




# 67 WOOLGOOLGA STREET, NORTH BALGOWLAH

## STORMWATER MANAGEMENT PLAN

DRAWING INDEX:

- DR-000 LEGEND
- DR-001 PIPE LAYOUT –LOWER GROUND FLOOR
- DR-002 PIPE LAYOUT – GROUND FLOOR
- DR-003 PIPE LAYOUT – FIRST FLOOR
- DR-004 PIPE LAYOUT – ROOF
- DR-005 DETAILS
- DR-006 SITE AREAS


LEGEND:

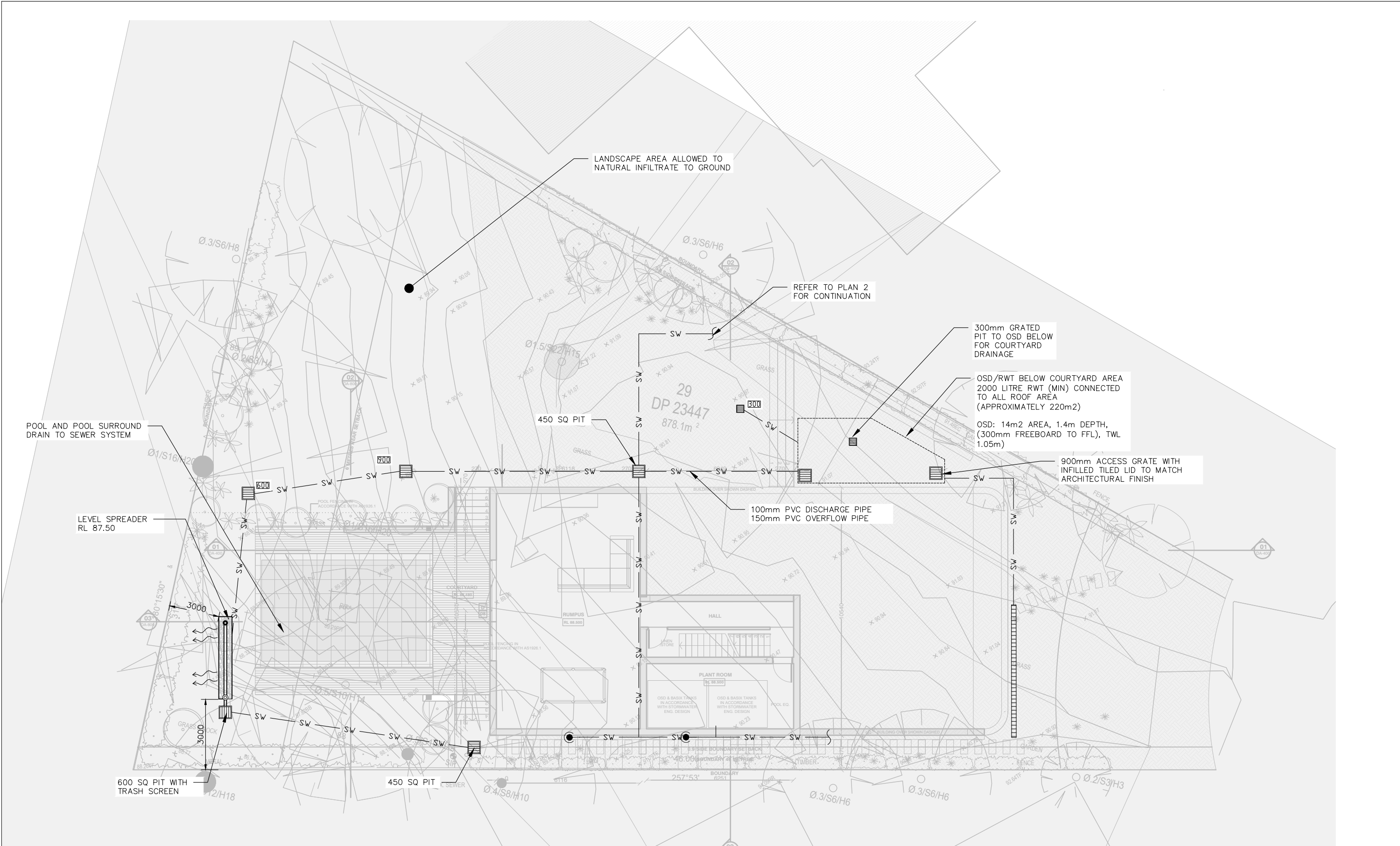
-  DOWNPIPE
-  SW STORMWATER PIPE
-  DRAINAGE PIT

NOTES:

- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
- SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY RAMA ARCHITECTS (JUNE 2023) AND SURVEY PLANS BY TSS TOTAL SURVEYING SOLUTIONS (MARCH 2023).
- LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS, THE BUILDING CODE OF AUSTRALIA, MANUFACTURER’S RECOMMENDATIONS, SYDNEY CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND LOCAL COUNCIL, AS APPLICABLE.
- ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE LEVELS AND SYSTEM REQUIREMENTS.
- WHERE POSSIBLE, PIPEWORK SHALL BE LOCATED EXTERNAL TO THE BUILDING.
- DOWNPipes AND STORMWATER LINES TO BE SEALED DN100 uPVC UNLESS OTHERWISE NOTED.
- STORMWATER PIPES TO BE GRADED AT A MINIMUM 1% UNLESS NOTED OTHERWISE.
- ALTERNATIVE GUTTER AND DOWNPIPE CONFIGURATION MAY BE INSTALLED PROVIDED IT COMPLIES WITH AS3500.
- ALL PIPE AND CONDUITS TO BE MARKED IN ACCORDANCE WITH AS1345 – 1995.
- TRENCHES AND SERVICE SEPARATIONS IN ACCORDANCE WITH AS/NZS 5601, AS/NZS 3500, AND AS/CA S009.

NOT FOR CONSTRUCTION

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												LEGEND			
2 FRM 6/6/2023 RFI RESPONSE LES															
1 NTM 17/03/2023 FOR DA SUBMISSION FRM															
0 NTM 09/03/2023 FOR DA SUBMISSION FRM															
No.	BY	DATE	DESCRIPTION		APPD										



PLAN  
1

PIPE LAYOUT—LOWER GROUND FLOOR

1:150

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Scale

1:150

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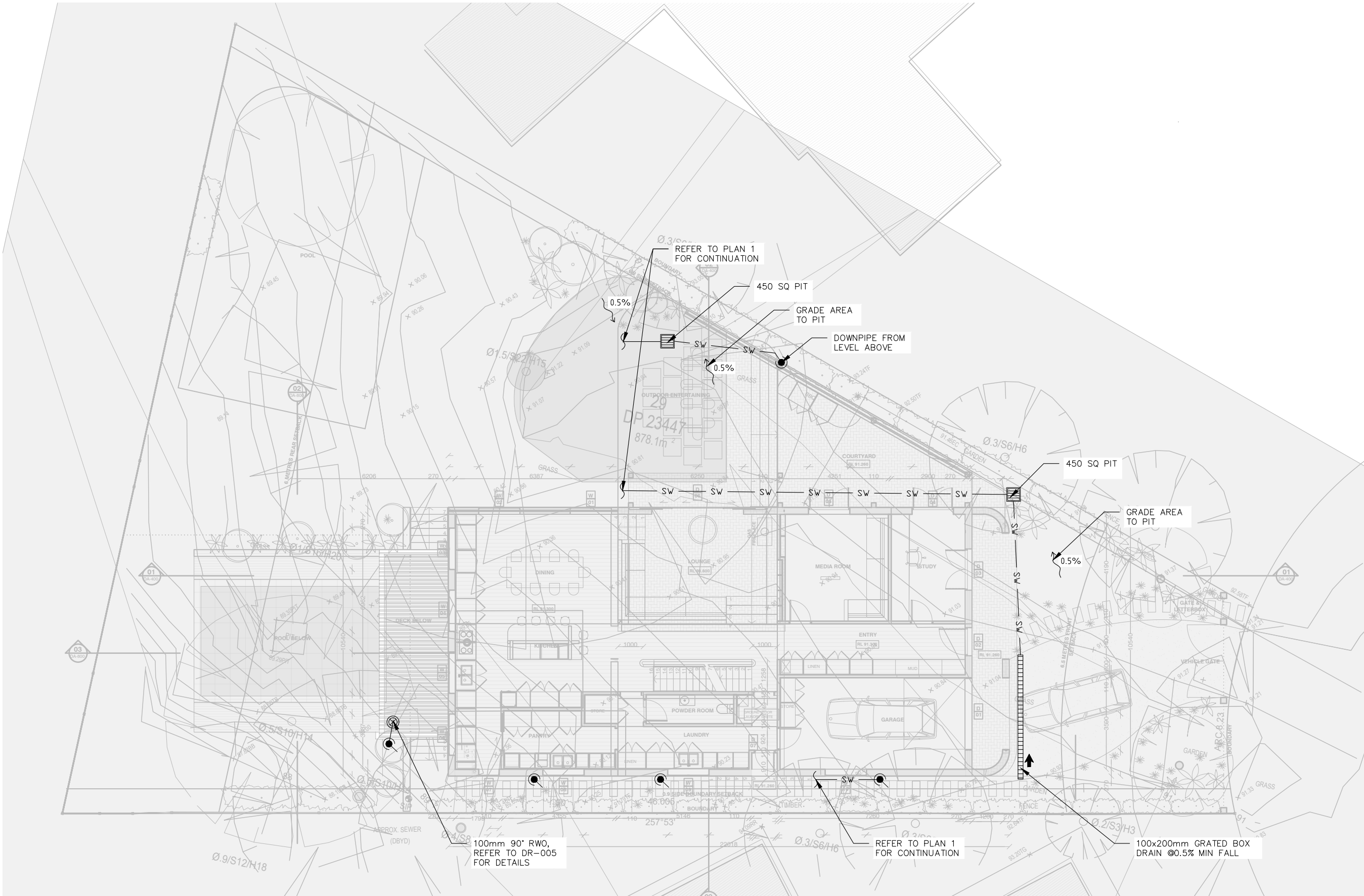
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67 WOOLGOOLGA STREET, NORTH BALGOWLAH

