

Site Plan - Overview

Scale 1:2000

Refer to Sheet 2 for Details.



DIAL BEFORE YOU DIG

Ref: 20795600 Date: 16 December, 2020

DBYD searches indicates the presence of services within the proposed work-site. The Level 1 ASP /Constructor is to confirm the location of "all" services prior to the commencement of works.

Caution

A current services search of all utilities must be carried out prior to the commencement of works.

Caution

Existing live electrical assets located in this vicinity, appropriate safety precautions must be utilized.

Caution

Telstra assets in this area. Constructor to contact Telstra on ph 1800 653 935 prior to the commencement of works.

Caution

High Pressure Gas Assets in this area. constructor to contact Jemena on ph 1300 665 380 prior to the commencement of works.

Final Ground Level

The constructor is to confirm finished ground level with the developer prior to the commencement of construction.

Route Lengths

All route lengths are to be confirmed on site by the constructor prior to ordering materials.

Pollution

Requirements of the environmental protection authority pollution control legislation is to be strictly adhered to.

Service Ducts

The end of service ducts must not be placed under proposed driveways. (Refer to Developers Representative for details for details)

Service Work

All service works to be carried out by an authorized level 2 ASP in accordance with the New South Wales Service & Installation Rules, Australian Standards and all other relevant standards.

Cable Lengths

Cable Lengths specified on this design have been calculated utilizing 2 dimensional data to align with Endeavour Energy's AVS. The Constructor will need to allow for additional cable to cater for topographic influences as well as cable terminations, cable setting, and vertical indifference.

Existing Conduits

All conduits are to be mantrilled, proven clear, free of foreign material, and deformation prior to the installation of cables.

Proposed Ducts/Conduits

All Proposed 125mm ducts / conduits are to have a minimum 750mm cover. (in accordance with MDI0028)

Painting of Columns

Local council requires a certificate from the manufacturer supplied confirming the power coated columns are in accordance with the requirements of AS/NZ 4506-2005.

Streetlight LV Supply

All active conductors extending from LV pillars to service streetlight columns to be fitted with a 16A in line fuse.

Streetlight Columns

All streetlight columns are to be installed 350mm from the property boundaries unless otherwise indicated.

Design Compliance and Indemnity

This design complies with Endeavour Energy's relevant standards as current at this time & as listed on the Endeavour Energy Accredited Service Provider's 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: Design Drawing Standard,
- MMI: Mains Maintenance Instruction,
- SMI: Substation Maintenance Instruction,
- LDI: Public Lighting Electrical Design Element.

Additionally, where relevant, the design complies with AS/NZS7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards.

Power Line Design Pty Ltd indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards.

Signed: Mike Baranowski
Name: Michael J Baranowski
Service Provider Number: 2486 Date: 01-04-2022

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C.JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No.: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

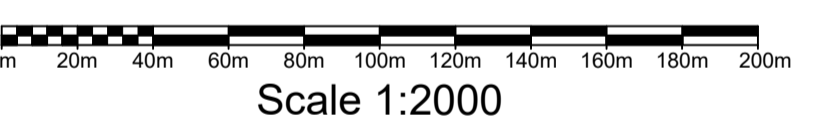
Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

Notes	
1.	This drawing is to be read in conjunction with the relevant Endeavour Energy Network Standards and 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.	Accredited Service Provider to notify Endeavour Energy asset data customer department daily when cable works is in progress. (ph. 131 081).
5.	ATTENTION: Permanent survey marks may exist in this area, these are to be located by a surveyor prior to commencement of work.
6.	ATTENTION: All services searches must be checked before construction.
7.	ATTENTION: The preparation of this design has been undertaken giving due consideration to the location of existing services. The Constructor is however responsible for the verification of services and permanent survey marks prior to the commencement of construction. No responsibility nor liability will be accepted by the designer for damage to existing services as a result of this design.
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.	Material Quantities Specified on this Design: The quantities or dimensions specified on this design are based on design information supplied and site conditions at the time of the design. As quantities and dimensions are subject to change, the Constructor must check all quantities and dimensions on site prior to tendering and prior to construction.
10.	Reimbursements: 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 table". Any disagreement with the amount should be resolved with Endeavour energy prior to the commencement of works.
11.	Operational Limitations: 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.
12.	Environmental Management plan: EMP EMS0001 is part of this design (refer to EIA for details).
13.	Pollution Controls: All the requirements of the Environmental Protection Authority pollution control legislation is to be strictly adhered to.
14.	Aboriginal Heritage: If 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.
15.	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.
16.	Telecommunications: Telecommunications assets are NOT effected by the proposed works.
17.	Existing Assets: Have all the existing assets been field checked and are accurate at the time of design? YES



Scale 1:2000

WAE NOTES

- ONLY CHANGES MARKED UP IN RED FORM ARE PART OF THIS ASSET RECORDING.
- ALL SURFACE ASSETS WERE RECORDED AT LEVEL QUALITY 'C'.
- DUCT TABLE HAS BEEN AMENDED AS PER INSPECTION. REFER TO DUCT SCHEDULE FOR DETAILS.

WAE LEGEND

- PVC DUCTS (TRENCH)
- PVC DUCTS (UNDERBORE)
- QUALITY LEVEL DATA POINT
- PROPERTY LINE
- DUCT END
- UNDERBORE END

KEY DOCUMENTS TABLE

The Certification of this project is supported by the following key documents

Document Name	Notation Date
Summary Environmental Report - FAT0038 (EMS0001)	1 September, 2021
Safe Design Report	1 September, 2021

Funding Arrangements for Scope of Works

ASP Level 1 Electrical Works		Customer								
Endeavour Energy Supplied Materials	Customer Funded Non-Contestable Works	Customer Funded								
NIL	<ul style="list-style-type: none"> All works associated with the inspection, testing, switching and the commissioning associated with this project. 	<ul style="list-style-type: none"> Including but not limited to: <ul style="list-style-type: none"> Pegging of easements, property boundaries and infrastructure locations. Registering of Easements. Provide Site Access. Own Service and Service connections. Confirm ground levels. 								
Endeavour Energy Funded & Constructed	Customer Funded Contestable Works	Existing Duct Usage Charges (excl GST)								
<ul style="list-style-type: none"> Works Required Prior to Completion of Customer Contestable Project Works Required in Association of Customer Contestable Project 	<ul style="list-style-type: none"> All other works and materials including but not limited to: <ul style="list-style-type: none"> Substation establishment & installation. Excavation & Trenching. Duct Installation. Cable Installation (Pulling & Laying). Cable Joining. Installation of Earthing. Removal of Redundant Assets. 	Total Usage \$0.00								
Endeavour Energy Funded & Level 1 ASP Constructed - Reimbursement (excl GST)	Co-ordination Supply Required Date	Assets to be Returned to the nearest Endeavour Energy Depot.								
<table border="1"> <thead> <tr> <th>Item</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>3x 500kVA (11000-433V) PMS Trfs</td> <td>\$37 728.00</td> </tr> <tr> <td>Total EE Capital Contribution (excl. PM & Design)</td> <td>\$37 728.00</td> </tr> <tr> <td>Total EE Capital Contribution (HV reimbursement)</td> <td>\$41 388.00</td> </tr> </tbody> </table>	Item	Amount	3x 500kVA (11000-433V) PMS Trfs	\$37 728.00	Total EE Capital Contribution (excl. PM & Design)	\$37 728.00	Total EE Capital Contribution (HV reimbursement)	\$41 388.00	01/08/2022	NIL
Item	Amount									
3x 500kVA (11000-433V) PMS Trfs	\$37 728.00									
Total EE Capital Contribution (excl. PM & Design)	\$37 728.00									
Total EE Capital Contribution (HV reimbursement)	\$41 388.00									

Pioneer Cost Share Reimbursement SCHEME - Expiry Date : N/A

Pro-Rata Reimbursement for Customer's Load Over 50kVA

Asset	Asset Cost Estimate (\$)	Unit Quantity	Net Asset Capacity (kVA)	Original Customer Utilization (kVA)	Maximum Reimbursement Amount (\$)
HV Mains	N/A	(km)			N/A
LV Mains	N/A	(km)			N/A
Substation	N/A				N/A

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 and is specifically for drawing No. _____ Amendment: _____.

