

Western Power's Asset Management System

Distribution Construction Standard Handbook Reference Part 02 (R)



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Content Owner/Custodian: Distribution Design and Standards

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Document control

Endorsement approvals

	Name	Title	Signature and Date
Compiled by	Nory Cerrado	Distribution Draftsperson	Signature on file
Checked by	Chris Omodei	Principal Engineer	Signature on file
Endorsed by	Ken Tiong	Team Leader	Signature on file
Approved by	Pep Ngwenya	Distribution Design & Standards Manager	Signature on file

Record of revisions

Revision No.	Date	Version	Compiled by	Description
1	04/04/2025	EDM 61	Nory Cerrado	First Revision with new Format and 3 yearly review
2	01/07/2025	Volt 62	Nory Cerrado	Refer to Amendment list
3	22/12/2025	Volt 64	Nory Cerrado	Refer to Amendment list
4	26/02/2026	Volt 65	Nory Cerrado	Refer to Amendment list

This document gives direction to and influences the following documents.

Doc	Title of document
ALL CHAPTERS	DDC - DISTRIBUTION DESIGN CATALOGUE
ALL CHAPTERS	DCSH - DISTRIBUTION CONSTRUCTION STANDARD HANDBOOK
ALL CHAPTERS	DSPM - DISTRIBUTION SUBSTATION PLANT MANUAL

Stakeholders (people that were consulted when document was updated)

Business Unit / Function

Asset Management - Asset Performance

Asset Management – Safety Environment Quality and Training

Asset Management - Grid Transformation

Asset Operations – Network Operations

Asset Operations – Operational Services

Asset Operations – Customer Connection Services

Business and Customer Service – Customer Service

Notification list (people to be notified when document is updated)

Business Unit / Function

Asset Management - Asset Performance

Asset Management – Safety Environment Quality and Training

Asset Management - Grid Transformation

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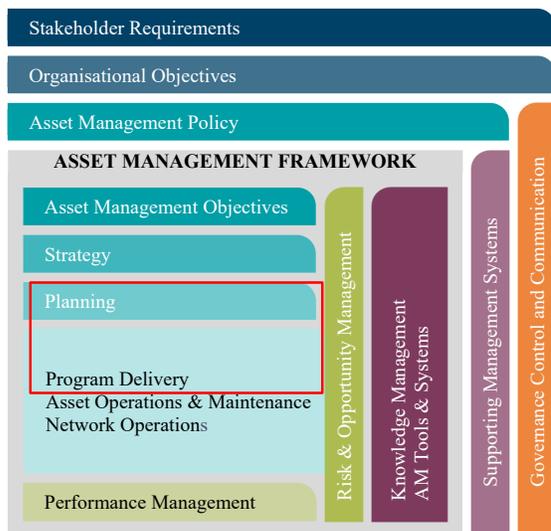
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Document classification and hierarchy

A key requirement of the Western Power Asset Management Policy (AMP) is to develop and maintain an Asset Management System (AMS). This Distribution Substation Plant Manual is defined as a technical document within the AMS document classification and structure and sits within the planning and Program Delivery components of the AMS.

The AMS and the interrelationships between the collection of documents, tools and systems that are used for asset management are described in the AMS document AMS document Volt ID

ID-005-dc7f342fed83eb7f008777ff0463b876.



General Notes

1. Overhead Hardware - Bolt Selection

All bolt holes must be drilled to size for the bolt being fitted as oversize bolt holes allow excess plant/equipment movement which may result in the plant/equipment being damaged.

Pole bolt length selected to avoid excessive thread protrusion, maximum 100mm. Bolt packing (multiple washers/springs etc) must not be used as a permanent fixing.

Pole bolt excess thread may be flat trimmed and sharp edges must be removed to suit the fitting of washers and coil springs as per standard bolt selection. This is to prevent overlength bolts and/or sharp edges presenting a hazard to public and personnel safety (e.g. pole top switch handle bolts). Cold galv or galmet should be applied to exposed metal.

2. Overhead Hardware – Sleeve/Splice Clearances

Fargo and crimp type compression sleeves must have a 100mm minimum clearance from all other line hardware such as insulators, conductor ties, armor rods, PG clamps and dead ends etc.

3. Overhead Hardware – Very Heavy Pollution Areas

All areas in

- North Country (North of Ledge Point) that are within 20 kilometres of the coast,
- Metro/South Country (South of Ledge Point) that are within 10 kilometres of the coast, or
- locations with local knowledge of high pollution (i.e. salt lakes),

are considered to be extremely corrosive environments, classified as “Very Heavy” according to SA TS 60815.

In these areas, grease and anti-corrosion tape must be appropriately applied to all new lugs and connectors (as described in drawing R8/3) to prevent moisture ingress.

4. Overhead Hardware – Steel Strap (Band-It Strap) use on wood poles

Steel straps are not to be used on wood poles as the prime fixing method for equipment due to possible wood shrinkage causing the equipment to become loose and unstable. It may be used in conjunction with other fixing methods (e.g. Bolts, coach screws, TEK screws, etc) but not as the sole support method.

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Drawing Register

Number	Revision	Description
R01	F	Pole Bolt Details
R02-1	D	Bonding - Intermediate
R02-2	C	Bonding - Strain
R02-3	C	Bonding - Running Disc Angle
R02-4	F	Bonding - Wood LV Cross-arm
R02-5	B	Bonding - Retro-fit Wood Cross-arm
R02-6	A	Bond HV Attachments to the Running Earth Conductor
R03-1	K	Insulators and Running Earth
R03-2	B	Insulator Ties
R03-3	M	Armour Rods and Spiral Vibration Dampers
R03-4	A	Wildlife Deterrent
R04	B	Insulator Pin & Pin Details
R05-1	G	Eyebolt
R05-2	B	Eyebolt, Conductor Terminations
R06-1-1	H	Pole top switch Earthing
R06-1-2	C	Pole Earthing
R06-1-3	C	Separate LV & HV Earthing for Pole Transformer
R06-1-4	A	Pole Top Earthing at Transformer Structures
R06-2-1	G	PTS Down Earth Repair for Vandalism/Copper Theft
R06-2-2	C	Pole Down Earth Repair for Vandalism/Copper Theft
R07-1	F	Cable Saddle / Cable Guard - HV Cables
R07-2	F	10, 16 and 25mm Service cable cleat/guard fixing details
R07-3	D	Cable Cleat/Guard 120 to 240mm ² LV cables
R07-4	B	Cable Position Installing Details
R07-5	F	Possum / Wildlife guard
R07-6	A	Bird Flight Diverter Spacing
R08-1-1	M	Taps On Hv For Equipment
R08-1-2	I	Taps on HV Main Line Connections
R08-1-3	G	Taps on LV Main Line Connections
R08-2	C	Lugs & Connectors, Transformer & Cable
R08-3	G	Lugs & Connectors, Transformer & Cable
R08-4-1	F	Lugs & Connectors, Insulation Piercing Clamp
R08-4-2	B	Shorting LV ABC

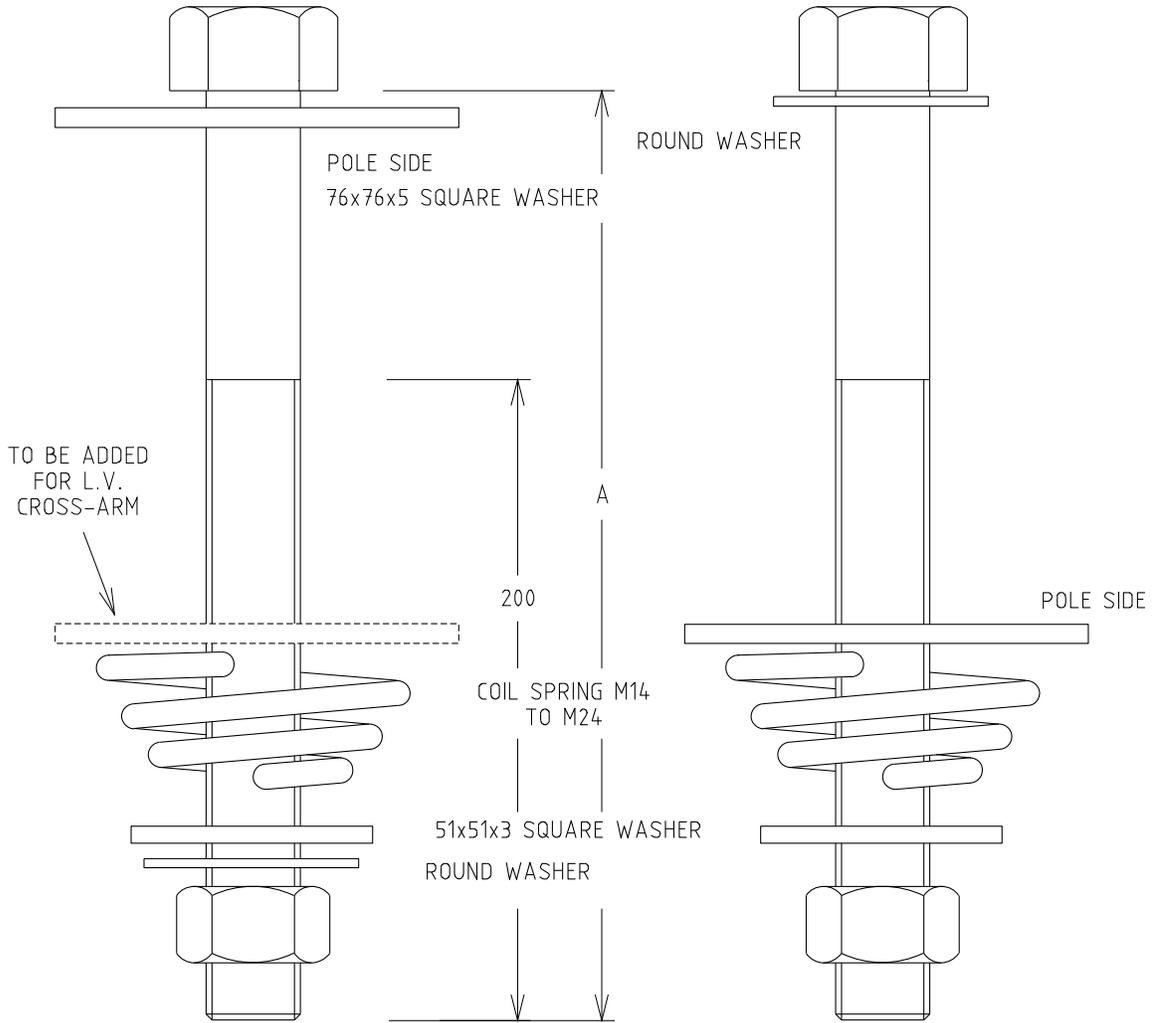
Number	Revision	Description
R08-5	C	Stirrup Hot Line Clamp Tap - off
R08-6	F	Connectors For 7/1.6 SC/GZ
R08-7	C	Full Tension Compression Joints & Helical Splices for Bare AAC/AAAC, Copper & Steel Conductors
R08-8	D	Non-Tension Compression Lugs and Sleeves
R09	F	Cable Termination bracket, 1 ph & 3 ph Earth Fitting
R10-1	L	Dropout Fuse Mounting Details
R10-2	A	Fuse Saver Installation for 1PH Lines
R11-1	E	Customer service arrangement for open wire
R11-2	B	Customer service arrangement for LV ABC
R11-3	A	Customer service arrangements - Rural Connections
R12-1	E	Single Phase Transformer LV Arrangement Details 10 and 25kVA
R12-2-1	A	Three Phase Transformer LV Arrangement Details 25, 63 and 100kVA LV ABC ONLY
R12-2-2	A	Three Phase Transformer LV Arrangement Details 25, 63 and 100kVA - LV BARE
R12-3-1	A	Three Phase Transformer LV Arrangement Details 200 and 315kVA LV ABC ONLY
R12-3-2	A	Three Phase Transformer LV Arrangement Details 200 and 315kVA -LV BARE
R13-1	F	Pole Embedment Depth, Danger Plate & Equipment Labels
R13-2	D	Self-Supporting Wood Pole Embedment Depth
R13-3-1	D	Distribution Pole Embedment Depth & Foundation Details (Sht. 1/2)
R13-3-2	B	Distribution Pole Embedment Depth & Foundation Details (Sht. 2/2)
R13-4	B	Wood Pole Design Angle of deviation for Urban applications
R13-5-1	B	Wood Pole Design Angle of deviation for Rural applications
R13-5-2	A	Wood Pole Design Angle of deviation for Rural applications
R13-5-3	A	Wood Pole Design Angle of deviation for Rural applications
R14-1	F	Ground Stay
R14-2	K	Outrigger Stay
R14-3	D	Aerial Stay
R15-2	B	Equivalent Conductor
R15-3-1	A	Pole Top Limitations for Urban Applications
R15-3-2	A	Pole Top Limitations for Urban Applications
R15-3-3	B	Pole Top Limitations for Rural Applications
R15-3-4	B	Pole Top Limitations for Rural Applications
R15-3-5	B	Pole Top Limitations for Rural Applications
R15-3-6	B	Pole Top Limitations for Rural Applications

Number	Revision	Description
R15-3-7	B	Pole Top Limitations for Rural Applications
R16-1	G	Anchor Flow Chart
R16-2-1	E	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 9.5m
R16-2-2	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles - 11m (Sht 1/4)
R16-2-3	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht 2/4)
R16-2-4	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht 3/4)
R16-2-5	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 11m (Sht 4/4)
R16-2-6	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles - 12.5m (Sht. 1/4)
R16-2-7	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 2/4)
R16-2-8	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 3/4)
R16-2-9	B	Screw Anchor Embedment Depth Dispensation Table for Distribution Poles – 12.5m (Sht. 4/4)
R16-3-1	B	Screw Anchor Installation for Medium to Hard Soil
R16-3-2	B	Anchor Installation for Soft Soils
R16-3-3	C	Anchor Installation for Hard Soil
R16-3-4	B	Anchor Installation for Rock
R16-3-5	A	Backfill / Concrete Mixing
R17-1	A	Pole Fixing
R17-2	A	Pole Fixtures – Drilling Dimensions for Slotted Pole Mounted Equipment
R26-5	B	Streetlight (LED) Wiring Installation Standard (Part 1)
R26-6	B	Streetlight Wiring Installation Standard (Part 2)
R26-7-1	D	Streetlight Cut-out LED Class II Luminaires
R26-7-2	B	Existing Streetlight Cut-out and Supply Cable with New LED Class II Luminaires
R27	H	Fusing Arrangement for Street Light Columns
R29	A	25kVA Pad mount Tx LV Distribution Board 240V Terminal Block
R30	A	25kVA Pad mount Tx LV Distribution Board 480V Terminal Block
R34-1	G	LV Cable Live End Seal
R34-2	D	HV Cable Live End Seal
R34-3	A	Conduit Sealing Details
R36-1	B	Schneider (Nulec) Recloser Control Box Connection Detail
R36-2	A	Schneider – ADV2 Power Supply Control Box Connection Details
R37	A	Nulec Recloser Solar Connection

Number	Revision	Description
R38	A	Overhead Fault Indicator Solar Connection
R40	C	Installation of Above Ground Cable Marker
R41	A	Customer Service Carryover Connection
R42-1	A	Consumer Service Steel Pole
R42-2	A	Consumer Service Steel Pole - Corrosion Protection Requirements

TYPICAL APPLICATIONS:
- CROSS-ARMS

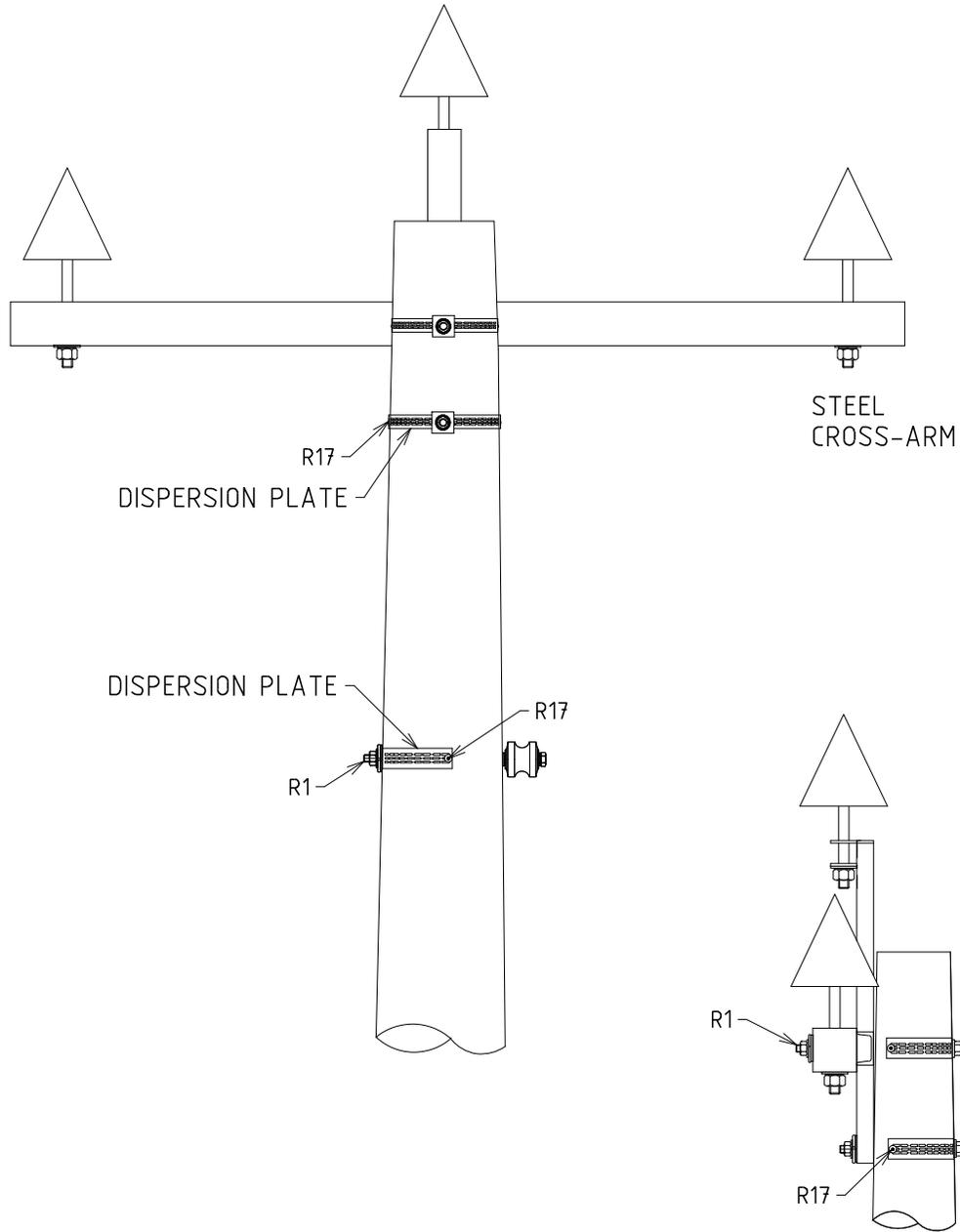
TYPICAL APPLICATIONS:
- TRANSFORMERS
- RECLOSERS



NOTE:
 - 76X76 SQUARE WASHER ALWAYS IN DIRECT CONTACT WITH THE POLE
 - POLE DIAMETERS VARY, SELECT BOLT FOR MAX. 100MM THREAD PROTRUSION
 - SEE GENERAL NOTES - OVERHEAD HARDWARE BOLT SELECTION

DIMENSION A	DIAMETER OF POLE BOLTS		
PB1 = 300mm	12mm	16mm	20mm
PB2 = 400mm	12mm	16mm	20mm
PB3 = 550mm	12mm	16mm	20mm

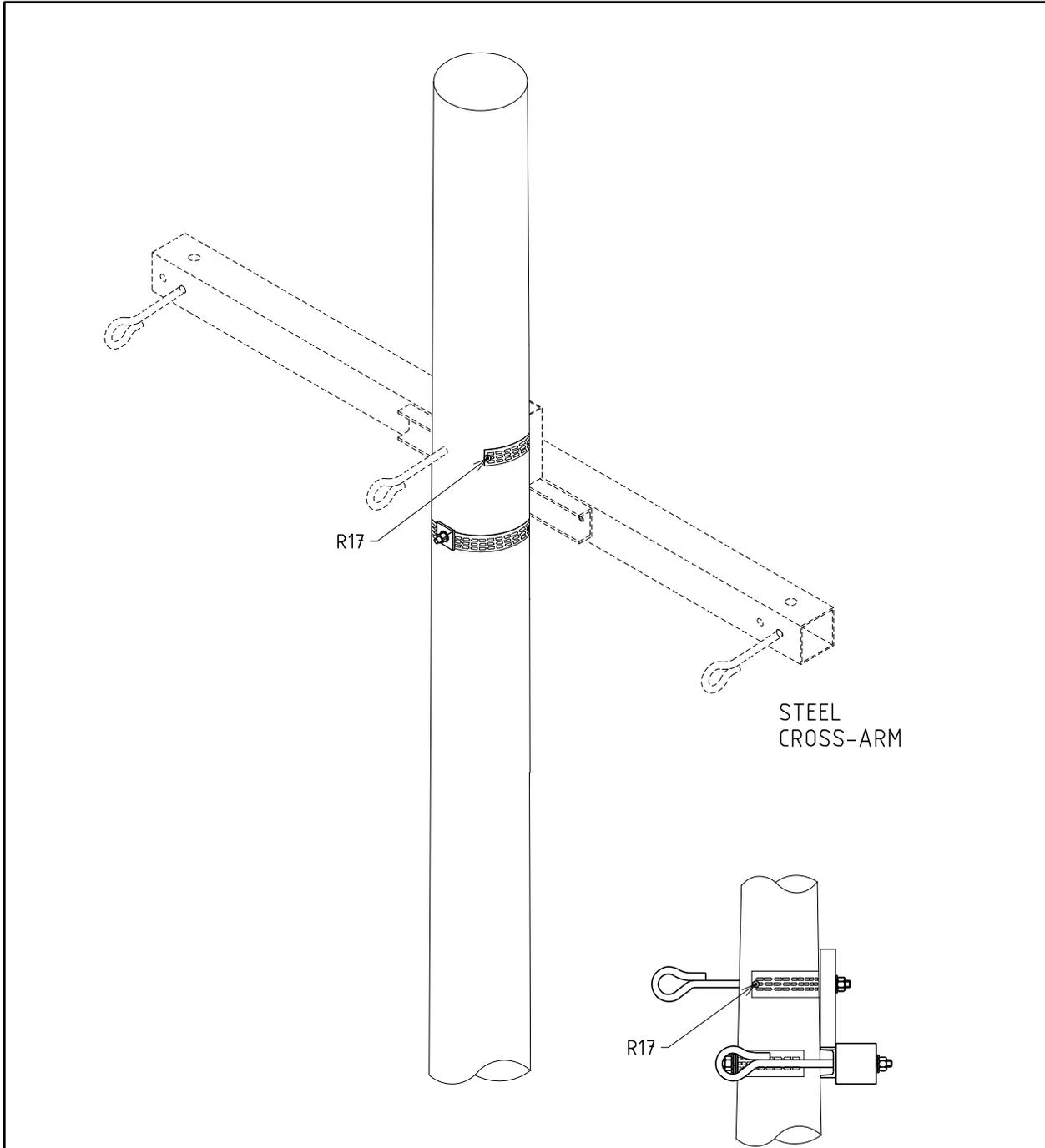
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 27-02-2014		DRG. No.	
				POLE BOLT DETAILS		ORIGINATED: SCALE: NTS		R1	
						CHECKED: REE		REV. F	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD				
F	15.07.15	FORMAT CHANGED AND THREAD PROTRUSION INCREASED	JC	REE	GS				
E	06.12.11	ORIGINAL ISSUE							



NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR NUT SIDE OF EYEBOLT.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 28-02-2014		DRG. No.	
				BONDING - INTERMEDIATE		ORIGINATED: REE SCALE: NTS		R02-1	
						CHECKED: REE		REV. D SHT.	
						APPROVED: GRANT STACY			
REV	DATE	DESCRIPTION	DRG	CHKD	APRD				
D	28.05.20	NOTES REVISED		NMc	GS				
C	22.02.19	DISPERSION PLATE END FIXING REVISED		CO	NMc GS				
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE GS				
A	05.07.13	ORIGINAL ISSUE							



R17

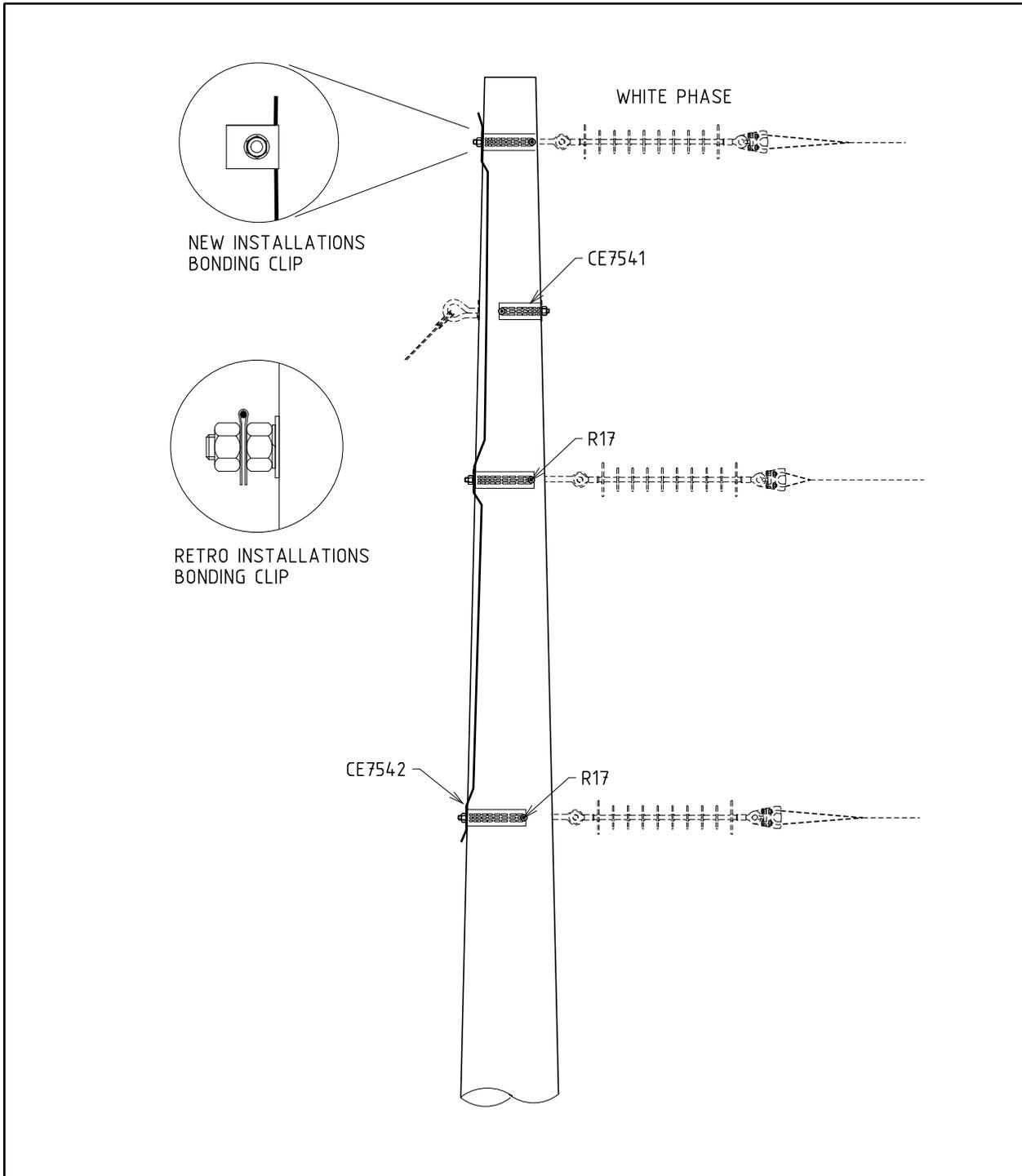
STEEL
CROSS-ARM

R17

NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER.
3. IF NO SQUARE WASHER AS IS THE CASE WITH EYE BOLT THEN MUST BE SECURED BY METAL CROSS-ARM.

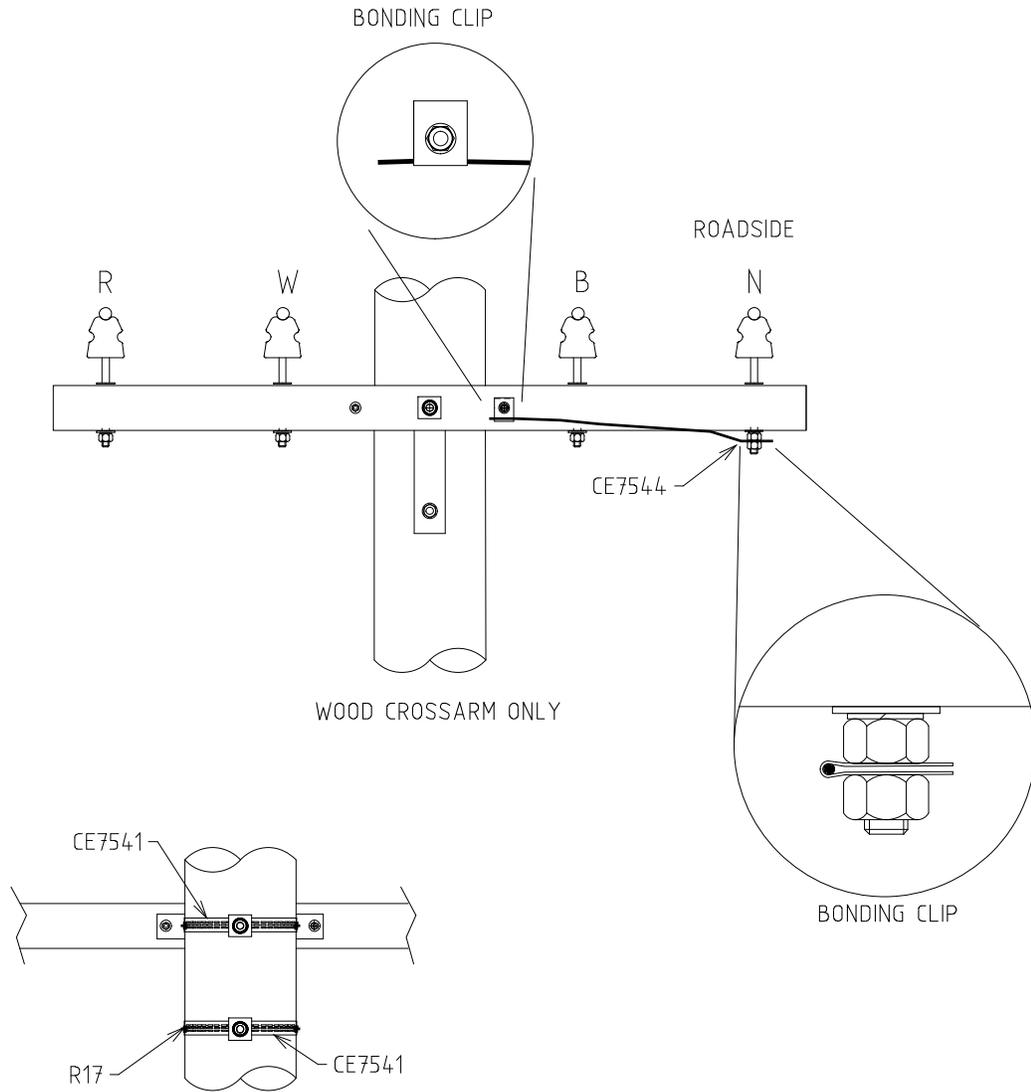
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				CHECKED: REE			APPROVED: GRANT STACY		REV. C		
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
C	18.01.21	NOTE REVISED		REE	NMc	GS					
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE	GS					
A	05.07.13	ORIGINAL ISSUE									



NOTES:-

1. INSTALL A DISPERSION PLATE TO ALL BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE INCLUDING STAYS & STREET LIGHTS.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER.

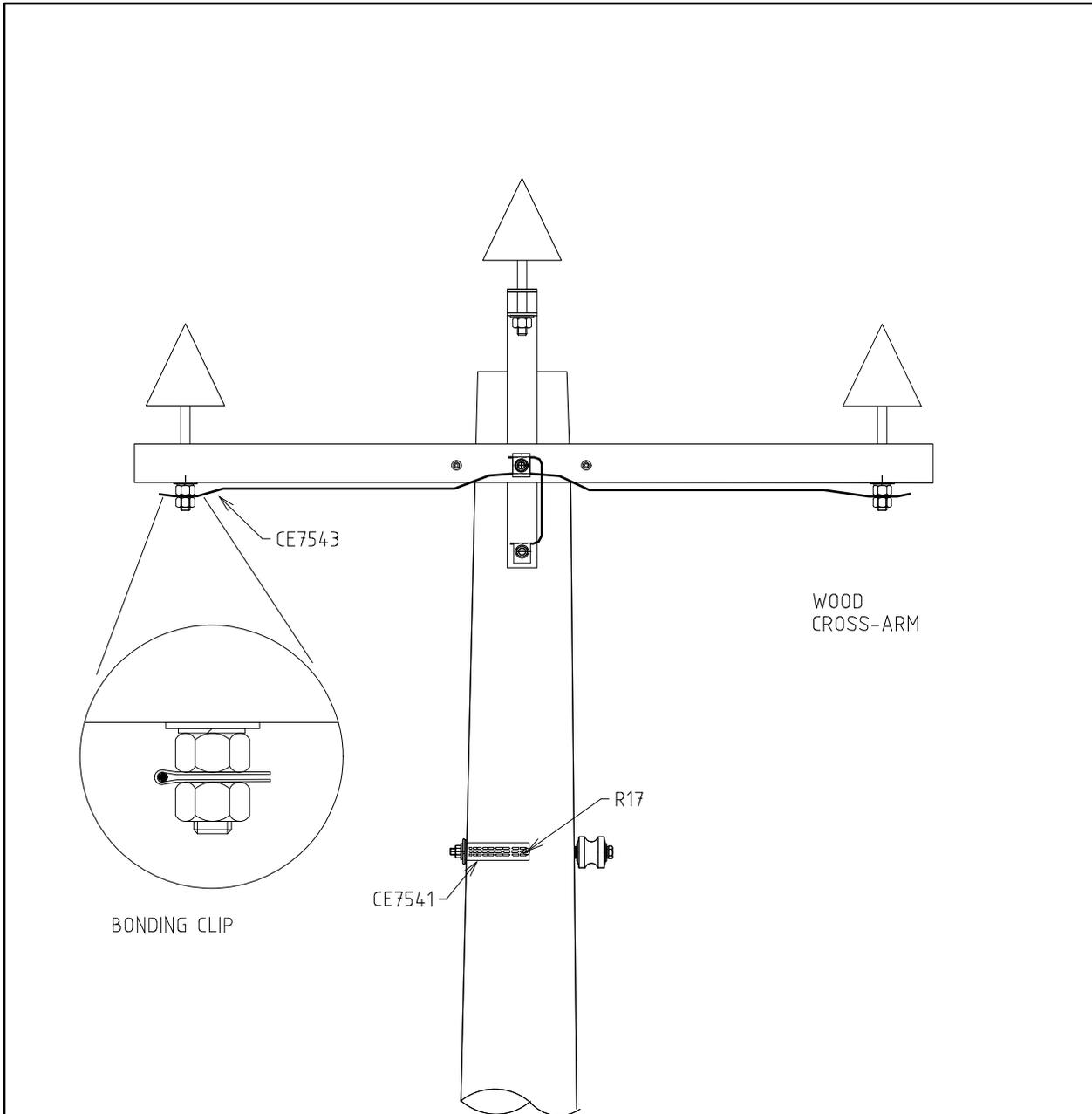
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 28-02-2014		DRG. No.	
				BONDING - RUNNING DISC ANGLE				ORIGINATED: SCALE: NTS		R02-3	
								CHECKED: REE		REV. C	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD	REE	NMc	GS			
C	18.01.21	NOTE REVISED				REE	NMc	GS			
B	07.05.15	FORMAT AND TITLE CHANGED				REE	REE	GS			
A	05.07.13	ORIGINAL ISSUE									



NOTES:-

1. NO LV BONDING WIRE OR DISPERSION PLATES ON LV REQUIRED IF ONLY LV ON STRUCTURE OR HV WITH R/E PRESENT.
2. POLES CARRYING BOTH HV AND LV REQUIRE ALL BOLTS ASSOCIATED WITH HV AND LV CONDUCTORS TO BE FITTED WITH DISPERSION PLATES.
 - THIS INCLUDES THE BOLTS FOR R/E, STAYS AND STREETLIGHT FITTINGS.
 - DISPERSION PLATES MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR METAL CROSS ARM.
3. POLES CARRYING HV COVERED CONDUCTORS (HENDRIX OR HVABC) WITH OR WITHOUT LV CONDUCTORS DON'T REQUIRE DISPERSION PLATES.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR DATE: 28-02-2014		DRG. No.	
				BONDING WOOD LV CROSS-ARM				ORIGINATED: SCALE: NTS		R02-4	
								CHECKED: REE		REV. SHT.	
								APPROVED: GRANT STACY		F	
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD						
F	12.11.15	NOTES 1 AND TITLE REVISED	FK	REE	GS						
E	03.06.15	FORMAT CHANGED AND NOTE REVISED	CO	JC	GS						
D	05.07.13	ORIGINAL ISSUE									



CE7543

WOOD CROSS-ARM

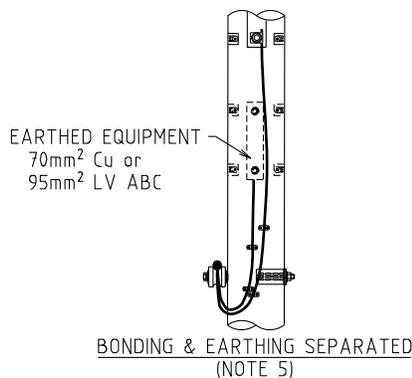
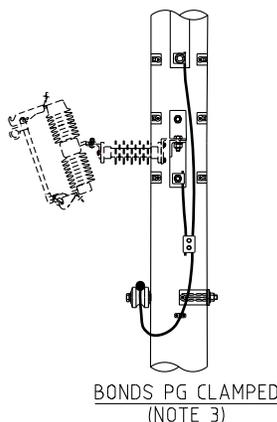
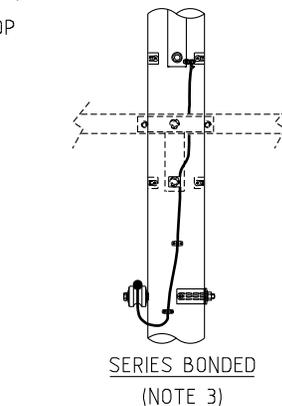
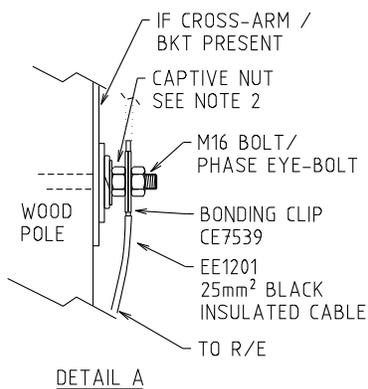
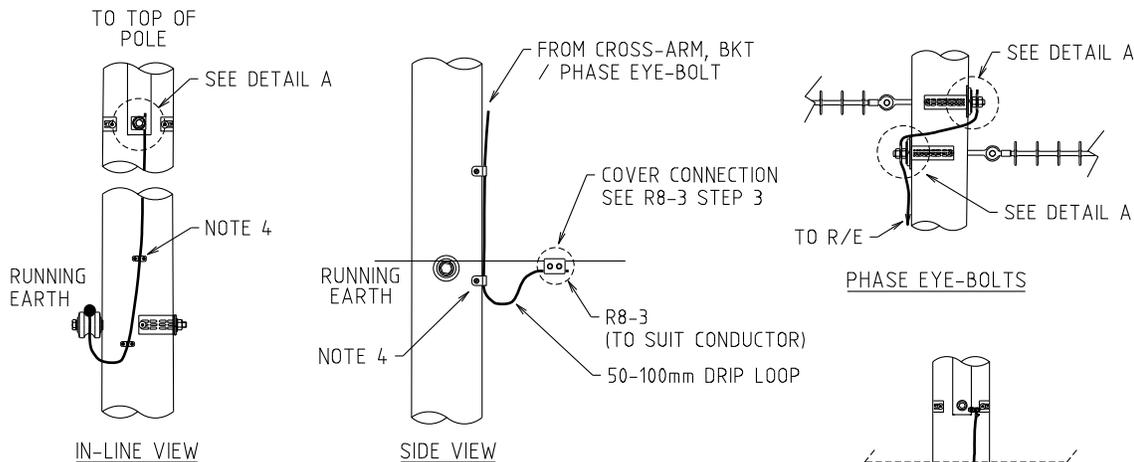
BONDING CLIP

