STORWATER DRAINAGE

PROPOSED DUAL OCCUPANCY 46 PITT ROAD, NORTH CURL CURL NSW 2099

DRAWING REGISTER						
DRAWING NO.	DRAWING TITLE					
V250818 - SW000	COVER SHEET					
V250818 - SW001	GENERAL NOTES					
V250818 - SW100	LOWER GROUND FLOOR DRAINAGE PLAN					
V250818 - SW101	GROUND FLOOR DRAINAGE PLAN					
V250818 - SW102	FIRST FLOOR DRAINAGE PLAN					
V250818 - SW103	ROOF DRAINAGE PLAN					
V250818 - SW200	STORMWATER DETAILS					
V250818 - SW210	CATCHMENT PLANS					
V250818 - SW300	EROSION & SEDIMENT CONTROL PLAN					
V250818 - SW310	EROSION & SEDIMENT CONTROL DETAILS					

REVISION	REVISION DETAILS	DATE	DRAWN	DESIGN	CHECK	APPROVED	CIVIL ENGINEER		ARCHITECT	CLIENT	PROJECT MANAGER	SCALE		GRID	STATUS	FOR APF NOT TO BE USED FOR COI	PROVAL NSTRUCTION PURPOSES			
А	ISSUED FOR DA	04.09.2025	D.D.	M.N.	D.S.	D.S.		- L CONCULTING					NOT TO SCALE	HEIGHT AHD	PROJECT					
							VANGUA	ANGUARD CONSULTING ENGINEERS	ACTION PLANS	ACTION PLANS	ACTION PLANS					DATUM AND		PROPOSED DUA	AL OCCUPANCY	
								1 1							46	PITT ROAD NORTH	CURL CURL NSW 209	99		
								E MAIL ADMINIQUENC COM ALL				DRAWING TIT	TLE			·				
							UNIT 1, 6 WELD STREET PRESTONS, NSW 2170	E-MAIL: ADMIN@VCENG.COM.AU					00) (50, 0) 15		LGA: NORTHE	ERN BEACHES COUNCIL				
				1			WEB: WWW.VCENG.COM.AU	TEL: (02) 9145 0253					COVER SHE	:E1	DRAWING NUI	MBER	REFERENCE NUMBER	REVISION		
				+											V2508	18 - SW000	V250818			

SITEWORKS NOTES

- ORIGIN OF LEVELS:- REFER SURVEY NOTES
- 2. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL GOVERNMENT AUTHORITIES ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL WORKS.
- PRIOR TO THE COMMENCEMENT OF THE WORKS THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO VANGUARD.
- PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR IS TO VERIFY THE ALIGNMENT AND LEVELS OF ALL EXISTING SERVICES AT ALL LOCATIONS WHERE THE PROPOSED SERVICES ARE TO CROSS, CONNECT TO OR ARE LOCATED IN CLOSE PROXIMITY TO THE EXISTING SERVICES. ANY DISCREPANCIES TO BE REPORTED TO VANGUARD.
- CONTRACTOR MUST MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.
- ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL, REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
- PROVIDE 10mm WIDE ISOLATION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- ASPHALTIC CONCRETE SHALL CONFORM TO THE CURRENT TFNSW SPECIFICATION TS 03283.1 (R116) HEAVY DUTY DENSE GRADED ASPHALT
- 10. ALL BASECOURSE AND SUB-BASE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH THE CURRENT TFNSW SPECIFICATION TS 03315.1 (3051) GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289
- FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF SUB-BASE COURSE MATERIAL PLACED UNLESS OTHERWISED APPROVED BY VANGUARD.
- AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL (IN NOTE 10) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH THE CURRENT TFNSW SPECIFICATION TS 03315.1 (3051) GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF VANGUARD.
- 12. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THE CONTRACTOR IS TO SEEK ACCEPTANCE OF THE PRODUCT FROM VANGUARD. THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 13. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (EG. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.
- 14. ALL WORKS CARRIED OUT ADJACENT TO AND WITHIN SERVICE EASEMENTS ARE TO COMPLY WITH THE RELEVANT SERVICE AUTHORITIES GUIDELINES AND REQUIREMENTS.

EXISTING UNDERGROUND SERVICES **NOTES**

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. AT & L CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.

CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.



BEFORE YOU DIG AUSTRALIA SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE

STORMWATER DRAINAGE NOTES

GENERAL NOTES

- 1. STORMWATER DESIGN CRITERIA:
- ANNUAL EXCEEDANCE PROBABILITY: MINOR STORM: 5% AEP MAJOR STORM: 1% AEP
- PIPES LESS THAN 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT
- WELDED JOINTS. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED
- FITTINGS WHERE PIPES ARE LESS THAN DN300. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT AS 3500 3.1 AND AS/NZS
- 3500 3.2. 5. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND

DOWNPIPES ARE uPVC PRESSURE PIPE. GRADE 6 FOR A MIN OF 3.0m IN

- HEIGHT. ALL DRAINAGE LINES TO PROVIDE A 3.0M LENGTH OF DN100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, ON THE UPSTREAM SIDE OF EACH PIT. ALLOW FOR SECONDARY SUBSOIL FOR PIPES FOR PIPE
- GRATER THAN DN825. SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK SHALL BE PROVIDED BENEATH ALL KERBLINES WHERE NO DRAINAGE LINES ARE
- SHOWN ON THE DRAWINGS AND SHALL DISCHARGE INTO DOWNSTREAM PITS. 8. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR
- PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPES ARE TO BE USED. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL FROM VANGUARD.
- 10. GRATES AND COVERS SHALL CONFORM TO THE CURRENT AS 3996. CLASS D COVER (MINIMUM) SHALL BE PROVIDED IN TRAFFICKED PAVEMENTS WITH CLASS B (MINIMUM) BEING PROVIDED IN NON-TRAFFICKED AREAS.
- 11. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, THE CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY PROCEDURES TO PREVENT THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- 12. ALL PITS AND PIPES TO BE FOUNDED ON SUITABLE MATERIAL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPa UP TO 3.0m DEPTH TO INVERT AND 150KPa FROM 3.0m TO 6.0m DEPTH TO INVERT ONCE EXCAVATED. A CONCRETE BLINDING LAYER (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED) MAY BE PROVIDED. CONTRACTOR TO ENGAGE
- GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION. 13. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
- 14. ALL STORMWATER PITS ARE TO BE CAST IN-SITU IN ACCORDANCE WITH THE STORMWATER DETAILS AND SPECIFICATIONS.
- 15. ALL PITS MUST BE BENCHED AND STREAMLINED TO DIRECT WATER FROM THE INLET PIPE TO THE OUTLET PIPE.
- 16. PITS DEEPER THAN 600mm MUST BE FITTED WITH DOUBLE STEP-IRONS IN ACCORDANCE WITH THE CURRENT AS1657. PLASTIC ENCAPSULATED MAY BE USED. STEP-IRONS TO BE PROVIDED ON A SINGLE FACE WHERE POSSIBLE. SHOULD STEP-IRONS REQUIRE TO CHANGE FACE THEN 3
- OVERLAPPING STEP IRONS ARE TO BE LOCATED ON EACH FACE. 17. FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN 1 TEST PER 2 LAYERS PER 40 LINEAR METERS.