This Drawing Supplies 255 Lots (Subdivision of Lot 3, DP1230408)

C.A.P. No.	File No.	Lot Numbers	No. of Lots	Developer	Developers Representative	Contact No.
URS25442	2020/00341/001	Lot 7401 to 7655	255	Woorong Park Pty Limited	Tana Sainsbury (J. Wyndham Prince)	(02) 4720 3319

Lighting Equipment & Billing Schedule

State	Luminaire Number	Support Number	Luminaire				Column / Pole				Outreach / Bracket				Upcast Angle	Category	Mounting Height	Column Colour	Charge To	
			Description	Part No.	Rate Code	QTY	Description	Part No.	Footing Bolt / Foundation	Rate Code	QTY	Description	Part No.	Rate Code						QTY
New	301845 - 301894	2001435 - 2001484	17W StreetLED (Gerard)	JLC9G05L17	889	50	4.5m Enlarged Base Column	IE/4.5.EB	Type 2 / Type 2 (-9.0m)	995	50	3.0m Curved Pipe Outreach	IE3.0CPS/25	991	50	5°	PR5	6.5m	Black	Blacktown City Council

Cadastre: © Land and Property Information 2016

POWER LINE DESIGN PTY LTD
PO BOX 338 Mittagong NSW 2575
Ph (02) 4872 1920 Fax (02) 4872 1240
Accredited Designer Number 2486 / ABN: 33107 591 846

The preparation of this design has been undertaken giving due consideration to the existing services. The project constructor is wholly responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design.

PLD Ref: 3814

Reference Drawings

523047A	URS25442 - Duct Trench and Easement
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Work Orders

General	EE Depot
Overhead	Kings Park
Underground	EE Region
Substations	HV OP Diagram
	Marsden Park South
	Local Government Area
	Blacktown City

CAMS File No. URS25442

ORIGINAL SCALE 1:1000

DO NOT SCALE

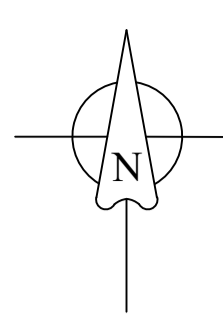
Dimensions in Meters

Off Richmond Road, Marsden Park URS25442

Stage 7B Electrical Reticulation

523048

SHEET No 1 OF 12 SHEETS



Site Plan

Scale 1:1000

LEGEND

- Existing Underground Cables,
- Existing Conduits (Ducts),
- Proposed New Conduits (Ducts),
- Street Light Trenching
- Low Voltage Trenching
- High Voltage Trenching
- Lay 40mm P.V.C. Service Conduits
- Existing Service Mains
- Pillar Excavation Location,
- Existing Pillar,
- Proposed Column Excavation location
- 4.5m Enlarged Base Column & 3.0m Eden Outreach
- Type 2 Ragbolt (Type 2 Footing)
- Colour Powdercoated Black
- Existing Column,
- Proposed New Streetlight Lantern,
- Existing Streetlight Lantern,
- Proposed New Padmount Substation,
- Existing Padmount Substation,
- Point Indicator,
- Lot Less than 350m²

Trench Length

High Voltage Trenching	1010m
Low Voltage Trenching	1214m
Street Light Trenching	79m
Road Crossing	600m
Total	2903m

Establish Proposed PMS No. 95439

- Transformer: 500kVA (11000:433V),
- HV Switchgear: Siemens 8DJH, Type: "RTR",
- HV Fuses: 12kV, 50Amp (Full Range),
- LV Switchgear: Weber CAT 1, Config: "FFIFF",
- LV Fuses: LV 250A (DIN, size 2)
- Cubicle: Size 14,
- Earthing: Common (refer Earth Design).

SAP Data
Sub 95439

HV BusBar	00019013
Trf	10003717
LV BusBar	00036725

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C. JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

Establish Proposed PMS No. 95440

- Transformer: 500kVA (11000:433V),
- HV Switchgear: Siemens 8DJH, Type: "RTR",
- HV Fuses: 12kV, 50Amp (Full Range),
- LV Switchgear: Weber CAT 1, Config: "FFIFF",
- LV Fuses: LV 250A (DIN, size 2)
- Cubicle: Size 14,
- Earthing: Common (refer Earth Design).

SAP Data
Sub 95440

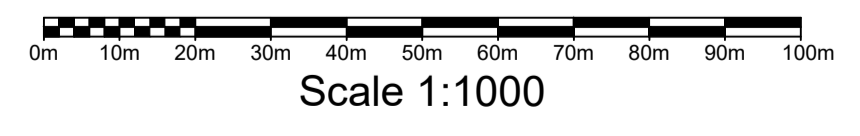
HV BusBar	00019014
Trf	10003718
LV BusBar	00036726

Establish Proposed PMS No. 95441

- Transformer: 500kVA (11000:433V),
- HV Switchgear: Siemens 8DJH, Type: "RTR",
- HV Fuses: 12kV, 50Amp (Full Range),
- LV Switchgear: Weber CAT 1, Config: "FFIFF",
- LV Fuses: LV 250A (DIN, size 2)
- Cubicle: Size 14,
- Earthing: Common (refer Earth Design).

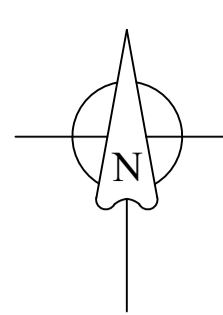
SAP Data
Sub 95441

HV BusBar	00019015
Trf	10003719
LV BusBar	00036727



Cadastre: © Land and Property Information 2016

AMENDMENTS	ORIGINAL ISSUE	 POWER LINE DESIGN PTY LTD PO BOX 338 Mittagong NSW 2575 Ph (02) 4872 1920 Fax (02) 4872 1240 Accredited Designer Number 2088 / ABN: 33107 591 846 PLD Ref: 3814	The preparation of this design has been undertaken giving due consideration to the existing services. The project constructor is wholly responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design.	 <small>THIS DRAWING AND THE COPYRIGHT THEREIN IS THE PROPERTY OF ENDEAVOUR ENERGY AND MAY NOT BE COPIED, REPRODUCED, DISTRIBUTED, LOANED OR USED WITHOUT THE WRITTEN CONSENT OF ENDEAVOUR ENERGY.</small> <small>TEMPLATE VERSION No. 3.11</small>	Reference Drawings	Work Orders	CAMS File No.	URS25442	 ORIGINAL SCALE 1:1000 DO NOT SCALE Dimensions in Meters	Off Richmond Road, Marsden Park URS25442 Stage 7B Electrical Reticulation	 523048	A
	DRAFT No. 01				523047A	URS25442 - Duct Trench and Easement	General	EE Switching				