R17
CE7541

NOTES:-

1. INSTALL A DISPERSION PLATE TO BOLTS WHICH PASS THROUGH A WOOD SECTION OF A POLE.
2. MUST BE SECURED DIRECTLY OVER THE HOLE, IN DIRECT CONTACT WITH A SQUARE WASHER OR METAL CROSS-ARM.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower		
				TITLE			DRAWN: JRR DATE: 28-02-2014		DRG. No.		
				BONDING - RETRO-FIT WOOD CROSS-ARM			ORIGINATED: REE SCALE: NTS		R02-5		
							CHECKED: REE		REV. SHT.		
							APPROVED: GRANT STACY		B		
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
B	07.05.15	FORMAT AND TITLE CHANGED		REE	REE	GS					
A	05.07.13	ORIGINAL ISSUE									

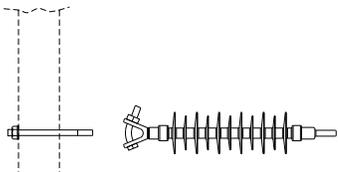


NOTES:-

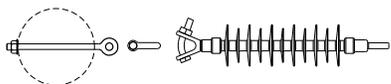
1. A 25mm² Cu BOND TO BE APPLIED BETWEEN ALL HV ATTACHMENTS & THE R/E. E.G. CROSS-ARMS, BRACKETS & PHASE EYE BOLTS.
2. BOLTED ARRANGEMENTS MAKE USE OF A CAPTIVE NUT, TO ENABLE SIMPLIFIED BOND REMOVAL & RE-APPLICATION DURING FAULT FINDING.
3. WHEN MULTIPLE HV ATTACHMENTS EXIST, THEY CAN BE BONDED TOGETHER EITHER USING SERIES BONDING CLIPS OR PG CLAMPED TOGETHER AS ILLUSTRATED.
4. SADDLE THE BOND TO THE POLE, NOT WITHIN 400mm OF THE HV SIDE ATTACHMENT, FOR FAULT FINDING REMOVAL CLEARANCE PURPOSES.
5. BONDING AND EARTHING CONNECTIONS ONTO THE R/E TO BE KEPT SEPARATE, E.G. SURGE ARRESTERS, TRANSFORMERS, RECLOSERS, CONTROL KIOSKS, ETC. TO BE EARTHED.
6. STAY EYE-BOLTS NOT BONDED.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 16-02-2023		DRG. No.	
				BOND HV ATTACHMENTS TO THE RUNNING EARTH CONDUCTOR		ORIGINATED: NMC SCALE: NTS		R02-06	
						CHECKED: NMC		REV. A	
						APPROVED: CHRIS OMODEI		SHT.	
REV		DATE		DESCRIPTION		NMC		TCM	
						ORGD		CHKD	
						APPRD			

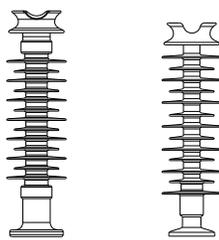
HIGH VOLTAGE (UP TO 33 kV)



STRAIN/LONG ROD INSULATOR



RUNNING DISC ANGLE

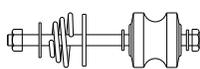


RED EVA GREY SILICONE
POST INSULATORS

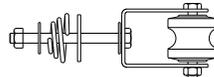
APPLY AS PER DEB ISSUE 70

LOCATION	INSULATOR TYPE & STOCK CODE
EXTREME POLLUTION AREAS - NORTH COUNTRY AREA - WITHIN 10km OF THE COAST FOR THE REMAINDER OF THE SWIN	* LINE POST IF0001 (GREY SILICONE) * LONG ROD IC0031 (GREY SILICONE) * STAND-OFF IC0083 (RED EVA) * LONG ROD (FALCON 22kV PTS) (BRAID SIDE) IC0040 (RED EVA)
ELSEWHERE	* LINE POST IC0086 (RED EVA) * LONG ROD IC0041 (RED EVA) * STAND-OFF IC0083 (RED EVA) * LONG ROD (FALCON 22kV PTS) (BRAID SIDE) IC0040 (RED EVA)
LOCAL KNOWLEDGE OF HIGH POLLUTION - EG. NEAR SALT LAKES	APPLY AS IN EXTREME POLLUTION AREAS

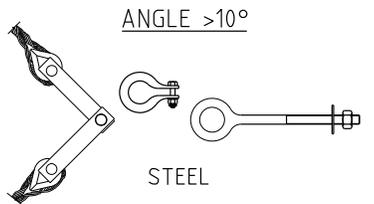
RUNNING EARTH



ANGLE < 2°

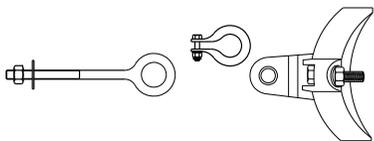


ANGLE 2° TO 10°



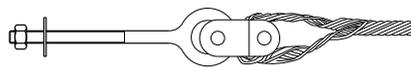
ANGLE >10°

STEEL

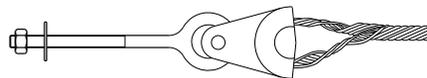


ACSR & ALUMINIUM

TERMINATION

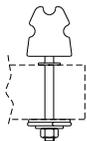


STEEL (SCGZ) & COPPER

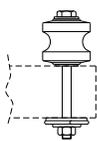


ACSR, ALUMINIUM & SCAC

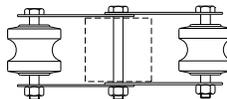
LOW VOLTAGE



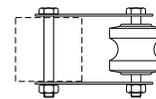
INTERMEDIATE
0° - 2°



ANGLE
UP TO 20°



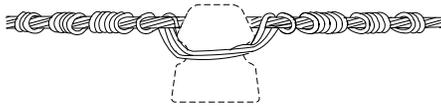
STRAIN OR ANGLE
20°-40°



TERMINATION

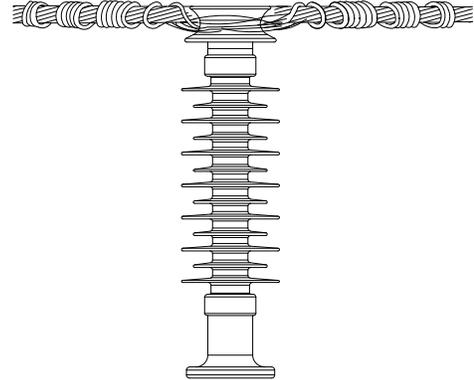
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
K	23.11.23	TABLE ADDED, TITLE REVISED AND DETAILS REARRANGED	ML	NMc	CO	TITLE		DRAWN: JRR	DATE: 04-03-2014	DRG. No.	
J	29.08.19	SUB TITLES REVISED	NN		GS	INSULATORS AND RUNNING EARTH		ORIGINATED: REE	SCALE: NTS	R03-1	
H	15.01.16	SUB TITLES REVISED	ME	FK	GS			CHECKED: REE			
G	24.04.15	REFERENCE NOTE ADDED	FK	AK	GS			APPROVED: GRANT STACY		REV. K	SHT.
F	26.03.15	DEVIATION ANGLES REVISED	FK	AK	GS						
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						

TOP TIE



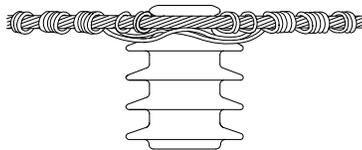
LOW VOLTAGE

- SEQUENCE OF OPERATIONS FOR HV & LV
 HALVE TIE. START WITH MIDDLE OF TIE AT BACK OF INSULATOR.
 A) TAKE HALF TURN AROUND INSULATOR, UNDER AND AROUND CONDUCTOR FOR ONE TURN.
 B) CROSS TIE AT THE FRONT OF INSULATOR AND CONTINUE UNDER AND AROUND CONDUCTOR FOR ONE TURN.
 C) CROSS TIE AT THE BACK OF INSULATOR AND CONTINUE UNDER AND AROUND CONDUCTOR FOR SIX TURNS.
 D) ONE OPEN TURN.
 E) FIVE TURNS.
 F) ONE OPEN TURN.
 G) THREE TURNS.
 H) TURN ENDS OF TIE DOWN AGAINST THE CONDUCTOR.

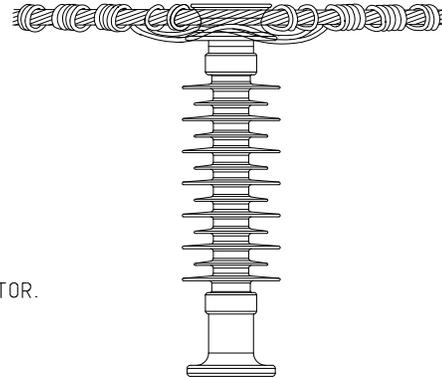


HIGH VOLTAGE

SIDE TIE

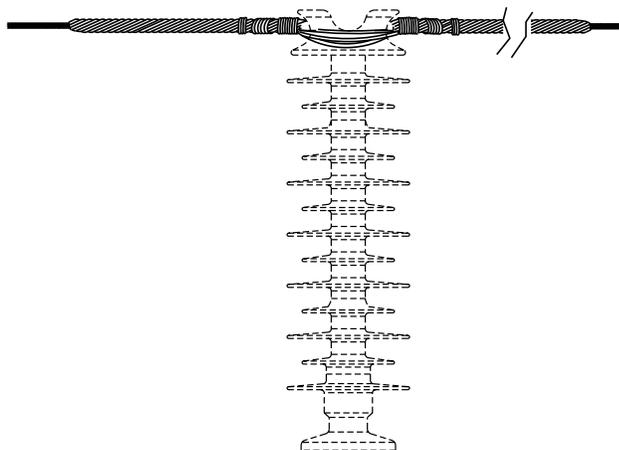


- SEQUENCE OF OPERATIONS
 HALVE TIE. START WITH MIDDLE OF TIE AT BACK OF INSULATOR.
 A) TAKE HALF TURN AROUND INSULATOR AND UNDER CONDUCTOR ON EACH SIDE.
 B) TAKE ONE AND HALF TURNS AROUND CONDUCTOR ON EACH SIDE OF INSULATOR.
 C) CROSS ENDS AROUND BACK OF INSULATOR AND RETURN TO BOTTOM OF CONDUCTOR ON EACH SIDE.
 D) TAKE ONE TURN AROUND CONDUCTOR ON EACH SIDE OF INSULATOR
 E) PASS ENDS OVER AND ACROSS IN FRONT OF INSULATOR CARRYING EACH END TO BOTTOM OF CONDUCTOR.
 F) TAKE FIVE TURNS AROUND CONDUCTOR.
 G) ONE OPEN TURN.
 H) FIVE TURNS.
 J) ONE OPEN TURN.
 K) THREE TURNS.
 L) TURN ENDS OF TIE DOWN AGAINST CONDUCTOR.



				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				INSULATOR TIES			ORIGINATED: SCALE: NTS		R03-2	
				REV. DATE DESCRIPTION ORGD. CHKD. APRD.			CHECKED: REE		APPROVED: GRANT STACY	
							REV. B		SHT.	

ARMOUR ROD



NOTES:

1. ARMOUR RODS TO BE INSTALLED ON ALL BAYS (PHASE AND RUNNING EARTH) FOR THE FOLLOWING
 - STEEL CONDUCTORS (SCAC & SCGZ)
 - ALUMINIUM CONDUCTORS (AAC, AAAC, ACSR, AACSR) TENSIONED AT 15% CBL OR GREATER
2. NOT REQUIRED ON RDA, IN-LINE STRAIN OR TERMINATION STRUCTURE

VIBRATION DAMPER (SVD)



GRIPPING SECTION

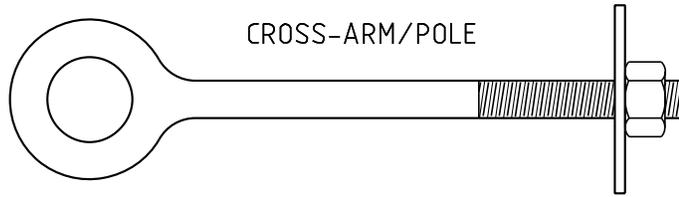
DAMPING SECTION

STOCK CODE	DIAMETER RANGE	CONDUCTOR
CD0022	4.42-6.24mm	7/1.6 SCGZ 3/2.75 SCAC/SCGZ
CD0023	6.35-8.29mm	6/1/2.50 ACSR 6/1/2.75 ACSR
CD0024	8.30 - 11.74mm	6/1/3.00 ACSR/AACSR
CD0025	11.75 - 14.30mm	6/4.75+7/1.6 ACSR

GENERAL NOTES:

1. INSTALLED ON ALL STEEL AND ACSR/AACSR CONDUCTORS BOTH SIDES OF A POST INSULATOR. GRIPPING SECTION TO BE INSTALLED BETWEEN 100 AND 150MM FROM ARMOUR ROD.
2. FOR BAYS >250M, A SECOND SVD IS REQUIRED AT EITHER END OF THE SPAN , NO MORE THAN 150MM APART
3. SVD'S NOT REQUIRED AT STRAIN ATTACHMENTS.
4. SVDS ARE TO BE APPLIED UNDER ALL WORK PROGRAMS INCLUDING RECONDUCTORING, UPGRADES, MAINTENANCE AND DURING FAULT WORK.
5. IF SPLICE INSTALLED AFTER ROD - DAMPER TO BE INSTALLED AFTER SPLICE WITH ALL 100MM APART.

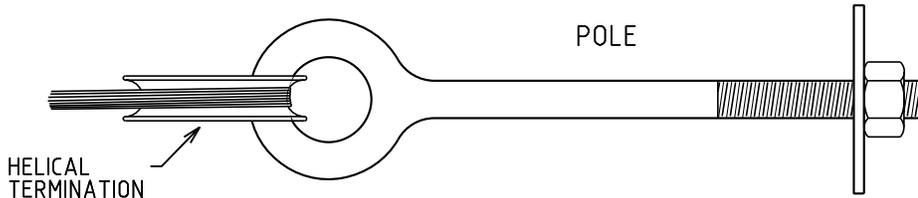
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
M	07.11.25	NOTE 4 UPDATED & TABLE ADDED	CO	KT	MM	TITLE	DRAWN: JRR	DATE: 04-03-2014	DRG. No.	
L	18.08.21	NOTES REVISED	REE	CO	GS	ARMOUR RODS & SPIRAL VIBRATION DAMPERS	ORIGINATED:	SCALE: NTS	R03-3	
K	14.11.18	NOTE 5 ADDED & ARMOUR ROD NOTE REVISED	NN	REE	GS		CHECKED: REE			
J	07.03.18	ARMOUR ROD NOTE REVISED	REE	CO	GS		APPROVED:			
I	03.06.15	ARMOUR ROD NOTE REVISED	CO	JC	GS		GRANT STACY	REV. M	SHT. 1/1	
REV.	DATE	DESCRIPTION	DRG.	CHKD.	APRD.					



CROSS-ARM/POLE

16mm EYEBOLTS

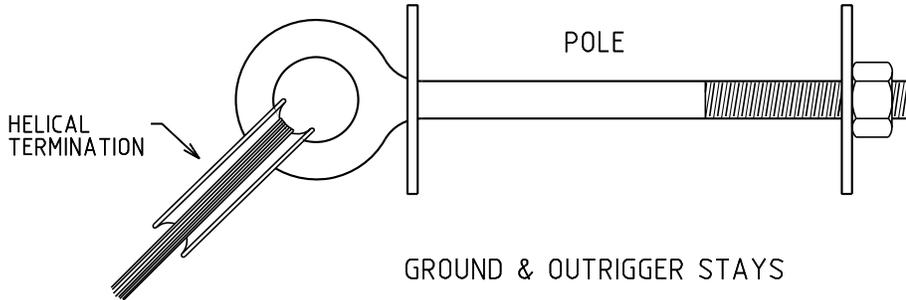
- CENTRE PHASE
- RUNNING DISC ANGLE
- CROSS-ARM



POLE

HELICAL
TERMINATION

AERIAL STAYS



POLE

HELICAL
TERMINATION

GROUND & OUTRIGGER STAYS

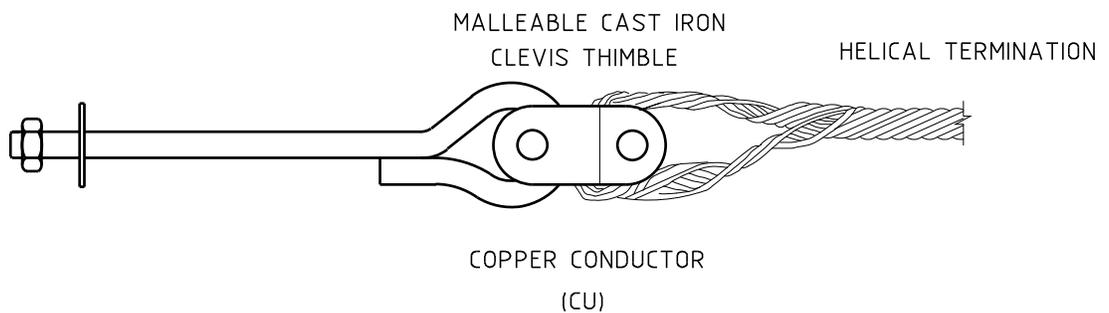
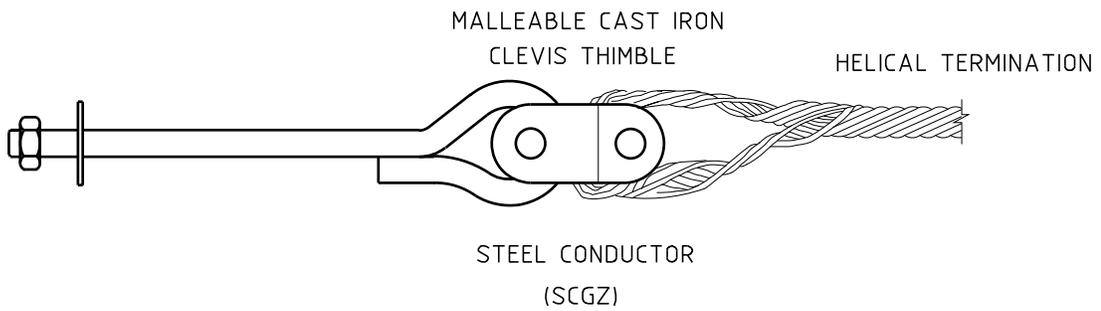
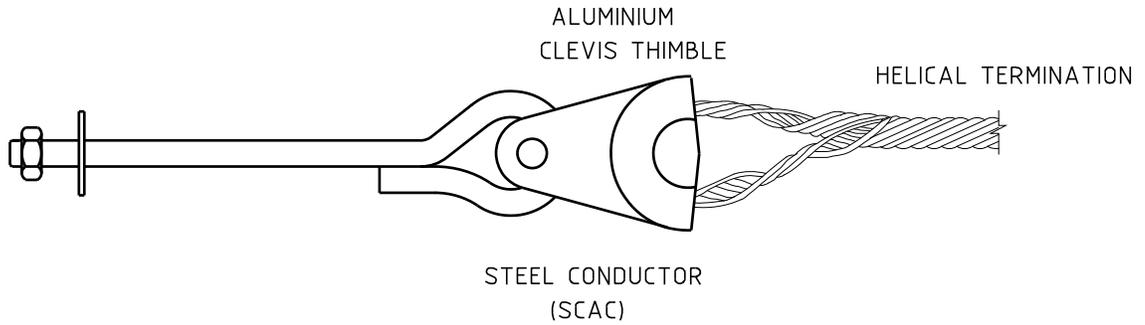
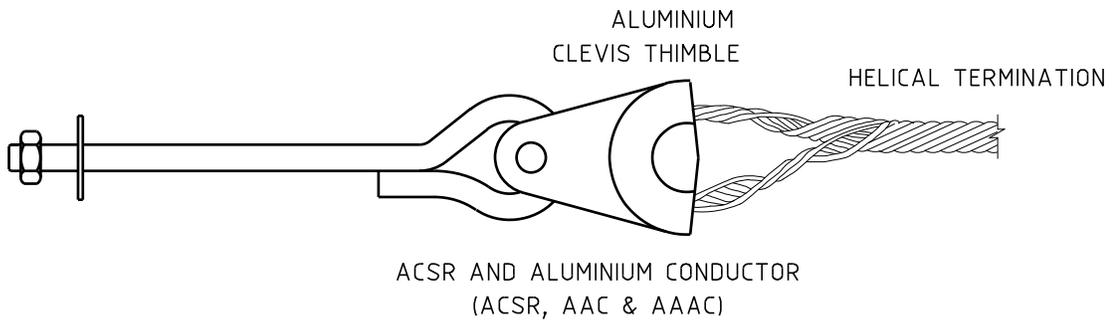
20mm EYEBOLTS

16mm EYEBOLT (ALL)	- WASHER REQUIRED ON NUT SIDE ONLY.
20mm EYEBOLT (AERIAL STAY)	- EYE RETURN <u>NOT REQUIRED</u> HARD AGAINST POLE.
20mm EYEBOLT (GROUND/OUTRIGGER STAY)	- WASHERS REQUIRED BOTH SIDES OF THE POLE. - EYE RETURN <u>REQUIRED</u> HARD AGAINST POLE.

NOTES:

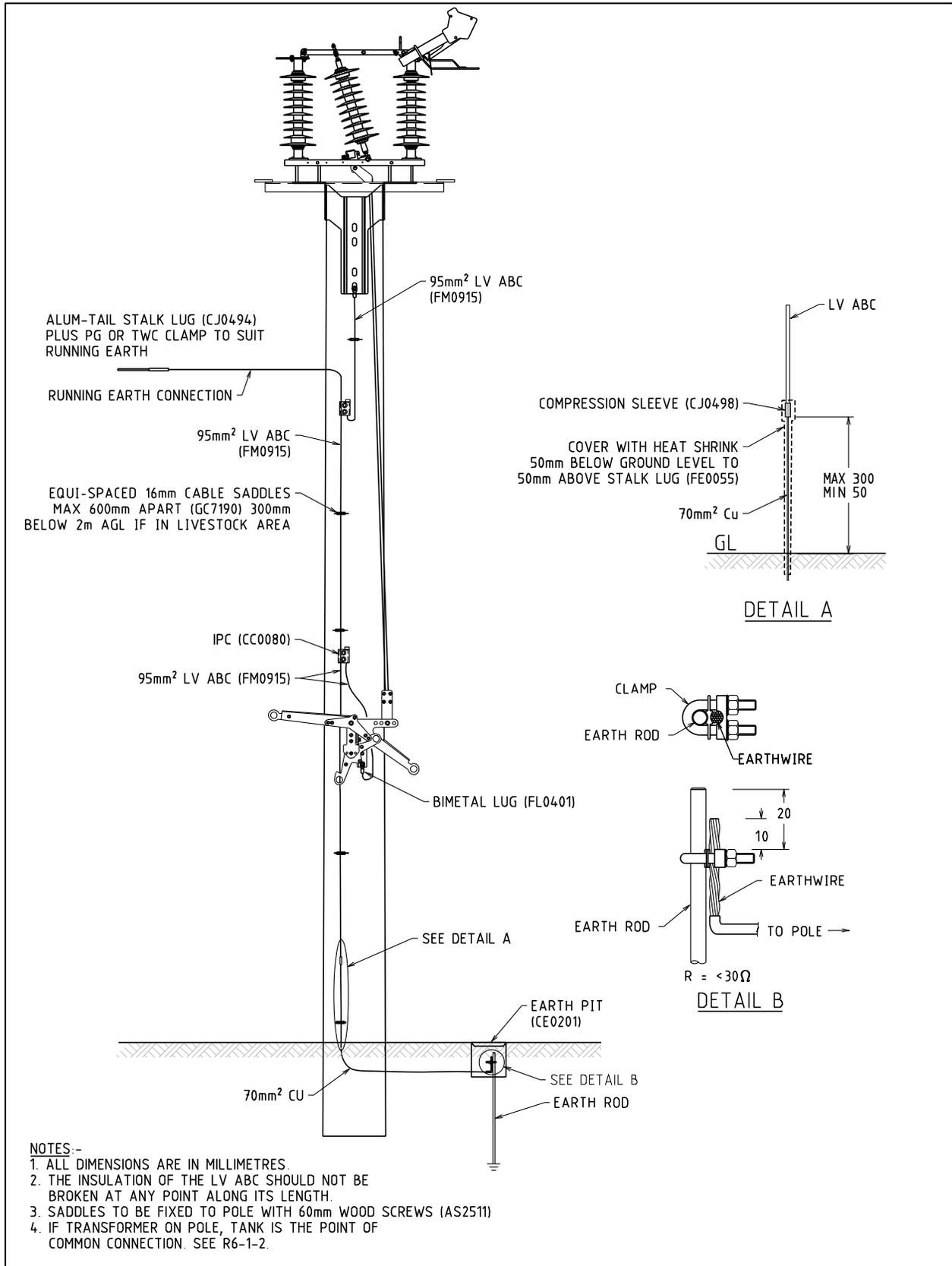
1. 75x75 SQUARE WASHERS ALWAYS IN DIRECT CONTACT WITH THE POLE.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
G	26.05.25	NOTES AMENDED	VAS	NMc	CO	DRAWN: JRR		DATE: 04-03-2014	DRG. No.
F	23.05.23	20mm EYEBOLTS WASHER SIZE CORRECTED	NMc	VS	CO	ORIGINATED:		SCALE: NTS	R05-1
E	16.04.19	TABLE FOR 20mm EYEBOLTS ADDED	NMc	NM	GS	CHECKED: REE		APPROVED: GRANT STACY	
D	13.10.17	FOOT NOTE FOR 20mm EYEBOLT CHANGED	NMc	JC	GS	REV			
C	20.05.13	ORIGINAL ISSUE				G		SHT.	1/1
REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.				

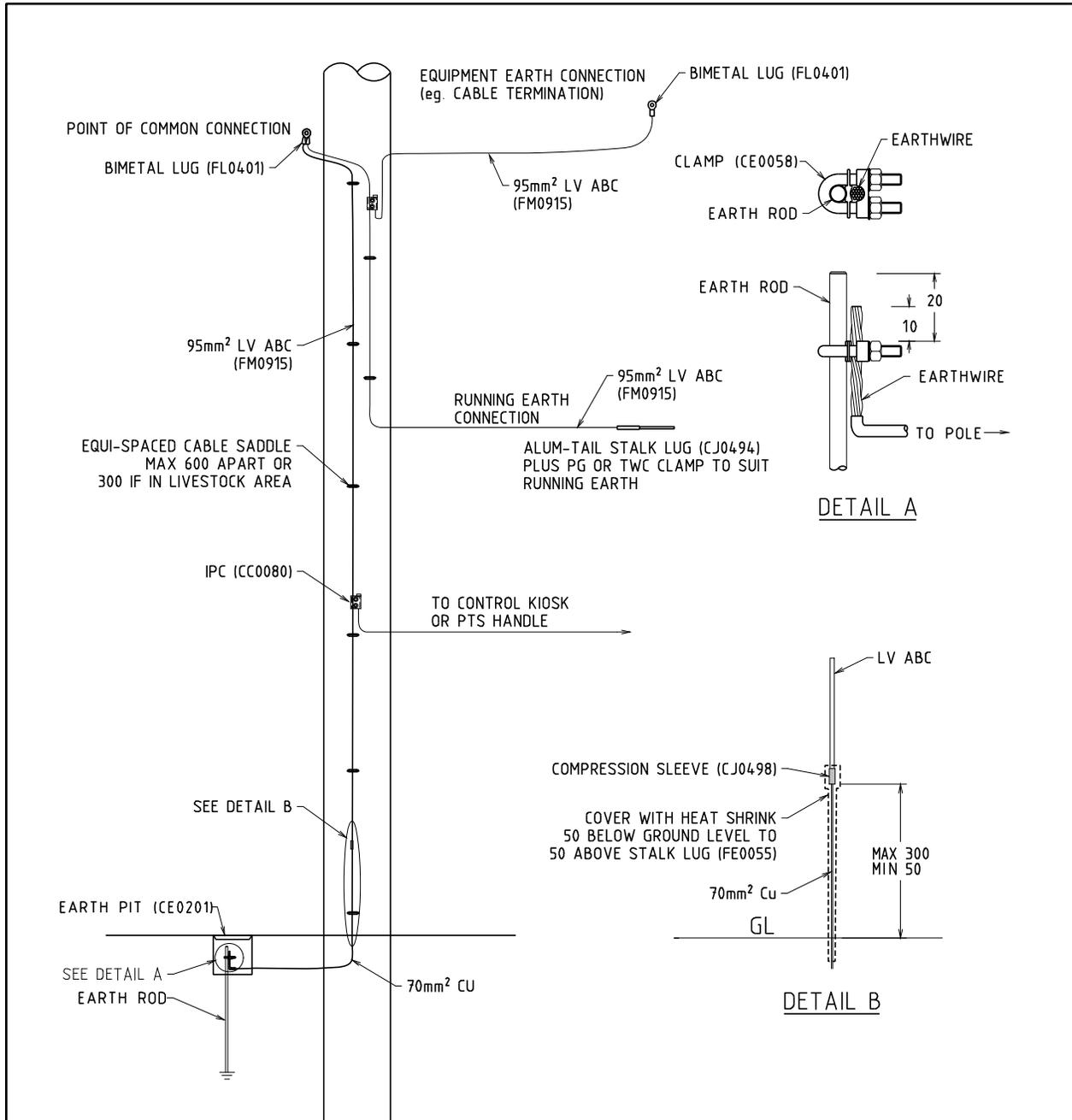


STANDARD CONSTRUCTION 16mm EYE BOLTS

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				EYEBOLT CONDUCTOR TERMINATIONS		ORIGINATED: SCALE: NTS		R05-2	
						CHECKED: REE		REV. B	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD				
B	29.08.19	SUB TITLE REVISED		NN	GS				
A	08.09.03	ORIGINAL ISSUE							



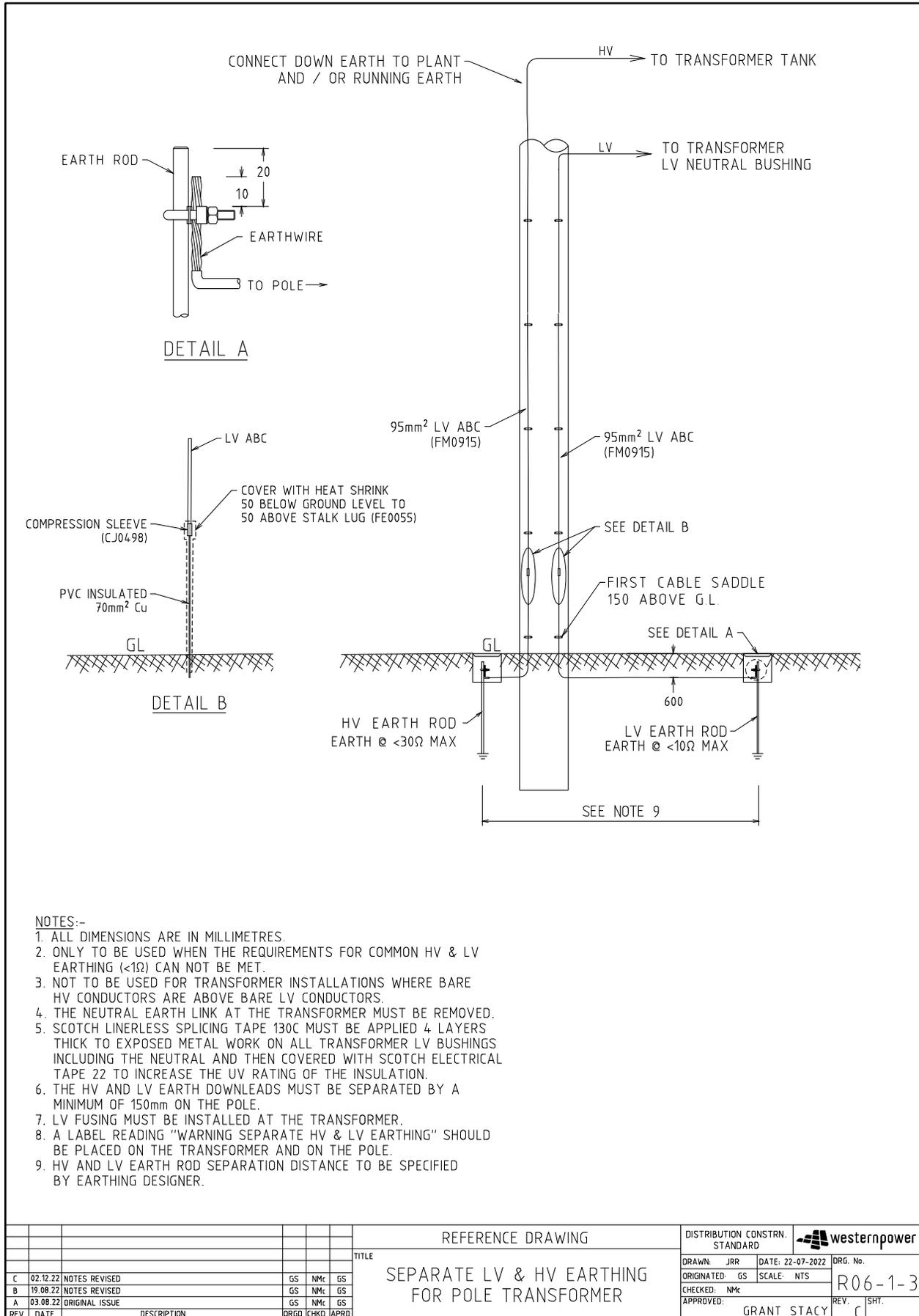
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower			
				TITLE								POLE TOP SWITCH EARTHING	
H	21.05.19	EARTH CONNECTION MODIFIED		REE	NN	FK	DRAWN: JRR		DATE: 04-03-2014	DRG. No.	R6-1-1		
G	31.01.18	REVISED TO SUIT NEW PTS		REE	JC	GS	ORIGINATED:		SCALE: NTS				
F	18 12 17	DWG. # & TITLE REVISED, LV ABC & STALK LUG ADDED		GS	JC	GS	CHECKED: REE						
REV	DATE	DESCRIPTION		DRG	CHKD	APRD	APPROVED: GRANT STACY		REV. H	SHT.			

