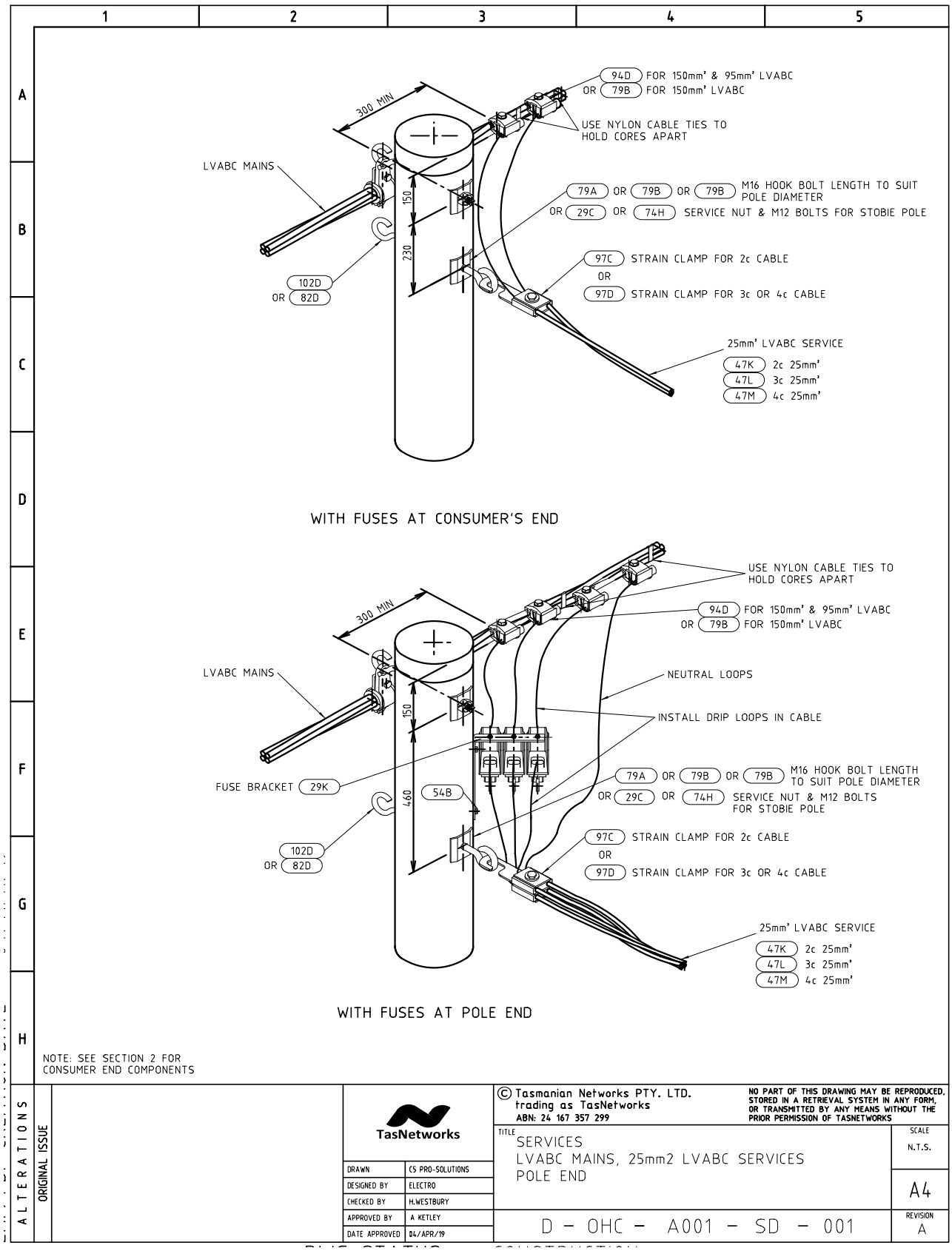
SECTION 1 – SERVICES

VERSION 2.0

1. SECTION 1 – SERVICES

1.1 Mains Pole End Service Constructions

1.1.1 LVABC Mains to 25mm^2 Service – Pole End



LVABC Mains to 25mm^2 Service – Materials List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
SERV/25/1/PLM	S	97C	145606	Service Strain Clamp 2c x 25mm2 AL XLPE	1
1 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94D	145619	IPC 25-95mm2 main 6-35mm2 tee	2 (or AR)
		94G	145659	IPC 50-150mm2 main 6-35mm2 tee	AR
Consumer End		97E	145663	Service Strain Insulated Clamp 2c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	221760	Service Fuse 100amp Michaud	1
SERV/25/2/PLM	S	97D	145605	Service Strain Clamp 4c x 25mm2 AL XLPE	1
2 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94D	145619	IPC 25-95mm2 main 6-35mm2 tee	3 (or AR)
		94G	145659	IPC 50-150mm2 main 6-35mm2 tee	AR
Consumer End		97F	145664	Service Strain Insulated Clamp 4c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	32159	Bolt Hex M8 X 150 GMS	1
			221760	Service Fuse 100amp Michaud	2
		100D	168017	End Cap No.2 8/17mm dia heatshrink	2
SERV/25/3/PLM	S	97D	145605	Service Strain Clamp 4c x 25mm2 AL XLPE	1
3 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94D	145619	IPC 25-95mm2 main 6-35mm2 tee	3 (or AR)
		94G	145659	IPC 50-150mm2 main 6-35mm2 tee	AR
Consumer End		97F	145664	Service Strain Insulated Clamp 4c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	32159	Bolt Hex M8 X 150 GMS	1
			221760	Service Fuse 100amp Michaud	3

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS | ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

TITLE: SERVICES 25mm2
LVABC MAINS, POLE END LVABC SERVICES
SERVICE MATERIAL LIST

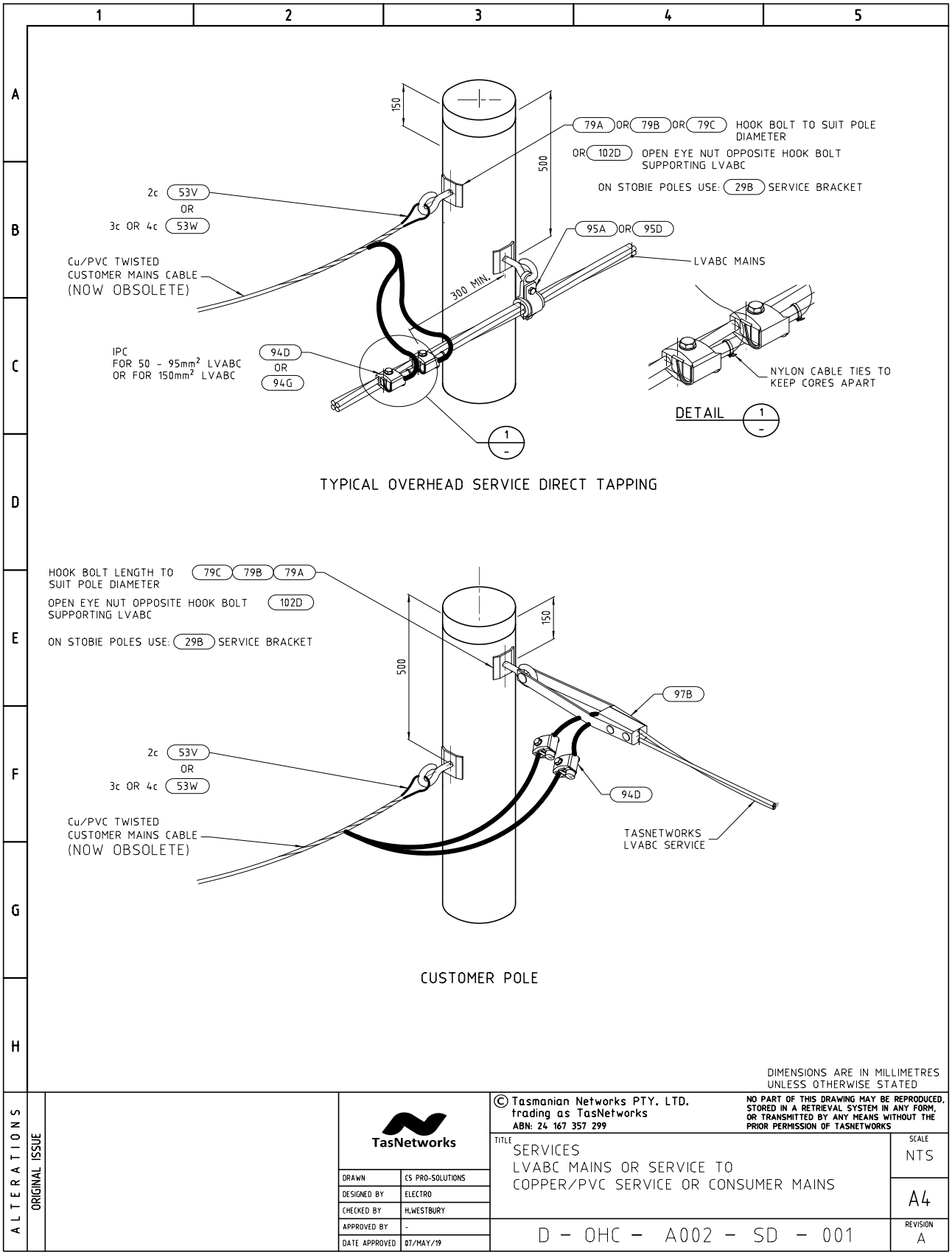
SCALE: NTS

A4

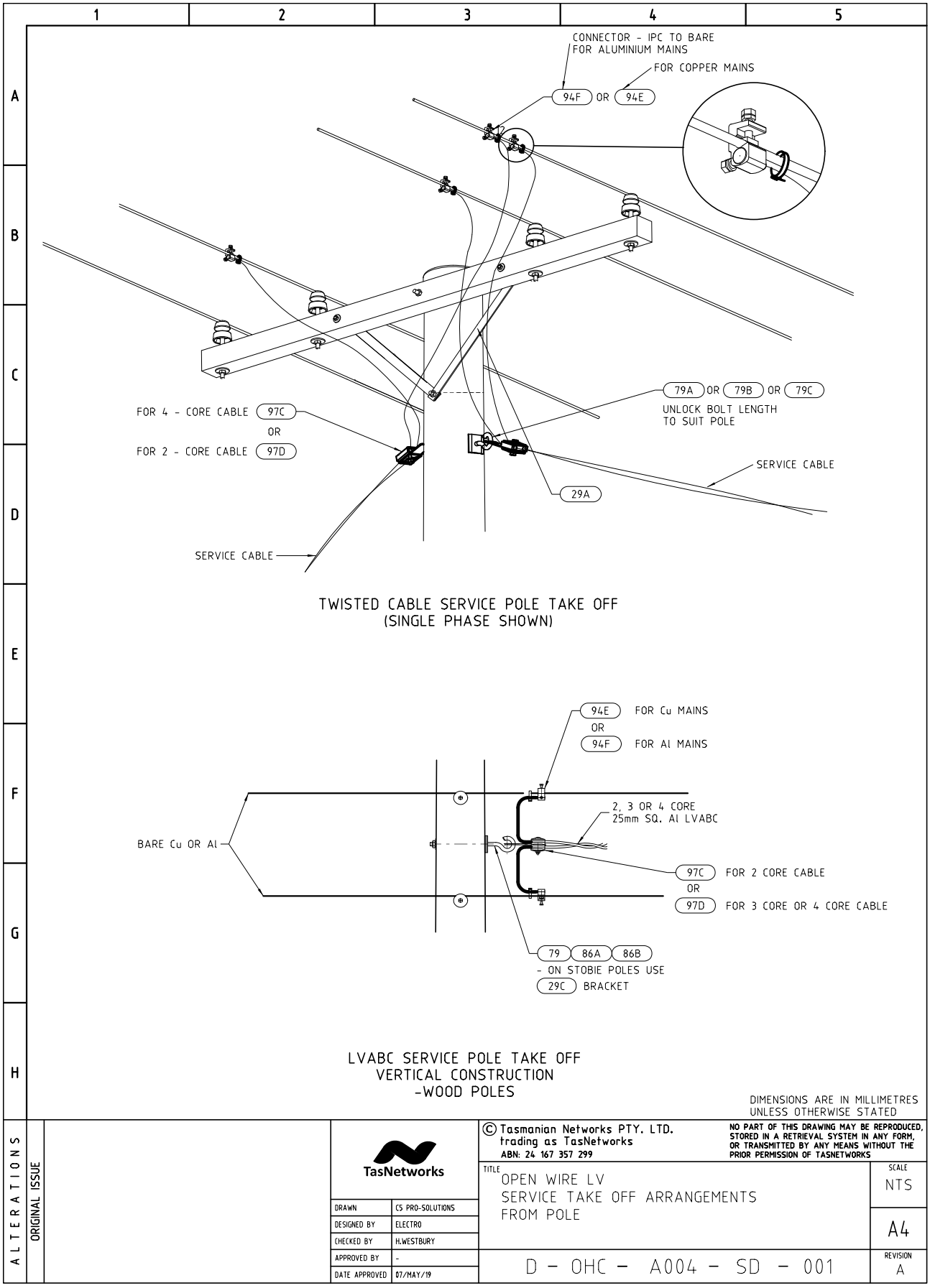
D – OHC – A001 – SD – 002

REVISION: A

1.1.2 LVABC Mains / Service to Copper/PVC Service or Consumer Mains



1.1.3 Open Wire Mains to 25mm^2 LVABC Service from Pole



Open Wire Mains to 25mm^2 LVABC Service from Pole – Material List

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
SERV/25/1/PLM	S	97C	145606	Service Strain Clamp 2c x 25mm2 AL XLPE	1
1 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94F	145662	IPC Al bare main 6-35mm2 tee	2 (or AR)
		94E	145655	IPC Cu bare main 6-35mm2 tee	AR
Consumer End		97E	145663	Service Strain Insulated Clamp 2c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	221760	Service Fuse 100amp Michaud	1
SERV/25/2/PLM	S	97D	145605	Service Strain Clamp 4c x 25mm2 AL XLPE	1
2 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94F	145662	IPC Al bare main 6-35mm2 tee	3 (or AR)
		94E	145655	IPC Cu bare main 6-35mm2 tee	AR
Consumer End		97F	145664	Service Strain Insulated Clamp 4c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	32159	Bolt Hex M8 X 150 GMS	1
			221760	Service Fuse 100amp Michaud	2
		100D	168017	End Cap No.2 8/17mm dia heatshrink	2
SERV/25/3/PLM	S	97D	145605	Service Strain Clamp 4c x 25mm2 AL XLPE	1
3 phase - excludes cable		79B	325631	Bolt Open Eye M16 X 350	1 (or AR)
Pole End		79A	325630	Bolt Open Eye M16 X 250	AR
		79C	325632	Bolt Open Eye M16 X 400	AR
		102D	325619	Open Eye Nut M16	AR
		82A	40441	Nut M16	1 (or AR)
		94F	145662	IPC Al bare main 6-35mm2 tee	4 (or AR)
		94E	145655	IPC Cu bare main 6-35mm2 tee	AR
Consumer End		97F	145664	Service Strain Insulated Clamp 4c x 25mm2 AL XLPE	1
		29B	323744	Service Bracket House End (Type 2)	1
		29K	323401	Service Fuse Bracket 3 ph Michaud	1
		75N	32288	Bolt Hex M16 X 350	2
		84B	50226	Coach Screw M10 X 65	2
		94K	145654	IPC - Service Neutral Connector (House End)	1 (or AR)
		#N/A	32159	Bolt Hex M8 X 150 GMS	1
			221760	Service Fuse 100amp Michaud	3

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

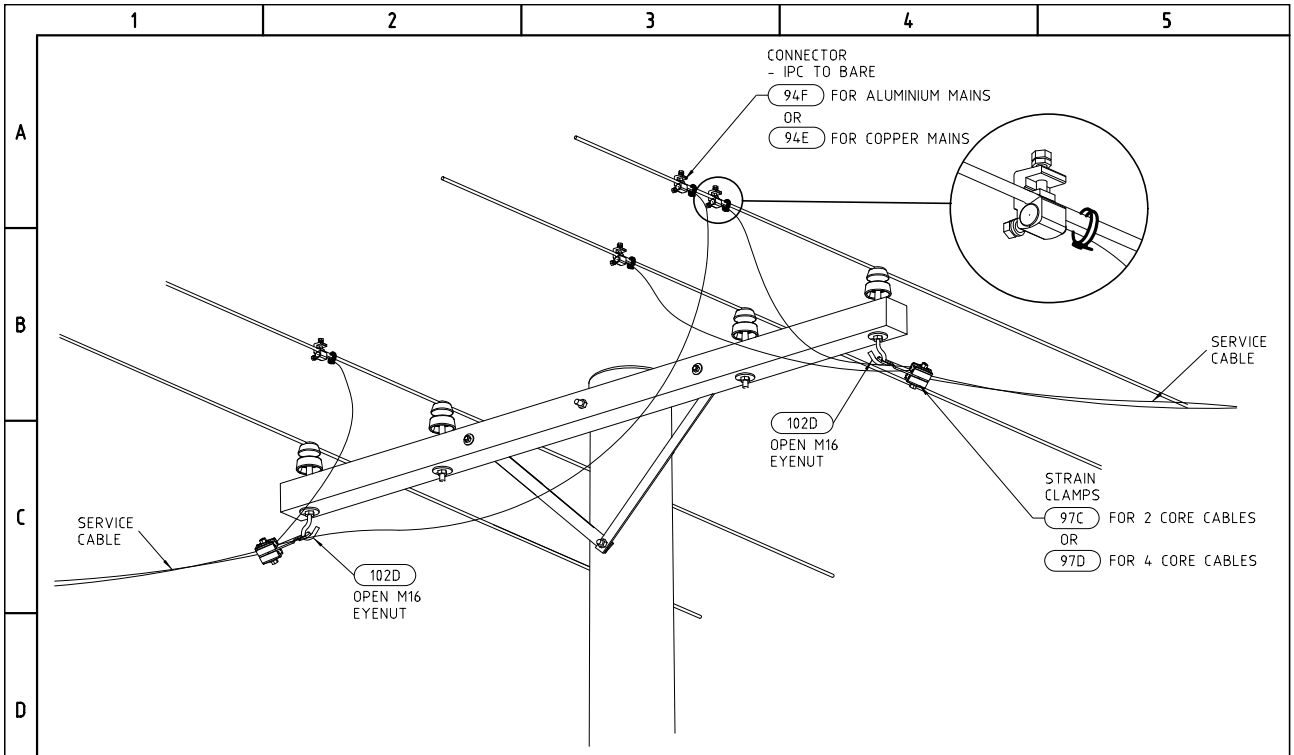
DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/2019

TITLE
OPEN WIRE LV SERVICE
TAKE OFF ARRANGEMENTS FROM POLE
MATERIAL LIST

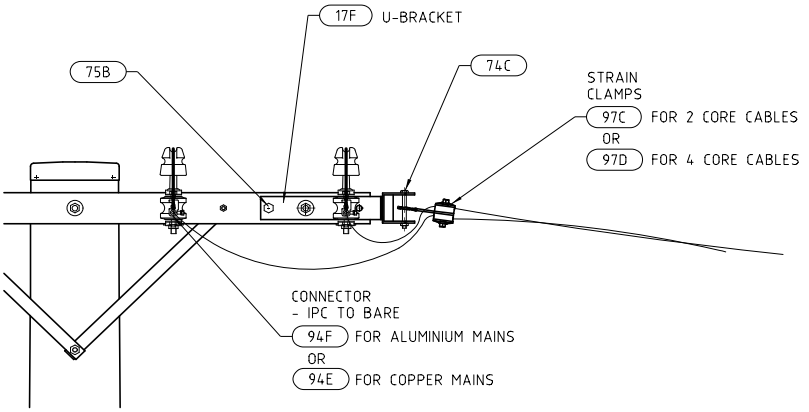
SCALE NTS
A4
REVISION A

D - OHC - A004 - SD - 002

1.1.4 Open Wire Mains to 25mm^2 LVABC Service from Crossarm



TWISTED CABLE SERVICE POLE TAKE OFF
FROM CROSSARM - EYENUTS FITTED TO INSULATOR STEMS
(SINGLE PHASE SHOWN)



NOTE
THIS METHOD ONLY TO BE USED WHERE A SERVICE WOULD FOUL EITHER THE TRANSFORMER OR THE OPERATING PLATFORM IF ERECTED FROM A BRACKET ATTACHED TO THE CROSSARM STRAP.

SERVICE FROM LV CROSSARM
SINGLE POLE SUBSTATION
(SINGLE PHASE SHOWN)

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE
OPEN WIRE LV
SERVICE TAKE OFF ARRANGEMENTS
FROM CROSSARM

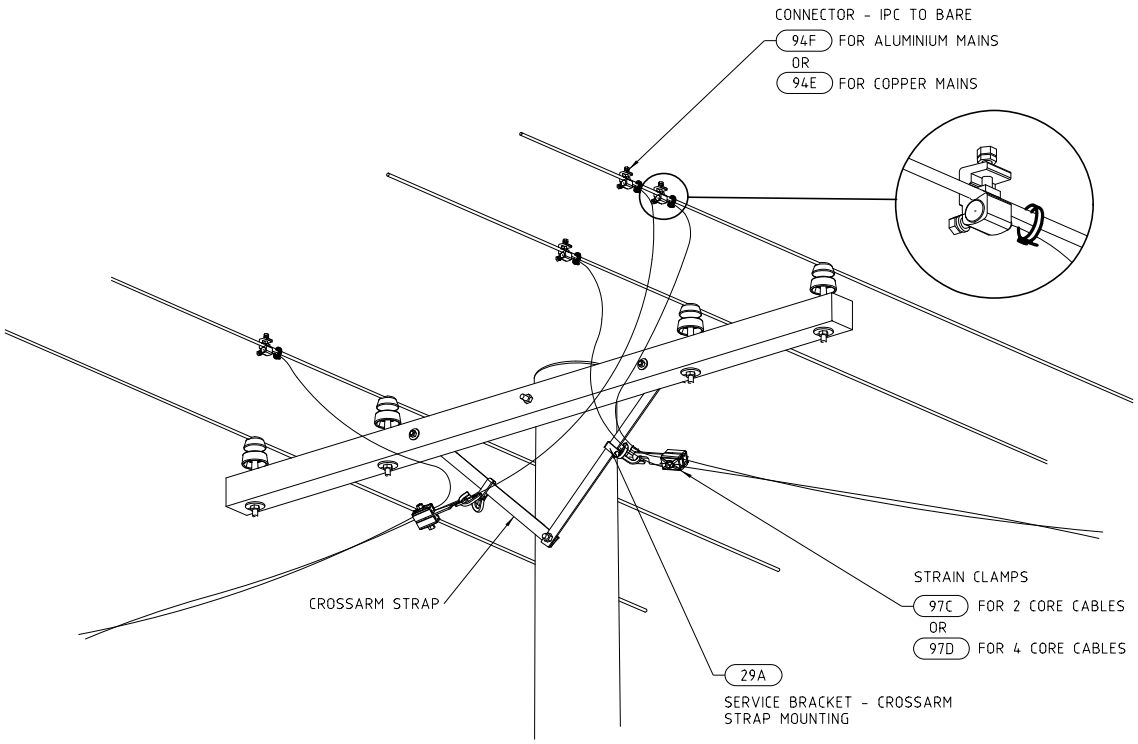
SCALE NTS

A4

D - OHC - A005 - SD - 001

REVISION A

1.1.5 Open Wire Mains to 25mm^2 LVABC Service from Crossarm Strap



TWISTED CABLE SERVICE POLE TAKE OFF
POLE WITH LV CROSSARM STRAP
(SINGLE PHASE SHOWN)