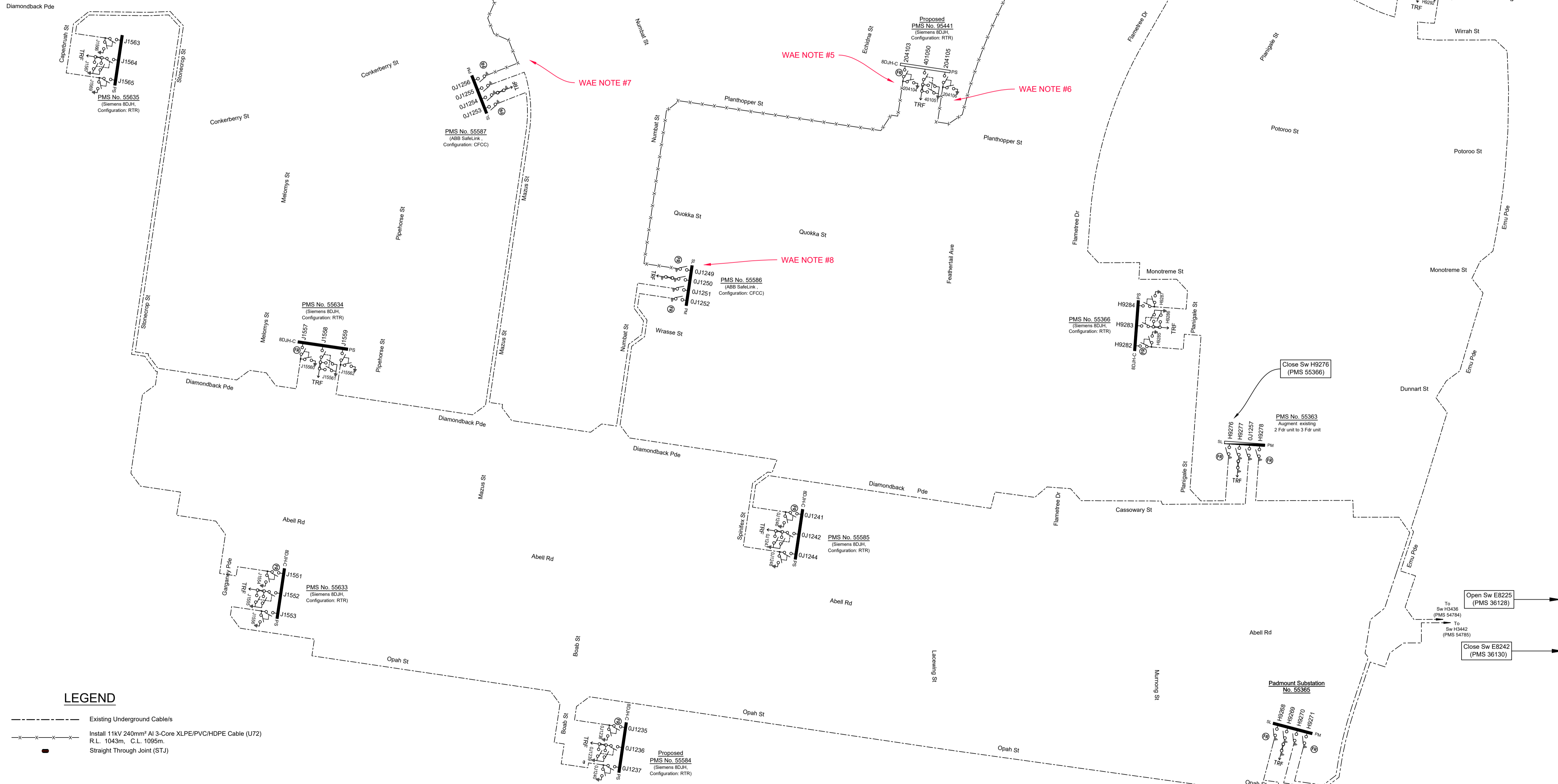
Final HV Circuit

Not to Scale
11kV Area

Marsden Park Zone Sub
Reference: L-14
Feeder: MS1162 "Northbourne Ave"
1φ Fault level @ SUB 55366: 1.82kA

Network Switch Requirements

Step	Operation	Asset
a	Close	Sw E8242 (PMS 36130)
b	Open	Sw E8225 (PMS 36128)
c	Close	Sw H9276 (PMS 55366)
d	Open	Sw 204101 (PMS 95440)



LEGEND

- Existing Underground Cable/s
- Install 11kV 240mm² Al 3-Core XLPE/PVC/HDPE Cable (U72)
R.L. 1043m, C.L. 1095m
- Straight Through Joint (STJ)

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C. JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

TERMINATION NOTE #1

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 04/02/22

TERMINATION NOTE #2

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 04/02/22

TERMINATION NOTE #3

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 11/01/22

TERMINATION NOTE #4

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 04/02/22

TERMINATION NOTE #5

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 08/10/21

TERMINATION NOTE #6

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: RSTI-5855
JOINT/TERMINATION BATCH #: CMOO13-011
DATE OF MANUFACTURE: 08/10/21

TERMINATION NOTE #7

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: C SEN12630-240/300
JOINT/TERMINATION BATCH #:
DATE OF MANUFACTURE: 05/12/2020

TERMINATION NOTE #8

JOINT/TERMINATION TYPE: INDOOR TERMINATION
NETWORK ACCESS AUTHORISATION: 1584
JOINT/TERMINATION KIT #: C SEN12630-240/300
JOINT/TERMINATION BATCH #:
DATE OF MANUFACTURE: 05/12/2020

AMENDMENTS	ORIGINAL ISSUE	DRAFT No. 01
A		

powerlinedesign
POWER LINE DESIGN PTY LTD
PO BOX 338 Mittagong NSW 2575
Ph (02) 4872 1920 Fax (02) 4872 1240
Accredited Designer Number 2688 / ABN: 33107 591 846

PLD Ref: 3814

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PLD Ref: 3814

Reference Drawings	Work Orders	CAMS File No.
523047A	General	URS25442
URS25442 - Duct Trench and Easement	Overhead	EE Switching
	Underground	EE Depot
	Substations	EE Region
		HV OP Diagram
		Local Government Area

Drawn	Michael J.B
Date	01-04-2022
Ch'd	Michael J.B

ORIGINAL SCALE 1:1000

DO NOT SCALE

Dimensions in Meters

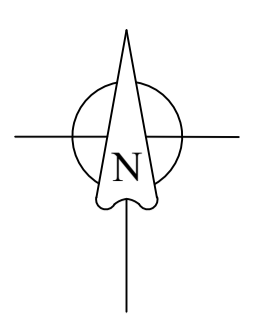
Off Richmond Road, Marsden Park URS25442

Stage 7B Electrical Retiulation

Endeavour Energy

A1 **523048** A

SHEET No 3 OF 12 SHEETS



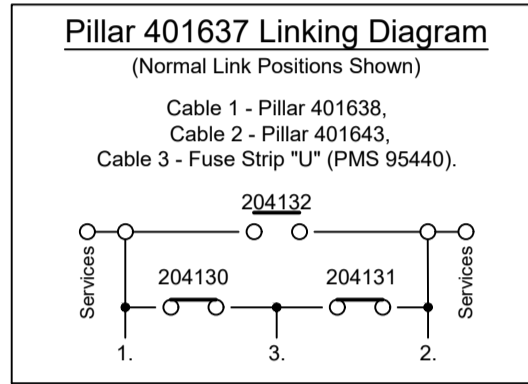
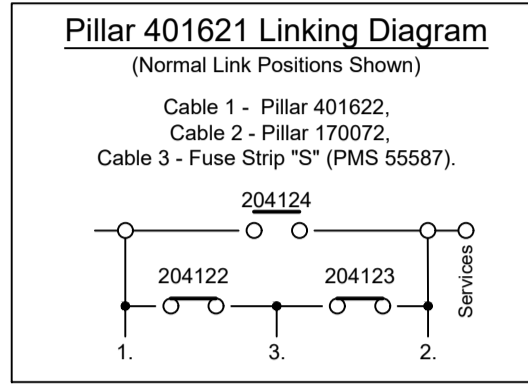
Final LV Circuit

Not to Scale

New Labels PM Sub. 95439		
'R' - Spare		204107
'S' - Pillar 401629		204108
'T' - Transformer		401052
'U' - Pillar 401626		204109
'V' - Pillar 401627		204110
'G' - Generator Fuse Strip		204111

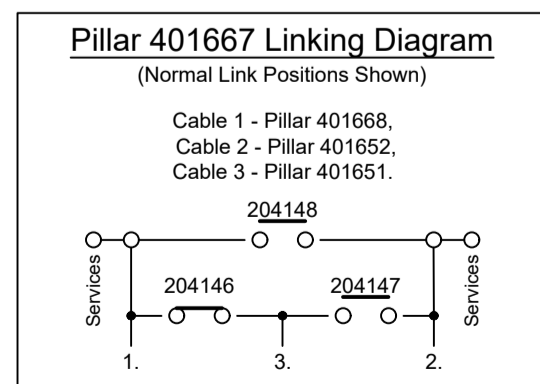
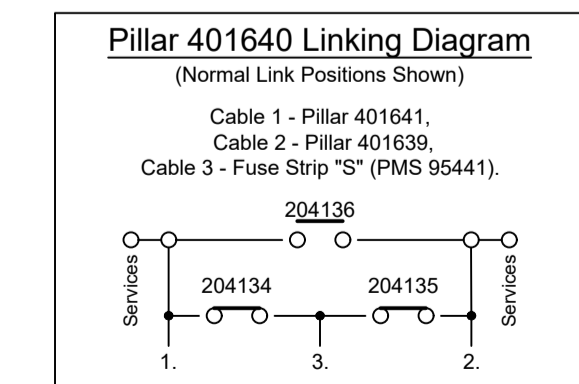
LEGEND