PIPE LAYOUT - LOWER GROUND LEVEL

Size	A3	Status	FOR DA SUBMISSION	Dwg No.	DR-001	Rev.	1
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PLAN  
2

PIPE LAYOUT-GROUND FLOOR  
1:150

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Scale

1:150

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APPROVED	FRM	DATE	16/03/2023



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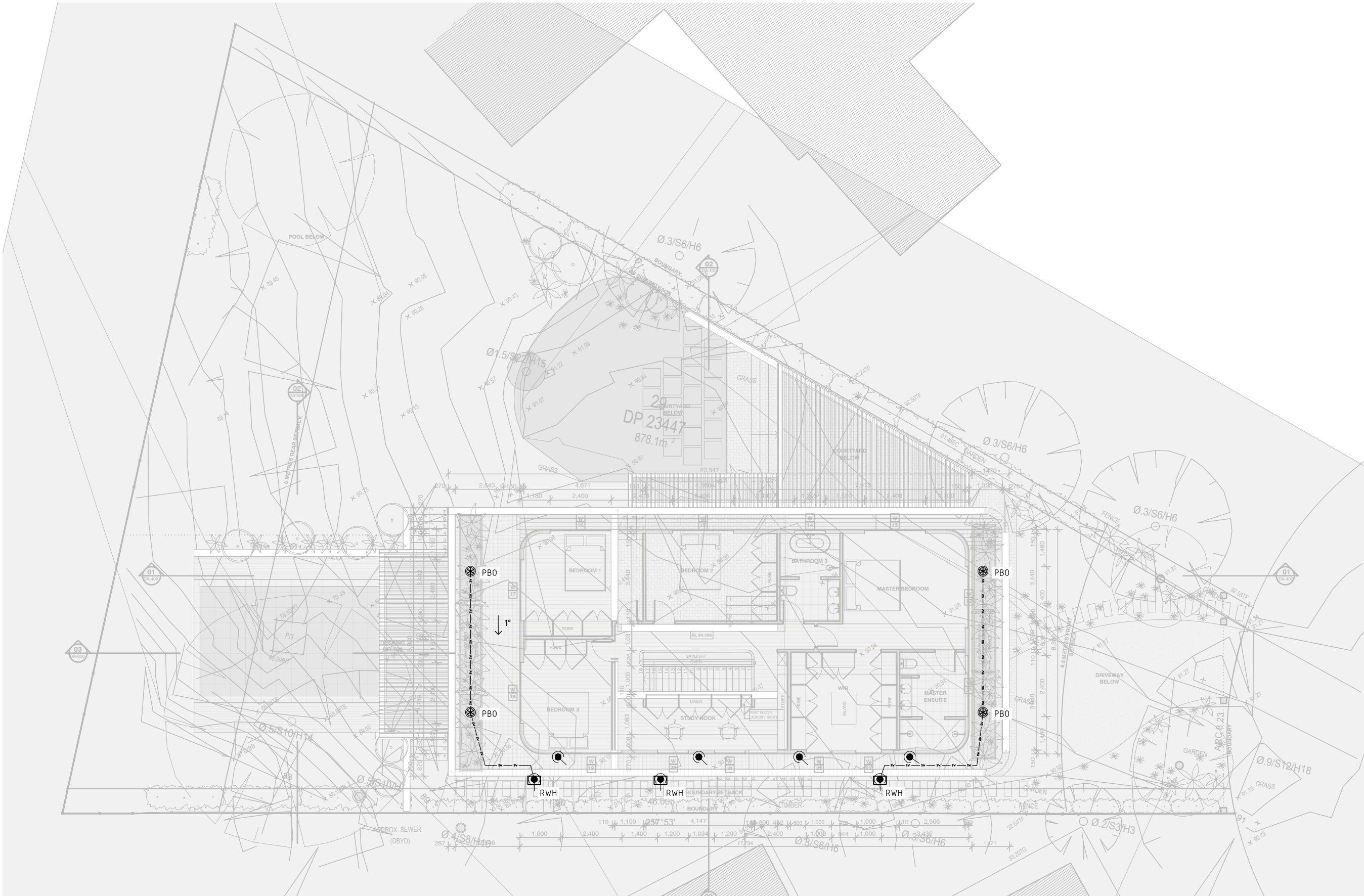
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AS3500.3:2021

