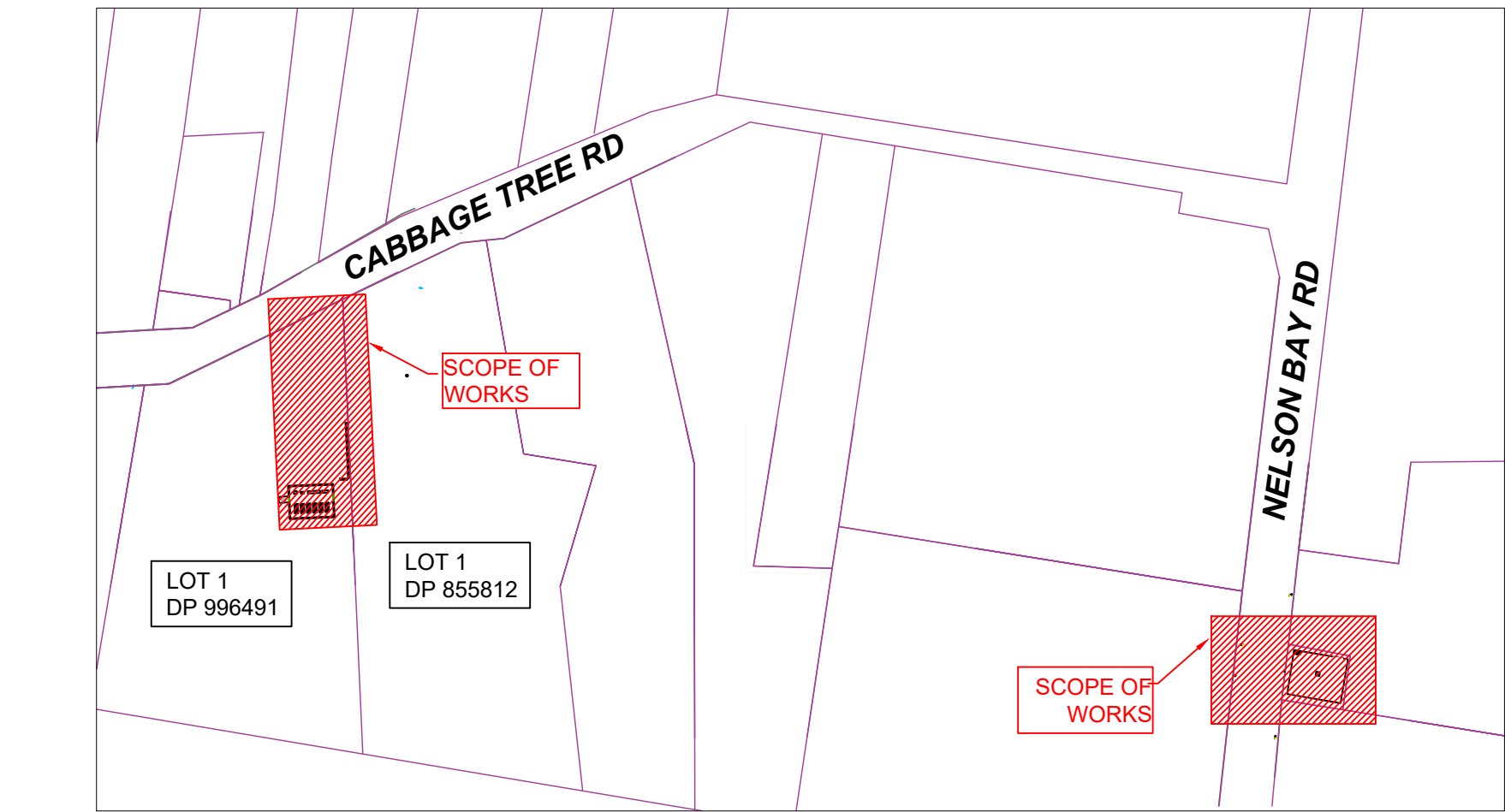
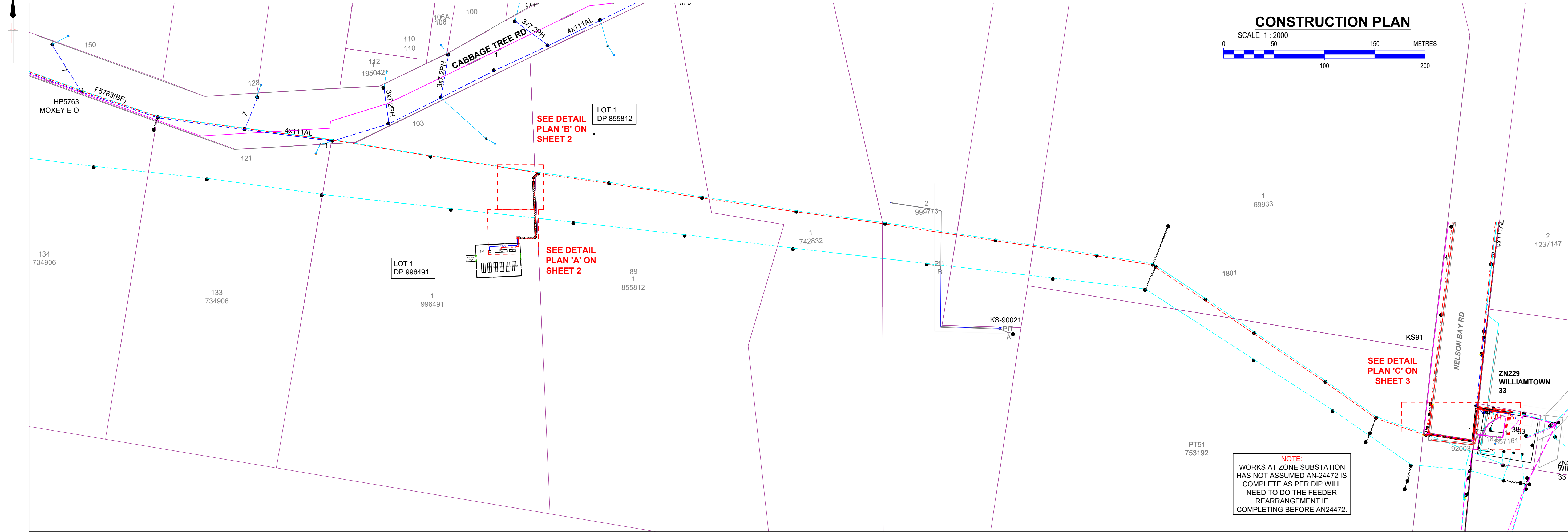


CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATION. PHONE DIAL-BEFORE-YOU-DIG ON TELEPHONE 1100 OR AT www.byda.com.au

CONSTRUCTION PLAN

SCALE 1:2000
0 50 100 150 200 METRES



LOCALITY MAP

NOT TO SCALE

FAULT CURRENT (kA)			
?	?	?	?
3 PHASE	PHASE TO PHASE	PHASE TO GND (DESIGN)	PHASE TO GND (ACTUAL)
9.253 L -82.3°	8.021 L -52.4°	10.521 L -81.2°	2.833 L -17.2°

ALL WORKS TO COMPLY WITH AUSGRIDS NETWORK STANDARDS, UNLESS NETWORK STANDARD VARIATION IN ACCORDANCE WITH NS181 HAS BEEN APPROVED IN WRITING BY AUSGRID. IN THE EVENT OF A DISCREPANCY BETWEEN THIS CERTIFIED DESIGN AND AUSGRID'S NETWORK STANDARDS, THE NETWORK STANDARD REQUIREMENT SHALL PREVAIL.

