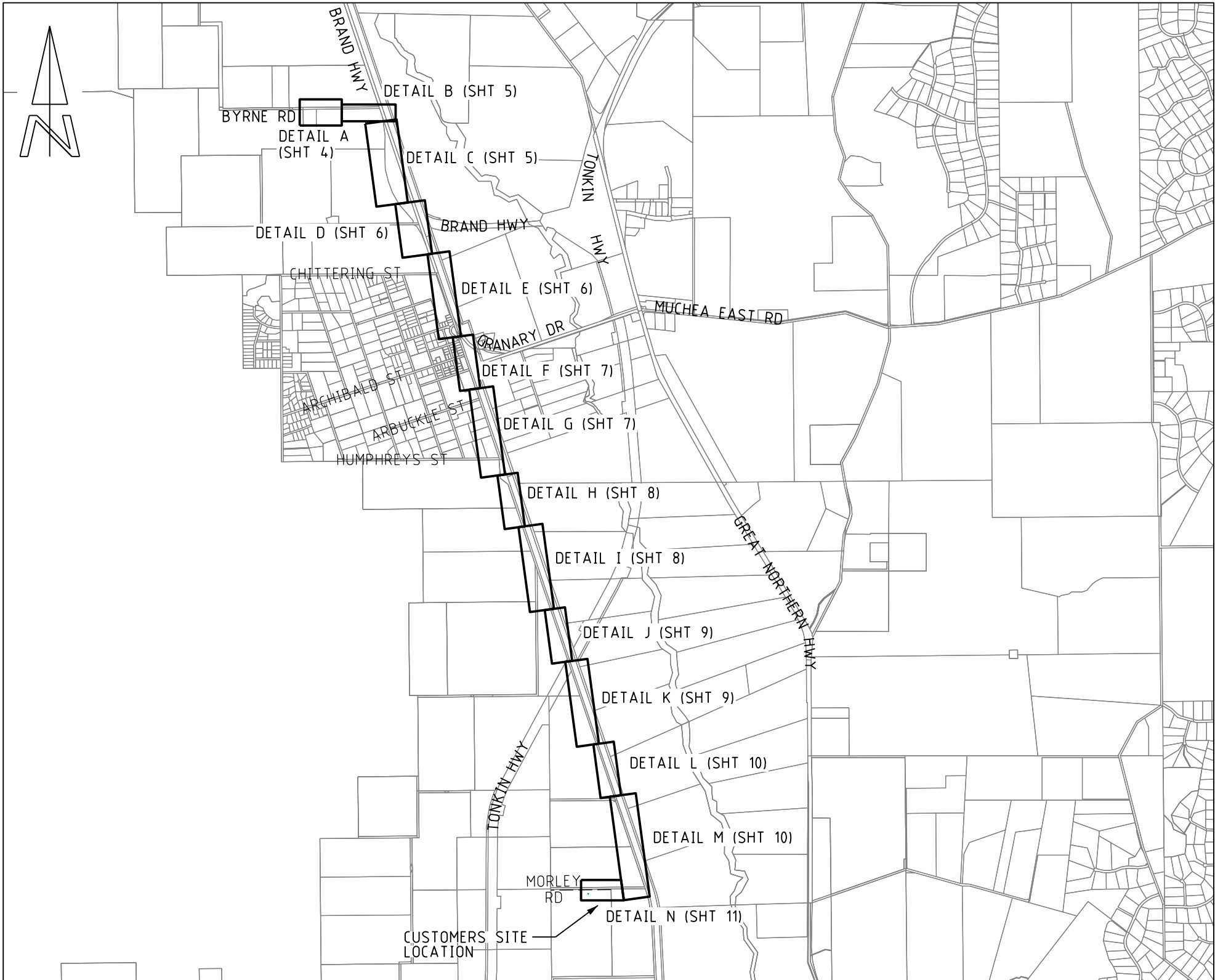


SAFETY - MAKE IT YOUR PRIMARY VALUE

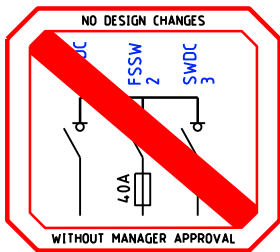


SITE LOCATION PLAN
SCALE: 1:50,000

DRAWING INDEX	
SHEET NO.	DESCRIPTION
1	COVER SHEET & SITE LOCATION PLAN
2	SUBSTATION DETAILS
3	MUCHEA ZONE SUBSTATION CABLE INSTALLATION DETAILS
4	CABLE INSTALLATION PLAN 1
5	CABLE INSTALLATION PLAN 2
6	CABLE INSTALLATION PLAN 3
7	CABLE INSTALLATION PLAN 4
8	CABLE INSTALLATION PLAN 5
9	CABLE INSTALLATION PLAN 6
10	CABLE INSTALLATION PLAN 7
11	CABLE INSTALLATION PLAN 8
12	ENVIRONMENTAL DRAWING - IDENTIFIED RISKS
13	ENVIRONMENTAL DRAWING - MITIGATION REQUIREMENTS
14	VEGETATION CLEARING REQUIREMENTS

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

ISSUED FOR CONSTRUCTION



WESTERN POWER SCOPE OF WORK

- 1 INSTALL WESTERN POWER'S OUTDOOR HV 3+0 SWITCHGEAR, INCLUDING METERING UNIT, TO DSPM-3-23 AS NOTED ON THE DRAWING. INSTALL OIL CONTAINMENT PANEL AND POST WITH RAILWAY BALLAST/FLAME TRAP IN ACCORDANCE WITH WASIR CLAUSE 14.6.5, DRAWING DSPM-4-06.
CU: HU5_400x1, HU84_22x1, HU76x1, HU65_400x2, HM1x1
- 2 INSTALL 400HV CABLE FROM NEW WESTERN POWER SWITCH GEAR TO HV METERING UNIT.
CU: CN53x15m, CN73_240x2
- 3 INSTALL 400HV CABLE FROM METERING UNIT TO CUSTOMER SWITCH GEAR.
CU: CN53x15m, CN73_240x2
- 4 TERMINATE 400HV CABLE AT HV METERING AND NEW WESTERN POWER SWITCH GEAR.
- 5 INSTALL 400HV CABLE FROM MUCHEA ZONE SUBSTATION TO NEW RMU AT CUSTOMERS SITE ON MORLEY RD.
CU: CN53x10,500m, CN54x34, CN73x84
- 6 INSTALL END OF DRUM 400HV CABLE STRAIGHT JOINTS.
CU: HU2x41
- 7 TERMINATE 400HV CABLE AT MUCHEA ZONE SUBSTATION INDOOR SWITCHGEAR MUC 540. REFER TO SHEET 3 FOR DETAILS.
CU: HU62_22GE400x1, HU62_22A1400x1
- 8 INSTALL 400HV CABLE FROM NEW RMU ON CUSTOMERS SITE TO POLE S331260.
CU: CN53x700m, CN54x10, CN73x6
- 9 INSTALL END OF DRUM 400HV CABLE STRAIGHT JOINTS. LOCATIONS SHOWN ARE INDICITIVE ONLY. EXACT LOCATION TO BE DETERMINED ON SITE.
CU: HU2x2
- 10 TERMINATE 400HV CABLE TO POLE S331260.
CU: HU16x1
DCSH: H08-3
- 11 ENVIRONMENTAL FILTER CHECKED

THE FOLLOWING ENVIRONMENTAL ISSUES HAVE BEEN IDENTIFIED FOR THIS PROJECT. ALL RELEVANT PERMITS & PROCEDURES MUST BE OBTAINED & ADHERED TO:

1. DECLARED RARE FLORA
3. THREATENED ECOLOGICAL COMMUNITIES
4. ABORIGINAL HERITAGE AREAS
5. MUNICIPAL INVENTORY
6. ACID SULFATE SOILS
7. CONTAMINATED SITES WP REGISTER
8. CONSERVATION WETLAND
9. POTENTIALLY WET AREAS
10. NATIVE VEGETATION REMAINING
11. NATIVE VEGETATION REGS ESAS CLEARING
12. DBCA LEGISLATED LANDS & WATERS
13. CONSERVATION ESTATE
14. SYSTEM RESERVE
15. ESA BOUNDARY
16. DECLARED RARE AND PRIORITY FLORA - WA HERBARIUM

PLEASE REFER TO THE ENVIRONMENTAL DRAWING FOR MORE INFORMATION.

CUSTOMER SCOPE OF WORK

- A THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS.
- B SUBSTATION TO BE DESIGNED TO MINIMUM DIMENSIONS SHOWN ON THE DRAWING AND IN-CONJUNCTION WITH WESTERN POWER'S DRAWING DSPM-03-23.
- C CUSTOMER TO SUPPLY AND INSTALL DUCTING AS NOTED ON THE DESIGN DRAWING.
- D SUBSTATION SITE WILL BE PREPARED AS PER THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSE 14.4.6. THIS INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1. PEGGING, COMPACTION AND LEVELLING. A COMPACTION CERTIFICATE IS REQUIRED.
2. LOCATED 500mm ABOVE 100 YEAR FLOOD LEVEL AND NOT IN A PRECARIOUS POSITION.
3. CLEAR OF ALL SERVICES INCLUDING ENCROACHMENT.
4. CLEAN SAND FILL TO A DEPTH OF 1.5m. EXCAVATIONS GREATER THAN 1.5m TO BE IN ACCORDANCE WITH THE EXCAVATION CODE OF PRACTICE.

CRITICAL RISK MANAGEMENT

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- E CUSTOMER TO ENSURE EXISTING METALLIC FENCES WITHIN 1.25 METRES OF SUBSTATION SITE IS RELOCATED PRIOR TO THE COMMENCEMENT OF THE WORK.
- F IF THE CUSTOMER PROPOSES TO INSTALL SCREENING, APPROVAL SHALL BE OBTAINED FROM WESTERN POWER PRIOR TO ITS INSTALLATION. THE SCREENING SHALL BE INSTALLED ONLY AFTER WESTERN POWER HAS COMPLETED ALL OF THE WORK ON THE SUBSTATION SITE. REFER TO THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSES 14.4.10.3.2, 14.4.11 AND 14.5.4 FOR DETAILS.
- G NO BUILDINGS ALLOWED WITHIN 4m OF THE SUBSTATION UNLESS 2 HOUR FIRE RATED. SEE WESTERN POWER DRAWING DSM-5-01 FOR DETAILS.
- H CUSTOMER MUST COMPLY WITH POWER QUALITY LIMITS AS PER AS/NZS TS IEC 61000.3.5 AND WESTERN POWER TECHNICAL REQUIREMENTS.
- I WESTERN POWER MUST RECEIVE A HV SUBMISSION FROM THE CUSTOMER AND APPROVE THE NETWORK CONNECTION PRIOR TO INSTALLATION OF THE CUSTOMER'S EQUIPMENT. AS PER WAER CLAUSE 7 AND THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSE 13.7.2.
- J THE CUSTOMER'S EQUIPMENT MUST BE RATED FOR 22,000 VOLTS, WHICH IS THE HV DISTRIBUTION VOLTAGE IN THIS AREA. THE CUSTOMER'S INSTALLATION MUST BE DESIGNED TO WITHSTAND WITHOUT DAMAGE THE MAXIMUM CURRENTS WHICH MAY FLOW THROUGH IT UNDER FAULT CONDITIONS AS PER THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSE 10.6.2.
- K THE CUSTOMER MUST MEET THE REQUIREMENTS OF THE WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSE 11.6.4.6 - ADDITIONAL REQUIREMENTS FOR HIGH VOLTAGE CONNECTIONS.
- L CUSTOMER ELECTRICAL CONTRACTOR IS TO SUPPLY SUITABLE TERMINATION MATERIALS AND MAKE CONNECTION TO THE CUSTOMER'S HV SWITCHGEAR.
- M THIS DESIGN IS INTENDED TO BE CONSTRUCTED DE-ENERGISED. YOUR ELECTRICITY SUPPLY MAY NOT BE AVAILABLE DURING THIS TIME
- N CUSTOMER ELECTRICAL CONTRACTOR TO ENSURE CUSTOMER'S SPD GRADES WITH WESTERN POWER'S UPSTREAM PROTECTION AS NOTED ON THE SIMPLIFIED LINE DIAGRAM.
- O CUSTOMER MAIN SWITCH TO HAVE INTEGRAL EARTH SWITCH THAT IS USED UNDER A CUSTOMER AND WESTERN POWER OPERATING AGREEMENT.
- P CUSTOMER TO ARRANGE FOR AN 'EASEMENT IN GROSS' UNDER THE ENERGY OPERATORS POWERS ACT 1979. CUSTOMER TO SUBMIT THE DEPOSITED PLAN TO WESTERN POWER PRIOR TO THE COMMENCEMENT OF WORKS.
- Q CUSTOMER TO BE AWARE THAT HV OUTDOOR GROUND MOUNTED SWITCHGEAR IS LIMITED TO A MAXIMUM INSTALLED CAPACITY OF 4MVA AS PER WESTERN AUSTRALIAN SERVICE AND INSTALLATION REQUIREMENTS CLAUSE 14.3.4.2.
- R CUSTOMER TO UNDERTAKE EARTH POTENTIAL RISE (EPR) STUDY IN ACCORDANCE WITH WESTERN POWER'S TECHNICAL REQUIREMENTS AND AS4853.
- S CUSTOMER TO CONTACT WESTERN POWER PROPERTY SPECIALIST AT conveyancing@westernpower.com.au TO ARRANGE THE PREPARATION AND REGISTRATION OF THE REQUIRED 129BA RESTRICTIVE COVENANT.

RESTRICTIVE COVENANT TO BE REGISTERED PRIOR TO ENERGISATION.

CONSULTANT CONTACT DETAILS

COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION
CONTACT: AARON BOYALL TEL: [REDACTED]

CUSTOMER CONTACT DETAILS

COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD
CONTACT: [REDACTED] TEL: [REDACTED]

DESIGNER: VINKO MAJIC

DESIGN TEAM: CCS DESIGN TEAM B

EMAIL: [REDACTED]

TEL: 13 10 87

DATE: 07/24

SCALE: 1:2000 A2

GEO REF: Lat. - 31°37'59" S
Long. - 115°59'23" E



DRAWING NUMBER

MP207462

SHEET 01 OF 14

REV: B ORIGINAL SIZE - A2

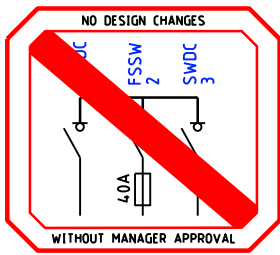
2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK

