HYDRAULIC DETAILS FOR PROPOSED ALTERATIONS & ADDITIONS AT 17 KANANGRA CRESCENT CLONTARF, NSW 2093

DRAWING LIST - CIVIL / HYDRAULICS

DRAWING TITLE. INDEX & NOTES S01 S02 **ROOF DRAINAGE DETAILS** S03 FIRST FLOOR DRAINAGE PLAN **GROUND FLOOR DRAINAGE PLAN** S04 **DETAILS** S05

SEDIMENT CONTROL PLAN S06

BASIX REQUIREMENT RAINWATER TANK TO **BASIX REQUIREMENT**



SLOPE (%)	Ø100 mm uPVC		Ø150mi	m uPVC	Ø225 mm uPVC		
FRICTION	Q (I/s)	EIA (m2)	Q (l/s)	EIA (m2)	Q (I/s)	EIA (m2)	
1.	5.6	85	16.5	260	48.6	750	
2.	7.9	120	23.3	360	68.7	1060	
3.	9.7	150	28.6	440	84.2	1300	
4.	11.2	175	33.0	510	97.2	1500	
5.	12.5	190	36.9	570	109	1680	
10.	17.7	240	52.2	810	154	2380	

EIA = EQUIVALENT IMPERVIOUS AREA

HYDRAULIC NOTES

- ALL SERVICES ARE TO BE LOCATED IN THE FIELD IN CONJUNCTION WITH A RESPONSIBLE OFFICER OF EACH RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- DRAINAGE PITS ARE TO BE 450 mm SQUARE OR LARGER AND FITTED H.2. WITH A GALVANISED GRATE.
- H.3. DRAINAGE PIPE SIZES ARE Ø100 mm UNLESS NOTED.
- DRAINAGE PIPES SHALL BE SEWER GRADE PVC UNLESS NOTED H.4.
- H.5. ALL BARE SOIL AREAS ARE TO BE PROTECTED FROM EROSION BY TEMPORARY MEASURES RE-VEGETATED AT CESSATION OF CONSTRUCTION.
- 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
- THE STREET DRAINAGE PIT LOCATED DOWNHILL OF THE SITE SHALL H.8. BE PROTECTED FROM SEDIMENT WITH HAY BALES.
- 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

- ALL PIPES TO BE LAID ON 75 mm SAND BED WITH THE BARRELS FULLY SUPPORTED ("B" CLASS BEDDING)
- PROVIDE "CLEANING EYES" TO ALL DOWN PIPES NOT DIRECTLY CONNECTED TO PITS.
- "HEAVY DUTY" GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS.
- THE SUMP IN THE DETENTION TANK SHALL BE DELETED.
- 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.
- 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.
- 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:

- 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.
- 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.
- 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
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- 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	12/11/2024	ZF	SD	JAH DESIGN/		
Α	For Submission	30/01/2024	KK	SD	MR. & MRS. FAULKNER		
A2	Submission Update	19/05/2025	KK	SD			

PROJECT: **CIVIL - HYDRAULICS** HYDRAULIC DETAILS FOR PROPOSED **ALTERATIONS & ADDITIONS AT** 17 KANANGRA CRESCENT CLONTARF, NSW Size Scale A3 1:100 DWG no Sheet no. TITLE: DRAWING TITLE, INDEX & NOTES H-24-1135 01

