PROPOSED RESIDENTIAL DEVELOPMENT TYPE: NEW RESIDENCE

DRAWINGS SERIES TO BE PRINTED IN COLOUR

DEVELOPMENT APPLICATION ISSUE NOT FOR CONSTRUCTION

No. 25 YORK TERRACE, BILGOLA PLATEAU ADDRESS:

LOT 215/DP16327 TITLE:

DRAWING SERIES: STORMWATER MANAGEMENT PLAN

GENERAL NOTES

- GN1 ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. GN2 THE CONTRACTOR SHALL LOCATE AND DETERMINE LEVELS OF ALL EXISTING SERVICES PRIOR TO COMMENCING EXCAVATION WORK. ALL SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE AND FOR GUIDANCE ONLY
- GN3 THIS DRAWING SERIES IS TO BE READ IN CONCURRENCE WITH RELEVANT DRAWINGS SERIES FROM OTHER CONSULTANTS, COUNCIL OR RELEVANT SPECIFICATIONS. WHERE DISCREPANCIES ARE DETECTED THE DESIGN ENGINEER IS TO BE CONTACTED IMMEDIATELY FOR VALIDATION/ RECTIFICATION
- GN4 BUILDER AND CONTRACTORS IS TO ENSURE THAT ALL COUNCIL DEVELOPMENT CONSENT CONDITIONS, CONSTRUCTION CERTIFICATE AND BASIX REQUIREMENTS ARE MET.
- GN5 A STRUCTURAL ENGINEER IS TO DESIGN AND DETAIL SUBSOIL DRAINAGE. UNLESS APPROVED BY OUR OFFICE, SUBSOIL DRAINAGE IS NOT TO CONNECT INTO THE STORMWATER SYSTEM DISPLAYED WITHIN THIS DRAWING SERIES.
- GN6 PLANS ISSUED FOR DEVELOPMENT APPLICATION, SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE.
- GN7 PLANS ISSUED FOR DEVELOPMENT APPLICATION PURPOSES, SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

RAINWATER RE-USE NOTES

- THE RAINWATER TANK IS TO BE INSTALLED AND EMPLOYED AS PER BASIX. SYDNEY WATER, COUNCIL AND NSW HEALTH REQUIREMENTS FOR NON DRINKING USE ONLY.
- RN2 ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE.
- RN3 BUILDER AND PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK (HB 230- 2008).
- RN4 DO NOT DIRECT CONNECT TOWN WATER SUPPLY AND THE RAIN WATER SUPPLY.
- RN5 THE RAINWATER TANK AND EVERY RAINWATER SUPPLY OUTLET POINT ARE TO BE LABELLED (RAINWATER) ON A METAL SIGN IN ACCORDANCE WITH AS1319.
- RN6 SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4-6mm AND DESIGNED TO BE SELF-CLEANING.
- RN7 ROOF RUN-OFF ONLY IS BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER SYSTEMS/INLETS ARE NOT TO BE CONNECTED.
- RN8 ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE DEVICES TO PREVENT MOSQUITO AND VERMIN ENTRY TO THE SATISFACTION OF THE REGULATORY AUTHORITY.
- RN9 PROVIDE APPROPRIATE FLOAT VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL
- RN10 PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN

BEFORE YOU DIG AUSTRALIA



AMUNA

THE MOST UP TO DATE BEFORE YOU DIG AUSTRALIA (BYDA) PLANS MUST BE KEPT ON-SITE AT ALL TIMES. ANY PERSON ABOUT TO DIG OR EXCAVATE MUST READ BYDA PLANS PRIOR TO THE COMMENCEMENT OF WORK.

