

PROPOSED RESIDENTIAL DEVELOPMENT TYPE: ALTERATIONS AND ADDITIONS

DRAWINGS SERIES TO BE PRINTED IN COLOUR

**DEVELOPMENT APPLICATION ISSUE
NOT FOR CONSTRUCTION**

ADDRESS: No. 81 RIVERVIEW ROAD, AVALON BEACH
TITLE: LOT 22/DP 18005
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

- RN1 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 TO 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




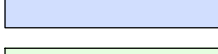
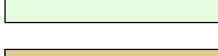




















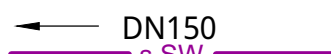





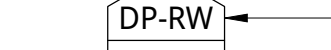

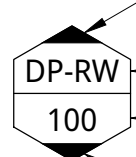


THE MOST UP TO DATE BEFORE YOU DIG AUSTRALIA
(BYDA) PLANS MUST BE KEPT ON-SITE AT ALL TIMES.
ANY PERSON ABOUT TO DIG OR EXCAVATE MUST READ
BYDA PLANS PRIOR TO THE COMMENCEMENT OF WORK.

STORMWATER NOTES

SN1	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.
SN2	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.
SN6	LOCAL GOVERNMENT AREAS TREE PRESERVATION AND MANAGEMENT ORDERS TO BE ABIDED BY. A PERMIT IS REQUIRED BEFORE TREE/ CAN BE REMOVED .
SN7	ALL PITS TO BE STREAMLINED AND BENCHED IN ACCORDANCE WITH LOCAL GOVERNMENTS AREAS SPECIFICATIONS.
SN8	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. ROOF DRAINAGE, BY OTHERS, AND TO BE INSTALLED IN ACCORDANCE WITH AS/NZs 3500 SERIES.
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	BALCONY DRAINAGE AND WATERPROOFING TO BE INSTALLED IN STRICT ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARD AND NATIONAL CONSTRUCTION CODE, DESIGN IS TO BE BY OTHERS.

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
	INDICATES PROPOSED DOWNPIPE/RISER
	INDICATES EXISTING DOWNPIPE/RISER
	INDICATES INSPECTION OPENING WITH SCREW DOWN LID
	INDICATES RAINWATER OUTLET
	INDICATES PLANTER BOX OUTLET
	INDICATES EAVE OPENING
	INDICATES PIPE DROPPER
	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
	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 INDICATIVE LOCATION OF RISING MAIN BY OTHERS.
	INDICATES SIZE AND DIRECTION OF RAINWATER PIPE GREATER THAN DN100.
	INDICATES SIZE AND DIRECTION OF STORMWATER PIPE GREATER THAN DN100.
	INDICATES SIZE AND DIRECTION OF EXISTING STORMWATER PIPE GREATER THAN DN100.
	INDICATES SIZE AND DIRECTION OF SEWER GRADE CHARGED STORMWATER PIPE.
	INDICATES SITE BOUNDARY
	INDICATES EASEMENT WITHIN SITE, REFER TO DETAILED SURVEY
	INDICATES INDICATIVE ROOF OUTLINE
	PIPE LINE CONTINUES TO REFERENCED PAGE
	PENETRATION DIRECTION SERVICE TYPE SIZE PENETRATION DIRECTION

