

34 PAVILION ST QUEENSCLIFF

STORMWATER MANAGMENT PLAN



LEGEND

GRAVITY SERVICES

SD	SEWER DRAINAGE
SP	SANITARY PLUMBING
RWR	RAIN WATER REUSE
SW	STORMWATER DRAINAGE
SWRM	STORMWATER PUMPED RISING MAIN
SSD	SUBSOIL DRAINAGE
TW	TRADE WASTE DRAINAGE
GS	GREASE SUCTION LINE
RM	RISING MAIN
VP	VENT

SERVICE SYMBOLS

	PUMP
	CLEAR OUT
	PIT GRATE COVER
	PIT SOLID COVER
	FW/RWO
	OVERFLOW GULLY
	OVERFLOW
	OVER LAND FLOW PATH

GENERAL DRAWING SYMBOL

	FLOW DIRECTION
	SERVICES
	DIAMETER
	FLOW DIRECTION
	DETAIL NUMBER
	LOCATION SHEET NUMBER
	SERVICES CONTINUATION
	DRAWING/SHEET NUMBER
	ROOF TAG AREA AND FLOW

SITE WORKS - ACCESS AND SAFETY

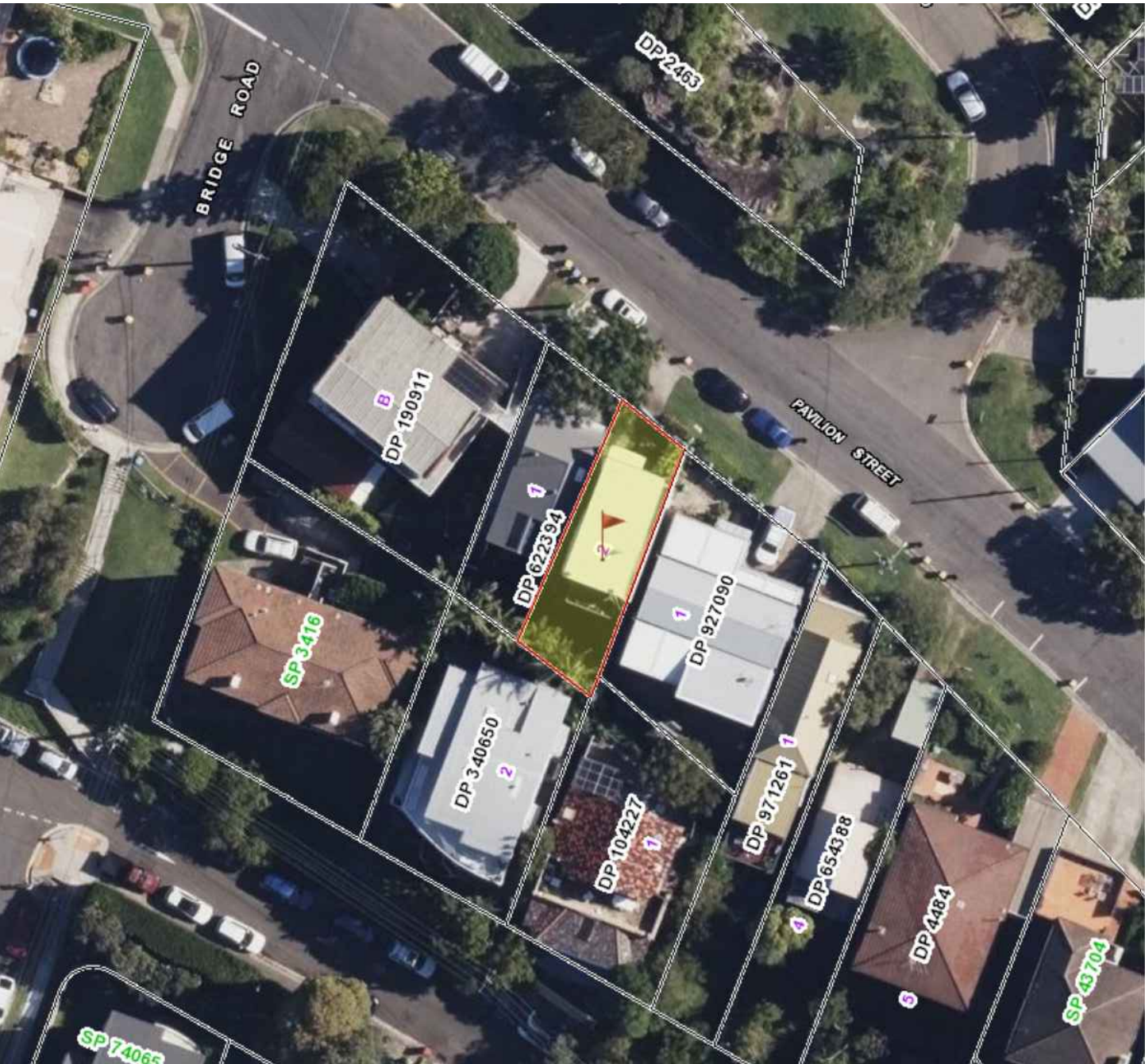
1. ALL WORKS ARE TO BE UNDERTAKEN IN A SAFE MANNER IN ACCORDANCE WITH ALL STATUTORY AND INDUSTRIAL RELATION REQUIREMENTS.
2. ACCESS TO ADJACENT BUILDINGS AND PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
3. WHERE NECESSARY SAFE PASSAGE SHALL BE PROVIDED FOR VEHICLES AND PEDESTRIANS THROUGH OR ADJACENT TO THE SITE.

