

DRAWING LIST



- ELECTRONIC INFORMATION NOTES:

- ## Compliance Certificate

Certificate Number: 250062CC04

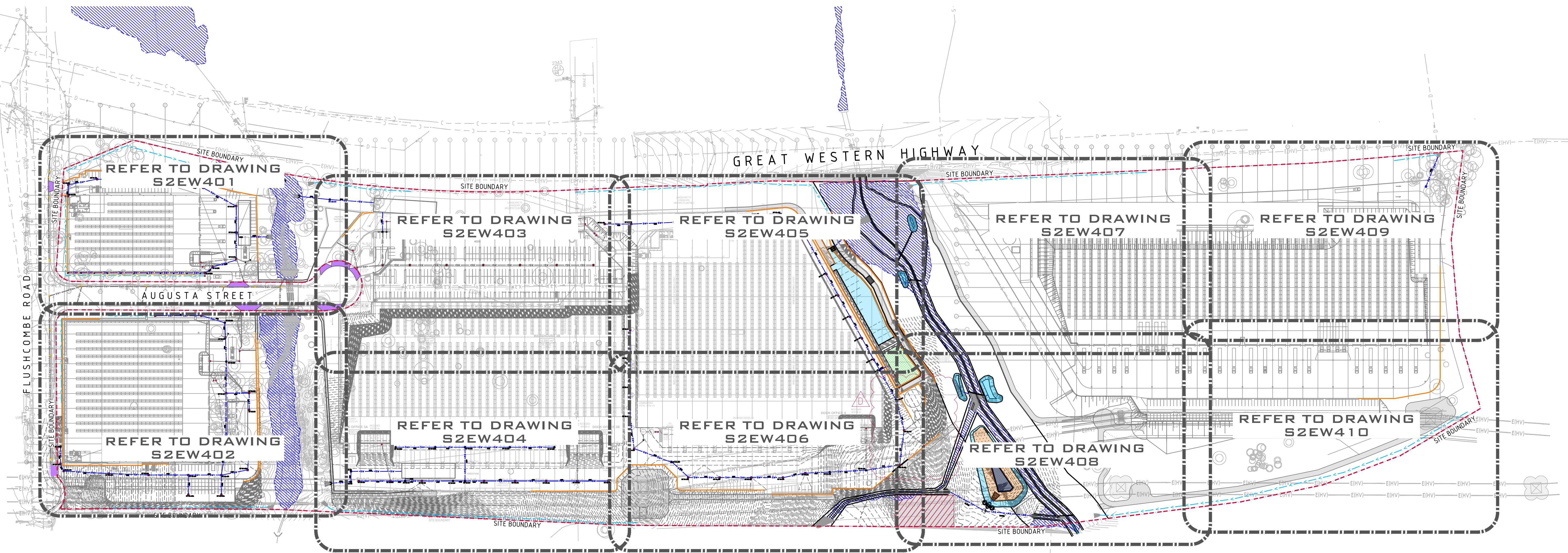
Issuing Officer: Sammy Gazal

Registration Number: BDC05310

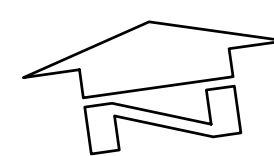
These plans/specifications form part
of the certificate issued: 15/07/2026

CONSTRUCTION CERTIFICATE

[illegible]



M4 MOTORWAY



STORMWATER DRAINAGE KEY PLAN
SCALE 1:1500

M4 MOTORWAY

STORMWATER DRAINAGE NOTES:

STORMWATER DRAINAGE NOTES ARE APPLICABLE FOR PRIVATE INTERNAL STORMWATER DRAINAGE WORKS ONLY, REFERENCE SHOULD BE MADE TO THE RELEVANT COUNCIL/ ROADS AUTHORITY GUIDELINES AND SPECIFICATIONS FOR ALL STORMWATER DRAINAGE WORKS NOT PART OF THE PRIVATE INTERNAL WORKS.

- ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
- THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
- ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS C013904.03-S1EW301 TO S1EW304.
- PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
- EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
- ALL STORMWATER PIPES $\phi 375$ OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
- ALL PIPES UP TO AND INCLUDING $\phi 300$ TO BE uPVC GRADE SN8 UNO.
- PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
- ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE $F'_{c} \leq 25$ MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
- IN ADDITION TO ITEM 9 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
- PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
- CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
- WHERE PIPE LINES ENTER PITS, PROVIDE 3m LENGTH OF STOCKING WRAPPED SLOTTED $\phi 100$ uPVC TO EACH SIDE OF PIPE.
- ALL SUBSOIL DRAINAGE LINES SHALL BE $\phi 100$ SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
- WHERE SUBSOIL DRAINAGE PASSES UNDER A PAVEMENT OR A SLAB, UNSLOTTED UPVC ARE TO BE PROVIDED UNLESS NOTED OTHERWISE.
- ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
- PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
- MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
- PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY'. WHERE FORKLIFT USE IS REQUIRED EXTERNAL TO THE BUILDING PIT COVERS SHALL BE MIN. CLASS E. PIT COVERS IN CONTAINER PAVEMENTS ARE TO BE MIN. CLASS G. REFER TO ENGINEER FOR SPECIAL DETAILS. THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' UNO.
- PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
- DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE UNO. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
- PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.
- WHERE CONNECTION TO EXISTING INGROUND DRAINAGE SYSTEMS, OPEN SWALES, CHANNELS OR ANY OTHER EXISTING SYSTEM, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND INVERT ON SITE AT THE BEGINNING OF THE CONSTRUCTION PERIOD. REFER ANY VARIANCE FROM DOCUMENTATION OR SURVEYS TO THE ENGINEER FOR CLARIFICATION.

FUTURE GWH WORKS INTERFACE NOTE:

PROVIDE SMOOTH INTERFACE BETWEEN THE PROPOSED DEVELOPMENT'S FINISHED SURFACE LEVELS AT THE BOUNDARY AND THE PROPOSED FINISHED SURFACE LEVELS OF THE SHARED PATHWAY ALONG THE GREAT WESTERN HIGHWAY DESIGNED BY MU GROUP. PROVIDE OPEN SWALE AT INTERFACE AS SHOWN TO DIRECT SURFACE RUNOFF TO THE NEAREST DISCHARGE POINT. NOT PART OF THE EARLY WORKS SCOPE OF WORKS

NOTES:

PROPOSED TREES TO BE RETAINED ARE IDENTIFIED IN ACCORDANCE WITH THE ECOLOGIST'S REPORT (REF: E-001759-23). REFER TO DRAWING S1EW156 FOR VISUAL GUIDANCE. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THIS DRAWING AND THE ECOLOGIST'S REPORT, THE REPORT SHALL TAKE PRECEDENCE.

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022.



- OVERLAND FLOW DIRECTION



- SGGP, SINGLE GRATED GULLY PIT



- SJP, SEALED JUNCTION PIT



- KIP, ROAD KERB INLET PIT



- FUTURE SGGP, SINGLE GRATED GULLY PIT



- FUTURE SJP, SEALED JUNCTION PIT



- PROPOSED DRAINAGE LINE



- FUTURE ESTATE DRAINAGE LINE



- ROAD DRAINAGE LINE



- OPEN SWALE



- 1% AEP EXTENT



- STAGE 2 EARLYWORKS RETAINING WALL



- STAGE 1 EARLYWORKS RETAINING WALL



- BUILDING WORKS RETAINING WALL



- SITE BOUNDARY



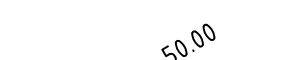
- EXISTING CONTOUR (0.2m INTERVAL)



- B.E.L. CONTOUR (MAJOR 1.0m)



- B.E.L. CONTOUR (MINOR 0.25m)



- B.E.L. SPOT LEVEL

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15m 0 15 30 45 60 75 90 105 120 135 150m

SCALE 1:1500 AT B1 SIZE SHEET

CONSTRUCTION CERTIFICATE

REVISED AAS CLOUED ISSUED FOR CCIE ISSUED FOR PRELIMINARY ISSUED FOR PRELIMINARY AMENDMENTS			03.07.26 29.06.26 25.06.26 25.05.26			D C B A			ARCHITECT PACEARCHITECTS			CLIENT ESR			PROJECT PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148			Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 e: mail@costinroe.com.au w: costinroe.com.au			CIVIL & STRUCTURAL ENGINEERS CRC COSTIN ROE CONSULTING			DRAWING TITLE STORMWATER DRAINAGE KEY PLAN DRAWING No C013904.07-S2EW400			ISSUE D		
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BREAKLINE - REFER TO DRAWING 405 FOR CONTINUATION

NOTE:

1. REFER TO DRG S2EW400 FOR STORMWATER DRAINAGE NOTES.
2. REFER TO DRG S2EW400 FOR STORMWATER LEGEND
3. REFER TO DRG S2EW471 TO S2EW474 FOR STORMWATER LONG SECTIONS.

TREE PROTECTION NOTES:

1. PROPOSED TREES TO BE RETAINED ARE IDENTIFIED IN ACCORDANCE WITH THE ECOLOGIST'S REPORT (REF: E-001759-23). REFER TO DRAWING S2EW156 FOR VISUAL GUIDANCE. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THIS DRAWING AND THE ECOLOGIST'S REPORT, THE REPORT SHALL TAKE PRECEDENCE.

WAREHOUSE 4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS 
 TOTAL NUMBER OF PIT INSERTS =8
 REFER S2EW400 FOR PIT SCHEDULE.

PROPOSED WAREHOUSE 3
BEL RL 79.15±1000mm

CATCHMENT 4: STORMWATER MAIN
COMBINED STORMWATER QUALITY/QUANTITY
MANAGEMENT BASIN
BIO-RETENTION AREA PROVIDED = 500m²
300mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA
ON-SITE DETENTION VOLUME PROVIDED = 2,530m³

Approved under
cc1b/c (PIT-W4-W14)

PROPOSED TIERED
REINFORCED EARTH
WALL IN FILL

PROPOSED 1.5m x 1.5m
SCOUR PROTECTION FOREBAY

RECESSED
DOCKS

DOCK OFFICE 4

100 m²

DOCK LEVELLERS

AWNING (5m)

BREAK IN KERB TO ALLOW OVERLAND
FLOW TO ESCAPE IN THE EVENT OF
BLOCKAGES IN THE DRAINAGE SYSTEM

ENERGY DISSIPATER 12
REFER S2EW452 FOR DETAILS

1% AEP FLOW
1.75m³/s

HERITAGE SITE SHOWN THUS.
NO WORKS WITHIN HERITAGE
ZONE. MATCH LEVELS AT
BOUNDARY OF HERITAGE SITE

M4 MOTORWAY

STORMWATER DRAINAGE PLAN - SHEET 6
SCALE 1:250

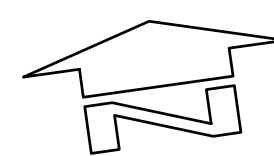
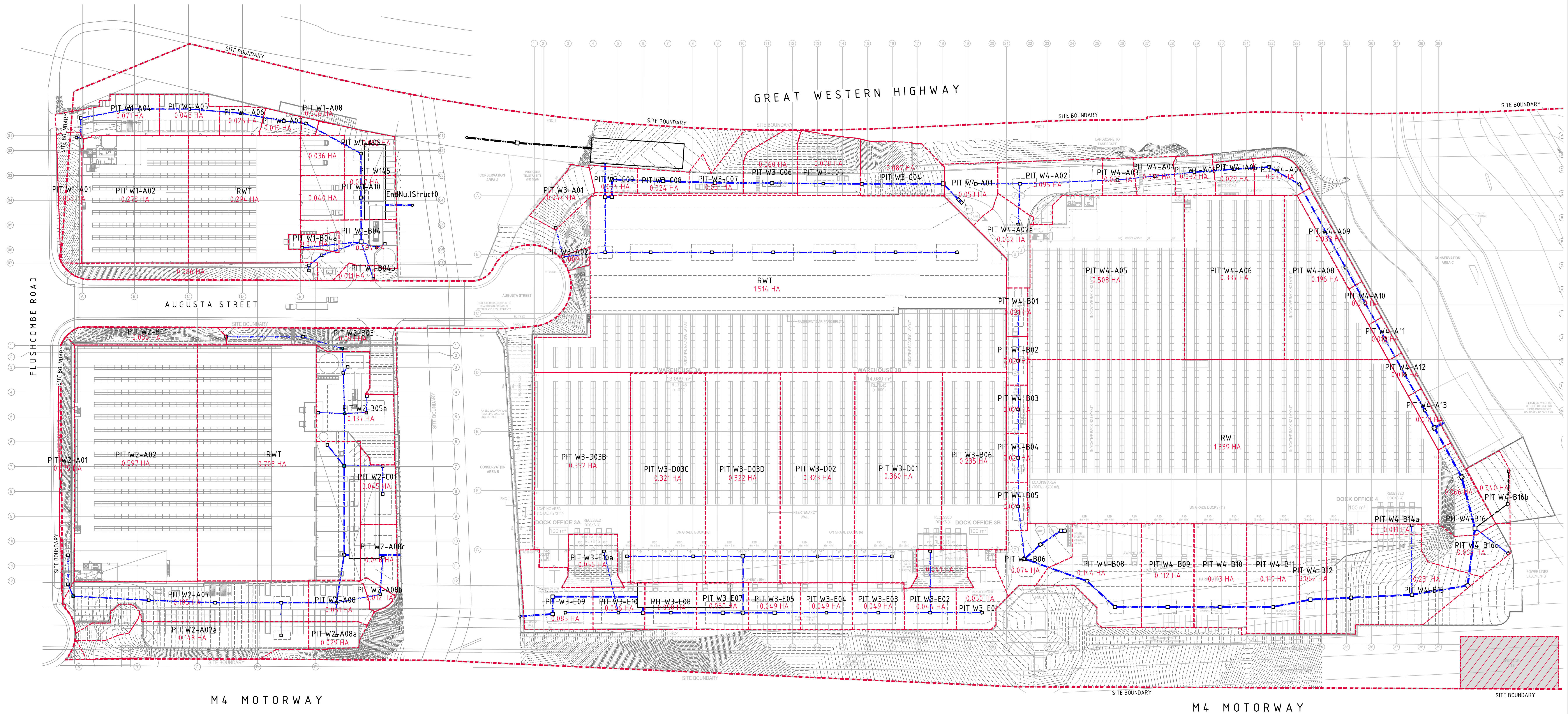
CONSTRUCTION CERTIFICATE

