

ALL RUNOFF UP HILL OF RL 40.00 IS TO BE COLLECTED AND DIRECTED TO THE OSD TANK. A SEPARATE SYSTEM COLLECTING ROOF RUNOFF IS TO BE DIRECTED TO THE BASIXs RECYCLING TANK WITH OVERFLOWS TO THE OSD TANK. THE 4000I OSD IS DESIGNED TO RESTRICT POST DEVELOPMENT PEAK FLOW RATES TO 'GREEN FIELDS' OR 100% LANDSCAPED CONDITIONS AND WILL MEET PITTWATER COUNCIL 21 DCP SECTION B 5.7 - *INDEPENDENTLY DERIVED OSD ASSESSMENT*. FINAL TANK DIMENSION, OUTLET HEIGHT / DIAMETER TBC WITH ENGINEER PRIOR TO INSTALLATION. FLOWS ARE TO DISCHARGE TO A DISPERSION TRENCH LAID ALONG THE NATURAL CONTOURS OF THE SITE AND LOCATED TO MIMIC PRE DEVELOPMENT FLOW CONDITIONS AND IN ACCORDANCE WITH THE GEOTECHNICAL CONSULTANTS REQUIREMENTS, NOTING THERE IS TO BE NO CONCENTRATION OF FLOWS.

ONSITE DETENTION ASSESSMENT REPORT (DRAINS ANALYSIS)

Development area	- 969.9 m2
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Existing impervious area	 150 m2 (note 0m2 modeled)
Proposed impervious area	- 387 m2
Detention Volume modelled	- 4000I (+140mm orifice @ 1.8m depth)
Existing Site Discharge	
5yr ARI Storm	- 53 l/s
100yr ARI Storm	- 69 l/s
Post Development Site Disc	harge
5yr ARI Storm	- 44 l/s via OSD/Dispersion
	7 l/s uncontrolled
	51 I/s TOTAL
100yr ARI Storm	- 52 l/s via OSD/Dispersion
	9 l/s uncontrolled

61 I/s TOTAL

POOL CABANA

4000I OSD tank collecting all site runoff uphill of RL 40.00, including roof run off / BASIX tank overflow