RIGID & SEMI-RIGID PIPE NOTES

- 18. PIPES 300 DIA. AND LARGER TO BE STEEL REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O. ALL ROAD CROSSINGS TO BE CLASS '4' U.N.O. EQUIVALENT STRENGTH FIBRE REINFORCED CONCRETE PIPES MAY BE USED SUBJECT TO APPROVAL BY VANGUARD OR THE LOCAL
- GOVERNMENT AUTHORITY. 19. REINFORCED CONCRETE PIPES TO COMPLY WITH THE CURRENT AS/NZS
- FIBRE REINFORCED CONCRETE PIPES TO COMPLY WITH THE CURRENT AS 4139. PIPES TO BE INSTALLED WITH TYPE HS3 (ROAD) AND HS2 (LOTS)
- SUPPORT IN ACCORDANCE WITH THE CURRENT AS/NZS 3725. N ALL CASES BACKFILL EMBEDMENT ZONE WITH SELECT FILL (MINIMUM CBR 15%) TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).

FLEXIBLE PIPE NOTES

20. FLEXIBLE PIPES TO COMPLY WITH THE CURRENT AS/NZS 2566.1. PIPES TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT AS/NZS 2566.2. IN ALL CASES BACKFILL EMBEDMENT ZONE WITH GRAVEL OR SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)

PRECAST CONCRETE PIT NOTES

- 21. PRECAST PIT MAY BE USED WITH THE APPROVAL OF VANGUARD THE SUPERINTENDENT AND THE LOCAL GOVERNMENT AUTHORITY AND SHALL BE INSTALLED TO THE MANUFACTURERS RECOMENDATIONS. 22. ALL PRE-CAST PITS ARE TO BE STRUCTURALLY CERTIFIED TO MEET
- RELEVANT REQUIREMENTS OF THE CURRENT AS3600 AND AS3996 (2019). 23. PRE-CAST STORMWATER PITS ARE TO BE APPROVED FOR TENSW CONSTRUCTION (R11) AND ARE TO ARE TO BE DESIGNED AND CUSTOM MADE WITH OPENINGS UP TO A MAXIMUM +50mm OD OF THE
- STORMWATER PIPES. PITS ARE ALSO TO INCLUDE PENETRATIONS FOR SUBSOIL CONNECTIONS AND DOUBLE STEP-IRONS INSTALLED FOR PITS >0.6m DEEP. DEMOLITION SAWS MAY BE USED PROVIDING A NEAT FULL DEPTH CUT IS APPLIED AND ANY ADDITIONAL PENETRATIONS REQUIRED ARE TO BE CORE DRILLED.
- 24. SHOP DRAWINGS ARE TO BE PROVIDED FOR REVIEW AND ACCEPTANCE. IT SHOULD BE NOTED THAT THE CONTRACTOR IS TO ENSURE THAT THE STRUCTURAL COMPONENTS OF THE PITS ARE NOT COMPROMISED AND ONLY THE PIPE KNOCKOUTS ARE TO BE REMOVED FOR THE PIPE PENETRATIONS.

STORMWATER DRAINAGE NOTES (CONTINUED)

- ALL PRECAST PITS TO BE FOUNDED ON CONCRETE BLINDING LAYER (100mm ON AN EARTH FOUNDATION OR 150mm ON A ROCK FORMATION) WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPa UP TO 3.0m DEPTH TO INVERT AND 150KPa FROM 3.0m TO 6.0m DEPTH TO INVERT (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED). CONTRACTOR TO ENGAGE
- GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION. ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH WITH THE INTERNAL WALL.
- ALL PIPE JOINTING, SPARGING, RENDERING, FILLING OF GAPS TO BE FILLED WITH A HIGH STRENGTH NON-SHRINK GROUT WITH A MINIMUM 40MPa COMPRESSIVE STRENGTH AT 28 DAYS. (LANKO DURABED 702 OR SINGLE UNITS PREFERRED BUT IF REQUIRED MINIMUM RISER DEPTH
- 600mm PIT INSTALLATION AND JOINTING BETWEEN UNITS SHALL BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WILL BE REPAIRED AND STRUCTURALLY CERTIFIED AT THE CONTRACTORS EXPENCE TO THE SATISFACTION OF THE VANGUARD, SUPERINTENDENT / LOCAL GOVERNMENT AUTHORITY.

SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. VANGUARD CONSULTING ENGINEERS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT VANGUARD CONSULTING ENGINEERS.

AS3500.3 MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS

		MINIMUM INTERNAL DIMENSIONS mm					
DEPTH TO OUT		RECTAN	IGULAR	CIRCULAR			
		WIDTH	LENGTH	DIAMETER			
	≤ 600	450	450	600			
> 600	≤ 900	600	600	900			
> 900	≤ 1200	600	900	1000			
> 1200		900	900	1000			

AS3500.3 MINIMUM GRADIENT OF SITE STORMWATER DRAINS **NOMINAL NOMINAL** MINIMUM GRADIENT MINIMUM GRADIENT SIZE SIZE NZ DN ΑU ΝZ 1:100 1:90 1:200 1:350 1:100 1:120 300 1:250 1:350 1:100 1:200 375 1:300 1:350

AS3500.3 **TABLE 7.1: MINIMUM PIPE COVER** (FROM FINISHED SURFACE TO TOP OF PIPE) OTHER CAST IRON. DUCTILE AUTHORIZED(*) IRON, GALVANIZED STEEL PRODUCTS LOCATION MINIMUM COVER (millimeters) NOT SUBJECT TO VEHICULAR LOADING (A) WITHOUT PAVEMENT -(i) FOR SINGLE DWELLINGS 100 (ii) FOR OTHER THAN ITEM (i) 300 (B) WITH PAVEMENT OF BRICK OR 50 (†) NIL (†) UNREINFORCED CONCRETE SUBJECT TO VEHICULAR LOADING (A) OTHER THAN ROADS -(i) WITHOUT PAVEMENT 300 450 (ii) WITH PAVEMENT OF -(A) REINFORCED CONCRETE FOR HEAVY NIL (†‡) 100 (†‡) VEHICULAR LOADING (B) BRICK OR UNREINFORCED CONCRETE NIL (†‡) 75 (†‡) FOR LIGHT VEHICULAR LOADING (B) ROADS -(i) SEALED 500 (†‡) 300 (ii) UNSEALED 500 (†‡) SUBJECT TO CONSTRUCTION EQUIPMENT LOADING 500 (†‡) 300 OR IN EMBANKMENT CONDITIONS

INCLUDE OVERLAY ABOVE THE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK.

BELOW THE UNDERSIDE OF THE PAVEMENT. SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS 2566.1, AS3725 OR AS4060.

— sw —— > —	STORMWATER LINE		
— RW —— >—	ROOF WATER LINE		
SSD	SUBSOIL DRAINAGE LINE		
— OF —— >—	OVERFLOW LINE		
— SWRM— SWRM—	STORMWATER RISING MAIN		
e	EXISTING STORMWATER LINE		
sw sw	AUTHORITY STORMWATER LINE		
HL	HIGH LEVEL STORMWATER LINE		
s	AUTHORITY SEWER LINE		
W	AUTHORITY WATER LINE		
—— G—— G——	AUTHORITY GAS LINE		
— — Е—	AUTHORITY ELECTRICITY LINE		
— FO— FO— FO—	AUTHORITY FIBRE OPTIC LINE		
TEL	AUTHORITY COMMS LINE		
OH(E)	AUTHORITY OVERHEAD ELECTRICAL LINE		
	FENCE LINE		
	GRATED SURFACE INLET PIT		
	GRATED SURFACE INLET PIT WITH OCEANGUARD BASKET		
	JUNCTION PIT		
	KERB INLET PIT		
	GRATED TRENCH DRAIN		
eTEL	EXISTING TELSTRA PIT		
H eHYD	EXISTING HYDRANT		
⊠ eSV	EXISTING STOP VALVE		
□ eGAS	EXISTING GAS VALVE		
O ePP	EXISTING POWER POLE		
eBT	EXISTING BOUNDARY TRAP		
eSMH	EXISTING SEWER MANHOLE		
OFP	OVERLAND FLOW PATH		

