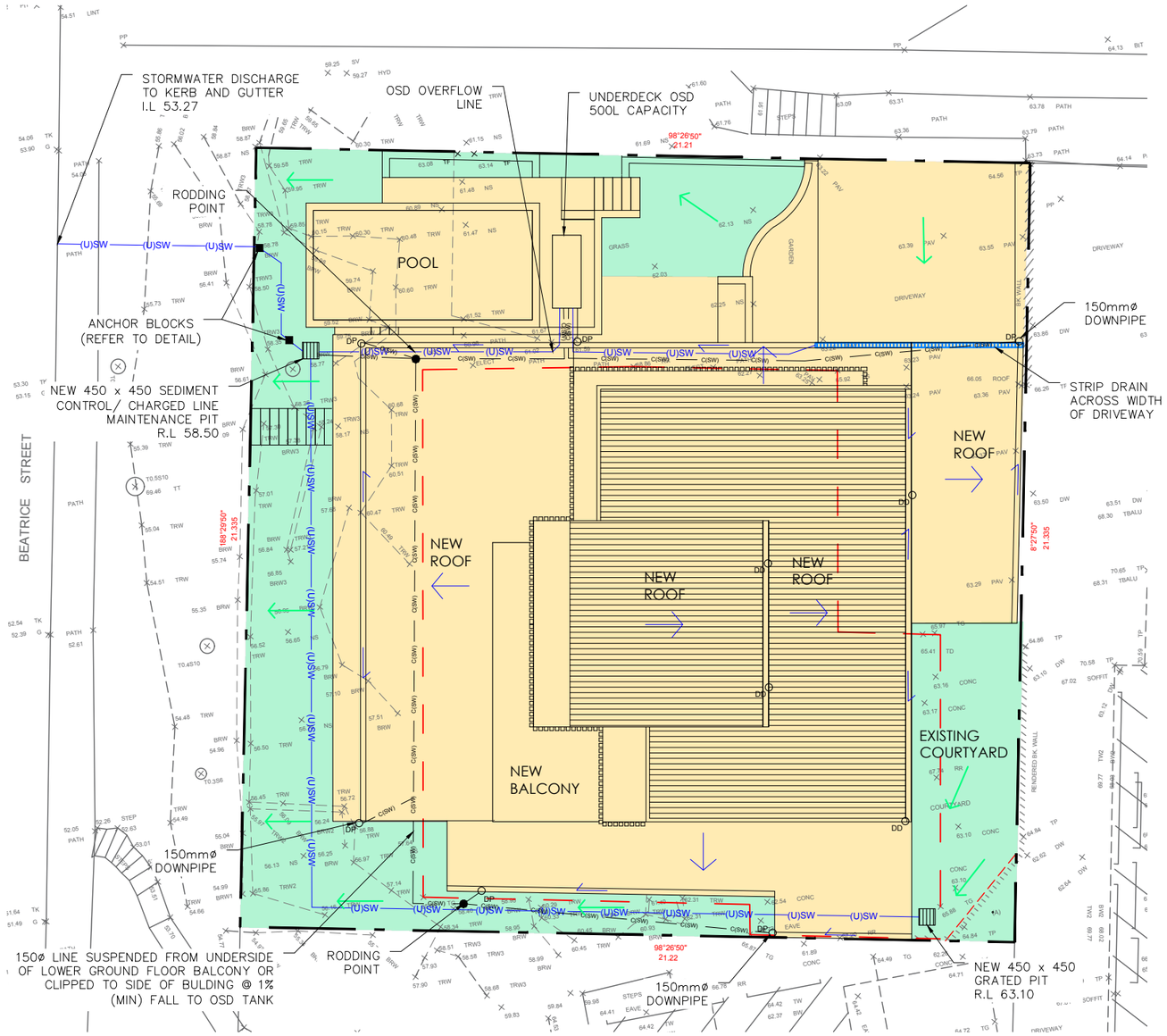
GENERAL NOTES

1. Levels are critical, request advice prior to altering.
2. All works shall be carried out in accordance with the specifications for these works and/or as directed by the superintendent.
3. The contractor shall locate and level all existing services prior to commencing construction and protect and make arrangements with the relevant authority to relocate and/or adjust if necessary. Information given on the drawings in respect to services is for guidance only, is not guaranteed complete nor correct.
4. Contract is not to enter upon nor do any work within adjacent lands without the permission of the owner and superintendent.
5. All site regrading areas shall be finally graded to the satisfaction of the superintendent.
6. All new works shall make a smooth junction with existing.
7. All levels are to Australian height datum (AHD)
8. All levels are in metres and dimensions in millimetres.
9. Sediment control measures to the satisfaction of Council.
10. Contractor to provide owner with work as executed survey upon completion of works including surveyed levels to local datum and contractor to provide certification that the work has been installed as per approved design.
11. Contractor to ensure that they update the services searches C/O Dial Before You Dig. This must be received prior to any excavation.
12. Locations of downpipes are indicative only. Downpipe location and quantity to be determined by the builder and superintendent in accordance with relevant Australian standards.
13. Components of the existing system that are to be retained must be certified during construction to be in good condition and of adequate capacity to convey the additional runoff generated by the development and be upgraded or replaced if required.

STORMWATER DRAINAGE

1. Stormwater drainage shall be in accordance with AS3500.3. Ensure inspection openings are installed to pipework at all locations required in AS3500 Clause 8.5.
2. All pipes to be DWV SH grade PVC to AS1260 (1996).
3. Pipes up to 150mm diameter shall be laid at a minimum grade of 1%. Pipes 225mm diameter and over to be laid at a minimum grade of 0.5% U.N.O. Bedding material to AS2032 or AS3725 as appropriate.
4. All new down pipes and down pipe droppers to be 100Ø U.N.O.
