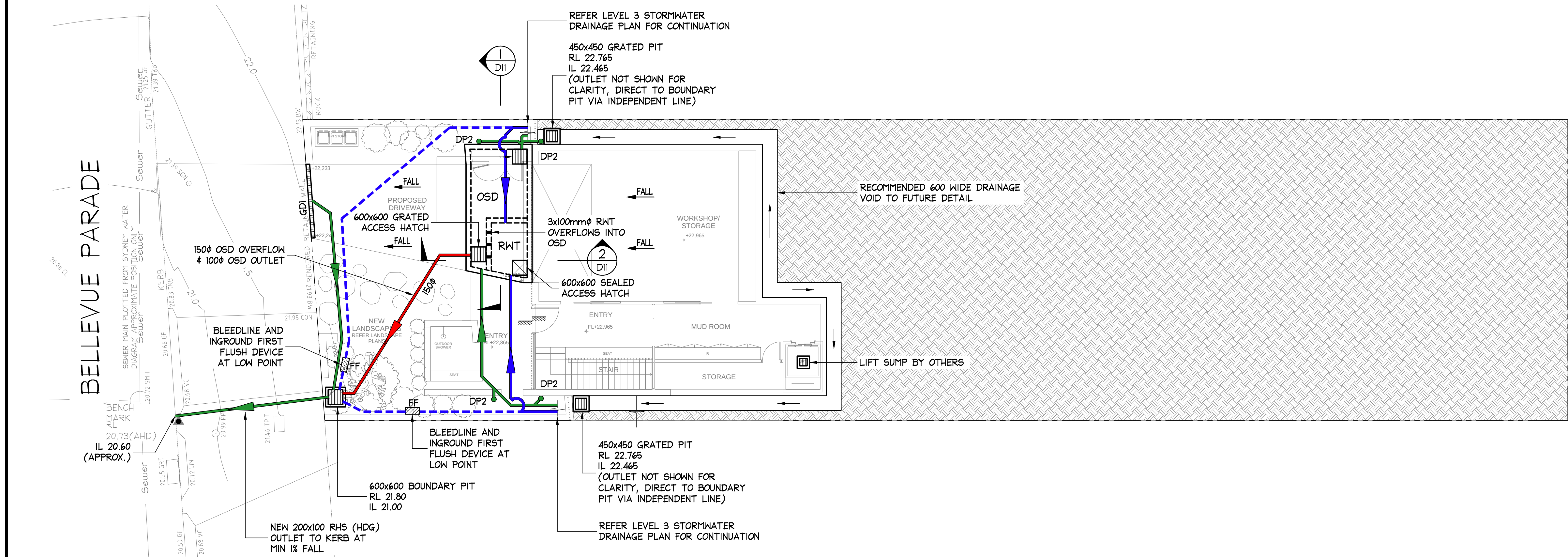


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LEGEND

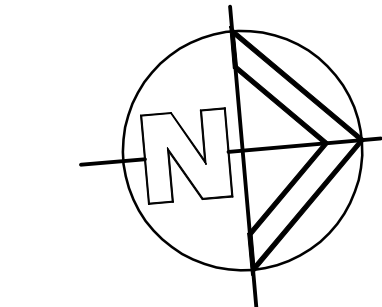
- DP1 • 100mm ϕ DOWNPIPE TO DISCHARGE TO RWT
- DP2 • 100mm ϕ DOWNPIPE TO DISCHARGE TO OSD
- NEW OVERFLOW STORMWATER PIPE
- NEW SURFACE DRAINAGE STORMWATER PIPE
- NEW ROOF DRAINAGE STORMWATER PIPE
- STORMWATER PIPE FLOW DIRECTION
- STORMWATER PIT
- GDI - 150 MIN DEPTH x 150 WIDE GRATED DRAIN
- RECOMMENDED TO PROVIDE MINIMUM 50mm SET DOWN TO EXTERNAL AREAS, ALTERNATIVELY THRESHOLD DRAINAGE TO BE INCORPORATED INTO SUBSILL
- BELOW GROUND FIRST FLUSH, REFER TO DETAILS

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.

