

Appendix 13

Civil Engineering Concept

PROPOSED MIXED USE DEVELOPMENT

1 - 4 OLD BATHURST ROAD, EMU PLAINS N.S.W. 2750

CIVIL WORKS



LOCALITY PLAN
SCALE 1: 2000

DRAWINGS LIST		
DWG. NO.	DRAWINGS TITLE	REVISION
C001	COVER SHEET, LOCALITY PLAN & DRAWINGS LIST	03
C002	STANDARD NOTES	03
C100	OVERALL SITE LAYOUT PLAN	03
C200	ARBORIST LAYOUT PLAN	03
C210	BULK EARTHWORKS - STOCKPILE VOLUME LAYOUT PLAN	03
C220	BULK EARTHWORKS - CROSS SECTIONS - SHEET 1	03
C221	BULK EARTHWORKS - CROSS SECTIONS - SHEET 2	03
C222	BULK EARTHWORKS - CROSS SECTIONS - SHEET 2	03

PROJECT SETOUT CONTROL	
SOURCE:	RICHARD HOGAN & CO
CONTACT:	(02) 4732 6599
SURVEY REF:	21744 SP1E DATE: 22/10/2024
DATUM:	RL 27.797 AHD
R.P. DESCRIPTION	
LOT 2 IN D.P. 1273251	
LOCAL GOVERNMENT: PENRITH CITY COUNCIL LOCALITY: EMU PLAINS	



PRINT DRAWING
IN COLOUR

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	
02	12/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.
03	17/04/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.

RPEQ CERTIFICATION	
NAME:	RHYS KILPATRICK
RPEQ NO:	2952822
DATE:	17/04/2025
SIGNATURE:	



1300 245 518
www.bec.studio | info@bec.studio

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ASSOCIATED CONSULTANTS

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PROJECT
PROPOSED MIXED USE DEVELOPMENT
1 - 4 OLD BATHURST ROAD,
EMU PLAINS N.S.W. 2750

DRAWING TITLE
COVER SHEET, LOCALITY PLAN &
CIVIL INDEX



CIVIL DOCUMENTATION

PROJECT No.	DRAWING No.	REVISION
9160	C001	03

SCALE BARS

0 20 40 60 80 100m
1 : 2000 / 1 : 4000

STATUS

ISSUED FOR
INFORMATION

ORIGINAL SIZE A1

GENERAL NOTES

1.

ALL DIMENSIONS SHOWN ARE IN METRES UNLESS OTHERWISE SHOWN.
2.

ALL SETOUT ON SITE IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO ALLOW FOR ALL MEANS NECESSARY TO ACCURATELY SETOUT THE WORKS.
3.

ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND WHERE FURTHER DETAILS ARE REQUIRED THE CONTRACTOR SHALL REFER TO LOCAL COUNCIL DEVELOPMENT GUIDELINES, LOCAL WATER AUTHORITY GUIDELINES, ASSOCIATED STANDARD DRAWINGS AND SPECIFICATIONS U.N.O. THE SUPERINTENDENT WILL ON REQUEST RESOLVE ANY POINT OF CONFLICT. DIMENSIONS ARE NOT TO BE SCALED.
4.

SHOULD ANY OF THE CONSTRUCTED WORKS BE CONSTRUCTED OUTSIDE OF THE TOLERANCES SPECIFIED WITHIN THE PROJECT SPECIFICATION AND LOCAL AUTHORITY REQUIREMENTS, THE CONTRACTOR WILL RECTIFY AT THEIR COST INCLUSIVE OF ANY ADDITIONAL COSTS INCURRED BY BEC.
5.

THE CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICAL MEASURES TO PREVENT OR REDUCE HARM TO THE ENVIRONMENT AS SET OUT IN THE ENVIRONMENTAL PROTECTION ACT.
6.

CONTROL MEASURES SHOULD BE IMPLEMENTED WHEN EXCAVATING TRENCHES 1.5m DEEP OR GREATER; SUCH METHODS MAY INCLUDE: SHORING BY SHIELDING, BENCHING OR BATTERING.
7.

EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. NO RESPONSIBILITY IS TAKEN BY BEC OR THE PRINCIPAL FOR THE ACCURACY AND COMPLETENESS OF THIS INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT. CONTRACTOR TO LOCATE AND PROTECT SERVICES AS REQUIRED DURING PROPOSED WORKS.
8.

THE CONTRACTOR IS TO CHECK THROUGH LOCATING, POTHOLING AND SURVEY ALL CRITICAL CONNECTION POINTS FOR ALL CIVIL WORKS SHOWN ON THE DRAWINGS. THIS INCLUDES ANY POTENTIAL EXISTING SERVICE CLASHES PRIOR TO COMMENCEMENT OF CIVIL WORKS. CONTRACTOR TO IMMEDIATELY REPORT ANY DISCREPANCIES TO BEC AND AWAIT FORMAL DIRECTION PRIOR TO COMMENCING CIVIL WORKS.
9.

CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO AUTHORITY/COUNCIL'S INFRASTRUCTURE. SUCH REPAIR OR REINSTATEMENT TO BE CARRIED OUT IMMEDIATELY TO THE SATISFACTION OF INFRASTRUCTURE OWNER/MANAGER / AUTHORITY/COUNCIL.
10.

CONTRACTOR TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH ALL WORKPLACE HEALTH AND SAFETY REQUIREMENTS.
11.

WHERE ANY EXCAVATION OR CONSTRUCTION WORKS ARE TO BE IN CLOSE PROXIMITY TO NEIGHBORING LOT BOUNDARIES OR INFRASTRUCTURE, CONTRACTOR TO ALLOW IN SCOPE OF WORKS TO PROVIDE ALL MEASURES NECESSARY TO ENSURE THE INTEGRITY OF EXISTING BOUNDARIES AND INFRASTRUCTURE. THIS MAY INCLUDE THE USE OF LOW VIBRATION EQUIPMENT, TRENCH SHORING ETC. AS REQUIRED.
12.

PRIOR TO THE CONTRACTOR COMMENCING ANY WORKS DETAILED ON THESE DRAWINGS, THE CONTRACTOR IS TO NOTIFY BEC AND RECEIVE WRITTEN CONFIRMATION FROM BEC THAT WORKS CAN COMMENCE.
13.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE STABILITY OF ANY TEMPORARY BUILDINGS WORK ON SITE.
14.

CONTRACTOR TO PROVIDE AS CONSTRUCTED DRAWINGS FOR ALL CONSTRUCTED WORKS IN ACCORDANCE WITH AUTHORITY/COUNCIL REQUIREMENTS. UNLESS OTHERWISE ADVISED BY BEC CONTRACTOR TO COMPLY WITH AUTHORITY/COUNCIL'S ADAC REQUIREMENTS.
15.