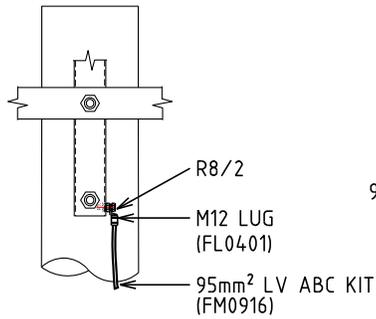


NOTES:-

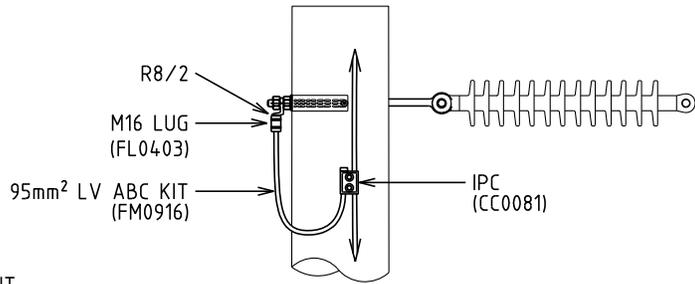
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. LV ABC SHOULD NOT BE PLACED BELOW GROUND.
PVC INSULATED 70mm² Cu CABLE SHOULD BE USED FOR ALL UNDERGROUND CONNECTIONS TO THE EARTH STAKE.
3. THE INSULATION OF THE LV ABC SHOULD NOT BE BROKEN AT ANY POINT ALONG ITS LENGTH.
4. PRIMARY EARTH CONNECTION TO TRANSFORMER TANK. IF NO TRANSFORMER ON POLE THEN RE AND THEN RECLOSER, PTS, CABLE TERM IS THE PRIMARY POINT OF COMMON CONNECTION.
5. SECONDARY EARTH CONNECTIONS SHOULD BE CONNECTED TO THE PRIMARY CONNECTION DOWN-EARTH USING LUGS.
6. ALL LV ABC EARTH WIRE CONNECTIONS TO EQUIPMENT MUST BE BI-METAL LUGS.
7. SADDLES TO BE FIXED TO POLE WITH 60mm WOOD SCREWS (AS2511).
8. WHERE A VALUE OF 30Ω CANNOT BE ACHIEVED (AFTER INSTALLING THE MAXIMUM NUMBER OF RODS POSSIBLE USING A JACK HAMMER), THE VALUE SHOULD BE RECORDED AND FLAGGED AS A NON-CONFORMANCE ON THE CHECK SHEET. A DRILLED 'DEEP EARTH' SHOULD NOT BE INSTALLED TO OBTAIN AN EARTH RESISTANCE READING LESS 30Ω. PLEASE NOTE THAT THE EARTH RESISTANCE MEASUREMENT SHOULD BE TAKEN OFF THE EARTH STAKE BEFORE IT IS CONNECTED TO THE UNDERSLUNG RUNNING EARTH. PLEASE NOTE THAT THIS RELAXATION APPLIES TO INTERMEDIATE POLES. EARTH RESISTANCE VALUES AT KEY STRUCTURE POLES SUCH AS TRANSFORMERS, POLE TOP SWITCHES, CABLE HEADS ETC. ARE STILL REQUIRED TO BE EARTHED TO 30Ω.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 02-08-2017 DRG. No.			
				POLE EARTHING		ORIGINATED: JC SCALE: NTS		R6-1-2	
						CHECKED: CO		REV. C	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD				
C	21.05.19	EARTH CONNECTIONS MODIFIED	REE	NN	FK				
B	14.11.18	EARTH CONNECTIONS MODIFIED & NOTE 8 ADDED	REE	CO	GS				
A	14.12.17	ORIGINAL ISSUE	GS	JC	GS				

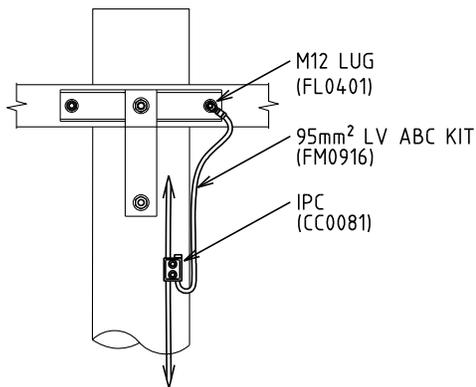




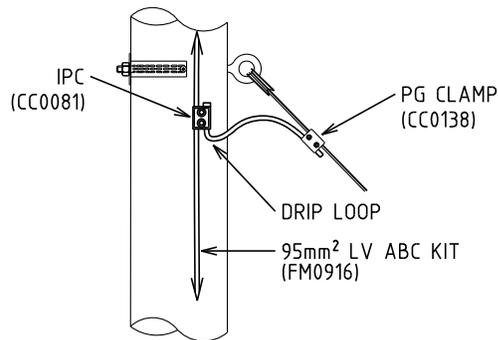
CONNECTION TYPE A
UNITISED CROSSARM (NOTE 2)
M12 LUG



CONNECTION TYPE C
TERMINATION OR DOF BRACKET
M16 LUG



CONNECTION TYPE B
TEE BRACKET
M12 LUG

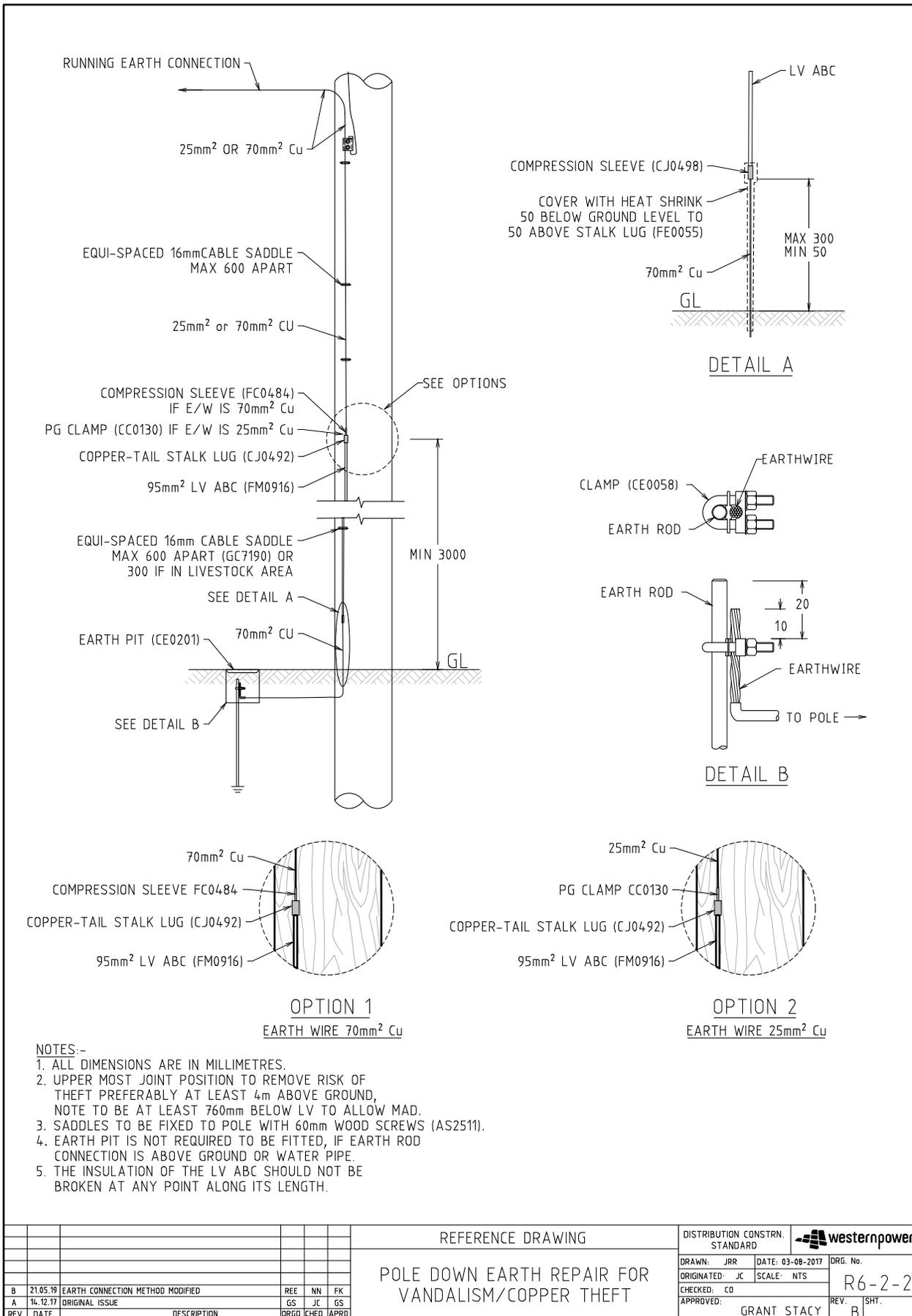


CONNECTION TYPE D
STAY EARTHING

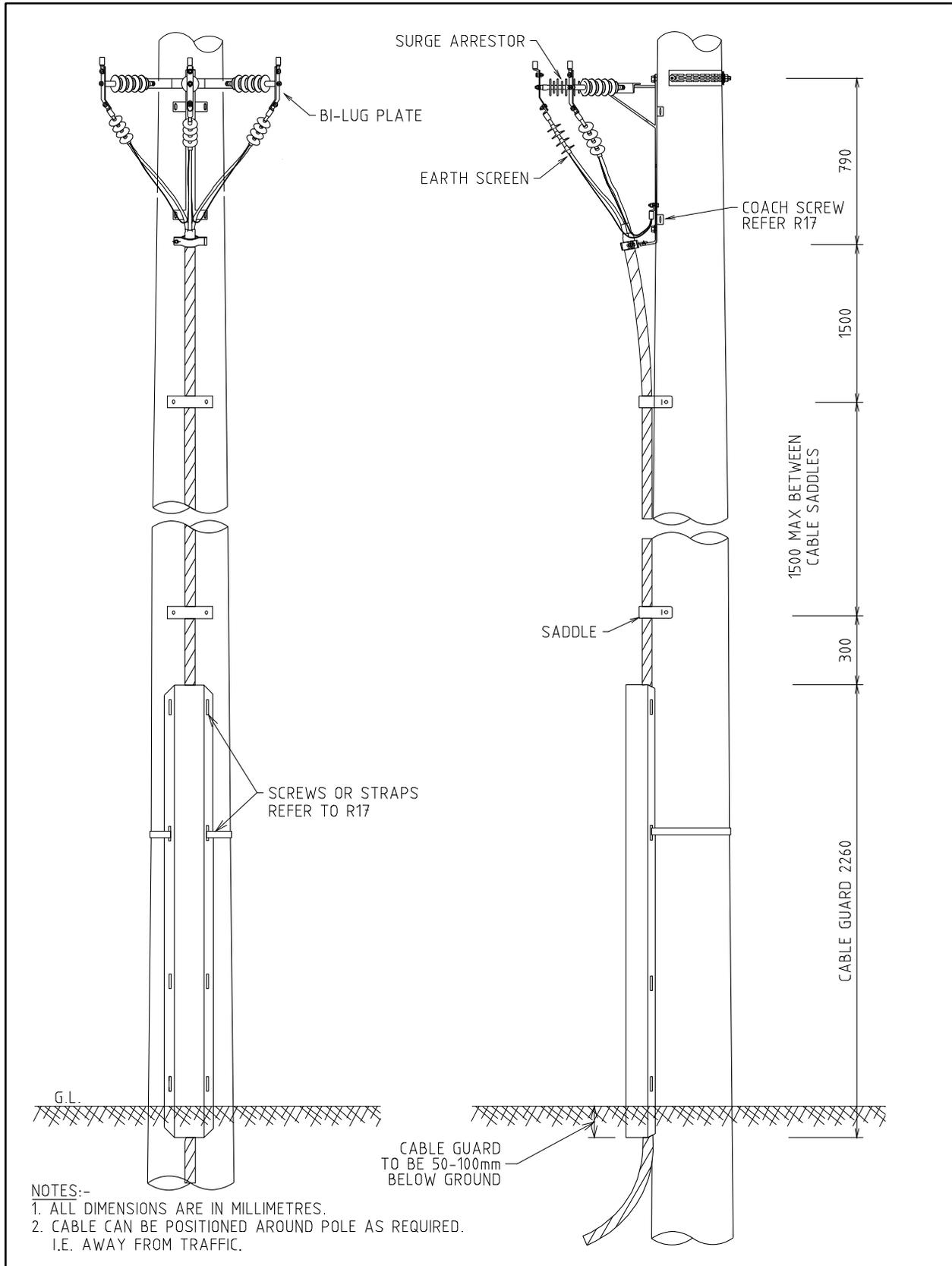
NOTE:

1. EARTHING TO BE APPLIED TO ALL EXPOSED METAL WORK ON TRANSFORMER STRUCTURES (TX, ISO TX, METERING UNITS, VRs, etc)
2. TYPE C CAN BE USED AS AN ALTERNATIVE.
3. GREASE TO BE APPLIED TO ALL LUG & PG CONNECTIONS.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: NC DATE: 02-09-2025		DRG. No.	
				POLE TOP EARTHING AT TRANSFORMER STRUCTURES		ORIGINATED: CO SCALE: NTS		R06-1-4	
						CHECKED: KT		REV. A SHT. 1/1	
						APPROVED: MARK MONTEMAYOR			
A	16.12.25	ORIGINAL ISSUE		CO	KT	MM			
REV.	DATE	DESCRIPTION		DRGD.	CHKD.	APRD.			

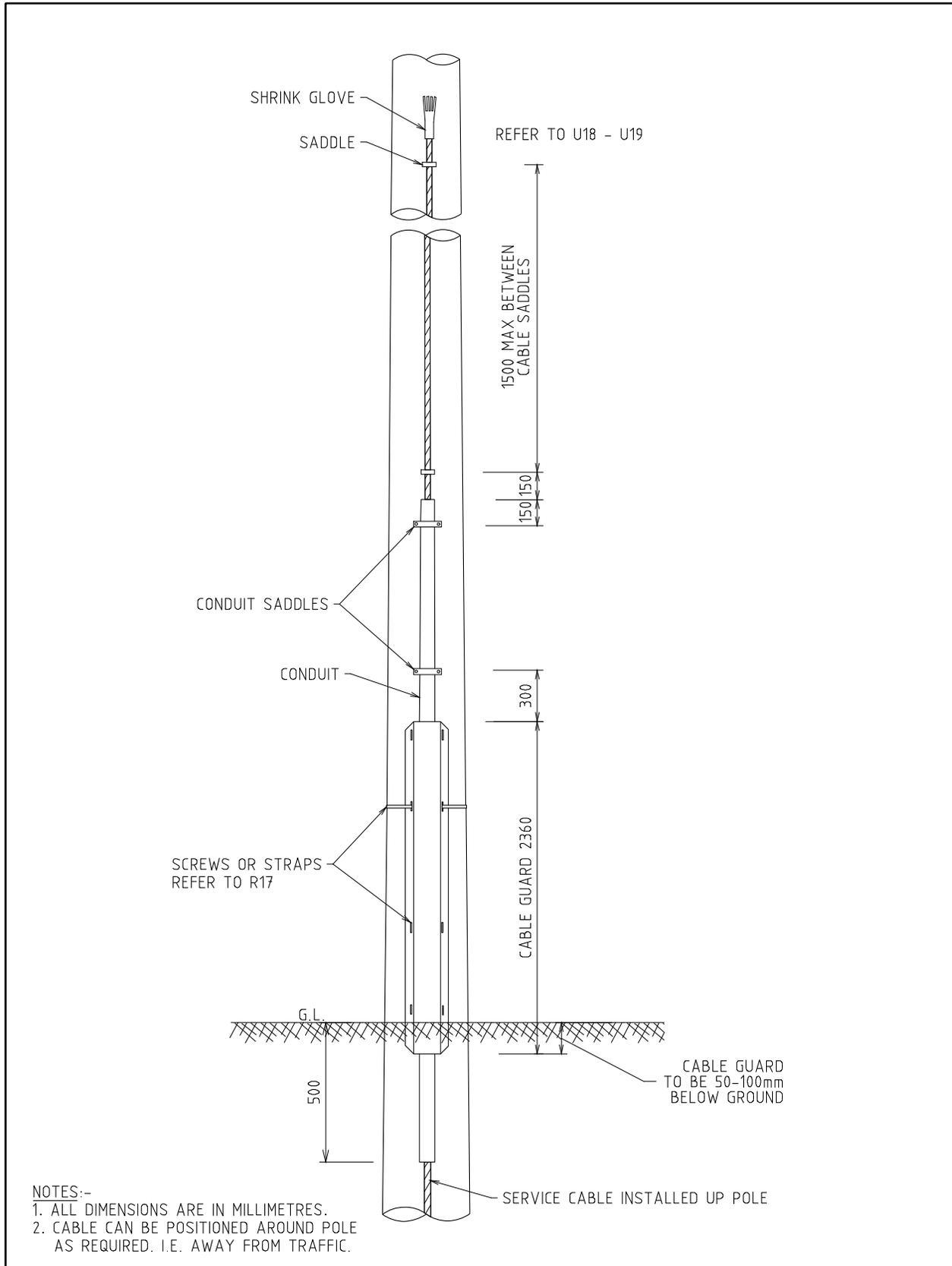


				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				POLE DOWN EARTH REPAIR FOR VANDALISM/COPPER THEFT				DRAWN: JRR DATE: 03-08-2017		DRG. No.	
								ORIGINATED: JC SCALE: NTS		R6-2-2	
								CHECKED: CO		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHED	APPRD						
B	21.05.19	EARTH CONNECTION METHOD MODIFIED	REE	NN	FK						
A	14.12.17	ORIGINAL ISSUE	GS	JC	GS						



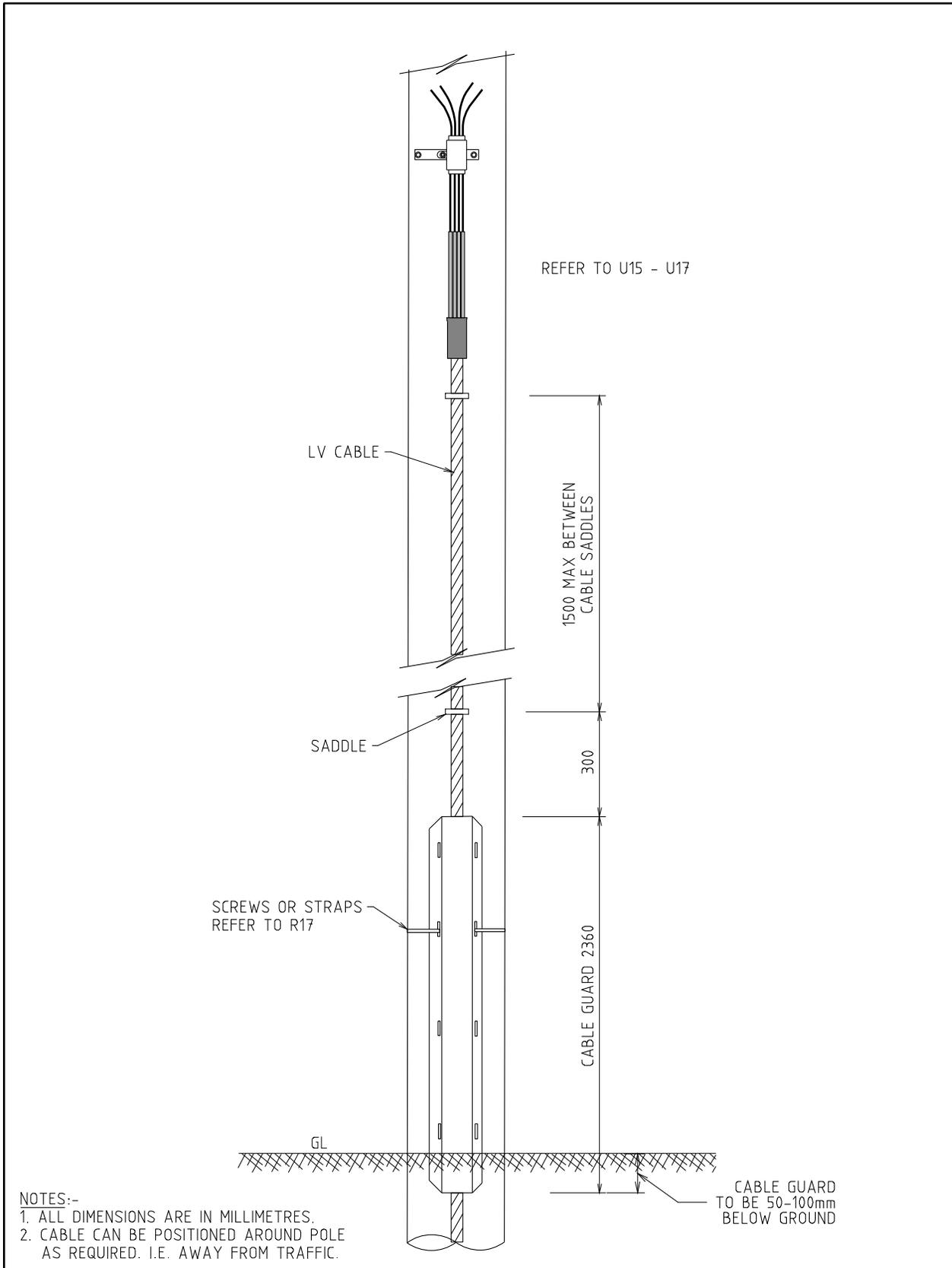
- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED.
 I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE						
				CABLE SADDLE / CABLE GUARD HV CABLES						
F	05.08.21	TITLE CHANGED AND CABLE GUARD LENGTH REVISED	CO	NMc	GS	DRAWN:	JRR	DATE:	04-03-2014	DRG. No.
E	22.02.19	ANNOTATIONS REVISED	CO	NMc	GS	ORIGINATED:	REE	SCALE:	NTS	R07-1
D	10.07.13	ORIGINAL ISSUE	ORGD	CHKD	APRD	CHECKED:	REE	APPROVED:	GRANT STACY	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD	APPROVED:		GRANT STACY	REV.	SHT.



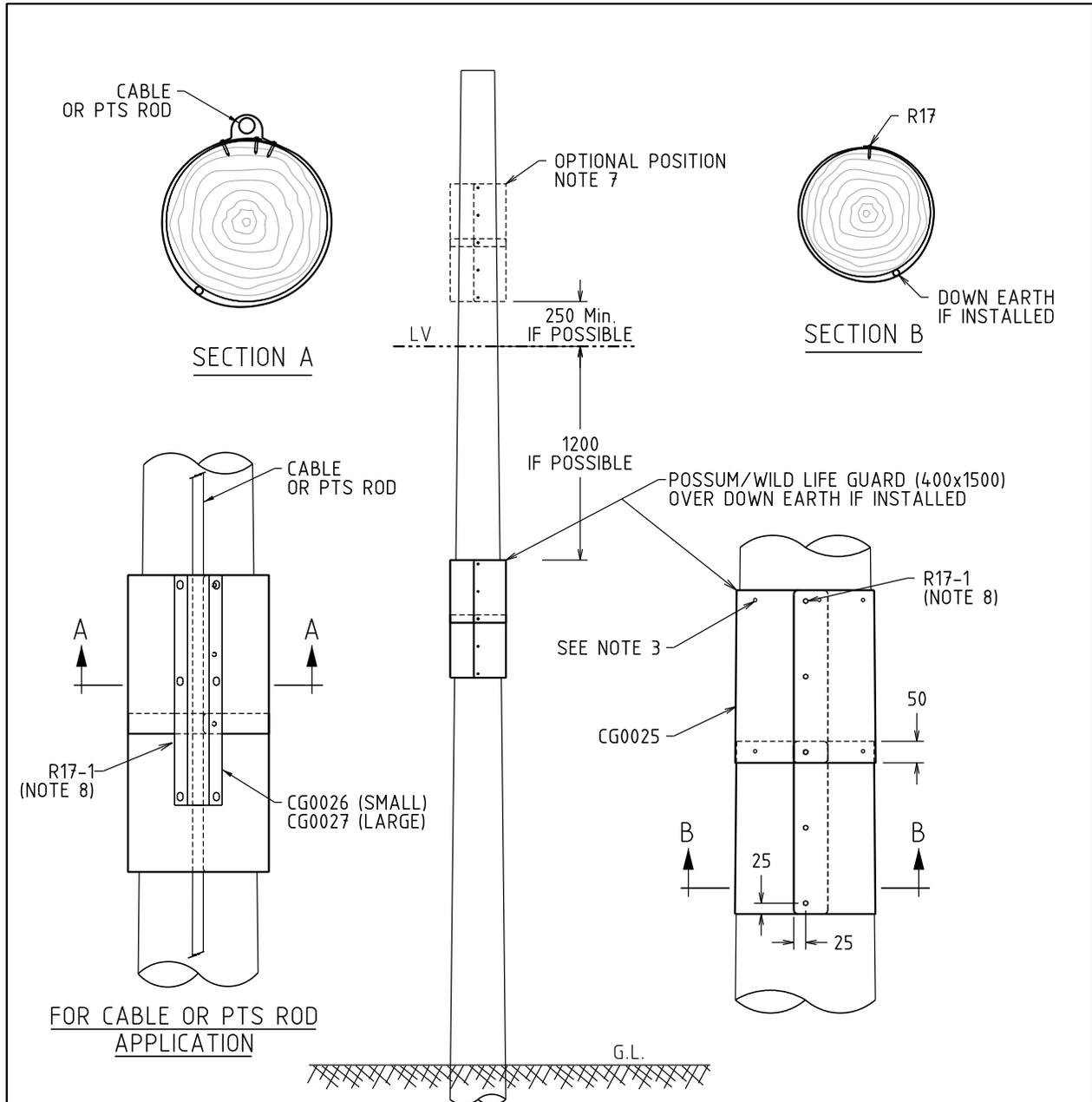
NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED. I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 04-03-2014	
				CABLE SADDLES / CABLE GUARD 10, 16 & 25mm ² SERVICE DETAIL				ORIGINATED:		SCALE: NTS	
								CHECKED: REE		R07-2	
								APPROVED:		REV. F	
								GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
F	05.08.21	TITLE CHANGED AND CABLE GUARD LENGTH REVISED	CO	NMc	GS						
E	22.02.19	ANNOTATIONS REVISED	CO	NMc	GS						
D	10.07.13	ORIGINAL ISSUE									



NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. CABLE CAN BE POSITIONED AROUND POLE AS REQUIRED. I.E. AWAY FROM TRAFFIC.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.	
D 05.08.21				TITLE CHANGED AND CABLE GUARD LENGTH REVISED			ORIGINATED: JRR		SCALE: NTS	
C 22.02.19				ANNOTATIONS REVISED			CHECKED: REE		R07-3	
B 24.08.17				POLE TOP DETAILS DELETED			APPROVED: GRANT STACY		REV. D	
A 10.07.13				ORIGINAL ISSUE					SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD					



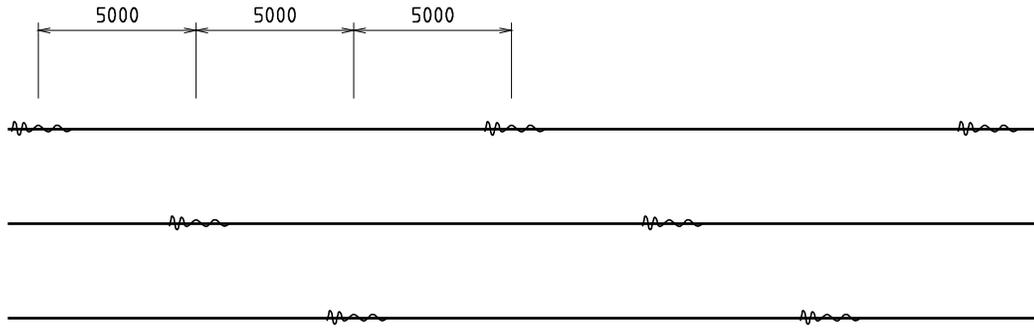
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. GUARD TIGHTLY WRAPPED AROUND POLE.
3. SCREWS AROUND CIRCUMFERENCE TO ASSIST WITH EASE OF INSTALLATION ONLY AND TO BE KEPT TO A MINIMUM.
4. FOR LV/HV CABLES AND PTS ACTUATOR ROD, INSTALL POSSUM GUARD BETWEEN CABLE OR PTS ROD & POLE.
5. GUARD TO BE INSTALLED WITH MATT FINISH SIDE ON THE OUTSIDE, SHINY SIDE AGAINST POLE.
6. USE THE SMALLEST DIAMETER PLASTIC CABLE GUARD POSSIBLE TO COVER THE CABLE OR PTS ACTUATOR ROD WHICH WILL PREVENT WILDLIFE FROM CLIMBING THROUGH THE GUARD ITSELF.
7. UTILISE OPTIONAL OR ADDITIONAL POSITION IF POSSUM CAN ACCESS ABOVE LV DUE TO CLOSE TREES OR SERVICES.
8. USE SCREW (R17-1) WITH WASHER IF REQUIRED.

APPLICATION:
 POSSUM GUARDS ARE TO BE INSTALLED ON POLES WHERE BOTH OF THE BELOW ARE MET WITHIN 20km OF THE COAST, BETWEEN DAWESVILLE AND AUGUSTA INCLUSIVE, WHERE HV EQUIPMENT IS EARTHED. (E.G.TX, PTS, HV CABLE TERM, ETC.)

					REFERENCE DRAWING	DISTRIBUTION CONSTR. STANDARD	
F	28.08.25	APPLICATION NOTE ADDED AND NOTE 9 DELETED.	NG	VAS		DRAWN: JRR	04-03-2014
E	14.05.24	CABLE GUARD NUMBERS DOUBLED	NMC	ML		ORIGINATED:	SCALE: NTS
D	12.11.19	CABLE GUARD DETAILS AND NOTE 8 ADDED	REE	CO	TITLE	CHECKED: REE	
C	22.02.19	WOOD SCREW DETAILS REVISED	CO	NMC	POSSUM/WILD LIFE GUARD	APPROVED:	R07-5
B	03.03.15	FORMAT CHANGED AND NOTES REVISED.	REE	REE		GRANT STACY	REV. F
A	20.12.13	ORIGINAL ISSUE					SHT. 1/1
REV.	DATE	DESCRIPTION	ORGO.	CHKD.	APRD.		

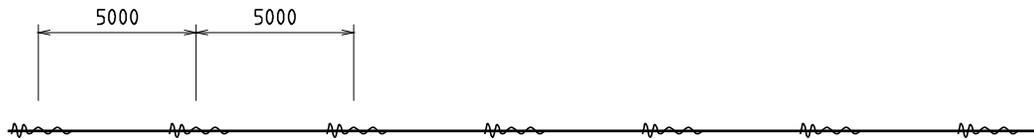
THREE PHASES



TWO PHASES



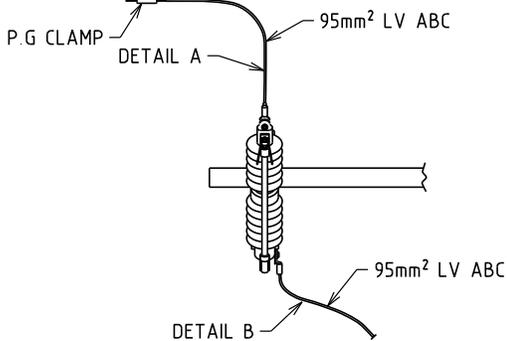
SINGLE PHASE



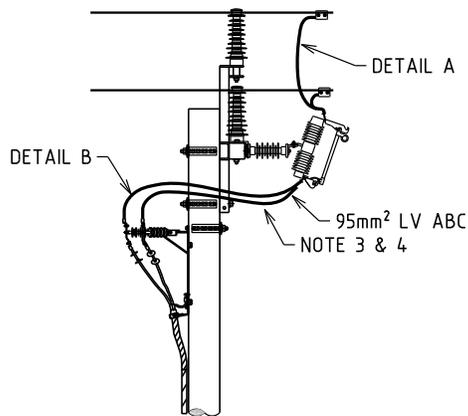
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THIS DRAWING IS SUGGESTED INSTALLATION SPACING ONLY.
3. SEE CN79 TO SELECT CORRECT BIRD DIRECTORS FOR CONDUCTOR DIAMETERS.
4. USE ANTI-SWAN TYPE DIVERTOR FOR SWAN AS REQUIRED.

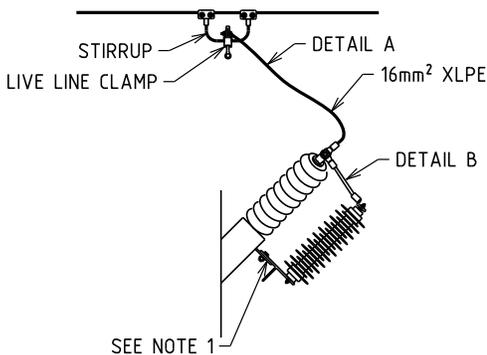
				STRUCTURE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 10-02-2020		DRG. No.	
				BIRD FLIGHT DIVERTER SPACING		ORIGINATED: REE SCALE: NTS		R07-6	
						CHECKED: NN			
						APPROVED: GRANT STACY		REV. A	
A	11 02 20	ORIGINAL ISSUE		REE	NN	GS			
REV	DATE	DESCRIPTION		DRG	CHKD	APRD			



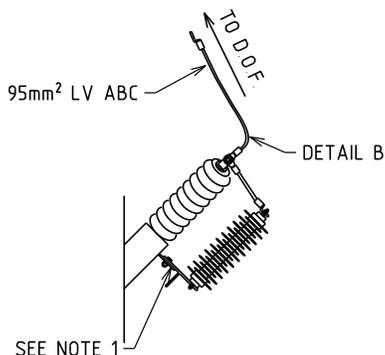
LINE TAPS TO ISOLATOR/DOF



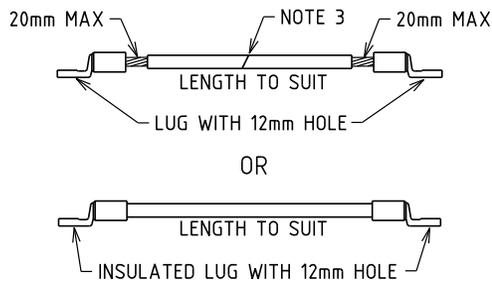
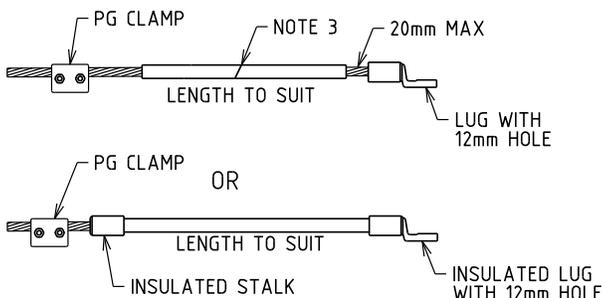
DOF CABLE TERMINATION



LIVE LINE CLAMP TO SINGLE PHASE TRANSFORMER.



DOF TO TRANSFORMER



NOTES:

1. IF PAINTED, STRIP OFF PAINT TO ENSURE A GOOD ELECTRICAL CONTACT, APPLY INHIBITING GREASE.
2. EXISTING BARE CONDUCTOR CAN BE USED FOR TAPPING. APPLY GREY FLEXIBLE HOSE AND APPROPRIATE LUGS.
3. CUT INSULATION (50mm MAX) AT LOWEST POINT OF THE TAP TO DRAIN WATER, UNLESS WATER BLOCKED.
4. 95mm² LV ABC IS PREFERRED. 150mm² LV ABC MAY BE USED.
5. MAINTAIN PHASE CLEARANCES FROM ANY PART OF STRUCTURES AS PER TABLE 1.

GUIDANCE:

- LV ABC FOR HV TAPPING DOES NOT NEED TO BE WATER BLOCKED. TO MANAGE MOISTURE:
- IF SEALED AT THE BOTTOM, THE TAP MUST ALSO BE SEALED AT THE TOP.
 - IF OPEN AT THE TOP, THE INSULATION MUST BE CUT/OPEN AT THE LOWEST POINT TO DRAIN WATER.

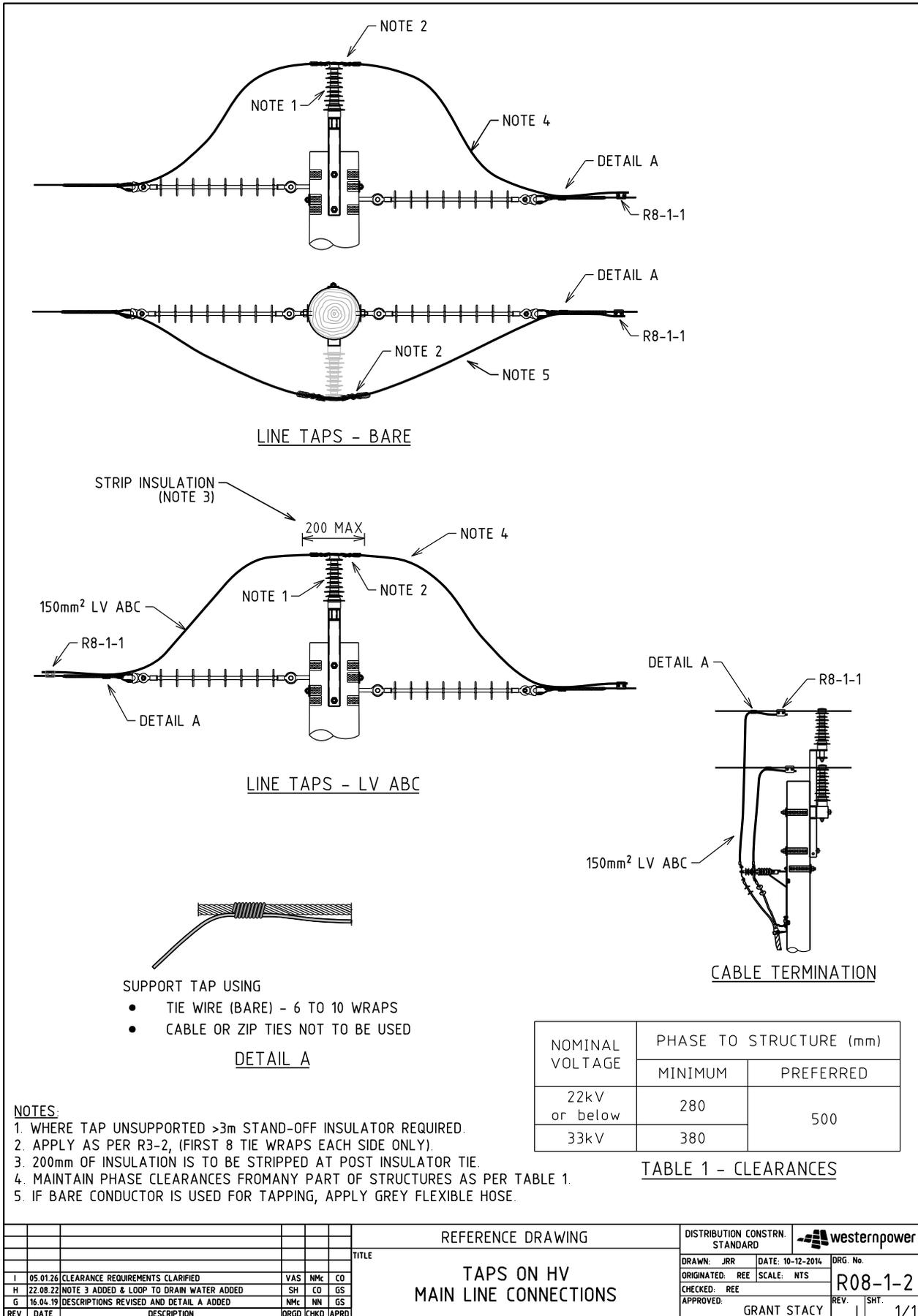
DETAIL A

DETAIL B

NOMINAL VOLTAGE	PHASE TO STRUCTURE (mm)	
	MINIMUM	PREFERRED
22kV OR BELOW	280	500
33kV	380	

TABLE 1 - CLEARANCES

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
M	05.01.26	CLEARANCE REQUIREMENTS CLARIFIED	VAS	NMc	KT	TITLE		DRAWN: JRR	DATE: 04-03-2014	DRG. No.	
L	24.01.24	TITLE UPDATED	NMc	SH	CO	TAPS ON HV FOR EQUIPMENT		ORIGINATED: REE	SCALE: NTS	R08-1-1	
K	22.08.22	NOTES, DETAIL A AND B REVISED	SH	CO	GS			CHECKED: REE		REV.	SHY.
J	24.07.18	NOTES ADDED	REE	CO	GS			APPROVED: GRANT STACY		M	1/1
H	29.06.18	TITLE CHANGED AND MORE DETAILS ADDED	REE	CO	GS						
REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.						