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	09/APR/19

TITLE
OPEN WIRE LV
SERVICE TAKE OFF ARRANGEMENTS
FROM CROSSARM STRAP

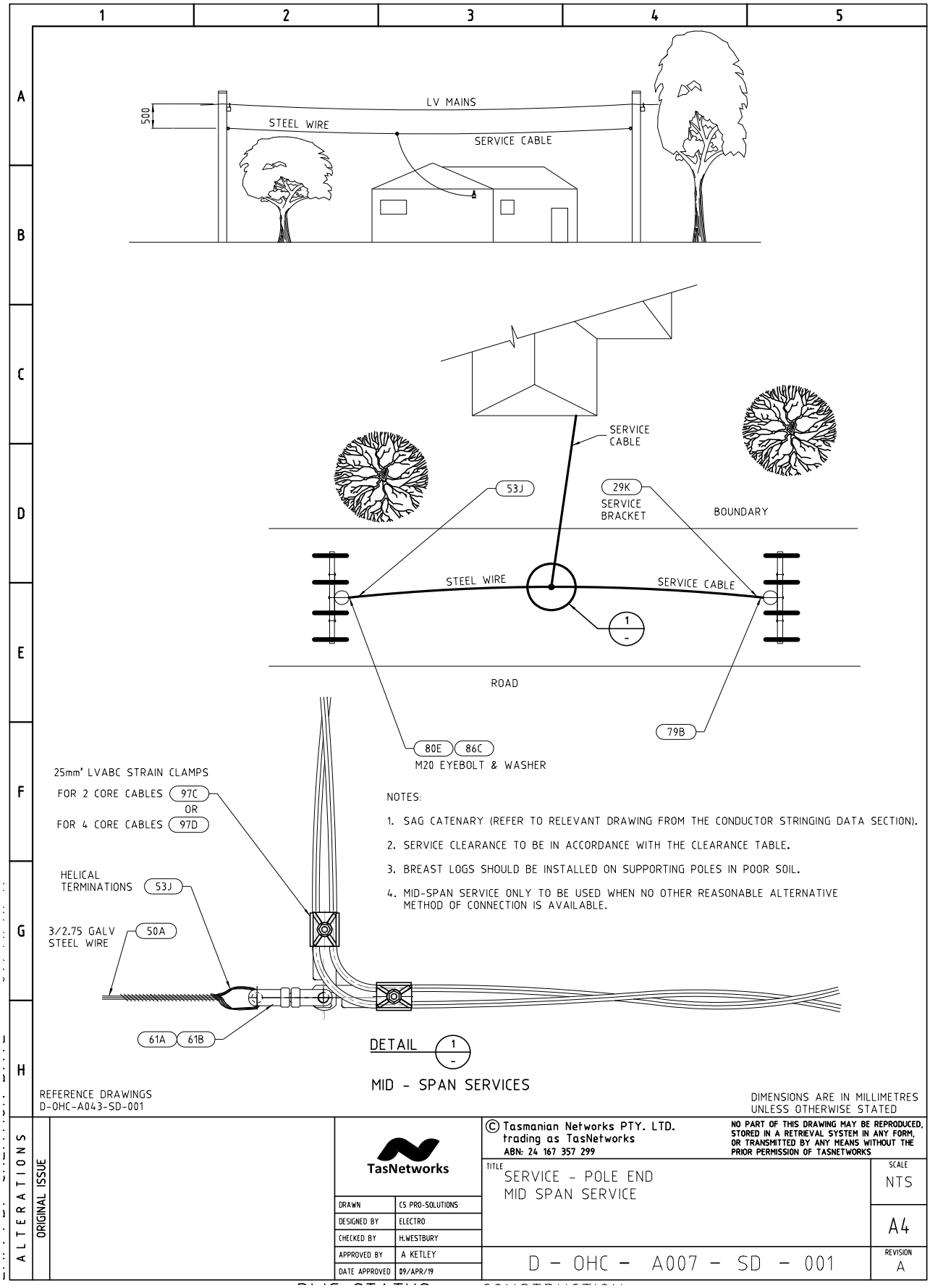
SCALE NTS

A4

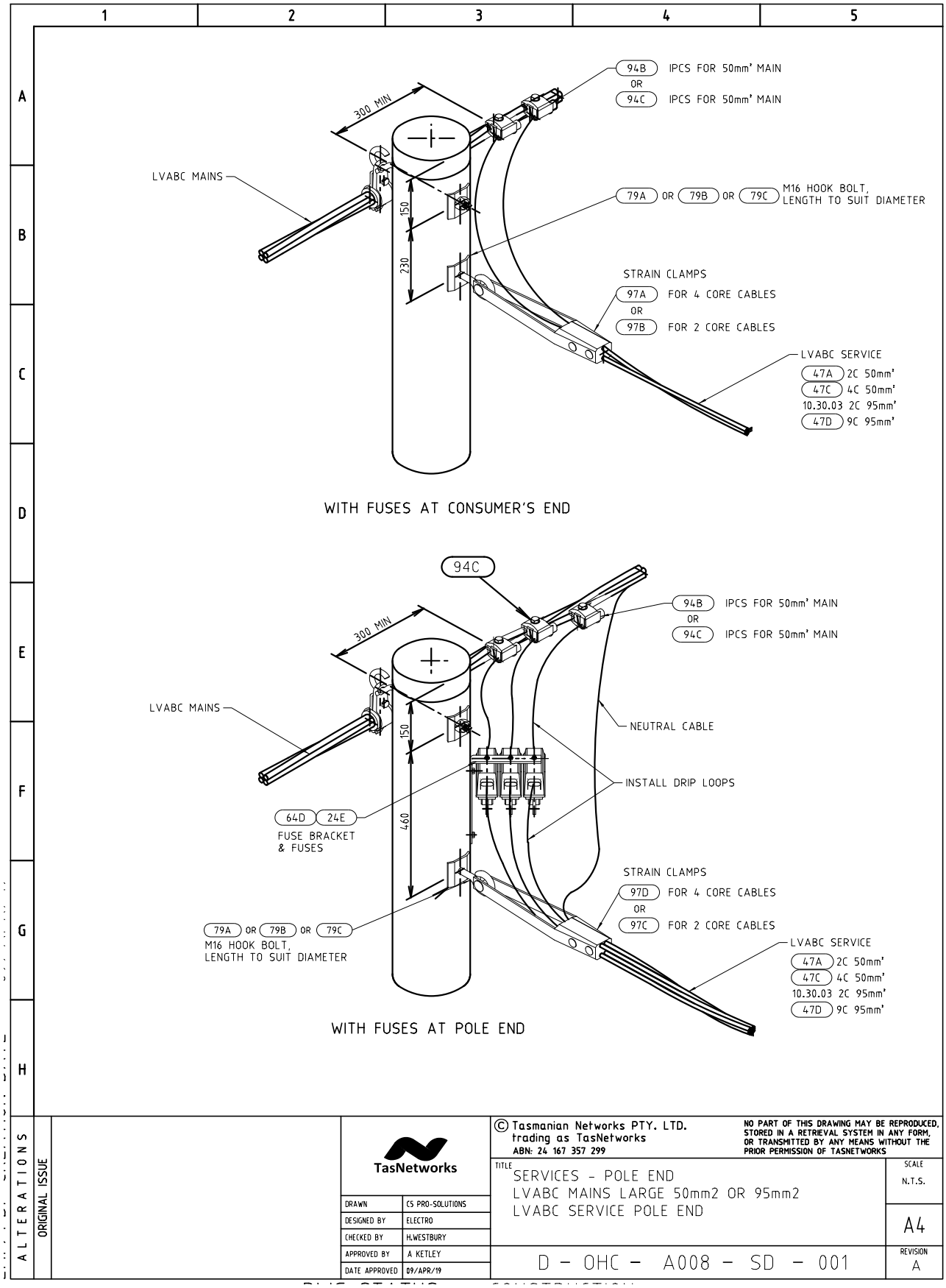
D - OHC - A006 - SD - 001

REVISION A

1.1.6 Midspan Service



1.1.7 LVABC Mains to Large 50mm2 or 95 mm2 Services – Pole End



LVABC Mains to Large 50mm^2 or 95 mm^2 Services – Pole End

OHCM - Section 1 Services

Unit Assembly	Store Type	Item Ref	Stock Item	Stock Item Description	Quantity
MIDSERV/25/1/PLM	S	97C	145606	CLAMP,TENSION 2 X 25MM2 - 2 X35MM2 ABCSC	3
1 phase - excludes cable		50A	438912	WIRE ROPE,STRAND 3/2.75 G1320 3000M DRUM	40
Pole End		53J	148501	DEADEND,FULL TENSION 3/2.75 GAL.COND	2
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		79B	325631	EYE-BOLT,OPEN M16 X 350MM FIXED WASHER	1 (or AR)
		79A	325630	EYE-BOLT,OPEN M16 X 250MM FIXED WASHER	AR
		79C	325632	EYE-BOLT,OPEN M16 X 450MM FIXED WASHER	AR
		102D	325619	HOOK-NUT,OPEN TYPE T/S M16 BOLT HOOK	AR
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		94D	145619	CONNECTOR,IPC LV ABC	2 (or AR)
		94G	145659	CONNECTOR,IPC LV ABC K-443 FIG.1	AR
		94F	145662	CONNECTOR,IPC LV ABC/PVC R236 ALUMN	AR
		94E	145655	CONNECTOR,IPC BARE MAINS-SERVICE R235	AR
Consumer End		75N	32288	BOLT,HEX HEAD M16 X 350MM GAL. C/W NUT	2
		29B	323744	BRACKET,CONNECT HOUSE SERVICE SHORT HOOK	1
		29K	323401	BRACKET,HOUSE SERVICE FUSE 32X8MM M-PH	1
		97E	145663	CLAMP,SERVICE STRAIN 2 X 10-35MM2 XLPE	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	2
		84B	50226	COACH SCREW,HEX HEAD 10MM X 65MM GAL	2
		94K	145654	CONNECTOR,IPC HOUSE SERVICE	1
		#N/A	221760	FUSEHOLDER,B&C 100A/480V 57X22 FERRULE	1
		100D	168017	END CAP,HEAT SHRINK 17-8MM CABLE RANGE	2
MIDSERV/25/3/PLM	S	97D	145605	CLAMP,TENSION 4 X 25MM2 - 4 X35MM2 ABCSC	3
3 phase - excludes cable		50A	438912	WIRE ROPE,STRAND 3/2.75 G1320 3000M DRUM	40
Pole End		53J	148501	DEADEND,FULL TENSION 3/2.75 GAL.COND	2
		61A	322056	CLEVIS,ROD-END BALL 16MM 70KN MIN-FAIL	1
		61B	322386	CONNECTOR,ROD-END 16MM 80KN MIN-FAIL MCI	1
		79B	325631	EYE-BOLT,OPEN M16 X 350MM FIXED WASHER	1 (or AR)
		79A	325630	EYE-BOLT,OPEN M16 X 250MM FIXED WASHER	AR
		79C	325632	EYE-BOLT,OPEN M16 X 450MM FIXED WASHER	AR
		102D	325619	HOOK-NUT,OPEN TYPE T/S M16 BOLT HOOK	AR
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	1
		80E	37263	EYE BOLT,FORGED M20 X 375MM GAL C/W NUT	1
		82B	40442	NUT,HEX M20 THREAD GALANISED STEEL	1
		94D	145619	CONNECTOR,IPC LV ABC	4 (or AR)
		94G	145659	CONNECTOR,IPC LV ABC K-443 FIG.1	AR
		94F	145662	CONNECTOR,IPC LV ABC/PVC R236 ALUMN	AR
		94E	145655	CONNECTOR,IPC BARE MAINS-SERVICE R235	AR
Consumer End		75N	32288	BOLT,HEX HEAD M16 X 350MM GAL. C/W NUT	2
		29B	323744	BRACKET,CONNECT HOUSE SERVICE SHORT HOOK	1
		29K	323401	BRACKET,HOUSE SERVICE FUSE 32X8MM M-PH	1
		97F	145664	CLAMP,SERVICE STRAIN 4 X 10-35MM2 XLPE	1
		82A	40441	NUT,HEX M16 THREAD GALANISED STEEL	3
		84B	50226	COACH SCREW,HEX HEAD 10MM X 65MM GAL	2
		94K	145654	CONNECTOR,IPC HOUSE SERVICE	1
		#N/A	221760	FUSEHOLDER,B&C 100A/480V 57X22 FERRULE	3
		100D	168017	END CAP,HEAT SHRINK 17-8MM CABLE RANGE	4

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS | ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

TITLE: SERVICES POLE END
LVABC MAINS TO LARGE
50mm2 OR 95mm2 LVABC SERVICES
POLE END MATERIAL LIST

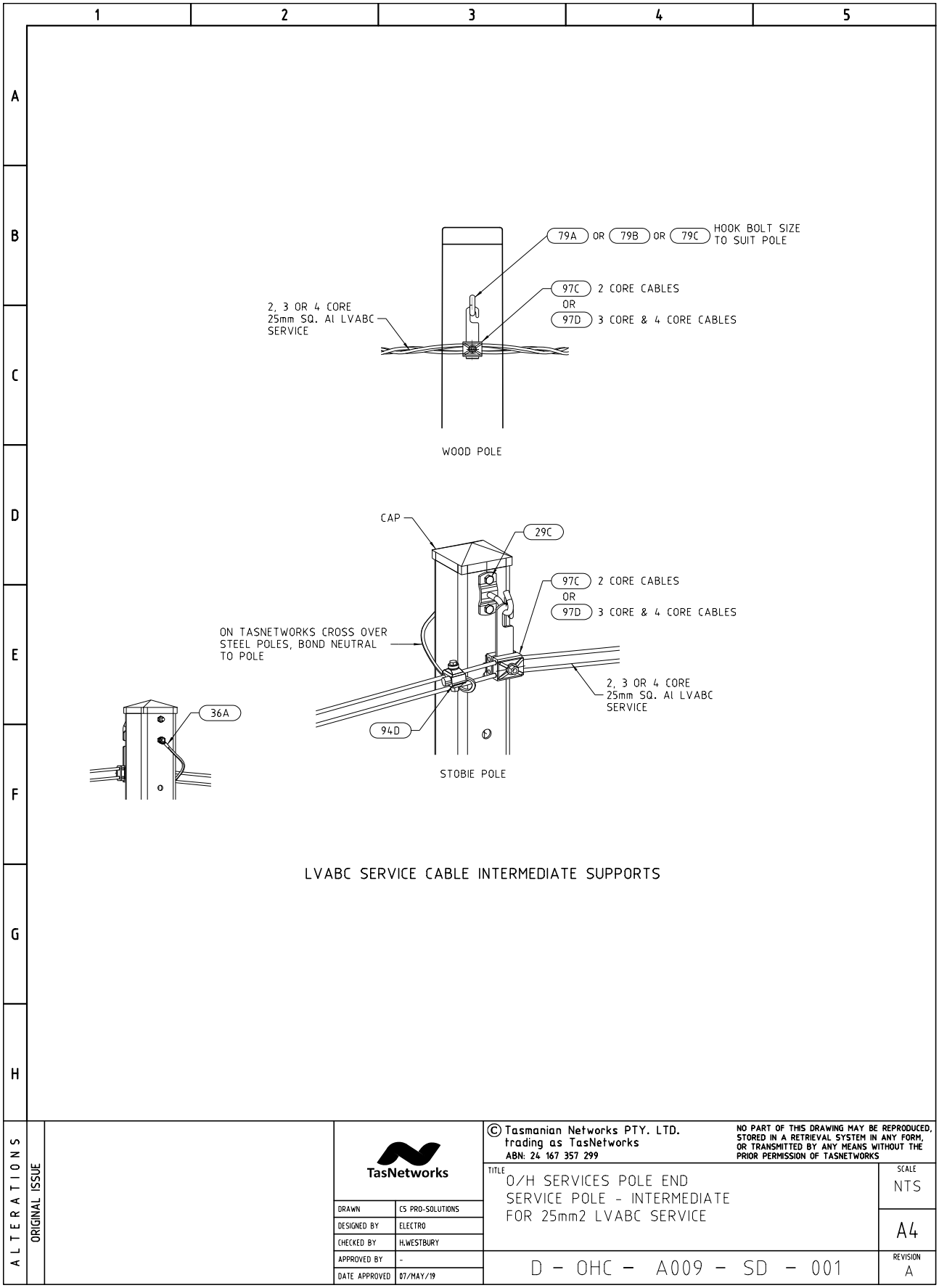
SCALE: NTS

A4

D - OHC - A008 - SD - 002

REVISION: A

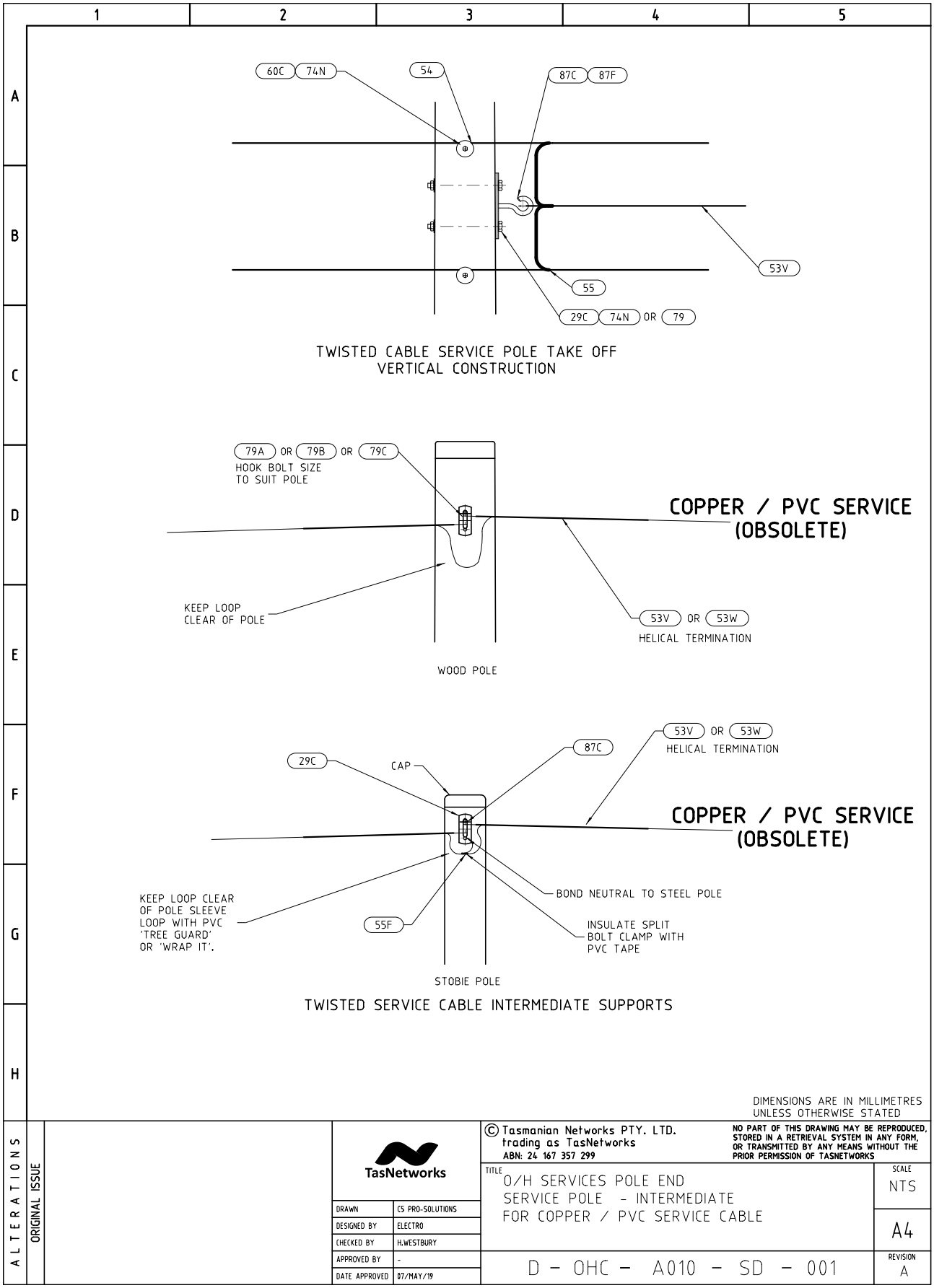
1.1.8 Service Pole Intermediate for 25mm^2 LVABC Service



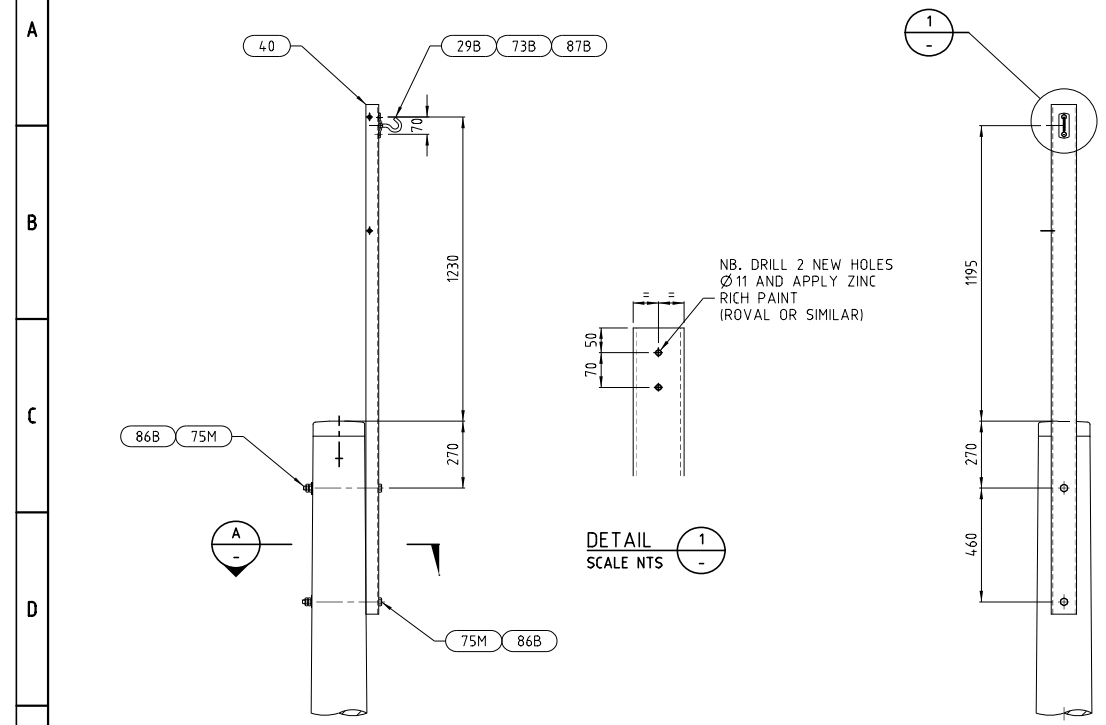
LVABC SERVICE CABLE INTERMEDIATE SUPPORTS

ALTERATIONS	ORIGINAL ISSUE	TasNetworks	© Tasmanian Networks PTY. LTD. trading as TasNetworks ABN: 24 167 357 299
		DRAWN: C5 PRO-SOLUTIONS	NO PART OF THIS DRAWING MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM IN ANY FORM, OR TRANSMITTED BY ANY MEANS WITHOUT THE PRIOR PERMISSION OF TASNETWORKS
		DESIGNED BY: ELECTRO	TITLE: O/H SERVICES POLE END SERVICE POLE - INTERMEDIATE FOR 25mm2 LVABC SERVICE
		CHECKED BY: H.WESTBURY	SCALE: NTS
		APPROVED BY: -	A4
		DATE APPROVED: 07/MAY/19	D - OHC - A009 - SD - 001
			REVISION: A

1.1.9 Service pole intermediate for Copper / PVC Service Cable

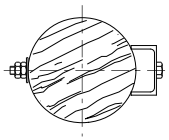


1.1.10 Service Pole Steel Raiser Bracket



RAISER ARRANGEMENT

MATERIAL: 100x50 PFC - TYPE 1



SECTION A

NOTES
1. LOAD LIMIT FOR THIS ARRANGEMENT IS 1kN.
2. FOOTING STRENGTH TO BE CHECKED AGAINST SECTION 6.5 AS7000 DESIGN STANDARD.
3. ENSURE THAT LOCK NUTS ARE FITTED TO ALL BOLTS ON RAISER ARRANGEMENT.
4. HOT DIP GALVANIZE TO AS/NZS 4680.

REFERENCE DRAWINGS
D-OHC-N005-SD-010

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	H.WESTBURY
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	09/APR/19

TITLE: SERVICE POLE STEEL RAISER BRACKET

SCALE: 1:25

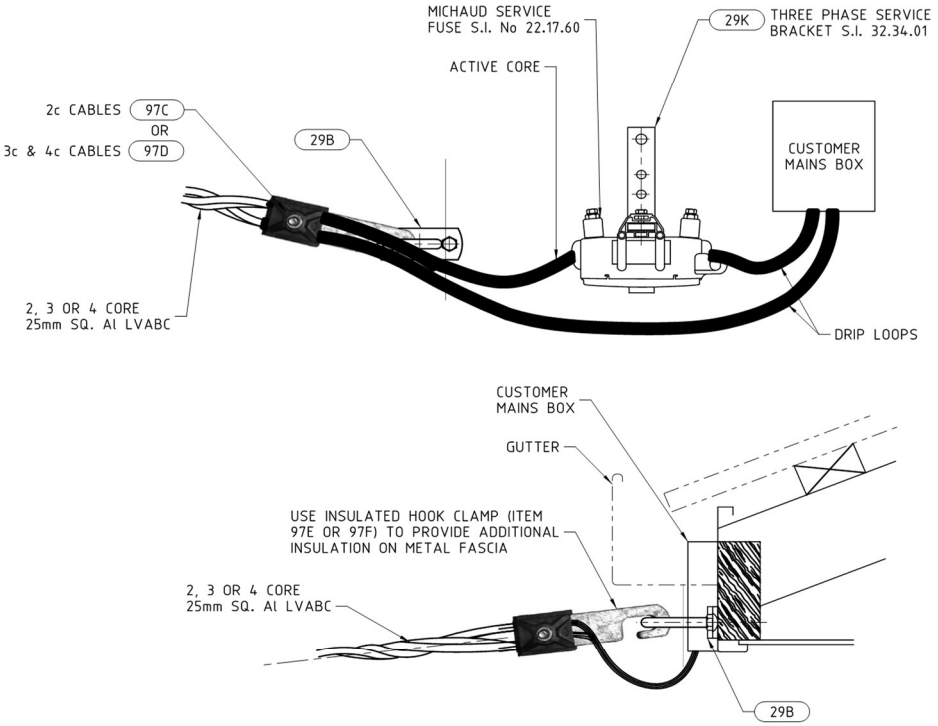
A4

D - OHC - A011 - SD - 001

REVISION: A

1.2 House / Building End Constructions

1.2.1 LVABC Service with Mains Connection Box - Load < 100 A / phase



NOTES

1. NORMAL FIXING FOR HOUSE END SERVICE BRACKET.

   TIMBER FASCIA: M10 COACH SCREWS OR M10 BOLTS TO TIMBER BEHIND FASCIA.

   DOUBLE BRICK: M10 TO M12 BOLTS INTO LOXINS OR OTHER SUITABLE MASONARY ANCHORS.

   BRICK VENEER: BOLTS SHOULD PASS THROUGH THE BRICK WORK TO SUITABLE TIMBER FIXING.

2. WHEN ITEM 29B HOUSE BRACKET IS IN CONTACT WITH METAL CLADDING OR METAL FASCIA SPOUTING PROVIDE ADDITIONAL INSULATION AT THE HOUSE END BY USING THE INSULATED HOOK CLAMP ITEM 97E OR 97F.

3. TO PROVIDE 25mm CLEARANCE FROM UP-LIFTING SERVICE TERMINATION TO ANY METAL OR PLASTIC SPOUTING USE ITEM 29D SERVICE EXTENSION HOOK (AND BEND IF NECESSARY) BETWEEN SERVICE TERMINATION AND HOUSE BRACKET.

4. THE SERVICE HOOK ITEM 29B CAN BE MOUNTED HORIZONTALLY OR VERTICALLY. THE MODIFIED BOLT CAN BE ROTATED THROUGH 360 DEGREES IN 90 DEGREE INCREMENTS ENSURE THAT THE STRAIN IS TAKEN ON CROOK OF MODIFIED BOLT.

SINGLE AND MULTI PHASE SERVICE CONNECTION
MAINS CONNECTION BOX TO SUIT ABC SERVICES

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS | ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

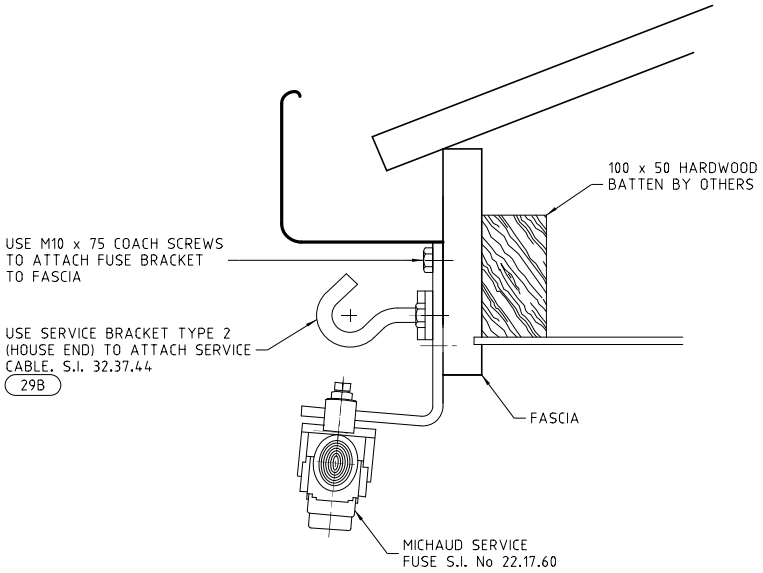
TITLE: SERVICES - HOUSE END
LVABC SERVICE WITH MAINS CONNECTION BOX
- LOAD <100 AMPS / PHASE

SCALE: NTS
A4

D - OHC - A012 - SD - 001

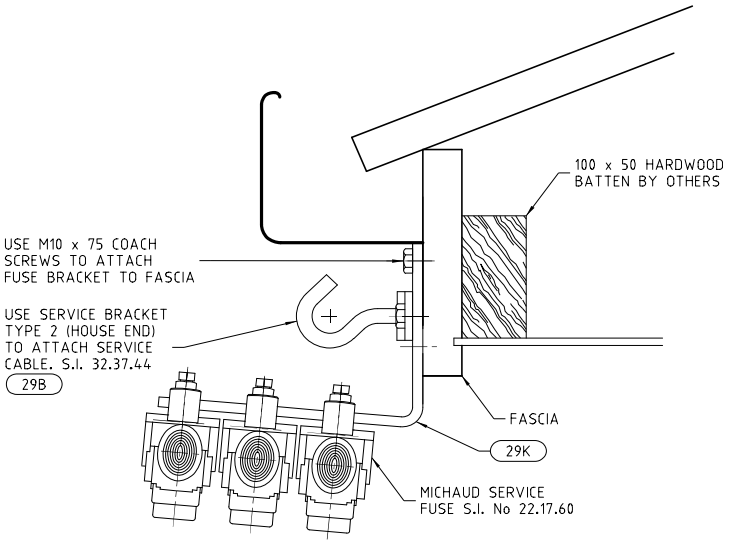
REVISION: A

1.2.2 Michaud Service Fuse Retrofit



RETRO FIT TO AN EXISTING SERVICE CONNECTION

USE EXISTING SEVICE FUSE BRACKET TYPE 2 AND
ONE MICHAUD SINGLE PHASE SERVICE FUSE BRACKET.