- Existing Underground Cables.
- Install 240mm² Al 4-Core XLPE/PVC Cable (T84)
R.L. 2857m C.L. 3000m.
- Install 50mm² Cu 4-Core XLPE/PVC Cable (T94)
R.L. 1091m C.L. 1146m.
- Install 1x 16mm² Cu 2-Core XLPE/PVC Cable
In 50mm Conduit and a Spare 50mm Conduit.
R.L. 410m C.L. 451m.
- LV Isolation Switch/Links (N/O)
- LV Isolation Switch/Links (NC)
- ⊕ Pillar Earth
- ⊕ Proposed New Street Light Lantern - 17W StreetLED
- Lantern Number - Proposed Asset
Column Number - Proposed Asset
(PE Controlled)
- Lantern Number - Existing Asset
Column Number - Existing Asset
(PE Controlled)



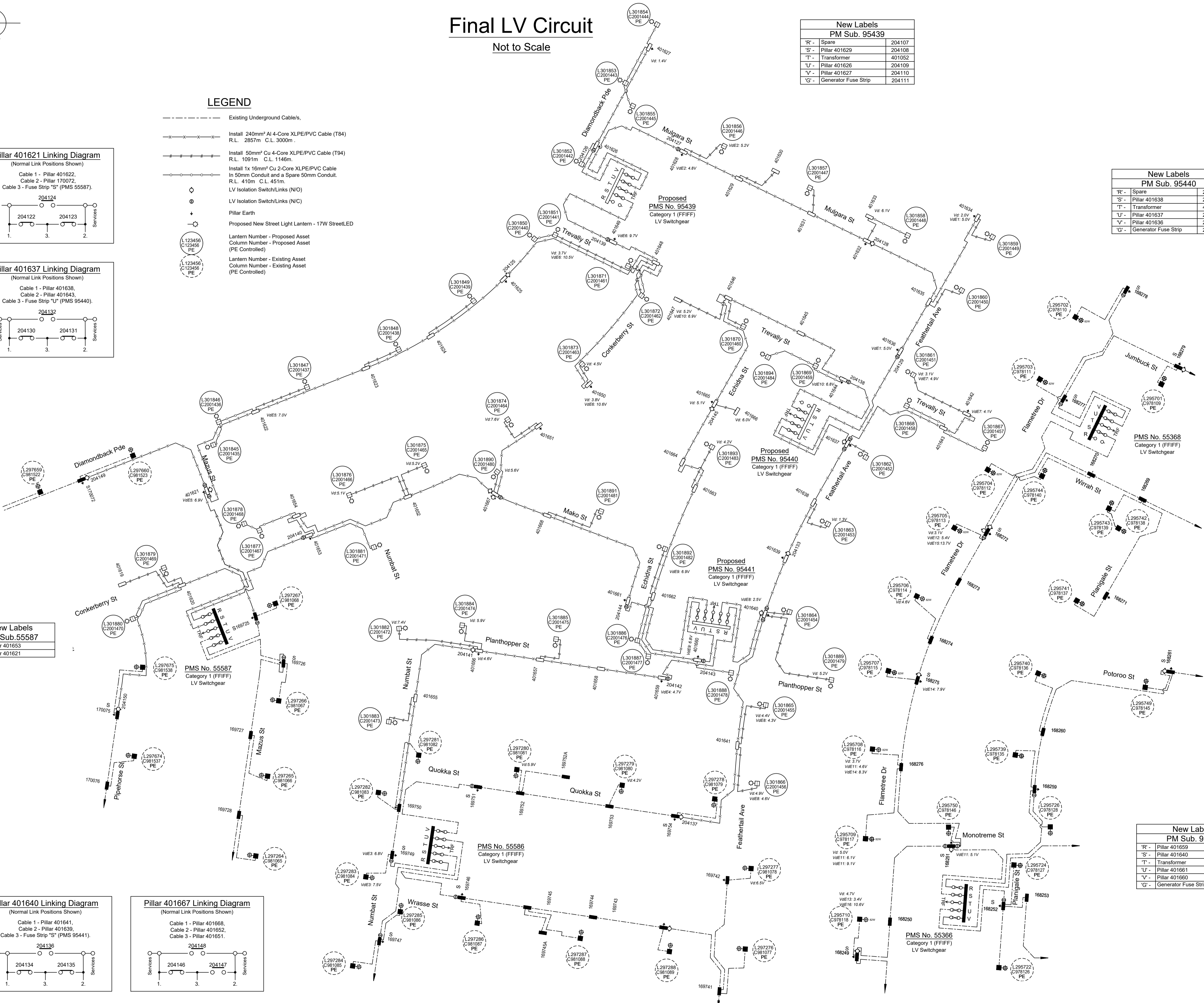
**New Labels
PM Sub. 55587**

'R' - Pillar 401653	
'S' - Pillar 401621	



**New Labels
PM Sub. 95440**

'R' - Spare		204112
'S' - Pillar 401638		204113
'T' - Transformer		401053
'U' - Pillar 401637		204114
'V' - Pillar 401636		204115
'G' - Generator Fuse Strip		204116



Works Completed / Field Book

Constructed By: **CJ DOYLE CONTRACTING**

Works Completed: **CHRIS JOWETT**

Signature: **C. JOWETT** Date: **17/11/22**

Inspected By: **MICHAEL WIER**

Signature: _____ Date: _____

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I: **STEVE FRIDAY**

of: **CJ DOYLE CONTRACTING**

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Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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Legend for LV Voltage Drop

Voltage Drop Calculations Based on an ADMD of 5kVA/lot for lots less than 350m², and 6.5kVA/lot for lots 350m² and greater.

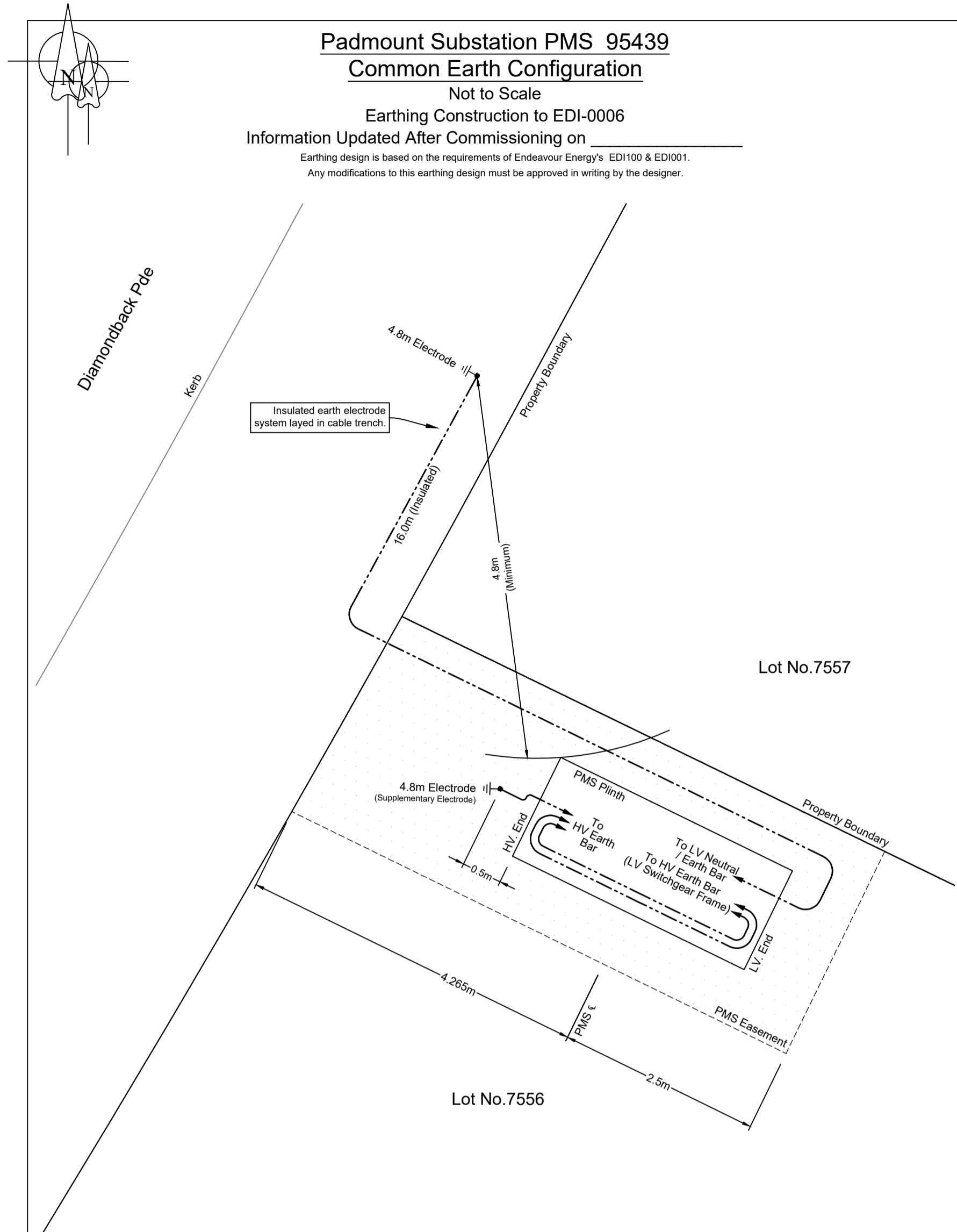
Vd = Voltage drop for normal supply @ 100% ADMD
Emergency / backup voltage drop @ 60% of ADMD