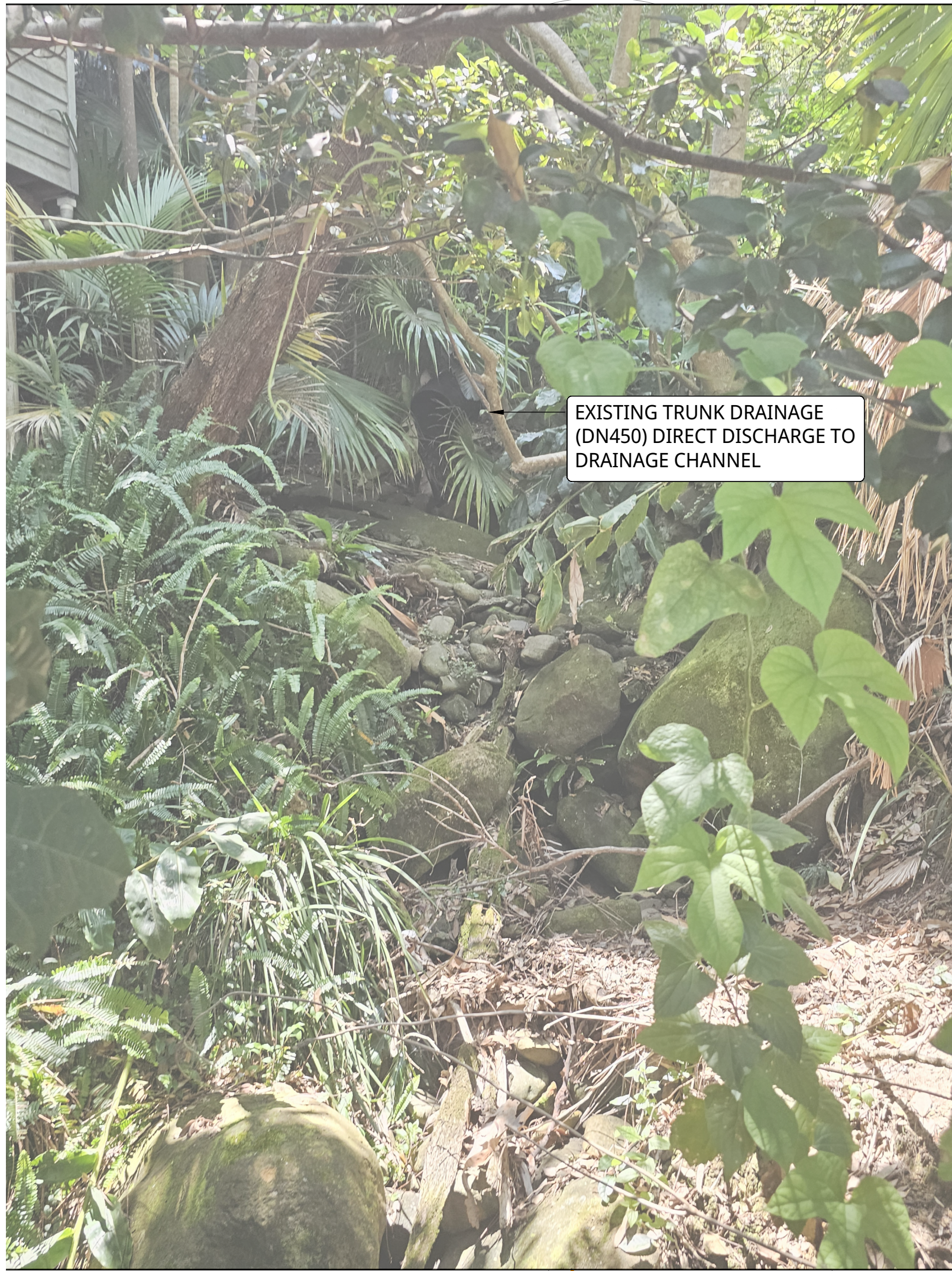