CONTRACTOR TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH RELEVANT APPROVALS.
16.

CONTRACTOR TO MAKE ALLOWANCE FOR LIAISON/COORDINATION WITH ELECTRICAL, LANDSCAPE AND OTHER SERVICE CONTRACTORS THROUGHOUT THE CIVIL CONSTRUCTION.
17.

CONTRACTOR TO ORGANISE ALL DEMOLITION PERMITS PRIOR TO ANY DEMOLITION WORKS COMMENCING ON SITE.
18.

CONTRACTOR TO MAKE ALLOWANCE FOR DEMOLITION AND REMOVAL OF ALL EXISTING STRUCTURES, ROADS AND SERVICES WITHIN THE LIMIT OF WORKS U.N.O.
19.

CONTRACTOR TO UNDERTAKE DILAPIDATION REPORT FOR ADJOINING PROPERTIES AND COUNCIL ROADS AND VERGES PRIOR TO COMMENCEMENT OF ANY WORKS ON SITE.
20.

CONTRACTOR TO CLEAR AND GRUB ALL VEGETATION ON SITE AS IDENTIFIED IN THE APPROVED VEGETATION MANAGEMENT PLAN. CONTRACTOR TO ENSURE ALL TREE ROOTS AND STUMPS ARE COMPLETELY REMOVED AND BACKFILLED TO LEVEL 1 SUPERVISION. CONTRACTOR TO ALLOW TO MULCH ALL CLEARED VEGETATION AND STOCKPILE ON SITE OR REMOVE FROM SITE AS DIRECTED.
21.

CONTRACTOR SHALL COORDINATE WITH ELECTRICAL, COMMUNICATIONS, FIRE, HYDRAULIC SERVICES AND LANDSCAPE CONSULTANT'S DRAWINGS FOR LOCATIONS OF PROPOSED OR RETAINED SERVICES. NO PAVING OR KERB IS TO BE PLACED UNTIL ALL SERVICES UNDER HAVE BEEN PLACED AND TESTED.
22.

CONTRACTOR TO PREPARE AND HAVE APPROVED BY RELEVANT AUTHORITY: ROAD OPENING PERMIT AND TRAFFIC MANAGEMENT PLAN (TMP) FOR ALL WORKS WITHIN COUNCIL ROAD RESERVES. CONTRACTOR TO ALLOW FOR ALL COSTS ASSOCIATED WITH IMPLEMENTATION OF THE TMP. TRAFFIC CONTROL IS TO BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARD MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). IF REQUESTED BY THE SUPERINTENDENT, THE CONTRACTOR IS REQUIRED TO PROVIDE A TMP FOR APPROVAL DETAILING THE TRAFFIC MOVEMENTS, THEIR STAGING, AND THE SIGNAGE ADOPTED IN EACH STAGE. ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH LOCAL AUTHORITY APPROVALS.
23.

CONTRACTOR TO UNDERTAKE ALL WORKS IN ACCORDANCE WITH AUTHORITY/COUNCIL APPROVALS.
24.

NO WORKS ARE TO BE UNDERTAKEN ON LAND OUTSIDE OF THE SITE BOUNDARY WITHOUT FORMAL APPROVAL BY THE OWNER/CUSTODIAN OF THAT LAND INCLUDING BUT NOT LIMITED TO PRIVATE PROPERTY, ROAD RESERVE, PARKS / OPEN SPACE, AND EASEMENTS.
25.

THE CONTRACTOR SHALL HAVE AN APPROVED SET OF CONSTRUCTION DRAWINGS AND

APPROVALS ON SITE AT ALL TIMES.

26.

NO WORK IS TO BE CARRIED OUT WITHIN 3m OF CABLE IN URBAN AREAS AND 10m IN RURAL AREAS, WITHOUT FIRST CONSULTING THE RELEVANT AUTHORITY. THE CONTRACTOR IS TO COORDINATE WITH ASSET OWNER AND COMPLY WITH RELEVANT GUIDELINES WHEN WORKING IN CLOSE PROXIMITY TO ENSURE PROTECTION OF UTILITY ASSET WHEN EXCAVATING OR UNDERTAKING WORKS.
27.

ALL MATERIALS ARE IN ACCORDANCE WITH LOCAL AUTHORITY/COUNCIL POLICIES AND SPECIFICATIONS.
28.

CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICABLE MEASURES FOR ENSURING ACTIVITIES ARE MANAGED TO AVOID OR MINIMISE HARM TO ABORIGINAL CULTURAL HERITAGE, IN ACCORDANCE WITH THE ABORIGINAL CULTURAL HERITAGE ACT 2003 - DUTY OF CARE GUIDELINES.
29.

CONTRACTOR SHALL IMPLEMENT SUITABLE PROTECTION MEASURES TO ENSURE ANY HERITAGE PLACE IS RETAINED AND PROTECTED.

SAFETY NOTES

1.

THE CONTRACTOR MUST COMPLY WITH THE RELEVANT STATE OCCUPATION HEALTH AND SAFETY ACT.
2.

THE CONTRACTOR MUST PROVIDE AND MAINTAIN A WORKING ENVIRONMENT THAT IS SAFE AND ELIMINATES OR REDUCES, AS FAR AS IS REASONABLY PRACTICABLE, RISKS TO THE CONTRACTOR'S EMPLOYEES AND MUST ALSO PROTECT OTHER PEOPLE WHO ARE NOT THEIR EMPLOYEES BUT ARE IN OR NEAR WORK SITE.
3.

THE CONTRACTOR IS RESPONSIBLE FOR THE PREVENTION OF FALLS. SAFE USE OF PLANT & EQUIPMENT, SAFETY IN EXCAVATIONS, APPROPRIATE STORAGE AND HANDLING OF DANGEROUS GOODS, HAZARDOUS SUBSTANCES AND WASTE, CONTROL OF RISKS ASSOCIATED WITH CONFINED SPACES AND WORKING SAFELY NEAR OVERHEAD OR UNDERGROUND ASSETS.
4.

THE CONTRACTOR MUST ENSURE THAT ALL PEOPLE ON THE WORK SITE WEAR THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.
5.

THE CONTRACTOR MUST PRODUCE AND SUBMIT A RISK ASSESSMENT FOR THE SATISFACTION OF THE SUPERINTENDENT.
6.

CONTROL MEASURES SHOULD BE IMPLEMENTED WHEN EXCAVATING TRENCHES AT LEAST 1.5m DEEP; SUCH METHODS MAY INCLUDE: SHORING BY SHIELDING, BENCHING OR BATTERING.