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

Compliance Certificate
Certificate Number: 250062CC04
Issuing Officer: Sammy Gazal
Registration Number: BDC05310
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BRS

ISSUED FOR CCIE		29.06.26	C	ARCHITECT		CLIENT		BUILDER		PROJECT		Costin Roe Consulting Pty Ltd.		DRAWING TITLE	
ISSUED FOR PRELIMINARY		25.06.26	B							PROPOSED WAREHOUSE DISTRIBUTION		ABN 50 003 696 446		STORMWATER DRAINAGE PLAN - SHEET 6	
ISSUED FOR PRELIMINARY		25.05.26	A							AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148		PO Box N419 Sydney NSW 1220			
AMENDMENTS		DATE	ISSUE	AMENDMENTS		DATE		DATE		DESIGNED		LDV		DRAWN	
										KP		MAY 2026		CHECKED	
										MW				SIZE	
										B1				SCALE	
										AS SHOWN				CAD REF:	
										C013904.07-S2EW406				DRAWING No	
														C013904.07-S2EW406	
														ISSUE	
														C	



STORMWATER DRAINAGE CATCHMENT PLAN
SCALE 1:750

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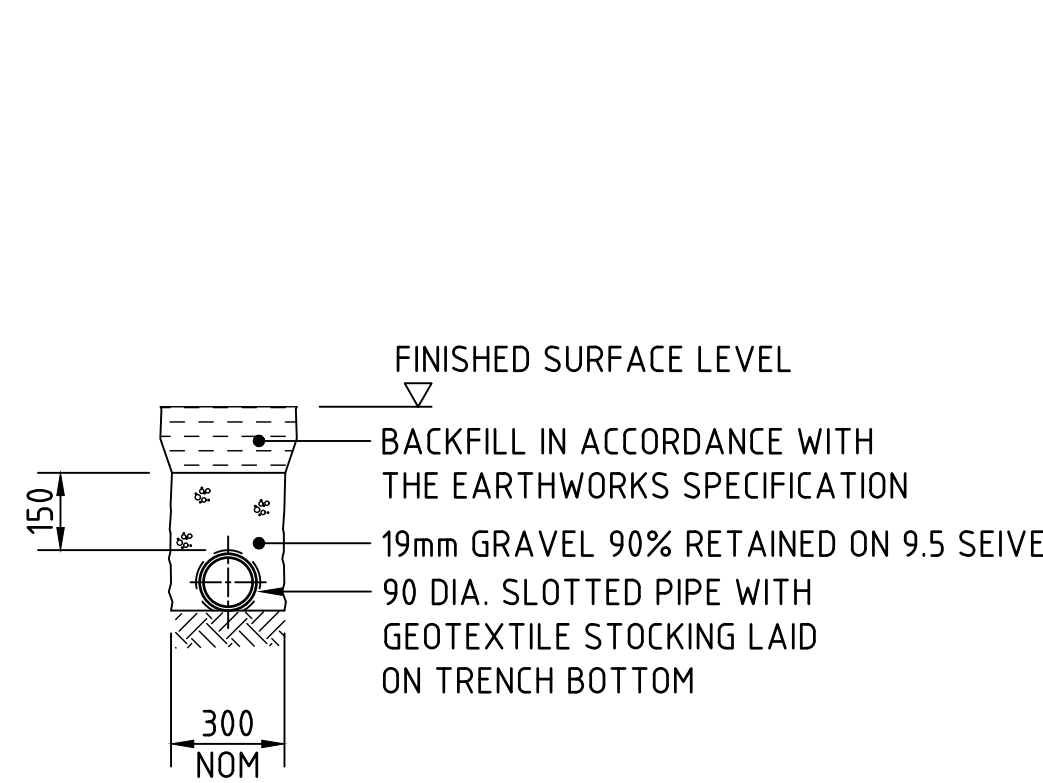
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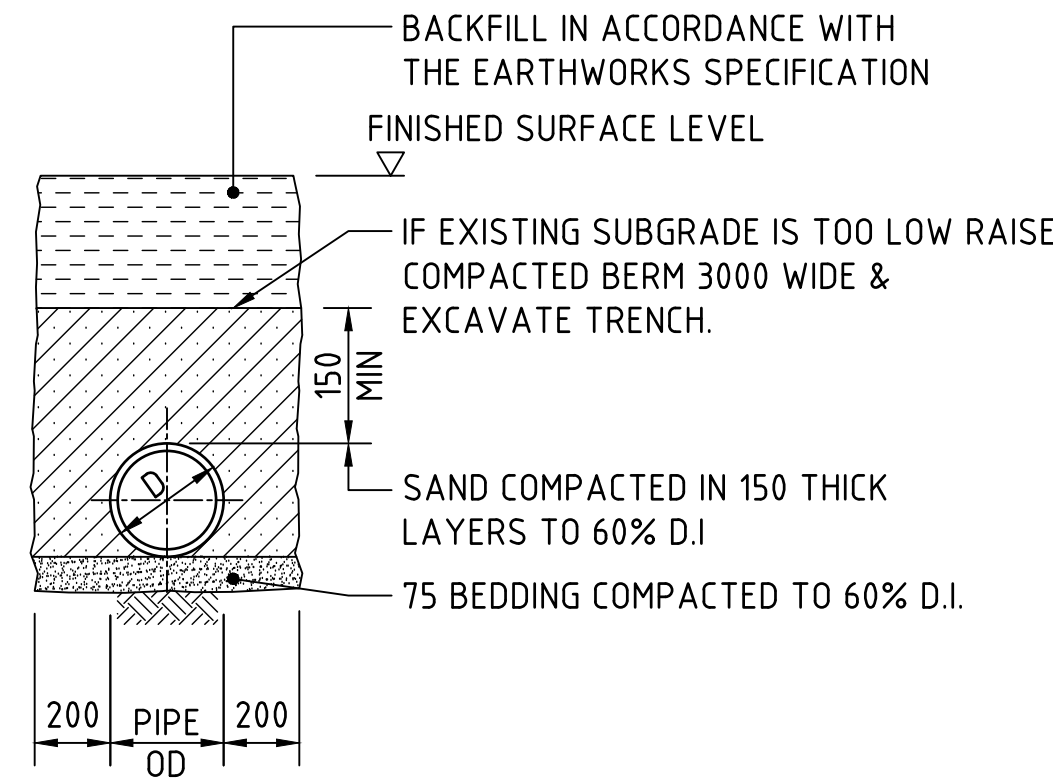
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SCALE 1:750 AT B1 SIZE SHEET

CONSTRUCTION CERTIFICATE

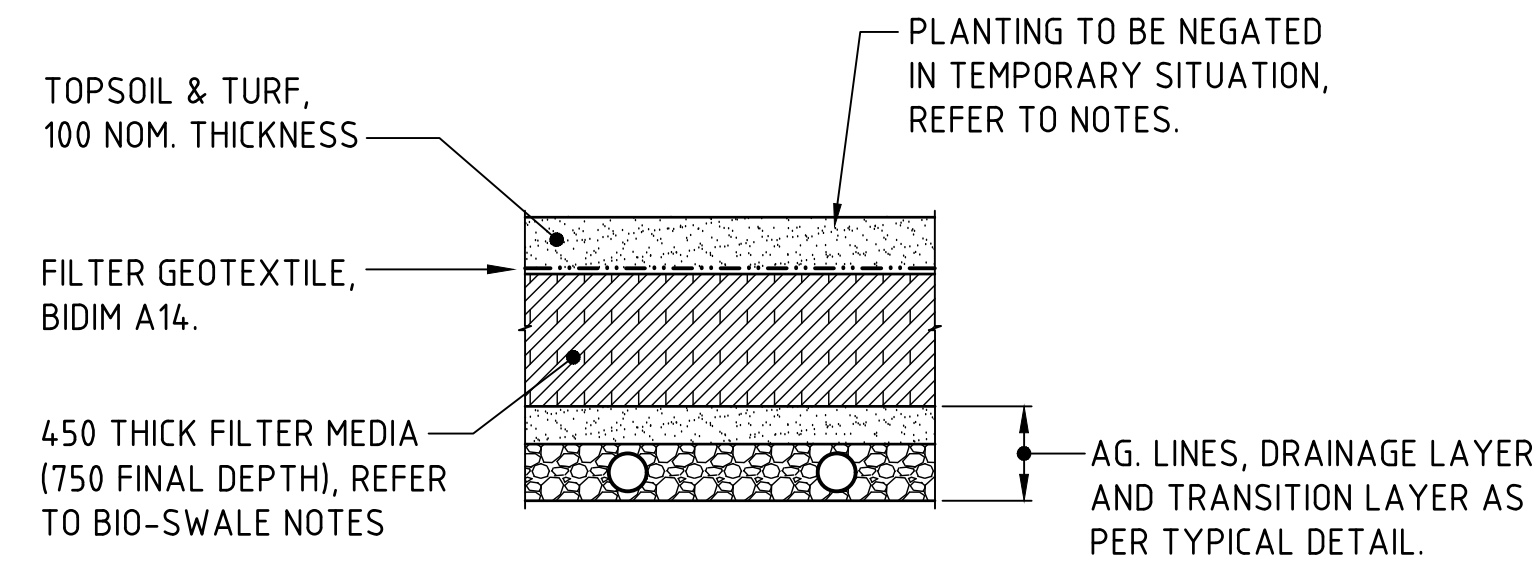
ISSUED FOR CONSTRUCTION CERTIFICATE			ARCHITECT			CLIENT			PROJECT			COSTIN ROE CONSULTING Pty Ltd.			DRAWING TITLE		
AMENDMENTS			PACearchitects			ESR			PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148			PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 e: mail@costinroe.com.au w: costinroe.com.au			STORMWATER DRAINAGE CATCHMENT PLAN		
08/07/26			A			MAY 2026			DESIGNED LDV			DRAWN GP			DRAWING No		
DATE			ISSUE			CHECKED MW			SCALE AS SHOWN			CIVIL & STRUCTURAL ENGINEERS			C013904.07-S2EW420		
AMENDMENTS			DATE			SCALE			CAD REF: C013904.07-S2EW420			ISSUE			A		



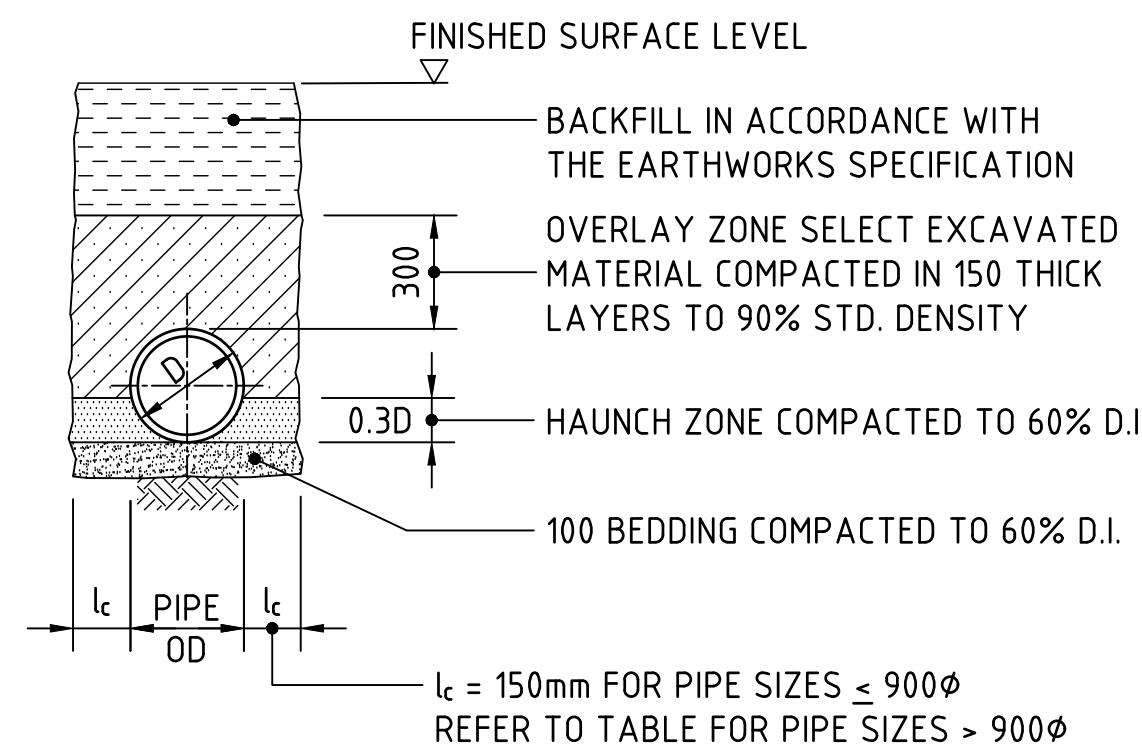
SUPPORT TO AGRICULTURAL DRAIN
SCALE 1:20