HVC DETAILS	
SUBSTATION NAME:	CABBAGE TREE BATTERY
SUBSTATION NUMBER:	HC37272
ADDRESS:	103 CABBAGE TREE RD, WILLIAMTOWN
SUBSTATION TYPE:	IKR
SIZE (kVA):	N/A
VECTOR GROUP:	N/A
TAP SETTING:	N/A
HV SWITCHGEAR:	SCHNEIDER ELECTRIC RM6 RMICB
HV FUSE DETAILS:	N/A
LOAD CYCLE:	N/A
PHASING DETAIL:	N/A
CONFIGURE AS:	Dyn11: N/A
EARTHING REQUIREMENTS:	EARTHING AS PER DESIGN SHEET 6
HVC PIERING:	NS195 DRAWING NUMBER 258017
EASEMENT PLAN DETAIL:	AS PER SHEET 8 & 9



CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATING
Tel: 1100 www.byda.com.au

- This design cannot be used for construction purposes until the location of all existing services is verified.
- The information provided in this design must be checked on site and the most current information on the configuration of all services, including ausgrid's network, must be verified immediately before construction commences by contacting dial-before-you-dig by telephone on 1100 or at www.byda.com.au.
- Dial-before-you-dig information must not be older than 20 business days at the time of construction.
- Check for other services before boring or excavating

DESIGN NOTES

- THIS DRAWING TO BE READ IN CONJUNCTION WITH AND MUST COMPLY WITH AUSGRID'S NETWORK STANDARDS. REFER TO BUT NOT LIMITED TO: - NS104, NS113, NS116, NS130, NS156, NS114, NS127, NS129 & NS177.
- ALL SERVICE WORK TO BE DONE IN ACCORDANCE WITH AS3000:2007 AND THE N.S.W. SERVICE AND INSTALLATION RULES.
- ALL TRENCHING, PITS, CABLES & CONDUITS ARE TO BE SURVEYED MARKED, & PHOTOGRAPHED (INSPECTED BY COMPLIANCE OFFICER PRIOR TO BACKFILLING)
- CONSTRUCTOR IS TO ENSURE THAT ALL CABLES AND CONDUITS ARE INSTALLED RELATIVE TO FINAL LEVELS.
- DO NOT PLACE ANY RELIANCE ON ANY QUANTITIES OR DIMENSIONS GIVEN IN THIS DRAWING. QUANTITIES AND DIMENSIONS GIVEN IN THIS DRAWING ARE BASED ON DESIGN INFORMATION AND SITE CONDITIONS AT THE TIME OF DESIGN. AS QUANTITIES AND DIMENSIONS ARE SUBJECT TO CHANGE, THE BUILDER OF THIS PROJECT MUST CHECK ALL QUANTITIES AND DIMENSIONS ON THE SITE PRIOR TO TENDERING AND PRIOR TO CONSTRUCTION.
- THE PREPARATION OF THIS DESIGN, HAS BEEN UNDERTAKEN GIVING DUE CONSIDERATION TO THE EXISTING SERVICES. THE PROJECT CONSTRUCTOR IS, HOWEVER, WHOLLY RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF EXISTING SERVICES AND PERMANENT SURVEY MARKS BEFORE CONSTRUCTION COMMENCES, AND NO RESPONSIBILITY NOR LIABILITY WILL BE ACCEPTED BY THE DESIGNER OF THIS PROJECT FOR DAMAGE TO EXISTING SERVICES AS A RESULT OF THIS DESIGN.
- HAND EXCAVATION IS TO BE USED IN THE VICINITY OF EXISTING UNDERGROUND CONSTRUCTION.
- ALL CONDUITS ARE TO BE IN ACCORDANCE TO NS130.
- ACCREDITED DESIGNER TO BE CONTACTED REGARDING ISSUES RAISED WITH THIS DESIGN.
- CONSUMER MAINS LENGTH TO BE IN ACCORDANCE WITH AS3000.
- DUCT CONFIGURATIONS SHOWN ARE A GUIDE ONLY - REFER DBYD SEARCHES AND AUSGRID UNDERGROUND MAPS FOR MORE DETAIL.
- HV MAINS TO HAVE MIN 600mm COVER IN FOOTPATH & MIN 750mm COVER IN ROADWAY. LV MAINS TO HAVE MIN 500mm COVER IN FOOTPATH & MIN 750mm COVER IN ROADWAY.
- TELSTRA AND OPTUS TO BE NOTIFIED OF PROPOSED WORK PRIOR TO CONSTRUCTION:
CONTACTS:
TELSTRA: f0204107@team.telstra.com (EMAIL)
OPTUS: dartnsw@optus.com.au (EMAIL)
- EXCAVATION NEAR TREES TO BE DONE IN ACCORDANCE WITH AS4970.

GENERAL NOTES

- CLAIMS FOR VARIATIONS TO THE COST OF NON-CONTESTABLE WORKS, INCLUDING ROCK EXCAVATION, WILL NOT BE ACCEPTED UNLESS VERIFIED ON SITE BY AUSGRID WHILE THE WORKS ARE IN PROGRESS.
- THE ASP1 IS RESPONSIBLE FOR UNDERTAKING SATISFACTORY CONSULTATION WITH ALL LOCAL CUSTOMERS WHO MAY POTENTIALLY BE AFFECTED BY THE CONSTRUCTION WORKS INCLUDING ALL ALTERATIONS TO SERVICE MAINS.
- THE ASP1 MUST MINIMISE THE IMPACT OF THE WORKS ON THE ELECTRICITY SUPPLY TO CUSTOMERS AND INTERRUPTIONS TO SUPPLY MUST BE AVOIDED WHEREVER POSSIBLE. AT LEAST FOUR (4) CLEAR BUSINESS DAYS NOTICE MUST BE PROVIDED TO ALL AFFECTED CUSTOMERS PRIOR TO ANY PLANNED INTERRUPTIONS TO THE ELECTRICITY SUPPLY. NOTICE MUST BE IN WRITING IN ACCORDANCE WITH CLAUSE 90 OF THE NATIONAL ENERGY RETAIL RULES.
- SPECIFIC PRIOR APPROVAL MUST BE SOUGHT FROM AUSGRID FOR ANY PLANNED ELECTRICITY SUPPLY INTERRUPTIONS WHERE THE PLANNED INTERRUPTION WILL EXCEED ONE (1) HOUR IN DURATION OR THE DURATION WILL BE LESS THAN ONE HOUR, BUT A SUITABLE TIME FOR THE INTERRUPTION CANNOT BE MUTUALLY AGREED TO WITH THE AFFECTED CUSTOMER(S).
- THE ASP1 IS TO MAINTAIN ADEQUATE PUBLIC LIGHTING LEVELS FOR THE DURATION OF THE WORKS. IF NECESSARY, THE ASP1 IS TO ARRANGE FOR SUITABLE TEMPORARY STREET LIGHTING TO BE PROVIDED UNTIL PERMANENT LIGHTING IS RE-ESTABLISHED.
- THE ASP1 IS TO CO-ORDINATE THE MODIFICATION AND TESTING OF ANY REQUIRED PROTECTION RELAY WITH THE AUSGRID TECHNICAL SERVICES GROUP
- THE ASP1 IS REQUIRED TO COMPLY WITH THE CORRECT PROCEDURE(S) FOR WORKING WITH AND/OR NEAR ASBESTOS MATERIAL (REFER TO AUSGRID NUS 211 - WORKING WITH ASBESTOS PRODUCTS).
- THIS INFORMATION INCLUDES DATA FROM THE NSW DIGITAL CADASTRAL DATABASE BY LAND AND PROPERTY INFORMATION © 2016, USED UNDER CREATIVE COMMONS LICENCE VERSION 4.0.
- FOR IDENTIFICATION AND JOINTING PURPOSES, ALL CABLE ENDS SHALL BE LABELLED AT THE TERMINATION LOCATIONS AND IN JOINT BAYS DURING CABLE INSTALLATION. THE CABLES MUST BE LABELED AS PER CERTIFIED DESIGN DRAWING

ASP LEVEL 2 WORK

- ALL LEVEL 2 ASP WORK DEPICTED ON THIS DRAWING IS SHOWN FOR INFORMATION PURPOSES ONLY AND DOES NOT FORM PART OF THE CERTIFIED DESIGN.

CAD DRAWING		AMENDMENTS		PROPOSED		EXISTING		REMOVE		PROPOSED		EXISTING	
Pole	○	Pole-to be removed	●	UG OH Pot End	◐	UG OH Pot End	◑	OH lines	---	Pole Sub	●	Pole Sub	●
SL Standard	⊗	USL	⊗	Joint	◐	Joint	◑	LV	---	Ground Sub	●	Ground Sub	●
Pillar Standard	⊗	ABS	⊗	Conduit	▬	Conduit	▬	SL	---	Node Point	●	Node Point	●
LV Pillar	⊗	IDT	⊗	OH Lines	---	UG Cables	---	UG lines	---	Open Point	●	Open Point	●
LV Link Pillar	⊗	Kiosk Sub	⊗	-HV-	---	-HV-	---	HV	---	Mains Section Change	●	Mains Section Change	●
Streetlight	○	Chamber Sub	⊗	-LV-	---	-LV-	---	LV	---	LV Links	●	LV Links	●
Streetlight-PEC	○	Pole Sub	⊗	-SL-	---	-SL-	---	SL	---	OH Mains	●	OH Mains	●
Streetlight-replacement	○	Two Pole Sub	⊗	-SV-	---	-SV-	---	HV	---	Joints	●	Joints	●

