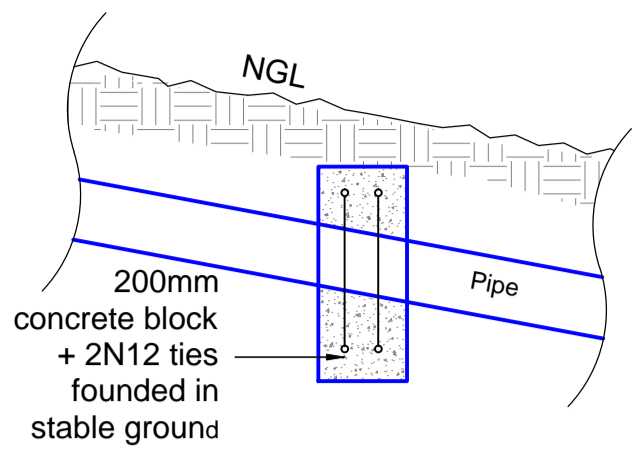
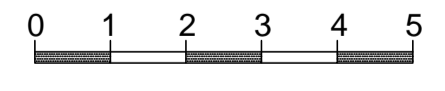


**LOT 3 STORMWATER MANAGEMENT PLAN**

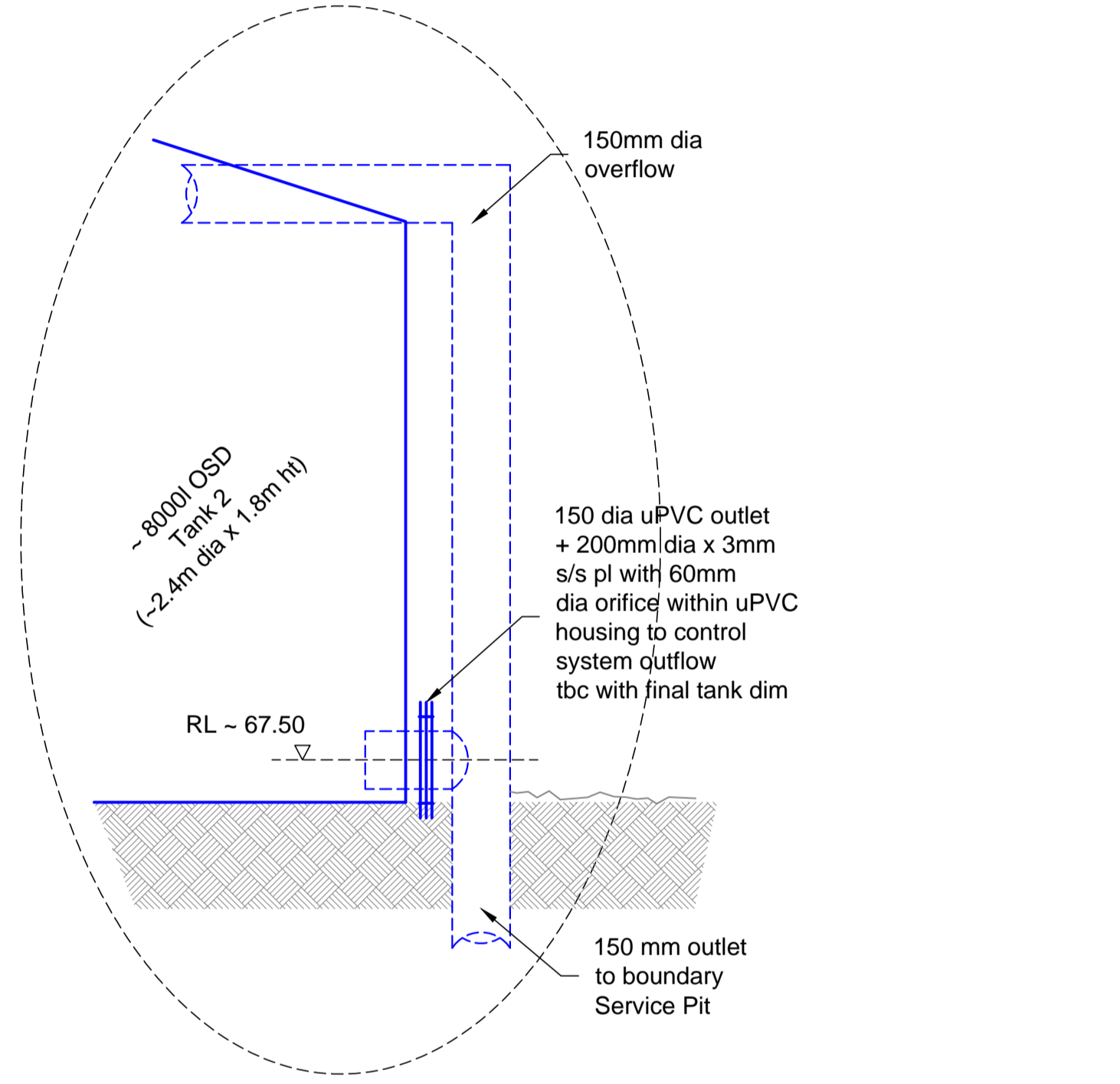
~ 1:100

All new roof area runoff is to be directed to the 8000l OSD Tank .  
 The OSD system has been designed/modelled in accordance with Section B5.7 of Pittwater 21DCP 'Independently derived OSD assessment' for a 310m2 increase in impervious area using the DRAINS software analysis.  
 Variations (ie tank dimensions etc) to layout to be reviewed and approved by Barrenjoey Consulting Engineers before construction.  
 All works to be carried out by licensed contractors.  
 Flows from upstream properties entering the site are to be monitored during construction and diverted about the OSD system / residence etc as required.