RETRO FIT TO AN EXISTING
MULTI PHASE SERVICE CONNECTION

USE EXISTING TYPE 2 AND MICHAUD
THREE PHASE SERVICE FUSE BRACKET

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	10/APR/19

TITLE: MICHAUD SERVICE FUSE
RETRO FIT ARRANGEMENT

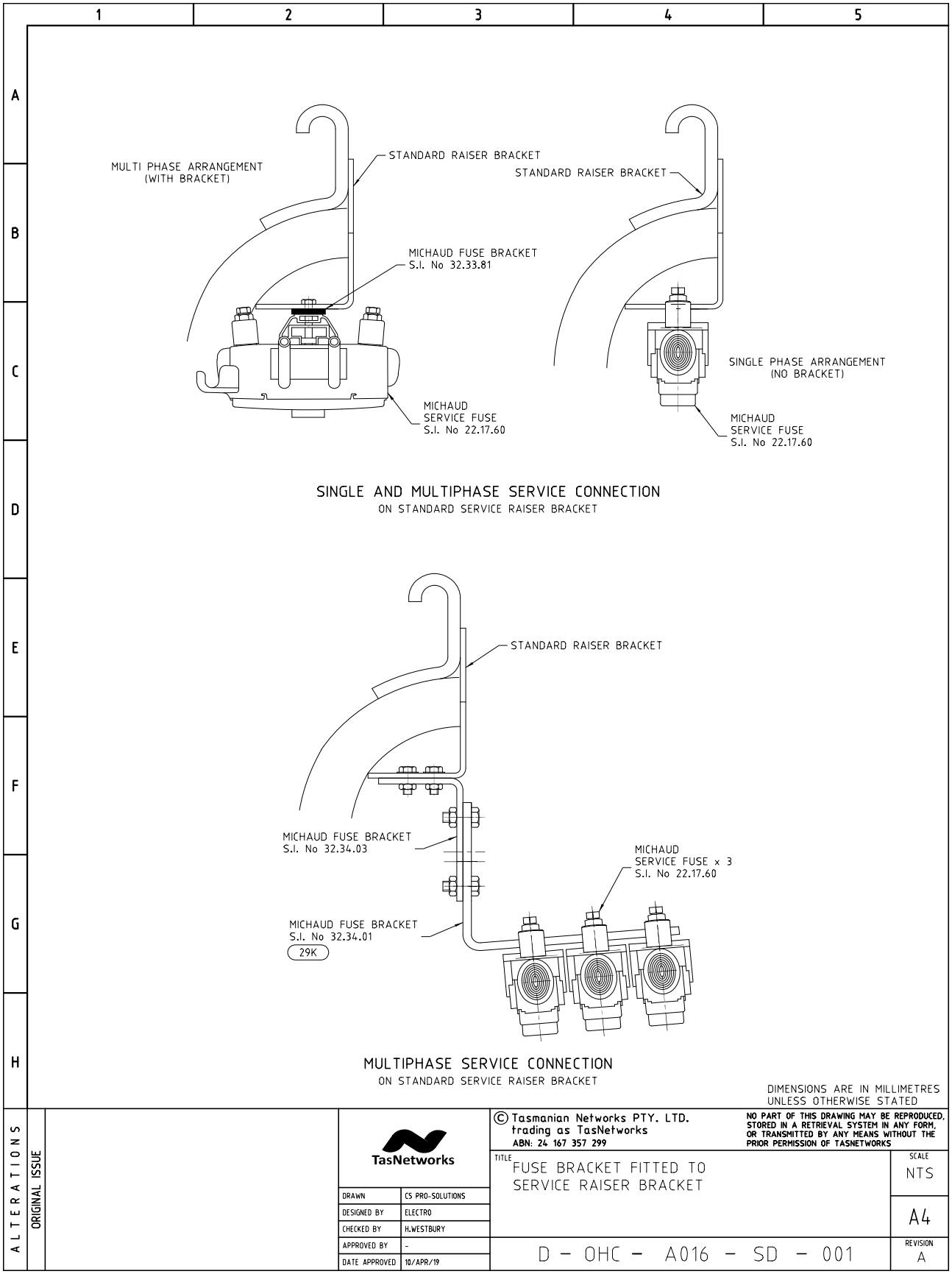
SCALE: NTS

A4

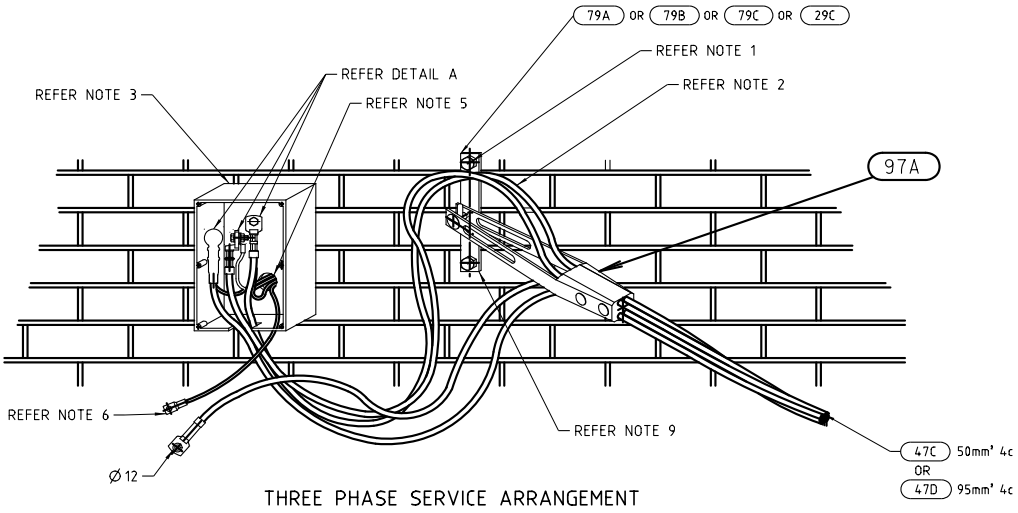
D - OHC - A015 - SD - 001

REVISION: A

1.2.3 Fuse Bracket Fitted to Service Raiser Bracket



1.2.4 Large LVABC – Service Attachment at Consumer End

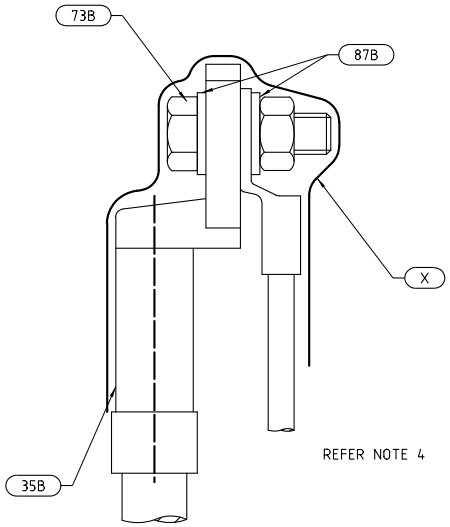


THREE PHASE SERVICE ARRANGEMENT

CABLE SIZE	CABLE TEMP. °C	SAG TABLE (m) SPAN (m) 10	20	30
4 x 50mm² & 4 x 95mm²	5	0.19	0.7	1.61
	15	0.2	0.73	1.63
	75	0.3	0.86	1.77

Note:
Min POA height of 3.0m and ground clearance needs to be considered.

DESIGN DATA	
CABLE SIZE	TENSION @ 15 C 500Pa WIND Kn
4 x 50mm²	1.14
4 x 95mm²	1.65



DETAIL A
SCALE: NTS

NOTES

1. NORMAL FIXING FOR HOUSE END SERVICE BRACKET-:

   I) TIMBER FASCIA: M10 x 100 LENGTH COACH SCREWS OR M10 BOLTS TO TIMBER BEHIND FASCIA.

   II) DOUBLE BRICK/CONCRETE WALLS: M12 BOLTS INTO LOXINS OR SUITABLE MASONARY ANCHORS

   III BRICK VENEER: BOLTS SHOULD PASS THROUGH BRICK WORK TO SUITABLE TIMBER FIXING.

2. AVOID CONTACT OF LV ABC CORES WITH STEEL STRAPS OF STRAIN CLAMP. WHERE HOUSE END SERVICE BRACKET IS FITTED TO METAL FASCIA SLEEVE STEEL STRAPS OF STRAIN CLAMP WITH 3M MASTIC TAPE SI No 15.83.88 OR HEAT SHRINK TUBING SI No 16.83.30.

3. CUSTOMER'S MAINS TO BE TERMINATED IN A SUITABLE WEATHERPROOF ENCLOSURE APPROXIMATELY 300 x 200 x 150 DEEP. (eg CLIPSAL 265/7 OR SIMILAR). THE SERVICE SHALL BE CONNECTED INTERNALLY USING BOLTED CONNECTION METHODS AS SHOWN.

4. LUGS TO BE BOLTED TOGETHER AND INSULATED WITH SELF FUSING INSULATING VINYL MASTIC 3M TAPE SI No 15.83.88.

5. CUSTOMER'S MAINS TO ENTER THROUGH REAR OF ENCLOSURE AT LOWEST POSSIBLE POINT TO ALLOW CONDUCTORS TO BE TURNED BACK AND LAID INSIDE ENCLOSURE.

6. ELECTRICAL CONTRACTOR TO TERMINATE CUSTOMERS'S MAINS WITH LUGS HAVING A 12mm DIAMETER HOLE AND BE SUITABLE FOR CONNECTION TO BI-METAL LUGS ON SERVICE CABLE.

7. LV FUSES TO BE INSTALLED EITHER AT CUSTOMER TRANSFORMER OR ON TAKE OF POLE WHEN SERVICE IS CONNECTED TO LV RETICULATION.

8. THE TERMINAL SPAN SHOULD BE LIMITED TO A MAXIMUM OF 30 METRES AND BE STRUNG TO APPROXIMATELY 1kN FOR 4 CORE 95mm² CABLE AND 0.5kN FOR 4 CORE 50mm² CABLE

9. MAXIMUM ANGLE OF DEVIATION PERPENDICULAR TO THE WALL IS 40° FOR A TYPE 3 SERVICE BRACKET.

ALTERATIONS | ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	10/APR/19

TITLE: SERVICES
LARGE LVABC SERVICE ATTACHMENT
CONSUMER END (FUSES AT POLE)

SCALE: N.T.S.
A4

D - OHC - A017 - SD - 001

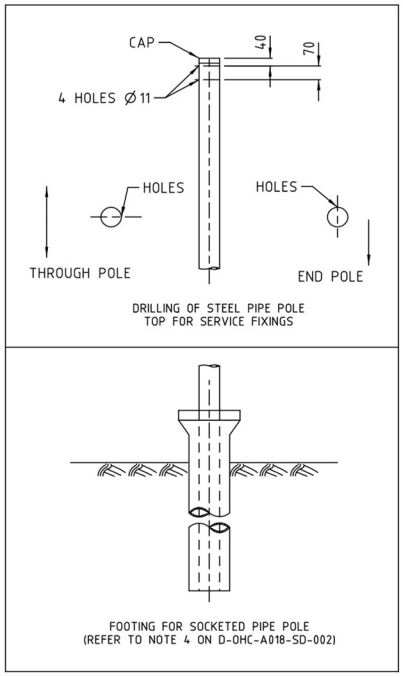
REVISION: A

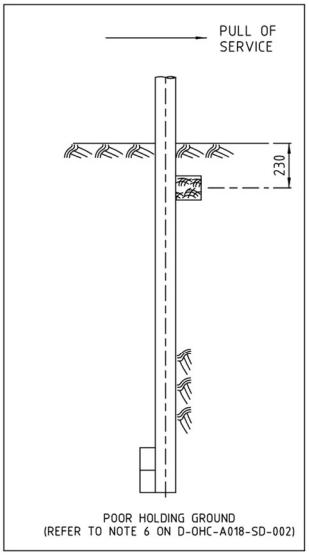
1.3 Customer Poles

1.3.1 Temporary Service Poles

REQUIRED SIZE OF POLE FOR TEMPORARY SERVICES

SERVICE TYPE AND SIZE	HARDWOOD POLES (ALL TYPES TAS. EUCALYPTS) IN AS NEW CONDITION												GALVANISED STEEL PIPE (MEDIUM)			
	SAWN SQUARE			ROUND PRESSURE TREATED				NATURAL (DE-SAPPED FROMBUTT TO ROUND 150 ABOVE GROUND LEVEL)					NOMINAL INTERNAL DIAMETER	WALL THICKNESS	SETTING DEPTH	OVERALL LENGTH
	FINISHED SIZE	SETTING DEPTH	OVERALL LENGTH	DIAMETER BUTT	DIAMETER TOP	SETTING DEPTH	OVERALL LENGTH	DIAMETER BUTT	DIAMETER TOP	SETTING DEPTH	OVERALL LENGTH					
2 CORE 7/1.35 COPPER 3 CORE 7/1.35 COPPER 4 CORE 7/1.70 2 CORE 25mm² LVABC	125x125	1200	6000 MIN 6150 MAX	150 INCLUDES SAP WOOD	100 INCLUDES SAP WOOD	1200	6000 MIN 6150 MAX	150 INCLUDES SAP WOOD	100 INCLUDES SAP WOOD	1200	6000 MIN 6150 MAX		100	4.5	IN 230 DIA (MIN) HOLE CONCRETED 1200	6000 MIN 6150 MAX
															SOCKETED IN 150 I.D. R CONC PIPE 1200	6000 MIN 6150 MAX
3 CORE 7/1.70 COPPER PVC OR 4 CORE 25mm² LVABC	150x150	1200	6000 MIN 6150 MAX	175 INCLUDES SAP WOOD	120 INCLUDES SAP WOOD	1200	6000 MIN 6150 MAX	175 INCLUDES SAP WOOD	120 INCLUDES SAP WOOD	1200	6000 MIN 6150 MAX		100	4.5	IN 230 DIA (MIN) HOLE CONCRETED 1200	6000 MIN 6150 MAX
															SOCKETED IN 150 I.D. R CONC PIPE 1200	6000 MIN 6150 MAX





REFERENCE DRAWINGS
D-OHC-A018-SD-002

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

TITLE: O/H SERVICES & CONSUMERS MAINS TEMPORARY SERVICE POLES

SCALE: 1:30

A4

D - OHC - A018 - SD - 001

REVISION: A

Temporary Service Poles Continued

NOTES

1. THIS STANDARD COVERS FREE STANDING POLES AND DOES NOT COVER POLES OR RAISERS ATTACHED TO BUILDINGS.

2. IN GENERAL, STRUTS AND STAYS ON TEMPORARY SERVICE POLES ARE NOT ACCEPTABLE, BEING PRONE TO DAMAGE OR DISPLACEMENT ON A BUILDING SITE.

3. THE POLE LENGTHS SPECIFIED ARE GENERALLY SUITABLE, ENABLING TRANSFER FROM SITE TO SITE. IN PARTICULAR CASES-:

   (A) SHORTER POLES OF EQUIVALENT SIZE AND FOUNDATION MAY BE ACCEPTED PROVIDED PRESCRIBED CLEARANCES ARE MET, AND-

   (B) LONGER, MORE ROBUST POLES AND FOUNDATIONS MAY BE NECESSARY WHEN PRESCRIBED CLEARANCES CANNOT BE MET.

4. FOR EASE OF REMOVAL TO DIFFERENT SITES THE GALVANISED STEEL PIPE POLE MAY BE SOCKETED IN A 150MM ID REINFORCED CONCRETE PIPE SET IN THE GROUND. FILL SPACE BETWEEN GALVANIZED STEEL PIPE AND REINFORCED CONCRETE WITH CRUSHED METAL DUST.

5. DEPTH MARK ON POLE TO BE CLEARLY MARKED AT A POINT 1800 FROM THE BUTT END FOR THE PURPOSE OF CHECKING THE DEPTH OF BURIAL. INDICATION MAY BE BY A PAINT MARK OR OTHER APPROVED METHOD.

6. SETTING DEPTHS ARE SHOWN FOR AVERAGE CLAY OR GRAVEL SOILS -

   (A) IN SOLID ROCK: REDUCE DEPTH BY 230mm
   (B) IN POOR HOLDING GROUND EITHER-:
   (I) INCREASE DEPTH BY 230mm, OR
   (II) FOR WOOD POLES AND SOCKETED PIPE POLES. INSTALL A 125 x 125 x 900 LONG HARDWOOD BREAST LOG AND TOE THE POLE WITH 2, 230 x 75 BRICKS OR EQUIVALENT CONCRETE BLOCK OR FLAT STONES.

7. AFTER MEETING THE REQUIREMENTS OF 6 (B) ABOVE, SHOULD THE POLE BE INSECURE ERECT 3 x 3600 LONG STRUTS OF 100 x 50 HARDWOOD, SET AT 45 DEGREES TO THE POLE. ONE STRUT SET AGAINST THE PULL OF THE SERVICE LINE; THE OTHERS TRANSVERSE TO THE SERVICE LINE. THE STRUTS SHOULD BEAR AGAINST A SUITABLE COLLAR ON THE POLE AND AGAINST TIMBER BEARING BLOCKS IN THE GROUND.

8. ALL BACK FILLING AROUND POLES OR PIPES TO BE WELL RAMMED.

9. ALL POLES TO BE RAKED 75mm AT THE HEAD AGAINST THE PULL OF THE SERVICE.

10. SERVICE LINES ARE TO BE SAGGED TO APPENDIX 'D' OF AUSTRALIAN STANDARDS WIRING RULES.

11. ALTERNATE POLE TYPES HAVING EQUIVALENT STRENGTH MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER IN CHARGE.

12. TO ALLOW FOR SHRINKAGE, GREEN TIMBER SHOULD BE CUT AT LEAST 10mm OVERSIZE. WHERE THE TIMBER IS THOROUGHLY SEASONED A MINUS TOLERANCE OF 5mm MAY BE ACCEPTED.

13. ALL TEMPORARY SAWN TIMBER SERVICE POLES ARE TO BE INSPECTED AND TESTED EVERY 12 MONTHS BY A LICENSED ELECTRICAL CONTRACTOR AND AN EIN SUBMITTED TO TASNETWORKS BY THE CONTRACTOR STATING THAT THE POLE IS IN SOUND CONDITION. IF THIS CONDITION IS NOT MET THEN THE SERVICE WILL BE REMOVED FROM THE POLE.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	10/APR/19

TITLE: O/H SERVICES & CONSUMERS MAINS TEMPORARY SERVICE POLES

SCALE: NTS

A4

D - OHC - A018 - SD - 002

REVISION: A

1.3.2 Customer Poles

ACCEPTABLE POLE TYPES AND STRENGTHS						
POLE LENGTH (m)	POLE TYPE	MINIMUM GIRTH (mm)		DEPTH IN GROUND 'D' (m)	HEIGHT OF POLE ABOVE GROUND (m)	MAX. ALLOWABLE HORIZONTAL FORCE AT POLE TOP (kN)
		AT TOP	2m FROM BUTT (OVER SAPWOOD)			
8.0	GALVANISED STEEL 125x125x5.0 SHS GRADE 350	-	-	1.4	6.6	2.0
8.0	P.I. HARDWOOD (4kN) *	635	810	1.5	6.5	4.0
8.0	P.I. HARDWOOD (6kN) *	635	900	1.5	6.5	6.0
9.0	P.I. HARDWOOD (4kN) *	635	860	1.5	7.5	4.0
9.0	P.I. HARDWOOD (6kN) *	750	975	1.65	7.35	6.0
10.5	P.I. HARDWOOD (4kN) *	655	920	1.65	8.85	4.0
10.5	P.I. HARDWOOD (6kN) *	775	1040	1.8	8.7	6.0
12.0	P.I. HARDWOOD (4kN) *	675	975	1.8	10.2	4.0
12.0	P.I. HARDWOOD (6kN) *	800	1100	1.8	10.2	6.0

* MAX WORKING STRENGTH, NOT TO BE CONFUSED WITH NOMINAL BREAKING LOAD OR LIMIT STATE STRENGTH.

NOTE

THE CUSTOMER MAY SINK THE HOLE AND ERECT THE POLE, BUT AN INSPECTION OF THE POLE AND THE HOLE WHEN DUG TO FULL DEPTH WILL BE MADE BY THE ELECTRICAL CONTRACTOR BEFORE THE POLE IS ERECTED, TO ENSURE THAT THE POLE AND THE HOLE COMPLY WITH THIS STANDARD. THE DATE OF ERECTION SHALL BE MARKED ON THE POLE.

A PRIVATE POLE THAT IS NOT INCLUDED IN THE ABOVE LIST IS NOT PERMITTED UNLESS IT HAS BEEN CERTIFIED BY A RECOGNISED STRUCTURAL ENGINEER SPECIALISING IN WOOD POLE STRENGTHS. THE ENGINEER SHALL SPECIFY THE FOLLOWING:

1. THE MINIMUM DIAMETER AT GROUND LEVEL AND AT THE POLE TOP.
2. THE STRENGTH RATING OF THE POLE (NOMINATED IN KN AT THE TIP, MARKED PERMANENTLY ON THE POLE AT 3450mm FROM THE BUTT.) THE RATING SHOULD BE IDENTIFIED AS EITHER THE MAX. WORKING STRENGTH, BREAKING LOAD OR LIMIT STATE STRENGTH.
3. THE WALL THICKNESS FOR STEEL POLES (STEEL TO BE GALVANISED)
4. THE REQUIRED BURIED DEPTH. (A MARK IS TO PERMANENTLY LABELLED AT 3450MM FROM THE BUTT)
5. THE SPECIES OF TIMBER IF A NATURAL WOOD POLE IS USED (PERMANENTLY MARKED ON THE POLE)
6. THE MINIMUM RIM THICKNESS OF WOOD FOR A SAFETY FACTOR OF 2.5, 1.5 AND 1.0
7. THE TREATMENT AT AND BELOW GROUND LINE TO INHIBIT THE PROMOTION OF CORROSION, SOFT ROT AND HEART ROT (WHICHEVER IS APPLICABLE)

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE: SERVICES CUSTOMER POLES

SCALE: NTS

A4

D - OHC - A019 - SD - 001

REVISION: A

Customer Poles Continued

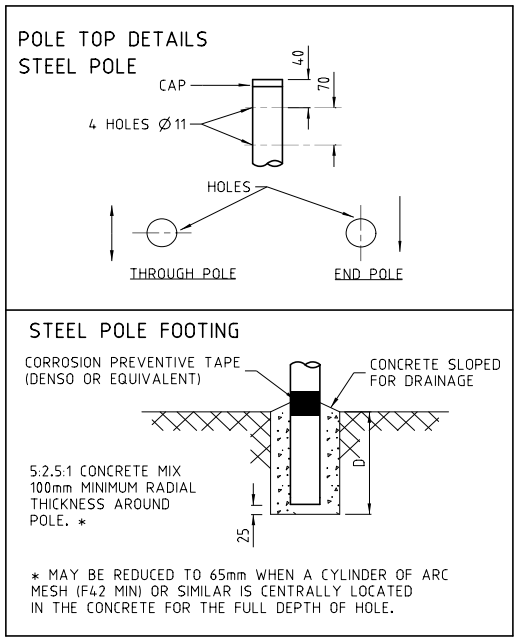
NOTES

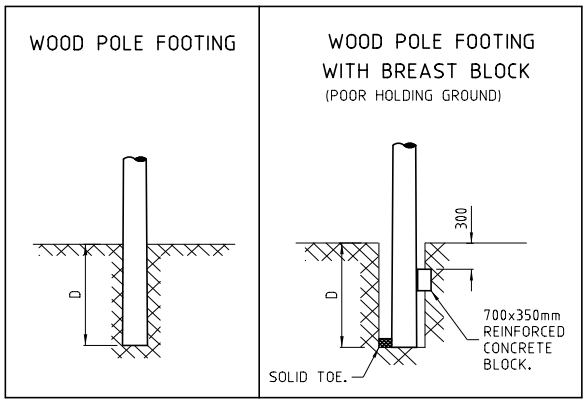
THE STEEL SECTIONS LISTED IN THE TABLE ARE TO BE CONTINUOUS LENGTHS WITHOUT JOINS AND ARE TO BE DIRECT BURIED TO SPECIFIED DEPTH SET IN CONCRETE AS SHOWN BELOW.

ALTERNATIVE STEEL SECTIONS HAVING EQUIVALENT STRENGTH IN ALL DIRECTIONS TO THE LISTED POLES, MAY BE USED SUBJECT TO APPROVAL AND RECEIPT OF A CERTIFICATE FROM A REGISTERED STRUCTURAL ENGINEER.
THE FOLLOWING ARE NOT PERMITTED-:
- FABRICATED STEEL POLES
- BASE PLATE MOUNTED STEEL POLES
- ALL STEEL PLATES ARE TO BE GALVANISED IN ACCORDANCE WITH AS4680.

TO CONFORM TO AS4677 STEEL UTILITY POLES, THE POLE SHALL HAVE THE FOLLOWING DETAILS PERMANENTLY ETCHED/FIXED TO THE POLE IN A MINIMUM OF 5mm HIGH LETTERING
(1) MANUFACTURERS IDENTIFICATION
(2) YEAR OF MANUFACTURE
(3) POLE LENGTH/MASS m/kg
(4) MAXIMUM TOP LOAD kN
(5) A DEPTH MARKER 3m FROM THE BUTT END

WOOD POLES
A) PRESSURE IMPREGNATED WOOD POLES-:
ALL P.I. WOOD POLES SHALL COMPLY WITH TASNETWORKS SPECIFICATIONS.
B) THE USE OF GROWING, DEAD OR 'RINGED' TREES AS POLES IS PROHIBITED.
C) POLE DIMENSIONS-:
THE DIMENSIONS OF THE POLE SHALL BE IN ACCORDANCE WITH THE TABLE ON DRG D-OH1-0356-SD-001.
D) SECOND HAND POLES-:
RECOVERED POLES GREATER THAN 15 YEARS OF AGE SHALL NOT BE USED
E) DATE OF ERECTION TO BE STAMPED ON LETTER 'P' FIXED TO POLE.





DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	10/APR/19

TITLE: CUSTOMER POLES

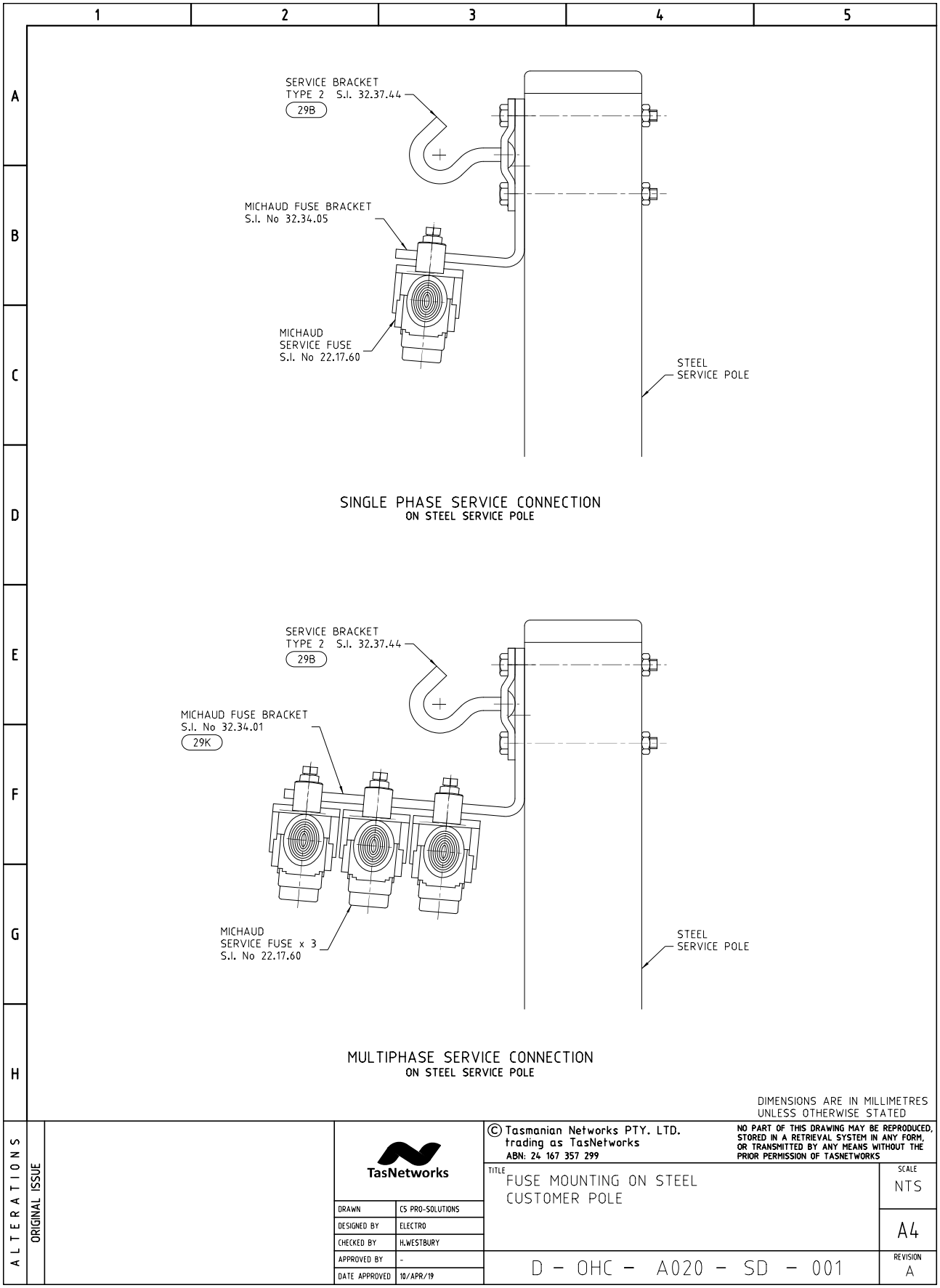
SCALE: NTS

A4

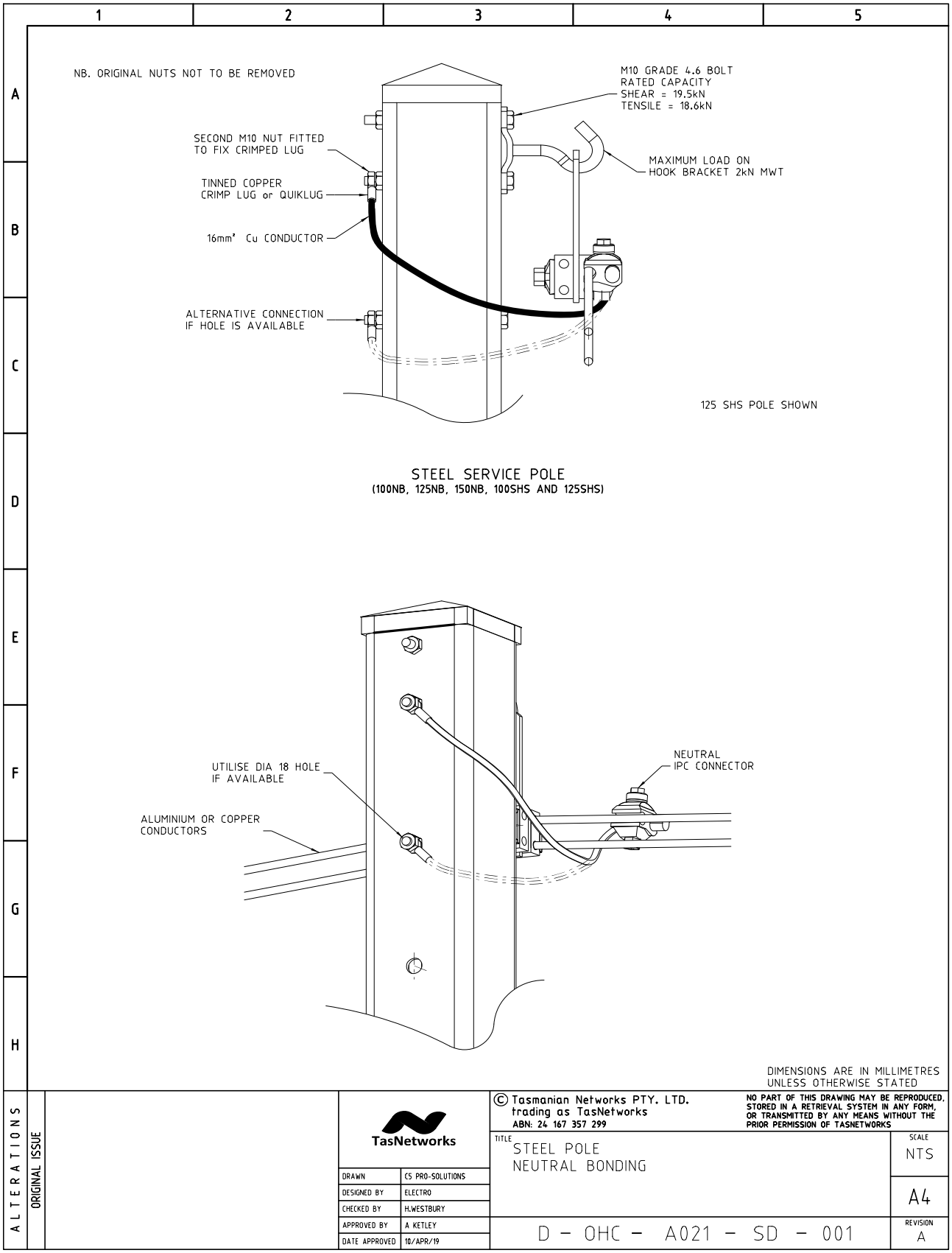
D - OHC - A019 - SD - 002

REVISION: A

1.3.3 Fuse Mounting on Steel Customer Poles

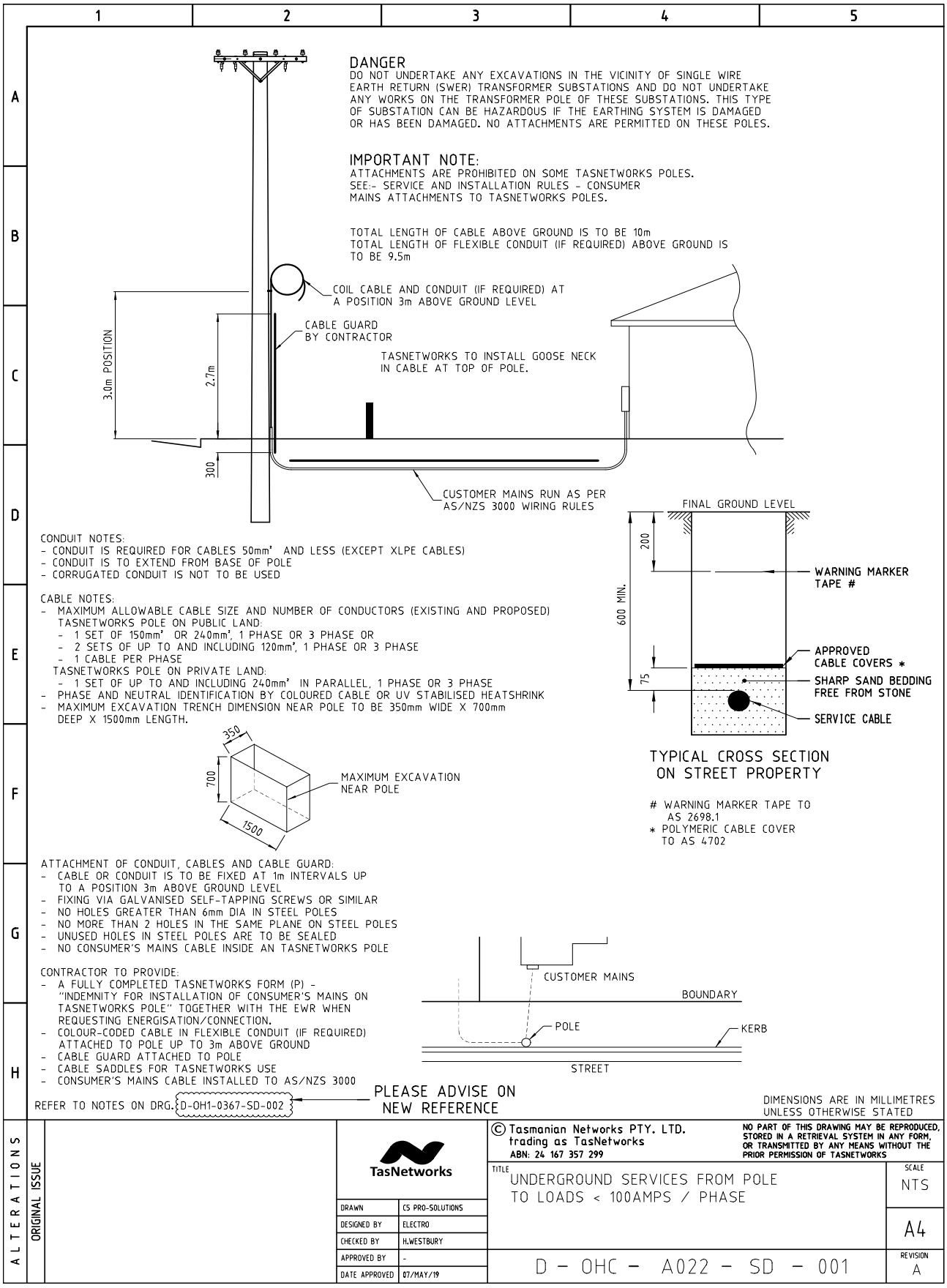


1.3.4 Steel Pole Intermediate Neutral Bonding



1.4 Underground Services from Poles

1.4.1 Underground Services to Loads < 100 A / Phase



Underground Services to Loads < 100A / Phase

NOTES:

1. THIS DRAWING COVERS THE SITUATION WHERE:-
   A) SUPPLY IS PROVIDED BY MEANS OF AN OVERHEAD SYSTEM.
   B) A CUSTOMER REQUEST THAT SUPPLY BE PROVIDED UNDERGROUND.
   C) THE LOAD IS LESS THAN 100 AMPS PER PHASE
   D) THE SUPPLY IS TO BE CONNECTED TO AN TASNETWORKS POLE IN PUBLIC ROADWAY

   UNDERGROUND CUSTOMERS MAINS SHALL BE INSTALLED IN THIS INSTANCE BY THE CUSTOMER

2. THE CUSTOMER MUST SIGN AN INDEMINITY FORM TO INSTALL CUSTOMERS MAINS IN PUBLIC PROPERTY.

3. REFER TO SECTION 1.6 OF UNDERGROUND CABLE DESIGN AND CONSTRUCTION MANUAL FOR DETAILS OF DESIGN AND CONSTRUCTION

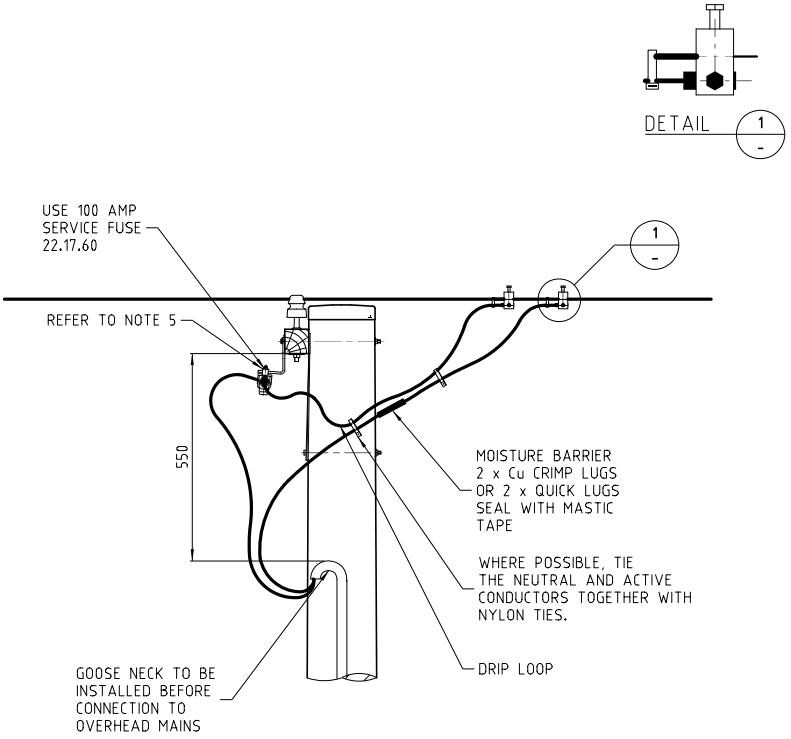
4. CUSTOMER'S MAINS CABLE IS TO BE PROTECTED AGAINST WEATHER AND DAMPNESS IN ACCORDANCE WITH AS 3000. ELECTRICAL CONTRACTOR IS TO PROTECT THE CABLE TAILS WHERE NECESSARY WITH HEAT SHRINK MATERIAL OR EQUIVALENT. (NOTE: CORRUGATED CONDUIT IS NOT ALLOWED ON TASNETWORKS POLES).

5. USE SERVICE FUSE FITTINGS S.I. No 22.17.60 FOR CUSTOMER'S MAINS CABLE SIZE 35mm². 160A LVABC SW/FUSE (S.I. No 23.62.41) FOR CUSTOMERS MAINS CABLE SIZE LARGER THAN 35mm².

6. THE NUMBER OF INSTALLATIONS CONNECTED ON ANY POLE SHOULD NOT EXCEED THREE X 3 PHASE.

7. POLE MUST BE ON THE SAME SIDE OF THE ROAD AS THE PROPERTY AND WITH IN NOMINALLY 10m OF POINT OF ENTRY TO THE PROPERTY.

8. LEAVE 1.2 METRES EXTRA CABLE. IN FLEXIBLE HOSE-TYPE CONDUIT,COILED HORIZONTALLY NEAR THE BASE OF THE POLE TO ALLOW FOR FUTURE POLE RELOCATION.



POLE TOP ARRANGEMENT

REFER TO NOTES ON DRG D-OH1-0367-SD-002

PLEASE CLARIRY NEW REFERENCE

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	11/APR/19

TITLE: UNDERGROUND SERVICES FROM POLE LOAD < 100AMPS / PHASE

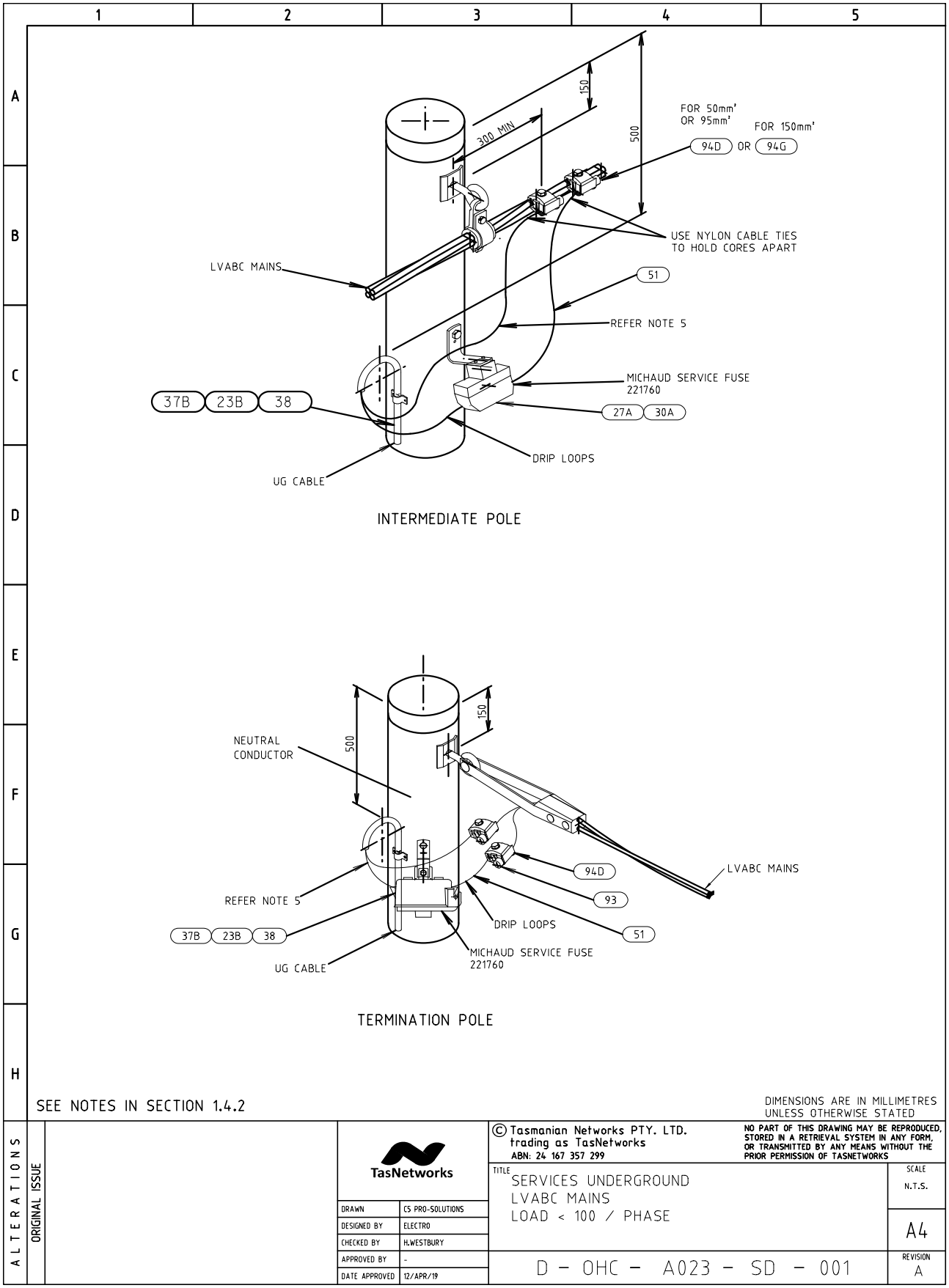
SCALE: NTS

A4

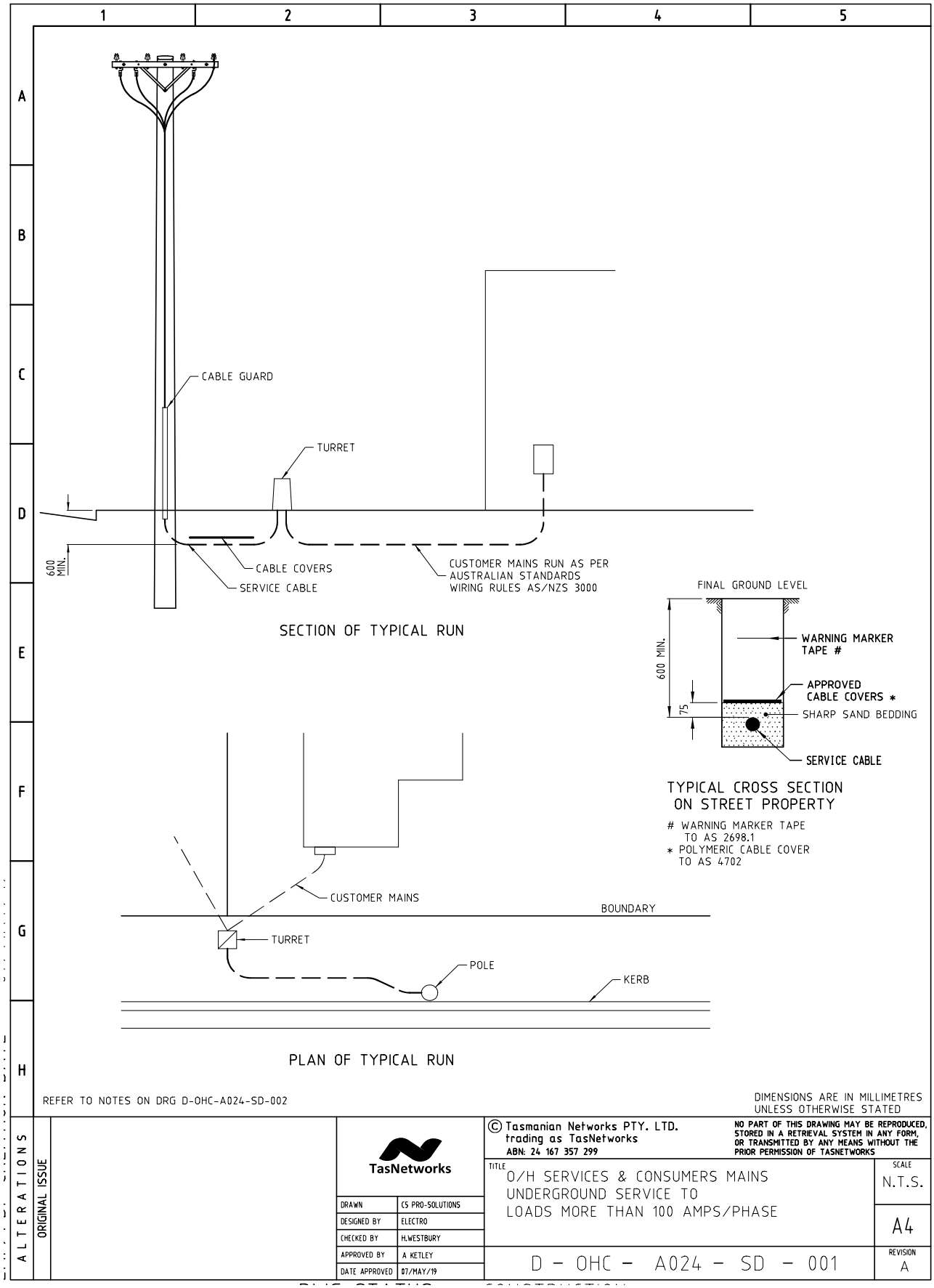
D - OHC - A022 - SD - 002

REVISION: A

1.4.2 Underground Services from LVABC Mains Loads < 100A / Phase



1.4.3 Underground Service from LVABC Mains - Loads < 100 A / phase



1.4.4 Underground services to Loads > 100 A / phase

NOTES

1. THIS DRAWING COVERS THE SITUATION WHERE:-

   (A) SUPPLY IS PROVIDED BY MEANS OF AN OVERHEAD SYSTEM
   (B) A CUSTOMER REQUESTS THAT SUPPLY BE PROVIDED UNDERGROUND
   (C) THE LOAD IS GREATER THAN 100 AMPS PER PHASE 3 PHASE
   (D) THE SUPPLY IS TO BE CONNECTED TO AN TASNETWORKS POLE IN A PUBLIC ROADWAY.

   UNDERGROUND SERVICE CABLE IS PREFERRED IN THIS INSTANCE.

2. REFER TO SECTION 1.6 OF UNDERGROUND CABLE DESIGN AND CONSTRUCTION MANUAL FOR DETAILS OF DESIGN AND CONSTRUCTION.

3. THE CUSTOMER'S TERMINALS MAY BE LOCATED IN A TURRET, SERVICE FUSE BOX, SERVICE FUSE CABINET OR PILLAR.

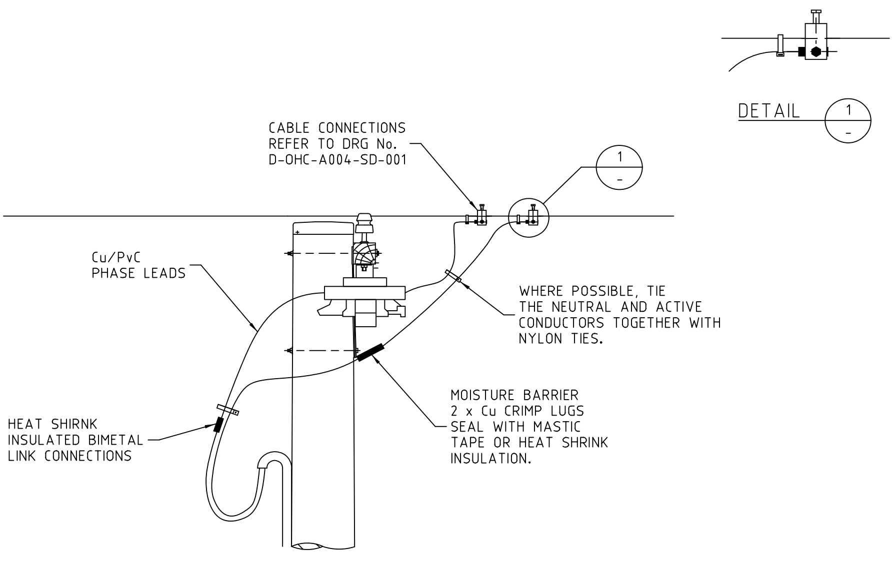
4. THE COSTING POLICY IS COVERED IN THE DIVISION STANDING PROCEDURES PART 18 CHARGEABLE WORK.

5. UNDERGROUND CUSTOMERS MAINS MAY BE INSTALLED ON PRIVATE POLES AND TASNETWORKS TRANSFORMER POLES INSTALLED ON PRIVATE PROPERTY.

   ENSURE THAT CUSTOMERS MAINS CABLE IS ADEQUATELY PROTECTED AGAINST WEATHER AND DAMPNESS IN ACCORDANCE WITH AUSTRALIAN STANDARDS WIRING RULES(AS 3000: 2000.
   ELECTRICAL CONTRACTOR IS TO PROTECT THE CABLE TAILS WHERE NECESSARY WITH HEAT SHRINK MATERIAL OR EQUIVALENT.
   FLEXIBLE HOSE TYPE CONDUIT IS ACCEPTABLE (NOT CORRUGATED CONDUIT).

6. SERVICE CABLE MAY CROSS ROADWAY TO POLE ON OPPOSITE SIDE.

7. LEAVE 1.2 METRES EXTRA CABLE, IN FLEXIBLE HOSE TYPE CONDUIT, COILED HORIZONTALLY NEAR THE BASE OF THE POLE TO ALLOW FOR FUTURE POLE RELOCATION.



