

30 DAVIDSON AVENUE, FORESTVILLE

STORMWATER MANAGEMENT PLAN

DRAWING NUMBER	DRAWING TITLE
DR-000	LEGEND
DR-001	PIPE LAYOUT
DR-002	ROOF LAYOUT & DETAILS
DR-003	PROPOSED SITE AREAS AND LEVEL SPREADER DETAILS
DR-004	OSD & RAINWATER TANKS DETAILS

NOTES:

1. ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.

2. SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY RAPID PLAN BUILDING DESIGN AND ARCHITECTURAL DRAFTING (MAY 28, 2020).

3. LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.

4. 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.

5. ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE LEVELS AND SYSTEM REQUIREMENTS
6. WHERE POSSIBLE, PIPEWORK SHALL BE LOCATED EXTERNAL TO THE BUILDING.

7. DOWNPIPES AND STORMWATER LINES TO BE SEALED DN100 uPVC UNLESS OTHERWISE NOTED.

8. STORMWATER PIPES TO BE GRADED AT A MINIMUM 1% UNLESS NOTED OTHERWISE.

9. ALTERNATIVE GUTTER AND DOWNPIPE CONFIGURATION MAY BE INSTALLED PROVIDED IT COMPLIES WITH AS3500.

10. ALL PIPE AND CONDUITS TO BE MARKED IN ACCORDANCE WITH AS1345 – 1995.

11. TRENCHES AND SERVICE SEPARATIONS IN ACCORDANCE WITH AS/NZS 5601, AS/NZS 3500, AND AS/CA S009.

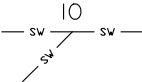
LEGEND:

- 

DOWNPIPE
- 

STORMWATER PIPE
- 

RAINWATER PIPE
- 

DRAINAGE PIT
- 

INSPECTION OPENING
- 

SUB SOIL PIPE

NOMENCLATURE
DP - DOWNPIPE
EG - EAVES GUTTER
BG - BOX GUTTER
Q20 - 20YR 5 MINUTE ARI FLOW RATE
Q100 - 100YR 5 MINUTE ARI FLOW RATE

