

HYDRAULIC DETAILS FOR ALTERATION AND ADDITIONS AT 45 REDMAN ROAD, DEE WHY NSW 2099

DRAWING LIST - CIVIL / HYDRAULICS

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S02	ROOF DRAINAGE DETAILS
S03	GROUND FLOOR DRAINAGE PLAN
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DETAILS

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SEDIMENT CONTROL PLAN

BASIX REQUIREMENT
RAINWATER TANK TO BASIX
REQUIREMENT.



10.	17.7	240	52.2	810	154	2380
5.	12.5	190	36.9	570	109	1680
4.	11.2	175	33.0	510	97.2	1500
3.	9.7	150	28.6	440	84.2	1300
2.	7.9	120	23.3	360	68.7	1060
1.	5.6	85	16.5	260	48.6	750
FRICTION SLOPE (%)	Q (l/s)	EIA (m2)	Q (l/s)	EIA (m2)	Q (l/s)	EIA (m2)
	Ø100 mm uPVC		Ø150mm uPVC		Ø225 mm uPVC	

EIA = EQUIVALENT IMPERVIOUS AREA

HYDRAULIC NOTES

- H.1. ALL SERVICES ARE TO BE LOCATED IN THE FIELD IN CONJUNCTION WITH A RESPONSIBLE OFFICER OF EACH RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- H.2. DRAINAGE PITS ARE TO BE 450 mm SQUARE OR LARGER AND FITTED WITH A GALVANISED GRATE.
- H.3. DRAINAGE PIPE SIZES ARE Ø100 mm UNLESS NOTED.
- H.4. DRAINAGE PIPES SHALL BE SEWER GRADE PVC UNLESS NOTED.
- H.5. ALL BARE SOIL AREAS ARE TO BE PROTECTED FROM EROSION BY TEMPORARY MEASURES RE-VEGETATED AT CESSATION OF CONSTRUCTION.
- H.6. A SEDIMENT CATCHMENT POND IS TO BE PROVIDED AT THE RATE OF 120 m3 CAPACITY PER HECTARE DRAINED. THE DETENTION TANKS MAY BE USED FOR THIS PURPOSE, PROVIDED SUFFICIENT WATER IS RETAINED AS A POOL DURING CONSTRUCTION & ADEQUATE SAFETY FENCING IS PROVIDED.
- H.7. THE DOWNHILL BOUNDARY OF THE SITE IS TO BE PROTECTED BY HAY BALE OR FILTER FABRIC FENCE DURING CONSTRUCTION AS SHOWN IN ATTACHED DETAIL.
- H.8. THE STREET DRAINAGE PIT LOCATED DOWNHILL OF THE SITE SHALL BE PROTECTED FROM SEDIMENT WITH HAY BALES.
- H.9. A SINGLE CONSTRUCTION ENTRANCE SHALL BE ESTABLISHED IN THE MANNER SHOWN IN ATTACHED H.9 DETAIL.
- H.10. ALL EROSION PROTECTION MEASURES TO MEET THE REQUIREMENTS OF THE DEPT. OF CONSERVATION AND LAND MANAGEMENT AS OUTLINED IN 'URBAN EROSION & SEDIMENT CONTROL', SCS TECH. HANDBOOK No.2 1978 UNLESS SPECIFIED BY COUNCIL.