SITE STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

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NOT FOR
CONSTRUCTION

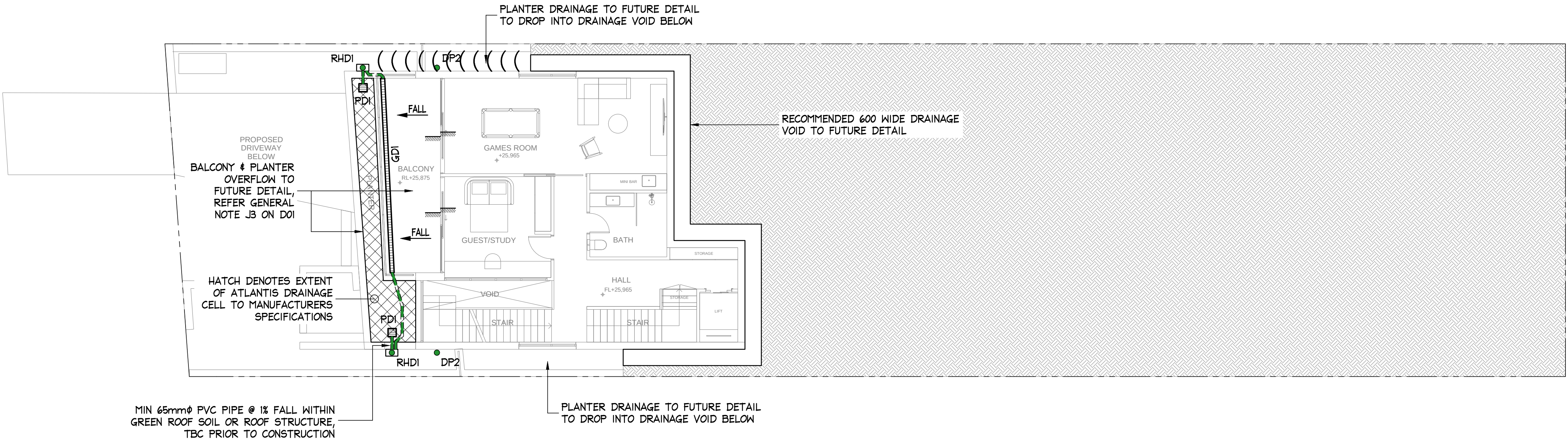


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IF IN DOUBT ASK

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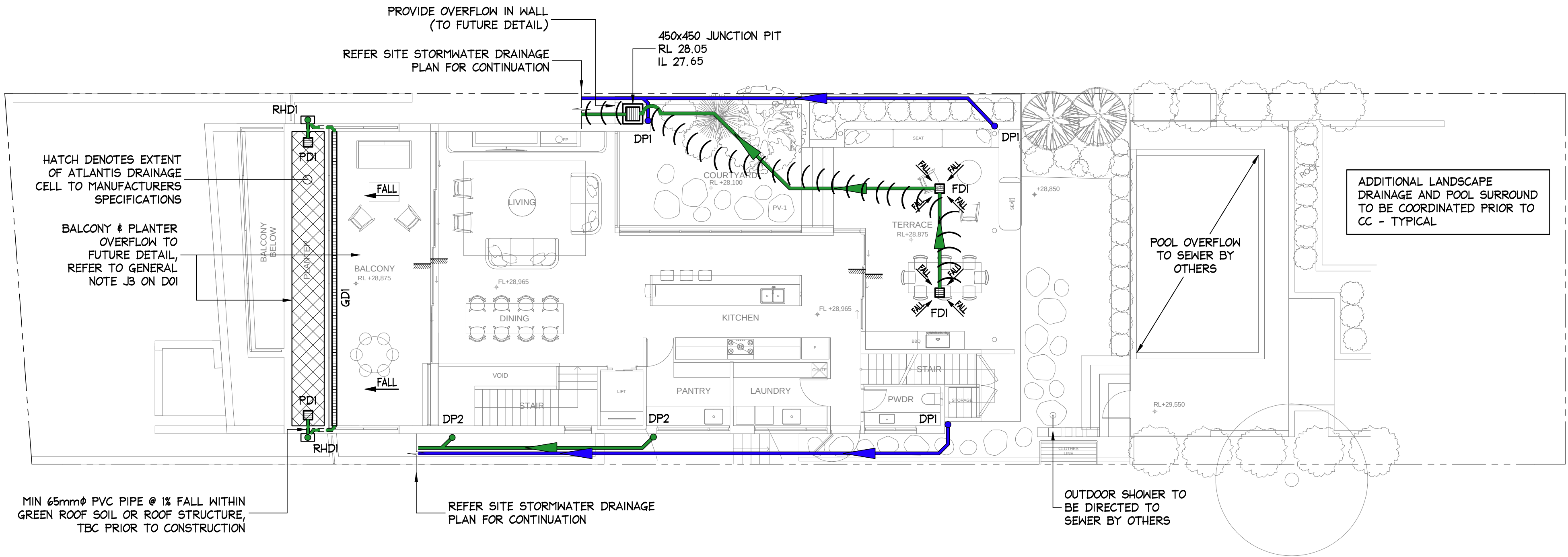
LEVEL 2 STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

LEGEND

- DP1 ● 100mm Ø DOWNPIPE TO DISCHARGE TO RWT
- DP2 ● 100mm Ø DOWNPIPE TO DISCHARGE TO OSD
- RHD1 □ RAINHEAD, REFER TO DETAILS
- 65mm Ø uPVC STORMWATER PIPE CAST INTO SLAB
- NEW SURFACE DRAINAGE STORMWATER PIPE
- NEW ROOF DRAINAGE STORMWATER PIPE
- STORMWATER PIPE FLOW DIRECTION
- STORMWATER PIT
- FDI □ FLOOR DRAIN, REFER TO DETAILS
- PDI □ PLANTER DRAIN, REFER TO DETAILS
- GDI □ GDI - 150 MIN DEPTH x 150 WIDE GRATED DRAIN
- RECOMMENDED TO PROVIDE MINIMUM 50mm SET DOWN TO EXTERNAL AREAS, ALTERNATIVELY THRESHOLD DRAINAGE TO BE INCORPORATED INTO SUBSILL
- ((((OVERLAND FLOW PATH

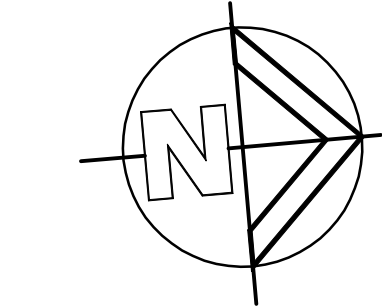
NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.



