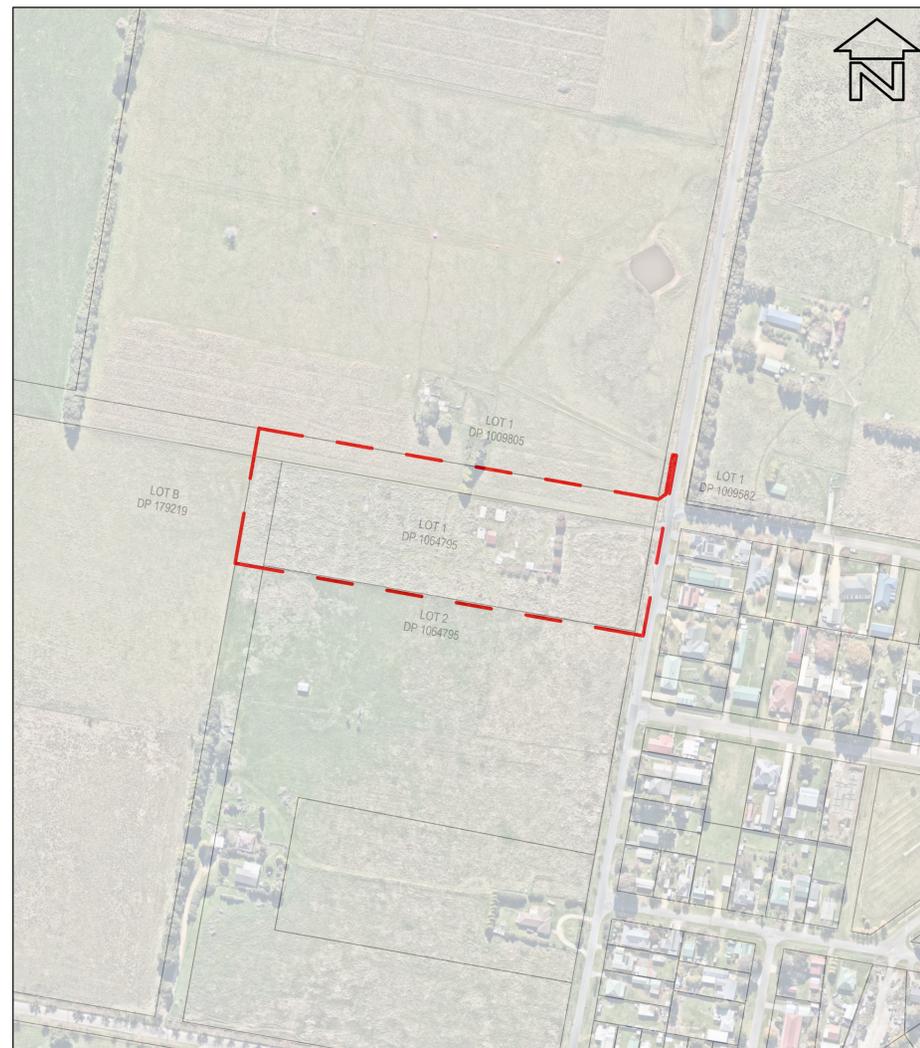


39 REDGROUND RD, CROOKWELL, NSW - LOT 1 D.P 1064795

21 LOT RESIDENTIAL SUBDIVISION

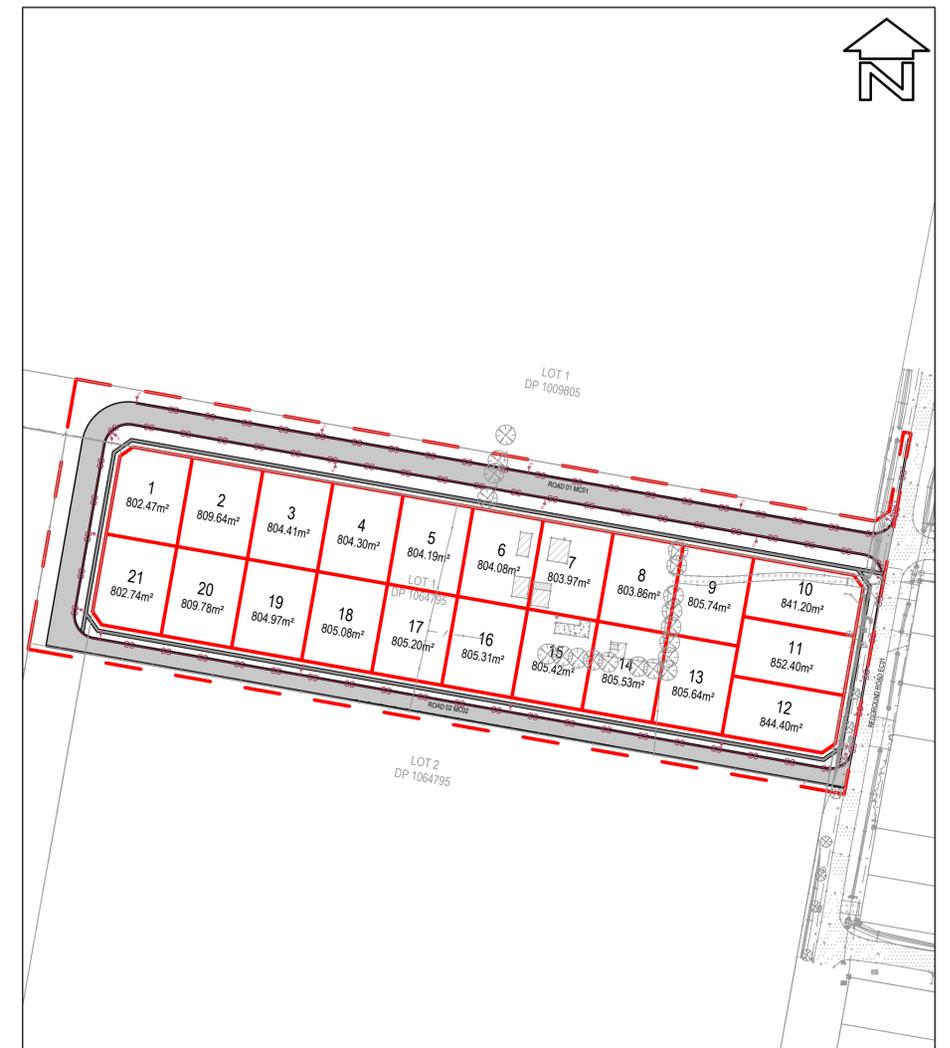
CIVIL ENGINEERING CONCEPT DESIGN & FLOOD IMPACT ASSESSMENT

UPPER LACHLAN SHIRE COUNCIL PLANNING PROPOSAL APPLICATION



SITE LOCALITY PLAN
1:2500 @ A1

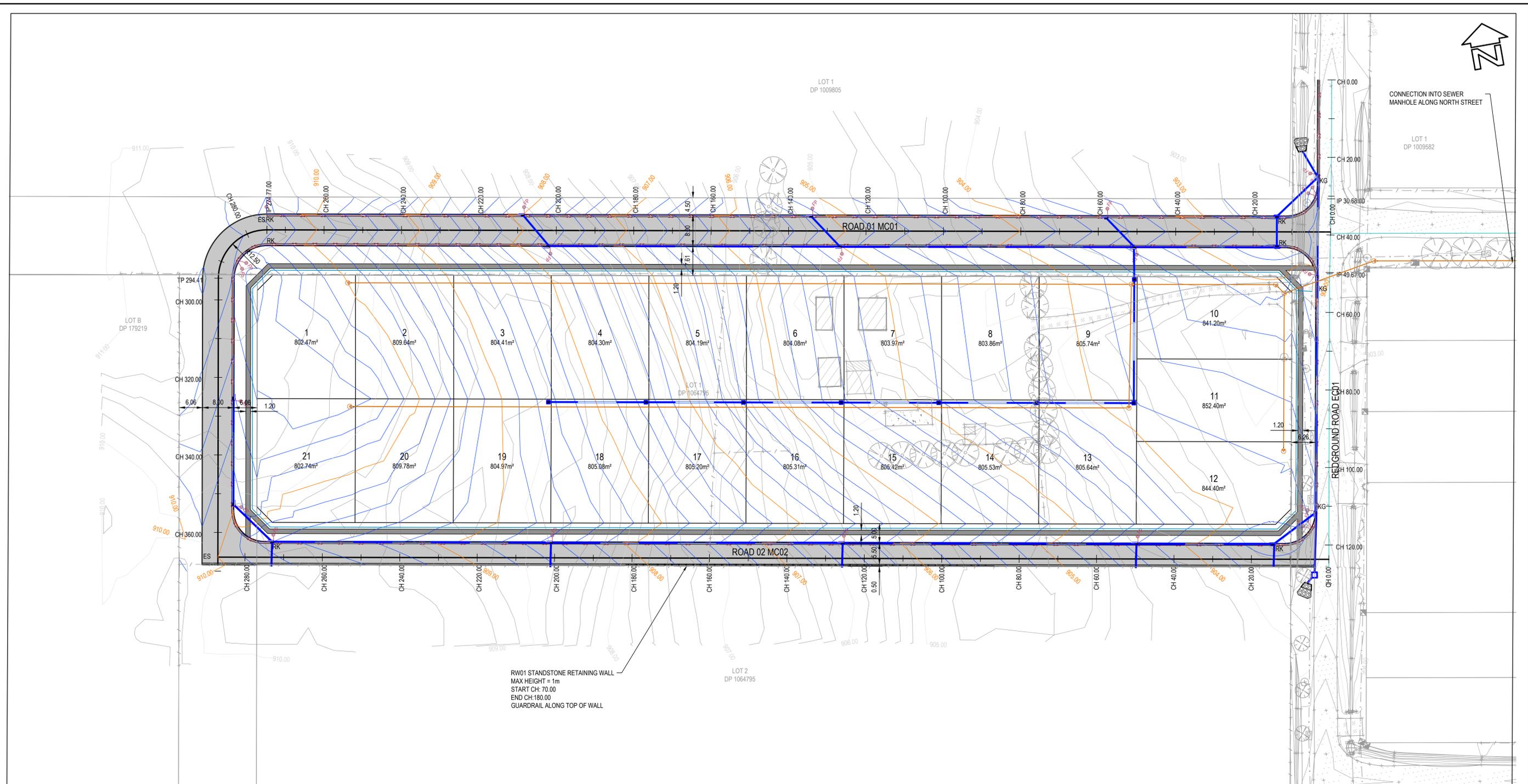
DRAWING SCHEDULE INDEX		
SHEET	TITLE	REV
23017-401	COVER AND INDEX	P0
23017-402	GENERAL ARRANGEMENT PLAN	P0
23017-403	EXISTING AND SITE PREPARATION PLAN	P0
23017-404	SOIL AND WATER MANAGEMENT PLAN	P0
23017-405	SOIL AND WATER MANAGEMENT DETAILS	P0
23017-406	BULK EARTHWORKS PLAN	P0
23017-407	ROAD 01 MC01 LONGITUDINAL AND TYPICAL SECTIONS	P0
23017-408	ROAD 01 MC02 LONGITUDINAL AND TYPICAL SECTION	P0
23017-409	DRAINAGE LAYOUT PLAN	P0
23017-410	STORMWATER QUANTITY MODELLING PLAN	P0
23017-411	CATCHMENT ANALYSIS PLAN	P0
23017-412	DRAINS MODELLING AND RESULTS	P0
23017-413	PRE DEVELOPMENT & POST DEVELOPMENT 10% & 1% AEP RESULTS - DEPTHS	P0
23017-414	PRE DEVELOPMENT & POST DEVELOPMENT PMF RESULTS - DEPTHS	P0
23017-415	PRE DEVELOPMENT & POST DEVELOPMENT 10% & 1% AEP RESULTS - WSE	P0
23017-416	PRE DEVELOPMENT & POST DEVELOPMENT PMF RESULTS - WSE	P0
23017-417	PRE DEVELOPMENT & POST DEVELOPMENT 10% & 1% AEP RESULTS - VxD	P0
23017-418	PRE DEVELOPMENT & POST DEVELOPMENT PMF - VxD	P0
23017-419	PRE & POST DEVELOPMENT 10%, 1% AEP & PMF - WAY DRY NOW WET	P0



GENERAL OVERVIEW
1:1250 @ A1



SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
	DESIGN	JE	P0	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024		
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER		REV
	CHECKED	RB						DRAWING: COVER AND INDEX	23017-401		P0
	APPROVED	JW									



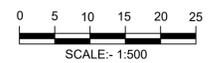
GENERAL ARRANGMENT

1:500 @ A1

SHEET LEGEND

DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL
BARRIER KERB 'KG'		KERB / PEDESTRIAN RAMP		SUB-SOIL AND FLUSH POINTS		STORMWATER LOCATION (EXISTING)	
ROLL KERB 'RK'		NOMINAL CONTROL LINE		KERB ADAPTOR / OUTLET		SEWER LOCATION (EXISTING)	
EDGE STRIP 'ES'		ROAD PAVEMENT		LIMIT OF WORKS		WATER LOCATION (EXISTING)	
KERB ONLY 'KO'		PATH PAVING (CONCRETE)		BOUNDARIES		TELSTRA LOCATION (EXISTING)	
MOUNTABLE SF TYPE KERB 'SF'		CONTOURS (MAJOR)		TREE AND LANDSCAPING		FIBRE OPTICS LOCATION (EXISTING)	
DISH DRAIN 'DD'		CONTOURS (MINOR)		DRAINAGE PIT - 1.8m PIT WITH LINTEL		ELECTRICAL LOCATION (EXISTING)	
VEHICULAR CROSSING		RETAINING WALL STRUCTURES		DRAINAGE PIT - 2.4m SAG WITH LINTEL		GAS LOCATION (EXISTING)	

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.



SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION
LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795
LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: GENERAL ARRANGMENT

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
RELEASE DATE: 6 FEBRUARY 2024
JOB-DRAWING NUMBER: 23017-402
REV: PO



EXISTING AND SITE PREPARATION

1:500 @ A1

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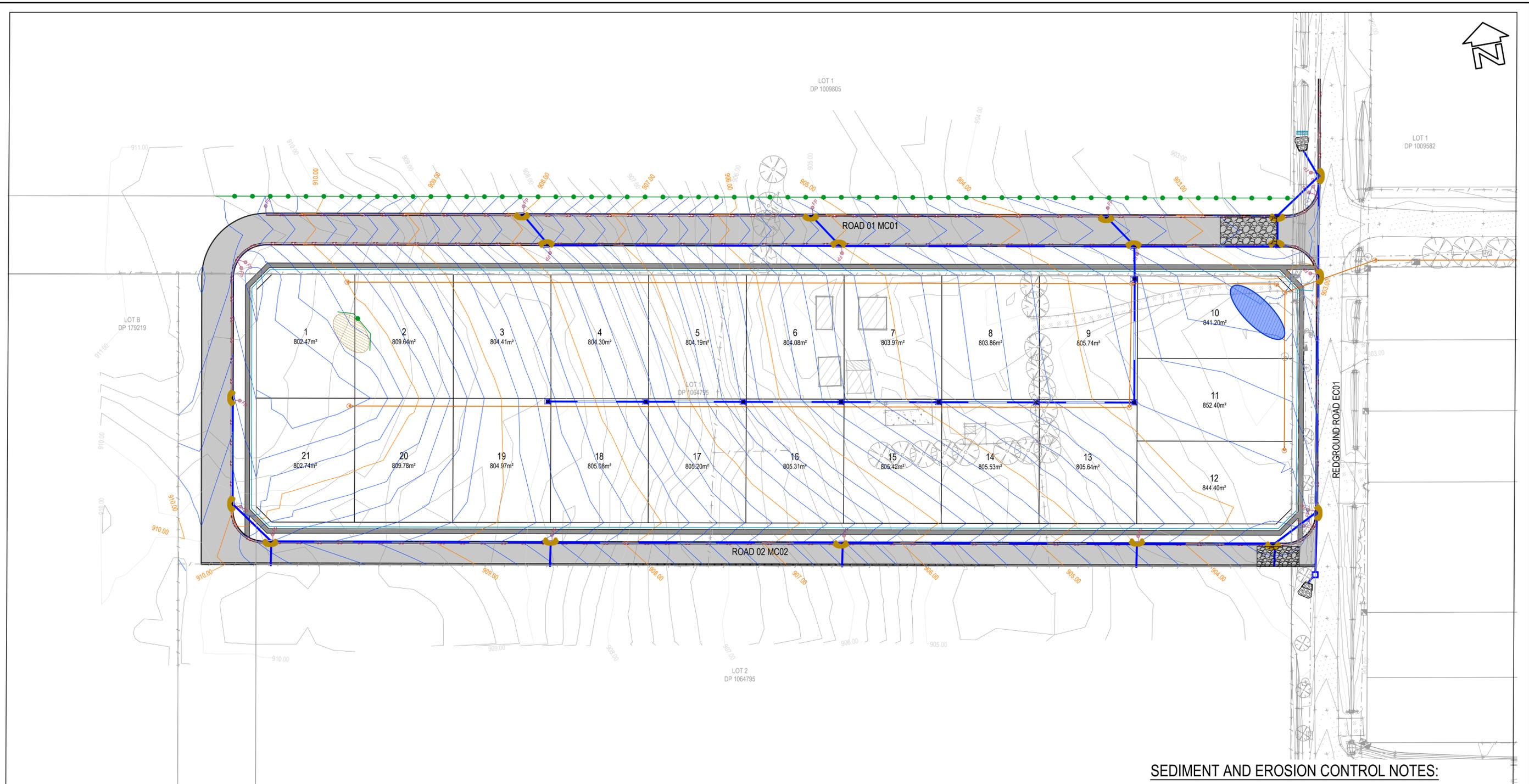
SHEET LEGEND	
DESCRIPTION	DETAIL
TREE TO BE REMOVED	
DEMOLITION WORKS	
TREE TO BE RETAIN	

DEMOLITION AND SUBSEQUENT LAND REMEDIATION (IF REQUIRED) TO BE UNDERTAKEN IN ACCORDANCE WITH THE DA CONSENT, AUSTRALIAN STANDARDS, SAFEWORK NSW CODES OF PRACTICE AND EPA GUIDELINES

ALL CLEARING IS TO BE CONDUCTED AS APPROVED BY COUNCIL AND UNDER SUPERVISION OF AN ECOLOGIST IN ACCORDANCE WITH THE ECOLOGICAL MANAGEMENT PLAN (EMP).



SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES RELEASE DATE: 6 FEBRUARY 2024		
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER	REV
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	23017-403		
	CHECKED	RB						DRAWING: EXISTING AND SITE PREPARATION			
APPROVED	JW								PO		



SOIL AND WATER MANAGEMENT PLAN

1:500 @ A1

SEDIMENT AND EROSION CONTROL NOTES:

- ALL EROSION AND SEDIMENTATION CONTROLS, TREATMENT AND TESTING ARE TO BE IN ACCORDANCE WITH THE LANDCOM MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION VOLUME 1 (4TH EDITION 2004) KNOWN AS THE "BLUE BOOK".
- ANY ALTERATIONS AND/OR REMOVAL OF CONTROLS ARE TO BE REVIEWED AND APPROVED BY THE SUPERINTENDENT PRIOR TO ANY CHANGE, INCLUDING AT THE PROJECTS CONCLUSION.
- DISTURBANCE IS TO BE KEPT TO A MINIMUM.
- STOCKPILES ARE TO BE STABILISED WITHIN 10 DAYS.
- AFTER EACH RAIN EVENT ALL EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSPECTED, CLEARED OF SILT AND REINSTATED INTO WORKING ORDER.
- EROSION AND SEDIMENTATION CONTROLS ARE TO BE MAINTAINED ON A REGULAR BASIS AND ARE TO REMAIN IN WORKING ORDER FOR THE LIFE OF THE PROJECT.
- DISTURBED AREAS THAT ARE NOT UNDERGOING WORKS ARE TO BE STABILISED WITHIN 10 DAYS, FINISHED WORKS WITHIN 20 DAYS.
- DISTURBED AREAS THAT ARE NOT UNDERGOING BUILDING WORK OR SOFT LANDSCAPING ARE TO BE STABILISED WITH A MINIMUM OF 100MM TOPSOIL AND SEEDED WITH AN APPROPRIATE MIX FOR THE AREA AND CLIMATE.
- DUST CONTROLS (STABILISATION, WATERCART, SPRINKLERS ETC) ARE TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT, IN PARTICULAR DURING DRY AND WINDY PERIODS.



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SHEET LEGEND							
DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL
MAJOR DESIGN CONTOURS		GRAVEL INLET FILTER		HAYBALE FILTER		TOPSOIL STOCKPILES WITH DOWNSTREAM SILT FENCING	
MINOR DESIGN CONTOURS		STABILISED ACCESS / GRID & WHEEL WASH		GEOTEXTILE COVER		TEMPORARY SEDIMENT BASIN	
SILT FENCE							
CLEAN WATER DIVERSION							

SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

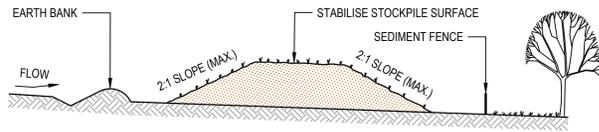
SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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DEVELOPMENT & INFRASTRUCTURE CONSULTING
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JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION
LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795
LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: SOIL AND WATER MANAGEMENT PLAN

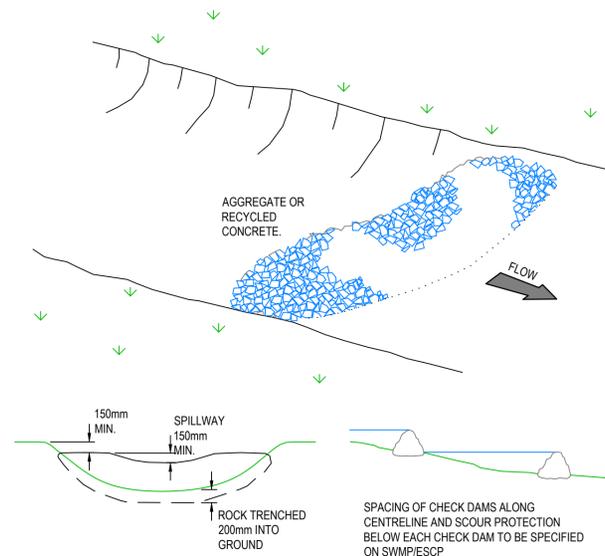
PRELIMINARY	
NOT TO BE USED FOR CONSTRUCTION PURPOSES	
RELEASE DATE: 6 FEBRUARY 2024	
JOB-DRAWING NUMBER	REV
23017-404	PO



CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

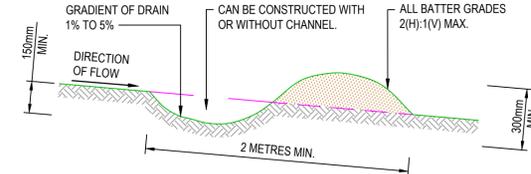
STOCKPILES (SD 4-1)



CONSTRUCTION NOTES

1. CHECK DAMS CAN BE BUILT WITH VARIOUS MATERIALS, INCLUDING ROCKS, LOGS, SANDBAGS AND STRAW BALES. THE MAINTENANCE PROGRAM SHOULD ENSURE THEIR INTEGRITY IS RETAINED, ESPECIALLY WHERE CONSTRUCTED WITH STRAW BALES. IN THE CASE OF BALES, THIS MIGHT REQUIRE THEIR REPLACEMENT EACH TWO TO FOUR MONTHS.
2. TRENCH THE CHECK DAM 200mm INTO THE GROUND ACROSS ITS WHOLE WIDTH. WHERE ROCK IS USED, FILL THE TRENCHES TO AT LEAST 100mm ABOVE THE GROUND SURFACE TO REDUCE THE RISK OF UNDERCUTTING.
3. NORMALLY, THEIR MAXIMUM HEIGHT SHOULD NOT EXCEED 600mm ABOVE THE GULLY FLOOR. THE CENTRE SHOULD ACT AS A SPILLWAY, BEING AT LEAST 150mm LOWER THAN THE OUTER EDGES.
4. SPACE THE DAMS SO THE TOE OF THE UPSTREAM DAM IS LEVEL WITH THE SPILLWAY OF THE NEXT DOWNSTREAM DAM.

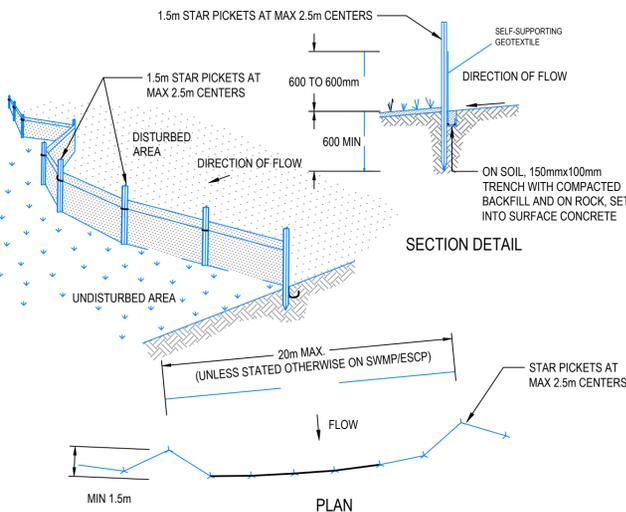
ROCK CHECK DAM (SD 5-4)



CONSTRUCTION NOTES

1. BUILD WITH GRADIENTS BETWEEN 1 AND 5 PERCENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

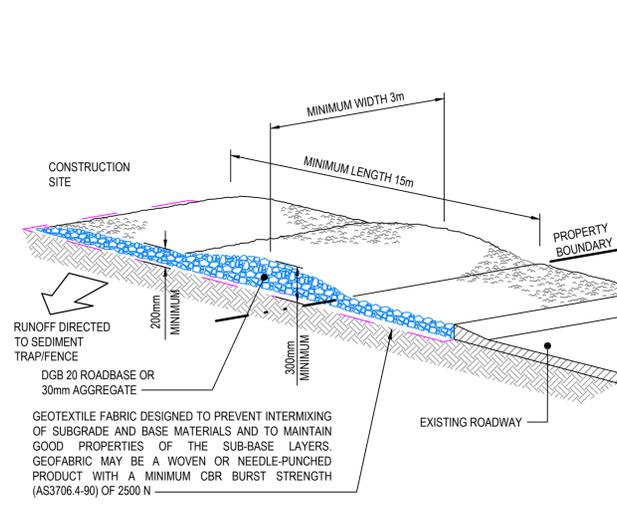
EARTH BANK - LOW FLOW (SD 5-5)



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)

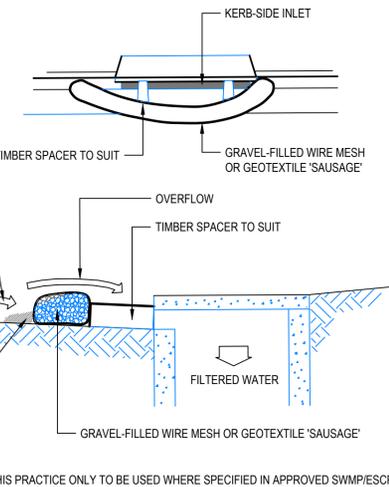


CONSTRUCTION NOTES

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS (SD 6-14)

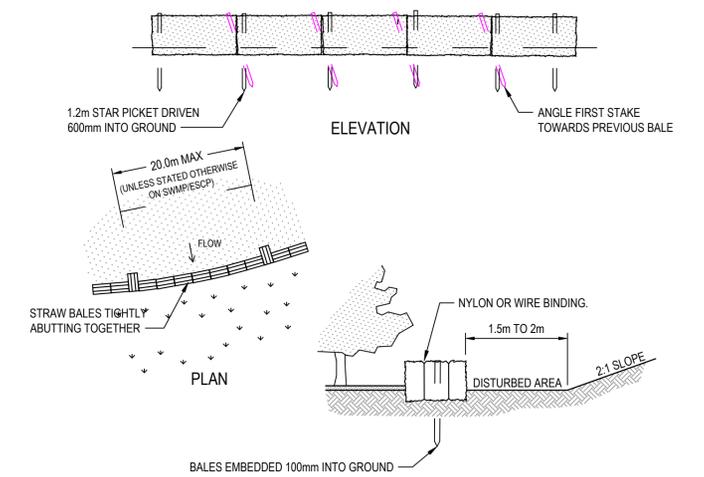
EARTH BANK - LOW FLOW (SD 5-5)



CONSTRUCTION NOTES

1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

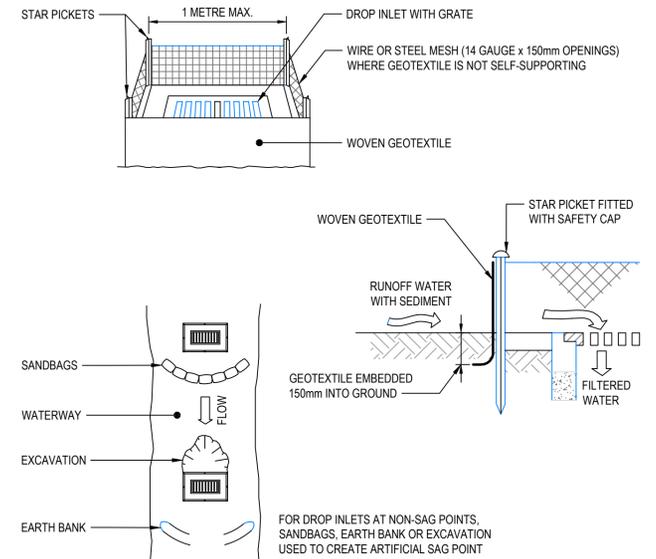
MESH AND GRAVEL INLET FILTER (SD 6-11)



CONSTRUCTION NOTES

1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

STRAW BALE FILTER (SD 6-7)

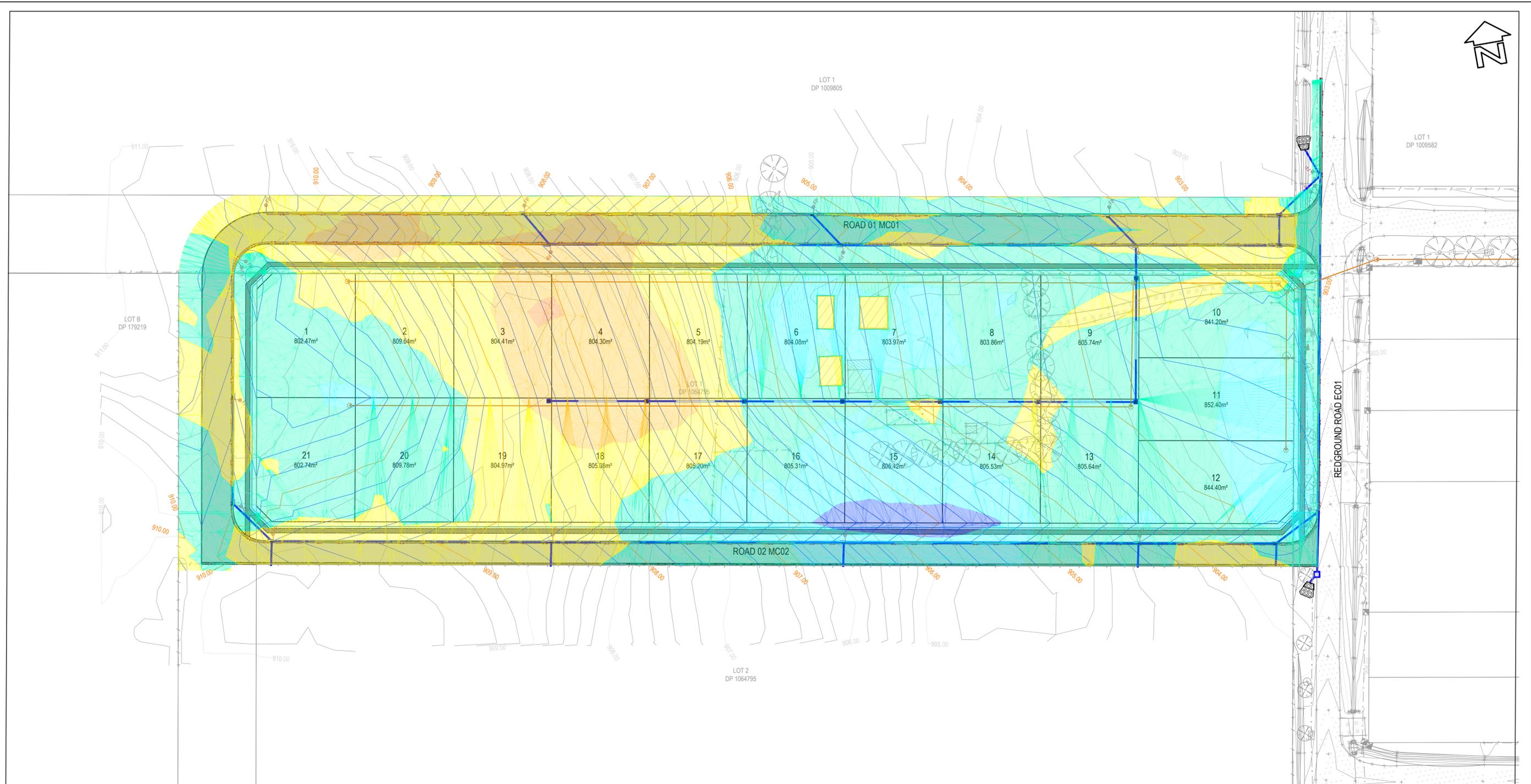


CONSTRUCTION NOTES

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)

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	DRAWN	JE							DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER	REV
	CHECKED	RB							DRAWING: SOIL AND WATER MANAGEMENT DETAILS	23017-405	PO
	APPROVED	JW									



BULK EARTHWORKS PLAN

1:500 @ A1

DEPTHS TABLE	
ELEVATION	COLOUR
3.00 to 2.50	Light Blue
2.50 to 2.00	Blue
2.00 to 1.50	Light Green
1.50 to 1.00	Green
1.00 to 0.50	Yellow-Green
0.50 to 0.00	Yellow
0.00 to -0.50	Orange
-0.50 to -1.00	Red-Orange
-1.00 to -1.50	Red
-1.50 to -2.00	Dark Red
-2.00 to -2.50	Brown
-2.50 to -3.00	Dark Brown