DOWNPIPE

LEGEND

DP

<u>LEGEND</u>				
CO Ø	CLEAR OUT POINT			
DDO Ø	DISH DRAIN OUTLET			
PD ∅	PLANTER DRAIN			
ב	CAPPING			
FF ⊘	FIRST FLUSH			
RH ☑	RAINHEAD			
•	DOWNPIPE DROP			
X	NON RETURN VALVE			
)-(WALL PENETRATION			
♣ SP	DOWNPIPE SPREADER			
	WARNING LIGHT			
80.00	SPOT LEVELS			
Δ	BENCHMARK			

Ø or DIA CBR CH CL CO DD DDO DEJ DGB DGS	DOWELLED EXPANSION JOINT DENSE GRADED BASECOURS
DP	DOWNPIPE
e FFL	EXISTING FINISHED FLOOR LEVEL
GTD	
GSIP	
IJ IK	ISOLATING JOINT INTEGRAL KERB
iL iL	INVERT LEVEL
	INTERSECTION POINT
KIP	KERB INLET PIT KERB ONLY
KO K&G	
KR	KERB RETURN
NGL	NATURAL GROUND LEVEL
OFP	
OSD R	ON-SITE DETENTION RADIUS
RCP	
RK	
RL	REDUCED LEVEL
RW	RETAINING WALL
RWT SJ	RAINWATER TANK SAWN CONTROL JOINT
SMH	
SWRM	
TOK	TOP OF KERB

TOP OF WALL

TYPICAL

BENCH MARK

TWL

TP

UNO

WPJ

FF

TYP

TOP WATER LEVEL

UNLESS NOTED OTHERWISE

WEAKENED PLANE JOINT

FIRST FLUSH DEVICE

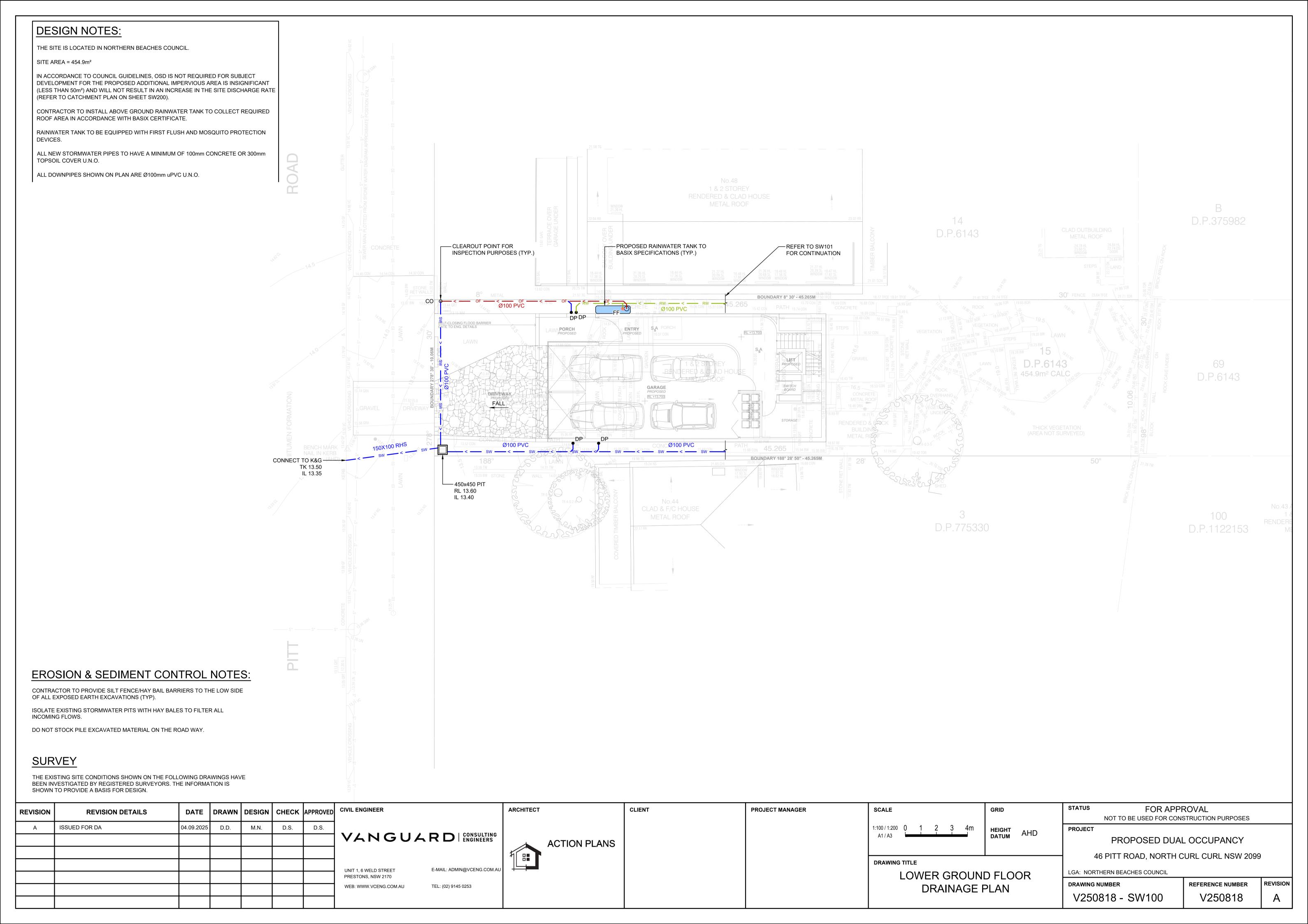
TANGENT POINT

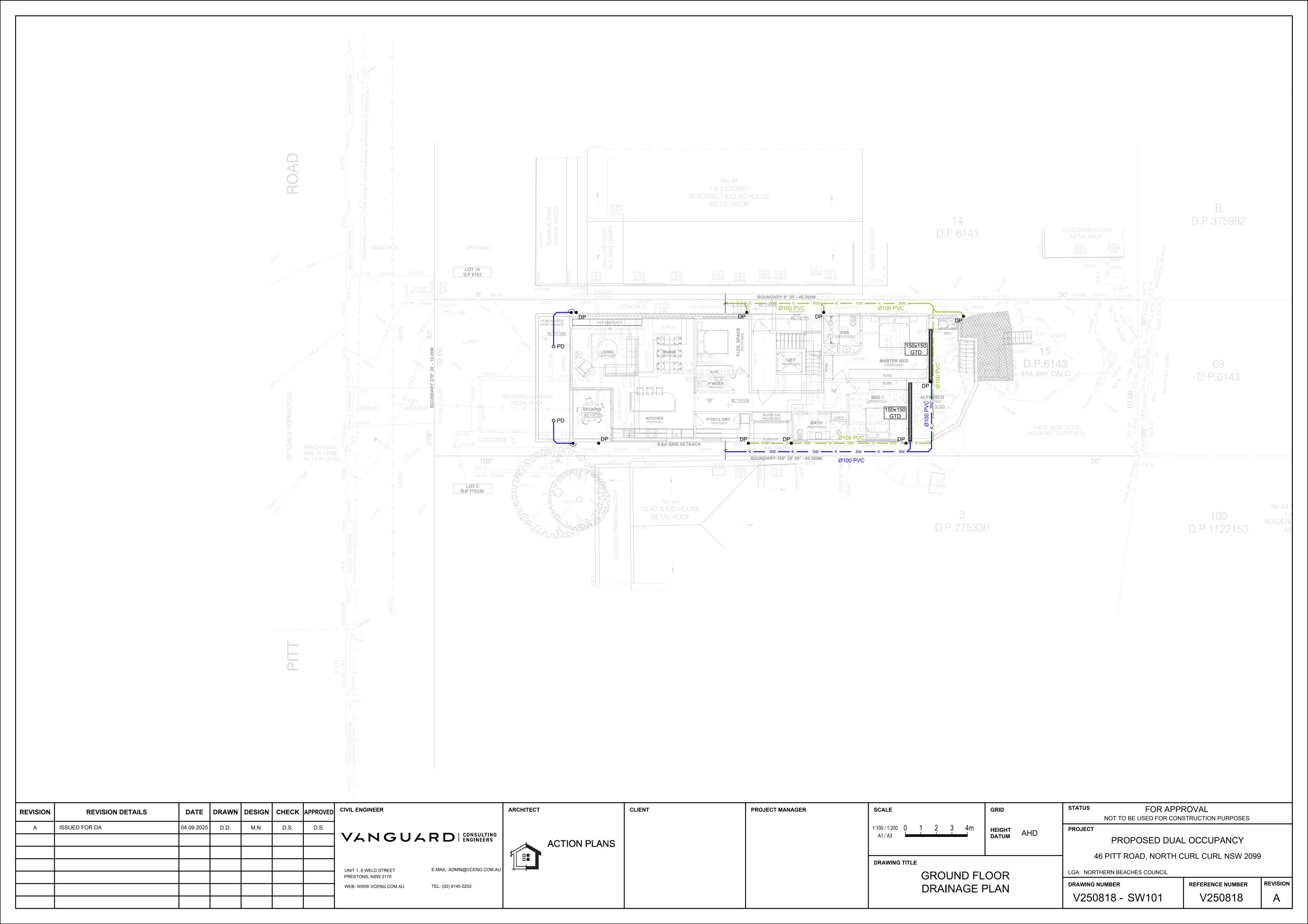
ABBREVIATIONS:

LEGEND:

	PROPOSED	EXISTING	FUTURE	TEMPORARY
STORMWATER PIPELINE		000000	000000	
STORMWATER DRAINAGEG PITS				
CONCRETE HEADWALL				
DRAINAGE LABEL	(A.05)	(A.05)	(A.05)	(A.05)
CATCH DRAIN	→→	$\rightarrow \rightarrow \rightarrow -$	$\rightarrow \rightarrow \rightarrow -$	$\rightarrow \rightarrow \rightarrow -$

REVISION	REVISION DETAILS	DATE	DRAWN	DESIG	GN CHECK	APPROVED	CIVIL ENGINEER	ARCHITECT	CLIENT	PROJECT MANAGER	SCALE	GRID		PPROVAL ONSTRUCTION PURPOSES	3
A IS	SSUED FOR DA	04.09.2025	D.D.	M.N.	. D.S.	D.S.						HEIGHT AHD	PROJECT		
							VANGUARD CONSULTING ENGINEERS	ACTION PLANS				DATUM ATTO	PROPOSED DU	JAL OCCUPANCY	
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											DRAWING TITLE		40111111011 <u>D</u> , NORT	TOOKE OOKE NOW 200	000
							UNIT 1, 6 WELD STREET E-MAIL: ADMIN@VCENG.COM.AU PRESTONS, NSW 2170	1					LGA: NORTHERN BEACHES COUNCIL		
		+	1		_		WEB: WWW.VCENG.COM.AU TEL: (02) 9145 0253				GENERAL NO	DTES	DRAWING NUMBER	REFERENCE NUMBER	REVISION
							, ,						V250818 - SW001	V250818	





			BOUNDARY 8° 30' - 45.265M				
BOUNDARY 278° 30° - 10.06M	PLAN BB	FLEX. SPACE PROPOSED P'WDER PROPOSED P'TRY/L'DRY PROPOSED PTRY/L'DRY PROPOSED	DIP	MASTER BED PROPOSED TERRACE PROPOSED RL +19.515	LOT 15 D.P 6143 A. 454.9M ²		
LOT 3 D.P 775330			BOUNDARY 188° 28' 50" - 45.265M				
CIVIL ENGINEER VANGUARD CONSULTING ENGINEERS	ACTION PLANS	CLIENT	PROJECT MANAGER	SCALE 1:100 / 1:200	GRID HEIGHT AHD	STATUS FOR APP NOT TO BE USED FOR COM PROJECT PROPOSED DUA	L OCCUPANCY
UNIT 1, 6 WELD STREET E-MAIL: ADMIN@VCENG.COM.AU PRESTONS, NSW 2170 WEB: WWW.VCENG.COM.AU TEL: (02) 9145 0253				DRAWING TITLE FIRST FLC		46 PITT ROAD, NORTH (LGA: NORTHERN BEACHES COUNCIL DRAWING NUMBER	CURL CURL NSW 2099 REFERENCE NUMBER REV