SPECIAL NOTES

1. ALL PIPES TO BE LAID ON 75 mm SAND BED WITH THE BARRELS FULLY SUPPORTED ("B" CLASS BEDDING)
2. PROVIDE "CLEANING EYES" TO ALL DOWN PIPES NOT DIRECTLY CONNECTED TO PITS.
3. "HEAVY DUTY" GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS.
4. THE SUMP IN THE DETENTION TANK SHALL BE DELETED.
5. ORIFICE PLATES USED TO RESTRICT THE OUTFLOW MUST BE MACHINED TO THE EXACT DIMENSION AS CALCULATED, FROM MINIMUM 3 mm THICK STAINLESS STEEL OR 3 mm THICK GALVANISED STEEL AFTER MACHINING. THEY MUST BE CAST IN THE PIT WALLS OR PERMANENTLY FIXED IN THE PIT BY SOME APPROVED METHOD SO THEY CANNOT BE EASILY REMOVED.
6. A PLAQUE MEASURING NO LESS THAN 400 mm X 200 mm SHALL BE IN SOME WAY PERMANENTLY ATTACHED AND PROMINENTLY DISPLAYED WITHIN THE IMMEDIATE VICINITY OF THE OSD DEVISE. THIS PLAQUE SHALL ADVISE OCCUPIERS OF THE PROPERTY OF THE EXISTENCE OF THE OSD DEVISE AND ALSO THAT THE DEVISE IS NOT IN ANY WAY TO BE TAMPERED WITH OR CHANGED WITHOUT PRIOR WTITTEN CONSENT OF COUNCIL.
7. THE CONSTRUCTED OSD INSTALLATION MUST BE APPROPRIATELY CERTIFIED BY A SUITABLY QUALIFIED AND EXPERIENCED CONSULTING ENGINEER (GENERALLY CP ENG. QUALIFICATION) WHO MUST STATE THAT IT COMPLIES WITH COUNCIL'S OSD POLICY, ALL RELEVANT CODES AND STANDARDS AND ALSO THAT IT IS GENERALLY IN ACCORDANCE WITH APPROVED PLANS.
8. UPON COMPLETION OF THE OSD WORKS, WORK-AS-EXECUTED (WAE) PLANS SHALL BE SUBMITTED TO THE COUNCIL BY THE CONSULTING ENGINEER/REGISTERED SURVEYOR TO VERIFY THAT THE VOLUME OF STORAGE HAS BEEN ATTAINED AND THAT CRITICAL WATER AND FLOOR LEVELS ARE IN ACCORDANCE WITH DESIGN REQUIREMENTS. ANY CHANGES OR VARIATIONS TO THE APPROVED PLANS SHALL BE HIGHLIGHTED IN RED.
9. CERTIFICATION ON THE STANDARD FORM FOR ON-SITE DETENTION RECORD OF INSTALLATION ISSUED BY COUNCIL AND WAE PLANS SHALL BE SUBMITTED TOGETHER WITH THE COMPLIANCE CERTIFICATE.

CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

Issue	Description	Date	Design	Check	ARCHITECT/CLIENT
0	For Review	27/06/2023	KK	BG	HERMOSA DESIGN/ MR. & MRS. FALVO
A	For Construction	07/07/2023	KK	BG	
1	For Review	02/09/2023	AK	SD	
B	For Construction	05/09/2023	AK	SD	
D	For CC	19/10/2023	AK	BG	