SHEET LEGEND							
DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL
BARRIER KERB 'KG'		KERB / PEDESTRIAN RAMP		SUB-SOIL AND FLUSH POINTS		STORMWATER LOCATION (EXISTING)	
ROLL KERB 'RK'		NOMINAL CONTROL LINE		KERB ADAPTOR / OUTLET		SEWER LOCATION (EXISTING)	
EDGE STRIP 'ES'		ROAD PAVEMENT		LIMIT OF WORKS		WATER LOCATION (EXISTING)	
KERB ONLY 'KO'		PATH PAVING (CONCRETE)		BOUNDARIES		TELSTRA LOCATION (EXISTING)	
MOUNTABLE SF TYPE KERB 'SF'		CONTOURS (MAJOR)		TREE AND LANDSCAPING		FIBRE OPTICS LOCATION (EXISTING)	
DISH DRAIN 'DD'		CONTOURS (MINOR)		DRAINAGE PIT - 1.8m PIT WITH LINTEL		ELECTRICAL LOCATION (EXISTING)	
VEHICULAR CROSSING		RETAINING WALL STRUCTURES		DRAINAGE PIT - 2.4m SAG WITH LINTEL		GAS LOCATION (EXISTING)	

VOLUME SUMMARY TABLE	
ITEM	AMOUNT
TOTAL CUT	3,363m³
TOTAL FILL	5,806m³
NET VOLUME (FILL)	2,443m³
TOTAL CUT AREA	10,827m²
TOTAL FILL AREA	17,103m²
TOTAL WORKS AREA	27,930m²



WARNING
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SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

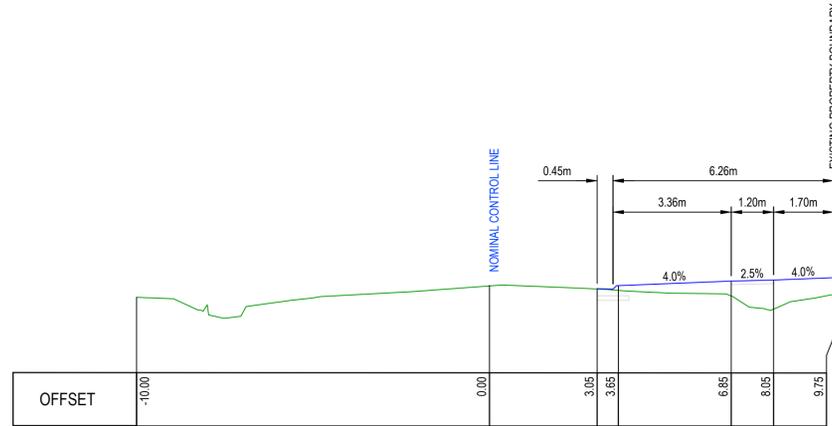
SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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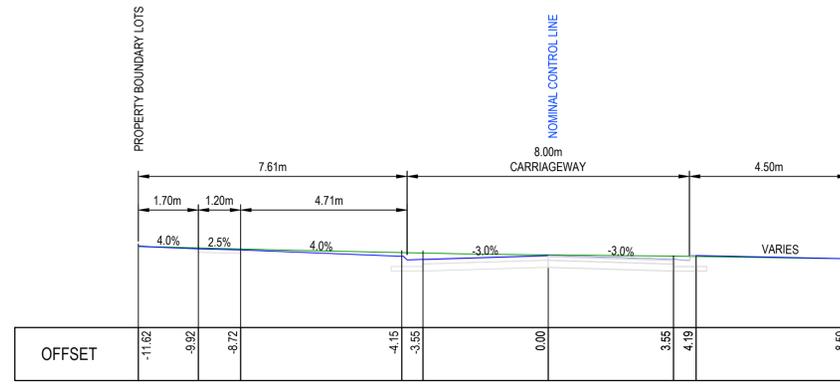
DEVELOPMENT & INFRASTRUCTURE CONSULTING
CIVPLAN PTY LTD ABN: 49 620 926 114 | CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912
SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541
SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063
T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au

JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION
LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795
LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: BULK EARTHWORKS PLAN

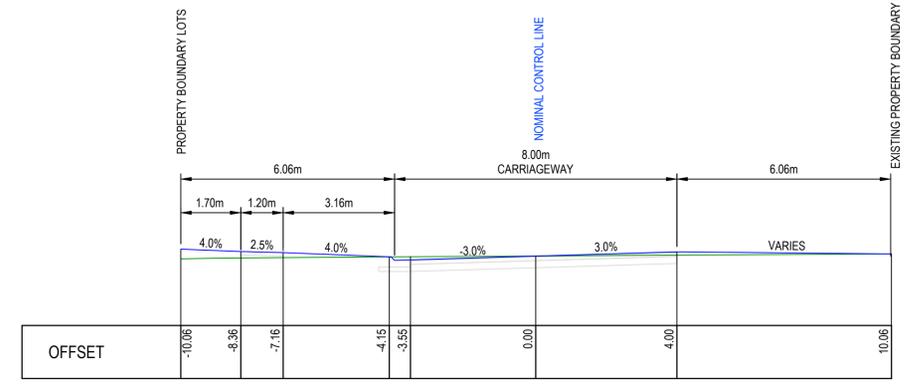
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
RELEASE DATE: 6 FEBRUARY 2024
JOB-DRAWING NUMBER: 23017-406
REV: PO



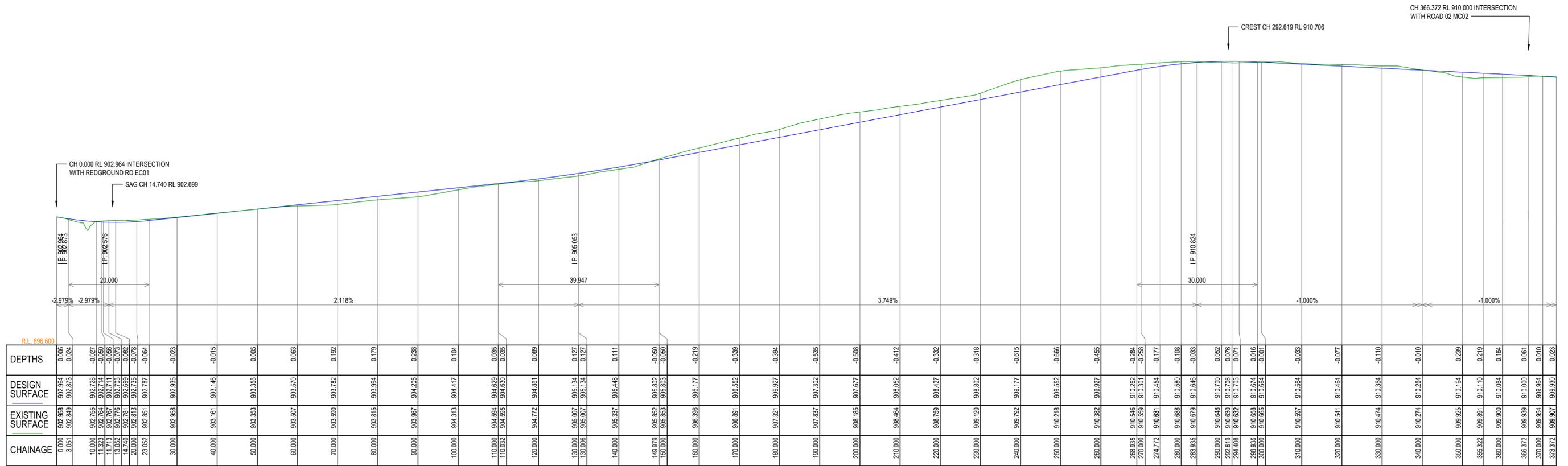
TYPICAL SECTION - REDGROUND RD EC01
CHAINAGE 0.000 TO 110.639
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



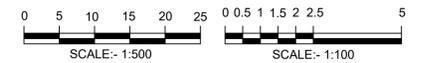
TYPICAL SECTION - ROAD 01 MC01
CHAINAGE 0.000 TO 274.772
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



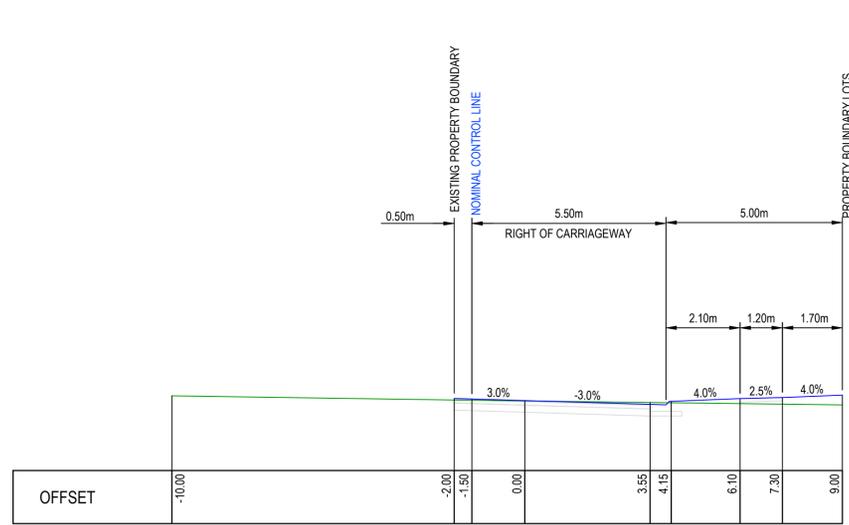
TYPICAL SECTION - ROAD 01 MC01
CHAINAGE 274.772 TO 373.372
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



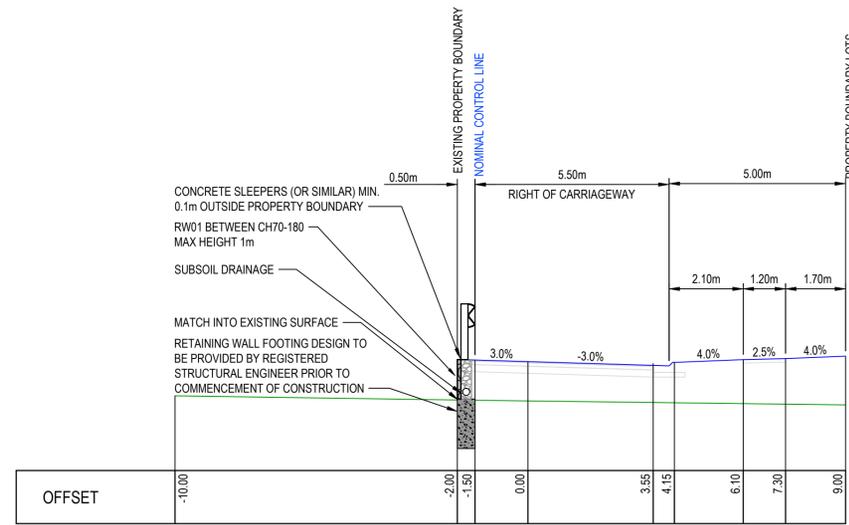
LONGITUDINAL SECTION - ROAD 01 MC01
CHAINAGE 0.000 TO 373.372
HORIZONTAL 1:500 VERTICAL 1:100 @ A1



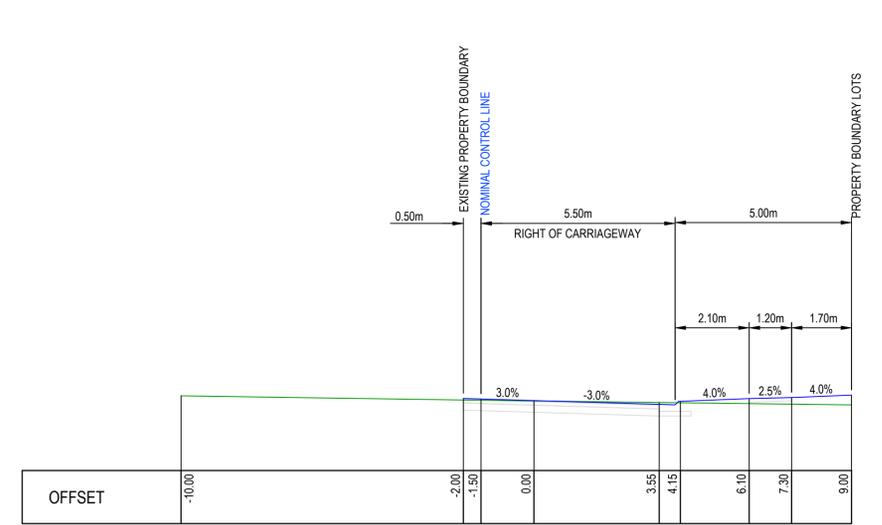
SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24				RELEASE DATE: 6 FEBRUARY 2024	
	DRAWN	JE							JOB-DRAWING NUMBER	REV
	CHECKED	RB							23017-407	PO
APPROVED	JW									



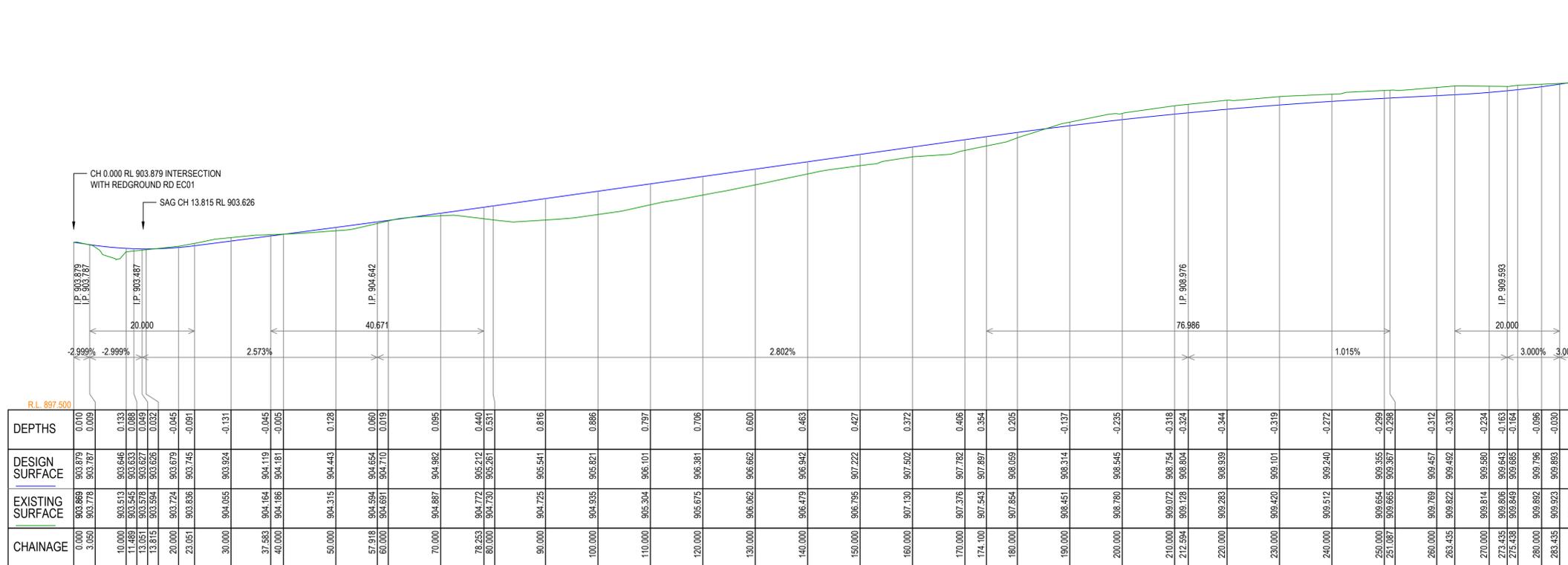
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CHAINAGE 0.000 TO 70.000
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



TYPICAL SECTION - ROAD 02 MC02
CHAINAGE 70.000 TO 180.000
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