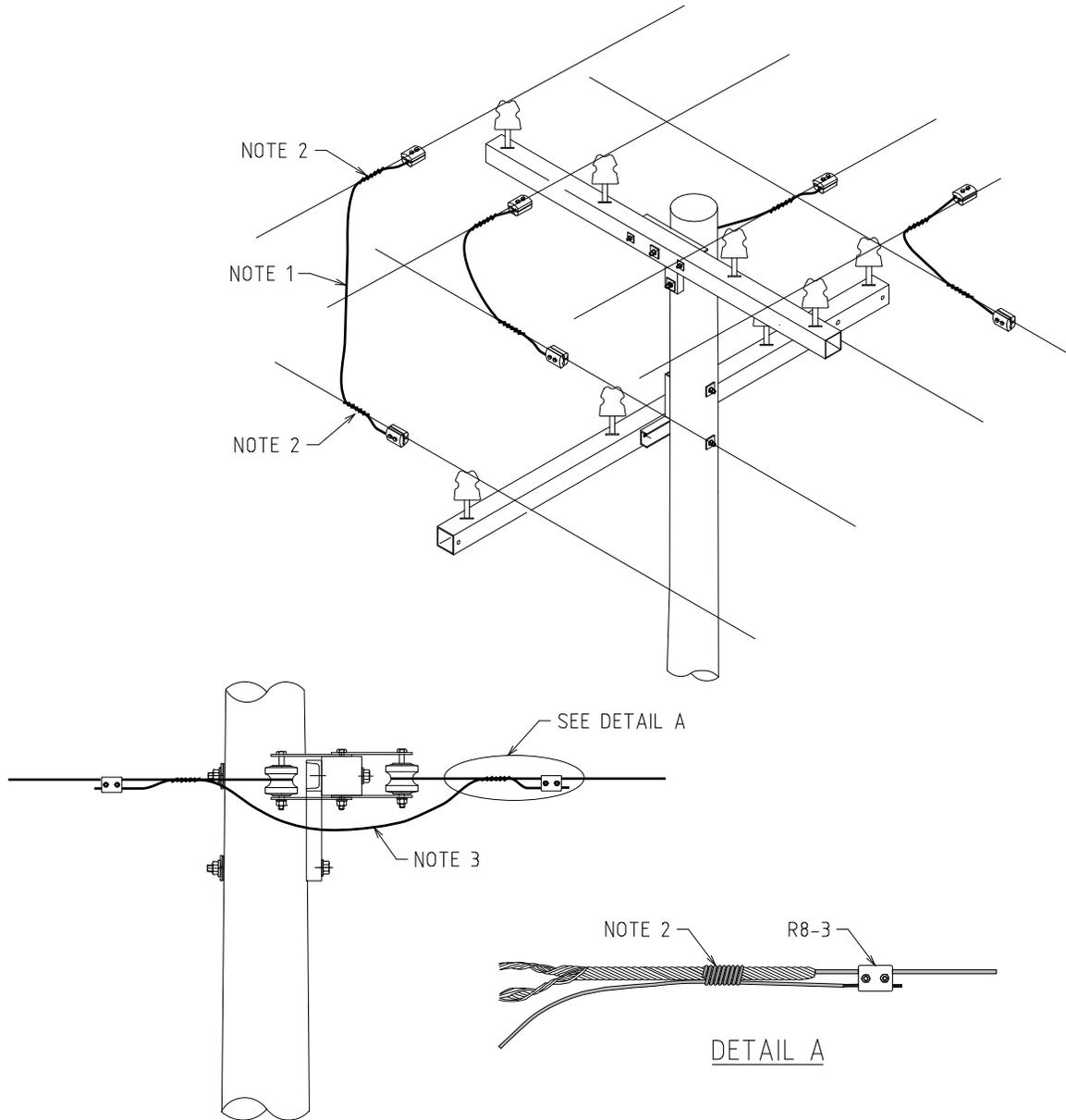


REV.	DATE	DESCRIPTION	DRG.	CHKD.	APRD.
I	05.01.26	CLEARANCE REQUIREMENTS CLARIFIED	VAS	NMc	CO
H	22.08.22	NOTE 3 ADDED & LOOP TO DRAIN WATER ADDED	SH	CO	GS
G	16.04.19	DESCRIPTIONS REVISED AND DETAIL A ADDED	NMc	NN	GS

REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD	
TITLE		DRAWN: JRR	DATE: 10-12-2014
TAPS ON HV MAIN LINE CONNECTIONS		ORIGINATED: REE	SCALE: NTS
		CHECKED: REE	APPROVED: GRANT STACY
		DRG. No.	R08-1-2
		REV.	SHT.
			1/1

LV TAPPING

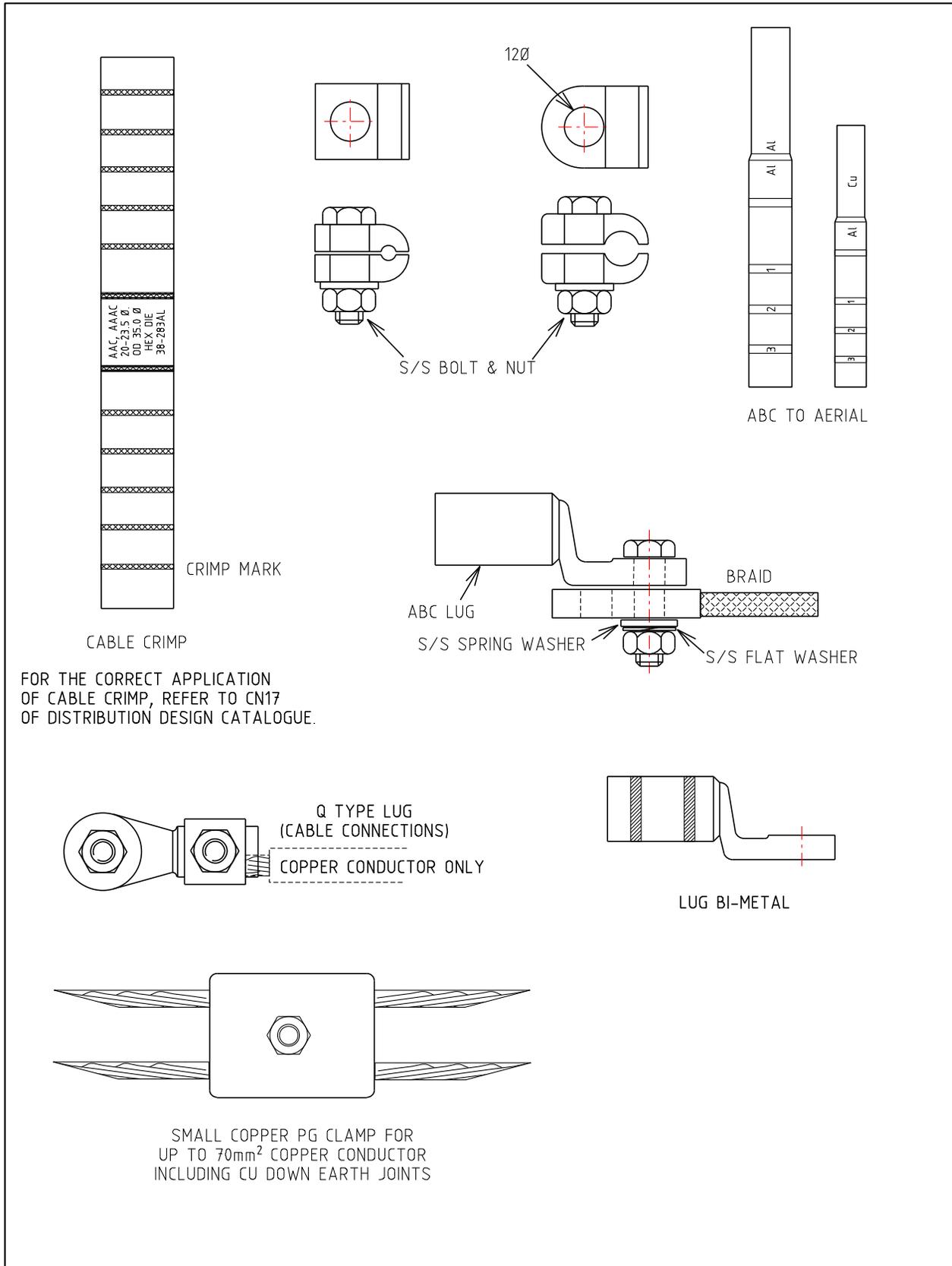
- IF TAP CONDUCTOR OF SAME SIZE AS EXISTING CONDUCTOR - COVER WITH FLEXIBLE HOSE.
- ALTERNATIVELY USE 150mm² LVABC CONDUCTOR.



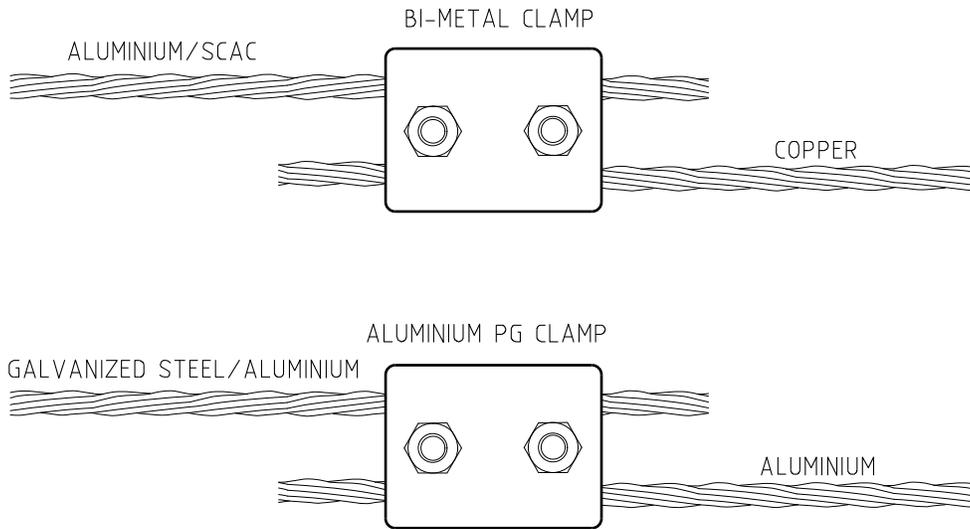
NOTES:-

1. ALLOW SUFFICIENT SLACK IN THE TAP TO ACCOMMODATE CONDUCTOR MOVEMENT.
2. SUPPORT TAP WITH TIE WIRE - 6 TO 10 WRAPS AS SHOWN IN DETAIL A.
CABLE OR ZIP TIES NOT TO BE USED.
3. CUT INSULATION (50mm MAX) AT THE BOTTOM OF THE LOOP TO ALLOW WATER DRAINAGE.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
G	16.02.23	DETAIL A AND NOTES REVISED	CO	ML	PC	DRAWN: JRR	DATE: 21-08-2015	DRG. No.	
F	16.04.19	NOTES REVISED	NMc	NN	GS	ORIGINATED: REE	SCALE: NTS	R08-1-3	
E	10.10.17	LV ABC TAPPING UPDATED	CO	FK	GS	CHECKED: REE			
D	03.08.17	OPTION NOTES REVISED	GS	REE	GS	APPROVED:		REV. SHT.	
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD	GRANT STACY		G	



				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				LUGS & CONNECTORS TRANSFORMER & CABLE		ORIGINATED: REE SCALE: NTS		R8/2	
						CHECKED: REE		REV. C	
						APPROVED: GRANT STACY		SHT.	
C	19.12.13	ORIGINAL ISSUE		DRG	CHKD	APRD			



PARALLEL GROOVE CLAMPS

FOR NEW INSTALLATIONS/APPLICATIONS

STEP 1

- WIRE BRUSH SURFACE OF CONDUCTORS. THEN IMMEDIATELY APPLY JOINTING GREASE TO THE CONDUCTOR (STOCK CODE: PG0002)

STEP 2

- FIT CLAMP AND TIGHTEN BOLTS ACCORDING TO MANUFACTURER'S SPECIFIED TORQUE(Nm) SHOWN ON THE CLAMP.
- IF: * COPPER TO ALUMINIUM THEN ALUMINIUM CONDUCTOR TO BE ABOVE THE COPPER.
* STEEL TO ALUMINIUM THEN STEEL CONDUCTOR TO BE ABOVE.

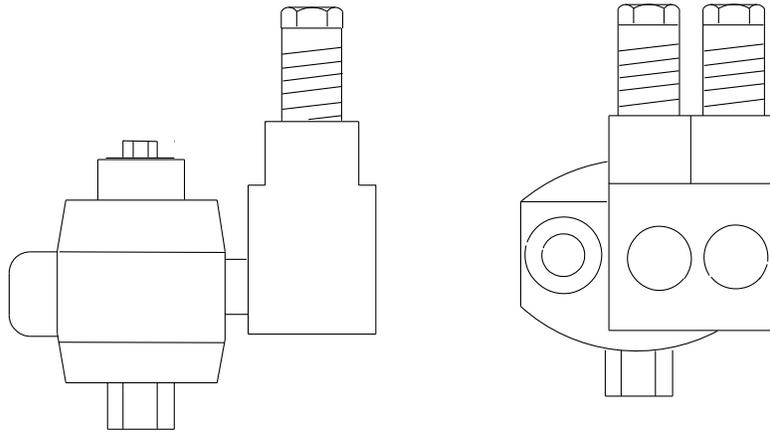
STEP 3

- IN EXTREMELY CORROSIVE ENVIRONMENTS:
 - * WITHIN 5km OF THE COAST IN THE PERTH METRO AND SOUTH COUNTRY AREA.
 - * WITHIN 20km OF THE COAST IN THE NORTH COUNTRY AREA.
 - * NEAR HIGH POLLUTION INDUSTRIAL AREAS.
- APPLY GREASE (STOCK CODE: PG0126) TO COVER ALL PARTS OF JOINT.
- APPLY 510 DENSO TAPE OVER GREASE AND JOINT TO EXCLUDE ALL MOISTURE (STOCK CODE: KT0020)

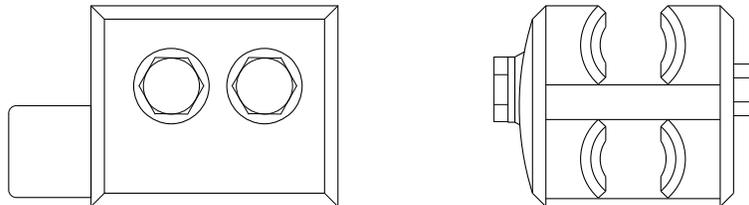
REUSE OF PG CLAMPS

- DO NOT REUSE PG CLAMPS WHICH HAVE BEEN SUBJECTED TO HEAVY FAULT CONDITIONS OR EXCESSIVE CORROSION
- CONTACT GROOVES OF THE PG TO CONDUCTOR INTERFACES MUST BE THOROUGHLY CLEANED TO BRING THE SURFACE BACK TO "AS NEW" CONDITION.
- APPLY CORROSION INHIBITING GREASE (PG0126 OR PG0002) TO REINSTATE THE ENVIRONMENTAL PROTECTION AT THE INTERFACE (CONTACT GROOVES)
- REPEAT STEPS 1 TO 3.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD				
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.		
				LUGS & CONNECTORS TRANSFORMER & CABLE			ORIGINATED: SCALE: NTS		R08-3		
							CHECKED: REE		REV. G		
							APPROVED: GRANT STACY		SHT.		
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
G	19.09.23	GRAMMAR CORRECTED		ML	NMc	CO					
F	21.08.14	FORMAT CHANGED AND NOTE STEP 3 REVISED		REE	REE	GS					
E	16.09.13	ORIGINAL ISSUE									



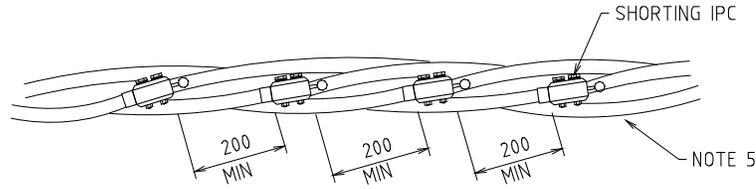
IPC ABC TO SERVICE



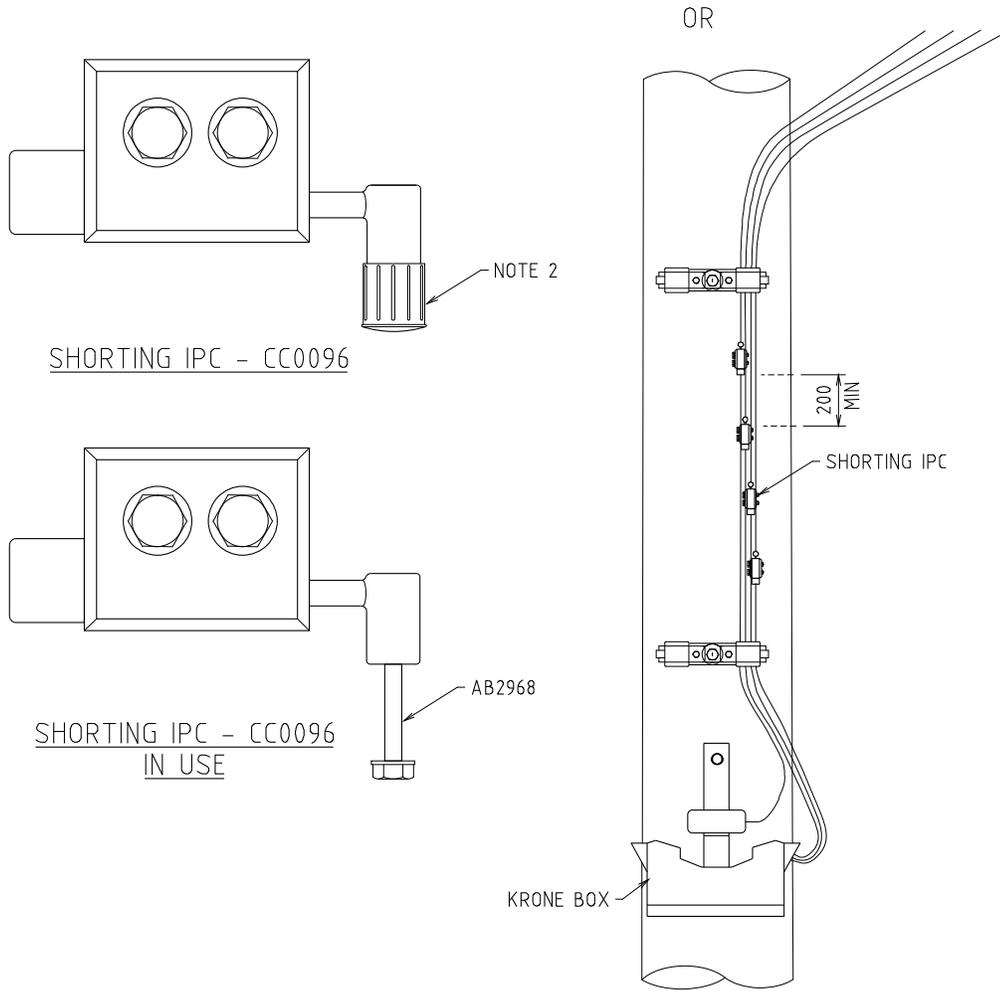
LV MAINS IPC ABC TO ABC

- NOTES:-
 1. IPC ARE SINGLE USE ONLY (NOT TO BE RE-USED).
 2. SPACING BETWEEN IPCs ARE TO BE 150mm.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014		DRG. No.	
				LUGS & CONNECTORS			ORIGINATED: SCALE: NTS		R08-4-1	
				INSULATION PIERCING CLAMP			CHECKED: REE		REV. SHT.	
							APPROVED: GRANT STACY		G	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD					
G	11.02.22	NOTE 2 ADDED AND IPC & DWG. No REVISED	SH	CO	GS					
F	19.06.18	NOTE 1 ADDED	JC	NMc	GS					
E	09.09.14	FORMAT CHANGED AND BARE MAINS TO IPC ABC DELETED	REE	REE	GS					
D	05.10.10	ORIGINAL ISSUE								



HORIZONTAL LAYOUT

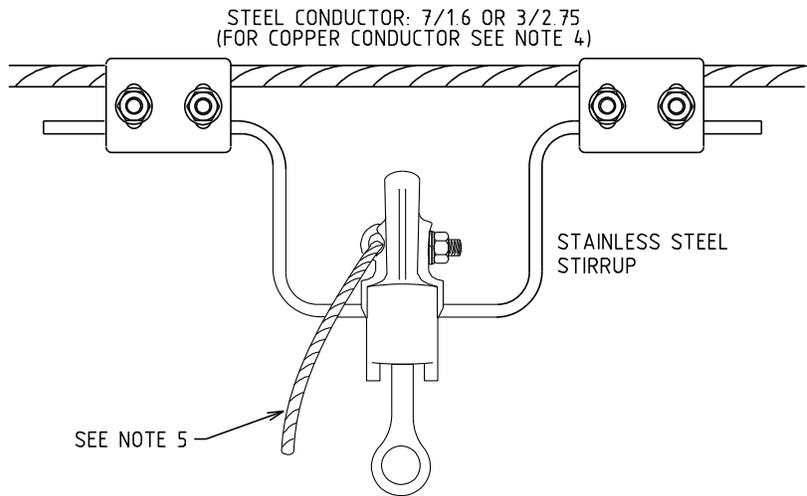
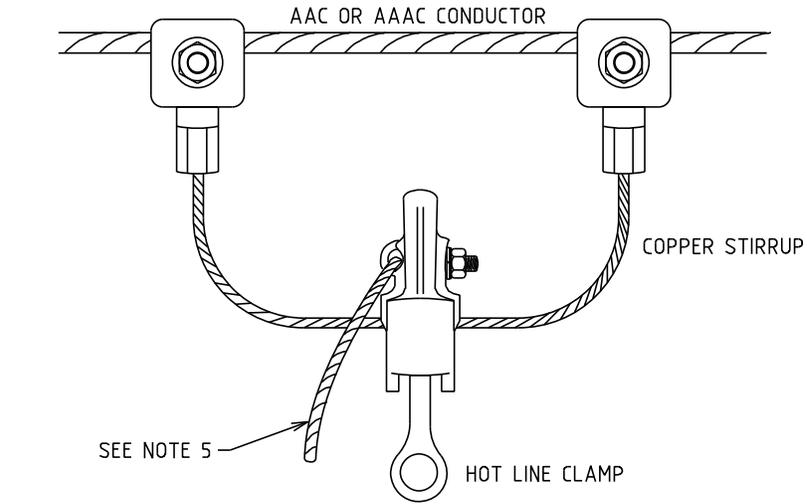


VERTICAL LAYOUT

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. APPLY ALUMINOX AND SECURE CAP AFTER USE.
3. SHORTING IPC MUST ONLY BE INSTALLED ON INSULATED NETWORK.
4. APPLY LV SHORT TO THE NEUTRAL FIRST AND THEN TO THE ACTIVES.
5. IN HORIZONTAL LAYOUT, INSTALL SHORTING IPC WITHIN 3m OF THE POLE.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 19-01-2022		DRG. No.	
				SHORTING LV ABC		ORIGINATED: SH SCALE: NTS		R08-4-2	
						CHECKED: CO		REV. SHT.	
						APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGD	CHKD	APPRD				
B	14.12.22	UPDATED FROM EARTH IPC TO SHORTING IPC	CO	SH	PC				
A	04.02.22	ORIGINAL ISSUE	SH	CO	GS				

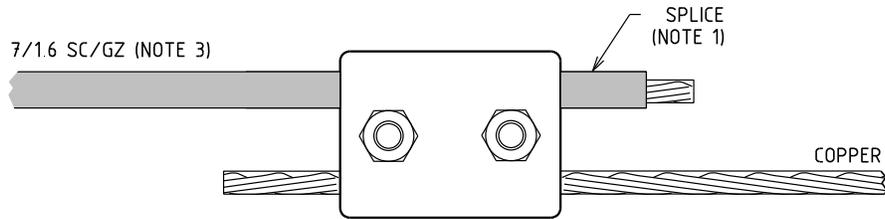


NOTES:

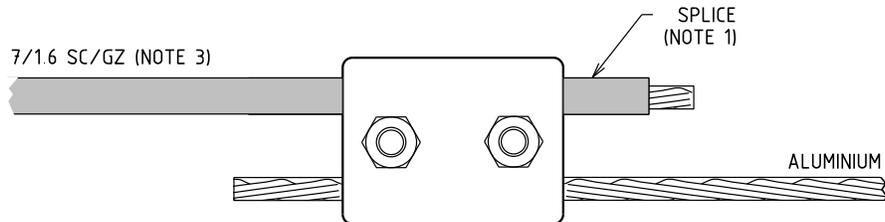
1. FOR 7/16 SCGZ CONDUCTOR SEE R8-6.
2. FOR STEEL CONDUCTOR, ONE LEG OF THE STIRRUP MAY BE ATTACHED TO A PRE-FORMED DEAD-END OR ARMOUR ROD.
3. APPLY (FOR STEEL CONDUCTOR)/MOVE SVD (VIBRATION DAMPER) TO CONDUCTOR ON LINE SIDE OF STIRRUP.
4. FOR COPPER CONDUCTORS APPLY STAINLESS STEEL STIRRUP WITH SUITABLE COPPER PG CLAMPS.
5. 16mm² XLPE SERVICE CABLE.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 04-03-2014 DRG. No.			
				STIRRUP HOT LINE CLAMP TAP-OFF			ORIGINATED: REE SCALE: NTS		R08-5	
							CHECKED: REE		REV C	
							APPROVED: GRANT STACY		SHT. 1/1	
REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APPRD.					
C	26.05.25	NOTES ADDED AND CONDUCTOR SPECIFICATION CHANGED	VAS	NMc	CO					
B	02.06.21	CONDUCTOR SPECIFICATION CHANGED	REE	CO	GS					
A	16.09.11	ORIGINAL ISSUE								

BI-METAL PG CLAMP



ALUMINIUM PG CLAMP



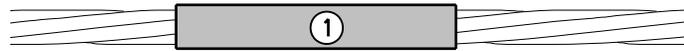
CONNECTION TO 7/1.6 SC/GZ

CONDUCTOR	SPLICE TO INCREASE ϕ	OTHER CONDUCTOR	PG CLAMP
7/1.6 SC/GZ	CF0479	ACSR CONDUCTORS	CC0138
7/1.6 SC/GZ	CF0479	ALUMINIUM CONDUCTORS ²	CC0138
7/1.6 SC/GZ	CF0479	ALL COPPER CONDUCTORS	CC0125
7/1.6 SC/GZ	CF0479	70mm ² EARTH EE1264 (CU)	CC0125
7/1.6 SC/GZ	CF0479	25mm ² EARTH EE1205 (CU)	CC0125
7/1.6 SC/GZ	CF0479	BAIL STIRRUP FC0105	CC0224

NOTES:

- SPLICE NOT TO BE CUT.
- INCLUDES LV ABC (95mm² & 150mm²).

<table border="1"> <tr> <td>F</td> <td>31.07.25</td> <td>TITLE AND DETAILS REVISED</td> <td>VAS</td> <td>NMc</td> <td>CO</td> </tr> <tr> <td>E</td> <td>29.10.20</td> <td>TITLE AND DETAILS REVISED</td> <td>REE</td> <td>CO</td> <td>GS</td> </tr> <tr> <td>D</td> <td>14.11.18</td> <td>CABLE TYPE AACSR ADDED</td> <td>NM</td> <td>REE</td> <td>GS</td> </tr> <tr> <td>C</td> <td>11.04.16</td> <td>TABLE REVISED</td> <td>CO</td> <td>REE</td> <td>GS</td> </tr> <tr> <td>B</td> <td>04.03.14</td> <td>FORMAT CHANGED</td> <td></td> <td></td> <td>GS</td> </tr> <tr> <td>A</td> <td>16.09.13</td> <td>ORIGINAL ISSUE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REV.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>DRGD.</td> <td>CHKD.</td> <td>APRD.</td> </tr> </table>		F	31.07.25	TITLE AND DETAILS REVISED	VAS	NMc	CO	E	29.10.20	TITLE AND DETAILS REVISED	REE	CO	GS	D	14.11.18	CABLE TYPE AACSR ADDED	NM	REE	GS	C	11.04.16	TABLE REVISED	CO	REE	GS	B	04.03.14	FORMAT CHANGED			GS	A	16.09.13	ORIGINAL ISSUE				REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.	REFERENCE DRAWING TITLE CONNECTORS FOR 7/1.6 SC/GZ		DISTRIBUTION CONSTR. STANDARD 	
F	31.07.25	TITLE AND DETAILS REVISED	VAS	NMc	CO																																										
E	29.10.20	TITLE AND DETAILS REVISED	REE	CO	GS																																										
D	14.11.18	CABLE TYPE AACSR ADDED	NM	REE	GS																																										
C	11.04.16	TABLE REVISED	CO	REE	GS																																										
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<table border="1"> <tr> <td>DRAWN:</td> <td>JRR</td> <td>DATE:</td> <td>04-03-2014</td> <td>DRG. No.</td> <td></td> </tr> <tr> <td>ORIGINATED:</td> <td></td> <td>SCALE:</td> <td>NTS</td> <td></td> <td></td> </tr> <tr> <td>CHECKED:</td> <td>REE</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>APPROVED:</td> <td>GRANT STACY</td> <td>REV.</td> <td>F</td> <td>SHT.</td> <td>1/1</td> </tr> </table>		DRAWN:	JRR	DATE:	04-03-2014	DRG. No.		ORIGINATED:		SCALE:	NTS			CHECKED:	REE					APPROVED:	GRANT STACY	REV.	F	SHT.	1/1	R08-6																					
DRAWN:	JRR	DATE:	04-03-2014	DRG. No.																																											
ORIGINATED:		SCALE:	NTS																																												
CHECKED:	REE																																														
APPROVED:	GRANT STACY	REV.	F	SHT.	1/1																																										

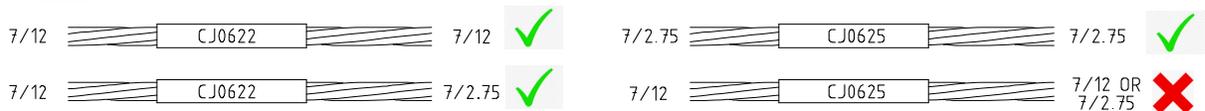


FULL TENSION SLEEVE

This uncontrolled EDM#58754162 is printed on 16/Dec/2021			FULL TENSION	Die (12 ton crimp)	Die A/F
Conductor Strands	Conductor Types	Conductor Diameter mm	WPC Stock Code	Utilux Die Catalogue number	mm
6/1/2.50	ACSR/AZ	7.50	CJ0600	38-140AL	14.0
6/1/2.75	ACSR/AZ	8.25	CJ0593	38-173AL	17.3
6/1/3.00	ACSR/AZ	9.00	CJ0593	38-173AL	17.3
6/4.75-7/1.6	ACSR/AZ	14.30	CJ0208	38-220AL	22.0
6/1/3.00	AACSR/AC	9.00	CJ0593	38-173AL	17.3
7/2.50	AAC / AAAC	7.50	CJ0600	38-140AL	14.0
7/3.00	AAC / AAAC	9.00	CJ0593	38-173AL	17.3
7/3.75	AAC / AAAC	11.30	CJ0583	38-180AL	18.0
7/4.50	AAC / AAAC	13.50	CJ0208	38-220AL	22.0
7/4.75	AAC / AAAC	14.30	CJ0208	38-220AL	22.0
19/3.25	AAC / AAAC	16.30	CJ0591	38-220AL	22.0
7/16 (7/1.064)	HDBC	4.89	CJ0630	38-63CU	6.3
7/14 (7/1.080)	HDBC	6.10	CJ0633	38-77CU	7.7
7/12 (7/1.104)	HDBC	7.92	CJ0622	38-104CU	10.4
19/16 (19/1.064)	HDBC	8.15	CJ0622	38-104CU	10.4
7/2.75	HDBC	8.30	CJ0622	38-104CU	10.4
19/2.14	HDBC	10.70	CJ0636	38-153CU	15.3
95 LVABC	ABC	11.50	CJ0491	38-173AL9	17.3
150 LV ABC	ABC	14.40	CJ0490	38-215AL9	21.5

TABLE 1 - MATCHING TABLE FOR CONDUCTORS, SLEEVES AND DIES

NOTE:-



HELICAL SPLICE FOR SMALL HV STEEL CONDUCTORS

WP Stock code	Conductor
CF0471	3/2.75 SCGZ
CF0160	3/2.75 SCAC
CF0479	7/1.60 SCGZ
CF0475	7/2.75 SCGZ

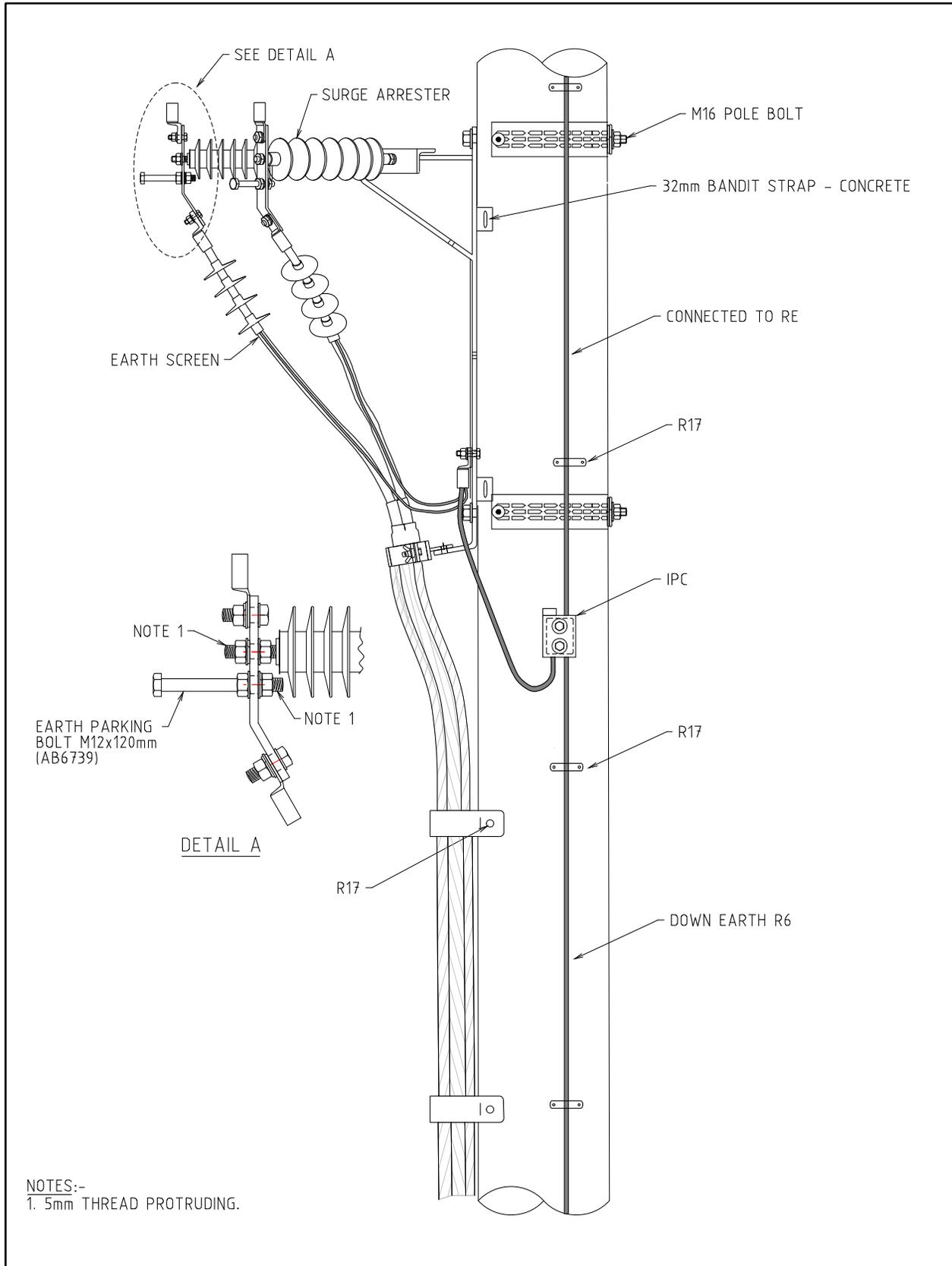
TABLE 2 - STOCK CODES FOR HELICAL SPLICES

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				FULL TENSION COMPRESSION JOINTS & HELICAL SPLICES FOR BARE AAC/AAAC, COPPER & STEEL CONDUCTORS				DRAWN: JRR DATE: 08-06-2016		ORG. No.	
								ORIGINATED: REE SCALE: NTS		R08-7	
								CHECKED: JC			
								APPROVED:		REV. C SHT.	
								GRANT STACY			
REV	DATE	DESCRIPTION	ORG	CHKD	APPRD	REE	NN	REE	GS	GS	
C	17.12.21	TABLE AND EDM # REVISED									
B	15.11.18	TABLE 1 REVISED									
A	14.06.16	ORIGINAL ISSUE									

This uncontrolled EDM#58754313 is printed on 17/Dec/2021					
Conductor Strands	Description	Conductor OD mm	WPC Stock Code	Utilux Die Catalogue number	Die A/F mm
COPPER TERMINAL LUG; EYE					
..	0.5 - 2.5 sq mm; M6 hole	..	FL1408	hand tool	..
..	6 sq mm; INSUL; M6 hole; 32mm long	3.12	FL0311	hand tool	..
..	10 sq mm; M8 hole	4.05	FL1423	38-57CU	5.7
7/16	16 sq mm; M6 hole	4.90	FL1427	38-63CU	6.3
7/16	16 sq mm; M8 hole	4.90	FL1428	38-63CU	6.3
7/16	16 sq mm; M10 hole	4.90	FB0256	38-63CU	6.3
7/16	16 sq mm; M12 hole	4.90	FL1430	38-63CU	6.3
7/14	25 sq mm; M8 hole	6.1/6.75	FL1442	38-77CU	7.7
7/14	25 sq mm; M10 hole	6.1/6.75	FL1448	38-77CU	7.7
7/12	35 sq mm; M10 hole	7.9/8.25	FL1453	38-92CU	9.2
19/16	50 sq mm; M10 hole	8.15/8.30	FL1458	38-104CU	10.4
19/16	50 sq mm; M12 hole	8.15/8.30	FL1459	38-104CU	10.4
19/14	70 sq mm; M10 hole	10.50	FL1463	38-115CU	11.5
19/14	70 sq mm; M12 hole	10.50	FL1465	38-115CU	11.5
19/12 (2.56)	95 sq mm; M10 hole	12.83	FL1468	38-142CU	14.2
19/12 (2.75)	120 sq mm; M12 hole	13.75	FL1473	38-165CU	16.5
COPPER CRIMP SLEEVES					
..	6 sq mm; INSUL; 28mm long	3.12	FC0149	hand tool	..
7/16	16 sq mm; UNINSUL	4.90	FC0126	38-63CU	6.3
7/14	25 sq mm; UNINSUL	6.1/6.75	FC0480	38-77CU	7.7
19/2.14	70 sq mm; UNINSUL	10.50	FC0484	38-115CU	11.5
ALUMINIUM TERMINAL LUG; EYE					
..	2.5 - 6 sq mm; 12 - 10 awg; 23mm long	..	FL0163	hand tool	..
19/2.14	70 sq mm; M12 hole; 125mm long	10.70	FL0230	38-115CU	11.5
19/3.25	185 sq mm; M12 hole	16.30	FL0028	38-220AL	22.0
BI-METAL TERMINAL LUG; EYE					
7/2.5	35 sq mm; M10 hole	7.50	FL7681	38-90AL	9.0
7/2.5	35 sq mm; M12 hole	7.50	FL7686	38-90AL	9.0
7/2.5	35 sq mm; 2 X 11mm hole	7.50	FL7691	38-90AL	9.0
7/3.0	50 sq mm; M12 hole	9.00	FL7687	38-132AL	13.2
7/3.75	70 sq mm; M10 hole	11.30	FL0139	38-132AL	13.2
7/3.75	70 sq mm; M12 hole	11.30	FL0140	38-132AL	13.2
7/4.50	95 sq mm; M12 hole	13.50	FL7688	38-173AL	17.3
7/4.75	120 sq mm; M10 hole	14.30	FL7684	38-173AL	17.3
7/4.75	120 sq mm; M12 hole	14.30	FL7689	38-173AL	17.3
95 LVABC	95 sq mm; M12 hole	11.50	FL0401	38-215AL	21.5
150 LVABC	150 sq mm; M12 hole	14.30	FL0402	38-215AL	21.5
19/3.25	185 sq mm; M10 hole	16.30	FL7685	38-220AL	22.0
19/3.25	185 sq mm; M12 hole	16.30	FL7690	38-220AL	22.0
7/4.50	*STALK*; for 120 sq mm; 12mm dia copper stalk	13.50	FL7722	38-173AL	17.3
19/3.25	*STALK*; for 185 sq mm; 16 mm dia copper stalk	16.30	FL7723	38-220AL	22.0
ALUMINIUM CRIMP SLEEVES					
95 LVABC	95 sq mm; w/pre-crimped bare copper tail	11.50	CJ0492	38-173AL	17.3
150 LVABC	150 sq mm; w/pre-crimped bare copper tail	14.30	CJ0493	38-215AL	21.5
95 LVABC	95 sq mm; w/pre-crimped bare aluminium tail	11.50	CJ0494	38-215AL	21.5
150 LVABC	150 sq mm; w/pre-crimped bare aluminium tail	14.30	CJ0496	38-215AL	21.5
7/2.50 to 7/3.0	35 - 50 sq mm; REDUCING SPLICE	7.5/9.0	FC0150	38-132AL	13.2
7/2.50 to 19/2.14	35 - 70 sq mm; REDUCING SPLICE	7.5/10.7	FC0151	38-132AL	13.2
7/2.50	35 sq mm; SPLICE; parallel crimp	7.50	FC0152	38-90AL	9.0

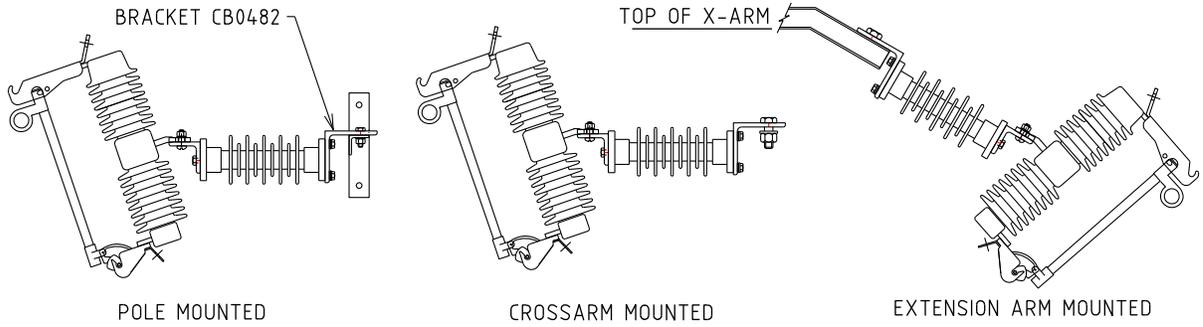
						REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
D	17.12.21	TABLE AND EDM # REVISED	REE	GS	TITLE		DRAWN: JRR DATE: 08-06-2016		ORG. No.		
C	03.12.21	TABLE REVISED	REE	GS	NON TENSION COMPRESSION LUGS AND SLEEVES		ORIGINATED: REE SCALE: NTS		R08/8		
B	30.06.16	TABLE REVISED	REE	JC			GS	CHECKED: JC			
A	21.06.16	ORIGINAL ISSUE	REE	JC	GS	APPROVED:		GRANT STACY		REV. D	ISHT.
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD						



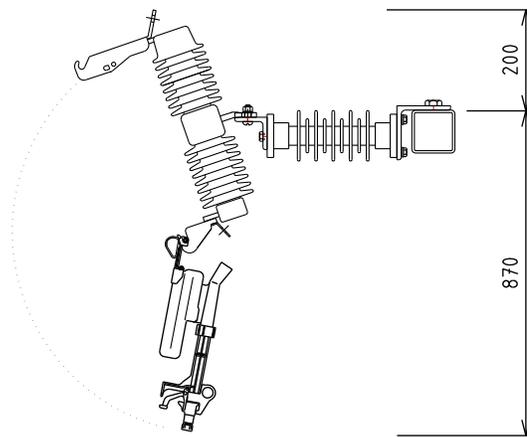


NOTES:-
1. 5mm THREAD PROTRUDING.