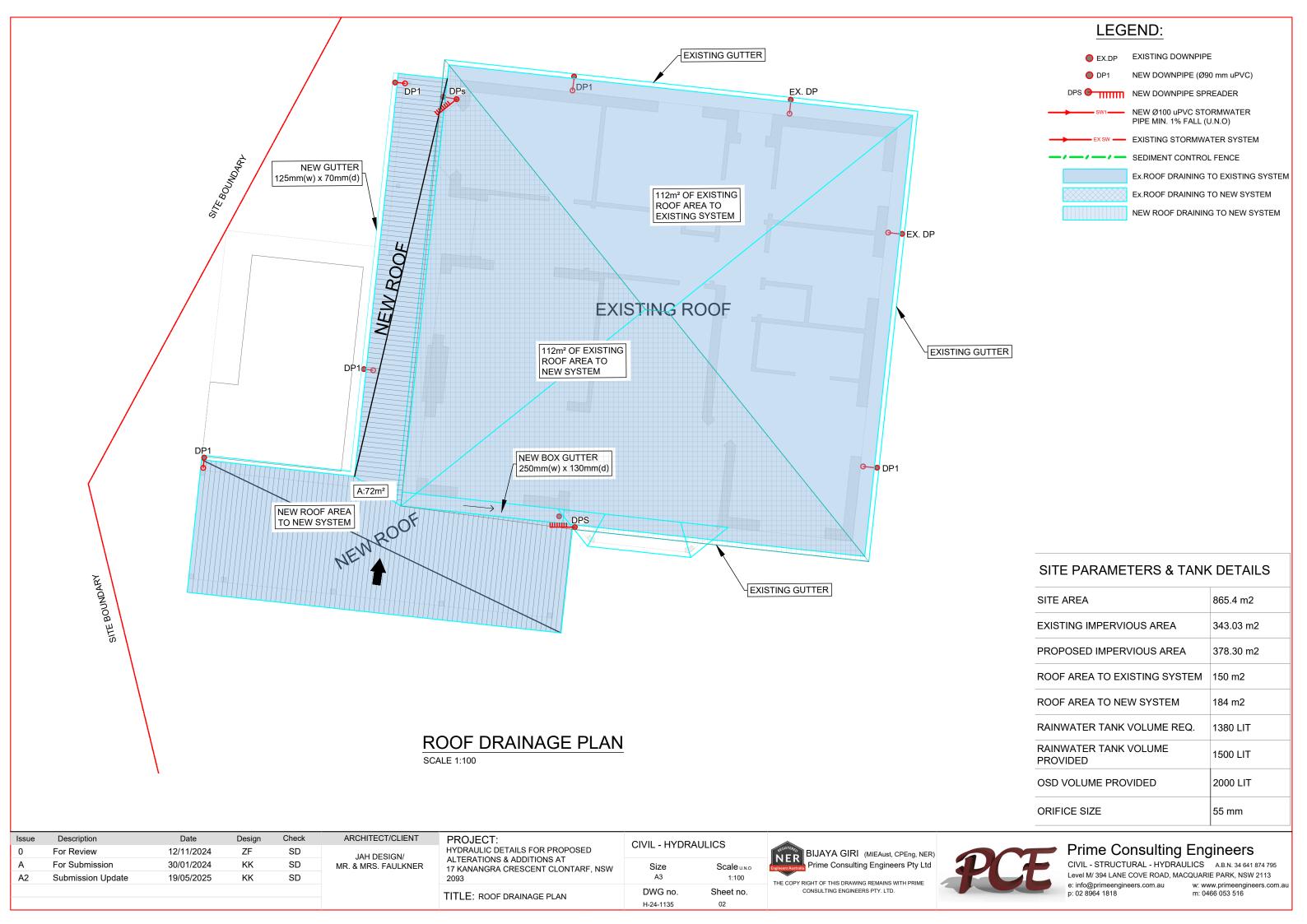