ASSOCIATED DRAWINGS



ASP REF: SY230159 - R08

CERTIFICATION NUMBER

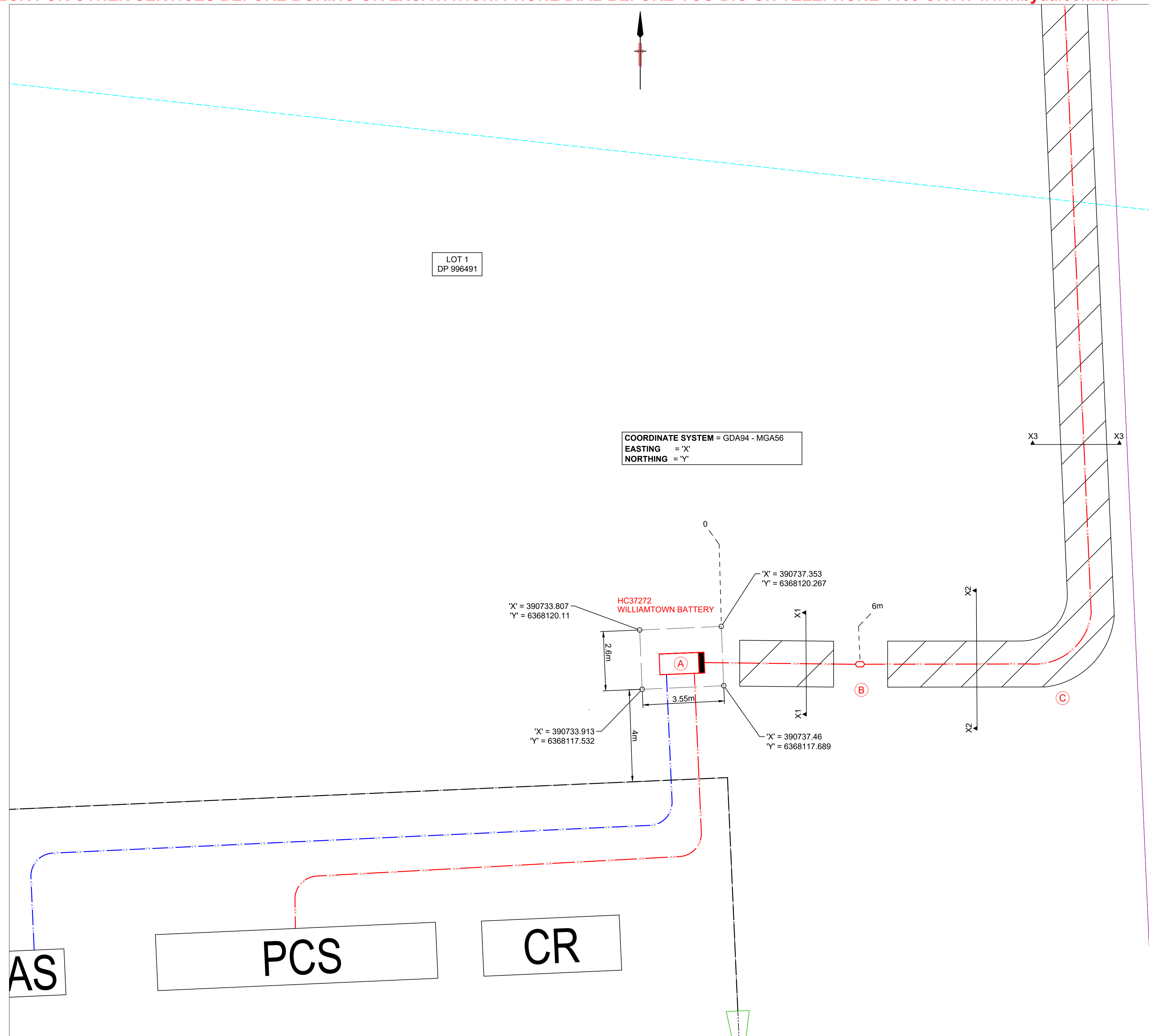
DESIGNED BY	JAMIE ANTONUCCIO
AUTH NO.	6245/2
SUBMIT DATE	06.03.2024
LGA	PORT STEPHENS
MAP REF.	UDB or STREET DIR. REF
AUSGRID REF.	KS82
PRJ/TRA No.	XCW027893

/

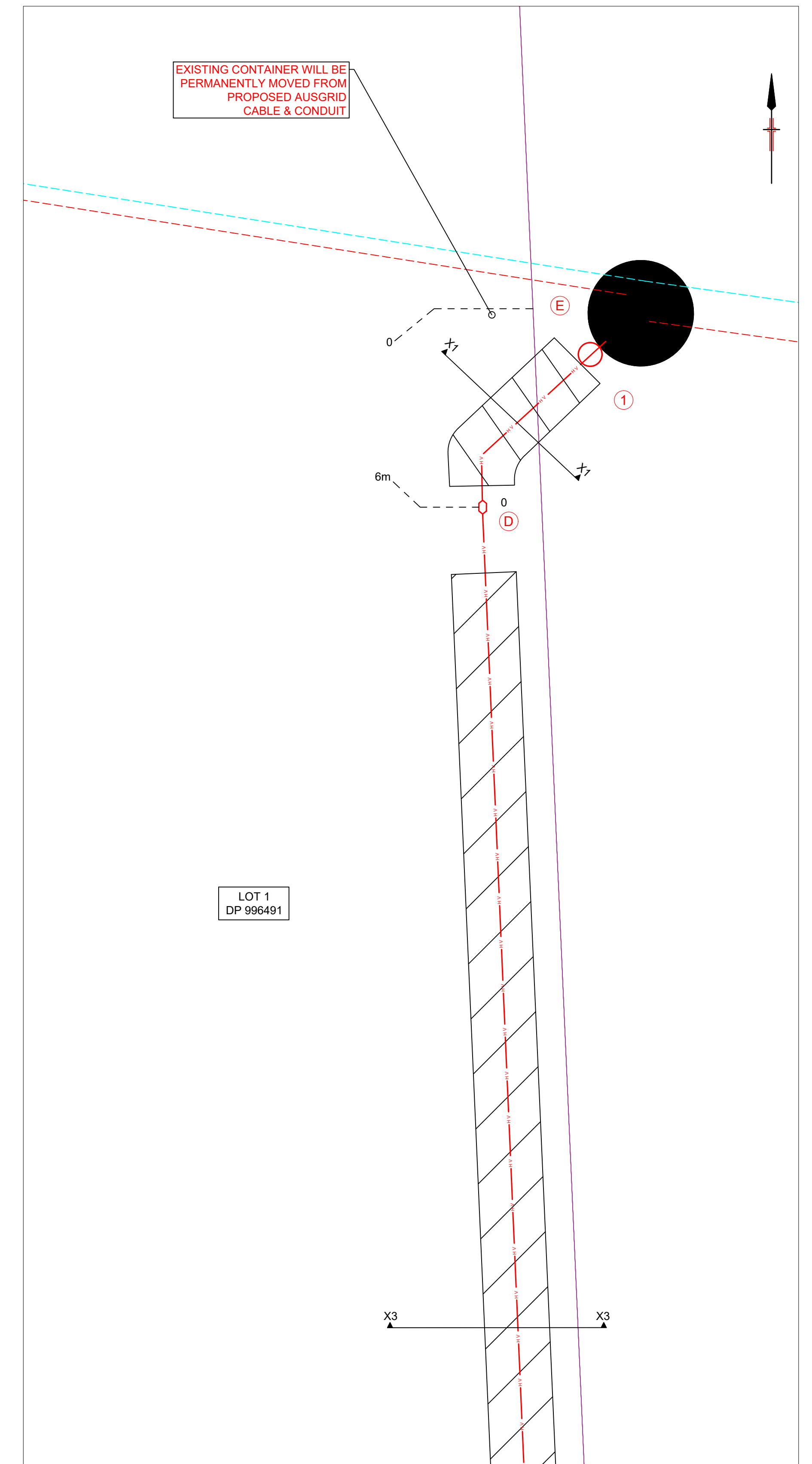
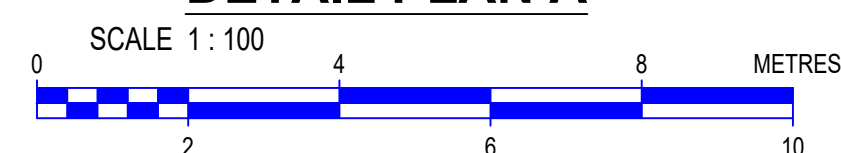
PROPOSED 11kV HVC
FOR HV SUPPLY
LOT 1 DP 996491
103 CABBAGE TREE RD
WILLIAMTOWN NSW 2318

