

Services Infrastructure Report

Mixed use development including infill affordable housing

PREPARED FOR

Southern Cross Community Housing

SITE ADDRESS

25 Moss Vale Road, Bomaderry - Lot 1 DP 520502, Lot 129
DP 3060 & Lot 110 DP 131219

DATE

28/11/2024

PROJECT REFERENCE

N27790



Copyright Statement

© Allen Price Pty Ltd 2024

Other than as permitted by the Copyright Act 1968, no part of this report may be reproduced, transmitted, stored in a retrieval system or adapted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without written permissions. Enquiries should be addressed to Allen Price Pty Ltd.

The document may only be used for the purposes for which it was commissioned. Unauthorised use of this document in any form whatsoever is prohibited. Allen Price Pty Ltd assumes no responsibility where the document is used for purposes other than those for which it was commissioned.

This report has been prepared on behalf of and for the exclusive use of the Client and is subject to and issued in connection with the provisions of the agreement between Allen Price Pty Ltd and the Client. Allen Price Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

Nowra Office: 75 Plunkett Street, Nowra NSW 2541 • PO Box 73, Nowra 2541

Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533

Wollongong Office: Suite 1, Level 2, 83-85 Market Street, Wollongong NSW 2500

tel 02 4421 6544 • **email** consultants@allenprice.com.au

ABN 62 609 045 972

Liability limited by a scheme approved under Professional Standards Legislation



PREPARED BY

Allen Price

Land and Development Consultants

Suite 1 Level 2

83-85 Market Street

WOLLONGONG NSW 2500

AUTHOR

Benjamin Innis

BE Civil (Hons)

Civil Engineer

for Allen Price Pty Ltd,



TABLE OF CONTENTS

1.0 – INTRODUCTION	5
2.0 – SITE LOCALITY	6
3.0 – SERVICES INFRASTRUCTURE	7
3.1 Sewerage infrastructure	7
3.2 Water supply infrastructure	7
3.3 Electricity infrastructure	7
3.4 Telecommunications infrastructure	8
3.5 Reticulated Gas infrastructure	8
4.0 – INFRASTRUCTURE DELIVERY & STAGING	8
5.0 – CONCLUSION	8
6.0 – APPENDICES	10
6.1 Appendix A – AP Preliminary Plans	10
6.2 Appendix B – AKH Preliminary Electrical Design	11

Table of Revisions.

Initial.	Rev	Date	Details
BI	0	22/11/2024	Issued for Concept Approval



1.0 – INTRODUCTION

This Services Infrastructure Report is submitted to the Department of Planning, Housing and Infrastructure (DPHI) in support of a State Significant Development Application (SSDA) (SSD-69257218) for a mixed-use development known as ‘The Yards’, which will comprise of a mixed-use affordable housing development at 25 Moss Vale Road, Bomaderry (the site).

The proposed development will specifically comprise the following:

- Construction of a master planned community precinct, comprising a mix of land uses across 13 key areas. Specifically, the following is proposed:
 - Non-residential floor, including commercial and retail uses, a childcare centre, and a medical centre.
 - Residential floor area, including affordable housing dwellings and market housing dwellings of all varied sizes and typologies.
 - Communal amenity facilities located throughout the precinct.
- Delivery of the internal road network and street and basement carpark, comprising a total of 425 car parking spaces and 93 bicycle spaces.
- Strata subdivision.
- Associated landscaping and public domain works.
- Augmentation of, and connection to, existing utilities as required.

For a detailed project description, refer to the Environmental Impact Statement prepared by Beam Planning.

Relevant SEARs

This Services Infrastructure Report addresses the relevant Secretary’s Environmental Assessment Requirements (SEARs) set out in Table 1 below.

SEAR’s Request	Response
<p>Infrastructure Requirements and Utilities</p> <ul style="list-style-type: none">• In consultation with relevant service providers.<ul style="list-style-type: none">○ Assess the impacts of the development on existing utility infrastructure and service provider assets surrounding site.○ identify any infrastructure required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.○ provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be coordinated, funded, and delivered to facilitate the development	<p>Section 3 & 4.</p>

Table 1 – SEAR’s Compliance Table.

2.0 – SITE LOCALITY

The site is Lot 1 DP 520502, Lot 129 DP 3060 and Lot 110 DP 131219 (25 Moss Vale Road), Bomaderry. The site is located at 25 Moss Vale Road, Bomaderry within the Shoalhaven City Local Government Area (LGA). The site comprises three allotments, which are all owned by Southern Cross Community Housing. The lots have a combined area of 8.5 hectares.

Formerly, the site was used as a cattle yard, however, it currently lies vacant. As detailed within the EIS prepared by Beam Planning, the site is subject to a deferred development consent (SF10851) for Torrens Title subdivision and a series of site preparation works, which was approved by Shoalhaven City Council in December 2022.

The site is located approximately 2.2km northwest of Bomaderry Station and 350m west of the A1 Princes Highway. Approximately 5.2km south of the site is the suburb of Nowra, a major commercial centre servicing the south coast suburbs of NSW. A summary of the surrounding development is provided below:

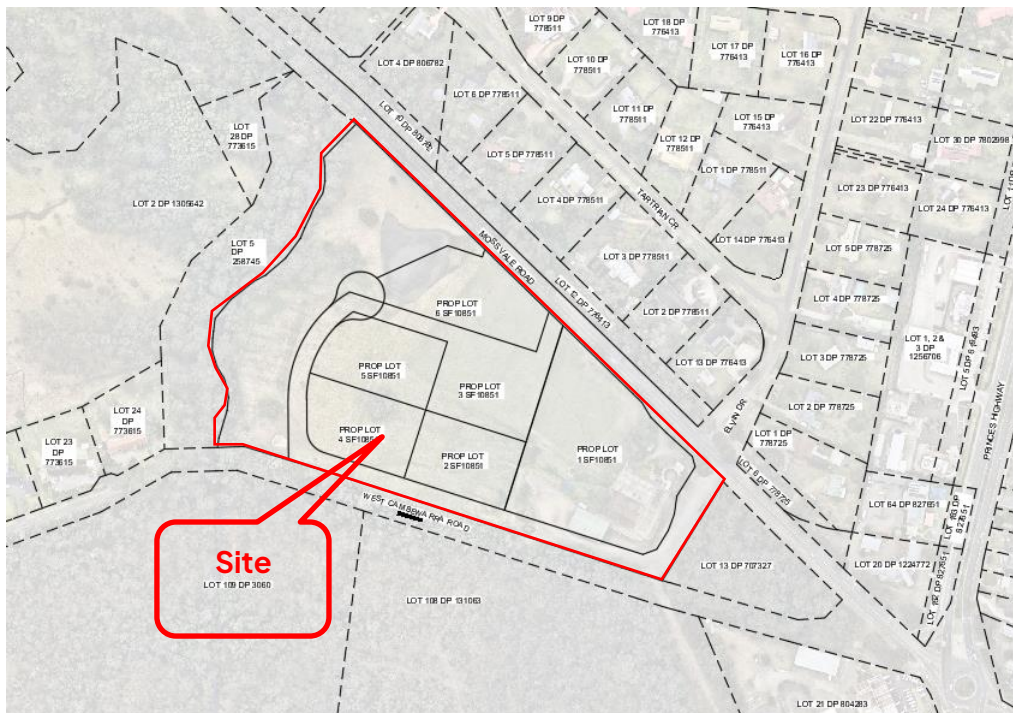


Figure 1 – Locality Plan (SIX maps)



3.0 – SERVICES INFRASTRUCTURE

3.1 SEWERAGE INFRASTRUCTURE

The site is to be serviced by sewer under Approval SF10851 in accordance with the Approved Shoalhaven Water Notice. Impacts to the existing infrastructure have been assessed resulting in upgraded connection points to the existing infrastructure. Post-development all maintenance for authority owned mains is to be undertaken by Shoalhaven Water as standard procedure.

Additional sewer mains are proposed as an extension to the underlying approval, as shown in Appendix A. Private connection to the authority owned sewerage system at each point is achievable, however investigations will need to be undertaken during the detailed design stage in conjunction with Shoalhaven Water to determine the most cost-effective solution with regards to length of run, allocation of the service within the road reserve and location/clearances to existing/proposed services. Post-development all maintenance for authority owned mains is to be undertaken by Shoalhaven Water as standard procedure. Post-development all privately owned services will be maintained by the respective landowner or representative in which the services are located.

3.2 WATER SUPPLY INFRASTRUCTURE

The site is to be serviced by water under Approval SF10851 in accordance with the Approved Shoalhaven Water Notice. Impacts to the existing infrastructure have been assessed resulting in new connection and servicing locations as required.

The water meter and internal supply mains, as shown in Appendix A, will be sized during the Construction Certificate phase to cater for the necessary requirements of Shoalhaven Water for pressure and flow at each allotment. All maintenance is to be undertaken by Shoalhaven Water post-development as standard procedure outlined within the Shoalhaven Water Notice for authority owned mains. Post-development all privately owned services will be maintained by the respective landowner or representative in which the services are located.

3.3 ELECTRICITY INFRASTRUCTURE

The site is to be serviced by Electricity under Approval SF10851 in accordance with Endeavour Energy supply offer URS30132. A preliminary layout for the underlying approval can be seen in Appendix B. Impacts to the existing infrastructure have been assessed resulting in new infrastructure proposed for the underlying approval. Additional infrastructure is expected to be proposed for this current application. Discussions and designs in parallel with Endeavour Energy are to be outlined in a supply offer to be obtained.

Application for supply will need to be made with Endeavour Energy post DA approval to obtain their requirements and subsequent approval to connect to the network. Post development maintenance is to be provided by standard Endeavour Energy procedures, with access to all area



to be maintained through proposed easements. All privately owned services will be maintained by the respective landowner or representative in which the services are located.

3.4 TELECOMMUNICATIONS INFRASTRUCTURE

Telecommunications is a non-essential service, so the provision thereof does not affect the suitability of the development.

Application for telecommunications services will need to be made through a retail provider to obtain connection to the telecommunications network.

3.5 RETICULATED GAS INFRASTRUCTURE

Reticulated gas is a non-essential service, so the provision thereof does not affect the suitability of the development. It is also not proposed nor is it available for this development.

4.0 – INFRASTRUCTURE DELIVERY & STAGING

The development aims to deliver all required authority owned infrastructure to the site during the initial phase for the underlying greenfield approval SF10851.

This Development Application (DA) proposes to integrate with the above infrastructure to the site by providing all authority owned infrastructure required for the ultimate proposed development in the initial phase of construction. Provisions have been incorporated and are being actively coordinated with relevant authorities for the underlying approval to accommodate the total load anticipated from the current proposal.

All infrastructure will be managed by the successful contractor (yet to be appointed) in compliance with the final approved documentation and guidelines.

The Project Developers are expected to bear all costs associated with the project.

5.0 – CONCLUSION

This report provides an assessment of the proposed Mixed use development including infill affordable housing.

The provision of all essential services (water, sewer and electricity) is available to the site and will have sufficient capacity to support the proposal.

These conclusions are based upon the works being completed generally in accordance with the preliminary designs by Allen Price (AP).

The proposal is considered adequate and is recommended to be supported by the Department of Planning, Housing and Infrastructure (DPHI) in support of a State Significant Development Application (SSDA).



Appendices of: Services Infrastructure Report

Mixed use development including infill affordable housing

PREPARED FOR

Southern Cross Community Housing

SITE ADDRESS

25 Moss Vale Road, Bomaderry - Lot 1 DP 520502, Lot 129
DP 3060 & Lot 110 DP 131219

DATE

28/11/2024

PROJECT REFERENCE

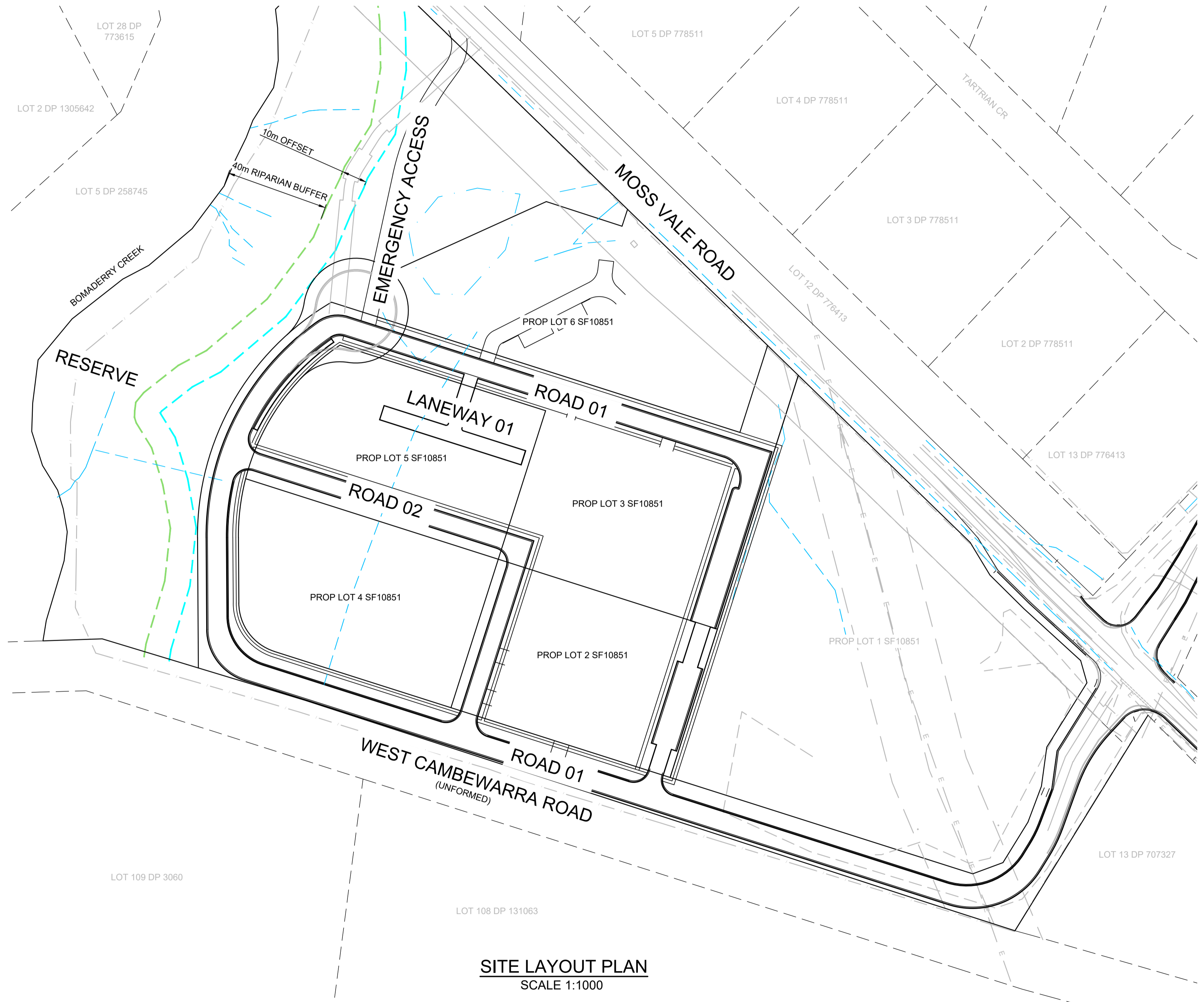
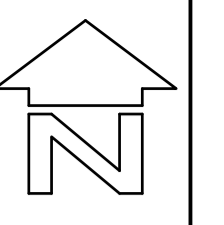
N27790



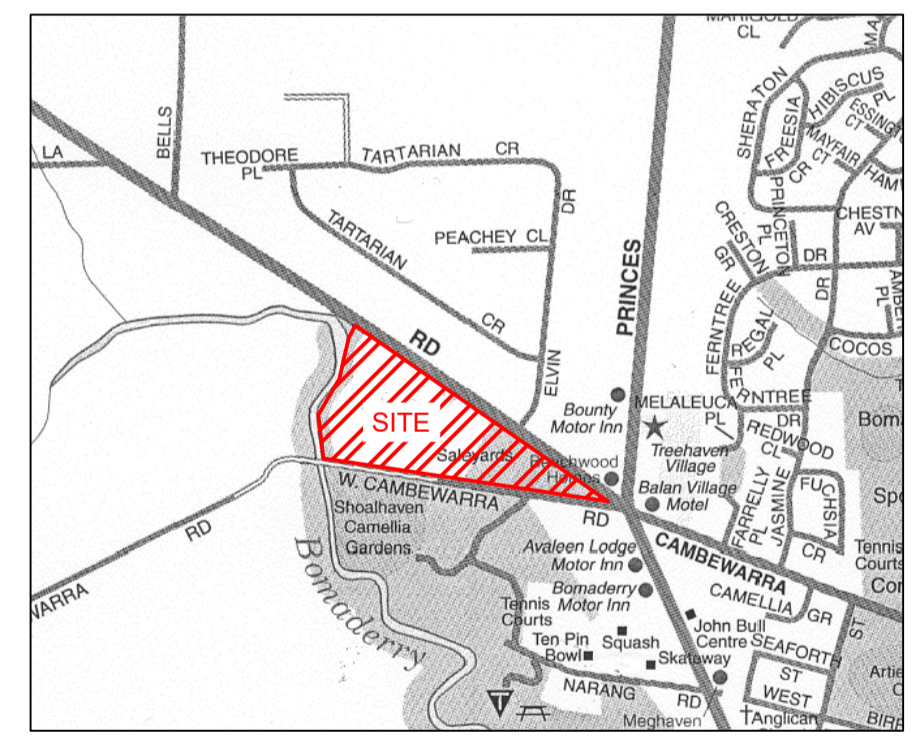
6.0 – APPENDICES

6.1 APPENDIX A – AP PRELIMINARY PLANS

PROPOSED MIXED USE SUBDIVISION FOR SOUTHERN CROSS COMMUNITY HOUSING



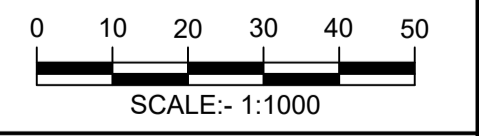
DRAWING SCHEDULE	
N27790-407	COVER SHEET & DRAWING INDEX
N27790-408	GENERAL ARRANGEMENT & STORMWATER LAYOUT PLAN
N27790-409	SEWER & WATER ARRANGEMENT PLAN
N27790-410	ROAD 1 LONGSECTIONS
N27790-411	ROAD 1, 2, LANEWAY & BUSHFIRE EXIT LONGSECTIONS
N27790-412	ROAD 1 TYPICAL SECTIONS
N27790-413	ROAD 1 & 2 TYPICAL SECTIONS
N27790-414	LANEWAY 1 & BUSHFIRE EXIT TYPICAL SECTIONS
N27790-415	BULK EARTHWORKS



LOCALITY PLAN
MAP DRAWN & PUBLISHED BY CARTODRAFT AUST P/L

SITE LAYOUT PLAN
SCALE 1:1000

PROFESSIONAL STANDARDS SCHEME
Liability limited by a scheme approved under Professional Standards Legislation

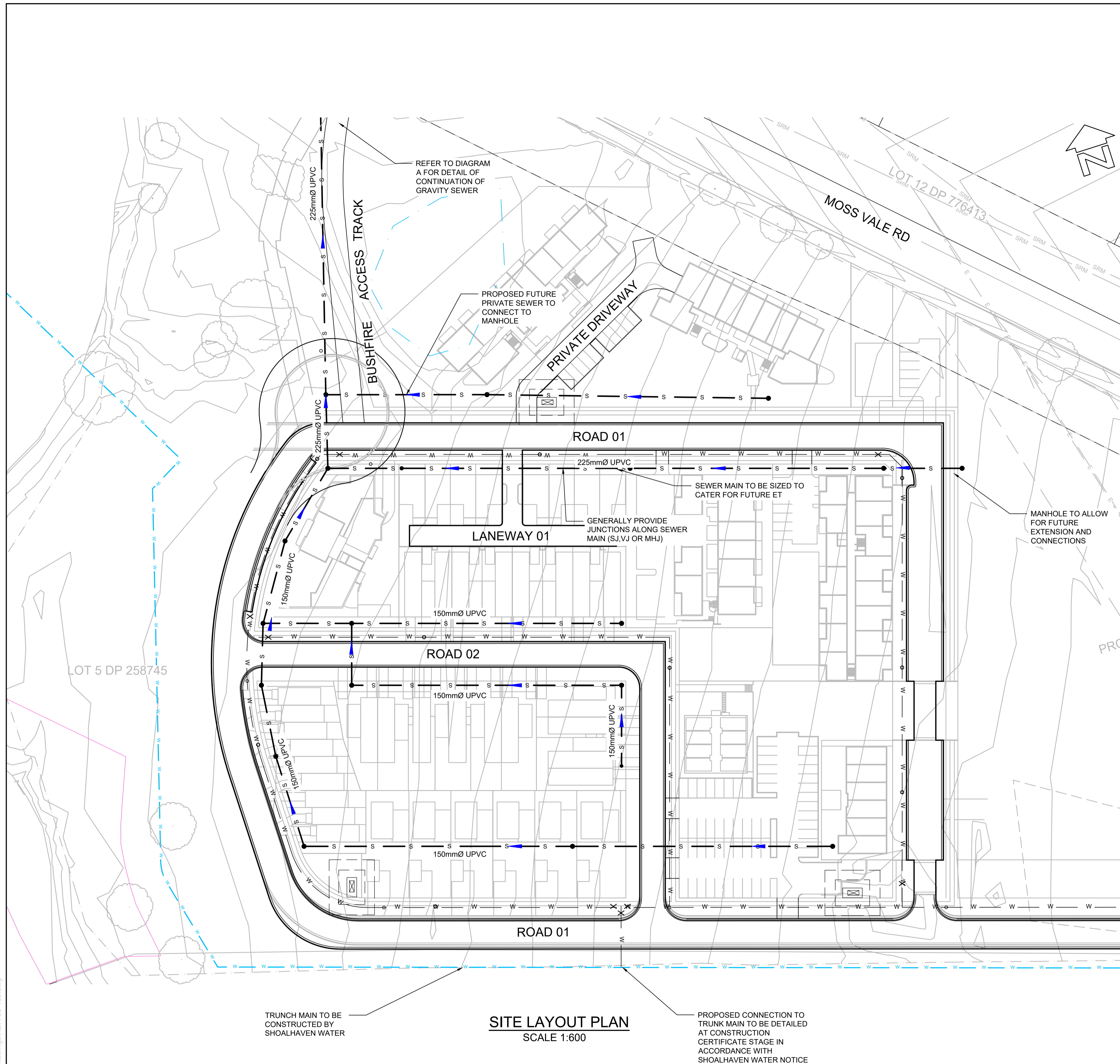


BEWARE!