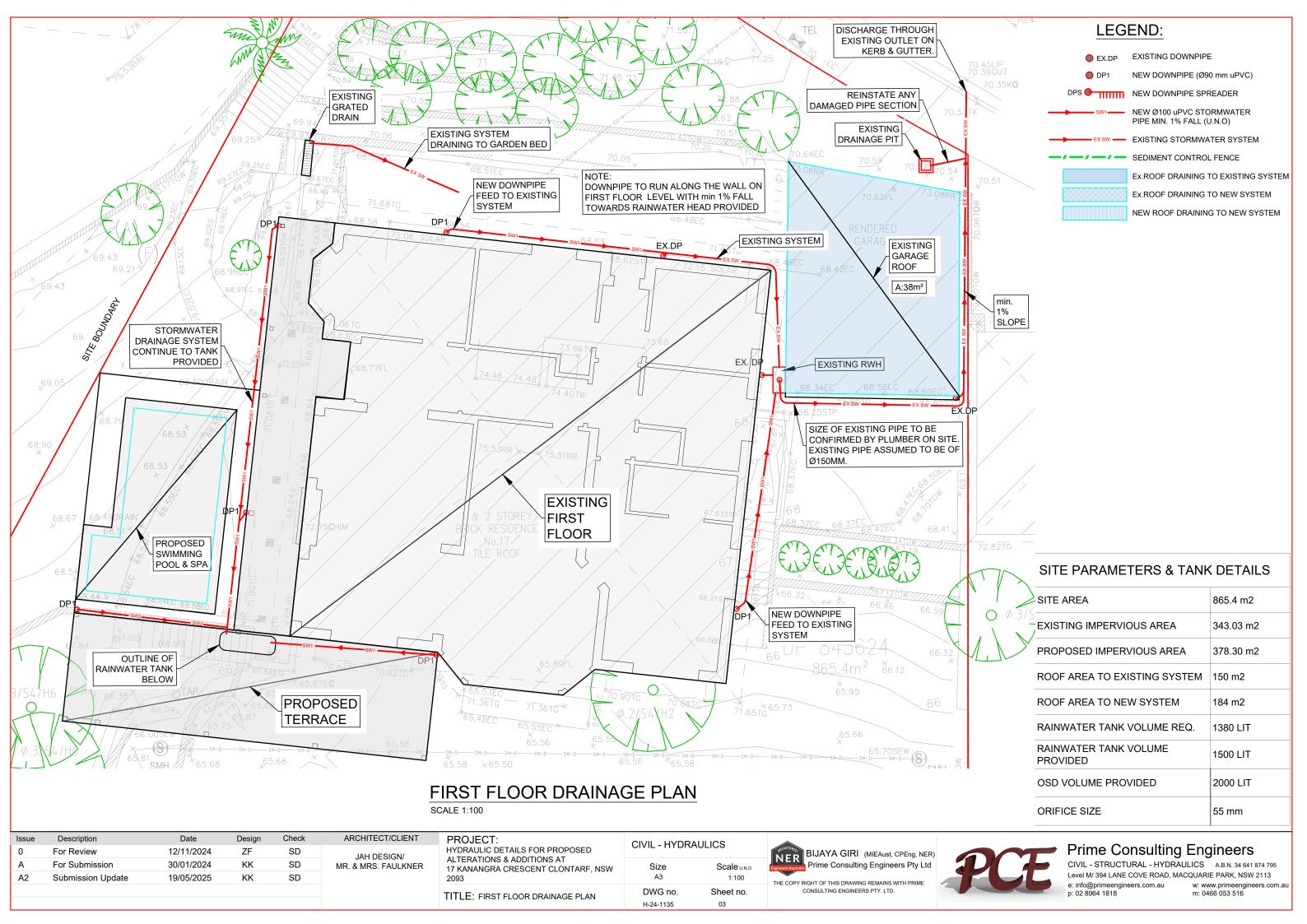
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