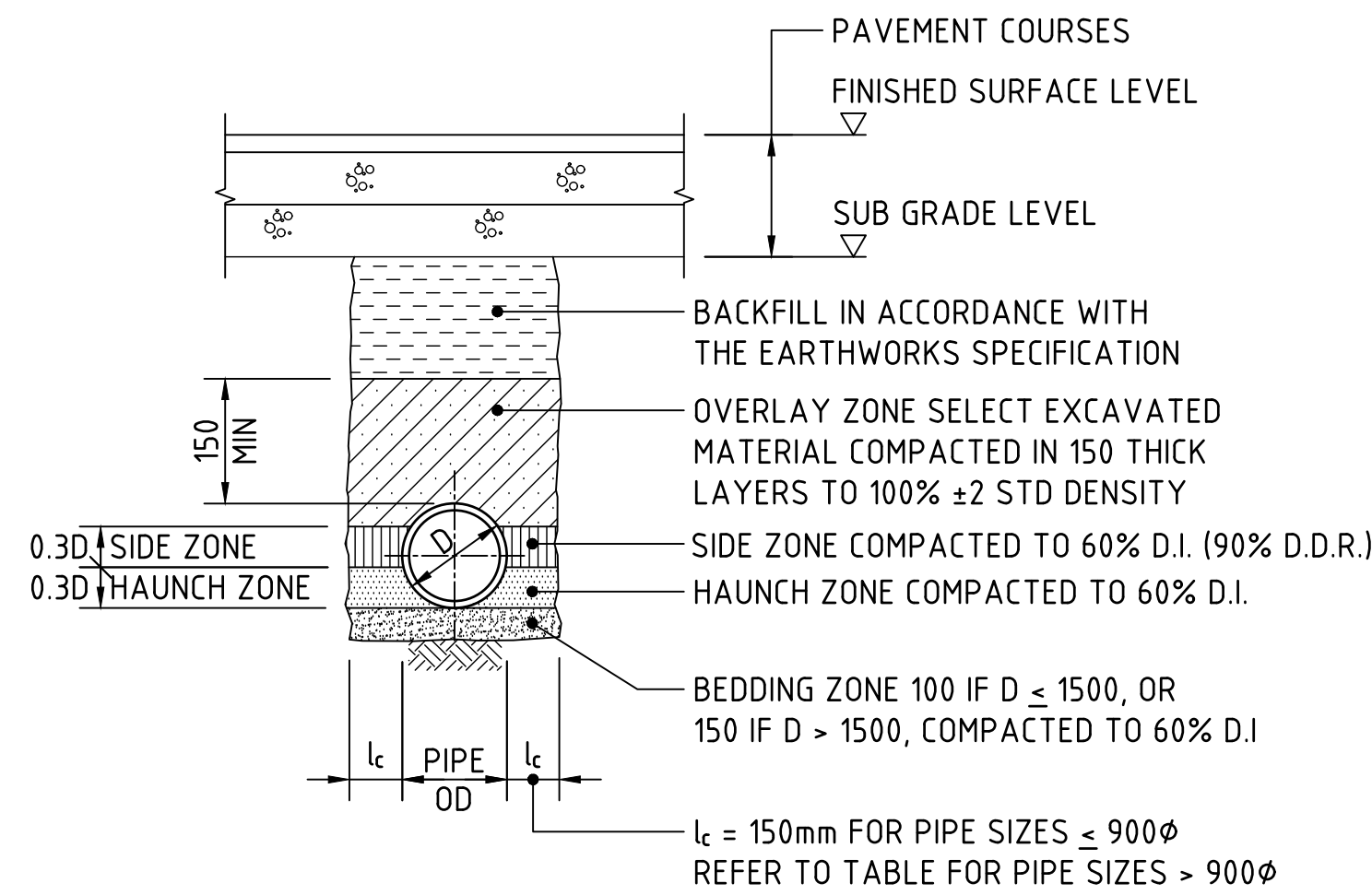
SUPPORT TO uPVC PIPES
SCALE 1:20



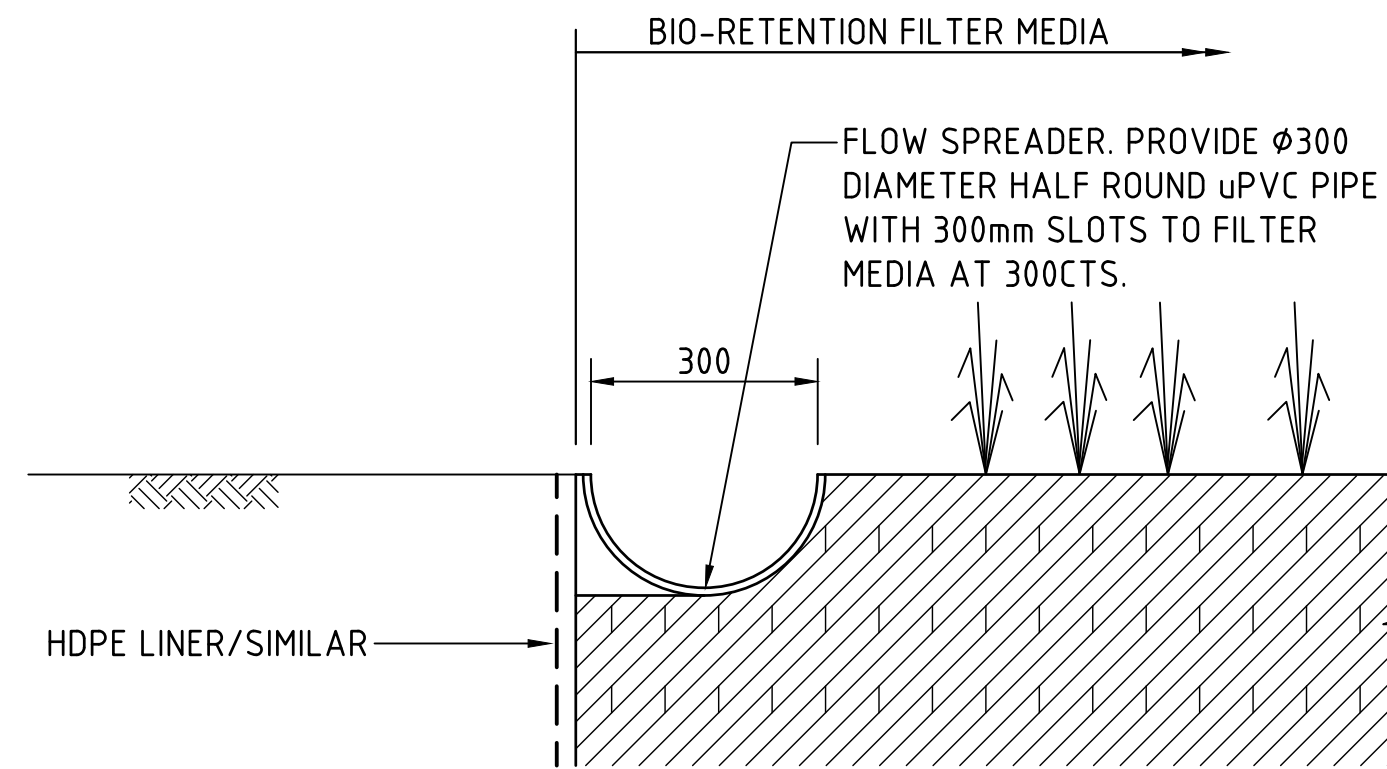
TEMPORARY BIO-RETENTION PROTECTION DETAIL
SCALE 1:20
TEMPORARY CONSTRUCTION REQUIREMENT DETAIL - REFER TO NOTES FOR IMPLEMENTATION PERIODS.