INDICATIVE OSD TANK LAYOUT

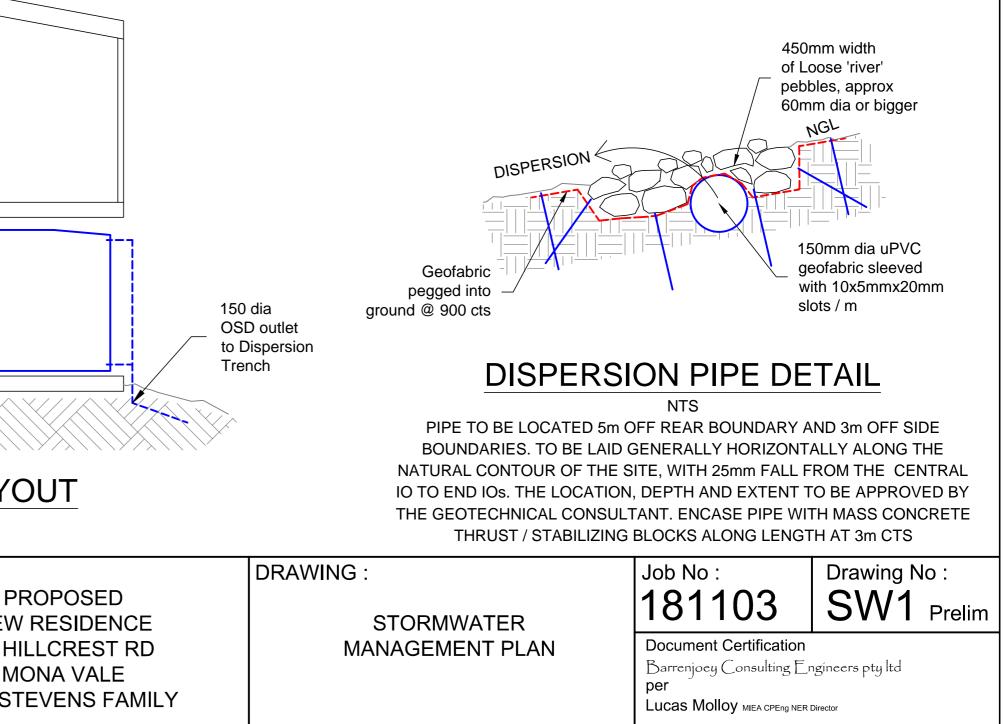
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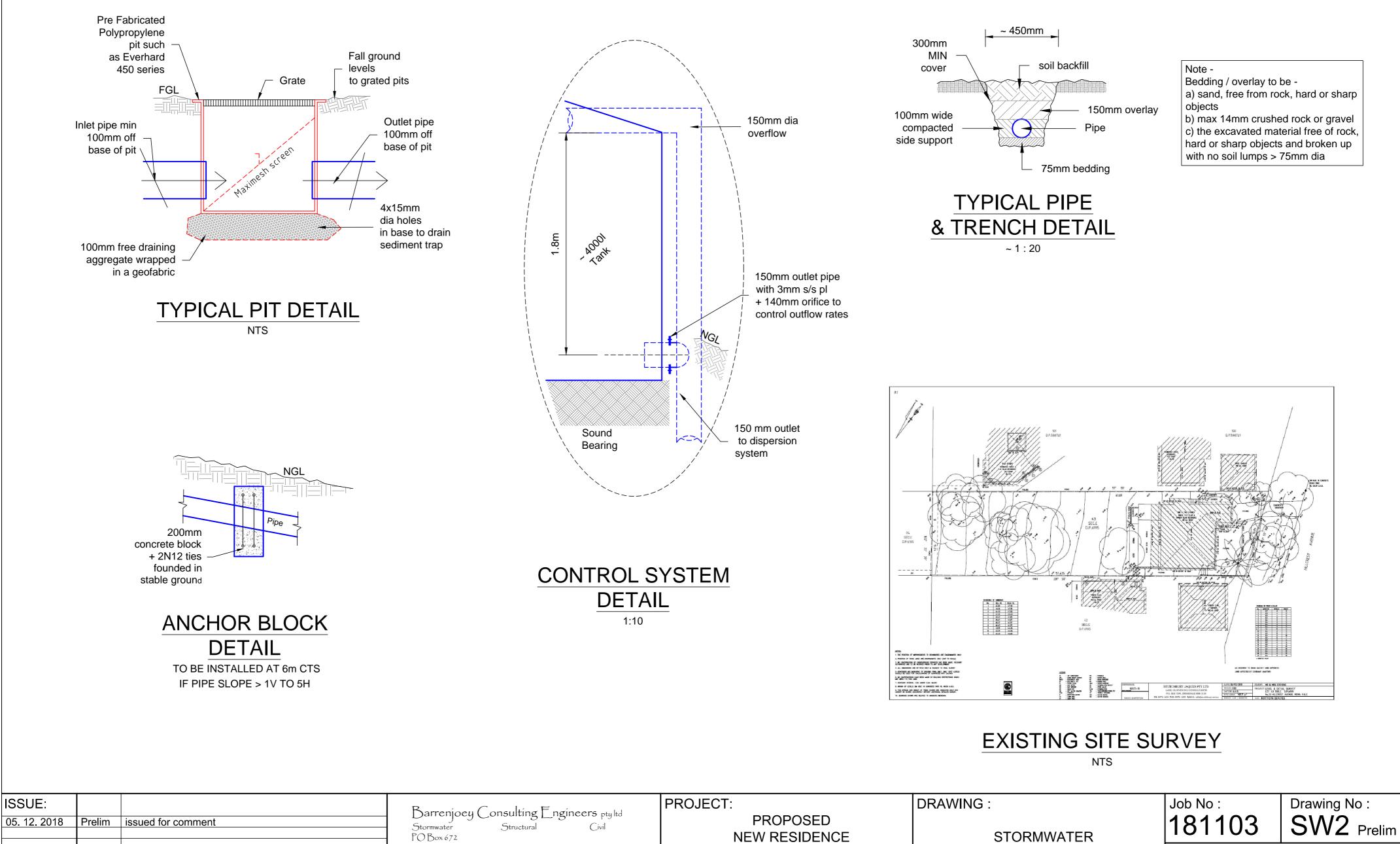
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STORMWATER NOTES

- All roof collection components (ie gutters / DPs etc)are to be located / sized by the Developments contracting Plumber for a <u>5% AEP</u> event capacity.
- 2. Trunk lines shown on plan to be 90mm dia uPVC unless otherwise noted.
- 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.
- 6. All roof guttering/ down pipes / valley gutters / box gutters etc are to be sized and installed in accordance with AS 3500.3:2003.
- 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 oulet 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 prioir 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 continually maintained / cleaned by teh property owner, 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.
- 16.Flows from upstream properties entering the site are to be monitored during construction and diverted about the OSD system / residence etc as required.





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33 HILLCREST RD MONA VALE for ~ STEVENS FAMILY

STORMWATER MANAGEMENT PLAN

Document Certification

Barrenjoey Consulting Engineers pty ltd per

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