

# STORMWATER MANAGEMENT PLAN (FOR DA)

## PROPOSED RESIDENCE

### LOT 12, No.183 BARRENJOEY ROAD, NEWPORT

#### GENERAL NOTES

1. FINAL LOCATION OF NEW DOWNPIPES TO BE DETERMINED BY BUILDER/ARCHITECT AT TIME OF CONSTRUCTION.
2. THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECTS AND OTHER CONSULTANTS DRAWINGS. ANY DISCREPANCIES TO BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH WORK.
3. ALL MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH AS/NZS 3500.3:2003 STORMWATER DRAINAGE, BCA AND LOCAL COUNCIL POLICY/CONSENT/REQUIREMENTS.
4. ALL DIMENSIONS AND LEVELS TO BE VERIFIED BY BUILDER ON-SITE PRIOR TO COMMENCEMENT OF WORKS. THESE DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS NOR TO BE USED FOR SETOUT PURPOSES.
5. ALL SURVEY INFORMATION AND PROPOSED BUILDING AND FINISHED SURFACE LEVELS SHOWN IN THESE DRAWINGS ARE BASED ON LEVELS OBTAINED FROM DRAWINGS BY OTHERS.
6. ALL STORMWATER DRAINAGE PIPES ARE TO BE uPVC AT MINIMUM 1% GRADE UNLESS NOTED OTHERWISE.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES OR OTHER STRUCTURES WHICH MAY AFFECT/BE AFFECTED BY THIS DESIGN PRIOR TO COMMENCEMENT OF WORKS.
8. ALL PITS WITHIN DRIVEWAYS TO BE 150mm THICK CONCRETE OR EQUAL.
9. THIS PLAN IS THE PROPERTY OF DONOVAN ASSOCIATES AND MAY NOT BE USED OR REPRODUCED WITHOUT WRITTEN PERMISSION FROM DONOVAN ASSOCIATES.

#### PLAN SPECIFIC NOTES

1. **ROOF DRAINAGE NOTE:** AS 3500 ROOF DRAINAGE REQUIRES EAVES GUTTERS TO BE SIZED FOR 20 YEAR 5 MIN. STORM = 205mm/hr. FOR EAVES GUTTERS, AS 3500.3:2003 THEN HAS THE FOLLOWING REQUIREMENTS:
  - i) FOR TYPICAL STANDARD QUAD GUTTER WITH Ae = 6000mm² AND GUTTER SLOPE 1:500 AND STEEPER, THIS REQUIRES ONE DOWNPIPE PER 30m² ROOF AREA.
  - ii) DOWNPIPES TO BE MINIMUM 90mm DIA. OR 100 x 50mm FOR GUTTERS SLOPE 1:500 AND STEEPER.
  - iii) OVERFLOW METHOD TO FIGURE G1 OF AS 3500.3:2003 IT IS THE RESPONSIBILITY OF THE PLUMBER AND / OR BUILDER TO COMPLY WITH THIS. THIS DRAWING SHOWS PRELIMINARY LOCATIONS / NUMBERS OF DOWNPIPES ONLY WHICH ARE TO BE VERIFIED BY BUILDER / PLUMBER
2. **TREE PRESERVATION:** IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF THOSE WORKS
3. ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS 3500.3:2003
4. THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES - REFER TO ARCHITECTURAL DRAWINGS
5. LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED DESIGN INTENT OF THIS DRAWING IS MAINTAINED

SURFACE INLET PIT



SURFACE INLET PIT  
(WITH ENVIROPOD 200 MICRON)



ACCESS GRATE  
(WITH ENVIROPOD 200 MICRON)



450 SQUARE INTERVAL

450 X 450

GRATE LEVEL = 75.50

SL 75.50

INVERT LEVEL = RL 75.20

IL 75.20

PROPOSED DOWNPIPE  
90mm DIA. OR 100mm x 50mm MIN.



NATURAL GROUND FINISHED  
DESIGN LEVEL

x 10.00

#### LEGEND

GRATED TRENCH DRAIN



ABSORPTION TRENCH



PROPOSED ROOF GUTTER FALL



PROPOSED DOWNPIPE SPREADER



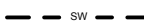
STORMWATER PIPE 100mm DIA. MIN. UNO



SUBSOIL PIPE



EXISTING STORMWATER PIPE



INSPECTION RISER



RAINWATER HEAD



#### DRAINAGE NOTES

##### PIPE SIZE:

THE MINIMUM PIPE SIZE SHALL BE:

- 90mm DIA WHERE THE LINE ONLY RECEIVES ROOFWATER RUNOFF; OR
- 100mm DIA WHERE THE LINE RECEIVES RUNOFF FROM PAVED OR UNPAVED AREAS ON THE PROPERTY

THE MINIMUM PIPE VELOCITY SHOULD BE 0.6 m/s AND A MAXIMUM PIPE VELOCITY OF 6.0 m/s DURING THE DESIGN STORM.