REVISION

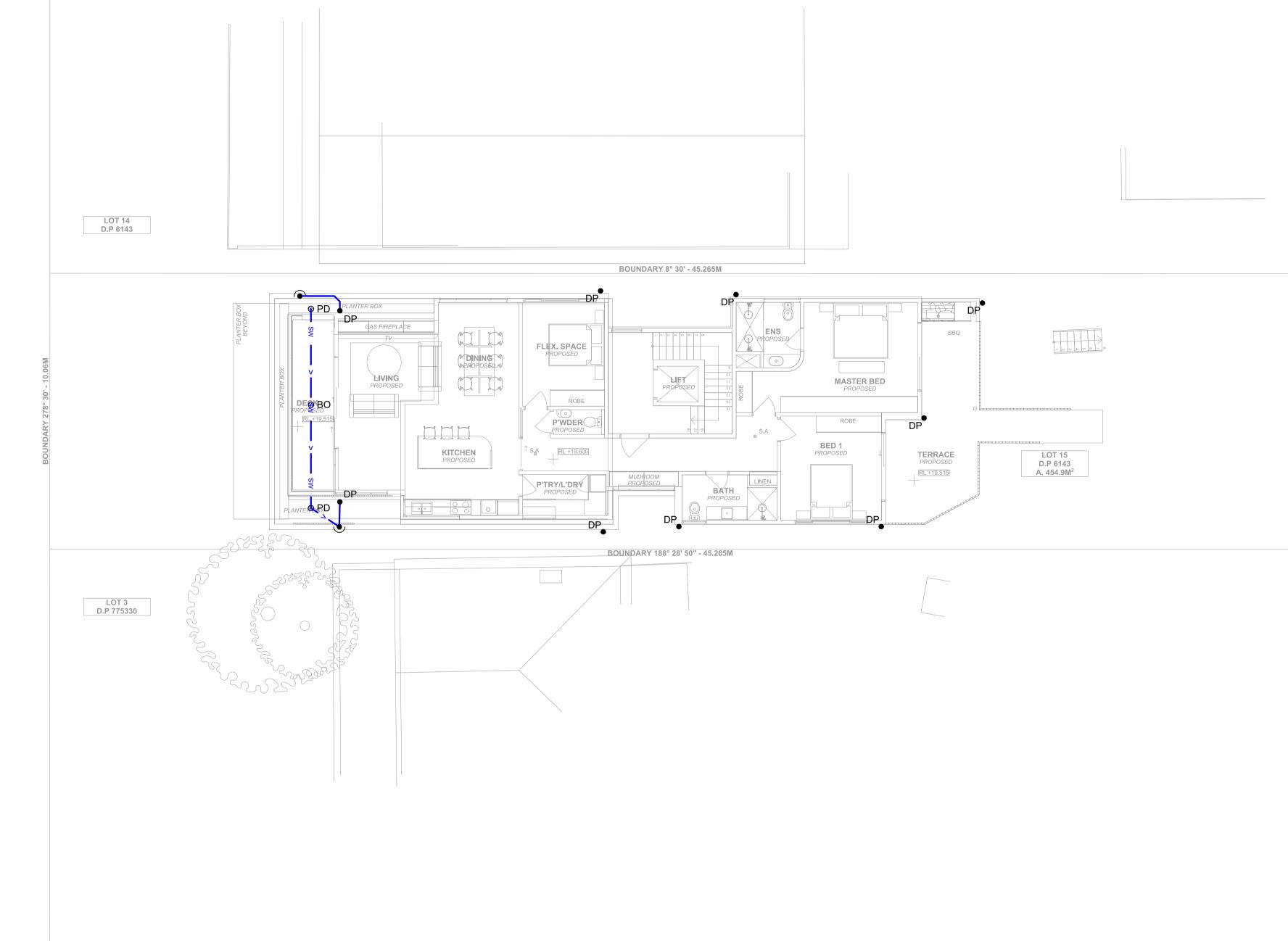
REFERENCE NUMBER

V250818

DRAWING NUMBER

V250818 - SW102

DRAINAGE PLAN



DATE DRAWN DESIGN CHECK APPROVED CIVIL ENGINEER

M.N.

D.S.

WEB: WWW.VCENG.COM.AU

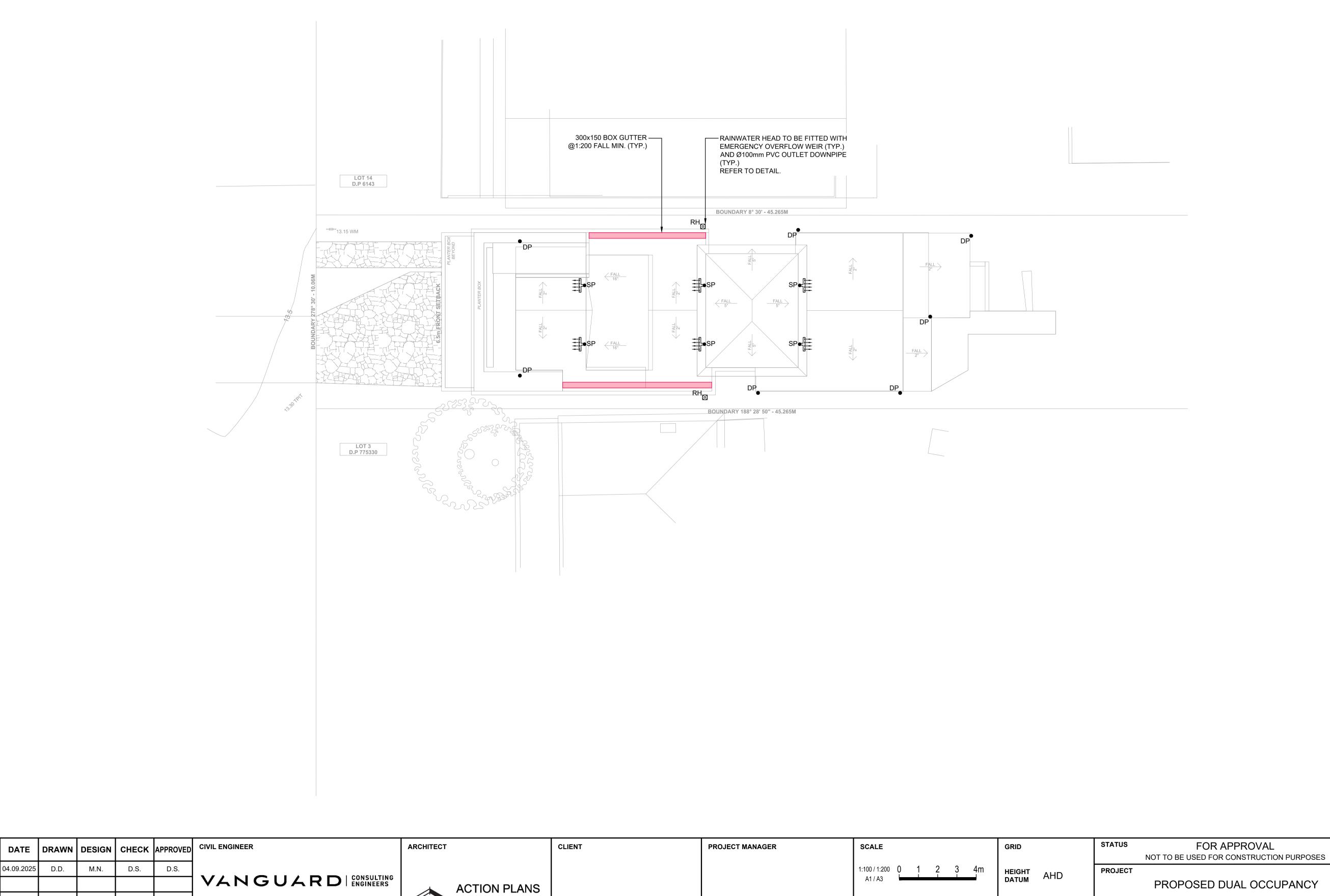
TEL: (02) 9145 0253

04.09.2025 D.D.

REVISION DETAILS

ISSUED FOR DA

REVISION



DRAWING TITLE

ROOF

DRAINAGE PLAN

46 PITT ROAD, NORTH CURL CURL NSW 2099

REFERENCE NUMBER

V250818

REVISION

LGA: NORTHERN BEACHES COUNCIL

V250818 - SW103

DRAWING NUMBER

REVISION DETAILS

ISSUED FOR DA

04.09.2025 D.D.

M.N.