SIZE A1
SHEETS 1 of 10
AMD 0

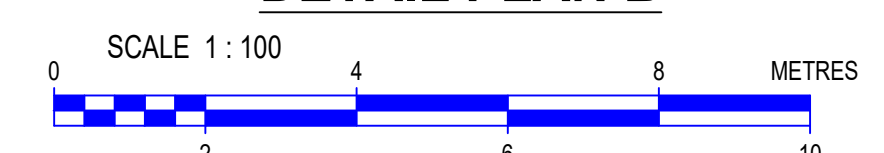
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DETAIL PLAN A



DETAIL PLAN B



	PROPOSED	EXISTING		PROPOSED	EXISTING		PROPOSED	EXISTING		REMOVE		PROPOSED	EXISTING
Pole			Pole-to-be removed			UGOH Pot End	UGOH Pot End	Joint Sealed End	Joint Sealed End	OH Lines	Pole Sub		
SL Standard			USL			Conduit	OH Lines	UG Cables		UG Lines	Ground Sub		
Pillar Standard			ABS			Conduit	OH Lines	UG Cables		UG Lines	Node Point		
LV Pillar			IDT			Conduit	OH Lines	UG Cables		UG Lines	Open Point		
LV Link Pillar			Kiosk Sub			-HV- -HV-	-HV- -HV-	-HV- -HV-	-HV- -HV-	-HV- -HV-	Mains Section Change		
Streetlight			Chamber Sub			-LV- -LV-	-LV- -LV-	-LV- -LV-	-LV- -LV-	-LV- -LV-	LV Links		
Streetlight-PCC			Pole Sub			-SL- -SL-	-SL- -SL-	-SL- -SL-	-SL- -SL-	-SL- -SL-	OH Mains		
Streetlight-replacement			Two Pole Sub			-SV- -SV-	-SV- -SV-	-SV- -SV-	-SV- -SV-	-SV- -SV-	UG Mains		

ASSOCIATED DRAWINGS

 NORTHROP Sydney 345 George Street, Sydney, N.S.W. 2000 Fax: (02) 9231-1188 E-mail: sydney@northrop.com.au P.O. Box 10171 Australia Square, N.S.W. 1215 (02) 611 024 430	DESIGNED BY	JAMIE ANTONUCCIO
	AUTH NO.	6245/2
	SUBMIT DATE	06 03 2024
	LGA	PORIT STEPHENS
MAP REF.	UBD or STREET DIR. RE	
ASPD REF.	K582	
PRJ/TRAK NO.	XCW027893	
ASP REF.	SY230159 - R08	
CERTIFICATION NUMBER		###I##

PROPOSED 11kV HVC
FOR HV SUPPLY
LOT 1 DP 996491
103 CABBAGE TREE RD
WILLIAMTOWN NSW 2318
AUSGRID PROJECT No. AN-25076 SHEETS 2 of 10

CHECK FOR OTHER SERVICES BEFORE BORING OR EXCAVATION. PHONE DIAL-BEFORE-YOU-DIG ON TELEPHONE 1100 OR AT www.byda.com.au

DETAIL PLAN C
SCALE 1 : 200
METRES

SECTION X1
1 - 1 x 11kV 300CU1/TRIPLEX IN NEW 150MM CONDUIT
2 - SPARE NEW 150MM CONDUIT

SECTION X2
1 - 1 x 11kV 400AL3 IN NEW 150MM CONDUIT
2 - SPARE NEW 150MM CONDUIT

SECTION X3
1 - 1 x 11kV 400AL3 IN NEW 150MM CONDUIT
2 - SPARE NEW 150MM CONDUIT

UNDERBORE X4
1 - 1 x 11kV 300CU1 TRIPLEX IN 180MM PE CONDUIT
2 - SPARE 180MM PE CONDUIT
3 - SPARE 180MM PE CONDUIT
4 - SPARE 180MM PE CONDUIT

SECTION X5
1 - 1 x 11kV 300CU1 TRIPLEX IN NEW 150MM CONDUIT
2 - SPARE NEW 150MM CONDUIT

SECTION X6
1 - 1 x 11kV 300CU1 TRIPLEX IN NEW 150MM CONDUIT
2 - SPARE NEW 150MM CONDUIT

NORTHROP
Sydney
345 George Street, Sydney N.S.W. 2000
Ph: (02) 9241 4188 Fax: (02) 9241 4224
P.O. Box H171, Australia Square, N.S.W. 1215
Email: sydney@northrop.com.au AEN61 004 433 100

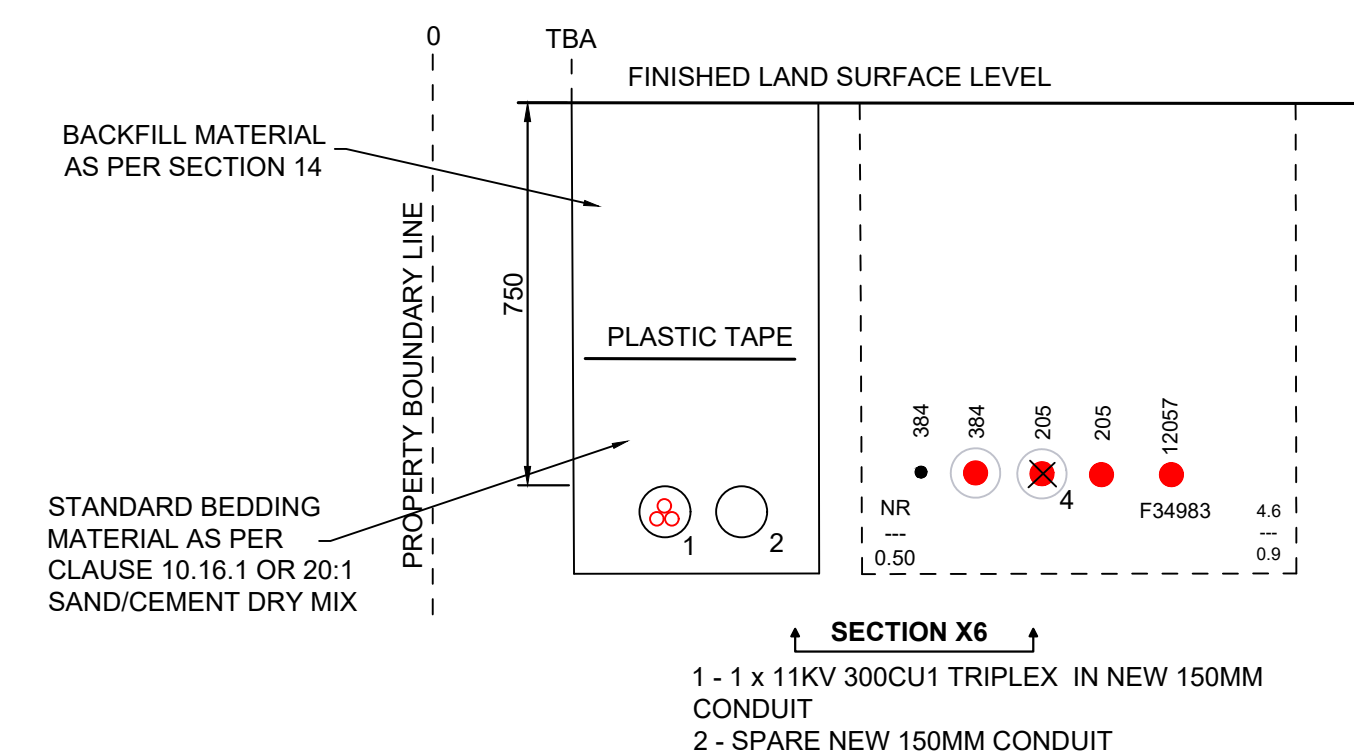
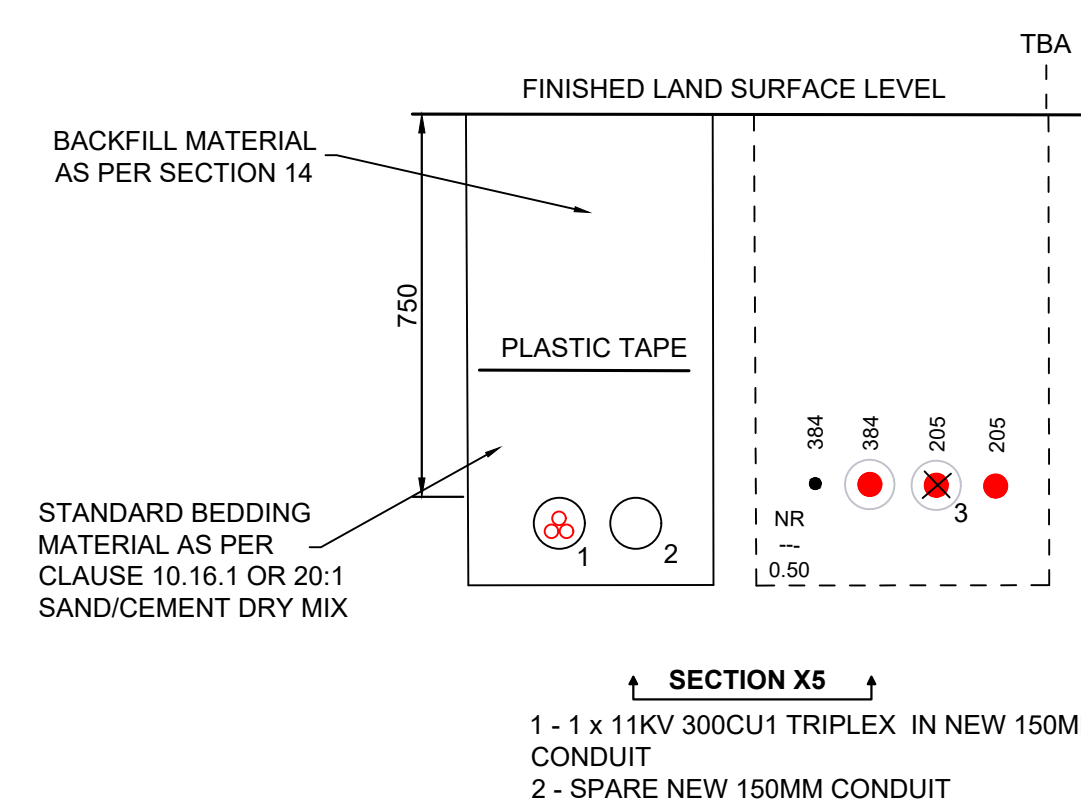
DESIGNED BY: JAMIE ANTONUCCIO
AUTH NO.: 6245/2
SUBMIT DATE: 06.03.2024
LGA: PORT STEPHENS
MAP REF.: UBD or STREET DIR. REF.
AUSGRID REF.: KS82
PRJTRAK No.: XCW027893