STORMWATER NOTES

- ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES, ARE TO BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS, THE BUILDING CODE OF AUSTRALIA, MANUFACTURER'S RECOMMENDATIONS, SYDNEY CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND LOCAL COUNCIL, AS APPLICABLE.
- ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE AS/NZS3500 AND THE REQUIREMENTS OF THE LOCAL GOVERNMENT AREAS POLICIES, CODES AND SPECIFICATIONS. ENSURE INSPECTION OPENINGS ARE INSTALLED TO DRAINAGE LINES AT REQUIRED LOCATIONS.
- SN3 STORMWATER PIPES UP TO DN150 SHALL BE LAID AT A MINIMUM 1% GRADE UNLESS OTHERWISE NOTED.
- SN4 WHERE NECESSARY PUBLIC UTILITY SERVICES ARE TO BE ALTERED AND AMENDED AT THE CLIENT'S EXPENSE.
- SN5 ALL NEW WORK MAKE SMOOTH TRANSITIONS AND CONNECTIONS WITH EXISTING WORK.
- LOCAL GOVERNMENT AREAS TREE PRESERVATION AND MANAGEMENT ORDERS TO BE ABIDED BY. A PERMIT IS REQUIRED BEFORE TREE/S CAN BE REMOVED.
- ALL PITS TO BE STREAMLINED AND BENCHED IN ACCORDANCE WITH LOCAL GOVERNMENTS AREAS SPECIFICATIONS.
- STEP IRONS ARE TO BE PROVIDED FOR ALL PITS OVER 1.2m DEEP IN ACCORDANCE WITH AS/NZS3500 AND LOCAL GOVERNMENT AREAS CODES AND POLICES.
- SN9 DOWNPIPES. RAINWATER LINES AND STORMWATER LINES TO BE FULLY SEALED UNLESS OTHERWISE NOTED.
- SN10 ALL GRATE AND INVERT LEVELS PROVIDED ON THIS DRAWING ARE EXTRACTED FROM SURVEY AND REDUCED TO AHD. FOLLOWING EARTHWORKS, PIT INSTALLATION AND BENCHING THE LEVELS ARE TO BE VERIFIED OR ADJUSTED TO MEET THE DESIGN INTENT. IF EVER IN DOUBT CONTACT DESIGN ENGINEER.
- SN11 ALL SUSPENDED DRAINAGE PIPES ARE TO STRAPPED IN ACCORDANCE WITH AS/NZ 2032.
- SN12 LOW POINTS OF CHARGED DRAINAGE SYSTEMS REQUIRE DEVICES FOR FLUSHING AND MAINTENANCE.
- SN13 THE NUMBER AND LOCATION OF DOWNPIPES, ON THIS DRAWING SERIES, ARE SHOWN INDICATIVELY AND ARE TO BE CONFIRMED ON-SITE BY BUILDER PRIOR TO CONSTRUCTION. WHERE DISCREPANCIES/VARIATIONS ARE FOUND THE DESIGN ENGINEER IS TO BE CONTACTED IMMEDIATELY FOR VALIDATION/ RECTIFICATION.
- SN14 NEW WORKS SHALL NOT CREATE ANY TRAPPED SURFACE AREAS. IN SUCH CASES WHERE TRAPPED AREAS EXIST, A DRAINAGE NETWORK WITH ADEQUATE CAPACITY SHALL BE REQUIRED TO DRAIN STORMWATER TO AN APPROVED DISCHARGE POINT. A PUMP-OUT SYSTEM MAY BE REQUIRED IF THE TRAPPED AREA IS BELOW THE NATURAL SURFACE LEVEL. IN EACH INSTANCE, THE DESIGN ENGINEER MUST BE CONTACTED FOR DESIGN DETAILS (AS REQUIRED) BEFORE CONSTRUCTION.
- SN15 WHEN SURFACES FALL TOWARDS A BUILDING, INCLUDING LAND OUTSIDE OF THE SITE, GROUND SURFACE LEVELS ADJACENT TO THE BUILDING ARE TO BE RE-GRADED SUCH THAT THE FIRST METER HAS A MINIMUM 50MM FALL AWAY FROM THE BUILDING AS PER THE NATIONAL CONSTRUCTION CODE.
- SN16 IN THE EVENT OF THE PRIMARY OUTLET BLOCKING AND TO REDUCE WATER INGRESS, THE CONTRACTOR IS TO ENSURE A MINIMUM 100MM WIDE X 40MM HIGH OR 50MM DIAMETER OVERFLOW DEVICE FOR EVERY 6M² OF THE EXPOSED AREA TRAPPED, SUCH AS HOBS/WALLS/BALUSTRADES/ETC, IS PROVIDED. THE ENTIRE OVERFLOW DEVICE DEPTH MUST BE POSITIONED BELOW ANY ADJACENT INTERNAL FLOOR LEVELS OR OPENINGS TO PROTECT AGAINST WATER INGRESS.

DRAWING LEGEND

INDICATES INDICATIVE EXTENT OF EXISTING DWELLING INDICATES INDICATIVE EXTENT OF PROPOSED EXTENSION INDICATES INDICATIVE EXTENT OF PROPOSED DRIVEWAY INDICATES ON-SITE DETENTION TANK INDICATES RAINWATER TANK **INDICATES ABSORPTION SYSTEM** \bigcirc DP INDICATES PROPOSED DOWNPIPE/RISER e.DP INDICATES EXISTING DOWNPIPE/RISER I.O. INDICATES INSPECTION OPENING WITH SCREW DOWN LID RWO **INDICATES RAINWATER OUTLET** ◇ PBO INDICATES PLANTER BOX OUTLET \circ **INDICATES EAVE OPENING INDICATES PIPE DROPPER** 0 **BOX GUTTER SUMP/RAINWATER HEAD SUMP** INDICATES EAVE TYPE AND DIRECTION INDICATES DOWNPIPE SPREADER INDICATES GRATED BOX DRAIN WITH OUTLET INDICATES DRAINAGE PIT GRATED OPENING INDICATES DRAINAGE PIT SEALED COVER - sw ILXX.XXX INDICATES STORMWATER PIPE INVERT LEVELS. UNLESS OTHERWISE NOTED PIT BASE IS TO EQUAL PIPE BASE INDICATES DN100 RAINWATER PIPE. INDICATES DN100 STORMWATER PIPE. INDICATES EXISTING STORMWATER PIPE. INDICATES DN100 SEWER GRADE CHARGED STORMWATER PIPE. INDICATES SIZE AND DIRECTION OF RAINWATER PIPE **→** DN150 GREATER THAN DN100. **→** DN150 INDICATES SIZE AND DIRECTION OF STORMWATER PIPE **GREATER THAN DN100. →** DN150 INDICATES SIZE AND DIRECTION OF EXISTING STORMWATER PIPE GREATER THAN DN100. **→** DN150 INDICATES SIZE AND DIRECTION OF SEWER GRADE CHARGED STORMWATER PIPE. **INDICATES SITE BOUNDARY** INDICATES EASEMENT WITHIN SITE, REFER TO DETAILS **SURVEY**