##### PIPE GRADE:

THE MINIMUM PIPE GRADE SHALL BE:

- 1.0% FOR PIPES LESS THAN 225mm DIA (UNO)
- 0.5% FOR ALL LARGER PIPES (UNO)

PIPES WITH A GRADIENT GREATER THAN 20% WILL REQUIRE ANCHOR BLOCKS AT THE TOP AND BOTTOM OF THE INCLINED SECTION; AND AT INTERVALS NOT EXCEEDING 3.0m

ANCHOR BLOCKS ARE DESIGNED ACCORDING TO *CLAUSE 3.5.3 OF AS3500.3:1990*

##### DEPTH OF COVER FOR PVC PIPES:

MINIMUM PIPE COVER SHALL BE AS FOLLOWS:

LOCATION	MINIMUM COVER
NOT SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTIAL 300mm ALL OTHER DEVELOPMENTS
SUBJECT TO VEHICLE LOADING UNDER A SEALED ROAD	450mm WHERE NOT IN A ROAD 600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

SEE AS2032 INSTALLATION OF UPVC PIPES FOR FURTHER INFORMATION.

CONCRETE PIPE COVER SHALL BE IN ACCORDANCE WITH *AS3725-1989 LOADS ON BURIED CONCRETE PIPES*, HOWEVER A MINIMUM COVER OF 450mm WILL APPLY.

WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL THEN BE PAVED WITH AT LEAST:

- 150mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC;
- 75mm THICKNESS OF BRICK OR 100mm OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC; OR
- 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC.

##### CONNECTIONS TO STORMWATER DRAINS UNDER BUILDINGS:

SHALL BE CARRIED OUT IN ACCORDANCE WITH *SECTION 3.10 OF AS3500.3:1990*

##### CONNECTIONS TO COUNCIL SYSTEM:

IF PROPOSED DRAINAGE SYSTEM IS DESIGNED TO CONNECT TO COUNCIL'S DRAINAGE SYSTEM, IT IS ADVISED THAT A 'WORKS PERMIT' IS OBTAINED FROM THE RESPECTIVE COUNCIL PRIOR TO COMMENCEMENT OF WORKS

##### ABOVE GROUND PIPEWORK:

SHALL BE CARRIED OUT IN ACCORDANCE WITH *SECTION 6 OF AS3500.3:1990*

##### PIT SIZES AND DESIGN:

DEPTH (mm)	MINIMUM PIT SIZE (mm)
UP TO 450mm	450 x 450
450mm TO 600mm	600 x 600
600mm TO 900mm	600 x 900
900mm TO 1500mm	900 x 900 (WITH STEP IRONS)
1500mm TO 2000mm	1200 x 1200 (WITH STEP IRONS)

ALL PIPES SHOULD BE CUT FLUSH WITH THE WALL OF THE PIT.

PITS GREATER THAN 600mm DEEP SHALL HAVE A MINIMUM ACCESS OPENING OF 600 x 600mm

THE GRATED COVERS OF PITS LARGER THAN 600 x 600mm ARE TO BE HINGED TO PREVENT THE GRATE FROM FALLING INTO THE PIT.

THE BASE OF THE DRAINAGE PITS SHOULD BE AT THE SAME LEVEL AS THE INVERT OF THE OUTLET PIPE. RAINWATER SHOULD NOT BE PERMITTED TO POND WITHIN THE STORMWATER SYSTEM

- **TRENCH DRAINS:** CONTINUOUS TRENCH DRAINS ARE TO BE OF WIDTH NOT LESS THAN 150mm AND DEPTH NOT LESS THAN 100mm. THE BARS OF THE GRATING ARE TO BE PARALLEL TO THE DIRECTION OF SURFACE FLOW.
- **STEP IRONS:** PITS BETWEEN 1.2m AND 6m ARE TO HAVE STEP IRONS IN ACCORDANCE WITH AS1657. FOR PITS GREATER THAN 6m OTHER MEANS OF ACCESS MUST BE PROVIDED.
- **PVC PITS:** PVC PITS WILL ONLY BE PERMITTED IF THEY ARE NOT A GREATER SIZE THAN 450 x 450mm (MAXIMUM DEPTH 450mm) AND ARE HEAVY DUTY
- **IN-SITU PITS:** IN-SITU PITS ARE TO BE CONSTRUCTED ON A CONCRETE BED OF AT LEAST 150mm THICK. THE WALLS ARE TO BE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF CLAUSE 4.6.3 OF AS3500.4:1990. PITS DEEPER THAN 1.8m SHALL BE CONSTRUCTED WITH REINFORCED CONCRETE.
- **GRATES:** GRATES ARE TO BE GALVANISED STEEL GRID TYPE. GRATES ARE TO BE OF HEAVY-DUTY TYPE IN AREAS WHERE THEY MAY BE SUBJECT TO VEHICLE LOADING.

DRAWING TITLE:

DETAILS, NOTES &  
LEGEND

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DRAWN

DATE

DESCRIPTION

ISSUE

FOR

APPROVED BY:

DESIGNED BY:

A.C

ISSUE

J.N

21.02.2019

ISSUED FOR DEVELOPMENT APPLICATION

A

NEWPORT HOMES

A.C

03.09.2019

RE-ISSUED FOR DEVELOPMENT APPLICATION

B

SITE ADDRESS:

LOT 12 , No. 183

BARRENJOEY ROAD

PROJECT

PROPOSED RESIDENCE

NEWPORT

SCOTT SHARMA, M.I.E. Aust.

CHECKED BY:

S.S

B

SCALE

-

SHEET SIZE

A3

SHEET No.

CLIENT REF.

-

DRAWING No.