E-MAIL: ADMIN@VCENG.COM.AU

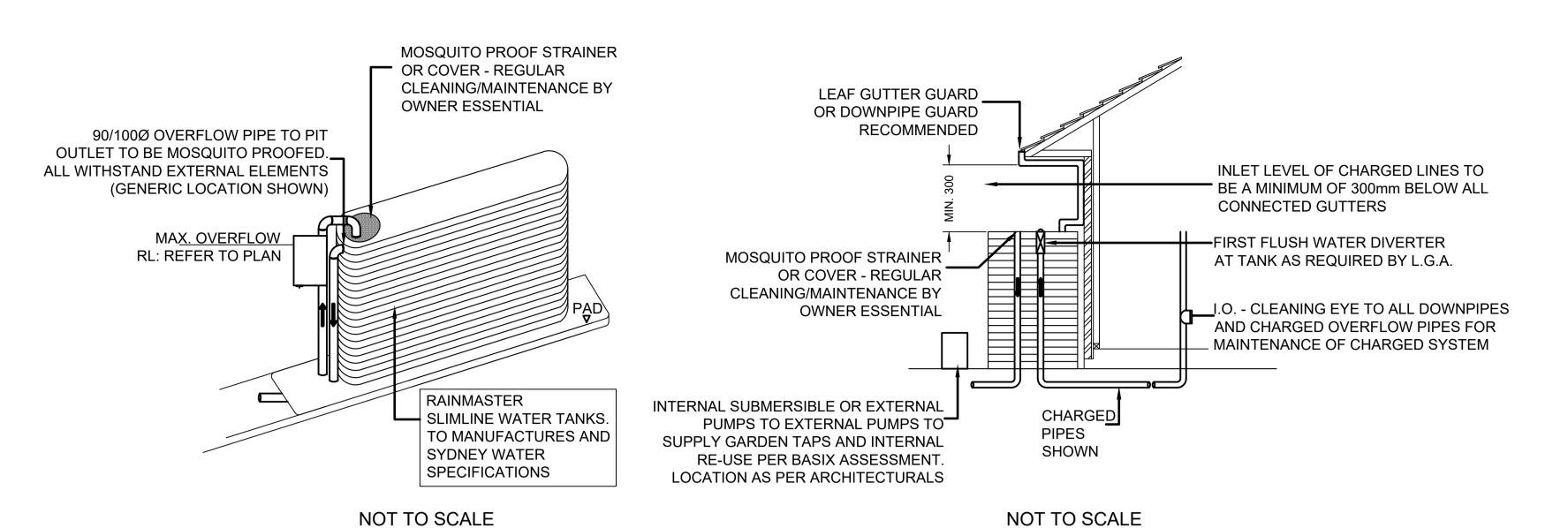
TEL: (02) 9145 0253

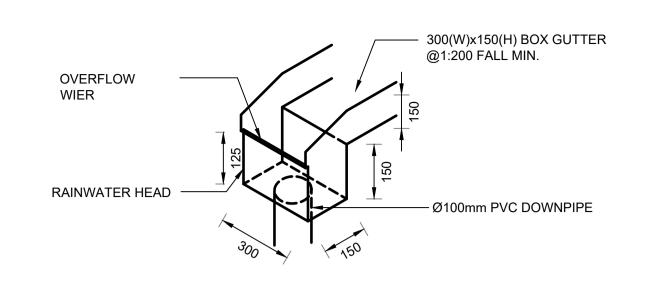
UNIT 1, 6 WELD STREET

WEB: WWW.VCENG.COM.AU

PRESTONS, NSW 2170

REVISION

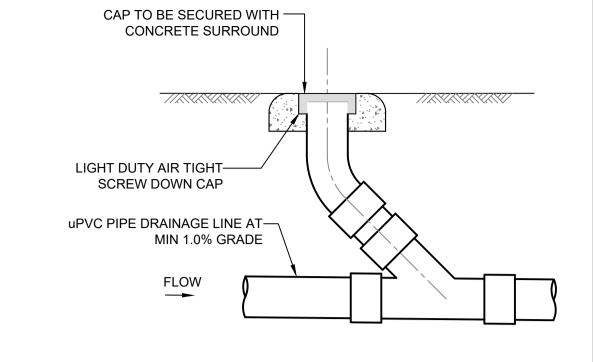




DETAIL

SCALE NTS

TYPICAL RAINWATER HEAD SECTION



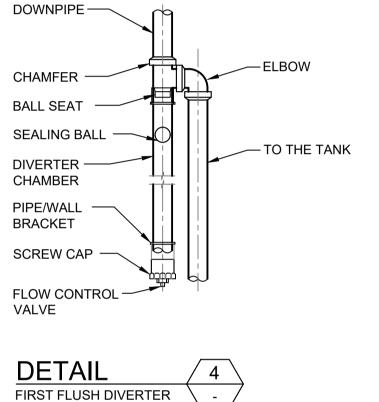
DETAIL 2 CLEANING EYE SCALE 1:20

RAINWATER RECYCLING TANKS

- TANK SHAPE AND DEVICES ARE DIGRAMATIC ONLY
- ANY MODIFICATIONS TO TANK VOLUME, INLET, OUTLET, OR OTHER DETAILS MUST BE APPROVED BY ENGINEER
- STORMWATER LINES FROM DOWNPIPES FROM ROOF AREAS ONLY TO RAINWATER TANKS
- TANK TO COMPLY WITH AS1546.1, AND INSTALLED IN ACCORDANCE WITH MANUFACTURES INSTALLATION
- FIRST FLUSH WATER DIVERTER TO COMPLY WITH SYDNEY WATER & COUNCIL DCP'S. AN APPROVED SWITCH
- SYSTEM SIMILAR TO "RAINBANK' TO BE USED VIA MAINS. PUMPS TO MANUFACTURES SPECIFICATIONS • ALL JOINTS TO BE SOLVANT WELDED
- ALL EXPOSED PIPEWORK TO BE PAINTED TO WITHSTAND EXTERNAL ELEMENTS
- CLIENT TO BE RESPONSIBLE FOR MAINTENANCE SYSTEM OF CHARGED PIPELINES
- STRUCTURAL DETAILS FOR TANKS BASE BY QUALIFIED STRUCTURAL ENGINEER, AS REQUIRED BY MANUFACTURER

ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS



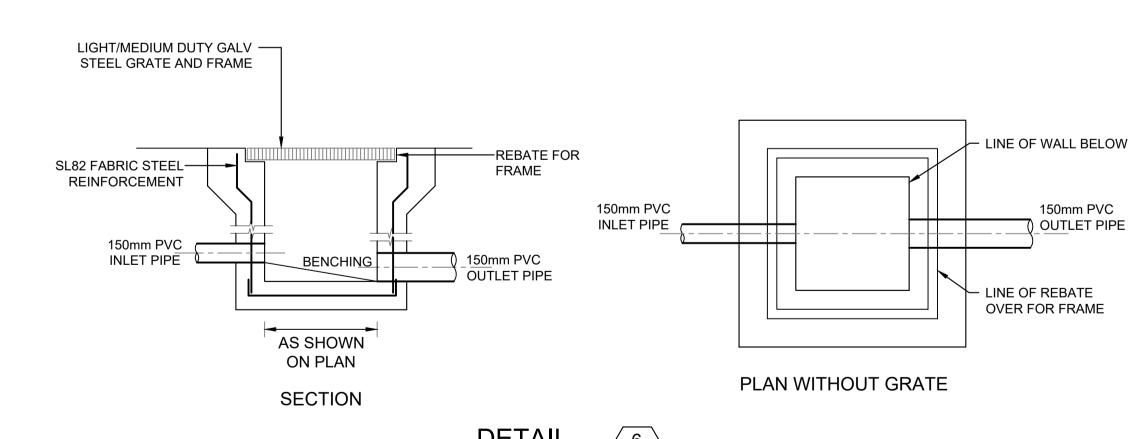




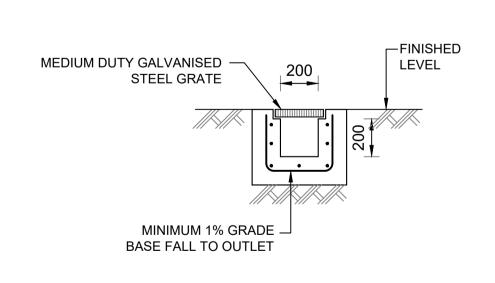
LEGEND: BACKGROUND IS YELLOW TEXT IS WHITE ON BLACK

RAINWATER

BACKGROUND



STORMWATER PIT

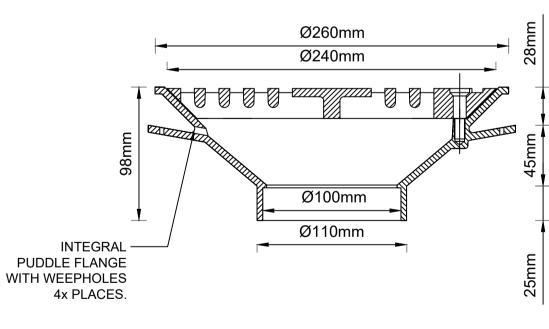


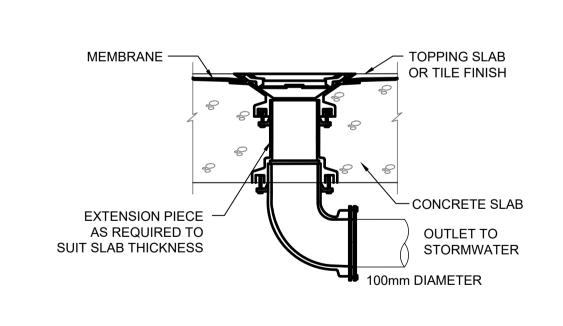
DETAIL

SCALE 1:20

CLIENT

GRATED DRAIN





DETAIL TYPE SPS RAINWATER OUTLET NOT TO SCALE

REVISION	REVISION DETAILS	DATE	DRAWN	DESIGN	CHECK	APPROVED
А	ISSUED FOR DA	04.09.2025	D.D.	M.N.	D.S.	D.S.

