

Stormwater drainage plan

General notes

2. All work shall be in accordance with council specifications.
2. All workmanship and materials shall comply with the relevant SAA codes.
3. Contractor shall verify the value of the BM prior to commencement of work.
4. Make smooth junction with all existing works.
5. All stormwater pipes and pits shall be installed in accordance with AS 3500.3 national plumbing and drainage - stormwater drainage notwithstanding council requirements.
6. All stormwater pipes under trafficable areas shall be sewer grade UPVC.
7. Minimum 100 mm pipe cover to natural surface or underside pavement.
8. All stormwater pipes from dps shall be Ø100 uPVC laid at 1% minimum U.N.O.
9. All stormwater pipes from pits shall be Ø150 uPVC laid at 1% minimum U.N.O.
10. All pits shall be provided with 100 Ø weep holes in the upstream wall and be streamlined with mass concrete benching and have internal
11. All pits shall be pre-cast or approved equal.
12. Grates and covers shall match the class specified and shall comply with as3996. all grates and covers shall be trafficable by bicycles and wheel chairs. class is specified before loading, as follows:
A-XLT=extra light, B-LT=light, C-MT =medium
D-HT =heavy, E-XHT=extra heavy, F-XXHT=super extra heavy
13. Drainage calculations and capacities have been assessed as follows :
(A) 10 Yr ari for pits (nodes) and pipes
(B) 20 Yr ari for eaves gutters
(C) 100 yr ari for box gutters - U.N.O.
14. on site detention and permissible site discharge have been calculated in accordance with council's stormwater code.
15. All levels shown are to finished pavement, add 0.15 m to get tk levels U.N.O.
16. Vehicle crossings shall be installed to council specifications and levels.
17. All existing services in road reserve shall be identified prior to construction and relocated as required at the developers expense.
18. All control measures used shall be in accordance with the department of conservation and land management publication dated 1992, titled "urban erosion and sediment control".
19. Soil erosion and sediment control measures shall be set in place prior to any works commencing.
20. All control measures shall also be installed to the satisfaction and direction of the council's engineer.
21. The contractor shall regularly maintain all sediment and erosion control devices and remove accumulated silt from such devices before no more than 60% of their capacity is lost. No silt shall be placed outside the limit of works.
22. All disturbed areas shall be stabilised by means of landscaping, turf or re-vegetation shall as soon as possible.
23. This drawing outlines the minimum measures to be taken to control erosion and to arrest the transport of sediment. Additional measures may be required to suit staging of works or as directed by the superintendent or council engineer.

Caution note

Services were not investigated as part of this design. The contractor shall verify location and depth prior to commencement of any works.

Rainwater tank notes

1. Tank water taps shall be marked "For water not to be used for human consumption".
2. Minimum tank size 1200 litres.
3. Rainwater tank shall be connected to main water supply as backup.
4. The pumps are to be installed in accordance with council policy.
5. Pumps shall provide minimum 150kpa pressure.
6. Tank to be connected to all toilets for toilet flushing, to the cold water taps that supplies each washing machine for clothes washing & out door taps for irrigation use.
7. Rainwater tanks to be cleaned out every 6 months.
8. Water tank and associated structure to be the same colour, or a colour complementary to the dwelling.
9. Top of tank to be below top of nearest fence, or 1.8 metres, whichever is lesser.
10. The water tank should be located at least 900mm from any property boundary.
11. Plumbing from the water tank is to be kept separate from the reticulated water supply system.
12. Tank to be built on self supporting base.
13. Provide back-flow prevention device at mains water meter.
14. Roof draining to tank must not contain lead, tar based paints and asbestos.
15. Water to be drawn from anaerobic zone of tank.

Soil & water management notes

1. All existing trees to be retained unless shown otherwise on approved architect's or landscape drawing.
2. Retain all existing grass cover wherever possible.
3. Install silt fence, as shown on plan, prior to any on-site earthworks commencing.
4. Install temporary sediment barriers to all inlet pits likely to collect silt laden water, until surrounding re-grassed.
5. All silt fences & barriers are to be maintained in good construction and desilted during the construction period.
6. any silt laden stormwater or seepage which accumulates in the basement excavation is to be pumped out using a memtec filtration vessel or equivalent with suitable disposable filters to achieve a level of non-filterable residues less a level of non-filterable residues less than 50p.p.m.