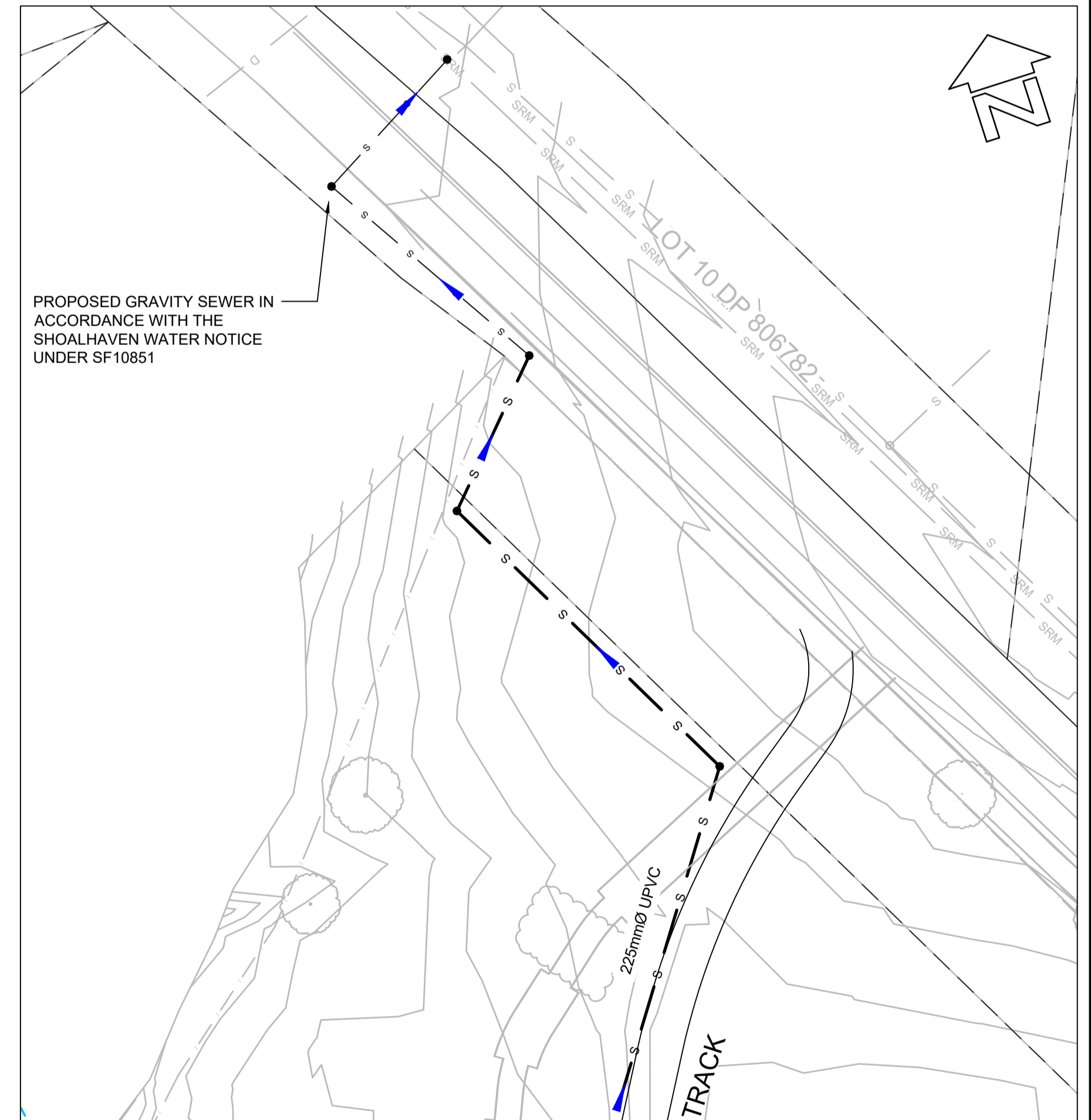
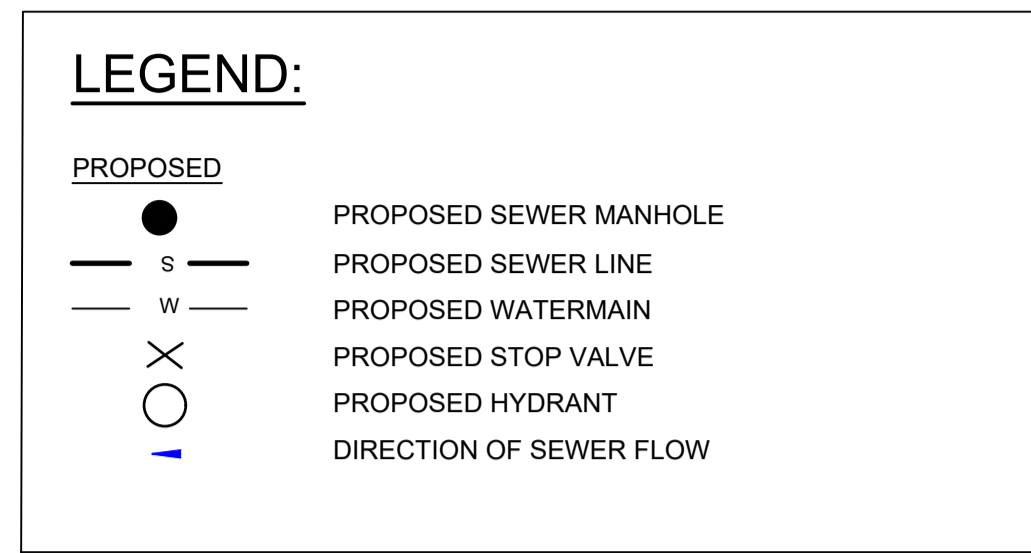
THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.

DIAL BEFORE YOU DIG
www.1100.com.au

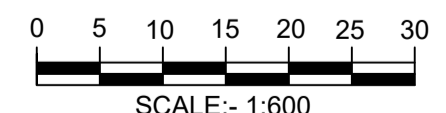
RATIO: 1:1000 (AT A1 ORIGINAL)	DATUM: AUSTRALIAN HEIGHT DATUM	SURVEY DESIGN	APS BI	REV 0	DESCRIPTION ISSUED FOR CONCEPT APPROVAL	BY BI	DATE 25/09/2024	<p>allen price & scarratts pty ltd land and development consultants Nowra Office: 75 Plunkett Street, Nowra NSW 2541 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533 phone:(02) 4421 6544 consultants@allenprice.com.au www.allenprice.com.au</p>	COVER SHEET & DRAWING INDEX PROPOSED MIXED USE SUBDIVISION OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502 AT 25 MOSSVALE ROAD FOR SOUTHERN CROSS COMMUNITY HOUSING	DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES
	DATE OF PLAN: SEPTEMBER 2024	CHECK'D CEG								DRAWING NUMBER N27790-407



SITE LAYOUT PLAN
SCALE 1:600



DETAIL DIAGRAM A
SCALE 1:600



BEWARE!
THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



RATIO:
AS SHOWN
(AT A1 ORIGINAL)

DATUM:
AUSTRALIAN HEIGHT DATUM
ORIGIN: PM15204
RL52.718
DATE OF PLAN: SEPTEMBER 2024

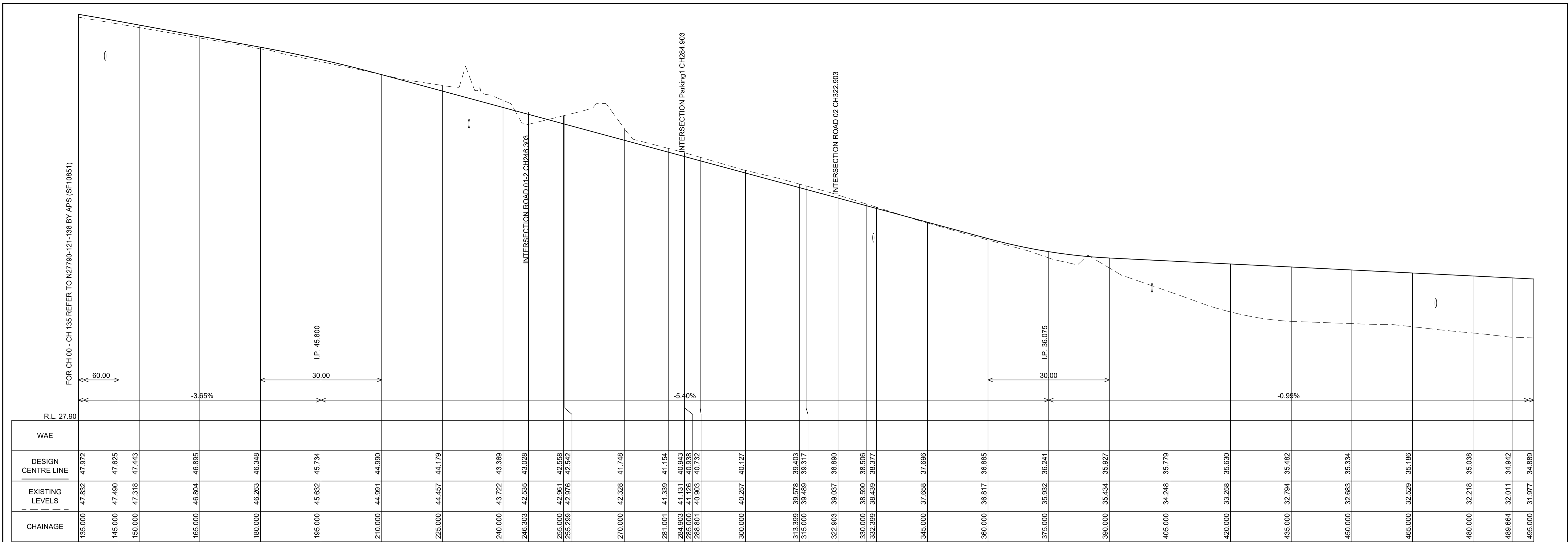
SURVEY	APS	REV	DESCRIPTION	BY	DATE
DESIGN	BI	0	ISSUED FOR CONCEPT APPROVAL	BI	25/09/2024
DRAWN	BI				
CHECK'D	CEG				

allen price & scarratts pty ltd
land and development consultants
Nowra Office: 75 Plunkett Street, Nowra NSW 2541
Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533
phone: (02) 4421 6544
consultants@allenprice.com.au www.allenprice.com.au

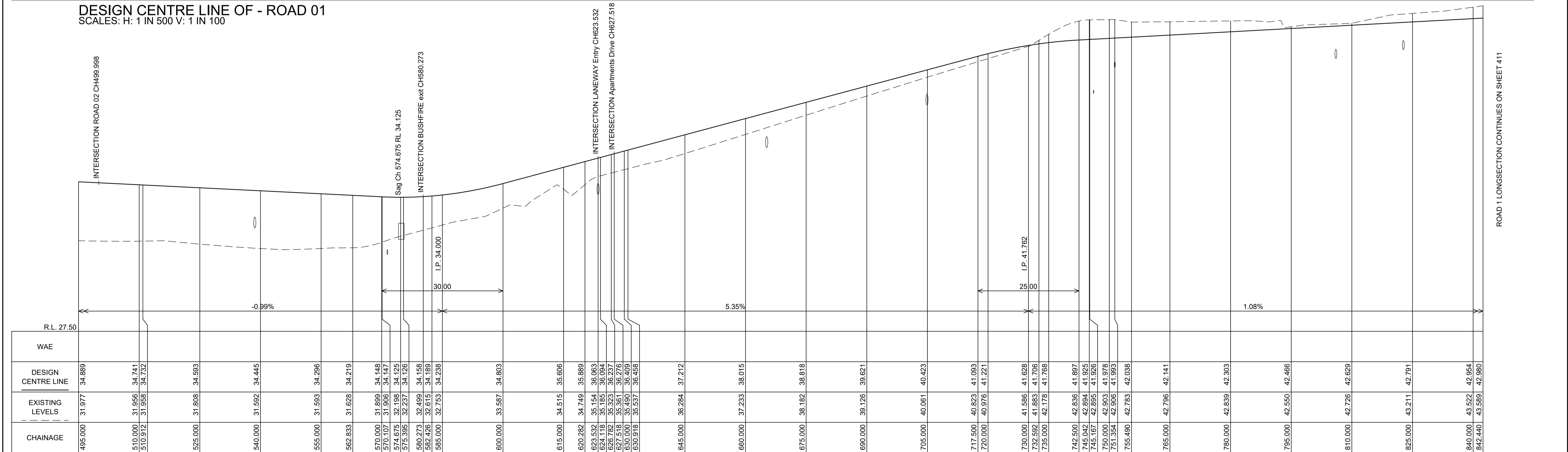
SEWER & WATER ARRANGEMENT PLAN
PROPOSED MIXED USE SUBDIVISION
OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502
AT 25 MOSSVALE ROAD
FOR SOUTHERN CROSS COMMUNITY HOUSING

DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
DRAWING NUMBER N27790-409	SHEET 3 REVISION OF 9 P0

M:\CAD Files - Projects\N27790 Drawings\N27790-409.dwg



DESIGN CENTRE LINE OF - ROAD 01
 SCALES: H: 1 IN 500 V: 1 IN 100

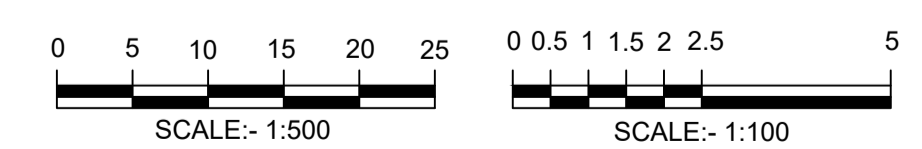


DESIGN CENTRE LINE OF - ROAD 01
 SCALES: H: 1 IN 500 V: 1 IN 100

BEWARE!
 THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



CONSULTING PROFESSIONAL STANDARDS SCHEME
 Liability limited by a scheme approved under Professional Standards Legislation



RATIO:
AS NOTED
 (AT A1 ORIGINAL)

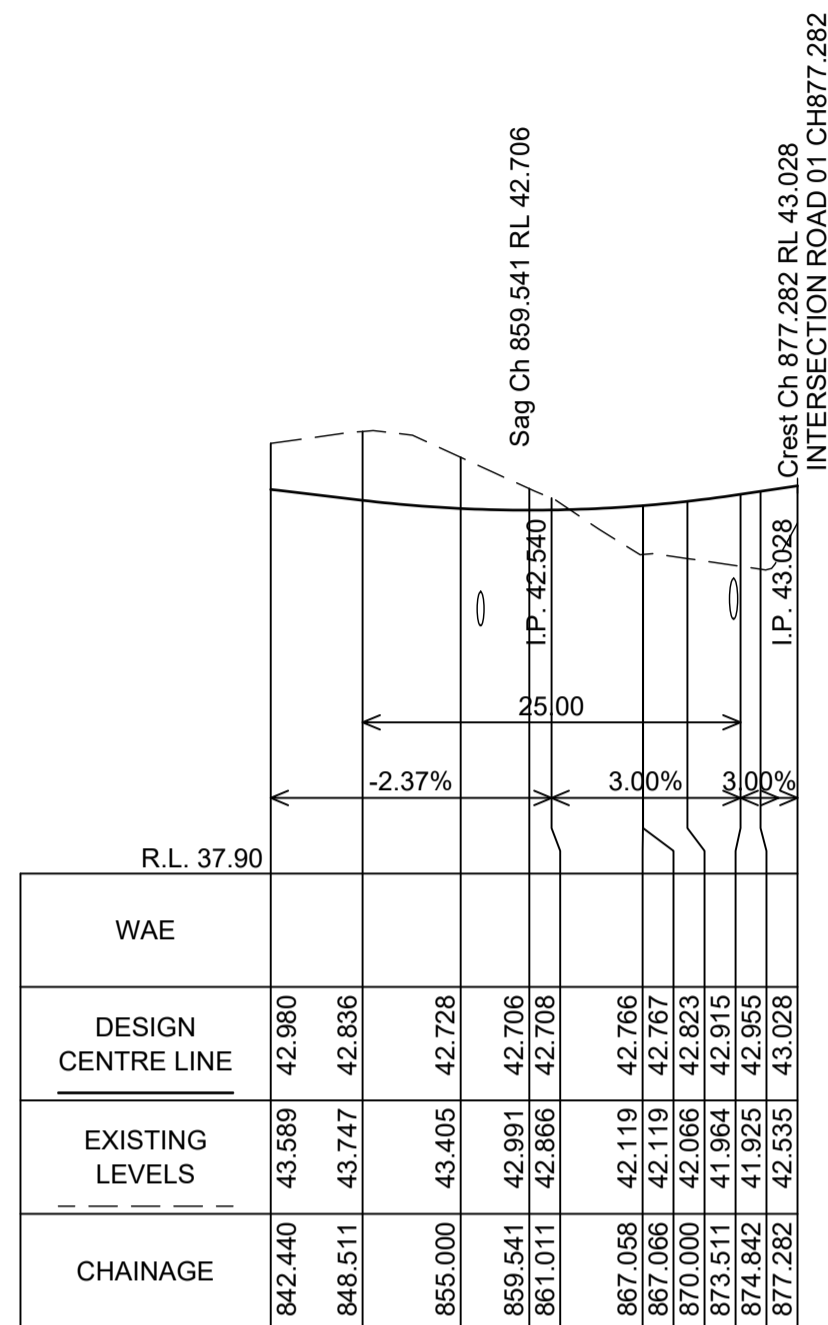
DATUM:
 AUSTRALIAN HEIGHT DATUM
 ORIGIN: PM15204
 RL52.718
 DATE OF PLAN: SEPTEMBER 2024

SURVEY	APS	REV	DESCRIPTION	BY	DATE
DESIGN	BI	0	ISSUED FOR CONCEPT APPROVAL	BI	25/09/2024
DRAWN	BI				
CHECK'D	CEG				

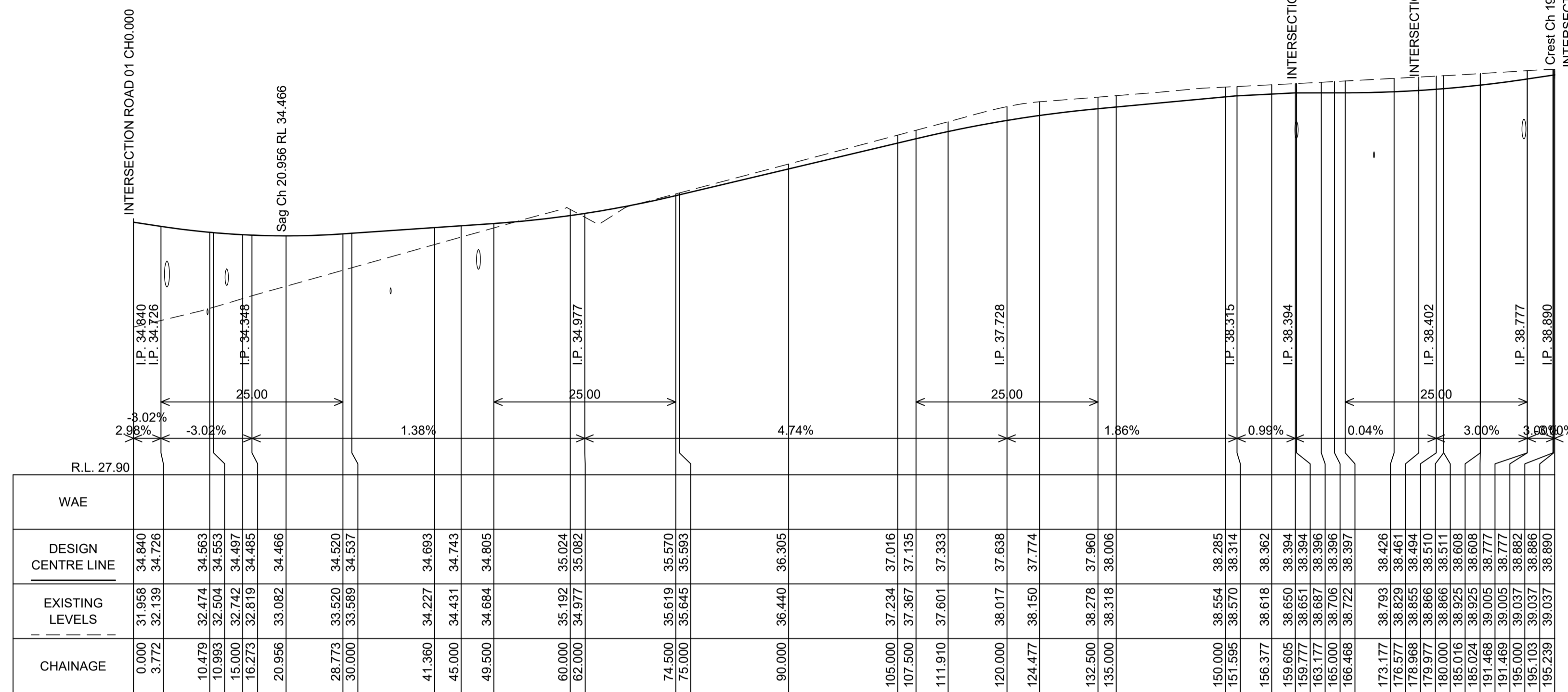
allen price & scarratts pty ltd
 land and development consultants
 Nowra Office: 75 Plunkett Street, Nowra NSW 2541
 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533
 phone: (02) 4421 6544
 consultants@allenprice.com.au www.allenprice.com.au

ROAD 1 LONGSECTIONS
 PROPOSED MIXED USE SUBDIVISION
 OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502
 AT 25 MOSSVALE ROAD
 FOR SOUTHERN CROSS COMMUNITY HOUSING