POLE TOP ARRANGEMENT

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE; B — NOTE MODIFIED. DESIGNED BY ELECTRO; DRAWN BY D.J.KING; DATE 01/10/2021; DRAFTING CHECK RANMAL LIYANAGE; DATE 01/10/2021; ENG.APPROV. ANGUS KETLEY

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	12/APR/19

TITLE: O/H SERVICES & CONSUMER MAINS UNDERGROUND SERVICE TO LOADS MORE THAN 100 AMPS/PHASE

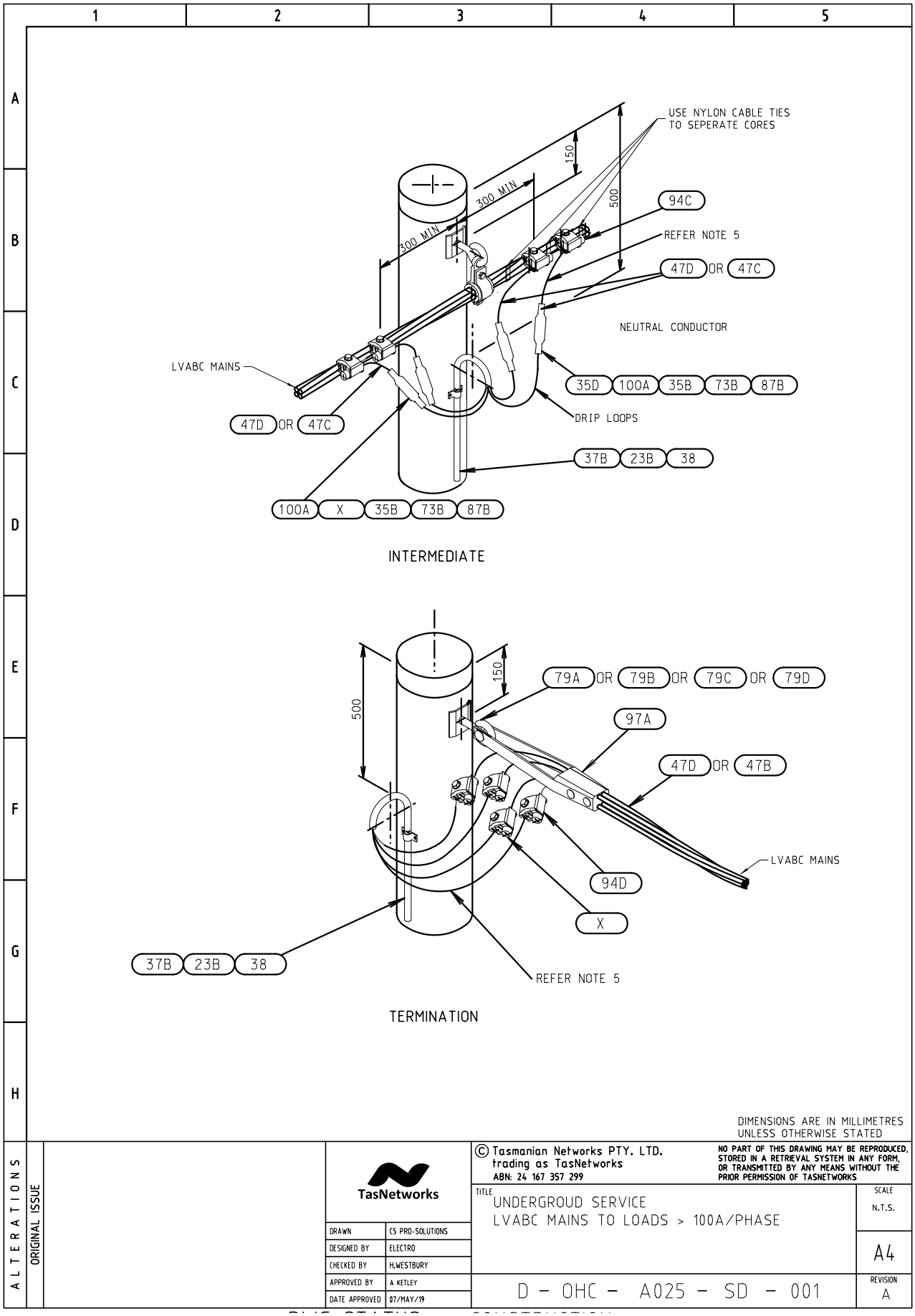
SCALE: NTS

A4

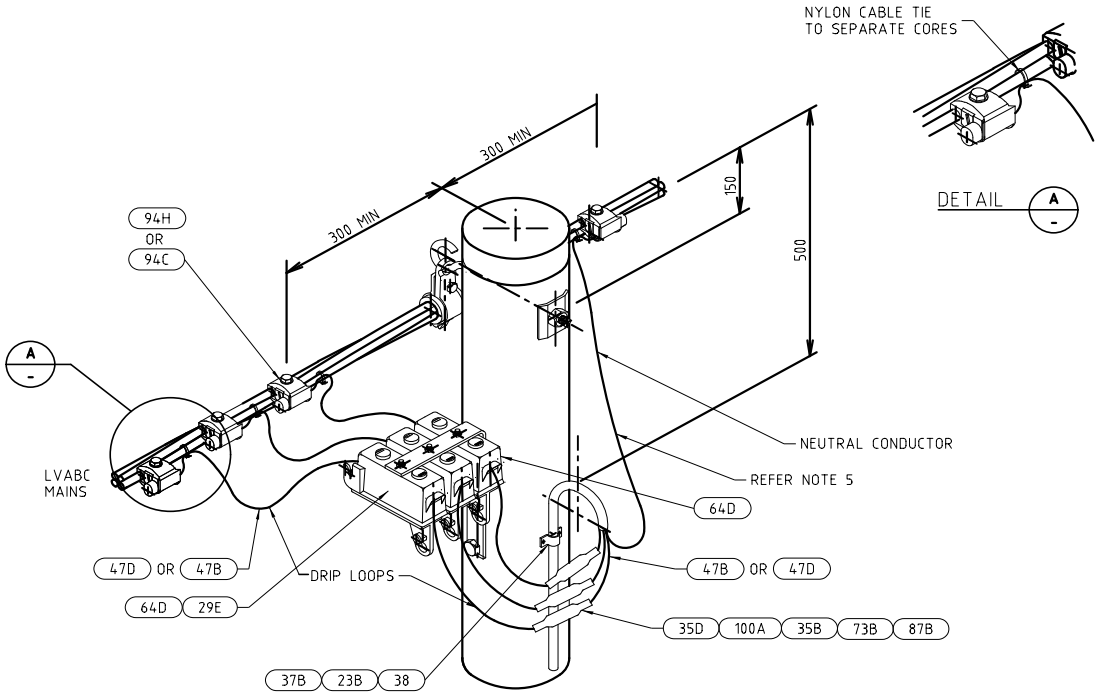
D - OHC - A024 - SD - 002

REVISION: A

1.4.5 Underground Service from LVABC Mains to loads > 100 A / phase



Underground Service from LVABC Mains to loads > 100 A / phase



NOTES:

1. ENSURE THAT END CAPS (ITEM 93) ARE FITTED TO CONDUCTOR ENDS OF LV AERIAL BUNDLED CABLE (LV ABC).
2. ENSURE THAT LV DOES NOT ABRADE AGAINST POLE OR OTHER FITTINGS.
3. UNDERGROUND CUSTOMERS MAINS CABLE MUST BE PROTECTED AGAINST WEATHER AND DAMPNESS IN ACCORDANCE WITH SAA WIRING RULES. THE CABLE TALES ARE TO BE PROTECTED AGAINST MOISTURE INGRESS WITH HEAT SHRINK MATERIAL OR EQUIVALENT.
4. THE CUSTOMER MUST SIGN AN INDEMITY FORM AND OBTAIN WRITTEN PERMISSION FROM THE COUNCIL FOR INSTALLATION OF CUSTOMERS MAINS CABLE ALONG PUBLIC PROPERTY.
5. WHERE THE UNDERGROUND CUSTOMERS MAINS CABLE IS DOUBLE INSULATED REMOVE 50mm OF OUTER PVC SHEATH OF THE TAIL BEFORE INSERTING THE TAIL INTO THE INSULATION PIERCING CONNECTOR.
6. CORRUGATED FLEXIBLE CONDUIT IS NOT PERMITTED.
7. A LOOP IS TO BE LEFT IN THE CABLE AT THE BASE OF THE POLE TO ALLOW FOR POLE RELOCATION.
8. CONTACT OFFICER IN CHARGE FOR DETAILS OF INSTALLATION WHERE CUSTOMER DEMAND IS GREATER THAN 160A PER PHASE OR WHERE CUSTOMERS MAINS CABLE IS LARGER THAN 95mm' .

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE: UNDERGROUND SERVICES
LVABC MAINS TO LOADS > 100AMPS PHASE
-FUSES ON POLE

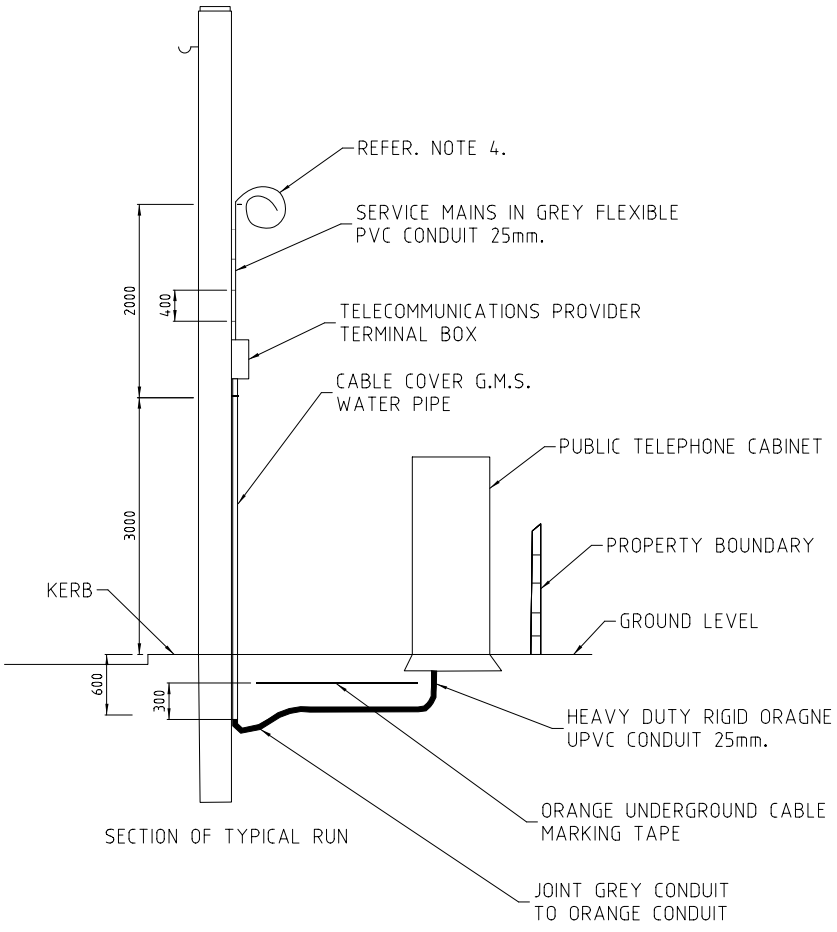
SCALE: N.T.S.

A4

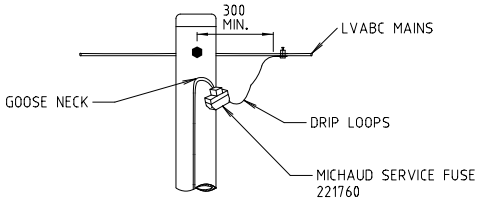
D - OHC - A025 - SD - 002

REVISION: A

1.4.6 Underground Service to Telecommunications Cabinet



SECTION OF TYPICAL RUN



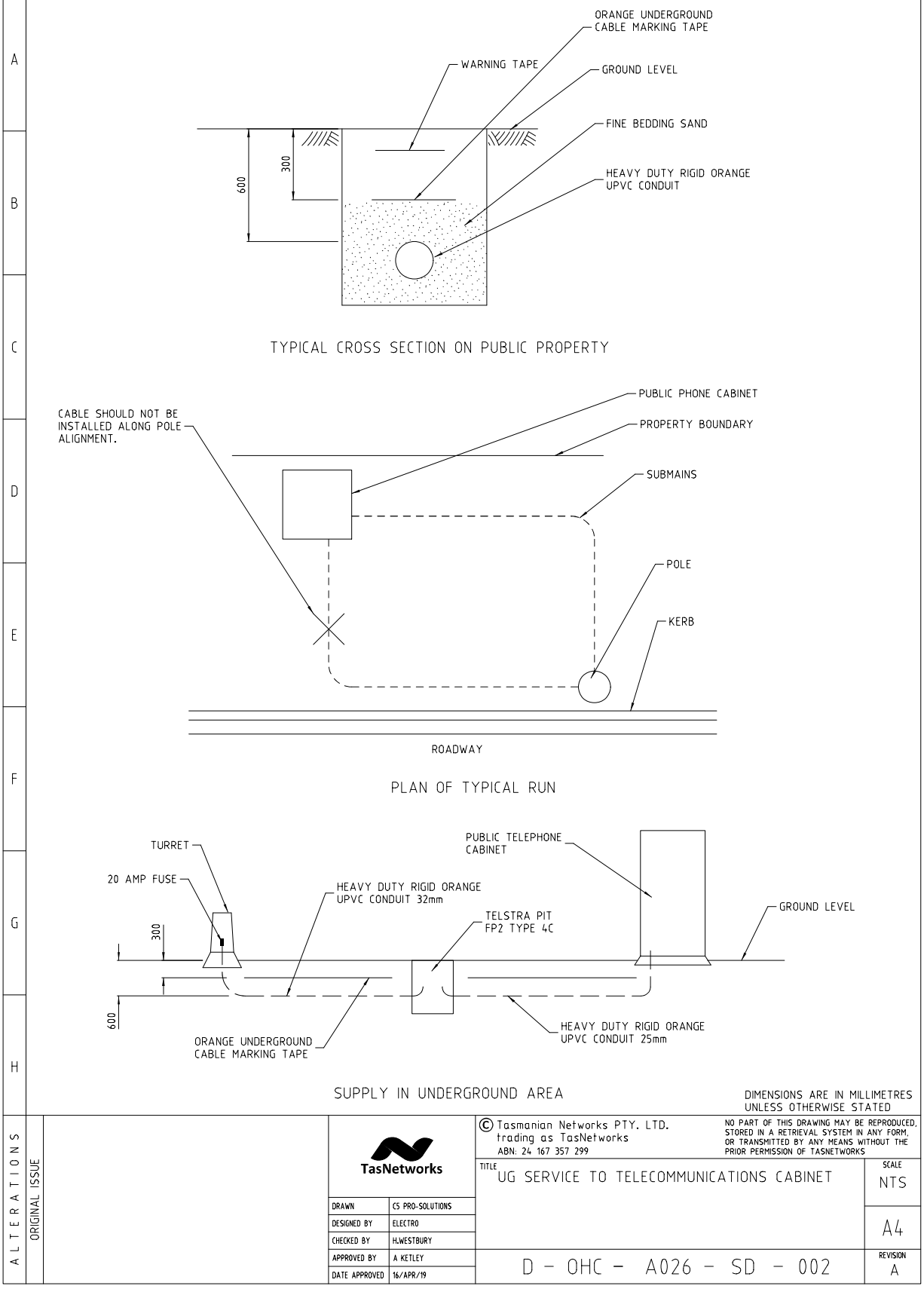
TYPICAL POLE TOP ARRANGEMENT

NOTE 4: COIL CABLE AND CONDUIT (IF REQUIRED) AT A POSITION OF >3m ABOVE GROUND.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS	TasNetworks	© Tasmanian Networks PTY. LTD. trading as TasNetworks ABN: 24 167 357 299	NO PART OF THIS DRAWING MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM IN ANY FORM, OR TRANSMITTED BY ANY MEANS WITHOUT THE PRIOR PERMISSION OF TASNETWORKS	
ORIGINAL ISSUE	DRAWN: CS PRO-SOLUTIONS	TITLE: UG SERVICE TO TELECOMMUNICATIONS CABINET		SCALE: NTS
	DESIGNED BY: ELECTRO			A4
	CHECKED BY: H.WESTBURY			
	APPROVED BY: A KETLEY	D - OHC - A026 - SD - 001		REVISION: A
	DATE APPROVED: 07/MAY/19			

Underground Service to Telecommunications Cabinet



Underground Service to Telecommunications Cabinet

NOTES:

1. ANY NEW OR RELOCATED TELECOMMUNICATION OR PUBLIC TELEPHONE CABINET INSTALLATION SHOULD NOT BE SUPPLIED WITH ELECTRICITY FROM A POLE CARRYING HIGH VOLTAGE CONDUCTORS. AN ALTERNATIVE SUCH AS RELOCATING THE CABINET TO TAKE SUPPLY FROM AN EXISTING TELSTRA ELECTRICAL INSTALLATION OR FROM A TASNETWORKS POLE OR STRUCTURE WHICH DOES NOT CARRY HIGH VOLTAGE CONDUCTORS SHOULD BE CONSIDERED.
2. WHERE AN UNDERGROUND SUPPLY IS REQUIRED FROM ANY TASNETWORKS POLE OR STRUCTURE TO A PUBLIC TELEPHONE CABINET THE CABLE SHALL BE ENCLOSED FOR THE WHOLE LENGTH IN A NON METALLIC PIPE COMPLYING WITH AS3000.
3. IN ALL CASES WHERE THE CABLE AND NON-METALLIC PUPE ARE EXPOSED ON THE SURFACE OF A POLE OR STUCTURE, ADDITONAL MECHANICAL PROTECTION SHALL BE PROVIDED OVER THE NON-METALLIC PIPE FROM GROUND LEVELTO 300mm ABOVE THE GROUND AND 600mm BELOW THE GROUND.
4. THE TELECOMMUNICATIONS PROVIDER SHALL PROVIDE SPARE CONDUIT, CABLE, SADDLES AND NAILS WHICH ARE TO BE SECURELY ATTACHED TO THE POLE FOR TASNETWORKS TO COMPLETE THE INSTALLATION.
5. WHERE A TERMINAL BOX IS ATTACHED TO AN TASNETWORKS POLE OR STRUCTURE, THE CUSTOMERS MAINS CABLE MAY BE CONNECTED DIRECTLY TO THE OVERHEAD SUPPLY.
6. TELECOMMUNICATIONS CABINETS SHALL BE INSTALLED NO NEARER TO ANY POLE THAN 3 METRES, OR WHERE THE POLE CARRIES AN LV NEUTRAL EARTH 6 METRES.
7. A MINIMUM SEPARATION OF 15 METRES SHALL BE MAINTAINED BETWEEN TELECOMMUNICATIONS CABINETS AND ANY TASNETWORKS HV EARTH IN ACCORDANCE WITH DRAWING D-OH1-0302-SD-001 AND 0303-SD-001.
8. ORANGE UNDERGROUND PVC CONDUIT MUST NOT BE EXPOSED TO DIRECT SUNLIGHT.
9. WHERE AN OVERHEAD PVC CONDUIT OR SERVICE IS REQUIRED NO LV NEUTRAL EARTH IS TO BE INTALLED ON THE TELSTRA SERVICE POLE. SERVICE FUSE TO BE INSTALLED ON TAKE OFF POLE IN THIS INSTANCE.
10. WHERE THE CUSTOMER'S MAINS CABLE IS TO BE CONNECTED TO AN LV ABC SYSTEM REMOVE 50mm OF OUTER PVC SHEATH BEFORE INSERTING THE DOUBLE INSULATED CABLE INTO THE INSULATION PIERCING CONNECTORS.
11. INDEMNITY FORM TO BE SIGNED BY TELECOMMUNICATIONS PROVIDER FOR THEIR ATTACHMENT TO TASNETWORKS' POLE OR STRUCTIRE.
12. FOR SUPPLY IN UNDERGROUND AREA (FROM TURRET, STANDARD, PILLAR ETC) PROVIDE 20 AMP HRC FUSE FOR CUSTOMER MAINS CONNECTIONS.

DIMENTIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	16/APR/19

TITLE: O/H SERVICE TO TELECOMMUNATION NOTES

SCALE: NTS

A4

D - OHC - A026 - SD - 003

REVISION: A

1.5 Service Cable & Fittings

1.5.1 Approved Service Conductors

The following types of service cables are approved for use:

a) LVABC Aluminium / XPLE cable – 2, 3 & 4 core cable.
b) Insulated conductors that include 2, 3 & 4 core twisted or figure 8 copper, with PVC insulation.
c) Single core conductors comprised of copper aerial conductors with a black PVC cover. CAUTION: This PVC covering does not reliably provide for 250V insulation as must be treated as bare conductor. These conductors have been traditionally used for "open wire" services since mid-1976.

Bare service conductors are not permitted for either new services or aerial consumers mains, however, have been installed in the past (prior to 1/6/87). Where bare service conductors require augmenting, they are to be replaced with insulated conductors.

Where distribution poles are replaced and with bare service conductor attached, and it is not economic to replace the bare service cables with approved service cables, the following minimum conductor vertical separation it is to be achieved.

Vertical Separation (mm)	Span Range (m)
400	Up to 10
500	10 to 25
600	25 to 45
700	45 to 60

1.5.2 Service Cable Details

THE FOLLOWING TABLE LISTS GENERAL DATA ON THE SERVICE CONDUCTORS

NOT APPLICABLE FOR THE CONSTRUCTION MANUAL

No OF CORES	SERVICE CONDUCTOR XLPE INSULATED ALUMINIUM CORE METRIC	SERVICE CONDUCTOR XLPE INSULATED ALUMINIUM CORE IMPERIAL	SECTIONAL AREA PER PHASE mm^2	OVERALL DIAMETER mm	MASS kg/m	CONTINIOUS CURRENT RATING AMPS/PHASE	SERVICE FOR MAX. SIZE OF V75 UNENCLOSED CONSUMER MAINS mm^2	VOLT DROP mV/Am ph 1	VOLT DROP mV/Am ph 3
2	25		25	17.2	0.2	125		2.89	
* 3	25		25	18.5	0.3	105		2.59	
4	25		25	20.7	0.4	105		2.59	2.31
	SERVICE CONDUCTOR HARD DRAWN COPPER V75 INSULATED 0.6/1kV								
2	* 7/1.35		10	6.3 x 13.5	0.236	80	-	4.42	
	*	7/.044	6.8	6.0 x 12.5	0.168	65	-		
3	7/1.35		10	14	0.354	60	-	4.42	
	*	7/.044	6.8	12.5	0.252	55	-		
4	*7/1.35		10	15.6	0.472	60	-	4.42	3.83
	*	7/.044	6.8	14	0.336	55	-		
2	7/1.70		16	7.3 x 14.6	0.36	110	16	2.83	-
	*	7/.064	14.5	7.5 x 15.0	0.336	100	-		
3	7/1.70		16	16	0.54	100	35	2.83	-
	*	7/.064	14.5	16	0.505	100	-		
4	7/1.70		16	18	0.72	100	35	2.83	2.45
	*	7/.064	14.5	18	0.67	100	-		
1	*7/1.35		10	6.3	0.118	85	-	4.42	3.83
	*	7/.044	6.8	6	0.084	65	-		
1	7/1.70		16	7.3	0.18	110	-	2.83	2.45
	*	7/.064	14.5	7.5	0.168	100	-		
1	19/1.35		25	9.4	0.3	150	70	1.74	1.5
	*	7/.080	22.7	9	0.247	135	-		
1	19/1.78		50	12	0.511	210	120	1.12	0.97
	*	19/.064	38.4	11.5	0.427	180	-		
1	19/2.14		70	13.8	0.722	265	185	0.89	0.77
	*	19/.083	66.3	14.5	0.668	250	-		

* CABLE NO LONGER PURCHASED

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	
DATE APPROVED	12/APR/19

TITLE: O/H SERVICES & CONSUMERS MAINS SERVICE CABLE DETAILS

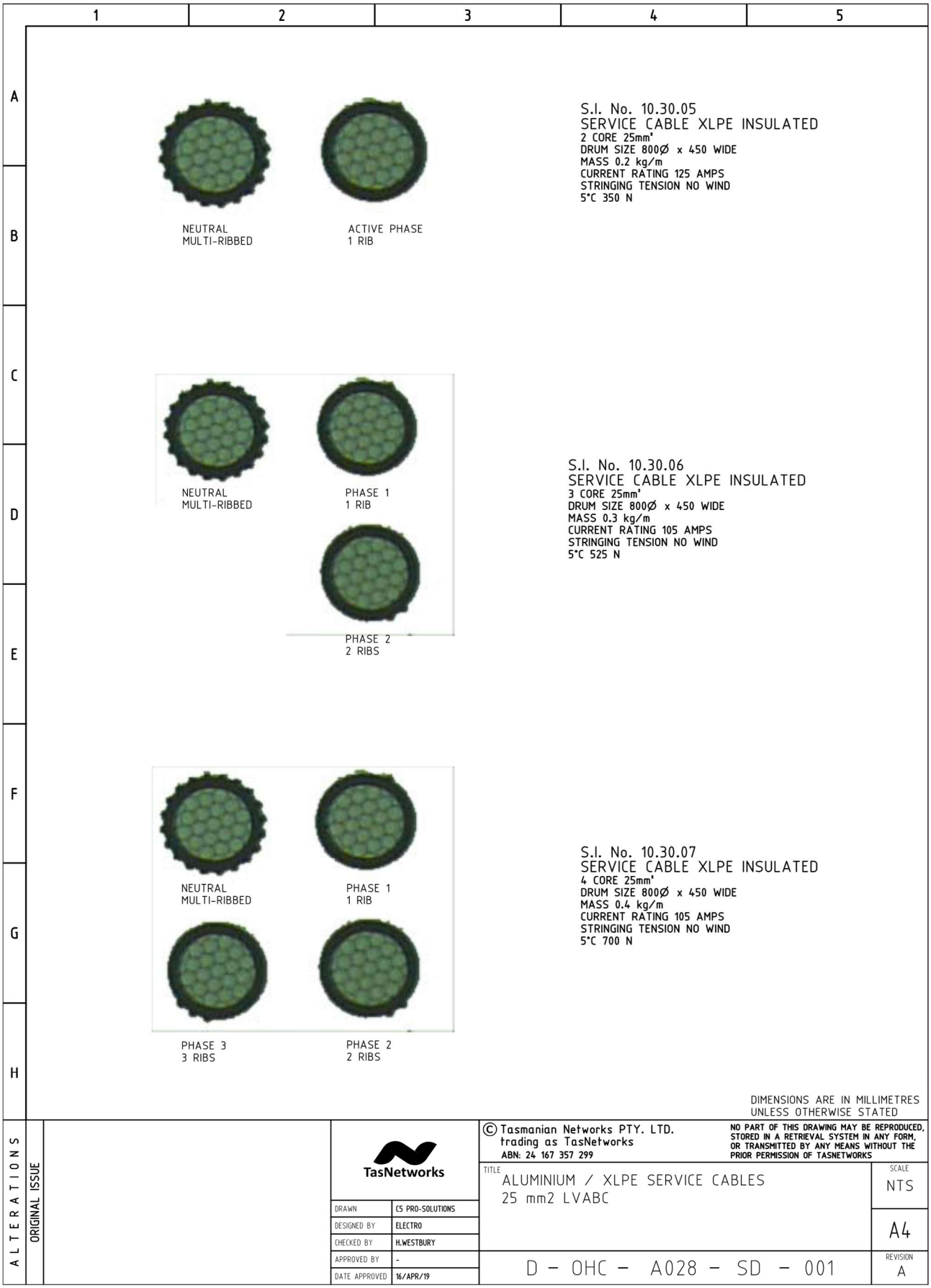
SCALE: NTS

A4

D - OHC - A027 - SD - 001

REVISION: A

1.5.3 LVABC 25mm^2 Aluminium / XPLE Service Cables



1.5.4 Comparison of single core Copper cable to nearest Aluminium Equivalent

COMPARISON OF SINGLE CORE INSULATED COPPER CABLES TO NEAREST INSULATED ALUMINIUM EQUIVALENT CABLE (SINGLE PHASE AERIAL)

COPPER			ALUMINIUM		
SIZE mm^2	STRANDING	CURRENT CAP. AMPS	SIZE mm^2	STRANDING	CURRENT CAP. AMPS
6	7/1.04	62	10		
10	7/1.35	84	16	7/1.70	87
16	7/1.70	111	25	19/1.35	120
25	19/1.35	152	35	19/1.53	140
35	19/1.53	177	50	19/1.78	166
50	19/1.78	210	70	19/2.14	208
70	19/2.14	265	120	37/2.03	290
95	19/2.52	314	150	37/2.25	327
120	37/2.03	368	185	37/3.52	372
150	37/2.25	414	240	61/2.25	450

CURRENT CAPACITIES ARE BASED ON SINGLE CORE INSULATED CABLES WITH A WIND SPEED OF 0.5 m/s AND 40° C AMBIENT TEMPERATURE. MAXIMUM CABLE TEMPERATURE OF 75° C
REFERENCE TABLES 19 & 20 AS/NZS 3008.1

