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NORTHERN SYDNEY
Seascape
Suite 7 22-27 Fisher Rd
Dee Why NSW 2099

BLUE MOUNTAINS
Shop 1
274 Macquarie Rd
Springwood NSW 2777

CONSULTING ENGINEERS
Civil
Structural
Stormwater & Flood

29 November 2024

Chief Executive Officer
Northern Beaches Council
725 Pittwater Road
DEE WHY NSW 2099

Address of the Project: **21 Wallumatta Road, Newport**

Description of Project: **Stormwater Management Plan - Alterations & Additions**

With reference to the Development Application for the above property, please find enclosed a copy of the site Stormwater Management Plan, STORM-1 and Stormwater Management Details, STORM-2, for your perusal.

STORM-1 shows runoff collected from the proposed and existing roof, landscaped and hardstand areas controlled via on-site detention tanks and discharged to the rear boundary via a level spreader.

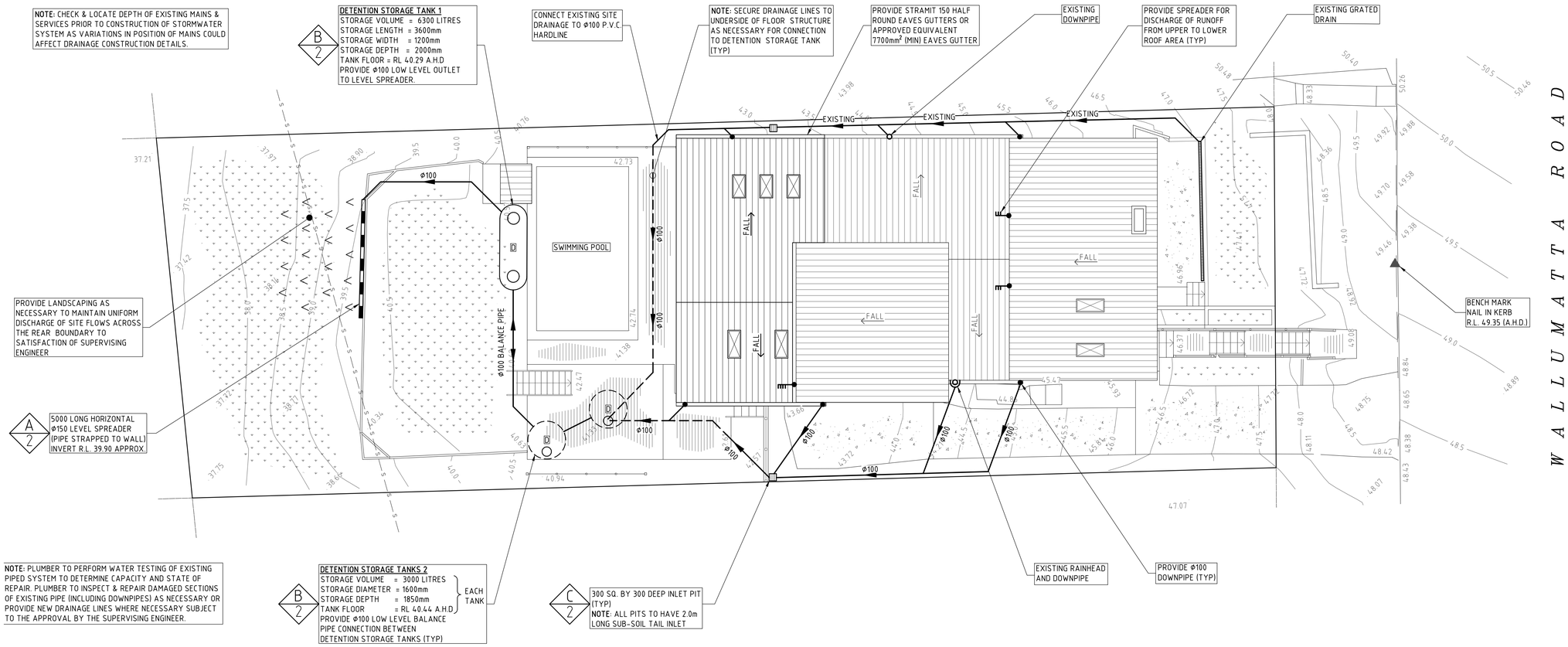
Note that it is proposed to provide detention storage tanks adjacent to the pool and below the rear deck. Analysis was conducted using DRAINS Modelling Software and in accordance with Section 9.3.1 Onsite Stormwater Disposal Requirements Region 1 – Northern Catchments and Appendix 4 of the Northern Beaches Council Water Management For Development Policy.