COVER SHEET & SITE LOCATION PLAN

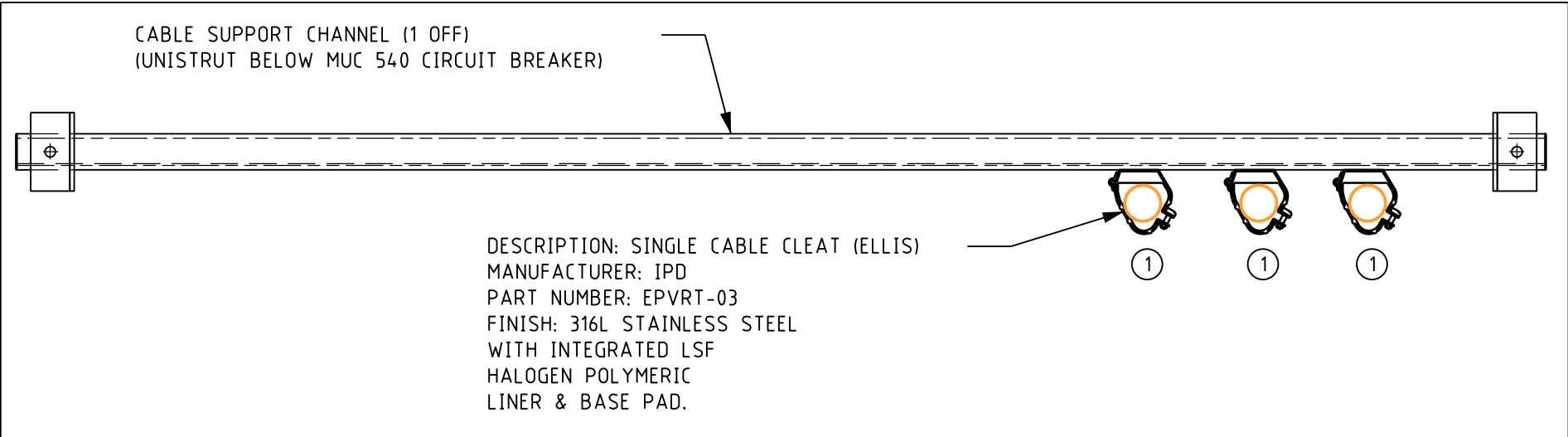
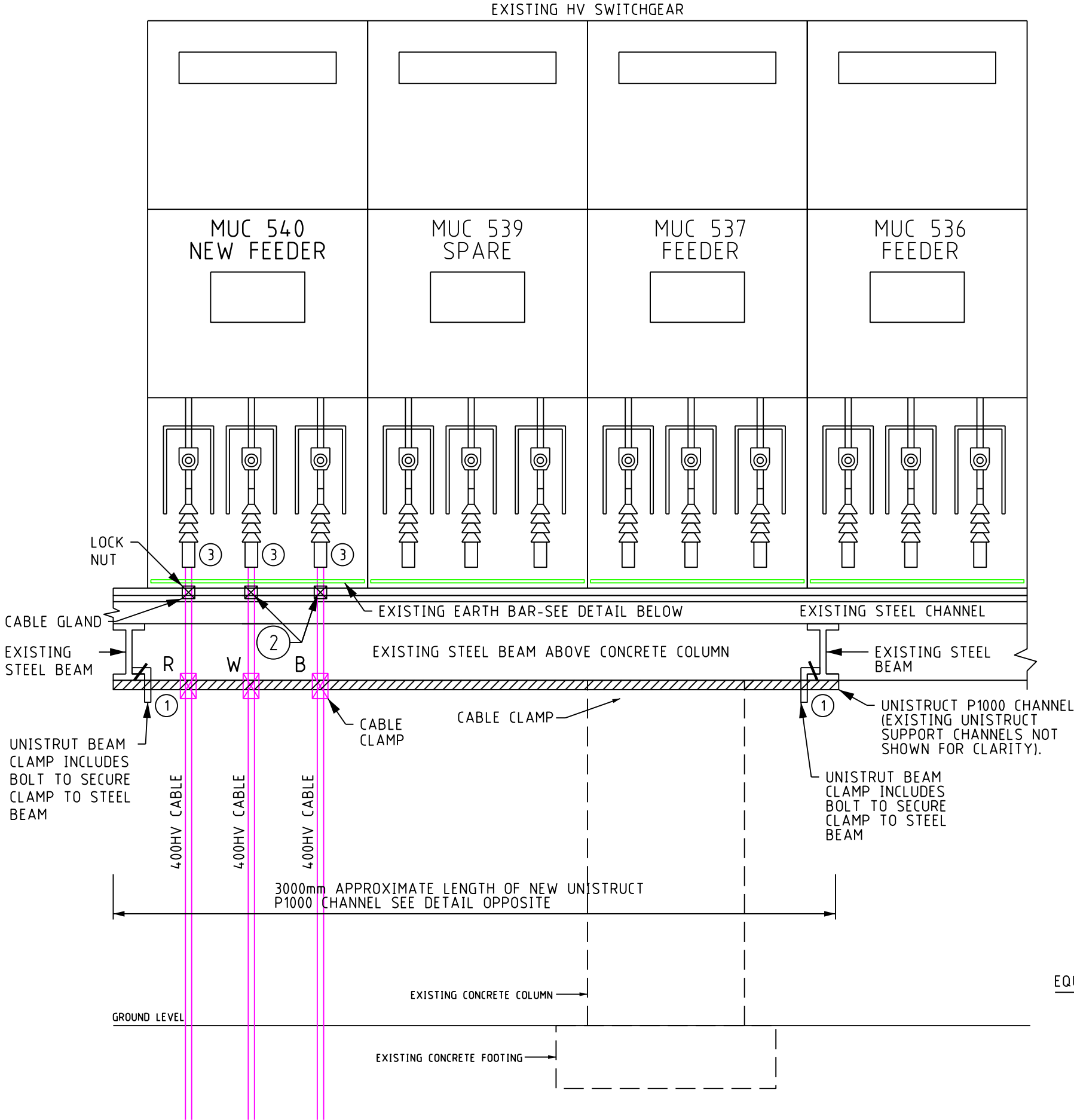
NETWORK VOLTAGE: 22kV / 415V

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

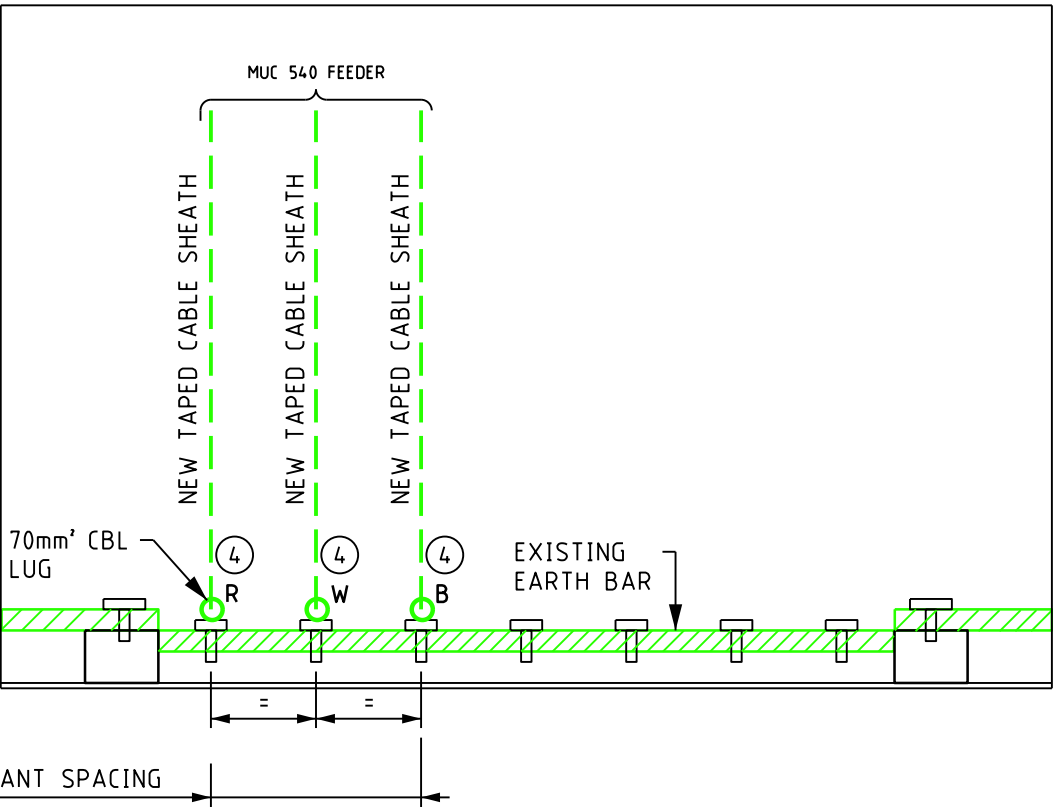
SAFETY - MAKE IT YOUR PRIMARY VALUE



CRITICAL RISK MANAGEMENT								
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MUC 540 CABLE SUPPORT CHANNEL (1 OFF) BELOW CIRCUIT BREAKER
NOT TO SCALE



EXISTING EARTH BAR AND NEW EARTH TERMINATIONS FOR MUC 540 FEEDER
NOT TO SCALE

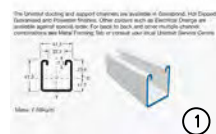
WESTERN POWER SCOPE OF WORK (THIS SHEET ONLY)

- 1 PROVIDE AND INSTALL CABLE SUPPORT CHANNEL APPROXIMATE 3000mm IN LENGTH, CONSTRUCTED FROM UNISTRUT P1000 CHANNEL BETWEEN THE TWO EXISTING STEEL BEAMS BELOW THE CIRCUIT BEAKER MUC 540. FIX THE CABLE SUPPORT CHANNEL TO THE BEAM WITH UNISTRUT BEAM CLAMPS (PART NUMBER P1796 x 2). FIX THE NEW 400HV CABLES (MUC 540) TO THE CABLE SUPPORT CHANNEL WITH CABLE CLAMPS (CABUS 5864 x 3). THE ARRANGEMENT TO BE INSTALLED ON SITE IS TO MATCH THE EXISTING CABLE SUPPORT STRUCTURES INSTALLED ON SITE.
- 2 DRILL 3 x 63mm DIAMETER HOLES IN THE STEEL PLATE BELOW THE CIRCUIT BREAKER MUC 540 FOR THE NEW 400HV CABLES. INSTALL CABLE GLAND WITH LOCKNUT TO SUIT THE CABLE GLAND.
NON CU: HG0063 x 3, HG0163 x 3
- 3 TERMINATE NEW 400HV CABLE TO THE EXISTING SPARE CIRCUIT BREAKER MUC 540.
NON CU: FJ0183 x 1, FJ0181 x 1, FL1465 x 3
- 4 PROVIDE SEPARATE EARTH CONNECTIONS FOR EACH OF THE NEW 400HV CABLE SHEATHS TO THE EXISTING EARTH BAR FOR NEW HV FEEDER MUC 540. THE EARTH CONNECTIONS SHALL BE EQUIDISTANT FROM ONE ANOTHER. PROVIDE ADDITIONAL BOLTS, WASHERS AND NUTS TO SUIT 70SQMM LUGS. REFER TO DETAIL BELOW.

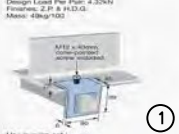
MUCHEA ZONE SUBSTATION - INDOOR HV SWITCHROOM No.1 - SIDE VIEW
SECTION C-C CABLE SUPPORT STRUCTURE - BELOW HV SWITCHROOM No.1
EXISTING HV CABLES NOT SHOWN FOR CLARITY
NOT TO SCALE

ISSUED FOR CONSTRUCTION

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED



DESCRIPTION: CHANNEL (UNISTRUT P1000)
MANUFACTURER: UNISTRUT
PART NUMBER: P1000
FINISH: 316 STAINLESS STEEL



DESCRIPTION: BEAM CLAMP
MANUFACTURER: UNISTRUT
PART NUMBER: P1796
FINISH: STAINLESS STEEL



DESCRIPTION: END CAP
MANUFACTURER: UNISTRUT
PART NUMBER: A1280



DESCRIPTION: SINGLE CABLE CLEAT (CABUS 5864 OR (ELLIS)
MANUFACTURER: IPD
PART NUMBER: EPVRT-03
FINISH: 316L STAINLESS STEEL
WITH INTEGRATED LSF
HALOGEN POLYMERIC
LINER & BASE PAD.

CONSULTANT CONTACT DETAILS	
COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION	CONTACT: AARON BOYALL TEL: [REDACTED]
CUSTOMER CONTACT DETAILS	
COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD	CONTACT: [REDACTED] TEL: [REDACTED]

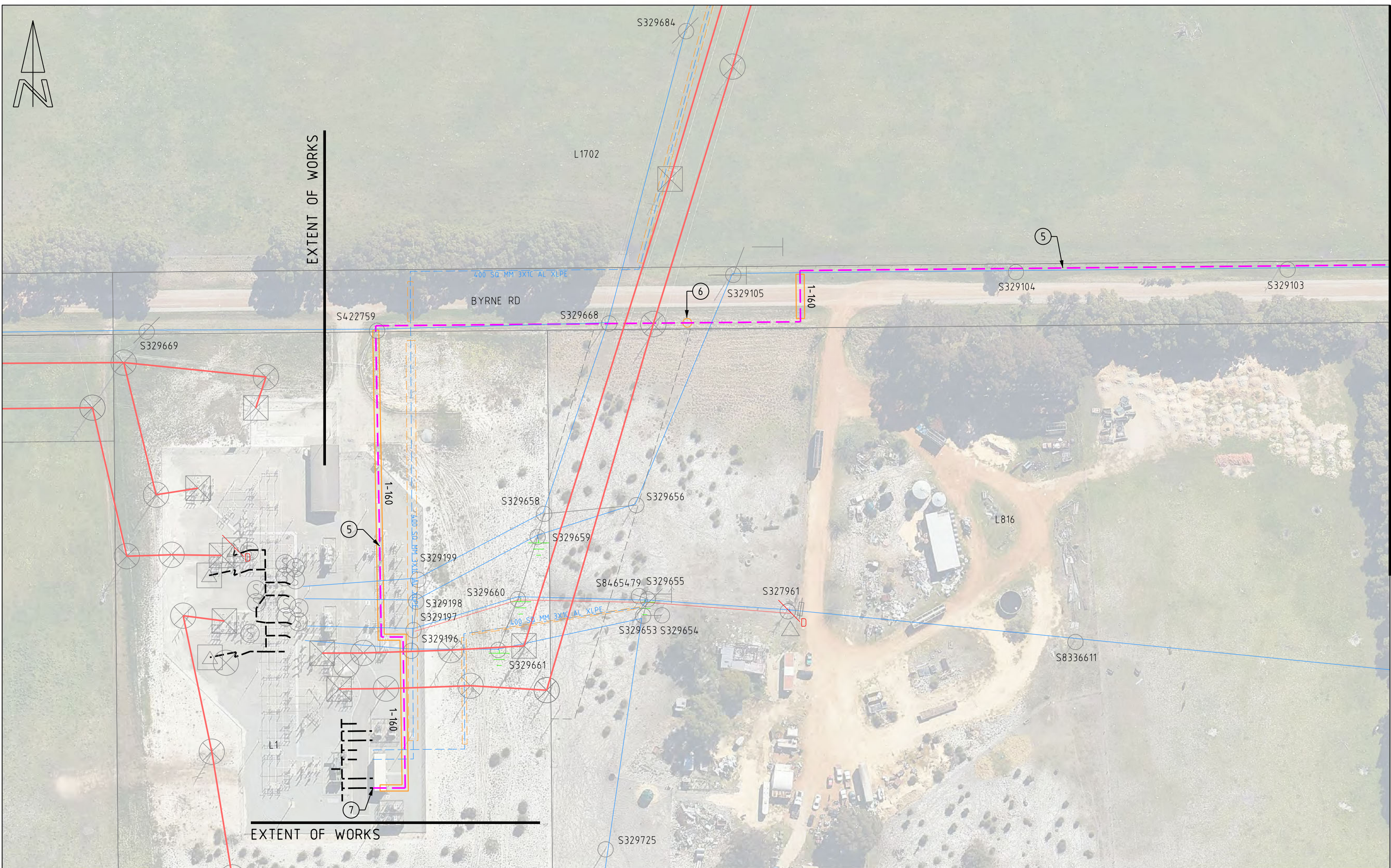
Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
MUCHEA ZONE SUBSTATION CABLE INSTALLATION DETAILS
NETWORK VOLTAGE: 22kV / 415V

DESIGNER: VINKO MAJIC	DESIGN TEAM: CCS DESIGN TEAM B
EMAIL: [REDACTED]	TEL: 13 10 87
DATE: 07/24	SCALE: 1:2000 @ A2
GEO REF: Lat. - 31°37'59" S	Long. - 115°59'23" E

	DRAWING NUMBER
MP207462	SHEET 03 OF 14
REV: B	ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE



MP207462 - SHT 5

MATCHLINE A-A

LEGEND

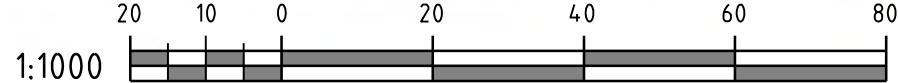
HV CABLES

- CN53 - 400mm² (3X1c) ———
- CN49 - 240mm² (3X1c) ———
- CN48 - 185mm² (3X1c) ———
- CN50 - 95mm² (3X1c) ———
- CN51 - 50mm² (3X1c) ———
- CN51 - 50mm² (1c) ———
- CN46 - 35mm² (3X1c) ———
- CN47 - 35mm² (1c) ———
- EXISTING HV CABLES (SIZE AND TYPE INDICATED) ———

AERIAL CONDUCTORS AND POLES

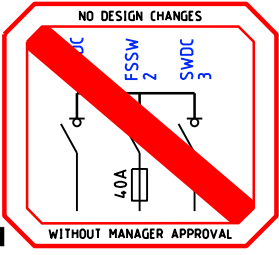
- NEW POLE (ANY TYPE AS INDICATED) ○
- EXISTING POLE (ANY TYPE AS INDICATED) ○
- EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED) ———