Notes

- Adjust services in footway as required at no cost to council.
- Regrade and restore footway area as required at completion of works to council issued levels and satisfaction.
- This drawing shall be read in conjunction with the following:- Architectural plans by rm designer contour and detail survey by.
- Wheels of vehicles leaving the site to be washed down to prevent sediment leaving site
- Geotextile is to be bidim A14 propex 4550 or similar with coefficient of permeability greater than Soe -4 m/s for pipes > Ø225 lis proprietary unit.

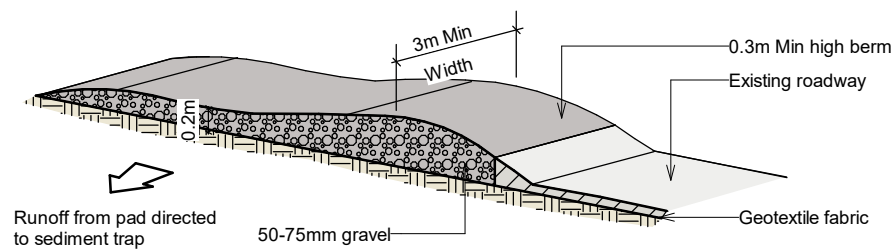
Warning - Services



No investigation of underground services has been made. All relevant authorities should be notified prior to any excavation on or near the site

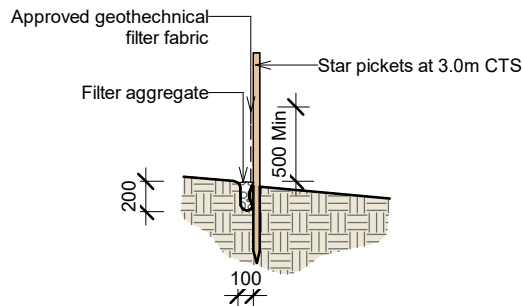
Developers & excavators may be held financially responsible by the asset owner should they damage underground networks.

No.	Description	Date	Drawn by :	<div>Approved by : Karl Diskoros Be, Mie Aust, CPeng NPER</div>	<div><div>Address : Level 1, 55 Falcon street, Crows nest, NSW, 2065 Tel : (02) 8068 1381 Mob : 0434 279 027</div></div>	Project : Proposed alteration and addition				
1	Preliminary issue	22.03.08	Franz			Address : 14 Ivy Street Greenacre NSW 2190				
2	Preliminary issue	22.03.25	Cheked by : Karl Diskoros			Client/s :	Andrew	Dwg no :	A01	
3	Preliminary issue	22.04.05				Stormwater drainage plan		Notes :	Stormwater	
						Project no :		941109668	Scale :	As shown @ A3