5. All pipe fittings to be PVC standard fitting or for larger fittings all bends to be lobster back bends. No 90 sharp mitre bends to be used.
6. Minimum cover to pipe 300mm generally and 450mm in car park and roadway areas U.N.O.
7. Backfill trenches in trafficable areas with sand. In non-trafficable areas backfill trenches with approved fill such as sandy loam, compacted in 200mm layers to 98% of standard density to AS1289 Clause 5.1.1.
8. Any pipes over 16% grade shall have concrete bulkheads at all joints.
9. Downpipes and guttering to be size and material as specified by builder U.N.O. All flashing details to HB39 and builder's details.
10. All pits to be prefabricated glass reinforced concrete (GRC). Strip drain lengths to be confirmed on site with light duty class B grating in untrafficable areas, heavy duty class D grating in trafficable areas U.N.O. Precast concrete pits can be substituted in trafficable areas if required.



DRAINAGE PLAN

1:150

LEGEND

- BOUNDARY LINE
- LINE OF EXISTING ROOF
- (U)SW — NEW UNDERGROUND 100Ø PVC STORMWATER LINE
- C(SW) — U/G Ø150mm CHARGED STORMWATER LINE
- (U)SW — NEW SUBSOIL DRAINAGE LINE 100Ø AGG LINE
- ×25.64 — EXISTING SPOT LEVELS IN METRES
- ×48.70 — DESIGN SPOT LEVELS IN METRES
- DP — NEW 100Ø DOWNPIPE
- DD — NEW 100Ø DOWNPIPE DROPPER
- OVERLAND FLOW
- ROOF FLOW
- GUTTER FLOW
- POST-DEVELOPMENT IMPERVIOUS AREA
- POST-DEVELOPMENT PERVIOUS AREA
- NEW DRAINAGE PIT
- STRIP DRAIN

STORMWATER DISCHARGE CRITERIA

1. All in-ground stormwater drainage to be installed prior to installation of roofing. Upon completion of roofing, all gutters to be immediately connection to the piped system.
2. Upon completion of the works all pits and grates are to be cleaned prior to occupation certificate being issued.
3. Drainage systems require maintenance. All pits, grates and gutters to be cleaned of debris regularly or when any deleterious material accumulates.
4. All in-ground stormwater lines to have a minimum fall of 1%. Stormwater drains and discharges by gravity to Council's stormwater system.
5. Box gutters are to have a minimum fall of 1:200.
6. Finished floor level shall be at least 150mm above finished ground levels.
7. Stormwater drainage plan is in accordance with Manly Council Specification for Stormwater Drainage 2003 & On-Site Stormwater Management 2003.