D	CIVIL ENGINEER	
	VANGU	ARD CONSULTING ENGINEERS
	UNIT 1, 6 WELD STREET PRESTONS, NSW 2170	E-MAIL: ADMIN@VCENG.COM.A
	WEB: WWW.VCENG.COM.AU	TEL: (02) 9145 0253

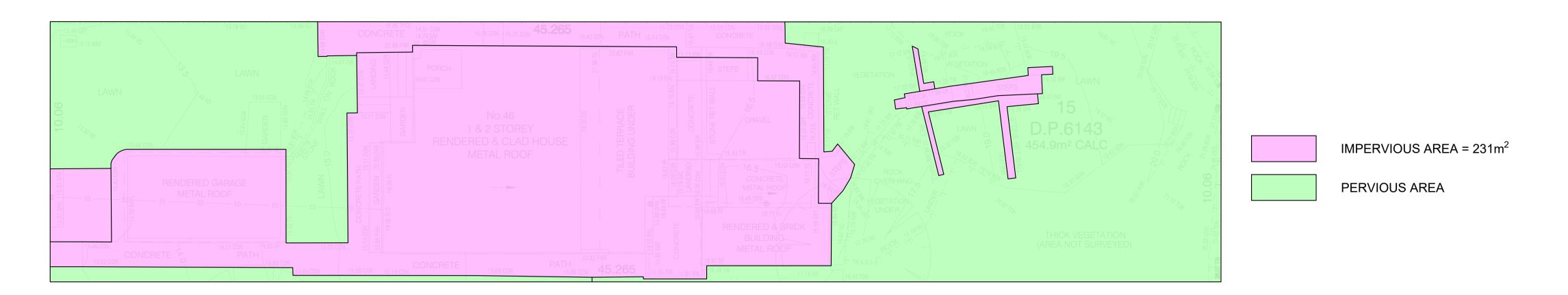


ARCHITECT

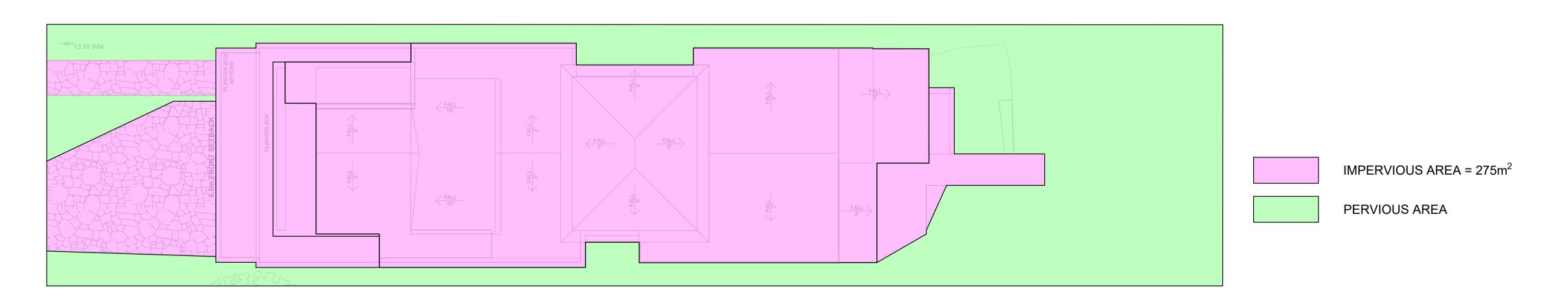
PROJECT MANAGER	SCALE	GRID	STATU
	AS SHOWN	HEIGHT AHD	PROJE
	DRAWING TITLE		
			LGA: I
	STORMWATER DETA	ILS - SHEET 1	DRAW
			V2

STATUS FOR APPROVAL												
NOT TO BE USED FOR CONSTRUCTION PURPOSES												
PROJECT												
PROPOSED DUAL OCCUPANCY												
46 PITT ROAD, NORTH CURL CURL NSW 2099												
LGA: NORTHERN BEACHES COUNCIL												