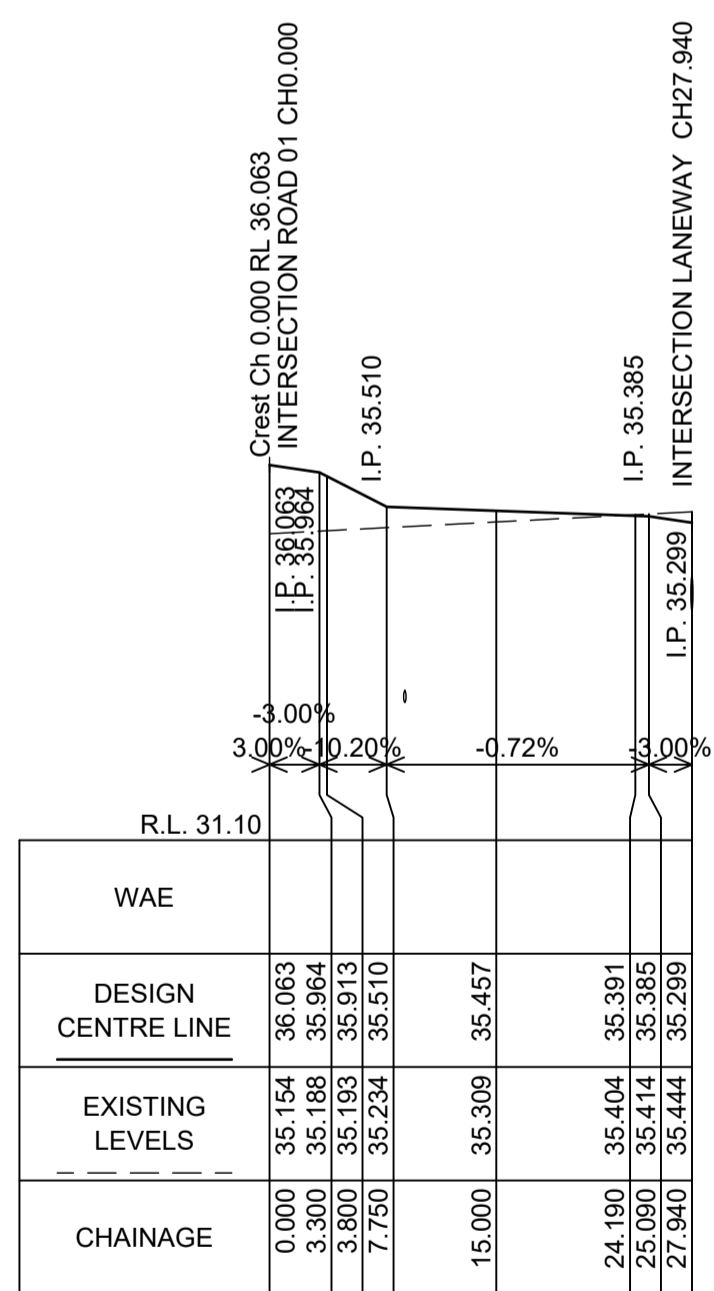
DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
DRAWING NUMBER N27790-410	SHEET 4 OF 9 REVISION P0



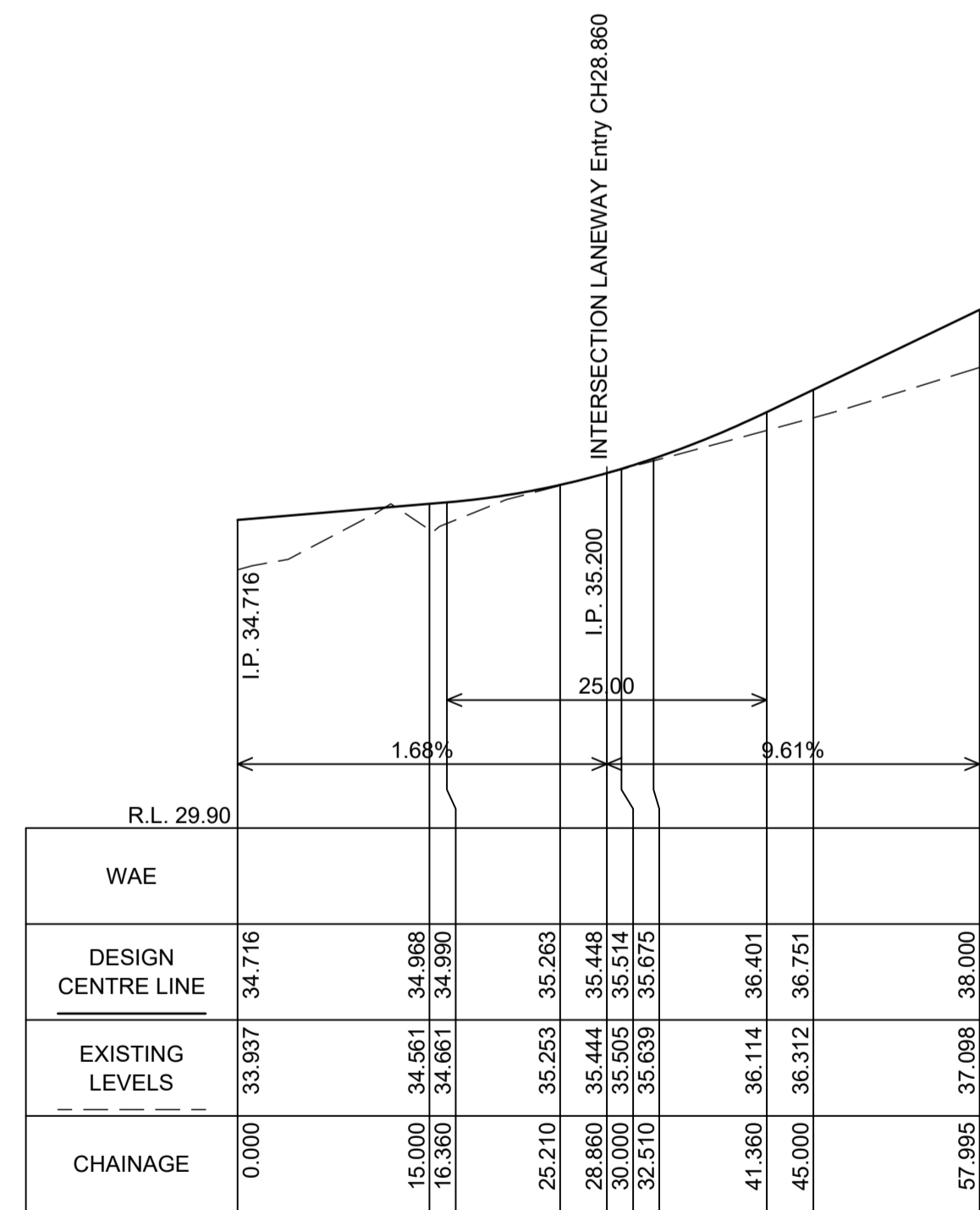
DESIGN CENTRE LINE OF - ROAD 1 CONT
 SCALES: H: 1 IN 500 V: 1 IN 100



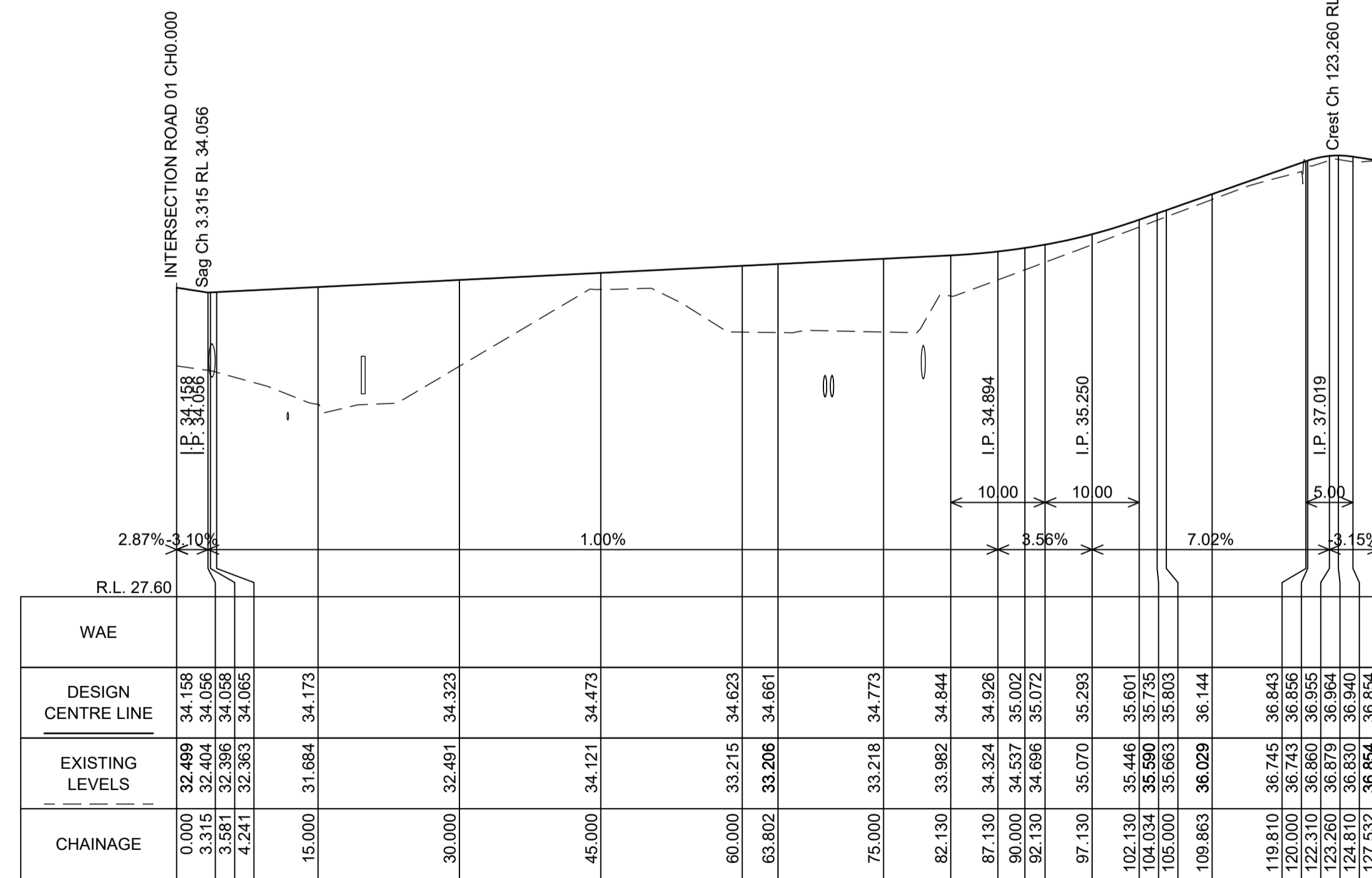
DESIGN CENTRE LINE OF - ROAD 2
 SCALES: H: 1 IN 500 V: 1 IN 100



DESIGN CENTRE LINE OF - LANEWAY ENTRY
 SCALES: H: 1 IN 500 V: 1 IN 100



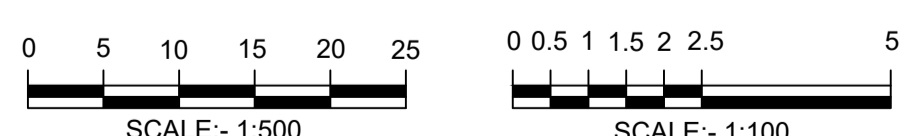
DESIGN CENTRE LINE OF - LANEWAY 1
 SCALES: H: 1 IN 500 V: 1 IN 100



DESIGN CENTRE LINE OF - BUSHFIRE EXIT
 SCALES: H: 1 IN 500 V: 1 IN 100

M:\CAD Files - Projects\N27790 - Drawings\N27790-411.dwg

BEWARE!
 THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



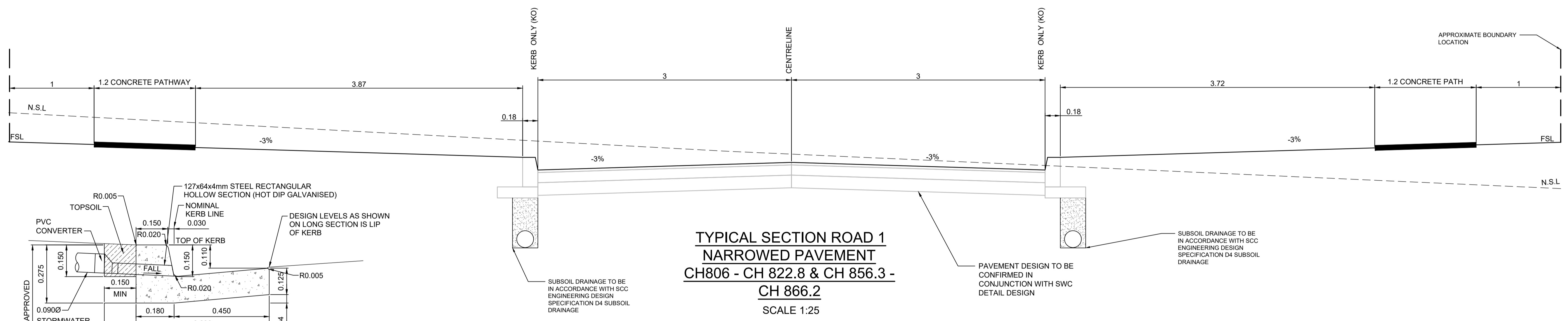
CONFORMS TO AUSTRALIAN
PROFESSIONAL STANDARDS SCHEME
 Liability limited by a scheme approved under Professional Standards Legislation

RATIO: AS SHOWN (AT A1 ORIGINAL)	DATUM: AUSTRALIAN HEIGHT DATUM	SURVEY DESIGN	APS BI	REV 0	DESCRIPTION ISSUED FOR CONCEPT APPROVAL	BY BI	DATE 25/09/2024	ROAD 1, 2, LANEWAY & BUSHFIRE EXIT LONGSECTIONS PROPOSED MIXED USE SUBDIVISION OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502 AT 25 MOSSVALE ROAD FOR SOUTHERN CROSS COMMUNITY HOUSING	DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES
	ORIGIN: PM15204 RL52.718	DRAWN BI	CHECK'D CEG	DATE OF PLAN: SEPTEMBER 2024	BY BI	DATE 25/09/2024	DRAWING NUMBER N27790-411		SHEET 5 OF 9



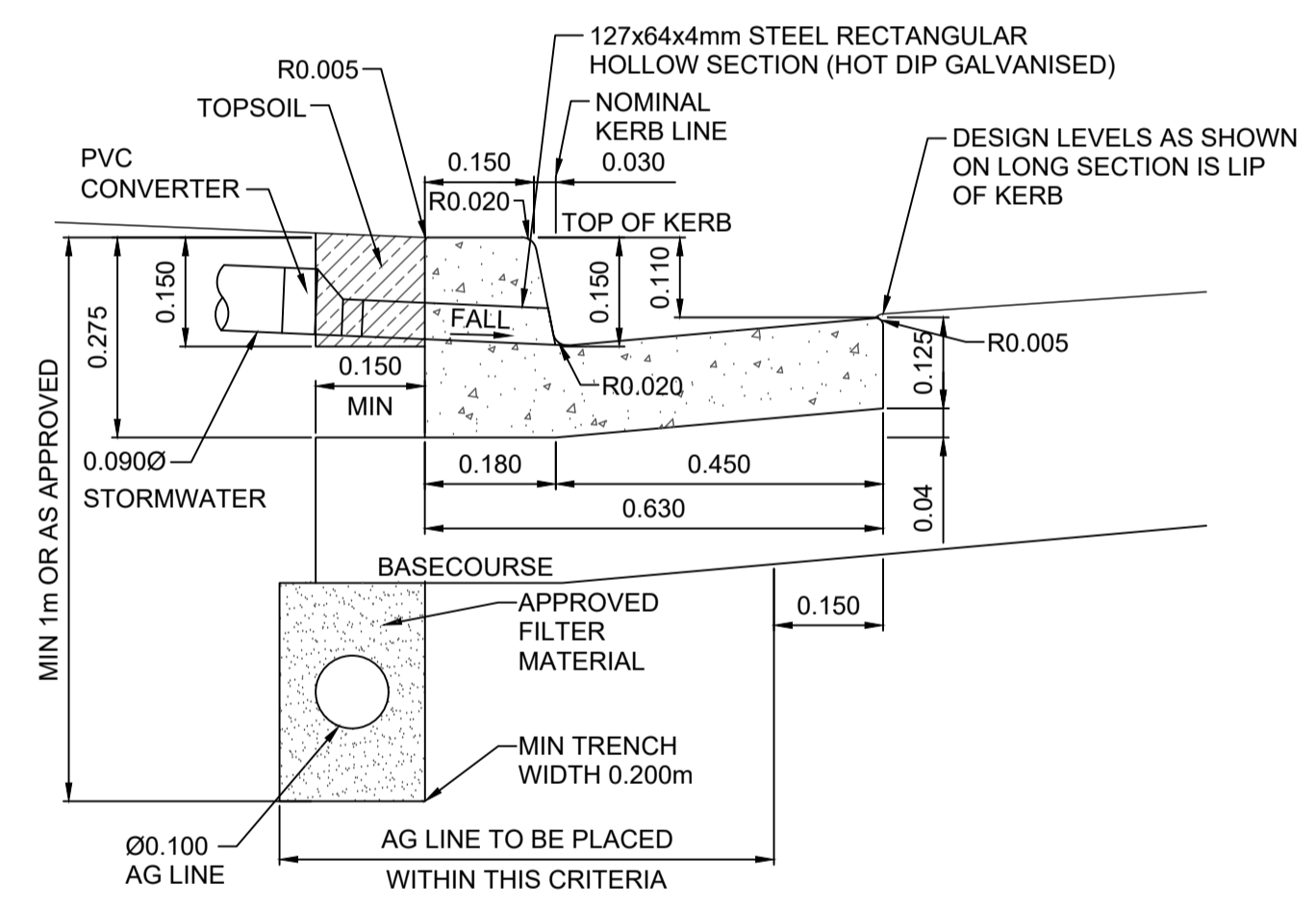
TYPICAL SECTION ROAD 1 WIDENED PAVEMENT FOR PARKING CH730 - CH877.3
 (EXCL NARROW SECTION CH806 - CH822.8 & CH856.3 - CH866.2)

SCALE 1:25



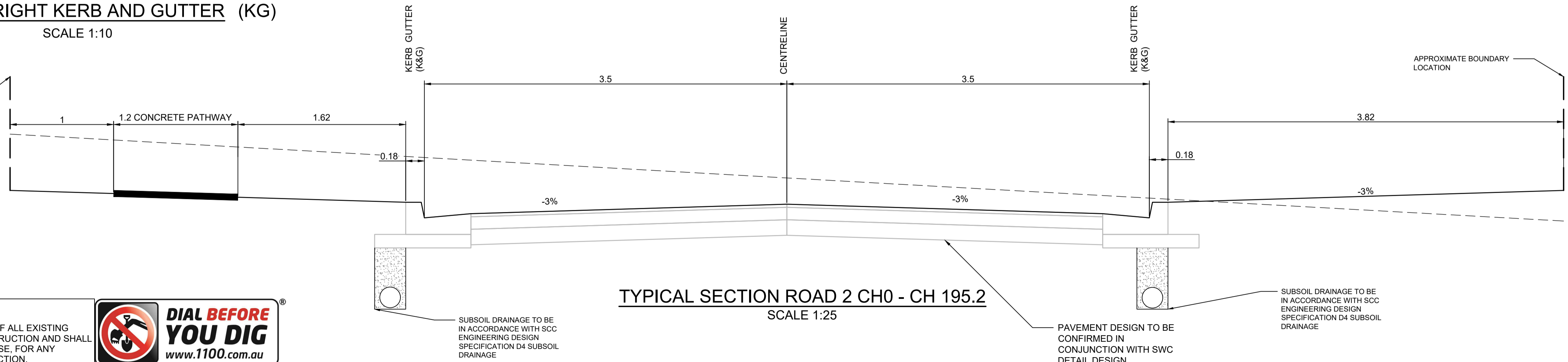
TYPICAL SECTION ROAD 1 NARROWED PAVEMENT
 CH806 - CH 822.8 & CH 856.3 - CH 866.2

SCALE 1:25



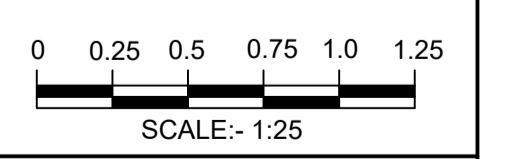
TYPICAL UPRIGHT KERB AND GUTTER (KG)

SCALE 1:10



TYPICAL SECTION ROAD 2 CH0 - CH 195.2

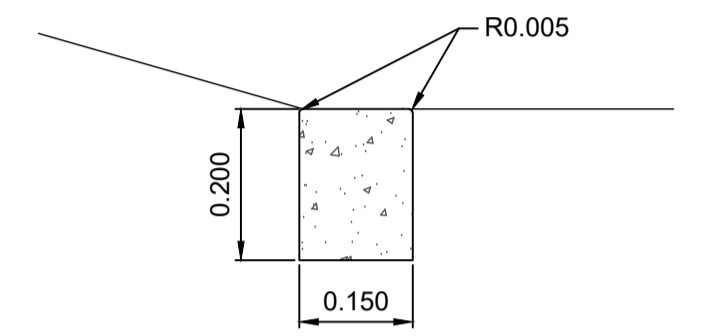
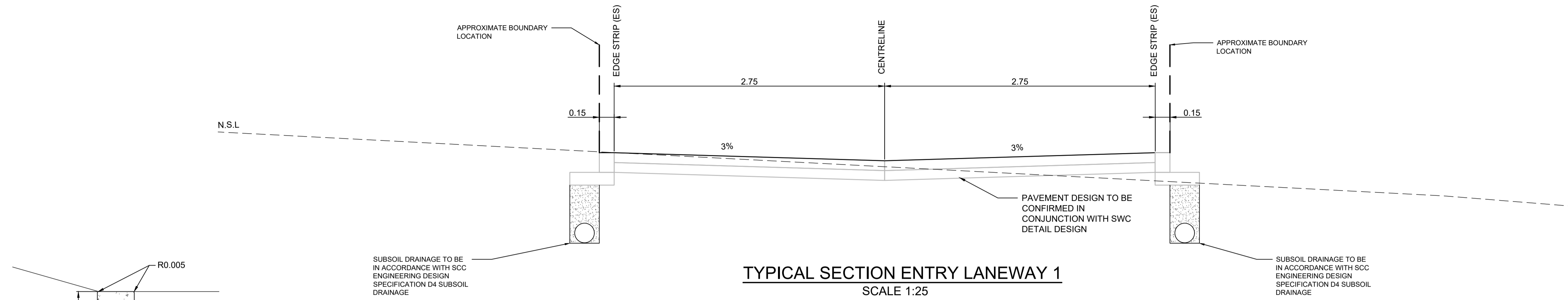
SCALE 1:25



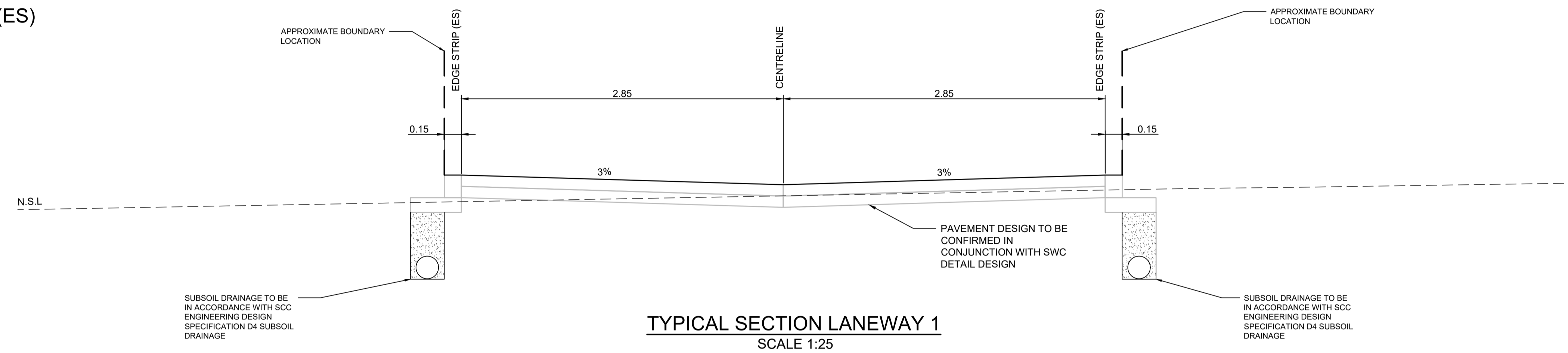
BEWARE!

THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.

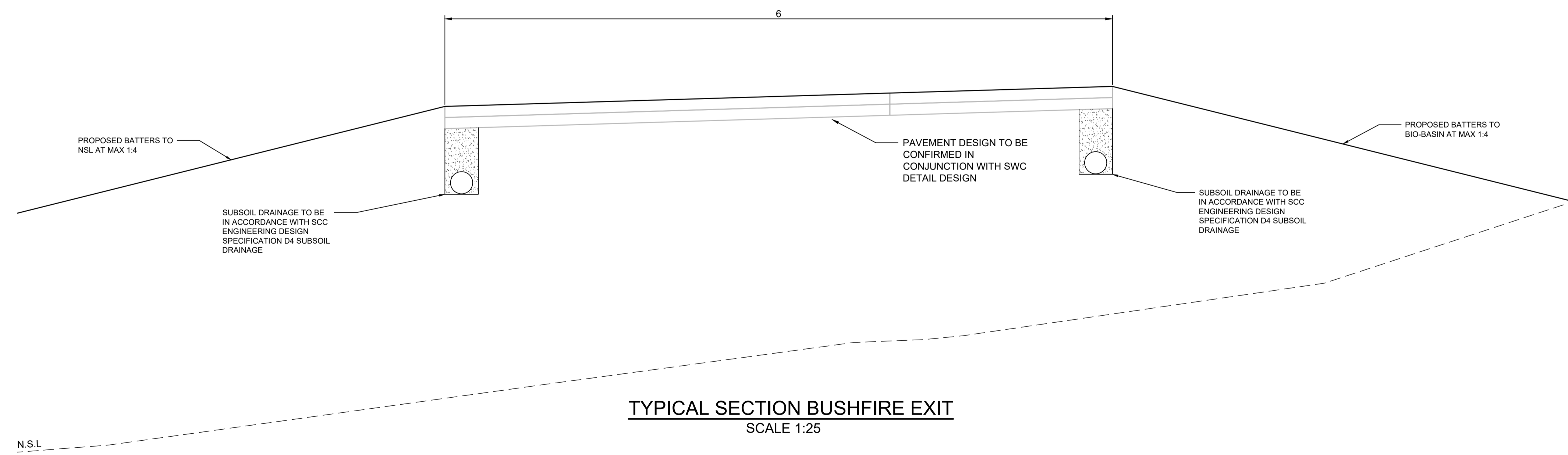
RATIO: AS NOTED (AT A1 ORIGINAL)	DATUM: AUSTRALIAN HEIGHT DATUM	SURVEY DESIGN	APS BI	REV 0	DESCRIPTION ISSUED FOR CONCEPT APPROVAL	BY BI	DATE 25/09/2024	 allen price & scarratts pty ltd land and development consultants Nowra Office: 75 Plunkett Street, Nowra NSW 2541 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533 phone: (02) 4421 6544 consultants@allenprice.com.au www.allenprice.com.au	ROAD 1 & 2 TYPICAL SECTIONS PROPOSED MIXED USE SUBDIVISION OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502 AT 25 MOSSVALE ROAD FOR SOUTHERN CROSS COMMUNITY HOUSING	DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES
	DATE OF PLAN: SEPTEMBER 2024	ORIGIN: PM15204 RL52.718	DRAWN CHECK'D	BI CEG						DRAWING NUMBER N27790-413



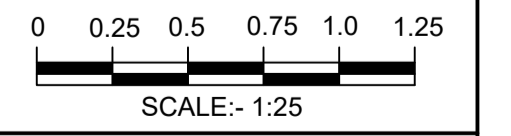
TYPICAL EDGE STRIP (ES)
SCALE 1:10



TYPICAL SECTION LANEWAY 1
SCALE 1:25



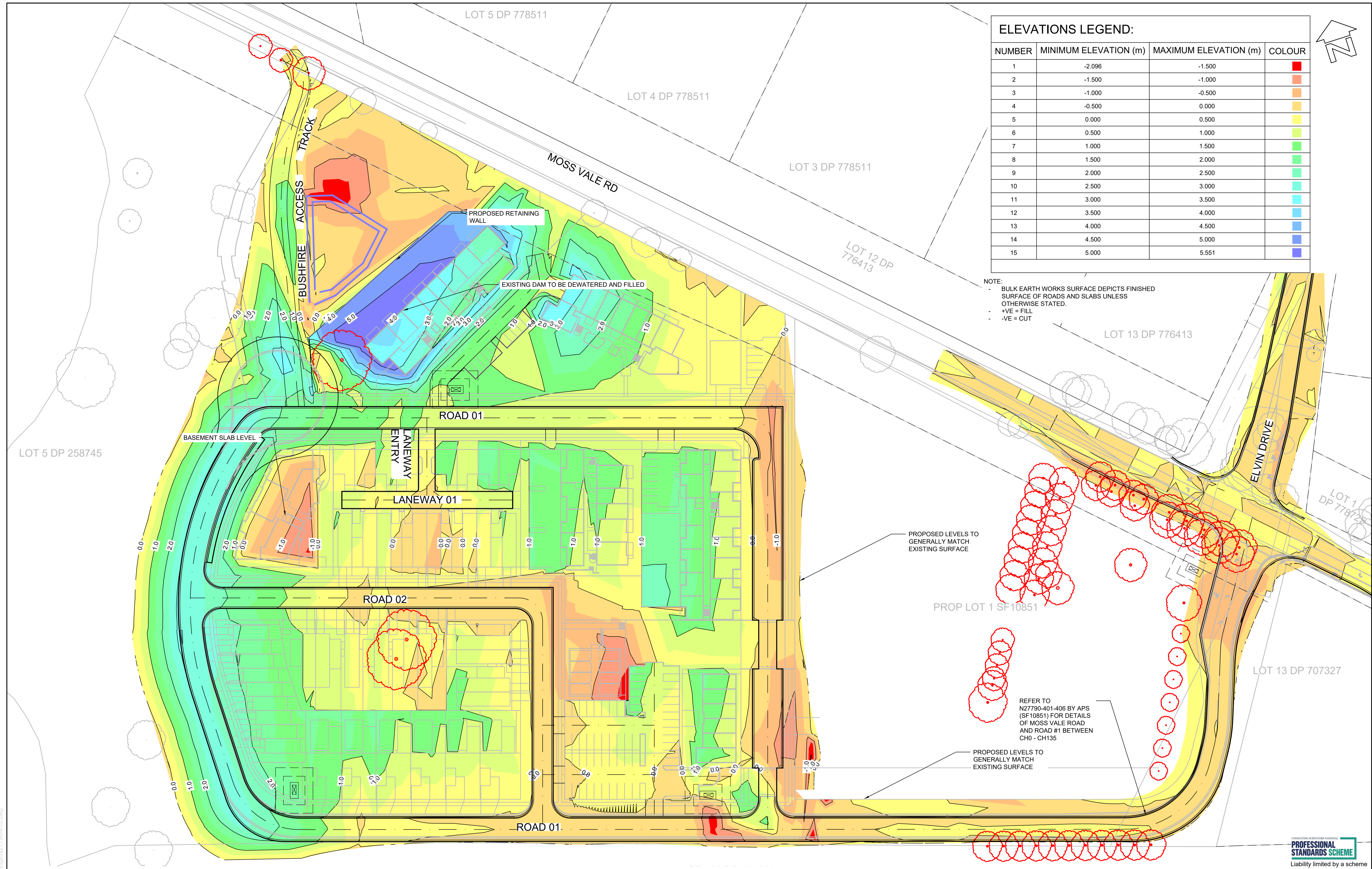
TYPICAL SECTION BUSHFIRE EXIT
SCALE 1:25



BEWARE!

THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.

RATIO: AS NOTED (AT A1 ORIGINAL)	DATUM: AUSTRALIAN HEIGHT DATUM	SURVEY	APS	REV	DESCRIPTION	BY	DATE	 Nowra Office: 75 Plunkett Street, Nowra NSW 2541 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533 phone: (02) 4421 6544 consultants@allenprice.com.au www.allenprice.com.au	LANEWAY 1 & BUSHFIRE EXIT TYPICAL SECTIONS PROPOSED MIXED USE SUBDIVISION OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502 AT 25 MOSSVALE ROAD FOR SOUTHERN CROSS COMMUNITY HOUSING	DRAWING STATUS PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES
	ORIGIN: PM15204 RL52.718	DESIGN BI	DRAWN BI	CHECK'D CEG	0	ISSUED FOR CONCEPT APPROVAL	BI			25/09/2024
DATE OF PLAN: SEPTEMBER 2024										



ELEVATIONS LEGEND:

NUMBER	MINIMUM ELEVATION (m)	MAXIMUM ELEVATION (m)	COLOUR
1	-2.096	-1.500	Red
2	-1.500	-1.000	Orange
3	-1.000	-0.500	Yellow
4	-0.500	0.000	Light Green
5	0.000	0.500	Green
6	0.500	1.000	Light Blue
7	1.000	1.500	Blue
8	1.500	2.000	Light Cyan
9	2.000	2.500	Cyan
10	2.500	3.000	Teal
11	3.000	3.500	Green
12	3.500	4.000	Light Green
13	4.000	4.500	Yellow
14	4.500	5.000	Orange
15	5.000	5.551	Red

NOTE:
 - BULK EARTHWORKS SURFACE DEPICTS FINISHED SURFACE OF ROADS AND SLABS UNLESS OTHERWISE STATED.
 - +VE = FILL
 - -VE = CUT

BEWARE!
 THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL BE RESPONSIBLE, AT THE CONTRACTOR'S EXPENSE, FOR ANY REPAIRS TO DAMAGE CAUSED DURING CONSTRUCTION.



LAYOUT PLAN
 SCALE 1:600



RATIO:
1:600
 (AT A1 ORIGINAL)

DATUM:
 AUSTRALIAN HEIGHT DATUM
 ORIGIN: PM15204
 RL52.718
 DATE OF PLAN: SEPTEMBER 2024

SURVEY	APS	REV	DESCRIPTION	BY	DATE
DESIGN	BI	0	ISSUED FOR CONCEPT APPROVAL	BI	25/09/2024
DRAWN	BI				
CHECK'D	CEG				

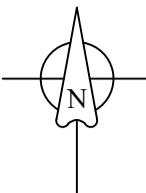
allen price & scarratts pty ltd
 land and development consultants
 Nowra Office: 75 Plunkett Street, Nowra NSW 2541
 Kiama Office: 1/28 Bong Bong Street, Kiama NSW 2533
 phone: (02) 4421 6544
 consultants@allenprice.com.au www.allenprice.com.au

BULK EARTHWORKS
PROPOSED MIXED USE SUBDIVISION
OVER LOT 129 DP3060 LOT 110 DP131219 & LOT 1 DP520502
AT 25 MOSSVALE ROAD
FOR SOUTHERN CROSS COMMUNITY HOUSING

DRAWING STATUS: **PRELIMINARY**
 NOT TO BE USED FOR CONSTRUCTION PURPOSES
 DRAWING NUMBER: **N27790-415**
 SHEET **9** OF **9** REVISION **P0**



6.2 APPENDIX B – AKH PRELIMINARY ELECTRICAL DESIGN



SITE PLAN LEGEND

- EXISTING OVERHEAD CONDUCTOR
- EXISTING POLE
- EXISTING POLE SUB
- ⊕ EXISTING LANTERN
- ⊗ EXISTING HABS
- ⊗ REMOVE POLE
- ⊗ REMOVE SPAN
- ERECT SPAN
- HV TRENCH
- REPLACE POLE
- ⊠ ESTABLISH PAD SUBSTATION
- INSTALL PILLAR
- INSTALL COLUMN
- ⊕ INSTALL LANTERN

SITE PLAN
1:1000

CONSTRUCTION NOTES

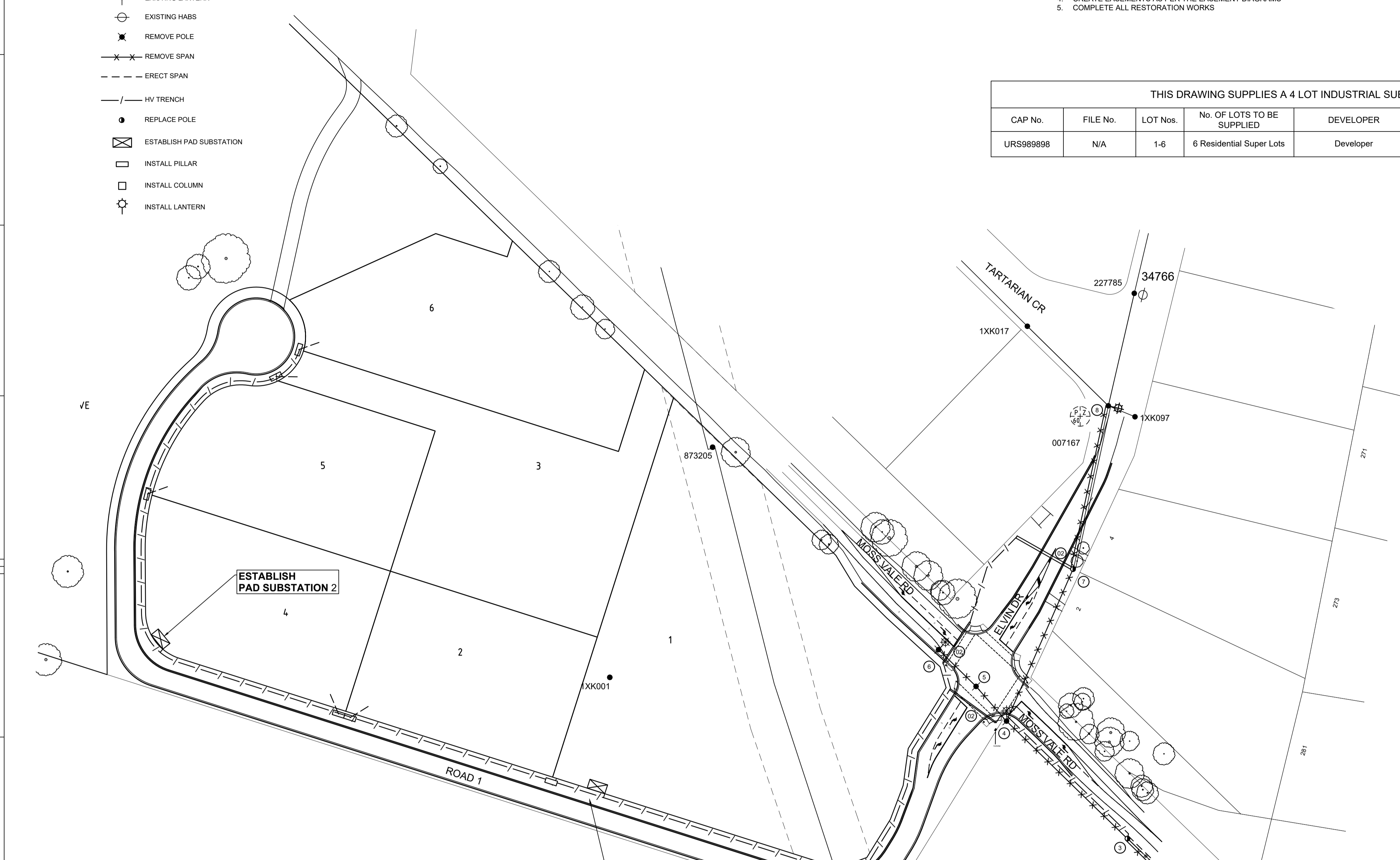
1. IF THERE IS A CONFLICT BETWEEN ANY PART OF THIS DESIGN AND THE CURRENT ENDEAVOUR ENERGY STANDARD/DRAWING, THE LEVEL 1 CONSTRUCTOR IS TO INSTALL AS PER THE CURRENT ENDEAVOUR ENERGY STANDARD/DRAWING
2. WHERE LV CABLE LENGTHS COULD CAUSE AN INSTALLATION ISSUE FOR THE LEVEL 1 CONTRACTOR UNDER THE MODEL CODE OF PRACTICE SAFE WORK AUSTRALIA THE HV & LV CABLES ARE OR CAN BE INSTALLED IN DUCT IN THAT REQUIRED SECTION ONLY. THE HV / LV CABLES HAVE ALREADY BEEN DERATED BY THEIR INSTALLATION IN DUCT IN ROAD CROSSINGS ALONG THE CIRCUIT
3. INSTALL ROAD CROSSINGS AND DUCTS AS PER THE DUCT BREAKUP TABLE AND MC10006.
4. CREATE EASEMENTS AS PER THE EASEMENT DIAGRAMS
5. COMPLETE ALL RESTORATION WORKS

NOTES

- 1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENDEAVOUR ENERGY'S STANDARDS AND THE NETWORK CONNECTION POLICY
- 2 ENDEAVOUR ENERGY CONTACT PHONE: 131081
- 3 DESIGN CERTIFICATION SHALL LAPSE WHERE:
 - (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
 - (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX (6) MONTHS.
 WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
- 4 **ATTENTION** PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO THE COMMENCEMENT OF WORK
- 5 **ATTENTION** ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
- 6 **WARNING** LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
- 7 **ATTENTION** SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
- 8 **WARNING** THE DEVELOPER IS RESPONSIBLE FOR IDENTIFYING THE LOCATIONS OF ALL UNDERGROUND SERVICES AND SURVEY MARKERS PRIOR TO CONSTRUCTION. NO LIABILITY WILL BE ACCEPTED FOR DAMAGE TO OTHER SERVICES AS A RESULT OF ANY NEGLIGENCE BY THE CONSTRUCTOR.
- 8 **WARNING** LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
- 9 **ATTENTION:** ANY HV CABLE/TRENCH/DUCT LENGTH VALUES AND THE RELATED REIMBURSEMENT SHOWN IN THE - DUCT AND CABLE SCHEDULE AND FUNDING ARRANGEMENTS FOR SCOPE OF WORKS ARE ONLY REIMBURSEMENT QUANTITIES CALCULATED BY ENDEAVOUR BASED ON THEIR AVS ENERGY. FOR THE ACTUAL CABLE CONSTRUCTION QUANTITIES REFER TO CABLE LENGTHS IN HV, LV AND SL CIRCUIT DIAGRAMS.
- 10 **REIMBURSEMENTS** WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPLETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
- 11 **OPERATIONAL LIMITS** UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
 - MOBILE GENERATORS AND SUBSTATIONS
 - LIVE LINE WORK
 - DESIGN ALTERNATIVES
 - LOW VOLTAGE PARALLELS
 - WORK PRACTICES STANDARDS.
 - THE CUSTOMER/DEVELOPER FOR CONTESTABLE WORKS
- 12 WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER EDI 100. REFER TO DRAWING No.010646.
- 13 HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
- 14 **ENVIRONMENTAL MANAGEMENT PLAN:** EMP EMS0001 IS PART OF THIS DESIGN (REFER TO EIA SER/FAT0038 FOR DETAILS).
- 15 **POLLUTION CONTROLS:** ALL THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AUTHORITY POLLUTION CONTROL LEGISLATION ARE TO BE STRICTLY ADHERED TO.
- 16 **ABORIGINAL HERITAGE:** DURING CONSTRUCTION OF THIS PROJECT THE CONSTRUCTOR OR DEVELOPER BECOMES AWARE OF ANY PREVIOUSLY UNIDENTIFIED ABORIGINAL OBJECT(S), ALL WORK LIKELY TO AFFECT THE OBJECT(S) SHALL CEASE IMMEDIATELY, AND THE OFFICE OF ENVIRONMENT & HERITAGE SHALL BE NOTIFIED IMMEDIATELY IN ACCORDANCE WITH SECTION 89A OF THE NATIONAL PARKS & WILDLIFE ACT 1974. WORKS SHALL NOT RECOMMENCE UNTIL WRITTEN AUTHORIZATION FROM THE NSW OFFICE OF ENVIRONMENT AND HERITAGE HAS BEEN ISSUED. IN ADDITION TO WRITTEN CONSENT FROM THE LOCAL ABORIGINAL LAND COUNCIL.
- 17 **HERITAGE:** IF DURING CONSTRUCTION OF THIS PROJECT THE CONSTRUCTOR OR DEVELOPER BECOMES AWARE OF ANY PREVIOUSLY UNIDENTIFIED HERITAGE OBJECT(S), ALL WORK LIKELY TO AFFECT THE OBJECT(S) SHALL CEASE IMMEDIATELY, AND THE HERITAGE COUNCIL OF NSW SHALL BE NOTIFIED IMMEDIATELY IN ACCORDANCE WITH SECTION 146 OF THE HERITAGE ACT 1977. WORKS SHALL NOT RECOMMENCE UNTIL WRITTEN AUTHORIZATION FROM THE HERITAGE COUNCIL HAS BEEN ISSUED.
- 18 **TELECOMMUNICATIONS:** TELECOMMUNICATIONS ASSETS ARE NOT AFFECTED BY THE PROPOSED WORKS.
- 19 ALL UNDERGROUND SERVICES ARE TO BE LOCATED AND POTHOLED PRIOR TO CONSTRUCTION.
- 20 THE LEVEL 1 ASP MUST CONFIRM FINISHED GROUND LEVELS WITH THE DEVELOPER PRIOR TO CONSTRUCTION.
- 21 DO NOT PLACE ANY RELIANCE ON QUANTITIES OR DIMENSIONS GIVEN ON THIS DRAWING. QUANTITIES AND DIMENSIONS GIVEN ON THIS DRAWING ARE BASED ON DESIGN INFORMATION AND SITE CONDITIONS AT THE TIME OF DESIGN. AS QUANTITIES AND DIMENSIONS ARE SUBJECT TO CHANGE THE LEVEL 1 ASP MUST CONFIRM ALL QUANTITIES AND DIMENSIONS ON SITE PRIOR TO TENDERING AND PRIOR TO CONSTRUCTION.
- 22 ALL SL COLUMNS TO BE INSTALLED 350mm PERPENDICULAR TO COMMON PROPERTY BOUNDARIES UNLESS SHOWN OTHERWISE BY DIMENSION.
- 23 WHERE PILLARS AND COLUMNS CONFLICT ON THE SAME COMMON BOUNDARY THE PILLAR IS TO BE PLACED ON THE BOUNDARY AND THE COLUMN OFFSET BE 1m FROM THE BOUNDARY
- 24 AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN LOT 1.
- 25 A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 1.
- 26 A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOR ENERGY WITHIN LOT 1.
- 27 AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN LOT 4.
- 28 A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 4.
- 29 A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOR ENERGY WITHIN LOT 4.