SITE WORKS - GENERAL

1. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH LOCAL COUNCIL, AUSTRALIAN AND AUTHORITY STANDARDS.
2. ALL TRENCHING WORKS ARE TO BE RESTORED TO ORIGINAL CONDITION.
3. THE INTEGRITY OF ALL EXISTING AND NEW SERVICES IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
4. ALL PLANS ARE TO BE READ IN CONJUNCTION WITH APPROVED ARCHITECTS, STRUCTURAL ENGINEERS AND OTHER CONSULTANT'S PLANS. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER FOR CLARIFICATION.
5. THE ENGINEER SHALL BE GIVEN A MIN. OF 48 HOURS NOTICE FOR ALL STORMWATER DRAINAGE AND PAVEMENT INSPECTIONS. CONCRETE SHALL NOT BE DELIVERED UNTIL ENGINEERS APPROVAL IS OBTAINED.

STORMWATER

1. ALL WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING AUSTRALIAN STANDARDS AS2032, AS3500 AND AS3725 AS A MINIMUM.
2. ALL PIPES LESS THAN OR EQUAL TO Ø300mm IN SIZE ARE TO BE SOLVENT WELD-JOINTED UPVC CLASS SN8 U.N.O.
3. ALL PIPES Ø375mm OR GREATER IN SIZE ARE TO BE MIN. CLASS 2 REINFORCED CONCRETE PIPE (RCP) OR FIBRE REINFORCED CONCRETE (FRC) RUBBER RING JOINTED (RRJ) U.N.O.
4. ALL PIPES ARE TO BE LAID AT MIN. 1.0% GRADE U.N.O.
5. PIPE BEDDING IS TO BE HS2 UNDER ROADS AND TRAFFICKED AREAS AND SHALL BE H2 IN LANDSCAPED AND PEDESTRIAN TRAFFICKED AREAS U.N.O.
6. ALL PIPE BENDS AND JUNCTIONS ARE TO BE MADE WITH EITHER PURPOSE MADE FITTINGS OR STORMWATER DRAINAGE PITS.
7. MINIMUM COVER FROM THE OBVERT OF THE STORMWATER PIPE OF 300mm IS TO BE PROVIDED IN LANDSCAPED AREAS AND 600mm IN VEHICULAR TRAFFICKED AREAS U.N.O.
8. WHERE MINIMUM COVER CANNOT BE ACHIEVED CONCRETE ENCASEMENT OF THE AFFECTED PIPE IS MAY BE UNDERTAKEN WITH 20MPa CONCRETE WITH A MIN. COVER OF 150mm TO ALL SIDES OF THE PIPE. THE CONTRACTOR SHALL CONFIRM THIS REQUIREMENT WITH THE ENGINEER OR SUPERINTENDENT.
9. LAID PIPELINES ARE TO HAVE THE FOLLOWING CONSTRUCTED TOLERANCES:
 - a. HORIZONTAL-1:300 ANGULAR DEVIATION FROM REQUIRED ALIGNMENT;
 - b. VERTICAL-1:300 ANGULAR DEVIATION FROM REQUIRED ALIGNMENT.
10. ALL DRAINAGE PITS ARE TO BE CAST IN-SITU, PRECAST DRAINAGE PITS MAY BE USED WITH APPROVAL FROM THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A PRECAST PIT INSTALLATION WORK METHOD STATEMENT FOR ASSESSMENT BY THE ENGINEER FOR APPROVAL.
11. DRAINAGE PIT COVERS ARE TO BE EITHER GALVANISED STEEL OR CAST IRON CLASS 'B' IN LANDSCAPED AND PEDESTRIAN TRAFFICKED AREAS AND CLASS 'D' IN ALL VEHICULAR TRAFFICKED AREAS U.N.O.
12. DRAINAGE PIT COVERS ARE TO BE 'HEELSAFE' TYPE IN ALL PEDESTRIAN TRAFFICKED AREAS U.N.O.
13. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCING WORKS ON SITE.
14. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
15. DOWN PIPES CONNECTED DIRECT TO PIPES TO BE CONNECTED AT 45° TO THE FLOW DIRECTION WITH A CLEANING EYE PROVIDED AT GROUND LEVEL.



LOCALITY PLAN

COURTESY OF SIX MAPS

STORMWATER MANAGEMENT DESIGN SUMMARY:

THE CONCEPT STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL, WATER MANAGEMENT POLICY, 2021.

CLAUSE 5.5.1.1.3 - FOR ALTERATIONS AND ADDITIONS TO SINGLE DWELLING HOUSE, LEVEL SPREADER CAN BE USED IF DISCHARGE TO AN EXISTING DRAINAGE SYSTEM NOR INTER ALLOTMENT DRAINAGE EASEMENT ARE AVAILABLE METHODS OF STORMWATER DISCHARGE.

NOTE:
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2. DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATION.
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4. AUTHORITIES MANS AND/OR EXISTING SERVICES ARE TO BE LOCATED AND CHECKED PRIOR TO COMMENCEMENT OF ANY WORKS.
5. COMPLETION OF THE QUALITY RECORD IS EVIDENCE THAT THE DESIGN AND DRAWING HAVE BEEN VERIFIED.

