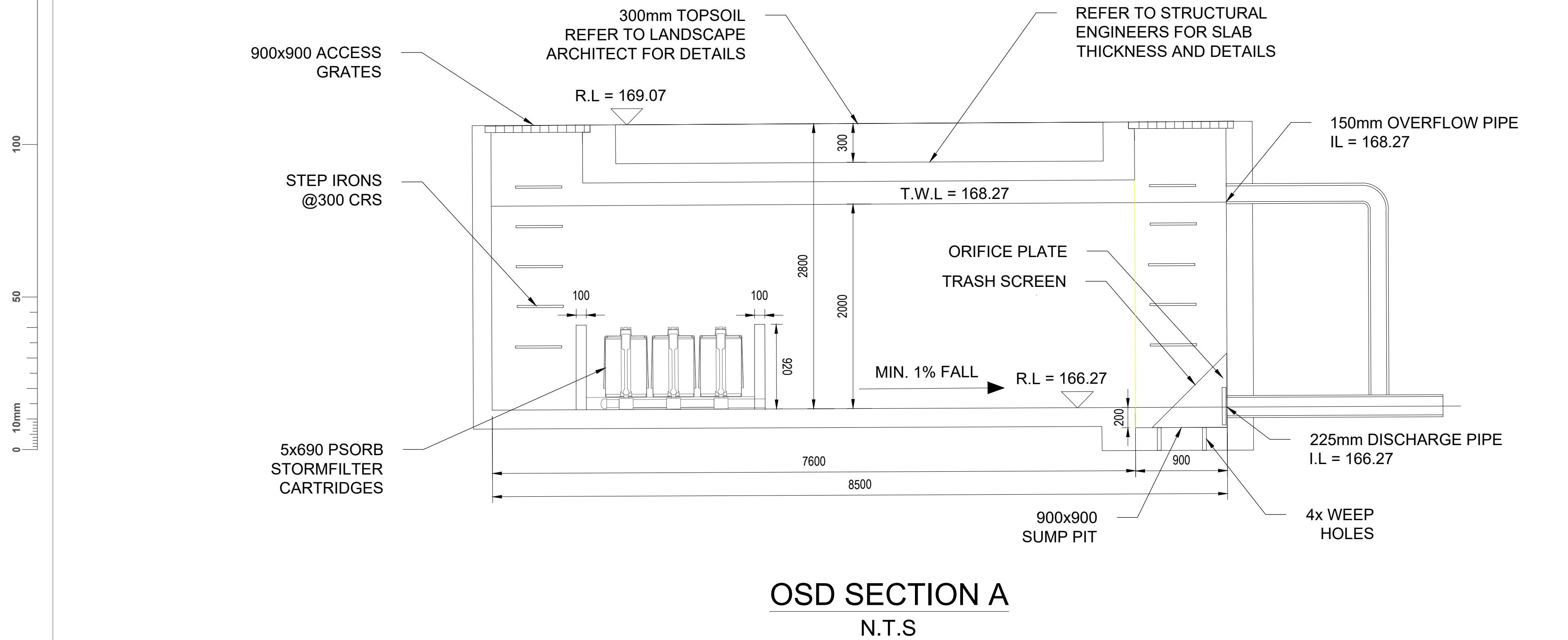