ENVIRONMENTAL NOTES

• VEGETATION PROTECTION

1.

TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
2.

WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD, GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTIONS AND REMAIN UNTIL COMPLETION.
3.

TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHOULD BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT COUNCIL ARBORIST FOR FURTHER ADVICE.
4.

ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY APPROVED ARBORIST.

• SOIL

1.

TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
2.

CARE SHOULD BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.
3.

ACID SULPHATE SOILS EXIST IN THE WORKS AREA. THE OUTPUTS FROM THE RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL REQUIRES THAT ACID SULPHATE SOILS BE MANAGED AS FOLLOWS:

• REHABILITATION

1.

PREDISTURBANCE SOIL PROFILES & COMPACTION LEVELS SHALL BE REINSTATED.
2.

PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

EARTHWORKS NOTES

1.

REFER TO GEOTECHNICAL DOCUMENTATION IN CONJUNCTION WITH BEC DOCUMENTATION.
2.

DESIGN BULK EARTHWORKS LEVELS ARE SHOWN ON THE DRAWINGS. ACTUAL LIMITS AND LEVELS ON SITE MAY BE REQUIRED TO VARY DUE TO SITE CONDITIONS AND RESTRAINTS. UNDER THESE CIRCUMSTANCES INSTRUCTIONS SHALL BE GIVEN BY THE SUPERINTENDENT AT THE PRESTART MEETING OR DURING CONSTRUCTION. FINISHED SURFACE CONTOURS MAY BE ADJUSTED WITH THE WRITTEN APPROVAL OF THE SUPERINTENDENT DURING CONSTRUCTION.

a.

REFER TO THE STRUCTURAL ENGINEER'S DRAWINGS FOR STRUCTURAL SLAB THICKNESS AND FOUNDATIONS.

b.

REFER TO ARCHITECT FOR ALL SETOUT, LEVELS, STEPS, FALLS ETC. TO SLABS.

c.

THE CONTRACTOR IS TO CONFIRM BUILDING SETOUT WITH THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF EARTHWORKS, INCLUDING LOCATION AND DEPTH OF ALL SLAB SET DOWNS.
3.

EARTHWORKS QUANTITIES , WHERE PROVIDED, ARE CALCULATED ON THE BASIS OF THE ASSUMED PAVEMENT THICKNESS SHOWN ON THE DRAWINGS (EXCLUDING LOWER SUB-BASE COURSE). EARTHWORKS QUANTITIES ARE NET SOLID VOLUMES.
4.

THE CONTRACTOR IS TO COMPLY WITH ALL REGULATIONS CONCERNING WORK HOURS, WARNING SIGNS, FENCING OR SECURITY AND EMISSIONS FROM SITE INCLUDING DUST, WATER, SILT, NOISE AND SMOKE AS REQUIRED TO MEET THE " GENERAL DUTY OF CARE " UNDER THE ENVIRONMENTAL PROTECTION ACT.

5.

ALL VEHICLES EXITING FROM THE SITE WILL DO SO VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP WHEN IMPLEMENTED. VEHICLES WILL BE CLEANED AND TREATED AS TO PREVENT MATERIAL BEING TRACKED OR DEPOSITED ON THE ADJOINING PUBLIC ROADS. REFER EROSION AND SEDIMENT DRAWINGS FOR FURTHER DETAILS OF EROSION AND SEDIMENT CONTROLS.
6.

ALL SITE PREPARATION SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 3798 " GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS " . UNSUITABLE MATERIAL ENCOUNTERED IN AREAS TO BE FILLED SHALL BE REMOVED IN ACCORDANCE WITH THE SPECIFICATION WHERE PROVIDED.
7.

TOPSOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, BUILDING PLATFORMS, ROAD RESERVES AND CARPARKING AREAS, AND STOCKPILED AS DIRECTED BY SUPERINTENDENT. THE GEOTECHNICAL CONSULTANT SHALL CONFIRM THAT ALL ORGANIC SOIL HAS BEEN REMOVED PRIOR TO THE COMMENCEMENT OF FURTHER EARTHWORKS. TOPSOIL SHALL BE KEPT SEPARATED FROM STOCKPILES OF MATERIAL INTENDED FOR FILLING.
8.

EXCAVATED MATERIAL NOT REQUIRED FOR IMMEDIATE REUSE FOR ROADWORKS OR APPROVED SITE FILLING SHALL BE REMOVED FROM SITE OR AS DIRECTED BY THE SUPERINTENDENT.
9.

TEST ROLLING AND REMOVAL OF UNSUITABLE MATERIAL IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION AND AS 3798. ANY SOFT SPOTS OR ZONES OF UNSUITABLE MATERIAL THAT ARE IDENTIFIED SHALL BE EXCAVATED, BACKFILLED WITH APPROVED MATERIAL AND RECOMPACTED. ALTERNATIVELY, WITH THE APPROVAL OF THE SUPERINTENDENT THE SOFT SPOTS OR ZONES OF UNSUITABLE MATERIAL MAYBE SCARIFIED, MOISTURE CONDITIONED AND RECOMPACTED IN ACCORDANCE WITH AS 3798.
10.

ALL FILL SHALL BE PLACED AND TESTED IN ACCORDANCE WITH AS 3798. BACKFILL AND FILL SHALL BE COMPACTED AS PER THE SPECIFICATION IN 250mm MAXIMUM DEPTH LOOSE LAYERS.
11.

FILL BATTER SLOPES ARE TO BE OVERFILLED AND TRIMMED BACK TO PROFILE.
12.

THE TOTAL COST OF THE GITA FOR THE ABOVE INSPECTION AND TESTING IS TO BE INCLUDED IN THE LUMP SUM OF THE TENDER. THE GITA IS TO MAINTAIN THE SITE RECORD REPORTS SUCH THAT THEY MAY BE PRESENTED AT REQUEST FROM THE PRINCIPAL.
13.

SAFETY MEASURES SHALL BE IMPLEMENTED WHERE RETAINING WALLS ARE GREATER THAN 1.0m IN HEIGHT.
14.

THE GEOTECHNICAL INSPECTION AND TESTING AUTHORITY (GITA) IS TO PROVIDE SITE RECORD REPORTS AS PER THE BUILDING EARTHWORKS SPECIFICATION. THE GITA IS TO UNDERTAKE CONTINUOUS INSPECTION AND TESTING AND IS TO PROVIDE A COMPLIANCE CERTIFICATE IMMEDIATELY FOLLOWING COMPLETION OF EARTHWORKS.

- a.

UNLESS NOTED OTHERWISE THE FREQUENCY OF TESTING IS TO BE IN ACCORDANCE WITH TABLE 8.1 OF AS 3798.
- b.