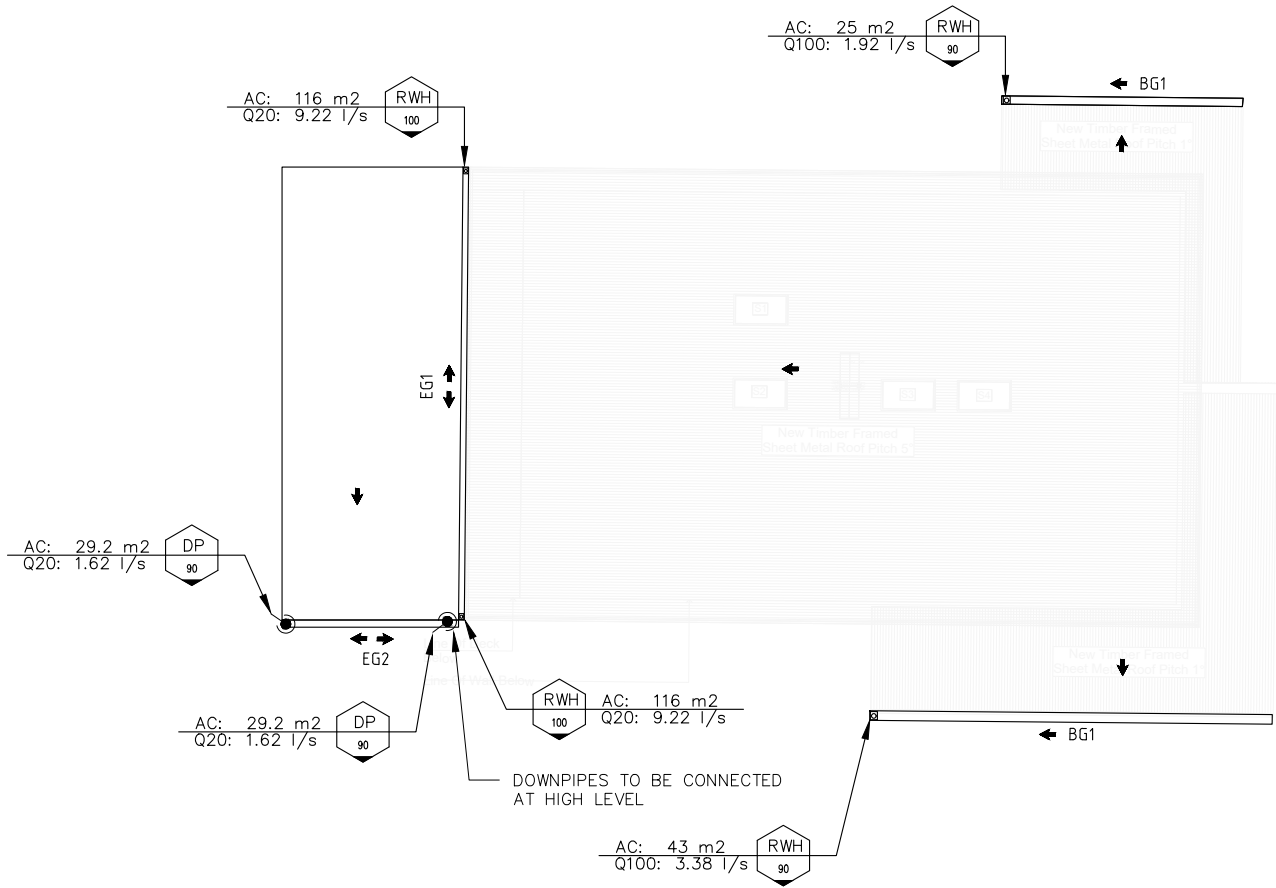
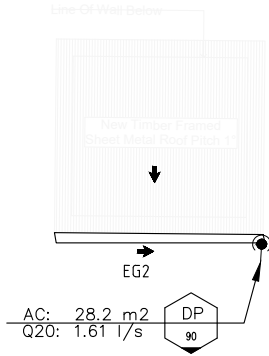
GUTTER SIZING
EAVES GUTTER DESIGNED TO ARI (20YR:202 mm/hr)
EG1 - MIN CSA 19,325 mm²
EG2 - MIN CSA 6,006 mm²
BOX GUTTER DESIGNED TO ARI (100YR:275 mm/hr)