PROPOSED 11kV HVC FOR HV SUPPLY LOT 1 DP 996491 103 CABBAGE TREE RD WILLIAMTOWN NSW 2318

ASPD REF.: SY230159 - R08
CERTIFICATION NUMBER
/ #
SIZE: A1
AUSGRID PROJECT No.: AN-25076
SHEETS: 3 of 10
AMD. 0

SCALE 1 : 200

0 5 10 15 20



	PROPOSED	EXISTING		PROPOSED	EXISTING		PROPOSED	EXISTING		REMOVE		PROPOSED	EXISTING
Pole			Pole-to-be removed			UGOH Pot End	UGOH Pot End	Joint Sealed End	Joint Sealed End	OH Lines	Pole Sub		
SL Standard			USL			Conduit	OH Lines	UG Cables	OH Lines	UG Cables	LV	Ground Sub	
Pillar Standard			ABS			Conduit	OH Lines	UG Cables	OH Lines	UG Cables	SL	Node Point	
LV Pillar			IDT			Conduit	OH Lines	UG Cables	OH Lines	UG Cables	UG Lines	Open Point	
LV Link Pillar			Kiosk Sub			-HV-	-HV-	-HV-	-HV-	-HV-	LV	Mains Section Change	
Streetlight			Chamber Sub			-LV-	-LV-	-LV-	-LV-	-LV-	LV	LV Links	
Streetlight-PCC			Pole Sub			-SL-	-SL-	-SL-	-SL-	-SL-	SL	OH Mains	
Streetlight-replacement			Two Pole Sub			-SV-	-SV-	-SV-	-SV-	-SV-	SV	UG Mains	

ASSOCIATED DRAWINGS


NORTHROP

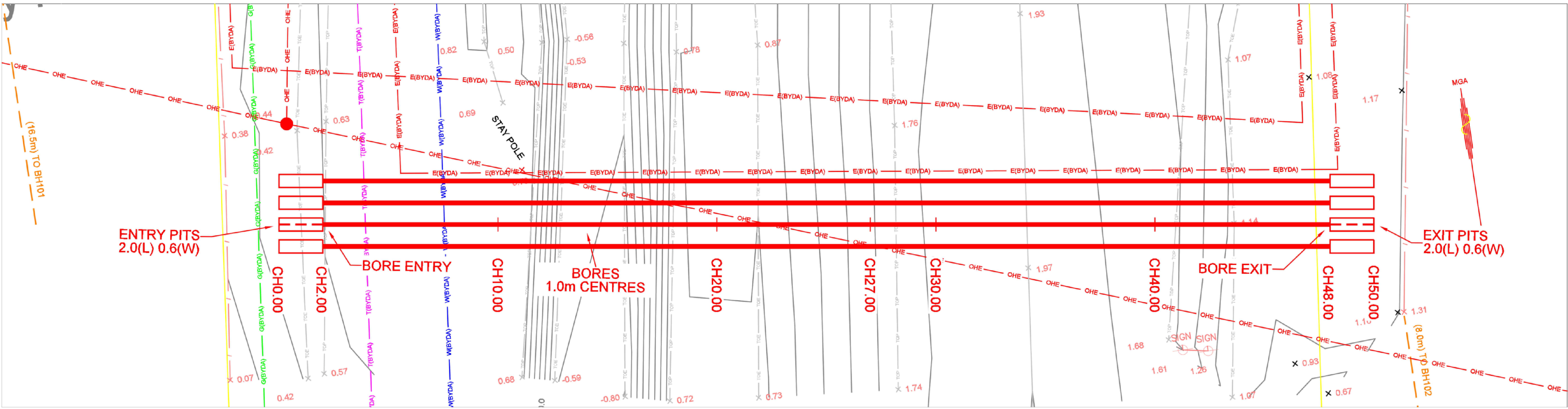
ASP REF.	SY230159 - R08
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DESIGNED BY	JAMIE ANTONUCCIO
AUTH NO.	6245/2
SUBMIT DATE	06.03.2024
LGA	PORT STEPHENS
MAP REF.	UBD or STREET DIR. RE
AUSGRID REF.	KS82
PRJTRAK No.	XCW027893

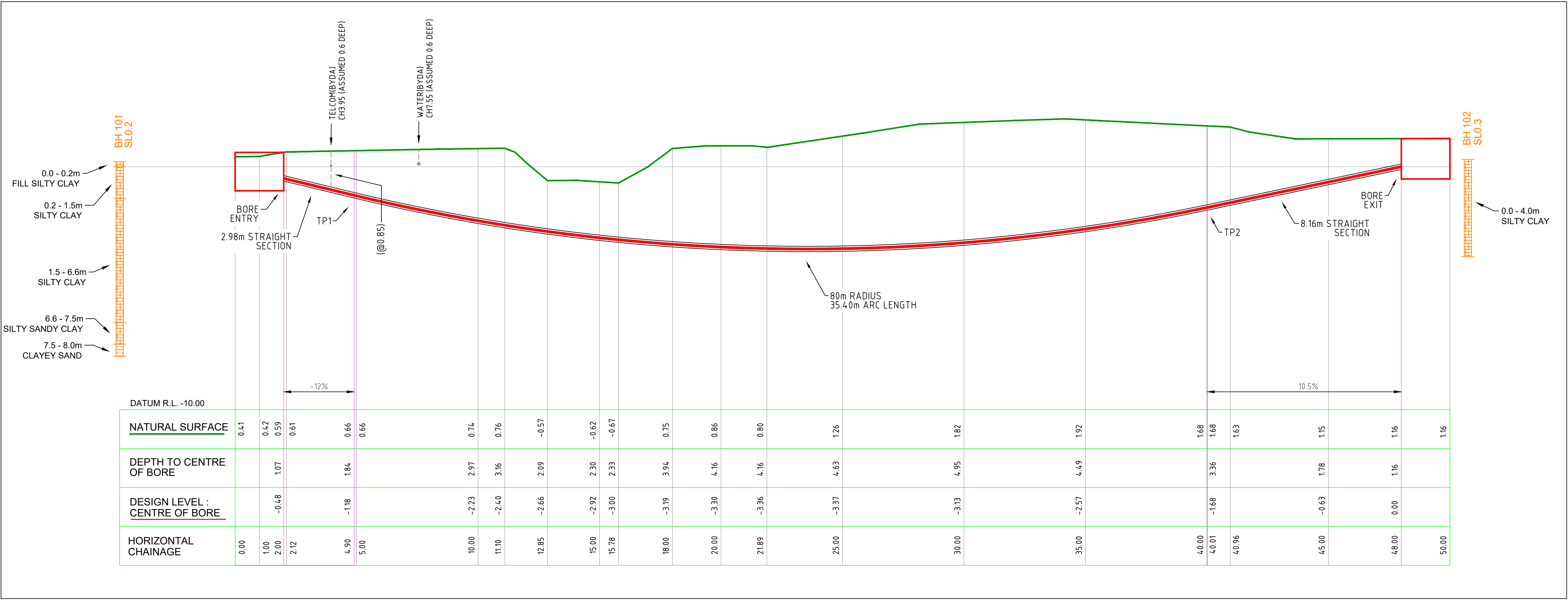
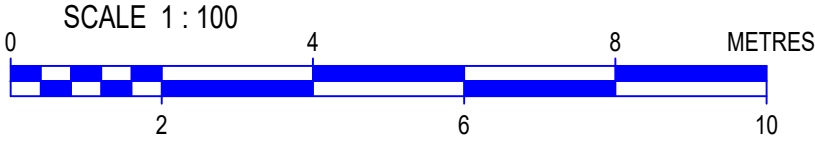
PROPOSED 11kV HVC
FOR HV SUPPLY
LOT 1 DP 996491
103 CABBAGE TREE RD
WILLIAMTOWN NSW 2318