THE COMPLIANCE CERTIFICATE SHALL BE SIGNED BY A SUITABLY QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER (R.P.E.Q. OR EQUIVALENT) AND SHALL STATE THE FOLLOWING:
- c.

THAT ALL EARTHWORKS HAVE BEEN CARRIED OUT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATION.
- d.

THAT FILL HAS BEEN PLACED AND COMPACTED TO THE MINIMUM DENSITY RATIOS DETAILED ON THE DRAWINGS AND SPECIFICATION.
- e.

THAT FILL MATERIAL COMPLIES WITH THE DRAWINGS AND SPECIFICATION.
16.

ABSOLUTE MINIMUM DENSITY RATIOS ARE THE FOLLOWING:

a.

COMMERCIAL FILL - 98% STD.

b.

SUBGRADE EXCEEDING 300mm BELOW PAVEMENT - 95% STD.

c.

SUBGRADE WITHIN 300mm OF PAVEMENT - 98% STD.



SCALE BARS

SIZE: A1 / A3

STATUS

DO NOT SCALE DRAWINGS

ISSUED FOR INFORMATION

CIVIL DOCUMENTATION

PROJECT No.	DRAWING No.	REVISION
9160	C002	03

STANDARD NOTES

PROJECT

PROPOSED MIXED USE DEVELOPMENT
1 - 4 OLD BATHURST ROAD,
EMU PLAINS N.S.W. 2750



ASSOCIATED CONSULTANTS

Addis Ababa
Brisbane
Cairns
Canberra
Melbourne
Perth
Shenzhen
Sydney



RPEQ CERTIFICATION

NAME: RHYS KILPATRICK
RPEQ NO: 2952822
DATE: 17/04/2025

SIGNATURE:

1300 245 518
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PRINT DRAWING
IN COLOUR

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	
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PROJECT
PROPOSED MIXED USE DEVELOPMENT
1 - 4 OLD BATHURST ROAD,
EMU PLAINS N.S.W. 2750

DRAWING TITLE

OVERALL SITE LAYOUT PLAN

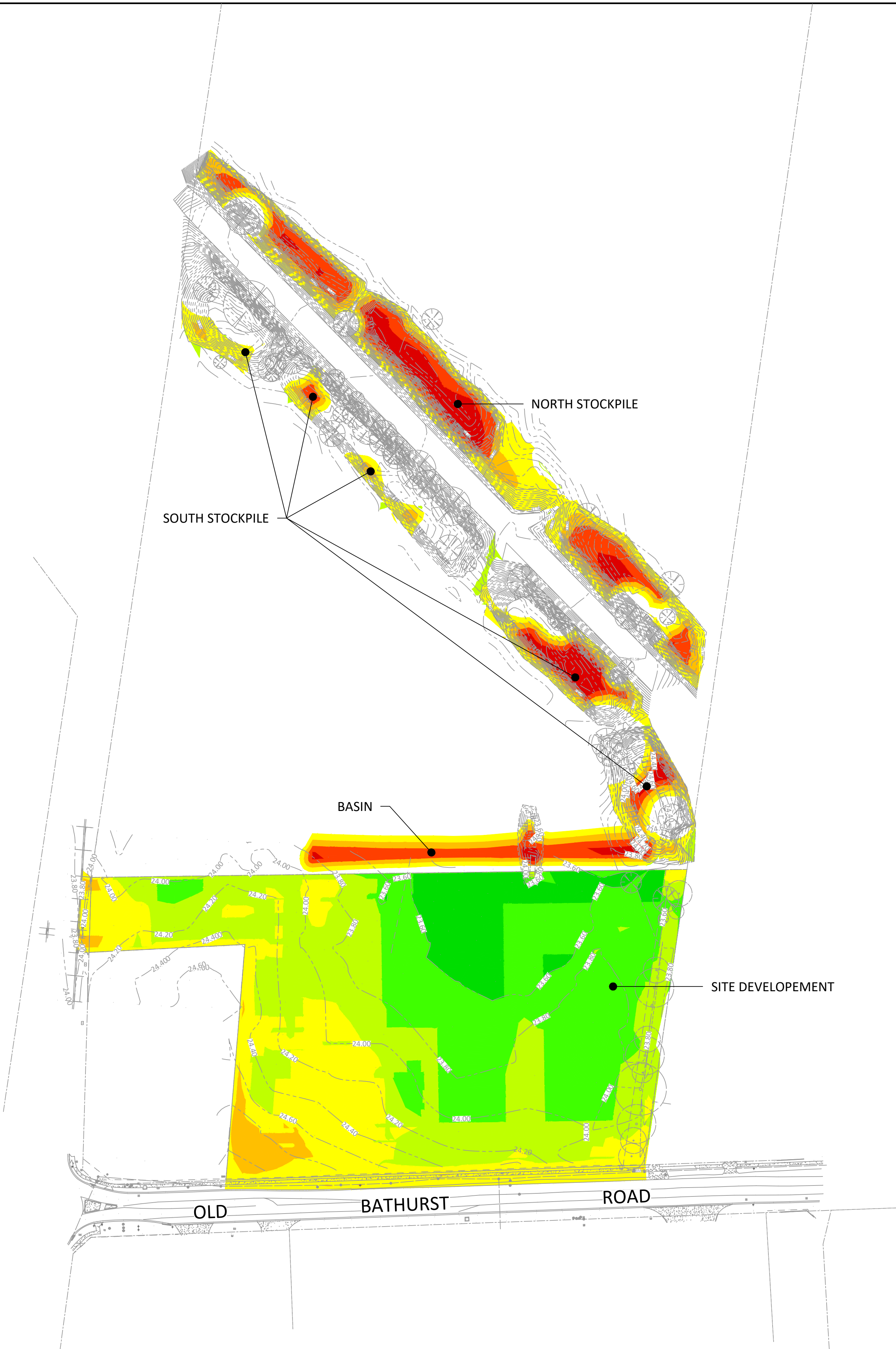
PROJECT NORTH



CIVIL DOCUMENTATION

PROJECT No.	DRAWING No.	REVISION
9160	C100	03

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	CUT (m³)	FILL (m³)	NET (m³)
NORTH STOCKPILE	3877		3937 CUT
SOUTH STOCKPILE	1685		1685 CUT
BASIN	1501		1430 CUT
DEVELOPMENT	1680	8720	7040 FILL
TOTAL	8743	8720	23 CUT

NET EARTHWORKS VOLUME BY ELEVATION FOR DEVELOPMENT SITE ONLY			
	FROM	TO	NET(m³)
ORIGINAL FLOOD LEVEL	EXISTING GROUND	RL: +24.1	3998 FILL
NEW FLOOD LEVEL	RL: +24.1	RL: +24.3	1837 FILL
NEW FLOOD LEVEL PLUS FREEBOARD	RL: +24.3	RL: +24.8	1199 FILL
TOTAL			7034 FILL