INDICATES INDICATIVE ROOF OUTLINE

PENETRATION DIRECTION

PENETRATION DIRECTION

SERVICE TYPE

SIZE

PIPE LINE CONTINUES TO REFERENCED PAGE

SITE SUMMARY OF COUNCIL SPECIFICATION

- COUNCIL: NORTHERN BEACHES COUNCIL (PITTWATER)
- 2. RELEVANT DOCUMENTS:
 - 2.1. NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT **POLICY**
- 2.2. AS/NZS 3500.3
- DCP CONTROLS:
- ON- SITE DETENTION (OSD) PRE AND POST DEVELOPMENT IMPERVIOUS AREA CALCULATIONS ARE SHOWN ON PAGE S5. WE NOTE THE CHANGE OF IMPERVIOUS AREA REMAINED UNDER 50m² AS A RESULT OSD IS NOT REQUIRED IN ACCORDANCE WITH COUNCIL SPECIFICATION, REFER TO COUNCIL CHECKLIST ON PAGE S6 FOR DETAILS.
- STORMWATER DISCHARGE THE PROPOSED DEVELOPMENT WILL DRAIN BY GRAVITY TO YORK TERRACE AND DISCHARGE VIA AN EXISTING KERB OUTLET

THIS DRAWING SERIES HAS BEEN PREPARED IN GENERAL ACCORDANCE WITH THE ABOVE DOCUMENTS.

PAGE DIRECTORY

TITLE PAGE & NOTES	PAGE S1
MANAGEMENT OF STORMWATER PLAN - GROUND FLOOR	PAGE S2
MANAGEMENT OF STORMWATER DETAILS PAGE 1 OF 2	PAGE S3
MANAGEMENT OF STORMWATER DETAILS PAGE 2 OF 2	PAGE S4
MANAGEMENT OF STORMWATER CALCULATIONS	PAGE S5
MANAGEMENT OF STORMWATER CHECKLIST	PAGE S6