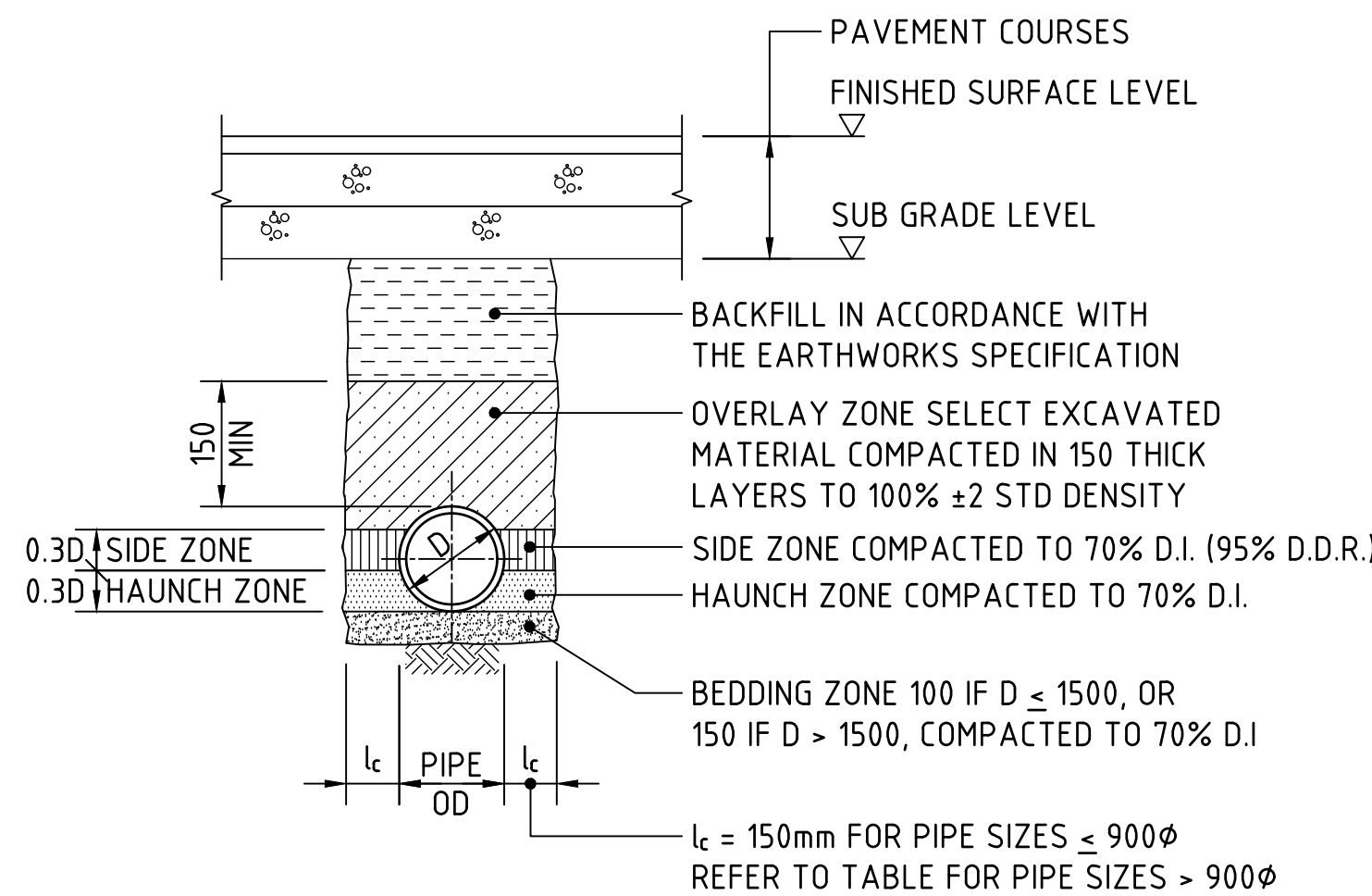
TYPE H1 SUPPORT TO CONCRETE PIPES AT LANDSCAPED AREAS
SCALE 1:20



TYPE HS2 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20



TYPICAL HALF-ROUND FLOW SPREADER DETAIL
SCALE 1:10

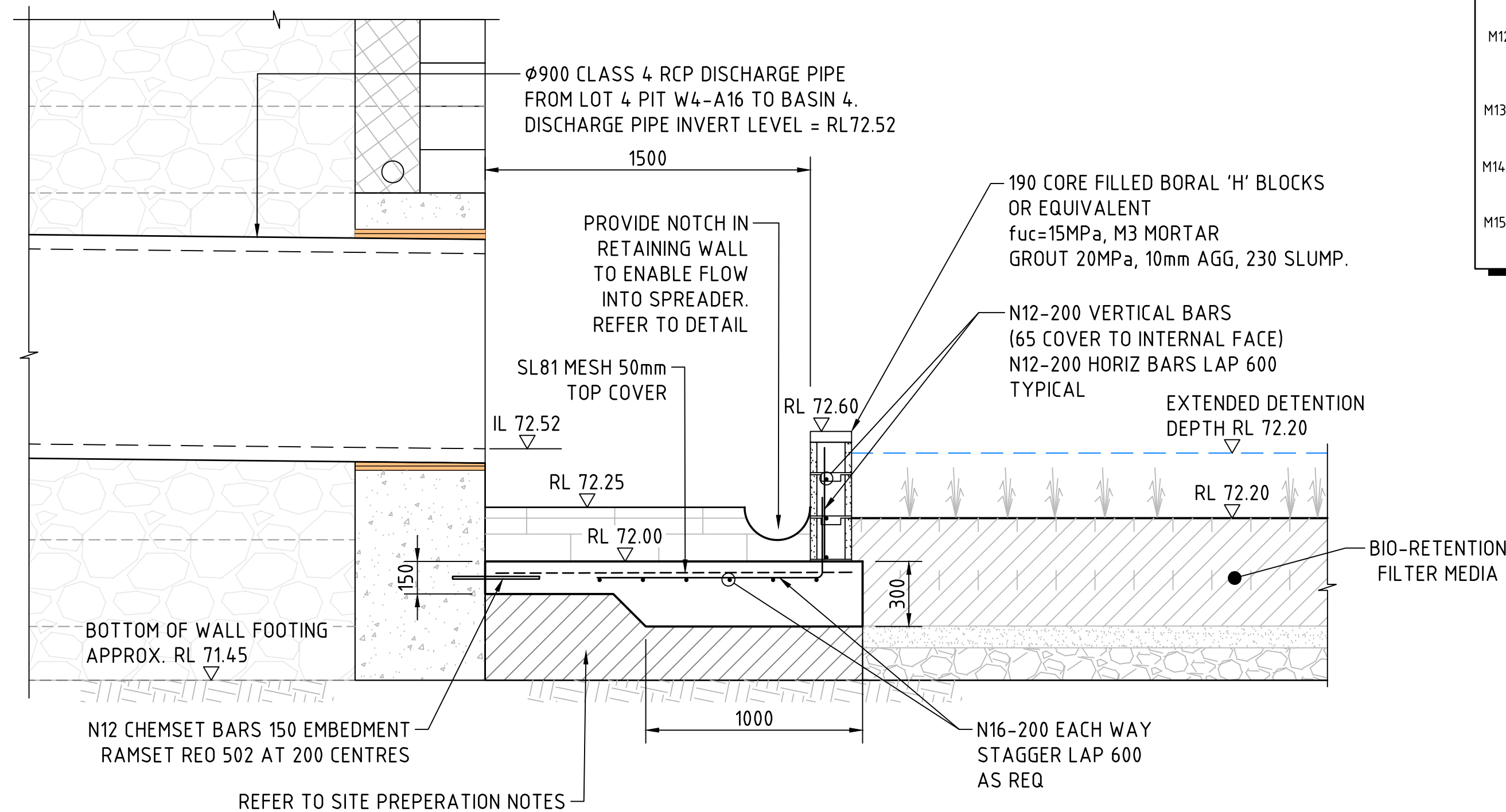


TYPE HS3 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20
D ≤ 1050, MAX FILL = 6.0m
D > 1050, MAX FILL = 4.8m

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SIDE ZONE WIDTH	
PIPE SIZE (mm)	lc (mm)
≤ 900φ	150
1050φ	175
1200φ	200
1350φ	225
1500φ	250
1650φ	275
1800φ	300
ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800φ	

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
9.5	100 TO 50
2.6	100 TO 30
0.60	50 TO 15
0.075	25 TO 0
SELECT FILL MATERIAL IN ACCORDANCE WITH TABLE 1 AS 3725	



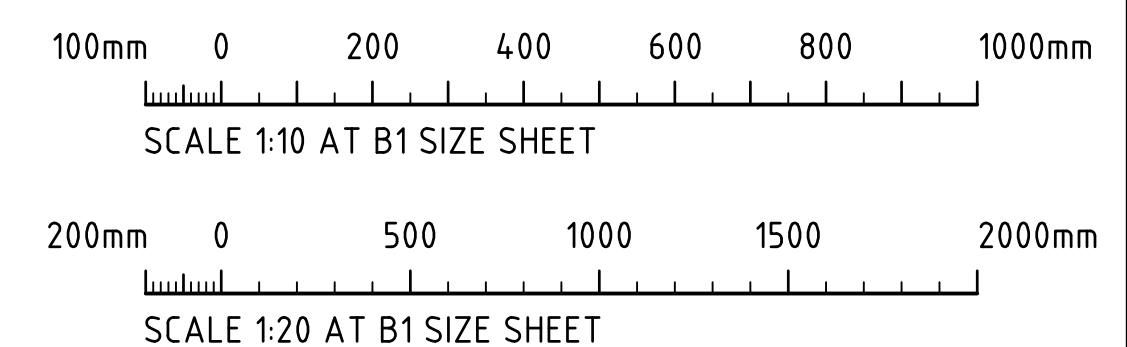
PROPOSED SCOUR PROTECTION FOREBAY DETAIL
SCALE 1:20

MASONRY BLOCKWORK		
M1	ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700.	
M2	STRENGTH OF BRICKS, CLASS OF BLOCKS AND TYPE OF MORTAR SHALL BE AS LISTED BELOW:	
MATERIAL:	CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH, F _{uc}	MORTAR CLASSIFICATION:
CONCRETE BLOCKS	15 MPa	M3
M3	MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT	
M4	ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT U.N.O.	
M5	ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ALL CONTROL JOINTS IN THE CONCRETE.	
M6	NON LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY A 12mm THICK CLOSED CELL POLYETHYLENE STRIP.	
M7	NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.	
M8	PROVIDE CLEANOUT HOLES AT BASE OF ALL WALLS. ROD CORE HOLES TO REMOVE PROTRUDING MORTAR FOLLOWING APPROVAL FROM THE ENGINEER.	
M9	CORE FILLING GROUT TO HAVE A CHARACTERISTIC STRENGTH OF 20 MPa, 10mm AGGREGATE, 230mm SLUMP. GROUT FILL ALL BLOCK CORES.	
M10	PROVIDE 65mm COVER TO REINFORCING BARS FROM THE OUTSIDE FACE OF THE BLOCKWORK IF REINFORCEMENT IS NOT TO BE PLACED CENTRALLY.	
M11	PROVIDE VERTICAL CONTROL JOINTS AT 10 METRE MAX CENTRES, AND AT 5 METRE MAXIMUM FROM CORNERS IN ALL BRICKWORK WALLS	
M12	PROVIDE VERTICAL CONTROL JOINTS AT 8 METRE MAX CENTRES, AND AT 4 METRE MAXIMUM FROM CORNERS IN ALL CONCRETE BLOCK WALLS.	
M13	BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL U.N.O. PROVIDE SUBSOIL DRAIN BEHIND WEEP HOLES.	
M14	DO NOT CONSTRUCT MASONRY WALLS ON SUSPENDED CONCRETE UNTIL SLAB HAS BEEN STRIPPED AND DE-PROPPED.	
M15	ALL CAVITY CONSTRUCTION TO HAVE GALVANISED OR STAINLESS STEEL WALL TIES INSTALLED AS PER AS 3700	

NOTE:
ALL BLOCK CORES TO BE FULLY GROUTED.
NOTES SHOWN ARE TYPICAL FOR ALL WALLS.
ALL BASE KEYS TO BE POURED AGAINST UNDISTURBED NATURAL GROUND.

NOTE:
COVER TO ALL BASE REINFORCEMENT TO BE MINIMUM 50mm

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F _c (MPa)
CORE FILL	230	10	GP	NIL	20
FOOTING	80	20	GP	NIL	32