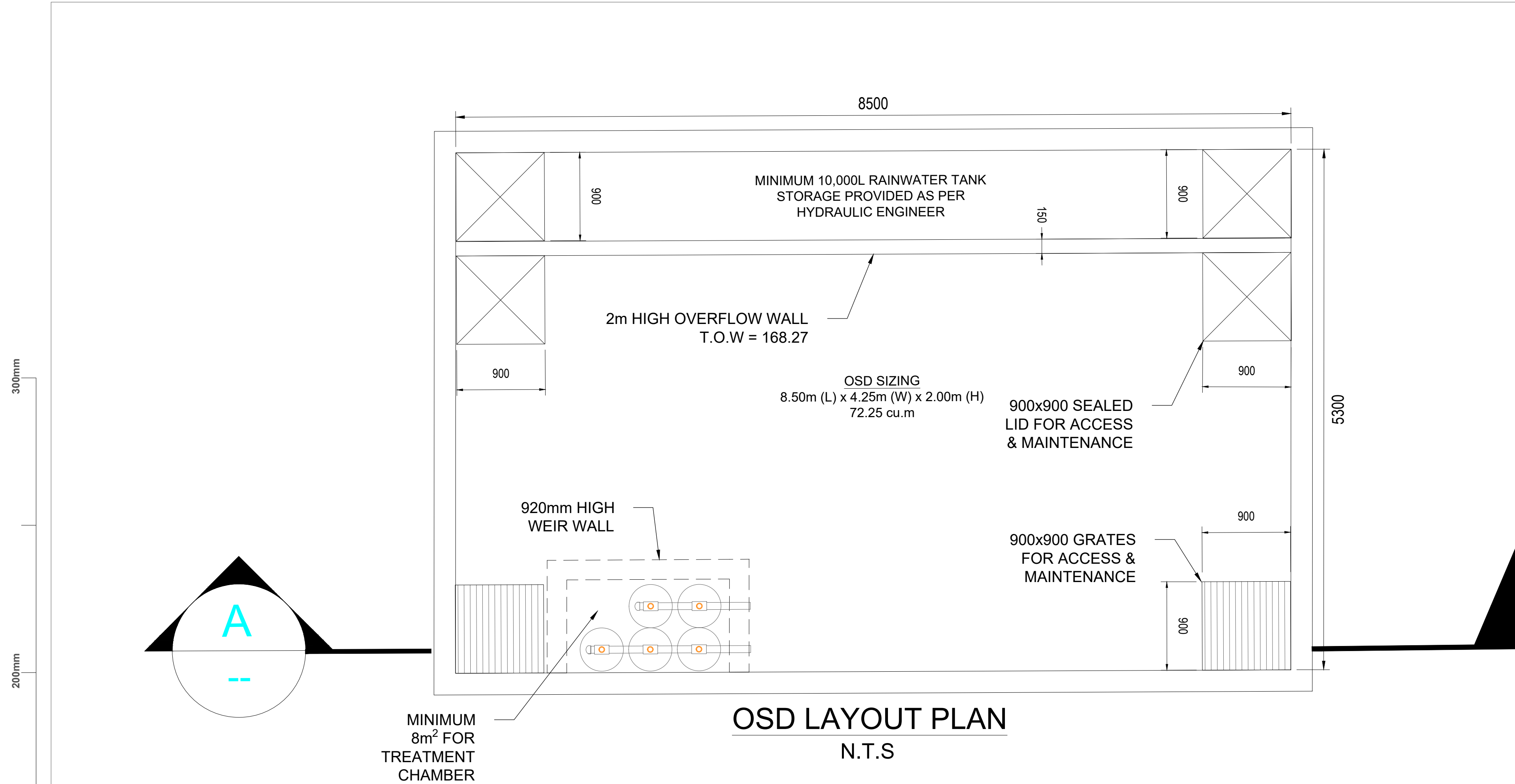