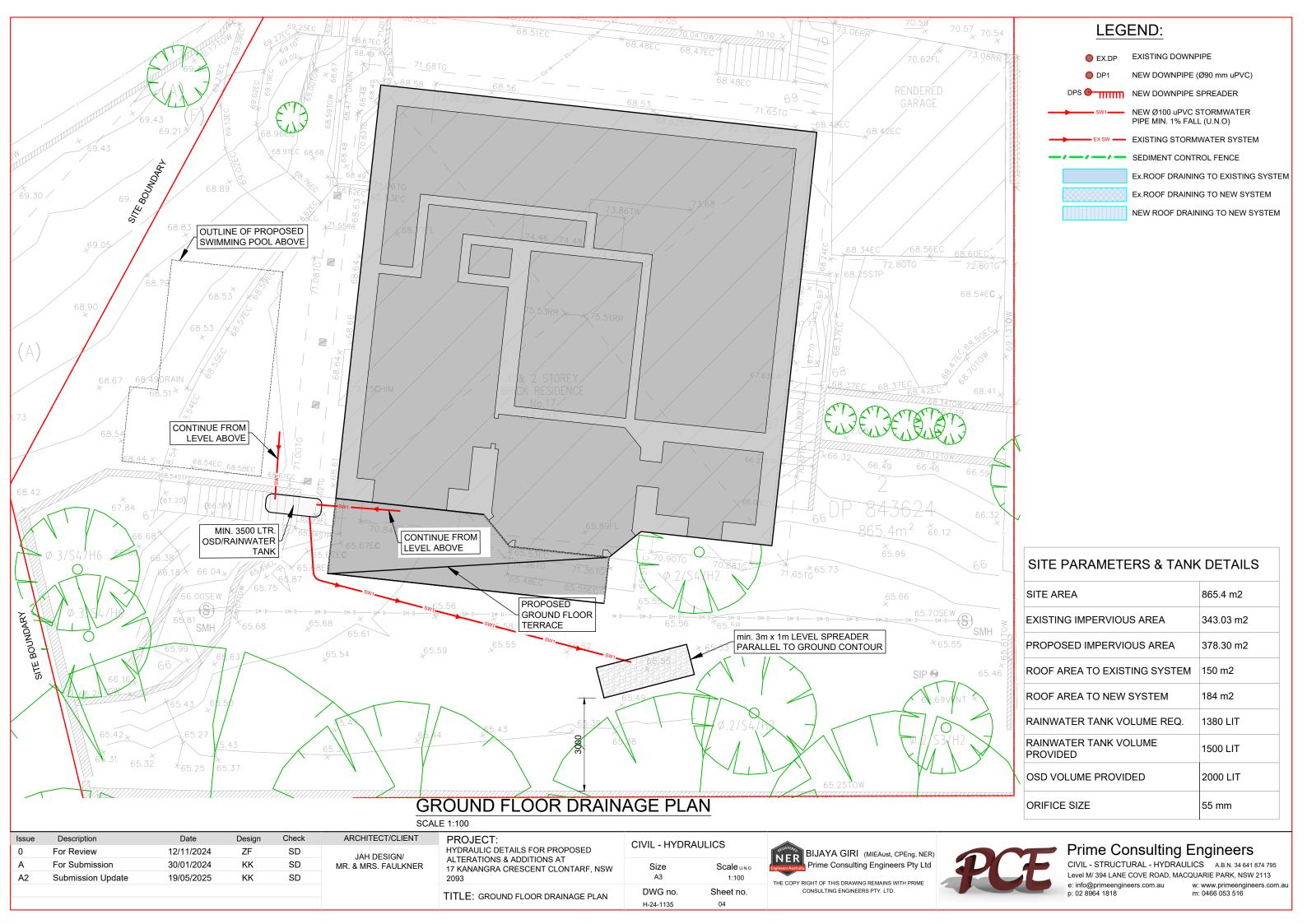