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	12/APR/19

TITLE: COMPARISON OF SINGLE CORE INSULATED COPPER CABLES TO NEAREST INSULATED ALUMINIUM EQUIVALENT CABLE

SCALE: NTS

A4

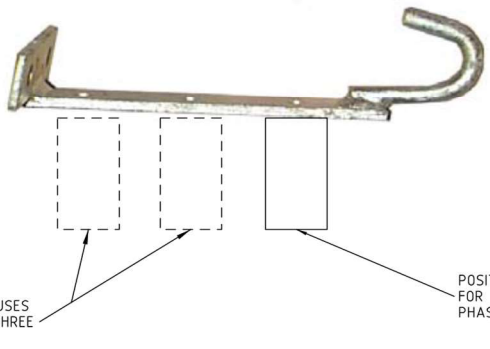
D - OHC - A029 - SD - 001

REVISION: A

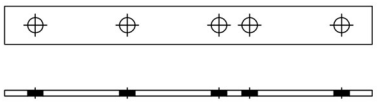
1.5.5 Service Hooks & Service Fuseholder Brackets

S.I. No. 32.33.97
HOUSE SERVICE FUSE BRACKET WITH HOOK
SINGLE PHASE

OBSOLETE - FOR REFERENCE ONLY



S.I. No. 32.33.98
HOUSE SERVICE FUSE BRACKET WITH HOOK
MULTI PHASE



S.I. No. 32.33.81
SERVICE FUSE BRACKET WITH HOOK
MULTI PHASE RETROFIT
USED WITH EXISTING MK60 ON EXISTING
MULTI PHASE SERVICES

OBSOLETE - FOR REFERENCE ONLY

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS									
ORIGINAL ISSUE	29A DETAILS MOVED TO D-OHC-A030-SD-002.	B	TasNetworks	DESIGNED BY ELECTRO	DRAWN BY D J KING	DRAFTING CHECK RAHMAL LIYANAGE	DATE 01/10/2021	EXAMINED BY ANGUS KETLEY	DATE 01/10/2021

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	12/APR/19

TITLE: SERVICE HOOKS & FUSEHOLDER BRACKETS

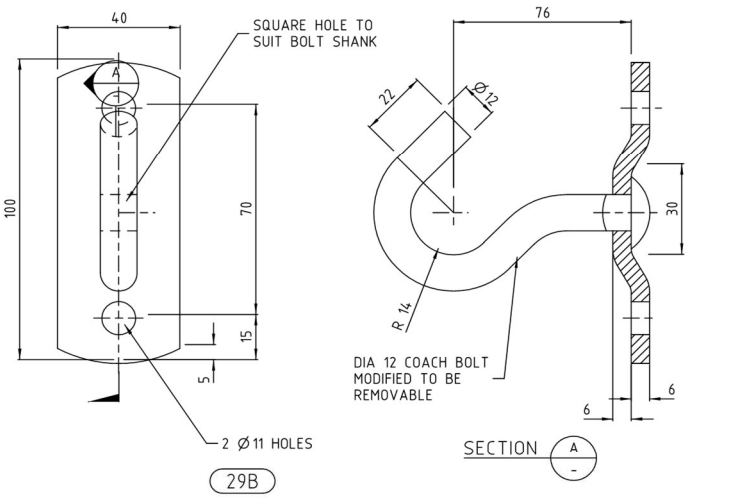
SCALE: NTS

A4

D - OHC - A030 - SD - 002

REVISION: B

Service Hooks & Service Fuseholder Brackets



29B

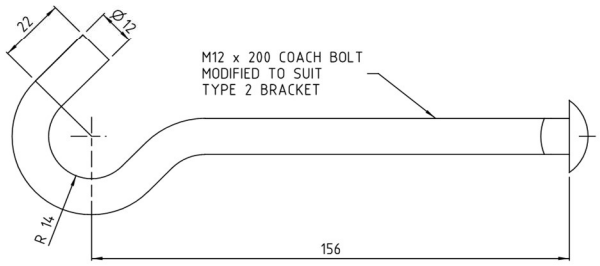
SERVICE BRACKET

HOUSE END

MATERIAL: COACH BOLT TO AS/NZS 1390 - M12 x (SUITABLE LENGTH)-4.6
40 x 6 FLAT BAR TO AS/NZS 3679.1-300
S.I. No 32.37.44

29B

S.I. No. 32.37.44
SERVICE HOOK
FASCIA MOUNTED



- OBSOLETE
- FOR REFERENCE ONLY

LONG BOLT OPTION

MATERIAL: COACH BOLT TO AS/NZS 1390
- M12 x (SUITABLE LENGTH)-4.6
S.I. No 32.37.50

FINISH:- HOT DIP GALVANIZE TO AS 4680

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS					
ORIGINAL ISSUE	B	DESIGNED BY ELECTRO	DRAWN BY D.J.KING	DRAFTING CHECK RANPAL LIYANAGE	DATE 01/10/2021
PICTURE ADDED.		ENG.APPROV. ANGUS KETLEY	DATE 01/10/2021		

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	15/APR/19

TITLE: SERVICE HOOKS & FUSEHOLDER BRACKETS

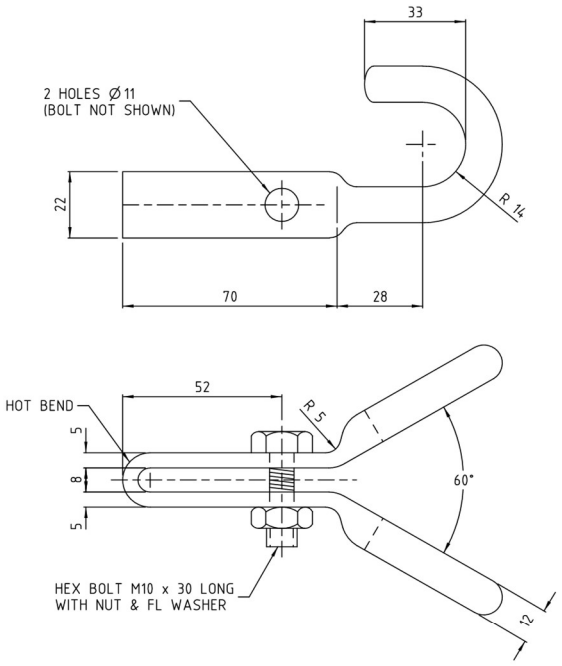
SCALE: 1:2

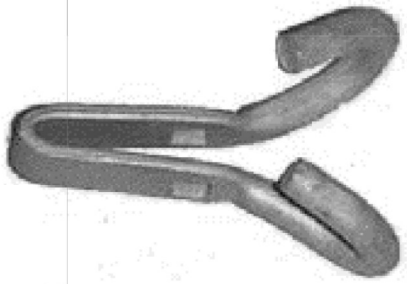
A4

D - OHC - A030 - SD - 003

REVISION: B

Service Hooks & Service Fuseholder Brackets





29A

CROSSARM STRAP SERVICE BRACKET

S.I. No. 32.27.55
SERVICE HOOK
CROSSARM STRAP MOUNTED

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE
NOTE MODIFIED.
B

TasNetworks
DESIGNED BY ELECTRO
DRAWN BY D J KING
DRAFTING CHECK RANMAL LIYANAGE
ENG.APPROV. ANGUS KETLEY
DATE 01/10/2021
DATE 01/10/2021

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	15/APR/19

TITLE
SERVICE HOOKS & FUSEHOLDER BRACKETS
CROSSARM STRAP SERVICE BRACKET

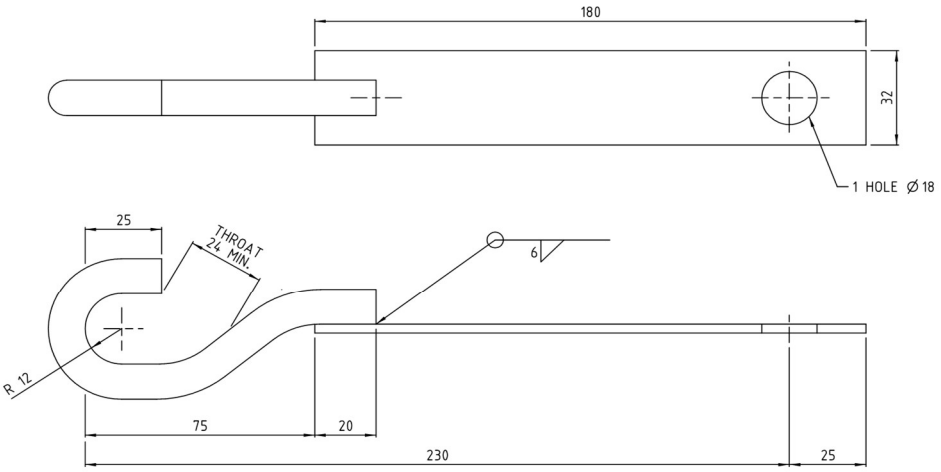
SCALE 1:2

A4

D - OHC - A030 - SD - 004

REVISION B

Service Hooks & Service Fuseholder Brackets



ITEM 29D
SERVICE EXTENSION HOOK
SI No 32.33.24
MATERIAL: 32 x 3 FLAT BAR 180 LONG AND 12 ROUND BAR
TO AS/NZS 3679.1-300

S.I. No. 32.33.24
SERVICE EXTENSION HOOK
USED WHEN THERE IS INSUFFICIENT CLEARANCE
BETWEEN BUILDING GUTTERS ETC

NOTE
1. HOT DIP GALVANIZE TO AS/NZS 4680

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS					
ORIGINAL ISSUE	B	DESIGNED BY	C5 PRO-SOLUTIONS	DRAWN BY	D.KING
IMAGE ADDED.		DRAFTING CHECK	RANMAL LIYANAGE	DATE	01/10/2021
		ENG.APPROV.	ANGUS KETLEY	DATE	01/10/2021

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	12/APR/19

TITLE: SERVICE HOOKS & FUSEHOLDER BRACKETS

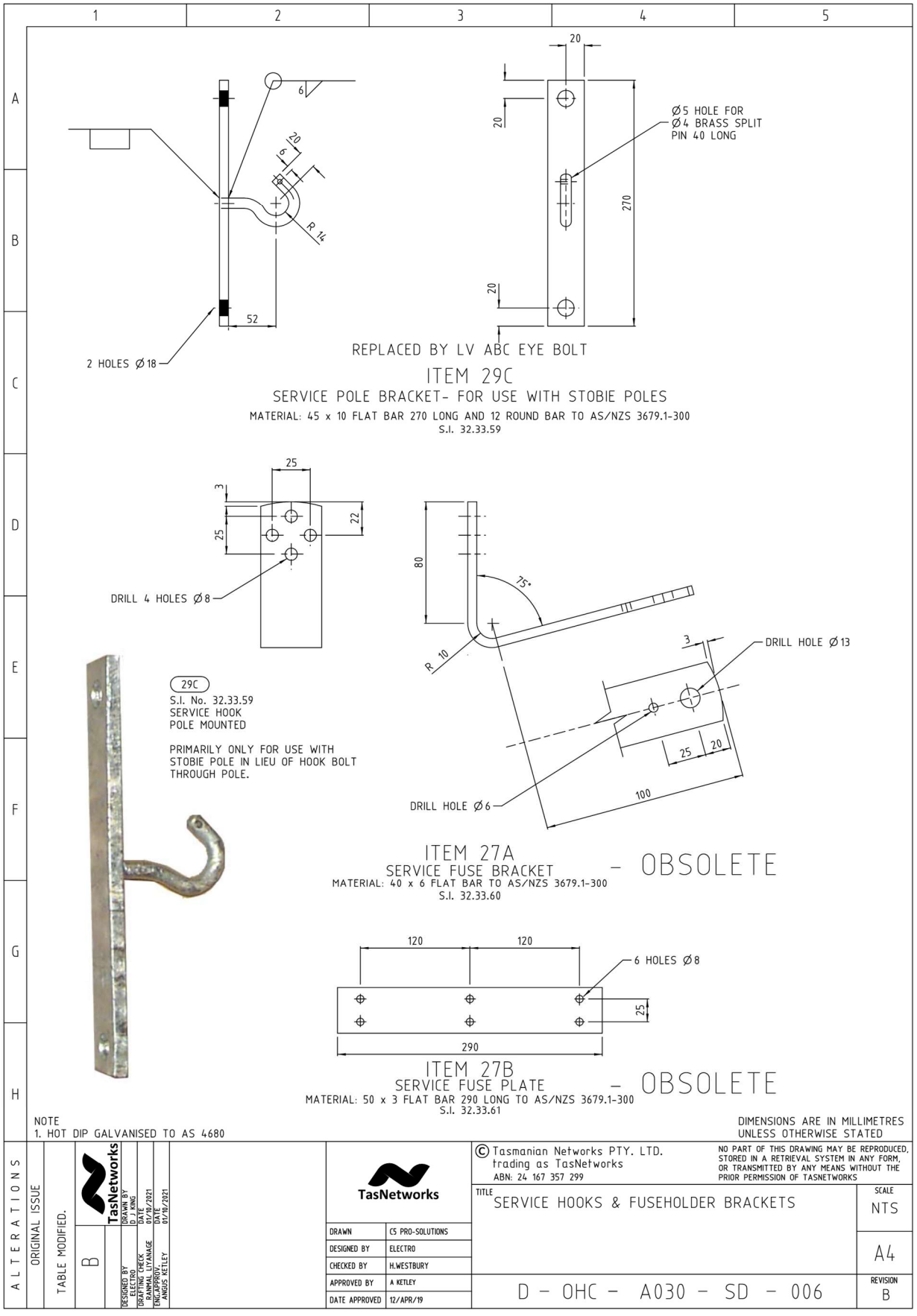
SCALE: 1:2

A4

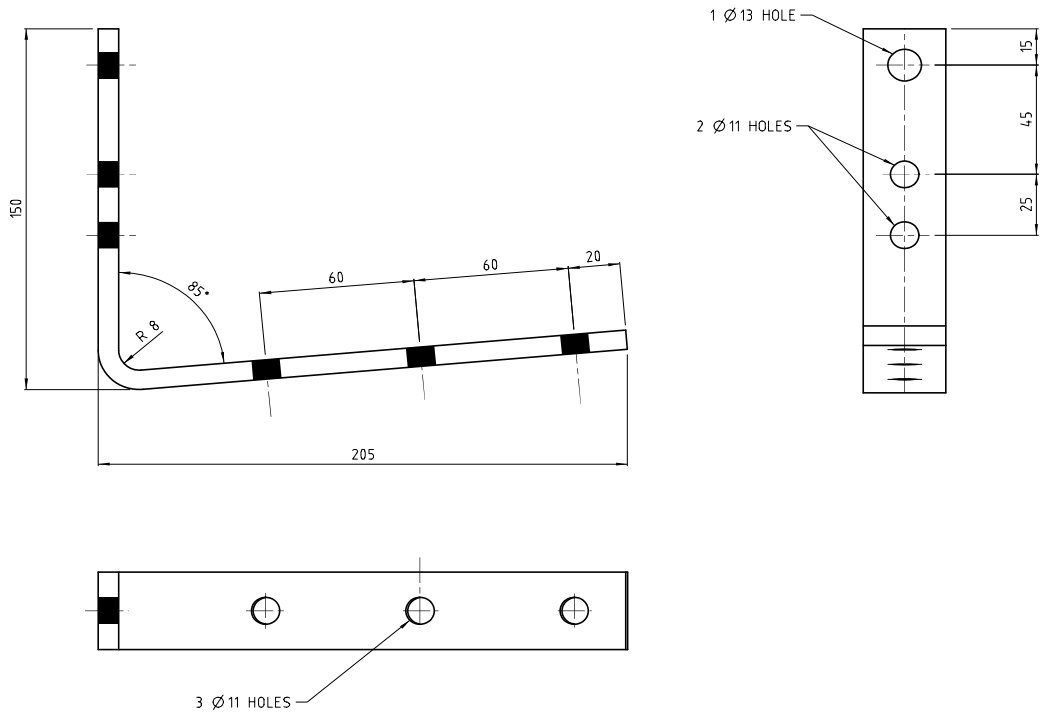
D - OHC - A030 - SD - 005

REVISION: B

Service Hooks & Service Fuseholder Brackets

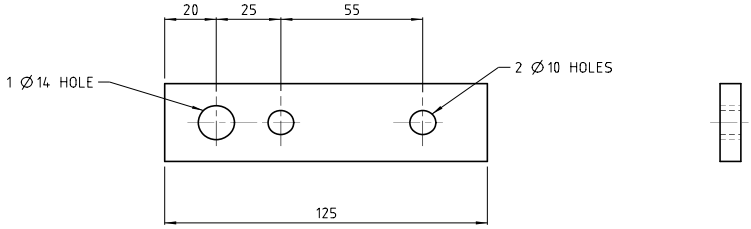


Service Hooks & Service Fuseholder Brackets



MICHAUD MULTIPHASE SERVICE FUSE BRACKET

MATERIAL: 32 x 8 FLAT TO AS/NZS 3679.1
FINISH : GALVANISE
SCALE: 1:2.5
S.I. No 32.34.01



MICHAUD SINGLE PHASE SERVICE FUSE BRACKET

MATERIAL: 32 x 8 FLAT TO AS/NZS 3679.1
FINISH : GALVANISE
SCALE: 1:2.5
S.I. No 32.34.07

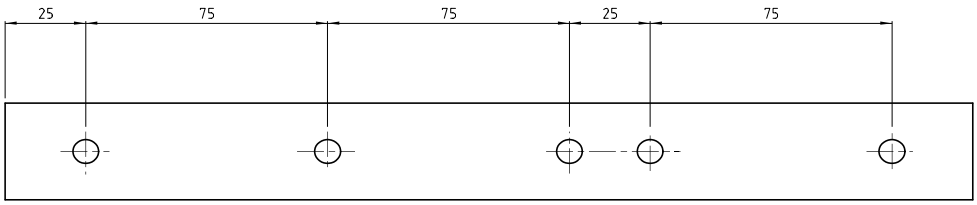
NOTE

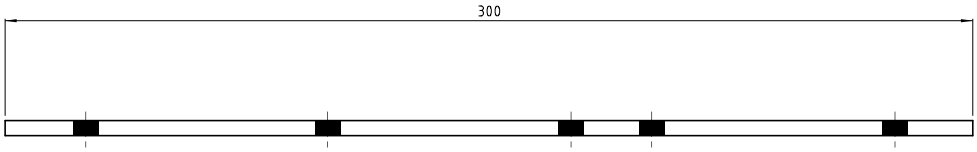
1. REMOVE ALL SHARP EDGES AND BURRS.
2. AS THIS ITEM FITS INTO A CLOSE TOLERANCE SLOT ENSURE THAT ANY SPLAYED ENDS OR ZINC BLOBS ARE REMOVED.
3. HOT DIP GALVANISE TO AS 4680.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS		TasNetworks		© Tasmanian Networks PTY. LTD. trading as TasNetworks ABN: 24 167 357 299	NO PART OF THIS DRAWING MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM IN ANY FORM, OR TRANSMITTED BY ANY MEANS WITHOUT THE PRIOR PERMISSION OF TASNETWORKS	
ORIGINAL ISSUE		DRAWN	CS PRO-SOLUTIONS	TITLE SERVICE HOOKS & FUSEHOLDER BRACKETS		SCALE 1:2.5
		DESIGNED BY	ELECTRO			A4
		CHECKED BY	H.WESTBURY			
		APPROVED BY	-	D - OHC - A030 - SD - 007		REVISION A
		DATE APPROVED	12/APR/19			

Service Hooks & Service Fuseholder Brackets





MICHAUD SERVICE FUSE BRACKET
MULTIPHASE - RAISER BRACKET

MATERIAL: 32 x 5 FLAT TO AS/NZS 3679.1-300
FINISH : GALVANISE
SCALE: 1:2
S.I. No 32.33.81

NOTE
1. REMOVE ALL SHARP EDGES AND BURRS.
2. AS THIS ITEM FITS INTO A CLOSE TOLERANCE SLOT ENSURE THAT ANY SPLAYED ENDS OR ZINC BLOBS ARE REMOVED.
3. HOT DIP GALVANISE TO AS 4680.

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	12/APR/19

TITLE: SERVICE HOOKS & FUSEHOLDER BRACKETS

SCALE: 1:2

A4

D - OHC - A030 - SD - 008

REVISION: A

1.5.6 Strain & Suspension Clamps for 25mm^2 LVABC Services

97C
S.I. No. 14.56.06
STRAIN CLAMP
FOR SERVICE CABLE 25mm² XLPE 2 CORE
GALVANISED STEEL HOOK BCST20253G

SIDE VIEW OF STRAIN CLAMP

97C
S.I. No. 14.56.06
STRAIN CLAMP
USED AS SUSPENSION CLAMP
LOOSEN BOLT AND ROTATE CLAMPING BODY

SIDE VIEW OF STRAIN CLAMP
USED AS SUSPENSION CLAMP

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

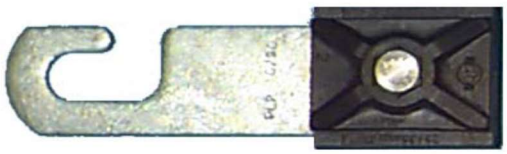
DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE
ALUMINIUM XLPE CABLE
OVERHEAD SERVICE COMPONENTS
STRAIN & SUSPENSION CLAMPS

SCALE NTS
A4
REVISION A

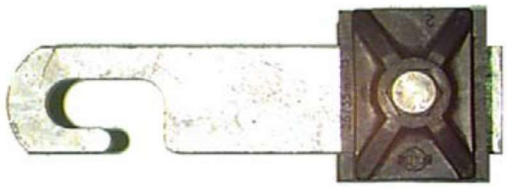
D - OHC - A031 - SD - 001

Strain & Suspension Clamps for 25mm^2 LVABC Services

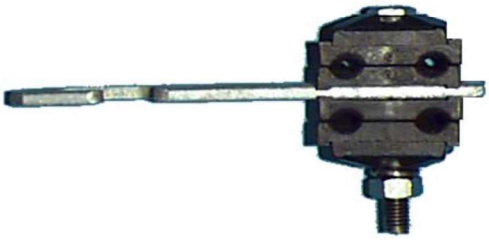


97D
S.I. No. 14.56.05
STRAIN CLAMP
TO SUIT 3 & 4 CORE 25mm²
XLPE SERVICE CABLE
GALVANISED STEEL HOOK

SIDE VIEW OF STRAIN CLAMP
TWO CORES OF CABLE CLAMPED EACH SIDE
OF GALVANISED HOOK
CLAMPING TENSION Nm



97D
S.I. No. 14.56.05
STRAIN CLAMP
USED AS SUSPENSION CLAMP
LOOSEN BOLT AND ROTATE CLAMPING BODY
THROUGH 90°



SUSPENSION CLAMP SIDE VIEW

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE
ALUMINIUM XLPE CABLE
OVERHEAD SERVICE COMPONENTS
STRAIN & SUSPENSION CLAMPS

SCALE NTS

A4

D - OHC - A031 - SD - 002

REVISION A

1.5.7 Insulated Strain & Suspension Clamps for 25mm^2 LVABC Services

97E
S.I. No. 14.56.63
STRAIN CLAMP
TO SUIT 2 & 4 CORE 25mm² XLPE SERVICE CABLE
INSULATED HOOK
BCST-2025-3P

SIDE VIEW OF STRAIN CLAMP

97E
S.I. No. 14.56.63
STRAIN CLAMP USED AS A
SUSPENSION CLAMP

SIDE VIEW OF STRAIN CLAMP
USED AS SUSPENSION CLAMP

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

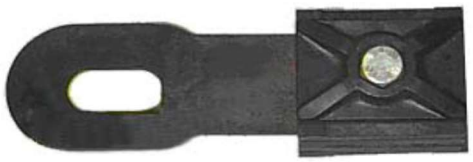
DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE
ALUMINIUM XLPE CABLE
OVERHEAD SERVICE COMPONENTS
STRAIN & SUSPENSION CLAMPS
INSULATED

SCALE NTS
A4
REVISION A

D - OHC - A032 - SD - 001

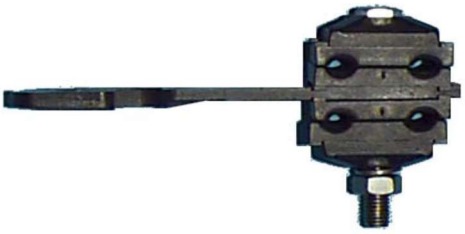
Insulated Strain & Suspension Clamps for 25mm^2 LVABC Services



97F
S.I. No. 14.56.64
STRAIN CLAMP
TO SUIT 2 & 4 CORE 25mm² XLPE SERVICE CABLE
INSULATED HOOK

SIDE VIEW OF STRAIN CLAMP
2 CORES CLAMPED EACH SIDE OF INSULATED HOOK
CLAMPING TENSION Nm

97F
S.I. No. 14.56.64
STRAIN CLAMP
USED AS SUSPENSION CLAMP
INSULATED HOOK
LOOSEN BOLT AND ROTATE CLAMPING BODY THROUGH 90°
SUITABLE FOR 2 & 4 CORE 25mm² XLPE SERVICE CABLE



SIDE VIEW OF STRAIN CLAMP
USED AS SUSPENSION CLAMP
2 CORES CLAMPED EACH SIDE OF INSULATED HOOK
CLAMPING TENSION Nm

DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE: ALUMINIUM XLPE CABLE OVERHEAD SERVICE COMPONENTS STRAIN & SUSPENSION CLAMPS INSULATED

SCALE: NTS

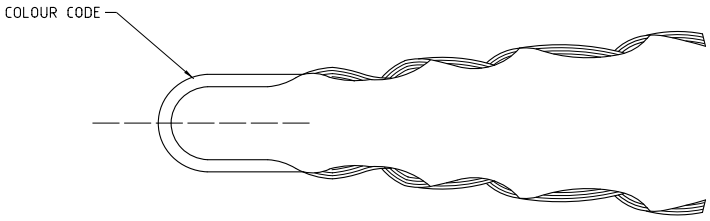
A4

D - OHD - A032 - SD - 002

REVISION: A

1.5.8 Helical Service Terminations for Copper / PVC Service Cables

CATALOGUE No.	ITEM No.	COMPLETE FITTING S.I. No.	HELICAL TERMINATION COLOUR CODE	NEOPRENE LENGTH mm	TUBING S.I. No.	CABLE RANGE
DULMISON DIS 1400N	53V	32.41.10	RED	450	32.41.25	7/1.35 ($10mm^2$) 2 CORE 3 CORE 4 CORE 7/1.70 ($16mm^2$) 2 CORE
DULMISON DIS 1600N	53W	32.41.15	WHITE	520	32.41.26	7/1.70 ($16mm^2$) 3 CORE 4 CORE
DULMISON DIS 1500N	53X	32.41.05	WHITE	520	32.41.24	19/1.78 ($50mm^2$) 1 CORE 19.2.14 ($70mm^2$) 1 CORE
FANNER CSG-180-D1-19	53V	32.41.10	WHITE	620		7/1.35 ($10mm^2$) 2 CORE 3 CORE 4 CORE 7/1.70 ($16mm^2$) 2 CORE
FANNER CSG-220-D1-20	53W	32.41.15	YELLOW	620		7/1.70 ($16mm^2$) 3 CORE 4 CORE



DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE: SERVICES
HELICAL SERVICE TERMINATIONS
FOR COPPER/PVC SERVICE CABLES