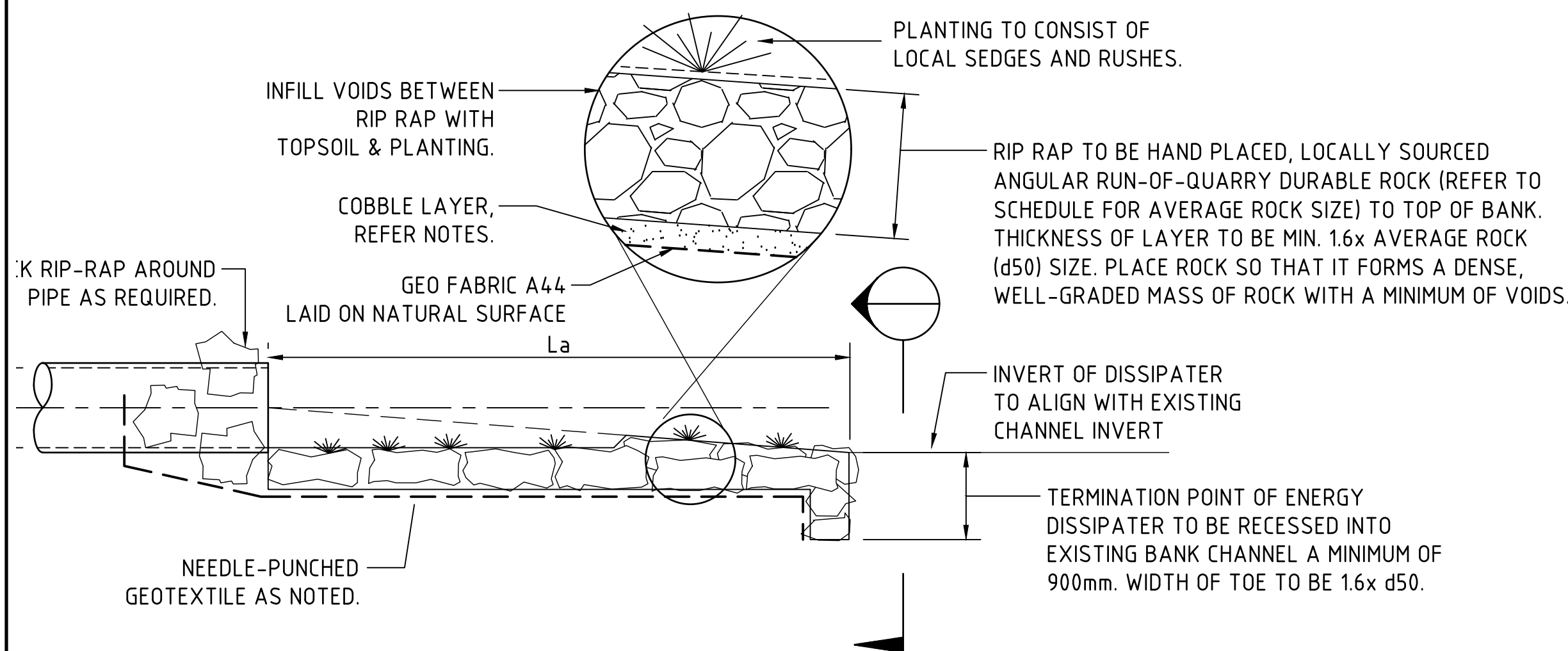


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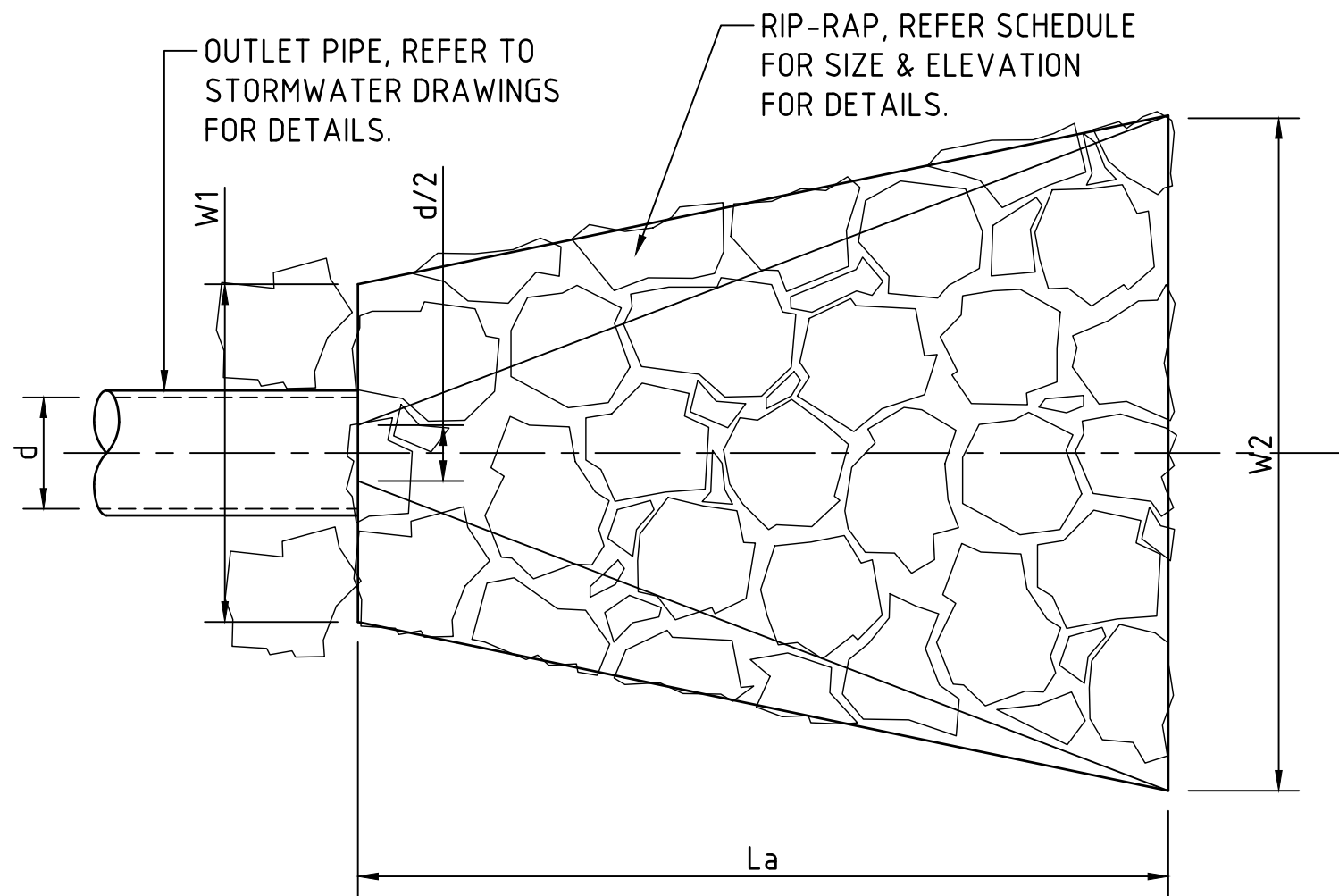
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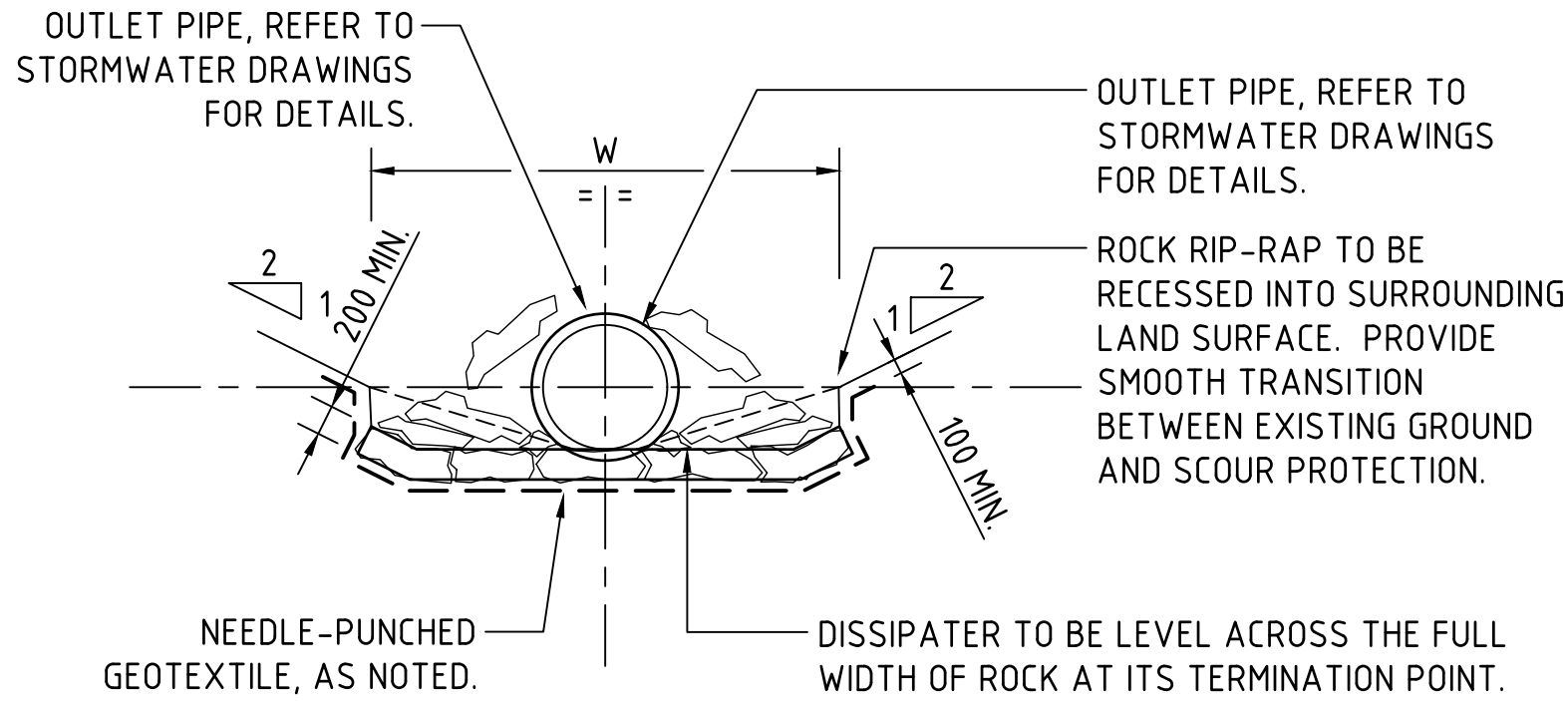
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ISSUED FOR CCIE 29.06.26 B				sba		ESR		AWJ		PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148		CONSULT AUSTRALIA		PO Box N419 Sydney NSW 1220 Level 4 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 e: mail@costinroe.com.au		f: +61 2 9241 3731 w: costinroe.com.au			
ISSUED FOR PRELIMINARY 25.06.26 A				f: 02 9929 9988 e: info@sba.au w: www.sba.au								DESIGNED LDV DRAWN KP DATE MAY 2026 CHECKED MW SIZE B1 SCALE AS SHOWN CAD REF: C013904.07-S2EW450						DRAWING No C013904.07-S2EW450	
AMENDMENTS DATE ISSUE				AMENDMENTS DATE ISSUE														ISSUE B	



ELEVATION
SCALE 1:50



PLAN
SCALE 1:50



SECTION 1:50 1

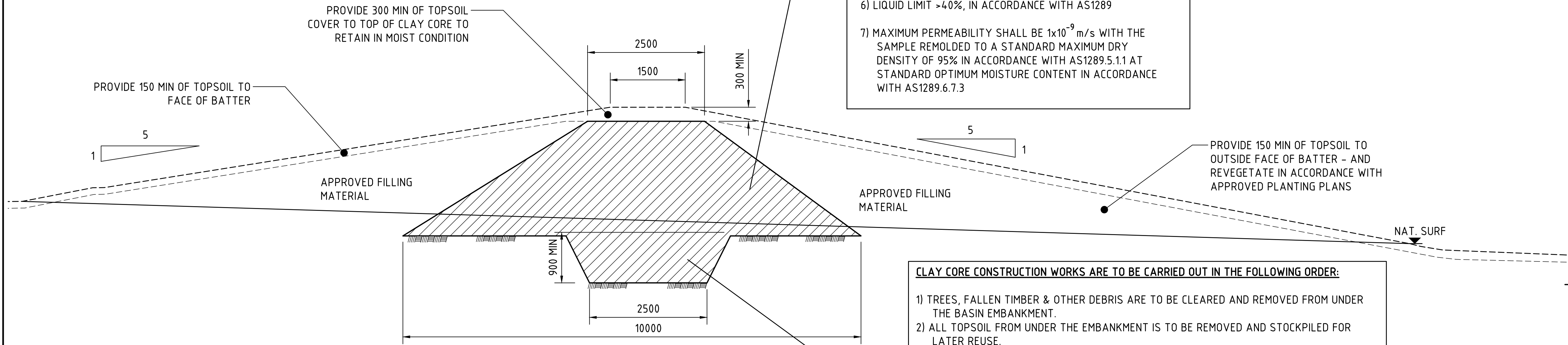
DISSIPATER NOTES:

1. ALIGN STRUCTURE EVENLY WITH BANK.
2. LOCATE STRUCTURE AT INVERT LEVEL OF STREAM AND POINT IN A DOWNSTREAM DIRECTION.
3. PIPE TO REST ON, AND BE PACKED IN, BY RIP-RAP (SIZE AS NOTED).
4. DISCHARGE INTO STREAM WHERE BEDROCK IS PRESENT, OTHERWISE SCOUR PROTECT AS REQUIRED.
5. SCOUR PROTECT THE OPPOSITE BANK AS REQUIRED. SCOUR PROTECTION TO BE PROVIDED WHERE OPPOSITE BANK IS WITHIN 12-14 TIMES THE PIPE DIAMETER.
6. RIP-RAP TO CONSIST OF ANGULAR RUN-OF-QUARRY ROCK (d50= 150mm MINIMUM) AS NOTED IN THE SCHEDULE. RIP-RAP TO BE MINIMUM THICKNESS OF RIP-RAP LAYER TO BE 1.6x AVERAGE ROCK SIZE (d50).
7. RIP-RAP IS TO BE PLACED OVER A 200mm LAYER OF 140mm COBBLES OVER NEEDLE-PUNCHED GEOTEXTILE A44.
8. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE FINISHED RIP-RAP SURFACE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS.
9. GAPS IN RIP-RAP TO BE HAND PACKED WITH TOPSOIL & PLANTED WITH NATIVE SEDGES & RUSHES TO PROVIDE. THE INTENT IS FOR THERE TO BE NO VOIDS BETWEEN RIP-RAP BOULDERS.
10. ENSURE THE FINISHED ROCK SURFACE BLENDS WITH THE SURROUNDING GROUND LEVELS. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
11. ENSURE THAT STORMWATER FROM SURROUNDING GROUND IS FREE TO ENTER THE STRUCTURE WITHOUT CAUSING UNDESIRABLE PONDING OR SCOUR.

STORMWATER OUTLET DISSIPATER

CLAY CORE MATERIAL COMPLIANCE NOTES:

- 1) THE MATERIAL SHALL BE FREE OF ROCK GREATER THAN 50mm IN ANY DIRECTION.
- 2) THE MATERIAL SHALL BE GENERALLY FREE OF TOPSOIL, ORGANIC AND ROOT MATTER.
- 3) THE MATERIAL SHALL HAVE NO MORE THAN 10% EXCEEDING 19mm PARTICLE SIZE.
- 4) THE MATERIAL SHALL HAVE THE PERCENTAGE FINE (PASSING 0.075mm SIEVE) MORE THAN 50 % (IN ACCORDANCE WITH AS1289)
- 5) THE PLASTICITY INDEX >20%, IN ACCORDANCE WITH AS1289
- 6) LIQUID LIMIT >40%, IN ACCORDANCE WITH AS1289
- 7) MAXIMUM PERMEABILITY SHALL BE 1×10^{-9} m/s WITH THE SAMPLE REMOLDED TO A STANDARD MAXIMUM DRY DENSITY OF 95% IN ACCORDANCE WITH AS1289.5.1.1 AT STANDARD OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH AS1289.6.7.3

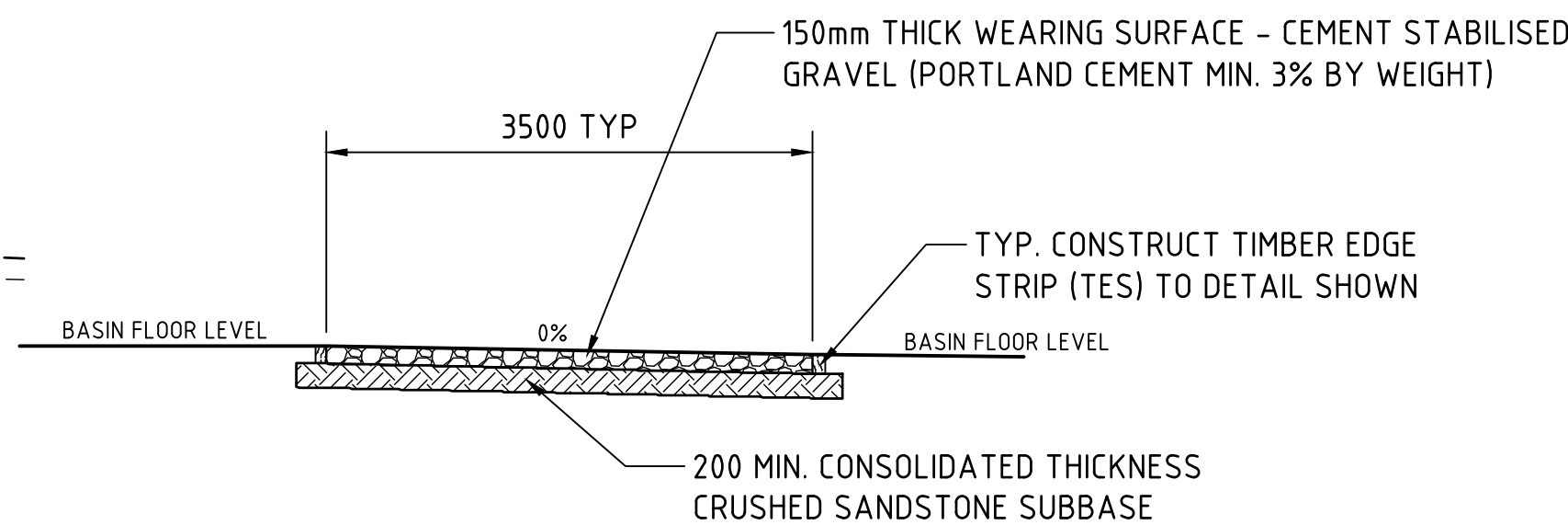


TYPICAL DETAIL - BASIN CLAY CORE AND EMBANKMENT
SCALE 1:50

CLAY CORE CONSTRUCTION WORKS ARE TO BE CARRIED OUT IN THE FOLLOWING ORDER:

- 1) TREES, FALLEN TIMBER & OTHER DEBRIS ARE TO BE CLEARED AND REMOVED FROM UNDER THE BASIN EMBANKMENT.
- 2) ALL TOPSOIL FROM UNDER THE EMBANKMENT IS TO BE REMOVED AND STOCKPILED FOR LATER REUSE.
- 3) OVERBURDEN FROM UNDER THE EMBANKMENT IS TO BE REMOVED UNTIL FIRM CLAY OR BEDROCK IS HAS BEEN EXPOSED.
- 4) A CORE TRENCH OF AT LEAST 900mm DEEP IS TO BE EXCAVATED INTO IMPERMEABLE, STABLE FOUNDATION MATERIAL CONSISTING OF EITHER CLAY OR BEDROCK.
- 5) THE STRIPPED AREA BELOW THE EMBANKMENT IS TO BE SLIGHTLY SCARIFIED TO A DEPTH NOT EXCEEDING 100mm.
- 6) THE CLAY CORE MUST BE CENTRALLY PLACED AND EXTEND FOR THE FULL LENGTH AND HEIGHT OF THE BANK.
- 7) CLAY CORE TO BE LAYED IN LIFTS OF NO MORE THAN 250mm, EACH LAYER IS TO BE COMPACTED WITH A SHEEPS FOOT ROLLER, TO ACHIEVE A MIN DRY DENSITY RATIO OF AT LEAST 95% STANDARD (IN ACCORDANCE WITH AS1289.5.1.1 AND 5.4.1) OR MINIMUM HILF DENSITY RATIO OF 95% (IN ACCORDANCE WITH AS1289.5.7.1) AT MOISTURE CONTENT WITHIN THE RANGE OF 0-35% (WET) OF THE STANDARD OPTIMUM MOISTURE CONTENT.
- 8) THE COMPLETED CORE AND EMBANKMENT SHOULD BE BUILT 5% HIGHER THAN SPECIFIED, ALLOW FOR SETTLEMENT.
- 9) UPON COMPLETION OF EACH STAGE OF THE CLAY CORE CONSTRUCTION, THE EXPOSED CLAY SURFACE IF THE CORE SHALL BE LIMITED FROM TRAFFIC MOVEMENTS AND MAINTAINED IN MOIST CONDITION UNTIL IT IS FULLY COVERED BY THE NEXT LAYER. IF THE SURFACE OF THE PREVIOUS PLACED LAYER HAS DRIED OUT OR WETTED UP EXCESSIVELY, THE MATERIAL IN THE AFFECTED AREA SHALL BE EXCAVATED AND CONDITIONED TO MOISTURE WITHIN THE SPECIFIED TOLERANCE OR DISCARDED.

DISSIPATER SCHEDULE					
ENERGY DISSIPATER	DIAMETER(mm)/DIMENSIONS	LENGTH La (mm)	WIDTH 1 (mm)	WIDTH 2 (mm)	RIP-RAP (d50)
1	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
2	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
3	450ø	1800	1100	1200	200
4	600ø	4500	1400	2600	100
5	4x825ø	3000	4000	4000	200
6	OVERLAND FLOW	3000	4000	4000	200
7	825ø	3300	1500	2200	100
8	825ø	5000	1500	2900	200
9	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
10	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
11	600ø	3600	1200	2100	200
12	900ø	3600	1500	2400	100
13	OVERLAND FLOW	2700	5600	6100	200
14	750ø	7500	1400	3800	500
15	375ø	7500	1400	3800	500
16	OVERLAND FLOW	5600	5200	6800	200
17	OVERLAND FLOW	2700	4000	4500	200
18	900ø	7200	1500	3800	300
19	OVERLAND FLOW	2700	4000	4500	200
20	300ø AND 900ø	7200	1800	4100	200
21	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
22	OVERLAND FLOW	2700	10600	11100	400
23	OVERLAND FLOW	2700	5600	6100	200
24	OVERLAND FLOW	2700	4000	4500	200
25	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
26	525ø AND WIDTH 4m, DEPTH 0.5m	5600	5200	6800	100