	Source Substation - Fuse Strip	Backed Up Substation - Fuse Strip
VdE1	PMS 95439_S	PMS 95440_U
VdE2	PMS 95440_U	PMS 95440_S
VdE3	PMS 95441_R	PMS 55586_R
VdE4	PMS 55586_R	PMS 95441_R
VdE5	PMS 95439_R	PMS 55587_S
VdE6	PMS 55587_S	PMS 95439_R
VdE7	PMS 95441_S	PMS 95440_R
VdE8	PMS 95440_R	PMS 95441_S
VdE9	PMS 95440_S	PMS 95441_V
VdE10	PMS 95441_V	PMS 95440_S
VdE11	PMS 55366_S	PMS 55366_S
VdE12	PMS 55366_S	PMS 55368_S
VdE13	PMS 55366_S	PMS 55363_U
VdE14	PMS 55363_U	PMS 55366_S
VdE15	PMS 55363_U	PMS55366_S & 55368_S
VdE16	PMS 55368_S	PMS 55366_S & 55363_S

**New Labels
PM Sub. 95441**

'R' - Pillar 401659		204117
'S' - Pillar 401640		204118
'T' - Transformer		401054
'U' - Pillar 401661		204119
'V' - Pillar 401660		204120
'G' - Generator Fuse Strip		204121

AMENDMENTS ORIGINAL ISSUE DRAFT No. 01	powerlinedesign POWER LINE DESIGN PTY LTD PO BOX 338 Mittagong NSW 2575 Ph (02) 4872 1920 Fax (02) 4872 1240 Accredited Designer Number 2688 / ABN: 33107 591 846	The preparation of this design has been undertaken giving due consideration to the existing services. The project contractor is solely responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design.	PLD Ref: 3814	Reference Drawings 523047A URS25442 - Duct Trench and Easement	Work Orders General Overhead Underground Substations	CAMS File No. URS25442	ORIGINAL SCALE 1:1000	DO NOT SCALE Dimensions in Meters	Off Richmond Road, Marsden Park URS25442 Stage 7B Electrical Reticulation	Endeavour Energy	A1	523048	A	SHEET No 4 OF 12 SHEETS



Padmount Substation PMS 95439
Common Earth Configuration
 Not to Scale
 Earthing Construction to EDI-0006
 Information Updated After Commissioning on _____
 Earthing design is based on the requirements of Endeavour Energy's EDI100 & EDI001.
 Any modifications to this earthing design must be approved in writing by the designer.

LEGEND

--- 19/2.14 (70mm²) Insulated PVC/PVC Annealed Cu Cable

⚡ Earth Electrode Location & Length
(Length of bare electrode shown in meters)

	Design	Actual	Telco	Design	Actual
TDMEN	0.0m	>5.0m		0.0m	>5.0m
TDB	0.0m	>5.0m	Pipes	0.0m	>5.0m
TDU	0.0m	>5.0m	HV - LV	4.8m	4.8m

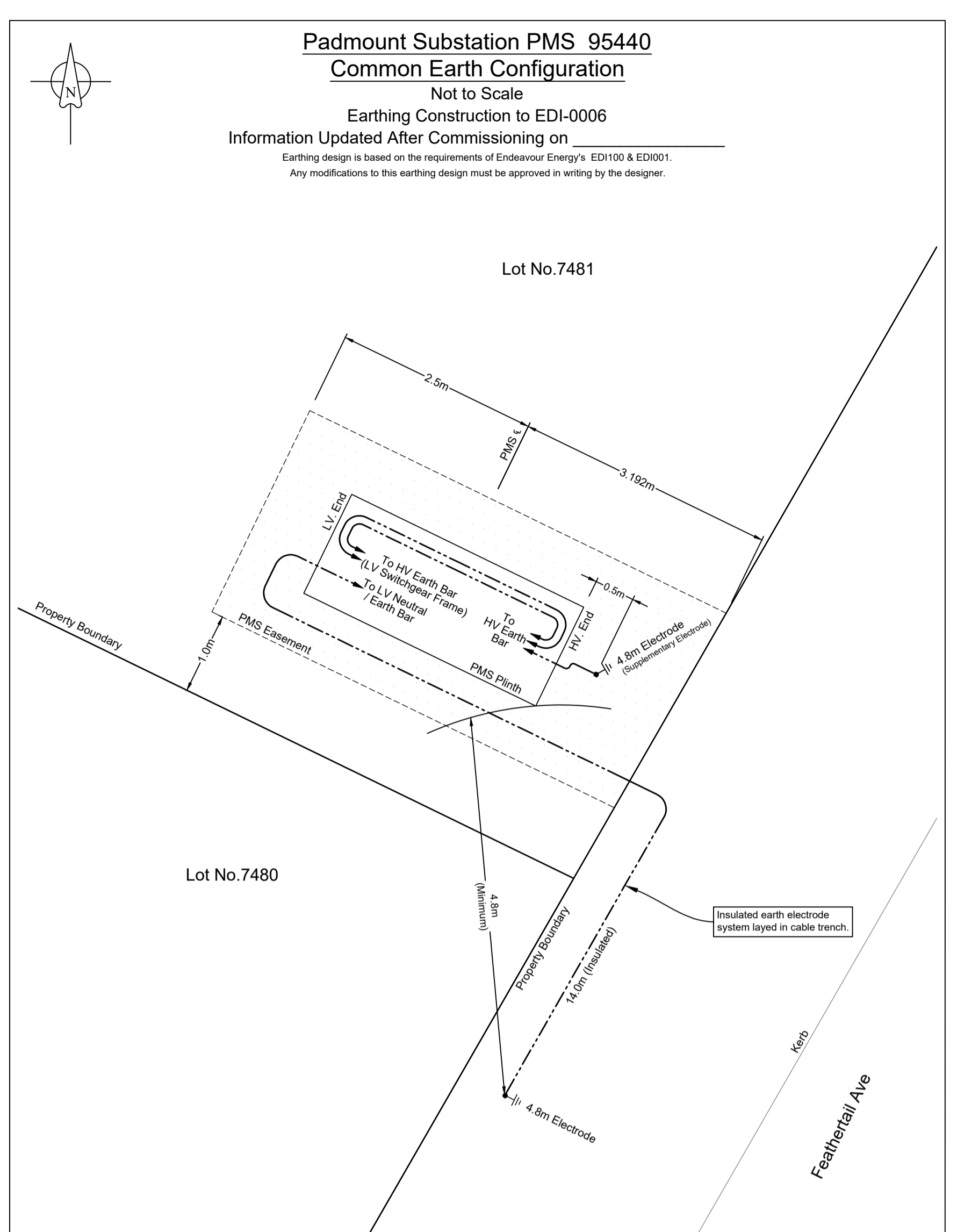
Soil Resistivity (Ohms.m)	Layer 1	28.17 Ω	Depth (m)	5.97m
	Layer 2	16.0Ω		Infinity
Design Earth Resistance (Ohms)	6.4 Ω			
Measured Earth Resistance (Ohms)	6.8			
Number of Electrodes (Excluding Supplementary Electrodes)	1			
Length of Bare Electrode (m)	4.8			
Insulated Depth (m)	0.6			
Connector Type (CAD or CRIMP)	Crimp			
Location Category (F-frequented, R-remote, S-special)	F			
What Design Tools Used?	3E			
HV Fault Level (kA)	1.82kA			
Is this the first Asset from Zone Substation? (If Yes, check Z/S Earthing Configuration)	N			
Are Cable Screens of Incoming Cable Bonded to Distribution Substation Earth Bar?	Yes			

AMENDMENTS

ORIGINAL ISSUE	01
DRAFT No.	01

POWER LINE DESIGN PTY LTD
 PO BOX 338 Mittagong NSW 2575
 Ph (02) 4872 1920 Fax (02) 4872 1240
 Accredited Designer Number 2468 / ABN: 33107 591 846

PLD Ref: 3814



Padmount Substation PMS 95440
Common Earth Configuration
 Not to Scale
 Earthing Construction to EDI-0006
 Information Updated After Commissioning on _____
 Earthing design is based on the requirements of Endeavour Energy's EDI100 & EDI001.
 Any modifications to this earthing design must be approved in writing by the designer.