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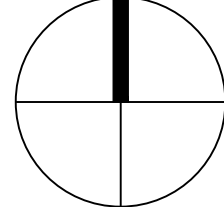
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SCALE

NOT TO SCALE

NORTH POINT



DATE

01.01.24

DA ISSUE

DESCRIPTION

DA ISSUE

INIT

BM

01

REV

DATE

DESCRIPTION

INIT

REV

CLIENT

ARCHITECT

cvma architects
ARCHITECTURE • INTERIORS

PROJECT

34 PAVILION ST

QUEENSCLIFF

STORMWATER MANAGEMENT

COVER SHEET

DA APPROVAL



DATE

Dec-23

SCALE

NTS @ A1

JOB No

2358

DRAWN

BM

DESIGNED

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CHECKED

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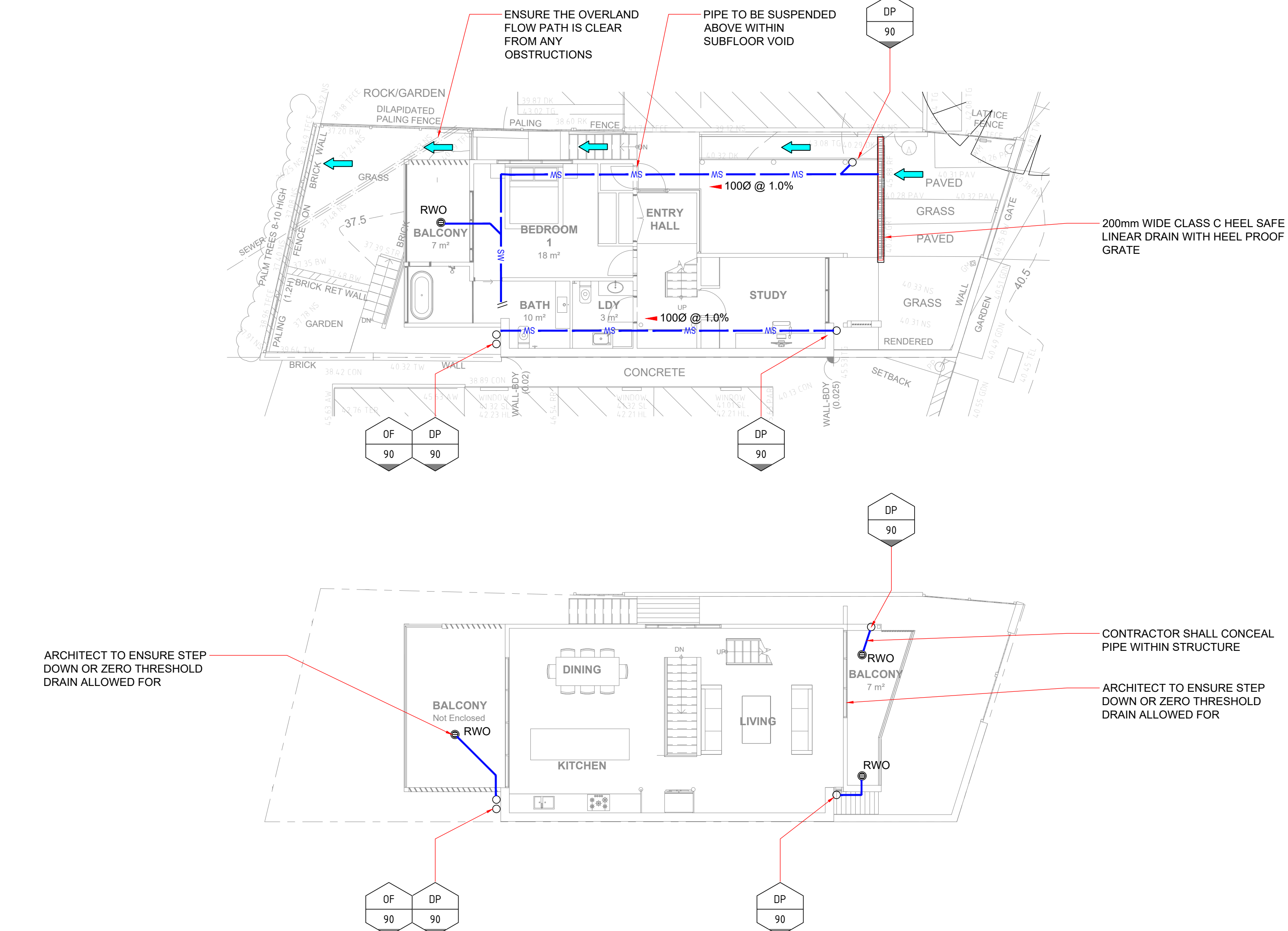
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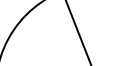