Prime Consulting Engineers

CIVIL - STRUCTURAL - HYDRAULICS A.B.N. 34 641 874 795 e: info@primeengineers.com.au m: 0466 053 516







NOTE:

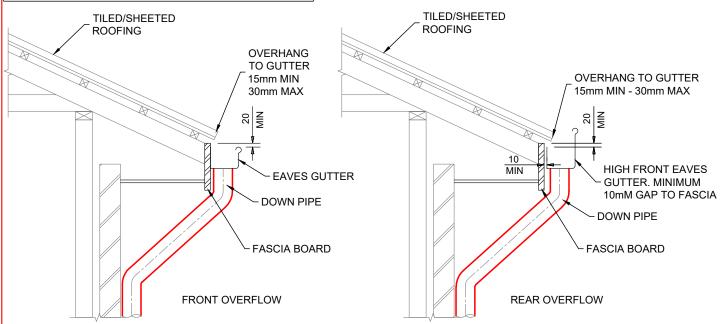
FOR RETENTION WATER TO BE USED IN THE GREY WATER SYSTEM, GUTTERS MUST BE FITTED WITH GUTTER GUARDS AND DOWNPIPES FITTED WITH FIRST FLUSH DIVERTER SYSTEMS.

ALL PIPELINES MUST BE ACCESSIBLE FOR CLEANING THROUGH CLEANING EYES.

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

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

ALL PIPELINES MUST BE ACCESSIBLE FOR CLEANING THROUGH CLEANING EYES.



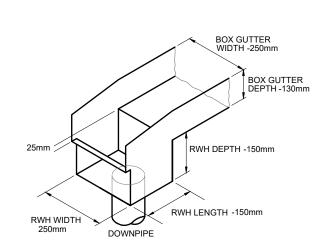
NOTE:

DIVERTER SYSTEMS.

TYPICAL EAVES GUTTER DETAIL

PARAPET WALL ROOF RWH BOX GUTTER WIDTH OVERLOW RWH LENGTH





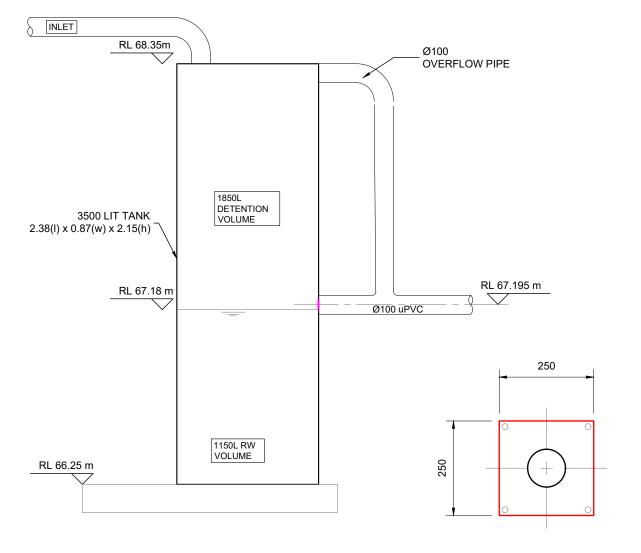
RAINWATER HEAD & OVERFLOW DETAIL (TYP.) N.T.S

LEVEL SPREADER DESIGN CALCULATION SHEET

Discharge flow controlled by 20%AEP state of nature, calculated from Drains model, (Q 20)

Peak Flow Site Details Address 17 KANANGRA CRES, CLONTARF Rainfall Intensity (For 1% AEP, 5min Storm) mm/hr Discharge Coefficient (Cd) Roof Area (A) 185 m² Q=CIA/360 13.36 L/s

Length of Level Spreader			
Down Slope Ground Cover	Grass		
Velocity at Level Spreader (V)	0.1	m/s	
"Equivalent" water height over level spreader (X)	0.025	m	
$L=Q/(X\times V)$	2.8	m	
Pipe Length (L)	3	m	