E309466

D1

AREA CALCULATIONS		
TOTAL SITE AREA	474.2	m²
EXISTING DEVELOPMENT		
ROOF AREA	206.5	m²
PAVED AREA	87.6	m²
DRIVEWAY AREA	17.3	m²
IMPERVIOUS AREA	311.4	m²
TOTAL IMPERVIOUS AREA PERCENTAGE	65.67%	
PROPOSED DEVELOPMENT		
PROPOSED ROOF AREA	192.0	m²
PROPOSED PAVED AREA	0	m²
PROPOSED DRIVEWAY AREA	52.9	m²
TOTAL IMPERVIOUS AREA	244.9	m²
TOTAL IMPERVIOUS AREA PERCENTAGE	51.64%	

**NOTE:**  
PRE-DEVELOPMENT AREAS ARE BASED ON THE DWELLING THAT EXISTED PRIOR TO ITS DEMOLITION APPROX. JULY 2018. THE DWELLING WAS DEMOLISHED DUE TO A FIRE. AS IT WAS DEMOLISHED A SURVEY COULD NOT BE TAKEN AND THE AREAS WERE OBTAINED USING NEARMAPS.

**NOTE:** ENSURE ANY PROPOSED PAVING IS GRADED SO THAT IT IS NOT IMPACTING ADJOINING PROPERTIES.

**INSPECTION RISER (IR)**  
PROVIDE 'SCREW CAP' INSPECTION RISER AT LOWEST POINT OF 'CHARGED LINES'

**ABSORPTION TRENCH**  
SIZE: 3 x 2.5m LONG  
(REFER TO DETAIL ON SHEET D5)

- INSTALL PARALLEL TO FINISHED GROUND CONTOURS
- ENSURE TRENCH IS LEVEL TO PERMIT EVEN DISTRIBUTION OF FLOWS
- TOPSOIL OVER TRENCH TO BE STRICTLY SANDY
- TRENCH TO BE 2.0m FROM SIDE BOUNDARY, 2m FROM REAR BOUNDARY AND 2.0m FROM BUILDING STRUCTURE

**RAINWATER RE-USE TANK - RWT**  
(AS PER BASIX REQUIREMENTS)

SIZE: 3,000 LITRES (MIN)  
2 x STANDARD UNIT (3,500 LITRES) BY "LANDSCAPE TANKS"  
2800L x 1100W x 1055H OR SIMILAR  
INSTALL TO MANUFACTURES SPECIFICATIONS, AS3500 AND COUNCIL REQUIREMENTS

- FOR RE-USE AS SPECIFIED BY BASIX CERTIFICATE
- ENSURE TOP OF TANK IS MIN 1.0m BELOW ROOF GUTTERS TO ENSURE SUFFICIENT HEAD FOR THE SYSTEM
- TANK TO BE INSTALLED BY LICENSED PLUMBER IN ACCORDANCE WITH AS/NZS 3500:2003 AND NSW CODE OF PRACTICE PLUMBING AND DRAINAGE 2006

**RWT CALCULATIONS**

LGA: - PITTWATER COUNCIL

SOURCE - PITTWATER 21 DCP PART: B5.5 STORMWATER MANAGEMENT

"ALL DEVELOPMENT CREATING AN ADDITIONAL HARD (IMPERVIOUS) ROOF AREA OF GREATER THAN 50m2 MUST PROVIDE A RAINWATER TANK FOR NON-POTABLE USE."

- PRE-DEVELOPMENT IMPERV. ROOF AREA = 206.5m²
- PROPOSED POST DEVELOPMENT ROOF IMPERV. AREA = 192.0m²
- PROPOSED INCREASE IN SITE COVERAGE = -14.5m²