THIS DRAWING SUPPLIES A 4 LOT INDUSTRIAL SUBDIVISION

CAP No.	FILE No.	LOT Nos.	No. Of LOTS TO BE SUPPLIED	DEVELOPER	DEVELOPERS REPRESENTATIVE	CONTACT No.
URS989898	N/A	1-6	6 Residential Super Lots	Developer	Allen Price & Scarratts Pty Ltd	02 44216544



WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SDI: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____

OF: _____

CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.

SIGNATURE: _____

DATE: _____

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Providers Internet site. These standards include, but are not limited to:

- CP: Connection Policy
- EMS: Environmental Management Standard
- MCI: Mains Construction Instruction
- MDI: Mains Design Instruction
- PDI: Protection Design Instruction
- SDI: Substation Design Instruction
- SAD 0001: Design Drawing Standard
- MMI: Mains Maintenance Instruction
- SMI: Substation Maintenance Instruction
- LDI 0001: Public Lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 'Overhead Line Design - Detailed Procedures' published by The Australian Standards.

AKH Design Services indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards.

Signed: _____

Name: P.Hamilton

Service Provider Number: 3551 Date: 17.7.2024

Substation	N/A	N/A	N/A	N/A	N/A
LV Mains	N/A	N/A	N/A	N/A	N/A
HV Mains	N/A	N/A	N/A	N/A	N/A

Asset	Asset Cost Estimate (\$)	Unit Quantity (km)	Prospective New Customer Numbers	Maximum Reimbursement per New Customer Connected (\$)	Maximum Reimbursement Amount (\$)

PIONEER COST SHARE REIMBURSEMENT SCHEME - Expiry Date dd/mmm/yyyy Pre-Calculated Reimbursement for Customers Load up to 50kVA

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

DIAL BEFORE YOU DIG (1100.COM)

REF	DATE
37180040	22.7.2024

DBYD SEARCHES INDICATE THE PRESENCE OF UNDERGROUND SERVICES WITHIN THE PROPOSED WORK-AREA. THE LEVEL 1 ASP IS TO CONFIRM THE LOCATION OF SERVICES PRIOR TO THE COMMENCEMENT OF WORKS

DOCUMENT NAME

DOCUMENT NAME	DATE
SUMMARY ENVIRONMENTAL REPORT (SER) - FAT0038 part of EMS0003	23.7.2024
AGREEMENT FOR ENTRY, GRANT AND CREATION OF EASEMENT - FPJ4253	N/A
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4253	N/A
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4253	N/A
TELECOMMUNICATION ASSET AGREEMENT	
PROJECT DEFINITION	
LIST ANY KEY DOCUMENTS SUPPORTING THE CERTIFICATION:	
1) SAFE DESIGN REPORT	23.7.2024
2)	

AMENDMENTS ORIGINAL ISSUE

AMENDMENTS	ORIGINAL ISSUE
A	

Cadastre: © Land and Property Information 2016

LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWINGS

REFERENCE DRAWINGS	WORK ORDERS
GENERAL	AM PROJ. No. N/A
OVERHEAD	HV SWITCHING Yes
UNDERGROUND	EE DEPOT Nowra
SUBSTATIONS	EE REGION Southern
	HV OP DIAG
	LOCAL GOV AREA Shoalhaven

CAMS File No. URS989898

ORIGINAL SCALE 1:1000

DO NOT SCALE DIMENSIONS IN METRES

DRAWN PH DATE 23.7.2024

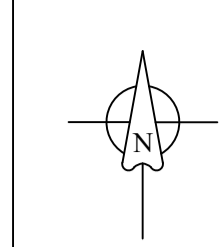
CH'D PH DESIGN PH

Lot 129 DP3060, LOT 110 DP13219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Duct Trench and Easement

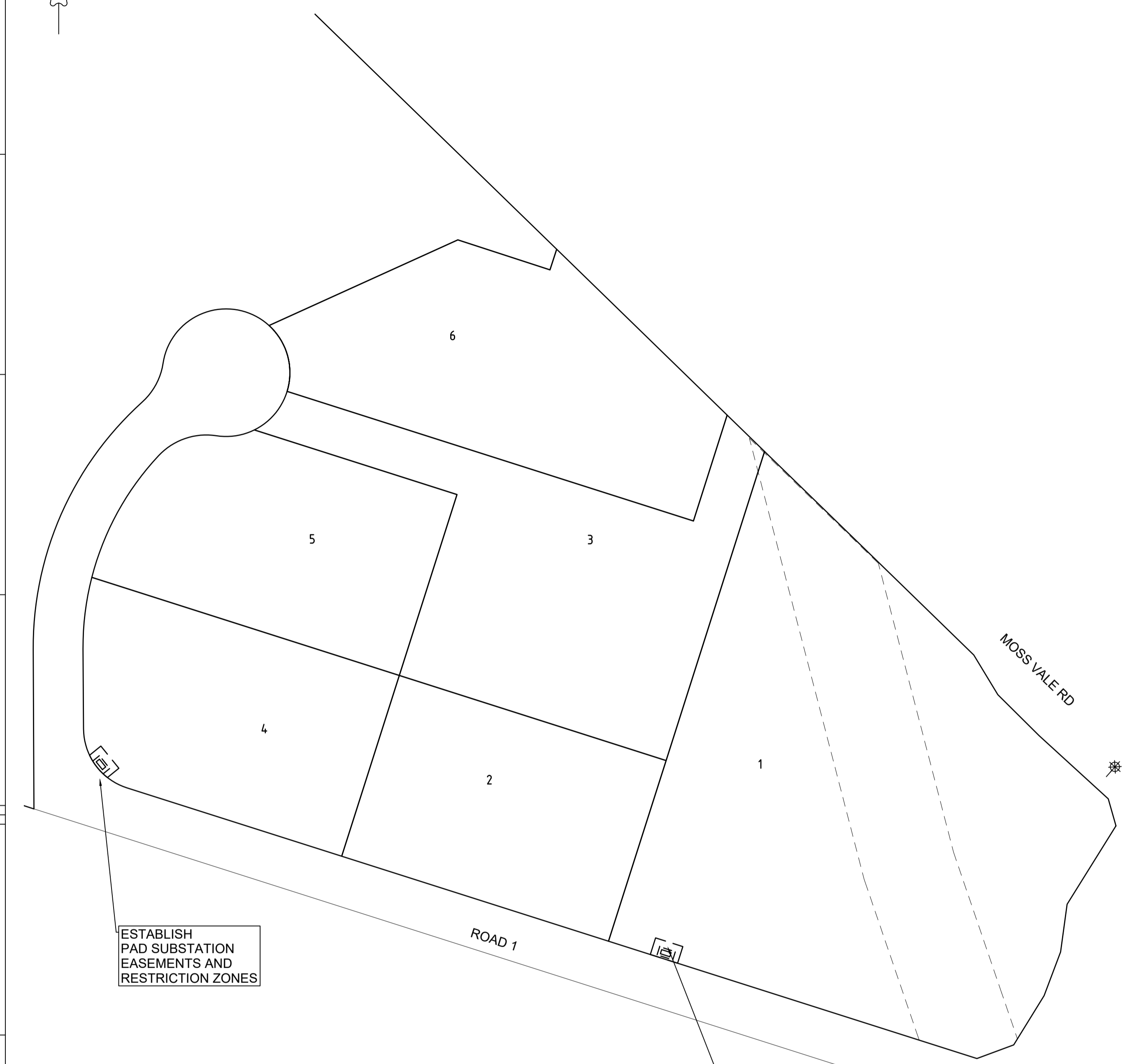
Endeavour Energy

A1 123456 A

SHEET No 1 OF 2 SHEETS



EASEMENT PLAN
1:1000



NOTE
ALL DISTANCES AND OFFSETS SHOWN ARE A MINIMUM
ALL DISTANCES AND OFFSETS SHOWN ARE IN METRES
EASEMENT LAYOUT AS PER EE DRAWING 061665

- A. SUBSTATION PLINTH (3.17 X 1.35)
- B. AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5 x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 1.
- C. A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 1.
- D. A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 1.
- E. SUBSTATION PLINTH (3.17 X 1.35)
- F. AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5 x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 4.
- G. A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 4.
- H. A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN PROPOSED LOT 4.

ESTABLISH PAD SUBSTATION EASEMENTS AND RESTRICTION ZONES

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____

OF: _____

CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAO 0004.

SIGNATURE: _____

DATE: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

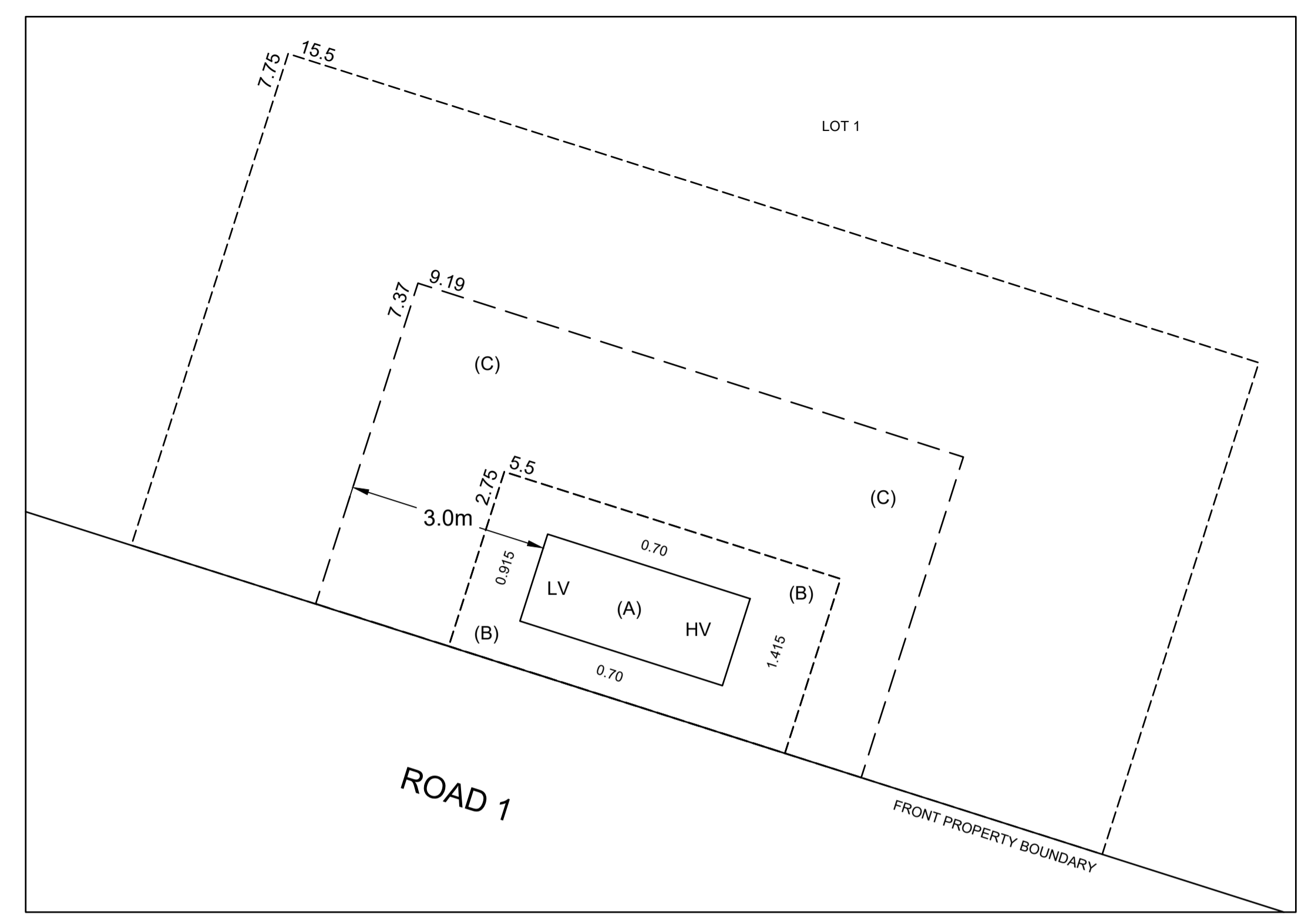
Date Approved: _____

Examiner's Signature: _____

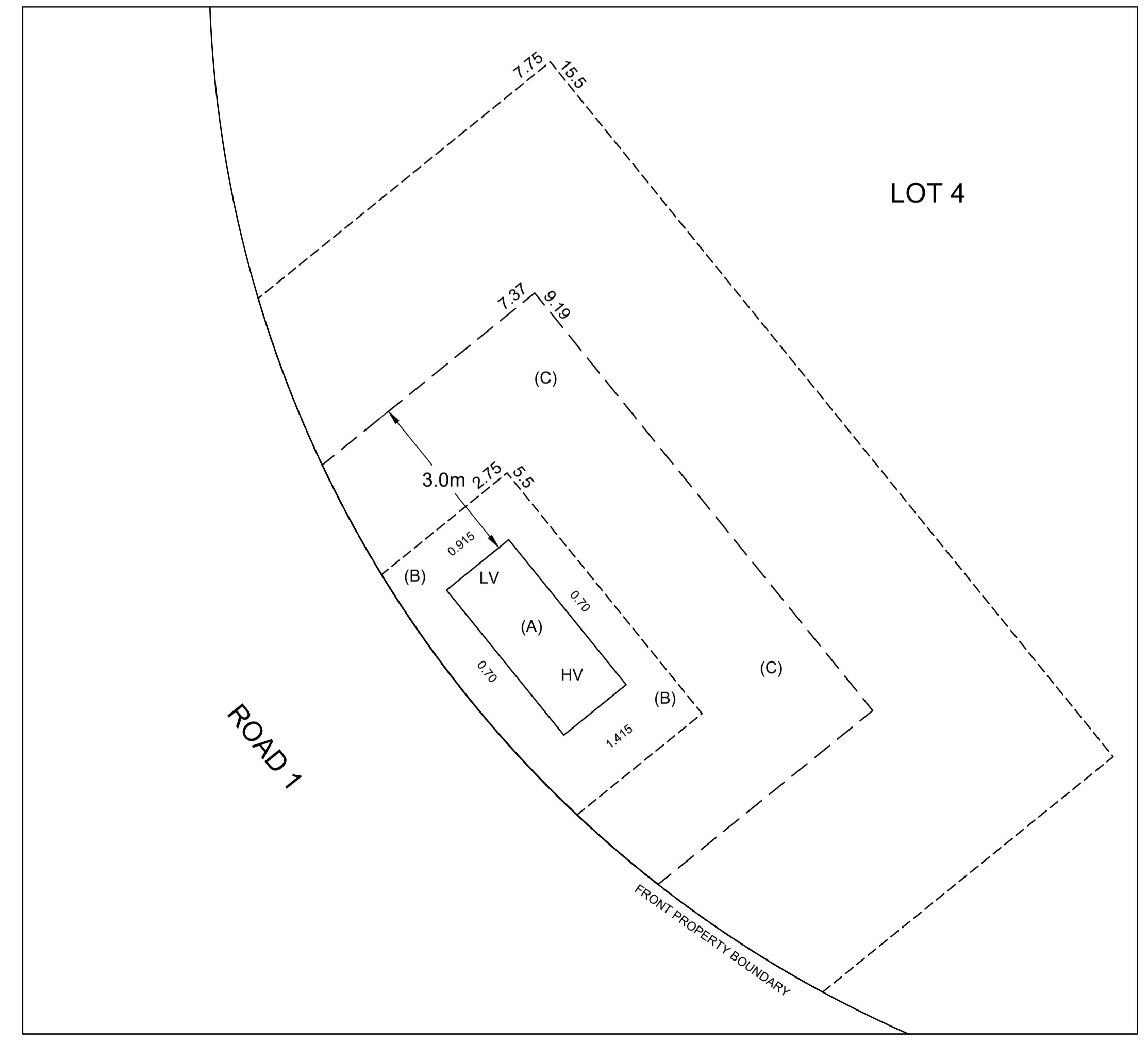
Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

PAD SUB 1 EASEMENT DETAIL



PAD SUB 2 EASEMENT DETAIL



LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed, loaned or used without the written consent of AKH Design Services.

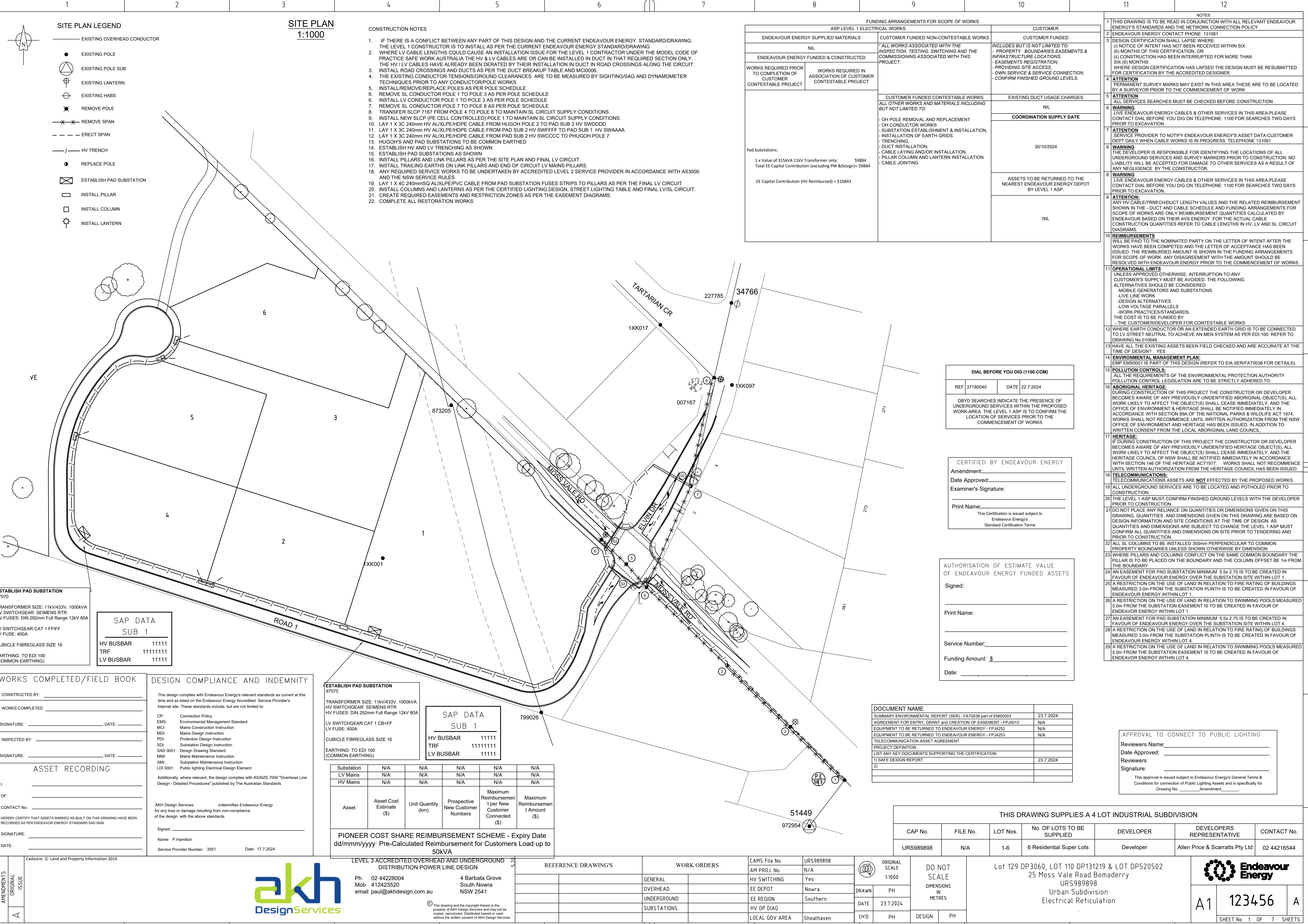
REFERENCE DRAWINGS	WORK ORDERS	CAMS File No.	URS989898
GENERAL	OVERHEAD	AM PROJ. No.	N/A
UNDERGROUND	SUBSTATIONS	HV SWITCHING	Yes
		EE DEPOT	Nowra
		EE REGION	Southern
		HV OP DIAG	
		LOCAL GOV AREA	Shoalhaven

ORIGINAL SCALE	1:1000
DRAWN	PH
DATE	23.7.2024
CH'D	PH

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Duct Trench and Easement

A1 123456 **A**

SHEET No 1 OF 2 SHEETS



SITE PLAN LEGEND

- EXISTING OVERHEAD CONDUCTOR
- EXISTING POLE
- EXISTING POLE SUB
- ⊕ EXISTING LANTERN
- ⊖ EXISTING HABS
- ✕ REMOVE POLE
- ✕✕ REMOVE SPAN
- ERRECT SPAN
- HV TRENCH
- REPLACE POLE
- ⊠ ESTABLISH PAD SUBSTATION
- INSTALL PILLAR
- INSTALL COLUMN
- ⊕ INSTALL LANTERN