LEVEL 3 STORMWATER DRAINAGE PLAN

SCALE = 1 : 100

**ISSUED FOR D.A. SUBMISSION ONLY
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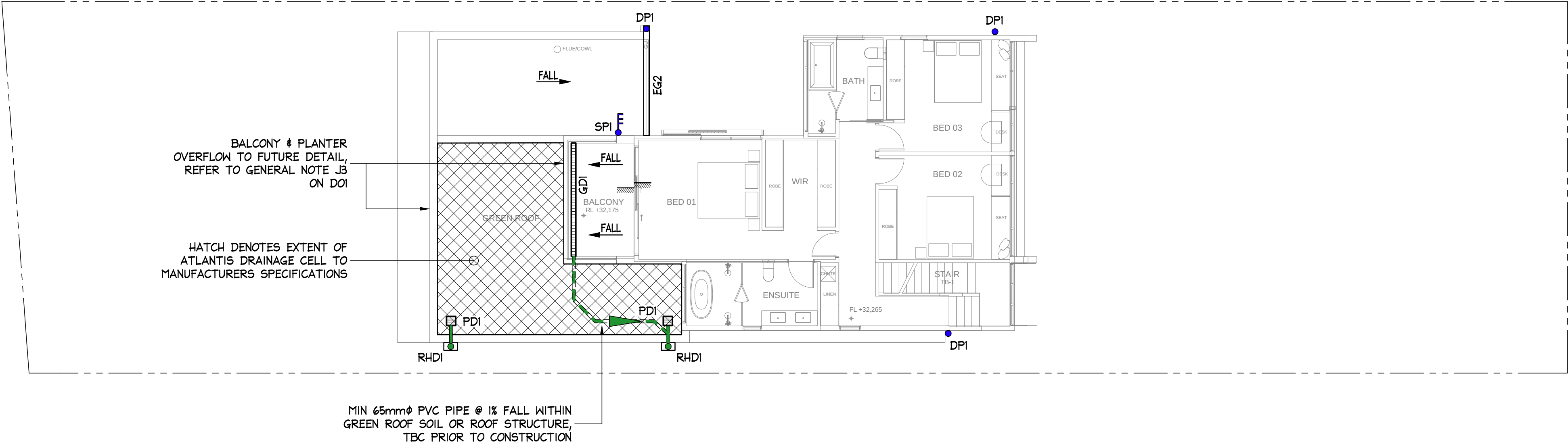
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IF IN DOUBT ASK

Scale check - 100mm when printed to scale

AI											
25.07.2024	B	LEVEL ALTERATIONS TO MATCH ARCHITECTURAL CHANGES				LB	-				
22.05.2024	A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION				LS	CJ				
Date:	Issue:	Description:				By:	Review:				

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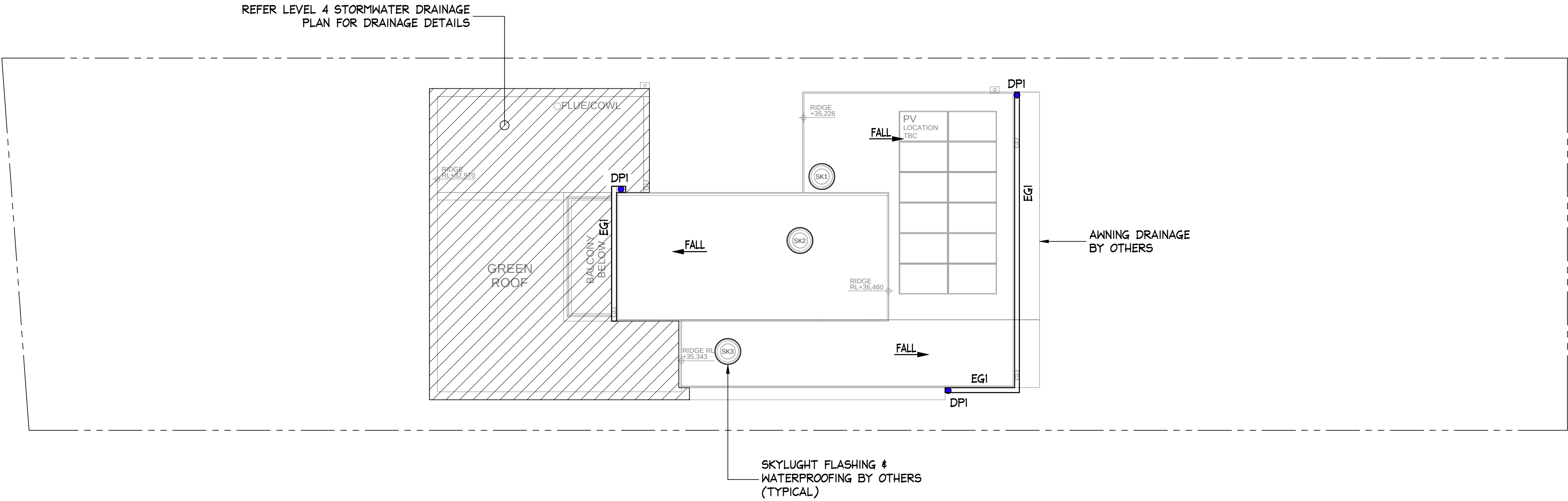


LEVEL 4 STORMWATER DRAINAGE PLAN
SCALE = 1 : 100

LEGEND

- DPI • 100mm Ø DOWNPIPE TO DISCHARGE TO RWT
- RHD RAINHEAD, REFER TO DETAILS
- SPI SPREADER PIPE, REFER TO DETAILS
- EG1 EAVES GUTTER, MIN 10,000mm² CROSS-SECTIONAL AREA
- EG2 EAVES GUTTER, MIN 7,800mm² CROSS-SECTIONAL AREA
- 65mm Ø uPVC STORMWATER PIPE CAST INTO SLAB
- NEW SURFACE DRAINAGE STORMWATER PIPE
- NEW ROOF DRAINAGE STORMWATER PIPE
- STORMWATER PIPE FLOW DIRECTION
- PDI PLANTER DRAIN, REFER TO DETAILS
- GDI GDI - 150 MIN DEPTH x 150 WIDE GRATED DRAIN
- RECOMMENDED TO PROVIDE MINIMUM 50mm SET DOWN TO EXTERNAL AREAS, ALTERNATIVELY THRESHOLD DRAINAGE TO BE INCORPORATED INTO SUBSILL

NOTE: ALL DRAINAGE LINE LOCATIONS ARE INDICATIVE ONLY. LOCATION MAY VARY DUE TO CONSTRAINTS.