PROJECT:
HYDRAULIC DETAILS FOR ALTERATIONS &
ADDITIONS AT 45 REDMAN ROAD, DEE WHY
2099

TITLE: DRAWING TITLE, INDEX & NOTES

CIVIL - HYDRAULICS

Size A3	Scale U.N.O 1:100
DWG no. H-23-567	Sheet no. 01

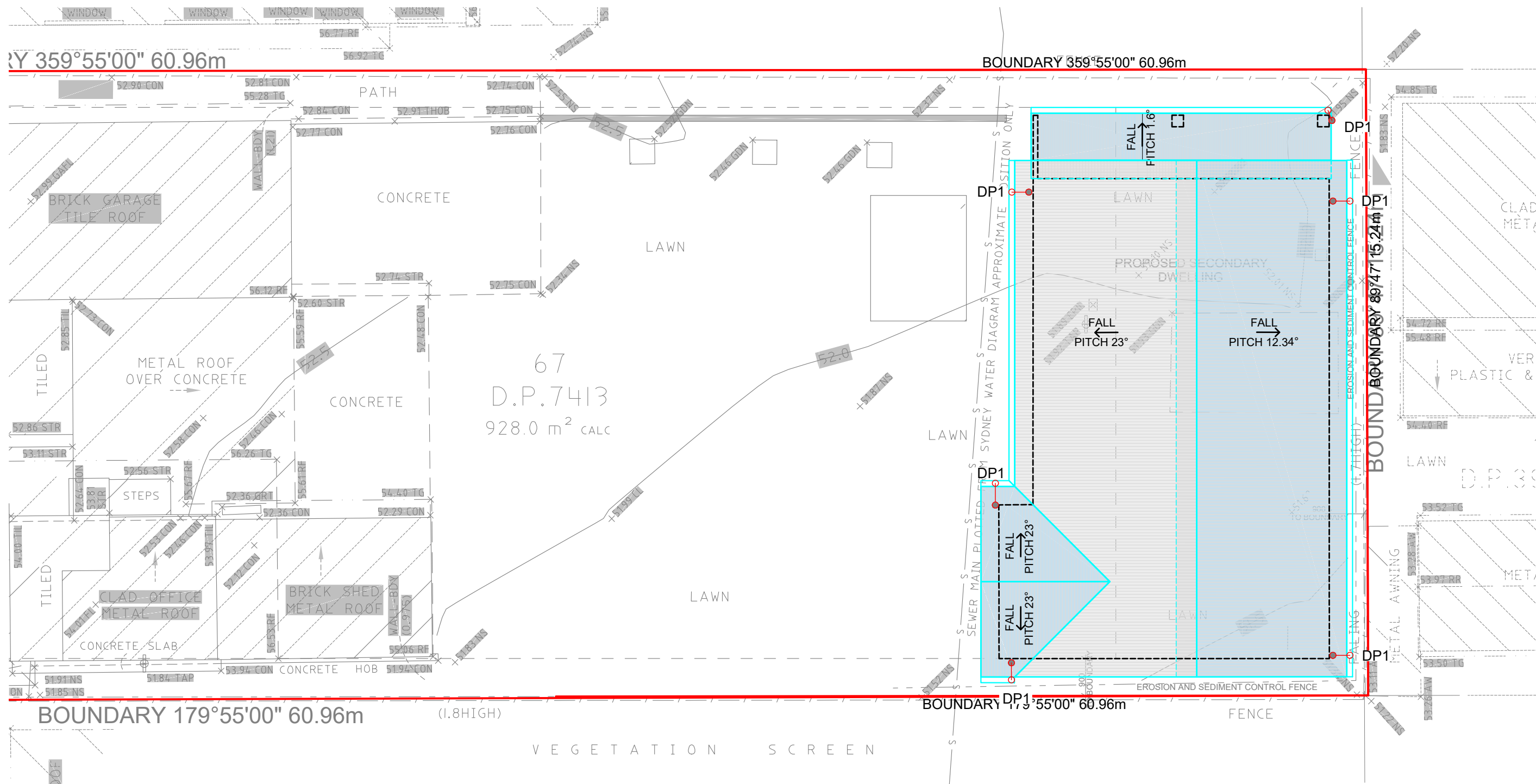


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LEGEND:

- DP1 NEW DOWNPIPE (Ø100 mm uPVC)
- NEW 450x450 GRATED PIT
- NEW Ø100 uPVC STORMWATER PIPE MIN. 1% FALL (U.N.O)
- SEDIMENT CONTROL FENCE
- RAINWATER / OSD TANK TO BASIX REQ.

ROOF DRAINAGE PLAN
SCALE 1:100

SITE PARAMETERS & TANK DETAILS

SITE AREA	928.0 m²
EXISTING IMPERVIOUS AREA	512.54 m²
PROPOSED IMPERVIOUS AREA	599.01 m²
PROPOSED LANDSCAPED AREA	328.99 m² (35.45%)
OSD/RWT SIZE	5000L
ORIFICE SIZE	40mm

Issue	Description	Date	Design	Check	ARCHITECT/CLIENT
0	For Review	27/06/2023	KK	BG	HERMOSA DESIGN/ MR. & MRS. FALVO
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B	For Construction	05/09/2023	AK	SD	
D	For CC	19/10/2023	AK	BG	