INCREASE IN SITE COVERAGE < 50m²

**THEREFORE RAINWATER TANK NOT REQUIRED**

**OSD WARRANT**

LGA: - PITTWATER COUNCIL

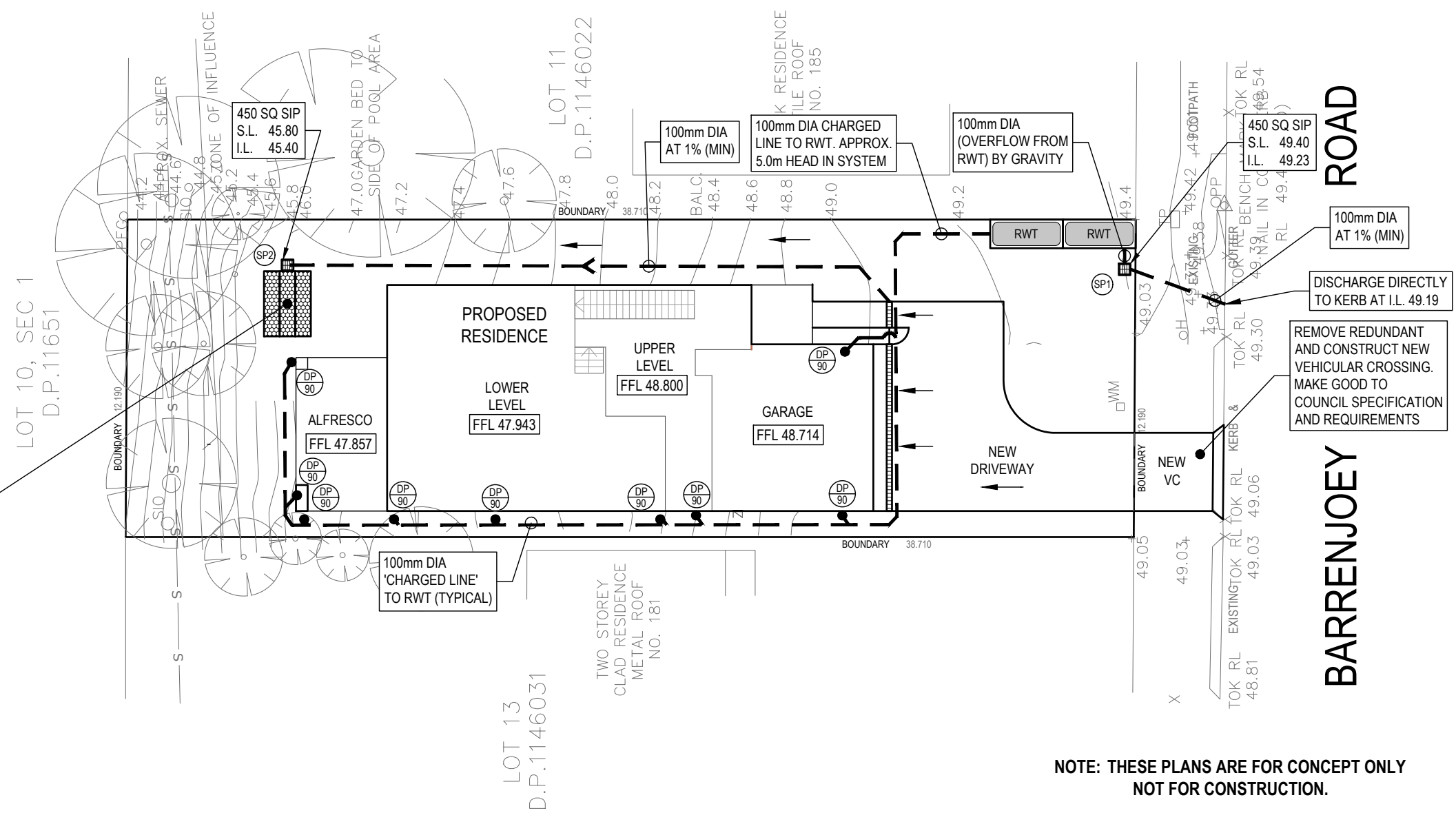
SOURCE - PITTWATER 21 DCP PART: B5.7 STORMWATER MANAGEMENT

"AN ON-SITE DETENTION (OSD) FACILITY IS TO BE INSTALLED WHERE THE DEVELOPMENT RESULTS IN ADDITIONAL HARD (IMPERVIOUS) SURFACE AREA OF GREATER THAN 50m² (ON A CUMULATIVE BASIS SINCE FEBRUARY 1996) AND ON LAND DESIGNATED THROUGH MAPPING AS REQUIRING OSD FACILITY."

- PRE-DEVELOPMENT IMPERV. AREA = 311.4m²
- PROPOSED POST DEVELOPMENT IMPERV. AREA = 244.9m²
- PROPOSED INCREASE IN SITE COVERAGE = -66.5m²

INCREASE IN SITE COVERAGE < 50m²

**THEREFORE OSD NOT REQUIRED**



**NOTE: THESE PLANS ARE FOR CONCEPT ONLY  
NOT FOR CONSTRUCTION.**



DONOVAN

ASSOCIATES

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ABN: 84 134 616 078


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15 PARKES STREET PARRAMATTA NSW 2150

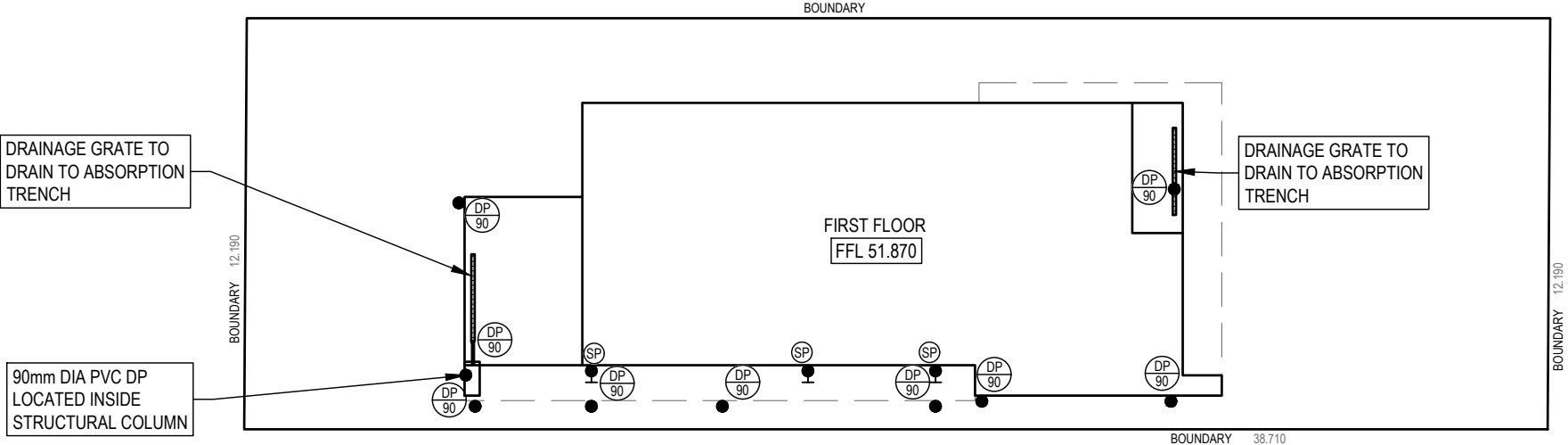
DRAWING TITLE:  
**STORMWATER  
MANAGEMENT PLAN**

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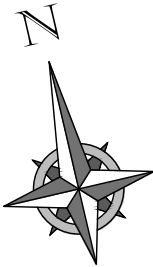
DRAWN	DATE	DESCRIPTION	ISSUE	FOR
J.N	21.02.2019	ISSUED FOR DEVELOPMENT APPLICATION	A	NEWPORT HOMES
A.C	03.09.2019	RE-ISSUED FOR DEVELOPMENT APPLICATION	B	SITE ADDRESS:
				LOT 12 , No. 183
				BARRENJOEY ROAD
				NEWPORT
PROJECT		PROPOSED RESIDENCE		