SITE PLAN
1:1000

CONSTRUCTION NOTES

1. IF THERE IS A CONFLICT BETWEEN ANY PART OF THIS DESIGN AND THE CURRENT ENDEAVOUR ENERGY STANDARD/DRAWING. THE LEVEL 1 CONSTRUCTOR IS TO INSTALL AS PER THE CURRENT ENDEAVOUR ENERGY STANDARD/DRAWING.
2. WHERE LV CABLE LENGTHS COULD CAUSE AN INSTALLATION ISSUE FOR THE LEVEL 1 CONSTRUCTOR UNDER THE MODEL CODE OF PRACTICE SAFE WORK AUSTRALIA THE HV & LV CABLES ARE OR CAN BE INSTALLED IN DUCT IN THAT REQUIRED SECTION ONLY. THE HV / LV CABLES HAVE ALREADY BEEN DERATED BY THEIR INSTALLATION IN DUCT IN ROAD CROSSINGS ALONG THE CIRCUIT.
3. INSTALL ROAD CROSSINGS AND DUCTS AS PER THE DUCT BREAKUP TABLE AND MCI0006.
4. THE EXISTING CONDUCTOR TENSIONS/GROUND CLEARANCES ARE TO BE MEASURED BY SIGHTING/SAG AND DYNAMOMETER TECHNIQUES PRIOR TO ANY CONDUCTOR/POLE WORKS.
5. INSTALL/REMOVE/REPLACE POLES AS PER POLE SCHEDULE
6. REMOVE SL CONDUCTOR POLE 1 TO POLE 3 AS PER POLE SCHEDULE
7. REMOVE SL CONDUCTOR POLE 7 TO POLE 8 AS PER POLE SCHEDULE
8. TRANSFER SLCP 7167 FROM POLE 4 TO POLE 8 TO MAINTAIN SL CIRCUIT SUPPLY CONDITIONS.
9. INSTALL NEW SLOP (PE CELL CONTROLLED) POLE 1 TO MAINTAIN SL CIRCUIT SUPPLY CONDITIONS.
10. LAY 1 X 3C 240mm HV ALXLPE/HDPE CABLE FROM HUGOH POLE 2 TO PAD SUB 2 HV SWDDDD
11. LAY 1 X 3C 240mm HV ALXLPE/HDPE CABLE FROM PAD SUB 2 HV SWFFFF TO PAD SUB 1 HV SWAAAA
12. LAY 1 X 3C 240mm HV ALXLPE/HDPE CABLE FROM PAD SUB 2 HV SWCCCC TO PHUGOH POLE 7
13. HUGOH'S AND PAD SUBSTATIONS TO BE COMMON EARTHED
14. ESTABLISH HV AND LV TRENCHING AS SHOWN
15. ESTABLISH PAD SUBSTATIONS AS SHOWN
16. INSTALL PILLARS AND LINK PILLARS AS PER THE SITE PLAN AND FINAL LV CIRCUIT.
17. INSTALL TRAILING EARTHS ON LINK PILLARS AND END OF CIRCUIT LV MAINS PILLARS.
18. ANY REQUIRED SERVICE WORKS TO BE UNDERTAKEN BY ACCREDITED LEVEL 2 SERVICE PROVIDER IN ACCORDANCE WITH AS3000 AND THE NSW SERVICE RULES
19. LAY 1 X 4C 240mmSQ ALXLPE/PVC CABLE FROM PAD SUBSTATION FUSES STRIPS TO PILLARS AS PER THE FINAL LV CIRCUIT
20. INSTALL COLUMNS AND LANTERNS AS PER THE CERTIFIED LIGHTING DESIGN, STREET LIGHTING TABLE AND FINAL LV/SL CIRCUIT.
21. CREATE REQUIRED EASEMENTS AND RESTRICTION ZONES AS PER THE EASEMENT DIAGRAMS.
22. COMPLETE ALL RESTORATION WORKS

FUNDING ARRANGEMENTS FOR SCOPE OF WORKS

ASP LEVEL 1 ELECTRICAL WORKS		CUSTOMER FUNDED
ENDEAVOUR ENERGY SUPPLIED MATERIALS	CUSTOMER FUNDED NON-CONTESTABLE WORKS	CUSTOMER FUNDED
NIL	*ALL WORKS ASSOCIATED WITH THE INSPECTION, TESTING, SWITCHING AND THE COMMISSIONING ASSOCIATED WITH THIS PROJECT.	INCLUDES BUT IS NOT LIMITED TO: - PROPERTY BOUNDARIES EASEMENTS & INFRASTRUCTURE LOCATIONS. - EASEMENTS REGISTRATION. - PROVIDING SITE ACCESS. - OWN SERVICE & SERVICE CONNECTION. - CONFIRM FINISHED GROUND LEVELS.
WORKS REQUIRED PRIOR TO COMPLETION OF CUSTOMER CONTESTABLE PROJECT	WORKS REQUIRED IN ASSOCIATION OF CUSTOMER CONTESTABLE PROJECT	
		CUSTOMER FUNDED CONTESTABLE WORKS
		EXISTING DUCT USAGE CHARGES
		NIL
		COORDINATION SUPPLY DATE
		30/10/2024
		ASSETS TO BE RETURNED TO THE NEAREST ENDEAVOUR ENERGY DEPOT BY LEVEL 1 ASP.
		NIL

NOTES

- 1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENDEAVOUR ENERGY'S STANDARDS AND THE NETWORK CONNECTION POLICY
- 2 ENDEAVOUR ENERGY CONTACT PHONE: 131081
- 3 DESIGN CERTIFICATION SHALL LAPSE WHERE:
(i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
(ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX (6) MONTHS.
WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
- 4 **ATTENTION**
PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO THE COMMENCEMENT OF WORK
- 5 **ATTENTION**
SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
- 6 **WARNING**
LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
- 7 **ATTENTION**
SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
- 8 **WARNING**
THE DEVELOPER IS RESPONSIBLE FOR IDENTIFYING THE LOCATIONS OF ALL UNDERGROUND SERVICES AND SURVEY MARKERS PRIOR TO CONSTRUCTION. NO LIABILITY WILL BE ACCEPTED FOR DAMAGE TO OTHER SERVICES AS A RESULT OF ANY NEGLIGENCE BY THE CONSTRUCTOR.
- 8 **WARNING**
LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
- 9 **ATTENTION:**
ANY HV CABLE/TRENCH/DUCT LENGTH VALUES AND THE RELATED REIMBURSEMENT SHOWN IN THE - DUCT AND CABLE SCHEDULE AND FUNDING ARRANGEMENTS FOR SCOPE OF WORKS ARE ONLY REIMBURSEMENT QUANTITIES CALCULATED BY ENDEAVOUR BASED ON THEIR AVS ENERGY. FOR THE ACTUAL CABLE CONSTRUCTION QUANTITIES REFER TO CABLE LENGTHS IN HV, LV AND SL CIRCUIT DIAGRAMS.
- 10 **REIMBURSEMENTS**
WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPLETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
- 11 **OPERATIONAL LIMITS**
UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED
- MOBILE GENERATORS AND SUBSTATIONS
- LIVE LINE WORK
- DESIGN ALTERNATIVES
- LOW VOLTAGE PARALLELS
- WORK PRACTICES STANDARDS.
THE COST IS TO BE FUNDED BY:
- THE CUSTOMER/DEVELOPER FOR CONTESTABLE WORKS
- 12 WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER EDI 100. REFER TO DRAWING No.010646.
- 13 HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
- 14 **ENVIRONMENTAL MANAGEMENT PLAN:**
EMP EMS0001 IS PART OF THIS DESIGN (REFER TO EIA SER/FAT0038 FOR DETAILS).
- 15 **POLLUTION CONTROLS:**
ALL THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AUTHORITY POLLUTION CONTROL LEGISLATION ARE TO BE STRICTLY ADHERED TO.
- 16 **ABORIGINAL HERITAGE:**
DURING CONSTRUCTION OF THIS PROJECT THE CONSTRUCTOR OR DEVELOPER BECOMES AWARE OF ANY PREVIOUSLY UNIDENTIFIED ABORIGINAL OBJECT(S). ALL WORK LIKELY TO AFFECT THE OBJECT(S) SHALL CEASE IMMEDIATELY, AND THE OFFICE OF ENVIRONMENT & HERITAGE SHALL BE NOTIFIED IMMEDIATELY IN ACCORDANCE WITH SECTION 89A OF THE NATIONAL PARKS & WILDLIFE ACT 1974. WORKS SHALL NOT RECOMMENCE UNTIL WRITTEN AUTHORIZATION FROM THE NSW OFFICE OF ENVIRONMENT AND HERITAGE HAS BEEN ISSUED. IN ADDITION TO WRITTEN CONSENT FROM THE LOCAL ABORIGINAL LAND COUNCIL.
- 17 **HERITAGE:**
IF DURING CONSTRUCTION OF THIS PROJECT THE CONSTRUCTOR OR DEVELOPER BECOMES AWARE OF ANY PREVIOUSLY UNIDENTIFIED HERITAGE OBJECT(S), ALL WORK LIKELY TO AFFECT THE OBJECT(S) SHALL CEASE IMMEDIATELY, AND THE HERITAGE COUNCIL OF NSW SHALL BE NOTIFIED IMMEDIATELY IN ACCORDANCE WITH SECTION 146 OF THE HERITAGE ACT 1977. WORKS SHALL NOT RECOMMENCE UNTIL WRITTEN AUTHORIZATION FROM THE HERITAGE COUNCIL HAS BEEN ISSUED.
- 18 **TELECOMMUNICATIONS:**
TELECOMMUNICATIONS ASSETS ARE NOT EFFECTED BY THE PROPOSED WORKS.
- 19 ALL UNDERGROUND SERVICES ARE TO BE LOCATED AND POTHOLED PRIOR TO CONSTRUCTION.
- 20 THE LEVEL 1 ASP MUST CONFIRM FINISHED GROUND LEVELS WITH THE DEVELOPER PRIOR TO CONSTRUCTION.
- 21 DO NOT PLACE ANY RELIANCE ON QUANTITIES OR DIMENSIONS GIVEN ON THIS DRAWING. QUANTITIES AND DIMENSIONS GIVEN ON THIS DRAWING ARE BASED ON DESIGN INFORMATION AND SITE CONDITIONS AT THE TIME OF DESIGN. AS QUANTITIES AND DIMENSIONS ARE SUBJECT TO CHANGE THE LEVEL 1 ASP MUST CONFIRM ALL QUANTITIES AND DIMENSIONS ON SITE PRIOR TO TENDERING AND PRIOR TO CONSTRUCTION.
- 22 ALL SL COLUMNS TO BE INSTALLED 350mm PERPENDICULAR TO COMMON PROPERTY BOUNDARIES UNLESS SHOWN OTHERWISE BY DIMENSION
- 23 WHERE PILLARS AND COLUMNS CONFLICT ON THE SAME COMMON BOUNDARY THE PILLAR IS TO BE PLACED ON THE BOUNDARY AND THE COLUMN OFFSET BE 1m FROM THE BOUNDARY
- 24 AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN LOT 1.
- 25 A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 1.
- 26 A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 1.
- 27 AN EASEMENT FOR PAD SUBSTATION MINIMUM 5.5x 2.75 IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY OVER THE SUBSTATION SITE WITHIN LOT 4.
- 28 A RESTRICTION ON THE USE OF LAND IN RELATION TO FIRE RATING OF BUILDINGS MEASURED 3.0m FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 4.
- 29 A RESTRICTION ON THE USE OF LAND IN RELATION TO SWIMMING POOLS MEASURED 5.0m FROM THE SUBSTATION EASEMENT IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 4.

DIAL BEFORE YOU DIG (1100.COM)

REF 37180040	DATE 22.7.2024
--------------	----------------

DBYD SEARCHES INDICATE THE PRESENCE OF UNDERGROUND SERVICES WITHIN THE PROPOSED WORK AREA. THE LEVEL 1 ASP IS TO CONFIRM THE LOCATION OF SERVICES PRIOR TO THE COMMENCEMENT OF WORKS

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____
Date Approved: _____
Examiner's Signature: _____
Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

AUTHORISATION OF ESTIMATE VALUE OF ENDEAVOUR ENERGY FUNDED ASSETS

Signed: _____
Print Name: _____
Service Number: _____
Funding Amount: \$ _____
Date: _____

DOCUMENT NAME

SUMMARY ENVIRONMENTAL REPORT (SER) - FAT0038 part of EMS0003	23.7.2024
AGREEMENT FOR ENTRY, GRANT AND CREATION OF EASEMENT - FPJ4222	N/A
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4222	N/A
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4223	N/A
TELECOMMUNICATION ASSET AGREEMENT	
PROJECT DEFINITION	
LIST ANY KEY DOCUMENTS SUPPORTING THE CERTIFICATION:	
1) SAFE DESIGN REPORT	23.7.2024
2)	

APPROVAL TO CONNECT TO PUBLIC LIGHTING

Reviewers Name: _____
Date Approved: _____
Reviewers Signature: _____

This approval is issued subject to Endeavour Energy's General Terms & Conditions for connection of Public Lighting Assets and is specifically for Drawing No. _____ Amendment _____.

ESTABLISH PAD SUBSTATION 97070

TRANSFORMER SIZE: 11kV/433V, 1000kVA
HV SWITCHGEAR, SIEMENS RTR
HV FUSES: DIN 292mm Full Range 12kV 80A
LV SWITCHGEAR: CAT 1 CFFIF
LV FUSE: 400A

CUBICICLE FIBREGLASS SIZE 16
EARTHING: TO EDI 100 (COMMON EARTHING)

SAP DATA SUB 1

HV BUSBAR	11111
TRF	111111111
LV BUSBAR	11111

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____
WORKS COMPLETED: _____
SIGNATURE: _____ DATE: _____
INSPECTED BY: _____
SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____
OF: _____
CONTACT No.: _____
HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.
SIGNATURE: _____
DATE: _____

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Providers Internet site. These standards include, but are not limited to:

CP: Connection Policy
EMS: Environmental Management Standard
MCI: Mains Construction Instruction
MDI: Mains Design Instruction
PDI: Protection Design Instruction
SDI: Substation Design Instruction
SAD 0001: Design Drawing Standard
MMI: Mains Maintenance Instruction
SMI: Substation Maintenance Instruction
LDI 0001: Public Lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 'Overhead Line Design - Detailed Procedures' published by The Australian Standards.

AKH Design Services indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards.

Signed: _____
Name: P.Hamilton
Service Provider Number: 3551 Date: 17.7.2024

ESTABLISH PAD SUBSTATION 97070

TRANSFORMER SIZE: 11kV/433V, 1000kVA
HV SWITCHGEAR, SIEMENS RTR
HV FUSES: DIN 292mm Full Range 12kV 80A
LV SWITCHGEAR: CAT 1 CB+FF
LV FUSE: 400A

CUBICICLE FIBREGLASS SIZE 16
EARTHING: TO EDI 100 (COMMON EARTHING)

SAP DATA SUB 1

HV BUSBAR	11111
TRF	111111111
LV BUSBAR	11111

Substation	N/A	N/A	N/A	N/A	N/A
LV Mains	N/A	N/A	N/A	N/A	N/A
HV Mains	N/A	N/A	N/A	N/A	N/A
Asset	Asset Cost Estimate (\$)	Unit Quantity (km)	Prospective New Customer Numbers	Maximum Reimbursement per New Customer Connected (\$)	Maximum Reimbursement Amount (\$)

PIONEER COST SHARE REIMBURSEMENT SCHEME - Expiry Date dd/mmm/yyyy Pre-Calculated Reimbursement for Customers Load up to 50kVA

LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWINGS

GENERAL	EE DEPOT	EE REGION	HV OP DIAG	LOCAL GOV AREA
OVERHEAD	Nowra	Southern		Shoalhaven
UNDERGROUND				
SUBSTATIONS				

WORK ORDERS

CAMS File No.	URS989898
AM PROJ. No.	N/A
HV SWITCHING	Yes
EE DEPOT	Nowra
EE REGION	Southern
HV OP DIAG	
LOCAL GOV AREA	Shoalhaven

ORIGINAL SCALE

SCALE	1:1000
DRAWN	PH
DATE	23.7.2024
CH'D	PH

DO NOT SCALE DIMENSIONS IN METRES

Lot 129 DP3060, LOT 110 DP13219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation

THIS DRAWING SUPPLIES A 4 LOT INDUSTRIAL SUBDIVISION

CAP No.	FILE No.	LOT Nos.	No. OF LOTS TO BE SUPPLIED	DEVELOPER	DEVELOPERS REPRESENTATIVE	CONTACT No.
URS989898	N/A	1-6	6 Residential Super Lots	Developer	Allen Price & Scarratts Pty Ltd	02 44216544

Endeavour Energy

A1 123456 A

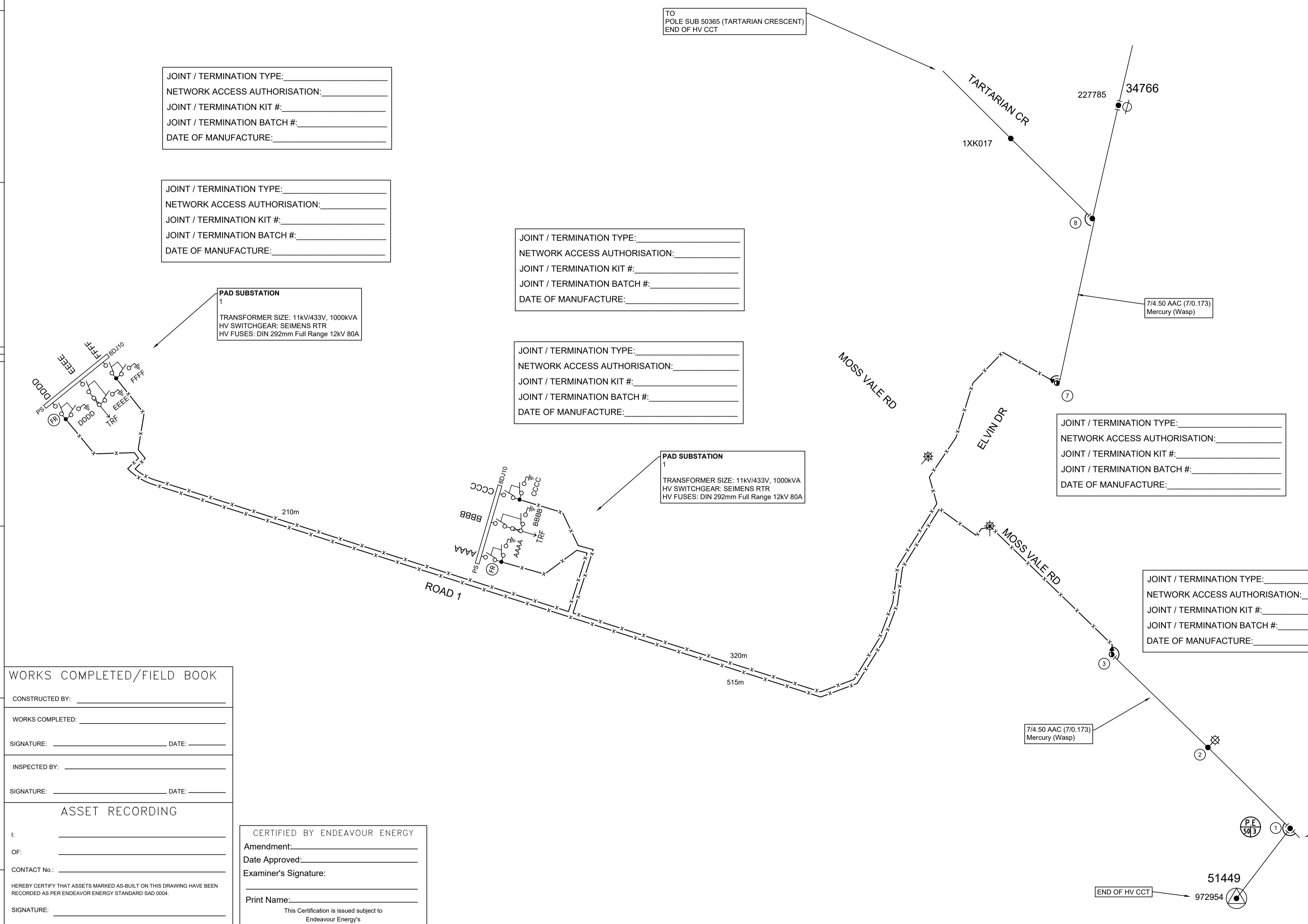
SHEET No 1 OF 7 SHEETS

FINAL HV CIRCUIT
NTS

FINAL HV CIRCUIT LEGEND

- EXISTING OVERHEAD CONDUCTOR
- EXISTING POLE
- ⊙ EXISTING POLE SUB
- ⊕ EXISTING HABS
- LAY 1 X 3C 240mm LV AL/XLPE/HDPE CABLE
R.L.990m - C.L. 1045m
- REPLACE POLE
- ▲ ESTABLISH HUGOH

COMMENTS	FIELD POLE No.	EXISTING	NEW	REPLACE	REMOVE	EXISTING LANTERNS	BRACKET	MOUNTING HEIGHT (m)	SPAN (m)	LEAD (m)	DEVIATION	CONSTRUCTIONS	HV	LV	AUGER DIA (mm)	SET DEPTH (m)	HOLE	TYPE	STAY	FOOTING	RELOCATE	REPLACE	NEW	EXISTING	REMOVE	NUMBER	
REINSTATE EXISTING 74.50 AAC HV CONDUCTOR TENSION SPAN TO 18% TABLE 6 - (STRING AS OLD CONDUCTOR) REINSTALL EXISTING 74.50 AAC HV CONDUCTOR TENSION SPAN TO 18% TABLE 6 - (STRING AS OLD CONDUCTOR) ESTABLISH HUGOH - THE HUGOH SCREEN IS TO BE BONDED TO THE HUGOH EARTH BAR WHICH IS TO BE BONDED TO LV NEUTRAL AS REQUIRED	1XK016					X			45	8		EXISTING FLAT PIN + EXISTING FLAT TERM			EXISTING B01 + EXISTING B05	EX	EX								EX A1	X	8
REPLACE POLE B25 HV TERMINATION. HVL/SL CONDUCTOR TO POLE 4 TO BE REMOVED. SL CONDUCTOR TO POLE 8 TO BE REMOVED. REINSTALL EXISTING 74.50 AAC LV CONDUCTOR TENSION SPAN TO 18% TABLE 6 - (STRING AS OLD CONDUCTOR) REINSTALL EXISTING 74.50 AAC HV CONDUCTOR TENSION SPAN TO 18% TABLE 6 - (STRING AS OLD CONDUCTOR) ESTABLISH HUGOH - THE HUGOH SCREEN IS TO BE BONDED TO THE HUGOH EARTH BAR WHICH IS TO BE BONDED TO LV NEUTRAL AS REQUIRED	1XK015								73	0		B25 + HUGOH			A05	750	2.15		12.5/12xN WOOD						C	X	7
REMOVE POLE AND ALL REDUNDANT ASSETS AND CONDUCTORS	973894				X																					X	6
REMOVE POLE AND ALL REDUNDANT ASSETS AND CONDUCTORS	913750																									X	5
REMOVE POLE AND ALL REDUNDANT ASSETS AND CONDUCTORS - RETAIN SLCP TO BE REINSTALLED ON POLE 8 TO MAINTAIN EXISTING SL CCT CONFIGURATION	893398				X																					X	4
REPLACE POLE B25 HV TERMINATION. REINSTALL EXISTING 74.50 AAC HV CONDUCTOR TENSION SPAN TO 18% TABLE 6 - (STRING AS OLD CONDUCTOR) ESTABLISH HUGOH - THE HUGOH SCREEN IS TO BE BONDED TO THE HUGOH EARTH BAR WHICH IS TO BE BONDED TO LV NEUTRAL AS REQUIRED	Pole 1 1XP267								55	0		B25 + HUGOH			A05	750	2.15		12.5/12xN WOOD						C	X	3
REMOVE EXISTING SL CONDUCTOR TO POLE 1 & POLE 3. STRING 95mm LV ABC TO POLE 1 & POLE 3. NEW A01 LV CONSTRUCTION - (STRING AS NEW CONDUCTOR) INSTALL PE CELL IN EXISTING SL LANTERN. BOND SL LANTERN TO NEW LV ABC	1XP227				X				55	0		EXIST HV PIN (FLAT)			A01	EX	EX		EXIST 12.5/6xN WOOD							X	2
REMOVE EXISTING SL CONDUCTOR TO POLE 2. STRING 95mm LV ABC TO POLE 2 FROM NEW A05 LV CONSTRUCTION - BOND LV ABC TROUGH AS PER FINAL LV CIRCUIT (STRING AS NEW CONDUCTOR) - ESTABLISH NEW PE CELL CONTROLLED SLCP - BOND TO EXISTING SL WIRE IN EXISTING E56 - 150mm ² 4C x 16mm ² 1C (SL) LVABC TO MAINTAIN EXISTING SL SUPPLY TO EXISTING SL CCT EAST OF POLE	1XP225								48	0		EXIST B23+ EXIST B25			EXIST B05 + EXIST A05 + EXIST A05 + A05	EX	EX		EXIST 12.5/12xN WOOD							X	1



JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

JOINT / TERMINATION TYPE: _____
 NETWORK ACCESS AUTHORISATION: _____
 JOINT / TERMINATION KIT #: _____
 JOINT / TERMINATION BATCH #: _____
 DATE OF MANUFACTURE: _____

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____ OF: _____ CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.