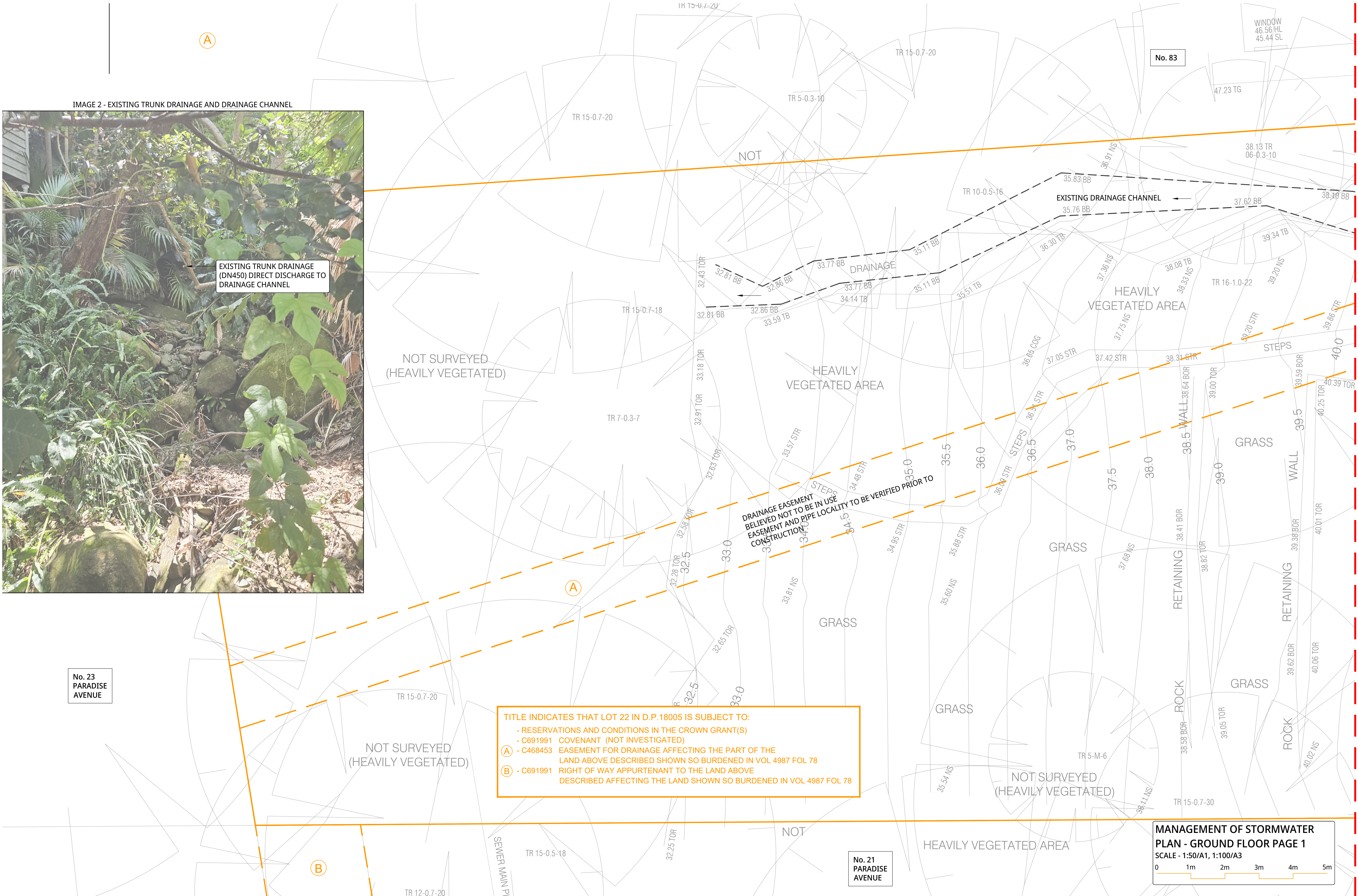
SITE SUMMARY OF COUNCIL SPECIFICATION