LEGEND

--- 19/2.14 (70mm²) Insulated PVC/PVC Annealed Cu Cable

⚡ Earth Electrode Location & Length
(Length of bare electrode shown in meters)

	Design	Actual	Telco	Design	Actual
TDMEN	0.0m	>5.0m		0.0m	>5.0m
TDB	0.0m	>5.0m	Pipes	0.0m	>5.0m
TDU	0.0m	>5.0m	HV - LV	4.8m	4.8m

Soil Resistivity (Ohms.m)	Layer 1	28.17 Ω	Depth (m)	5.97m
	Layer 2	16.0Ω		Infinity
Design Earth Resistance (Ohms)	6.4 Ω			
Measured Earth Resistance (Ohms)	6.5			
Number of Electrodes (Excluding Supplementary Electrodes)	1			
Length of Bare Electrode (m)	4.8			
Insulated Depth (m)	0.6			
Connector Type (CAD or CRIMP)	Crimp			
Location Category (F-frequented, R-remote, S-special)	F			
What Design Tools Used?	3E			
HV Fault Level (kA)	1.82kA			
Is this the first Asset from Zone Substation? (If Yes, check Z/S Earthing Configuration)	N			
Are Cable Screens of Incoming Cable Bonded to Distribution Substation Earth Bar?	Yes			

Reference Drawings

523047A	URS25442 - Duct Trench and Easement
---------	-------------------------------------

Work Orders

General	Overhead	Underground	Substations
---------	----------	-------------	-------------

CAMS File No. URS25442

HV Switching	Kings Park
EE Depot	Northern
EE Region	Marsden Park South
HV OP Diagram	Blacktown City

ORIGINAL SCALE 1:1000

DO NOT SCALE

Dimensions in Meters

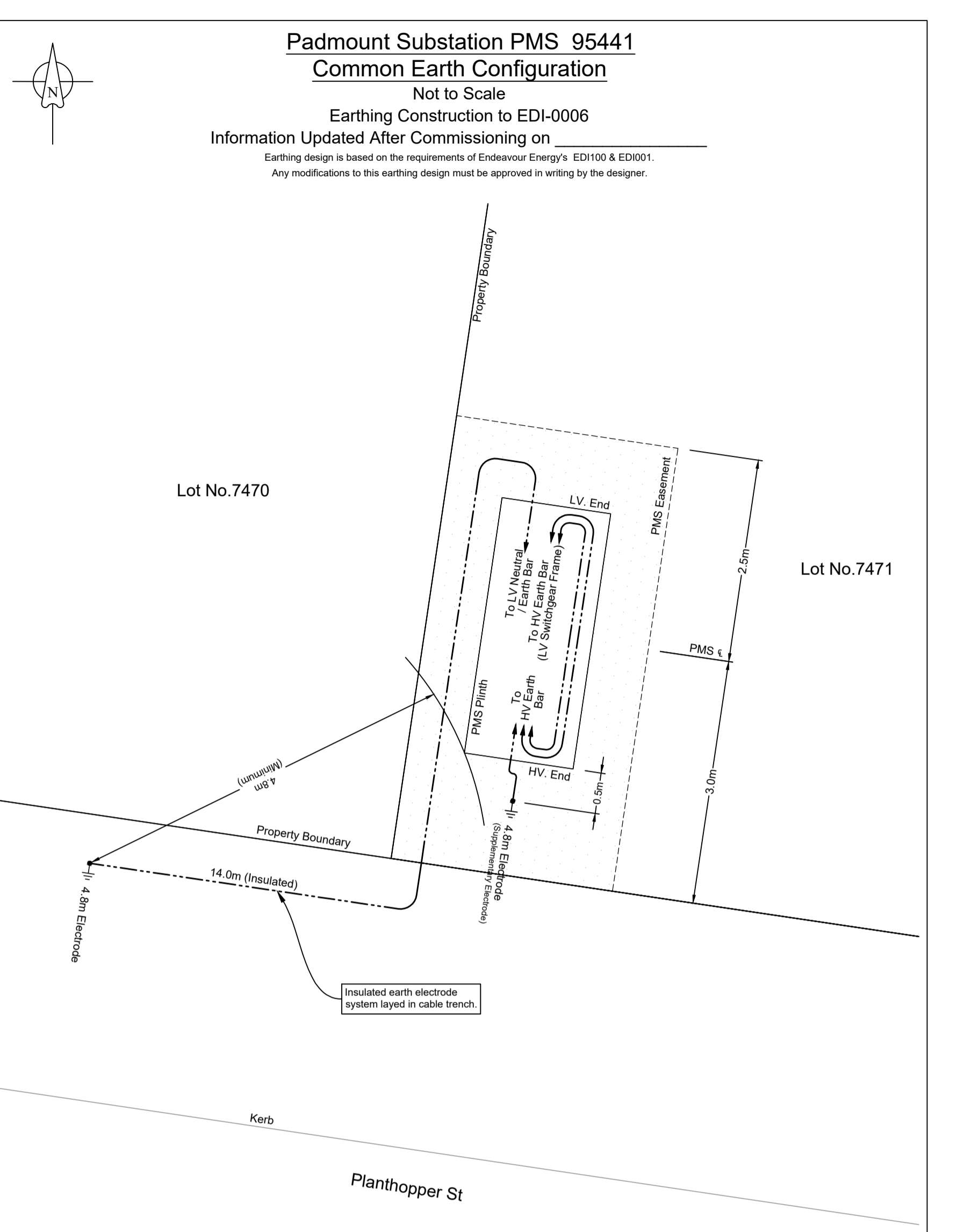
Off Richmond Road, Marsden Park URS25442

Stage 7B Electrical Reticulation

Endeavour Energy

A1 523048 A

SHEET No 5 OF 12 SHEETS



Padmount Substation PMS 95441
Common Earth Configuration
 Not to Scale
 Earthing Construction to EDI-0006
 Information Updated After Commissioning on _____
 Earthing design is based on the requirements of Endeavour Energy's EDI100 & EDI001.
 Any modifications to this earthing design must be approved in writing by the designer.

LEGEND

--- 19/2.14 (70mm²) Insulated PVC/PVC Annealed Cu Cable

⚡ Earth Electrode Location & Length
(Length of bare electrode shown in meters)

	Design	Actual	Telco	Design	Actual
TDMEN	0.0m	>5.0m		0.0m	>5.0m
TDB	0.0m	>5.0m	Pipes	0.0m	>5.0m
TDU	0.0m	>5.0m	HV - LV	4.8m	4.8m

Soil Resistivity (Ohms.m)	Layer 1	28.17 Ω	Depth (m)	5.97m
	Layer 2	16.0Ω		Infinity
Design Earth Resistance (Ohms)	6.4 Ω			
Measured Earth Resistance (Ohms)	6.3			
Number of Electrodes (Excluding Supplementary Electrodes)	1			
Length of Bare Electrode (m)	4.8			
Insulated Depth (m)	0.6			
Connector Type (CAD or CRIMP)	Crimp			
Location Category (F-frequented, R-remote, S-special)	F			
What Design Tools Used?	3E			
HV Fault Level (kA)	1.82kA			
Is this the first Asset from Zone Substation? (If Yes, check Z/S Earthing Configuration)	N			
Are Cable Screens of Incoming Cable Bonded to Distribution Substation Earth Bar?	Yes			

Reference Drawings

523047A	URS25442 - Duct Trench and Easement
---------	-------------------------------------

Work Orders

General	Overhead	Underground	Substations
---------	----------	-------------	-------------

CAMS File No. URS25442

HV Switching	Kings Park
EE Depot	Northern
EE Region	Marsden Park South
HV OP Diagram	Blacktown City