APPROVED BY:  
  
SCOTT SHARMA, M.I.E. Aust.

DESIGNED BY:	A.C	B
CHECKED BY:	S.S	
SCALE	1:200	
SHEET SIZE	A3	SHEET No.
CLIENT REF.	DRAWING No.	D2
-	E309466	



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15 PARKES STREET PARRAMATTA NSW 2150

DRAWING TITLE:  
FIRST FLOOR PLAN

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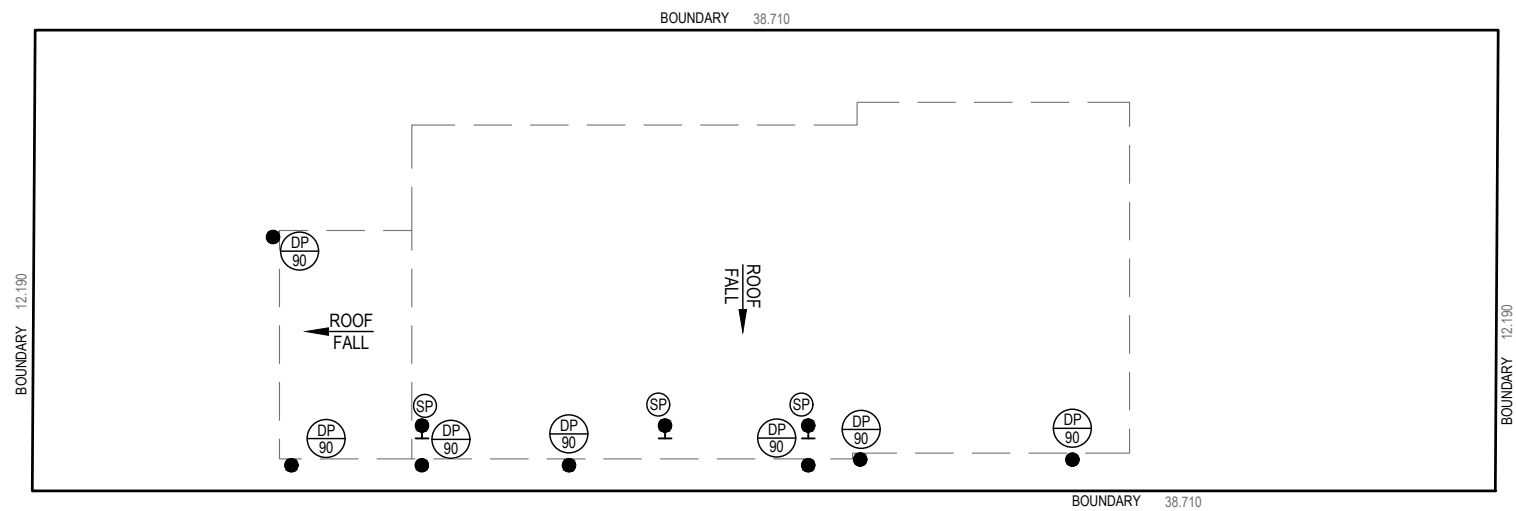
DRAWN	DATE	DESCRIPTION	ISSUE	FOR
J.N	21.02.2019	ISSUED FOR DEVELOPMENT APPLICATION	A	NEWPORT HOMES
A.C	03.09.2019	RE-ISSUED FOR DEVELOPMENT APPLICATION	B	SITE ADDRESS:
				LOT 12 , No. 183
				BARRENJOEY ROAD
				NEWPORT
PROJECT		PROPOSED RESIDENCE		

APPROVED BY:

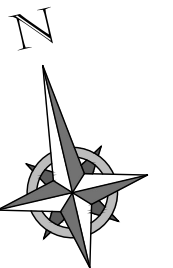



SCOTT SHARMA, M.I.E. Aust.