PROJECT:
HYDRAULIC DETAILS FOR ALTERATIONS & ADDITIONS AT 45 REDMAN ROAD, DEE WHY 2099

TITLE: ROOF DRAINAGE PLAN

CIVIL - HYDRAULICS	
Size A3	Scale U.N.O 1:100
DWG no. H-23-555	Sheet no. 02

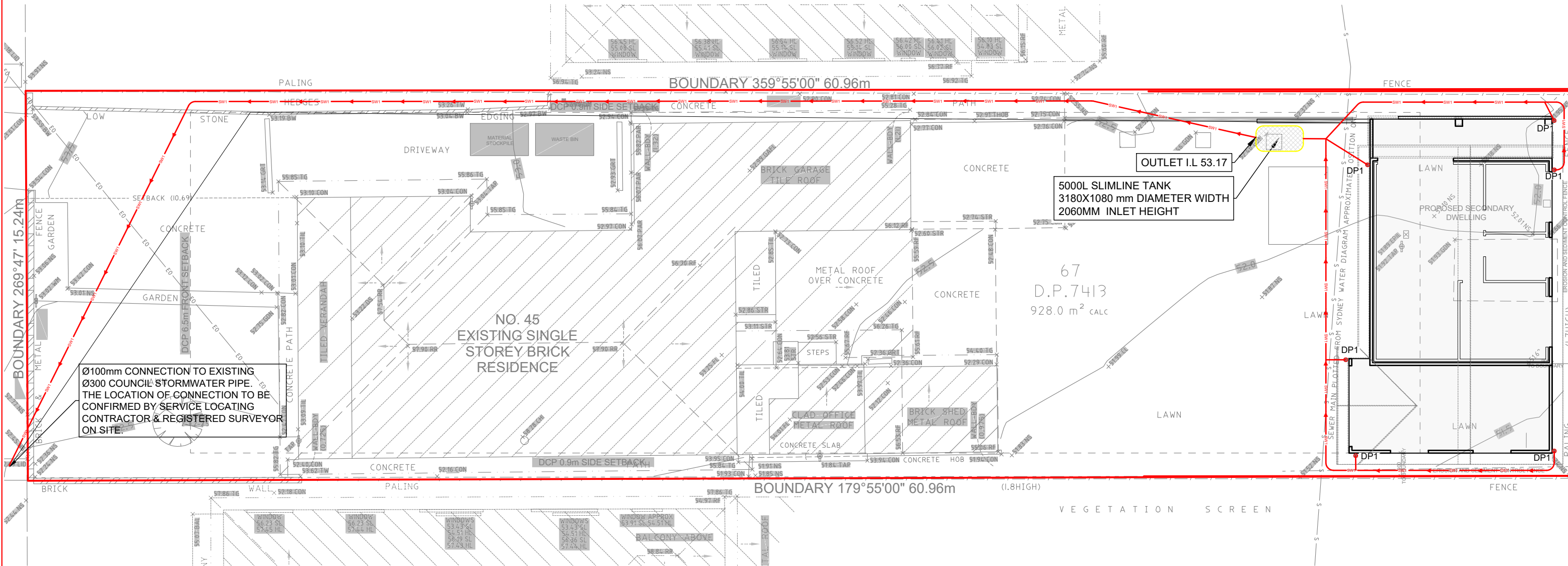


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GROUND FLOOR DRAINAGE PLAN



SCALE 1:150

LEGEND:

- DP1 NEW DOWNPIPE (Ø100 mm uPVC)
- NEW 450x450 GRATED PIT
- NEW Ø100 uPVC STORMWATER PIPE MIN. 1% FALL (U.N.O)
- SEDIMENT CONTROL FENCE
- RAINWATER / OSD TANK TO BASIX REQ.

SITE PARAMETERS & TANK DETAILS

SITE AREA	928.0 m ²
EXISTING IMPERVIOUS AREA	512.54 m ²
PROPOSED IMPERVIOUS AREA	599.01 m ²
PROPOSED LANDSCAPED AREA	328.99 m ² (35.45%)
OSD/RWT SIZE	5000L
ORIFICE SIZE	40mm