WING NUMBER REFERENCE NUMBER REVISION /250818 - SW200 V250818

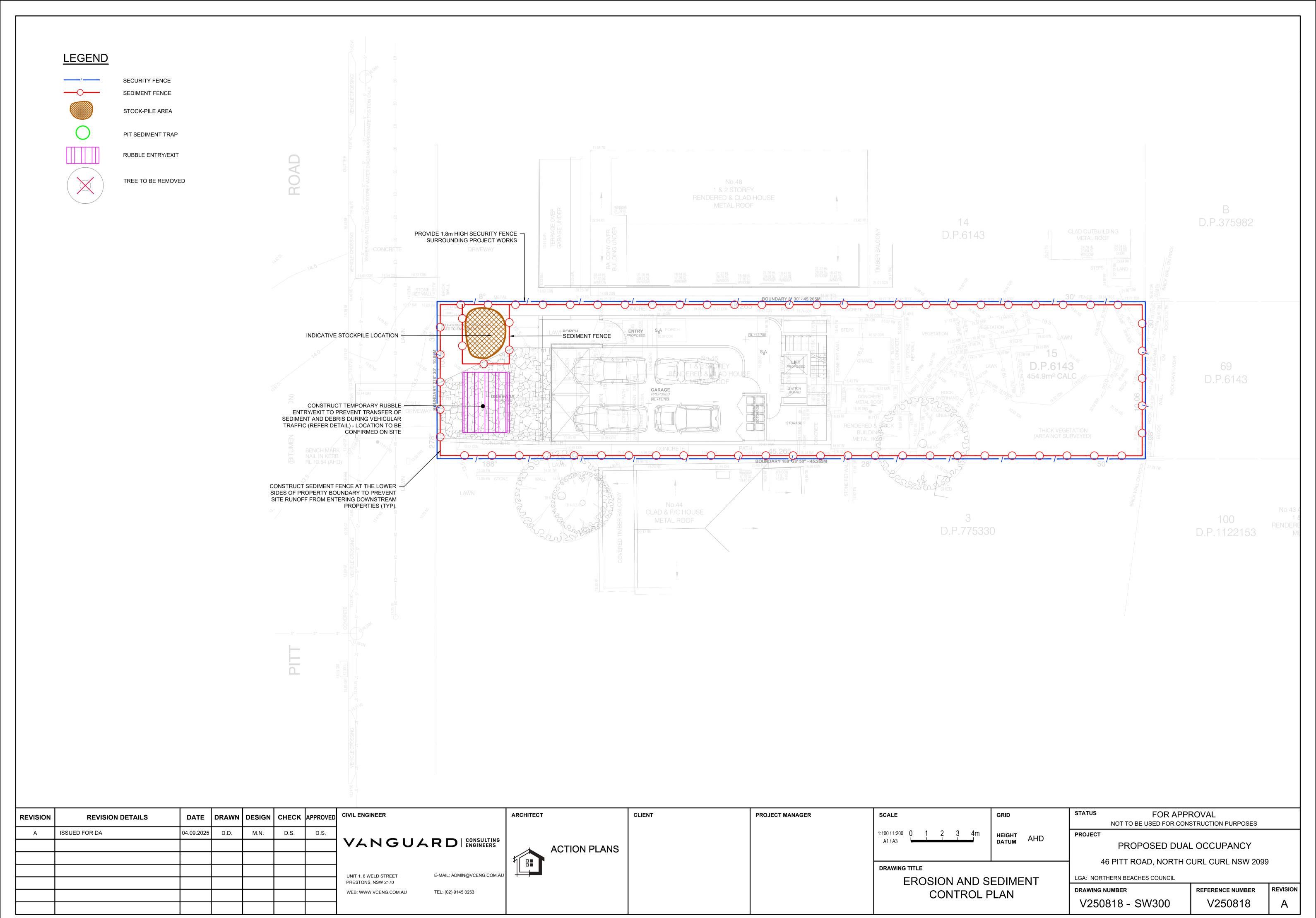


PRE-DEVELOPMENT CATCHMENT PLAN
SCALE 1:100



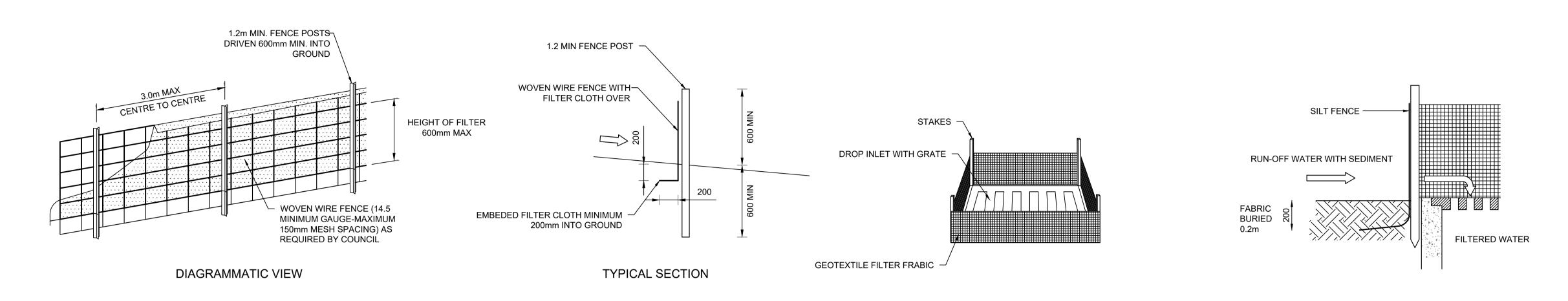
POST-DEVELOPMENT CATCHMENT PLAN
SCALE 1:100

REVISION	REVISION DETAILS	DATE	DRAWN	DESIGN	CHECK	APPROVED	CIVIL ENGINEER	ARCHITECT	CLIENT	PROJECT MANAGER	SCALE	GRID		PPROVAL ONSTRUCTION PURPOSES	
А	ISSUED FOR DA	04.09.202	5 D.D.	M.N.	D.S.	D.S.			1			DATUM AHD	PROJECT		
							VANGUARD CONSULTING ENGINEERS	ACTION PLANS					PROPOSED DUAL OCCUPANCY		
							E MAIL ADMINIONOFNO CON						46 PITT ROAD, NORTH CURL CURL NSW 2099		
							UNIT 1, 6 WELD STREET E-MAIL: ADMIN@VCENG.COM.AU PRESTONS, NSW 2170				PRE & POST DEVELOPMENT CATCHMENT PLAN		LGA: NORTHERN BEACHES COUNCIL		
		+		+	+	+	WEB: WWW.VCENG.COM.AU TEL: (02) 9145 0253						DRAWING NUMBER	REFERENCE NUMBER	REVISION
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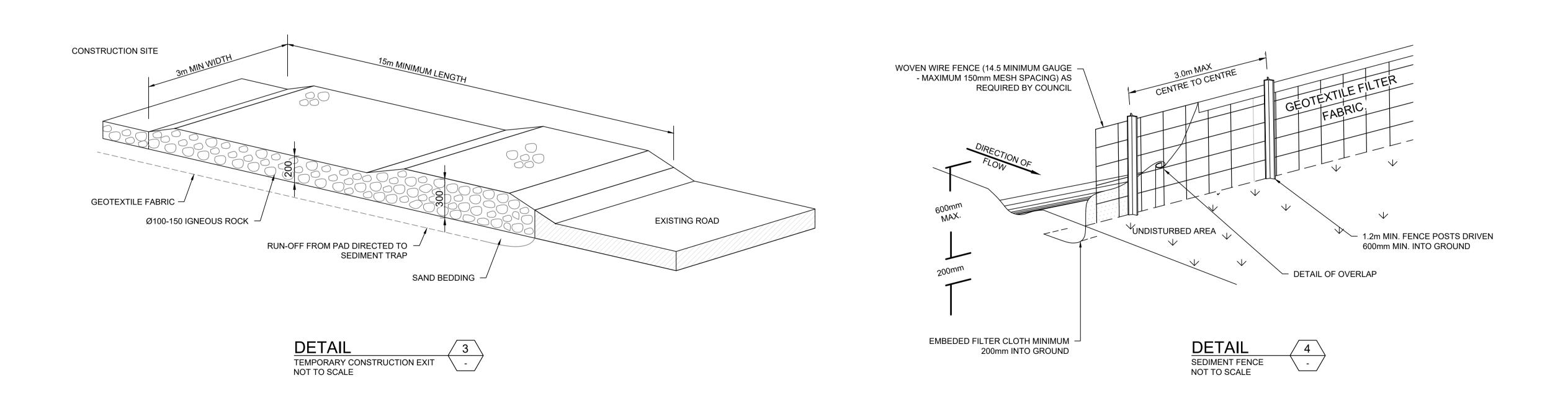
EROSION & SEDIMENT CONTROL NOTES:

- 1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO THE DEVELOPMENT AT THE SUBJECT SITE.
- 2. THE CONTRACTOR MUST ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.
- 3. ALL BUILDERS AND SUB-CONTRACTORS SHALL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMIZING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWN SLOPE LANDS AND WATERWAYS.
- 4. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- 5. FINAL SITE LANDSCAPING SHALL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- 6. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE BY FILTERING THROUGH AN APPROVED STRUCTURE.
- 7. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING HAVE BEEN REHABILITATED.
- 8. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER RAINFALL EVENTS TO ENSURE THEY HAVE OPERATED EFFECTIVELY AND REMAIN IN WORKING CONDITION.
- 9. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITHIN ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
- 10. PROVIDE SILT FENCE/HAY BALE BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).
- 11. ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.
- 12. DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.



DETAIL

SUMP SEDIMENT TRAP DETAIL NOT TO SCALE



REVISION	REVISION DETAILS	DATE	DRAWN	DESIGN	CHECK	APPROVED	CIVIL ENGINEER		ARCHITECT	CLIENT	PROJECT MANAGER	SCALE	GRID		APPROVAL R CONSTRUCTION PURPOSES	
Α	ISSUED FOR DA	04.09.2025	D.D.	M.N.	D.S.	D.S.						AS SHOWN	HEIGHT AHD	PROPOSED DUAL OCCUPANCY		
							VANGUARD	RD CONSULTING	ACTION PLANS			AS SHOWN				
								<i>!</i>						46 PITT ROAD, NORTH CURL CURL NSW 2099		
							UNIT 1, 6 WELD STREET E-MAIL: ADMIN@VCENG.COM.AU PRESTONS, NSW 2170 WEB: WWW.VCENG.COM.AU TEL: (02) 9145 0253				DRAWING TITLE					
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											CONTROL DE		DRAWING NUMBER	REFERENCE NUMBER	REVISION	
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DETAIL

SEDIMENT FENCE DETAIL NOT TO SCALE