67 WOOLGOOLGA STREET, NORTH BALGOWLAH

PIPE LAYOUT - GROUND LEVEL

Size	A3	Status	FOR DA SUBMISSION	Dwg No.	DR-002	Rev.	1
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PLAN  
3

PIPE LAYOUT—FIRST FLOOR  
1:150

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Scale

1:150

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67 WOOLGOOLGA STREET, NORTH BALGOWLAH

PIPE LAYOUT - FIRST FLOOR LEVEL

Size	A3	Status	FOR DA SUBMISSION	Dwg No.	DR-003	Rev.	1
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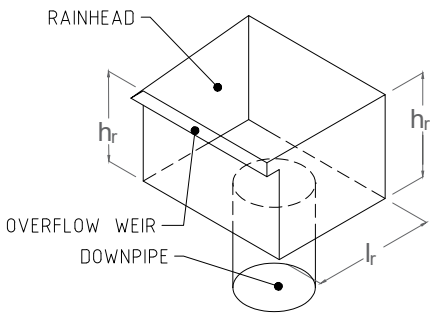
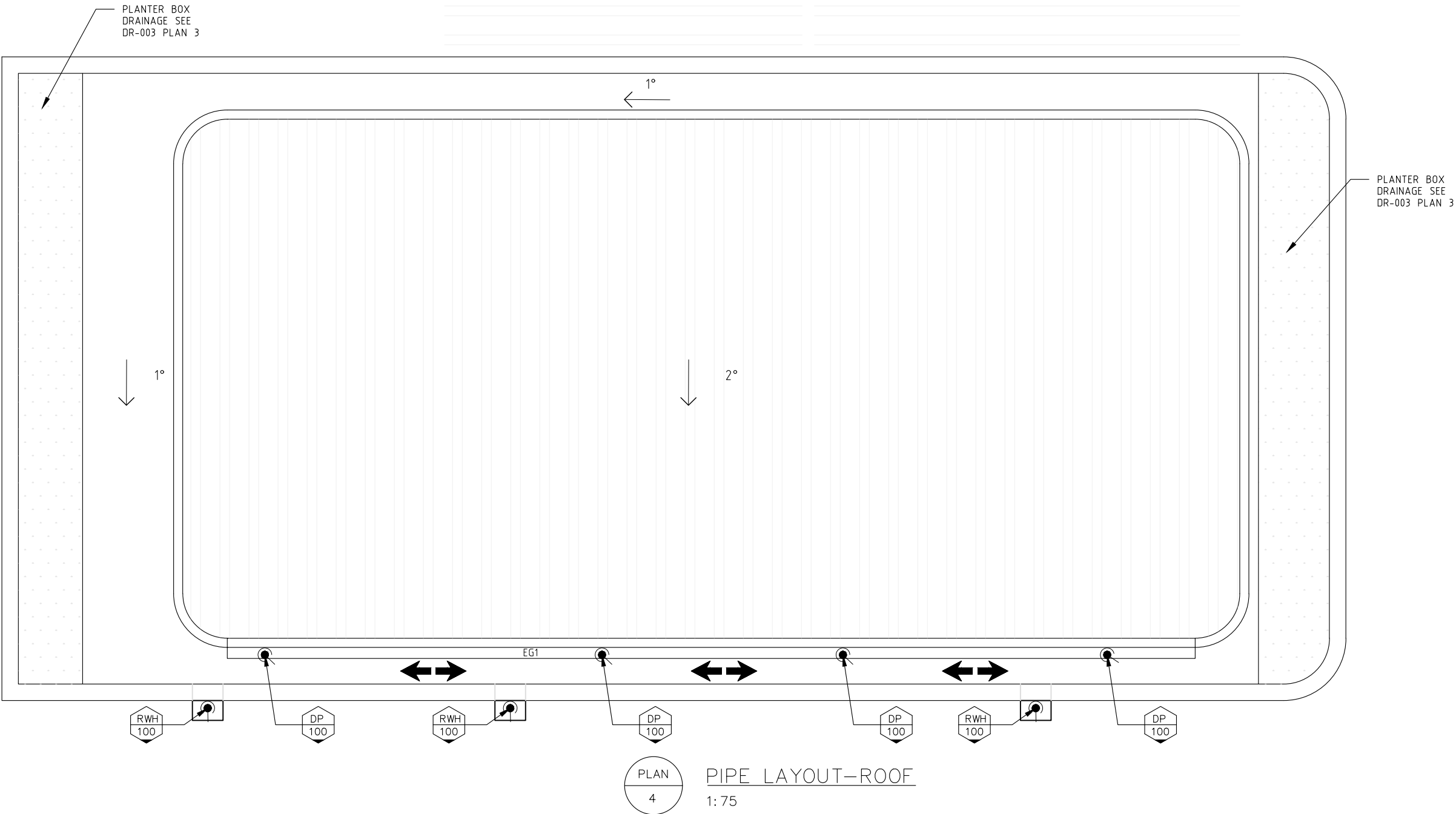