ROOF STORMWATER DRAINAGE PLAN
SCALE = 1 : 100

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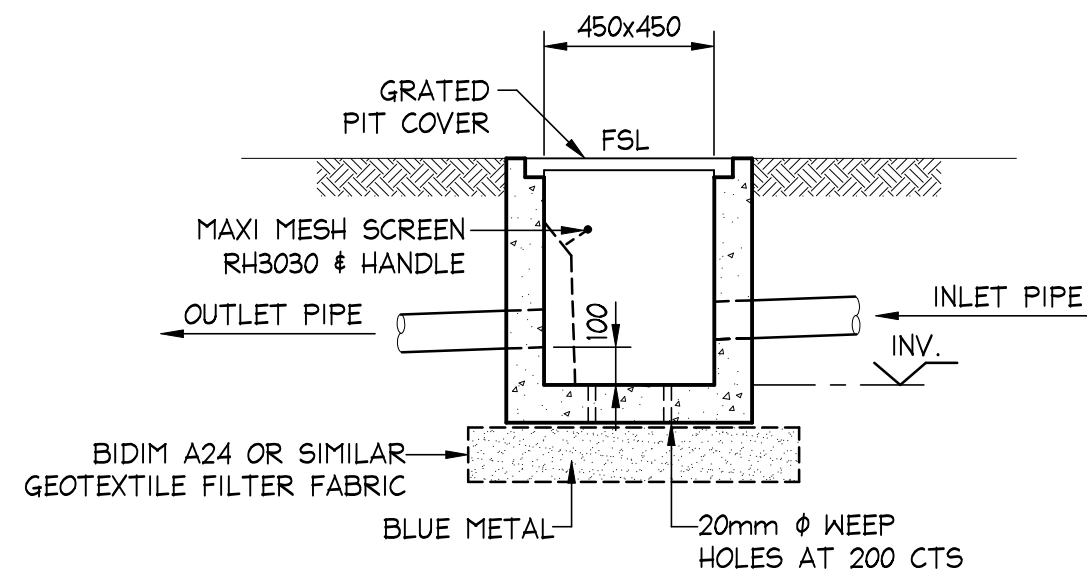
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Date: 25.07.2024 Michael Wachjo B.E.(Civil), MIEAust. (Director NB Consulting Engineers)				STRUCTURAL • CIVIL • STORMWATER • REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Suite 1, 30B Griffith Street, Coolangatta QLD 4225 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au		WATERSHED ARCHITECTS	ALTERATIONS & ADDITIONS 14 BELLEVUE PDE, NTH CURL CURL	MAY 2024	LB	LS
25.07.2024 B LEVEL ALTERATIONS TO MATCH ARCHITECTURAL CHANGES LB -				22.05.2024 A ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION LS CJ		BRETT & SARAH DICKSON	Drawing Title:	Job No:	Drawn No:	Issue:
Date: Issue: Description: By: Review: The copyright of this drawing remains with NB Consulting Engineers							STORMWATER DRAINAGE PLAN	2403060	D04	B

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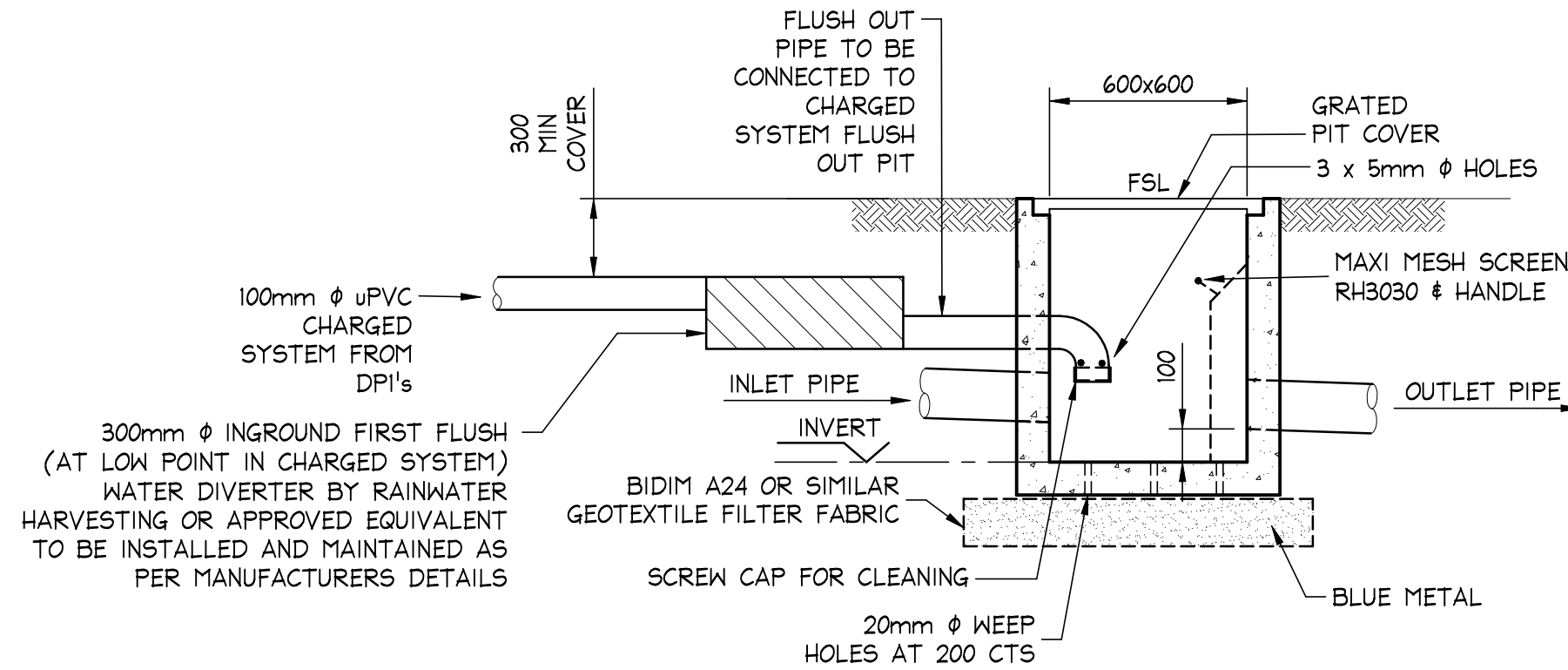
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PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER

450x450 PIT DETAIL

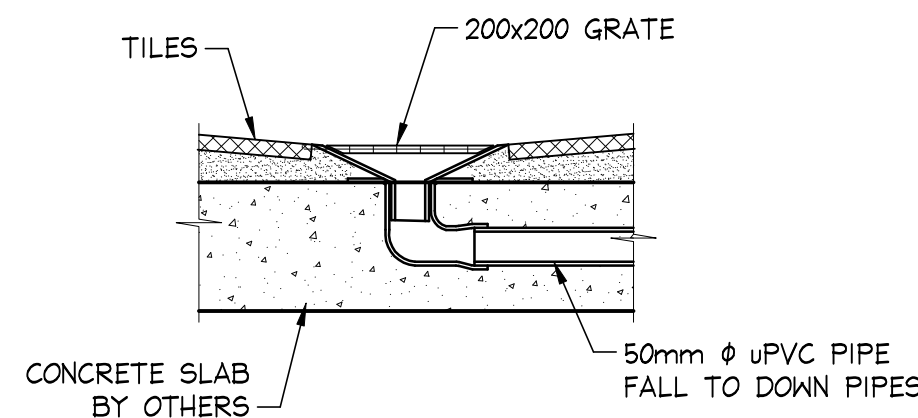
SCALE = 1 : 20



PRECAST OR CAST INSITU PIT
REFER STORMWATER NOTES
ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER

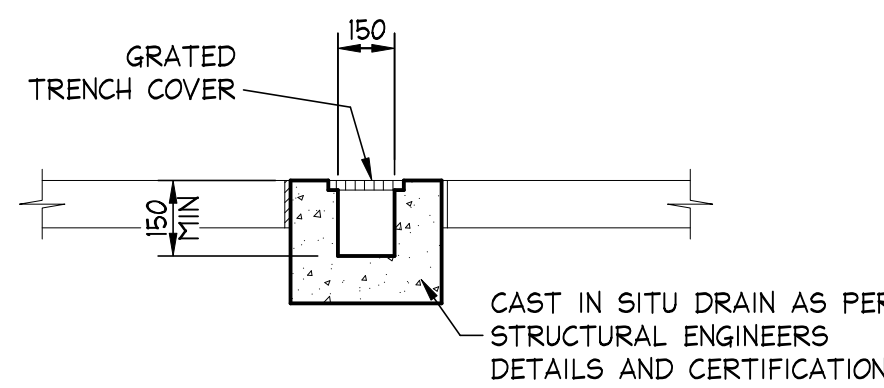
600x600 BOUNDARY/FLUSH OUT PIT DETAIL

SCALE = 1 : 20



STANDARD FLOOR DRAIN - 'FDI'