This is to certify that the Stormwater Management Plan and Details layout, as shown on STORM-1 and STORM-2 by Taylor Consulting Civil & Structural Engineers, has been designed in accordance with section 3.1.2, 'Drainage', of the Building Code of Australia Housing Provision, AS/NZS 3500.3.2 – Stormwater Drainage and Northern Beaches Council's Water Management for Development Policy.

Should you require any further information, please contact the undersigned.

Yours faithfully
TAYLORCONSULTING.NET.AU

D.M.Schaefer - Director
B.E Civil (Hons) M.I.E. Aust. N.E.R.



DRAINAGE NOTES

1. DENOTES EXISTING GROUND LEVEL
2. FALL STORMWATER PIPES AT 1% MIN. UNLESS OTHERWISE NOTED.
3. SUB-SOIL DRAINAGE TO BE CONNECTED TO THE SITE DRAINAGE SYSTEM AS NECESSARY.
4. SURFACE GRATES 300 SQ. UNLESS OTHERWISE NOTED.
5. ALL STORMWATER PIPES TO HAVE SOLVENT CEMENT WATERTIGHT JOINTS.
6. CHECK & LOCATE DEPTH OF EXISTING MAINS & SERVICES PRIOR TO CONSTRUCTION OF STORMWATER SYSTEM AS VARIATIONS IN POSITION OF MAINS COULD AFFECT DRAINAGE CONSTRUCTION DETAILS.
7. INSPECTIONS MUST BE UNDERTAKEN BY THIS OFFICE (BY PRIOR ARRANGEMENT WITH ENGINEER) DURING CONSTRUCTION TO ENABLE FULL CERTIFICATION UPON COMPLETION OF WORKS.
8. ALL CONSTRUCTION OF COUNCIL DRAINAGE WORKS TO COMPLY WITH COUNCIL STANDARD.
9. REMOVE REDUNDANT DRAINAGE PITS AND SEAL PIPES.
10. PIT BENCHING TO BE HALF THE OUTGOING PIPE DIAMETER. CONCRETE FOR BENCHING TO BE 20 MPa MASS CONCRETE.
11. APPROVED PRE-CAST PITS MAY BE USED.
12. ALL PIPES TO BE LAID ON COMPACTED FINE CRUSHED ROCK OR SAND BEDDING 75mm THICK & PIPES BACKFILLED WITH COMPACTED SAND TO 300mm ABOVE TOP OF PIPE, ELSE ATTACHED TO UNDERSIDE OF STRUCTURE AT 600mm c/c AS NECESSARY
13. PIPE ROUTES SHOWN ARE INDICATIVE ONLY AND SHOULD BE AS NECESSARY ACCORDING TO SITE CONDITIONS, TREE POSITIONS ETC. CONFIRM SIGNIFICANT CHANGES IN PIPES SYSTEM DETAILS WITH SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF DRAINAGE CONSTRUCTION WORKS.
14. CONTRACTOR SHALL ENSURE THAT SERVICES TO BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS WHERE REQUIRED. ONCE WORKS ARE COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SERVICES AND MAKE GOOD ALL DISTURBED AREAS.
15. STORMWATER SYSTEM REQUIRES SIGNIFICANT MAINTENANCE DUE TO POTENTIAL HIGH POLLUTANT LOAD. FILTERS AND POLLUTANT TRAPS SHOULD BE CHECKED AFTER LARGE STORM EVENTS AND CLEANED EVERY 6 MONTHS.
16. PLUMBING AND DRAINAGE WORKS TO COMPLY WITH AS-3500, THE NATIONAL DRAINAGE & PLUMBING CODE.
17. WHERE POSSIBLE DRAINAGE LINES SHALL BE LAID IN AREAS PREVIOUSLY DISTURBED BY OTHER SITE WORKS AND FOLLOW TOPOGRAPHICAL FEATURES TO REDUCE IMPACT AND AVOID TREE ROOTS.
18. THIS STORMWATER MANAGEMENT PLAN HAS BEEN PREPARED FOR SUBMISSION TO COUNCIL/CERTIFIER AND DOES NOT NECESSARILY CONTAIN ALL APPROPRIATE INFORMATION TO ENABLE FOR ISSUE TO PLUMBER/BUILDER FOR CONSTRUCTION. CONTACT TAYLOR CONSULTING FOR MORE INFORMATION.

