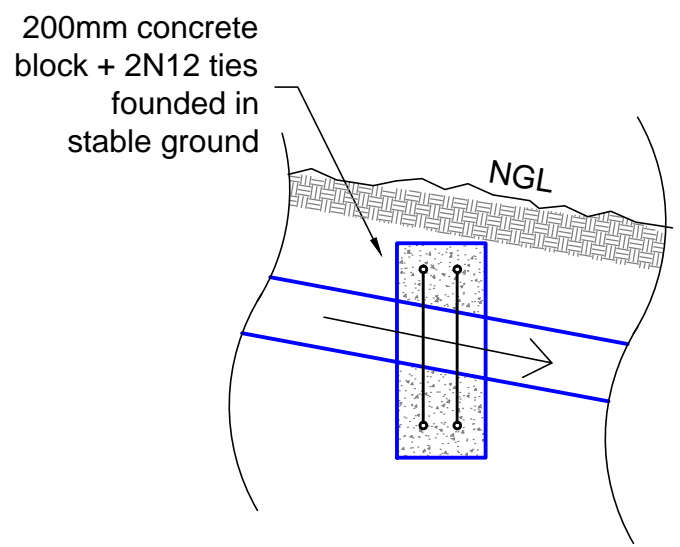
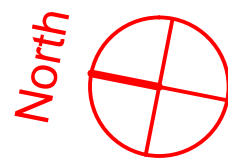


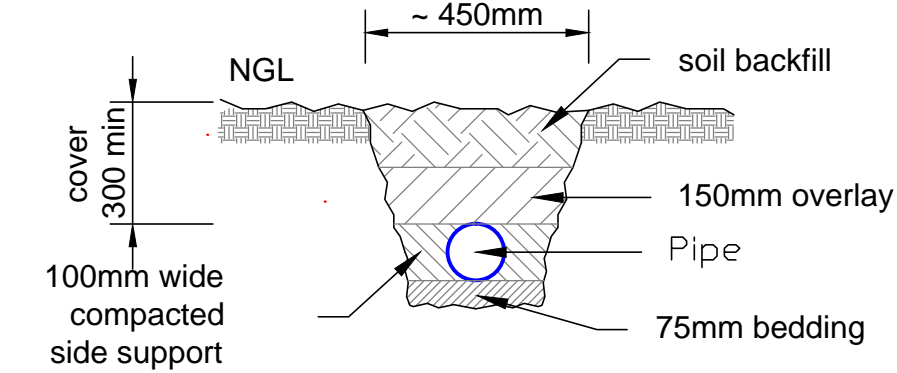
STORMWATER NOTES

1. All roof collection components (ie slab drainage, rain heads, gutters, DPs etc) are to be located / sized by the contracting Plumber for a 5% AEP event capacity. For example a QUAD 150 gutter draining to a 100mm dia dp will service 40m² of roof area.
2. All Trunk Drainage pipes as shown on this plan to be minimum of 100mm dia uno.
3. All pipes to be uPVC to AS 1254:2002.
4. All pipes to be laid at the grade required to match pit invert levels.
5. All pipes to be installed and laid in accordance with AS 3500.3:2003, including the installation of anchors blocks if the pipe slope is > 1V to 5H.
6. All roof guttering/ down pipes / valley gutters / box gutters etc are to be sized and installed in accordance with AS 3500.3:2003.
7. All pits are to be proprietary uv resistant polypropylene or similar unless noted (approved by the Engineer) and are to include a min 50mm sediment trap in the base and a maximesh screen laid at 45° across the pit to protect the outlet pipe.
8. All pits greater than 600mm in depth are to be proprietary precast concrete (approved by the Engineer).
9. All pits greater than 1000mm in depth are to have adequate access requirements in accordance with OH&S/Workcover requirements (ie; minimum dimensions 900x900mm with step irons).
10. All works are to be inspected and certified by the Principle Certifying Authority prior to backfilling.
11. All works requiring certification by the Engineer will require a works as executed survey prepared by a registered Surveyor detailing all levels etc as on the Engineering plans.
12. The system is too be flushed and cleaned of all sediment and debris annually.
13. The system will require regular cleaning and maintenance to ensure its ability to function is maintained.
14. To ensure the system's ability to function is maintained it is to be inspected and certified as operating effectively by a licensed plumber every 5 years, and a engineer every 20yrs.
15. All existing predevelopment catchment area run-off conditions exiting the site are to be maintained with no run-off flows being diverted from the predevelopment condition.