ELEVATIONS TABLE			
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-2.50	-1.50	Red
2	-1.50	-1.00	Orange
3	-1.00	-0.50	Yellow
4	-0.50	0.00	Light Green
5	0.00	0.50	Green
6	0.50	1.00	Dark Green
7	1.00	1.50	Dark Green
8	1.50	2.00	Dark Green



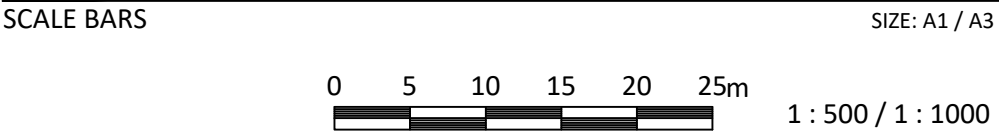
STATUS

ISSUED FOR
INFORMATION

ORIGINAL SIZE A1 0 10 20 30 40 50 100



BIODIVERSITY DEVELOPMENT ASSESMENT REPORT
SOURCE: MCIVOR ENVIRONMENTAL
CONTACT: 0403 891 523
LOCATION: 172 RUSSELL ST. EMU PLAINS NSW 2560



DO NOT SCALE DRAWINGS

STATUS

ISSUED FOR
INFORMATION

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	
02	12/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.
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ASSOCIATED CONSULTANTS

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PROJECT

PROPOSED MIXED USE DEVELOPMENT
1 - 4 OLD BATHURST ROAD,
EMU PLAINS N.S.W. 2750

DRAWING TITLE

ARBORIST LAYOUT PLAN

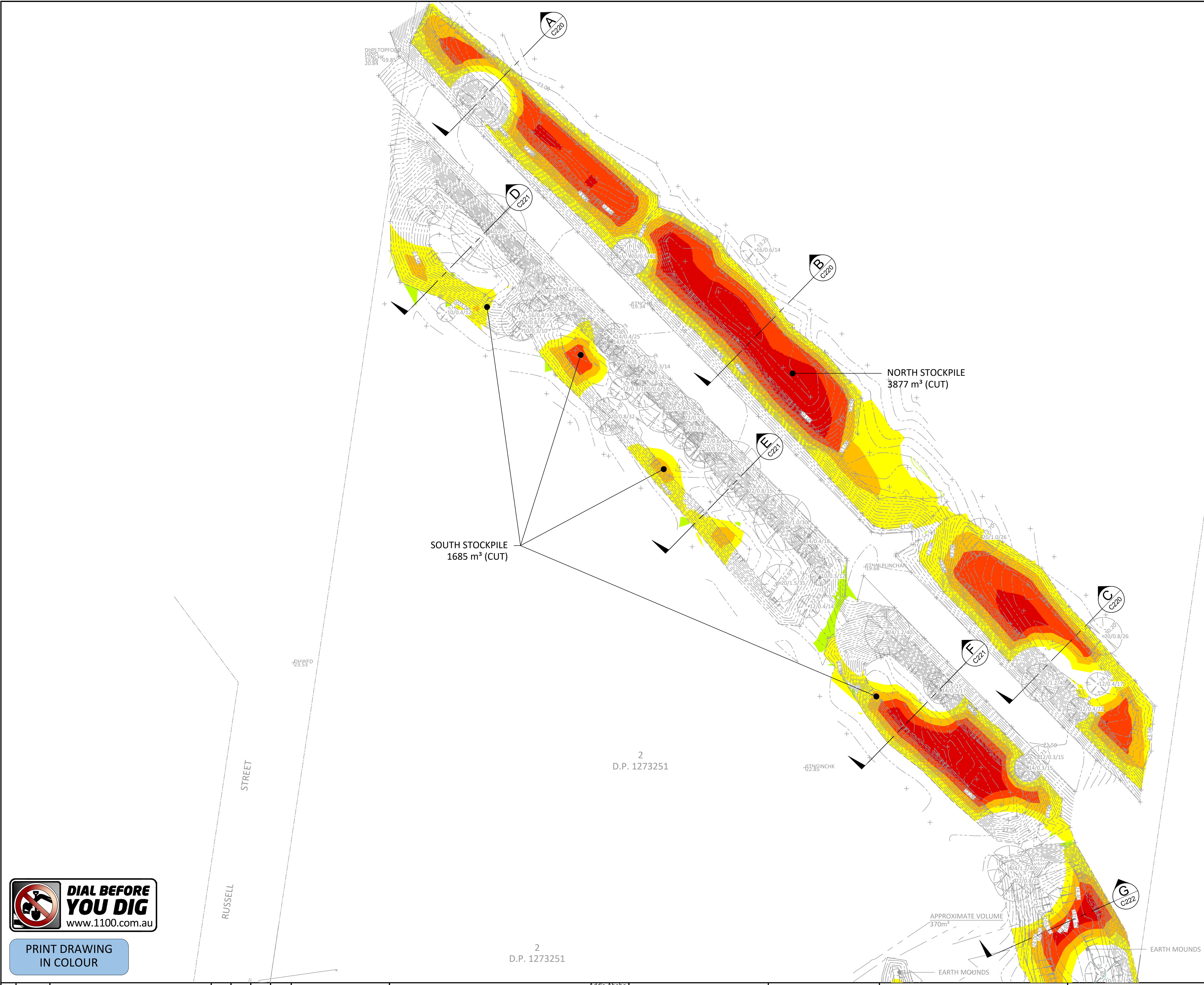
PROJECT NORTH



CIVIL DOCUMENTATION

PROJECT No.	DRAWING No.	REVISION
9160	C200	03

ORIGINAL SIZE A1



ELEVATIONS TABLE			
NUMBER	MINIMUM ELEVATION	MAXIMUM ELEVATION	COLOR
1	-2.50	-1.50	
2	-1.50	-1.00	
3	-1.00	-0.50	
4	-0.50	0.00	
5	0.00	0.50	
6	0.50	1.00	
7	1.00	1.50	
8	1.50	2.00	



PRINT DRAWING
IN COLOUR

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PROJECT
PROPOSED MIXED USE DEVELOPMENT
1 - 4 OLD BATHURST ROAD,
EMU PLAINS N.S.W. 2750