TABLE 1 – RAINWATER HEAD DESIGN (100 YEAR ARI, 1:200 FALL)			
		TYPE 1	TYPE 2
ROOF SERVICE AREA	–	27.75m <sup>2</sup>	67.75m <sup>2</sup>
DOWNPIPE DIAMETER	DP	90mm	100mm
LENGTH OF RAINWATER HEAD	L <sub>r</sub>	110mm	135mm
RAINWATER HEAD DEPTH	h <sub>r</sub>	115mm	125mm
RAINWATER HEAD WIDTH (MIN)	W <sub>rh</sub>	200mm	200mm

NOMENCLATURE  
DP - DOWNPIPE  
EG - EAVES GUTTER  
BG - BOX GUTTER  
RWH - RAINWATER HEAD

GUTTER SIZING  
BOX GUTTER DESIGNED TO ARI (100YR:247mm/hr)  
EAVES GUTTER DESIGNED TO ARI (20YR:206mm/hr)  
BG1 - 200x95mm  
EG1 - MIN CSA 9,200 mm<sup>2</sup>

LEGEND  
 DOWNPIPE TYPE AND DIAMETER  
 DIRECTION OF FALL



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REVISIONS				
1	FRM	6/6/2023	RFI RESPONSE	LES
0	NTM	16/03/2023	FOR DA SUBMISSION	FRM
No.	BY	DATE	DESCRIPTION	APPD