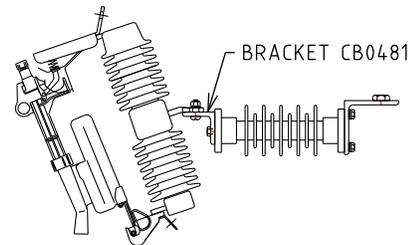
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
F	23.08.22	CONNECTOR PLATE DETAILS ADDED	CO	NMc	GS	TITLE		DRAWN: JRR	DATE: 05-03-2014	DRG. No.	
E	22.02.19	EARTHING SYSTEM MODIFIED	CO	NMc	GS	CABLE TERMINATION BRACKET 1 PH & 3 PH EARTH FITTING		ORIGINATED:	SCALE: NTS	R09	
D	09.05.16	EARTHING SYSTEM MODIFIED	CO	FK	GS			CHECKED: REE	APPROVED: GRANT STACY		REV. F
C	08.10.10	ORIGINAL ISSUE									
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						



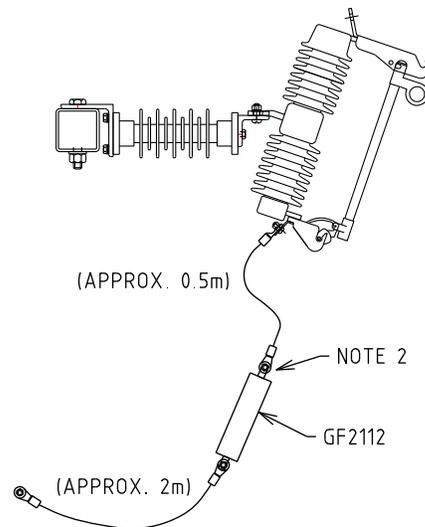
STANDARD 170kV TYPE C SERIES DOF - UP TO 33kV



FAULT TAMER FUSE
BARREL SWING DIMENSIONS



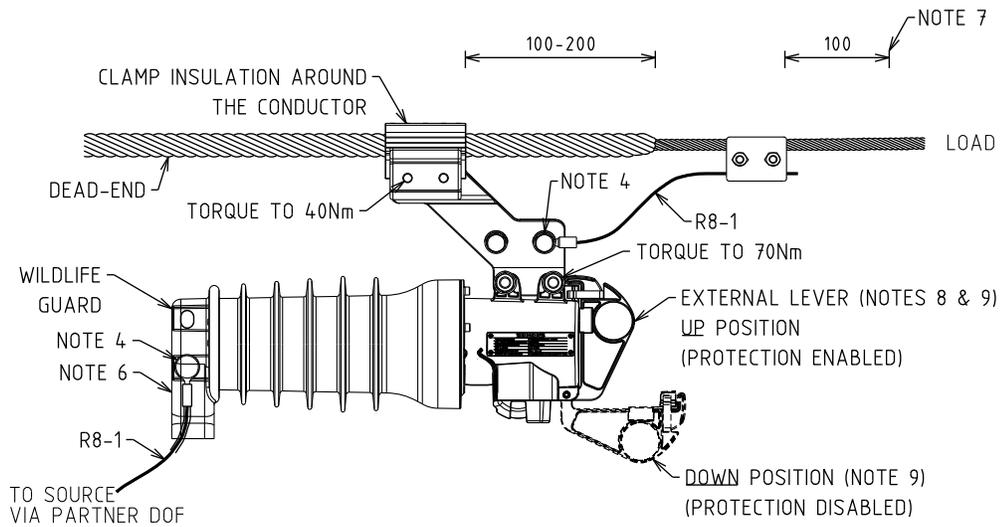
FAULT TAMER FUSE - UP TO 22kV



TYPICAL K-MATE INSTALLATION

- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. REMOVE PG CLAMP COMPONENTS.

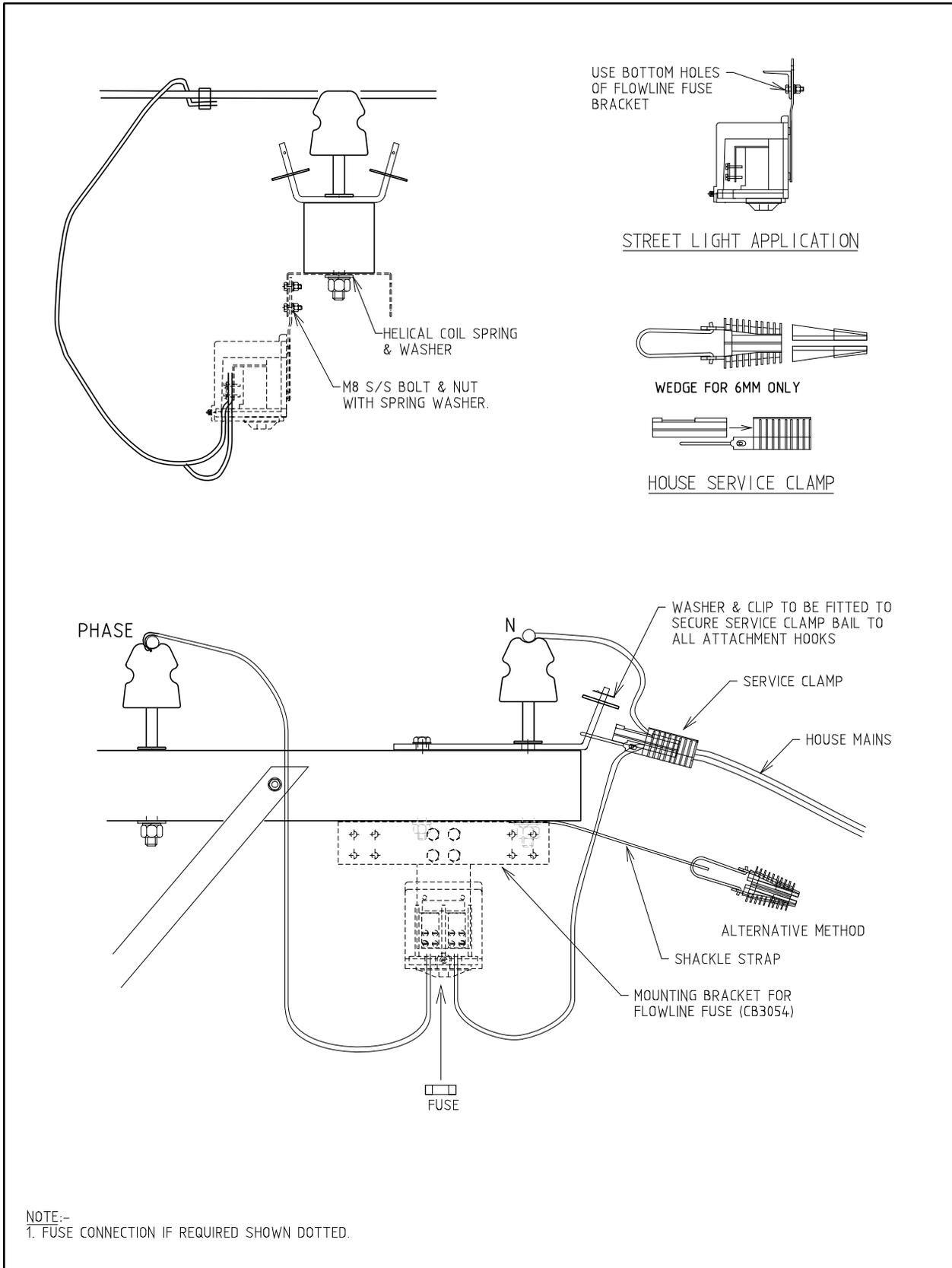
						STRUCTURE			DISTRIBUTION CONSTR. STANDARD			
						TITLE			DRAWN: JRR		DATE: 03-01-2018	
						DROPOUT FUSE MOUNTING DETAILS			ORIGINATED: REE		SCALE: NTS	
									CHECKED: JC		REV. L	
									APPROVED: GRANT STACY		SHT. 1	
REV	DATE	DESCRIPTION	ORG.	CHKD.	APPR.							
L	05.04.23	K-MATE INSTALLATION DETAILS REVISED	ML	NMc	CO							
K	05.02.19	TITLE AND DRAWING NUMBER CHANGED	REE	NN	GS							
J	09.01.18	INSULATOR, TITLE & DRAWING No. CHANGED	REE	JC	GS							
H	05.04.17	INSULATOR AND K-MATE INSTALLATION NOTE REVISED	REE	JC	GS							



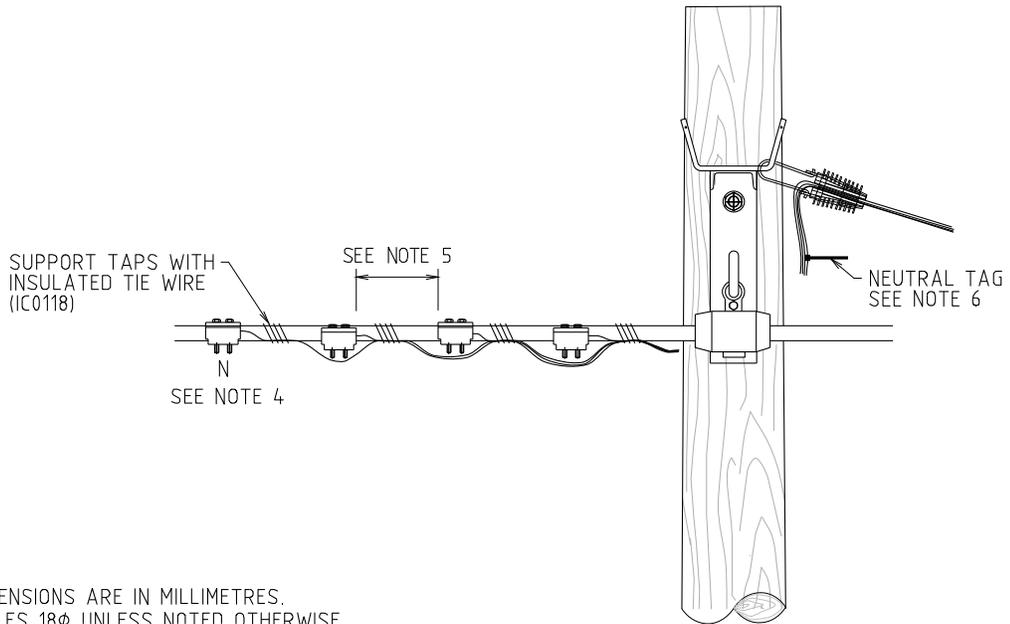
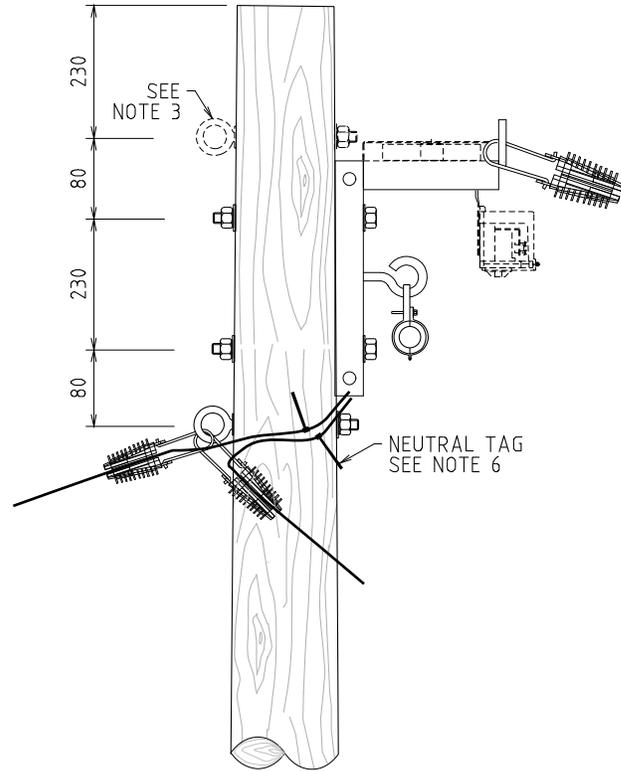
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. FUSE SAVER IS APPLICABLE TO 1PH DCSH STRUCTURES WITH DOFS (H40 SERIES).
3. TAPS COVERED OR LV ABC.
4. APPLY JOINTING GREASE (STOCK CODE: PG0002) TO THE LUG INTERFACE.
5. LABEL TO BE FITTED ABOVE EXISTING POLE LABEL. REFER TO EDM#40283998.
6. MAINTAIN MINIMUM 400mm CLEARANCES FOR TAPPING AND FROM THE INSULATOR.
7. WHERE REQUIRED, VIBRATION DAMPERS ARE TO BE INSTALLED AS INDICATED.
8. THE EXTERNAL LEVER DOES NOT OPEN OR CLOSE THE CIRCUIT.
9. THE EXTERNAL LEVER IS TO BE LEFT IN DOWN POSITION IF PROTECTION SETTINGS ARE NOT YET APPLIED BY THE AUTOMATION CREW.
10. REFER TO EDM# 34249668 FOR MORE INFORMATION ON THE FUSE SAVER.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: SL		DATE: 01-10-2024	
				FUSE SAVER INSTALLATION FOR 1PH LINES		ORIGINATED: SL		SCALE: NTS	
						CHECKED: NMc		REV. No. R10-2	
						APPROVED: CHRIS OMODEI		REV. A	
A 08-10-24 ORIGINAL ISSUE				SL NMc CO					
REV.	DATE	DESCRIPTION		DRGD	CHKD	APRD			SHT.



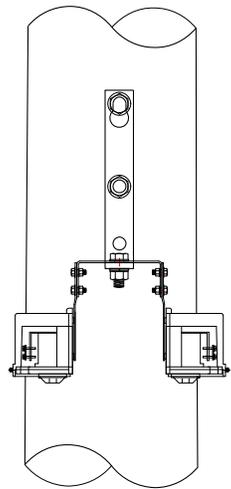
				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR DATE: 05-03-2014		DRG. No.	
				CUSTOMER SERVICE ARRANGEMENT FOR OPEN WIRE			ORIGINATED: SCALE: NTS		R11-1	
							CHECKED: REE		REV. E	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD					
E	03.11.15	DRAWING TITLE & NUMBER CHANGED AND NOTE 1 ADDED	REE	CO	GS					
D	02.10.12	ORIGINAL ISSUE								



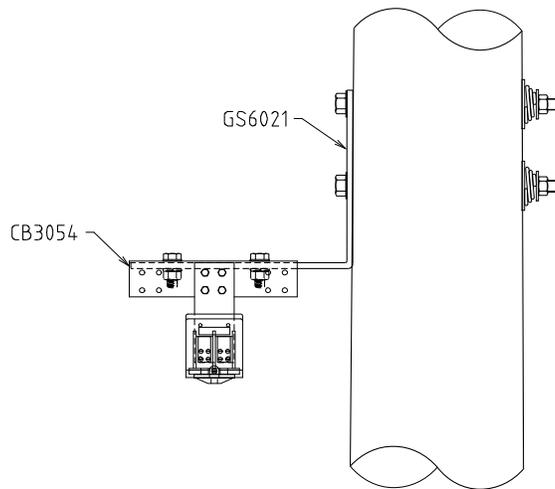
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL HOLES 18 ϕ UNLESS NOTED OTHERWISE.
3. ALTERNATIVE POSITION OF SERVICE CONNECTION.
4. NEUTRAL IPC INSTALLED FURTHERMOST FROM THE POLE.
5. 150mm BETWEEN IPC'S.
6. NEUTRAL TAG (HG2101) APPLIED WITHIN 300mm OF THE WEDGE CLAMP.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR DATE: 02-11-2015		DRG. No.	
				CUSTOMER SERVICE ARRANGEMENTS FOR LV ABC				ORIGINATED: REE SCALE: NTS		R11-2	
								CHECKED: REE		REV. SHT.	
								APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGD	CHKD	APPRD	SL	NMc	CO	GS		
B	31.08.23	MORE DETAILS ADDED AND NOTES REVISED									
A	03.11.15	ORIGINAL ISSUE									

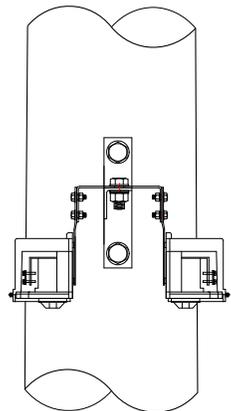


FRONT VIEW

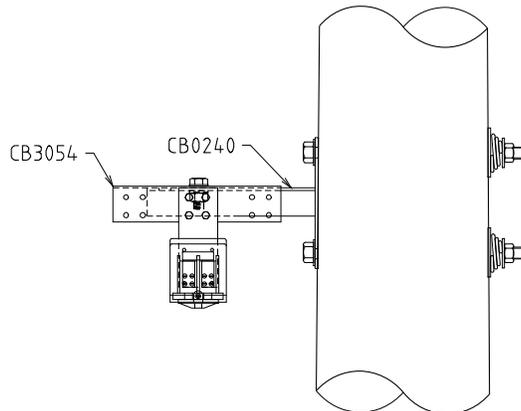


SIDE VIEW

PREFERRED



FRONT VIEW

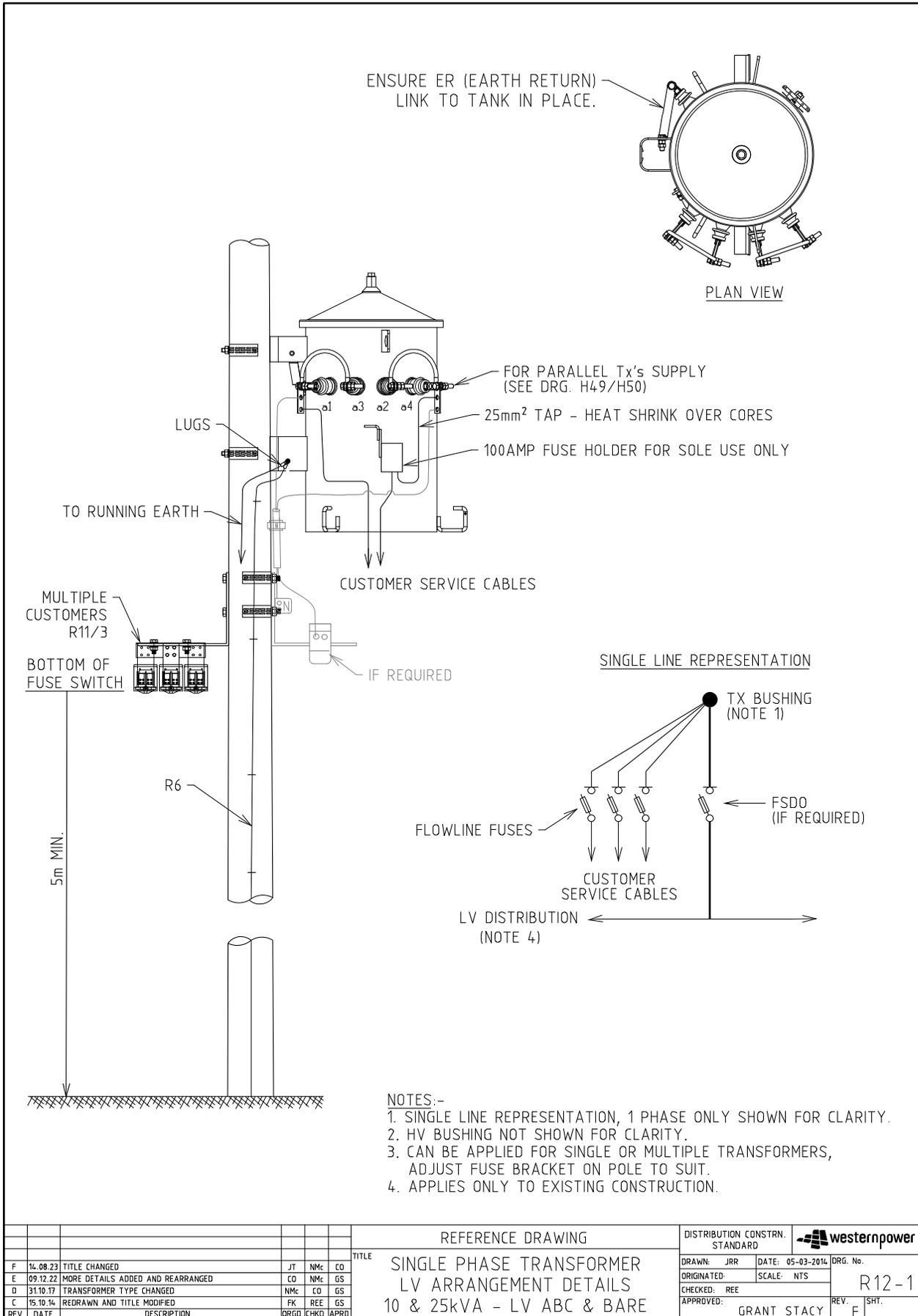


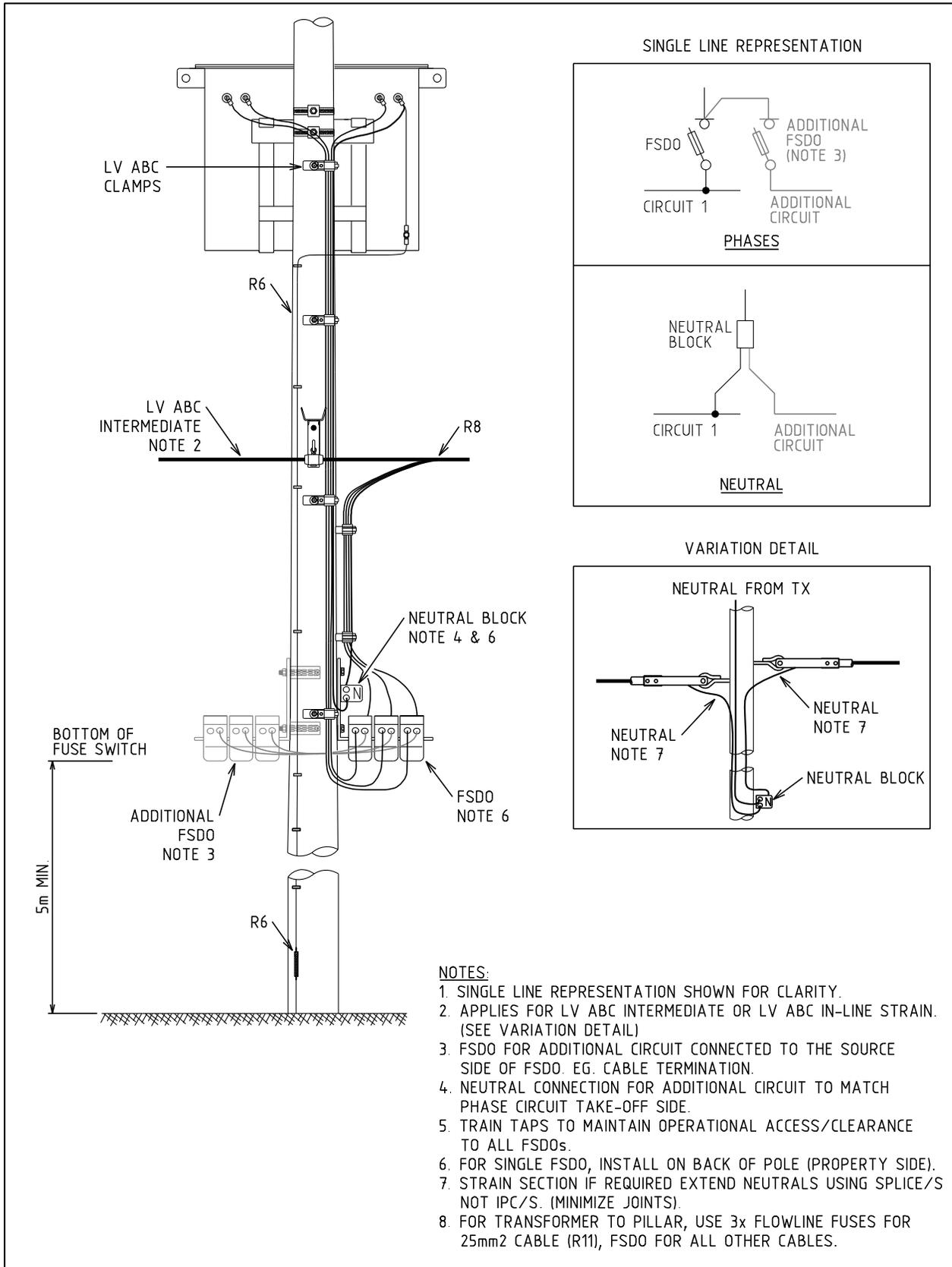
SIDE VIEW

ALTERNATIVE

- NOTES:-
 1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. ALL HOLES 18φ UNLESS NOTED OTHERWISE.
 3. USED WHERE ADDITIONAL FUSES ARE REQUIRED ON A POLE.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 01-07-2020		DRG. No.	
				CUSTOMER SERVICE ARRANGEMENTS		ORIGINATED: CO SCALE: NTS		R11-3	
				RURAL CONNECTIONS		CHECKED: NMc		REV. SHT.	
						APPROVED: GRANT STACY		A	
A	07 12 21	ORIGINAL ISSUE		CO	NMc	GS			
REV	DATE	DESCRIPTION		ORGD	CHKD	APRD			

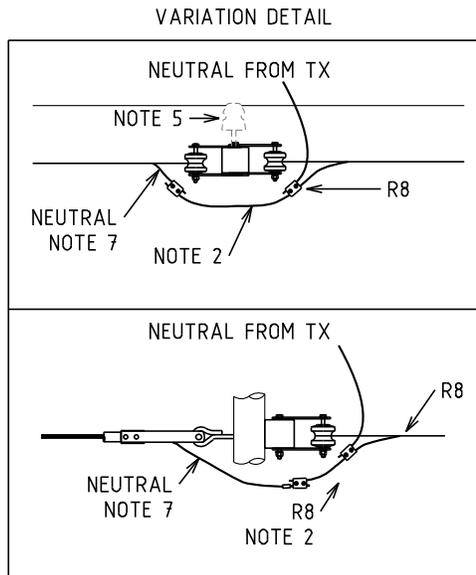
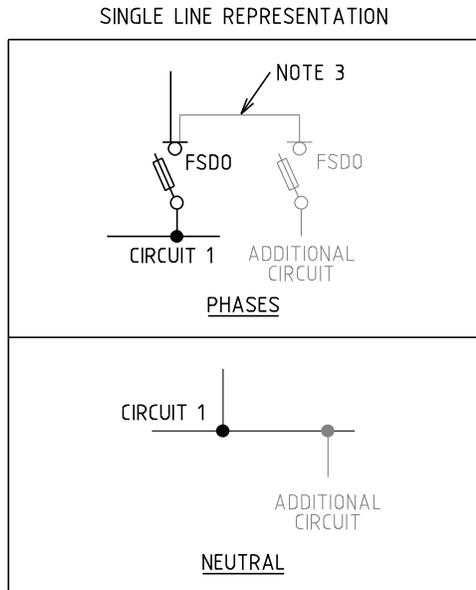
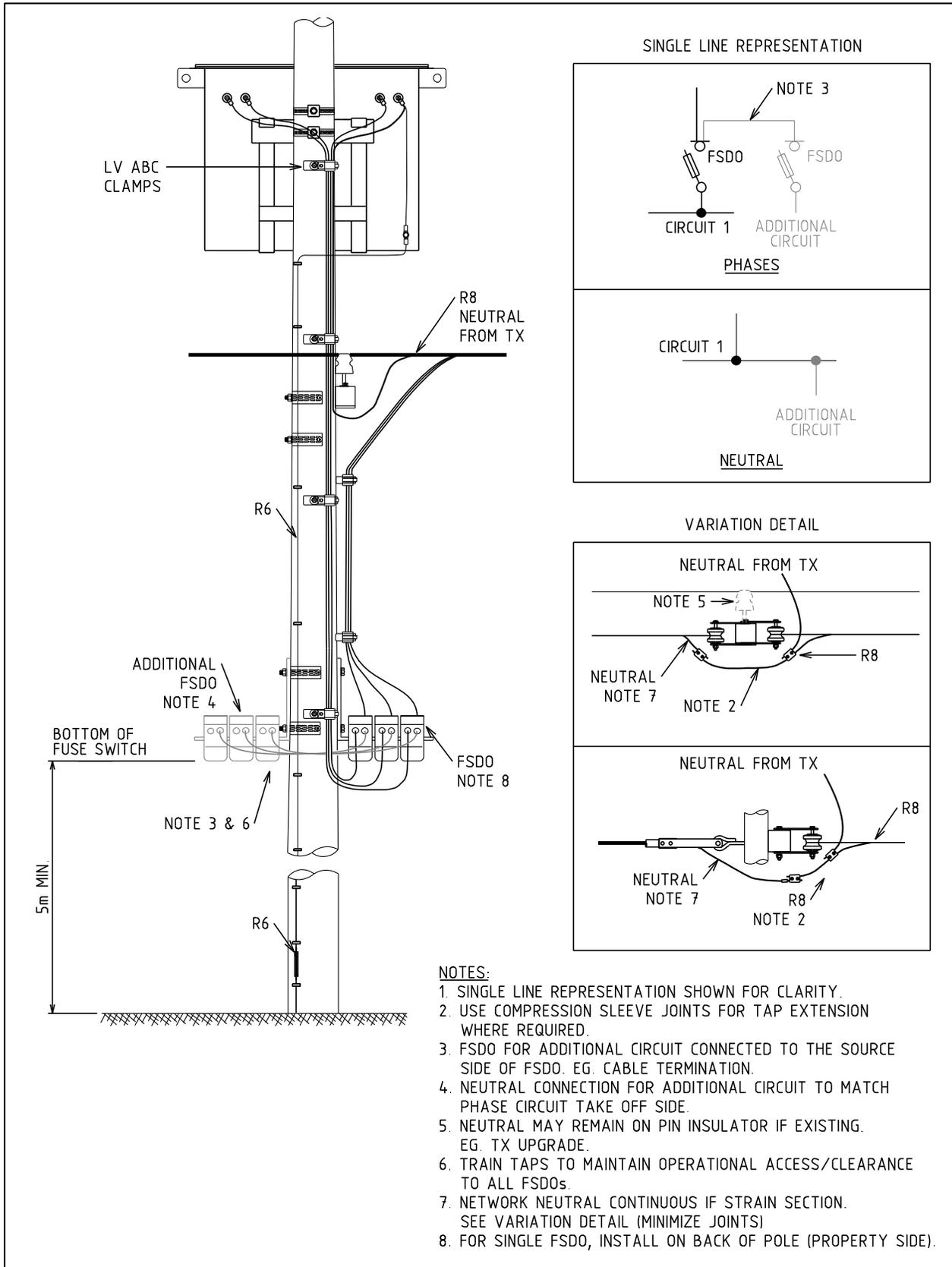




NOTES:

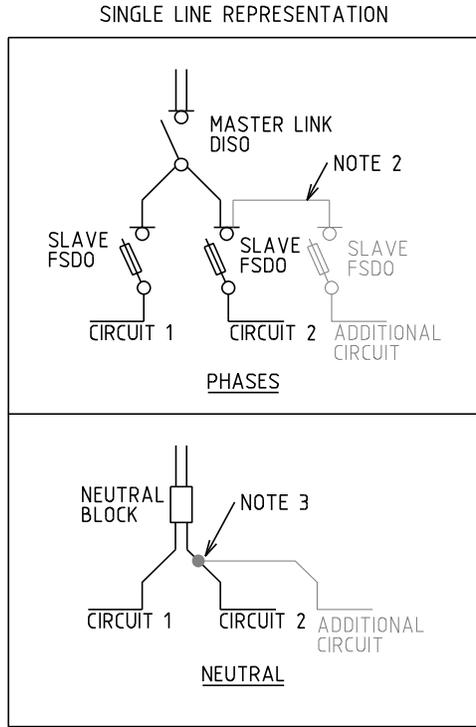
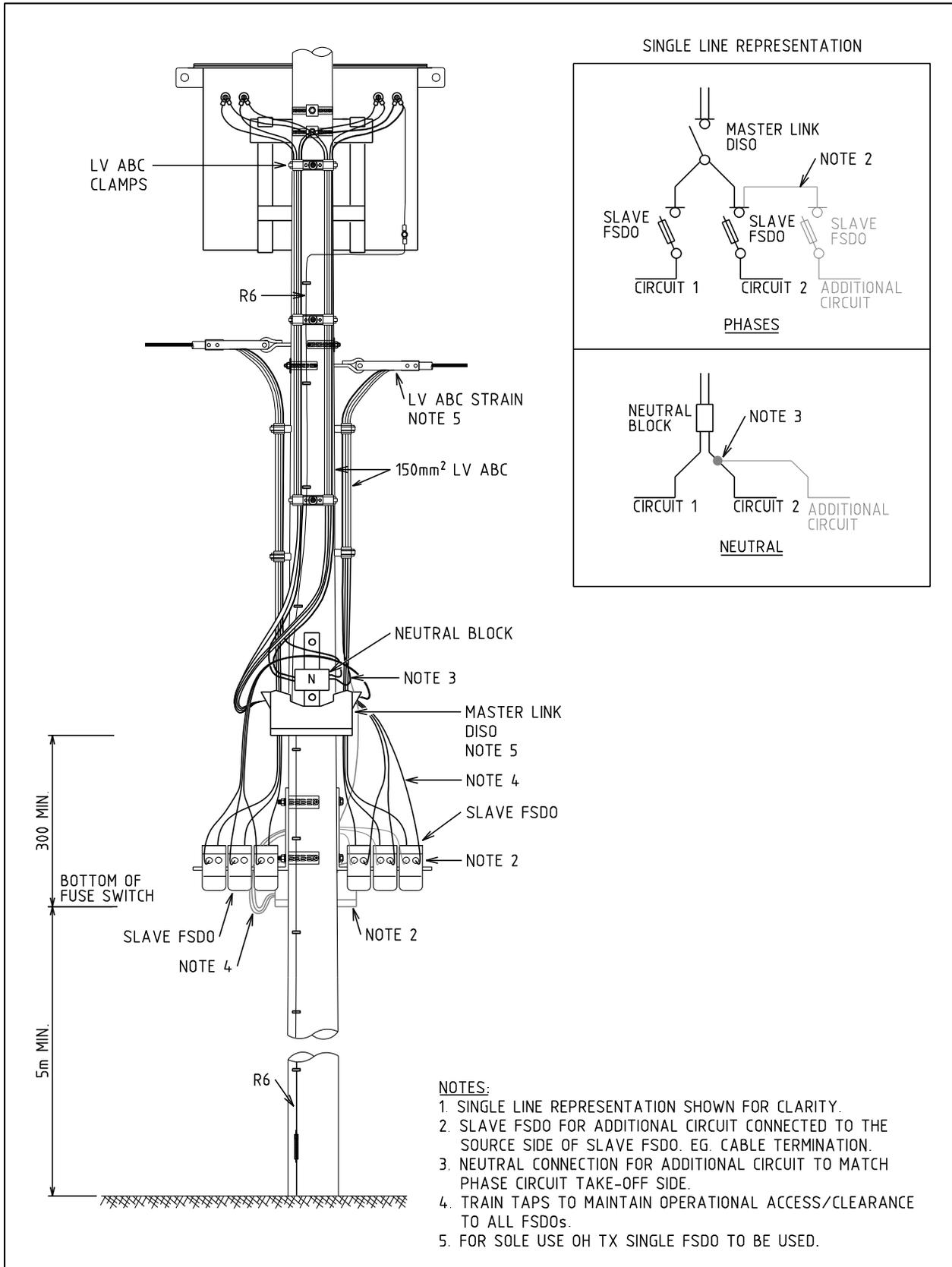
1. SINGLE LINE REPRESENTATION SHOWN FOR CLARITY.
2. APPLIES FOR LV ABC INTERMEDIATE OR LV ABC IN-LINE STRAIN. (SEE VARIATION DETAIL)
3. FSDO FOR ADDITIONAL CIRCUIT CONNECTED TO THE SOURCE SIDE OF FSDO. EG. CABLE TERMINATION.
4. NEUTRAL CONNECTION FOR ADDITIONAL CIRCUIT TO MATCH PHASE CIRCUIT TAKE-OFF SIDE.
5. TRAIN TAPS TO MAINTAIN OPERATIONAL ACCESS/CLEARANCE TO ALL FSDOs.
6. FOR SINGLE FSDO, INSTALL ON BACK OF POLE (PROPERTY SIDE).
7. STRAIN SECTION IF REQUIRED EXTEND NEUTRALS USING SPLICE/S. NOT IPC/S. (MINIMIZE JOINTS).
8. FOR TRANSFORMER TO PILLAR, USE 3x FLOWLINE FUSES FOR 25mm² CABLE (R11), FSDO FOR ALL OTHER CABLES.

REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
TITLE THREE PHASE TRANSFORMER LV ARRANGEMENT DETAILS 25,63 & 100kVA - LV ABC ONLY				DRWN: AC	DATE: 13-12-2024	DRG. No.	R12-2-1
				ORIGINATED: AC	SCALE: NTS		
				CHECKED: NMc			
REV.	DATE	DESCRIPTION	AC	NMc	CO	APPROVED:	REV. A
A	28.03.25	REPLACING R-12 (L) NEUTRAL CONNECTION ADDED				CHRIS OMODEI	SHT. 1/1



- NOTES:**
1. SINGLE LINE REPRESENTATION SHOWN FOR CLARITY.
 2. USE COMPRESSION SLEEVE JOINTS FOR TAP EXTENSION WHERE REQUIRED.
 3. FSDO FOR ADDITIONAL CIRCUIT CONNECTED TO THE SOURCE SIDE OF FSDO. EG. CABLE TERMINATION.
 4. NEUTRAL CONNECTION FOR ADDITIONAL CIRCUIT TO MATCH PHASE CIRCUIT TAKE OFF SIDE.
 5. NEUTRAL MAY REMAIN ON PIN INSULATOR IF EXISTING. EG. TX UPGRADE.
 6. TRAIN TAPS TO MAINTAIN OPERATIONAL ACCESS/CLEARANCE TO ALL FSDOs.
 7. NETWORK NEUTRAL CONTINUOUS IF STRAIN SECTION. SEE VARIATION DETAIL (MINIMIZE JOINTS)
 8. FOR SINGLE FSDO, INSTALL ON BACK OF POLE (PROPERTY SIDE).