DRAWING TITLE
BULK EARTHWORKS - STOCKPILE
VOLUME LAYOUT PLAN



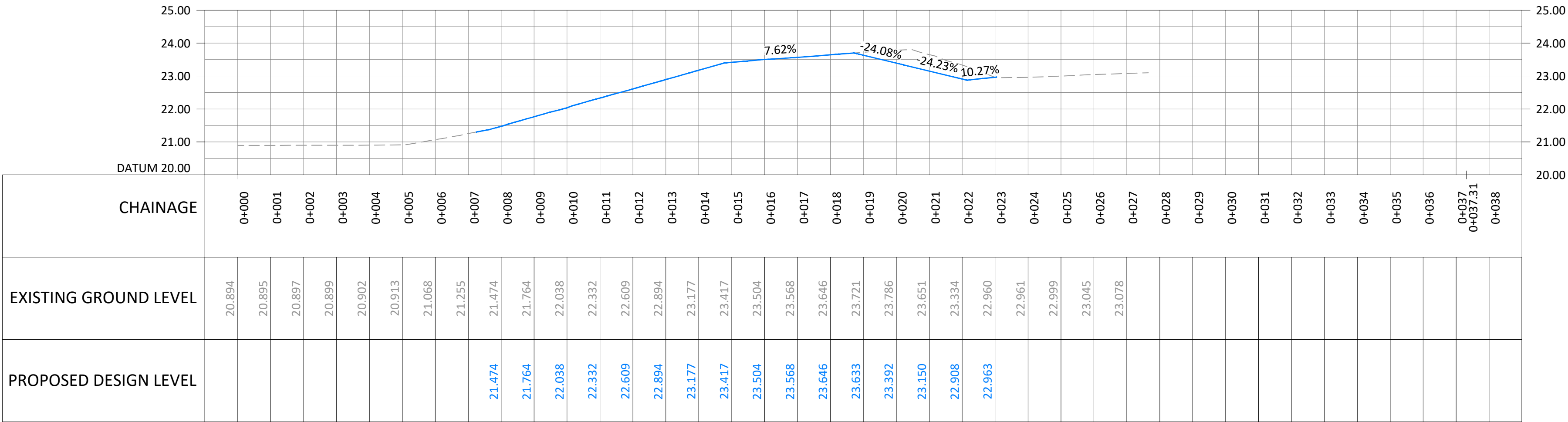
CIVIL DOCUMENTATION		
PROJECT No.	DRAWING No.	REVISION
9160	C210	03



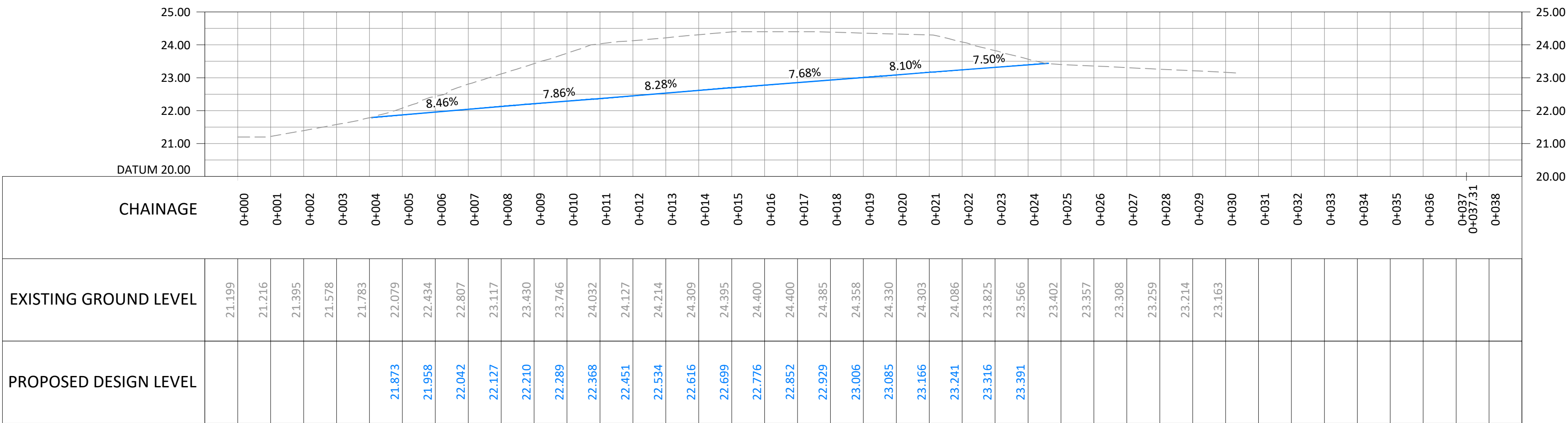
STATUS

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INFORMATION

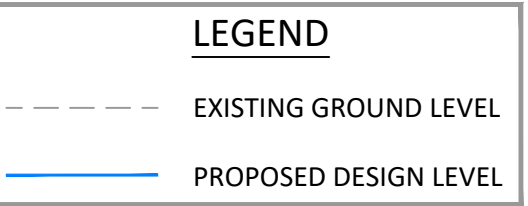
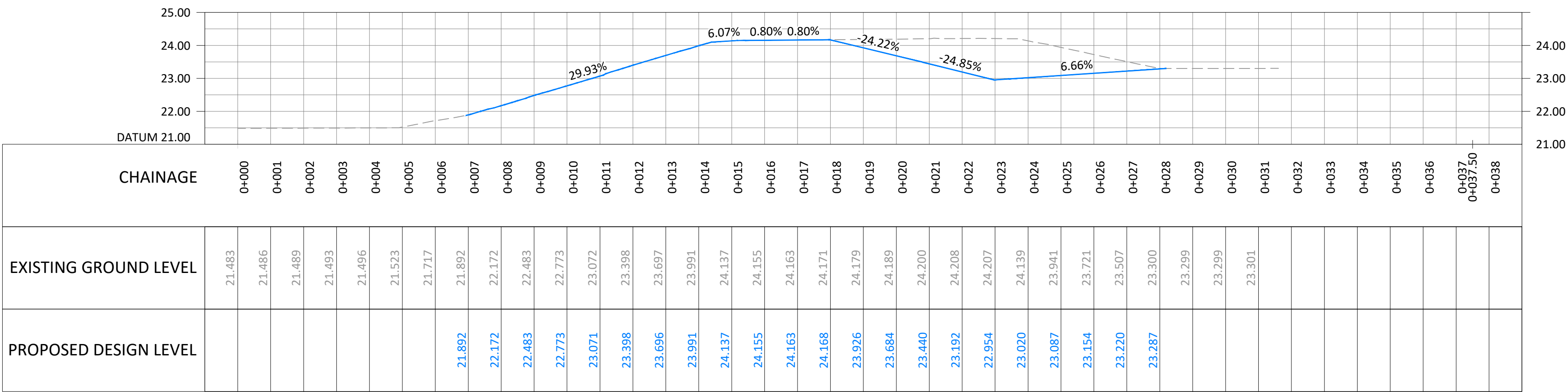
SECTION PROFILE A