ORIGINAL SCALE 1:1000

DO NOT SCALE

Dimensions in Meters

Off Richmond Road, Marsden Park URS25442

Stage 7B Electrical Reticulation

Endeavour Energy

A1 523048 A

SHEET No 5 OF 12 SHEETS

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C.JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement				Duct Usage Charge			
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
✓ 3I - 3J	HV Trenching in Cable Alignment	10m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3J - 3K	HV Trenching in Cable Alignment	23m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3K - 3L	HV Trenching in Cable Alignment	33m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3M - 3N	LV Trenching in Cable Alignment	7m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3N - 3O	LV Trenching in Cable Alignment	24m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3O - 3P	LV Trenching in Cable Alignment	23m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3P - 3Q	LV Trenching in Cable Alignment	6m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3Q - 3R	Existing Road Crossing Ducts	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 3R - 3S	Existing Footpath Ducts	24m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4A - 4B	LV Trenching in Cable Alignment	12m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4B - 4C	HV Trenching in Cable Alignment	13m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4C - 4D	HV Trenching in Cable Alignment	13m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4D - 4E	HV Trenching in Cable Alignment	9m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4E - 4F	HV Trenching in Cable Alignment	32m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4F - 4G	HV Trenching in Cable Alignment	32m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement				Duct Usage Charge			
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
✓ 4G - 4H	HV Trenching in Cable Alignment	23m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4H - 4I	HV Trenching in Cable Alignment	11m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4I - 4J	HV Trenching in Cable Alignment	35m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4J - 4K	HV Trenching in Cable Alignment	2m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4K - 4L	HV Trenching in Cable Alignment	21m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4L - 4M	HV Trenching in Cable Alignment	19m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4M - 4N	HV Trenching in Cable Alignment	13m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4N - 4O	SL Trenching in Cable Alignment	30m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4O - 4R	LV Trenching in Cable Alignment	12m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4R - 4S	LV Trenching in Cable Alignment	12m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4S - 4T	LV Trenching in Cable Alignment	36m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4T - 4U	LV Trenching in Cable Alignment	26m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4U - 4V	LV Trenching in Cable Alignment	6m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4V - 4W	LV Trenching in Cable Alignment	17m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 4W - 4A	LV Trenching in Cable Alignment	7m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement				Duct Usage Charge			
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
✓ 5A - 5L	LV Trenching in Cable Alignment	52m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5B - 5C	LV Trenching in Cable Alignment	36m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5C - 5D	LV Trenching in Cable Alignment	41m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5D - 5E	LV Trenching in Cable Alignment	11m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5E - 5F	LV Trenching in Cable Alignment	27m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5H - 5I	LV Trenching in Cable Alignment	14m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5I - 5J	LV Trenching in Cable Alignment	17m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5N - 5M	LV Trenching in Cable Alignment	31m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 5M - 5L	LV Trenching in Cable Alignment	24m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6A - 1L	HV Trenching in Cable Alignment	26m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6A - 6B	HV Trenching in Cable Alignment	19m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6B - 6C	HV Trenching in Cable Alignment	7m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6C - 6D	HV Trenching in Cable Alignment	43m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6D - 6E	HV Trenching in Cable Alignment	43m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
✓ 6E - 6E ^{GF}	HV Trenching in Cable Alignment	20m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C. JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

Conduit / Cable Legend

- LV Cable - Direct Buried.
- HV Cable - Direct Buried.
- 50mm Duct - Spare.
- 50mm Duct - with Existing Cable.
- 50mm Duct - with New SL Cable.
- 125mm Duct - with Existing Cable.
- 125mm Duct - with New Cable.
- 125mm Duct - Spare.

AMENDMENTS ORIGINAL ISSUE DRAFT No. 01	powerlinedesign POWER LINE DESIGN PTY LTD PO BOX 338 Mittagong NSW 2575 Ph (02) 4872 1920 Fax (02) 4872 1240 Accredited Designer Number 2468 / ABN: 33107 591 846	The preparation of this design has been undertaken giving due consideration to the existing services. The project contractor is wholly responsible for verifying the exact location of existing services and permanent survey marks prior to commencing construction. No responsibility or liability will be accepted by the designer of this project for damage to existing services as a result of this design. PLD Ref: 3814	© THIS DRAWING AND THE COPYRIGHT THEREIN IS THE PROPERTY OF ENDEAVOUR ENERGY AND MAY NOT BE COPIED, REPRODUCED, DISTRIBUTED, LOANED OR USED WITHOUT THE WRITTEN CONSENT OF ENDEAVOUR ENERGY. TEMPLATE VERSION No. 3.11	Reference Drawings	Work Orders	CAMS File No.	URS25442	ORIGINAL SCALE 1:1000	DO NOT SCALE Dimensions in Meters	Off Richmond Road, Marsden Park URS25442 Stage 7B Electrical Reticulation	Endeavour Energy	A1 523048 A	SHEET No 7 OF 12 SHEETS
				523047A	URS25442 - Duct Trench and Easement	General	EE Depot						
64545	1	2	3	4	5	6	7	8	9	10	11	12	#4217

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement			Duct Usage Charge				
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
6G - 6H	HV Trenching in Cable Alignment	6m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6H - 6I	HV Trenching in Cable Alignment	31m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6I - 6J	HV Trenching in Cable Alignment	8m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6J - 6K	LV Trenching in Cable Alignment	44m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6K - 6L	LV Trenching in Cable Alignment	33m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6L - 6M	LV Trenching in Cable Alignment	30m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6M - 6N	LV Trenching in Cable Alignment	13m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6N - 6O	LV Trenching in Cable Alignment	20m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6O - 6P	LV Trenching in Cable Alignment	13m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6P - 1D	LV Trenching in Cable Alignment	43m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6U - 6V	LV Trenching in Cable Alignment	5m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6V - 6W	SL Trenching in Cable Alignment	15m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6X - 6Y	HV Trenching in Cable Alignment	8m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6Y - 6Z	LV Trenching in Cable Alignment	11m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7C - 7D	LV Trenching in Cable Alignment	35m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total				\$ 0		\$ 0		\$ 0		\$ 0

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement			Duct Usage Charge				
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
7E - 7F	SL Trenching in Cable Alignment	18m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7F - 7G	LV Trenching in Cable Alignment	7m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7G - 7H	LV Trenching in Cable Alignment	21m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7H - 7I	LV Trenching in Cable Alignment	8m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7L - 7M	LV Trenching in Cable Alignment	54m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7M - 7N	LV Trenching in Cable Alignment	48m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7N - 7O	LV Trenching in Cable Alignment	8m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7O - 7P	LV Trenching in Cable Alignment	45m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7Q - 7R	LV Trenching in Cable Alignment	8m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7S - 7T	SL Trenching in Cable Alignment	12m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total				\$ 0		\$ 0		\$ 0		\$ 0

Conduit / Cable Legend	
●	LV Cable - Direct Buried.
●	HV Cable - Direct Buried.
○	50mm Duct - Spare.
○	50mm Duct - with Existing Cable.
○	50mm Duct - with New SL Cable.
○	125mm Duct - with Existing Cable.
○	125mm Duct - with New Cable.
○	125mm Duct - Spare.

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C. JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