SIZE	AUSGRID PROJECT No.	SHEETS	AMD.
A1	AN-25076	3 of 10	0

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ALIGNMENT PLAN



LINE TYPES

- FENCING
- CENTRELINE OF BITUMEN
- TOP OF BANK
- TOE OF BANK
- EDGE OF GRAVEL
- UNDERGROUND ELECTRICITY CABLE (BYDA)
- GAS MAIN (BYDA)
- OVERHEAD ELECTRICITY CABLE
- TELECOMMUNICATIONS CABLE (BYDA)
- WATER MAIN (BYDA)

LEGEND

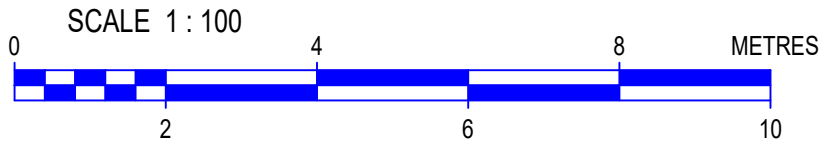
TREES

- TR TREE
- H HEIGHT OF TREE
- C SPREAD OF CANOPY
- D DIAMETER OF TRUNK

SYMBOLOLOGY

- ELECTRICAL POWER POLE
- ROAD SIGN

LONGSECTION PLAN



CAD DRAWING
20160817

AMENDMENTS

PROPOSED

EXISTING

REMOVE

PROPOSED

EXISTING

Pole

SL Standard

Pillar Standard

LV Link

Streetlight

Streetlight-PEC

Streetlight-replacement

Pole-to be removed

USL

ABS

IDT

Kiosk Sub

Chamber Sub

Pole Sub

Two Pole Sub

UGOH Pot End

Joint

Sealed End

UGOH Lines

UG Cables

OH Lines

UG Cables

OH lines

LV

SL

UG lines

HV

LV

SL

HV

LV

SL

Pole Sub

Ground Sub

Node Point

Open Point

Mains Section Change

LV Links

OH Mains

UG Mains

ASSOCIATED DRAWINGS

CERTIFICATION NUMBER

/

NORTHROP

385 George Street, Sydney, N.S.W. 2000

Ph: (02) 9241 4188 Fax: (02) 9241 4354 Email: sydney@northrop.com.au

P.O. Box 11171, Australia Square, N.S.W. 1515

DESIGNED BY

JAMIE ANTONUCCIO

AUTH NO.

6245/2

SUBMIT DATE

06.03.2024

LG

PORT STEPHENS

MAP REF.

UBD or STREET DIR. REF

AUSGRID REF.

KS82

PRJTRAK No.