DESIGNED BY:	A.C	B
CHECKED BY:	S.S	
SCALE	1:200	
SHEET SIZE	A3	SHEET No.
CLIENT REF.	DRAWING No.	D3
-	E309466	

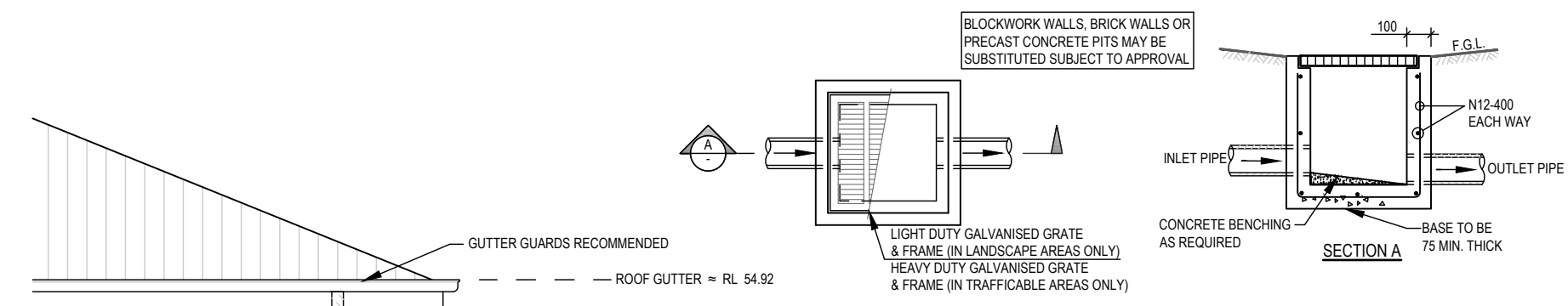


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NOT FOR CONSTRUCTION.



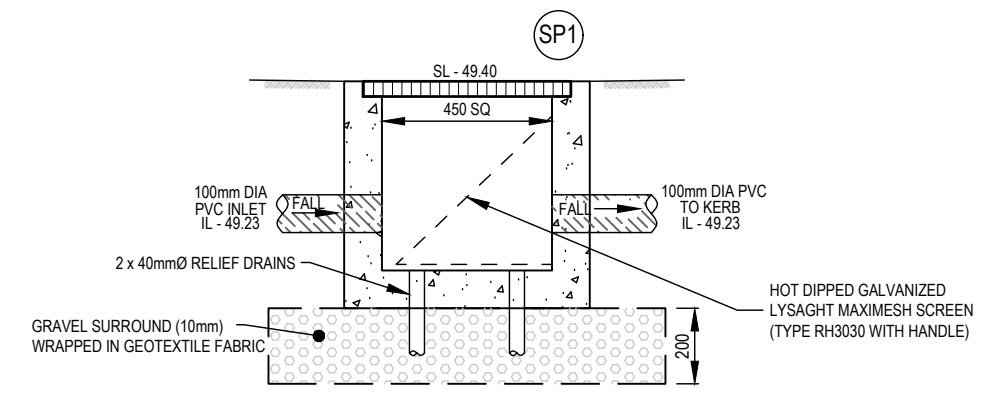
<div><div><div>DONOVAN</div><div>ASSOCIATES</div><div>INCORPORATED ENGSURVEY PTY LTD ABN: 84 134 616 078 PH/ 02 9806 3000 F/ 02 9891 2806 E/ admineng@donovanassociates.com.au 15 PARKES STREET PARRAMATTA NSW 2150</div></div></div>	DRAWING TITLE:  ROOF PLAN	DRAWN	DATE	DESCRIPTION	ISSUE	FOR	APPROVED BY:    SCOTT SHARMA, M.I.E. Aust.	DESIGNED BY:	A.C	ISSUE  B
		J.N	21.02.2019	ISSUED FOR DEVELOPMENT APPLICATION	A	NEWPORT HOMES		CHECKED BY:	S.S	
		A.C	03.09.2019	RE-ISSUED FOR DEVELOPMENT APPLICATION	B	SITE ADDRESS:		SCALE	1:200	
						LOT 12 , No. 183		SHEET SIZE	A3	SHEET No.
						BARRENJOEY ROAD NEWPORT		CLIENT REF.	DRAWING No.	D4
								-	E309466	
		PROJECT		PROPOSED RESIDENCE						



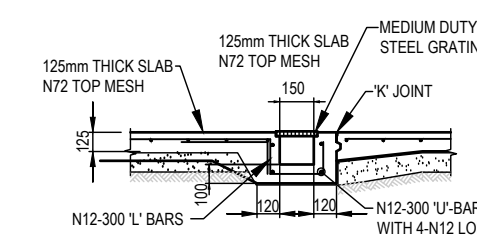


**TYPICAL PIT (SIP)**  
NTS

NOTE:  
ALL PROPOSED SITE PITS ARE TO BE CONSTRUCTED IN CONCRETE CAST IN SITU. PLASTIC OR BRICK PITS ARE NOT ACCEPTABLE. HOWEVER, 'COUNCIL MAY CONSIDER PRE-CAST UNITS IF THE UNITS ARE PLACED ON A SOLID BASE OF GRAVEL OR CONCRETE OF 75mm THICK AND BACKFILL UP TO HALF THE DEPTH OF THE PIT SURROUND WITH CONCRETE.