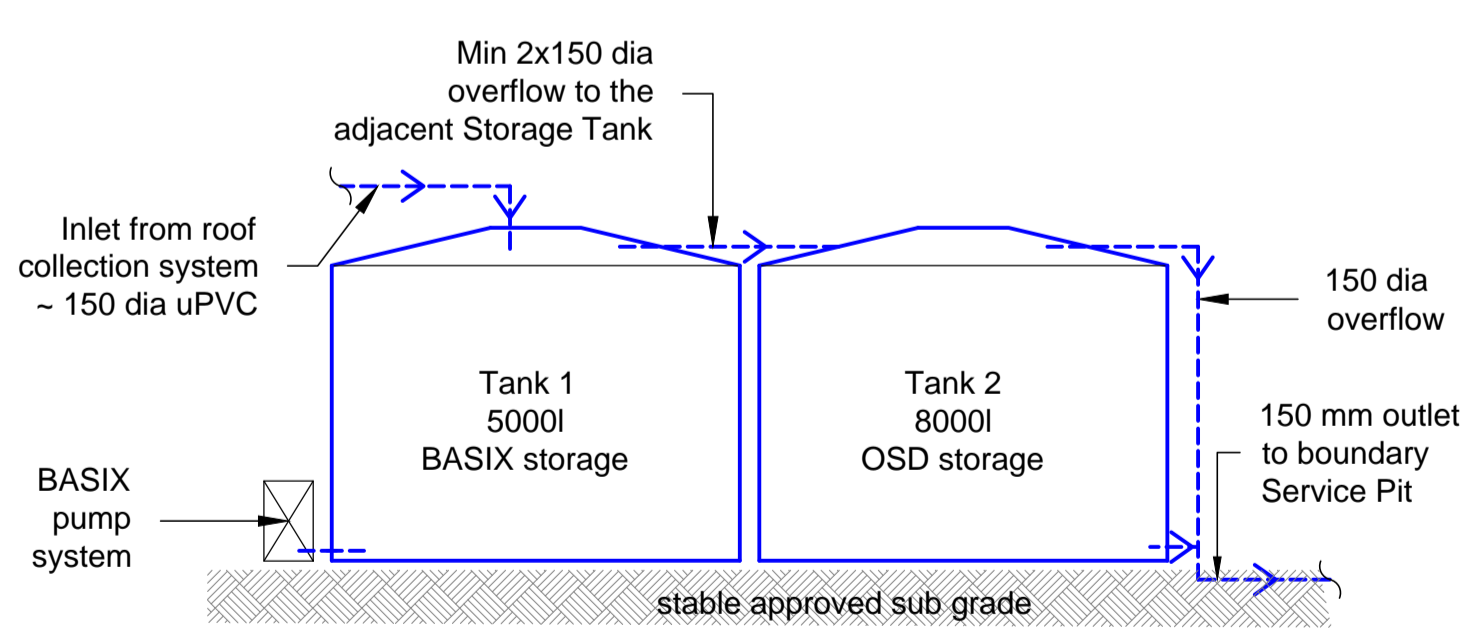
**ANCHOR BLOCK DETAIL**

TO BE INSTALLED AT 6m CTS  
 IF PIPE SLOPE > 1V TO 5H



**OSD CONTROL SYSTEM DETAIL**

1:10



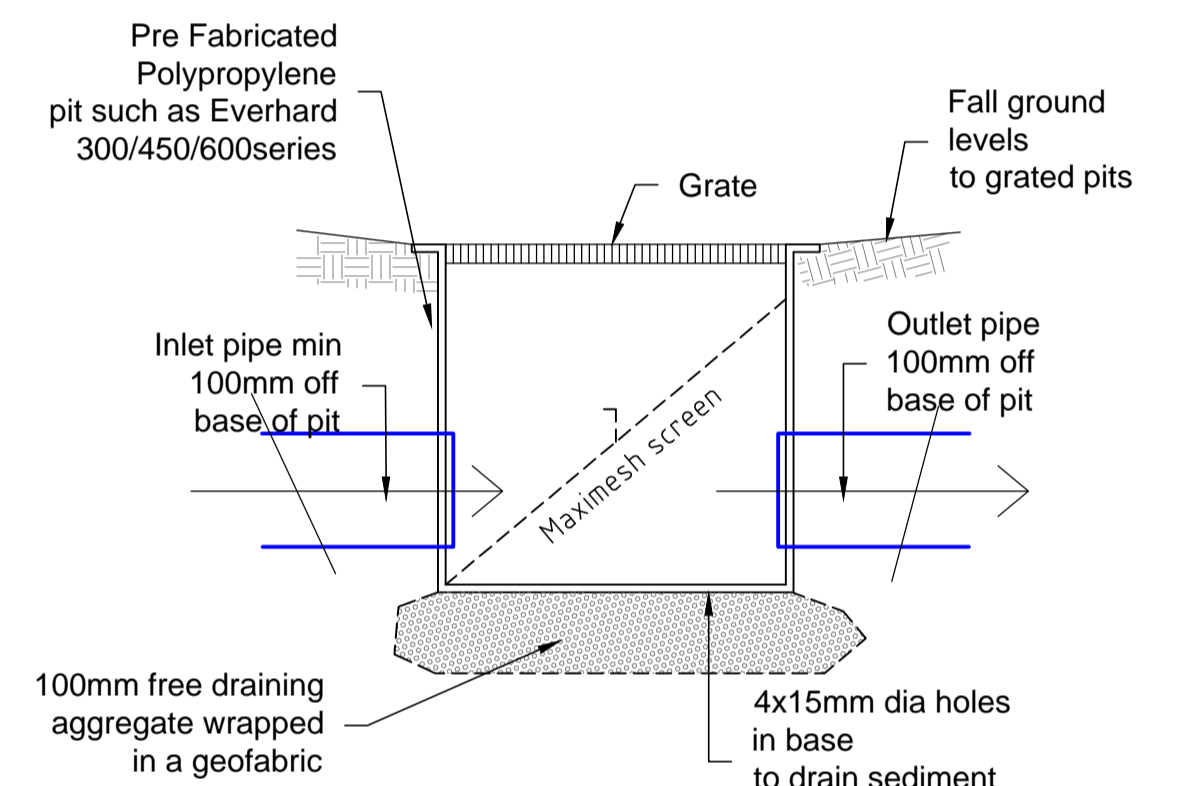
**INDICATIVE SYSTEM LAYOUT**

~ 1:50

NOTE - TANK DIMENSIONS AND ORIFICE PL DETAILING TBC DURING CONSTRUCTION

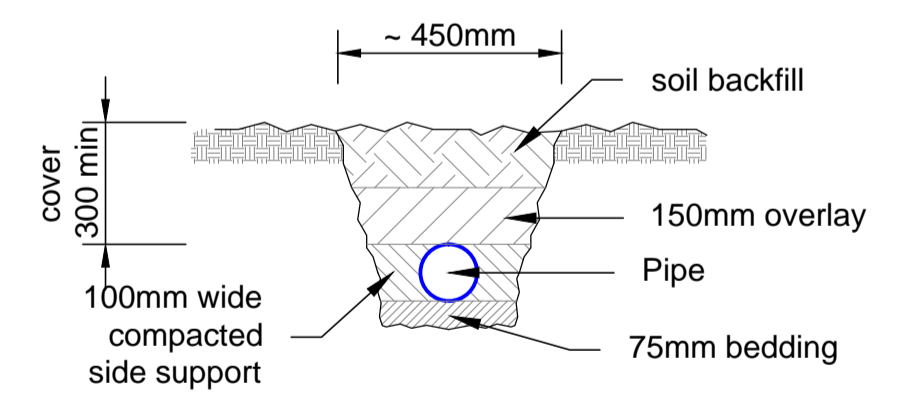
**STORMWATER NOTES**

- All roof collection components (ie gutters down pipes / valley gutters / box gutters etc) are to be located / sized by the Developments contracting Plumber for a 1% AEP event capacity.
- Pipes shown within plan 150mm dia uPVC min uno.
- All pipes to be uPVC to AS 1254:2002.
- All pipes to be laid at the grade required to match pit invert levels.
- All pipes to be installed and laid in accordance with AS 3500.3:2003.