NOTES ON SITE DATA

1. Areas based on architectural drawing Ref. 7240-DA0200 Revision P1, dated 12 March 2018 by Red Blue Architecture and survey by GeoStrata drawing Ref. 1603 DETAIL, dated 13 November 2017.
2. Stormwater calculations based on Australian Rainfall and Runoff Rational Development Method 2014.

SITE DATA

Total Site Area = 452.65m^2
Pre-Development Impervious Area = 272.86m^2
Post-Development Impervious Area = 344.44m^2
Increased Impervious Area = 71.58m^2

In accordance with the Manly Council Specification for On-site Stormwater Management 2003 Part 4.1 - For an increased site impervious area of greater than 50m² the installation of on-site stormwater detention is required.

REV	DATE	REVISION DETAILS	BY	VER.	APP.
A	11/12/18	FOR APPROVAL	MT	DM	DM

REVISIONS AND ISSUES

Prepared By MT	Signed	Date 11/12/18	Scale 1:150 A3
Verified By DM	Signed	Date 11/12/18	
Approved By DM	Signed	Date 11/12/18	
Horizontal Datum	N/A		
Vertical Datum	AHD		

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1:150 (A3)

Client:
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Project
PROPOSED ADDITIONS & ALTERATIONS
39 ADELAIDE ST, BALGOWLAH HEIGHTS

Drawing Title
STORMWATER DRAINAGE CONCEPT PLAN

Status	Project No.	Drawing No.	Rev.
FOR APPROVAL	678	678–C–51	A

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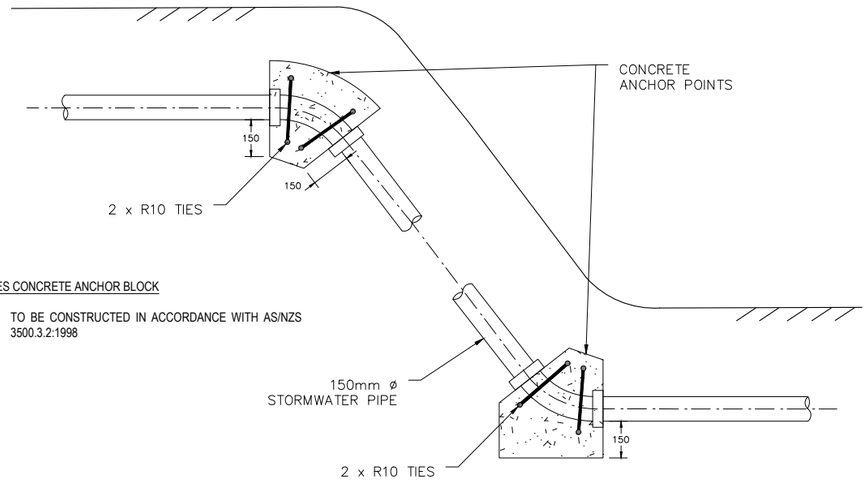