Revision Drawn Date

Description

Checked Approved

DESIGN

BLUE SKY BUILDING Client: ROBINSON & MOODY

PROPOSED NEW RESIDENCE NO. 25 YORK TERRACE

BILGOLA PLATEAU

TITLE PAGE & NOTES

Project No. ACE23010

AS NOTED

SSD 07.02.23 ISSUED FOR DEVELOPMENT APPLICATION SUBMISSION

SC SSD

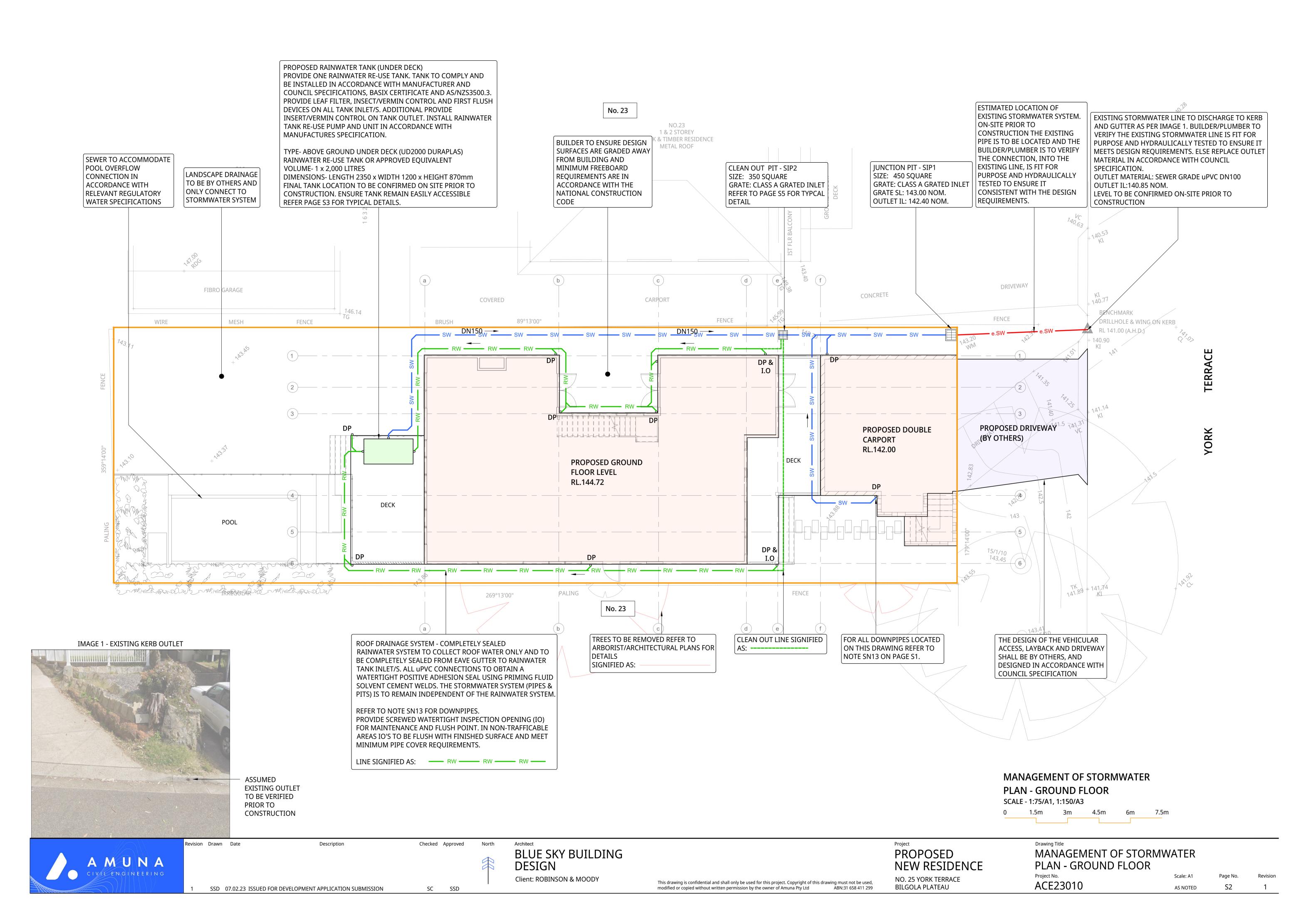
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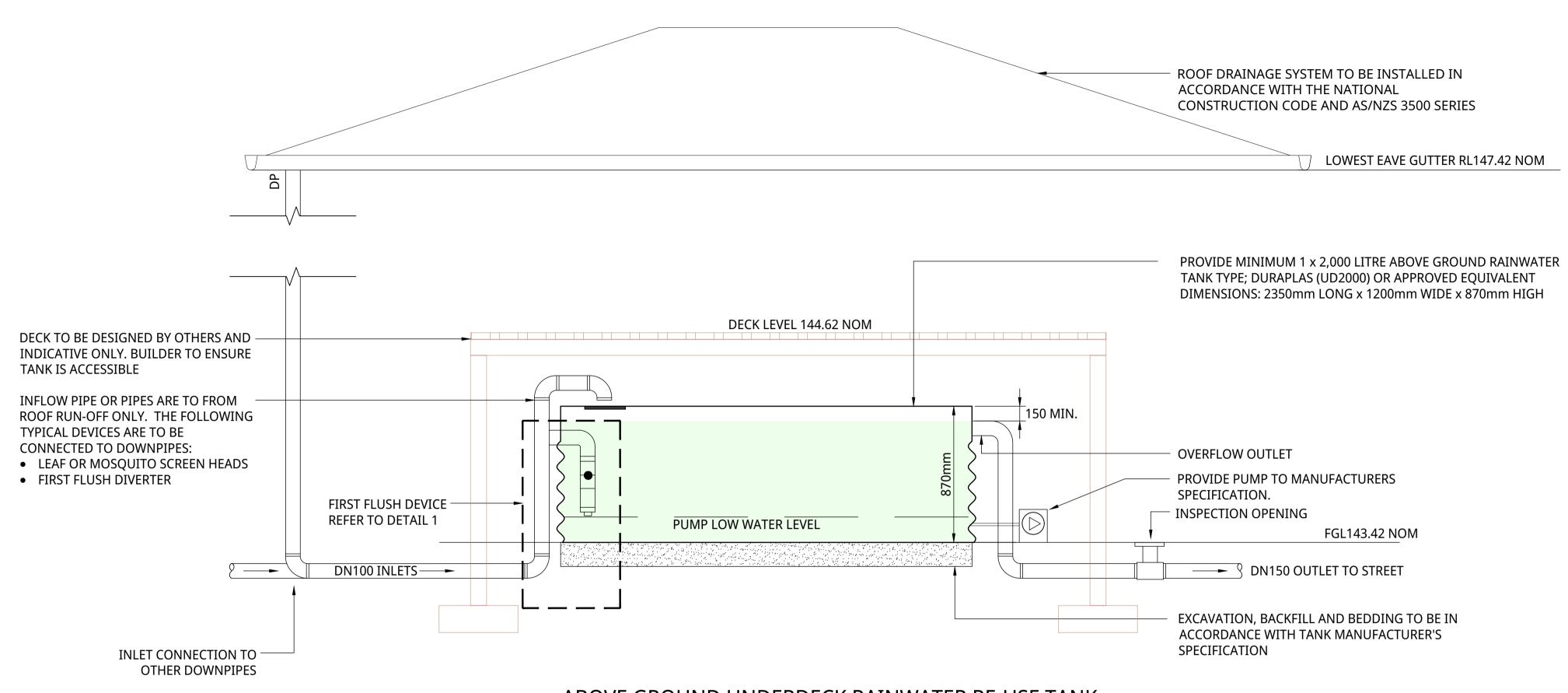
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DP-RW 🔫