TYPICAL DETAIL - MAINTENANCE ACCESS
DRIVE PAVEMENT CONSTRUCTION
SCALE 1:50

500mm 0 1 2 3 4 5m
SCALE 1:50 AT B1 SIZE SHEET

Compliance Certificate

Certificate Number: 250062CC04

Issuing Officer: Sammy Gazal

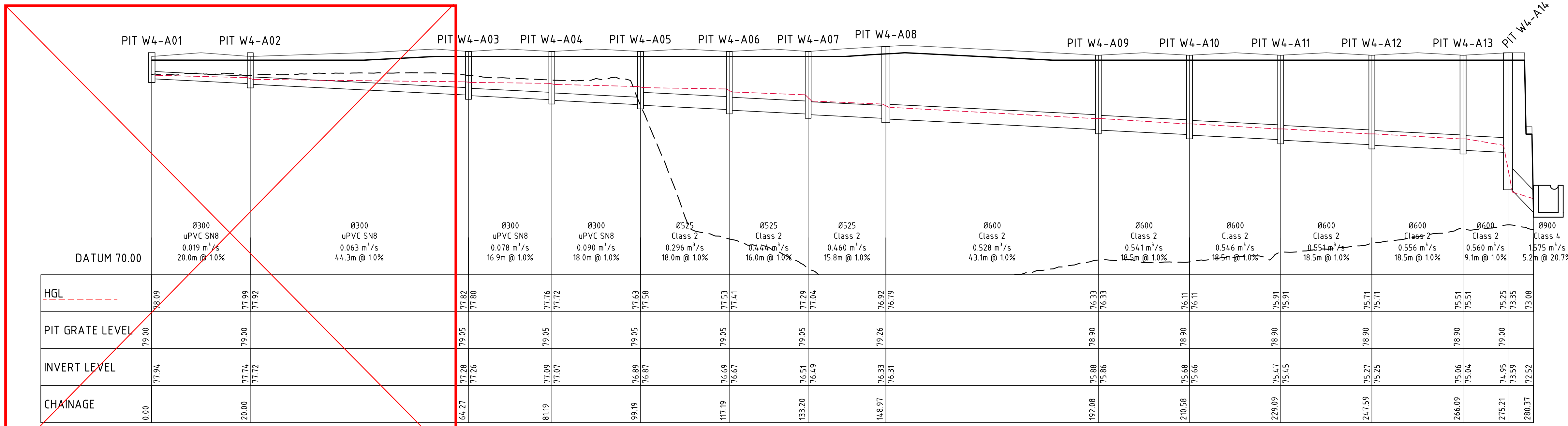
Registration Number: BDC05310

These plans/specifications form part of the certificate issued: 15/07/2026

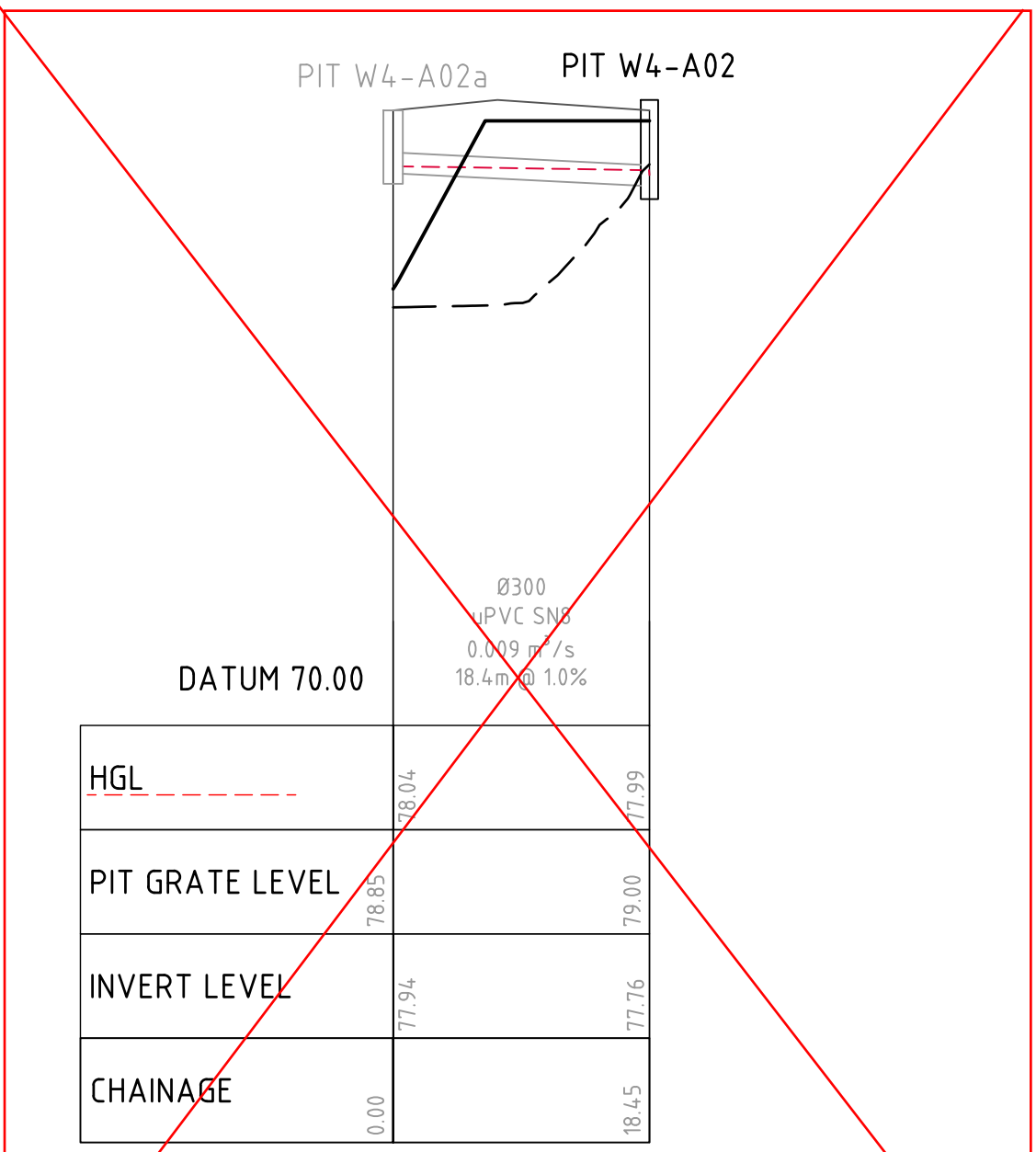
BRS

CONSTRUCTION CERTIFICATE

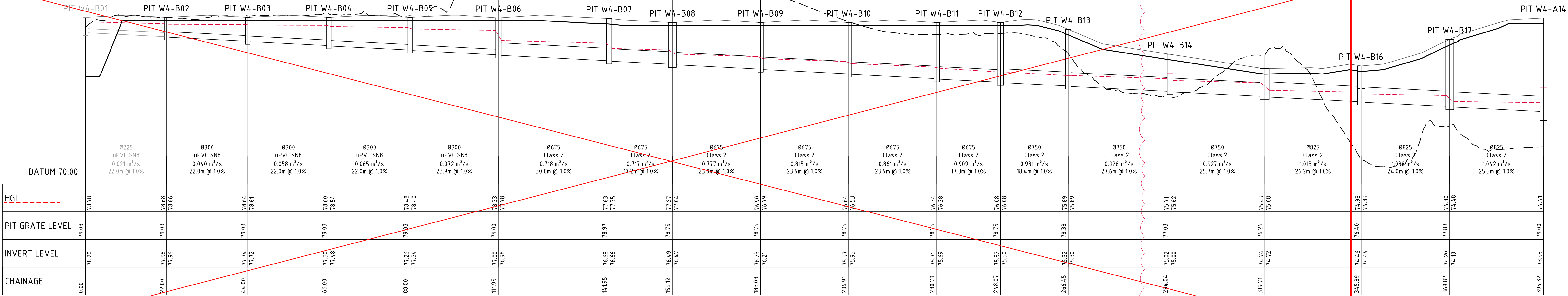
ISSUED FOR CCIE			29.06.26			B			ARCHITECT			CLIENT			BUILDER			PROJECT			Costin Roe Consulting Pty Ltd.			DRAWING TITLE		
ISSUED FOR PRELIMINARY			25.06.26			A			ARCHITECT			CLIENT			BUILDER			PROPOSED WAREHOUSE DISTRIBUTION			PO Box N419 Sydney NSW 1220			STORMWATER DRAINAGE TYPICAL DETAILS		
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE			AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148			Level 4, 8 Windmill Street, Millers Point NSW 2000			- SHEET 3		
																					e: mail@costinroe.com.au			DRAWING NO		
																					t: +61 2 9241 3731			C013904.07-S2EW452		
																					w: costinroe.com.au			C013904.07-S2EW452		
																								ISSUE		
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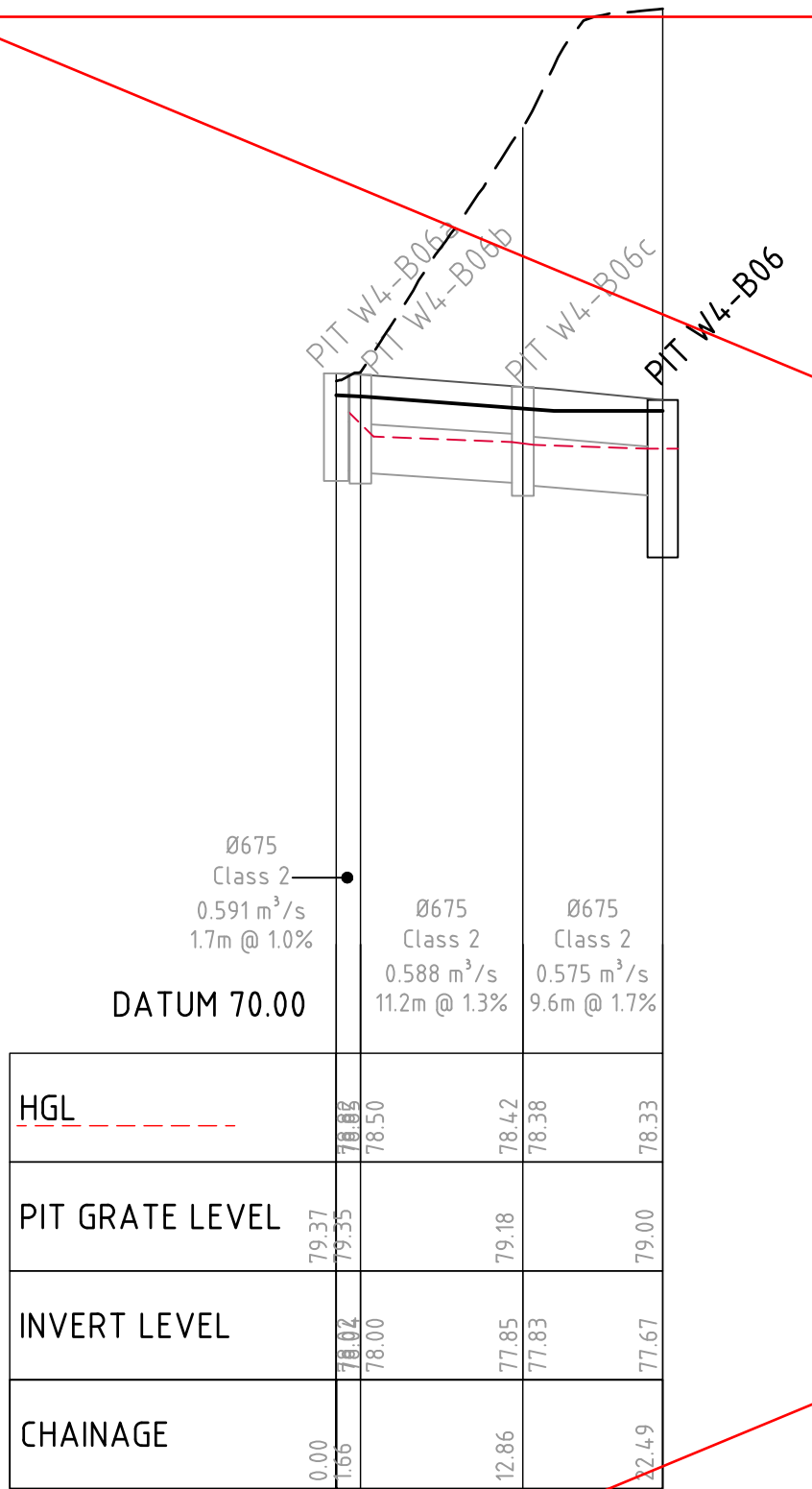
PIT W4-A01 TO BASIN
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



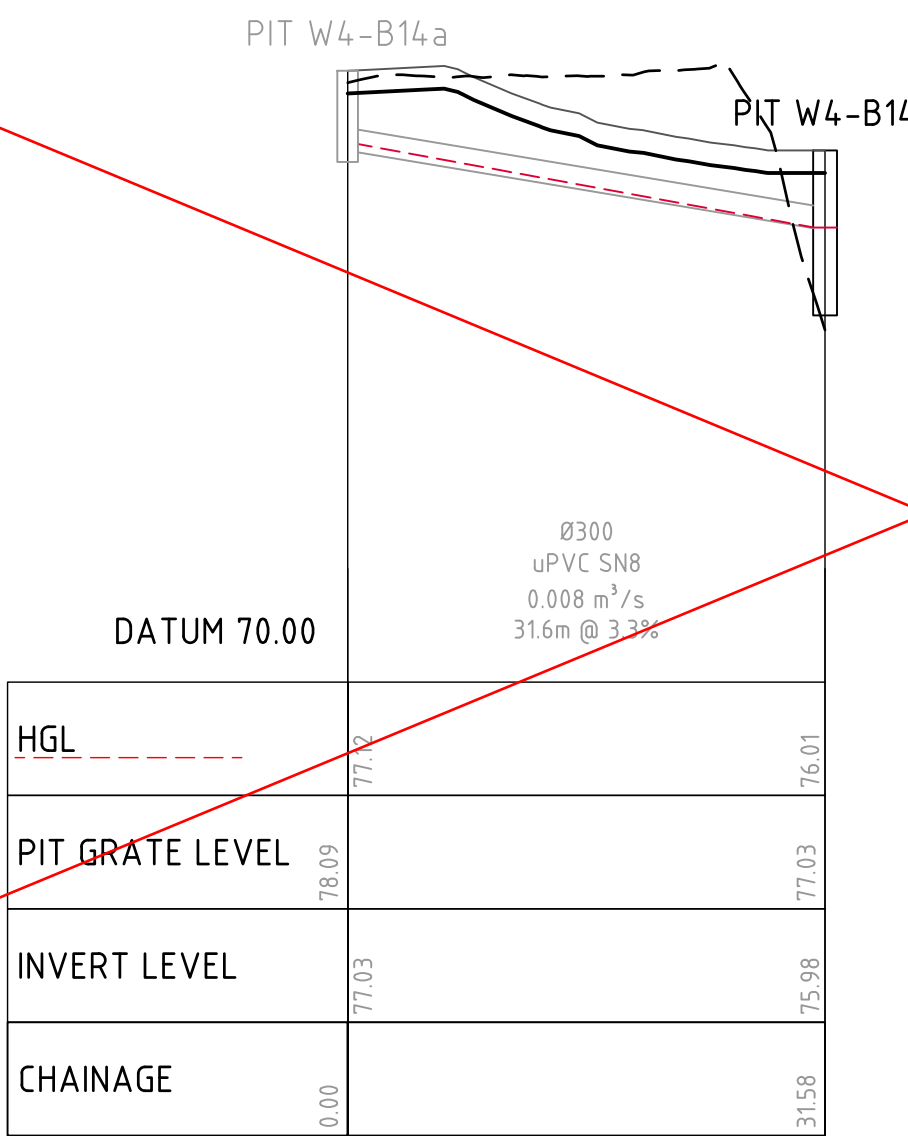
PIT W4-A02a TO PIT W4-A02
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



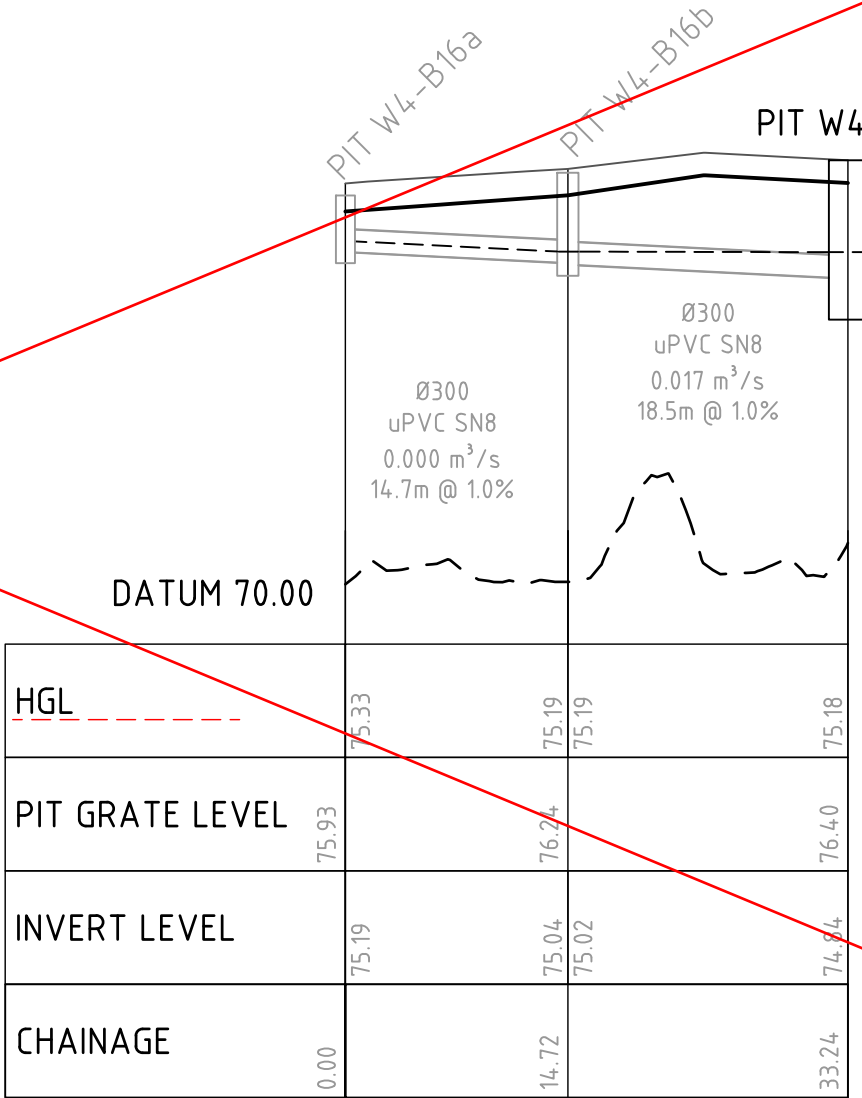
PIT W4-B01 TO PIT W4-A14
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



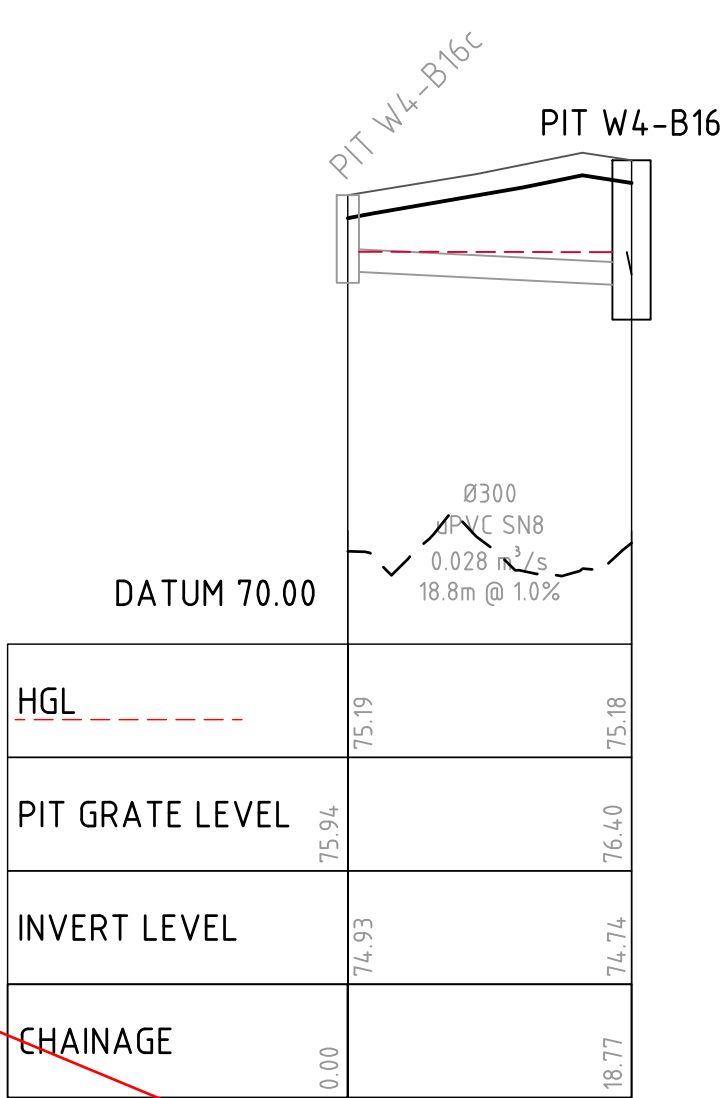
PIT W4-B06a TO PIT W4-B06
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



PIT W4-B14a TO PIT W4-B14
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



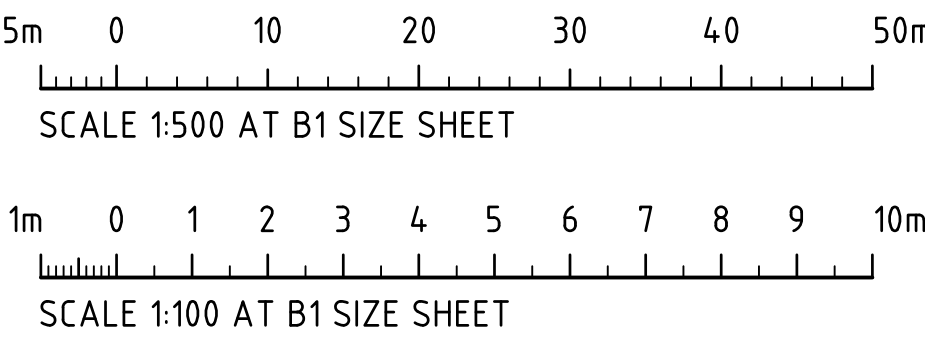
PIT W4-B16a TO PIT W4-B16
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