01

DWG No

SW00

1. INFORMATION AND LOCATION OF EXISTING HYDRAULIC SERVICES WAS NOT AVAILABLE AT TIME OF DOCUMENTATION. ASSUMPTIONS HAVE BEEN MADE BASED ON ARCHITECTURAL NOTATION AND DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION.
2. PRIOR TO SUBMISSION OF TENDER CONTRACTOR MUST INSPECT SITE AND ENSURE THERE ARE NO DISCREPANCIES OBSERVED. IT IS THE CONTRACTORS RESPONSIBILITY TO RAISE ANY OBSERVED ISSUES TO THE PROJECT MANAGER PRIOR TO TENDER SUBMISSION
3. CONTRACTOR SHALL ALLOW TO TERMINATE AND CAP OFF ALL EXISTING AND REDUNDANT DRAINAGE AND WATER PENETRATIONS.
4. CONTRACTOR SHALL ALLOW TO FIRE SEAL ALL PENETRATIONS (REDUNDANT, EXISTING OR NEW) VIA AN APPROVED METHOD IN ACCORDANCE WITH BCA
5. CONTRACTOR SHALL LOCATE AND INSPECT EXISTING HYDRAULIC SERVICES AND ENSURE ITS CONDITION IS SATISFACTORY
6. CONTRACTOR SHALL PROVIDE SPATIAL REQUIREMENTS OF EQUIPMENT TO BUILDER AND JOINTLY CONTRACTOR TO ENSURE ALLOWANCES ARE MADE
7. CONTRACTOR SHALL PROVIDE HYDRAULIC ELECTRICAL REQUIREMENTS TO BUILDER AND ELECTRICAL CONTRACTOR
8. CONTRACTOR SHALL ALLOW FOR ALL THE APPROPRIATE MEASURES REQUIRED FOR SAFE AND COMPLIANT CONCRETE CORE HOLE PENETRATIONS. ALL PROPOSED CORE HOLES SHALL BE APPROVED BY PROJECT MANAGER AND STRUCTURAL ENGINEER. SLAB SCANS SHALL BE COMPLETED PRIOR TO ENSURE IN-SLAB SERVICES INCLUDING REINFORCEMENTS ARE NOT TO BE DAMAGED.
9. ALL PENETRATIONS THROUGH BUILDING ELEMENTS SHALL BE APPROPRIATELY SEALED AND WEATHERPROOFED IN A COMPLIANT MANNER TO THE BUILDERS APPROVAL