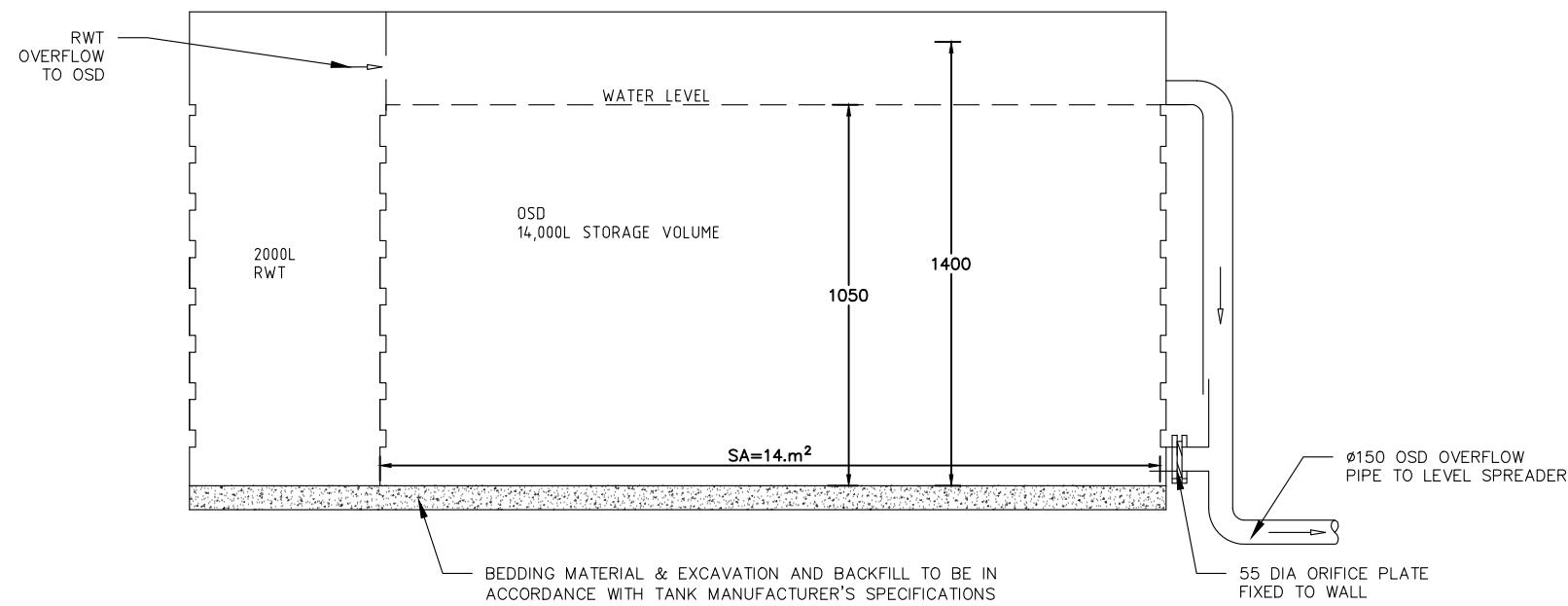
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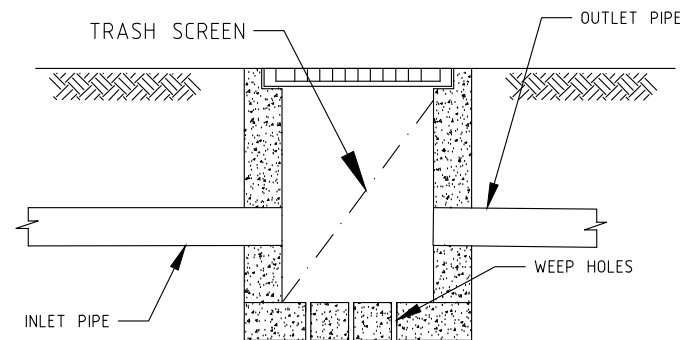


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AS3500.3:2021

67 WOOLGOOLGA STREET, NORTH BALGOWLAH			
PIPE LAYOUT - ROOF			
Size	Status	Dwg No.	Rev.
A3	FOR DA SUBMISSION	DR-004	1



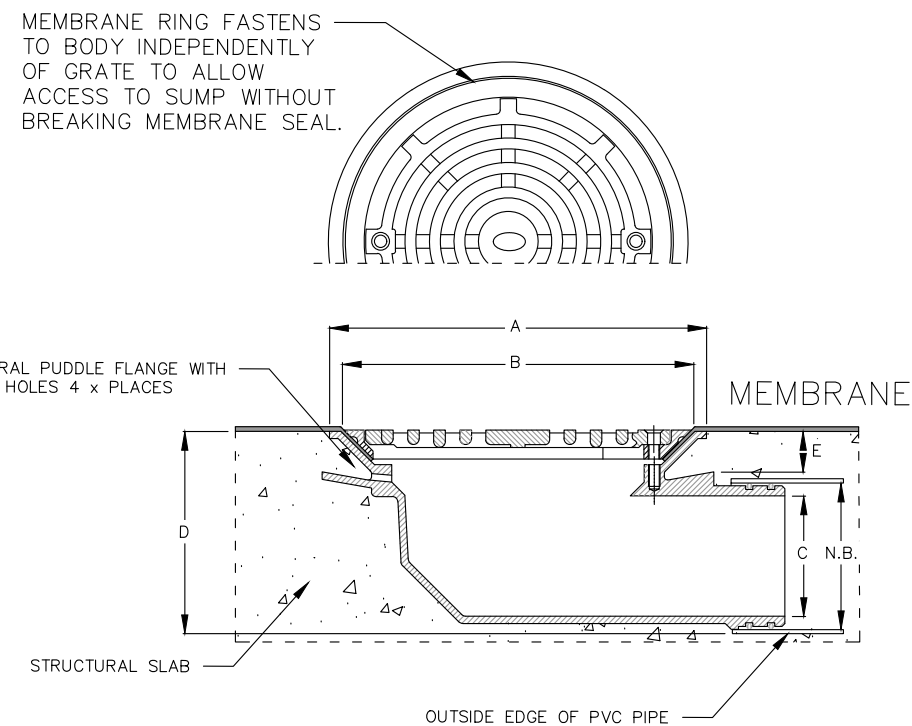
**DETAIL 1**  
**UNDERGROUND BLOCKWORK OSD TANK**  
 NOT TO SCALE



**DETAIL 3**  
**450 SQUARE MEDIUM DUTY PIT**  
 NOT TO SCALE

NOTES:

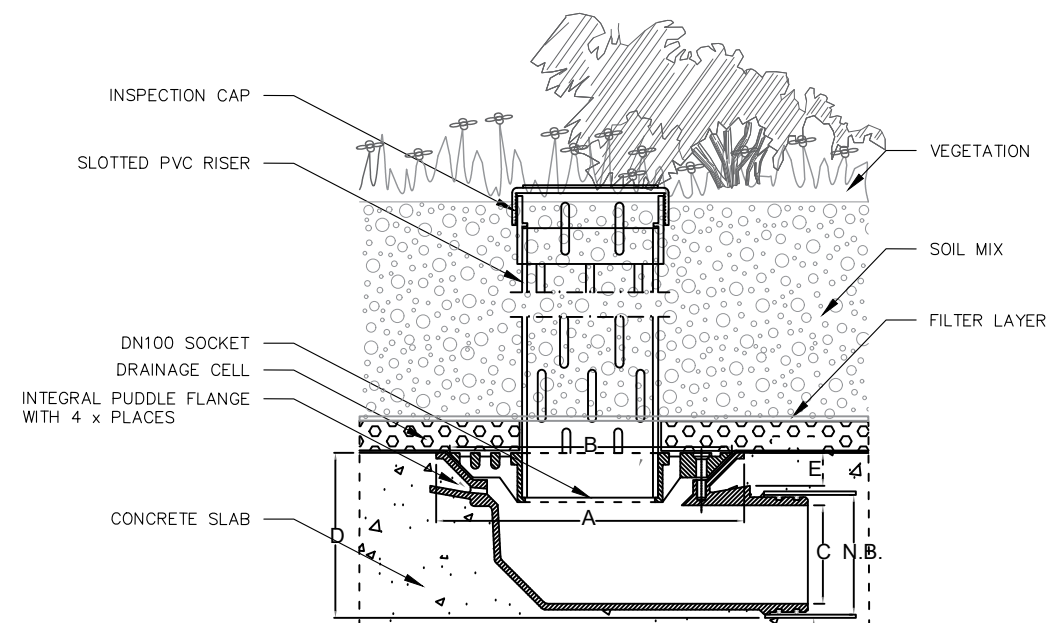
- 'LYSAGHT' MAXIMESH RH3030 (HOT DIPPED GALVANISED) OR EQUIVALENT.
- MAXI MESH SCREENS MUST BE PLACED SUCH THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE ORIENTATED HORIZONTALLY WITH THE PROTRUDING LIP ANGLED UPWARDS AND FACING TOWARDS THE OUTLET
- 20DIA AT 150 SPACING AT BASE OF SUMP. BEDDING TO BE 100 THICK SAND/GRAVEL MATERIAL.



**DETAIL 4**  
**TYPICAL 100 SS GRATED RAINWATER OUTLET**  
 NOT TO SCALE

NOTE:

- INSTALLATION AS PER MANUFACTURER'S RECOMMENDATIONS



**DETAIL 5**  
**PLANTER BOX OUTLET (SPS TIA80PB OR APPROVED OTHER)**  
 NOT TO SCALE

NOT FOR CONSTRUCTION

REVISIONS				
No.	BY	DATE	DESCRIPTION	APPD
1	FRM	6/6/2023	RFI RESPONSE	LES
0	NTM	16/03/2023	FOR DA SUBMISSION	FRM

Scale  
**1:150**

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67 WOOLGOOLGA STREET, NORTH BALGOWLAH				
DETAILS				
Size	A3	Status	FOR DA SUBMISSION	Drwg No.
				DR-005
				Rev. 1