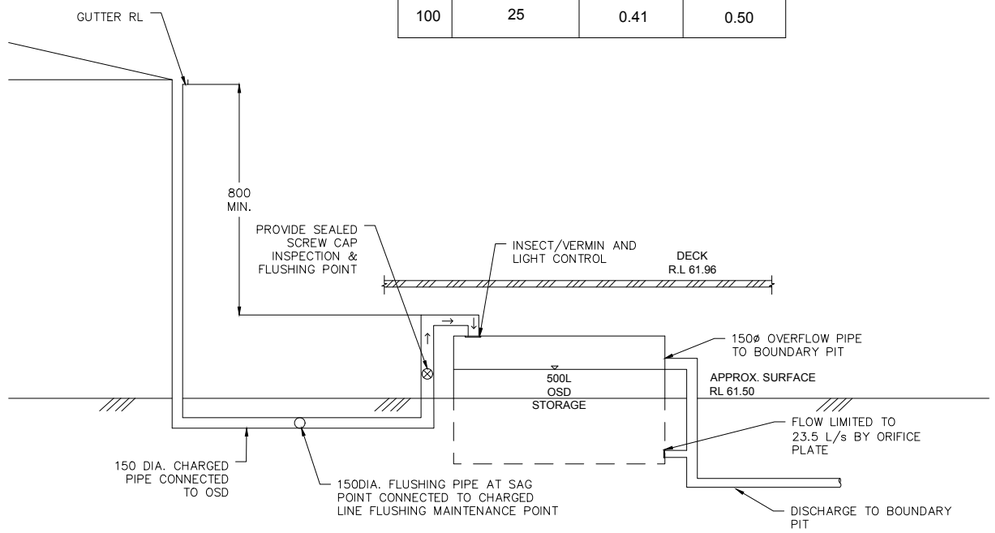
NOTES CONCRETE ANCHOR BLOCK

1. TO BE CONSTRUCTED IN ACCORDANCE WITH AS/NZS 3500.3.2:1998

CONCRETE ANCHOR BLOCK DETAIL

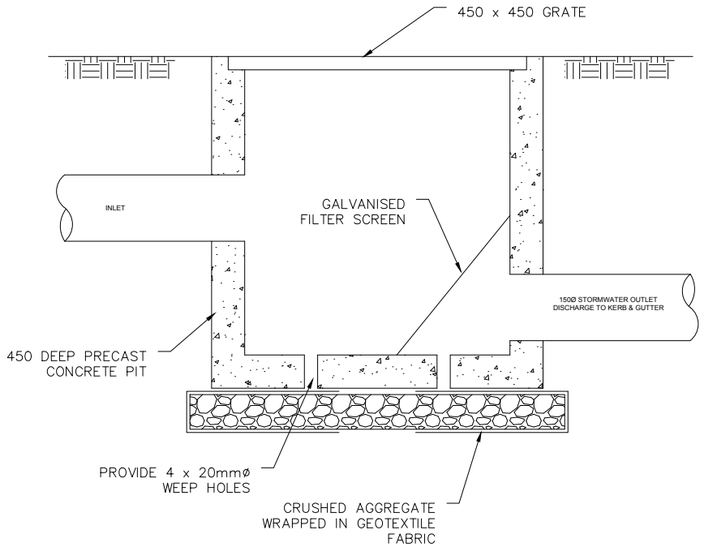
1:25

ARI	PERMISSIBLE OSD DISCHARGE (L/S)	SITE STORAGE REQUIRED (m^3)	SITE STORAGE PROVIDED (m^3)
100	25	0.41	0.50



OSD TANK DETAIL

NTS



BOUNDARY / MAINTENANCE PIT DETAIL

NTS

NOTES BOUNDARY/ MAINTENANCE PIT

1. SILT ARRESTER MUST BE INSTALLED BY A LICENSED PLUMBER IN ACCORDANCE WITH AS3500 (OR COUNCIL APPROVED) AND OTHER RELEVANT CODES AND THE MANUFACTURERS SPECIFICATIONS.

REV	DATE	REVISION DETAILS	BY	VER.	APP.
A	11/12/18	FOR APPROVAL	MT	DM	DM

REVISIONS AND ISSUES

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Vertical Datum	AHD		

0 0.25 0.5 0.75 1.0 1.25 m
1:25 (A3)

Client:

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Project
PROPOSED ADDITIONS & ALTERATIONS
39 ADELAIDE ST, BALGOWLAH HEIGHTS

Drawing Title
BOUNDARY PIT & OSD TANK DETAIL

Status	Project No.	Drawing No.	Rev.
FOR APPROVAL	678	678–C–52	A

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