1. COUNCIL: NORTHERN BEACHES COUNCIL
2. RELEVANT DOCUMENTS:
 - 2.1. NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY (FEB 2021)
 - 2.2. AS/NZS 3500.3
3. ENGINEERING COMMENTS:
 - STORMWATER DISCHARGE
THE DEVELOPMENT IS LOW LYING AND PROPOSES CONNECTION AND DISCHARGE TO THE EXISTING STORMWATER SYSTEM.
WE NOTE COUNCIL'S TRUNK DRAINAGE SYSTEM (DN450 PIPE) IS LOCATED ADJACENT TO THE SITE AND FREELY DISCHARGES TO AN EXISTING DRAINAGE CHANNEL THAT DRAINS THROUGH THE SITE (REFER TO PAGE S2 & S3).
WE ALSO NOTE THAT THE EXISTING DRAINAGE EASEMENT WITHIN THE SITE IS BELIEVED TO NOT BE IN USE (TO BE VERIFIED PRIOR TO CONSTRUCTION).
 - ON- SITE DETENTION (OSD)
THE DEVELOPMENT PROPOSES ALTERATIONS AND ADDITIONS AND AN INCREASE IN IMPERVIOUS AREA OF 77m² WHICH WOULD GENERALLY TRIGGER THE APPLICATION FOR OSD. HOWEVER, OSD HAS NOT BEEN PROPOSED FOR THE FOLLOWING REASONS:
 - A. THE PROPERTY IS LOCATED LOW IN THE CATCHMENT AND MAY HAVE A NEGATIVE EFFECT'S TO THE CATCHMENTS PEAK FLOW HYDROGRAPH
 - B. THE DEVELOPMENT HAS AN EXISTING DRAINAGE CHANNEL THAT COUNCIL'S STORMWATER ASSET FREELY DISCHARGES INTO WITHOUT RESTRICTION. WE EXPECT THIS CHANNEL DRAINS FREELY TO PITTWATER WATERWAY. IN THIS REGARD ITS BELIEVED THAT COUNCIL INFRASTRUCTURE WOULD NOT BE IMPACTED WITH THE APPLICATION OF OSD.
 - C. THE APPLICATION OF OSD FOR THE PROPOSED SITE IS BELIEVED TO HAVE LITTLE AFFECT TO DOWNSTREAM PROPERTIES GIVEN THE EXPECTED FLOW OF COUNCIL DRAINAGE ASSET.