Issue	Description	Date	Design	Check	ARCHITECT/CLIENT	PROJECT:	CIVIL - HYDRAULICS	 KEVIN ZIA (MIEAust, CPEng, NER) Prime Consulting Engineers Pty Ltd		Prime Consulting Engineers CIVIL - STRUCTURAL - HYDRAULICS A.B.N. 34 641 874 795 U 21 / 1 JORDAN STREET GLADESVILLE NSW 2111 e: info@primeengineers.com.au w: www.primeengineers.com.au p: 02 8964 1818 m: 0466 053 516	
0	For Review	27/06/2023	KK	BG	HERMOSA DESIGN/ MR. & MRS. FALVO	HYDRAULIC DETAILS FOR ALTERATIONS & ADDITIONS AT 45 REDMAN ROAD, DEE WHY 2099	Size A3	Scale U.N.O 1:100			THE COPY RIGHT OF THIS DRAWING REMAINS WITH PRIME CONSULTING ENGINEERS PTY. LTD.
A	For Construction	07/07/2023	KK	BG							
1	For Review	02/09/2023	AK	SD							
B	For Construction	05/09/2023	AK	SD							
D	For CC	19/10/2023	AK	BG	TITLE: UPPER GROUND FLOOR PLAN		DWG no. H-23-567	Sheet no. 03			

NOTE:

FOR RETENTION WATER TO BE USED IN THE GREY WATER SYSTEM, GUTTERS MUST BE FITTED WITH GUTTER GUARDS AND DOWNPIPES FITTED WITH FIRST FLUSH DIVERTER SYSTEMS.

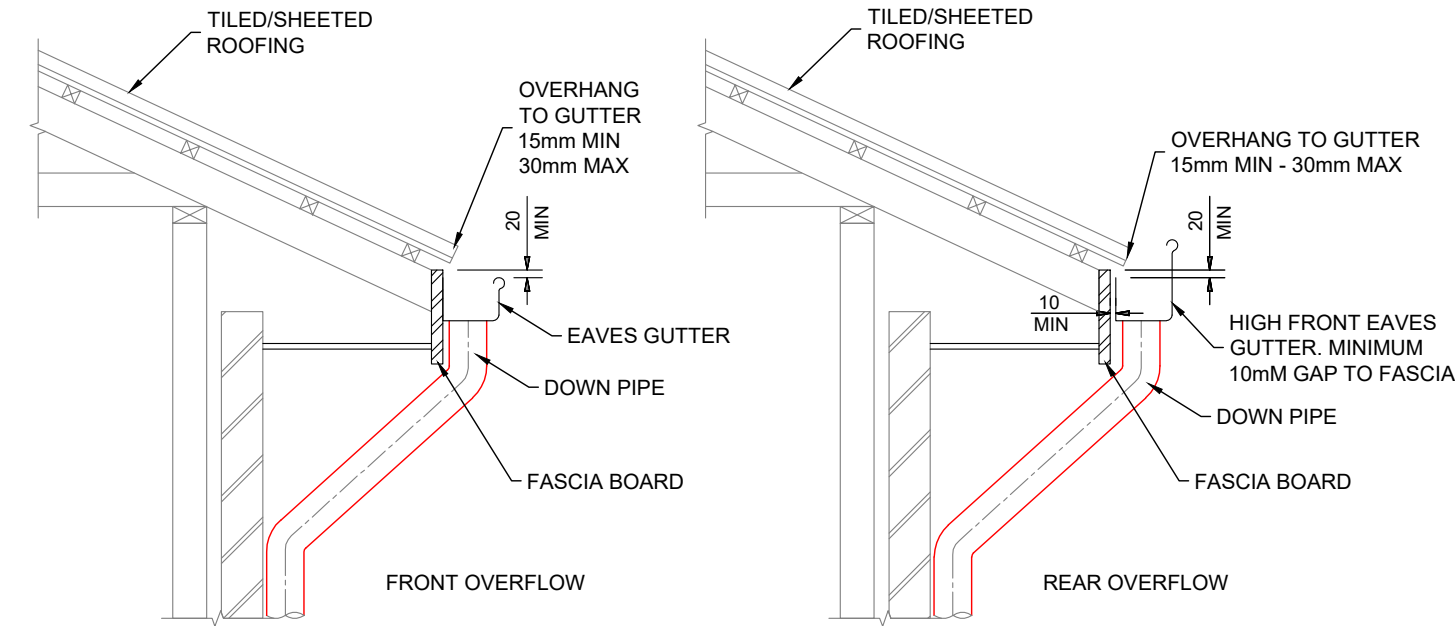
ALL PIPELINES MUST BE ACCESSIBLE FOR CLEANING THROUGH CLEANING EYES.