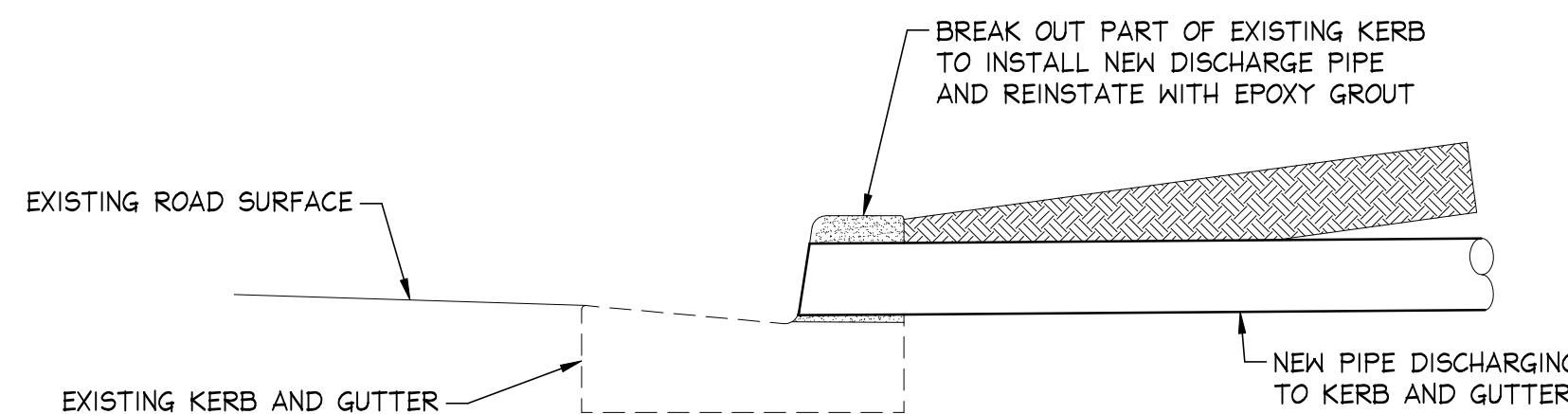
SCALE = 1 : 10



OR PRECAST GRATED DRAIN BY MANUFACTURER
ALTERNATE POLYPROPYLENE DRAIN BY MANUFACTURER

TYPE 'GDI' GRATED DRAIN

SCALE = 1 : 20

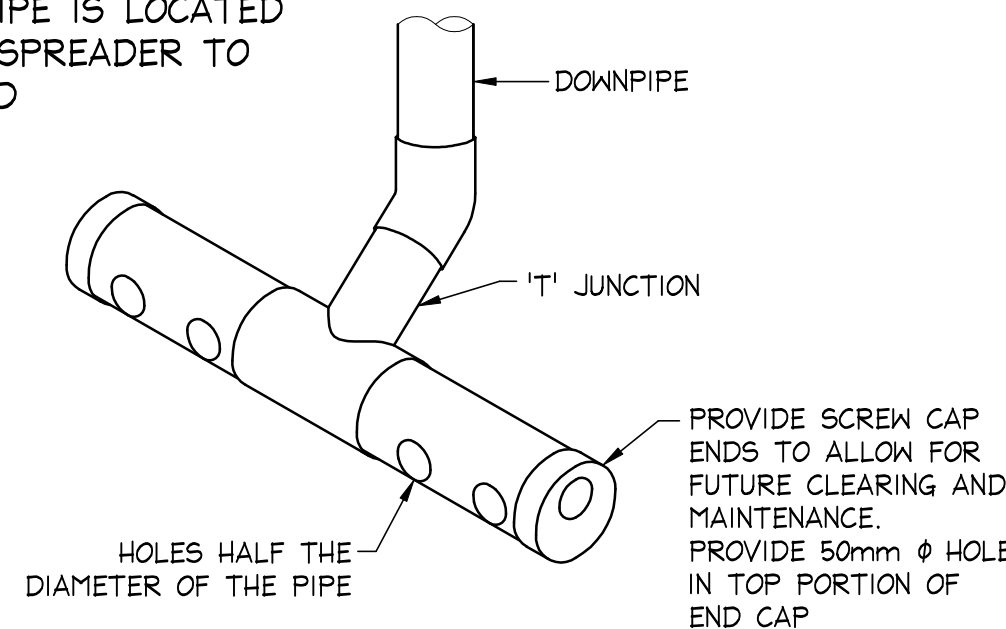


DETAIL OF NEW PIPE INTO EXISTING KERB AND GUTTER

SCALE = N.T.S.

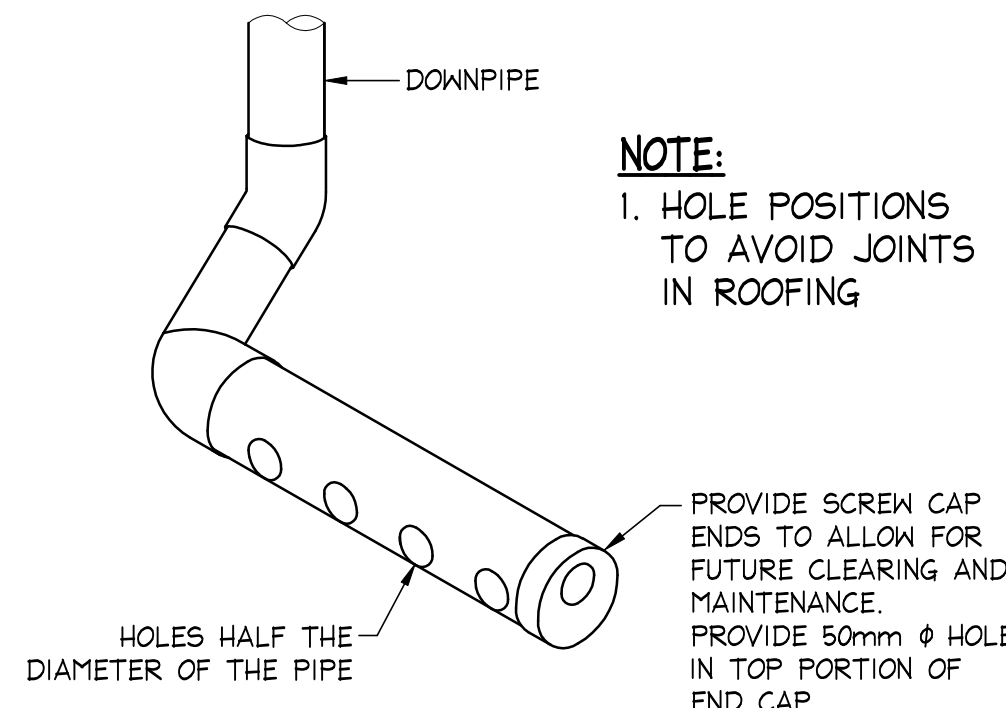
NOTE:

1. HOLE POSITIONS TO AVOID JOINTS IN ROOFING
2. WHEN DOWNPIPE IS LOCATED IN CORNER, SPREADER TO BE L-SHAPED



SPREADER PIPE 'SPI' DETAIL OPTION 1

SCALE = NTS



NOTE:

1. HOLE POSITIONS TO AVOID JOINTS IN ROOFING

SPREADER PIPE 'SPI' DETAIL OPTION 2

SCALE = NTS

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Date: 25.07.2024
Michael Wachjo
B.E.(Civil), MIEAust.
(Director NB Consulting Engineers)
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Suite 1, 30B Griffith Street, Coolangatta QLD 4225
E: nb@nbconsulting.com.au W: www.nbconsulting.com.au

Architect:
WATERSHED ARCHITECTS
Client:
BRETT & SARAH DICKSON

Project: ALTERATIONS & ADDITIONS
14 BELLEVUE PDE, NTH CURL CURL
Drawing Title: STORMWATER DRAINAGE
DETAILS AND SECTIONS SHEET 1