WE RECOMMEND THIS DESIGN AND A SAFE AND PRACTICAL SOLUTION TO SUPPORT THE DEVELOPMENT. 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 1	PAGE S2
MANAGEMENT OF STORMWATER PLAN - GROUND FLOOR 2	PAGE S3
MANAGEMENT OF STORMWATER PLAN - ROOF	PAGE S4
MANAGEMENT OF STORMWATER CALCULATIONS	PAGE S5



No. 23
PARADISE
AVENUE

No. 21
PARADISE
AVENUE

ACTION PLANS

Client: BESSEY

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Project
**PROPOSED
ALT'S & ADD'S**
No. 81 RIVERVIEW ROAD
AVALON BEACH

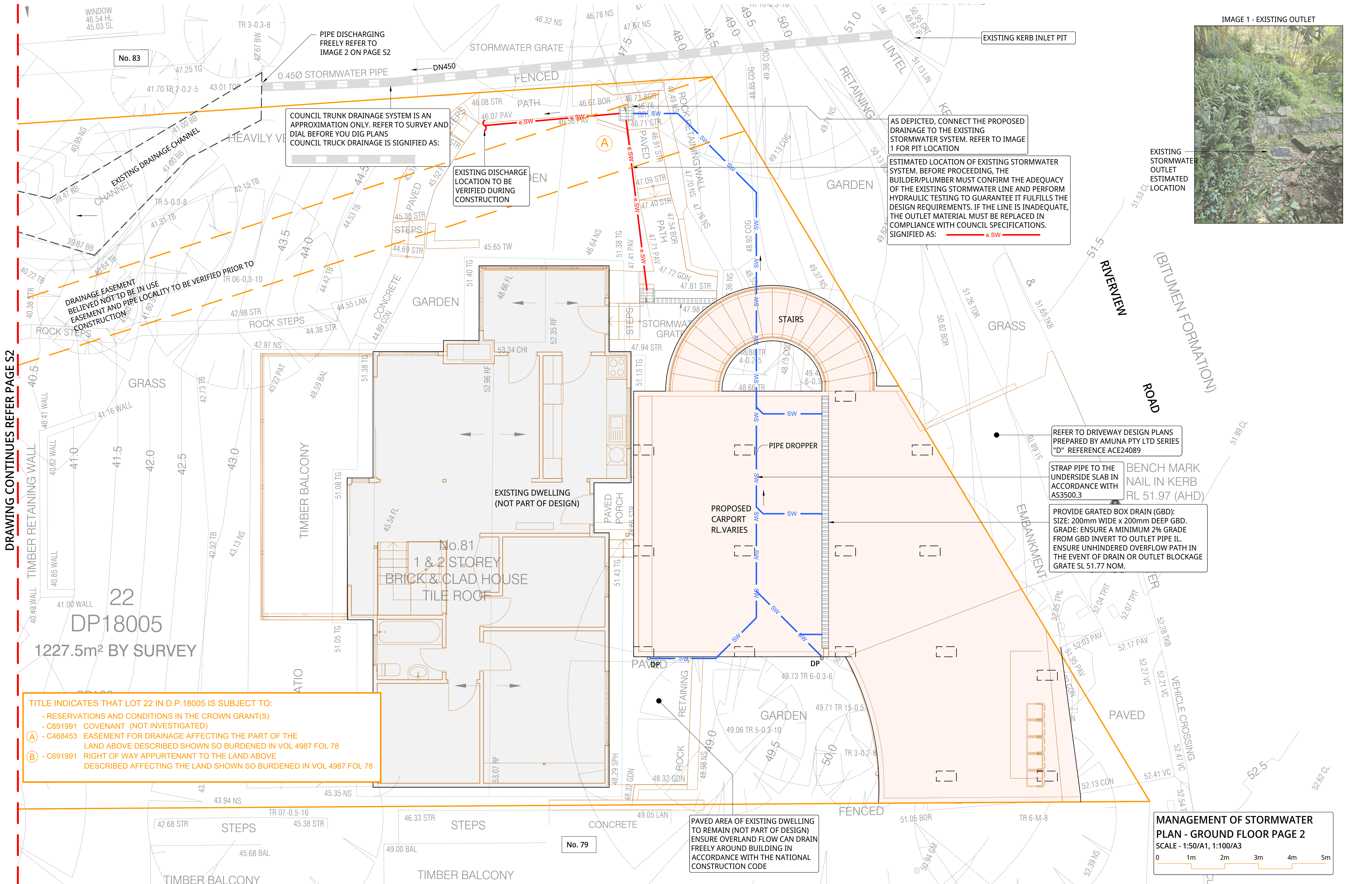
Drawing Title
**MANAGEMENT OF STORMWATER
PLAN - GROUND FLOOR PAGE 1**
Project No.
ACE24089

Scale: A1
AS NOTED

Page No.
S2

Revision
1

DRAWING CONTINUES REFER PAGE S3



EXISTING STORMWATER OUTLET ESTIMATED LOCATION

AS DEPICTED, CONNECT THE PROPOSED DRAINAGE TO THE EXISTING STORMWATER SYSTEM. REFER TO IMAGE 1 FOR PIT LOCATION

ESTIMATED LOCATION OF EXISTING STORMWATER SYSTEM. BEFORE PROCEEDING, THE BUILDER/PLUMBER MUST CONFIRM THE ADEQUACY OF THE EXISTING STORMWATER LINE AND PERFORM HYDRAULIC TESTING TO GUARANTEE IT FULFILLS THE DESIGN REQUIREMENTS. IF THE LINE IS INADEQUATE, THE OUTLET MATERIAL MUST BE REPLACED IN COMPLIANCE WITH COUNCIL SPECIFICATIONS. SIGNIFIED AS: **e.SW**

REFER TO DRIVEWAY DESIGN PLANS PREPARED BY AMUNA PTY LTD SERIES "D" REFERENCE ACE24089

STRAP PIPE TO THE UNDERSIDE SLAB IN ACCORDANCE WITH AS3500.3
BENCH MARK NAIL IN KERB RL 51.97 (AHD)

PROVIDE GRATED BOX DRAIN (GBD):
SIZE: 200mm WIDE x 200mm DEEP GBD.
GRADE: ENSURE A MINIMUM 2% GRADE FROM GBD INVERT TO OUTLET PIPE IL.
ENSURE UNHINDERED OVERFLOW PATH IN THE EVENT OF DRAIN OR OUTLET BLOCKAGE
GRATE SL 51.77 NOM.