EI Australia
Suite 6.01
55 Miller Street
Pyrmont, NSW 2009
T 02 9516 0722

Title
STORMWATER MANAGEMENT PLAN
GROUND FLOOR

Project No.		Scale		Revision	
S10751		at A1. 1:200		1	
Issued By		Checked By		Date	
HR		SA		25.08.25	

[illegible]



CONFINED SPACE WARNING SIGN

ORIFICE PLATE DETAIL

PART 4: On-site Stormwater Detention

4.1 On-site Detention Calculation Sheet

On-Site Detention Calculation Sheet

Address		5-9 Cowan Road, St Ives, NSW	
Catchment Detail			
1.	Catchment Name	RC1 - Rocky Creek	
2.	124 l/sec/ha	Catchment Discharge Rate	0.0124 l/sec/m ² A
3.	345 m3/ha	Catchment Storage Rate	0.0345 m ³ /m ² B
Site Details			
4.	Site Area	3467.7 m ²	60% of site area 2080.62 m ² C
5.	Area(s) not draining to the detention system 0 m ²		
6.	Total impervious area (roofs, driveways, paving, etc.) 2193.32 m ² D		
7.	Impervious area bypassing detention system 0 m ² E		
Permitted Site Discharge			
8.	C	2080.62 m ² x A	0.0124 l/sec/m ² = 25.80 l/sec Flow 1
9.	Adjustment for any uncontrolled impervious flow E / D = 0 (<0.25) F		
10.	Flow 1	25.80 l/sec x F	0 l/sec Flow 2
11.	Flow 1	25.80 l/sec - Flow 2	0 l/sec PSD
Site Storage Requirement			
12.	C	2080.62 m ² x B	0.0345 m ³ /m ² = 71.78 m ³ SSR1
13.	If the storage is in a landscaped basin, SSR1 x 1.2 = N/A m ³ SSR2		
Outlet Control			
14.	Height difference between top water surface level and the centre of the orifice 2.00 m G		
15.	Orifice Diameter	21.8 x $\sqrt{\frac{PSD}{G}}$	93 mm OD
PSD = Permitted Site Discharge SSR1 = Site Storage Requirement (except for landscaped basins) SSR2 = Site Storage Requirement (landscaped basins) (Note: Use only SSR1 or SSR2) OD = Orifice Diameter			
Signature		Name HASSAN JAVIED RANA	
Qualifications CPENG, NER, RPEQ, FIEAUST		Date 22.08.25	

FOR APPROVAL

Revision	Amendment	Issued By	Revision Date
0	ISSUE FOR COORDINATION	HR	31.07.25
1	ISSUE FOR APPROVAL	HR	25.08.25

COPYRIGHT - ALL RIGHTS RESERVED
Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright.
DISCLAIMER
EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI.
DIMENSIONS
Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings.
For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings.
For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.

Architect

Client

Engineer



EI Australia
Suite 6.01
55 Miller Street
Pyrmont, NSW 2009
T 02 9516 0722

Project

5-9 COWAN RD, ST IVES, NSW 2075

Drawn

HM

Designed

SA

Approved

HR

Project No.

S10751

Scale

at A1. NTS

Title

ON-SITE DETENTION DETAILS

Drawing No.

C205

Issued By

HR

Checked By

SA

Date

25.08.25

Drawn

HM

Designed

SA

Approved

HR

Project No.

S10751

Scale

at A1. NTS

Drawing No.

C205

Issued By

HR

Checked By

SA

Date

25.08.25

STANDARD PUMP OUT DESIGN NOTES

THE PUMP OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED IN THE FOLLOWING MANNER:

- THE PUMP SHALL BE PROGRAMMED TO WORK ALTERNATIVELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AN OFF SWITCH FOR THE PUMPS.
- A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW-LEVEL FLOAT.
- A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM. IT WILL BE 100mm ABOVE THE INLET PIPE.
- AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.