Temporary construction exit

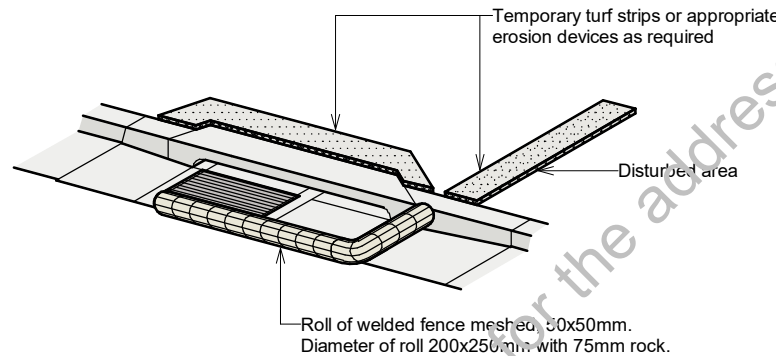
0 2500
Scale: 1 : 50



Provide silt fence

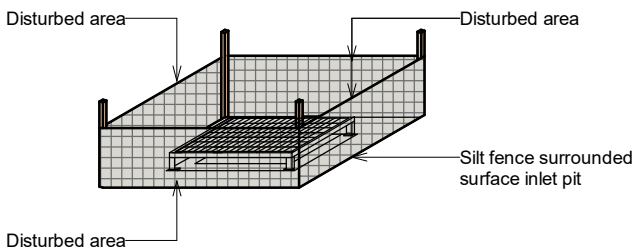
Silt fence barrier detail

0 2500
Scale: 1 : 50



Plan of kerb inlet sediment trap

0 2500
Scale: 1 : 50



To be used around pits

Plan of surface inlet sediment trap

0 2500
Scale: 1 : 50

Note

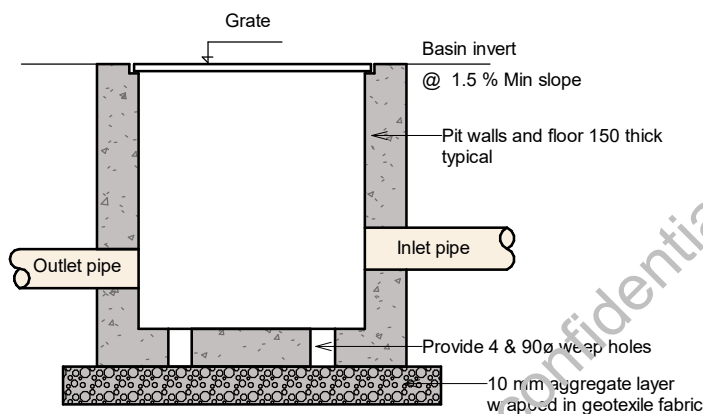
- Areas in excess of 1600m² should have the flows spit and additional pits provided or an alternative design submitted.
- Pits may be constructed of brick or concrete (precast or cast in-situ) or concrete blocks or plastic if not subject to vehicle loads.
- In solid rock the width of the aggregate base may be reduced to the width of the pit and depth D reduced to 100 mm for all pit sizes.
- For pits with W greater than 900mm
 - The gates are to be constructed in components not exceeding 600x600 for easy lifting and preferably light duty where possible.
 - The maximesh screen is to be supported on its own frame.
 - Increase the number of seepage holes

Pit size table - number 1

Internal pit size mm	Depth mm
300x300	<600
450x450	600-800
600x600	800-1000
600x900	1000-1300
900x900	>1300

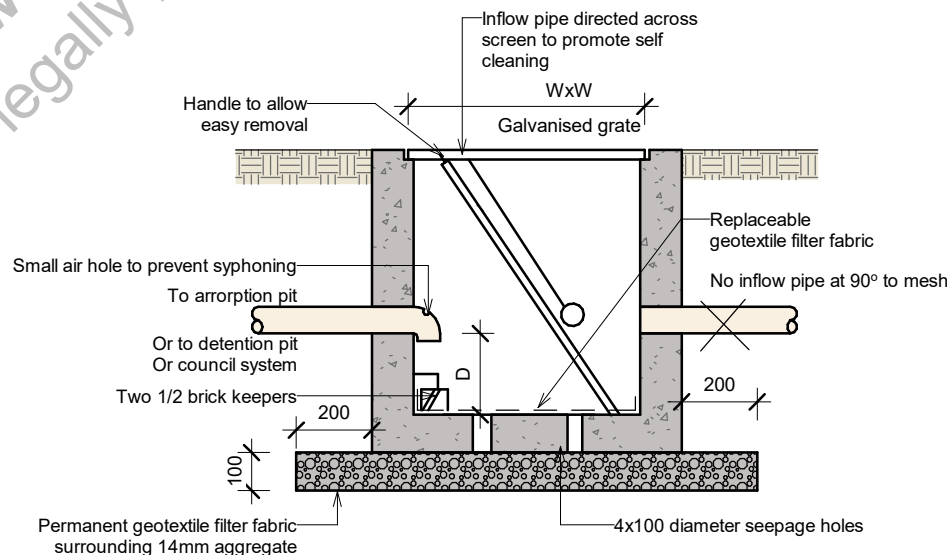
Pit size table - number 2

Site area drawing (m2)	Width (W)	Depth	
		Sandy soil	Poor soil/clay
Area <100	350	300	200
100≤ Area <400	450	300	200
400≤ Area <800	800	350	250
800≤ Area <1200	900	400	300
1200≤ Area ≤ 1800	1200	450	350