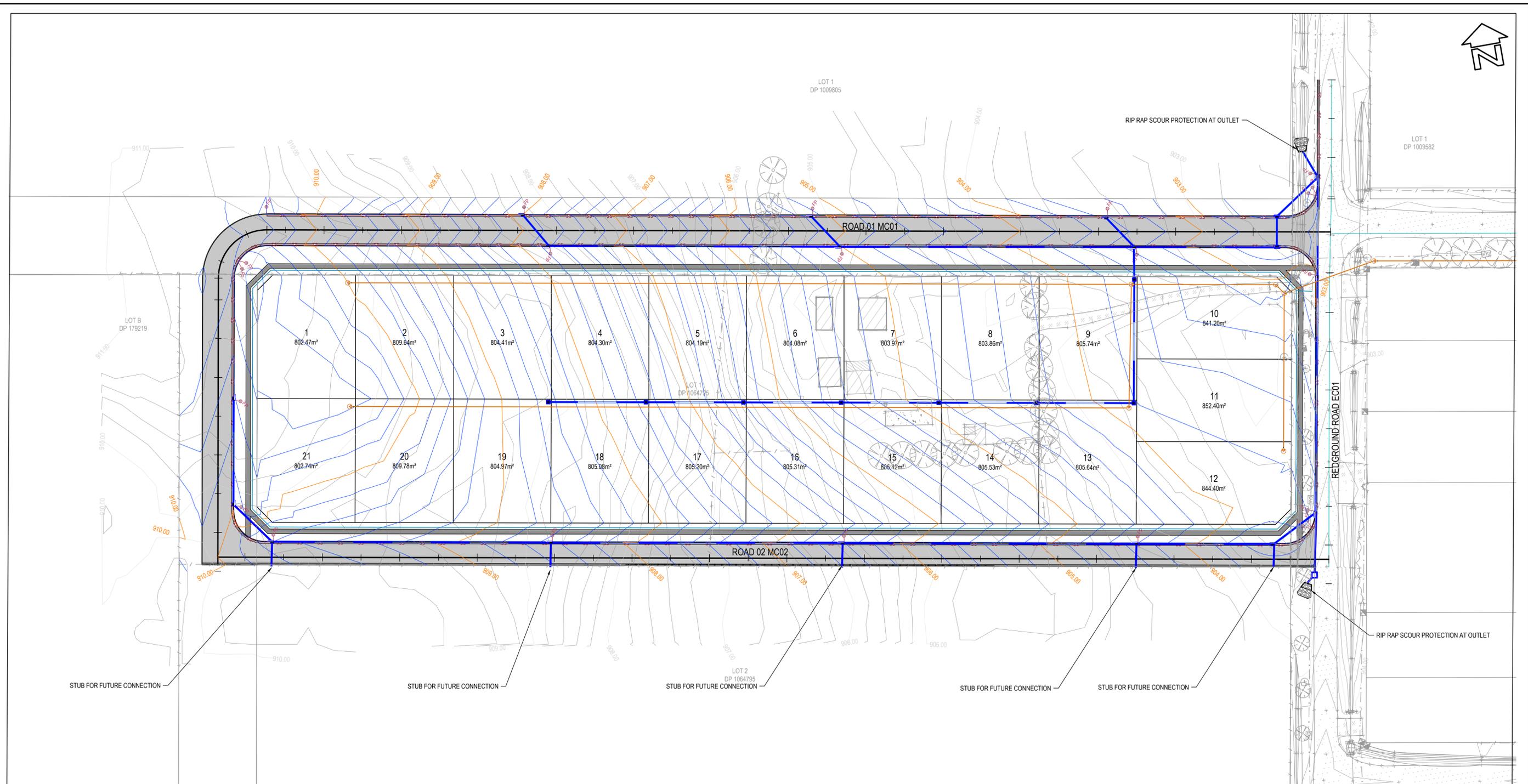
TYPICAL SECTION - ROAD 02 MC02
CHAINAGE 180.000 TO 286.986
HORIZONTAL 1:100 VERTICAL 1:100 @ A1



LONGITUDINAL SECTION - ROAD 02 MC02
CHAINAGE 0.000 TO 286.986
HORIZONTAL 1:500 VERTICAL 1:100 @ A1



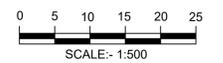
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	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	DESCRIPTION: PLANNING PROPOSAL DRAWING: ROAD MC02 LONGITUDINAL SECTION AND TYPICAL CROSS SECTION	JOB-DRAWING NUMBER 23017-408	REV
	DRAWN	JE									
	CHECKED	RB									
	APPROVED	JW								PO	



DRAINAGE LAYOUT PLAN
1:500 @ A1

SHEET LEGEND							
DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL	DESCRIPTION	DETAIL
BARRIER KERB 'KG'		KERB / PEDESTRIAN RAMP		SUB-SOIL AND FLUSH POINTS		STORMWATER LOCATION (EXISTING)	
ROLL KERB 'RK'		NOMINAL CONTROL LINE		KERB ADAPTOR / OUTLET		SEWER LOCATION (EXISTING)	
EDGE STRIP 'ES'		ROAD PAVEMENT		LIMIT OF WORKS		WATER LOCATION (EXISTING)	
KERB ONLY 'KO'		PATH PAVING (CONCRETE)		BOUNDARIES		TELSTRA LOCATION (EXISTING)	
MOUNTABLE SF TYPE KERB 'SF'		CONTOURS (MAJOR)		TREE AND LANDSCAPING		FIBRE OPTICS LOCATION (EXISTING)	
DISH DRAIN 'DD'		CONTOURS (MINOR)		DRAINAGE PIT - 1.8m PIT WITH LINTEL		ELECTRICAL LOCATION (EXISTING)	
VEHICULAR CROSSING		RETAINING WALL STRUCTURES		DRAINAGE PIT - 2.4m SAG WITH LINTEL		GAS LOCATION (EXISTING)	

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	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24				CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024	JOB-DRAWING NUMBER	REV	
	DRAWN	JE								DESCRIPTION: PLANNING PROPOSAL	23017-409		
	CHECKED	RB								DRAWING: DRAINAGE LAYOUT PLAN			PO
	APPROVED	JW											

CATCHMENT SUMMARY				
PRE-DEVELOPMENT				
SITE	2.73	ha	1%	IMPERVIOUS
POST-DEVELOPMENT				
SITE - ROADS	1.03	ha	70%	IMPERVIOUS
SITE - LOTS	1.70	ha	60%	IMPERVIOUS

NOTE: THE UNDISTURBED VEGETATED AREA IS NOT INCLUDED ON THE STORMWATER QUANTITY AND QUALITY CALCULATIONS

LOT PERMISSIBLE SITE DISCHARGE (PSD) REQUIREMENT

CRITICAL STORM (% AEP)	PRE DEV SITE (m3/s)	POST DEV LOTS (m3/s)	POST DEV ROADS (m3/s)	PRE DEV SITE - POST DEV ROADS (m3/s)	PSD REQUIRED FOR LOTS (m3/s/ha)	L/s/ha
50	0.131	0.120	0.069	0.062	0.02	22.71
20	0.263	0.198	0.115	0.148	0.05	54.21
10	0.333	0.247	0.145	0.188	0.07	68.86
5	0.384	0.282	0.166	0.218	0.08	79.85
2	0.448	0.329	0.196	0.252	0.09	92.31
1	0.499	0.364	0.217	0.282	0.10	103.30

CONSIDERED LOT AREA: 2.73ha

CRITICAL STORM IS THE MEDIAN OF THE RELEVANT 1 MIN TO 2 HOUR DURATION USING ARR2019 PROTOCOLS

SITE STORAGE (SSR) REQUIREMENT

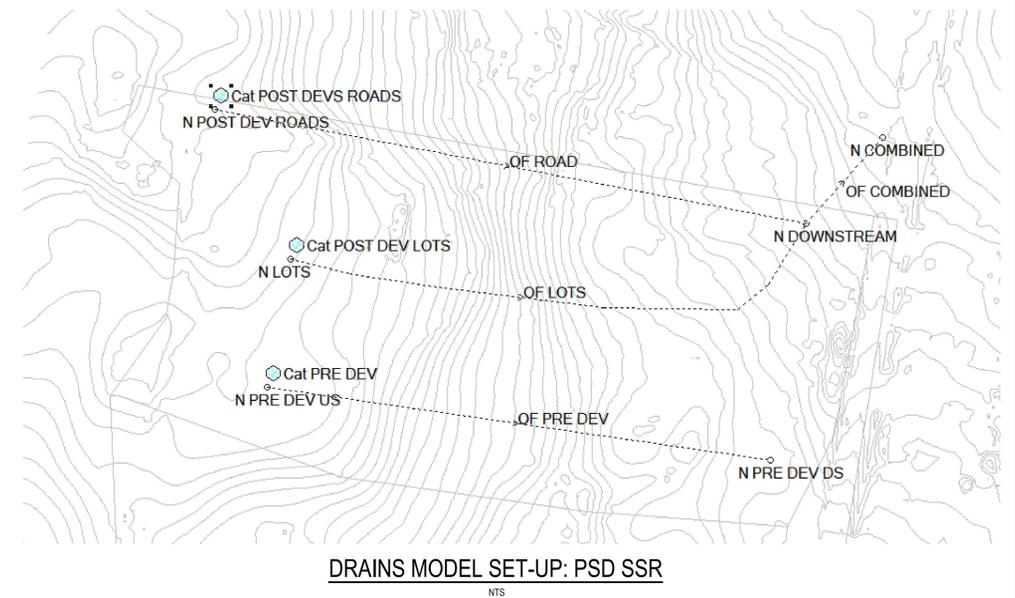
CRITICAL STORM (% AEP)	PRE DEV VOL (m3)	POST DEV VOL (m3)	SSR FOR LOTS (m3)	m3/ha
1(2hr)	930.2	999.5	69.3	25

SUMMARY

EACH LOT IS TO:

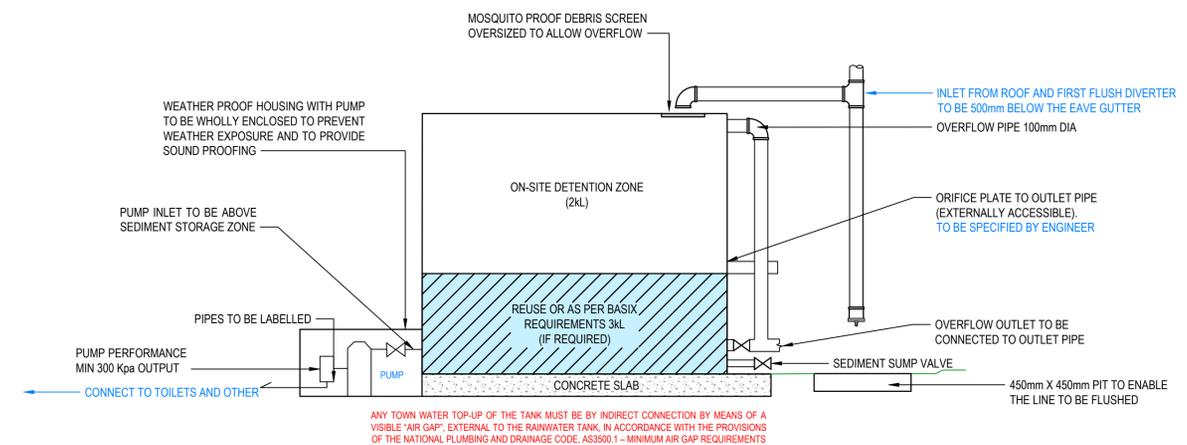
- PROVIDE 25m³/ha OF OSD TO SATISFY THE SITE STORAGE REQUIREMENT (SSR)
- COMPLY WITH THE FOLLOWING PERMISSIBLE SITE DISCHARGE (PSD) FLOWS NOTING THAT THE FINAL DWELLING DESIGN TO BE CHECKED BY A COMPETENT ENGINEER:

% AEP	L/s/ha
50	28
20	54
10	69
5	80
2	92
1	103



DRAINS MODEL SET-UP: PSD SSR

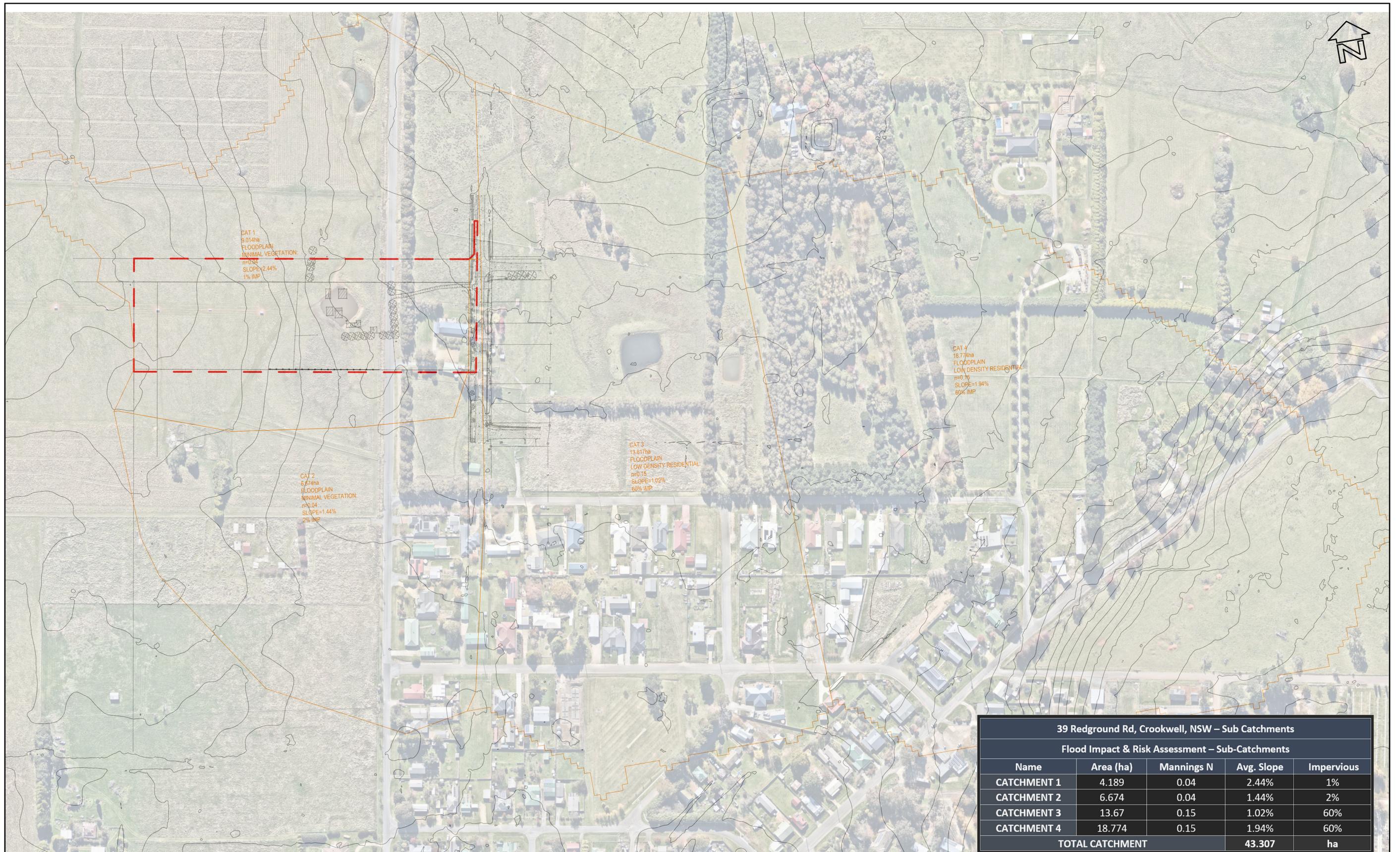
NTS



TYPICAL RAINWATER / OSD AT-SOURCE TANK

NTS

SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024		
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER	REV	
	CHECKED	RB						DRAWING: STORMWATER QUANTITY MODELLING PLAN	23017-410	PO	
	APPROVED	JW									



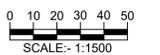
39 Redground Rd, Crookwell, NSW – Sub Catchments				
Flood Impact & Risk Assessment – Sub-Catchments				
Name	Area (ha)	Mannings N	Avg. Slope	Impervious
CATCHMENT 1	4.189	0.04	2.44%	1%
CATCHMENT 2	6.674	0.04	1.44%	2%
CATCHMENT 3	13.67	0.15	1.02%	60%
CATCHMENT 4	18.774	0.15	1.94%	60%
TOTAL CATCHMENT			43.307	ha