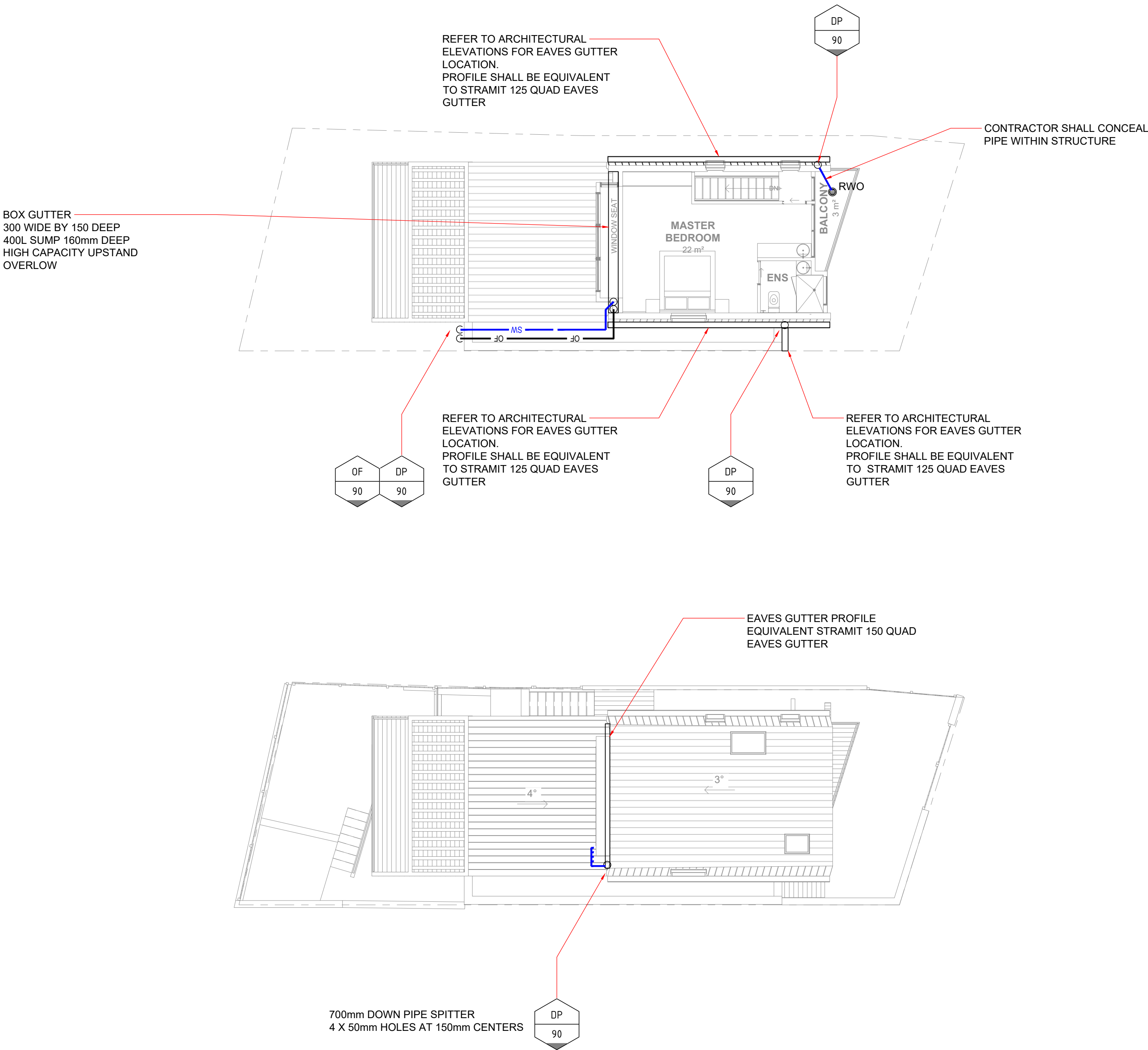


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<p>SCALE</p> 	

DATE	DESCRIPTION	INIT	REV	DATE	DESCRIPTION	INIT	REV	CLIENT	ARCHITECT <div>cvma_architects</div> ARCHITECTURE • INTERIORS	PROJECT 34 PAVILION ST QUEENSLIFF	<div><div>UC</div><div>UNIVERSAL CONSULTING ENGINEERS</div></div>			
01.01.24	DA ISSUE	BM	01											
										STORMWATER MANAGEMENT GROUND AND LEVEL 1	DATE	DRAWN	DESIGNED	CHECKED
											Jan-24	BM	BM	OA
											SCALE			
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											JOB No	DWG No	REV	
											2358	SW01	01	

NOTES:

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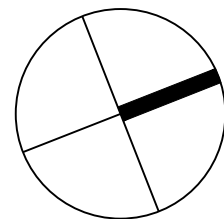