ANCHOR BLOCK DETAIL

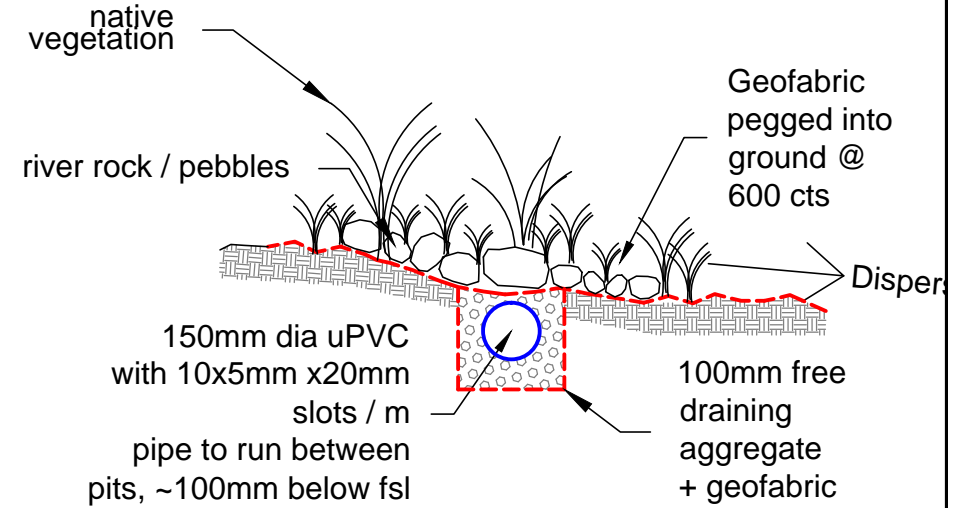
NTS
TO BE INSTALLED AT 6m CTS
IF PIPE SLOPE > 1V TO 5H
ALT - FIX TO SOUND STRUCTURE



TYPICAL uPVC PIPE & TRENCH DETAIL

NTS

Bedding / overlay to be -
a) sand, free from rock, hard or sharp objects
b) max 14mm crushed rock or gravel
c) the excavated material free of rock, hard or sharp objects and broken up with no soil lumps > 75mm dia