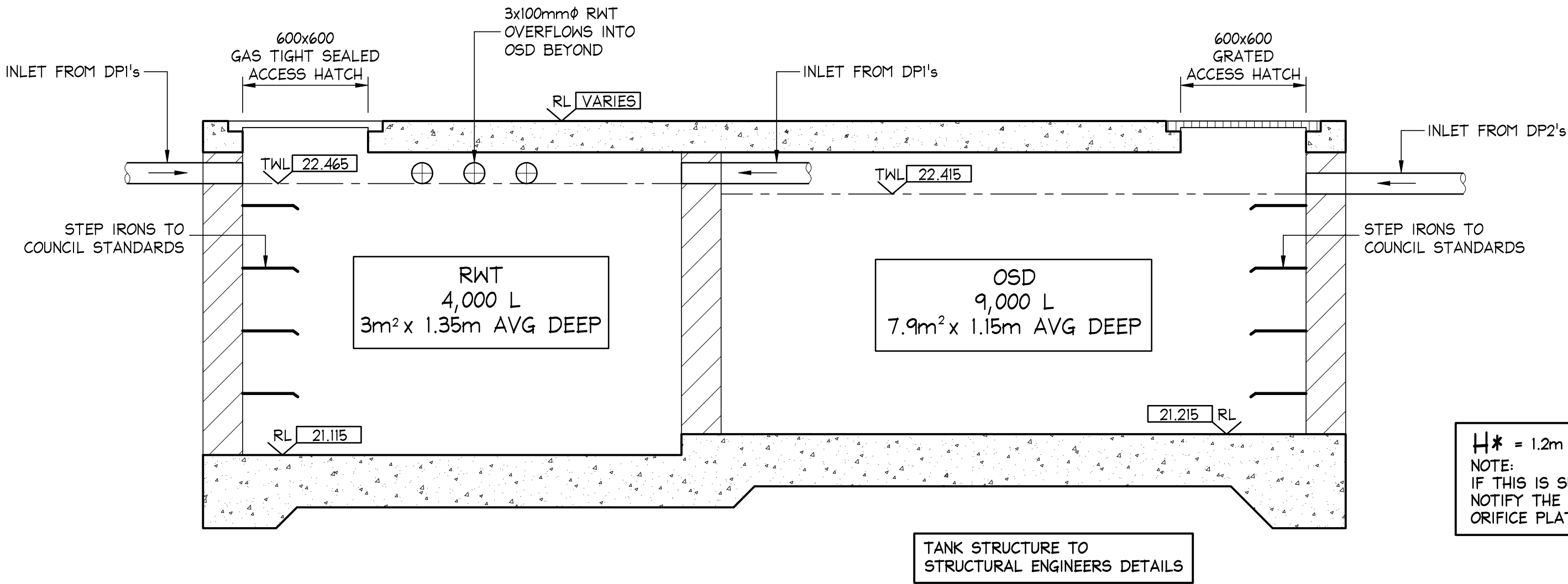
Date: MAY 2024
Design: LB
Drawn: LS
Job No: 2403060
Drawing No: D10
Issue: A