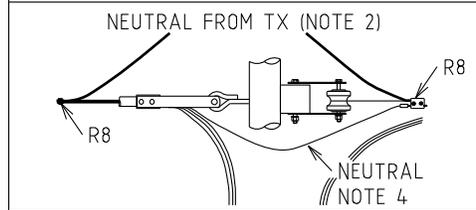
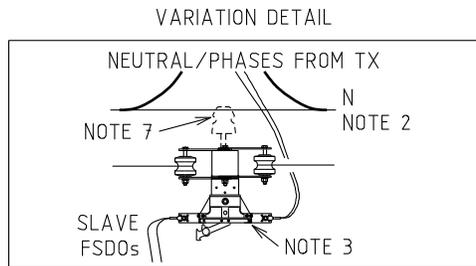
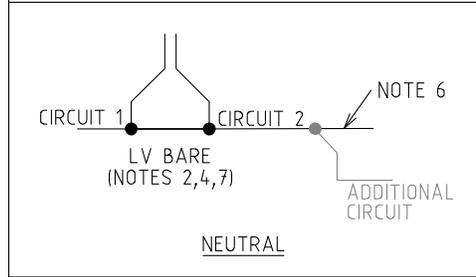
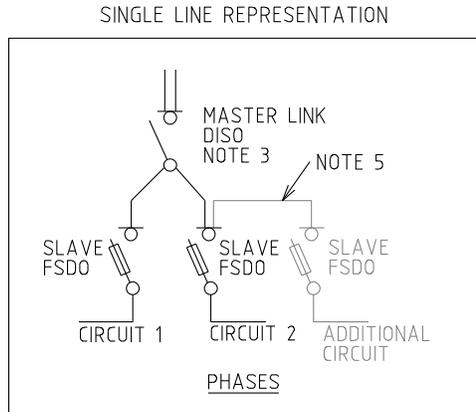
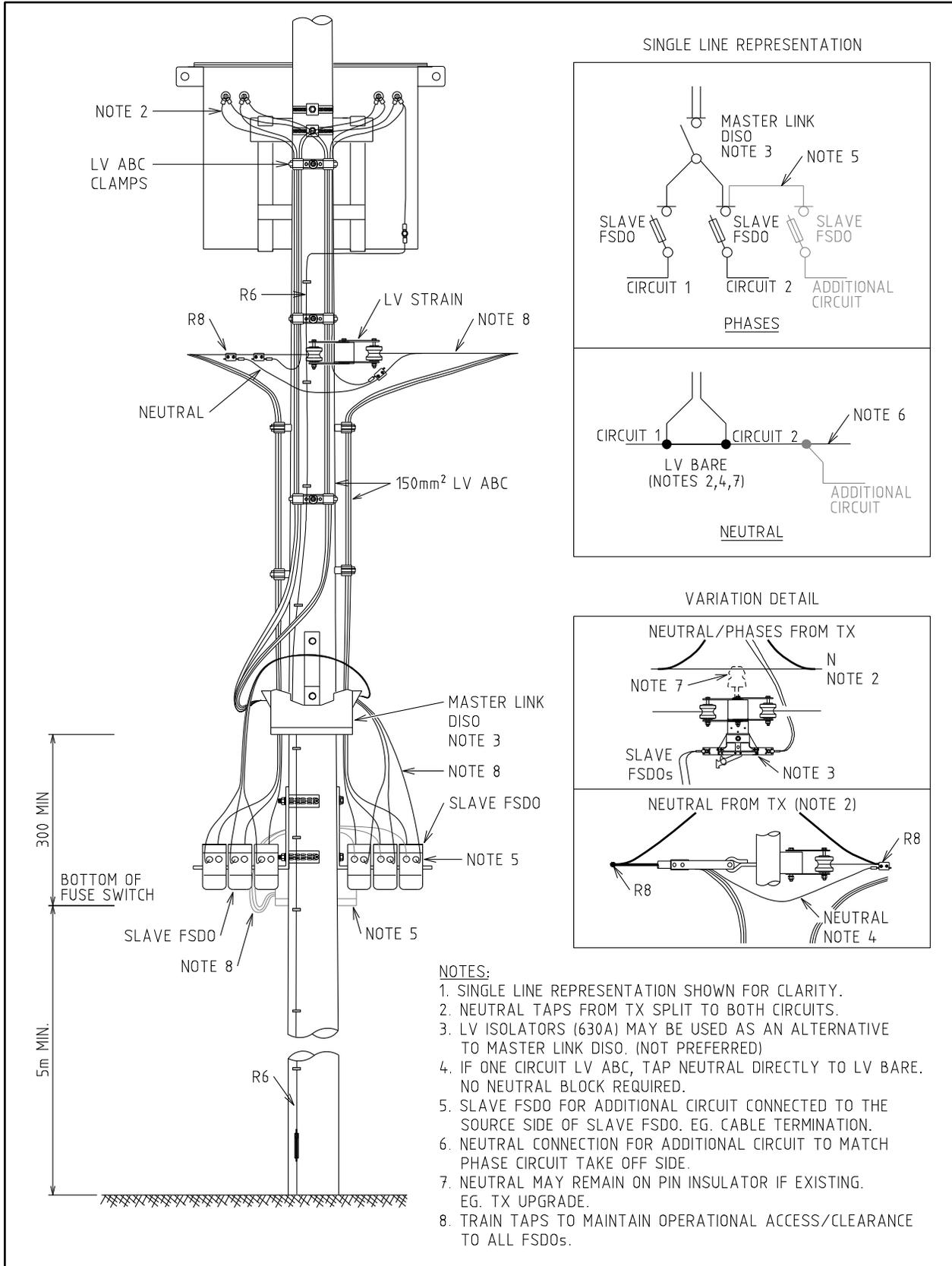
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE THREE PHASE TRANSFORMER LV ARRANGEMENT DETAILS 25,63 & 100kVA - LV BARE					
				DRAWN: AC		DATE: 13-12-2024		DRG. No.	
				ORIGINATED: AC		SCALE: NTS		R12-2-2	
				CHECKED: NMc		APPROVED: CHRIS OMODEI		REV. SHY. 1/1	
A	28.03.25	LV BARE VARIATION OF R12-2-1		AC	NMc	CO			
REV.	DATE	DESCRIPTION		DRGD.	CHKD.	APPR.			



NOTES:

1. SINGLE LINE REPRESENTATION SHOWN FOR CLARITY.
2. SLAVE FSDO FOR ADDITIONAL CIRCUIT CONNECTED TO THE SOURCE SIDE OF SLAVE FSDO. EG. CABLE TERMINATION.
3. NEUTRAL CONNECTION FOR ADDITIONAL CIRCUIT TO MATCH PHASE CIRCUIT TAKE-OFF SIDE.
4. TRAIN TAPS TO MAINTAIN OPERATIONAL ACCESS/CLEARANCE TO ALL FSDOs.
5. FOR SOLE USE OH TX SINGLE FSDO TO BE USED.

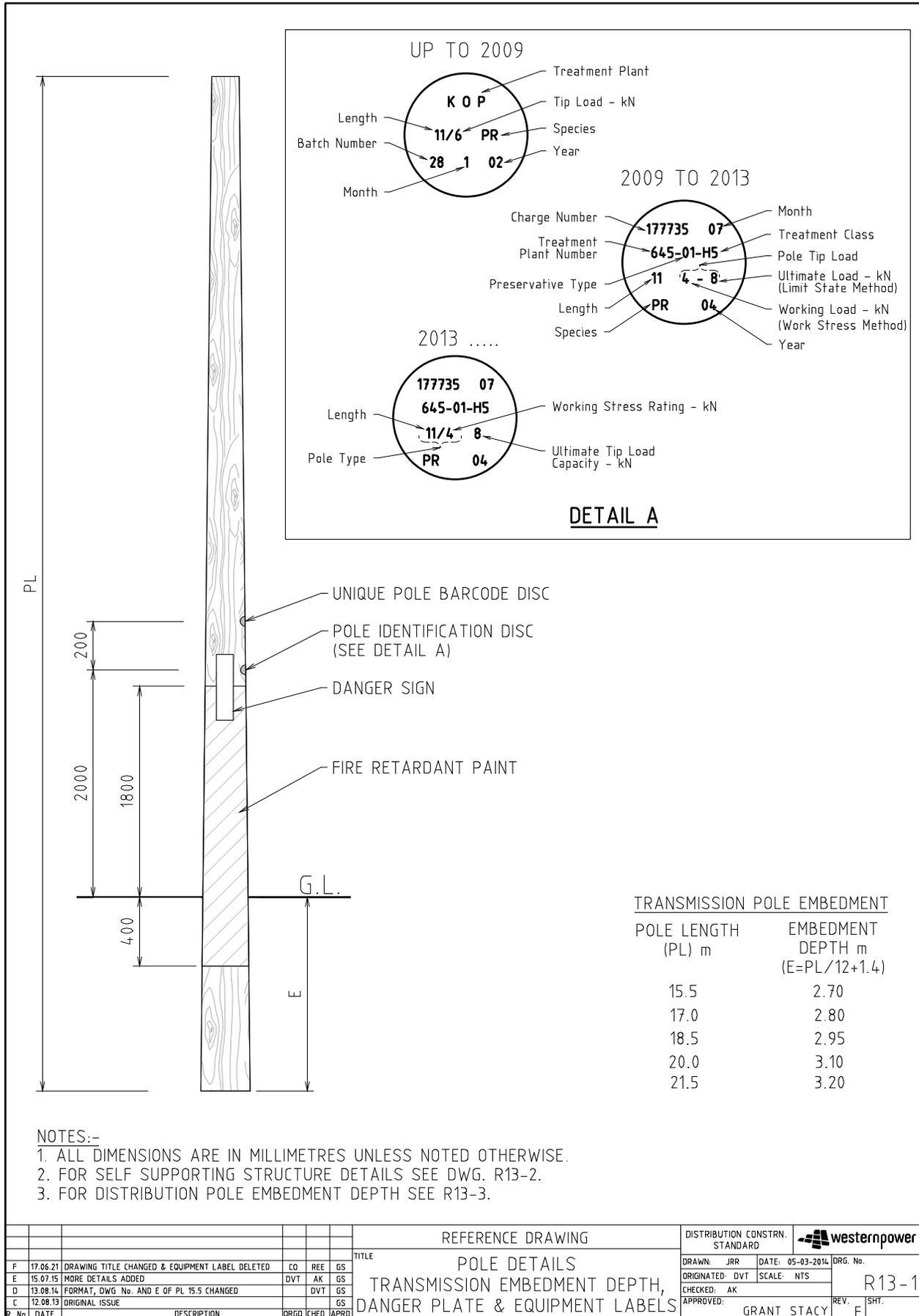
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE THREE PHASE TRANSFORMER LV ARRANGEMENT DETAILS 200 & 315kVA - LV ABC ONLY					
				DRAWN: SL		DATE: 13-12-2024		DRG. No.	
				ORIGINATED: SL		SCALE: NTS		R12-3-1	
				CHECKED: NMc		APPROVED: CHRIS OMODEI		REV A SHY. 1/1	
A	28.03.25	REPLACING R-12-3 (G) NEUTRAL CONNECTION ADDED	SL	NMc	CO				
REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APPRD.				

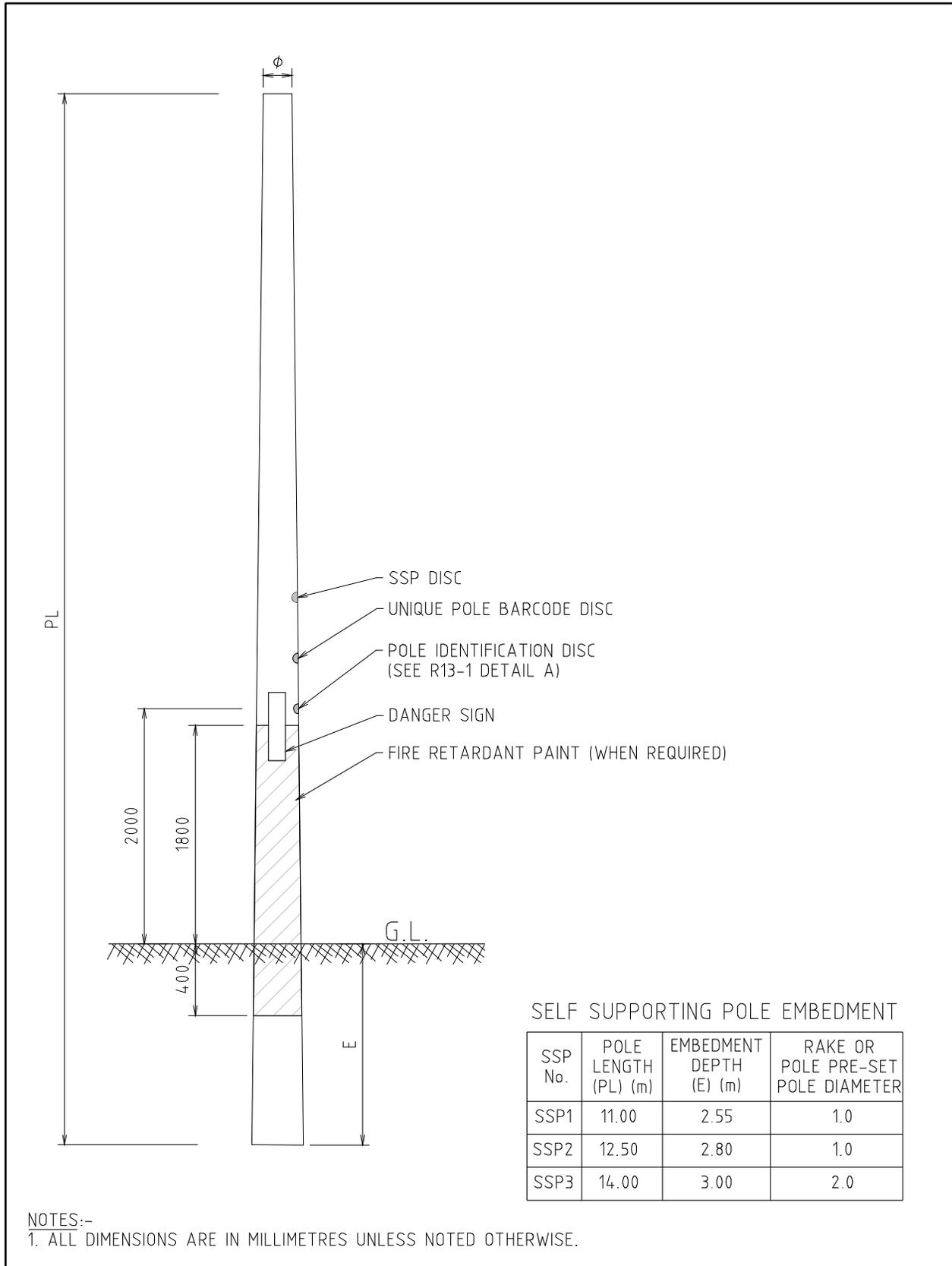


NOTES:

1. SINGLE LINE REPRESENTATION SHOWN FOR CLARITY.
2. NEUTRAL TAPS FROM TX SPLIT TO BOTH CIRCUITS.
3. LV ISOLATORS (630A) MAY BE USED AS AN ALTERNATIVE TO MASTER LINK DISO. (NOT PREFERRED)
4. IF ONE CIRCUIT LV ABC, TAP NEUTRAL DIRECTLY TO LV BARE. NO NEUTRAL BLOCK REQUIRED.
5. SLAVE FSDO FOR ADDITIONAL CIRCUIT CONNECTED TO THE SOURCE SIDE OF SLAVE FSDO. EG. CABLE TERMINATION.
6. NEUTRAL CONNECTION FOR ADDITIONAL CIRCUIT TO MATCH PHASE CIRCUIT TAKE OFF SIDE.
7. NEUTRAL MAY REMAIN ON PIN INSULATOR IF EXISTING. EG. TX UPGRADE.
8. TRAIN TAPS TO MAINTAIN OPERATIONAL ACCESS/CLEARANCE TO ALL FSDOs.

REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
TITLE				DRAWN: SL		DATE: 13-12-2024	
THREE PHASE TRANSFORMER				ORIGINATED: SL		DRG. No.	
LV ARRANGEMENT DETAILS				CHECKED: NMc		SCALE: NTS	
200 & 315kVA - LV BARE				APPROVED: CHRIS OMODEI		R12-3-2	
REV. DATE DESCRIPTION				REV. DATE		SHT. 1/1	
A 28.03.25 LV BARE VARIATION OF R12-3-1				SL NMc CO			
DRGD. CHKD. APRD.							





SELF SUPPORTING POLE EMBEDMENT

SSP No.	POLE LENGTH (PL) (m)	EMBEDMENT DEPTH (E) (m)	RAKE OR POLE PRE-SET POLE DIAMETER
SSP1	11.00	2.55	1.0
SSP2	12.50	2.80	1.0
SSP3	14.00	3.00	2.0

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR DATE: 01-07-2014		DRG. No.	
				SELF SUPPORTING WOOD POLE EMBEDMENT DEPTH				ORIGINATED: DVT SCALE: NTS		R13-2	
								CHECKED: AK			
								APPROVED: GRANT STACY		REV. E SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
E	22.02.23	REMOVED RULES	CD	LT	CO						
D	17.06.21	POLE MOUNTED EQUIPMENT LABEL DELETED	CO	REE	GS						
C	05.02.16	TABLE REVISED	DVT	AT	GS						

BACKFILL COMPACTED IN 300 LAYERS

Es

600

FIRM SANDY SOIL

SOIL RATING = GOOD (NO ENHANCEMENT)

BACKFILL WITH EITHER

- ROAD BASE
- CRUSHED LIMESTONE OR
- 10:1 SOIL: CEMENT MIX (REF R13-3-2 FOR PREPARATION) COMPACTED IN 300 LAYERS

Es

600/700*

FIRM SANDY SOIL (ENHANCED)

SOIL RATING = GOOD (BEFORE ENHANCEMENT)
VERY GOOD (AFTER ENHANCEMENT)

POLE LENGTH (m)	Es (m)
9.5	1.55
11	1.70
12.5	1.85
14	2.00
SSP1	2.55
SSP2	2.80
SSP3	3.00

EXCAVATED MATERIAL CAN BE USED AS BACKFILL IF THE SIZE OF THE AGGREGATE IS <50 COMPACTED IN 300 LAYERS.

ALTERNATIVELY, BACK FILL WITH BLUE METAL OR CRUSHED LIMESTONE COMPACTED IN 300 LAYERS

Er

600/700*

ROCKY SOIL
(eg. GRAVEL)

SOIL RATING = VERY GOOD (NO ENHANCEMENT)

BACK FILL WITH BLUE METAL OR CRUSHED LIMESTONE COMPACTED IN 300 LAYERS

S

SOLID ROCK

Es

600/700*

SOLID ROCK

SOIL RATING = EXCELLENT (BEFORE & AFTER ENHANCEMENT)

POLE TYPE	ER (m)
9.5/5	1.45
11/4	1.40
11/5	1.50
11/6	1.60
12.5/4	1.50
12.5/6	1.70
12.5/8	1.90
14/8	1.90
SSP1	2.00
SSP2	2.20
SSP3	2.40

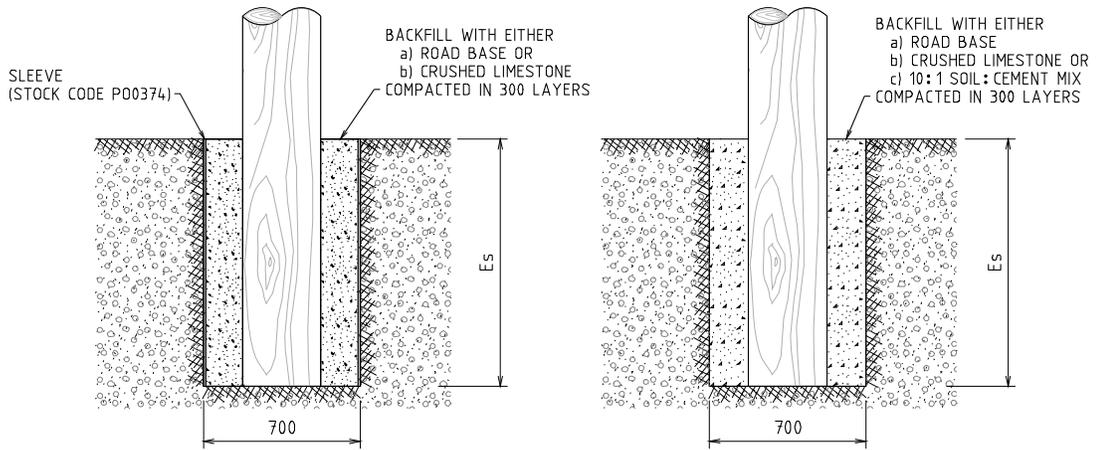
SOIL ABOVE ROCK S (m)	EMBEDMENT DEPTH ER (m)			
	POLE TYPE			
	9.5m	11m	12.5m	14m
ROCK AT GROUND	0.90	1.00	1.15	1.20
Up to 0.25	1.00	1.10	1.20	1.35
0.25 to 0.50	1.10	1.20	1.30	1.40
0.50 to 0.75	1.25	1.35	1.45	1.50
0.75 to 1.00	1.35	1.45	1.55	1.65
1.00 to 1.25	1.50	1.60	1.70	1.75
1.25 to 1.50	Es	1.65	1.75	1.90
1.50 to 1.75	Es	Es	1.80	1.95
1.75 to 2.00	Es	Es	Es	Es

NOTE:- APPLICABLE ONLY WHEN REQUIRED DESIGN EMBEDMENT DEPTH IS UNACHIEVABLE.

- NOTES:-
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 - Es - STANDARD EMBEDMENT DEPTH.
 - Er - REDUCED EMBEDMENT DEPTH.
 - S - SOIL ABOVE ROCK.

* 700mm AUGERED HOLE IF THE POLE BUTT DIAMETER EXCEEDS 350mm.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower			
D	08.12.22	FOUNDATION WIDTH AND NOTES REVISED	SJ	LT	GS	DRAWN: JRR DATE: 12-06-2015		DRG. No.			
C	29.08.17	DRAWING NUMBER CHANGED & MORE DETAILS ADDED	DVT	LT	GS	ORIGINATED: DVT SCALE: NTS		R13-3-1			
B	17.02.16	ENHANCED FOUNDATION DETAILS ADDED & TABLE REVISED	DVT	AK	GS	CHECKED: AK					
A	15.07.15	ORIGINAL ISSUE	DVT	AK	GS	APPROVED: GRANT STACY				REV. D SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						



COLLAPSING SOIL (DRY OR WET)
(eg. LOOSE SANDY SOILS, PEAT SOILS)

SOIL RATING = POOR (BEFORE ENHANCEMENT)
MEDIUM (AFTER ENHANCEMENT)

NOTE: THE SOIL OUTSIDE THE SLEEVE, IF DISTURBED, MUST BE COMPACTED IN THE SAME MANNER AS INSIDE THE SLEEVE.

SOFT SANDY SOIL

SOIL RATING = MEDIUM (BEFORE ENHANCEMENT)
GOOD (AFTER ENHANCEMENT)

SOIL & CEMENT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:

- a. SOIL - CLEAN NATIVE SOIL FREE FROM ORGANIC MATERIAL (GRASS, ROOTS ETC.,)
- b. CEMENT (DC0040 - 20KG BAGS)
- c. POTABLE WATER

- 2. SOIL & CEMENT DRY MIXING - MIX 10 PARTS SOIL TO 1 PART CEMENT
- 3. MOISTURE CONDITIONING - MOISTEN THE EXCAVATED AUGER HOLE IF IT IS DRY.
- 4. BACKFILL WITH DRY SOIL & CEMENT MIX IN 300MM LAYER
- 5. SPRINKLE WITH CLEAN WATER AND WELL COMPACT
- 6. REPEAT STEP 3 TO 4 TILL GROUND LEVEL IS ACHIEVED

CAUTION - FOR WET SOILS, MOISTURE CONDITIONING IS NOT REQUIRED

POLE LENGTH (m)	Es (m)	CEMENT 20KG BAGS DC0040	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME
9.5	1.55	2	24
11	1.7	3	27
12.5	1.85	3	27
14	2	3	29
SSP1	2.55	3	33
SSP2	2.85	3	27
SSP3	3	4	45

NOTES:-

- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- 2. Es - STANDARD EMBEDMENT DEPTH.
- 3. FOR SWAMPY SOILS/ POOR SOILS, ROAD BASE AS BACKFILL IS PREFERRED.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 20-06-2015		DRG. No.	
				DISTRIBUTION POLE EMBEDMENT DEPTH & FOUNDATION DETAILS		ORIGINATED: DVT SCALE: NTS		R13-3-2	
						CHECKED: LT		REV. SHIT.	
						APPROVED: GRANT STACY		REV. B	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD				
B	08.12.22	FOUNDATION WIDTH CHANGED	SJ	LT	GS				
A	29.08.17	ORIGINAL ISSUE	DVT	LT	GS				

MAX ANGLE OF DEVIATION

Conductor Type	Equivalent Conductor
19/3.25 - AAC	19/3.25 AAAC Krypton
7/4.5 - AAC	
19/.083 Cu or 19/2.14 Cu	
19/14 Cu or 19/2.1 Cu	
19/16 Cu or 19/1.63 Cu	

TABLE 1

Conductor Type	Equivalent Conductor
7/4.75 - AAC	7/4.75 AAAC Iodine
7/4.5 - AAC	
7/3.75 - AAC	
7/3.0 - AAC	
7/2.5 - AAC	
7/4.50 - AAAC	
7/3.75 - AAAC	
7/3.0 - AAAC	
7/2.5 - AAAC	
7/14 Cu or 7/2.03 CU	
7/16 Cu or 7/1.63 Cu	
7/2.75 Cu	

NOTES:

- 1 Select current Conductor from Tables 1 or 2
- 2 Read off equivalent Conductor
- 3 From Table 3, select the number of HV and LV conductors
- 4 Select Pole within the Allowable Angle Limit for the specific Wind Region
- 5 If angle exceeds Allowable Angle Limit, stay is required

TABLE 2

URBAN/METRO Max Span = 60m				Standard Pole	SSP	Allowable Angle Wind Region A		Allowable Angle Wind Region B	
Equivalent SSP Conductor		No off Conductors				Standard Pole	SSP	Standard Pole	SSP
HV	LV	HV	LV						
	19/3.25AAAC-7%		4	9.5M	SSP 1	7	15	4	11
	7/4.75AAAC-7%		4	9.5M	SSP 1	9	19	6	14
	ABC150 (LV)-7%		1	9.5M	SSP 1	15	35	13	27
7/4.75AAAC-7%		3		11M	SSP 2	15	38	13	30
19/3.25AAAC-7%		3		11M	SSP 2	13	30	10	23
7/4.75AAAC-7%		4		11M	SSP 2	12	27	8	20
19/3.25AAAC-7%		4		11M	SSP 2	9	21	6	16
7/4.75AAAC-7%	7/4.75AAAC-7%	3	4	11M	SSP 2	4	12	2	9
19/3.25AAAC-7%	19/3.25AAAC-7%	3	4	11M	SSP 2	3	9	1	6
19/3.25AAAC-7%	7/4.75AAAC-7%	3	4	11M	SSP 2	4	11	1	7
7/4.75AAAC-7%	ABC150 (LV)-7%	3	1	11M	SSP 2	7	17	4	12
19/3.25AAAC-7%	ABC150 (LV)-7%	3	1	11M	SSP 2	5	15	3	11
7/4.75AAAC-7%	7/4.75AAAC-7%	4	4	11M	SSP 2	3	10	1	7
19/3.25AAAC-7%	19/3.25AAAC-7%	4	4	11M	SSP 2	2	7	0	5
19/3.25AAAC-7%	7/4.75AAAC-7%	4	4	11M	SSP 2	2	9	0	6
7/4.75AAAC-7%	ABC150 (LV)-7%	4	1	11M	SSP 2	5	14	2	9
19/3.25AAAC-7%	ABC150 (LV)-7%	4	1	11M	SSP 2	4	11	1	8

TABLE 3

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 04-06-2015		DRG. No.	
				WOOD POLE DESIGN ANGLE OF DEVIATION FOR URBAN APPLICATIONS				ORIGINATED: DVT SCALE: NTS		R13-4	
								CHECKED: AK		REV. SHIT.	
								APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
B	16.02.16	TABLES AND TITLE REVISED		DVT	AT	GS					
A	15.07.15	ORIGINAL ISSUE		DVT	AK	GS					



EQUIVALENT CONDUCTOR - RURAL/COUNTRY

EXISTING CONDUCTOR TYPE	EQUIVALENT CONDUCTOR TYPE
ACSR/AZ-6/4.75&7/1.6Fe	19/3.25 AAAC
ACSR/GZ-6/4.75&7/1.6Fe	KRYPTON
SC/GZ 7/1.6	SC/AC 3/2.75
SC/GZ 3/2.75	SCAC
7/3.0 - AAAC	7/4.75 AAAC
7/3.75 - AAAC	IODINE
7/4.0 - AAAC	
ACSR/GZ-6/1/3.75	
ACSR/AZ-6/1/3.75	
7/2.5 - AAC	7/2.5 - AAAC
	CHLORINE
6/1/3.00 AACSR/AC	6/1/3.00 AACSR/AC
	ARCHERY AA
ACSR/GZ-6/1/2.5	
ACSR/GZ-6/1/3.0	
ACSR/AZ-6/1/2.6	
ACSR/AZ-6/1/3.0	
SC/GZ 7/2.0	SC/GZ 7/2.0 *
SC/GZ 7/2.75	SCGZ

TABLE 4

* QUERIES REGARDING SC/GZ 7/20 MUST BE SENT TO Dx STANDARD SUPPORT FOR ASSESSMENT.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 15-02-2016		DRG. No.	
				WOOD POLE DESIGN			ORIGINATED: DVT SCALE: NTS		R13-5-1	
				ANGLE OF DEVIATION			CHECKED: AT		REV. B	
				RURAL APPLICATION			APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION		DRG	CHKD	APRD				
B	01.05.20	CABLE TYPE AACSR/AC ADDED & DRAWING No. CHANGED		SA	LT	GS				
A	17.02.16	ORIGINAL ISSUE		DVT	AT	GS				

EQUIVALENT CONDUCTOR		No OF CONDUCTORS		SPAN LENGTH (m)	ALLOWABLE ANGLE WIND REGION A										ALLOWABLE ANGLE WIND REGION B									
					STANDAR POLE / STANDAR FOUNDATION					STANDAR POLE / STANDAR FOUNDATION					STANDAR POLE / STANDAR FOUNDATION					STANDAR POLE / STANDAR FOUNDATION				
					11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2
SCAC 3/2.75-25%	RE	SCAC 3/2.75-25%	1	80	12	13	14	37	16	18	20	33	10	11	11	37	12	14	15	33	12	14	15	33
SCAC		SCAC		100	10	12	13	37	13	16	18	33	8	9	10	37	11	12	13	33	11	12	13	33
				120	9	11	12	37	12	15	17	33	7	8	8	36	9	11	12	33	9	11	12	33
				135	8	10	11	37	12	14	16	33	6	7	7	35	8	10	12	32	8	10	12	32
				150	8	10	10	37	11	13	15	32	5	6	6	33	7	9	10	32	7	9	10	32
				175	7	8	8	36	10	12	13	32	4	4	4	30	5	6	7	27	5	6	7	27
				200	6	7	8	35	9	11	12	32	3	3	3	27	4	5	6	26	4	5	6	26
				225	5	6	6	32	7	9	10	29	1	1	1	24	3	4	5	23	3	4	5	23
				250	5	5	6	31	7	9	10	29	1	1	1	23	3	4	5	21	3	4	5	21
				275	3	4	4	29	5	7	8	26	0	1	1	24	2	3	4	19	2	3	4	19
				300	3	4	4	27	5	7	8	25	NA	0	0	19	1	2	3	17	1	2	3	17
				325	2	2	3	24	3	4	6	22	NA	NA	NA	17	0	1	2	15	0	1	2	15
				350	2	2	3	23	3	5	6	20	NA	NA	NA	16	0	1	1	14	0	1	1	14
				375	1	1	2	22	2	4	5	20												
				400	1	1	2	21	2	4	5	19												
7/2.5 - AAAC			3	80	9	9	10	45	12	14	14	45	5	6	6	45	9	10	11	45				
CHLORINE-18%				100	7	7	8	45	10	11	12	45												
				120																				
7/2.5 - AAAC			3	80	6	8	9	45	10	13	14	40	3	2	4	30	5	7	7	30				
CHLORINE-18%				100	4	5	6	35	7	9	10	30												
				120																				
7/4.75AAAC-18%			3	80	1	1	2	21	2	3	3	16	NA	NA	NA	12	0	1	1	12				
IODINE				100	0	0	1	17	1	2	2	12	NA	NA	NA	10	NA	NA	NA	9				
				120	NA	NA	NA	15	0	1	1	10	NA	NA	NA	7	NA	NA	NA	6				
				135	NA	NA	NA	13	NA	0	0	8	NA	NA	NA	6	NA	NA	NA	5				
				150	NA	NA	NA	12	NA	NA	0	8	NA	NA	NA	4	NA	NA	NA	4				
				175	NA	NA	NA	10	NA	NA	NA	6	NA	NA	NA	4	NA	NA	NA	4				
				200																				

TABLE 5 (1/2)

- NOTES -
1. SELECT CURRENT CONDUCTOR FROM TABLE-4, R15-5-1
 2. READ OFF EQUIVALENT CONDUCTOR
 3. FROM TABLE 5, SELECT THE NUMBER OF HV AND LV CONDUCTORS
 4. SELECT POLE WITHIN THE ALLOWABLE ANGLE LIMIT FOR THE SPECIFIC WIND REGION.
 5. IF ANGLE EXCEEDS ALLOWABLE ANGLE LIMIT, STAY IS REQUIRED.
 6. STANDARD POLE AND STANDARD EMBEDMENT DEPTH IN "MEDIUM" FOUNDATION CONDITIONS.
- # FOR FIELD CREW ONLY.
 # DESIGNERS TO REFER TO OVERHEAD LINE DESIGN MANUAL
 # POLE FOUNDATIONS CHAPTER FOR THE DESIGN ANGLES.
 # THIS TABLE IS FOR POLE LIMITATIONS ONLY.
 # THIS DRAWING READ IN CONJUNCTION WITH Dwg R15

A 01 05 20 ORIGINAL ISSUE				SA LT GS				DRG No R13-5-2			
REV DATE DESCRIPTION				ORGO CHKO APRD				DISTRIBUTION CONSTR STANDARD			
								westernpower			
								DRAWN JRR DATE 19-03-2020 DRG No			
								ORIGINATED SA SCALE NTS			
								CHECKED NN			
								APPROVED GRANT STACY			
								REV A SHT			



EQUIVALENT CONDUCTOR		No OF CONDUCTORS		SPAN LENGTH (m)		ALLOWABLE ANGLE										ALLOWABLE ANGLE												
						WIND REGION A					WIND REGION B					WIND REGION A					WIND REGION B							
						STANDARD POLE / STANDARD FOUNDATION					STANDARD POLE / STANDARD FOUNDATION					STANDARD POLE / STANDARD FOUNDATION					STANDARD POLE / STANDARD FOUNDATION							
HV	RE	HV	RE	11/4	11/5	11/6	SPF2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	11/4	11/5	11/6	SSP2	12.5/4	12.5/6	12.5/8	SSP3	
7/4.75AAC-18%	7/4.75AAC-18%	3	1	80	0	1	12	1	2	2	10	NA	NA	NA	8	NA	NA	NA	NA	7	NA	NA	NA	NA	NA	NA	NA	7
IODINE	IODINE			100	NA	NA	9	0	0	0	8	NA	NA	NA	5	NA	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	5
				120	NA	NA	9	NA	NA	NA	6	NA	NA	NA	3	NA	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	3
				135	NA	NA	6	NA	NA	NA	5	NA	NA	NA	2	NA	NA	NA	NA	2	NA	NA	NA	NA	NA	NA	NA	2
				150	NA	NA	5	NA	NA	NA	4	NA	NA	NA	1	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	1
				175	NA	NA	3	NA	NA	NA	2	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	0
				200	NA	NA																						
19/3.25AAC-18%		3		80	0	1	13	1	2	2	12	NA	NA	NA	9	NA	NA	NA	NA	9	NA	NA	NA	NA	NA	NA	NA	9
KRYPTON				100	NA	0	11	0	1	1	10	NA	NA	NA	7	NA	NA	NA	NA	7	NA	NA	NA	NA	NA	NA	NA	7
				120	NA	NA	9	NA	0	0	8	NA	NA	NA	5	NA	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	5
				135	NA	NA	7	NA	NA	NA	6	NA	NA	NA	3	NA	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	3
				150	NA	NA	6	NA	NA	NA	3	NA	NA	NA	2	NA	NA	NA	NA	2	NA	NA	NA	NA	NA	NA	NA	2
				175	NA	NA	4	NA	NA	NA	3	NA	NA	NA	1	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	1
				200	NA	NA	3	NA	NA	NA	2	NA	NA	NA	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	0
19/3.25AAC-18%	19/3.25AAC-18%	3	1	80	NA	NA	9	NA	0	1	8	NA	NA	NA	5	NA	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	5
KRYPTON	KRYPTON			100	NA	NA	7	NA	NA	NA	6	NA	NA	NA	3	NA	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	3
				120	NA	NA	5	NA	NA	NA	4	NA	NA	NA	2	NA	NA	NA	NA	2	NA	NA	NA	NA	NA	NA	NA	2
				135	NA	NA	4	NA	NA	NA	3	NA	NA	NA	1	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	1
				150	NA	NA	3	NA	NA	NA	2	NA	NA	NA	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	0
				175	NA	NA	1	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
				200	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
6/1/3.00 AACSR/AC-22%		3		80	6	6	8	29	8	10	10	29	3	3	4	23	5	6	6	20								
ARCHERY AA				100	5	5	6	25	7	8	9	25	1	1	2	18	3	4	4	18								
				120	3	4	4	23	5	6	7	23	0	0	0	15	1	2	3	15								
				135	2	3	3	19	4	5	6	19	NA	NA	NA	13	0	0	2	13								
				150	1	1	2	18	3	4	4	17	NA	NA	NA	12	NA	0	0	10								
				175	0	0	0	15	1	2	3	15																
				200																								
6/1/3.00 AACSR/AC-22%	6/1/3.00 AACSR/AC-22%	3	1	80	3	4	4	20	5	6	7	20	0	0	0	15	1	3	3	15								
ARCHERY AA	ARCHERY AA			100	2	2	2	18	4	5	6	18	NA	NA	NA	12	1	2	12									
				120	0	2	2	16	3	4	4	16	NA	NA	NA	10	NA	0	0	7								
				135	0	0	0	12	0	3	3	12	NA	NA	NA	8	NA	NA	NA	7								
				150	NA	NA	0	11	0	1	1	11	NA	NA	NA	7	NA	NA	NA	5								
				175	NA	NA																						
				200																								