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PAGE S??>



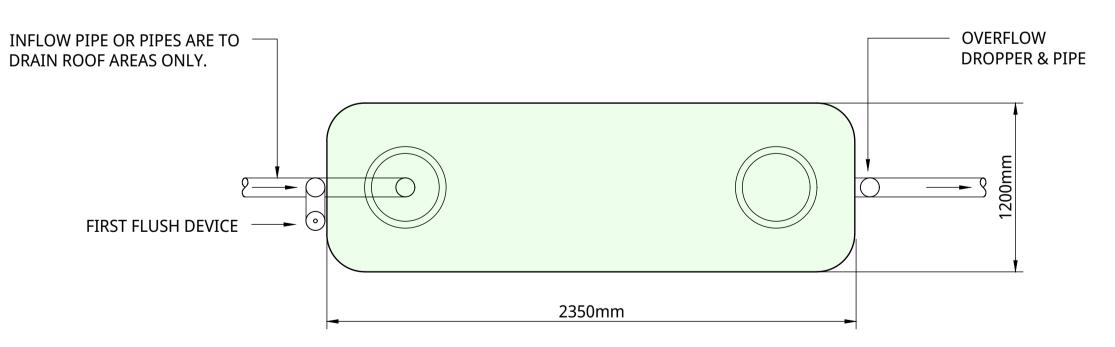


ABOVE GROUND UNDERDECK RAINWATER RE-USE TANK TYPICAL ELEVATION

NTS

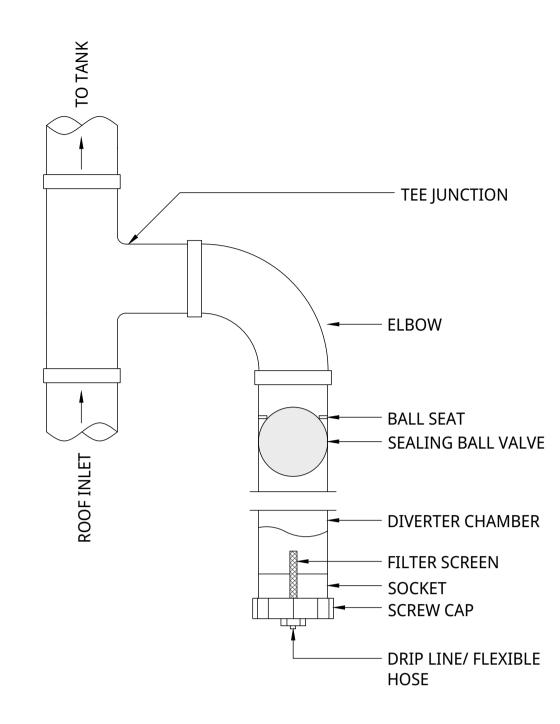
NOTES:

- 1. RAINWATER TANK TO MEET MINIMUM BASIX REQUIREMENTS.
- 2. RAINWATER TANK DIMENSIONS TO BE VERIFIED WITH TANK MANUFACTURER, DESIGN ENGINEER TO VALIDATE ANY VARIATIONS PRIOR TO CONSTRUCTION.
- 3. REFER TO RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK BY MPMSAA (2008) FOR TANK CONNECTION SCHEMATICS.
- 4. ONLY ONE RAINWATER TANK INLET IS SHOWN FOR INDICATIVE PURPOSES.



ABOVE GROUND UNDERDECK RAINWATER RE-USE TANK TYPICAL PLAN

NTS



DETAIL 1 - TYPICAL FIRST FLUSH DEVICE

NTS

- 1. APPROVED EQUIVALENT OTHER FIRST FLUSH DEVICE MAY BE INSTALLED.
- 2. ENSURE FIRST FLUSH DEVICE DOES NOT POND WATER IN ENCLOSED SPACES.
- 3. FIRST FLUSH VOLUME TO BE A MINIMUM 20L PER 100m² OF ROOF