PIT W4-B16ac TO PIT W4-B16
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

NOTE:
--- H.G.L. & FLOWRATE SHOWN FOR Q20 A.R.I STORM EVENT

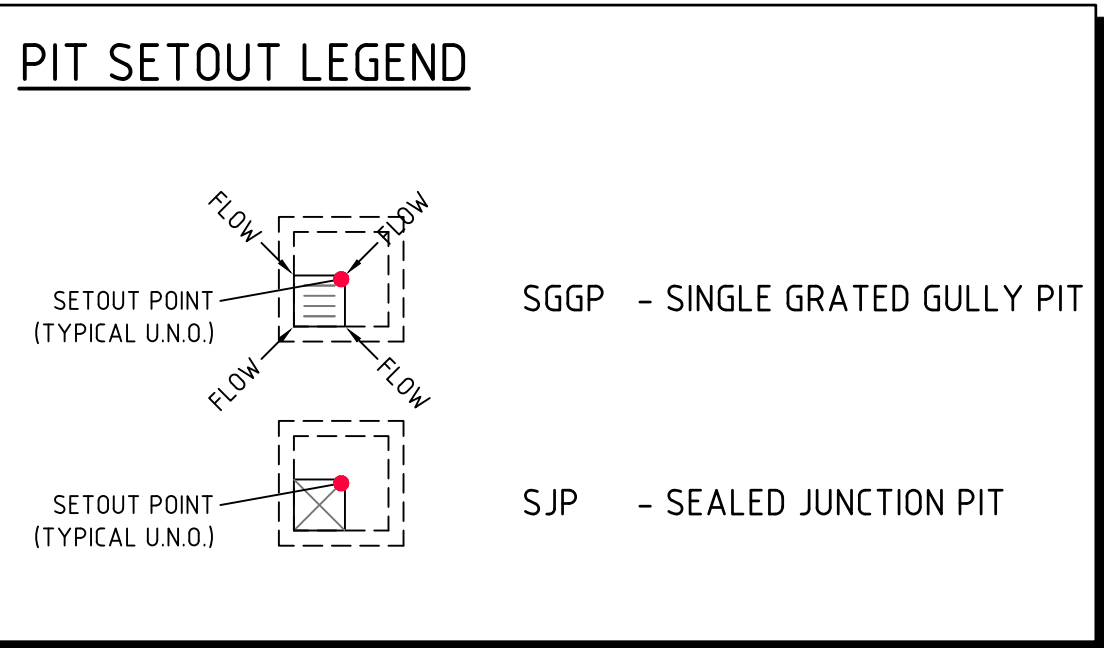
Compliance Certificate
Certificate Number: 250062CC04
Issuing Officer: Sammy Gazal
Registration Number: BDC05310
These plans/specifications form part of the certificate issued: 15/07/2026



CONSTRUCTION CERTIFICATE

WAREHOUSE 3 - PIT SCHEDULE									
PIT No.	GRATE RL	INVERT LEVEL	DEPTH	TYPE	GRATE SIZE	CHAMBER SIZE	EASTING	NORTHING	COMMENT
PIT W3-A01	74.35	73.26	1092	SGGP	900x900	900x900	306159.174	625784.2979	◇
PIT W3-A02	73.97	72.86	1112	SGGP	900x900	900x900	306160.691	6257829.606	◇
PIT W3-B01	75.60	74.69	906	SGGP	900x900	900x900	306337.667	6257806.741	◇
PIT W3-B02	75.60	74.40	1203	SGGP	900x900	900x900	306310.191	6257810.598	◇
PIT W3-B03	75.60	74.10	1501	SGGP	900x900	900x900	306282.714	6257814.456	◇
PIT W3-B04	75.60	73.80	1798	SGGP	900x900	900x900	306255.238	6257818.314	◇
PIT W3-B05	75.60	73.50	2096	SGGP	900x900	900x900	306227.761	6257822.172	◇
PIT W3-B06	75.60	73.21	2393	SGGP	900x900	900x900	306200.285	6257826.029	◇
PIT W3-B07	75.65	72.64	3006	SGGP	900x900	900x900	306179.869	6257828.896	◇
PIT W3-B08	75.95	72.37	3572	SJP	900x900	1200x1200	306183.352	6257853.702	
PIT W3-C01	79.01	77.76	1251	SGGP	900x900	900x900	306342.908	6257828.733	◇
PIT W3-C02	79.00	77.72	1281	SGGP	900x900	900x900	306341.746	6257830.276	◇
PIT W3-C03	78.96	77.44	1522	SGGP	900x900	1500x1500	306335.846	6257838.352	◇
PIT W3-C04	76.10	74.67	1435	SGGP	900x900	900x900	306299.410	6257843.409	◇
PIT W3-C05	75.85	74.47	1380	SGGP	900x900	900x900	306282.078	6257846.012	◇
PIT W3-C06	75.85	74.22	1632	SGGP	900x900	1200x1200	306259.088	6257849.411	◇
PIT W3-C07	75.85	73.94	1911	SGGP	900x900	1200x1200	306233.431	6257853.200	◇
PIT W3-C08	75.85	73.69	2165	SGGP	900x900	1200x1200	306210.428	6257857.157	◇
PIT W3-C09	75.85	73.43	2419	SGGP	900x900	1200x1200	306187.430	6257861.152	◇
PIT W3-C10	75.95	73.33	2613	SJP	900x900	1200x1200	306186.323	6257853.285	
PIT W3-C11	72.15	69.16	2990	SJP	900x900	1500x1500	306147.246	6257883.499	
PIT W3-D01	79.42	78.41	1010	SJP	900x900	900x900	306289.316	6257674.411	
PIT W3-D02	79.42	78.05	1367	SJP	900x900	900x900	306255.989	6257679.088	
PIT W3-D03	79.42	77.69	1726	SJP	900x900	1200x1200	306222.418	6257683.800	
PIT W3-D03a	79.42	78.09	1330	SJP	900x900	900x900	306200.190	6257686.920	
PIT W3-D03b	79.42	78.41	1010	SJP	900x900	900x900	306170.481	6257691.090	
PIT W3-E01	79.00	77.49	1506	SGGP	900x900	900x900	306326.360	6257643.414	◇
PIT W3-E02	79.00	76.88	2116	SGGP	900x900	900x900	306302.981	6257646.696	◇
PIT W3-E02a	78.09	77.18	906	SGGP	900x900	900x900	306306.841	6257674.189	◇
PIT W3-E03	79.00	76.63	2371	SGGP	900x900	900x900	306279.711	6257649.965	◇
PIT W3-E04	79.00	76.37	2626	SGGP	900x900	900x900	306256.438	6257653.231	◇
PIT W3-E05	79.00	76.12	2881	SGGP	900x900	1200x1200	306233.166	6257656.499	◇
PIT W3-E06	79.12	75.95	3161	SJP	900x900	1200x1200	306218.881	6257658.504	
PIT W3-E07	79.00	75.84	3156	SGGP	900x900	1200x1200	306209.895	6257659.766	◇
PIT W3-E08	79.00	75.59	3411	SGGP	900x900	900x900	306186.623	6257663.033	◇
PIT W3-E09	79.00	78.09	906	SGGP	900x900	900x900	306139.335	6257669.673	◇
PIT W3-E10	79.00	76.88	2124	SGGP	900x900	900x900	306163.102	6257666.336	◇
PIT W3-E10a	78.09	77.18	906	SGGP	900x900	900x900	306160.453	6257694.745	◇
PIT W3-E11	79.14	75.44	3696	SJP	900x900	1200x1200	306174.120	6257664.789	
PIT W3-E12	79.15	74.49	4651	SJP	900x900	1200x1200	306134.576	6257677.680	
PIT W3-E13	79.07	72.15	6915	SJP	900x900	1200x1200	306133.478	6257669.858	

WAREHOUSE 4 - PIT SCHEDULE									
PIT No.	GRATE RL	INVERT LEVEL	DEPTH	TYPE	GRATE SIZE	CHAMBER SIZE	EASTING	NORTHING	COMMENT
PIT W4-A01	79.00	77.94	1057	SGGP	900x900	900x900	306350.479	6257836.281	◇
PIT W4-A02	79.00	77.72	1276	SGGP	900x900	900x900	306370.285	6257833.501	◇
PIT W4-A02a	78.85	77.94	906	SGGP	900x900	900x900	306366.960	6257815.356	◇
PIT W4-A03	79.05	77.26	1789	SGGP	900x900	900x900	306414.339	6257829.130	◇
PIT W4-A04	79.05	77.07	1978	SGGP	900x900	900x900	306431.240	6257828.434	◇
PIT W4-A05	79.05	76.87	2178	SGGP	900x900	900x900	306449.226	6257827.728	◇
PIT W4-A06	79.05	76.67	2378	SGGP	900x900	900x900	306467.194	6257826.573	◇
PIT W4-A07	79.05	76.49	2558	SGGP	900x900	900x900	306483.161	6257825.361	◇
PIT W4-A08	79.26	76.31	2942	SJP	900x900	900x900	306495.616	6257815.689	
PIT W4-A09	78.90	75.86	3037	SGGP	900x900	900x900	306511.085	6257775.449	◇
PIT W4-A10	78.90	75.66	3242	SGGP	900x900	900x900	306517.730	6257758.182	◇
PIT W4-A11	78.90	75.45	3447	SGGP	900x900	900x900	306524.366	6257740.911	◇
PIT W4-A12	78.90	75.25	3652	SGGP	900x900	900x900	306531.001	6257723.641	◇
PIT W4-A13	78.90	75.04	3857	SGGP	900x900	900x900	306537.637	6257706.370	◇
PIT W4-A14	79.00	73.59	5407	SJP	900x900	1500x1500	306540.907	6257697.858	
PIT W4-B01	79.03	78.20	829	SGGP	900x900	900x900	306361.419	6257775.971	◇
PIT W4-B02	79.03	77.96	1069	SGGP	900x900	900x900	306358.361	6257754.185	◇
PIT W4-B03	79.03	77.72	1309	SGGP	900x900	900x900	306355.302	6257732.399	◇
PIT W4-B04	79.03	77.48	1549	SGGP	900x900	900x900	306352.244	6257710.612	◇
PIT W4-B05	79.03	77.24	1789	SGGP	900x900	900x900	306349.186	6257688.826	◇
PIT W4-B06	79.00	76.98	2018	SGGP	900x900	1200x1200	306348.794	6257664.881	◇
PIT W4-B06a	79.37	78.04	1332	SGGP	900x900	1200x1200	306368.442	6257675.013	◇
PIT W4-B06b	79.35	78.00	1352	SGGP	900x900	1200x1200	306366.795	6257675.244	◇
PIT W4-B06c	79.18	77.83	1352	SJP	900x900	1200x1200	306356.726	6257670.352	
PIT W4-B07	78.97	76.66	2310	SJP	900x900	1200x1200	306375.384	6257650.991	
PIT W4-B08	78.75	76.47	2280	SGGP	900x900	1200x1200	306386.228	6257637.675	◇
PIT W4-B09	78.75	76.21	2539	SGGP	900x900	1200x1200	306409.901	6257634.346	◇
PIT W4-B10	78.75	75.95	2798	SGGP	900x900	1200x1200	306433.548	6257631.021	◇
PIT W4-B11	78.75	75.69	3057	SGGP	900x900	1200x1200	306457.195	6257627.695	◇
PIT W4-B12	78.75	75.50	3250	SGGP	900x900	1200x1200	306474.456	6257628.620	◇
PIT W4-B13	78.38	75.30	3087	SJP	900x900	1200x1200	306492.759	6257626.910	
PIT W4-B14	77.03	75.00	2033	SJP	900x900	1200x1200	306520.229	6257624.421	
PIT W4-B14a	78.09	77.03	1055	SGGP	900x900	900x900	306524.618	6257655.695	◇
PIT W4-B15	76.26	74.72	1534	SGGP	900x900	1500x1500	306545.891	6257625.009	◇
PIT W4-B16	76.40	74.44	1958	SGGP	900x900	1500x1500	306552.785	6257650.267	◇
PIT W4-B16a	75.93	75.19	747	SGGP	900x900	900x900	306571.494	6257673.660	◇
PIT W4-B16b	76.24	75.02	1215	SGGP	900x900	900x900	306569.039	6257659.149	
PIT W4-B16c	75.94	74.93	1010	SGGP	900x900	900x900	306565.986	6257636.929	◇
PIT W4-B17	77.83	74.18	3652	SJP	900x900	1500x1500	306549.983	6257674.081	



- NOTES:**
- PITS TO BE FITTED WITH OCEAN GUARD OG200 PIT INSERT ◇
THUS TOTAL NUMBER OF PIT INSERT =60
REFER TO PIT SCHEDULE
 - ALL INTERNAL CHAMBER SIZES TO BE DETERMINED BY
CIVIL CONTRACTOR BASED ON PIPE SIZE PLUS 150mm
CLEARANCE ON EITHER SIDE OF THE PIPE THE
CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE
PRIOR TO CONSTRUCTION REFER ALL CONCERNS TO THE
ENGINEER

CONSTRUCTION CERTIFICATE

						ARCHITECT			CLIENT			PROJECT			CONSULT AUSTRALIA			Costin Roe Consulting Pty Ltd. ABN 50 003 696 446			DRAWING TITLE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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