PUMPOUT DESIGN SUMMARY

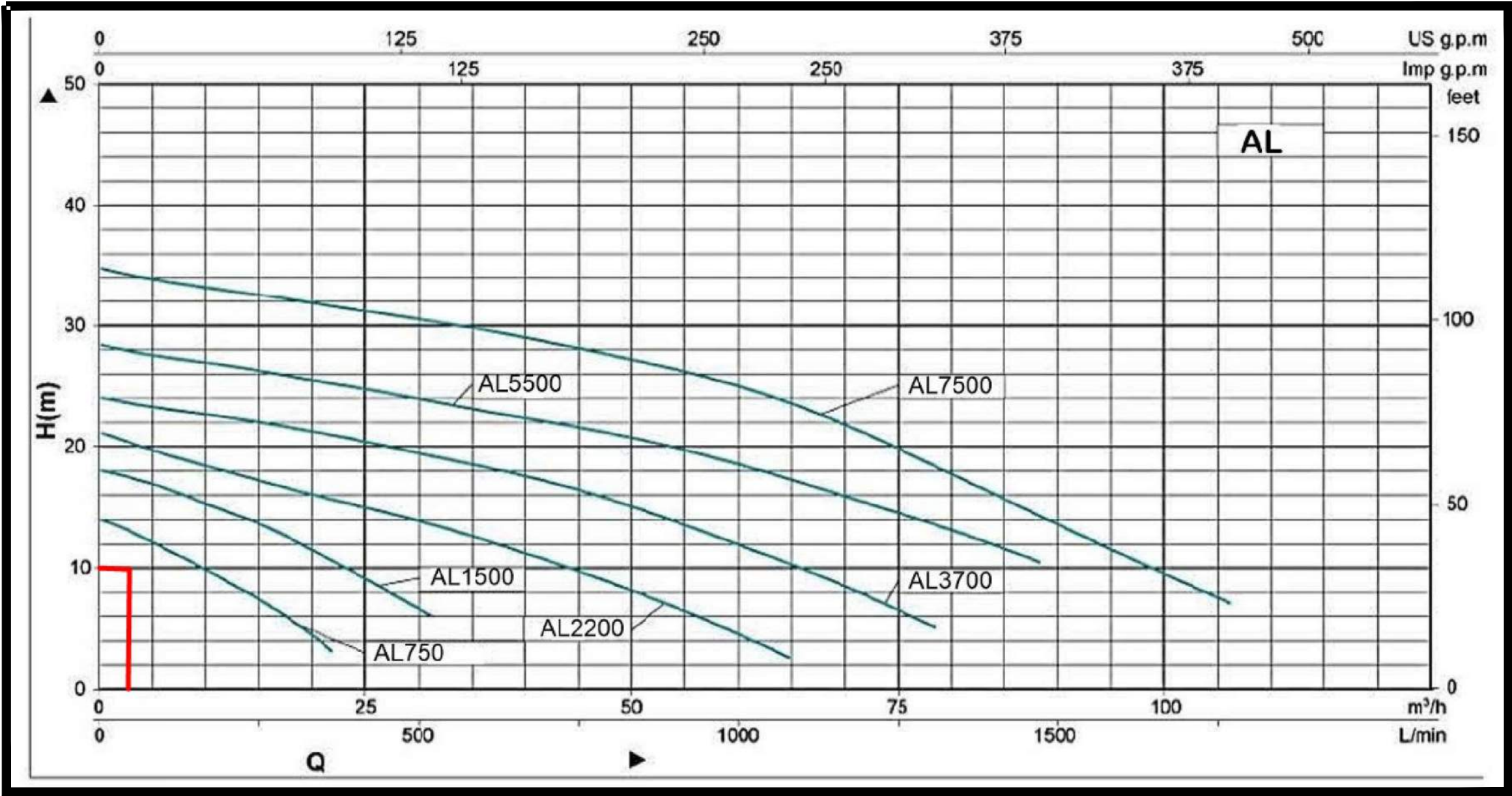
- PUMP OUT (A) = 55 m²
- COEFFICIENT OF DISCHARGE (C) = 0.9
- RAINFALL INTENSITY (I) = 50.9 mm/h (100 YR ARI, 2 HR)
- PEAK DISCHARGE (Q) = C*I = 45.81 L/h/m²
- VOLUME REQUIRED = (Q*A*2) / 1000 = 5 m³

DISCHARGE SUMMARY

- PEAK DISCHARGE (Q) = 45.81 L/h/m²
- DISCHARGE RATE = Q*A / 3600 = 0.7 L/s (42 L/min)