TYPICAL WARNING SIGN

NTS

1. REFER TO NOTE RN5 ON PAGE S1

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PROPOSED **NEW RESIDENCE** NO. 25 YORK TERRACE BILGOLA PLATEAU

MANAGEMENT OF STORMWATER DETAILS - PAGE 1 OF 2

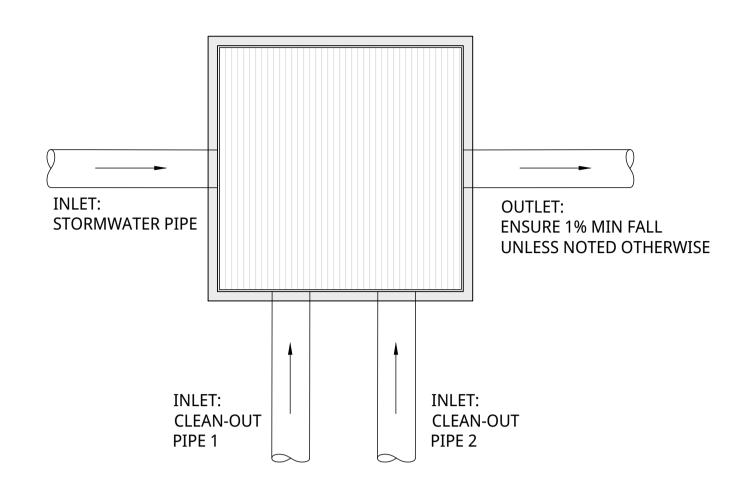
Project No. ACE23010

S3 AS NOTED

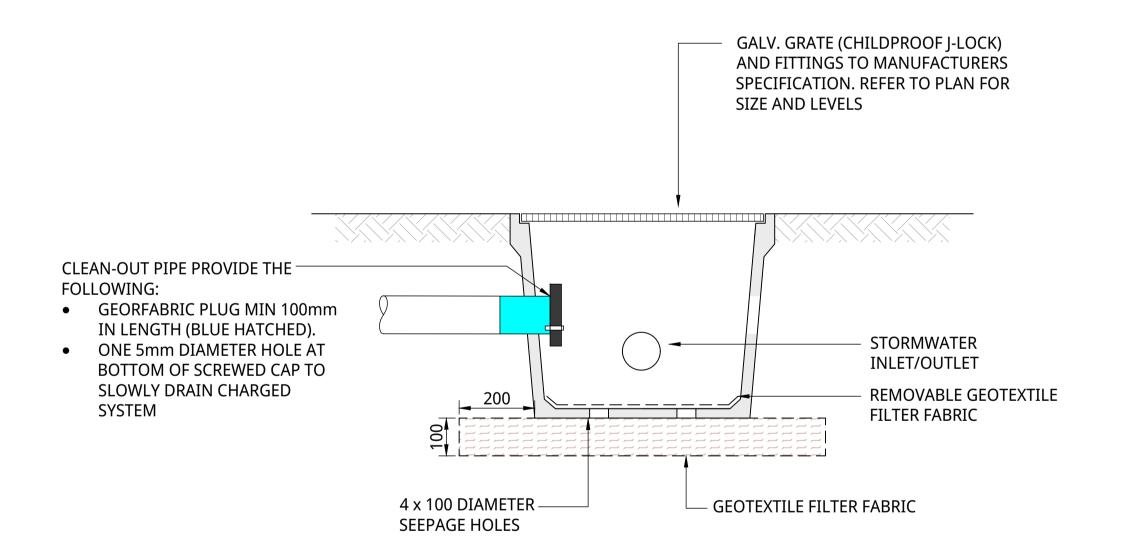
SSD 07.02.23 ISSUED FOR DEVELOPMENT APPLICATION SUBMISSION

SC SSD

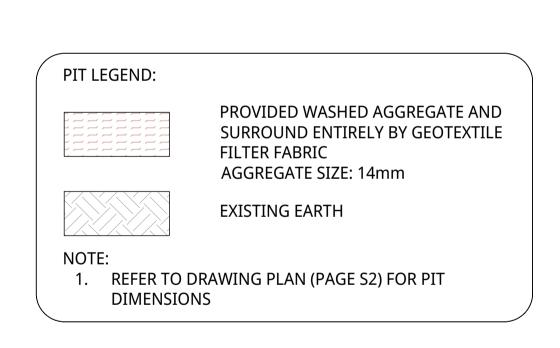
Client: ROBINSON & MOODY



PLAN 1 - TYPICAL PLAN OF A CLEAN-OUT PIT NOT TO SCALE:



DETAIL 1 - TYPICAL SECTION OF A CLEAN-OUT PIT NOT TO SCALE



Revision Drawn Date

Description

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Client: ROBINSON & MOODY

BLUE SKY BUILDING DESIGN

PROPOSED **NEW RESIDENCE** NO. 25 YORK TERRACE BILGOLA PLATEAU

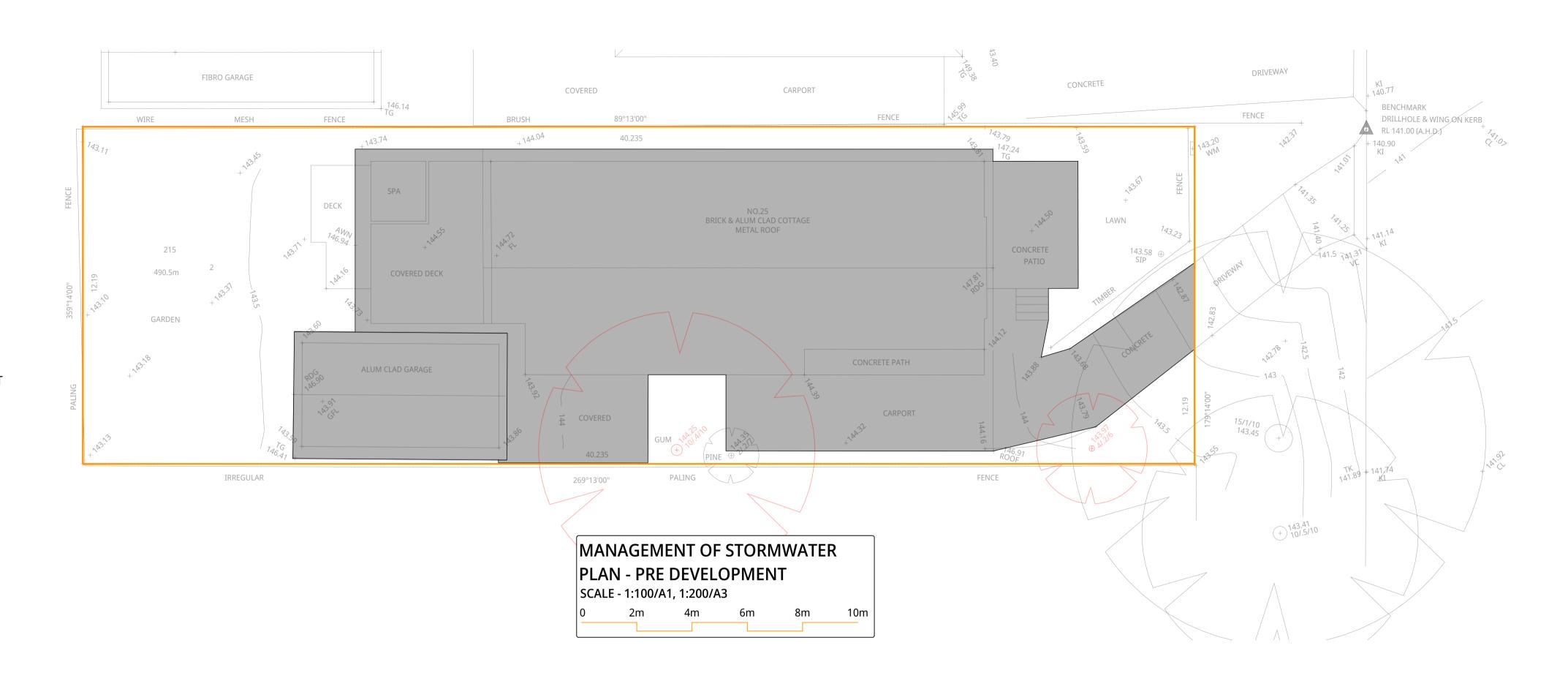
MANAGEMENT OF STORMWATER DETAILS - PAGE 2 OF 2