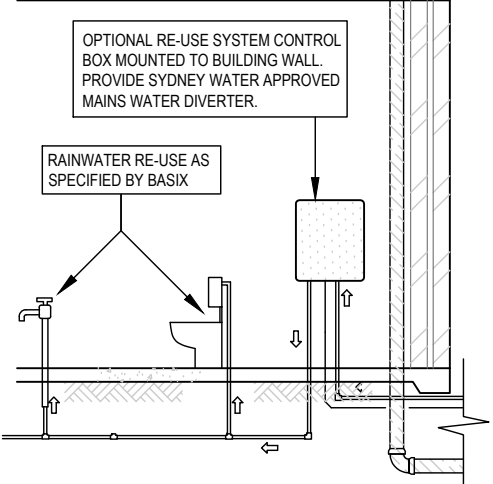


**SEDIMENT CONTROL PIT - SP1**  
1:20

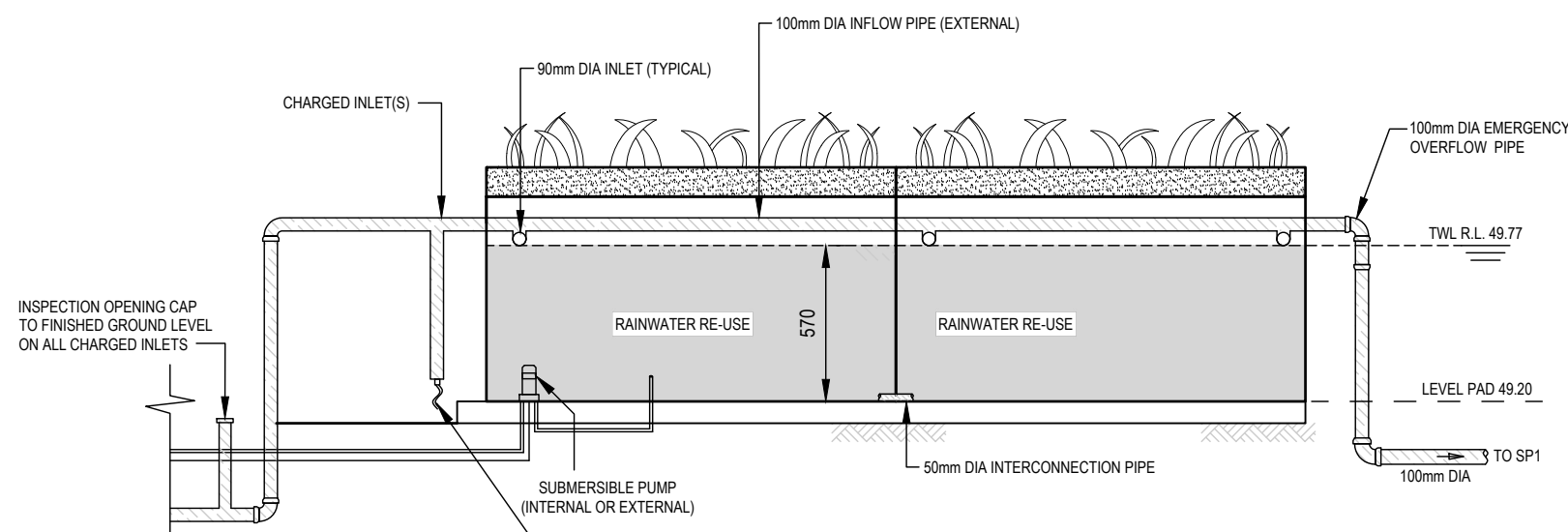


**GRADED DRAIN**  
NTS

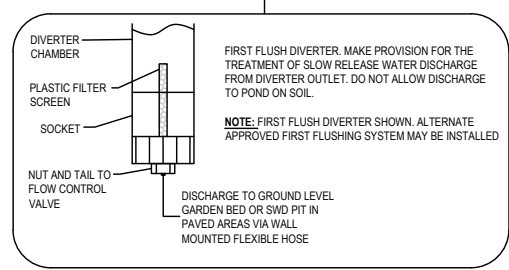
NOTE:  
CONCRETE TRENCH WITH GALVANISED STEEL GRATING MAY BE SUBSTITUTED FOR U.V STABILISED POLYPROPYLENE U CHANNEL & GRATE SUBJECT TO ENGINEERS APPROVAL



**RAINWATER RE-USE TANK**  
(AS PER BASIX REQUIREMENTS)  
USE 2 x STANDARD UNIT BY "LANDSCAPE TANKS"  
(2800L x 1100W x 1055H)  
INSTALL TO MANUFACTURES SPECIFICATIONS, AS3500 AND COUNCIL REQUIREMENTS

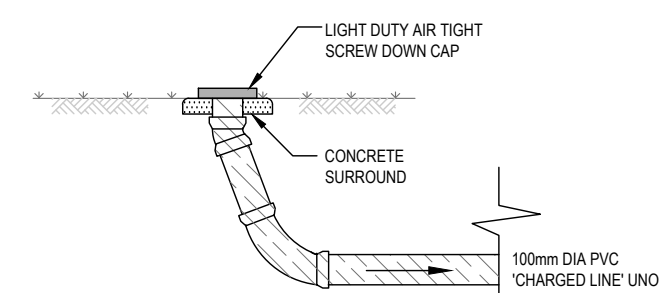


**RAINWATER RE-USE - LANDSCAPE TANKS**  
NTS (TYPICAL)



**TYPICAL WARNING SIGN**  
NTS

EVERY EXTERNAL SUPPLY OUTLET FROM RAINWATER RE-USE TANK TO BE LABELED WITH METALLIC WARNING SIGN



**INSPECTION RISER - IR**  
NTS

**DONOVAN ASSOCIATES**  
INCORPORATED ENGSURVEY PTY LTD ABN: 84 134 616 078  
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15 PARKES STREET PARRAMATTA NSW 2150

DRAWING TITLE:  
**STORMWATER DETAILS**  
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				LOT 12 , No. 183
				BARRENJOEY ROAD
				NEWPORT
PROJECT		PROPOSED RESIDENCE		

APPROVED BY:  
*Scott Sharma*  
SCOTT SHARMA, M.I.E. Aust.