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CATCHMENT ANALYSIS PLAN

1:1500 @ A1



SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

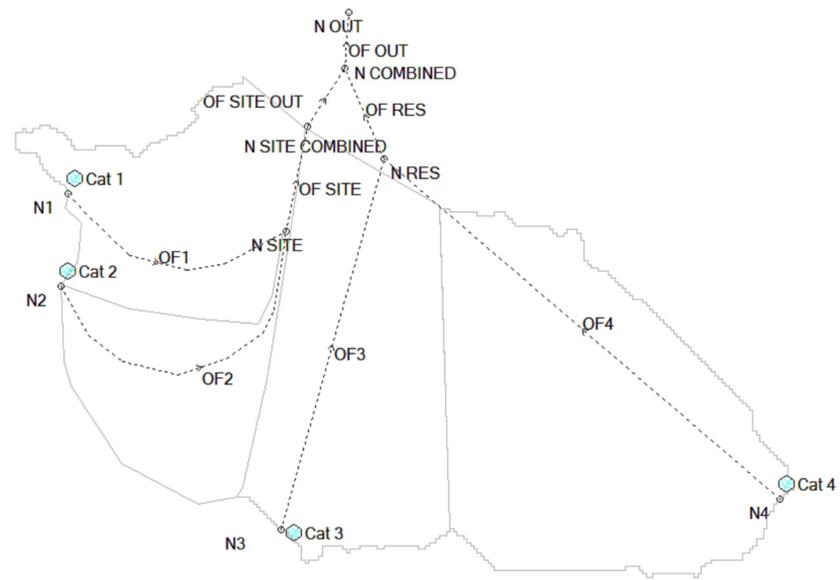
SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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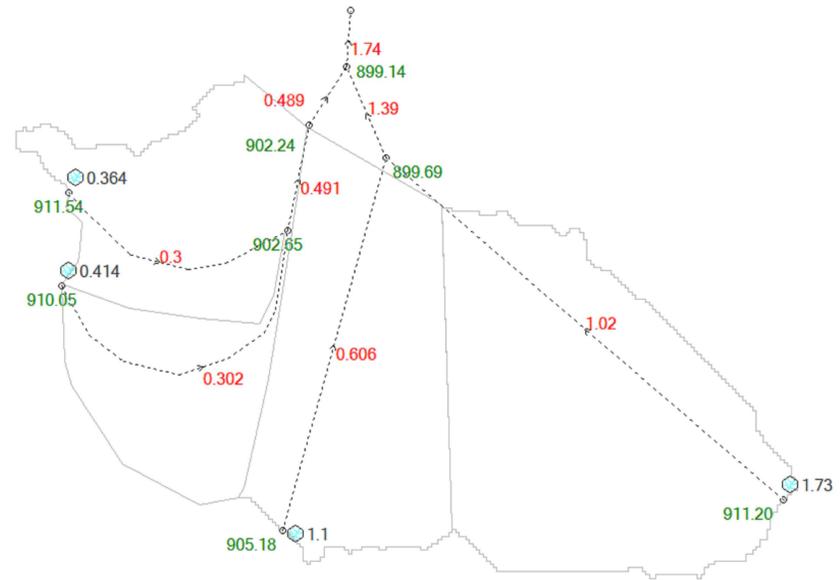
DEVELOPMENT & INFRASTRUCTURE CONSULTING
CIVPLAN PTY LTD ABN: 49 620 926 114 | CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912
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JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION
LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795
LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: CATCHMENT ANALYSIS PLAN

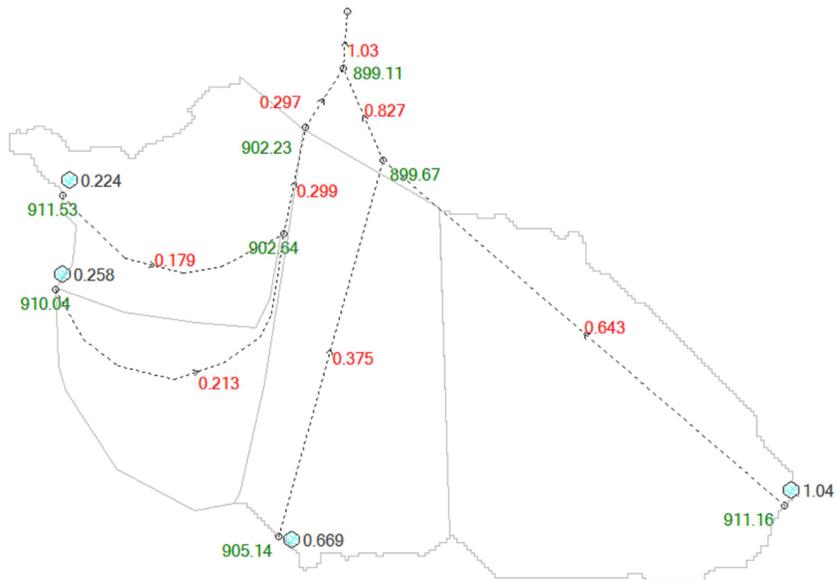
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NOT TO BE USED FOR CONSTRUCTION PURPOSES
RELEASE DATE: 6 FEBRUARY 2024
JOB-DRAWING NUMBER: 23017-411
REV: PO



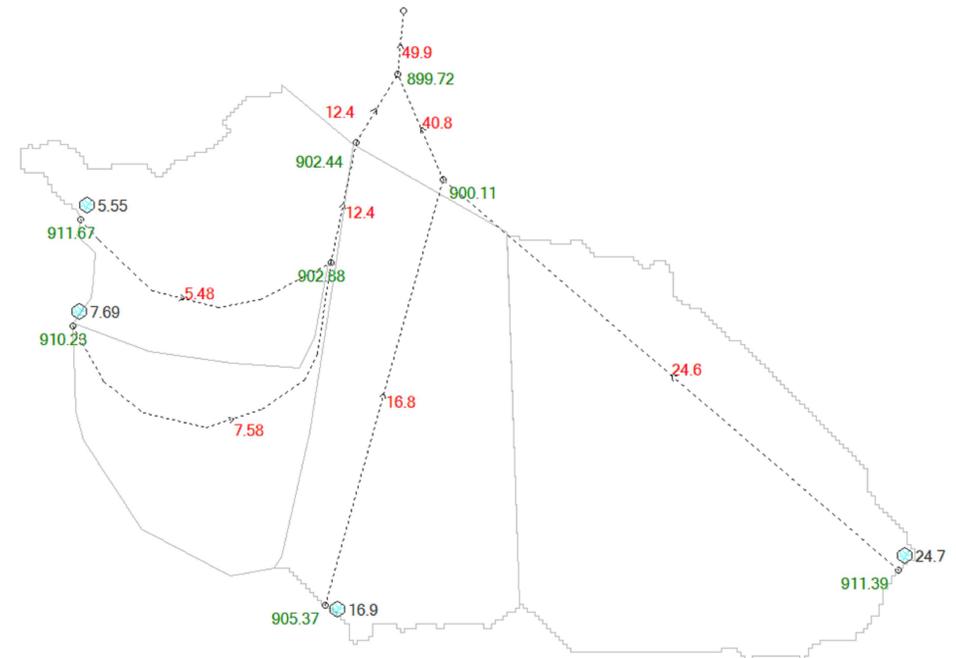
DRAINS (RAFTS MODELLING) SET UP OVERVIEW
NTS



DRAINS (RAFTS MODELLING) RESULTS 1% AEP
NTS



DRAINS (RAFTS MODELLING) RESULTS 10% AEP
NTS



DRAINS (RAFTS MODELLING) RESULTS PMF

SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

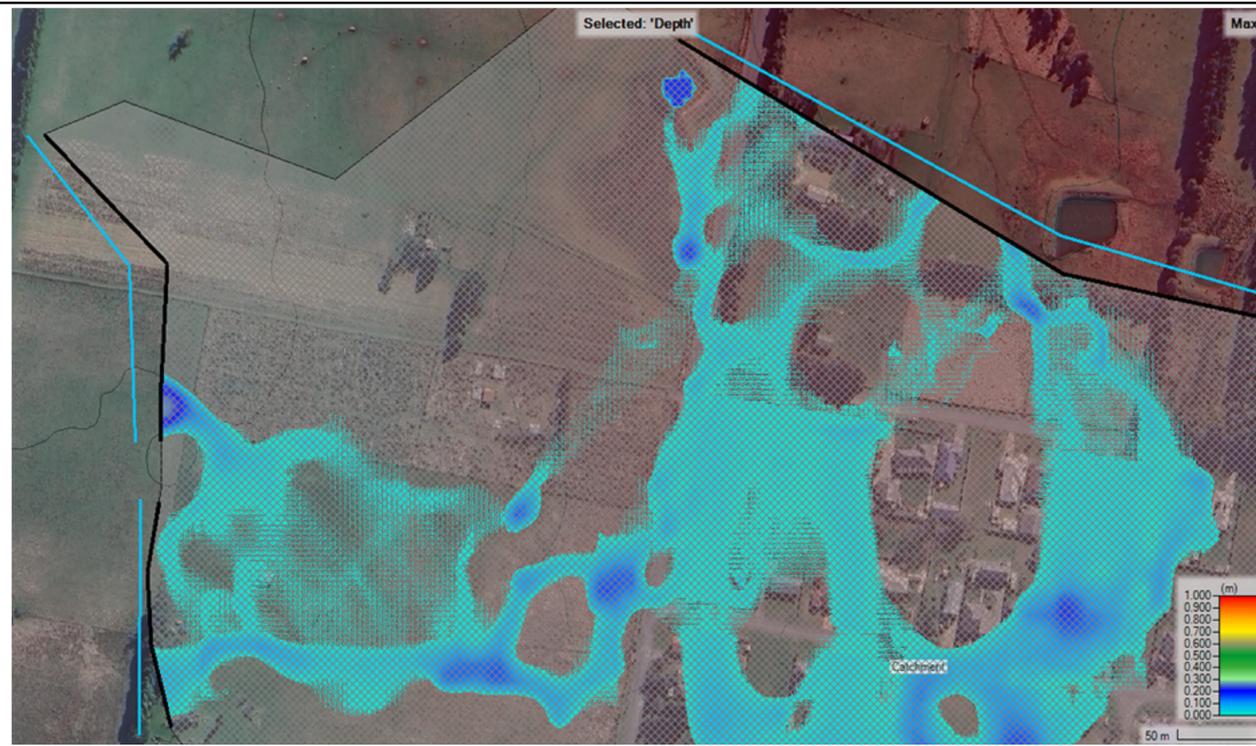
SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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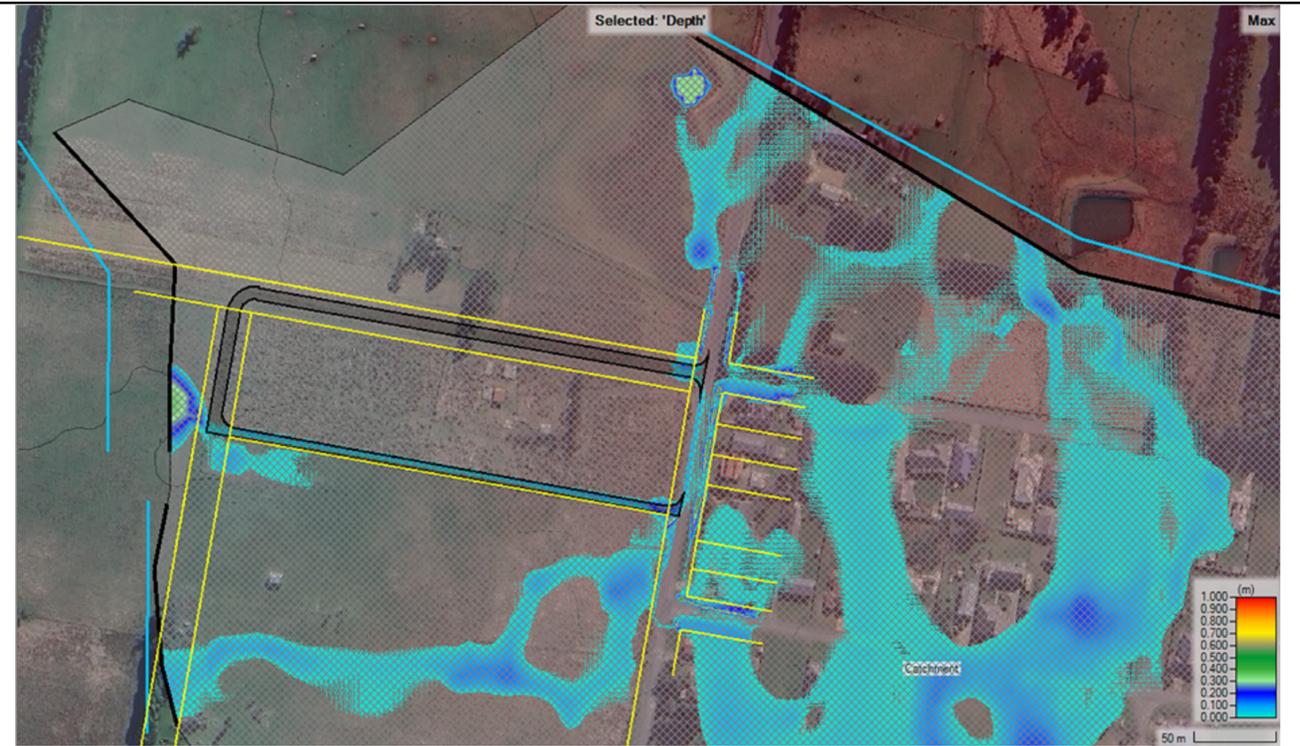


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LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: DRAINS MODELLING AND RESULTS

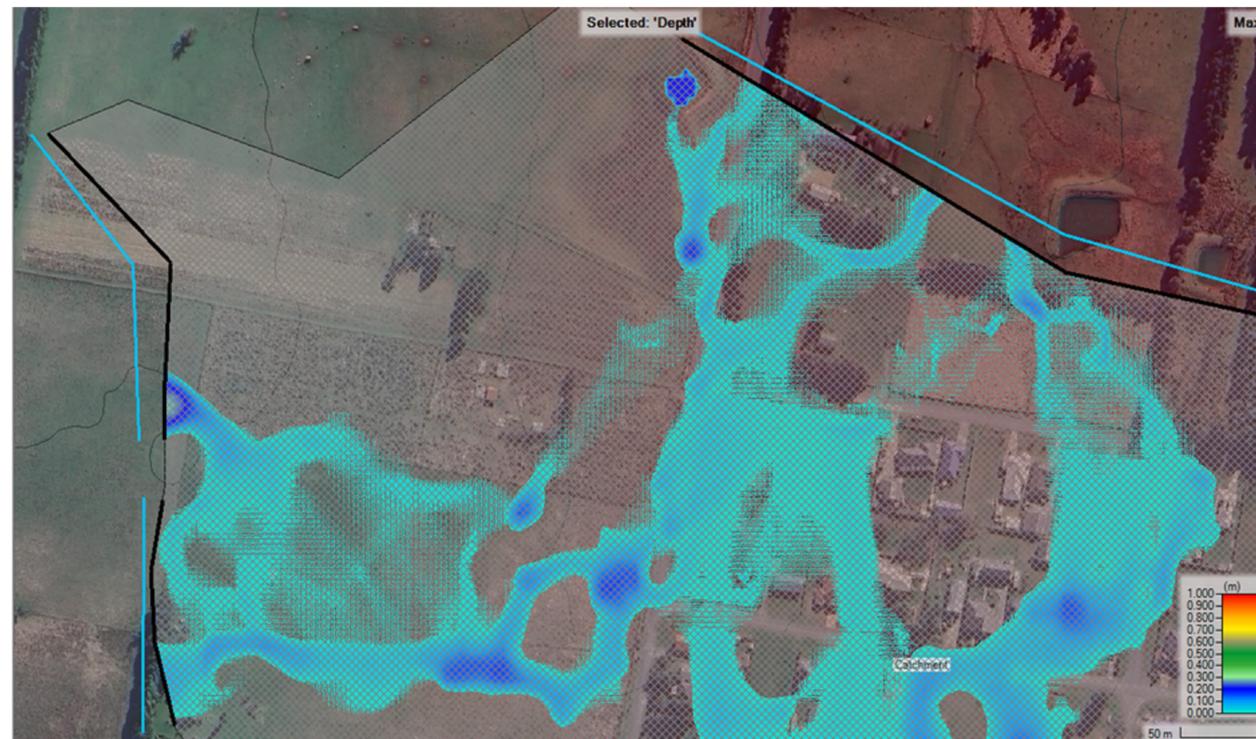
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NOT TO BE USED FOR CONSTRUCTION PURPOSES
RELEASE DATE: 6 FEBRUARY 2024
JOB-DRAWING NUMBER: 23017-412
REV: PO



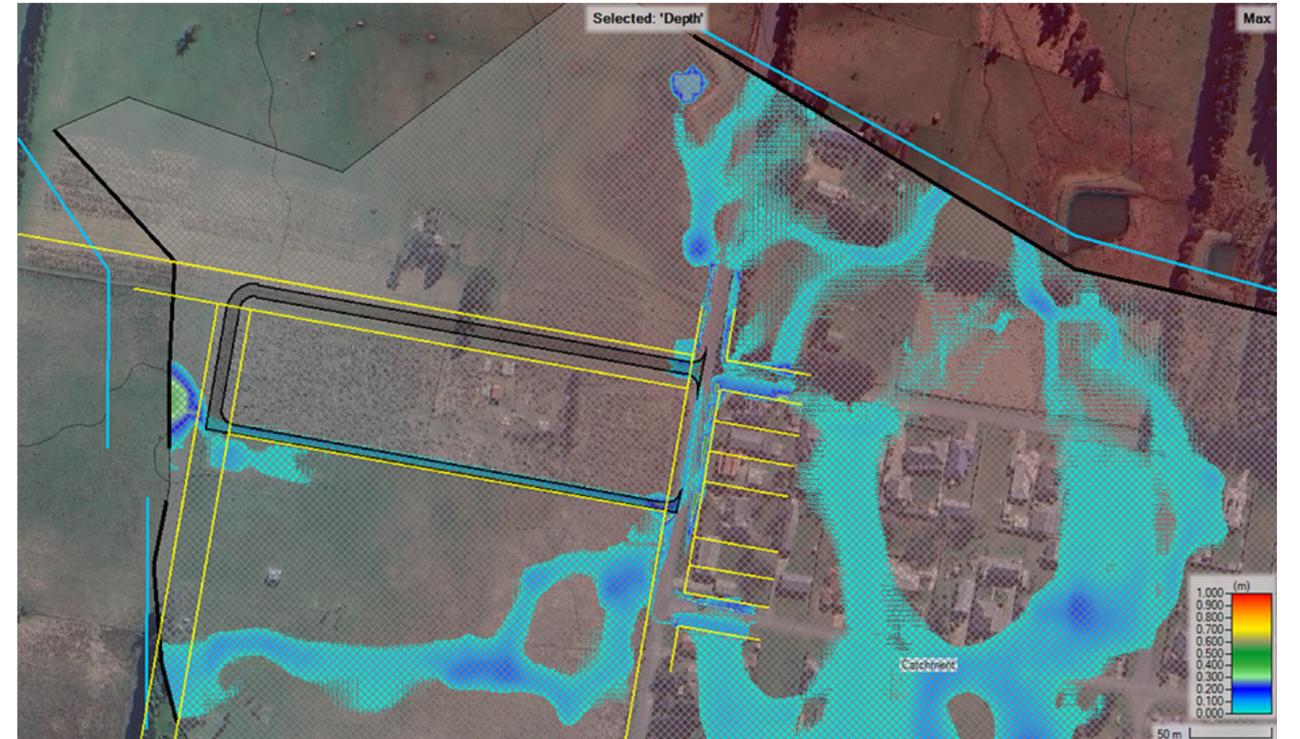
PRE DEVELOPMENT - 10% AEP - DEPTH
NTS



POST DEVELOPMENT - 10% AEP - DEPTH
NTS



PRE DEVELOPMENT - 1% AEP - DEPTH
NTS



POST DEVELOPMENT - 1% AEP - DEPTH
NTS

SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

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LGA: UPPER LACHLAN SHIRE COUNCIL

CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: PRE DEVELOPMENT & POST DEVELOPMENT 1% & 10% AEP RESULTS - DEPTHS

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

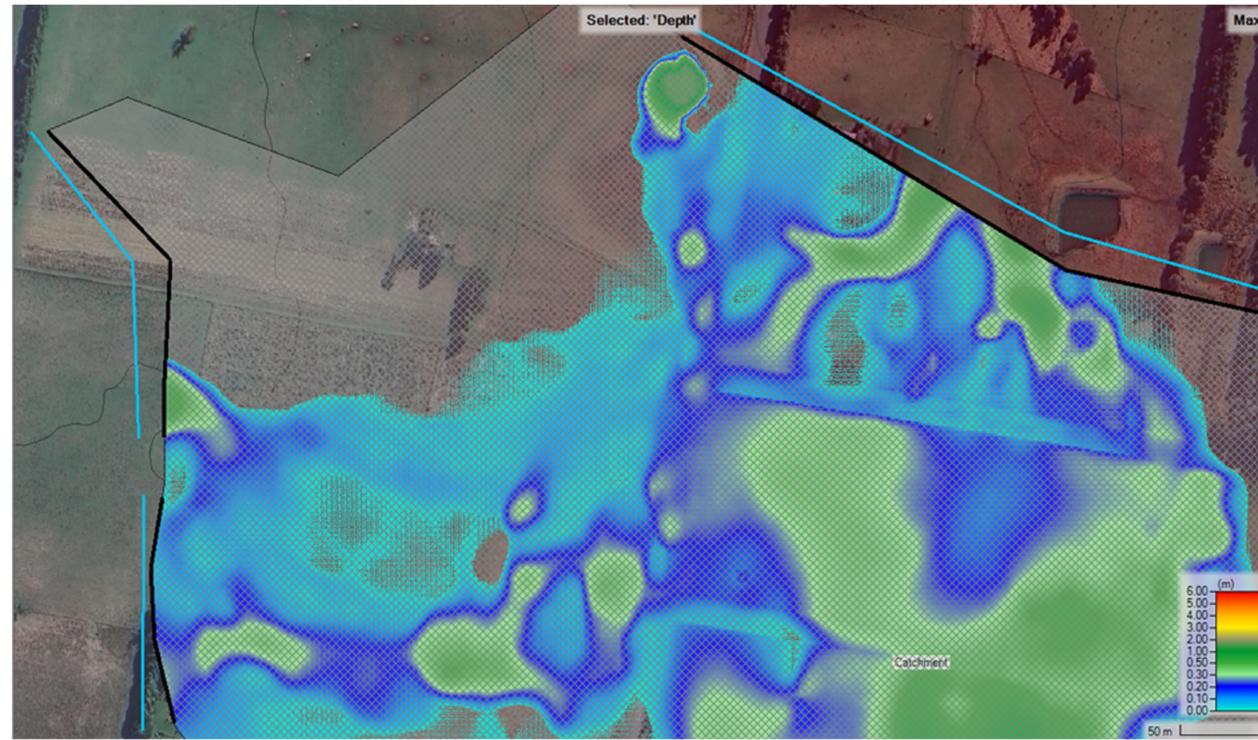
RELEASE DATE: 6 FEBRUARY 2024

JOB-DRAWING NUMBER

23017-413

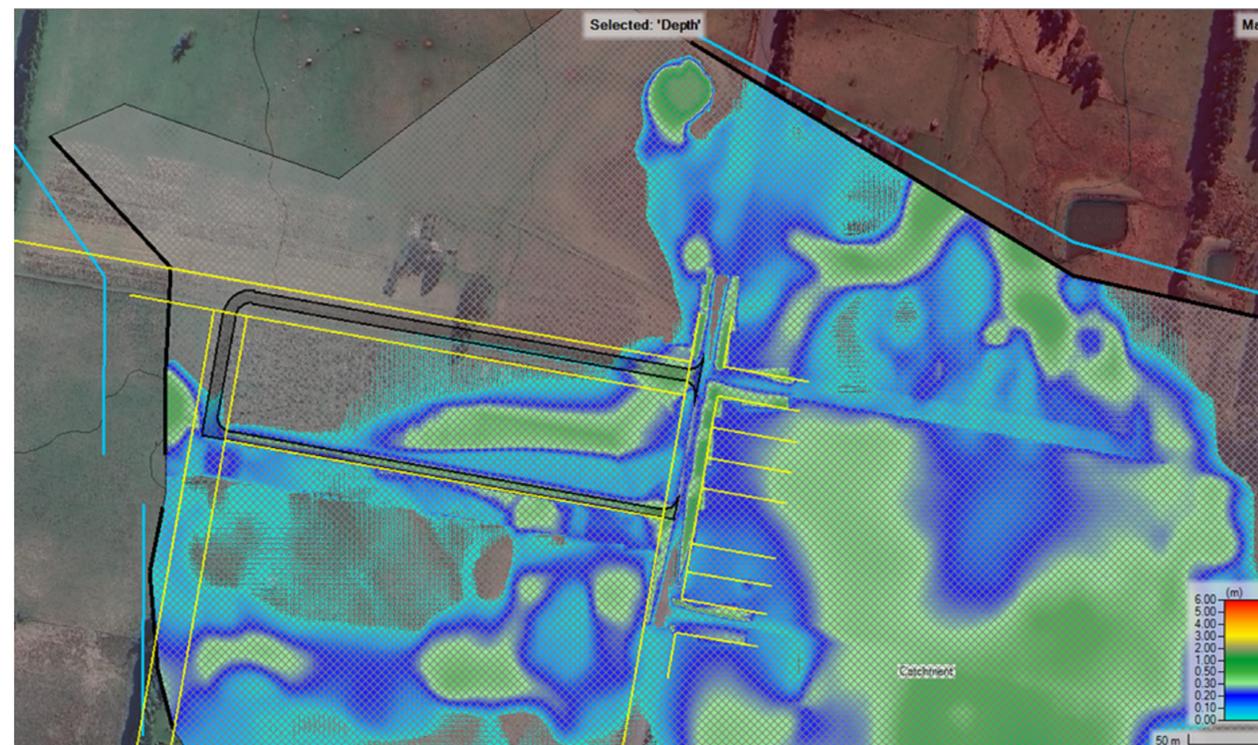
REV

PO



PRE DEVELOPMENT - PMF - DEPTH

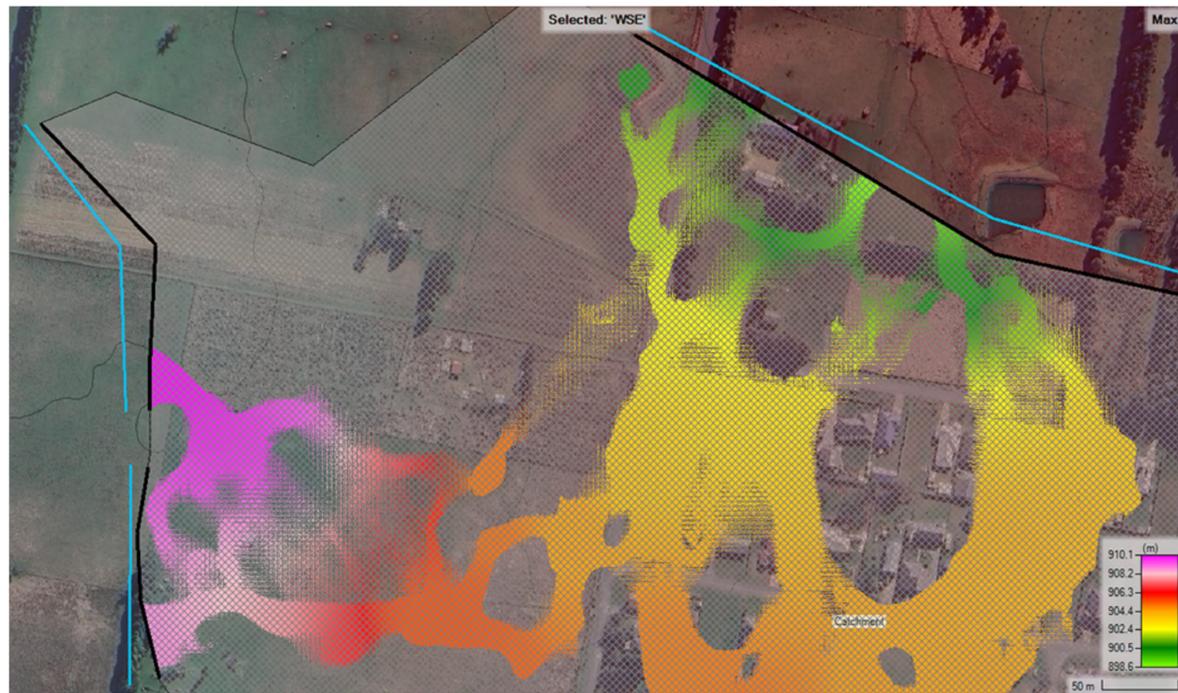
NTS



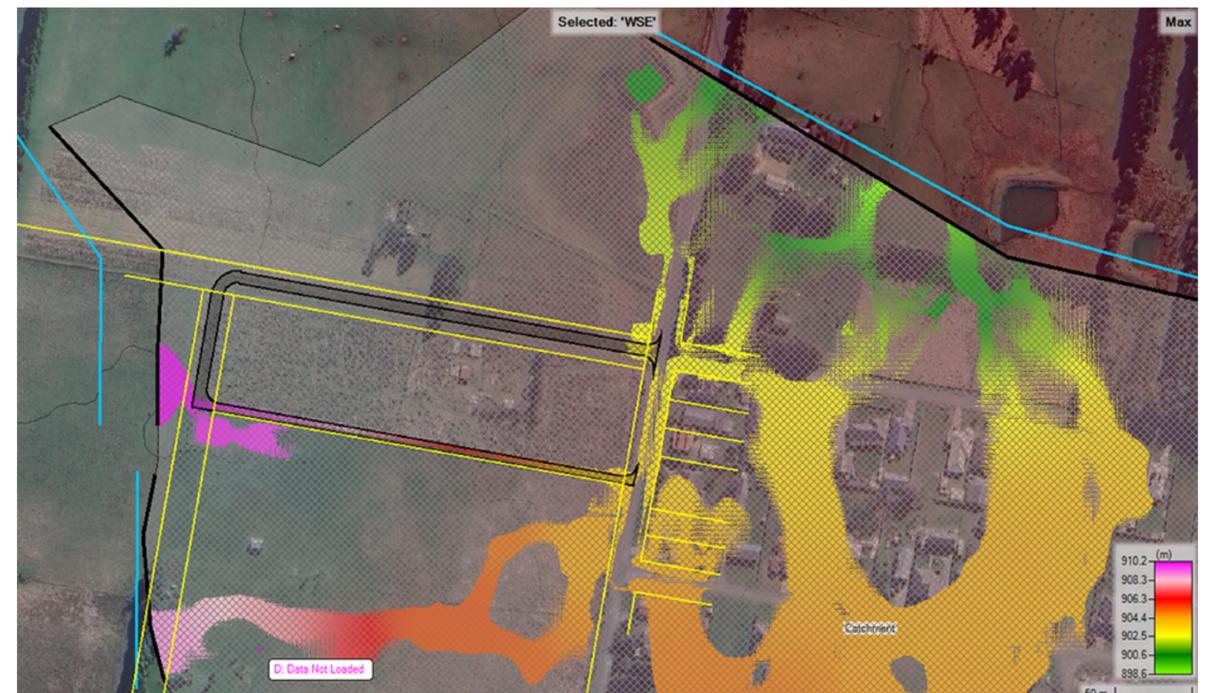
POST DEVELOPMENT - PMF - DEPTH

NTS

SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 DEVELOPMENT & INFRASTRUCTURE CONSULTING CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL		PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024		
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER		
	CHECKED	RB						DRAWING: PRE DEVELOPMENT & POST DEVELOPMENT PMF RESULTS - DEPTHS	23017-414		
	APPROVED	JW							REV PO		