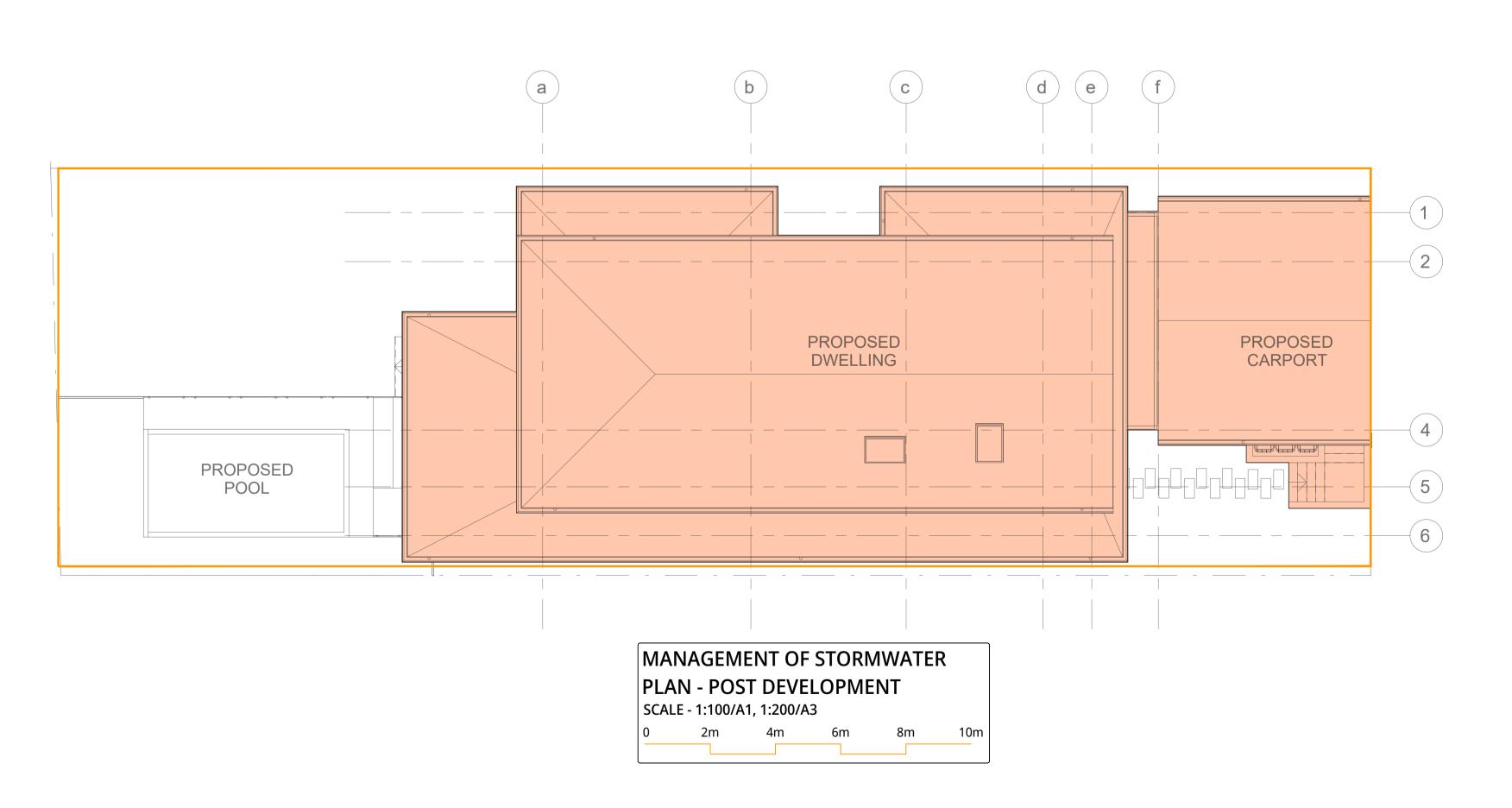
Project No. ACE23010 Scale: A1 AS NOTED

IMPERVIOUS AREA CALCULATION				
DEVELOPMENT	AREA (m ²)			
PRE-DEVELOPMENT	300.7			
POST-DEVELOPMENT	299.6			
RESULT	1.1			

NOTE:

 BASED ON THE ABOVE, ON-SITE DETENTION IS NOT REQUIRED FOR THE PROPOSED DEVELOPMENT.







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Description

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BLUE SKY BUILDING DESIGN
Client: ROBINSON & MOODY

Y BUILDING

Project
PROPOSED
NEW RESIDENCE
NO. 25 YORK TERRACE
BILGOLA PLATEAU

MANAGEMENT OF STORMWATER
CALCULATIONS
Project No. Scale: A1

Project No. Scale: A1 Page No. ACE23010 AS NOTED S5



Appendix 16 – On-site Detention Checklist

If no, please proceed to part 3 of this checklist.

Management Specification.