SECTION PROFILE B

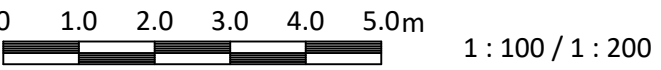


SECTION PROFILE C



SCALE BARS

SIZE: A1 / A3



STATUS

DO NOT SCALE DRAWINGS

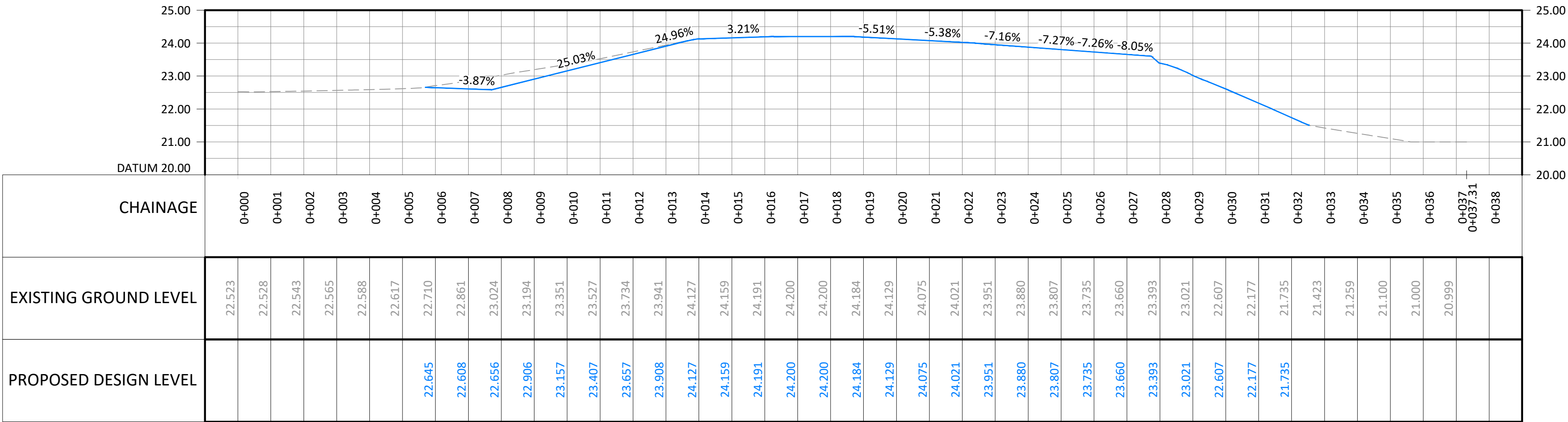
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INFORMATION



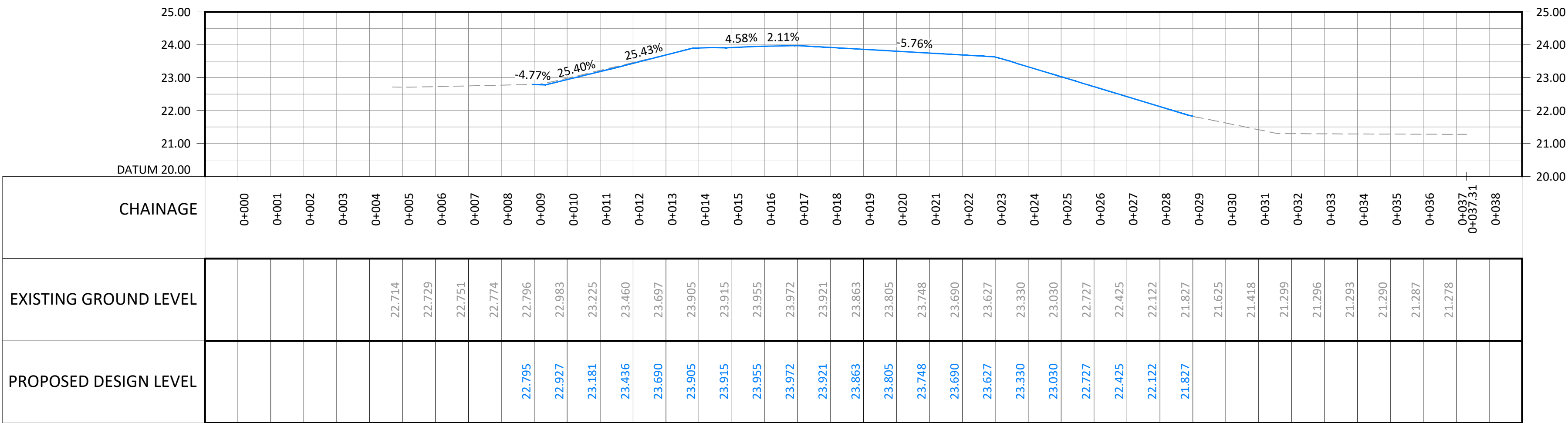
PRINT DRAWING
IN COLOUR

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP	RPEQ CERTIFICATION	built environment collective  engineered design + management	ADDIS ABABA BRISBANE CAIRNS CANBERRA MELBOURNE PERTH SHENZHEN SYDNEY	ASSOCIATED CONSULTANTS	CLIENT	PROJECT	DRAWING TITLE	PROJECT NORTH	CIVIL DOCUMENTATION	
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.		NAME: RHY'S KILPATRICK	SIGNATURE:  1300 245 518 www.bec.studio info@bec.studio		PROPOSED MIXED USE DEVELOPMENT 1 - 4 OLD BATHURST ROAD, EMU PLAINS N.S.W. 2750	GLENSTONE GROUP	BULK EARTHWORKS - CROSS SECTIONS - SHEET 1	PROJECT NORTH	PROJECT No.	DRAWING No.	REVISION
02	12/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	RPEQ NO: 2952822							9160	C220	03
03	17/04/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	DATE: 17/04/2025									