XCW027893

PROPOSED 11kV HVC FOR HV SUPPLY

LOT 1 DP 996491

103 CABBAGE TREE RD

WILLIAMTOWN NSW 2318

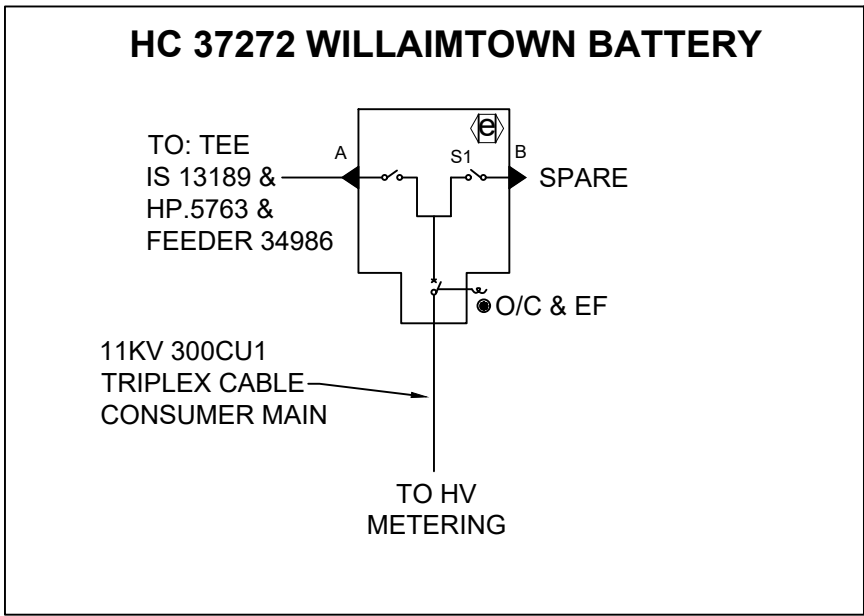
AN-25076

4 of 10

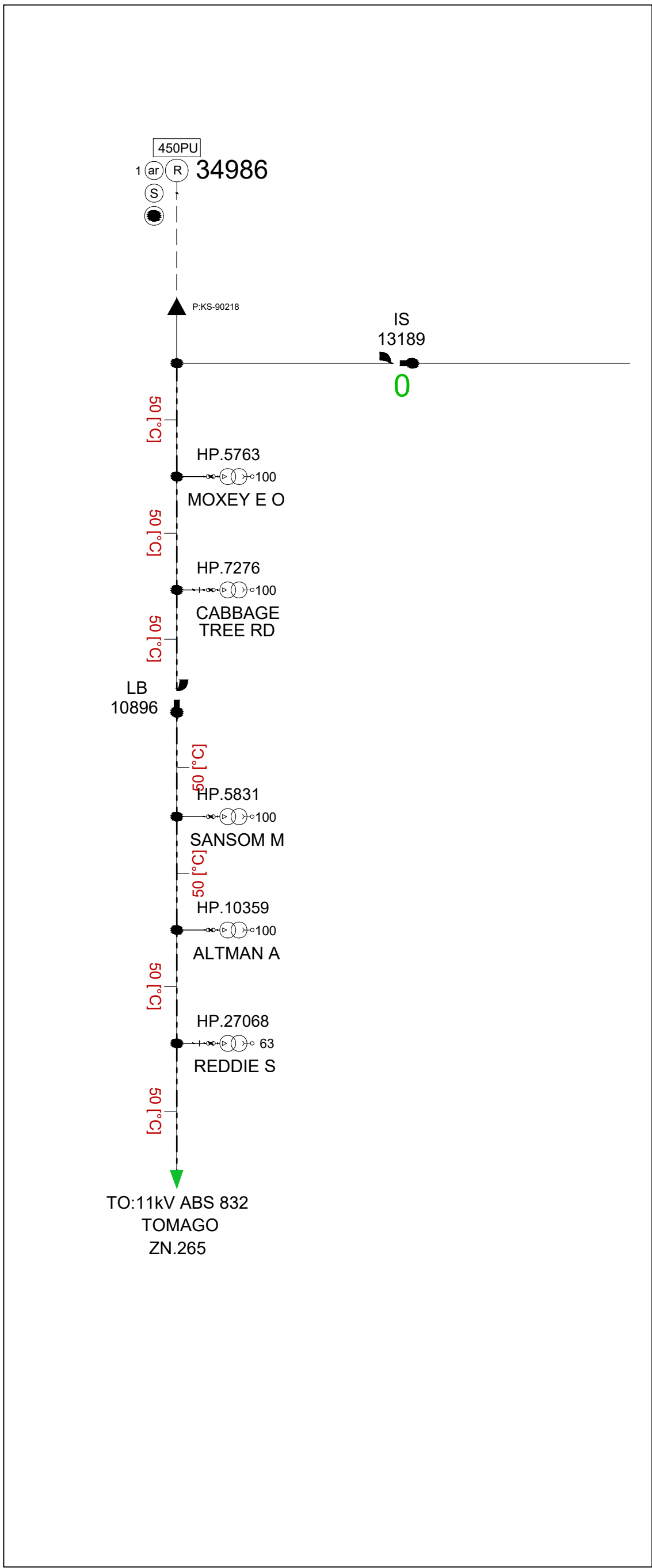
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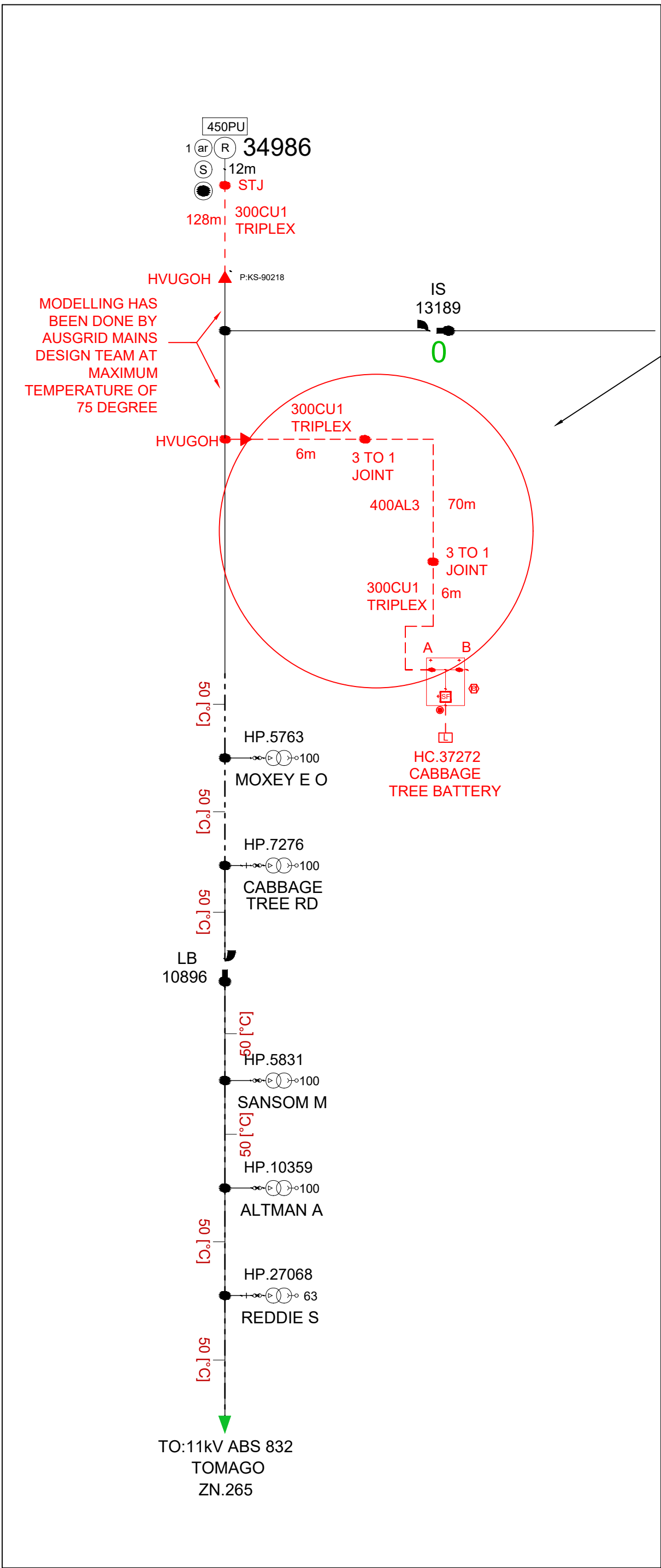
ZN.229 WILLIAMTOWN 11kV DISTRIBUTION



HV SCHEMATIC



EXISTING HV NETWORK DIAGRAM



PROPOSED HV NETWORK DIAGRAM

CAD DRAWING
AMENDMENTS

PROPOSED EXISTING
Pole
SL Standard
Pillar Standard
LV Link Pillar
Streetlight
Streetlight-PEC
Streetlight-replacement

PROPOSED EXISTING
Pole-to be removed
USL
ABS
IDT
Kiosk Sub
Chamber Sub
Pole Sub
Two Pole Sub

PROPOSED EXISTING
UGOH Pot End
Joint Sealed End
OH Lines UG Cables
OH Lines UG Cables

REMOVE
OH lines
LV
SL
UG lines
HV
LV
SL
Joints
LV
SL
UG Mains

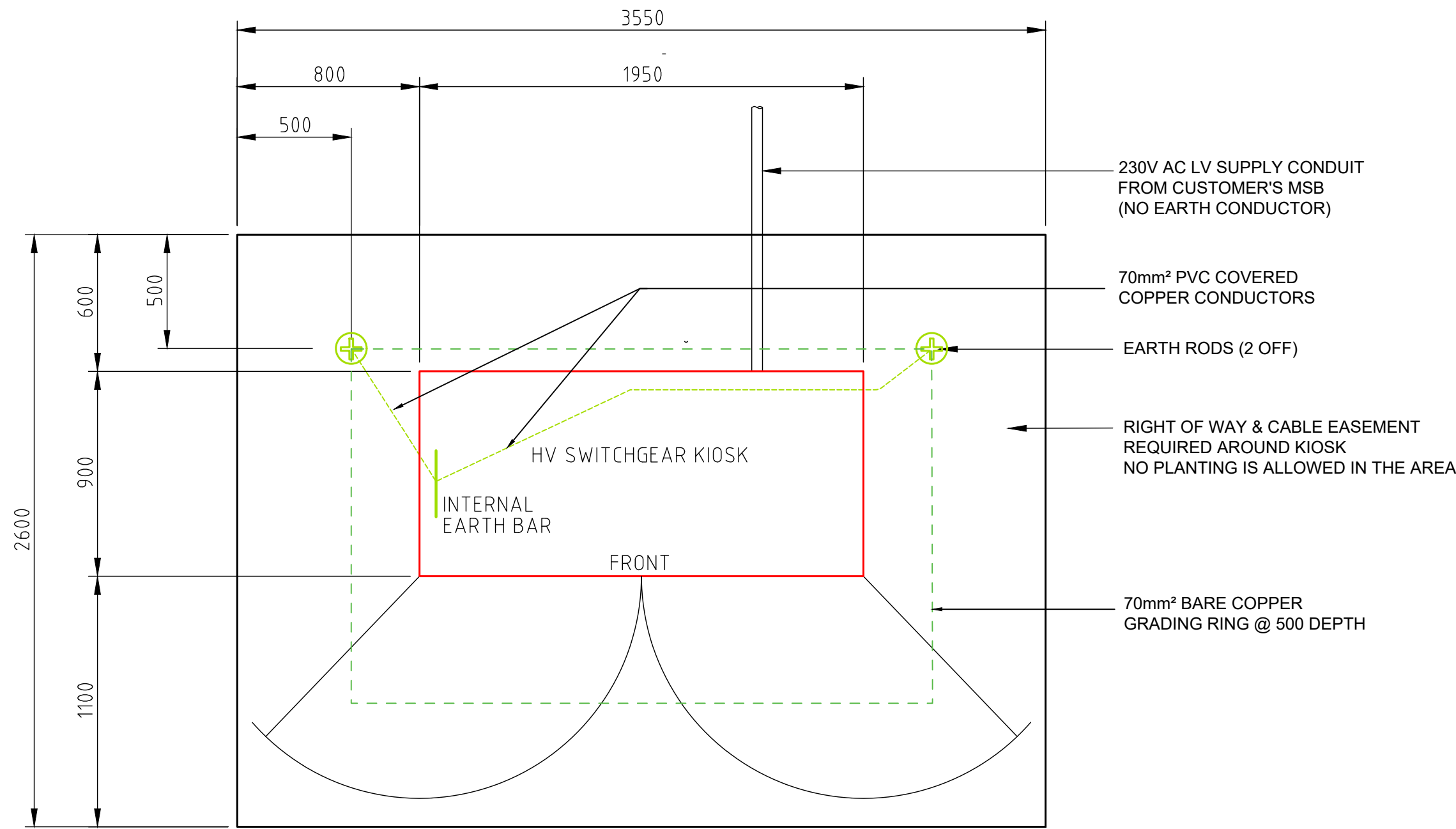
PROPOSED EXISTING
Pole Sub
Ground Sub
Node Point
Open Point
Mains Section Change
LV Links
OH Mains
UG Mains

NORTHROP
Sydney
345 George Street, Sydney, N.S.W. 2000
Ph: (02) 9241 4188
Fax: (02) 9241 4354
Email: sydney@northrop.com.au

DESIGNED BY
AUTH NO.
SUBMIT DATE
LGA
MAP REF.
AUSGRID REF.
PRJ/TRAK No.