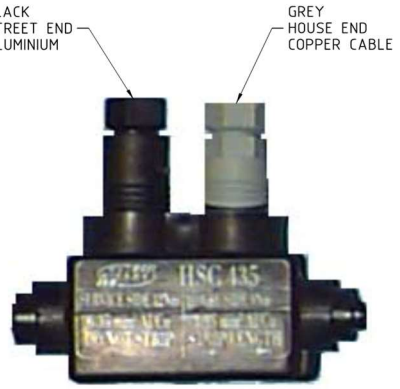
SCALE: NTS

A4

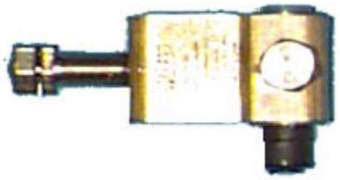
D - OHC - A033 - SD - 001

REVISION: A

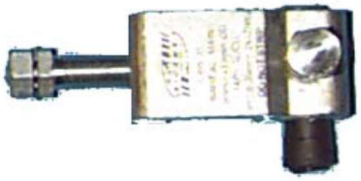
1.5.9 Insulation Piercing Connectors for LVABC Service Cable



94K
S.I. No. 14.56.54
NEUTRAL CONNECTOR
INSULATION PIERCING CONNECTOR
FOR SERVICE CABLE 25mm² Al XLPE
TO 16mm²Cu PVC INSULATED
SHEAR HEAD TENSION 9 Nm
HSC 435
STRIP COPPER CABLE ONLY ON HOUSE END
SIDE - 15mm



94E
S.I. No. 14.56.55
CONNECTOR
INSULATION PIERCING BARE Cu
CONDUCTOR (50 - 150mm) TO
25mm²Al XPLE SERVICE CABLE
BRASS BODY
CCW35



94F
S.I. No. 14.56.62
CONNECTOR
INSULATION PIERCING BARE Al
CONDUCTOR (50 - 150mm) TO
25mm²Al XPLE SERVICE CABLE
ALUMINIUM BODY
CAW35

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE: ALUMINIUM / XLPE CABLE
INSULATION - PIERCING CONNECTORS

SCALE: NTS
A4

D - OHC - A034 - SD - 001

REVISION: A

Insulation Piercing Connectors for LVABC Service Cable

94G
S.I. No. 14.56.59
CONNECTOR
INSULATING PIERCING CONNECTOR
FOR 150mm² LVABC MAIN
25mm² SERVICE CABLE
TTD241FX

94D
S.I. No. 14.56.19
CONNECTOR
INSULATING PIERCING CONNECTOR
25 - 95mm² LVABC MAIN
25mm² SERVICE CABLE
TTD151FAX

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS	
ORIGINAL ISSUE	

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE
ALUMINIUM / XLPE CABLE
INSULATION - PIERCING CONNECTORS

SCALE NTS

A4

D - OHC - A034 - SD - 002

REVISION A

1.5.10 Service Fuseholders

MICHAUD SERVICE FUSE
S.I. No. 22.17.60

APPLICATION OF SERVICE FUSES

NORMAL FUSE CARTRIDGE	APPLICATION
100 AMP CARTRIDGE SIZE 57.0mm LONG x 22.2mmØ S.I. No. 22.24.27	ALL CONSUMER MAINS

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	15/APR/19

TITLE
OVERHEAD SERVICES
SERVICE FUSE HOLDERS
MICHAUD

SCALE NTS

A4

D - OHC - A035 - SD - 001

REVISION A

1.5.11 Service Fuse Elements

S.I. No. 22.24.27
SERVICE FUSE ELEMENT
100AMP 440V FERRULE FUSE
22.2mm Ø x 57mm LONG

S.I. No. 22.23.90
SERVICE FUSE ELEMENT
30AMP 440V FERRULE FUSE
22.2mm Ø x 57mm LONG

S.I. No. 22.23.96
SERVICE FUSE ELEMENT
50AMP 440V FERRULE FUSE
22.2mm Ø x 57mm LONG

S.I. No. 22.23.93
SERVICE FUSE ELEMENT
60AMP 440V FERRULE FUSE
22.2mm Ø x 57mm LONG

S.I. No. 22.23.95
SERVICE FUSE ELEMENT
80AMP 440V FERRULE FUSE
22.2mm Ø x 57mm LONG

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	16/APR/19

TITLE
ALUMINIUM XLPE CABLE
OVERHEAD SERVICE COMPONENTS
SERVICE FUSE - ELEMENTS

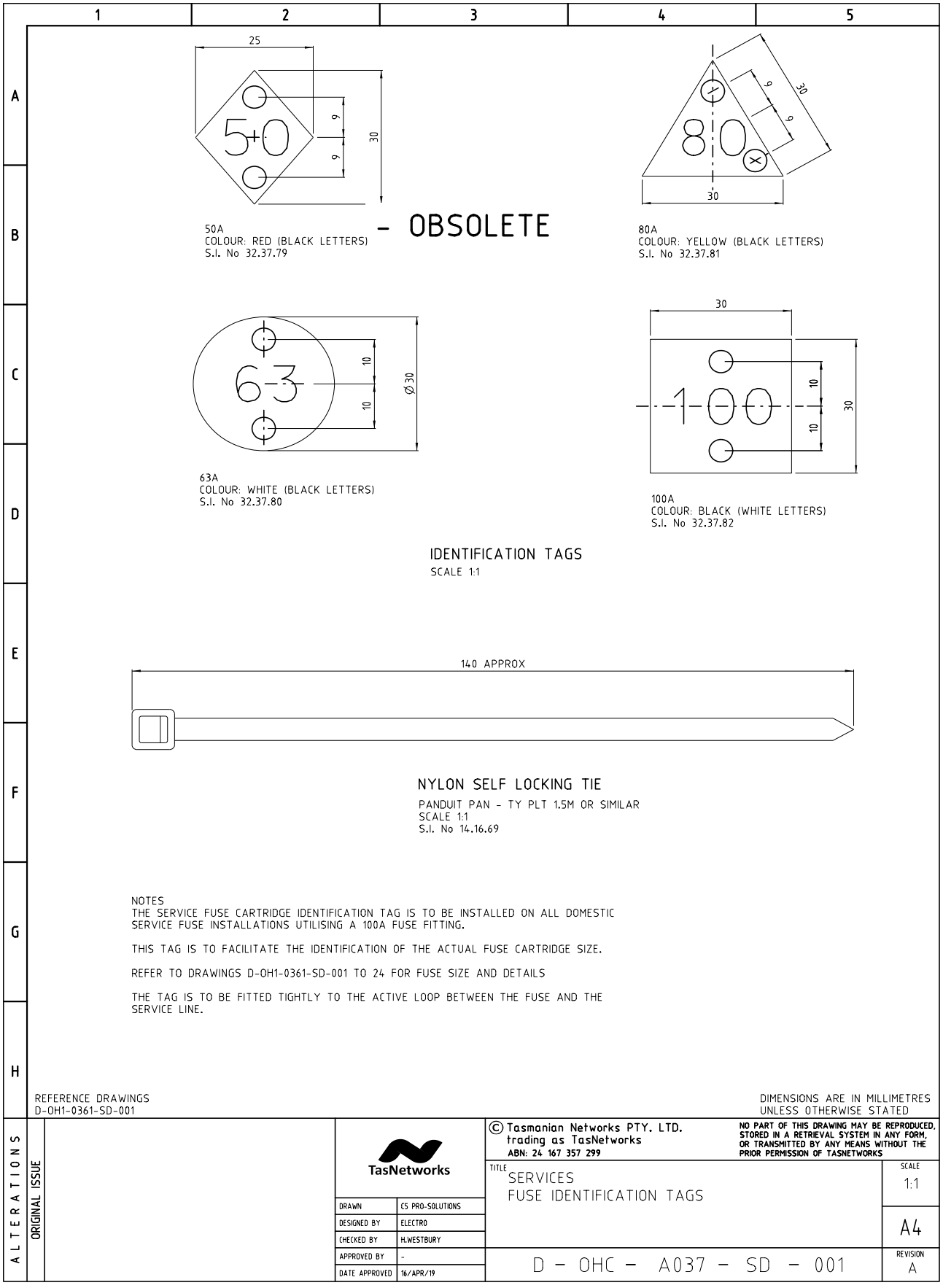
SCALE NTS

A4

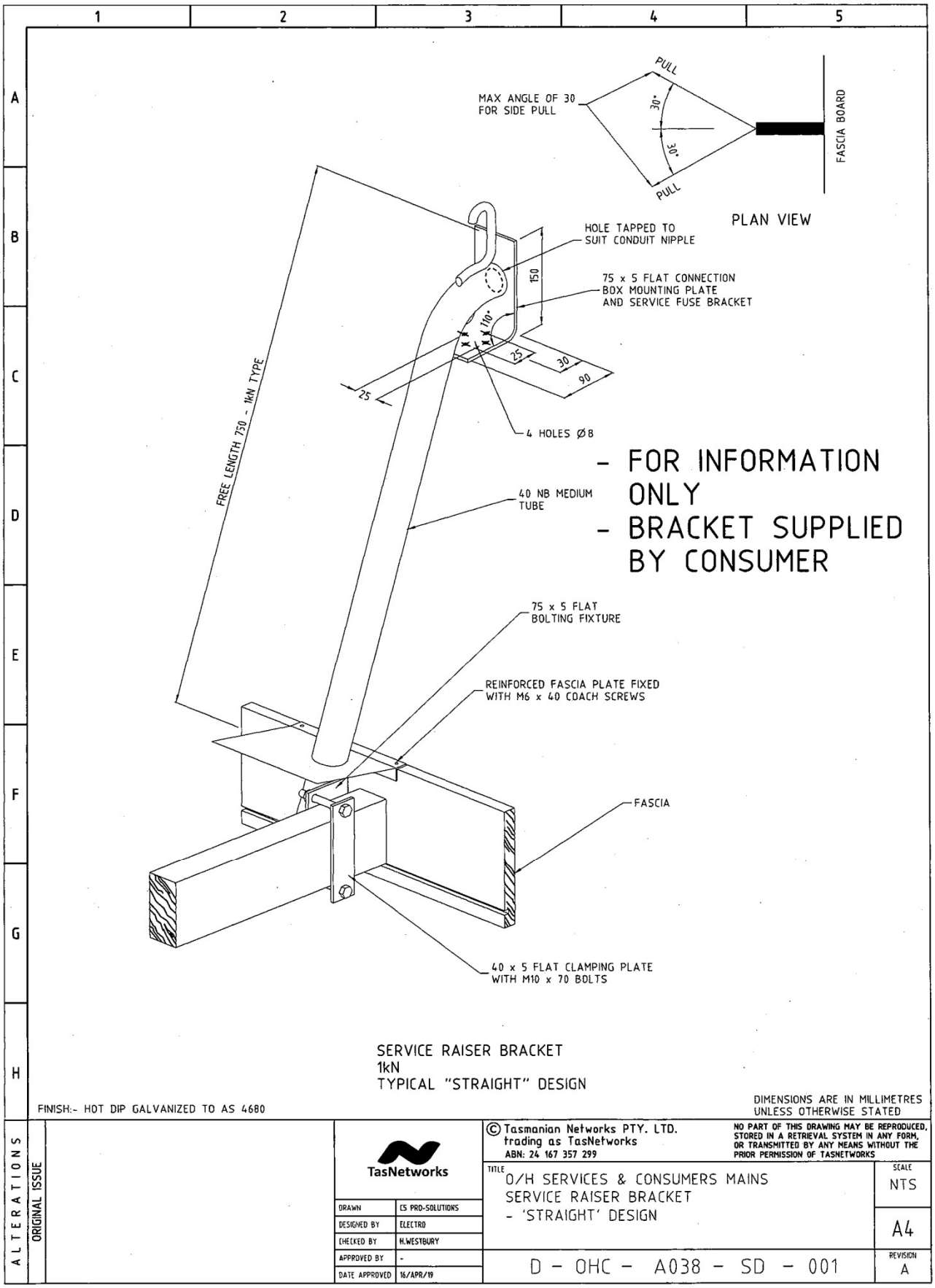
D - OHC - A036 - SD - 001

REVISION A

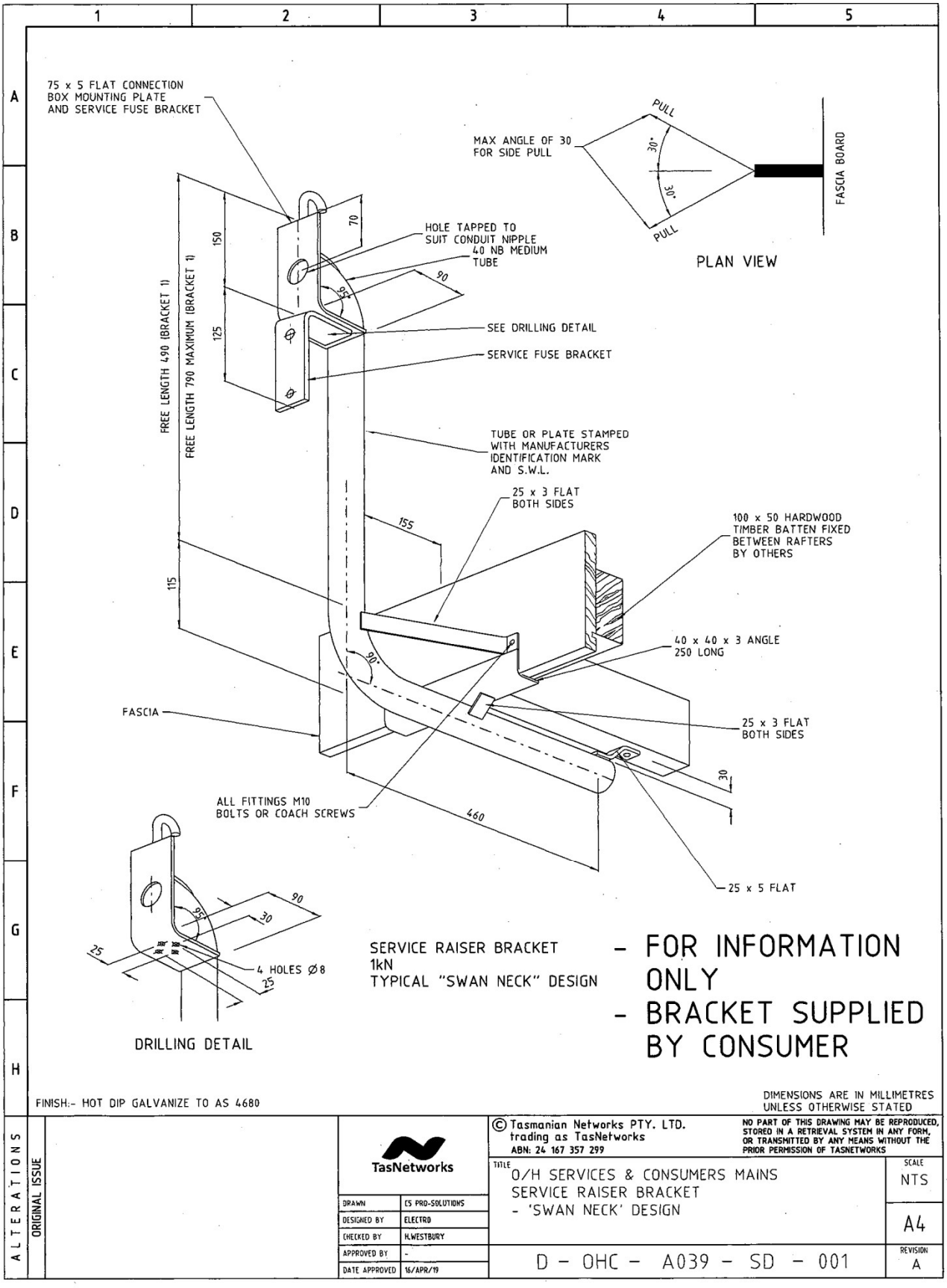
1.5.12 Fuse Identification Tags



1.5.13 Service Raiser Brackets

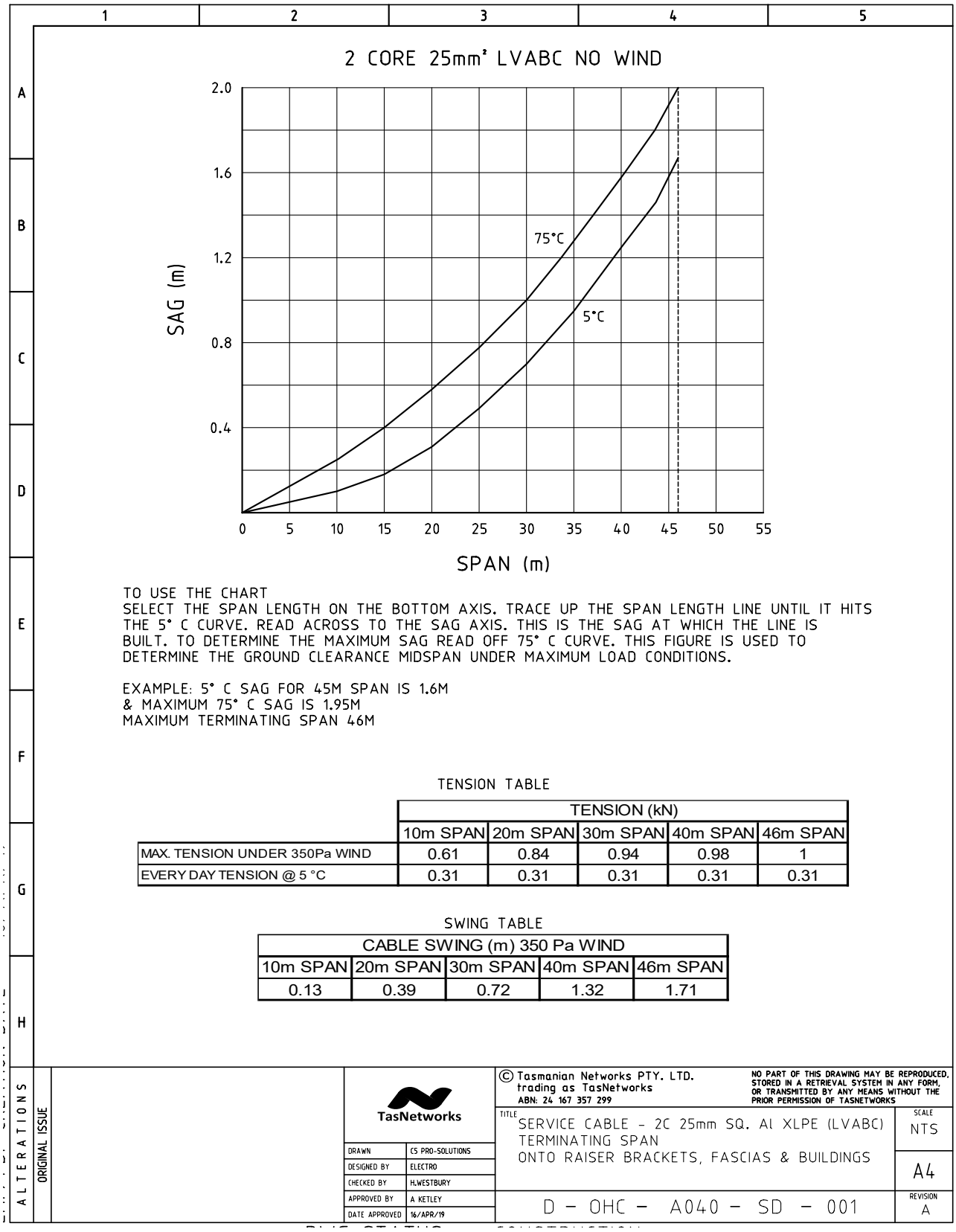


Service Raiser Brackets



1.6 Stringing of Service Conductors

1.6.1 2C 25mm^2 LVABC Service Stringing to Building



TO USE THE CHART
SELECT THE SPAN LENGTH ON THE BOTTOM AXIS. TRACE UP THE SPAN LENGTH LINE UNTIL IT HITS THE 5° C CURVE. READ ACROSS TO THE SAG AXIS. THIS IS THE SAG AT WHICH THE LINE IS BUILT. TO DETERMINE THE MAXIMUM SAG READ OFF 75° C CURVE. THIS FIGURE IS USED TO DETERMINE THE GROUND CLEARANCE MIDSPAN UNDER MAXIMUM LOAD CONDITIONS.

EXAMPLE: 5° C SAG FOR 45M SPAN IS 1.6M
& MAXIMUM 75° C SAG IS 1.95M
MAXIMUM TERMINATING SPAN 46M

TENSION TABLE

	TENSION (kN)				
	10m SPAN	20m SPAN	30m SPAN	40m SPAN	46m SPAN
MAX. TENSION UNDER 350Pa WIND	0.61	0.84	0.94	0.98	1
EVERY DAY TENSION @ 5 °C	0.31	0.31	0.31	0.31	0.31

SWING TABLE

CABLE SWING (m) 350 Pa WIND				
10m SPAN	20m SPAN	30m SPAN	40m SPAN	46m SPAN
0.13	0.39	0.72	1.32	1.71

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	16/APR/19

TITLE: SERVICE CABLE - 2C 25mm SQ. Al XLPE (LVABC) TERMINATING SPAN ONTO RAISER BRACKETS, FASCIAS & BUILDINGS

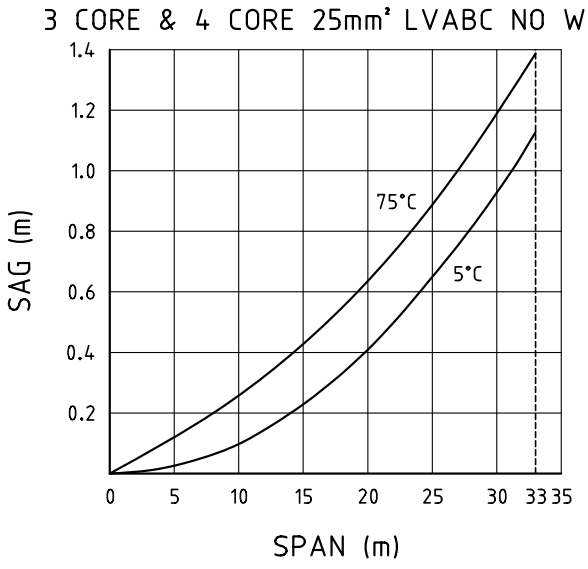
SCALE: NTS

A4

D - OHC - A040 - SD - 001

REVISION: A

1.6.2 3C & 4C 25mm^2 LVABC Service Stringing to Building



TO USE THE CHART
SELECT THE SPAN LENGTH ON THE BOTTOM AXIS. TRACE UP THE SPAN LENGTH LINE UNTIL IT HITS THE 5° C CURVE. READ ACROSS TO THE SAG AXIS. THIS IS THE SAG AT WHICH THE LINE IS BUILT. TO DETERMINE THE MAXIMUM SAG READ OFF 75° C CURVE. THIS FIGURE IS USED TO DETERMINE THE GROUND CLEARANCE MIDSPAN UNDER MAXIMUM LOAD CONDITIONS.

EXAMPLE: 5° C SAG FOR 25M SPAN IS 0.65M
& MAXIMUM 75° C SAG IS 0.9M
MAXIMUM TERMINATING SPAN 33M

TENSION (kN)

SPAN LENGTH (m)		10	20	30	33
3-CORE	350 Pa WIND 15 °C	0.61	0.76	0.81	0.82
	NO WIND 5 °C	0.35	0.35	0.35	0.35
4-CORE	350 Pa WIND 15 °C	0.75	0.94	0.99	1.00
	NO WIND 5 °C	0.48	0.48	0.48	0.48

SWING TABLE

CABLE SWING (m) 350 Pa WIND			
10m SPAN	20m SPAN	30m SPAN	33m SPAN
0.13	0.41	0.88	1.05

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	16/APR/19

TITLE: SERVICE CABLE - 3C & 4C 25mm2 LVABC TERMINATING ON FACIAS, BUILDINGS OR RISER BRACKETS

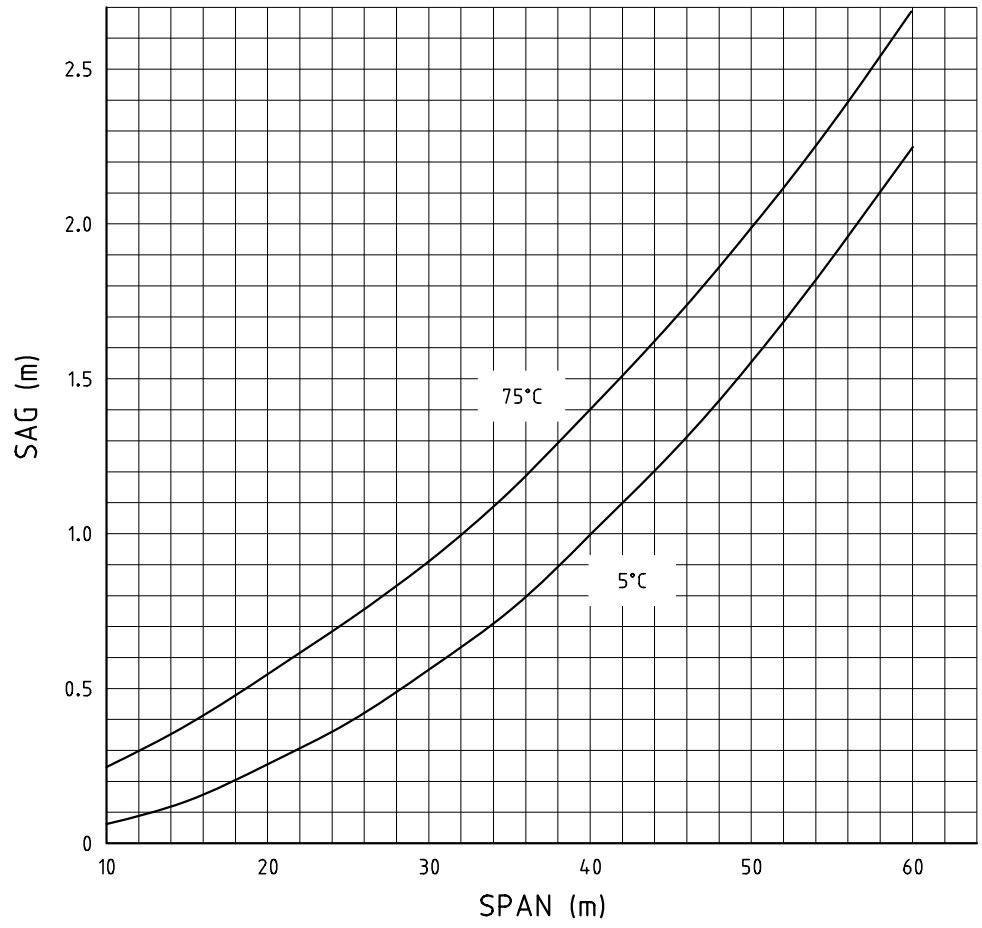
SCALE: NTS

A4

D - OHC - A040 - SD - 002

REVISION: A

1.6.3 2, 3 & 4 core 25mm^2 LVABC Stringing Pole to Pole



SAG CHART FOR BOTH 2, 3 & 4 CORE 25mm² ALUMINIUM XLPE SERVICE CABLE.
THE 5°C GRAPH IS USED FOR CONSTRUCTION STRINGING.
THE 75°C GRAPH IS USED TO DETERMINE THE MAXIMUM SAG FOR GROUND CLEARANCE.

5°C IS THE TEMPERATURE AT WHICH THE CABLE WILL BE FOR MOST OF IT'S LIFE.
75°C IS THE MAXIMUM TEMPERATURE THAT THE CABLE WILL ACHIEVE UNDER MAXIMUM LOAD AND AMBIENT TEMPERATURE.