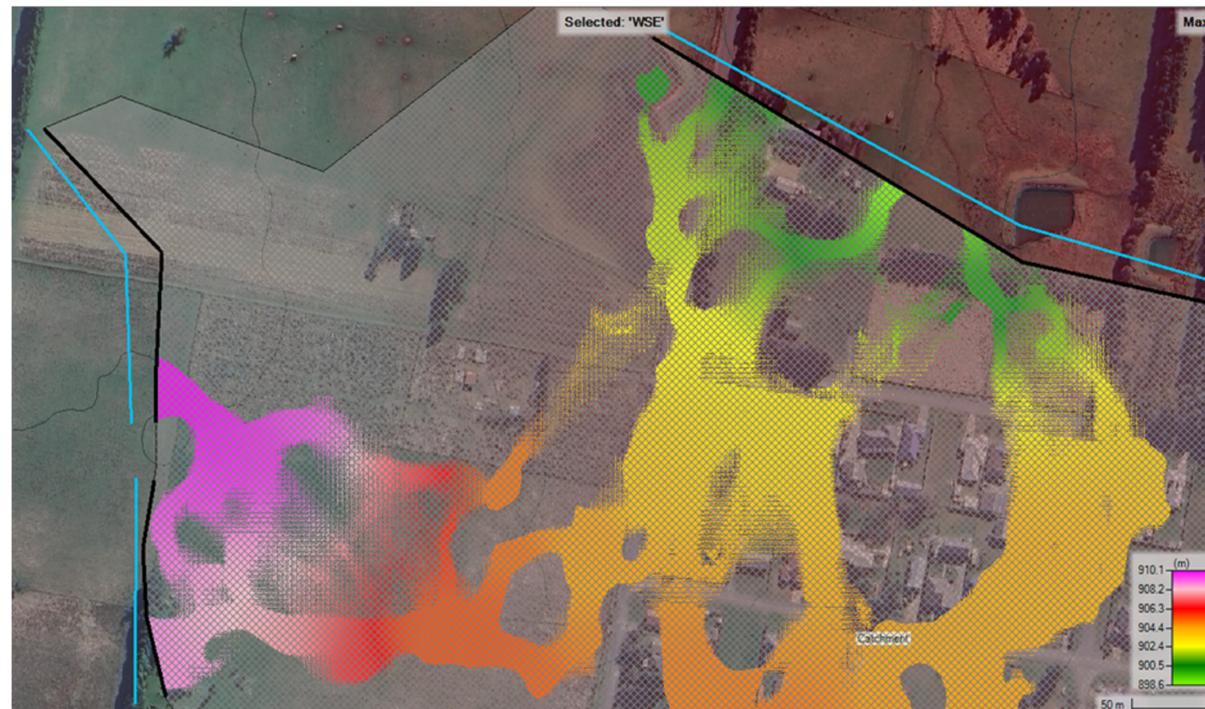


PRE DEVELOPMENT - 10% AEP - WSE



POST DEVELOPMENT - 10% AEP - WSE

NTS



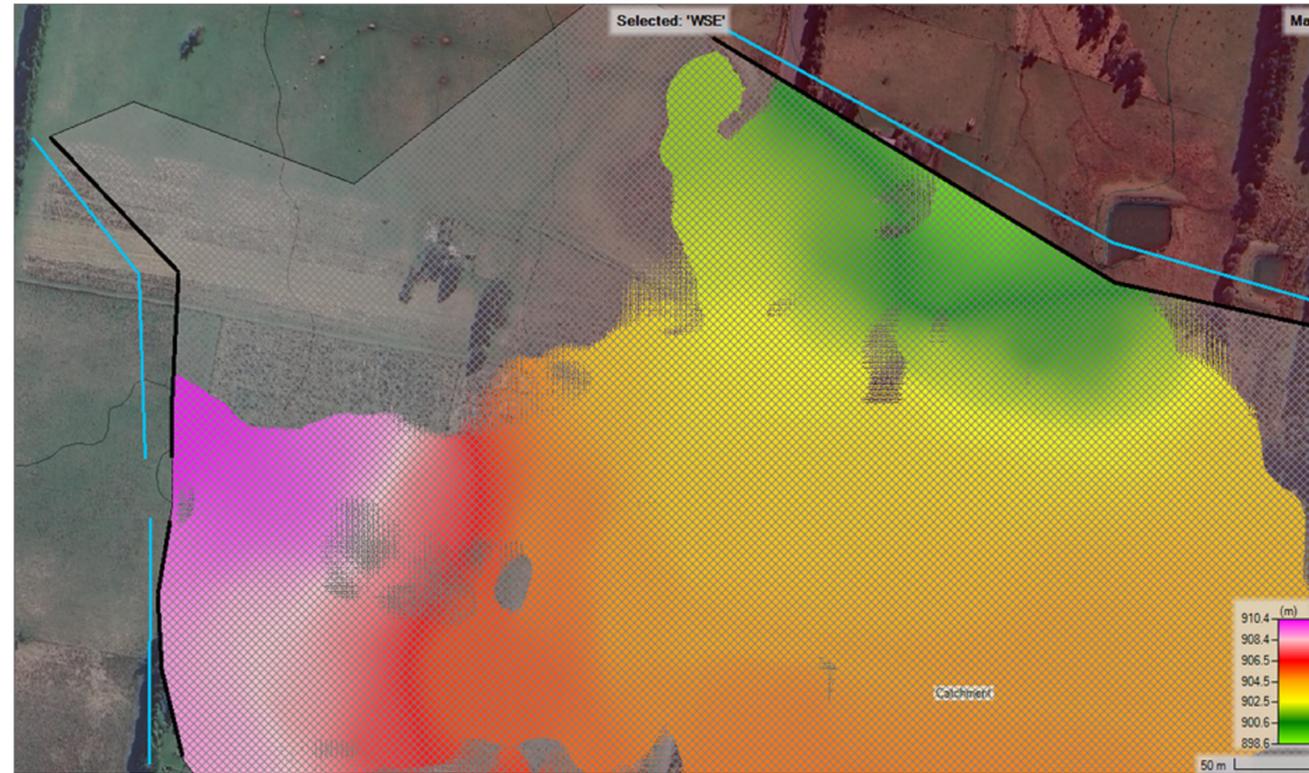
PRE DEVELOPMENT - 1% AEP - WSE

NTS

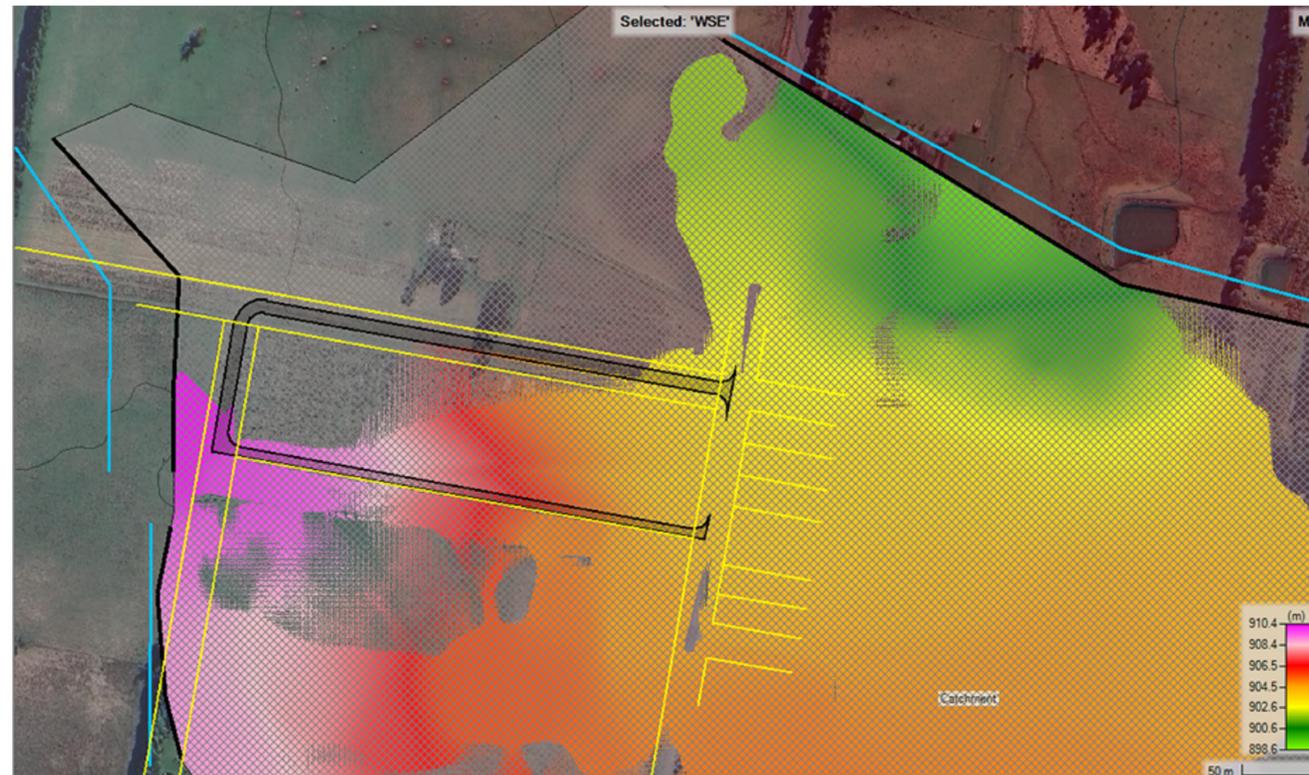


POST DEVELOPMENT - 1% AEP - WSE

SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 DEVELOPMENT & INFRASTRUCTURE CONSULTING CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES			
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024			
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER	REV		
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	APPROVED	JW										

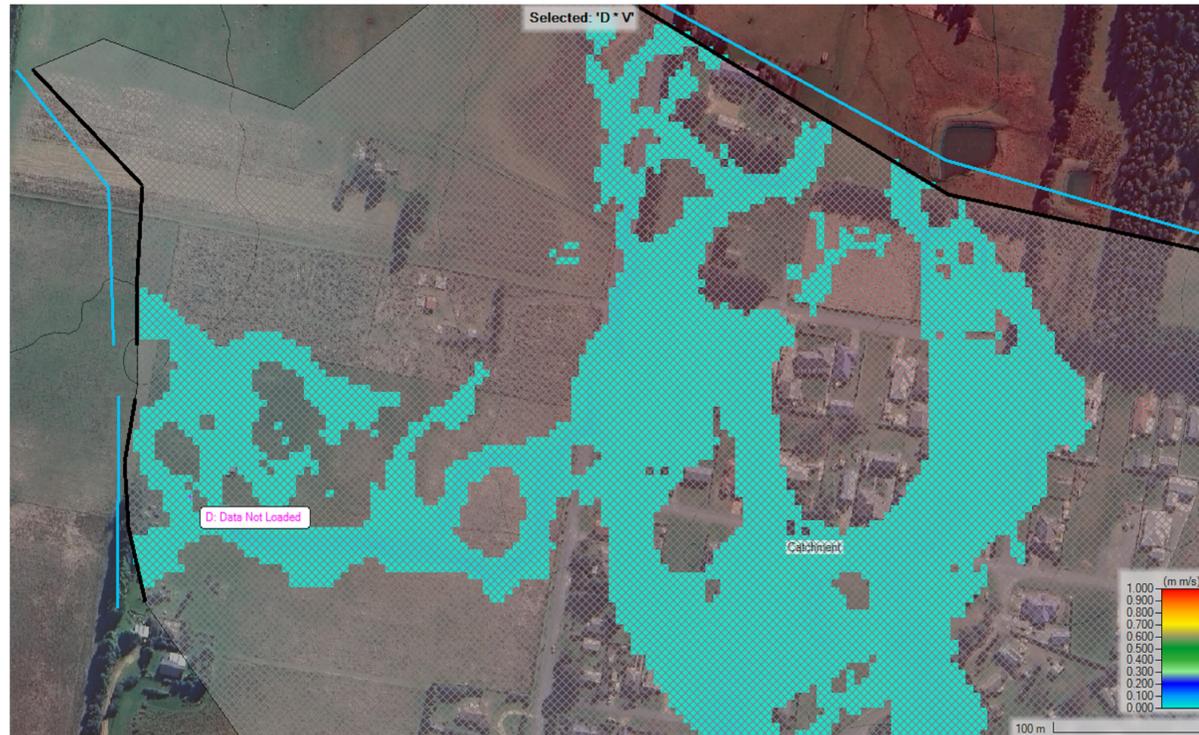


PRE DEVELOPMENT - PMF - WSE

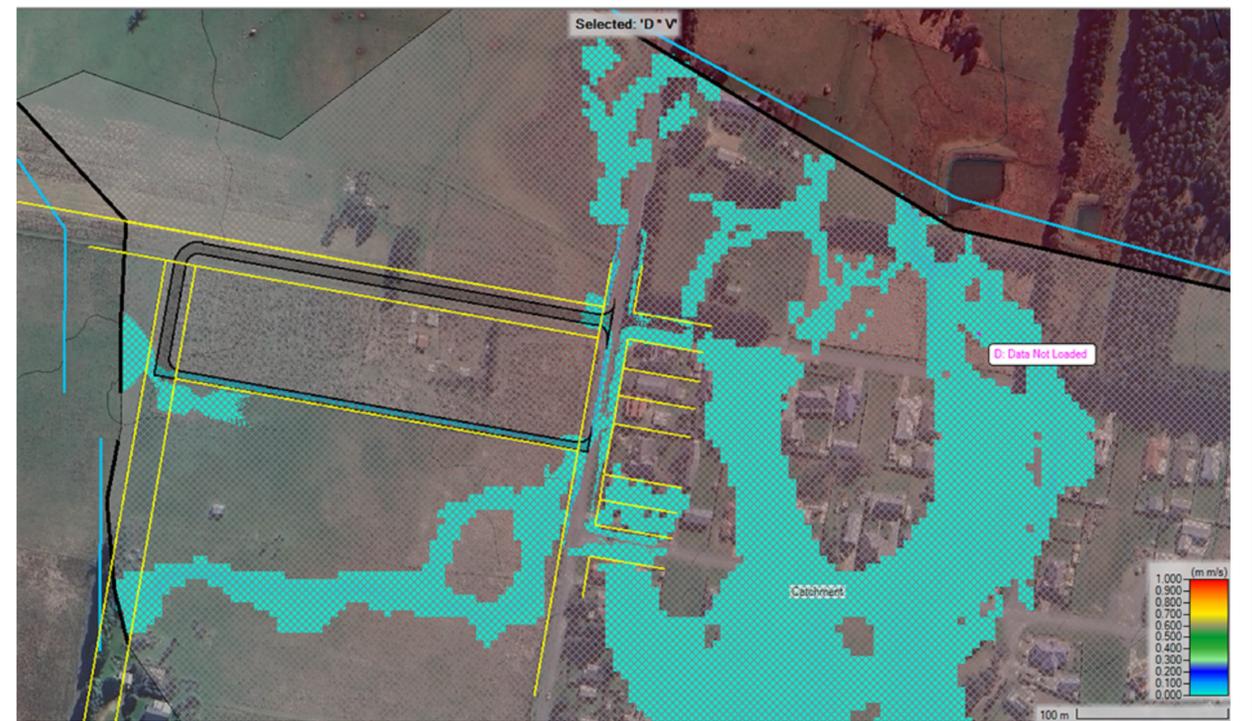


POST DEVELOPMENT - PMF - WSE

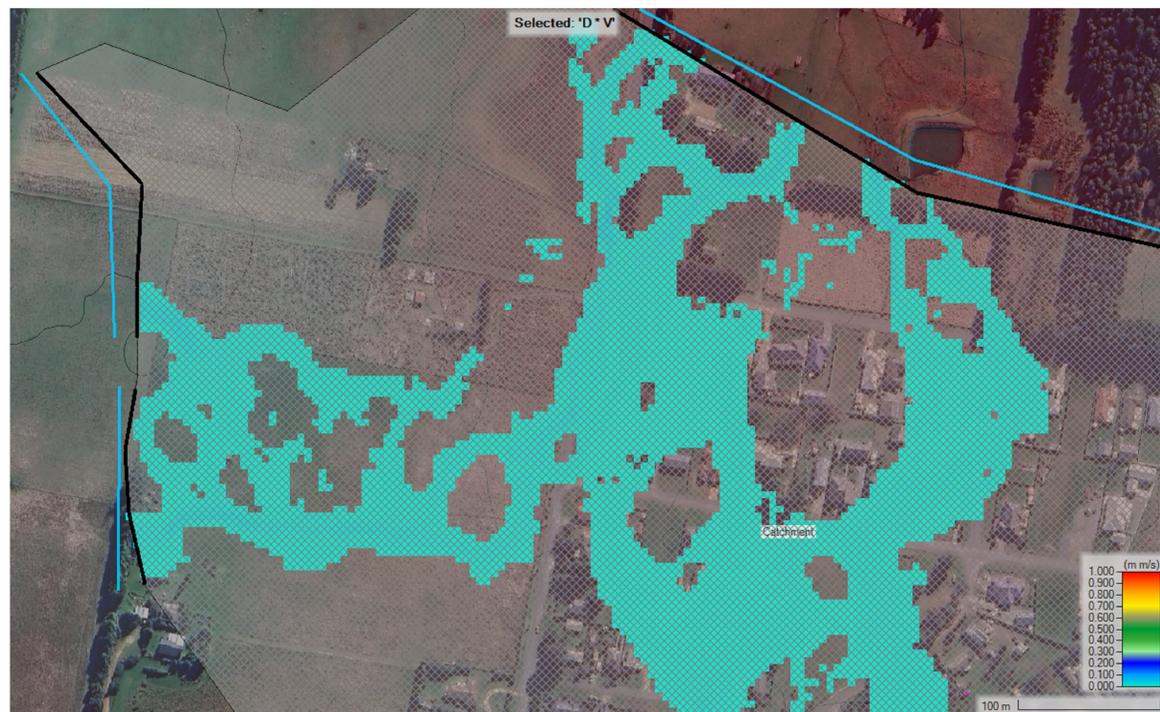
SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 <small>DEVELOPMENT & INFRASTRUCTURE CONSULTING</small> CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL		PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024		
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER		
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	APPROVED	JW							REV	PO	