DISPERSION TRENCH DETAIL

NTS

LAI D PARALLEL AND LEVEL
TO NATURAL CONTOURS
ACROSS THE SITE

SITE STORMWATER MANAGEMENT PLAN

~ 1:100

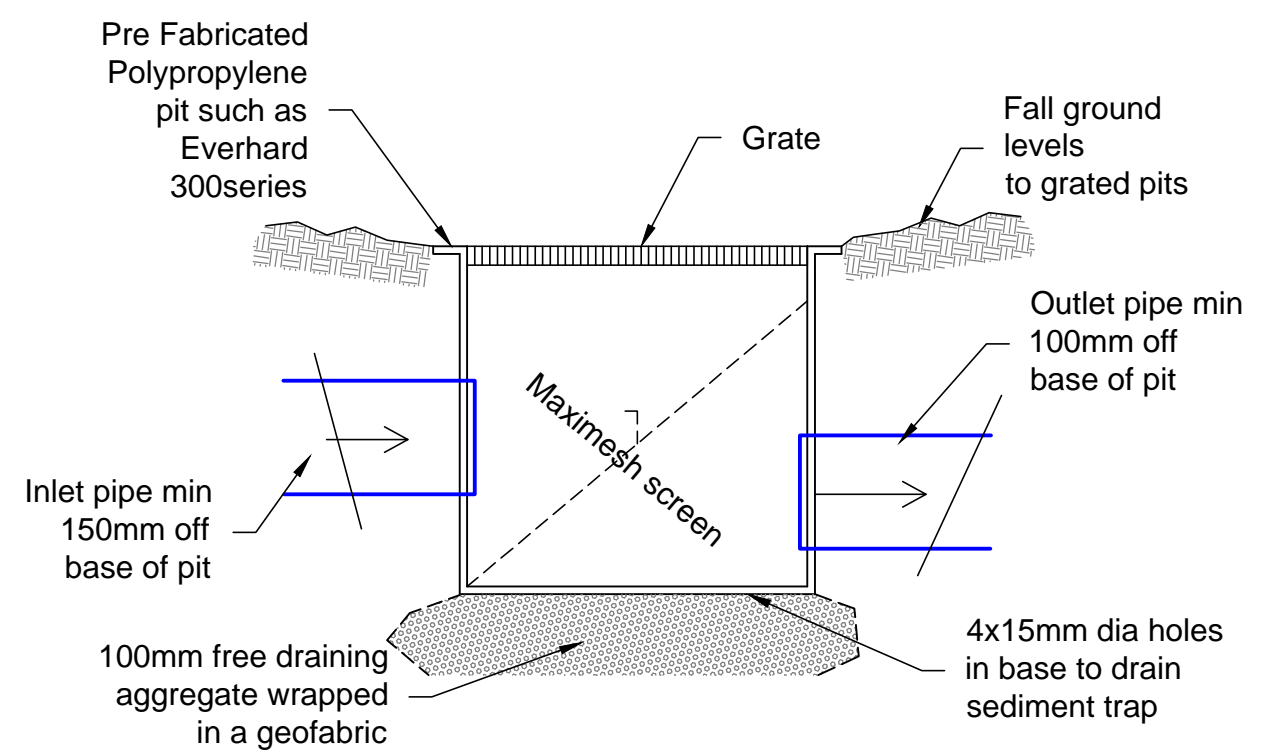
Pittwater 21 DCP Section B5 Water Management Compliance -
B5.1 Water Management Plan

- B5.4 Storm Water Harvesting
- B5.5 Rainwater Tanks
- B5.6 Rainwater Tanks - Water Supply
- B5.7 Storm Water Management Onsite Detention
- B5.8 Stormwater Management Water Quality Low Density Residential
- B5.9 Stormwater Management Water Quality Other than Low Density Residential
- B5.10 Stormwater Discharge into Public Drainage system
- B5.11 Stormwater Discharge into Waterways and Coastal areas
- B5.12 Stormwater Drainage systems and Natural watercourse
- B5.13 Development on Waterfront land
- B5.14 Stormwater Drainage Easements

- storm water addressed within this plan, rainwater, grey water and waste water details by others as per industry standards
- refer BASIX certificate by others
- not applicable
- not applicable
- ~40m² of new impervious area, therefore no OSD required
- Sediment / trash screen system detailed within 300x300x300 Pits
- not applicable
- site falls to Hudson Park, therefore sw to be dispersed to Park
- not applicable
- not applicable
- not applicable
- not applicable

Indicative trunk drainage system shown on plan above. Any existing components to be maintained are to be exposes and assessed as operating adequately during construction. All cracked / leaking / clay pipes are to be replaced with new uPVC components. Detailed drainage is to be sized for Construction Certificate submission / Tender documentation to NCC and Australian Standards.

Variations to layout to be reviewed and approved by Barrenjoey Consulting Engineers before construction.



TYPICAL PIT DETAIL

NTS

Pre Fabricated Polypropylene pit
such as Everhard 450/300series



Issue	Date	Issued for comment
Prelim	08. 04. 2020	

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PROJECT:
PROPOSED
ALTERATIONS & ADDITIONS
16 BILWARA AVE
BILGOLA PLATEAU
for ~ G. ANTONI & P. GHORAYEB

DRAWING :
STORMWATER
MANAGEMENT
PLAN

Job No :
200102

Document Certification
Barrenjoey Consulting Engineers pty ltd
per
Lucas Molloy MIEA CP(Eng) NPER Director

Drawing No :
SW1 DA
Paper size A1