ALTERATIONS: ORIGINAL ISSUE

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE: SAG CHART FOR POLE TO POLE STRINGING 2, 3 & 4 CORE 25MM SQ. ALUMINIUM SERVICE CABLE

SCALE: NTS

A4

D - OHC - A041 - SD - 001

REVISION: A

1.6.4 Indicative Maximum Span Length – TasNetworks Pole to Customer Pole

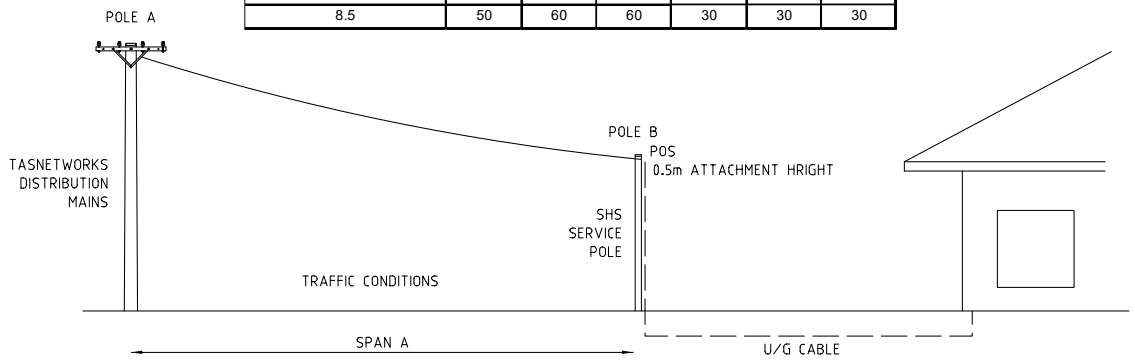
REFER SECTION 1.7 FOR PRECISE CLEARANCE

SERVICE TERMINATION POLE (FLAT GROUND)

8m 2kN WORKING STRESS 125mm X 125mm SHS SERVICE TERMINATION POLE (POLE B)
(6.5m ATTACHMENT HEIGHT):
TRAFFIC CONDITIONS:
1. OVER ROADS, OR IN CARAVAN PARKS OR WHERE FARM MACHINERY COULD OPERATE
2. OVER FOOTPATHS OR OVER DRIVEWAYS
3. OVER GROUND THAT HAS NO VEHICLES TRAFFICKING OR HAS NO FOOTPATHS OR DRIVEWAYS
NOTE: TRAFFIC CONDITIONS ASSUMED TO BE UNDER LOWEST POINT OF CONDUCTOR SAG.

MAXIMUM ALLOWABLE SPAN LENGTHS

ATTACHMENT HEIGHT AT TASNETWORKS POLE (POLE A)	2 CORE 25 mm² LVABC			3 & 4 CORE 25 mm² LVABC		
	TRAFFIC CONDITIONS					
	1.	2.	3.	1.	2.	3.
(m)	(m)	(m)	(m)	(m)	(m)	(m)
5.5	-	42	60	-	30	30
5.8	18	45	60	18	30	30
6	26	46	60	26	30	30
6.3	30	49	60	30	30	30
6.5	32	50	60	30	30	30
6.8	35	52	60	30	30	30
7	37	54	60	30	30	30
7.3	40	56	60	30	30	30
7.5	42	57	60	30	30	30
7.8	45	59	60	30	30	30
8.0	46	60	60	30	30	30
8.3	49	60	60	30	30	30
8.5	50	60	60	30	30	30



UN-STAYED TERMINATION POLE

NOTES:

GROUND CLEARANCE IS BASED ON AN INITIAL CONDUCTOR STRINGING OF 5.6% CBL AT 5°C, AND
A CONDUCTOR OPERATING TEMPERATURE OF 75°C

REFERENCE DRAWINGS
D-OHC-A043-SD-001 AND D-OHC-A044-SD-001

DIMENSIONS ARE IN MILLIMETRES
UNLESS OTHERWISE STATED

ALTERATIONS
ORIGINAL ISSUE
REFERENCE MODIFIED.
B
DESIGNED BY ELECTRO
DRAWN BY A.J.WAG
DRAFTING CHECK RANMAL LIYANAGE
ENG.APPROVL ANGUS KETLEY
DATE 01/10/2021
DATE 01/10/2021

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	CS PRO-SOLUTIONS
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

TITLE
INDICATIVE MAXIMUM SPAN LENGTHS
TN POLE TO CUSTOMER POLE
OVER FLAT GROUND

SCALE NTS
A4

D - OHC - A042 - SD - 001

REVISION B

1.7 Clearances Service Conductors

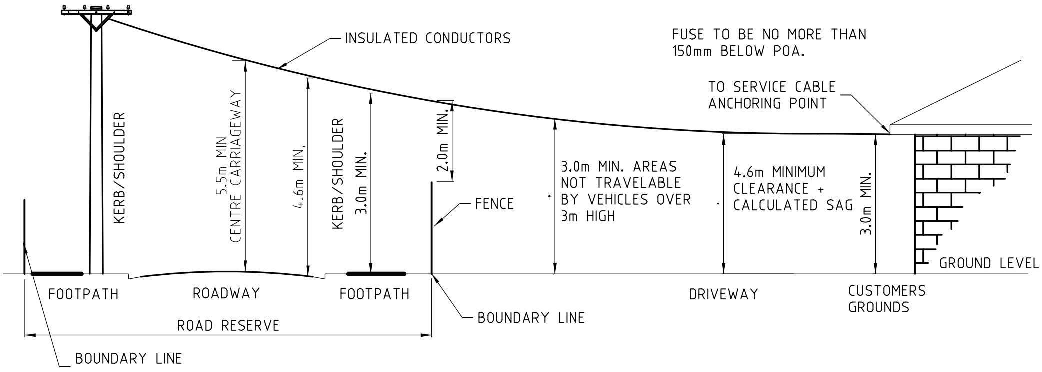
1.7.1 Overhead services cleareance requirements

Clearance Type		Location Description	Direction	Insulated Service Conductor Clearance
Ground	Roads	At centre of carriageway	Vertically	5.5m
		At kerb line (bottom of kerb)	Vertically	4.6m
		At verge	Vertically	3.0m
		At fence alignment	Vertically	3.0m
		At fence alignment (from top of fence)	Vertically	2.0m
	Other	Private driveways and land traversable by vehicles more than 3m in height (except service stations, farms, caravan parks and other high-risk locations)	Vertically	4.6m
		Areas not normally accessible to vehicles	Vertically	3.0m
Structures / Buildings		Unroofed terraces, balconies, sun decks, paved areas etc. that are subject to pedestrian traffic only	Vertically	3.0m
			Horizontally	1.0m
		Roofs or similar structure not normally accessible to persons but on which a person may stand	Vertically	2.0m
			Horizontally	1.0m
		Covered places normally accessible to persons, including for example windows capable of being opened, roofed open verandahs and covered balconies	In any direction	1.0m
		Blank walls / windows which cannot be opened	In any direction	0.1m
		Other structures not normally accessible to persons	Vertically	2.0m
			Horizontally	1.0m
Other High-Risk Situations		Gas Storage Cylinders	Horizontally	1.5m
		Swimming pools.	Vertically	Not permitted
			Horizontally	3.5m
		Rotary clothes line, Radio/TV antennae.	Vertically	0.6m
			Horizontally	0.1m
		Areas where trailable sailing craft, farm machinery and irrigation pipes may be used	Vertically	5.5m
		Service Poles in the vicinity of OH conductors	Vertically	Refer 10.1.1
			Horizontally	
		Caravan parks	Vertically	5.5m
		Service station and farm driveways	Vertically	5.5m
Telecommunications		Telephone or Broadband Communications Cables	Vertically	1.2m

Notes:
1. All clearances are a minimum to which a conductor may sag or swing under any of the following conditions:
   a. Rated maximum conductor temp in still air (75ºC)
   b. Conductor temperature of 15ºC with a wind pressure of 350Pa (blowout condition)
   c. Conductor temperature of 5ºC in still air

   An additional 200mm to vertical clearance shown measured under normal stringing temperature is to be added to allow for sag increase under maximum operating conditions.

1.7.2 Services Clearances from Ground and Structures

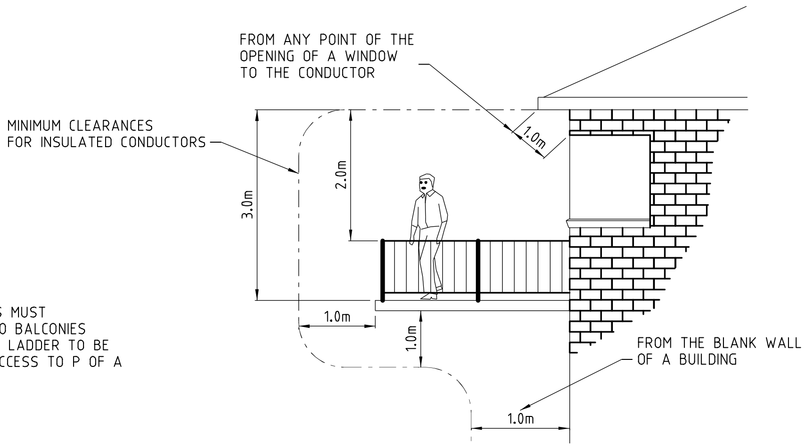


TYPICAL SINGLE SPAN SERVICE

NOTES

1. ALL DIMENSIONS SHOWN ARE MINIMUM CLEARANCES IN METRES. TO WHICH A CONDUCTOR MAY SWING OR SAG.
2. WHEREVER POSSIBLE SERVICES SHOULD BE LOCATED TO AVOID DRIVEWAYS ON CUSTOMER'S PROPERTY DUE TO HIGHER CLEARANCE REQUIREMENTS.
3. A CONDUCTOR "DRIP LOOP" OF NOT MORE THAN 150mm IS REQUIRED BELOW THE POINT OF ATTACHMENT.
4. NORMAL TERMINATING SPAN TO BE TWISTED INSULATED CONDUCTOR NO GREATER THAN 46m FOR 2c 25mm² LVABC AND 33m FOR 4C 25mm² LVABC.

NOTE.
EXTERNAL ACCESS MUST BE PROVIDED ONTO BALCONIES ETC. TO ALLOW A LADDER TO BE CARRIED UP SO ACCESS TO P OF A IS OBTAINED.



TYPICAL SERVICE CLEARANCES FROM A BUILDING

REFERENCE DRAWINGS
D-OHC-A040-SD-001 AND D-OHC-A040-SD-002

ALTERATIONS: ORIGINAL ISSUE; B – NOTE MODIFIED. DRAWN BY D.J.KING, DATE 01/10/2021; DESIGNED BY ELECTRO; DRAFTING CHECK RANMAL LIYANAGE, DATE 01/10/2021; ENG.APPROV. ANGUS KETLEY

TasNetworks

DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	A KETLEY
DATE APPROVED	07/MAY/19

TITLE: O/H SERVICES CLEARANCES AND STRUCTURES FROM GROUND

SCALE: NTS

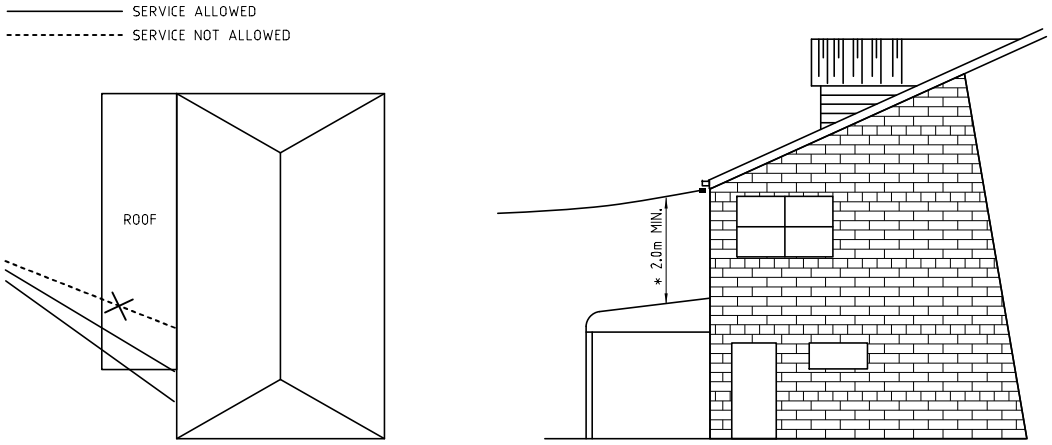
A4

D – OHC – A043 – SD – 001

REVISION: B

1.7.3 Clearances over Roofed Areas

CAUTION : Printed document is uncontrolled.



SERVICES OVER ROOFED-AREAS ARE RESTRICTED TO APPLICATIONS THAT ARE UNAVOIDABLE BECAUSE LINESPERSONS MAYBE PLACED IN POTENTIALLY UNSAFE SITUATIONS WHEN SERVICE REPAIRS ARE REQUIRED EG:

LINESPERSONS COULD BE FORCED TO WORK FROM AN EARTHED PLATFORM (METAL ROOF) INSTEAD OF AN INSULATED PLATFORM (EWP OR LADDER).

VERANDAHS MAY NOT BE STRUCTURALLY SOUND.

DAMAGE MAY BE SUSTAINED TO THE ROOF AREA WHEN ACCESS IS REQUIRED.

SERVICE CONDUCTOR MAY COME IN CONTACT WITH THE ROOF DUE TO CONDUCTOR MOVEMENT DUE TO SEVERE WIND CONDITIONS.

SERVICE OVER ROOFED AREAS ARE ONLY PERMITTED WHEN ALL THE FOLLOWING CONDITIONS ARE MET:

1. THE SERVICE ROUTE OVER THE ROOF IS UNAVOIDABLE, AND
2. THE POINT OF ATTACHMENT AND SERVICE FUSE(S) MUST BE ACCESSIBLE FROM A LADDER FIRMLY FOOTED ON THE GROUND, AND
3. SERVICE FUSE(S) MUST BE ACCESSIBLE DIRECTLY FROM GROUND LEVEL TO ENABLE DISCONNECTION OF SUPPLY BY FUSE STICKS.

* THE MINIMUM CLEARANCE BETWEEN THE ROOF AND THE SERVICE LINE IS 2.0M AFTER SAG AND CABLE SWING IS TAKEN INTO CONSIDERATION. EG VERTICAL CLEARANCE OVER A ROOF SITUATED UNDER THE CENTRE OF A 46M SPAN OF 25MM2 2 CORE AL XLPE, WILL NORMALLY MEAN A VERTICAL CLEARANCE OF 2.3M AT A STRINGING TEMPERATURE OF 15°C.

THE WIRING CONNECTING TASNETWORKS AERIAL SERVICE CONDUCTORS TO THE CUSTOMERS INSTALLATION IS REQUIRED TO BE AT LEAST ARMS LENGTH, (NOMINALLY 2.5M VERTICALLY 1.25M HORIZONTALLY) FROM GROUND OR ELEVATED AREA. REFER TO AS/NZS WIRING RULES 3000 FIG 1.1.

NOTES
1. THIS DRAWING IS INCLUDED IN THE SERVICE AND INSTALLATION RULES.

EMF/PDF CREATION DATE 16/APR/19

ALTERATIONS
ORIGINAL ISSUE

TasNetworks

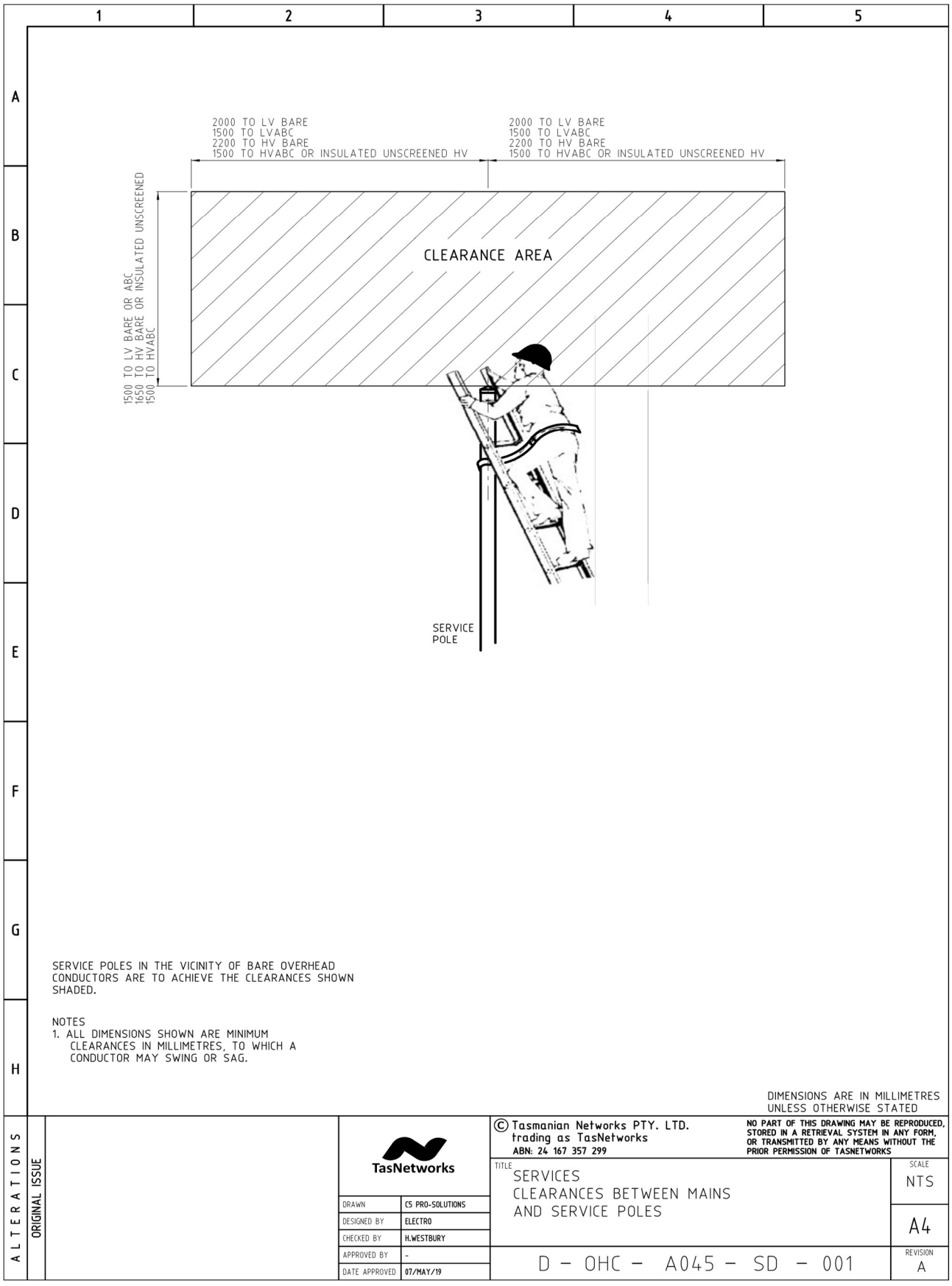
DRAWN	CS PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	16/APR/19

TITLE: CLEARANCE OVER ROOFED AREAS
SCALE: NTS
A4
D - OHD - A044 - SD - 001
REVISION: A

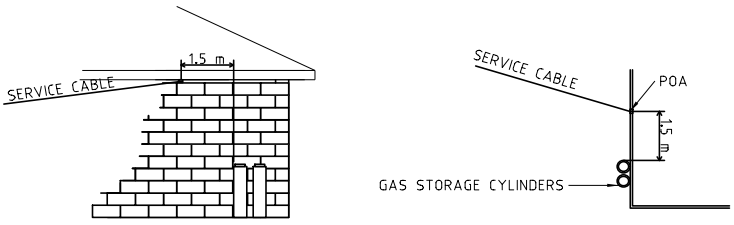
DWG STATUS CONSTRUCTION

BM DWG NO D - OHD - A044 - SD - 001 BM REV A

1.7.4 Clearances Between Mains and Service Poles

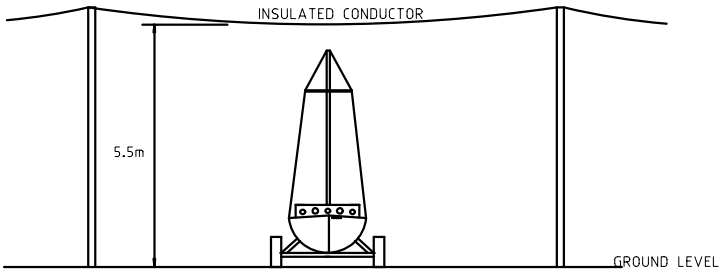


1.7.5 Clearances in High Risk Environments



CLEARANCE BETWEEN SERVICE & LPG

CROSSING OVER L.P.G. STORAGE TANKS/CYLINDERS WITHIN 1.5m MEASURED HORIZONTALLY FROM THE VERTICAL PLANE OF CONDUCTORS MUST BE AVOIDED. (AS PER SEC 3.2.4 OF AS 1596). ALSO ENSURE COMPLIANCE WITH AS/NZS 3000 SECTION 7 PART 7.9



HIGH VEHICLES & LOADS

TYPICAL SERVICE CLEARANCE ABOVE AREAS WHERE TRAILABLE YACHTS, IRRIGATON EQUIPMENT ETC. MAY BE USED

NOTES:
(1) MINIMUM CLEARANCES VALUES ARE FOR MAXIMUM CABLE TEMPERATURE OF 75 °C
(2) TO MINIMISE RISK OF ANY CONTACT WITH POWERLINES BY EQUIPMENT, OTHER CONSIDERATIONS SHOULD BE;
(a) MOVE SERVICE TO OTHER LOCATION,
(b) INCREASE CLEARANCES ABOVE MINIMUM,
(c) INSTALL MARKERS ON CONDUCTOR.

ALTERATIONS		
ORIGINAL ISSUE		

TasNetworks

DRAWN	C5 PRO-SOLUTIONS
DESIGNED BY	ELECTRO
CHECKED BY	H.WESTBURY
APPROVED BY	-
DATE APPROVED	07/MAY/19

TITLE: MINIMUM CLEARANCES - SERVICES HIGH RISK LOCATIONS

SCALE: N.T.S.

A4

D - OHC - A046 - SD - 001

REVISION: A

1.8 Construction Practices

1.8.1 Services from Concrete Steel Poles

Provision of double insulation is required for services connected off concrete steel poles:

- Bare service conductors must be supported fixed to a timber crossarm or extension.
- Insulated or covered phase conductors must be installed with a loop to ensure adequate clearance from the pole steelwork. Where this cannot be achieved the conductor must have additional insulation installed.

1.8.2 Service Fusing

Service fuses shall be located at the customers Point of Attachment (PoA). The fuse is to be installed no more than 150mm below the PoA.

The only exception to this in the situation where aerial consumer mains are installed and the aerial conductors exceed 1 span. In these instances, the service fuses are to be located at the take-off pole.

1.8.3 Bonding of Service Neutral

Where customer's aerial mains are installed on steel poles, a bond between the neutral and the steel pole is to be installed at all poles except poles supporting private electrical equipment (e.g. meter box).

For house-end service attachments where the house bracket is in contact or close proximity to metal cladding, fascia or roofing material, additional insulation is to be installed. Refer D-OH1-0694-SD-001 and D-OH1-0697-SD-001.

1.8.4 Telstra Crossings

All crossings of Telstra lines shall be in accordance with:

a) The code of practice for overhead power and telecommunications in-span crossings
b) The arrangements for the common use of poles between the ESAA and Telstra and TasNetworks and Telstra.

Note: Where raisers are required on Telstra poles for service crossings prior permission must be obtained.

1.8.5 IPC Installations

When fitting a two-bolt connector repeatedly tighten each bolt approximately half a turn until the plastic heads shear. DO NOT fully tighten one bolt and then the other as a bad connection will result. For further details refer to D-OHC-J019-SD-001.

1.8.6 Service Connections & Disconnections

CONNECTION OF SERVICES:

Direct tapping on to LV ABC is preferred.

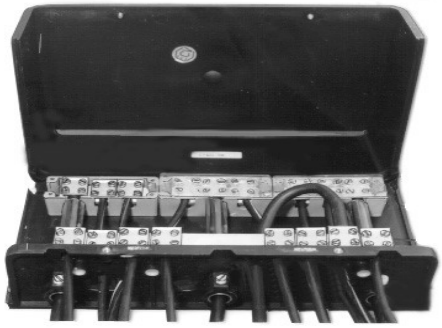
INSULATION NOTES

1. The insulation must not be stripped from the mains or service conductors.
2. Only one service conductor per connector is allowed. (This includes the neutral connection).
3. Ensure that service tee cable is fitted in correct side of insulation piercing connector.
4. Locate insulation piercing connectors a maximum of 300 from suspension clamp.
5. For double insulated conductors, remove 50mm of outer PVC sheath.
6. Once installed, the connectors are not to be removed or disturbed. If a service is to be disconnected refer to the procedure for disconnection.
7. Use approved spanner for tightening the bolt. Adjustable spanners are not to be used as these tend to damage the plastic shear head. Do not exert a bending force on the shear head, because the shear head may break prematurely. Ensure spanner is in such a position that a sudden release cannot cause any bodily harm. The connector should be held firmly when tightening the bolt.

PROCEDURE FOR INSTALLATION

1. Ensure that service fuses are removed.
2. Open up cable using the plastic core separators.
3. Open up connector sufficiently to allow it to be placed onto the neutral core of the mains cable. Do not completely dismantle the connector. Ensure that the piercing teeth or the connector are located centrally on the core and ensure that the protruding end of the bolt does not damage the adjacent core(s).
4. Insert the service conductor into the connector such that the end of the conductor is contained fully in the grease filled end cap. Ensure that the service conductor is located centrally on piercing teeth of the connector.
5. Tighten the bolt of the connector until shear head releases. This ensures that the correct torque has been applied and that proper contact is achieved.
6. Install drip loop adjacent insulation piercing connector.
7. Remove plastic core separator.
8. Repeat for phase connection(s). Connectors should be spaced at least 80mm apart (centre to centre). With multiphase services, connect the red, white, and blue phase cores of the service cable to Cores 1, 2 and 3 of the LV ABC cable respectively.

9. Install cable ties around the ABC tails securing them to the conductor to which the new services are being jointed. Where there is more than a single-phase connection consideration should be given to tying all tails to the conductor using one or more cable ties to increase the mechanical strength and to avoid movement of the tails in the wind.
10. Carry out polarity testing and phase rotation testing at the Customer's premises.



PROCEDURE FOR DISCONNECTION

The following procedure is to be followed when a service is to be disconnected:

1. Remove service fuse(s).
2. Cut service phase conductor(s) 100mm from connector.
3. Bend the remaining service conductor down and seal the end of the service conductor with 3M tape. S.I. 158388
4. The service neutral conductor is disconnected and sealed in the same manner. Do not tap service to tail as disturbance to connector may lead to water entry and corrosion.

POLARITY TESTING

Similar procedures apply for service connections to bare overhead conductor system.

The only difference is in the identification of the distribution mains phase and neutral conductors at the pole.

The phase conductors of an LV ABC cable are identified by longitudinal continuous raised ribs. Each phase core is also marked with a phase number and the neutral core is identified by a series of longitudinal continuous ribs.

Apart from the above difference, the same procedures apply as outlined in Handbook for Linesmen, Chapter 11 Phasing Out).

1.8.7 Service Phasing for Load Balancing

If the service connections to the aerial bundled cable are permanent, full regard must be paid to load balancing on a three-phase system at the time the service connections are made.

To balance the service connections on a circuit the following methods should be used.

Divide the pole number by 3 and use the remainder to establish the first core connection on that pole.

If:

Remainder = 1,	Connect to Core No.1
Remainder = 2,	Connect to Core No.2
Remainder = 0,	Connect to Core No.3

After connection of House "A" has been established connect the remaining houses in rotation, i.e. House "B" to next core number after House "A".

Example:

Pole No.

26	26 □ 3 = 8 + 2 REMAINDER	∴	Connect House "A" to Core 2
27	27 □ 3 = 9 + 0 REMAINDER	∴	Connect House "A" to Core 3
28	28 □ 3 = 9 + 1 REMAINDER	∴	Connect House "A" to Core 1
29	29 □ 3 = 9 + 2 REMAINDER	∴	Connect House "A" to Core 2