ROUND HOLE Ø55 mm SQ. MACHINE CUT 4 LOXINS 6mm THICK S.S PLATE

L/s

7.00

RAINWATER/ OSD TANK SECTION

ORIFICE DETAIL SCALE 1:10

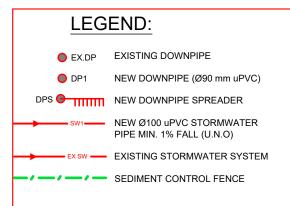
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0	For Review	12/11/2024	ZF	SD	JAH DESIGN/	HYDRAULIC DETAILS FOR PROPOSED		
Α	For Submission	30/01/2024	KK	SD	MR. & MRS. FAULKNER	ALTERATIONS & ADDITIONS AT 17 KANANGRA CRESCENT CLONTARF, NSW	Size	Scale u.n.o
A2	Submission Update	19/05/2025	KK	SD		2093	A3	1:100
						TITLE: DETAILS	DWG no.	Sheet no.





Prime Consulting Engineers

CIVIL - STRUCTURAL - HYDRAULICS A.B.N. 34 641 874 795 Level M/ 394 LANE COVE ROAD, MACQUARIE PARK, NSW 2113 e: info@primeengineers.com.au w: www.primeengineers.com.au p: 02 8964 1818 m: 0466 053 516





SEDIMENT CONTROL PLAN

PROJECT:

HYDRAULIC DETAILS FOR PROPOSED

17 KANANGRA CRESCENT CLONTARF, NSW

ALTERATIONS & ADDITIONS AT

TITLE: SEDIMENT CONTROL PLAN

SEDIMENT FENCE CONSTRUCTION NOTES:

Description

For Review

For Submission

Submission Update

- I. 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. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED
- 2. 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. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH.

ARCHITECT/CLIENT

JAH DESIGN/

MR. & MRS. FAULKNER

- 3. 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.
- 4. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. BACKFILL THE TRENCH

Design

7F

KK

KK

Check

SD

SD

SD

5. OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

Date

12/11/2024

30/01/2024

19/05/2025

DIRECTION OF FLOW SECTION DETAIL SEDIMENT FENCE

Scaleund 1:100 THE COPY RIGHT OF THIS DRAWING REMAINS WITH PRIM

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CONSTRUCTION SITE

0.2M

GEOTEXTII E FABRIC

Prime Consulting Engineers

N LENGTH

EXISTING ROADWAY -

CIVIL - STRUCTURAL - HYDRAULICS A.B.N. 34 641 874 795 Level M/ 394 LANE COVE ROAD, MACQUARIE PARK, NSW 2113 e: info@primeengineers.com.au w: www.primeengineers.com.au m: 0466 053 516

TYP. SEDIMENTATION & EROSION CONTROL DETAILS

Sheet no

CIVIL - HYDRAULICS

Size

A3

DWG no.

H-24-1135

GIRI (MIEAust, CPEng, NER)	
andian Carina and Divil Ad	

RUNOFF FROM PAD

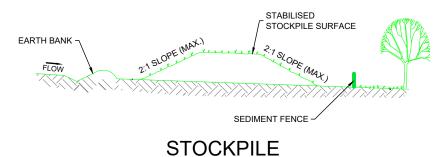
WATER FLOW, ROADS AND HAZARD AREAS. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METERS IN HEIGHT.

FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10. CONSTRUCT EARTH BANKS ON THE UP-SLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5)

METRES FROM EXISTING VEGETATION, CONCENTRATED

STOCKPILE TO BE COVERED DURING WIND AND RAIN WEATHER CONDITIONS. PROTECTIVE GROUND COVER TO BE PLACED AS FAR AS PRACTICABLE AND MAINTAINED.



CONSTRUCTION NOTES:

NOTES

- STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
- COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.

GRAVEL

- CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASED OR 30mm AGGREGATE
- ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILD ALIGNMENT AND AT LEAST 3 METRES WIDE.
- WHERE A SEDIMENT FENCE JOINS ONTO THE STABILIZED ACCESS, CONSTRUCT A HUMP IN THE STABILIZED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

BERM (0.3m MIN, HEIGHT

STABILIZED SITE ACCESS