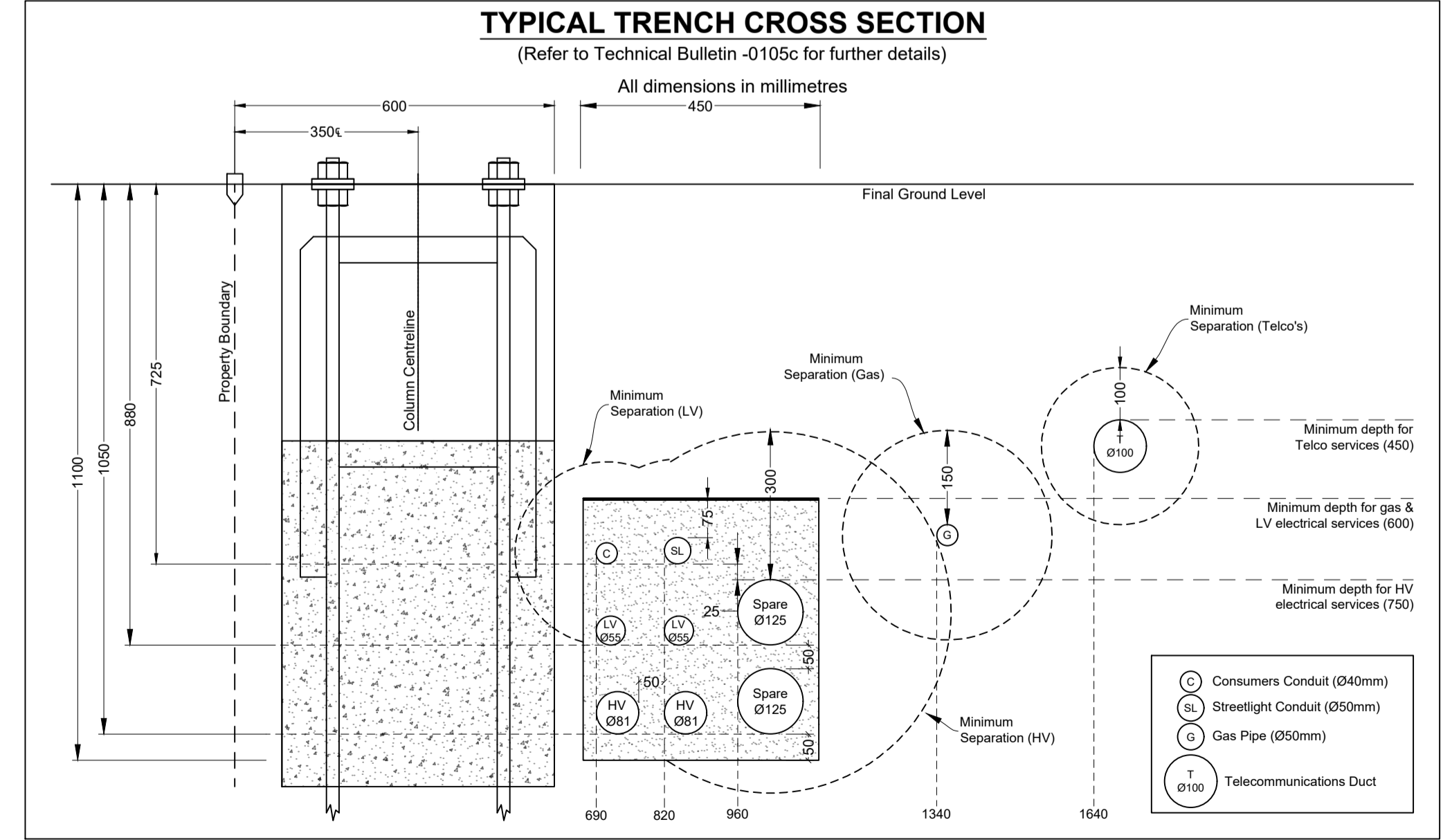
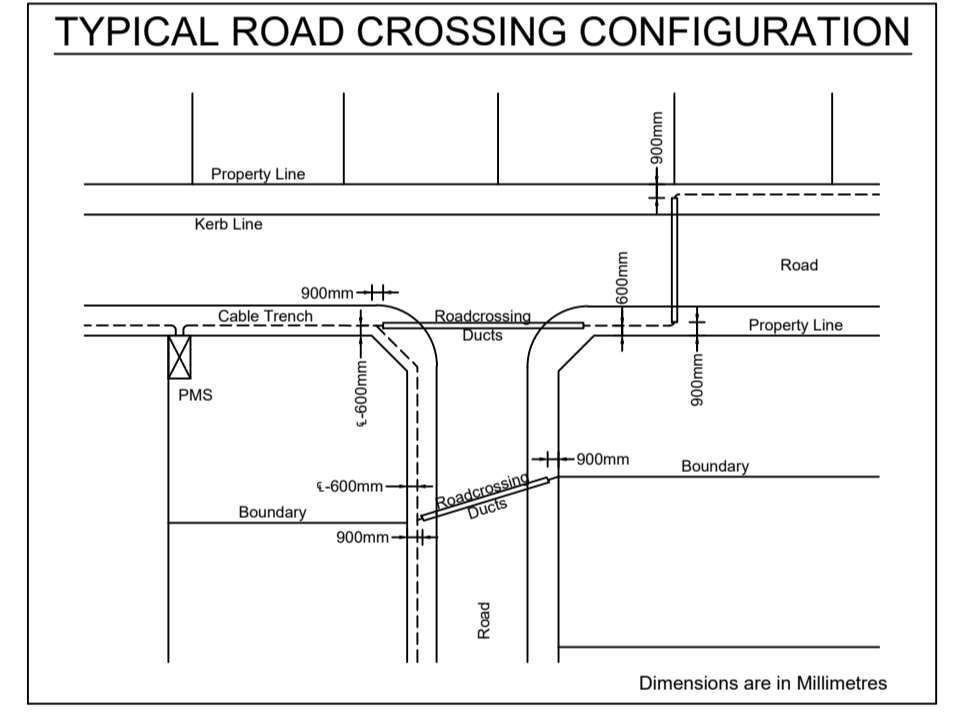
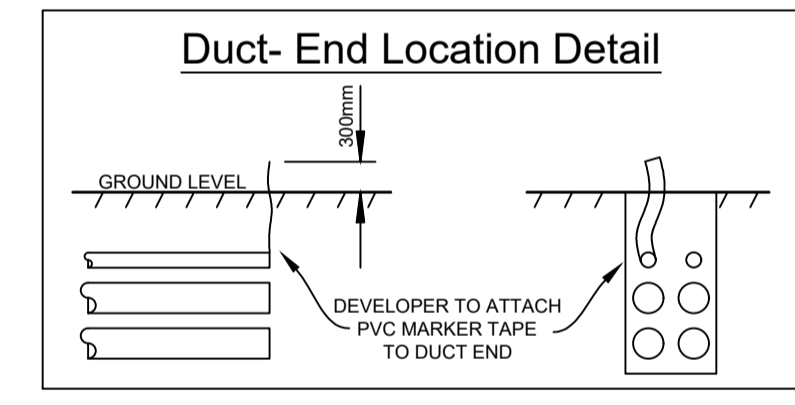
Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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



Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement			Duct Usage Charge				
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
1C - 1D	New Road Crossing	26m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
1H - 1L	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
1S - 1T	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2A - 2B	Existing Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2E - 2F	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2H - 2T	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2I - 2J	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2K - 2R	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2L - 2M	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
2N - 2O	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3E - 3V	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3G - 3W	New Road Crossing	22m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3 - 3Y	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3J - 3Z	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3L - 4B	New Road Crossing	18m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement			Duct Usage Charge				
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
3M - 4E	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3N - 3U	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
3P - 3T	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4F - 7L	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4H - 7K	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4J - 7J	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4L - 7I	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4L - 6G	New Road Crossing	26m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4N - 6F	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4P - 5C	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4R - 5B	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
4V - 5A	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
5E - 6D	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6G - 8A	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
5I - 5O	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Duct Breakdown Table - Continued										
Route	Configuration	Route Length	Duct Re-Imbursement			Duct Usage Charge				
			No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)	No. of 50mm Ducts	Amount (@ \$6/m)	No. of 125mm Ducts	Amount (@ \$23/m)
5J - 5N	New Road Crossing	17m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
5L - 5K	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6J - 7B	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6J - 6X	New Road Crossing	26m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6K - 6V	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6L - 6T	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6M - 6S	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6O - 6R	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
6B - 8C	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7A - 6Y	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
7D - 7F	New Road Crossing	16m	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Sub Totals			0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
Total			\$ 0			\$ 0				

Works Completed / Field Book

Constructed By: CJ DOYLE CONTRACTING

Works Completed: CHRIS JOWETT

Signature: C. JOWETT Date: 17/11/22

Inspected By: MICHAEL WIER

Signature: _____ Date: _____

Asset Recording

I: STEVE FRIDAY

of: CJ DOYLE CONTRACTING

Contact No: 8784-1922

Hereby certify that assets marked as-built on this drawing have been recorded in accordance with Endeavour Energy's Standard SAD 004.

Signature: S. FRIDAY Date: 17/11/22

Certified by Endeavour Energy

Amendment: _____

Date Approved: _____

Examiner's Signature: _____

Print Name: _____

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

Conduit / Cable Legend

- LV Cable - Direct Buried.
- HV Cable - Direct Buried.
- 50mm Duct - Spare.
- 50mm Duct - with Existing Cable.
- 50mm Duct - with New SL Cable.
- 125mm Duct - with Existing Cable.
- 125mm Duct - with New Cable.
- 125mm Duct - Spare.

