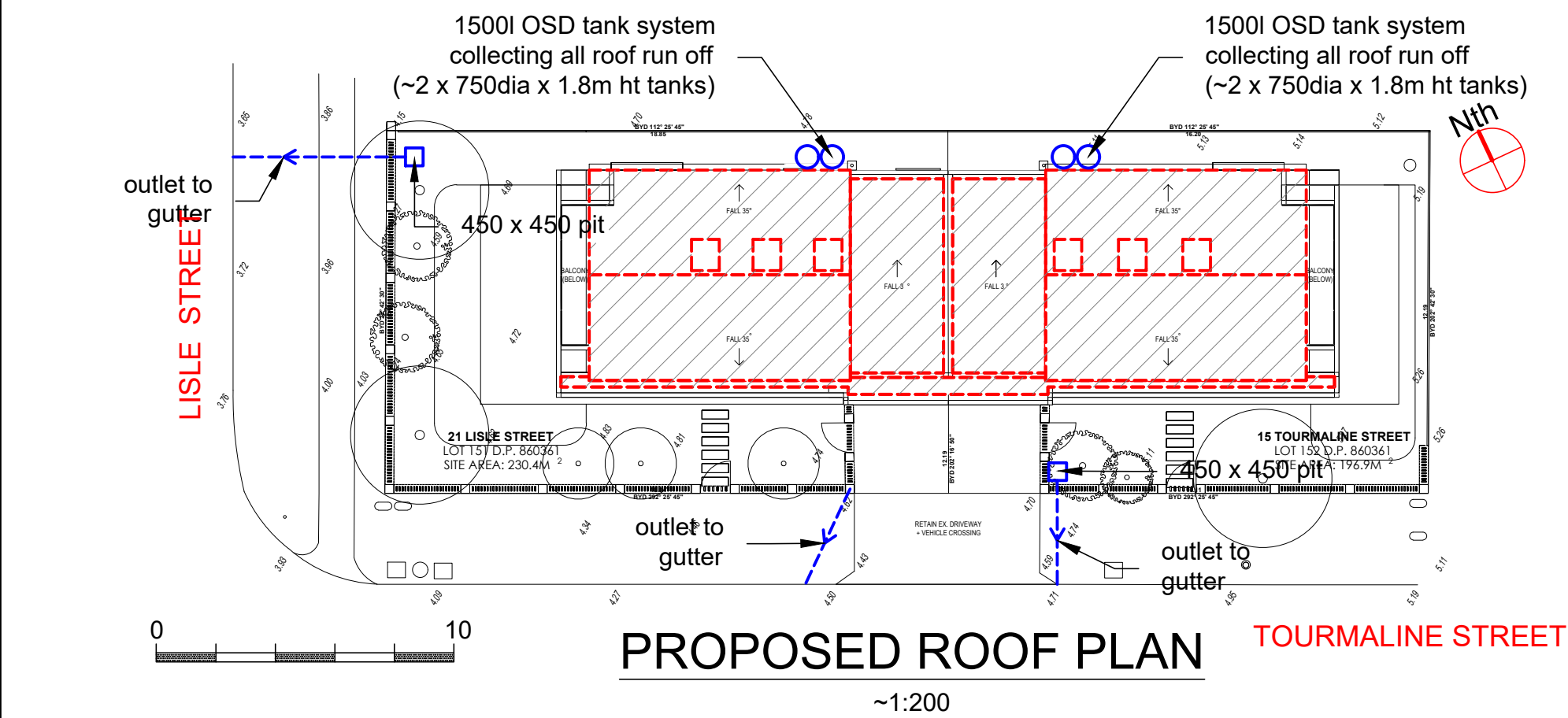
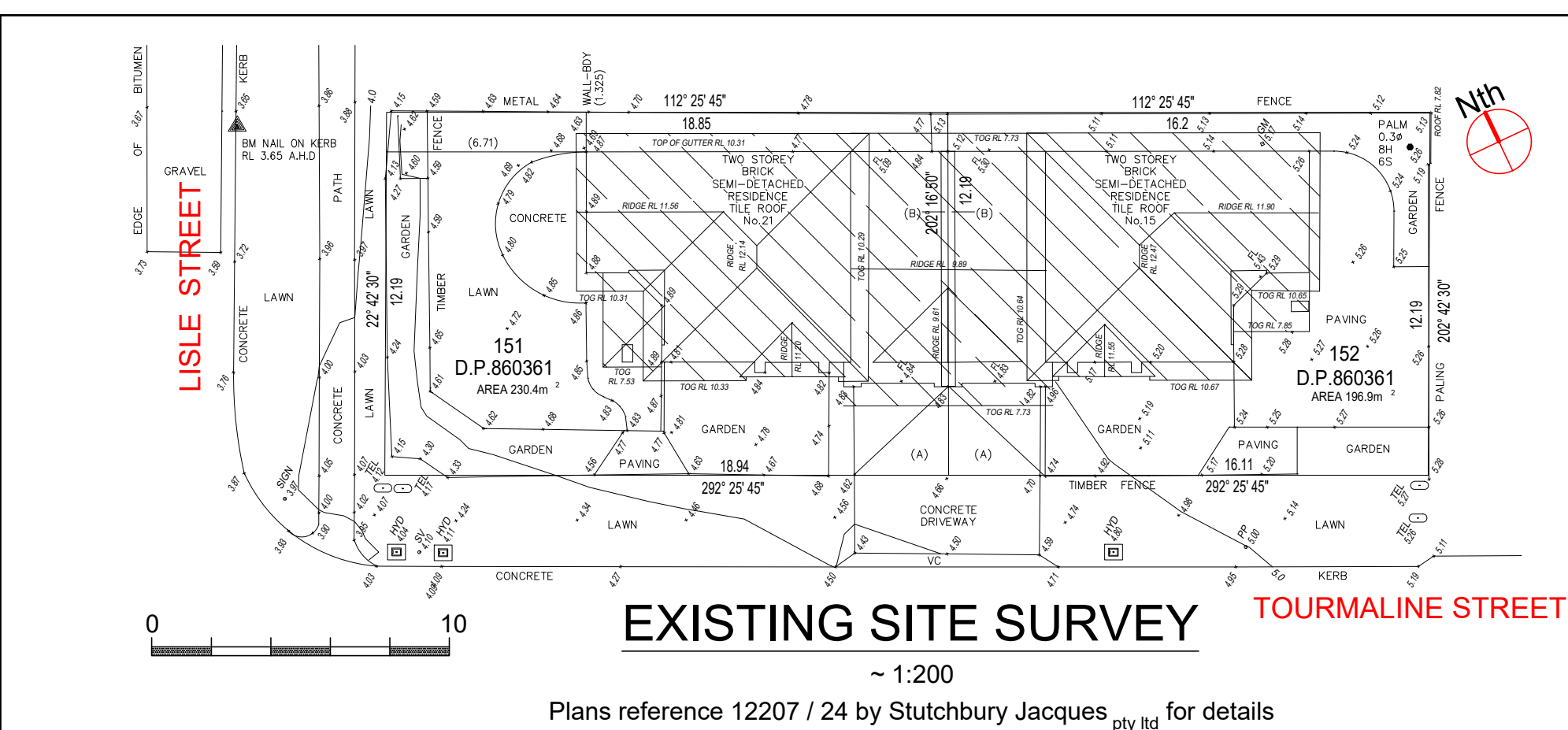
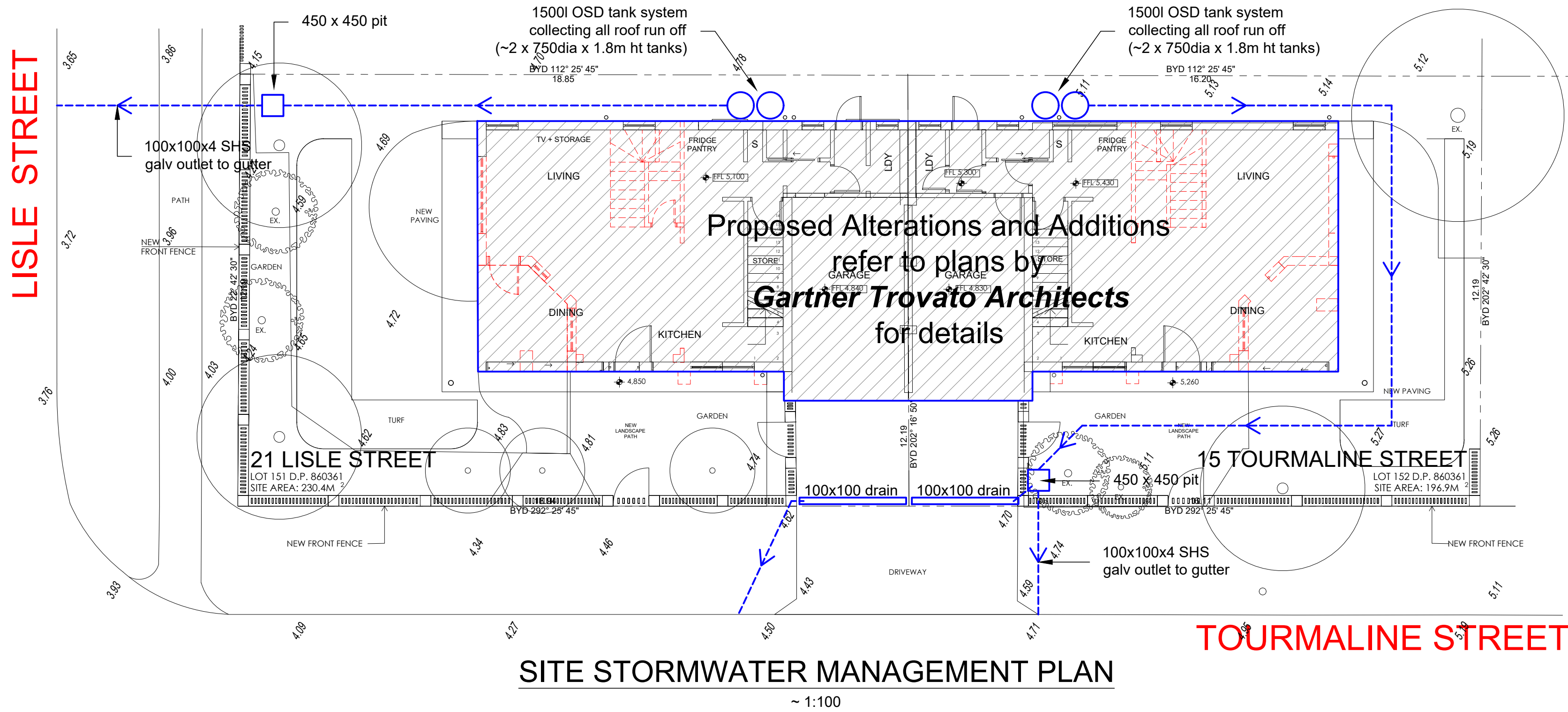
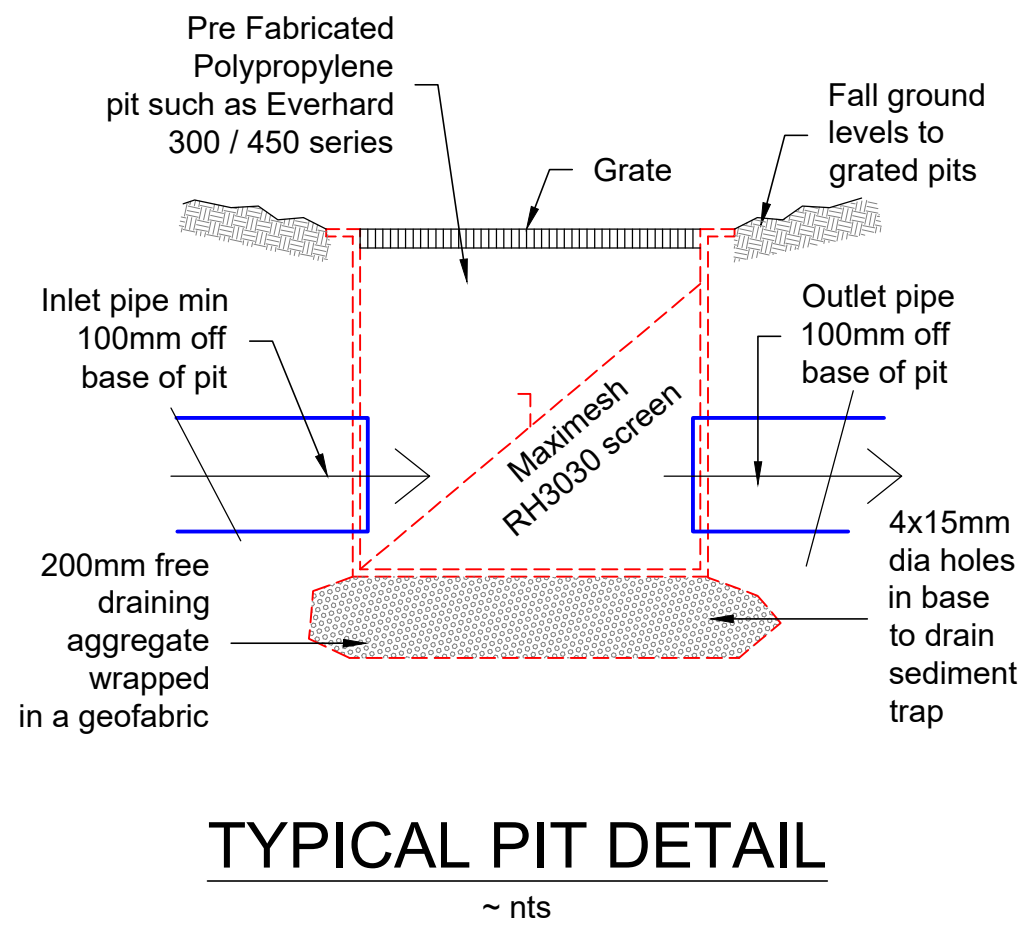
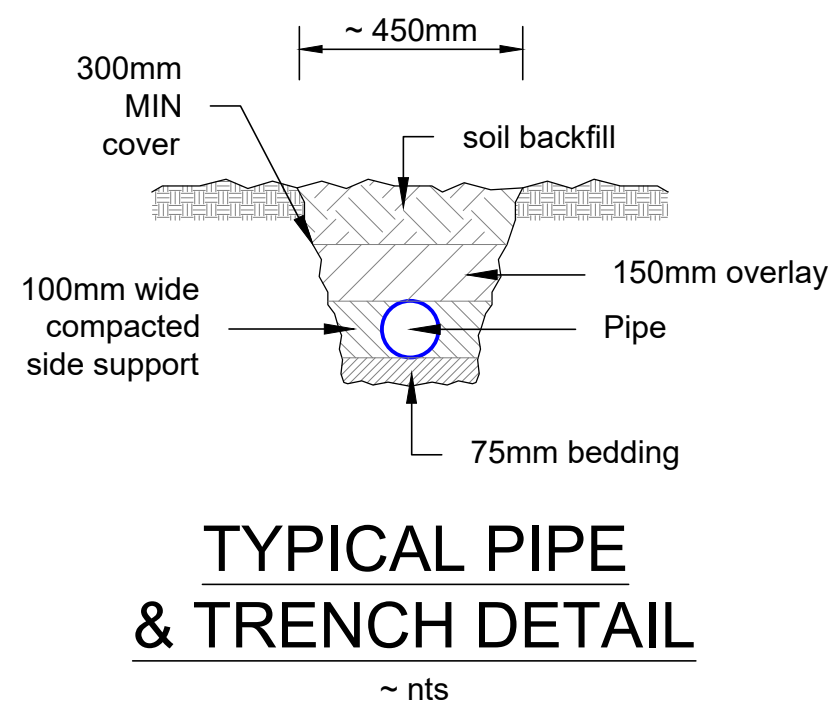
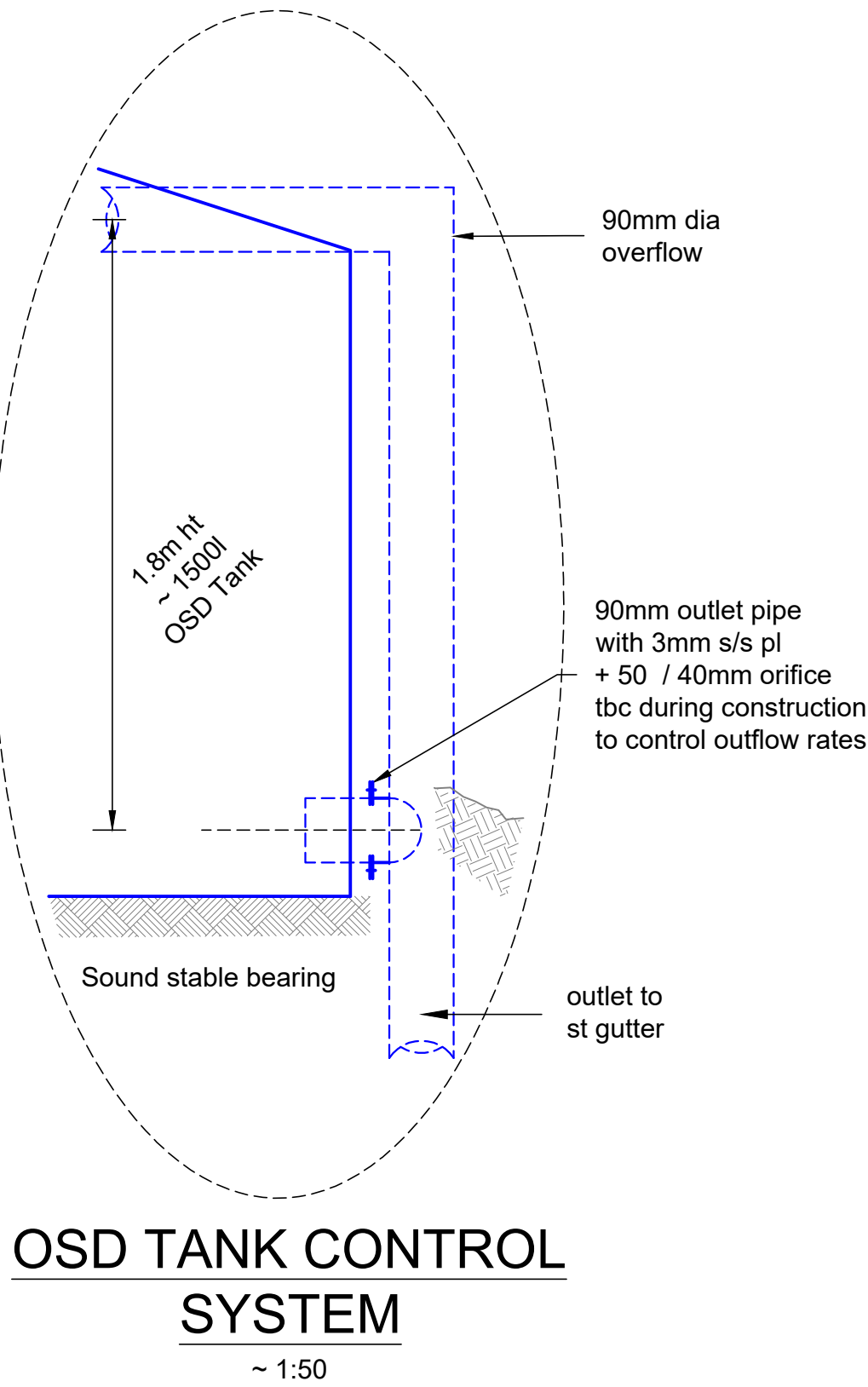
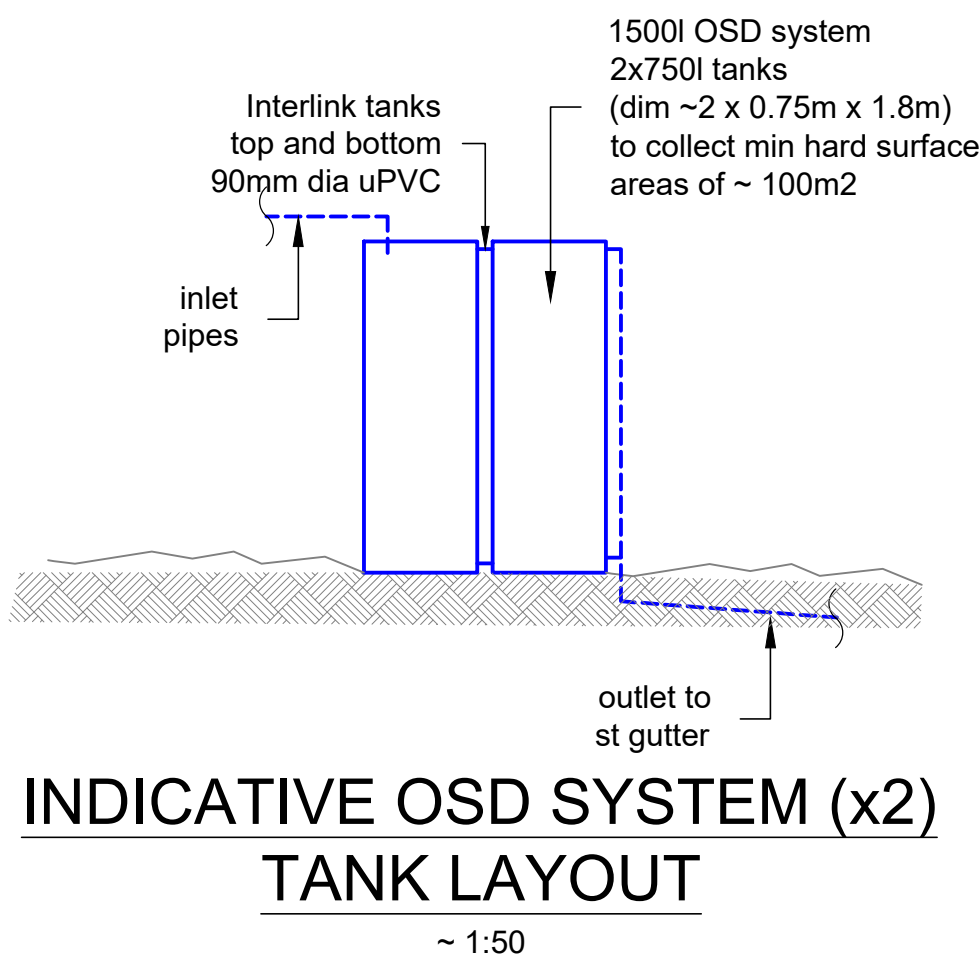




STORMWATER NOTES

1. All roof collection components (ie gutters / DPs etc)are to be located / sized by the Developments contracting Plumber for a **1% AEP** event capacity.