STORMWATER SYSTEM DESIGN DATA

SITE DATA

SITE AREA = 708.8 m² (100%)
AREA OF ANALYSIS = 385.6 m² (100%)
PROPOSED IMPERVIOUS AREA = 300.2 m² (78%)
PROPOSED LANDSCAPED AREA = 85.4 m² (22%)
EXISTING IMPERVIOUS AREA = 295.1 m² (77%)
EXISTING LANDSCAPED AREA = 90.5 m² (23%)

OSD SYSTEM DESIGN DATA

DESIGN PARTIAL SITE FLOWS

5 YR ARI = 8 l/s
100 YR ARI = 18 l/s

DEVELOPED PARTIAL SITE FLOWS

5 YR ARI = 5 l/s
100 YR ARI = 8 l/s

DETENTION SYSTEM DATA

AREA DRAINING TO THE TANK = 373.6 m²
AREA BYPASSING THE TANK = 12 m²
MAX. 100YR TWL = RL 42.24
ORIFICE DIAM = 51 mm
SSR = 12.30 m³

STORMWATER SYSTEM DESIGN DATA

SITE DATA

SITE AREA = 708.8 m² (100%)
PROPOSED IMPERVIOUS AREA = 362.4 m² (51%)
PROPOSED LANDSCAPED AREA = 346.4 m² (49%
EXISTING IMPERVIOUS AREA = 376.4 m² (53%)
EXISTING LANDSCAPED AREA = 332.4 m² (47%)

ISSUE	DATE	REVISION

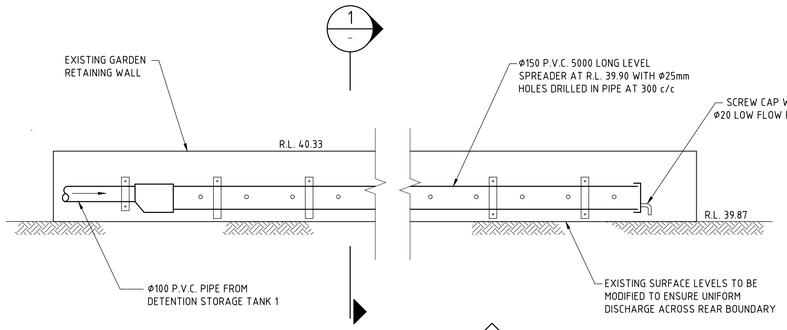
TITLE
STORMWATER MANAGEMENT PLAN
21 WALLUMATTA ROAD, NEWPORT

DRAWN	DATE	CHECKED	SCALE @ A1
TDR	28 NOVEMBER 2024	BE Civil (Hons) MIE Aust.	1:100
ENGINEER JPL			

TAYLOR CONSULTING
CIVIL & STRUCTURAL ENGINEERS

DRAWING NO. STORM–1

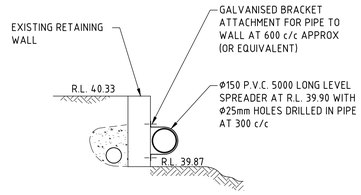
"Seascape" Suite 7 22-26 Fisher Rd Dee Why NSW 2099 | T 02 9982 7092 | F 02 9982 5898 | enquire@taylorconsulting.net.au | www.taylorconsulting.net.au