Typical pit number 1

0 1000
Scale: 1 : 20



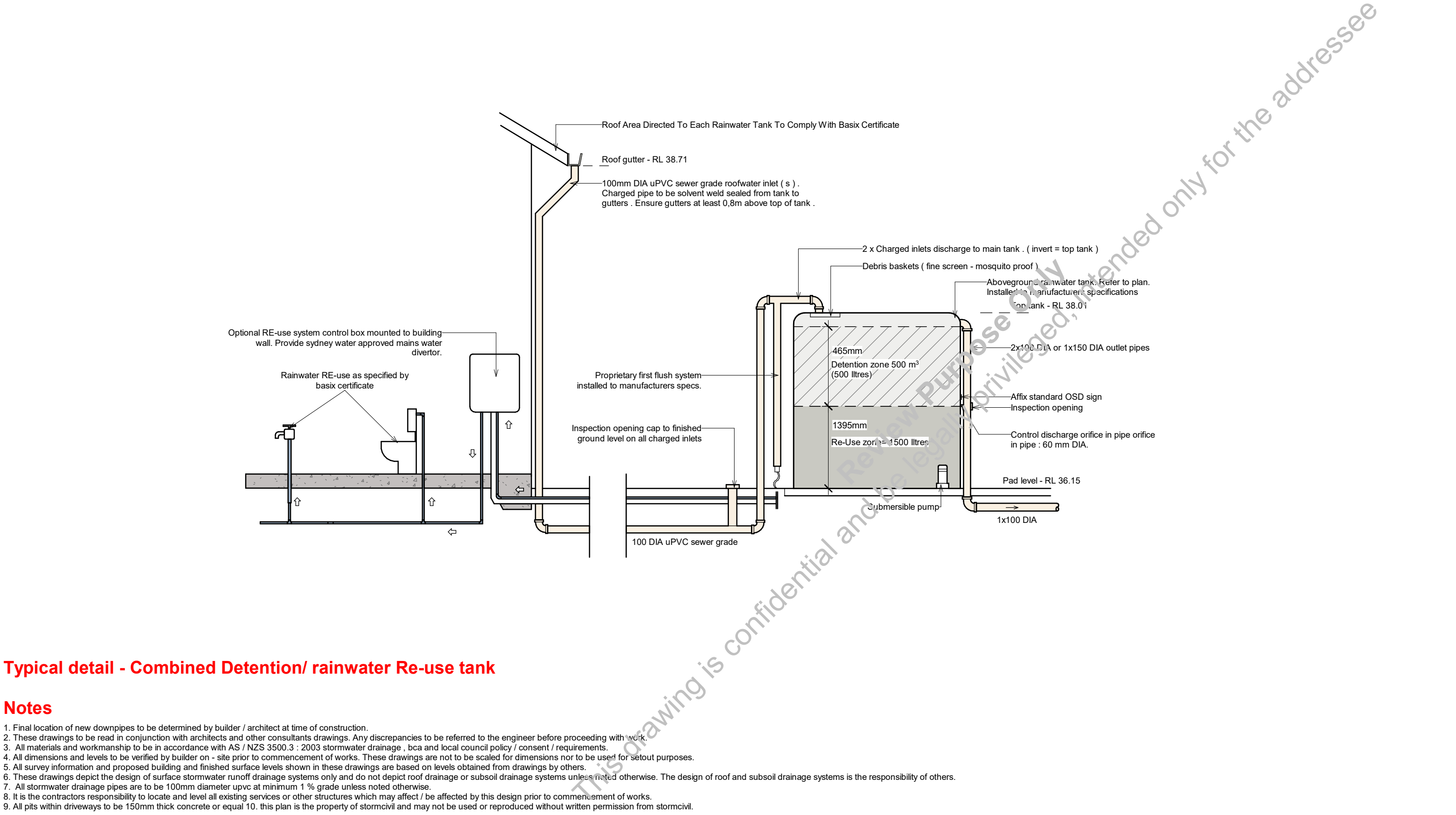
Typical detail for a silt arrestor pit

Typical pit number 2

0 5000
Scale: 1 : 20

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Typical detail - Combined Detention/ rainwater Re-use tank

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. These drawings depict the design of surface stormwater runoff drainage systems only and do not depict roof drainage or subsoil drainage systems unless noted otherwise. The design of roof and subsoil drainage systems is the responsibility of others.
7. All stormwater drainage pipes are to be 100mm diameter upvc at minimum 1 % grade unless noted otherwise.
8. 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.
9. All pits within driveways to be 150mm thick concrete or equal 10. this plan is the property of stormcivil and may not be used or reproduced without written permission from stormcivil.

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