2. Trunk lines shown on plan to be 150mm dia uPVC, 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.
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 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 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.
16. Flows from upstream properties entering the site are to be monitored during construction and diverted about the OSD system / residence etc as required.



Refer to plans by *Gartner Trovato Architects* for details of the proposed alterations and additions.

All drainage works are to be sized and installed by a licensed plumber in accordance with NCC / BCA requirements and AS3500.3 specifications. OSD system as per Northern Beaches Councils Water Management for Development Policy Section 9.5.3.2 Full Computation Methods (refer DRAINS summary for details).1500l of OSD storage to be provide for each residence with outlet to adjacent Street kerb and gutter as per predevelopment conditions. BASIX storage / operation / detailing by others to be as per BASIX certificate. A regular inspection and servicing schedule is to be adopted to ensure the continued system effectiveness.

ONSITE DETENTION ASSESSMENT REPORT (DRAINS ANALYSIS)

	No 21 Lisle St	No 15 Tourmaline St
Site area	230.4 m2	196.7m2
Existing impervious area	100m2 (0m2 modeled)	100m2 (0m2 modeled)
Proposed impervious area	152 m2	147m2
Detention Volume modeled	1500l	1500l
Existing Site Discharge		
20% AEP (5yr) Storm	10 l/s	9 l/s
1% AEP (100yr) Storm	16 l/s	14 l/s
Post Development Site Discharge		
20% AEP (5yr) Storm	4 l/s via OSD 6 l/s uncontrolled 10 l/s TOTAL	3 l/s via OSD 4 l/s uncontrolled 7 l/s TOTAL
1% AEP (100yr) Storm	5 l/s via OSD 9 l/s uncontrolled 14 l/s TOTAL	4 l/s via OSD 7 l/s uncontrolled 11 l/s TOTAL

ISSUE:		
Prelim	30. 10. 2025	Issued for comment
DA	30. 10. 2025	Issued for DA submission

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PROJECT:
PROPOSED
ALTERATIONS AND ADDITIONS
21 LISLE ST / 15 TOURMALINE ST
NARRABEEN

DRAWING :
STORMWATER MANAGEMENT
PLAN

Job No :
250703
Drawing No
SW1 DA
Document Certification
Barrenjoey Consulting Engineers *pty ltd*
per
Lucas Molloy *MEA OPEN MER Director*