

Stormwater Drainage Management

Address: ADD-STYLE Home Additions
No. 5/319 CONDAMINE STREET
MANLY VALE 2093

Project: Proposed addition and alterations
No. 98 West Street
Balgowlah NSW 2093

Certificate ref: 23068-SW

Re: No. 98 West Street, Balgowlah

The proposed alterations and additions and first floor addition at **No. 98 West Street, Balgowlah** is shown on the architectural drawings by ADD-STYLE Home Additions, drawing dated 21/08/2023 drawing number 2481 DA1, issue B.

In accordance with Northern Beaches Council specification, OSD is not required for alterations and addition if the post development impervious area increased by less than 50 m² and the total post development impervious area is less than 60% of the site area. In accordance with our calculation, both conditions are satisfied. Thus, OSD tank is not required. All downpipes from all roofs and new pipes will be connected to existing stormwater system discharging into stormwater easement. All existing pipes are to be checked on site and if inadequate engineer has to design new pipe. All horizontal pipes to be sealed sewer grade pipes. All drainage work shall be installed and shall be checked on site by a qualified plumber or Civil Engineer for compliance with AS3500.3-2021 and accepted industry standards. All existing pipes to be checked on site and if inadequate replace with new pipes.

Design of new downpipes should be as following:

The dia 90mm downpipe can collect a max. 26.6m² of roof area with min. gutter cross sectional area of 6600mm², (for roof pitch 25 deg.)

The dia 100mm downpipe can collect a max. 34.8m² of roof area with min. gutter cross sectional area of 8200mm², (for roof pitch 25 deg.)

The dia 90mm downpipe can collect a max. 28.4m² of roof area with min. gutter cross sectional area of 6600mm², (for roof pitch 17 deg.)

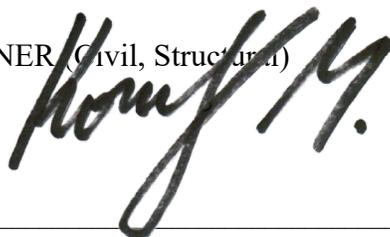
The dia 100mm downpipe can collect a max. 37.5m² of roof area with min. gutter cross sectional area of 8200mm², (for roof pitch 17 deg.)

The collection system and drainage for the new first floor addition at **No. 98 West Street, Balgowlah** shall be in accordance with the relevant clauses of the following:

- Australian/ New Zealand Standards including AS/NZS 3500.3:2021 (Plumbing and drainage, Stormwater drainage)
- Water Management for Development Policy – Northern beaches council

Yours sincerely

Michal Korecky MIE Aust NER (Civil, Structural)
Sydney 01/11/2023



GENERAL NOTES

- ALL PLUMBING WITHIN THE SITE MUST BE CARRIED OUT IN ACCORDANCE WITH RELEVANT PROVISIONS OF AUSTRALIAN STANDARD AS/NZS 3500.3-2003 PLUMBING AND DRAINAGE – STORMWATER DRAINAGE.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM. (AHD)
- DO NOT SCALE FROM THE DRAWINGS.
- THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS, REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT OR DESIGN ENGINEER.
- ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND SPECIFICATION.
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- READ THESE PLANS IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATION.
- WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES, IS OBTAINED.
- DESIGN LEVELS GIVEN ARE TO FINISHED SURFACE LEVEL AND INCLUSIVE OF TOPSOIL. (TOPSOIL DEPTH VARIES).
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES.
- NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- ALL BUILDING SURROUND SHOULD BE GRADED TO ENSURE OVERLAND FLOW FROM UPSTREAM AREAS CAN DRAIN AROUND THE FOUNDATIONS, WALLS OF BUILDING.
- ALL EXCAVATION SHORING OF EXCAVATION AND STABILITY OF ADJACENT STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EXTERNAL WORKS

- ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.
- PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING
- PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND. RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TO THE SATISFACTION OF THE AFFECTED PARTIES.
- WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED.
- DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

- WORKMANSHIP AND MATERIALS SHALL CONFORM WITH THE REQUIREMENTS OF THE RELEVANT SAA CODES, BCA REQUIREMENTS AND THE SPECIFICATION, BY-LAWS AND ORDINANCIES OF THE RELEVANT AUTHORITIES.
- PROPRIETARY PRODUCTS USED SHALL BE INSTALLED TO MANUFACTURERS SPECIFICATION AND TO THE SATISFACTION OF THE SUPERINTENDENT.
- **DRAINAGE PITS**
- PITS DEEPER THAN 1200mm TO BE FITTED WITH STEP IRONS AT 300mm CENTRES AND STAGGERED.
- APPROVED PRECAST PITS MAY BE USED.
- DIAMETER 100mm HOLE FOR SUBSOIL DRAINAGE OUTLET TO BE LOCATED 100mm ABOVE INVERT OF ALL INLET PIPES. DIAMETER 100mm SUBSOIL DRAINAGE TO EXTEND FOR A DISTANCE OF 3.0m UPSTREAM OF PIT (AT EACH INLET PIT) WITH THE UPSTREAM END SEALED.
- ALL CONNECTIONS TO THE EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
- PIT GRATES AND SOLID COVERS SHALL BE CLASS 'B' IN NON TRAFFIC AREAS AND CLASS 'D' IN TRAFFIC AREAS IN ACCORDANCE WITH AS 3996.

DRAINAGE PIPES

- EXISTING PIPES WHICH FORM NO PART OF THE DRAINAGE SYSTEM SHALL BE REMOVED OR SANDFILLED AS INDICATED ON THE PLANS.
- PIPE LENGTHS MEASURED ARE BETWEEN PIT CENTRES.
- ALL DRAINAGE PIPES LESS THAN 300mm DIAMETER SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS (U.N.O.). ALL PIPE JUNCTIONS AND TAPERS SHALL BE VIA. PURPOSE MADE FITTINGS.
- MINIMUM GRADE TO DRAINAGE PIPES TO BE 1.5% U.N.O.
- MINIMUM PIPE SIZE TO BE 100mm DIAMETER U.N.O.
- THE CONTRACTOR IS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.