DESIGNED BY: A.C  
CHECKED BY: S.S  
SCALE: AS NOTED  
SHEET SIZE: A3  
CLIENT REF: -  
DRAWING No. E309466

ISSUE	B
SHEET No.	D5

ABSORPTION SYSTEM CALCULATIONS

Project: Proposed Residence  
Job Number: E309466  
Location: No.183 Barrenjoey Road, Newport

Site Details	
Site Area	474.2 m <sup>2</sup>
Impervious Area to Absorption Trench	52.9 m <sup>2</sup>
Nominal Absorption Rate (AR <sub>N</sub> )	0.3 l/m <sup>2</sup> /sec
Reduction Factor (F <sub>R</sub> )	0.75

Design Details	
Design Impervious Area (DA)	63.48 m <sup>2</sup>
Design Absorption Rate (AR <sub>d</sub> )	= AR <sub>N</sub> x F <sub>R</sub> 0.2 l/m <sup>2</sup> /sec
Base Area of Absorption Pit (BA)	(to be calculated) 4.5 m <sup>2</sup> (3.4m x 0.6m x 3 off)

Required Absorption System Volume Calculation for 50 year ARI Storm

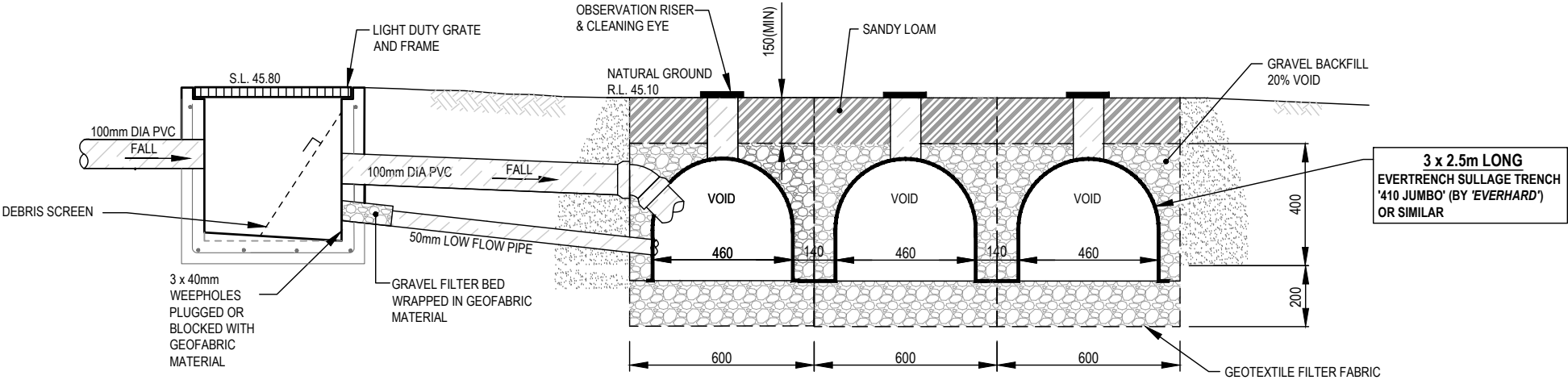
Time (min) T	Rainfall Intensity (mm/hr) I	Runoff (l/s) R = I x DA/3600	Runoff Volume (m <sup>3</sup> ) RV = R x T x 60/1000	Infiltration Vol (m <sup>3</sup> ) IV = BA x AR <sub>d</sub> x T x 60/1000	Required Absorption System Volume (m <sup>3</sup> ) RV - IV
5	242.0	4.27	1.28	0.30	0.98
6	232.0	4.09	1.47	0.36	1.11
7	222.0	3.91	1.64	0.43	1.22
8	213.0	3.76	1.80	0.49	1.32
9	205.0	3.61	1.95	0.55	1.41
10	197.0	3.47	2.08	0.61	1.48
15	165.0	2.91	2.62	0.91	1.71
20	142.0	2.50	3.00	1.22	1.79
25	125.0	2.20	3.31	1.52	1.79
30	112.0	1.97	3.55	1.82	1.73
40	92.9	1.64	3.93	2.43	1.50
50	80.0	1.41	4.23	3.04	1.19
60	70.6	1.24	4.48	3.65	0.84
120	43.6	0.77	5.54	7.29	-1.75

Maximum Required Absorption System Volume (MRASV) (m<sup>3</sup>) 1.79

Proposed Absorption System Volume Calculation Sheet

Total Volume of pits (above top of base level) (m <sup>3</sup> )	(0.6 x 0.6 x 0.6m x 2off)	0.432
Volume of half round Everglas 410 'Jumbo' (m <sup>3</sup> )	(0.175 x 3.5 x 3 off)	1.31
Gravel void Volume (20% of gravel volume) (m <sup>3</sup> )	(0.2 x 0.2 x 6.3)	0.14
Total Proposed Absorption System Volume (TPASV) (m <sup>3</sup> )		1.88

TPASV must be greater than MRASV Satisfactory



ABSORPTION TRENCH

1:20

DRAWN	DATE	DESCRIPTION	ISSUE	FOR
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A.C	03.09.2019	RE-ISSUED FOR DEVELOPMENT APPLICATION	B	SITE ADDRESS:
				LOT 12 , No. 183 BARRENJOEY ROAD NEWPORT
PROJECT		PROPOSED RESIDENCE		

DESIGNED BY:	A.C	B
CHECKED BY:	S.S	
SCALE	1:20	
SHEET SIZE	A3	SHEET No.
CLIENT REF.	DRAWING No.	D6
-	E309466	