Suburb

Postcode

This checklist is to be used to determine the on-site stormwater disposal requirement for developments and must be completed and included with the submission of any development application for these works. Please read this form carefully for its notes, guidelines, definition and relevant policies.

For assistance and support, please contact Council's Development Engineering and Certification team on

Part 1 Location of the Property				
House Humber	REFER TO TITLE PAGE	Legal Property Description		
Street		Lot		

Section

Part 2 Site Details			
Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)	1.0	Total Site Area	490.5m ²
Pre-Development Impervious Area	300.7m ²	Post-Development Impervious Area	299.6m ²
Is the site of the development located within an established Flood Prone Land as referred to Council's Local Environmental Plans?			Yes □ No Z
If yes, On-site stormwater Detention syste	em (OSD) is	not required and please proceed	

Part 3: Northern Beaches Stormwater Regions
(refer to Map 2 of Northern Beaches Council's Water Management for Development policy)

If the site of the development located within Region 1, please proceed to the part 4.1 of this checklist If the site of the development located within Region 2, please proceed to the part 4.2 of this checklist

If the site of the development located within Region 3, please proceed to the part 4.3 of this checklist If the site of the development located within Region 4, please refer to Council's Warriewood Valley Water

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Part 4 Determination of OSD Requirements

If no, OSD is not required and please proceed to the part 5 of this checklist

Part 4.1 Northern Beaches Stormwater Region 1 Is the additional impervious area of the development more than 50 m² on a cumulative basis since February 1996? If yes, OSD is required and please refer to section 9.3.1 of Council's Water Management for Development

Part 4.2 Northern Beaches Stormwater Region 2

Part 4.2.1 Description of Work

Residential flat building, commercial, industrial, multiple occupancy development and subdivisions resulting in the creation of three lots or more, will require OSD in all case. Please provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. Any single residential building development, please proceed to part 4.2.2 of this checklist.

Part 4.2.2 Exemption Yes □ No □ Is the site area less than 450m²? Does the site of the development drain directly to the ocean without the need to pass through a drainage control structure such as pipe, bridge, culvert, kerb and gutter or natural drainage system? Is it an alternation and addition development to the existing dwellings? Yes □ No □

If no to all the above questions, proceed to part 4.2.3 Part 4.2.3 Determination of OSD Requirements

Calculation

If yes to any of the above questions, OSD is not required.

a) Site area $m^2 \times 0.40 (40\%) = 1$ b) Post- development impervious area = ...

OSD will not be required when (a) is greater than (b) Is OSD required for this development (tick one only) Yes \(\subseteq \text{No} \(\subseteq \) If yes, provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. If no, OSD is not required and please proceed to part 5 of this checklist.

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Part 4.3.1 Stormwater Zone

In the region, the method of stormwater control to be applied shall depend on the location of the site. Please refer to Map 3 of Northern Beaches Council's Water Management for Development policy. If the site of the development located within stormwater zone 1, please proceed to the part 4.3.2 of this

If the site of the development located within stormwater zone 2, please provide a design in accordance

with the section 9.3.3.3 of Council's Water Management for Development Policy. If the site of the development located within stormwater zone 3, please provide a design in accordance with the section 9.3.3.4 of Council's Water Management for Development Policy.

If the site of the development located within stormwater zone 4, please provide a design in accordance with the section 9.3.3.5 of Council's Water Management for Development Policy.

Part 4.3.2 Determination of OSD requirements in Stormwater Zone 1

Part 4.3.2.1 For A New Building

a) Is the site area less than 400? b) Is the post-development impervious area less than 190 m²?

If yes to both questions, OSD is not required. If no to any of the above questions, please process to calculation

a) Site area _____m² x 0.35 = _____m² + 50 = ____m² b) Post- development impervious area _____m² OSD will not be required when (b) is less than 250 m² and (a) is greater than (b) Is OSD required for this development? If yes, provide a design in accordance with the section 9.3.3.2 of Council's Water Management for Development Policy.

Yes □ No □

Part 4.3.2.2 For Alterations and Additions

If the current impervious area of the site is more than 60% of the site area, OSD will be required. Alternatively, please proceed to the next calculation section.

Is the post development impervious area increased by less than 50 m²? Yes □ No □ Is the post development impervious area less than 60% of the site area? Yes □ No □ If yes to both questions, OSD is not required. If no to any of the above questions, provide a design in accordance with section 9.3.3.2 of Council's Water Management for Development Policy

If no, OSD is not required and please proceed to part 5.

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Part 5 Disposal of Stormwater

Does the site fall naturally towards the street? Yes 🗾 No 🗆

If yes, provide a design in accordance with section 5.1 of Council's Water Management for Development If no, provide a design in accordance with section 5.5 of Council's Water Management for Development

Definitions

Designed to help you fill out this application

Site area: This refers to the area of the land bounded by its existing or proposed boundaries. Impervious area: This refers to driveways, parking spaces, pathways, paved areas, hardstand areas, roofed areas, garages and outbuildings. Pre Development Impervious area: This refers all impervious areas of the site before the development. Post Development Impervious areas: This refers all the impervious areas within the site after the development is completed.

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Revision Drawn Date

Description

Checked Approved

DESIGN

BLUE SKY BUILDING Client: ROBINSON & MOODY

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PROPOSED **NEW RESIDENCE** NO. 25 YORK TERRACE BILGOLA PLATEAU

MANAGEMENT OF STORMWATER PLAN - CHECKLIST Project No. ACE23010

AS NOTED