DETAIL A
SCALE: 1:1000



ISSUED FOR CONSTRUCTION

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED



CRITICAL RISK MANAGEMENT

CONSULTANT CONTACT DETAILS
COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION
CONTACT: AARON BOYALL TEL: [REDACTED]

CUSTOMER CONTACT DETAILS
COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD
CONTACT: [REDACTED] TEL: [REDACTED]

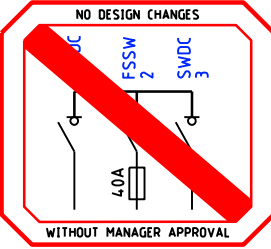
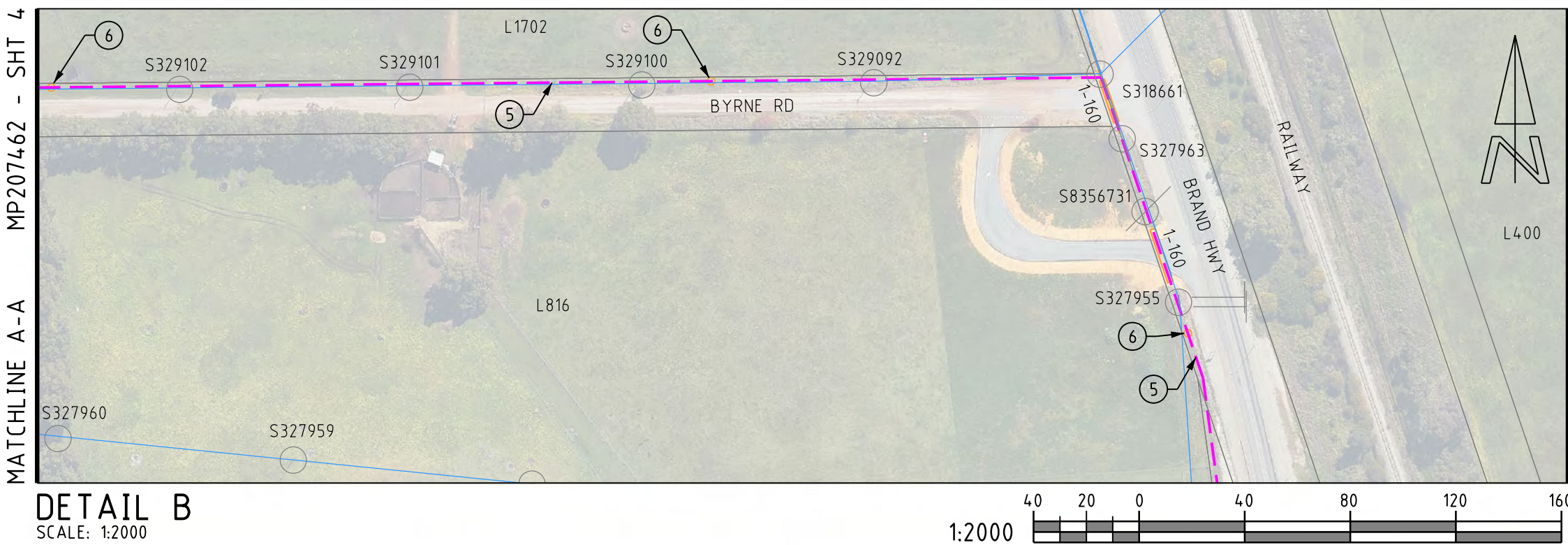
Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 1
NETWORK VOLTAGE: 22kV / 415V

DESIGNER:	VINKO MAJIC
DESIGN TEAM:	CCS DESIGN TEAM B
EMAIL:	[REDACTED]
TEL:	13 10 87
DATE:	07/24
SCALE:	1:2000
GEO REF:	Lat. - 31°37'59" S Long. - 115°59'23" E

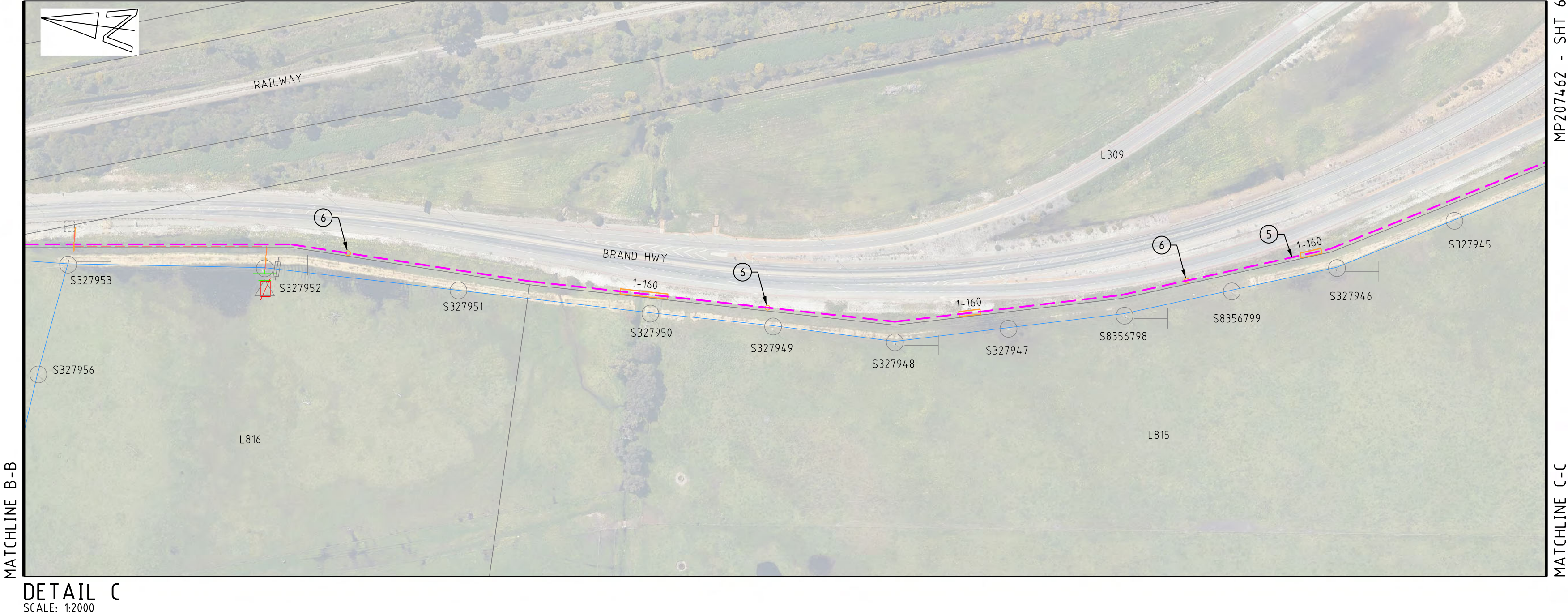
DRAWING NUMBER
MP207462
SHEET 04 OF 14
REV: B ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE



CRITICAL RISK MANAGEMENT								
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LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
	NEW POLE (ANY TYPE AS INDICATED)
	EXISTING POLE (ANY TYPE AS INDICATED)
	HV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)
	LV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)



ISSUED FOR CONSTRUCTION

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

CONSULTANT CONTACT DETAILS	
COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION	CONTACT: AARON BOYALL TEL: [REDACTED]
CUSTOMER CONTACT DETAILS	
COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD	CONTACT: [REDACTED] TEL: [REDACTED]

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
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A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 2
NETWORK VOLTAGE: 22kV / 415V

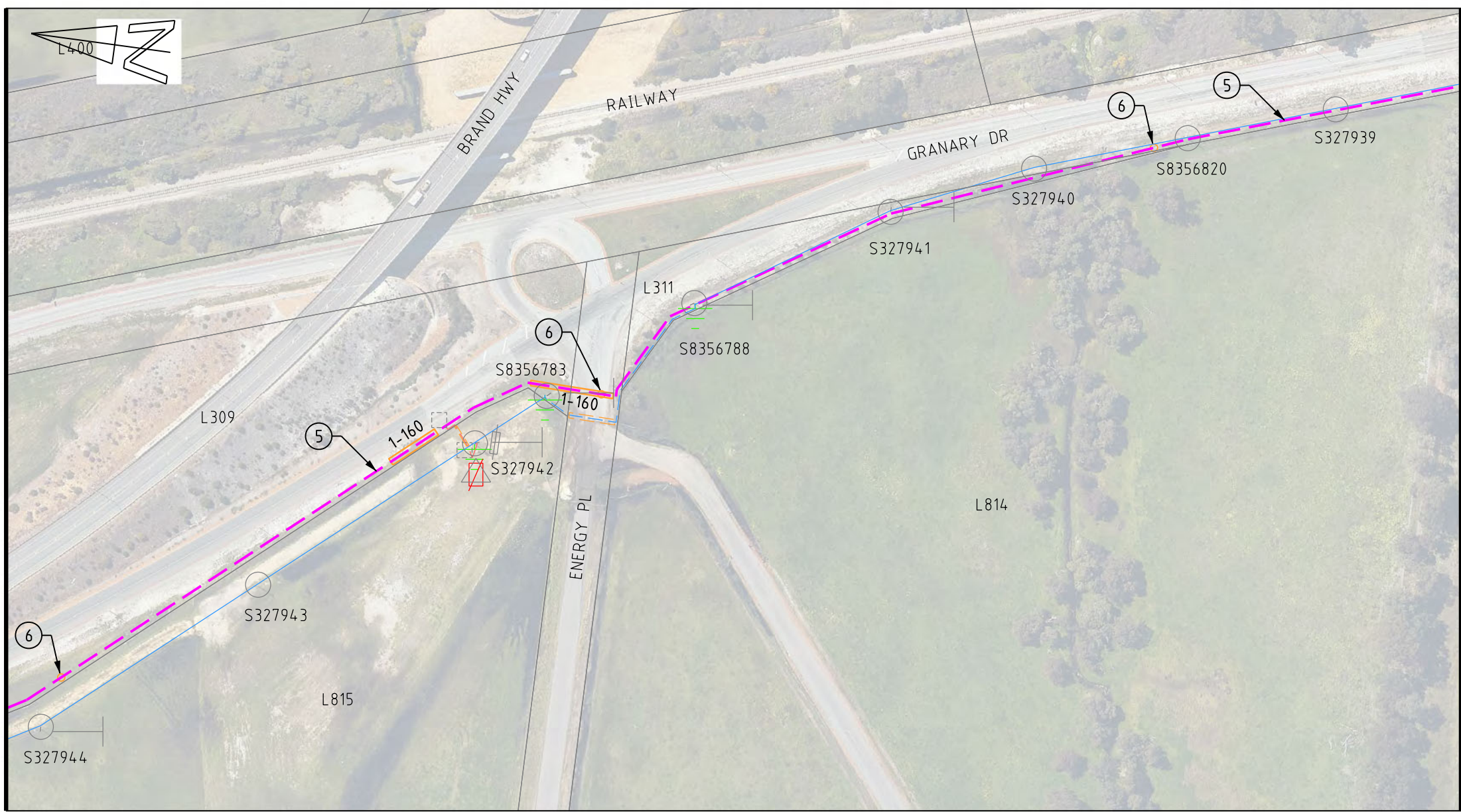
DESIGNER: VINKO MAJIC	DESIGN TEAM: CCS DESIGN TEAM B
EMAIL: [REDACTED]	TEL: 13 10 87
DATE: 07/24	SCALE: 1:2000 A2
GEO REF: Lat. - 31°37'59" S Long. - 115°59'23" E	

	DRAWING NUMBER
MP207462	SHEET 05 OF 14
REV: B	ORIGINAL SIZE - A2

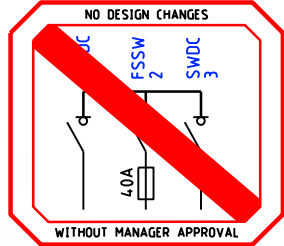
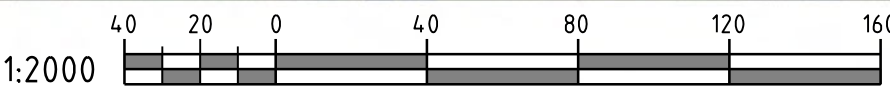
SAFETY - MAKE IT YOUR PRIMARY VALUE

MP207462 - SHT 5

MATCHLINE C-C



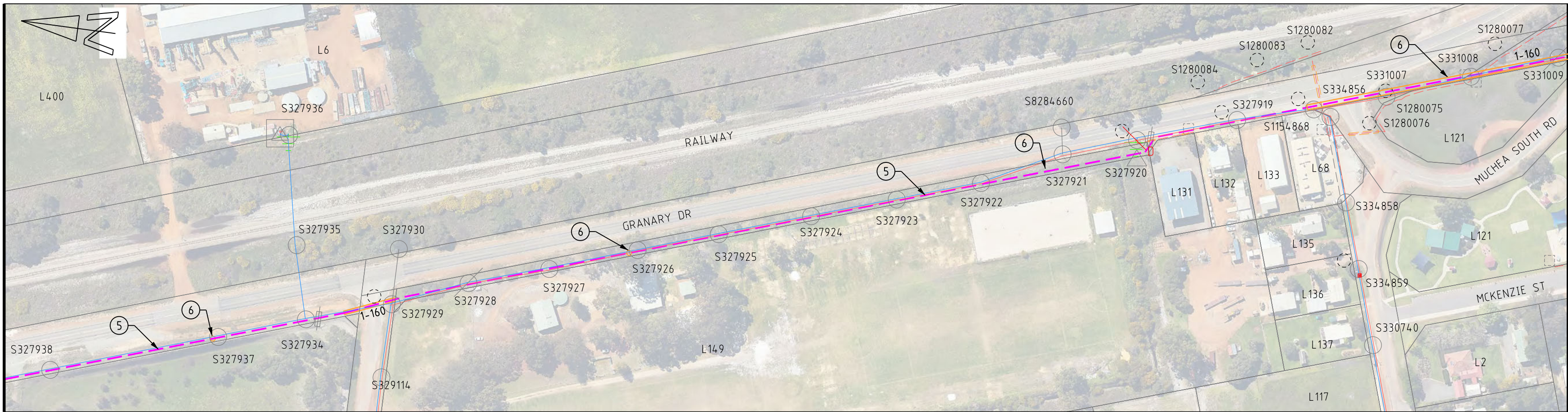
DETAIL D
SCALE: 1:2000



CRITICAL RISK MANAGEMENT								
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LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
NEW POLE (ANY TYPE AS INDICATED)	
EXISTING POLE (ANY TYPE AS INDICATED)	
HV	LV
EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)	

MATCHLINE D-D



DETAIL E
SCALE: 1:2000



TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

ISSUED FOR CONSTRUCTION

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 3
NETWORK VOLTAGE: 22kV / 415V

DESIGNER:	VINKO MAJIC
DESIGN TEAM:	CCS DESIGN TEAM B
EMAIL:	
TEL:	13 10 87
DATE:	07/24
SCALE:	1:2000
GEO REF:	Lat. - 31°37'59" S Long. - 115°59'23" E