SIGNATURE: _____ DATE: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____
 Date Approved: _____
 Examiner's Signature: _____
 Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

AMENDMENTS	ORIGINAL ISSUE
A	

LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

akh DesignServices

Ph 02 44228004
 Mob 412423520
 email paul@akhdesign.com.au

4 Barbata Grove
 South Nowra
 NSW 2541

This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed, loaned or used without the written consent of AKH Design Services.

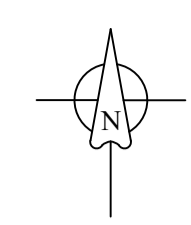
REFERENCE DRAWING'S	WORK ORDERS	CAMS File No.	URS989898	ORIGINAL SCALE	DO NOT SCALE DIMENSIONS IN METRES
	GENERAL	AM PROJ. No.	N/A	1:1000	
	OVERHEAD	HV SWITCHING	Yes		
	UNDERGROUND	EE DEPOT	Nowra		
	SUBSTATIONS	EE REGION	Southern		
		HV OP DIAG			
		LOCAL GOV AREA	Shoalhaven		

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
 25 Moss Vale Road Bomaderry
 URS989898
 Urban Subdivision
 Electrical Reticulation

Endeavour Energy

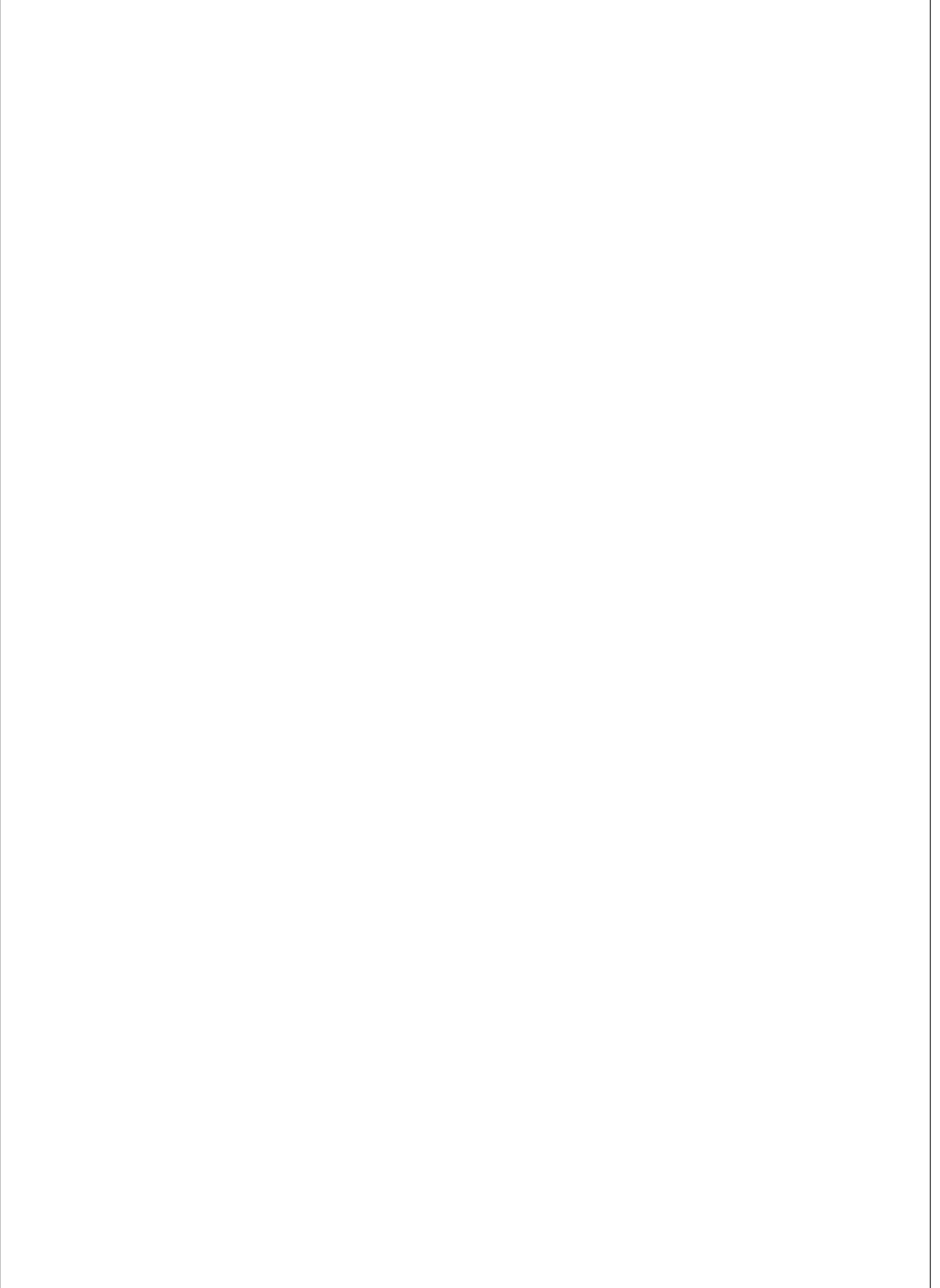
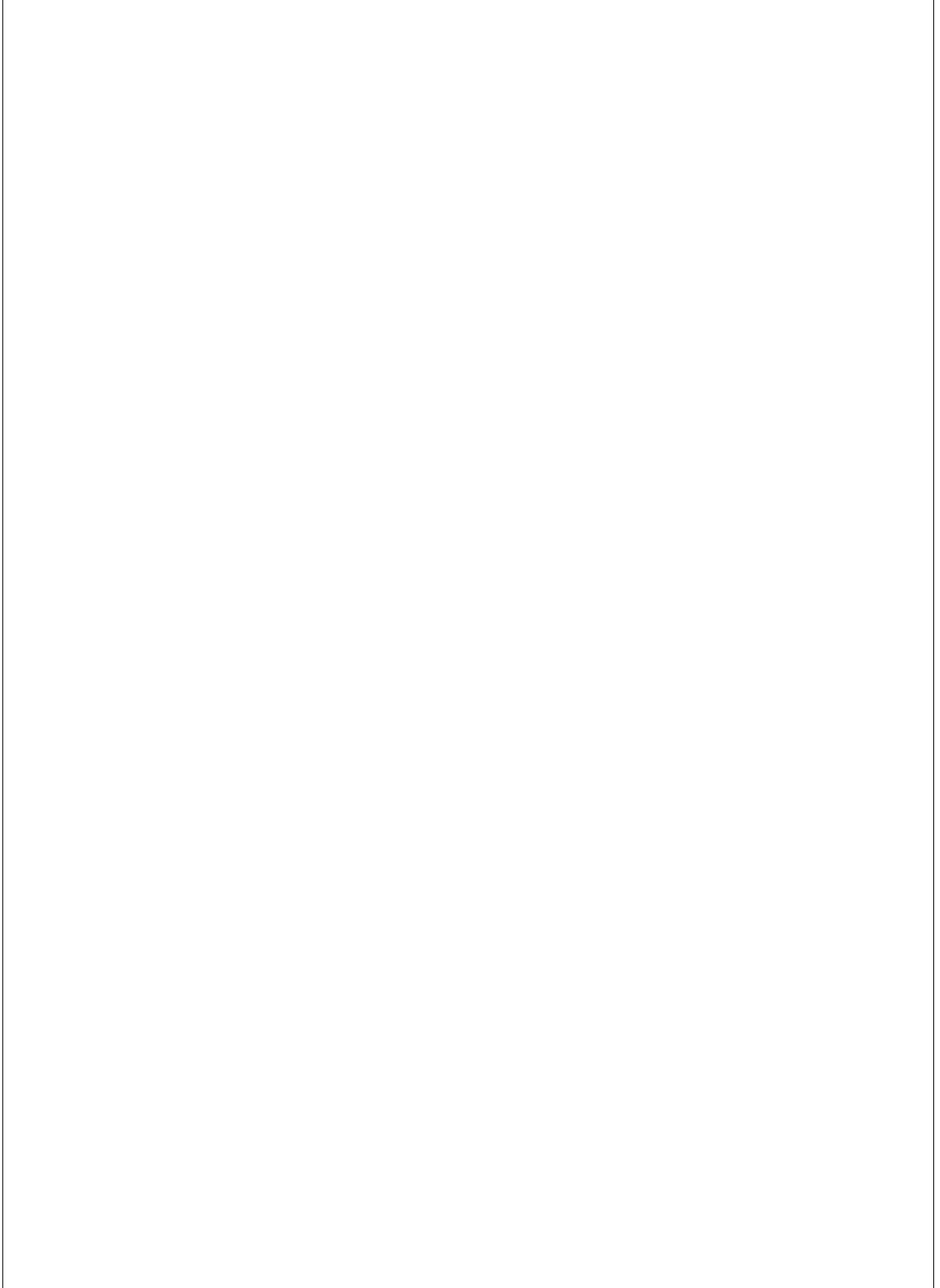
A1 123456 A

SHEET No 2 OF 7 SHEETS



HUGOH POLE 3 EARTHING
NTS

HUGOH POLE 7 EARTHING
NTS



WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____

OF: _____

CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.

SIGNATURE: _____

DATE: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

AMENDMENTS	ORIGINAL
	ISSUE
A	

Cadastre: © Land and Property Information 2016




LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

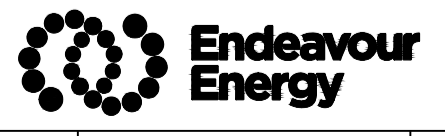
4 Barbata Grove
South Nowra
NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWINGS	WORK ORDERS	CAMS File No.	URS989898
	GENERAL	AM PROJ. No.	N/A
	OVERHEAD	HV SWITCHING	Yes
	UNDERGROUND	EE DEPOT	Nowra
	SUBSTATIONS	EE REGION	Southern
		HV OP DIAG	
		LOCAL GOV AREA	Shoalhaven

	ORIGINAL SCALE	1:1000
	DO NOT SCALE DIMENSIONS IN METRES	
DRAWN	PH	
DATE	23.7.2024	
CH'D	PH	DESIGN PH

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation

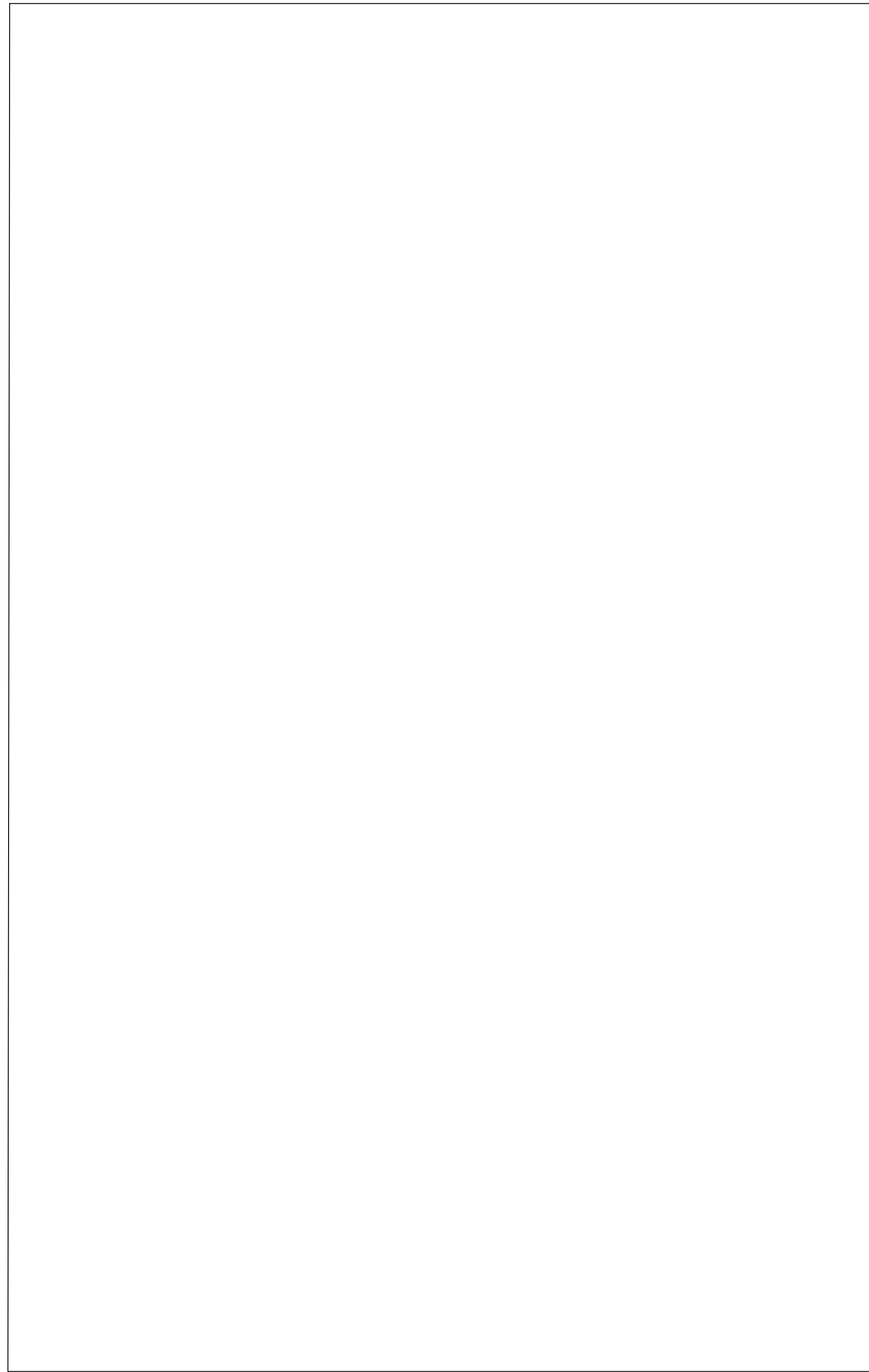
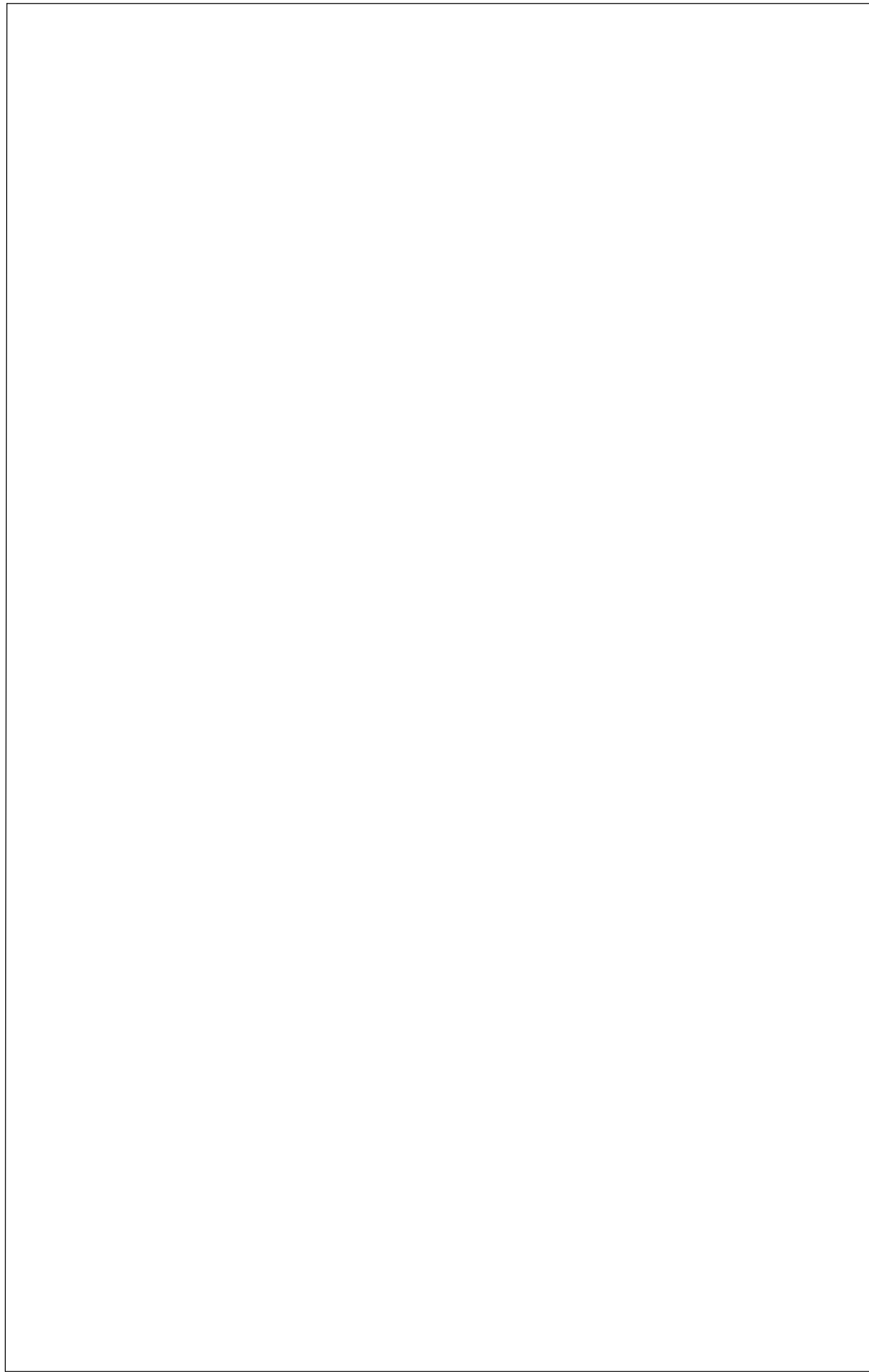
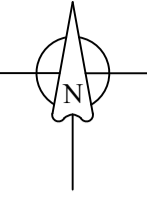


A1 123456 A

SHEET No 3 OF 7 SHEETS

**SUB 1 EARTHING
NTS**

**SUB 2 EARTHING
NTS**



WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____

OF: _____

CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.