PUMP SELECTION

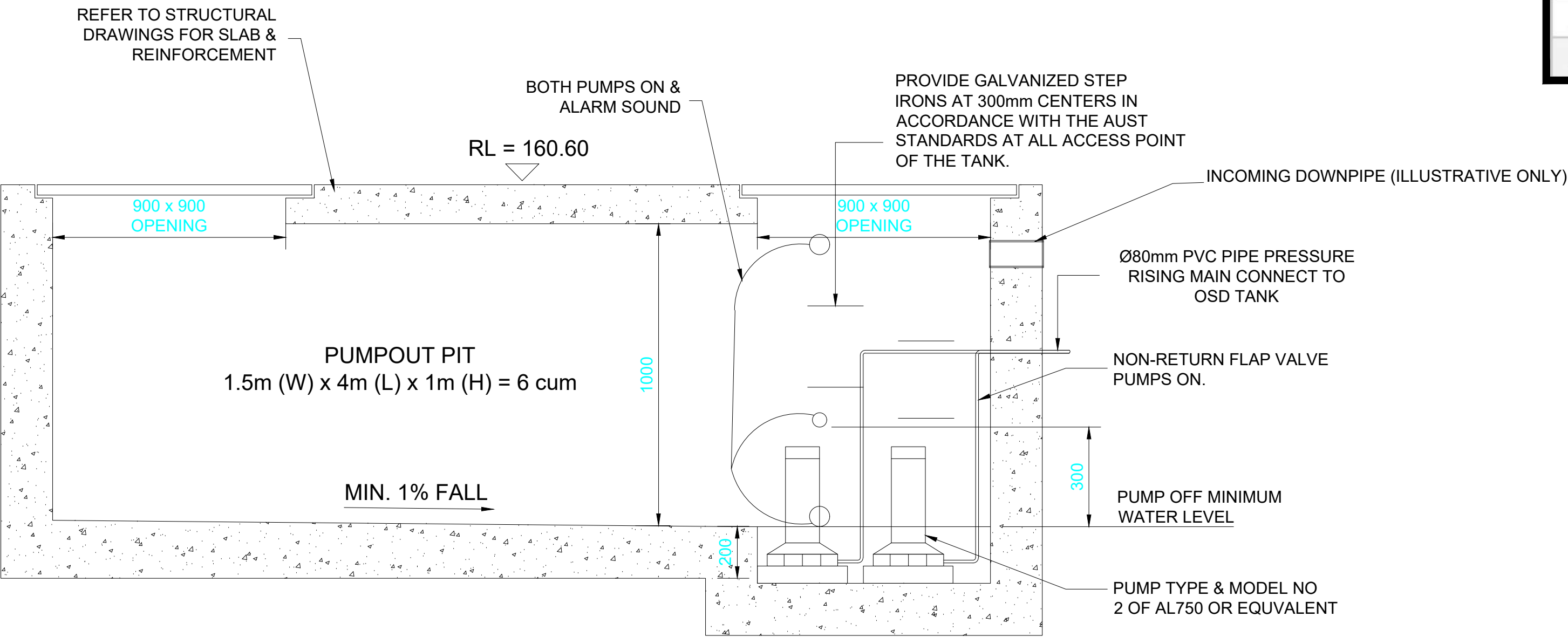
- MINIMUM HEAD REQUIRED = 10m
- PUMP OUT RATE REQUIRED = 3 m³/h
- PROVIDE 2 SUBMERSIBLE AL-750 AUTO PUMPS
- OPERATE ALTERNATING