DRAWING NUMBER

MP207462

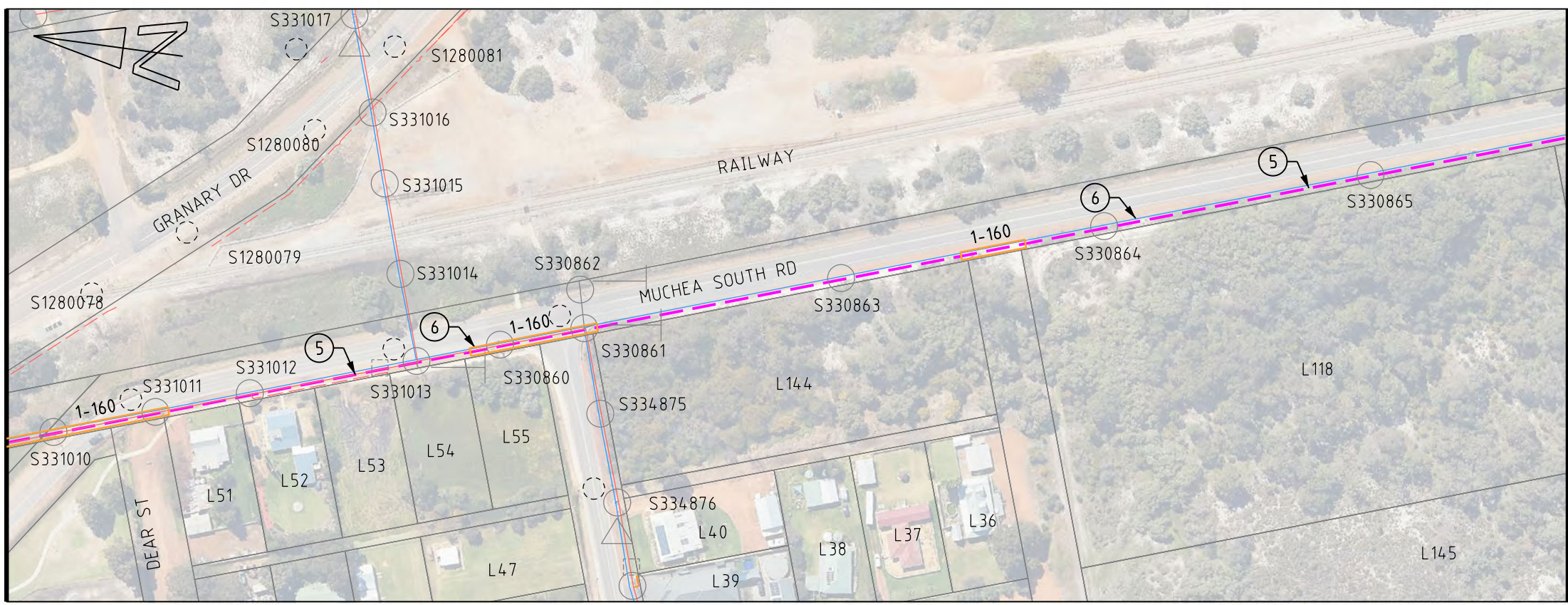
SHEET 06 OF 14

REV: B ORIGINAL SIZE - A2

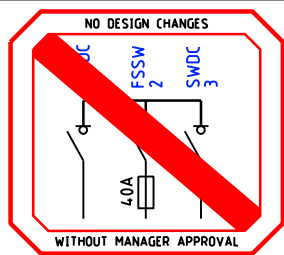
CONSULTANT CONTACT DETAILS	
COMPANY NAME:	ELECTRICAL DESIGN & CONSTRUCTION
CONTACT:	AARON BOYALL
TEL:	
CUSTOMER CONTACT DETAILS	
COMPANY NAME:	THOMPSON & REDWOOD (2001) PTY LTD
CONTACT:	
TEL:	

SAFETY - MAKE IT YOUR PRIMARY VALUE

MP207462 - SHT 6
MATCHLINE E-E



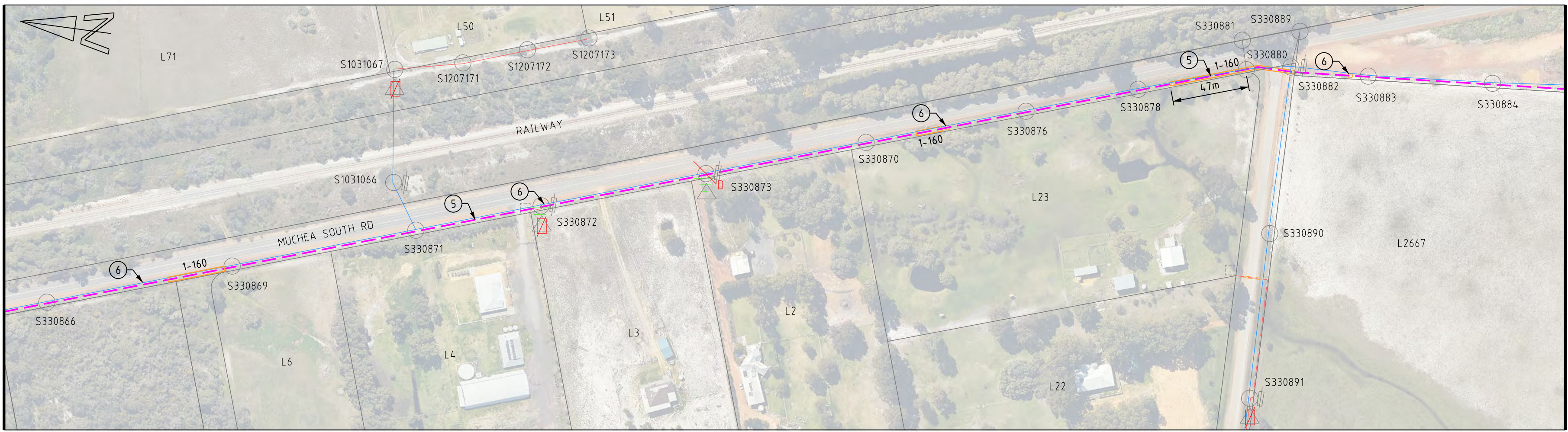
DETAIL F
SCALE: 1:2000



CRITICAL RISK MANAGEMENT								
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LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
	NEW POLE (ANY TYPE AS INDICATED)
	EXISTING POLE (ANY TYPE AS INDICATED)
	HV
	LV
	EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

MATCHLINE F-F



DETAIL G
SCALE: 1:2000

MP207462 - SHT 8
MATCHLINE G-G

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

ISSUED FOR CONSTRUCTION

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

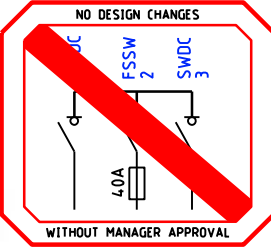
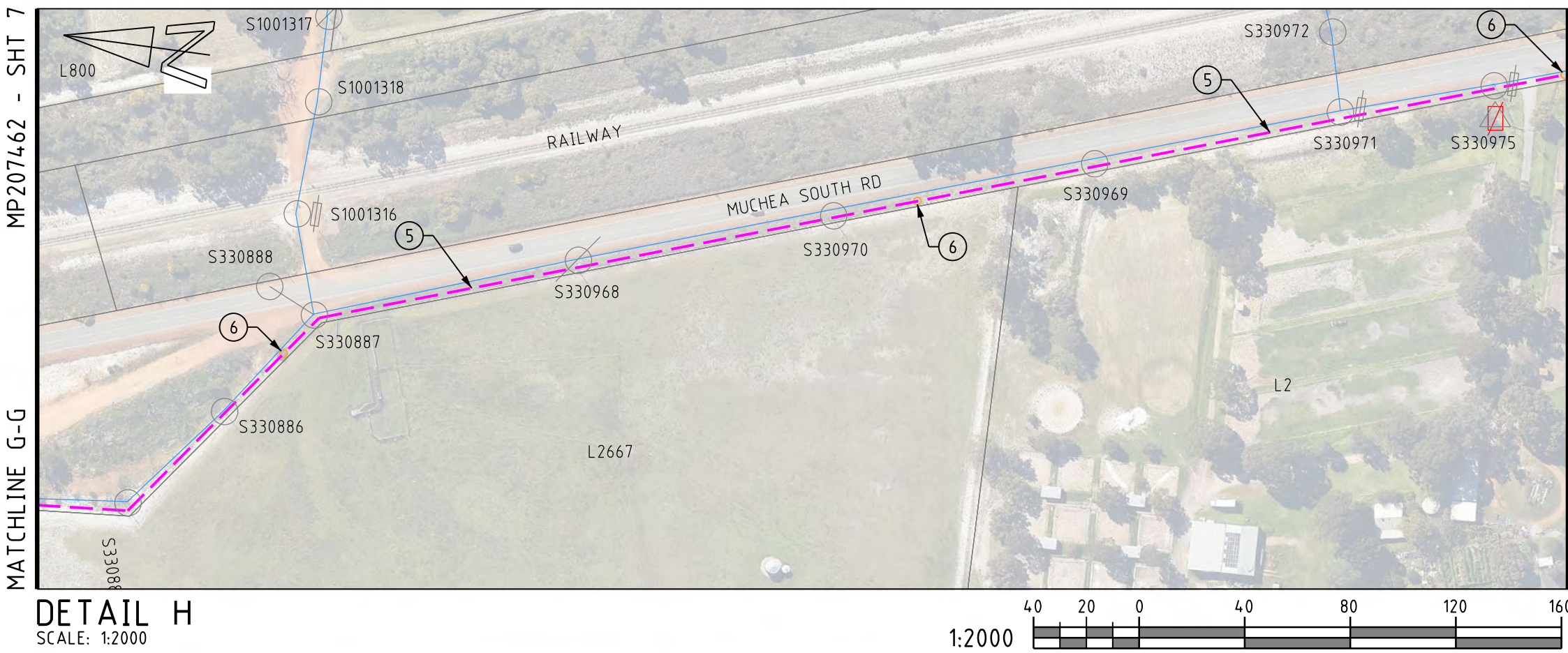
2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 4
NETWORK VOLTAGE: 22kV / 415V

DESIGNER:	VINKO MAJIC
DESIGN TEAM:	CCS DESIGN TEAM B
EMAIL:	
TEL:	13 10 87
DATE:	07/24
SCALE:	1:2000
GEO REF:	Lat. - 31°37'59" S Long. - 115°59'23" E

	DRAWING NUMBER
	MP207462
	SHEET 07 OF 14
REV: B	ORIGINAL SIZE - A2

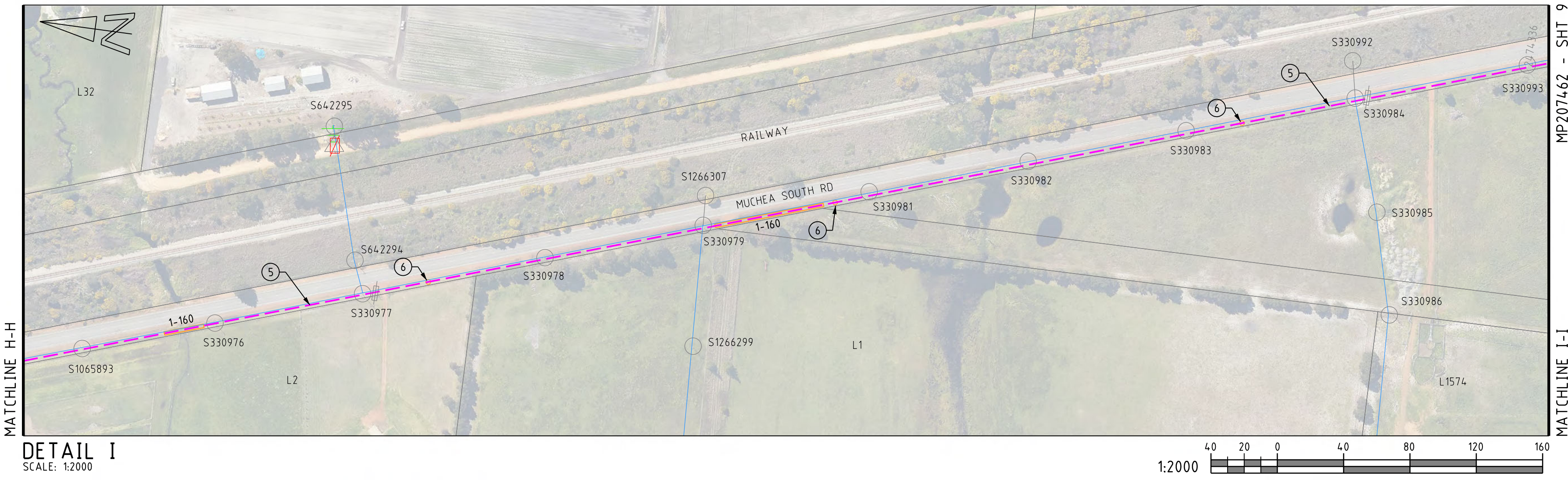
CONSULTANT CONTACT DETAILS	
COMPANY NAME:	ELECTRICAL DESIGN & CONSTRUCTION
CONTACT:	AARON BOYALL
TEL:	
CUSTOMER CONTACT DETAILS	
COMPANY NAME:	THOMPSON & REDWOOD (2001) PTY LTD
CONTACT:	
TEL:	

SAFETY - MAKE IT YOUR PRIMARY VALUE



CRITICAL RISK MANAGEMENT								
☒	☒	☒	☒	☒	☒	☐	☒	☒

LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
	NEW POLE (ANY TYPE AS INDICATED)
	EXISTING POLE (ANY TYPE AS INDICATED)
	HV
	LV
	EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)



TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

ISSUED FOR CONSTRUCTION

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 5
NETWORK VOLTAGE: 22kV / 415V

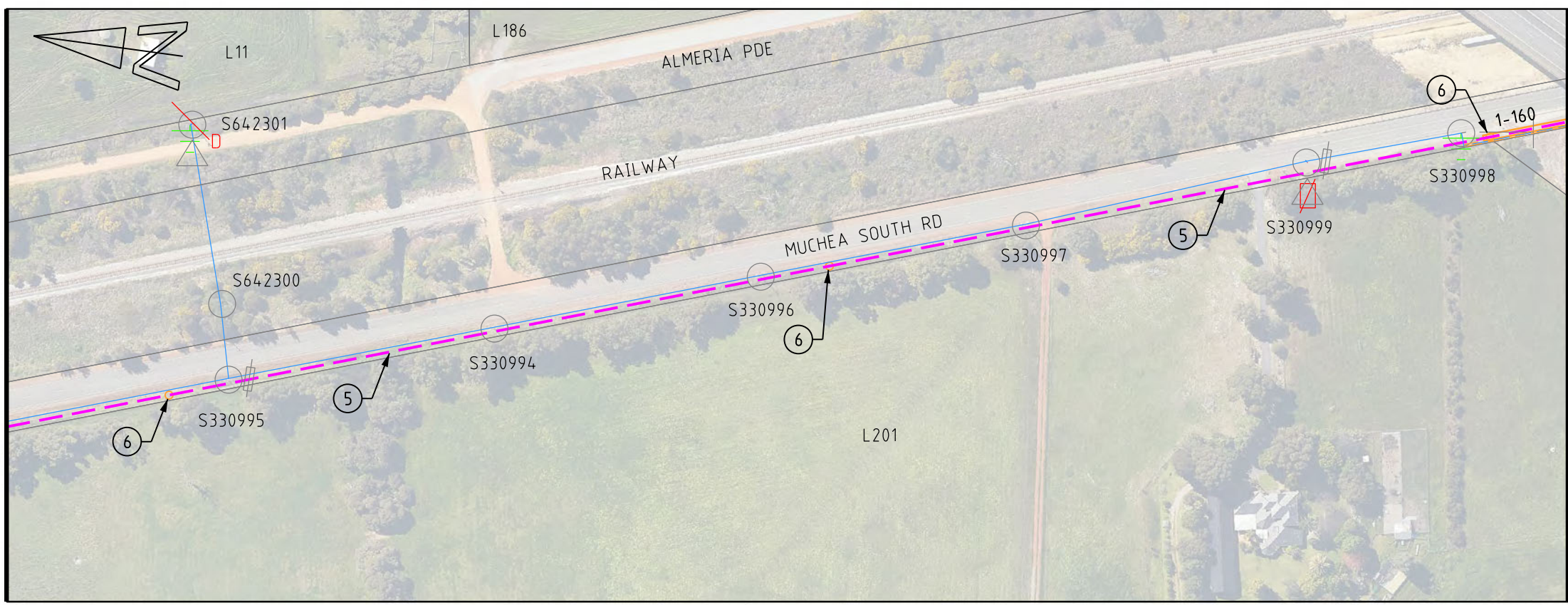
DESIGNER:	VINKO MAJIC
DESIGN TEAM:	CCS DESIGN TEAM B
EMAIL:	
TEL:	13 10 87
DATE:	07/24
SCALE:	1:2000
GEO REF:	Lat. - 31°37'59" S Long. - 115°59'23" E

CONSULTANT CONTACT DETAILS	
COMPANY NAME:	ELECTRICAL DESIGN & CONSTRUCTION
CONTACT:	AARON BOYALL
TEL:	
CUSTOMER CONTACT DETAILS	
COMPANY NAME:	THOMPSON & REDWOOD (2001) PTY LTD
CONTACT:	
TEL:	

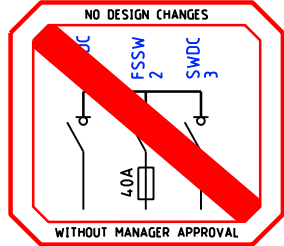
	DRAWING NUMBER
MP207462	
SHEET 08 OF 14	
REV: B	ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE

MP207462 - SHT 8
MATCHLINE I-I



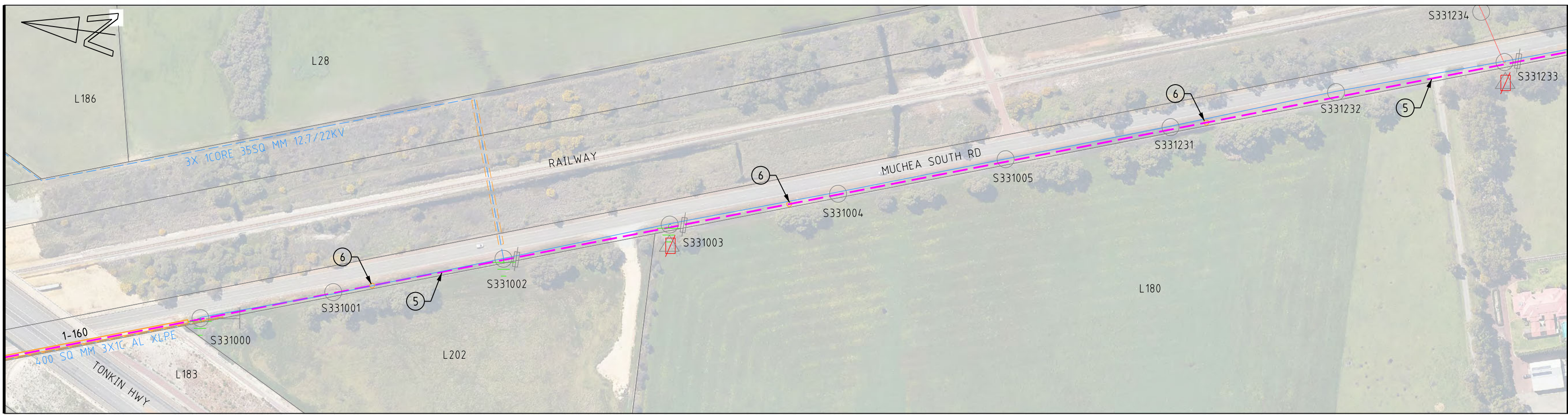
DETAIL J
SCALE: 1:2000



CRITICAL RISK MANAGEMENT								
☒	☒	☒	☒	☒	☒	☐	☒	☒

LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
	NEW POLE (ANY TYPE AS INDICATED)
	EXISTING POLE (ANY TYPE AS INDICATED)
	HV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)
	LV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)

MATCHLINE J-J



DETAIL K
SCALE: 1:2000

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

ISSUED FOR CONSTRUCTION

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY

101 MORLEY RD, BULLSBROOK

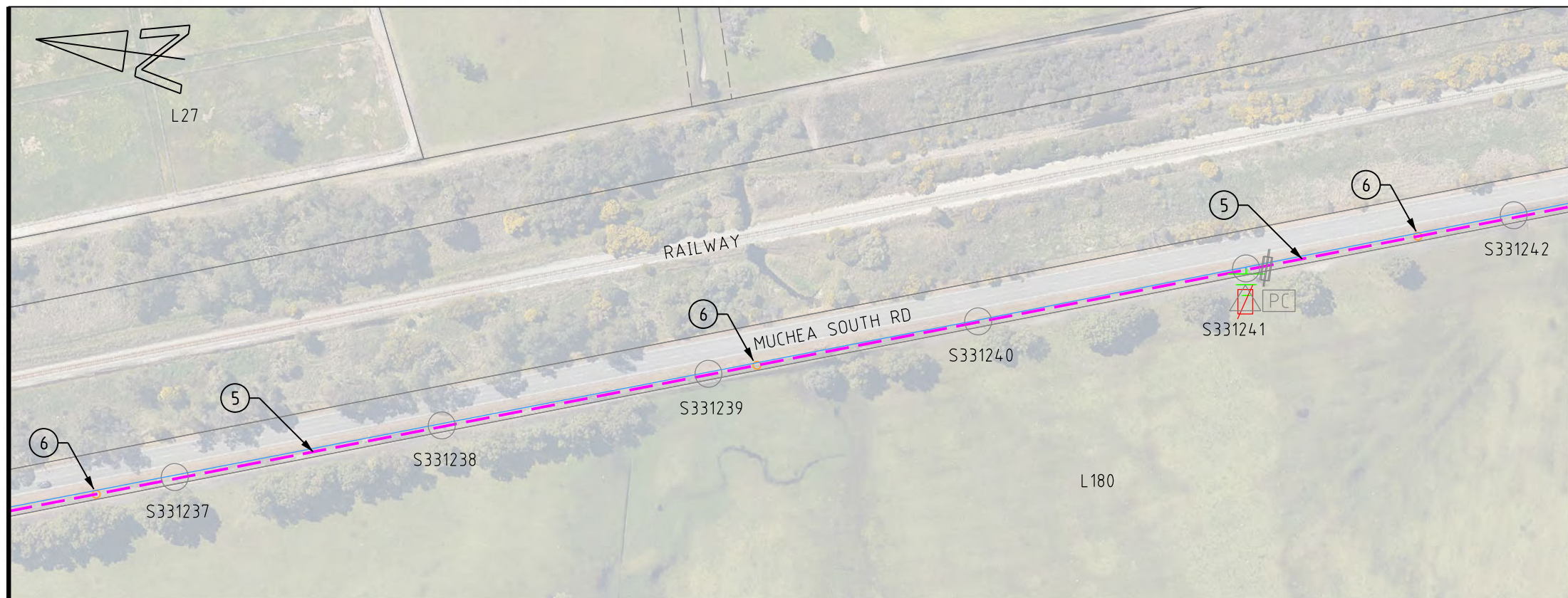
CABLE INSTALLATION PLAN 6

NETWORK VOLTAGE: 22kV / 415V

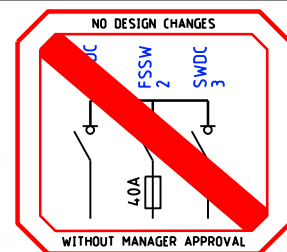
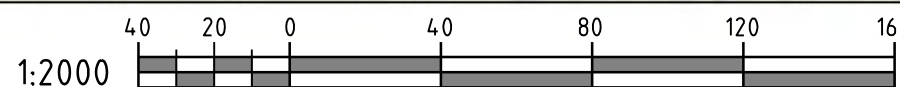
DESIGNER: VINKO MAJIC			
DESIGN TEAM: CCS DESIGN TEAM B			
EMAIL: [REDACTED]			
TEL: 13 10 87			
DATE: 07/24	SCALE: 1:2000 @ A2		
GEO REF: Lat. - 31°37'59" S Long. - 115°59'23" E		DRAWING NUMBER MP207462 SHEET 09 OF 14	
		REV: B	ORIGINAL SIZE - A2

CONSULTANT CONTACT DETAILS	
COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION	
CONTACT: AARON BOYALL	TEL: [REDACTED]
CUSTOMER CONTACT DETAILS	
COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD	
CONTACT: [REDACTED]	TEL: [REDACTED]

MP207462 - SHT 9



DETAIL L
SCALE: 1:2000



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HV CABLES

CN53	400mm2	(3X1c)	—	—	—	—	—	—	—
CN49	240mm2	(3X1c)	—	—	—	—	—	—	—
CN48	185mm2	(3X1c)	—	—	—	—	—	—	—
CN50	95mm2	(3X1c)	—	—	—	—	—	—	—
CN51	50mm2	(3X1c)	—	—	—	—	—	—	—
CN51	50mm2	(1c)	—	—	—	—	—	—	—
CN46	35mm2	(3X1c)	—	—	—	—	—	—	—
CN47	35mm2	(1c)	—	—	—	—	—	—	—

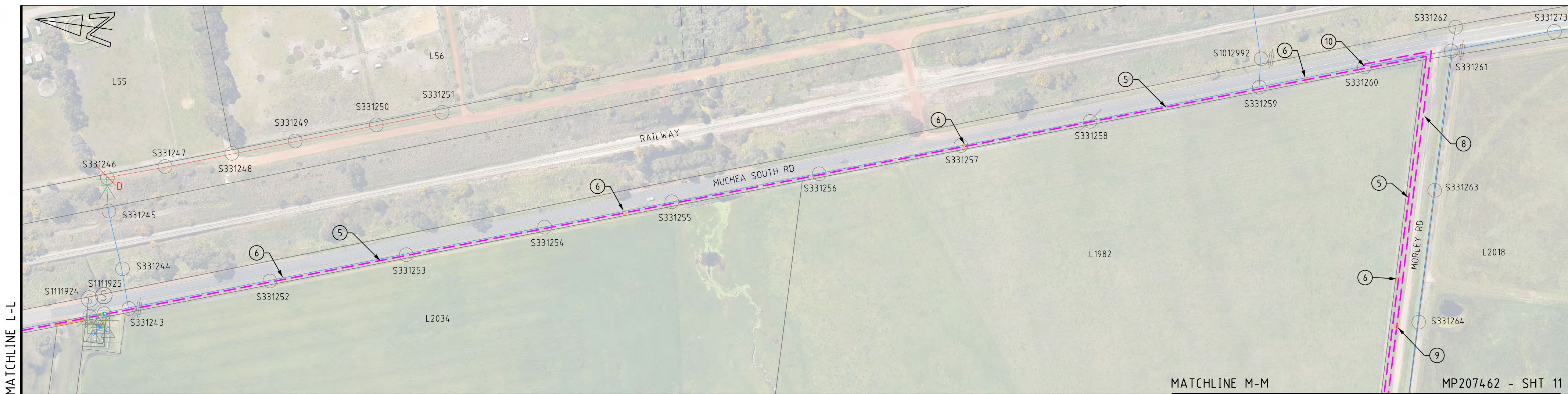
EXISTING HV CABLES
(SIZE AND TYPE INDICATED)

AERIAL CONDUCTORS AND POLES

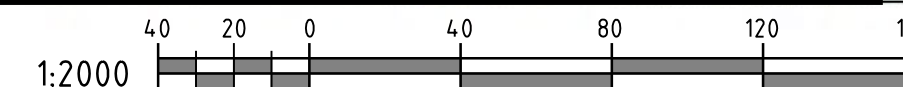
○ NEW POLE (ANY TYPE AS INDICATED)
○ EXISTING POLE (ANY TYPE AS INDICATED)

— HV — LV

EXISTING AERIAL CONDUCTORS
(SIZE AND TYPE INDICATED)



DETAIL M
SCALE: 1:2000



ISSUED FOR CONSTRUCTION

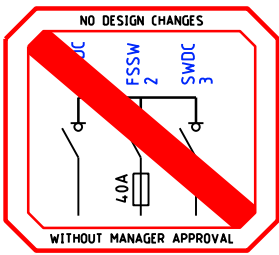
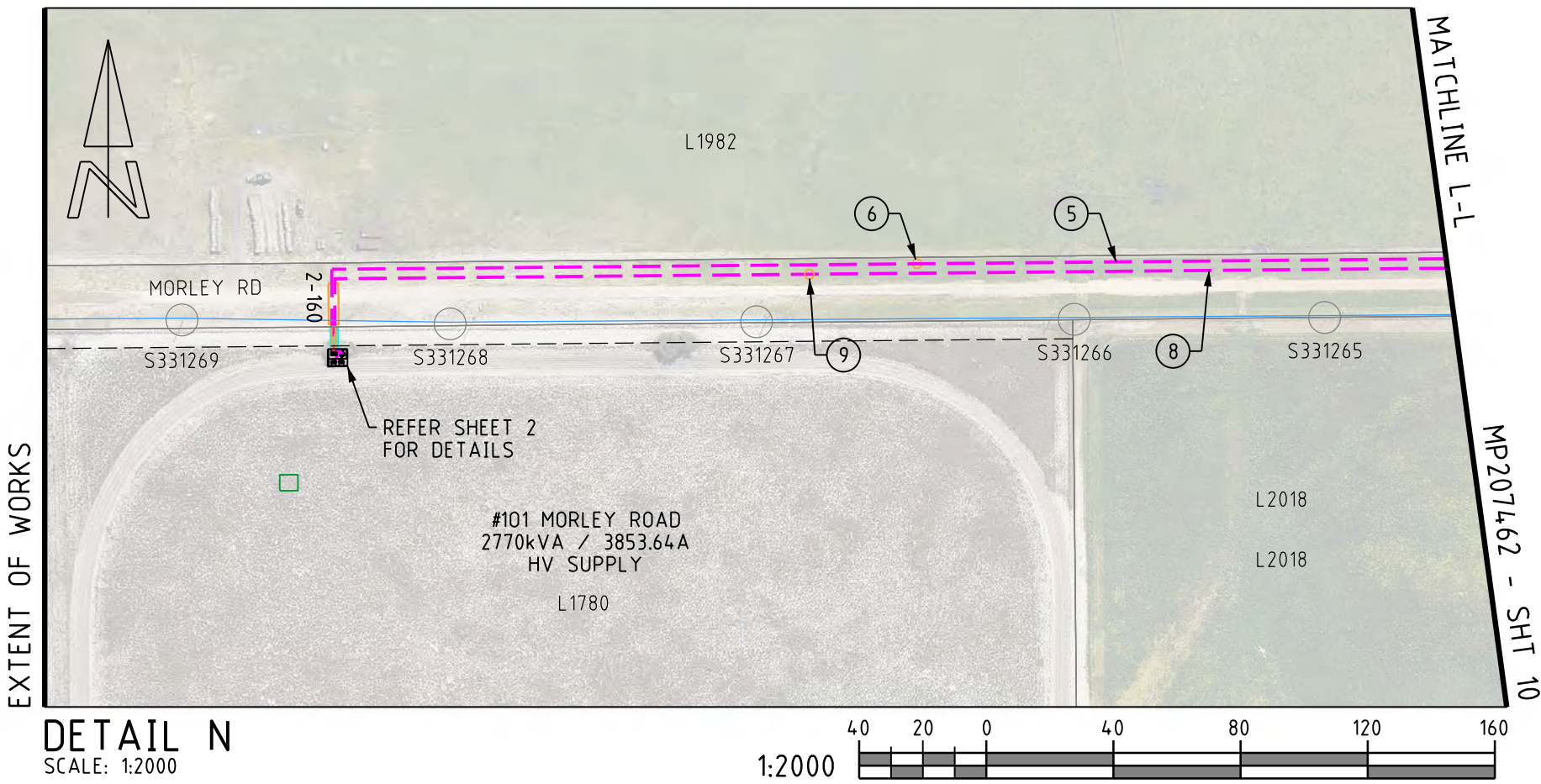
COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD
CONTACT: [REDACTED] TEL: [REDACTED]

CABLE INSTALLATION PLAN 7
NETWORK VOLTAGE: 22kV / 415V

B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696
Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS

DESIGNER: VINKO MAJIC		 westernpower
DESIGN TEAM: CCS DESIGN TEAM B		
EMAIL: [REDACTED]		DRAWING NUMBER MP207462 SHEET 10 OF 14
TEL: 13 10 87		
DATE: 07/24	SCALE: 1:2000 @ A2	
GEO REF: Lat. - 31°37'59" S Long. - 115°59'23" E		REV: B ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE



CRITICAL RISK MANAGEMENT								
☒	☒	☒	☒	☒	☒	☐	☒	☒

LEGEND	
HV CABLES	
CN53 - 400mm2 (3X1c)	
CN49 - 240mm2 (3X1c)	
CN48 - 185mm2 (3X1c)	
CN50 - 95mm2 (3X1c)	
CN51 - 50mm2 (3X1c)	
CN51 - 50mm2 (1c)	
CN46 - 35mm2 (3X1c)	
CN47 - 35mm2 (1c)	
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	
AERIAL CONDUCTORS AND POLES	
NEW POLE (ANY TYPE AS INDICATED)	
EXISTING POLE (ANY TYPE AS INDICATED)	
HV LV EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)	