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NORTH POINT



SCALE
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DATE

01.01.24

DESCRIPTION

DA ISSUE

INIT

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DATE

DESCRIPTION

INIT

REV

CLIENT

ARCHITECT

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ARCHITECTURE • INTERIORS

PROJECT

34 PAVILION ST
QUEENSCLIFF

STORMWATER MANAGEMENT
ATTIC AND ROOF

UC UNIVERSAL
CONSULTING
ENGINEERS

DATE

Jan-24

DRAWN

BM

DESIGNED

BM

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SCALE

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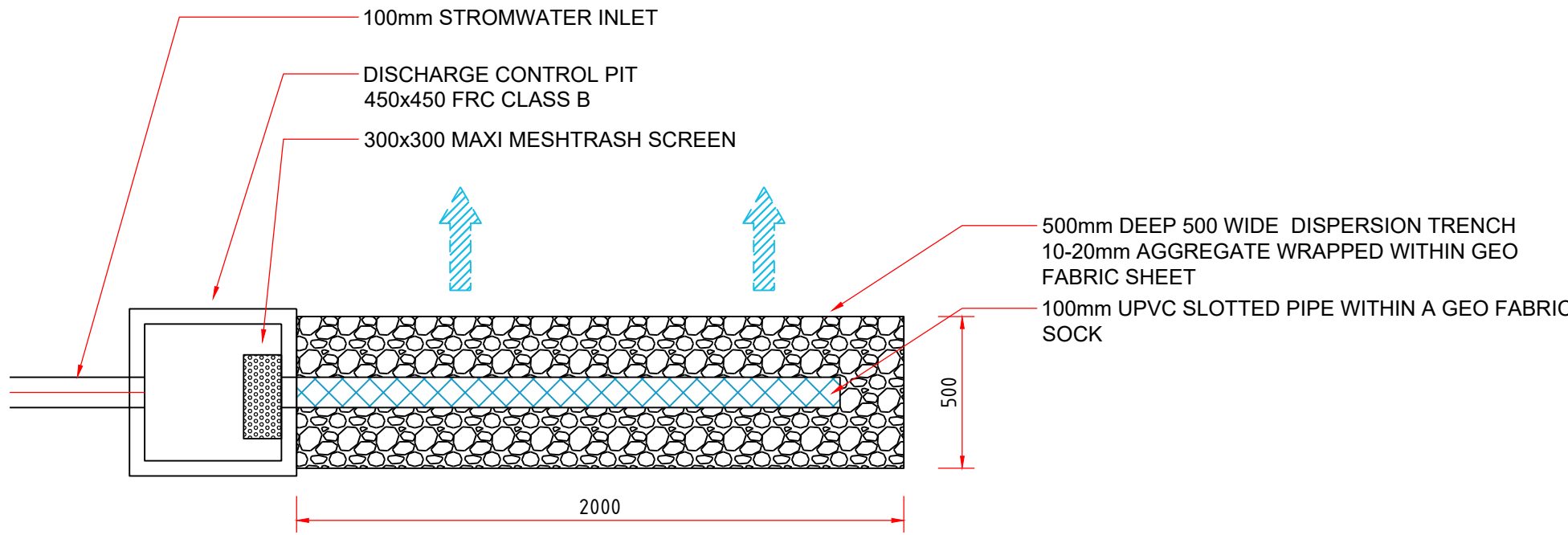
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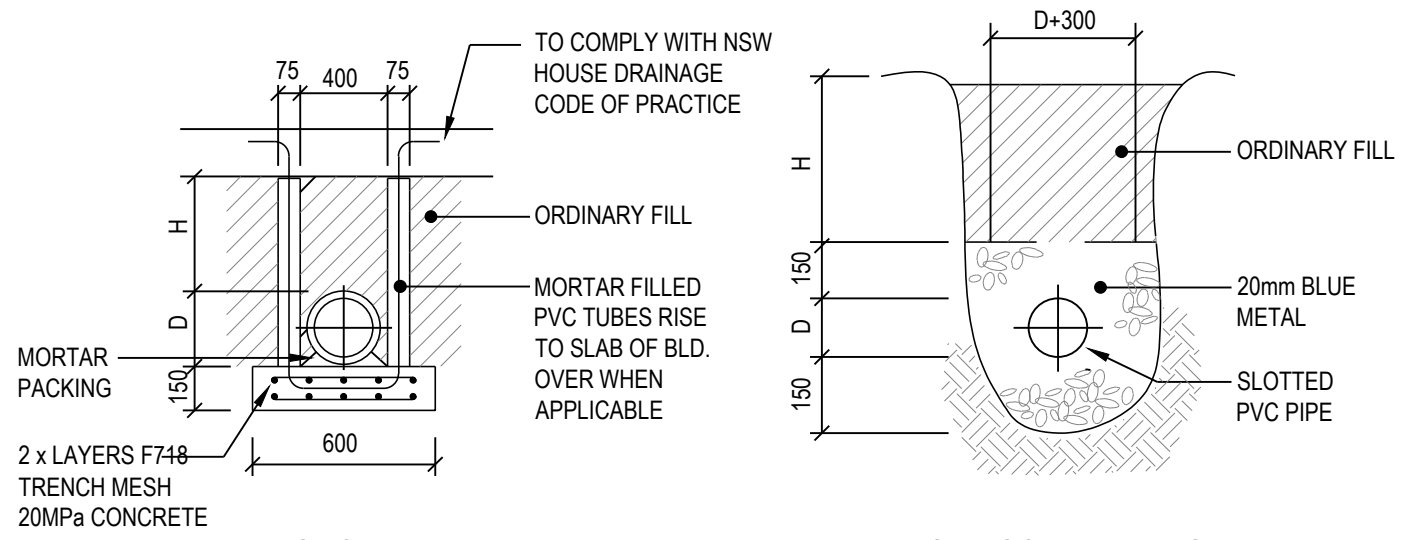
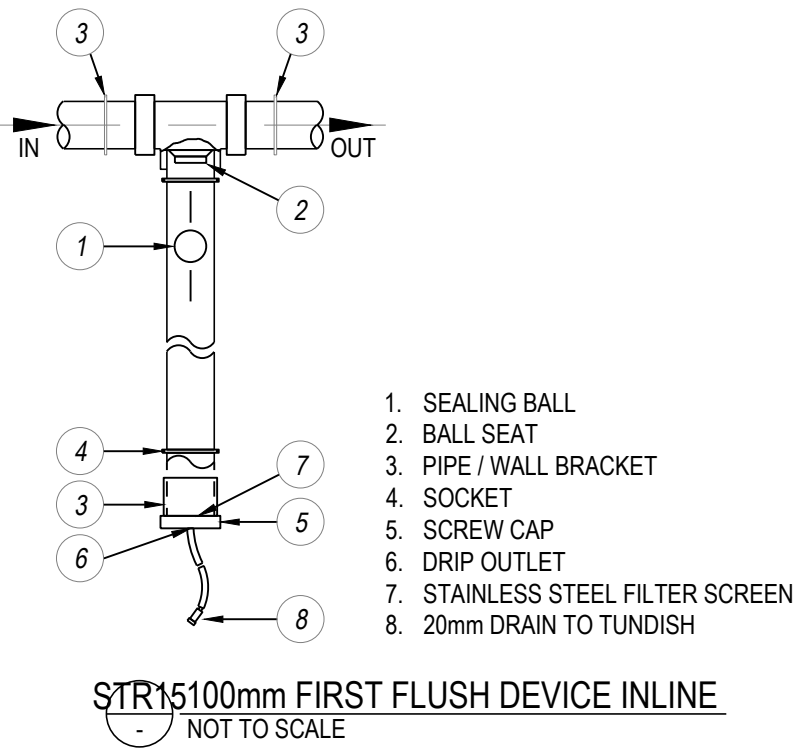
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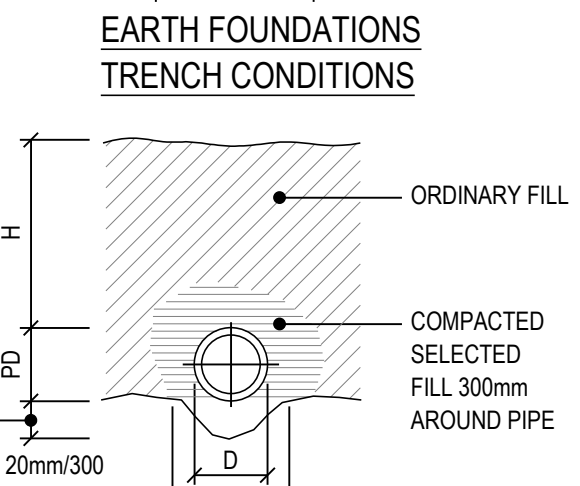
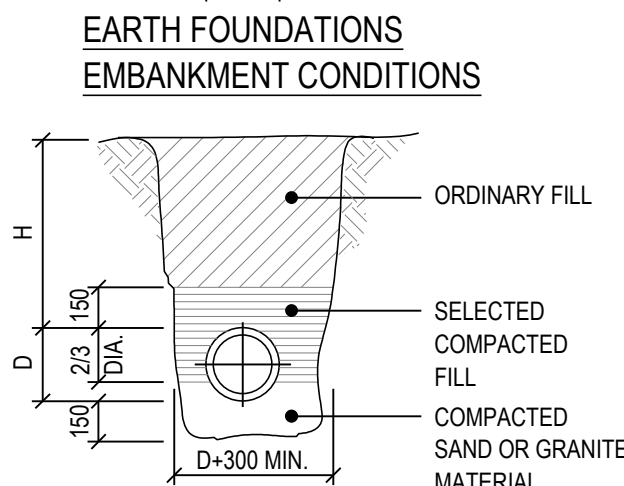
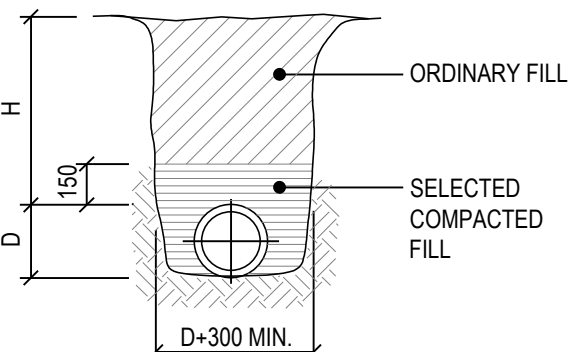
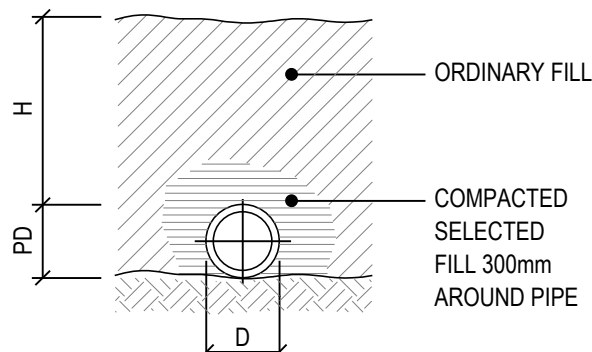