DETAIL A/1

SCALE 1:20

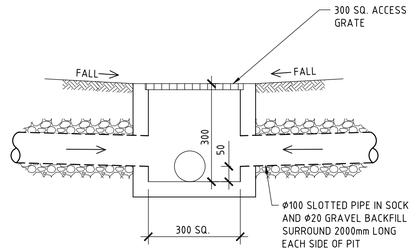
SHOWING HORIZONTAL DISPERSION SYSTEM



SECTION 1/–

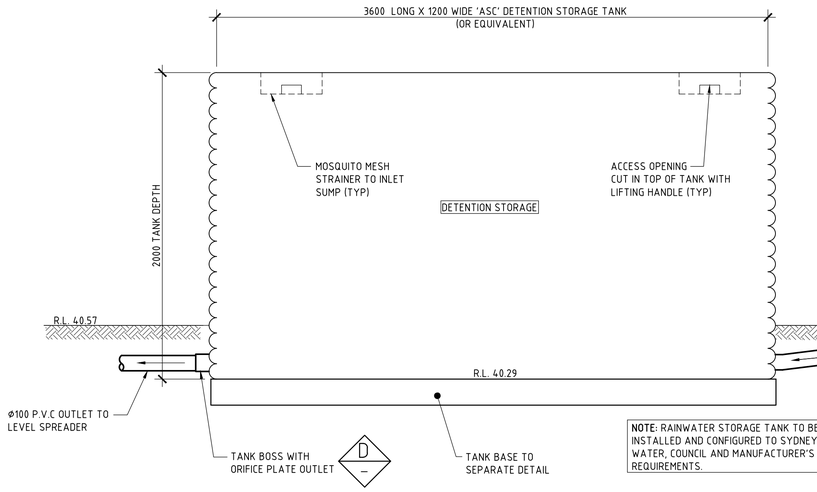
SCALE 1:20

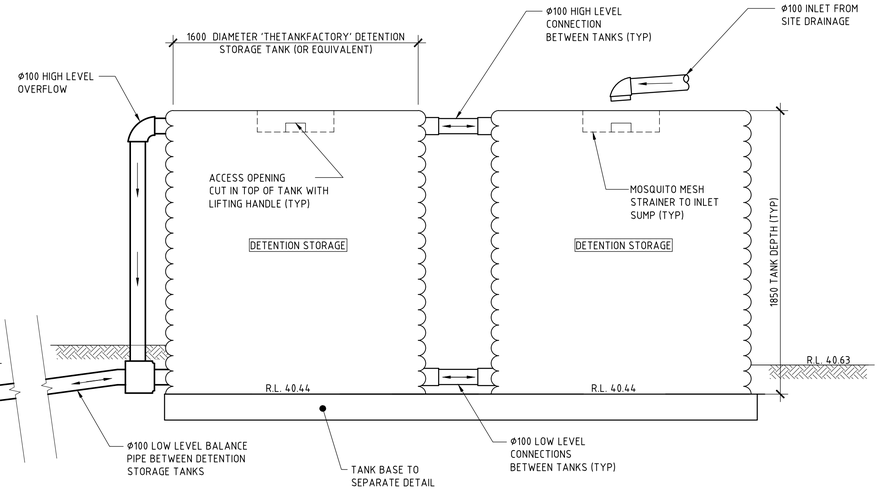
SHOWING ORIENTATION OF LEVEL SPREADER OUTLET



DETAIL C/1

SCALE 1:10

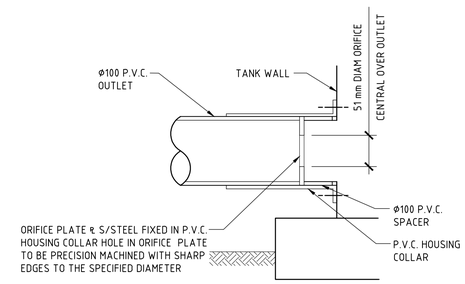




DETAIL B/1

SCALE 1:20

TYPICAL RAINWATER STORAGE SYSTEM



DETAIL D/–

SCALE 1:5

DETENTION STORAGE OUTLET ORIFICE PLATE

ISSUE DATE	REVISION

TITLE

STORMWATER MANAGEMENT DETAILS
21 WALLUMATTA ROAD, NEWPORT

DRAWN	DATE	CHECKED	SCALE @ A1
TDR	28 NOVEMBER 2024	BE Civil (Hons) MIE Aust.	1:20 1:10 1:5
ENGINEER JPL			

TAYLOR CONSULTING
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DRAWING NO. STORM–2

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