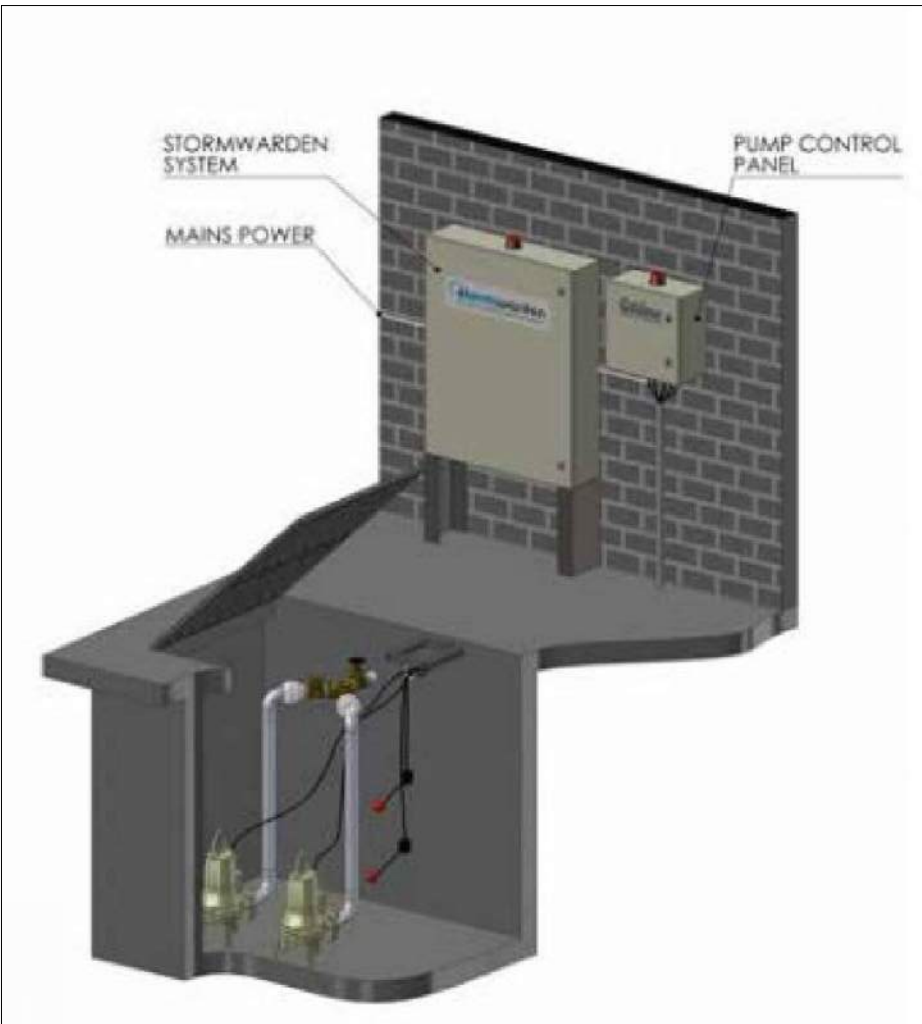
HYDRAULIC PERFORMANCE CURVE

Model	Power		Outlet (inch)	Max. Flow (m³/h)	Max head (m)	The max flow particle (mm)	Dim. (mm)	Weight (kg)		20 (Loading Qty) (pcs)
Three Phase	kW	HP						G.W	N.W	
AL750	0.75	1	2	22	14	20	525x250x280	31	27	680
AL1500	1.5	2	2	31	18	20	585x245x300	40	36	570
AL2200	2.2	3	3	65	21	20	585x260x330	45	40	500
AL3700	3.7	5	3	78	24	30	370x325x680	71	65	250
AL5500	5.5	7.5	4	90	28.5	30	400x340x770	85	78	210
AL7500	7.5	10	4	108	35	30	400x340x770	91	84	190