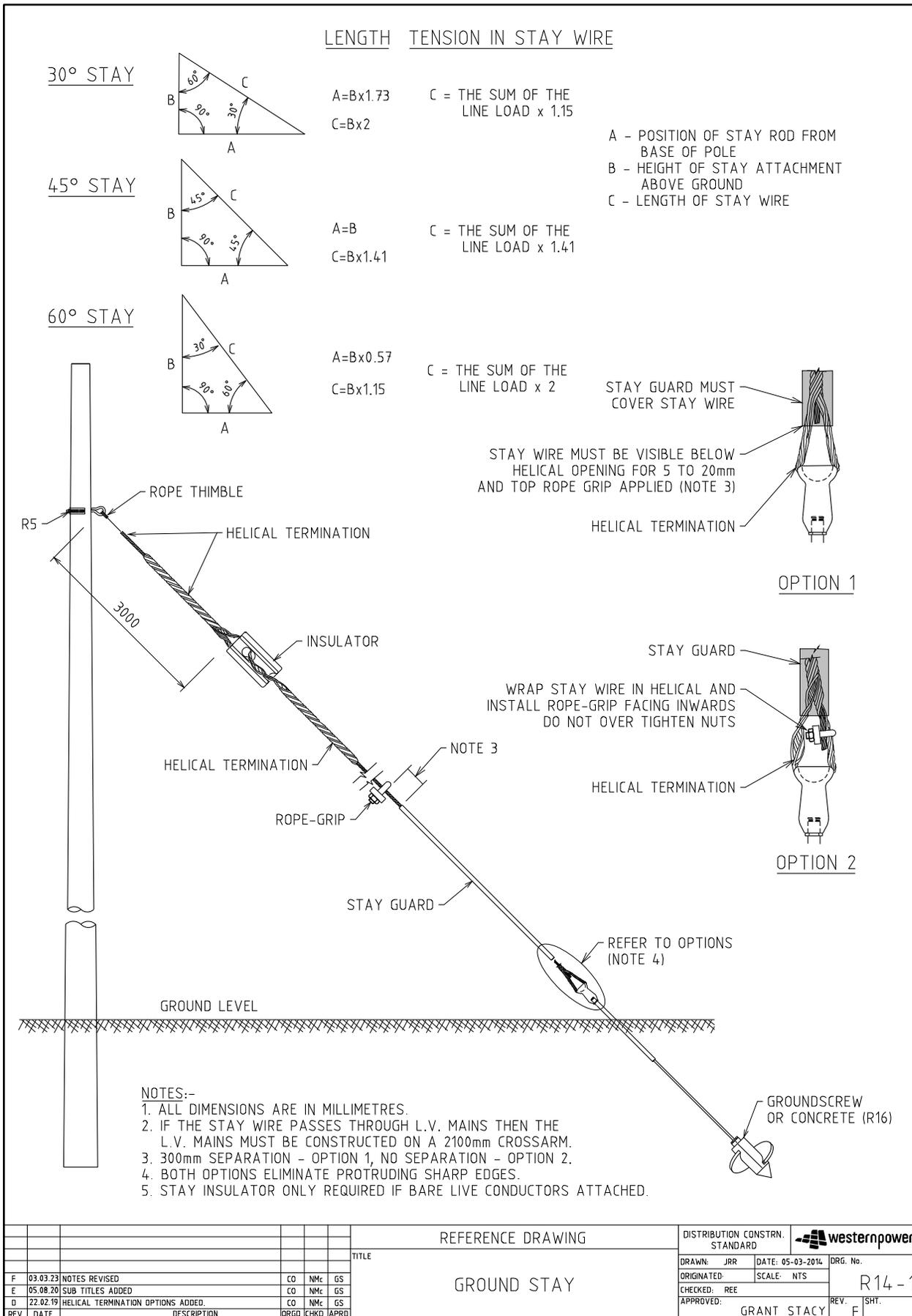
TABLE 5 (2/2)

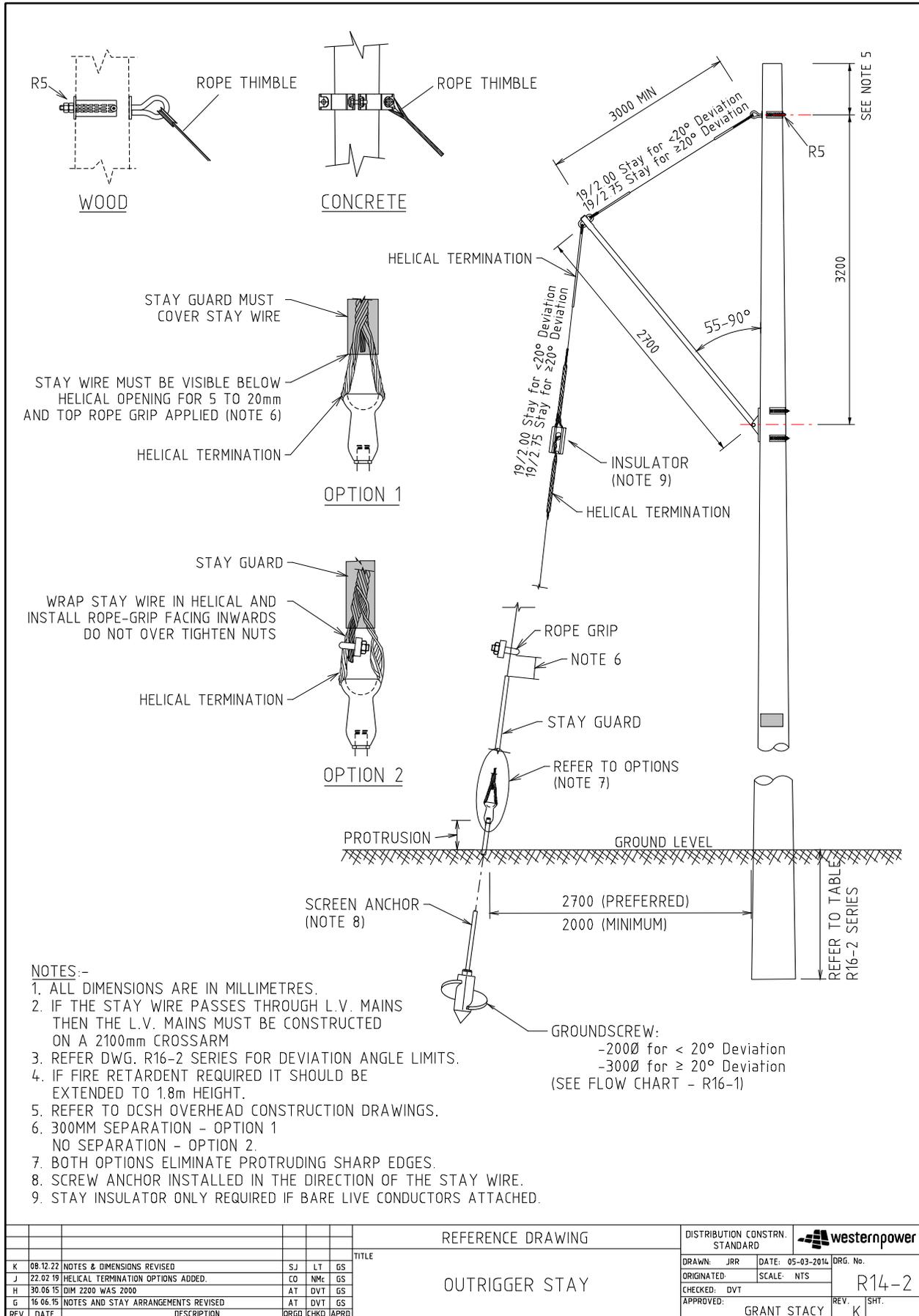
NOTES:
 1. SELECT CURRENT CONDUCTOR FROM TABLE-4, R13-5-1.
 2. READ OFF EQUIVALENT CONDUCTOR
 3. FROM TABLE 5, SELECT THE NUMBER OF HV AND LV CONDUCTORS
 4. SELECT POLE WITHIN THE ALLOWABLE ANGLE LIMIT FOR THE SPECIFIC WIND REGION
 5. IF ANGLE EXCEEDS ALLOWABLE ANGLE LIMIT, STAY IS REQUIRED.
 6. STANDARD POLE AND STANDARD EMBEDMENT DEPTH IN "MEDIUM" FOUNDATION CONDITIONS

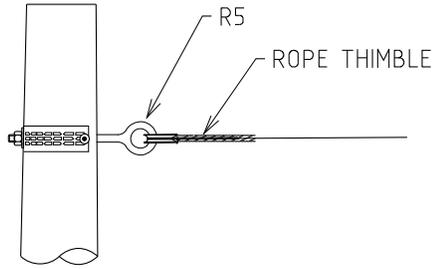
FOR FIELD CREW ONLY
 # DESIGNERS TO REFER TO OVERHEAD LINE DESIGN MANUAL
 POLE FOUNDATIONS CHAPTER FOR THE DESIGN ANGLES.
 # THIS TABLE IS FOR POLE LIMITATIONS ONLY
 # THIS DRAWING READ IN CONJUNCTION WITH Dwg R15

A 01 05 20 ORIGINAL ISSUE				SA LT GS				ORGO CHKO APRD				DESCRIPTION				APPROVED				GRANT STACY				REV A				SHT			
STRUCTURE																DISTRIBUTION CONSTR STANDARD				westernpower											
TITLE																DRAWN JRR				DATE 19-03-2020				DRG No							
WOOD POLE DESIGN ANGLE OF DEVIATION FOR RURAL APPLICATION																ORIGINATED SA				SCALE NTS				R13-5-3							
																CHECKED NN															
																APPROVED															

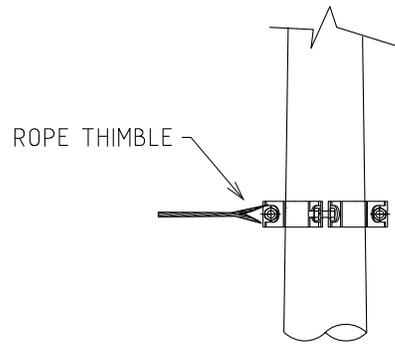




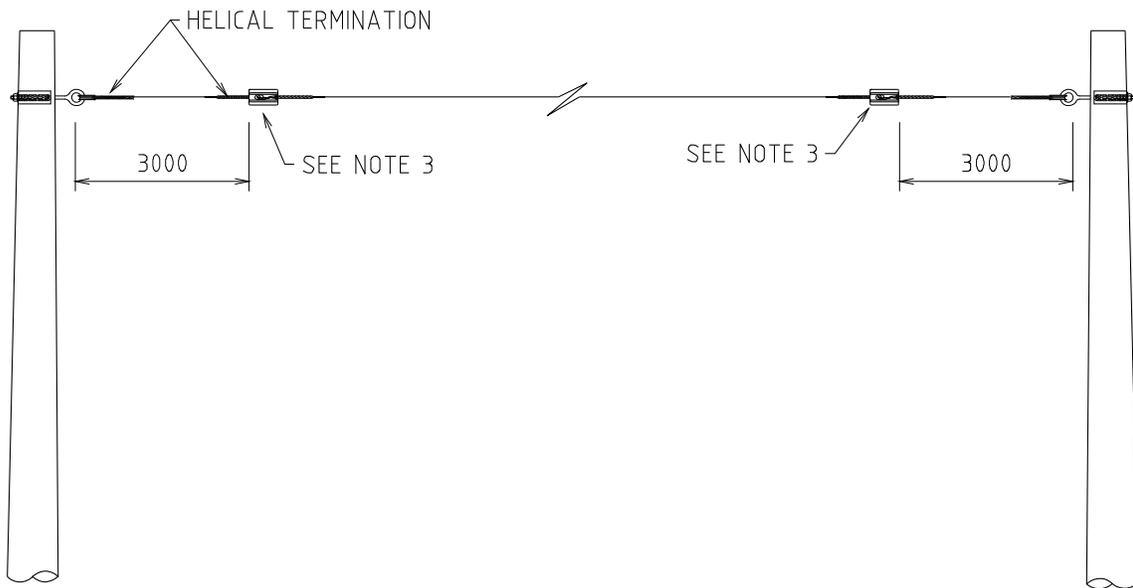




WOOD



CONCRETE



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. STAY WIRE SHOULD NOT BE INSTALLED ABOVE HV CONDUCTORS (INCLUDING LINE TAPS).
3. STAY INSULATOR ONLY REQUIRED ADJACENT TO POLE WHERE BARE CONDUCTORS PRESENT.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 05-03-2014		DRG. No.	
				AERIAL STAY				ORIGINATED: SCALE: NTS		R14 - 3	
								CHECKED: REE		REV. D	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
D	19.09.23	DRAWING AND NOTES REVISED	NMc	ML	CO						
C	16.04.19	NOTES REVISED	NMc	NN	GS						
B	26.09.14	FORMAT CHANGED AND DRAWING & NOTES REVISED	REE	REE	GS						
A	01.10.10	ORIGINAL ISSUE									

URBAN/METRO

RURAL/COUNTRY

Existing Conductor Type	Equivalent Conductor Type
19/3.25 - AAC	19/3.25 AAAC Krypton
7/4.5 - AAC	
19/.083 Cu or 19/2.14 Cu	
19/14 Cu or 19/2.1 Cu	
19/16 Cu or 19/1.63 Cu	
7/3.0 - AAC	7/4.75 AAAC Iodine
7/3.75 - AAC	
7/4.75 - AAC	
7/3.0 - AAAC	
7/3.75 - AAAC	
7/4.0 - AAAC	
7/14 Cu or 7/2.03 CU	
7/16 Cu or 7/1.63 Cu	
7/2.75 Cu	
7/2.5 - AAC	

TABLE 1

Existing Conductor Type	Equivalent Conductor Type
ACSR/AZ-6/4.75&7/1.6Fe	19/3.25 AAAC Krypton
ACSR/GZ-6/4.75&7/1.6Fe	
SC/GZ 7/1.6	SC/AC 3/2.75 SCAC
SC/GZ 3/2.75	
7/3.0 - AAAC	7/4.75 AAAC Iodine
7/3.75 - AAAC	
7/4.0 - AAAC	
ACSR/GZ-6/1/3.75	
ACSR/AZ-6/1/3.75	
7/2.5 - AAC	7/2.5 - AAAC Chlorine
6/1/3.00 AACSR/AC	6/1/3.00 AACSR/AC ARCHERY AA
ACSR/GZ-6/1/2.5	
ACSR/GZ-6/1/3.0	
ACSR/AZ-6/1/2.6	
ACSR/AZ-6/1/3.0	
SC/GZ 7/2.0	SC/GZ 7/2.0 *
SC/GZ 7/2.75	SCGZ

TABLE 2

NOTES:-

1. SELECT CURRENT CONDUCTOR FROM TABLES 1 OR 2.

* QUERIES REGARDING SC/GZ 7/20 MUST BE SENT TO Dx STANDARD SUPPORT FOR ASSESSMENT.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				EQUIVALENT CONDUCTOR				DRAWN: JRR DATE: 23-12-2015		DRG. No.	
								ORIGINATED: DVT SCALE: NTS		R15-2	
								CHECKED: AT		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
B	01.05.20	TABLE 2 REVISED	SA	REE	GS						
A	29.08.16	ORIGINAL ISSUE	DVT	AT	GS						

DDC HV01, HV12, HV21, HV38 & HV39
3phase - Intermediate (M16 king bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	38
	60	40	32
	70	35	25
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	18 (22*)	13 (16*)
	60	16 (19*)	11 (13*)
	70	14 (17*)	9 (11*)
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	14 (17*)	11 (13*)
	60	12 (15*)	9 (11*)
	70	10 (13*)	7 (9*)

*Use cross-arm bracing strap (CB0485)

DDC HV03 & HV30
Running Disc Angle

Urban		Minimum Angle of Deviation
Equivalent Conductor	Span Length (m)	
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	<50	22
	50-60	24
	60-70	26
7/4.75 AAAC 7% CBL @ 15 deg IODINE	<50	19
	50-60	21
	60-70	23
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	<50	12
	50-60	14
	60-70	16

DDC HV19, HV23, HV25 & HV40
Pole Top Switch

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	32	28
	60	28	24
	70	24	20
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	14	10
	60	12	8
	70	10	6
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	12	8
	60	10	6
	70	8	4

Use Shackle (OS0050) for deviation > 2°

DDC HV45

3phase - Intermediate Double Cross-arm (M16 king bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	45
	60	45	45
	70	45	45
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	42	33
	60	38	29
	70	32	24
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	34	26
	60	30	23
	70	25	18

DDC HV06 & HV14

3 phase - Intermediate Offset

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	45
	60	45	40
	70	45	35
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	24	18
	60	22	15
	70	20	13
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	18	14
	60	16	12
	70	14	10

DDC HV09 & HV10

Strain (CB1121 - M16 strain eye bolt)

Urban		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	45	42
	60	45	38
	70	40	30
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	20	15
	60	18	13
	70	14	9
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	16	12
	60	14	10
	70	11	7

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR		DATE: 21-12-2015	
				POLE TOP LIMITATIONS FOR URBAN APPLICATIONS			ORIGINATED: AT		SCALE: NTS	
							CHECKED: DVT		REV. No. R15-3-1	
							APPROVED: GRANT STACY		REV. A	
A	29 08 16	ORIGINAL ISSUE		AT	DVT	GS				
REV	DATE	DESCRIPTION		DRGD	CHKD	APPRD				

DDC HV05 & HV07
Termination (CB0116) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

DDC HV15
Termination (CB1121) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

DDC HV08
Termination (CB0117) - Single Cross-arm

Urban		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/2.50 AAAC 7% CBL @ 15 deg CHLORINE	50	✓	✓
	60	✓	✓
	70	✓	✓
7/4.75 AAAC 7% CBL @ 15 deg IODINE	50	✓	✓
	60	✓	✓
	70	✓	✓
19/3.25 AAAC 7% CBL @ 15 deg KRYPTON	50	✓	✓
	60	✓	✓
	70	✓	✓

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 23-12-2015		ORG. No.	
				POLE TOP LIMITATIONS FOR URBAN APPLICATION			ORIGINATED: AT SCALE: NTS		R15-3-2	
							CHECKED: DVT		REV. A	
							APPROVED: GRANT STACY		SHT.	
A	29.08.16	ORIGINAL ISSUE		AT	DVT	GS				
REV	DATE	DESCRIPTION		DRGD.	CHKD.	APPRD.				

DDC HV01, HV12, HV21, HV38 & HV39
3phase - Intermediate (M16 king bolt)

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	11 (13*)	8 (10*)
	80	8 (10*)	5 (7*)
	100	6 (8*)	3 (5*)
	135	3 (5*)	N/A
	185	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	8 (10*)	5 (7*)
	80	5 (7*)	3 (5*)
	100	4 (6*)	2 (4*)
	135	2 (4*)	N/A
	185	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	13	13
	80	13	13
	100	13	12
	135	12	10
	185	10	7
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	11 (13*)	8 (10*)
	80	8 (10*)	5 (7*)
	100	6 (8*)	3 (5*)
	135	3 (5*)	N/A
	185	N/A	N/A
250	N/A	N/A	

DDC HV45
3phase - Intermediate Double Cross-arm (M16 king bolt)

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	26	22
	80	22	18
	100	18	15
	135	14	10
	185	10	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	20	17
	80	18	14
	100	15	11
	135	10	8
	185	7	4
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	32	32
	80	32	32
	100	32	30
	135	30	26
	185	25	20
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	26	22
	80	22	18
	100	18	15
	135	14	10
	185	N/A	N/A
250	N/A	N/A	

*Use cross-arm bracing strap (CB0485)

DDC HV03 & HV30
Running Disc Angle

Rural		Minimum Angle of Deviation
Equivalent Conductor	Span Length (m)	
7/4.75 AAAC 18% CBL @ 15 deg IODINE	<80	10
	80-135	14
	135-185	18
	185-250	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	<80	8
	80-135	12
	135-185	15
	185-250	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	<80	5
	80-135	7
	135-185	9
	185-250	12
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	<80	10
	80-135	14
	135-185	18
	185-250	N/A

DDC HV06 & HV14
3 phase - Intermediate Offset

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	15	12
	80	12	9
	100	10	6
	135	7	3
	185	3	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	11	9
	80	9	6
	100	7	4
	135	4	1
	185	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	16	14
	80	16	14
	100	16	14
	135	16	12
	185	14	10
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	15	12
	80	12	9
	100	10	6
	135	7	3
	185	N/A	N/A
250	N/A	N/A	

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 14-01-2016		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				ORIGINATED: AT SCALE: NTS		R15-3-3	
								CHECKED: DVT		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
B	01.05.20	TABLE REVISED	SA	LT	GS						
A	29.08.16	ORIGINAL ISSUE	AT	DVT	GS						



**DDC HV19, HV23, HV25 & HV40
Pole Top Switch**

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	9	8
	80	7	5
	100	5	3
	135	2	0
	185	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	250	N/A	N/A
	60	7	5
	80	5	3
	100	3	0
	135	0	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	185	N/A	N/A
	250	N/A	N/A
	60	12	12
	80	12	12
	100	12	12
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	135	12	9
	185	8	6
	250	6	4
	60	9	8
	80	7	5

**DDC HV09 & HV10
Strain (CB1121 - M16 strain eye bolt)**

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	12	9
	80	10	7
	100	8	4
	135	5	2
	185	2	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	9	7
	80	7	5
	100	N/A	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	14	14
	80	14	14
	100	14	14
	135	14	11
	185	11	8
	250	8	5
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	12	9
	80	10	7
	100	8	4
	135	5	2
	185	N/A	N/A
	250	N/A	N/A

Use Shackle (OS0050) for deviation > 2°

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 29-12-2015		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				ORIGINATED: AT SCALE: NTS		R15-3-4	
								CHECKED: DVT		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APPRD						
B	01.05.20	TABLE REVISED	SA	LT	GS						
A	29.08.16	ORIGINAL ISSUE	AT	DVT	GS						

DDC HV08
Termination (CB0117) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A

DDC HV15
Termination (CB1121) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	N/A
	100	N/A	N/A
	135	N/A	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	N/A
	135	✓	N/A
	185	N/A	N/A
	250	N/A	N/A

DDC HV05, HV07 & HV42
Termination (CB0118) - Single Cross-arm

Rural		Allowable	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	N/A
	185	✓	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	N/A	N/A
	250	N/A	N/A

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 23-12-2015		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS		ORIGINATED AT SCALE: NTS		R15-3-5	
						CHECKED: DVT		REV. B	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APPRD				
B	01.05.20	TABLES CHANGED	SA	LT	GS				
A	29.08.16	ORIGINAL ISSUE	AT	DVT	GS				



DDC HV29
Single Phase Intermediate

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	9	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	19	15
	80	16	12
	100	13	10
	135	10	6
	185	6	3
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	24	24
	80	24	24
	100	24	24
	135	24	22
	185	22	18
	250	18	14
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	N/A	N/A
	250	N/A	N/A

DDC HV41
Single Phase Anti Galah Intermediate

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	18	15
	80	15	11
	100	12	9
	135	9	5
	185	5	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	14	11
	80	11	8
	100	9	6
	135	6	3
	185	3	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	18	18
	80	18	18
	100	18	18
	135	18	16
	185	16	12
	250	13	8
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	18	15
	80	15	11
	100	12	9
	135	9	5
	185	N/A	N/A
	250	N/A	N/A

DDC HV46
Single Phase Anti Galah Strain

Rural		Allowable Angle	
Equivalent Conductor	Span Length (m)	Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	9	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	19	15
	80	16	12
	100	13	10
	135	10	6
	185	6	3
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	24	24
	80	24	24
	100	24	24
	135	24	22
	185	22	18
	250	18	14
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	24	20
	80	20	16
	100	17	13
	135	13	9
	185	N/A	N/A
	250	N/A	N/A

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 14-01-2016		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS		ORIGINATED: AT SCALE: NTS		R15-3-6	
						CHECKED: DVT		REV. B	
						APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD				
B	01.05.20	TABLES REVISED	SA	LT	GS				
A	29.08.16	ORIGINAL ISSUE	AT	DVT	GS				



DDC HV43

Anti Swan - Intermediate (M16 Bolt)

Equivalent Conductor	Rural Span Length (m)	Allowable Angle	
		Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	9 (11*)	7 (98*)
	80	7 (9*)	4 (5*)
	100	5 (7*)	2 (3*)
	135	2 (4*)	N/A
	185	N/A	N/A
	250	N/A	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	7 (9*)	5 (6*)
	80	5 (7*)	3 (4*)
	100	3 (5*)	1 (2*)
	135	1 (2*)	N/A
	185	N/A	N/A
	250	N/A	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	12	12
	80	12	12
	100	12	10
	135	10	8
	185	8	5
	250	5	3
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	9 (11*)	7 (98*)
	80	7 (9*)	4 (5*)
	100	5 (7*)	2 (3*)
	135	2 (4*)	N/A
	185	N/A	N/A
	250	N/A	N/A

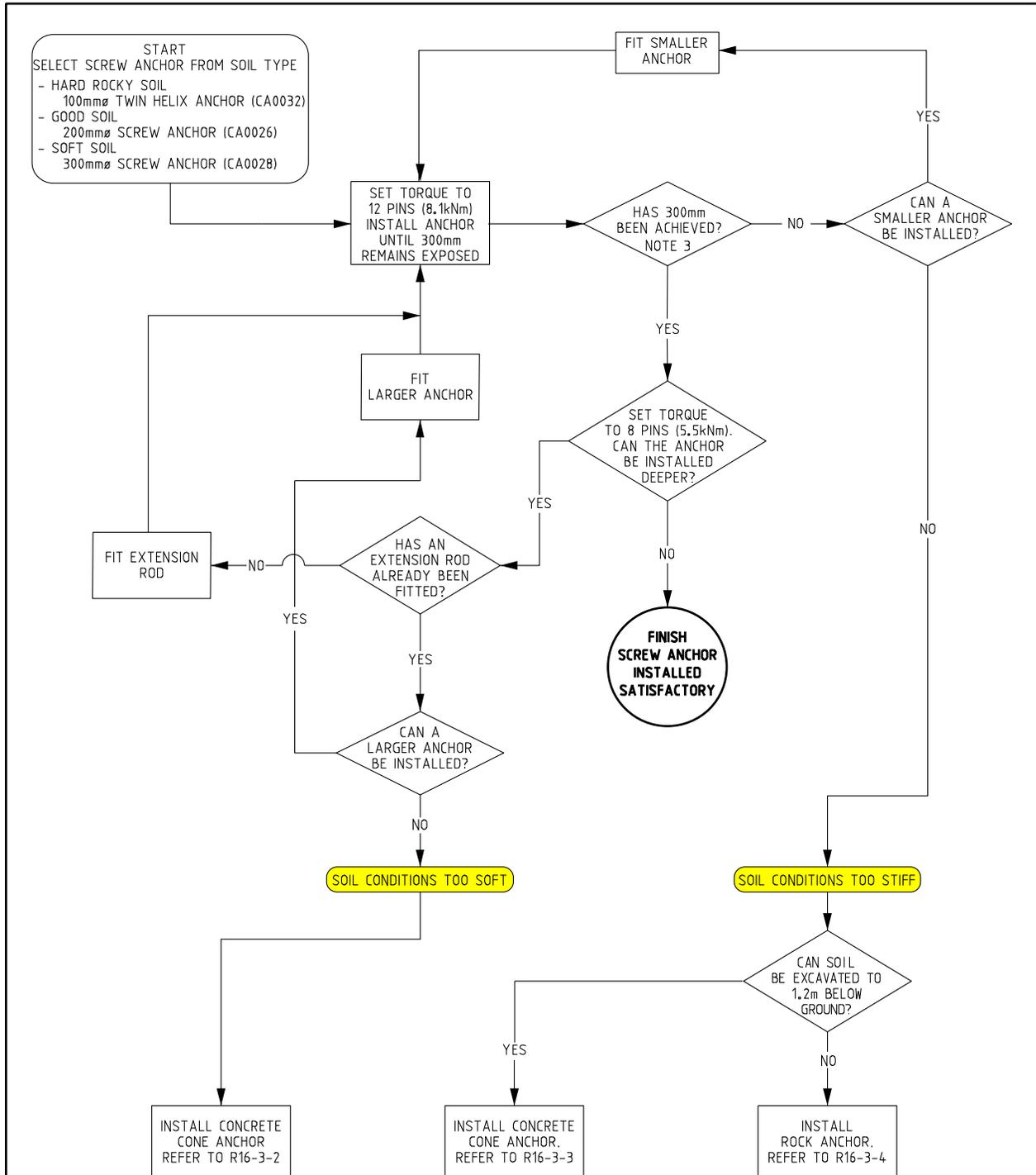
DDC HV44

Anti Swan Termination(CB0107) - Double Cross-arm

Equivalent Conductor	Rural Span Length (m)	Allowable	
		Wind Region A	Wind Region B
7/4.75 AAAC 18% CBL @ 15 deg IODINE	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	N/A
	250	✓	N/A
19/3.25 AAAC 18% CBL @ 15 deg KRYPTON	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	N/A
3/2.75 SCAC 25% CBL @ 15 deg SCAC	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	✓	✓
	250	✓	✓
6/1/3.00 AACSR/AC 22% CBL @ 15 deg ARCHERY AA	60	✓	✓
	80	✓	✓
	100	✓	✓
	135	✓	✓
	185	N/A	N/A
	250	N/A	N/A

*Use cross-arm bracing starp (CB0485)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR DATE: 22-08-2016		DRG. No.	
				POLE TOP LIMITATIONS FOR RURAL APPLICATIONS				ORIGINATED: AT SCALE: NTS		R15-3-7	
								CHECKED: DVT		REV. B	
								APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APPRD						
B	01.05.20	TABLES REVISED	SA	LT	GS						
A	29.08.16	ORIGINAL ISSUE	AT	DVT	GS						



VISUAL GRADING OF SOIL (Guide)

1. TAKE DRY SOIL IN HAND AND RUB IN TWO FINGERS. SANDY SOIL HAS COARSE FEEL; CLAYEY SOIL HAS SMOOTH FEEL
2. MAKE A SMALL BALL OF MOIST SOIL, TRY TO BREAK IT BY PRESSING BETWEEN THUMB AND FOREFINGER
 - a. BREAKS TO POWDER UNDER SMALL PRESSURE - SOFT SOIL
 - b. BARELY BREAKS BETWEEN FOREFINGER AND THUMB, BREAKS IN HAND WITHOUT DIFFICULTY - MEDIUM SOIL
 - c. CANNOT BE BROKEN BREAKS BETWEEN FOREFINGER AND THUMB, BREAKS IN HAND WITH DIFFICULTY - GOOD SOIL

NOTES :-

1. IF THERE ARE UNDERGROUND SERVICES IN AREA, GO TO R16-3 (HAND EXCAVATION REQUIRED)
2. START WITH TWIN HELIX (CA0032) FOR HARD ROCK SOILS WITH MINIMUM 6PINS (4.1kNm) TORQUE TO ACHIEVE HOLDING CAPACITY
3. CHECK FOR MAXIMUM ALLOWABLE PROTRUSION ABOVE GROUND (MM) PROVIDED IN R16-2 TABLES (RAINBOW TABLES)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE							
				ANCHOR INSTALLATION FLOW CHART						R16-1	
REV	DATE	DESCRIPTION	DRGG	CHKD	APRD	ORIGINATED:	JRR	DATE:	05-03-2014	DRG. No.	
G	09.12.22	MORE DETAILS ADDED		SJ	LT	GS	CHECKED:	DVT	SCALE:	NTS	
F	02.08.17	MORE DETAILS ADDED		TTT	LT	GS	APPROVED:	REV.	G	SHT	
E	11.11.14	MORE DETAILS ADDED					GRANT STACY				

9.5m/5kN Pole

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)						
					Wind Region A			Deviation Angle (deg)	Wind Region B		
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay
Metro or Urban	Span Length < 60m		4 LV 7/4.75 AAAC 7%	Up to 9 degrees	No stay required			Up to 6 degrees	No stay required		
				9 to 10	700	700	700	6 to 10	700	700	700
				10 to 15	700	700	700	10 to 15	700	700	700
				15 to 20	700	700	700	15 to 20	700	700	11/6, 700
				20 to 25	700	700	11/6, 700	20 to 25	700	700	11/6, 700
				25 to 30	700	700	11/6, 700	25 to 30	700	700	SSP1, 700
				30 to 45	700	600	SSP1, 600	30 to 45	700	600	SSP1, 500
				45 to 90	DSC, 700	DSC, 700	N/A	45 to 90	DSC, 700	DSC, 600	N/A
				Inline termination	700	700	SSP1, 600	Inline termination	700	600	SSP1, 500
				Up to 6 degrees	No stay required			Up to 4 degrees	No stay required		
		6 to 10	700	700	700	4 to 10	700	700	700		
		10 to 15	700	700	700	10 to 15	700	700	700		
		15 to 20	700	700	11/6, 700	15 to 20	700	700	11/6, 600		
		20 to 25	700	700	11/6, 700	20 to 25	700	700	SSP1, 600		
		25 to 30	700	700	SSP1, 600	25 to 30	700	700	SSP1, 600		
		30 to 45	700	600	SSP1, SS1, 500	30 to 45	700	500	SSP1, SS1, 500		
		45 to 90	DSC, 700	DSC, 600	N/A	45 to 90	11/6, DSC, 700	11/6, DSC, 500	N/A		
		Inline termination	700	600	SSP1, SS1, 500	Inline termination	700	500	SSP1, SS1, 500		
		Up to 10 degrees	No stay required			Up to 8 degrees	No stay required				
		10 to 15	700	700	700	8 to 10	700	700	700		
15 to 20	700	700	700	10 to 15	700	700	700				
20 to 25	700	700	700	15 to 20	700	700	700				
25 to 30	700	700	700	20 to 25	700	700	700				
30 to 45	700	700	SSP1, 700	25 to 30	700	700	11/6, 700				
45 to 90	DSC, 700	DSC, 700	N/A	30 to 45	700	700	SSP1, 700				
Inline termination	700	700	SSP1, 700	45 to 90	DSC, 700	DSC, 700	N/A				
Up to 4 degrees	No stay required			Up to 2 degrees	No stay required						
4 to 10	700	700	700	2 to 10	700	700	700				
10 to 15	700	700	700	10 to 15	700	700	SSP1, 700				
15 to 20	700	700	SSP1, 700	15 to 20	700	700	SSP1, 700				
20 to 25	700	700	SSP1, 700	20 to 25	700	700	SSP1, 700				
25 to 30	700	700	SSP1, 600	25 to 30	700	600	SSP1, 600				
30 to 45	600	SS1, 400	SSP1, SS1, 300	30 to 45	600	SS1, 400	SSP1, SS1, 300				
45 to 90	11/6, DSC, 600	11/6, DSC, 400	N/A	45 to 90	11/6, DSC, 400	11/6, DSC, 400	N/A				
Inline termination	600	SS1, 400	SSP1, SS1, 300	Inline termination	600	SS1, 400	SSP1, SS1, 300				
Up to 18 degrees	No stay required			Up to 13 degrees	No stay required						
18 to 20	700	700	700	13 to 15	700	700	700				
20 to 25	700	700	700	15 to 20	700	700	700				
25 to 30	700	700	700	20 to 25	700	700	700				
30 to 45	700	700	700	25 to 30	700	700	700				
45 to 90	DSC, 700	DSC, 700	N/A	30 to 45	700	700	11/6, 700				
Inline termination	700	700	700	45 to 90	DSC, 700	DSC, 600	N/A				
ABC		LV ABC 150 7%	Up to 18 degrees	No stay required			Up to 13 degrees	No stay required			
18 to 20			700	700	700	13 to 15	700	700	700		
20 to 25			700	700	700	15 to 20	700	700	700		
25 to 30			700	700	700	20 to 25	700	700	700		
30 to 45			700	700	700	25 to 30	700	700	700		
45 to 90			DSC, 700	DSC, 700	N/A	30 to 45	700	700	11/6, 700		
Inline termination			700	700	700	45 to 90	DSC, 700	DSC, 600	N/A		
11/6			700	700	700	Inline termination	700	700	11/6, 700		

- Notes:
- Use 9.5m/5kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified
 - Use 19/2.00 SC/GZ Stay and 200mm Screw Anchor for all cases unless otherwise specified
 - 11/6 Use 11m/6kN pole with standard embedment depth
 - SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor
 - DSC Double Stay (Stays to be inline with conductor's direction)

	19/2.00 SC/GZ Stay and 200mm Screw Anchor
	Use standard pole with standard embedment depth
	SSP1 Use SSP1 as per Drawing R13-2 in DCSH (11m/6kN pole with Embedment Depth of 2.55m)
	N/A Not Applicable (Specific Design Required)

FOR FIELD CREW ONLY.
 # DESIGNERS TO REFER TO OVERHEAD LINE DESIGN MANUAL,
 STAYS & GROUND ANCHORS CHAPTER SECTION 7.3 FOR STAY DESIGN.