DETAIL N
SCALE: 1:2000

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

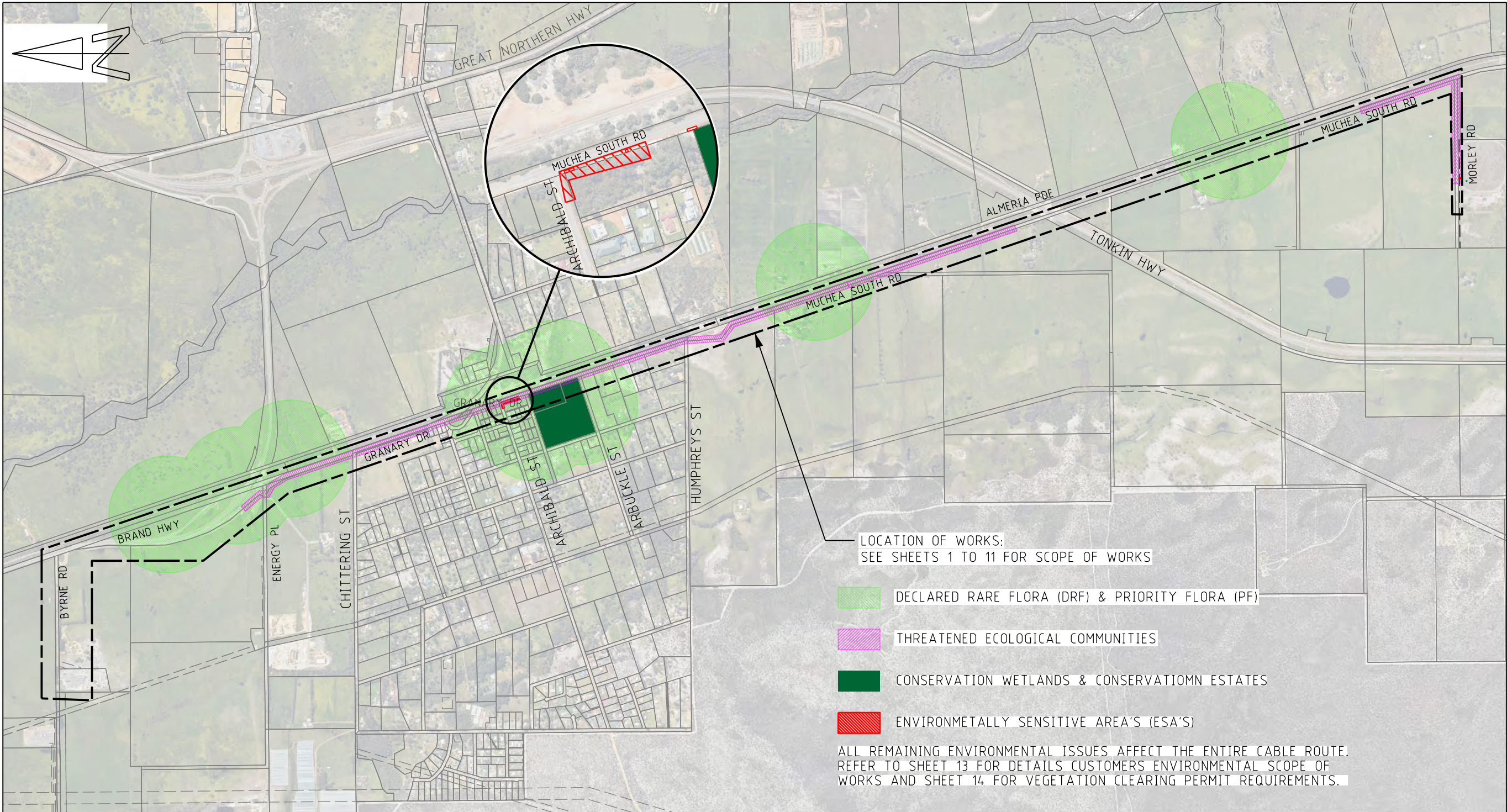
ISSUED FOR CONSTRUCTION

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 8
NETWORK VOLTAGE: 22kV / 415V

DESIGNER: VINKO MAJIC			
DESIGN TEAM: CCS DESIGN TEAM B			
EMAIL: [REDACTED]			
TEL: 13 10 87			
DATE: 07/24		DRAWING NUMBER MP207462	
SCALE: 1:2000 @ A2			
GEO REF: Lat. - 31°37'59" S Long. - 115°59'23" E		SHEET 11 OF 14	
		REV: B	ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE



ENVIRONMENTAL SITE LOCATION PLAN
SCALE: 1:25,000

ENVIRONMETALLY SENSITIVE AREA'S (ESA'S)

ESAS ARE AREAS IN WHICH SPECIFIC MANAGEMENT PROCEDURES HAVE BEEN DEVELOPED TO PROTECT ESPECIALLY VALUABLE ENVIRONMENTAL ASSETS.

WESTERN POWER IS LEGALLY OBLIGED TO PROTECT THESE AREAS.

ANY ACCESS OR WORK IN AN ESA REQUIRES SITE-SPECIFIC PROCEDURES TO BE OBTAINED AND FOLLOWED.

AS THEY COVER AREAS AROUND EXISTING POWER LINES THE ACTUAL PLACES TO BE PROTECTED MAY GO WELL BEYOND THE ARTIFICIAL ESA BOUNDARY.

IF ACCESSING NEAR OR WITHIN THE ESA PLEASE ENSURE THAT THE RELEVANT PROCEDURE IS FOLLOWED.

IF YOU NEED A COPY PLEASE CONTACT

environment@westernpower.com.au

THIS MAY REQUIRE CONTACTING RELEVANT STAKEHOLDERS OR LANDHOLDERS WITHIN THE REQUIRED TIMEFRAME.

CONSERVATION WETLANDS AND NOT ASSESSED WETLANDS

COMPLY WITH ANY NATIVE VEGETATION CLEARING PERMIT IF SUPPLIED. NO DEWATERING IS PERMITTED IN THESE AREAS. IF NATIVE VEGETATION IS TO BE IMPACTED OR DEWATERING IS REQUIRED CONTACT

environment@westernpower.com.au

FOR ADVICE.

CONSERVATION ESTATE AND DEC TENURE

NO IMPACTS WITHIN THESE AREAS ARE ALLOWED. IF UNAVOIDABLE PLEASE CONTACT THE LOCAL DPaw OFFICE OR

environment@westernpower.com.au

FOR ADVICE AS IT CAN TAKE OVER 2 YEARS TO GET AUTHORITY TO DAMAGE THESE AREAS. ACCESS TO CONSERVATION ESTATE REQUIRES A NOTIFICATION BE SENT TO DEPARTMENT OF PARKS AND WILDLIFE AT LEAST 10 DAYS PRIOR.

COMPLETE A NOTIFICATION FORM EDM#40281731 AND SEND TO THE RELEVANT DISTRICT OFFICE. ACCESS UNDER DRY SOIL CONDITIONS AND CLEAN VEHICLES/MACHINERY ONLY.

SYSTEM 6 RESERVE AND SYSTEM ALL RESERVES 1-5 AND 7-12

INTERPRETATION:

THESE ARE CONSERVATION CATEGORIES OF NATIVE VEGETATION AND ASSOCIATIONS. COMPLY WITH THE CLEARING PERMIT IF ONE IS SUPPLIED. IF ANY DAMAGE TO NATIVE VEGETATION IS REQUIRED IN THESE AREAS THAT IS NOT COVERED BY A CLEARING PERMIT PLEASE CONTACT

environment@westernpower.com.au

FOR ADVICE.

NO NATIVE VEGETATION MAY BE DISTURBED WITHOUT A PERMIT OR OUTSIDE OF THE PERMIT AREA. IF IN DOUBT, PLEASE CONTACT THE RELEVANT MANAGER WHO WILL CONTACT WESTERN POWER ENVIRONMENTAL TEAM.

PLEASE NOTE: HEAVY PENALTIES MAY APPLY TO INDIVIDUALS AND BUSINESSES FOR DAMAGE TO NATIVE VEGETATION WITHOUT A PERMIT.

ENVIRONMENT ISSUES AND REQUIREMENTS

THIS PAGE INDICATES ENVIRONMENT ISSUES AND REQUIREMENTS ASSOCIATED WITH THE SCOPE OF THE WORK AND ANY ISSUES IN THE VICINITY SO THE CONSTRUCTION MANAGER CAN AVOID DAMAGE TO THE ENVIRONMENT. PARTICULARLY THE TYPE THAT MAY CAUSE PROSECUTION. PROJECT-SPECIFIC INFORMATION IS REFERENCED ON THIS PAGE AND MUST BE FOLLOWED.

DECLARED RARE FLORA (DRF), PRIORITY FLORA (PF) AND THREATENED ECOLOGICAL COMMUNITIES (TEC'S).

NATIVE VEGETATION (FROM HERBS TO SHRUBS TO TREES) IN THE SURROUNDING AREA HAS RARE PLANTS OR COMMUNITIES IN IT. PLEASE DO NOT ACCESS AREAS OF NATIVE VEGETATION (NOT COVERED BY ANY PERMITS FOR THIS WORK). DO NOT LAY DOWN MATERIALS OR DRIVE ON ANY NATIVE VEGETATION. SHOULD YOU REQUIRE THIS TO OCCUR, PLEASE CONTACT

environment@westernpower.com.au

TO GAIN A PERMIT OR HAVE AN EXISTING ONE EXTENDED OR ALTERED. TO AVOID INADVERTENT DAMAGE TO NATIVE VEGETATION CONSIDER FLAGGING OFF NO-GO AREAS.

ABORIGINAL HERITAGE

NOTE THAT THE BOUNDARIES OF SITES HAVE A DELIBERATE BROADENING TO DISGUISE THE EXACT LOCATION.

IF THE SCOPE HAS CHANGED AND YOU NEED TO WORK WITHIN AN ABORIGINAL HERITAGE SITE AND DISTURB NATURAL EARTH, PLEASE CONTACT

environment@westernpower.com.au

FOR INVESTIGATION.

HERITAGE (EUROPEAN)

EUROPEAN HERITAGE IS PLACED ON SPECIFIC LOCATIONS AND/OR BUILDINGS. IF THE SCOPE OF WORK ALTERS SIGNIFICANTLY, CONTACT THE DESIGNER OR EMAIL

environment@westernpower.com.au

FOR FURTHER ADVICE.

ACID SULPHATE SOILS (ASS)

EXPOSURE TO AIR CAUSES ASS TO CREATE SULPHURIC ACID. IN AREAS WHERE THIS IS A RISK YOU NEED TO:

BACKFILL EXCAVATIONS WITHIN 18 HOURS OF OPENING.

IF DEWATERING OR EXCAVATING 100M3 OR MORE IN TOTAL FOR THE PROJECT AN ACID SULPHATE SOIL MANAGEMENT PLAN MAY BE DEVELOPED

REFER TO

environment@westernpower.com.au

CONTAMINATED SITES

THE LAND OR GROUNDWATER IN THESE AREAS HAS LEVELS OF POLLUTION THAT MAY AFFECT WORKER'S HEALTH AND SAFETY IF EXPOSURE OCCURS. DO NOT DISTURB THE SOIL OR DEWATER IN THESE AREAS. IF REQUIRED, CONTACT

environment@westernpower.com.au

FOR ADVICE.

POTENTIALLY WET AREAS

THESE AREAS MAY BE INUNDATED AT VARIOUS TIMES OF THE YEAR. PLAN WORK CAREFULLY TO AVOID ANY POTENTIAL ACCESS ISSUES.

ISSUED FOR CONSTRUCTION

CONSULTANT CONTACT DETAILS

COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION

CONTACT: AARON BOYALL

TEL: [REDACTED]

CUSTOMER CONTACT DETAILS

COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD

CONTACT: [REDACTED]

TEL: [REDACTED]



TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK

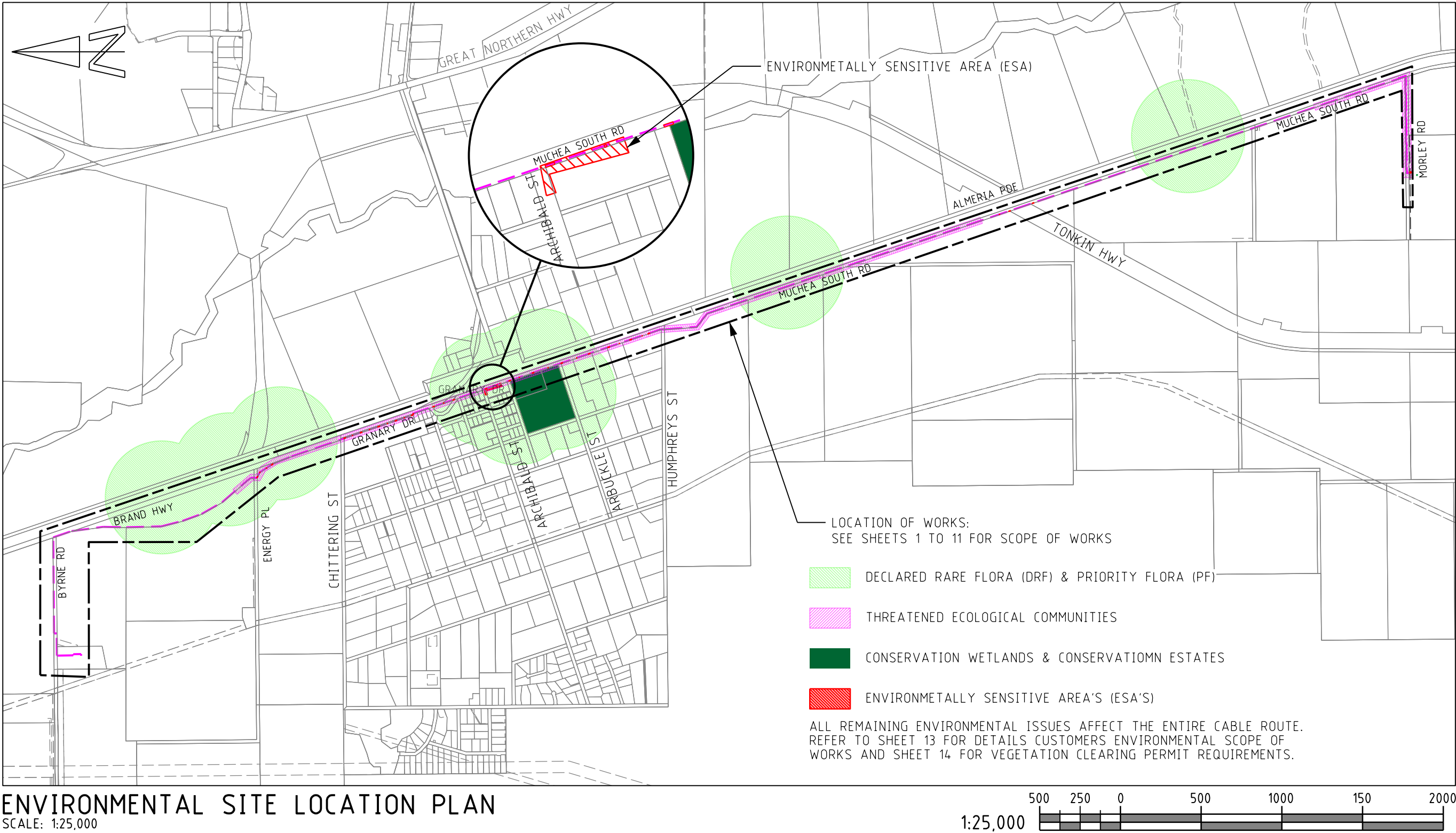
CABLE INSTALLATION PLAN 8

ENVIRONMENTAL DRAWING - IDENTIFIED RISKS

DESIGNER:	VINKO MAJIC
DESIGN TEAM:	CCS DESIGN TEAM B
EMAIL:	[REDACTED]
TEL:	13 10 87
DATE:	07/24
SCALE:	1:2000
GEO REF:	Lat. - 31°37'59" S Long. - 115°59'23" E

DRAWING NUMBER	
MP207462	
SHEET 12 OF 14	
REV: B	ORIGINAL SIZE - A2

SAFETY - MAKE IT YOUR PRIMARY VALUE



ENVIRONMENTAL SITE LOCATION PLAN
SCALE: 1:25,000

WESTERN POWER SCOPE OF WORK (ENVIRONMENTAL)

1. ACID SULFATE SOILS - DRAINAGE
- THE SITE HAS A HIGH TO MODERATE AND MODERATE TO LOW ACID SULFATE SOIL RISK. THE GROUNDWATER AT THIS SITE IS SHALLOW AND DEWATERING IS UNKNOWN. NO DEWATERING IS PERMITTED WITHOUT AN ACID SULFATE SOILS & DEWATERING MANAGEMENT PLAN BEING IN PLACE AND COMPLIANCE WITH THE EXCAVATION AND TRENCHING PROCEDURE (EDM 43740956). ALL EXCAVATIONS TO BE BACKFILLED WITHIN 18 HOURS.
2. CONSERVATION WETLANDS
- RESTRICTIONS APPLY TO CLEARING FOR NEW INFRASTRUCTURE AND THE PLACEMENT OF OIL-FILLED ASSETS.