PAVED AREA OF EXISTING DWELLING TO REMAIN (NOT PART OF DESIGN)
ENSURE OVERLAND FLOW CAN DRAIN FREELY AROUND BUILDING IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE

MANAGEMENT OF STORMWATER PLAN - GROUND FLOOR PAGE 2
SCALE - 1:50/A1, 1:100/A3
0 1m 2m 3m 4m 5m

DRAWING CONTINUES REFER PAGE S2

ROOF LEGEND:

○

INDICATIVE EAVES GUTTER ORIFICE LOCATION

○

PIPE RISER

⌋

PIPE DROPPER

⌋

DOWNPIPE SPREADER

⊞

BOX GUTTER/RAINWATER HEAD SUMP LOCATIONS

RWO

RAINWATER OUTLET

HP

GUTTER HIGH POINT

↗

DIRECTION OF FLOW

DP-RW

100

↖

SERVICE TYPE

↖

SIZE

↖

DIRECTION OF FLOW

ROOF NOTES:

1.

ROOFER,PLUMBER, BUILDER, TO INSTALL EAVES GUTTERS TO MANUFACTURES SPECIFICATION AND ENSURE EAVE GUTTER OVERFLOWS MECHANISM ARE INSTALLED AS PER AS3500.3 AND NATIONAL CONSTRUCTION CODE.

2.

EAVES GUTTER TO BE DESIGNED TO ARCHITECTURAL SPECIFICATION PROVIDED IT COMPLIES WITH THE MINIMUM CSA REQUIREMENTS AND MANUFACTURES SPECIFICATIONS.

EG1:

CROSS SECTIONAL AREA (CSA) OF EAVES GUTTER TO BE A MINIMUM 6600mm². EAVES STYLE TO BE SIMILAR TO EXISTING AND MUST MET THE ABOVE CSA REQUIREMENT.

e.EG

EXISTING EAVE GUTTER

e.DP

EXISTING DOWNPIPE

The diagram illustrates a roof plan with various structural elements and drainage features. A large, light grey rectangular area represents the existing roof. To its right, a yellow rectangular area indicates the extent of the proposed roof. A black dot on the existing roof is connected by a line to a legend entry. A red double-headed arrow labeled 'EG1' is positioned between the existing and proposed roof areas. Two hexagonal symbols, labeled 'DP-SW 90', are located at the bottom of the diagram, connected by lines to the roof structure. A large orange line runs diagonally across the top right of the plan. A legend box at the top left defines symbols for eaves gutter orifice locations, pipe risers, pipe droppers, downpipe spreaders, box gutters, rainwater outlets, gutter high points, and directions of flow. It also includes a note for a specific downpipe (DP-RW 100) and roof notes regarding installation and specifications. A scale bar at the bottom right shows distances from 0 to 5 meters.

SIGNIFIES EXTENT OF EXISTING ROOF AREA (NOT PART OF DESIGN)

SIGNIFIES EXTENT OF PROPOSED ROOF AREA

MANAGEMENT OF STORMWATER
PLAN - ROOF

SCALE - 1:50/A1, 1:100/A3

0

1m

2m

3m

4m

5m

AMUNA

CIVIL ENGINEERING

Revision	Drawn	Date	Description	Checked	Approved	North	Architect
1	SSD	18.12.24	ISSUED FOR CLIENT REVIEW	SC	SSD		ACTION PLANS

Client: BESSEY

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Project

PROPOSED
ALT'S & ADD'S

No. 81 RIVERVIEW ROAD
AVALON BEACH

Drawing Title

MANAGEMENT OF STORMWATER
PLAN - ROOF

Project No.
ACE24089

Scale: A1
AS NOTED

Page No.
S4

Revision
1