LEVEL SPREADER



FILLED GROUND DRAINAGE SUPPORT RAFT

SUB-SOIL DRAINAGE TRENCH CONDITIONS



ROCK FOUNDATIONS EMBANKMENT CONDITIONS

ROCK FOUNDATIONS TRENCH CONDITIONS

PIPE BEDDING DETAILS

NOT TO SCALE

STORMWATER MANAGEMENT DESIGN SUMMARY:

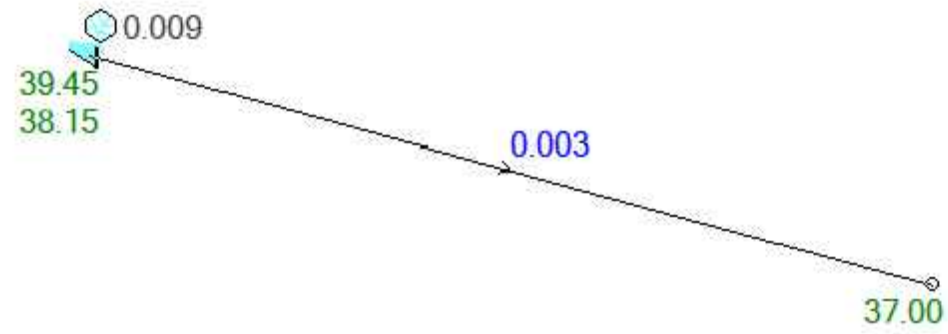
THE CONCEPT STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL WATER MANAGEMENT POLICY 2021

SITE AREA: 160m²
SITE LOCATION: Region 2

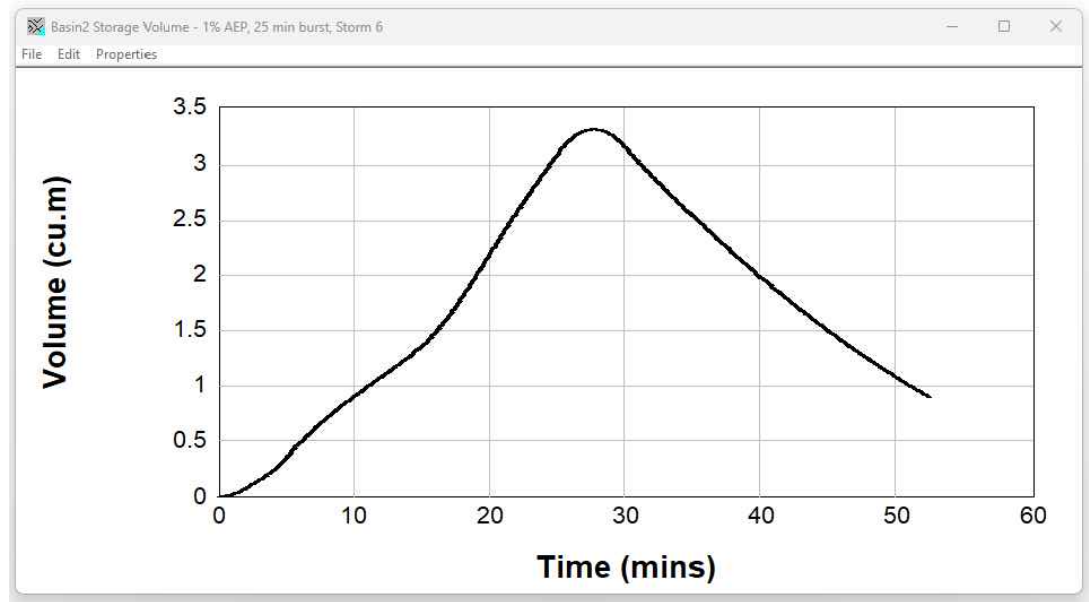
CLAUSE 9.3.2.6: PERMISSIBLE SITE DISCHARGE SHALL BE LIMITED TO THE 5% AEP PRE DEVELOPMENT CONDITIONS