CUSTOMER SCOPE OF WORK (ENVIRONMENTAL)

1. NATIVE VEGETATION:
- THE CUSTOMER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CLEARING PERMITS. PRIOR TO WESTERN POWER COMMENCING WORKS, THE CUSTOMER IS REQUIRED TO PROVIDE A COPY OF EITHER:
- A CLEARING PERMIT ISSUED IN THE CUSTOMERS NAME; OR
 - A REFERRAL DETERMINATION NOTICE ISSUED BY DWER CONFIRMING A CLEARING PERMIT IS NOT REQUIRED BY THE CUSTOMER; OR
 - WRITTEN DETAILS OF A RELEVANT CLEARING PERMIT EXEMPTION AND SUPPORTING DOCUMENTS (REGULATOR CORRESPONDENCE/LANDOWNER EXEMPTION CLEARING LETTER)
2. DECLARED RARE FLORA (DRF) AND PRIORITY FLORA (PF):
- THE CUSTOMER SHALL UNDERTAKE ANY NECESSARY FLORA SURVEYS AND IF REQUIRED OBTAIN RELEVANT APPROVALS TO CLEAR THREATENED OR PRIORITY FLORA. ALL SURVEYS AND APPROVALS SHALL BE PROVIDED TO WESTERN POWER FOR RECORDKEEPING AND REVIEW.
3. THREATENED ECOLOGICAL COMMUNITIES (TEC'S)
- THE CUSTOMER SHALL UNDERTAKE ANY NECESSARY FLORA SURVEYS AND IF REQUIRED OBTAIN RELEVANT APPROVALS TO CLEAR THREATENED OR PRIORITY FLORA. ALL SURVEYS AND APPROVALS SHALL BE PROVIDED TO WESTERN POWER FOR RECORDKEEPING AND REVIEW.
4. ENVIRONMENTALLY SENSITIVE AREA'S (ESA'S)
- REGULATION 5 EXEMPTIONS CANNOT BE USED IN AN ESA. IF CLEARING IS REQUIRED, A NATIVE VEGETATION CLEARING PERMIT OR REFERRAL DETERMINATION NOTICE ISSUED BY DWER CONFIRMING A CLEARING PERMIT IS NOT NECESSARY WILL BE REQUIRED.
5. CONSERVATION ESTATE
- THE PROJECT AREA INTERSECTS LAND MANAGED BY THE DEPARTMENT OF BIODIVERSITY AND CONSERVATION ATTRACTIONS (DBCAs) AS A CONSERVATION ESTATE WITH A 3m BUFFER. IF THE CONSERVATION AREA IS UNAVOIDABLE AND ACCESS TO THE CONSERVATION ESTATE IS REQUIRED, THE CUSTOMER IS RESPONSIBLE FOR ENGAGING WITH DBCA AND OBTAINING ALL REQUIRED APPROVALS FOR THE WESTERN POWER SCOPE OF WORKS. WESTERN POWER IS RESPONSIBLE FOR PROVIDING A DETAILED SCOPE OF WORK TO THE CUSTOMER INCLUDING DESIGN DRAWINGS AND LIKELY CONSTRUCTION METHOD. THE CUSTOMER IS RESPONSIBLE FOR PROVIDING COPIES OF ANY APPROVALS TO WESTERN POWER PRIOR TO THE COMMENCEMENT OF WORKS.
6. CONSERVATION WETLANDS
- RESTRICTIONS APPLY TO CLEARING FOR NEW INFRASTRUCTURE AND THE PLACEMENT OF OIL-FILLED ASSETS. IF VEGETATION CLEARING IS REQUIRED WITHIN 50m OF A CONSERVATION WETLAND, A DWER ISSUED VEGETATION CLEAR PERMIT WILL BE REQUIRED (I.E. REG 5 CUSTOMER EXEMPTIONS NOT ALLOWED).
7. ABORIGINAL HERITAGE
- THE WORKS ARE LOCATED WITHIN A REGISTERED ABORIGINAL HERITAGE PLACE. (ACH DIRECTORY PLACE 20008 GINGIN BROOK WAGGYL SITE AND 3525 UPPER SWAN) IT IS THE CUSTOMER'S RESPONSIBILITY TO COMPLETE THEIR OWN DUE DILIGENCE ASSESSMENT AND PROVIDE WESTERN POWER WITH THE EVIDENCE OF SURVEYS/CONSULTATIONS AND APPROVALS (WHERE APPLICABLE) PRIOR TO THE COMMENCEMENT OF WORKS.
8. HERITAGE (EUROPEAN)
- REFERRAL TO THE LOCAL COUNCIL PLANNING OFFICER (OR HERITAGE OFFICER IN LARGER LGAS) WILL ASSIST IN DETERMINING WHETHER THERE ARE ANY LOCAL HERITAGE MATTERS WHICH REQUIRE CONSIDERATION PRIOR TO COMMENCEMENT OF WORKS. THE CUSTOMER IS RESPONSIBLE FOR UNDERTAKING CONSULTATION WITH THE LGA AND/OR OBTAINING ANY APPROVALS. THE CUSTOMER MUST PROVIDE A COPY OF ANY ASSOCIATED APPROVAL TO WESTERN POWER PRIOR TO THE COMMENCEMENT OF WORK.

TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

Rev.	REVISIONS	DRN	DATE	FILE REFERENCE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	08/24	HAZARD MANAGEMENT REGISTER DM#: 69195696

NO NATIVE VEGETATION MAY BE DISTURBED WITHOUT A PERMIT OR OUTSIDE OF THE PERMIT AREA. IF IN DOUBT, PLEASE CONTACT THE RELEVANT MANAGER WHO WILL CONTACT WESTERN POWER ENVIRONMENTAL TEAM.

PLEASE NOTE: HEAVY PENALTIES MAY APPLY TO INDIVIDUALS AND BUSINESSES FOR DAMAGE TO NATIVE VEGETATION WITHOUT A PERMIT.

ISSUED FOR CONSTRUCTION

CONSULTANT CONTACT DETAILS	
COMPANY NAME:	ELECTRICAL DESIGN & CONSTRUCTION
CONTACT:	AARON BOYALL
TEL:	██████████
CUSTOMER CONTACT DETAILS	
COMPANY NAME:	THOMPSON & REDWOOD (2001) PTY LTD
CONTACT:	██████████
TEL:	██████████

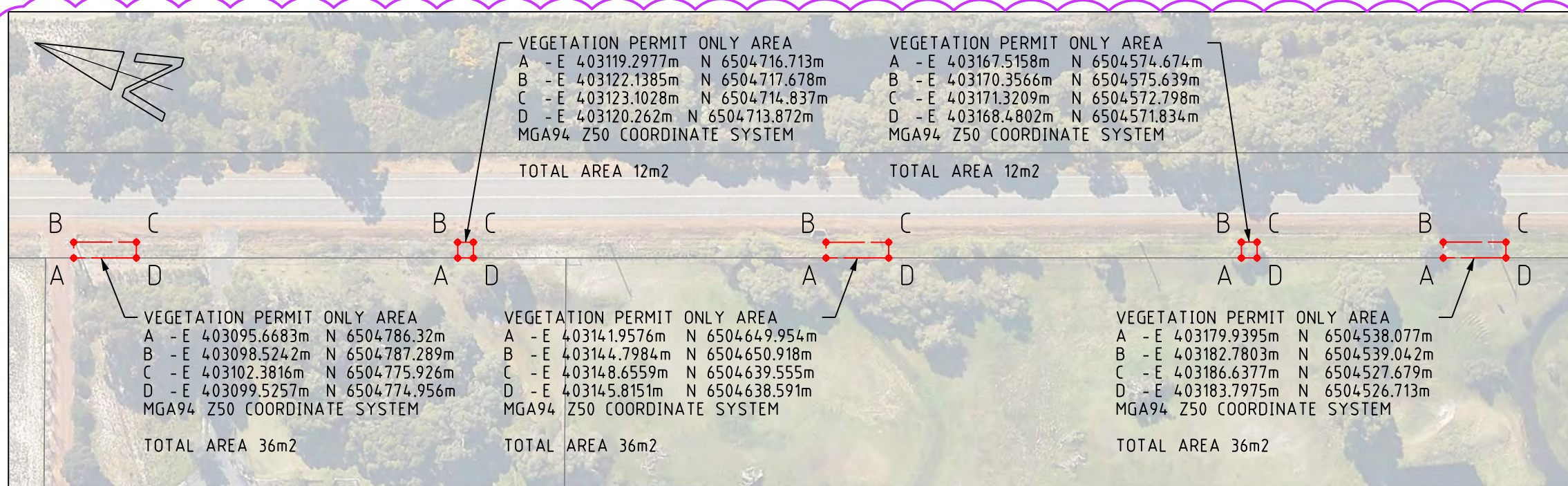


2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CABLE INSTALLATION PLAN 8
ENVIRONMENTAL DRAWING - MITIGATION REQUIREMENTS

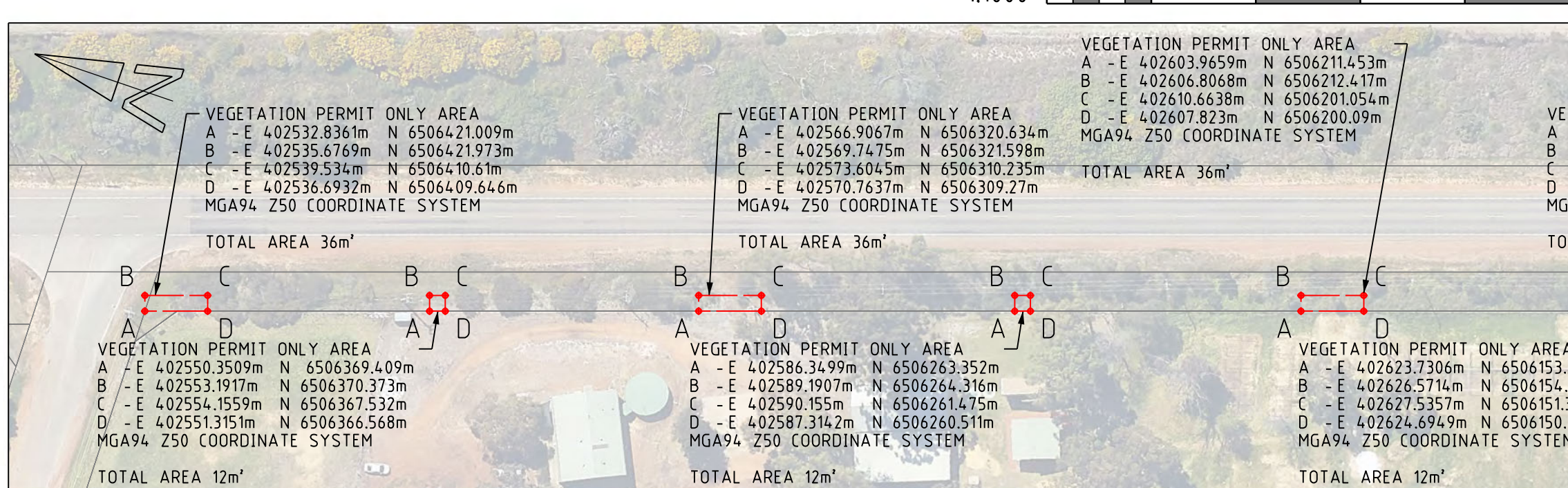
DESIGNER: VINKO MAJIC		 westernpower	
DESIGN TEAM: CCS DESIGN TEAM B			
EMAIL: [REDACTED]			
TEL: 13 10 87			
DATE: 07/24	SCALE: 1:2000	DRAWING NUMBER MP207462 SHEET 13 OF 14	
GEO REF: Lat. - 31°37'59" S Long. - 115°59'23" E			
		REV: B	ORIGINAL SIZE - A2



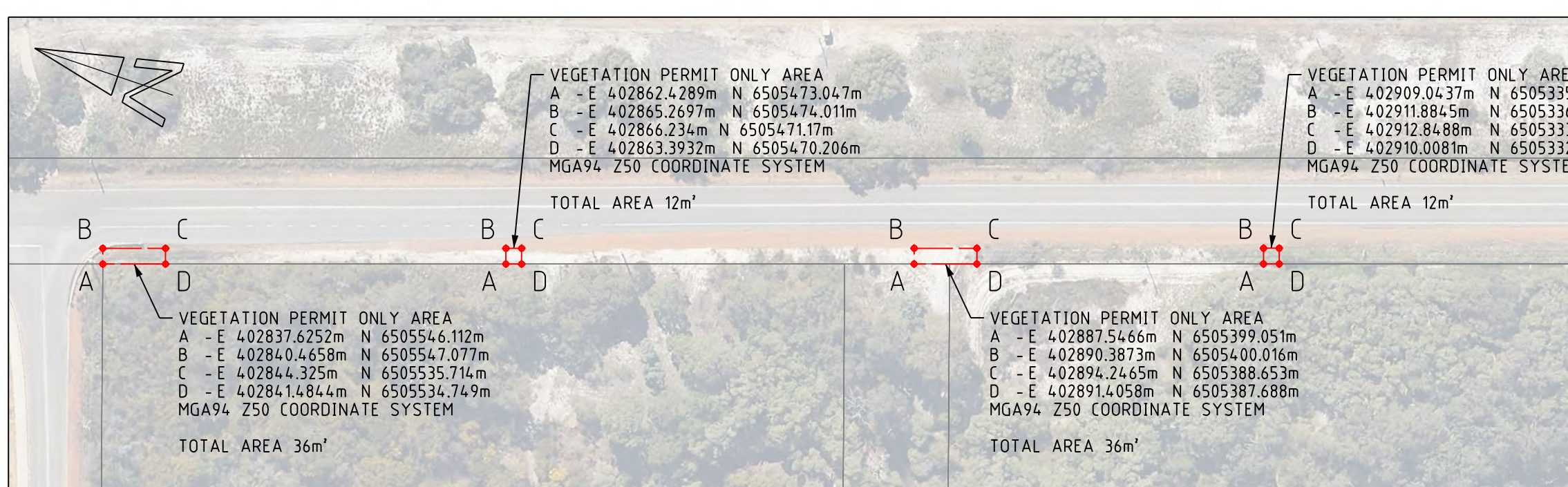
VEGETATION CLEARING SITE LOCATION PLAN
SCALE: 1:25,000



DETAIL S
SCALE: 1:1000



DETAIL P
SCALE: 1:1000



DETAIL R
SCALE: 1:1000

VEGETATION INSTRUCTION

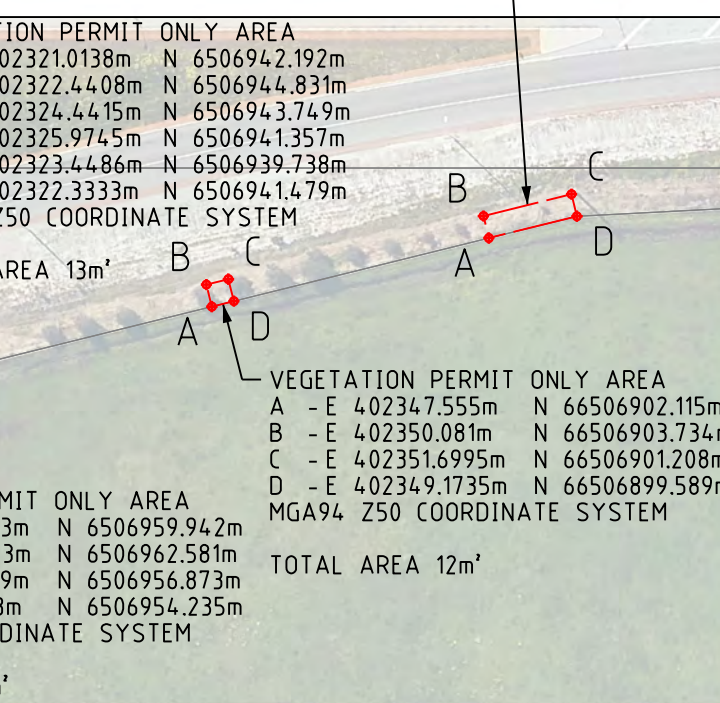
WITH REGARD TO YOUR REQUESTED WORKS, IT HAS BEEN IDENTIFIED BY WESTERN POWER THAT CLEARING OR POTENTIAL CLEARING IS REQUIRED TO FACILITATE THE CONNECTION. BEING A CUSTOMER-FUNDED PROJECT, THE CUSTOMER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CLEARING APPROVALS PRIOR TO THE COMMENCEMENT OF WORKS. YOU CAN ENGAGE AN ENVIRONMENTAL CONSULTANCY TO ASSIST WITH THIS.