PROPOSED 11kV HVC
FOR HV SUPPLY
LOT 1 DP 996491
103 CABBAGE TREE RD
WILLIAMTOWN NSW 2318
AUSGRID PROJECT No.
AN-25076
SHEETS
5 of 10
AMD
0

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**EARTHING DIAGRAM
FOR PROPOSED HVC KIOSK
HC37272**

EARTHING LEGEND

(REFER TO NS0116 FOR MORE DETAILS)

- 70mm² BARE COPPER GRADING RING
- 70mm² PVC COVERED COPPER CONDUCTOR
- ELECTRODE

EARTHING NOTES

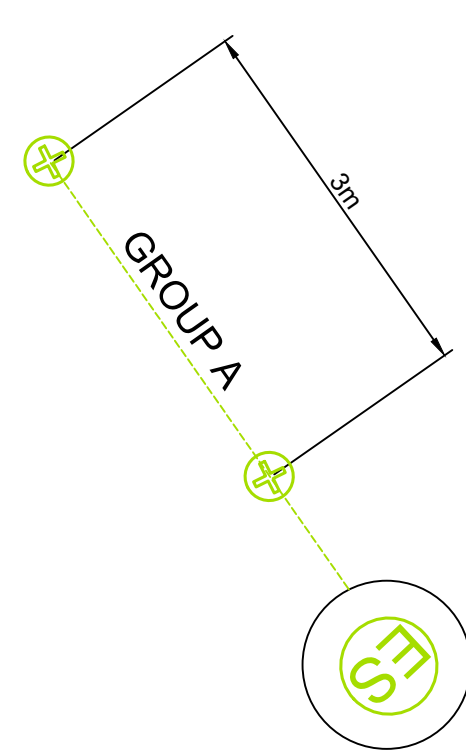
EARTHING IS TO BE INSTALLED AFTER THE SITE IS CLEARED

EARTHING DETAILS FOR KIOSK SUBSTATION IS INDICATIVE ONLY AS EACH KIOSK SITE REQUIRES A

SPECIFIC EARTHING DESIGN TO BE UNDERTAKEN AS INDICATED IN NETWORK STANDARD NS116

GENERAL		
EARTHING CONFIGURATION :	HV ONLY	
DESIGN CURVE :	NORMAL	
ELECTRODES INSTALLATION :	DRIVEN	
DESIGN		AS BUILT
HV ELECTRODES		
NUMBER OF ELECTRODES :	2	
DEPTH OF EACH ELECTRODE :	9.0	m
SPACING BETWEEN ELECTRODES :	2.5	m
MAX RESISTANCE - NORMAL :	1.51	ohms
MAX RESISTANCE - DROUGHT :	2.37	ohms
MEASURED :		ohms
MINIMUM SEPARATION DISTANCES *		
MINIMUM SEPARATION FROM TELCO ASSETS :	22.4	m
MINIMUM SEPARATION FROM LONG METALLIC ASSETS WITH HIGH LIKELIHOOD OF CONTACT:	7.400	m
AND/OR MEN ELECTRODES :	6.0	m
REFERENCE DRAWINGS FOR THIS INSTALLATION		
258017		

**EARTHING DIAGRAM
FOR PROPOSED HV UGOH POLE
KS-80263**



EARTHING LEGEND

(REFER TO NS0116 FOR MORE DETAILS)

- BLACK INSULATED 70mm² STRANDED COPPER CONDUCTOR
- ELECTRODE

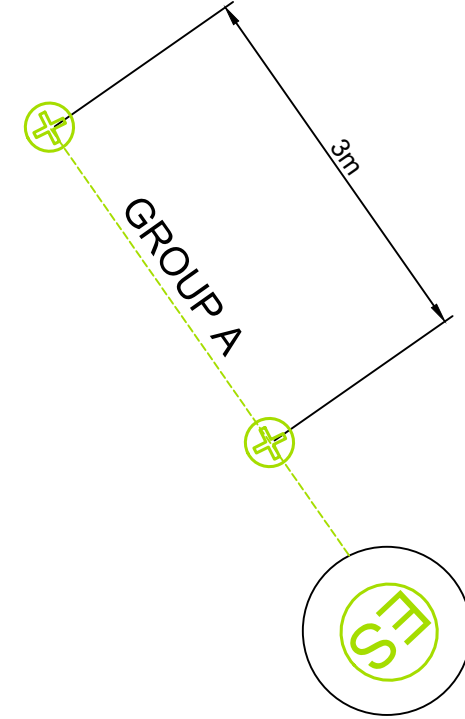
EARTHING NOTES

EARTHING IS TO BE INSTALLED AFTER THE SITE IS CLEARED

EARTHING DETAILS FOR KIOSK SUBSTATION IS INDICATIVE ONLY AS EACH KIOSK SITE REQUIRES A

SPECIFIC EARTHING DESIGN TO BE UNDERTAKEN AS INDICATED IN NETWORK STANDARD NS116

**EARTHING DIAGRAM
FOR PROPOSED HV UGOH POLE
KS - 90218**



GENERAL		
EARTHING CONFIGURATION :	HV ONLY	
DESIGN CURVE :	NORMAL	
ELECTRODES INSTALLATION :	DRIVEN	
DESIGN		AS BUILT
HV ELECTRODES		
NUMBER OF ELECTRODES :	2	
DEPTH OF EACH ELECTRODE :	9.0	m
SPACING BETWEEN ELECTRODES :	3	m
MAX RESISTANCE - NORMAL :	1.48	ohms
MAX RESISTANCE - DROUGHT :	2.33	ohms
MEASURED :		ohms
MINIMUM SEPARATION DISTANCES *		
MINIMUM SEPARATION FROM TELCO ASSETS :	22.5	m
MINIMUM SEPARATION FROM LONG METALLIC ASSETS WITH HIGH LIKELIHOOD OF CONTACT:	7.300	m
AND/OR MEN ELECTRODES :	6.0	m
REFERENCE DRAWINGS FOR THIS INSTALLATION		
160354		

CAD DRAWING
20160817

AMENDMENTS

PROPOSED
Pole
SL Standard
Pillar Standard
LV Link Pillar
Streetlight
Streetlight-PEC
Streetlight-replacement

EXISTING
Pole
USL
ABS
IDT
Kiosk Sub
Chamber Sub
Pole Sub
Two Pole Sub

PROPOSED
Pole-to be removed
USL
ABS
IDT
Kiosk Sub
Chamber Sub
Pole Sub
Two Pole Sub

EXISTING
UGOH Pot End
Joint Sealed End
Conduit
OH Lines
UG Cables
OH Lines
UG Cables

REMOVE
OH lines
LV
SL
UG lines
HV
LV
SL
Joints
LV
SL
UG Mains

PROPOSED
Pole Sub
Ground Sub
Node Point
Open Point
Mains Section Change
LV Links
OH Mains
UG Mains

EXISTING
Pole Sub
Ground Sub
Node Point
Open Point
Mains Section Change
LV Links
OH Mains
UG Mains

ASSOCIATED DRAWINGS

NORTHROP
Sydney
300 George Street, Sydney, N.S.W. 2000
Ph: (02) 9241 4188
Fax: (02) 9241 4324
Email: sydney@northrop.com.au
P.O. Box 11171, Australia Square, N.S.W. 1215
Astr 61 004 433 100

DESIGNED BY
AUTH NO.
SUBMIT DATE
LGA
MAP REF.
AUSGRID REF.
PRJ/TRAK No.

JAMIE ANTONUCCIO
6245/2
06.03.2024
PORT STEPHENS
UBD or STREET DIR. REF
KS82
XCW027893

PROPOSED 11kV HVC
FOR HV SUPPLY
LOT 1 DP 996491
103 CABBAGE TREE RD
WILLIAMTOWN NSW 2318

SIZE
A1

AUSGRID PROJECT No.
AN-25076

SHEETS
7 of 10

AMD
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