PUMP CAPACITY



PUMP STORAGE TANK DETAIL



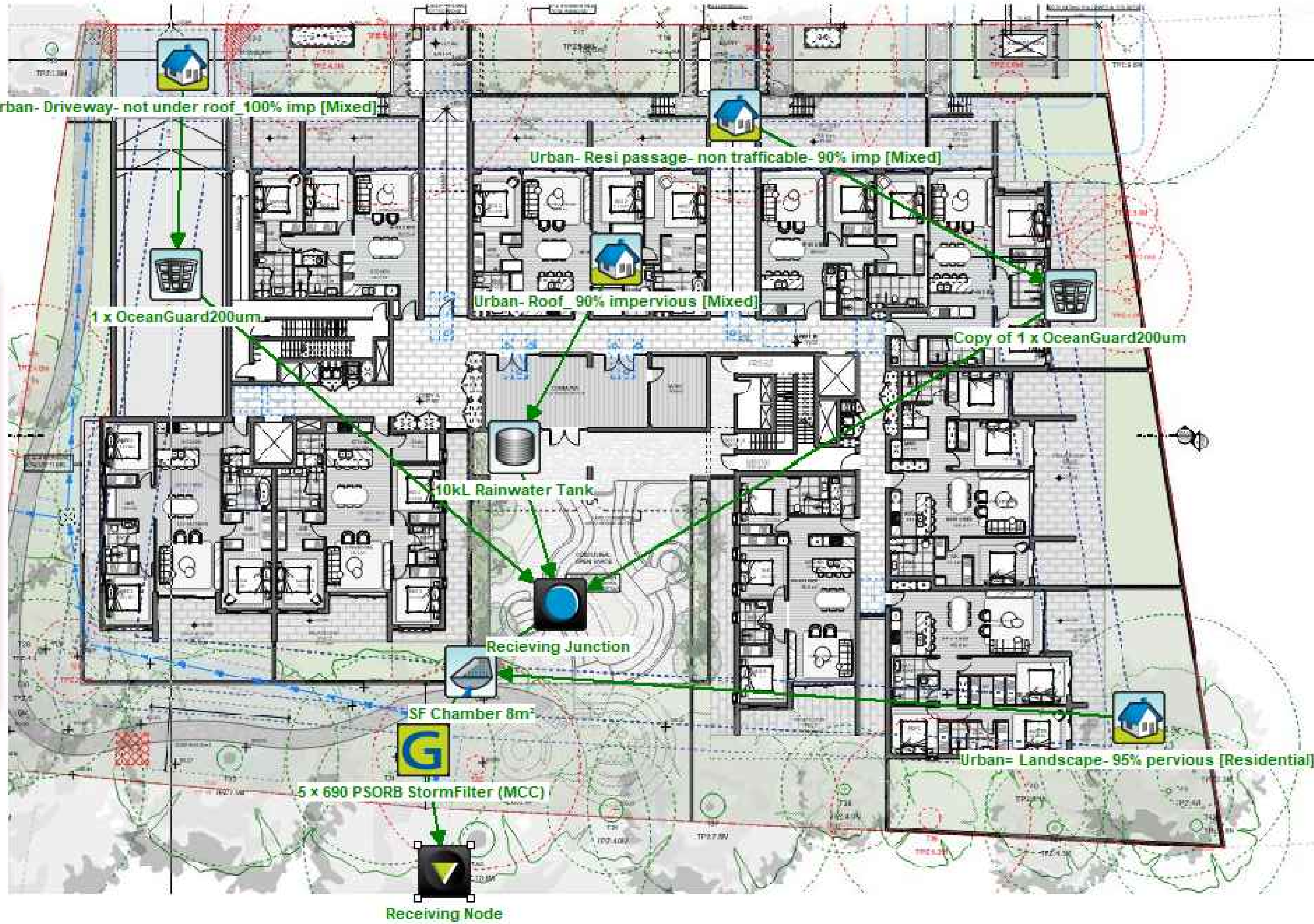
PUMP & CONTROL LAYOUT SCHEMATIC

FOR APPROVAL

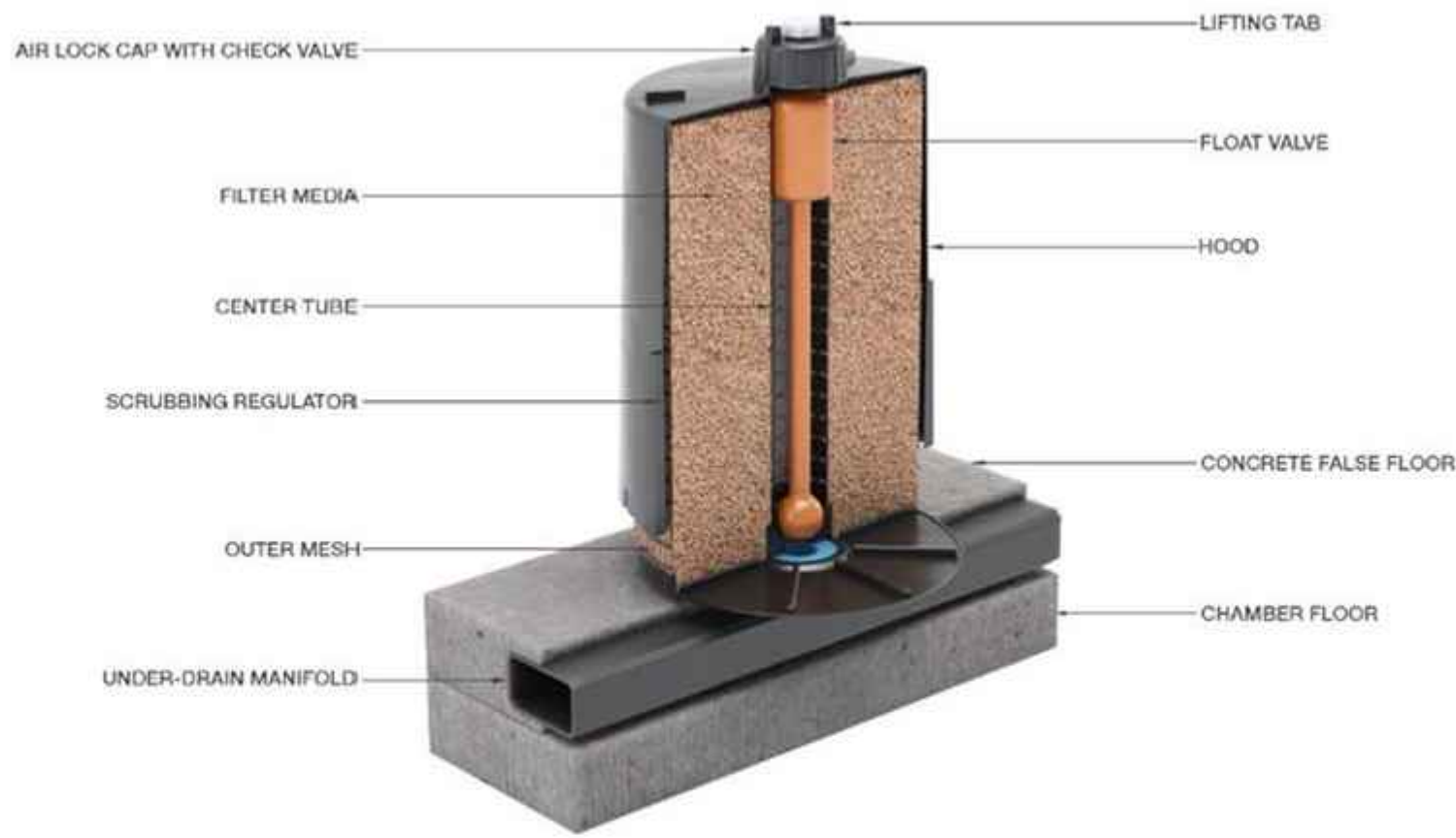
Revision	Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EI Australia constitutes an infringement of copyright. DISCLAIMER EI Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EI. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	Architect	Client	Engineer	Project	Drawn	Designed	Approved
0	ISSUE FOR COORDINATION	HR	31.07.25					5-9 COWAN RD, ST IVES, NSW 2075	HM	SA	HR
1	ISSUE FOR APPROVAL	HR	25.08.25						Project No.	Scale	
									S10751	at A1. NTS	
								Title	Drawing No.		Revision
								BASEMENT PUMP OUT DETAILS	C206		1
									Issued By	Checked By	Date
									HR	SA	25.08.25

Treatment Train Effectiveness - Receiving Node			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	2.29	2.09	8.7
Total Suspended Solids (kg/yr)	291	55.4	80.9
Total Phosphorus (kg/yr)	0.572	0.145	74.7
Total Nitrogen (kg/yr)	4.34	2.02	53.3
Gross Pollutants (kg/yr)	29.2	0	100

MUSIC MODEL
TREATMENT RESULTS



MUSIC NODE NETWORK



STORMFILTER

FOR APPROVAL