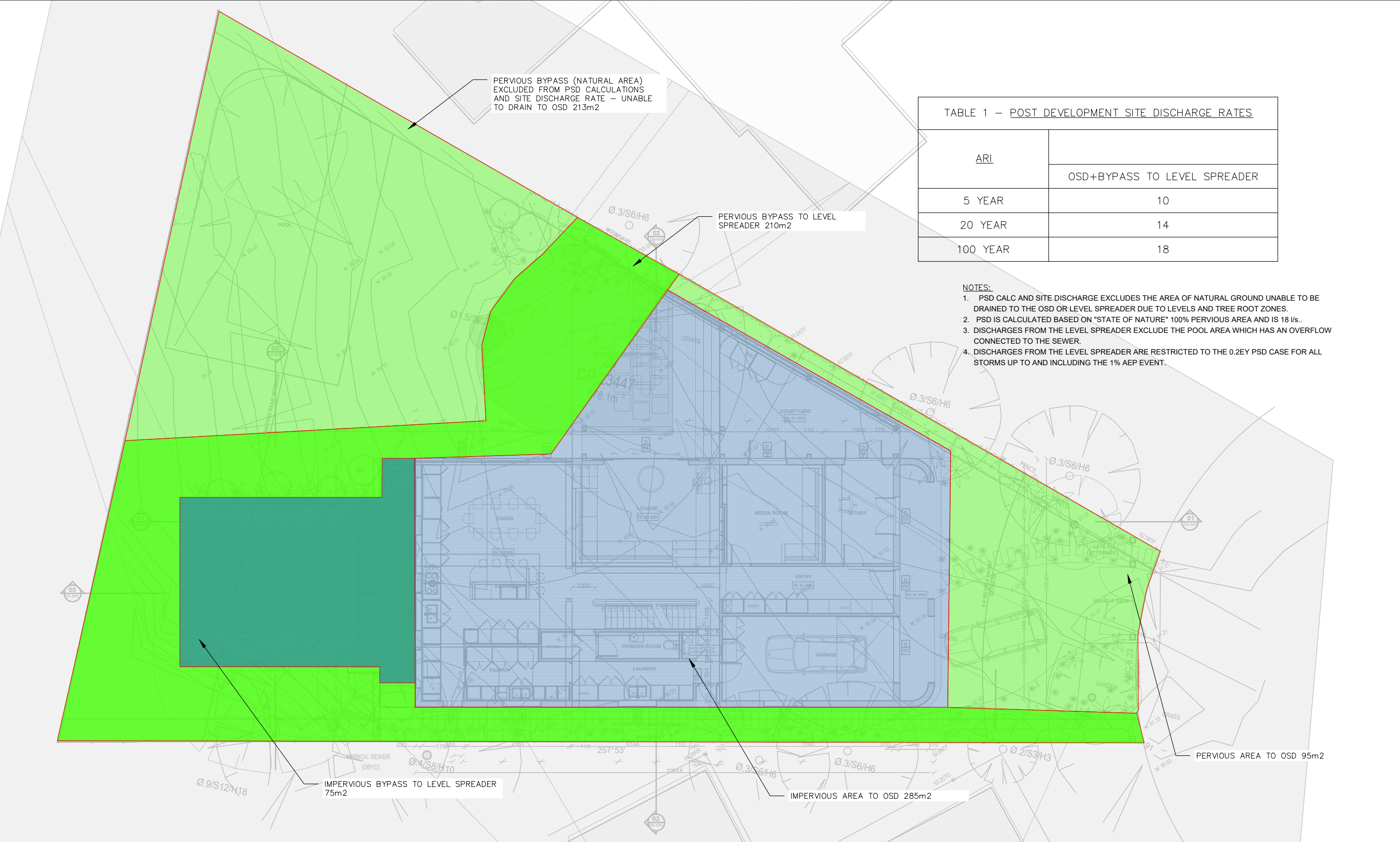


TABLE 1 – POST DEVELOPMENT SITE DISCHARGE RATES	
ARI	OSD+BYPASS TO LEVEL SPREADER
5 YEAR	10
20 YEAR	14
100 YEAR	18

- NOTES:
1. PSD CALC AND SITE DISCHARGE EXCLUDES THE AREA OF NATURAL GROUND UNABLE TO BE DRAINED TO THE OSD OR LEVEL SPREADER DUE TO LEVELS AND TREE ROOT ZONES.
  2. PSD IS CALCULATED BASED ON "STATE OF NATURE" 100% PERVIOUS AREA AND IS 18 l/s..
  3. DISCHARGES FROM THE LEVEL SPREADER EXCLUDE THE POOL AREA WHICH HAS AN OVERFLOW CONNECTED TO THE SEWER.
  4. DISCHARGES FROM THE LEVEL SPREADER ARE RESTRICTED TO THE 0.2EY PSD CASE FOR ALL STORMS UP TO AND INCLUDING THE 1% AEP EVENT.

PLAN  
5

SITE AREAS  
1:150

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	1	FRM	6/6/2023	RFI RESPONSE	LES
	0	NTM	17/03/2023	FOR DA SUBMISSION	FRM

Scale

1:150

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67 WOOLGOOLGA STREET, NORTH BALGOWLAH

SITE AREAS

Size	Status	Drw No.	Rev.
A3	FOR DA SUBMISSION	DR-006	1