LEGEND

TYPE
DIA

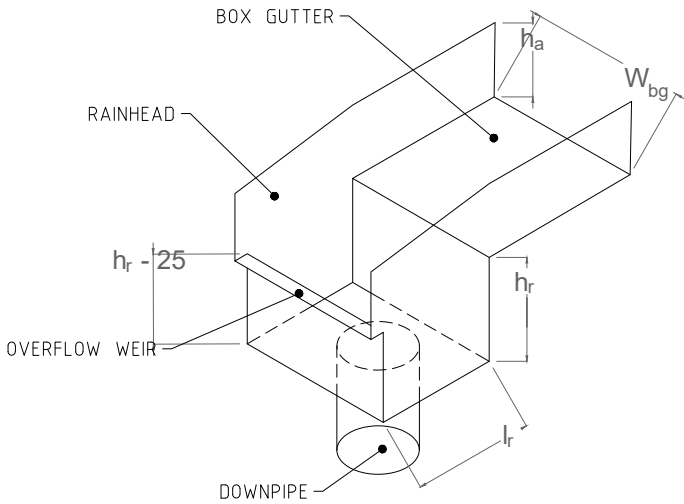
DOWNPIPE TYPE AND DIAMETER

→ DIRECTION OF FALL



PLAN
2

ROOF LAYOUT
1:200

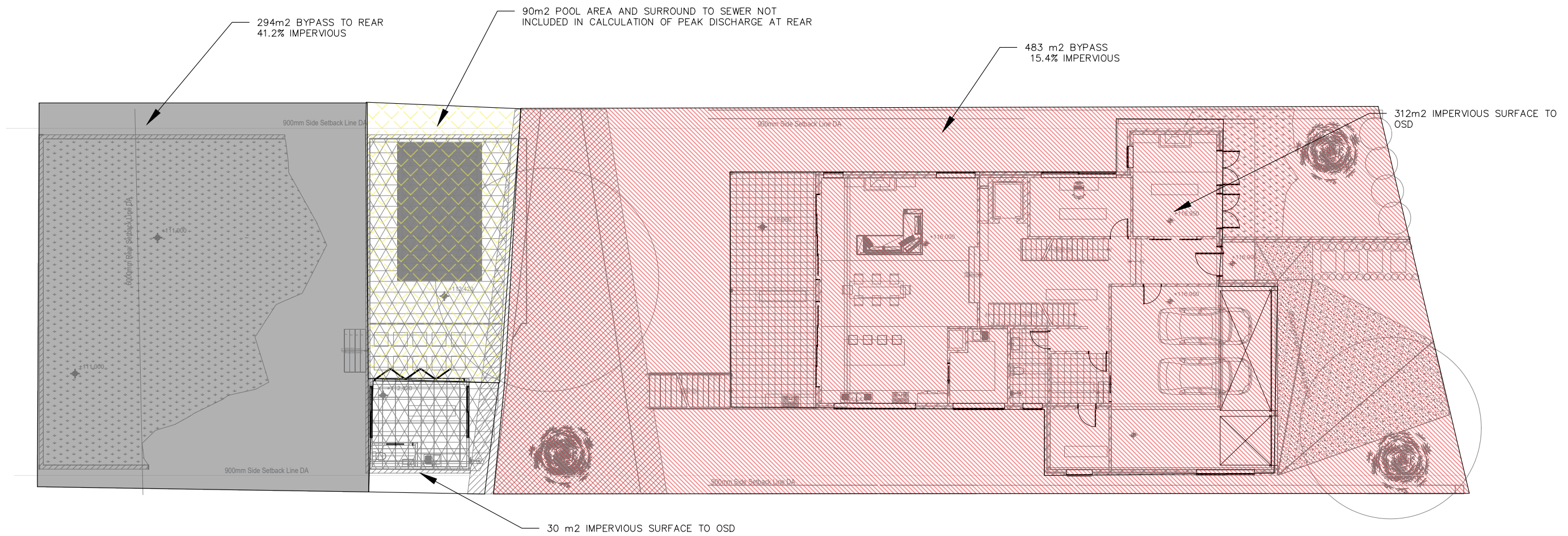


NOTES:
1. TOP OF RAINWATER HEAD TO BE SET MIN 25mm LOWER THAN INVERT OF BOX GUTTER.
2. RAINWATER HEAD OVERFLOW WEIR TO BE SET 25mm BELOW SOLE OF BOX GUTTER.
3. BOX GUTTER SOLE TO HAVE MINIMUM 1:200 FALL
4. BOX GUTTER AND RAINHEAD TO BE DESIGNED TO ARCHITECTURAL SPECIFICATION PROVIDED IT COMPLIES WITH THE MINIMUM DIMENSIONS IN TABLE 1.

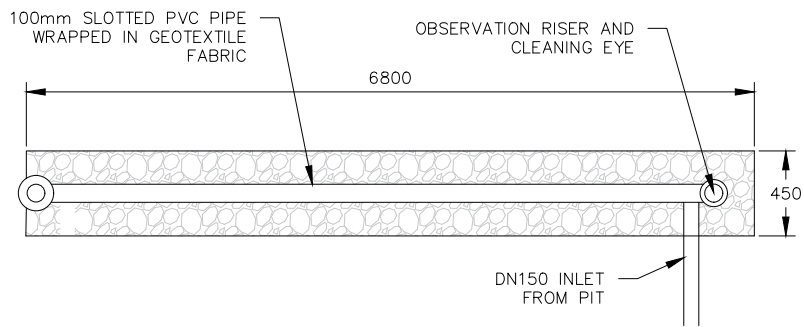
DETAIL
1

BOX GUTTER/ RAINHEAD
NTS

TABLE 1 – RAINWATER HEAD DESIGN (100 YEAR ARI, 1:200 FALL)		
ROOF SERVICE AREA	–	43m ²
DOWNPIPE DIAMETER	DP	90mm
BOX GUTTER WIDTH (MIN)	W _{bg}	200mm
BOX GUTTER DEPTH (MIN)	h _a	100mm
LENGTH OF RAINWATER HEAD	L _r	110mm
RAINWATER HEAD DEPTH	h _r	115mm
RAINWATER HEAD WIDTH (MIN)	W _{rh}	200mm