THE DEPARTMENT OF WATER AND ENVIRONMENTAL REGULATION (DWER) ADMINISTERS THE CLEARING PROVISIONS OF THE ENVIRONMENTAL PROTECTION ACT 1986 (EP ACT). UNDER THE EP ACT, A CLEARING PERMIT IS REQUIRED TO AUTHORISE CLEARING OF NATIVE VEGETATION UNLESS A VALID EXEMPTION APPLIES OR DWER IDENTIFIES THAT A CLEARING PERMIT IS NOT REQUIRED VIA THE FORMAL CLEARING REFERRAL PROCESS. WHILE CLEARING PERMIT APPLICATIONS ATTRACT FEES, YOU DO NOT HAVE TO PAY A FEE TO SUBMIT A REFERRAL. WHEN APPLYING TO DWER ENSURE THAT THE FOLLOWING WORDING IS INCLUDED IN THE RELEVANT FORMS:

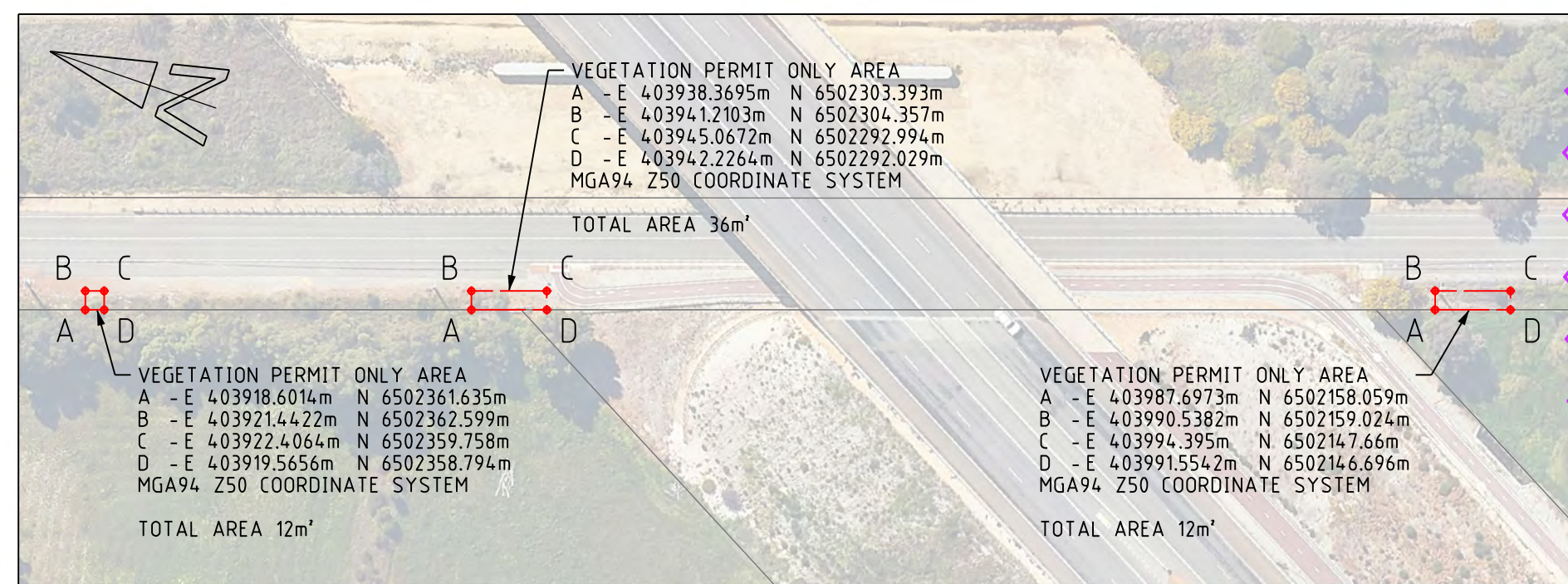
"ALL OTHER CONSTRAINTS HAVE BEEN CONSIDERED AND CLEARING WAS DEEMED THE MOST SIGNIFICANT IMPACT. METHODS TO AVOID AND MINIMISE CLEARING CONSIDERED DURING THE DESIGN PHASE INCLUDED:

1. PLACEMENT OF LAYDOWN AREAS, TURNAROUNDS ETC. IN PREVIOUSLY CLEARED LAND
2. UTILISATION OF EXISTING ACCESS TRACKS WHERE POSSIBLE
3. RESTRICTION OF WORKS TO EXISTING MAINTENANCE ZONE WHERE POSSIBLE
4. UTILISATION OF PRUNING INSTEAD OF CLEARING WHERE POSSIBLE
5. UTILISATION OF FARMER'S PADDOCKS AND PREVIOUSLY CLEARED AREAS WHERE POSSIBLE
6. UNDERGROUNDING OF CABLES AND DRILLING INSTEAD OF TRENCHING
7. SELECTION OF JOINT AND ENTRY/EXIT HOLE LOCATIONS TO AVOID CLEARING OF (HIGH VALUE) VEGETATION
8. HELICOPTER INSTALLATION INSTEAD OF GROUND WORK
9. EARLY AND CONTINUAL ENGAGEMENT WITH WESTERN POWER ENVIRONMENT TEAM TO HIGHLIGHT PROPOSED RISKS AND AVOID WHERE POSSIBLE
10. USING LARGER LINE SPANS THAT CAN SPAN OVER VEGETATION
11. USING STRUCTURES WITH SMALLER FOOTPRINTS
12. IMPLEMENTING LOWER IMPACT CLEARING METHODOLOGIES, FOR EXAMPLE HAND CLEARING INSTEAD OF MECHANICAL CLEARING"

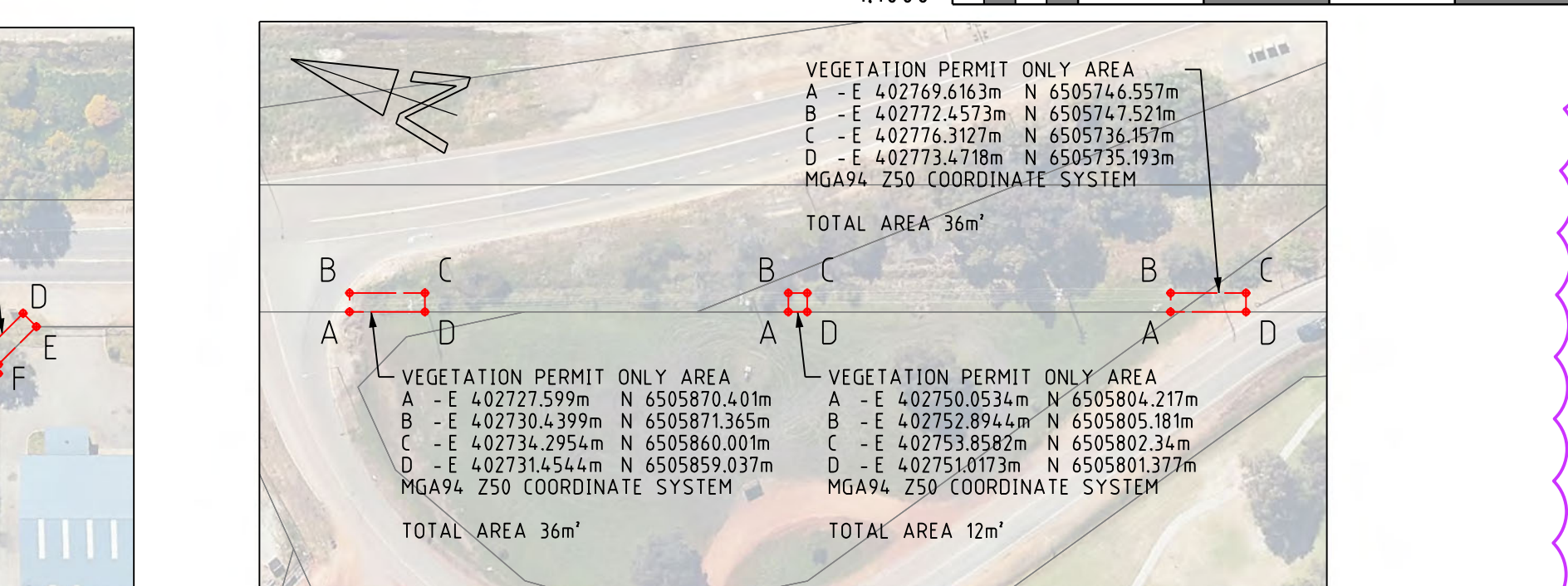
VEGETATION PERMIT ONLY AREA
A - E 402367.9213m N 6506870.33
B - E 402370.4472m N 6506871.948
C - E 402376.9212m N 6506861.844
D - E 402374.3952m N 6506860.226
MGA94 Z50 COORDINATE SYSTEM
TOTAL AREA 36m²



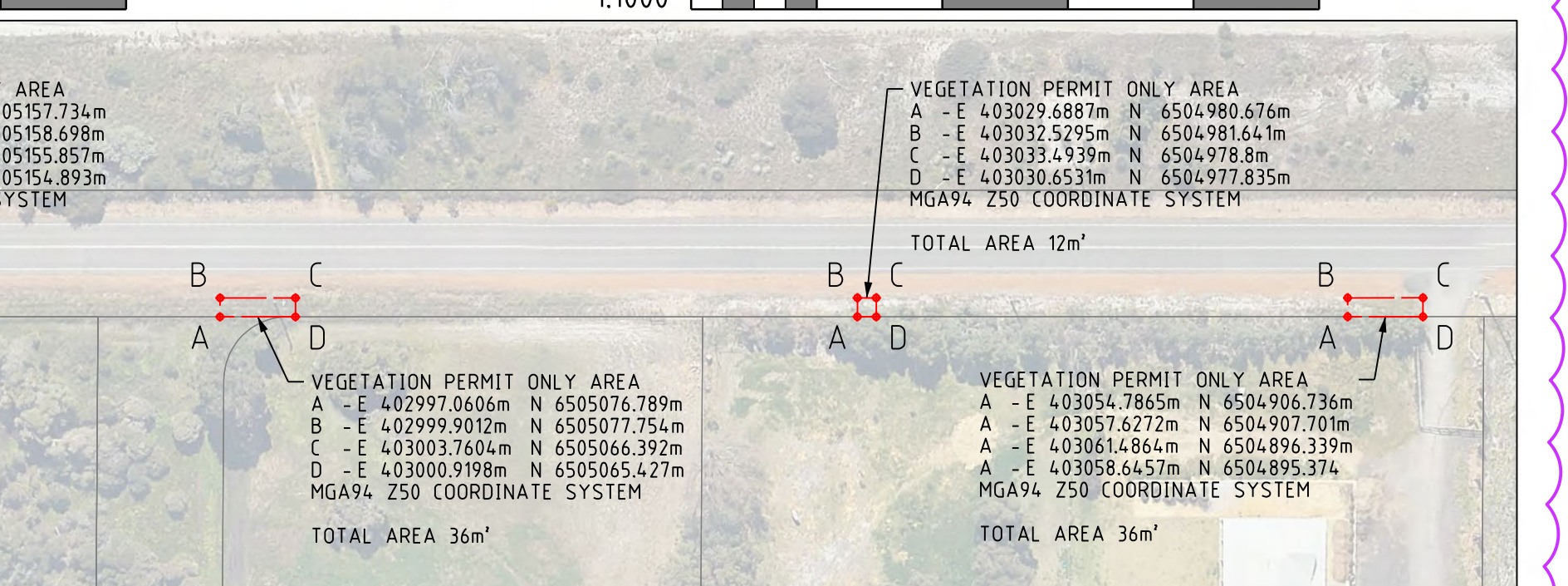
DETAIL O
SCALE: 1:1000



DETAIL T
SCALE: 1:1000



DETAIL U
SCALE: 1:1000



DETAIL W
SCALE: 1:1000

ISSUED FOR CONSTRUCTION

LEGEND	
SCHEME BDY.	---
RETAINING WALL	---
RESTRICTED ZONE	---
EASEMENT	---
HV CABLES	
CN53 - 400mm2 (3X1c)	---
CN49 - 240mm2 (3X1c)	---
CN49 - 195mm2 (3X1c)	---
CN50 - 95mm2 (3X1c)	---
CN51 - 50mm2 (3X1c)	---
CN51 - 50mm2 (1c)	---
CN46 - 35mm2 (3X1c)	---
CN47 - 35mm2 (1c)	---
EXISTING HV CABLES	---
ISIZE AND TYPE INDICATED	
LV-SL CABLES	
CN45 - 240mm2 (1x3c)	---
CN44 - 195mm2 (1x3c)	---
CN43 - 120mm2 (1x3c)	---
CN42 - 25mm2 (1x3c)	---
CN41 - 16mm2 SL (1c)	---
40 C PILOT	---
EXISTING LV CABLES	---
ISIZE AND TYPE INDICATED	
LV - AERIAL CONDUCTORS	
19/3.25 AAC/AAAC	---
7/4.75 AAC/AAAC	---
7/2.5 AAC/AAAC	---
LV ABC 95	---
LV ABC 150	---
SERVICE 16mm	---
EXISTING LV CONDUCTORS	---
ISIZE AND TYPE INDICATED	
HV - AERIAL CONDUCTORS	
19/3.25 AAC/AAAC	---
7/4.75 AAC/AAAC	---
7/2.5 AAC/AAAC	---
6/1/3.00 AAC/SLAC	---
150 HENDRIX	---
EXISTING HV CONDUCTORS	---
ISIZE AND TYPE INDICATED	
PILLARS / PITS / ETC	
MINI (WORKING END)	UMS PIT
UNIVERSAL	UTILITIES PIT
MINI	BGSP PIT
LINK	100/200AMP CUTOUT
CABLE MARKER U/G	CONDUIT / POLY PIPE
Serviced Uncleared De-energised Lot	
STREET LIGHTS	
Pole Bracket	EXISTING Pole Bracket
Single Outreach	Single Outreach
Double Outreach	Double Outreach
4-WAY	4-WAY
# - ALPHA CHARACTER DENOTES STREET LIGHT TYPE. REFER STREET LIGHT SCHEDULE FOR POLE & LUMINAIRE DETAILS.	
OH EQUIPMENT	
INTERMEDIATE	PTS
DOP	HV ISOLATOR
INLINE STRAIN	LV DISCONNECTOR
PTT	ISOL TX
AERIAL STAY	OUTRIGGER STAY
RECLOSER	GROUND STAY
LOAD BREAK SWITCH	SECTIONALISER
CAPACITOR	LV ABC KRONE
LBPTS	STREETLIGHT BOX

SAFETY - MAKE IT YOUR PRIMARY VALUE TO BE CONSTRUCTED DE-ENERGISED UNLESS RISK ASSESSED

Rev.	REVISIONS	DRN	DATE	REFERENCE FILE DETAILS
B	VEGETATION CLEARING REQUIREMENTS REDUCED	V.M.	07/25	
A	ISSUED FOR CONSTRUCTION	V.M.	04/25	
1	ISSUED FOR ENGINEERING REVIEW	V.M.	02/25	HAZARD MANAGEMENT REGISTER DM# 69195696

CONSULTANT CONTACT DETAILS		CUSTOMER CONTACT DETAILS	
COMPANY NAME: ELECTRICAL DESIGN & CONSTRUCTION		COMPANY NAME: THOMPSON & REDWOOD (2001) PTY LTD	
CONTACT: AARON BOYALL		CONTACT: [REDACTED]	

2770kVA / 22kV COMMERCIAL SUPPLY
101 MORLEY RD, BULLSBROOK
CLEARING AREA DETAILS
VEGETATION CLEARING REQUIREMENTS

DESIGNER: VINKO MAJIC	DRAWING NUMBER MP207462
DESIGN TEAM: CCS DESIGN TEAM B	
EMAIL: [REDACTED]	SHEET 14 OF 14
TEL: 13 10 87	
DATE: 01/25	SCALE: 1:1000
GEO REF: Lat. - 31°37'59" S Long. - 115°53'23" E	
REV: B	ORIGINAL SIZE - A1