CONNECTION INTO THE GREY WATER SYSTEM MUST COMPLY WITH SYDNEY WATER GUIDELINES.

NOTE:

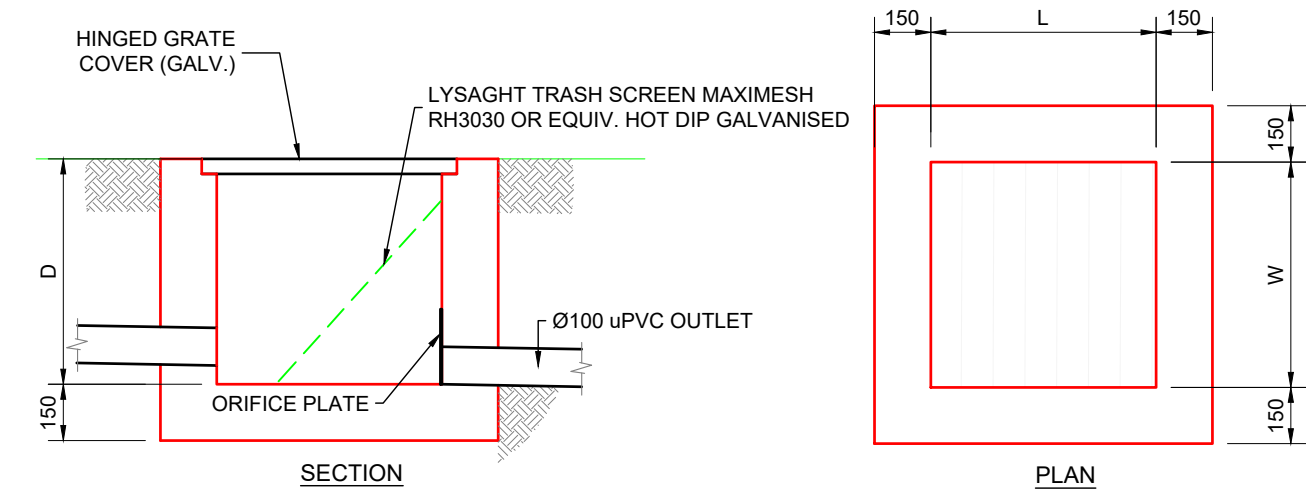
ALL GUTTERS MUST BE FITTED WITH GUTTER GUARDS AND DOWN PIPES FITTED WITH FIRST FLUSH DIVERTER SYSTEMS.

ALL PIPELINES MUST BE ACCESSIBLE FOR CLEANING THROUGH CLEANING EYES.



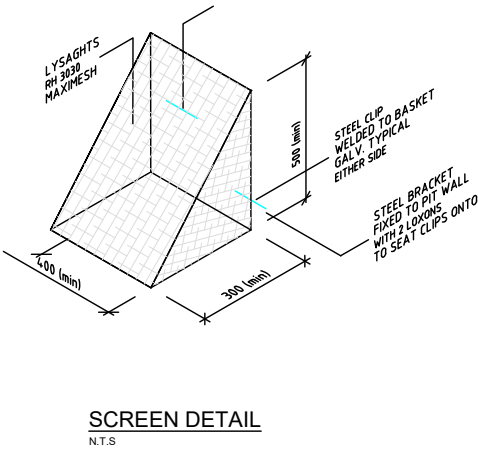
TYPICAL EAVES GUTTER DETAIL

SCALE 1:20







TYPICAL GRATED PIT DETAIL

SCALE 1:20



SCREEN DETAIL

N.T.S

Issue	Description	Date	Design	Check	ARCHITECT/CLIENT	PROJECT:	CIVIL - HYDRAULICS	 KEVIN ZIA (MIEAust, CPEng, NER) Prime Consulting Engineers Pty Ltd		Prime Consulting Engineers	
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B	For Construction	05/09/2023	AK	SD							
D	For CC	19/10/2023	AK	BG							
						TITLE: DETAILS	DWG no. H-23-567	Sheet no. 04			