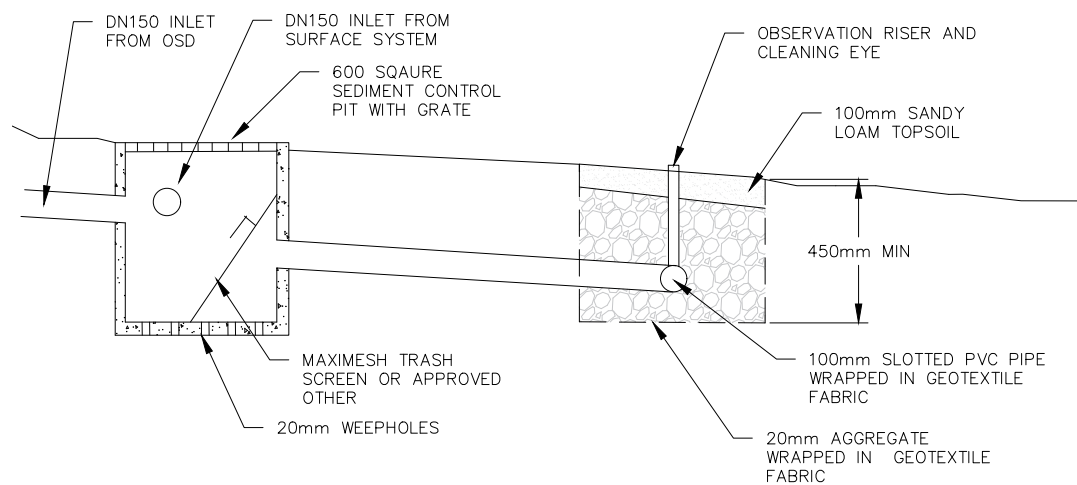


PLAN 3 SITE AREAS – PROPOSED
1: 200



- NOTES:
1. THE BASE OF THE BED MUST BE LEVEL TO ENSURE EVEN DISTRIBUTION OF STORMWATER. IT MUST ALSO BE SCARIFIED TO OVERCOME ANY SMEARING DURING EXCAVATION. BASE LEVELS SHOULD BE CHECKED WITH A DUMPY / LASER LEVEL.
 2. ABSORPTION/DISPERSION TRENCH TO BE CONSTRUCTED PARALLEL TO THE NATURAL CONTOURS.

DETAIL 2 LEVEL SPREADER PLAN VIEW
NA



SECTION 1 LEVEL SPREADER CROSS-SECTION
NA

EXISTING	
SITE AREA:	1186.75m ²
PERVIOUS:	961.90m ² (81.1%)
IMPERVIOUS:	224.85m ² (18.9%)

TABLE 2 – POST DEVELOPMENT FLOWS				
STORM EVENT	STATE OF NATURE (l/s)	OSD FLOW TO LEVEL SPREADER (l/s)	BYPASS FLOW (l/s)	TOTAL (l/s)
	19.9% IMPERVIOUS 1186 m ²	100% IMPERVIOUS 342 m ²	25.16% IMPERVIOUS 777 m ²	
20% AEP	29	7	19	26
5% AEP	49	9	33	42
1% AEP	68	11	45	56

- OSD TECHNICAL REQUIREMENTS FOR FLOWS
1. PSD CALCULATED FROM THE "STATE OF NATURE" (19.9% IMPERVIOUS SITE)
 2. POOL AND SURROUNDING AREA (90m2) IS ASSUMED TO DISCHARGE TO THE SEWER AND IS NOT INCLUDED IN PEAK FLOW CALCULATIONS.
 2. REFER TO PLAN 3 ON THIS DRAWING FOR CATCHMENT PLAN