PSD: 3.5 L/S

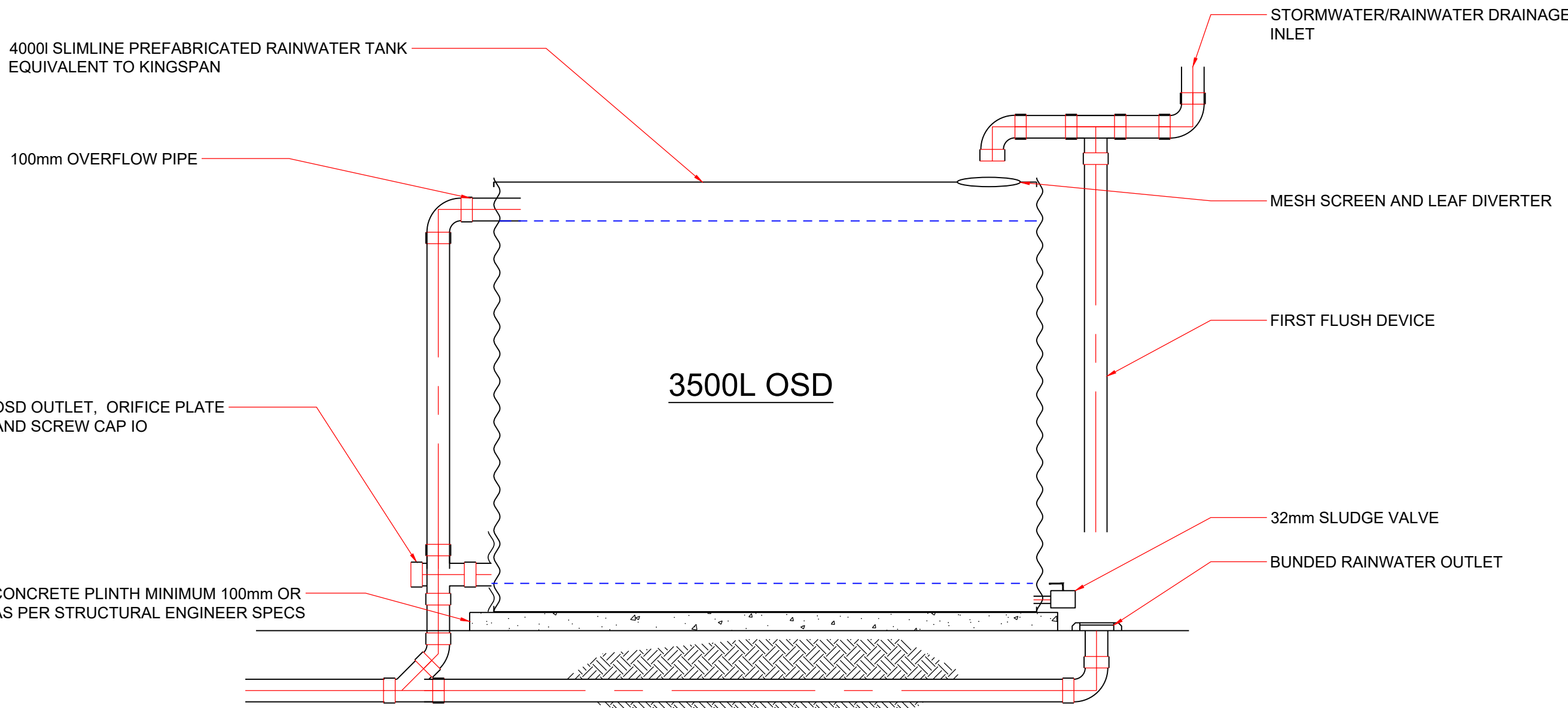
SITE STORAGE REQUIREMENT BASED ON DRAINS HYDROGRAPH BASED (1% AEP STORM EVENT):
SSR: 3.3 m³



DRAIN MODEL: 1% AEP



OSD STORAGE: 1% AEP



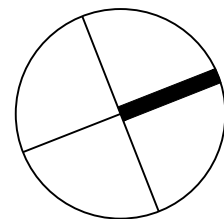
ABOVE GROUND OSD TANK

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PAGE
A1

NORTH POINT



SCALE

SCALE AS SHOWN ON PLAN

DATE	DESCRIPTION	INIT	REV
01.01.24	DA ISSUE	BM	01

DATE	DESCRIPTION	INIT	REV

CLIENT

ARCHITECT

cvma architects
ARCHITECTURE • INTERIORS

PROJECT

34 PAVILION ST
QUEENSLIFF

STORMWATER MANAGEMENT
DETAIL SHEET

DA APPROVAL



UNIVERSAL
CONSULTING
ENGINEERS

DATE	DRAWN	DESIGNED	CHECKED
Jan-24	BM	BM	OA
SCALE			
AS @ A1			
JOB No	DWG No		REV
2358	SW03		01