SIGNATURE: _____

DATE: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

AMENDMENTS	ORIGINAL
	ISSUE
A	

Cadastre: © Land and Property Information 2016



LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

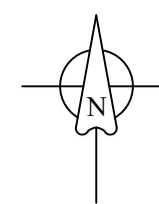
REFERENCE DRAWINGS	WORK ORDERS	CAMS File No.	URS989898
	GENERAL	AM PROJ. No.	N/A
	OVERHEAD	HV SWITCHING	Yes
	UNDERGROUND	EE DEPOT	Nowra
	SUBSTATIONS	EE REGION	Southern
		HV OP DIAG	
		LOCAL GOV AREA	Shoalhaven

	ORIGINAL SCALE	1:1000
	DO NOT SCALE DIMENSIONS IN METRES	
DRAWN	PH	
DATE	23.7.2024	
CH'D	PH	DESIGN PH

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation

A1 123456 A

SHEET No 4 OF 7 SHEETS

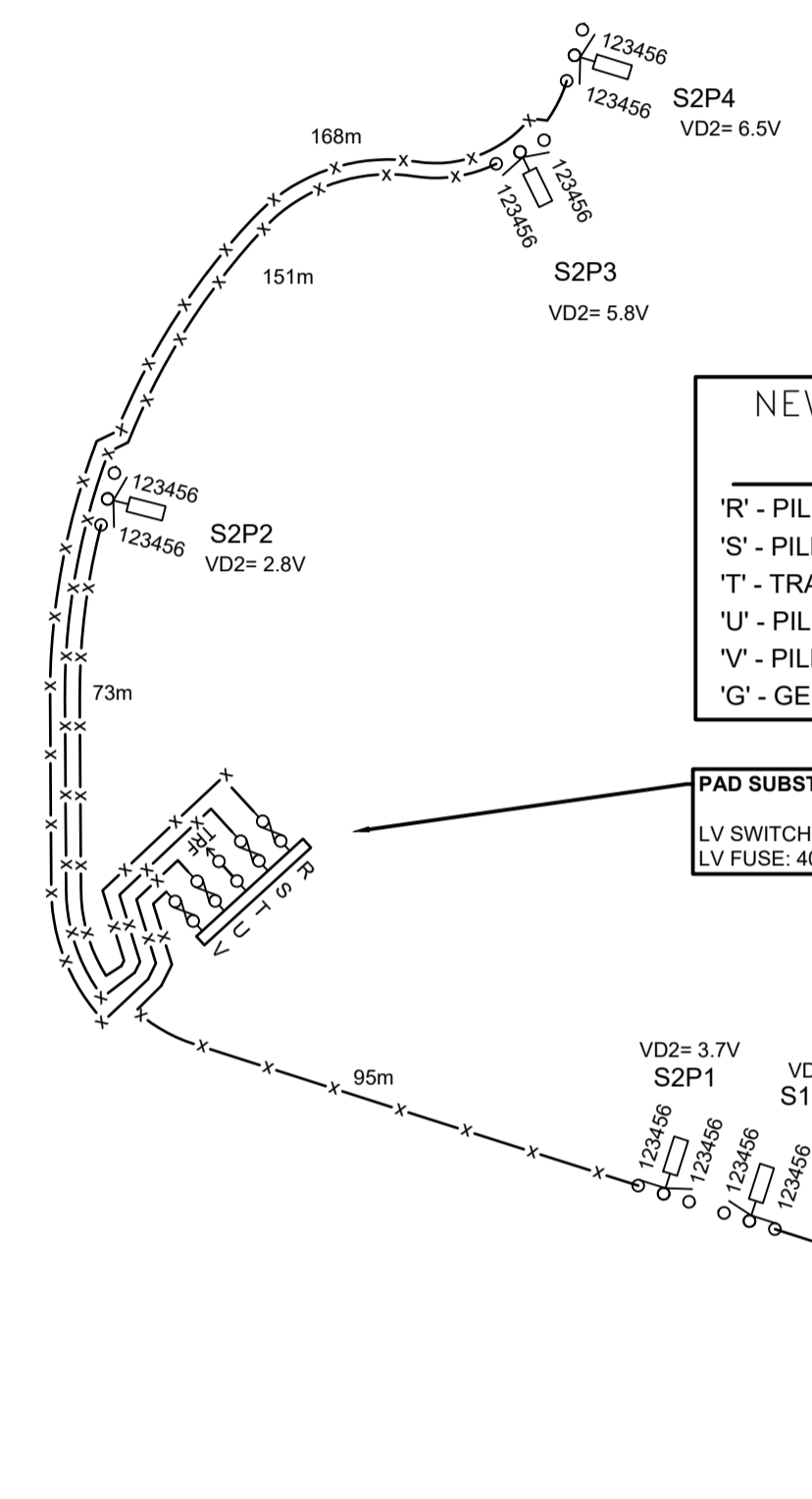


FINAL LV CIRCUIT NTS

FINAL LV/SL CIRCUIT LEGEND

- EXISTING OVERHEAD CONDUCTOR
- EXISTING POLE
- ⊕ EXISTING POLE SUB
- EXISTING N/O LV LINKS
- ⊕ EXISTING LANTERN
- ▲ EXISTING LUGOH
- x— LAY 1 X 4C 240mm LV AL/XLPE/PVC CABLE
R.L.578m - C.L. 636m
- #— STRING 1 X 4C 95mm LV ABC STRING TABLE LV8/10 6% CBL
R.L.103m - C.L. 110m
- REPLACE POLE

VD1 = NORMAL SUPPLY CONDITIONS FROM PAD SUB 1 @ 300A PER LOT
 VD2 = NORMAL SUPPLY CONDITIONS FROM PAD SUB 1 @ 300A PER LOT



NEW LABELS SUB 2

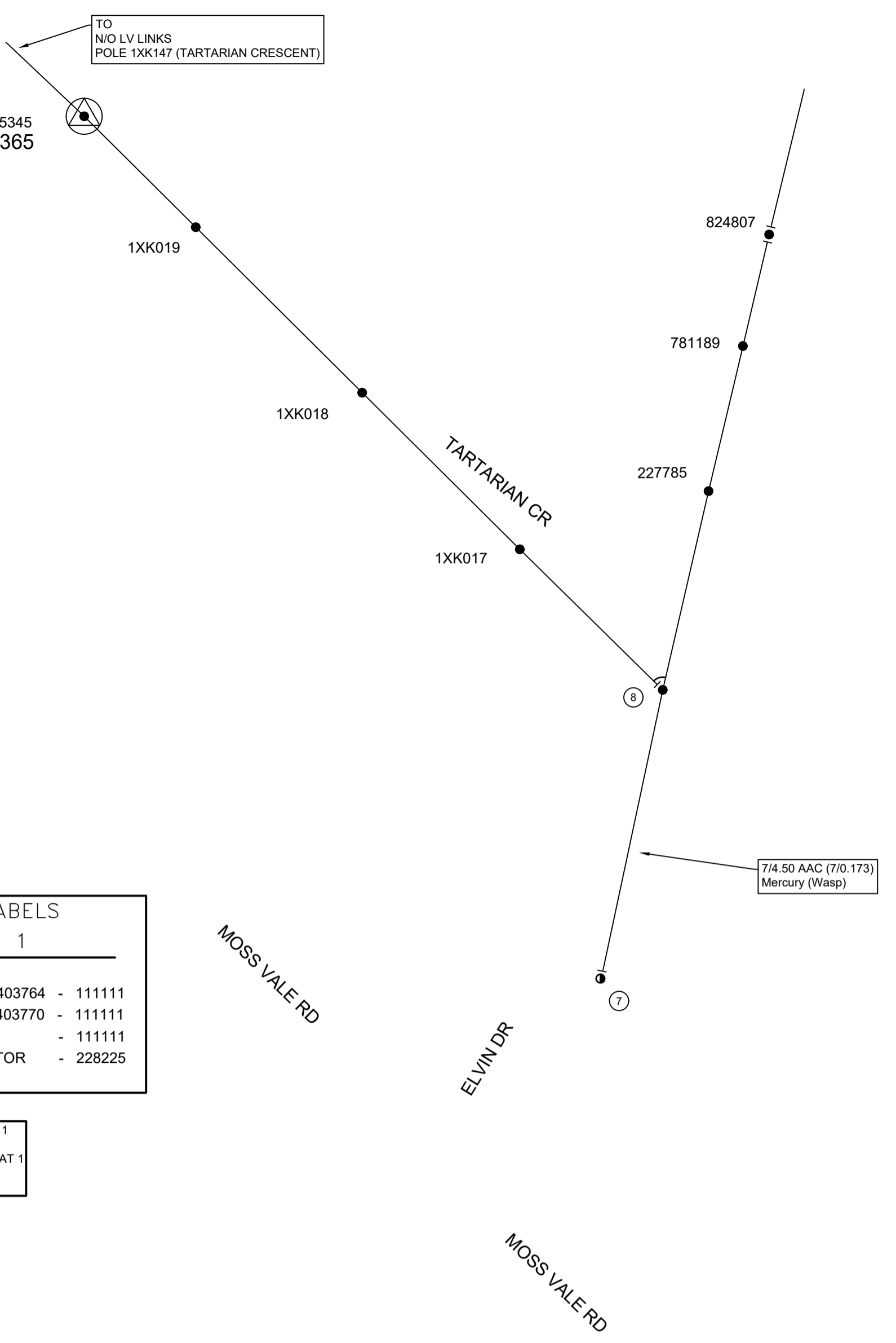
'R'	- PILLAR S403764	- 222222
'S'	- PILLAR S403770	- 222222
'T'	- TRANSFORMER	- 222222
'U'	- PILLAR S403772	- 222222
'V'	- PILLAR S403780	- 222222
'G'	- GENERATOR	- 222222

PAD SUBSTATION: 2
 LV SWITCHGEAR: CAT 1 FFIFF
 LV FUSE: 400A

NEW LABELS SUB 1

'R'	- PILLAR S403764	- 111111
'S'	- PILLAR S403770	- 111111
'T'	- CB	- 111111
'G'	- GENERATOR	- 228225

PAD SUBSTATION: 1
 LV SWITCHGEAR: CAT 1
 FFI+CB 2500A
 LV FUSE: 400A



EXISTING 61W LED 3K ROADLED MIDI STD Visor S-S ADD PE CELL BOND TO 95mm LV ABC

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____
 Date Approved: _____
 Examiner's Signature: _____
 Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____
 WORKS COMPLETED: _____
 SIGNATURE: _____ DATE: _____

INSPECTED BY: _____
 SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____
 OF: _____
 CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOR ENERGY STANDARD SAD 0004.

SIGNATURE: _____
 DATE: _____

Cadastre: © Land and Property Information 2016

AMENDMENTS	ORIGINAL	ISSUE
A		

LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

akh DesignServices

Ph 02 44228004
 Mob 412423520
 email paul@akhdesign.com.au

4 Barbata Grove
 South Nowra
 NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWING'S	WORK ORDERS	CAMS File No.	URS989898
	GENERAL	AM PROJ. No.	N/A
	OVERHEAD	HV SWITCHING	Yes
	UNDERGROUND	EE DEPOT	Nowra
	SUBSTATIONS	EE REGION	Southern
		HV OP DIAG	
		LOCAL GOV AREA	Shoalhaven

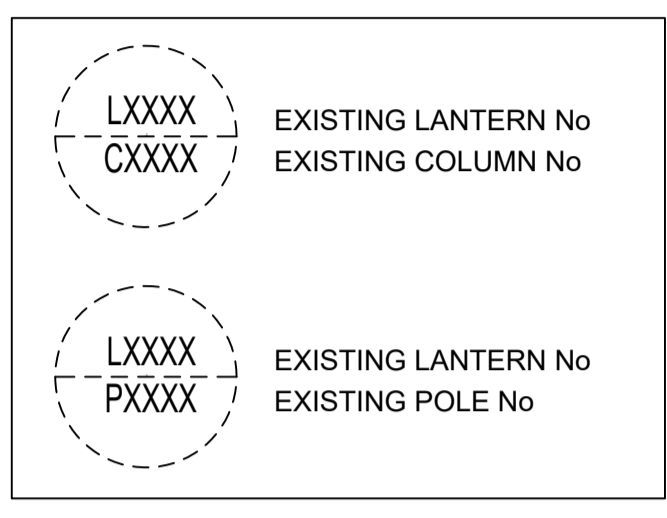
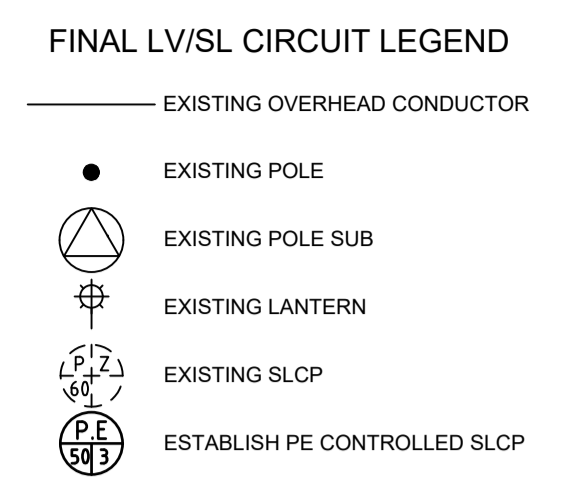
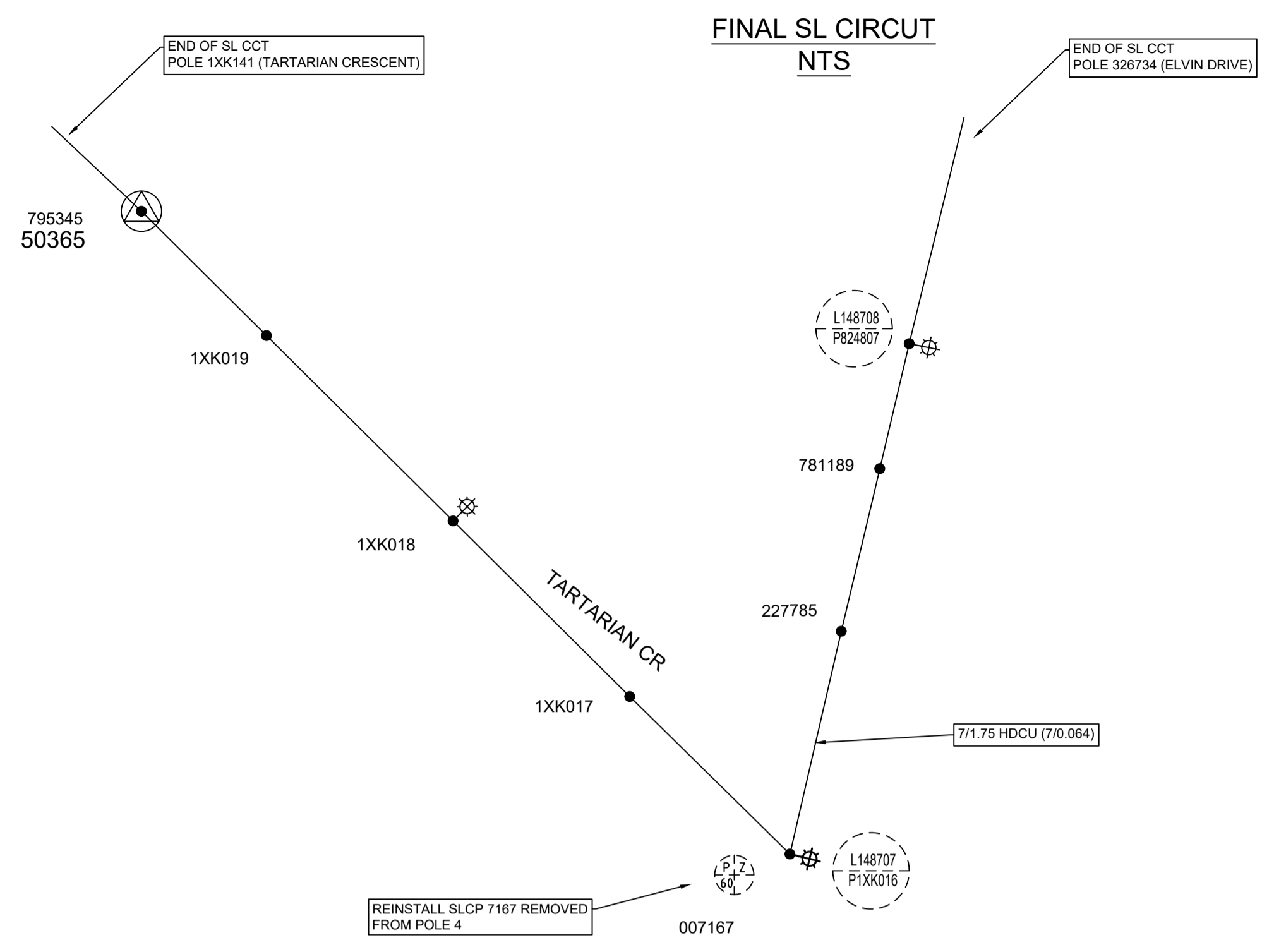
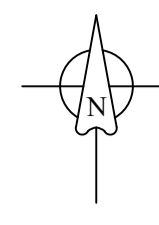
ORIGINAL SCALE	1:1000
DRAWN	PH
DATE	23.7.2024
CH'D	PH
DESIGN	PH

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
 25 Moss Vale Road Bomaderry
 URS989898
 Urban Subdivision
 Electrical Reticulation

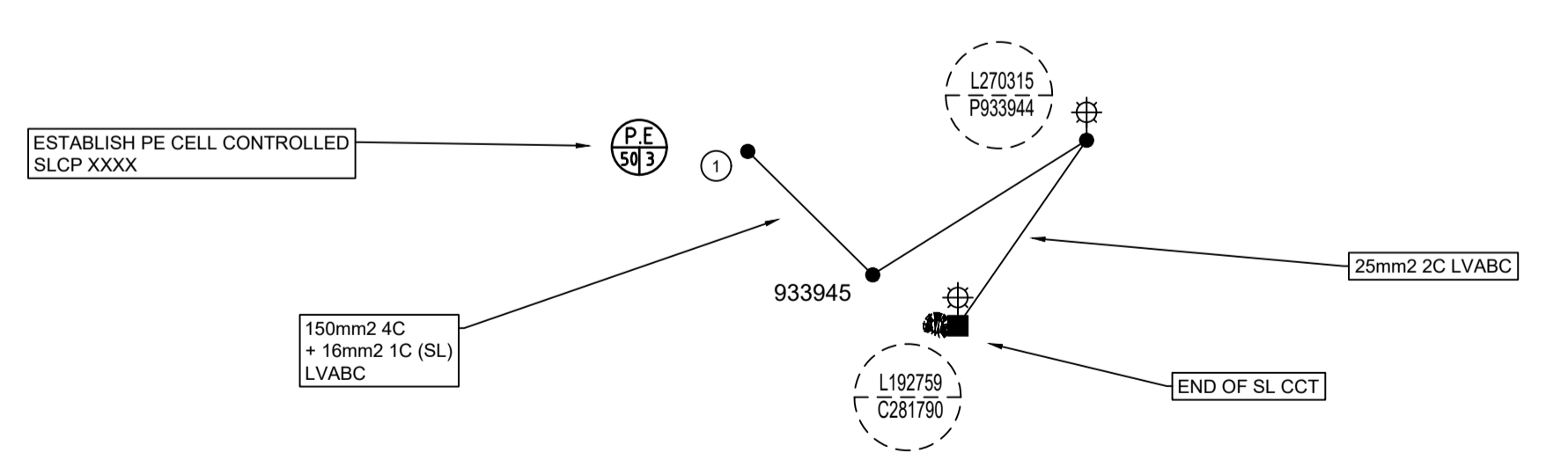
Endeavour Energy

A1 123456 A

SHEET No 5 OF 7 SHEETS



MOSS VALE RD
ELVIN DR
MOSS VALE RD



CERTIFIED BY ENDEAVOUR ENERGY
Amendment: _____
Date Approved: _____
Examiner's Signature: _____
Print Name: _____
This Certification is issued subject to Endeavour Energy's Standard Certification Terms

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____
WORKS COMPLETED: _____
SIGNATURE: _____ DATE: _____
INSPECTED BY: _____
SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____
OF: _____
CONTACT No.: _____
HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOR ENERGY STANDARD SAD 0004.
SIGNATURE: _____
DATE: _____

AMENDMENTS	ORIGINAL ISSUE
A	1

Cadastre: © Land and Property Information 2016

LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWING'S	WORK ORDERS
	GENERAL
	OVERHEAD
	UNDERGROUND
	SUBSTATIONS

CAMS File No.	URS989898
AM PROJ. No.	N/A
HV SWITCHING	Yes
EE DEPOT	Nowra
EE REGION	Southern
HV OP DIAG	
LOCAL GOV AREA	Shoalhaven

ORIGINAL SCALE	1:1000
DRAWN	PH
DATE	23.7.2024
CH'D	PH

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation

A1 123456 A

SHEET No 5 OF 7 SHEETS


PAD SUB SECTIONS

WORKS COMPLETED/FIELD BOOK	
CONSTRUCTED BY:	_____
WORKS COMPLETED:	_____
SIGNATURE:	_____ DATE: _____
INSPECTED BY:	_____
SIGNATURE:	_____ DATE: _____
ASSET RECORDING	
I:	_____
OF:	_____
CONTACT No.:	_____
<small>HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004.</small>	
SIGNATURE:	_____
DATE:	_____

CERTIFIED BY ENDEAVOUR ENERGY	
Amendment:	_____
Date Approved:	_____
Examiner's Signature:	_____
Print Name:	_____
<small>This Certification is issued subject to Endeavour Energy's Standard Certification Terms</small>	

AMENDMENTS	ORIGINAL	
	ISSUE	
A		

Cadastre: © Land and Property Information 2016




LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN

Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

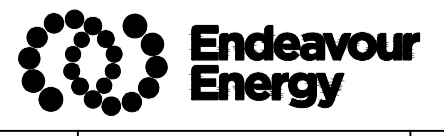
© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed, loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWINGS	WORK ORDERS	CAMS File No.	URS989898
	GENERAL	AM PROJ. No.	N/A
	OVERHEAD	HV SWITCHING	Yes
	UNDERGROUND	EE DEPOT	Nowra
	SUBSTATIONS	EE REGION	Southern
		HV OP DIAG	
		LOCAL GOV AREA	Shoalhaven

	ORIGINAL SCALE	1:1000
DRAWN	PH	
DATE	23.7.2024	
CH'D	PH	

DO NOT SCALE DIMENSIONS IN METRES

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation



A1 123456 A

SHEET No 6 OF 7 SHEETS

LINE PROFILE

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____

WORKS COMPLETED: _____

SIGNATURE: _____ DATE: _____

INSPECTED BY: _____

SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____

OF: _____

CONTACT No.: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SA4 0004.

SIGNATURE: _____

DATE: _____

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

AMENDMENTS	ORIGINAL
	ISSUE
A	

Cadastre: © Land and Property Information 2016



LEVEL 3 ACCREDITED OVERHEAD AND UNDERGROUND DISTRIBUTION POWER LINE DESIGN


Ph 02 44228004
Mob 412423520
email paul@akhdesign.com.au

4 Barbata Grove
South Nowra
NSW 2541

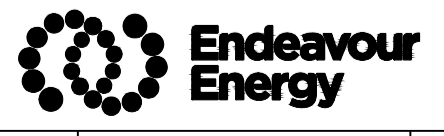
© This drawing and the copyright therein is the property of AKH Design Services and may not be copied, reproduced, distributed loaned or used without the written consent of AKH Design Services.

REFERENCE DRAWINGS	WORK ORDERS
GENERAL	
OVERHEAD	
UNDERGROUND	
SUBSTATIONS	

CAMS File No.	URS989898
AM PROJ. No.	N/A
HV SWITCHING	Yes
EE DEPOT	Nowra
EE REGION	Southern
HV OP DIAG	
LOCAL GOV AREA	Shoalhaven

	ORIGINAL SCALE	1:1000
	DO NOT SCALE DIMENSIONS IN METRES	
DRAWN	PH	
DATE	23.7.2024	
CH'D	PH	
DESIGN	PH	

Lot 129 DP3060, LOT 110 DP131219 & LOT DP520502
25 Moss Vale Road Bomaderry
URS989898
Urban Subdivision
Electrical Reticulation



A1 123456 A

SHEET No 7 OF 7 SHEETS