- All pipes on grades > 1:5 to have anchor blocks @ 6m cts.
- 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 .
- All pits greater than 600mm in depth are to be proprietary precast concrete (approved by the Engineer).
- 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).
- All works are to be inspected and certified by the Principle Certifying Authority prior to backfilling.
- 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.
- The system is to be flushed and cleaned of all sediment and debris annually.
- The system will require regular cleaning and maintenance to ensure its ability to function is maintained.
- 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.
- 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.



**TYPICAL PIT DETAIL**

NTS



**TYPICAL uPVC PIPE & TRENCH DETAIL**

~ 1:20

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

ISSUE:	Date	Description
Prelim	19 12 2017	Issued for comment
Prelim A	21 02 2018	Revised architectural and issued for comment
CC	11 04 2018	issued for construction certificate submission
DA Prelim	19 12 2018	issued for comment re DA submission
DA	05 02 2019	issued for DA submission
DA-A	24 06 2019	revised layout

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 ACN: 124694917

PROJECT: **PROPOSED NEW RESIDENCE LOT 3 NO 7 TRENTWOOD PARK AVALON BEACH for ~ M & J DARGAVILLE**

DRAWING : **LOT 3 STORMWATER MANAGEMENT PLAN**

Job No : **171001L3**  
 Drawing No **SW1<sub>DA-A</sub>**  
 Document Certification  
 Barrenjoey Consulting Engineers Pty Ltd  
 per **Lucas Molloy** MEA CPENG NER Director