Revision	Amendment	Issued By	Revision Date	COPYRIGHT - ALL RIGHTS RESERVED Copying or reproducing the whole or part of this document in any form without the written permission of EIA Australia constitutes an infringement of copyright. DISCLAIMER EIA Australia accepts no responsibility for the accuracy or for any consequence resulting from the use or alteration of this drawing in electronic form. Drawings in electronic form should be checked for accuracy against the equivalent hard copy issued by EIA. DIMENSIONS Prior to commencing construction verify all dimensions against Architect's, other Consultant's and Sub-Contractor's drawings. For building work, dimensions are not to be scaled or read electronically from this drawing. Setout dimensions, unless specifically shown, are to be obtained from the Architect's or other Consultant's drawings. For civil engineering work, dimensions are not to be manually scaled from drawing. Setout dimensions, unless specifically shown, are to be read electronically from this drawing.	Architect	Client	Engineer	Project	Drawn	Designed	Approved
0	ISSUE FOR COORDINATION	HR	31.07.25					5-9 COWAN RD, ST IVES, NSW 2075	HM	SA	HR
1	ISSUE FOR APPROVAL	HR	25.08.25						Project No.	Scale	
									S10751	at A1. NTS	
									Drawing No.	Revision	
									C300	1	
									Issued By	Checked By	Date
									HR	SA	25.08.25