Scale check - 100mm when printed to scale

A1

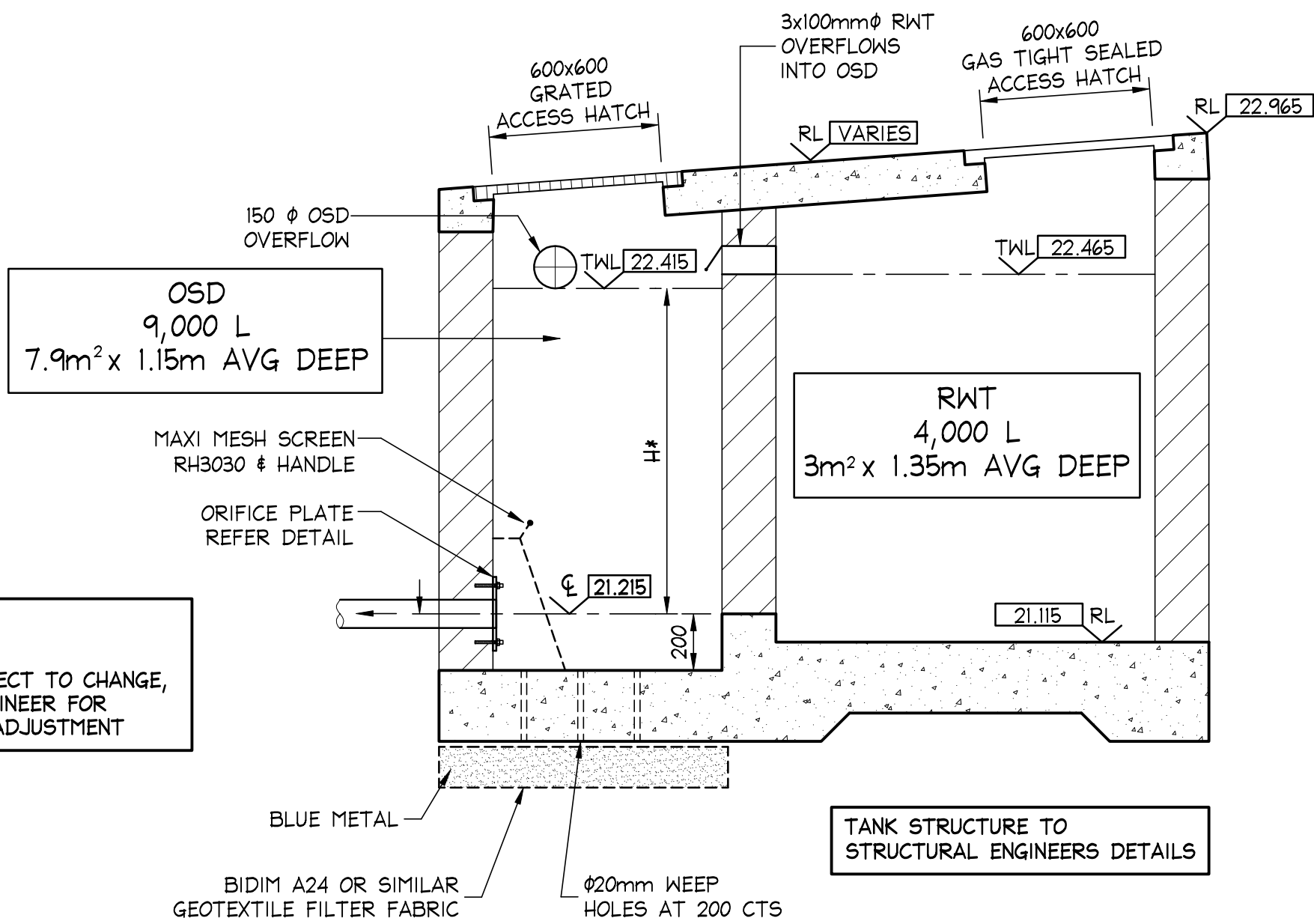
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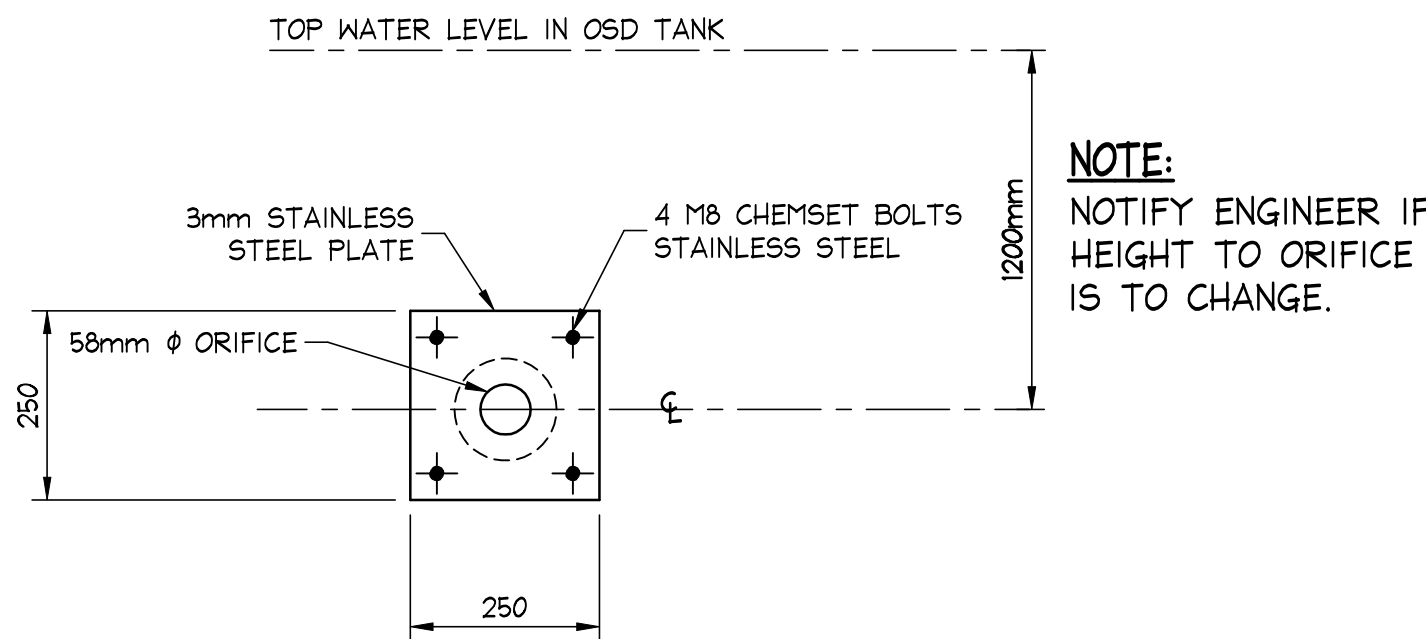
ONSITE DETENTION & RAINWATER TANK - OSD/RWT

SECTION 1
SCALE = 1:20
D11



ONSITE DETENTION & RAINWATER TANK - OSD/RWT

SECTION 2
SCALE = 1:20
D11



ORIFICE PLATE DETAIL

SCALE = 1 : 10

RAINWATER RE-USE TANKS:

- K1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, SYDNEY WATER AND NSW HEALTH REQUIREMENTS FOR NON DRINKING USE ONLY AS PER BASIX REPORT.
- K2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
- K3. REFERENCES: COOMBS P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY AND STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKLE, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS".
- K4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au
- K5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.
- K6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m² OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.
- K7. 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.
- K8. FIRST FLUSH DEVICES, OR APPROVED ALTERNATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS.
- K9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.
- K10. PRE-STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.
- K11. BUILDER/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. IF IN DOUBT CONTACT ENGINEER.
- K12. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230-2008

**ISSUED FOR D.A.
SUBMISSION ONLY
NOT FOR
CONSTRUCTION**



NB Consulting Engineers

DOCUMENT CERTIFICATION				Architect:		Project:	Date:	Design:	Drawn:
Date: 25.07.2024 Michael Wachjo B.E.(Civil), MIEAust. (Director NB Consulting Engineers)				WATERSHED ARCHITECTS		ALTERATIONS & ADDITIONS 14 BELLEVUE PDE, NTH CURL CURL	MAY 2024	LB	LS
The copyright of this drawing remains with NB Consulting Engineers				Client:		Drawing Title:	Job No:	Drawing No:	Issue:
22.05.2024				BRETT & SARAH DICKSON		STORMWATER DRAINAGE DETAILS AND SECTIONS SHEET 2	2403060	D11	A
Date:	Issue:	Description:	By:	Review:	A1				