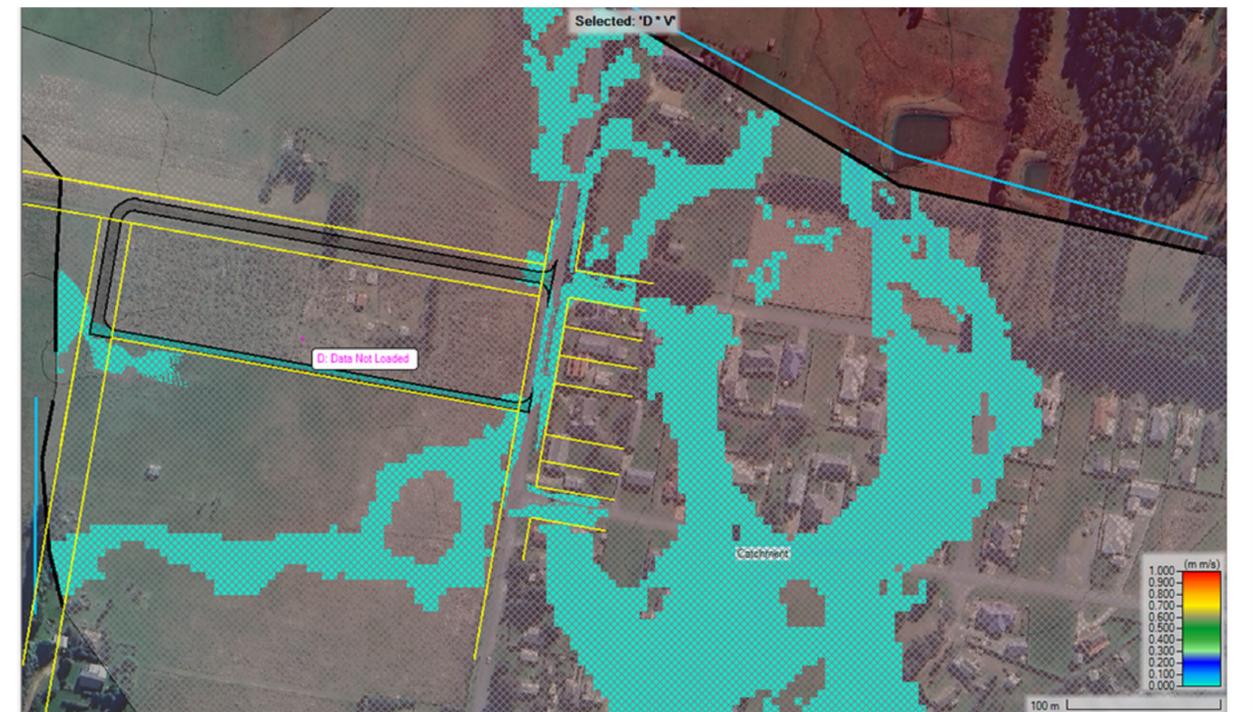
PRE DEVELOPMENT - 10% AEP - VxD



POST DEVELOPMENT - 10% AEP - VxD
NTS



PRE DEVELOPMENT - 1% AEP - VxD
NTS



POST DEVELOPMENT - 1% AEP - VxD

SCALE: AS NOTED
SIZE: A1
DATE OF SURVEY: 21 MAR 2023
DATUM: MGA2020, AHD

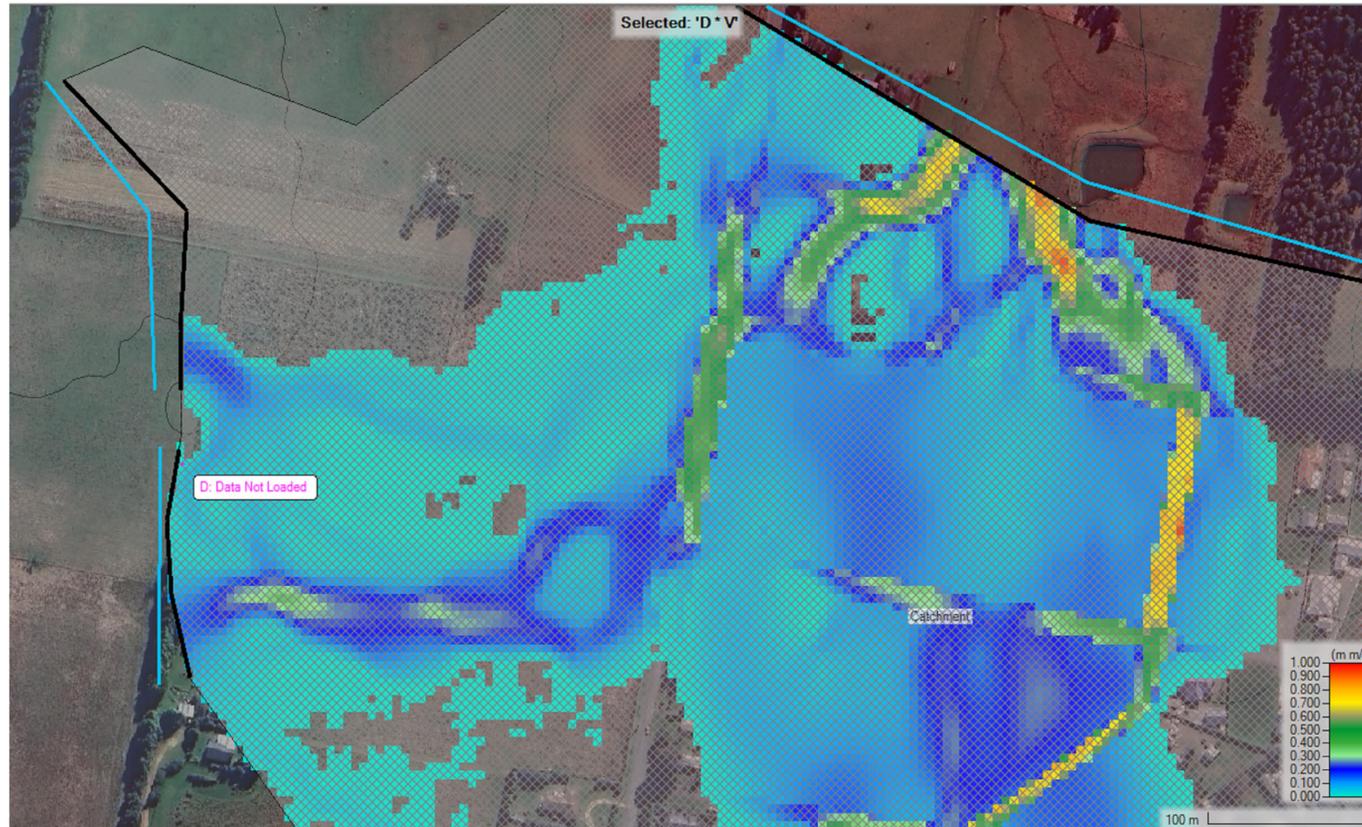
SURVEY	AS	REV	DESCRIPTION	DATE
DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24
DRAWN	JE			
CHECKED	RB			
APPROVED	JW			

CIVPLAN PTY LIMITED ALL RIGHTS RESERVED.
THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.

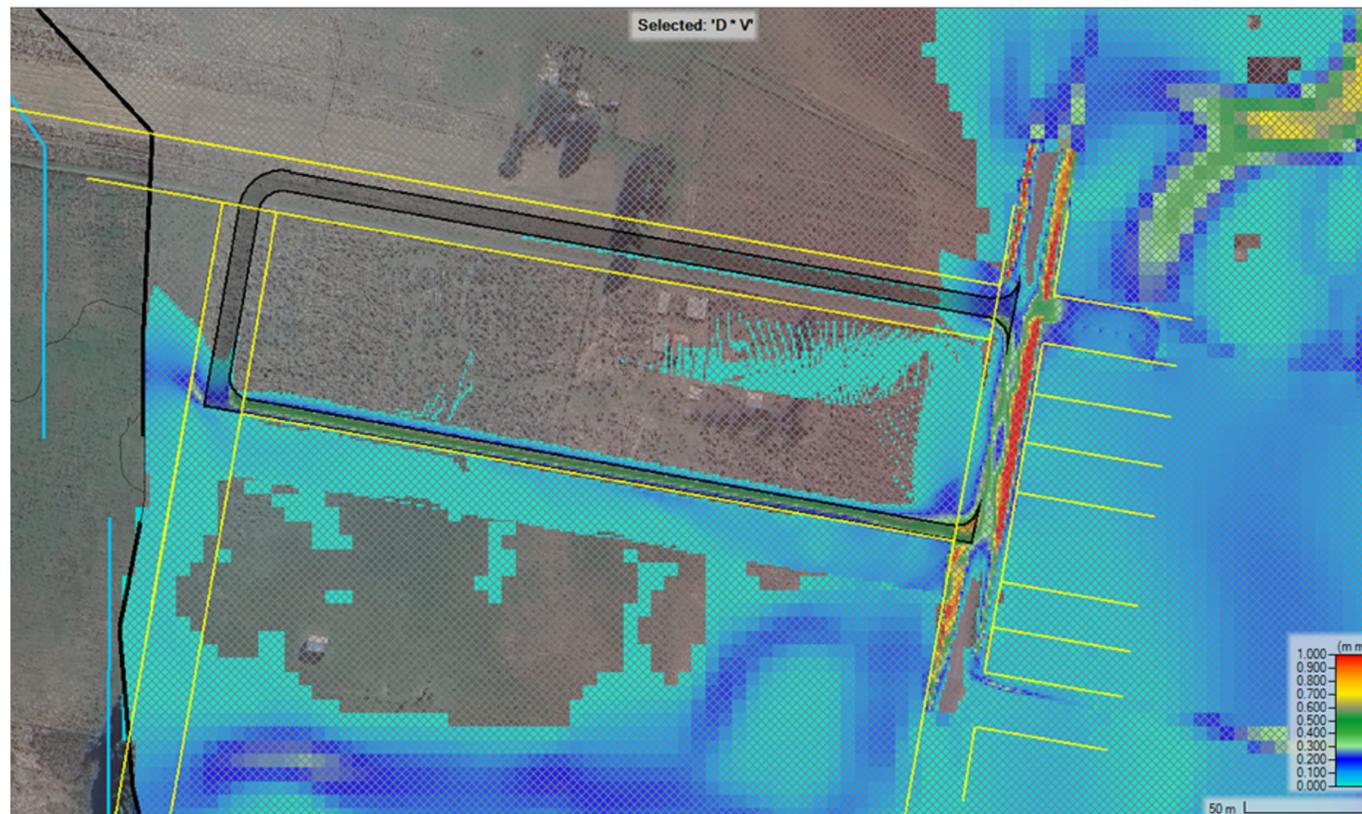
CIVPLAN PTY LTD ABN: 49 620 926 114 | CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912
SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541
SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063
T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au

JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION
LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795
LGA: UPPER LACHLAN SHIRE COUNCIL
CLIENT: BLUE WATER LAND PTY LTD
DESCRIPTION: PLANNING PROPOSAL
DRAWING: PRE DEVELOPMENT & POST DEVELOPMENT 1% & 10% AEP RESULTS - VxD

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
RELEASE DATE: 6 FEBRUARY 2024
JOB-DRAWING NUMBER: 23017-417
REV: PO



PRE DEVELOPMENT - PMF - VxD

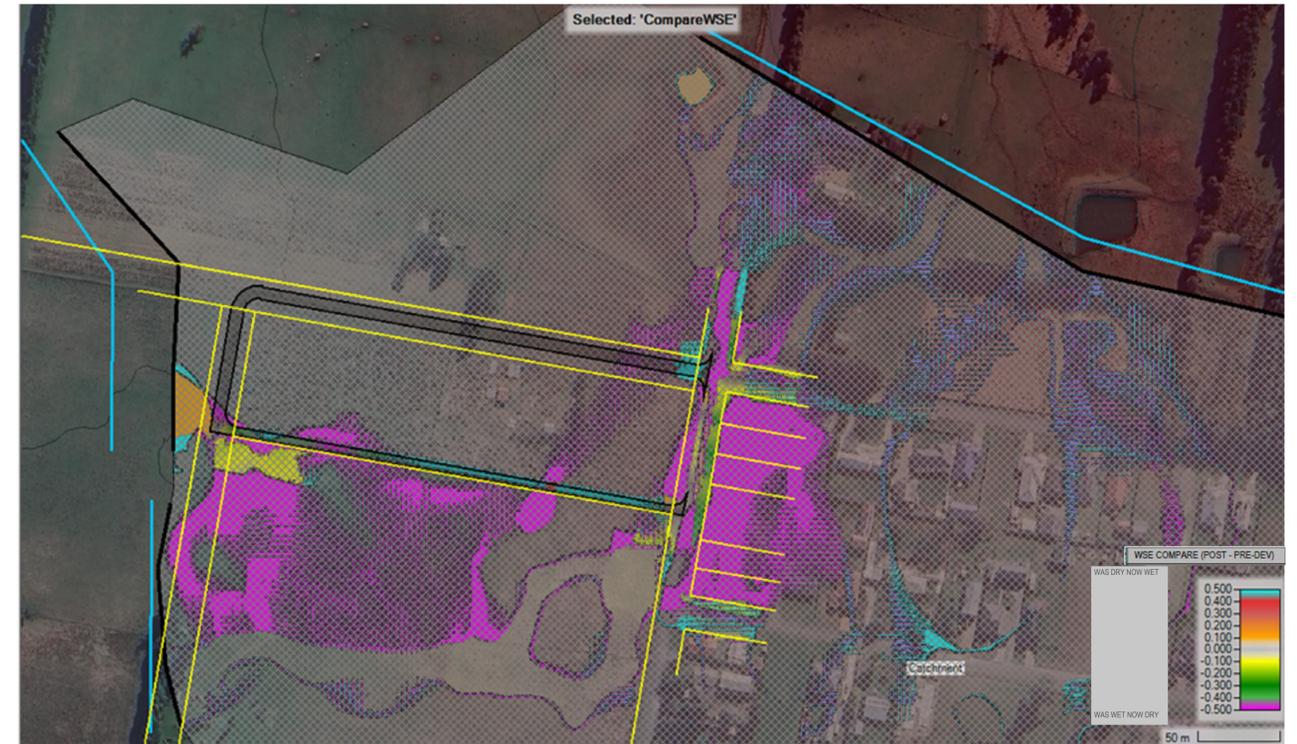


POST DEVELOPMENT - PMF - VxD

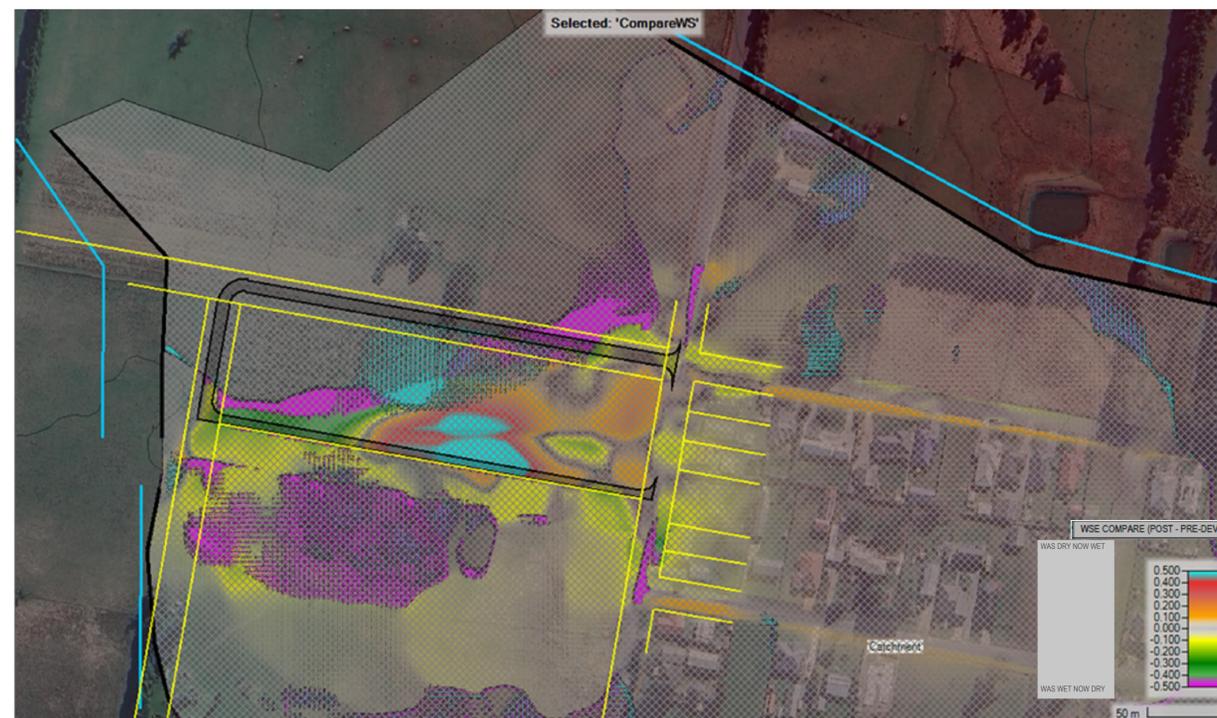
SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 DEVELOPMENT & INFRASTRUCTURE CONSULTING CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL		PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
	DESIGN	JE	PO	PRELIMINARY PLANNING PROPOSAL DESIGN	6 FEB 24			CLIENT: BLUE WATER LAND PTY LTD	RELEASE DATE: 6 FEBRUARY 2024		
	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER		
	CHECKED	RB						DRAWING: PRE DEVELOPMENT & POST DEVELOPMENT PMF RESULTS - VxD	23017-418		
	APPROVED	JW							REV	PO	



PRE DEVELOPMENT x POST DEVELOPMENT - 10% AEP - WAS DRY NOW WET
NTS



PRE DEVELOPMENT x POST DEVELOPMENT - 1% AEP - WAS DRY NOW WET
NTS



PRE DEVELOPMENT x POST DEVELOPMENT - PMF - WAS DRY NOW WET
NTS

SCALE: AS NOTED SIZE: A1 DATE OF SURVEY: 21 MAR 2023 DATUM: MGA2020, AHD	SURVEY	AS	REV	DESCRIPTION	DATE	CIVPLAN PTY LIMITED ALL RIGHTS RESERVED. THIS DOCUMENT IS PRODUCED BY CIVPLAN PTY LTD SOLELY FOR THE BENEFIT OF AND USE BY THE CLIENT IN ACCORDANCE WITH THE TERMS OF THE RETAINER. CIVPLAN PTY LTD DOES NOT AND SHALL NOT ASSUME ANY RESPONSIBILITY OR LIABILITY WHATSOEVER TO ANY THIRD PARTY ARISING OUT OF ANY USE OF RELIANCE BY THIRD PARTY ON THE CONTENT OF THIS DOCUMENT.	 CIVPLAN PTY LTD ABN: 49 620 926 114 CIVPLAN CONSULTING PTY LTD ABN: 79 157 731 912 SOUTH COAST OFFICE: 390 PRINCES HIGHWAY, BOMADERRY NSW 2541 SYDNEY OFFICE: 152 SAILORS BAY ROAD, NORTHBRIDGE NSW 2063 T: 1800 318 052 E: info@civplan.com.au W: www.civplan.com.au	JOB NAME: 21 LOT RESIDENTIAL SUBDIVISION LOCATION: 39 REDGROUND, CROOKWELL, NSW - LOT 1 D.P. 1064795 LGA: UPPER LACHLAN SHIRE COUNCIL		PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
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	DRAWN	JE						DESCRIPTION: PLANNING PROPOSAL	JOB-DRAWING NUMBER		REV	
	CHECKED	RB						DRAWING: PRE & POST DEVELOPMENT 10%, 1% AEP & PMF - WAS DRY NOW WET	23017-419		PO	
	APPROVED	JW										