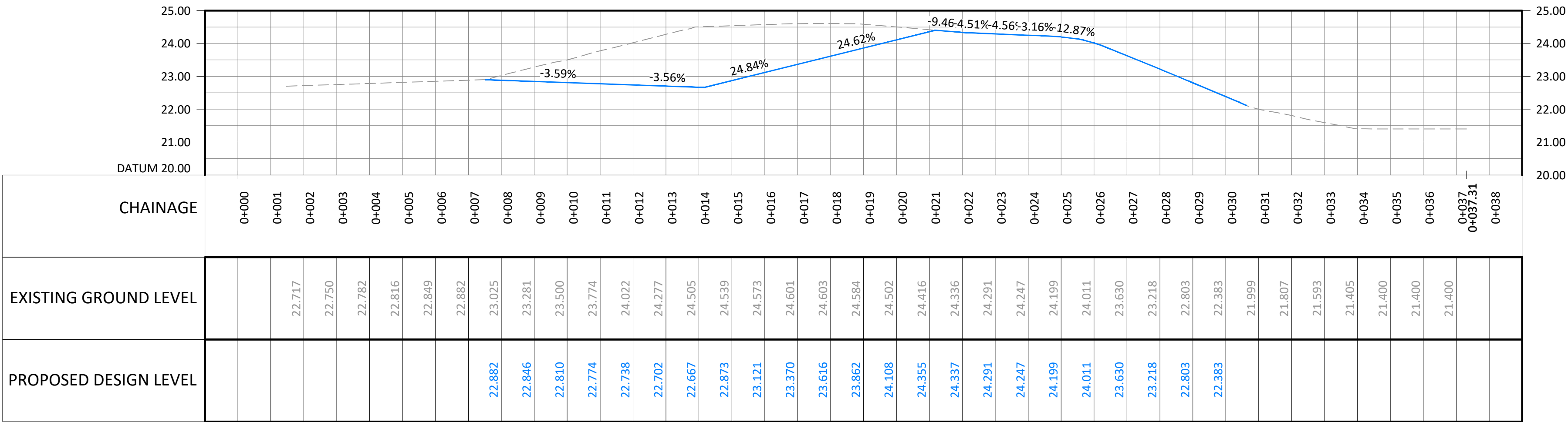
SECTION PROFILE D



SECTION PROFILE E



SECTION PROFILE F



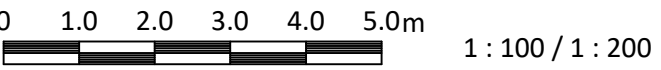
LEGEND

--- EXISTING GROUND LEVEL

— PROPOSED DESIGN LEVEL

SCALE BARS

SIZE: A1 / A3



DO NOT SCALE DRAWINGS

STATUS

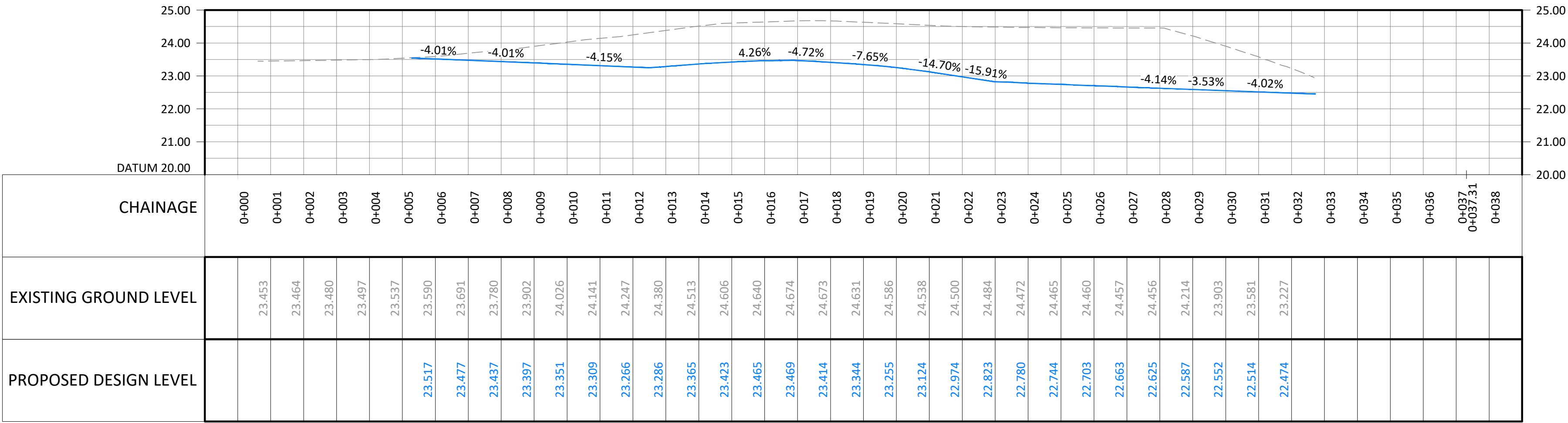
ISSUED FOR INFORMATION



PRINT DRAWING IN COLOUR

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP	RPEQ CERTIFICATION	built environment collective	ASSOCIATED CONSULTANTS	CLIENT	PROJECT	DRAWING TITLE	PROJECT NORTH	CIVIL DOCUMENTATION
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.		NAME: RHYSS KILPATRICK		Addis Ababa Brisbane Calms Canberra Melbourne Perth Shenzhen Sydney		PROPOSED MIXED USE DEVELOPMENT 1 - 4 OLD BATHURST ROAD, EMU PLAINS N.S.W. 2750	BULK EARTHWORKS - CROSS SECTIONS - SHEET 2		PROJECT No. 9160
02	12/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	RPEQ NO: 2952822							DRAWING No. C221
03	17/04/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	DATE: 17/04/2025							REVISION 03
							SIGNATURE:	engineered design + management						

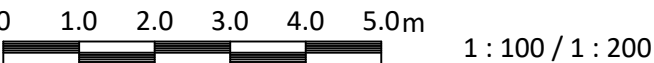
SECTION PROFILE G



LEGEND	
	EXISTING GROUND LEVEL
	PROPOSED DESIGN LEVEL

SCALE BARS

SIZE: A1 / A3



STATUS

DO NOT SCALE DRAWINGS

ISSUED FOR
INFORMATION



PRINT DRAWING
IN COLOUR

REV	DATE	DESCRIPTION	DWN	DES	CHK	APP	RPEQ CERTIFICATION	built environment collective	1300 245 518 www.bec.studio info@bec.studio	Addis Ababa Brisbane Cairns Canberra Melbourne Perth Shenzhen Sydney	ASSOCIATED CONSULTANTS	CLIENT	PROJECT	DRAWING TITLE	PROJECT NORTH	CIVIL DOCUMENTATION
01	10/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.		NAME: RHY'S KILPATRICK						PROPOSED MIXED USE DEVELOPMENT 1 - 4 OLD BATHURST ROAD, EMU PLAINS N.S.W. 2750	BULK EARTHWORKS - CROSS SECTIONS - SHEET 3		PROJECT No. 9160 DRAWING No. C222 REVISION 03
02	12/03/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	RPEQ NO: 2952822									
03	17/04/25	ISSUED FOR INFORMATION	N.P.	T.R.	M.M.	R.K.	DATE: 17/04/2025									
							SIGNATURE:									