F 08.03.16	TABLE REVISED AND FOOT NOTE ADDED	AT	DVT	GS	REFERENCE DRAWING	DISTRIBUTION CONSTR. STANDARD	
E 11.08.15	TABLE REVISED	AT	DVT	GS			
D 16.06.15	DRG # & TITLE CHANGED AND TABLE REVISED	AT	DVT	GS			
C 11.11.14	FORMAT CHANGED AND TABLE REVISED	TTT	SL	GS			
B 17.09.14	MORE DETAILS ADDED		DVT	GS			
A 07.08.14	ORIGINAL ISSUE		DVT	GS			
REV	DATE	DESCRIPTION	DRG	CHKD	APRD	DRAWN: JRR DATE: 07-08-2014 DRG. No. ORIGINATED: TTT SCALE: NTS CHECKED: DVT APPROVED: GRANT STACY REV. F SHT. R16/2/1	

11m/6kN Pole (1 of 4)				Maximum Allowable Protrusion above Ground (mm)								
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A			Deviation Angle (deg)	Wind Region B			
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay	
Metro or Urban	Span Length < 60m		3HV + RE or 4 LV 7/4.75 AAAC 7%	Up to 13 degrees	No stay required			Up to 9 degrees	No stay required			
				13 to 15	700	700	700	9 to 10	700	700	700	
				15 to 20	700	700	700	10 to 15	700	700	700	
				20 to 25	700	700	700	15 to 20	700	700	700	
				25 to 30	700	700	700	20 to 25	700	700	700	
				30 to 45	700	500	SSP2, 500	25 to 30	700	700	12/8, 500	
				45 to 90	DSC, 700	DSC, 300	N/A	30 to 45	700	500	SSP2, 400	
				Inline termination	700	600	SSP2, 500	45 to 90	DSC, 700	DSC, 500	N/A	
				Inline termination	700	600	SSP2, 500	Inline termination	700	500	SSP2, 400	
				3HV + RE or 4 LV 19/3.25 AAAC 7%	Up to 10 degrees	No stay required			Up to 7 degrees	No stay required		
			10 to 15	700	700	700	7 to 10	700	700	700		
			15 to 20	700	700	700	10 to 15	700	700	700		
			20 to 25	700	700	700	15 to 20	700	700	600		
			25 to 30	700	700	12/8, 500	20 to 25	700	700	12/8, 500		
			30 to 45	700	500	SSP2, 400	25 to 30	700	600	SSP2, 500		
			45 to 90	DSC, 700	DSC, 500	N/A	30 to 45	600	400	SSP2, 300		
			45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 400	12.5/8, DSC, 400	N/A		
			Inline termination	700	500	SSP2, 400	Inline termination	600	400	SSP2, 300		
			3HV + RE or 4 LV 7/2.75 Cu 15%	Up to 15 degrees	No stay required			Up to 12 degrees	No stay required			
			15 to 20	700	700	700	12 to 15	700	700	700		
		20 to 25	700	700	700	15 to 20	700	700	700			
		25 to 30	700	700	700	20 to 25	700	700	700			
		30 to 45	700	700	SSP2, 600	25 to 30	700	700	700			
		45 to 90	DSC, 700	DSC, 500	N/A	30 to 45	700	600	SSP2, 500			
		45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 700	DSC, 600	N/A			
		Inline termination	700	700	SSP2, 600	Inline termination	700	600	SSP2, 600			
		3HV + RE or 4 LV 19/0.101 HDBC 15%	Up to 6 degrees	No stay required			Up to 4 degrees	No stay required				
		6 to 10	700	700	700	4 to 10	700	700	700			
		10 to 15	700	700	700	10 to 15	700	700	600			
		15 to 20	700	600	12/8, 500	15 to 20	700	600	SSP2, 500			
		20 to 25	700	600	SSP2, 600	20 to 25	700	600	SSP2, 500			
		25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400			
		30 to 45	500	300	N/A	30 to 45	500	300	SSP2, 300			
		45 to 90	DSC, 500	DSC, 300	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A			
		45 to 90	DSC, 500	DSC, 300	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A			
		Inline termination	500	300	N/A	Inline termination	500	300	SSP2, 300			
		3HV + RE + ABC 7/4.75 AAAC 7% LV ABC 150 7%	Up to 5 degrees	No stay required			Up to 2 degrees	No stay required				
		5 to 10	700	700	700	2 to 10	700	700	700			
		10 to 15	700	700	700	10 to 15	700	700	12/8, 500			
		15 to 20	700	700	12/8, 500	15 to 20	700	600	SSP2, 500			
20 to 25	700	700	SSP2, 600	20 to 25	700	600	SSP2, 500					
25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400					
30 to 45	600	400	SSP2, 300	30 to 45	500	300	SSP2, 300					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
Inline termination	600	400	SSP2, 300	Inline termination	500	300	SSP2, 300					
3HV + RE + ABC 19/3.25 AAAC 7% LV ABC 150 7%	Up to 4 degrees	No stay required			Max 1 degree	No stay required						
4 to 10	700	700	700	1 to 10	700	700	600					
10 to 15	700	700	SSP2, 600	10 to 15	700	500	SSP2, 500					
15 to 20	700	600	SSP2, 500	15 to 20	700	500	SSP2, 551, 500					
20 to 25	700	600	SSP2, 500	20 to 25	700	500	SSP2, 500					
25 to 30	700	500	SSP2, 500	25 to 30	700	500	SSP2, 400					
30 to 45	500	300	N/A	30 to 45	400	300	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
Inline termination	600	300	N/A	Inline termination	500	300	N/A					
3HV + 4LV 7/4.75 AAAC 7%	Up to 5 degrees	No stay required			Up to 2 degrees	No stay required						
5 to 10	700	700	700	2 to 10	700	700	700					
10 to 15	700	700	12/8, 600	10 to 15	700	700	12/8, 500					
15 to 20	700	700	SSP2, 600	15 to 20	700	600	SSP2, 500					
20 to 25	700	600	SSP2, 600	20 to 25	700	600	SSP2, 500					
25 to 30	700	600	SSP2, 500	25 to 30	700	500	SSP2, 400					
30 to 45	600	400	SSP2, 300	30 to 45	500	300	SSP2, 300					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	12.5/8, DSC, 300	N/A					
Inline termination	600	400	SSP2, 300	Inline termination	500	300	SSP2, 300					
3HV + 4LV 19/3.25 AAAC 7%	Up to 3 degrees	No stay required			Max 1 degree	No stay required						
3 to 10	700	700	700	1 to 10	700	700	12/8, 600					
10 to 15	700	700	SSP2, 600	10 to 15	700	600	SSP2, 400					
15 to 20	700	600	SSP2, 500	15 to 20	700	500	SSP2, 551, 400					
20 to 25	700	600	SSP2, 500	20 to 25	700	500	SSP2, 400					
25 to 30	700	500	SSP2, 400	25 to 30	600	400	SSP2, 300					
30 to 45	500	300	N/A	30 to 45	400	300	N/A					
45 to 90	DSC, 500	12.5/8, DSC, 300	N/A	45 to 90	DSC, 400	12.5/8, DSC, 300	N/A					
45 to 90	DSC, 500	12.5/8, DSC, 300	N/A	45 to 90	DSC, 400	12.5/8, DSC, 300	N/A					
Inline termination	500	300	N/A	Inline termination	400	300	N/A					
3HV + 4LV 7/2.75 Cu 15%	Up to 8 degrees	No stay required			Up to 6 degrees	No stay required						
8 to 10	700	700	700	6 to 10	700	700	700					
10 to 15	700	700	700	10 to 15	700	700	700					
15 to 20	700	700	700	15 to 20	700	700	12/8, 600					
20 to 25	700	700	SSP2, 700	20 to 25	700	700	SSP2, 600					
25 to 30	700	700	SSP2, 600	25 to 30	700	600	SSP2, 600					
30 to 45	700	500	SSP2, 400	30 to 45	600	400	SSP2, 300					
45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 700	DSC, 400	N/A					
45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 700	DSC, 400	N/A					
Inline termination	700	500	SSP2, 400	Inline termination	700	400	SSP2, 400					
3HV + 4LV 19/0.101 HDBC 15%	Up to 2 degrees	No stay required			Max 0 degree	No stay required						
2 to 10	700	700	12/8, 600	Up to 10 degrees	700	700	SSP2, 600					
10 to 15	700	600	SSP2, 551, 500	10 to 15	700	500	SSP2, 551, 500					
15 to 20	700	551, 400	SSP2, 551, 400	15 to 20	600	551, 400	SSP2, 551, 400					
20 to 25	700	500	SSP2, 400	20 to 25	600	400	SSP2, 300					
25 to 30	600	400	SSP2, 300	25 to 30	600	300	SSP2, 300					
30 to 45	300	DSL, 400	N/A	30 to 45	300	12.5/8, DSL, 500	N/A					
45 to 90	12.5/8, DSC, 300	12.5/8, DSC, 400	N/A	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	N/A					
45 to 90	12.5/8, DSC, 300	12.5/8, DSC, 400	N/A	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	N/A					
Inline termination	300	DSC, 400	N/A	Inline termination	300	12.5/8, DSC, 500	N/A					

REFERENCE DRAWING

TITLE SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 1/4)

DISTRIBUTION CONSTR. STANDARD



DRAWN: JRR DATE: 10-06-2015 DRG. No. R16/2/2
 ORIGINATED: AT SCALE: NTS
 CHECKED: DVT
 APPROVED: GRANT STACY REV. C SHT.

REV	DATE	DESCRIPTION	DRG	CHKD	APRD
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS



11m/6kN Pole (2 of 4)

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
					Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length < 135m		HV + RE 7/4.75 AAAC 18%	Up to 2 degrees	No stay required		Max 1 degree	No stay required	
				1 to 10	700	700	1 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	600
				20 to 25	700	700	20 to 25	700	600
				25 to 30	700	600	25 to 30	700	500
				30 to 45	700	500	30 to 45	600	400
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	DSC, 400
				Inline termination	700	500	Inline termination	600	400
				Up to 1 degrees	No stay required		Max 0 degree	No stay required	
				1 to 10	700	700	Up to 10 degrees	700	700
				10 to 15	700	700	10 to 15	700	600
		15 to 20	700	600	15 to 20	700	500		
		20 to 25	700	600	20 to 25	700	500		
		25 to 30	700	600	25 to 30	700	500		
		30 to 45	600	400	30 to 45	500	300		
		45 to 90	DSC, 600	DSC, 400	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300		
		Inline termination	600	400	Inline termination	500	300		
		Up to 2 degrees	No stay required		Max 0 degree	No stay required			
		1 to 10	700	700	Up to 10 degrees	700	700		
		10 to 15	700	700	10 to 15	700	700		
		15 to 20	700	700	15 to 20	700	600		
		20 to 25	700	700	20 to 25	700	600		
		25 to 30	700	600	25 to 30	700	500		
30 to 45	600	400	30 to 45	500	300				
45 to 90	DSC, 600	DSC, 400	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300				
Inline termination	600	400	Inline termination	500	300				
Up to 15 degrees	No stay required		Up to 12 degrees	No stay required					
15 to 20	700	700	12 to 15	700	700				
20 to 25	700	700	15 to 20	700	700				
25 to 30	700	700	20 to 25	700	700				
30 to 45	700	700	25 to 30	700	700				
45 to 90	DSC, 700	DSC, 700	30 to 45	700	700				
45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 700				
Inline termination	700	700	Inline termination	700	700				
Max 1 degree	No stay required		Max 0 degree	No stay required					
1 to 10	700	700	Up to 10 degrees	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	600				
20 to 25	700	600	20 to 25	700	600				
25 to 30	700	600	25 to 30	700	500				
30 to 45	600	400	30 to 45	500	300				
45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 300				
Inline termination	600	400	Inline termination	500	300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	SS1, 500				
10 to 15	700	SS1, 500	10 to 15	600	SS1, 400				
15 to 20	600	SS1, 400	15 to 20	500	SS1, 300				
20 to 25	600	400	20 to 25	500	300				
25 to 30	500	300	25 to 30	400	DSL, 300				
30 to 45	300	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 300	12.5/8, DSL, 300				
45 to 90	12.5/8, DSC, 300	N/A	45 to 90	N/A	N/A				
Inline termination	300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 300	12.5/8, DSC, 300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	500	Up to 10 degrees	600	SS1, 400				
10 to 15	600	SS1, 400	10 to 15	500	SS1, 300				
15 to 20	500	SS1, 300	15 to 20	SS1, 400	SS1, 300				
20 to 25	500	300	20 to 25	400	DSL, 300				
25 to 30	400	DSL, 500	25 to 30	300	DSL, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	SS1, 500				
10 to 15	700	SS1, 500	10 to 15	600	SS1, 400				
15 to 20	600	SS1, 400	15 to 20	SS1, 500	SS1, 300				
20 to 25	600	300	20 to 25	500	300				
25 to 30	500	300	25 to 30	400	DSL, 500				
30 to 45	300	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
Up to 6 degrees	No stay required		Up to 4 degrees	No stay required					
6 to 10	700	700	4 to 10	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	700				
20 to 25	700	700	20 to 25	700	700				
25 to 30	700	700	25 to 30	700	600				
30 to 45	700	500	30 to 45	600	400				
45 to 90	DSC, 500	DSC, 500	45 to 90	DSC, 600	DSC, 400				
Inline termination	700	500	Inline termination	600	400				
Max 0 degree	No stay required		Max 0 degree	No stay required					
Up to 10 degrees	700	600	Up to 10 degrees	700	SS1, 500				
10 to 15	700	SS1, 400	10 to 15	600	SS1, 400				
15 to 20	600	SS1, 400	15 to 20	SS1, 500	SS1, 300				
20 to 25	500	300	20 to 25	500	300				
25 to 30	500	DSL, 500	25 to 30	400	DSL, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR		DATE: 10-06-2015	
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 2/4)				ORIGINATED: AT		SCALE: NTS	
								CHECKED: DVT		APPROVED: GRANT STACY	
								REV. C		SHT. 2/3	

11m/6kN Pole (3 of 4)

Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)					
				Wind Region A		Deviation Angle (deg)	Wind Region B		
				45° Stay	60° Stay		45° Stay	60° Stay	
Span Length < 1.65m		HV + RE 7/2.00 SC/GZ 25%	Up to 8 degrees	No stay required		Up to 6 degrees	No stay required		
			8 to 10	700	700	6 to 10	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	700	
			20 to 25	700	700	20 to 25	700	700	
			25 to 30	700	700	25 to 30	700	700	
			30 to 45	700	600	30 to 45	700	500	
			45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500	
			Inline termination	700	600	Inline termination	700	500	
		HV + RE 7/2.75 SC/GZ 25%	Up to 4 degrees	No stay required		Up to 2 degrees	No stay required		
			4 to 10	700	700	2 to 10	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	600	15 to 20	700	600	
			20 to 25	700	600	20 to 25	700	600	
			25 to 30	700	500	25 to 30	700	500	
			30 to 45	600	300	30 to 45	500	300	
			45 to 90	DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 400	
			Inline termination	500	300	Inline termination	500	300	
Span Length < 2.50m		3HV + RE 7/2.00 SC/GZ 25%	Up to 2 degrees	No stay required		Max 0 degree	No stay required		
			2 to 10	700	700	Up to 10 degrees	700	700	
			10 to 15	700	600	10 to 15	700	600	
			15 to 20	700	500	15 to 20	700	500	
			20 to 25	700	500	20 to 25	700	500	
			25 to 30	700	400	25 to 30	600	400	
			30 to 45	500	DSL, 500	30 to 45	400	DSL, 500	
			45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 400	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	
			Inline termination	500	DSC, 500	Inline termination	400	DSC, 500	
		3HV + RE 7/2.75 SC/GZ 25%	Max 0 degree	No stay required		Max 0 degree	No stay required		
			Up to 10 degrees	700	500	Up to 10 degrees	700	500	
			10 to 15	600	SS1, 400	10 to 15	600	SS1, 400	
			15 to 20	500	SS1, 300	15 to 20	500	SS1, 300	
			20 to 25	500	300	20 to 25	400	300	
			25 to 30	400	DSL, 400	25 to 30	400	DSL, 500	
			30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300	
			45 to 90	N/A	N/A	45 to 90	N/A	N/A	
			Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300	
Span Length < 2.50m		HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required		Up to 4 degrees	No stay required		
			6 to 10	700	700	4 to 10	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	700	
			20 to 25	700	700	20 to 25	700	700	
			25 to 30	700	700	25 to 30	700	700	
			30 to 45	700	600	30 to 45	700	500	
			45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500	
			Inline termination	700	600	Inline termination	700	500	
		HV + RE 3/2.75 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 4 degrees	No stay required		
			6 to 10	700	700	4 to 10	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	700	
			20 to 25	700	700	20 to 25	700	700	
			25 to 30	700	700	25 to 30	700	700	
			30 to 45	700	600	30 to 45	700	500	
			45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500	
			Inline termination	700	600	Inline termination	700	500	
HV + RE 7/1.60 SC/GZ 25%	Up to 8 degrees	No stay required		Up to 6 degrees	No stay required				
	8 to 10	700	700	6 to 10	700	700			
	10 to 15	700	700	10 to 15	700	700			
	15 to 20	700	700	15 to 20	700	700			
	20 to 25	700	700	20 to 25	700	700			
	25 to 30	700	700	25 to 30	700	700			
	30 to 45	700	700	30 to 45	700	600			
	45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 600			
	Inline termination	700	700	Inline termination	700	600			
HV + RE 7/2.00 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required				
	6 to 10	700	700	2 to 10	700	700			
	10 to 15	700	700	10 to 15	700	700			
	15 to 20	700	700	15 to 20	700	700			
	20 to 25	700	700	20 to 25	700	700			
	25 to 30	700	700	25 to 30	700	600			
	30 to 45	700	600	30 to 45	600	500			
	45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500			
	Inline termination	700	600	Inline termination	700	500			
HV + RE 7/2.75 SC/GZ 25%	Up to 2 degrees	No stay required		Max 0 degree	No stay required				
	2 to 10	700	700	Up to 10 degrees	700	700			
	10 to 15	700	600	10 to 15	700	600			
	15 to 20	700	500	15 to 20	700	SS1, 500			
	20 to 25	700	500	20 to 25	700	500			
	25 to 30	700	500	25 to 30	600	400			
	30 to 45	500	DSL, 500	30 to 45	400	DSL, 500			
	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 400	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
	Inline termination	500	DSC, 400	Inline termination	400	DSC, 500			
3HV + RE 3/2.75 SC/AC 25%	Max 0 degree	No stay required		Max 0 degree	No stay required				
	Up to 10 degrees	700	700	Up to 10 degrees	700	600			
	10 to 15	700	600	10 to 15	700	500			
	15 to 20	700	500	15 to 20	600	SS1, 400			
	20 to 25	700	500	20 to 25	600	400			
	25 to 30	700	400	25 to 30	500	400			
	30 to 45	500	DSL, 500	30 to 45	400	DSL, 500			
	45 to 90	12.5/8, DSC, 500	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
	Inline termination	500	DSC, 500	Inline termination	400	DSC, 500			
3HV + RE 3/2.75 SC/GZ 25%	Max 0 degree	No stay required		Max 0 degree	No stay required				
	Up to 10 degrees	700	700	Up to 10 degrees	700	600			
	10 to 15	700	600	10 to 15	700	500			
	15 to 20	700	500	15 to 20	600	SS1, 400			
	20 to 25	700	500	20 to 25	600	400			
	25 to 30	700	400	25 to 30	600	300			
	30 to 45	600	DSL, 500	30 to 45	400	DSL, 500			
	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
	Inline termination	400	DSC, 500	Inline termination	400	DSC, 500			

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD				
				TITLE				DRAWN: JRR DATE: 10-06-2015		DRG. No.		
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 3/4)				ORIGINATED: AT SCALE: NTS		R16/2/4		
								CHECKED: DVT		REV. C		
								APPROVED: GRANT STACY		SHT.		
REV	DATE	DESCRIPTION	DRGO	CHKD	APRD							
C	08.03.16	TABLE REVISED		AT	DVT	GS						
B	11.08.15	TABLE REVISED		AT	DVT	GS						
A	16.06.15	ORIGINAL ISSUE		AT	DVT	GS						

11m/6kN Pole (4 of 4)

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
					Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Span Length < 300 m			HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
				6 to 10	700	700	2 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	600
				30 to 45	700	500	30 to 45	700	500
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 500
				Inline termination	700	500	Inline termination	700	500
				Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
			6 to 10	700	700	2 to 10	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	700	
			20 to 25	700	700	20 to 25	700	700	
			25 to 30	700	700	25 to 30	700	600	
			30 to 45	700	500	30 to 45	700	500	
			45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 500	
			Inline termination	700	500	Inline termination	700	500	
			Up to 8 degrees	No stay required		up to 4 degrees	No stay required		
			8 to 10	700	700	4 to 10	700	700	
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	700				
20 to 25	700	700	20 to 25	700	700				
25 to 30	700	700	25 to 30	700	700				
30 to 45	700	600	30 to 45	700	600				
45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 600				
Inline termination	700	600	Inline termination	700	600				
Up to 4 degrees	No stay required		Up to 2 degrees	No stay required					
4 to 10	700	700	2 to 10	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	600				
20 to 25	700	700	20 to 25	700	600				
25 to 30	700	700	25 to 30	700	600				
30 to 45	700	500	30 to 45	600	400				
45 to 90	DSC, 700	12.5/8, DSC, 500	45 to 90	DSC, 600	DSC, 400				
Inline termination	700	500	Inline termination	600	400				
Max 4 degrees	No stay required		Max 0 degree	No stay required					
4 to 10	700	700	Up to 10 degrees	700	600				
10 to 15	700	600	10 to 15	700	500				
15 to 20	700	500	15 to 20	700	SS1, 500				
20 to 25	700	500	20 to 25	400	400				
25 to 30	700	400	25 to 30	600	400				
30 to 45	400	DSL, 500	30 to 45	400	DSL, 500				
45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 400	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300				
Inline termination	400	DSC, 500	Inline termination	400	DSC, 500				

- Notes:
- Use 11m/6kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified
 - 12.5/8 Use 12.5m/8kN pole with standard embedment depth (Drawing R13-3 in DCSH)
 - SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor
 - DSL Double Stay (both stays inline with bisector load's direction)
 - DSC Double Stay (Stays to be inline with conductor's direction)

- 19/2.00 SC/GZ Stay and 200mm Screw Anchor for < 20° Deviation
- 19/2.75 SC/GZ Stay and 300mm Screw Anchor for ≥ 20° Deviation
- Use standard pole with standard embedment depth
- SSP2 Use Use SSP2 as per Drawing R13-2 in DCSH (12.5m/8kN pole with Embedment Depth of 2.8m)
- N/A Not Applicable (Specific Design Required)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR		DATE: 11-06-2015	
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 11m (Sht. 4/4)				ORIGINATED: AT		SCALE: NTS	
								CHECKED: DVT		REV. C	
								APPROVED: GRANT STACY		SHT. 4	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
C	08.03.16	TABLE REVISED	AT	DVT	GS						
B	11.08.15	TABLE REVISED	AT	DVT	GS						
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS						



12.5m/6kN (1 of 4)				Maximum Allowable Protrusion above Ground (mm)								
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A			Deviation Angle (deg)	Wind Region B			
					45° Stay	60° Stay	Out-rigger Stay		45° Stay	60° Stay	Out-rigger Stay	
Metro or Urban	Span Length < 60m		3HV + RE or 4 LV 7/4.75 AAAC 7%	Up to 18 degrees	No stay required			Up to 13 degrees	No stay required			
				18 to 20	700	700	700	13 to 15	700	700	700	
				20 to 25	700	700	700	15 to 20	700	700	600	
				25 to 30	700	700	600	20 to 25	700	700	600	
				30 to 45	700	600	SSP3, 400	25 to 30	700	700	500	
				45 to 90	DSC, 600	DSC, 400	N/A	30 to 45	700	500	SSP3, 300	
				Inline termination	700	600	SSP3, 400	45 to 90	DSC, 700	DSC, 500	N/A	
			3HV + RE or 4 LV 19/3.25 AAAC 7%	Up to 13 degrees	No stay required			Up to 10 degrees	No stay required			
			13 to 15	700	700	700	10 to 15	700	700	600		
			15 to 20	700	700	600	15 to 20	700	700	500		
			20 to 25	700	700	600	20 to 25	700	700	500		
			25 to 30	700	700	500	25 to 30	700	600	400		
		30 to 45	700	500	SSP3, 300	30 to 45	600	400	N/A			
		45 to 90	DSC, 700	DSC, 500	N/A	45 to 90	DSC, 600	DSC, 400	N/A			
		Inline termination	700	500	SSP3, 300	Inline termination	600	400	N/A			
		3HV + RE or 4LV 7/2.75 Cu 15%	Up to 18 degrees	No stay required			Up to 13 degrees	No stay required				
		18 to 20	700	700	700	13 to 15	700	700	700			
		20 to 25	700	700	700	15 to 20	700	700	700			
		25 to 30	700	700	700	20 to 25	700	700	700			
		30 to 45	700	700	500	25 to 30	700	700	600			
		45 to 90	DSC, 700	DSC, 700	N/A	30 to 45	700	700	400			
		Inline termination	700	700	500	45 to 90	DSC, 700	DSC, 700	N/A			
		3HV + RE or 4LV 19/0.101 HD8C 15%	Up to 8 degrees	No stay required			Up to 6 degrees	No stay required				
		8 to 10	700	700	700	6 to 10	700	700	700			
		10 to 15	700	700	600	10 to 15	700	700	600			
		15 to 20	700	700	500	15 to 20	700	700	500			
		20 to 25	700	700	500	20 to 25	700	600	400			
		25 to 30	700	600	400	25 to 30	700	600	SSP3, 300			
		30 to 45	500	400	N/A	30 to 45	500	300	N/A			
		45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A			
		Inline termination	500	400	N/A	Inline termination	500	300	N/A			
		3HV + RE + ABC 7/4.75 AAAC 7% LV ABC 150 7%	Up to 8 degrees	No stay required			Up to 4 degrees	No stay required				
		8 to 10	700	700	700	4 to 10	700	700	600			
		10 to 15	700	700	600	10 to 15	700	700	500			
		15 to 20	700	700	500	15 to 20	700	700	500			
		20 to 25	700	700	500	20 to 25	700	600	SSP3, 400			
25 to 30	700	600	SSP3, 400	25 to 30	700	500	SSP3, 300					
30 to 45	600	400	N/A	30 to 45	500	400	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 400	N/A					
Inline termination	600	400	N/A	Inline termination	500	400	N/A					
3HV + RE + ABC 19/3.25 AAAC 7% LV ABC 150 7%	Up to 6 degrees	No stay required			Up to 3 degrees	No stay required						
6 to 10	700	700	600	3 to 10	700	700	600					
10 to 15	700	700	500	10 to 15	700	700	500					
15 to 20	700	600	500	15 to 20	700	600	500					
20 to 25	700	600	400	20 to 25	700	600	SSP3, 400					
25 to 30	700	600	SSP3, 300	25 to 30	700	500	SSP3, 300					
30 to 45	500	400	N/A	30 to 45	500	300	N/A					
45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
Inline termination	500	400	N/A	Inline termination	500	300	N/A					
3HV + 4LV 7/4.75 AAAC 7%	Up to 7 degrees	No stay required			Up to 4 degrees	No stay required						
7 to 10	700	700	700	4 to 10	700	700	600					
10 to 15	700	700	600	10 to 15	700	700	500					
15 to 20	700	700	600	15 to 20	700	600	400					
20 to 25	700	700	SSP3, 500	20 to 25	700	600	SSP3, 300					
25 to 30	700	600	SSP3, 400	25 to 30	700	500	N/A					
30 to 45	600	400	N/A	30 to 45	500	300	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 500	DSC, 300	N/A					
Inline termination	600	400	N/A	Inline termination	500	300	N/A					
3HV + 4LV 19/3.25 AAAC 7%	Up to 5 degrees	No stay required			Up to 3 degrees	No stay required						
5 to 10	700	700	600	3 to 10	700	700	600					
10 to 15	700	700	600	10 to 15	700	600	500					
15 to 20	700	600	SSP3, 500	15 to 20	700	500	SSP3, 400					
20 to 25	700	600	SSP3, 400	20 to 25	700	500	SSP3, 300					
25 to 30	700	500	SSP3, 300	25 to 30	600	500	SSP3, 300					
30 to 45	500	300	N/A	30 to 45	400	300	N/A					
45 to 90	DSC, 500	DSC, 400	N/A	45 to 90	DSC, 400	DSC, 300	N/A					
Inline termination	500	300	N/A	Inline termination	400	300	N/A					
3HV + 4LV 7/2.75 Cu 15%	Up to 15 degrees	No stay required			Up to 8 degrees	No stay required						
8 to 10	700	700	700	8 to 10	700	700	700					
15 to 20	700	700	600	10 to 15	700	700	600					
20 to 25	700	700	500	15 to 20	700	700	600					
25 to 30	700	700	500	20 to 25	700	700	500					
30 to 45	700	500	SSP3, 400	25 to 30	700	700	SSP3, 400					
45 to 90	DSC, 700	DSC, 500	N/A	30 to 45	600	500	N/A					
Inline termination	700	500	SSP3, 400	45 to 90	DSC, 600	DSC, 500	N/A					
3HV + 4LV 19/0.101 HD8C 15%	Up to 4 degrees	No stay required			Up to 2 degrees	No stay required						
4 to 10	700	700	600	2 to 10	700	700	500					
10 to 15	700	600	500	10 to 15	700	600	SSP3, 400					
15 to 20	700	500	SSP3, 400	15 to 20	600	SS1, 500	SSP3, 300					
20 to 25	600	500	SSP3, 300	20 to 25	600	500	N/A					
25 to 30	600	400	N/A	25 to 30	500	400	N/A					
30 to 45	300	DSL, 500	N/A	30 to 45	300	DSL, 400	N/A					
45 to 90	DSC, 600	DSC, 400	N/A	45 to 90	DSC, 300	DSC, 300	N/A					
Inline termination	300	DSC, 500	N/A	Inline termination	300	DSC, 400	N/A					

REFERENCE DRAWING

TITLE SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 12.5m (Sht. 1/4)

DISTRIBUTION CONSTR. STANDARD



DRAWN: JRR DATE: 11-06-2015 DRG. No. R16/2/6
 ORIGINATED: AT SCALE: NTS
 CHECKED: DVT
 APPROVED: GRANT STACY REV. C SHT.

C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS
REV	DATE	DESCRIPTION	DRG	CHKD	APRD



12.5m/6kN (2 of 4)				Maximum Allowable Protrusion above Ground (mm)					
Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length < 135m		HV + RE 7/4.75 AAAC 18%	Up to 3 degrees	No stay required		Max 0 degree	No stay required	
				3 to 10	700	700	Up to 10 degrees	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	600
				20 to 25	700	700	20 to 25	700	600
				25 to 30	700	700	25 to 30	700	600
				30 to 45	700	500	30 to 45	600	400
				45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	12.5/8, DSC, 400
				Inline termination	700	500	Inline termination	600	400
				HV + RE 19/3.25 AAAC 18%	Up to 2 degrees	No stay required		Max 0 degree	No stay required
			2 to 10	700	700	Up to 10 degrees	700	700	
			10 to 15	700	700	10 to 15	700	700	
			15 to 20	700	700	15 to 20	700	600	
			20 to 25	700	700	20 to 25	700	600	
			25 to 30	700	600	25 to 30	700	500	
			30 to 45	600	400	30 to 45	500	300	
			45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 300	
			Inline termination	600	400	Inline termination	500	300	
			HV + RE 6/4.75 & 7/1.60 ACSR/GZ 18%	Up to 2 degrees	No stay required		Max 0 degree	No stay required	
			2 to 10	700	700	Up to 10 degrees	700	700	
		10 to 15	700	700	10 to 15	700	700		
		15 to 20	700	700	15 to 20	700	600		
		20 to 25	700	700	20 to 25	700	600		
		25 to 30	700	600	25 to 30	700	600		
		30 to 45	600	400	30 to 45	500	400		
		45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 400		
		Inline termination	600	400	Inline termination	500	400		
		HV + RE 7/1.60 SC/GZ 25%	Up to 15 degrees	No stay required		Up to 10 degrees	No stay required		
		15 to 20	700	700	10 to 15	700	700		
		20 to 25	700	700	20 to 25	700	700		
		25 to 30	700	700	25 to 30	700	700		
		30 to 45	700	700	30 to 45	700	700		
		45 to 90	DSC, 700	DSC, 700	45 to 90	DSC, 700	DSC, 700		
		Inline termination	700	700	Inline termination	700	700		
		HV + RE 19/0.101 HDBC 23%	Up to 2 degrees	No stay required		Max 0 degree	No stay required		
		2 to 10	700	700	Up to 10 degrees	700	700		
		10 to 15	700	700	10 to 15	700	700		
		15 to 20	700	700	15 to 20	700	600		
		20 to 25	700	700	20 to 25	700	600		
		25 to 30	700	600	25 to 30	700	600		
30 to 45	600	400	30 to 45	500	400				
45 to 90	DSC, 600	DSC, 400	45 to 90	DSC, 500	12.5/8, DSC, 400				
Inline termination	600	400	Inline termination	500	400				
	3HV + RE 7/4.75 AAAC 18%	Max 0 degree	No stay required		Max 0 degree	No stay required			
		Up to 10 degrees	700	600	Up to 10 degrees	700	500		
		10 to 15	700	500	10 to 15	600	SS1, 400		
		15 to 20	600	SS1, 400	15 to 20	500	SS1, 300		
		20 to 25	600	400	20 to 25	500	300		
		25 to 30	500	300	25 to 30	400	300		
		30 to 45	12.5/8, 300	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300		
		45 to 90	N/A	N/A	45 to 90	N/A	N/A		
		Inline termination	12.5/8, 300	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300		
		3HV + RE 19/3.25 AAAC 18%	Max 0 degree	No stay required		Max 0 degree	No stay required		
	Up to 10 degrees	700	600	Up to 10 degrees	600	SS1, 500			
	10 to 15	600	SS1, 500	10 to 15	500	SS1, 400			
	15 to 20	500	SS1, 400	15 to 20	400	SS1, 300			
	20 to 25	500	300	20 to 25	400	300			
	25 to 30	400	12.5/8, DSL, 500	25 to 30	300	DSL, 500			
	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 400	12.5/8, DSL, 300			
	45 to 90	N/A	N/A	45 to 90	N/A	N/A			
	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 400	12.5/8, DSC, 300			
	3HV + RE 6/4.75 & 7/1.60 ACSR/GZ 18%	Max 0 degree	No stay required		Max 0 degree	No stay required			
	Up to 10 degrees	700	600	Up to 10 degrees	700	500			
10 to 15	700	SS1, 500	10 to 15	600	SS1, 400				
15 to 20	600	SS1, 400	15 to 20	500	SS1, 300				
20 to 25	600	400	20 to 25	500	300				
25 to 30	500	300	25 to 30	400	DSL, 500				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				
3HV + RE 7/1.60 SC/GZ 25%	Up to 8 degrees	No stay required		Up to 2 degrees	No stay required				
8 to 10	700	700	2 to 10	700	700				
10 to 15	700	700	10 to 15	700	700				
15 to 20	700	700	15 to 20	700	700				
20 to 25	700	700	20 to 25	700	700				
25 to 30	700	700	25 to 30	700	700				
30 to 45	700	500	30 to 45	700	700				
45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 700	DSC, 700				
Inline termination	700	500	Inline termination	700	700				
3HV + RE 19/0.101 HDBC 23%	Max 0 degree	No stay required		Max 0 degree	No stay required				
Up to 10 degrees	700	600	Up to 10 degrees	700	500				
10 to 15	700	500	10 to 15	600	SS1, 400				
15 to 20	600	SS1, 400	15 to 20	500	SS1, 300				
20 to 25	500	400	20 to 25	600	300				
25 to 30	500	300	25 to 30	400	300				
30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 400	30 to 45	12.5/8, DSL, 500	12.5/8, DSL, 300				
45 to 90	N/A	N/A	45 to 90	N/A	N/A				
Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 400	Inline termination	12.5/8, DSC, 500	12.5/8, DSC, 300				

REFERENCE DRAWING

TITLE
SCREW ANCHOR EMBEDMENT DEPTH
DISPENSATION TABLE FOR
DISTRIBUTION POLES - 12.5m (Sht. 2/4)

DISTRIBUTION CONSTR. STANDARD

DRAWN: JRR DATE: 11-06-2015 DRG. No. R16/2/7

ORIGINATED: AT SCALE: NTS

CHECKED: DVT

APPROVED: GRANT STACY REV. C SHT.

REV	DATE	DESCRIPTION	DRG	CHKD	APRD
C	08.03.16	TABLE REVISED	AT	DVT	GS
B	11.08.15	TABLE REVISED	AT	DVT	GS
A	16.06.15	ORIGINAL ISSUE	AT	DVT	GS



12.5m/6kN (4 of 4)

Location	Span Length	Configuration	Descriptions	Deviation Angle (deg)	Maximum Allowable Protrusion above Ground (mm)				
					Wind Region A		Deviation Angle (deg)	Wind Region B	
					45° Stay	60° Stay		45° Stay	60° Stay
Country or Rural	Span Length <300m		HV + RE 3/2.75 SC/AC 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
				6 to 10	700	700	2 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	700
				30 to 45	700	600	30 to 45	700	500
				45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500
			Inline termination	700	600	Inline termination	700	500	
			HV + RE 3/2.75 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required	
				6 to 10	700	700	2 to 10	700	700
				10 to 15	700	700	10 to 15	700	700
				15 to 20	700	700	15 to 20	700	700
				20 to 25	700	700	20 to 25	700	700
				25 to 30	700	700	25 to 30	700	700
				30 to 45	700	600	30 to 45	700	500
				45 to 90	DSC, 700	DSC, 600	45 to 90	DSC, 700	DSC, 500
			Inline termination	700	600	Inline termination	700	500	
			HV + RE 7/1.60 SC/GZ 25%	Up to 10 degrees	No stay required		Up to 4 degrees	No stay required	
				10 to 15	700	700	4 to 10	700	700
				15 to 20	700	700	10 to 15	700	700
				20 to 25	700	700	15 to 20	700	700
				25 to 30	700	700	20 to 25	700	700
				30 to 45	700	700	25 to 30	700	700
45 to 90	DSC, 700	DSC, 700		30 to 45	700	600			
45 to 90	DSC, 700	DSC, 700		45 to 90	DSC, 700	DSC, 600			
Inline termination	700	700	Inline termination	700	600				
HV + RE 7/2.00 SC/GZ 25%	Up to 6 degrees	No stay required		Up to 2 degrees	No stay required				
	6 to 10	700	700	2 to 10	700	700			
	10 to 15	700	700	10 to 15	700	700			
	15 to 20	700	700	15 to 20	700	700			
	20 to 25	700	700	20 to 25	700	700			
	25 to 30	700	700	25 to 30	700	600			
	30 to 45	700	500	30 to 45	600	600			
	45 to 90	DSC, 700	DSC, 500	45 to 90	DSC, 600	DSC, 500			
Inline termination	700	500	Inline termination	700	500				
HV + RE 7/2.75 SC/GZ 25%	Up to 2 degrees	No stay required		Max 0 degree	No stay required				
	2 to 10	700	700	Up to 10 degrees	700	700			
	10 to 15	700	700	10 to 15	700	600			
	15 to 20	700	600	15 to 20	700	500			
	20 to 25	700	600	20 to 25	700	500			
	25 to 30	700	500	25 to 30	600	400			
	30 to 45	400	DSL, 500	30 to 45	400	DSL, 500			
	45 to 90	DSC, 400	DSC, 300	45 to 90	12.5/8, DSC, 400	12.5/8, DSC, 300			
Inline termination	400	DSC, 500	Inline termination	400	DSC, 500				

Notes: Use 12m/6kN pole with standard embedment depth (Drawing R13-3 in DCSH) for all cases unless otherwise specified

12.5/8 Use 12.5m/8kN pole with standard embedment depth (Drawing R13-3 in DCSH)

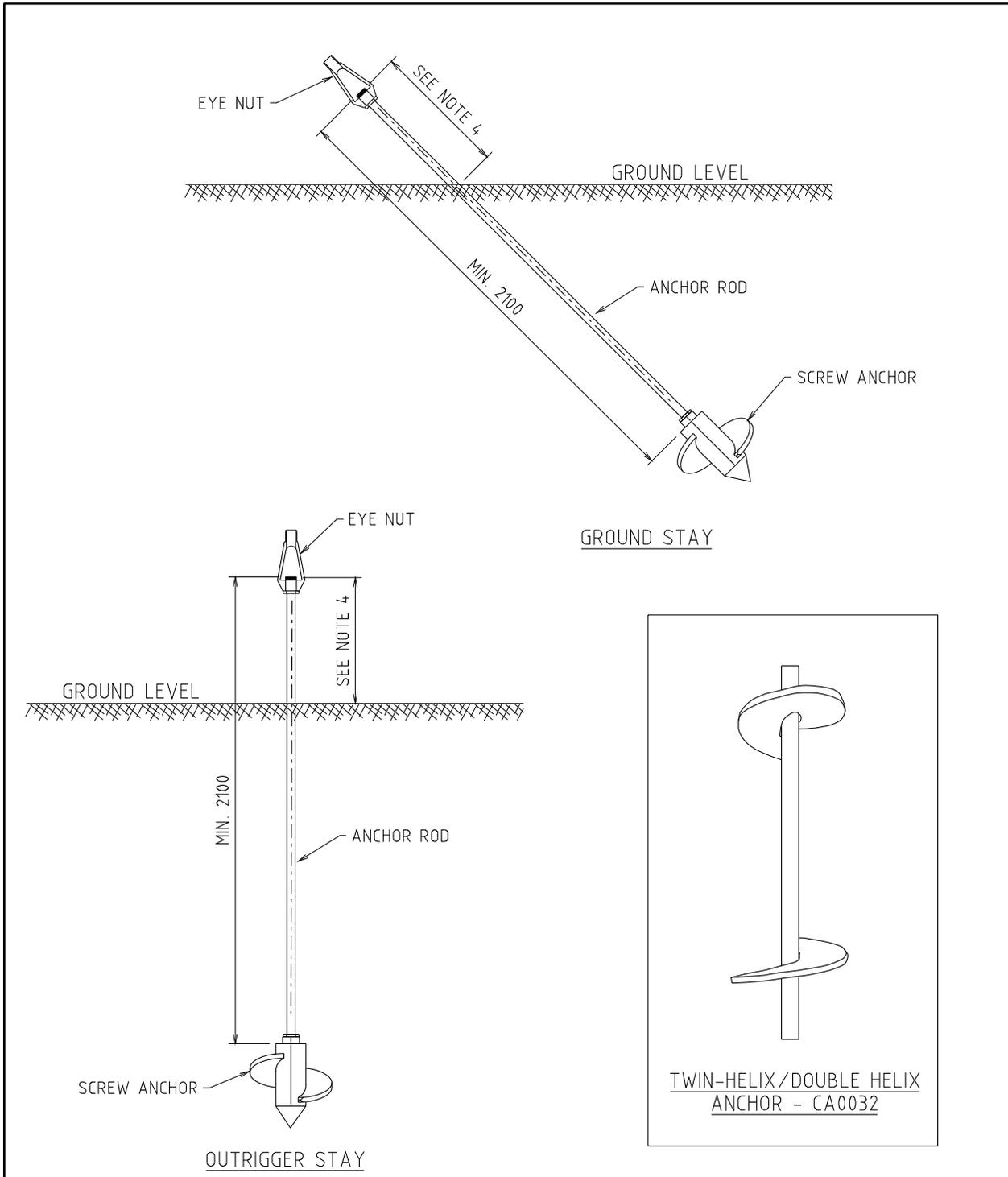
SS1 Increase stay size to 19/2.75 SC/GZ Stay with 300mm screw anchor

DSL Double Stay (both stays inline with bisector load's direction)

DSC Double Stay (Stays to be inline with conductor's direction)

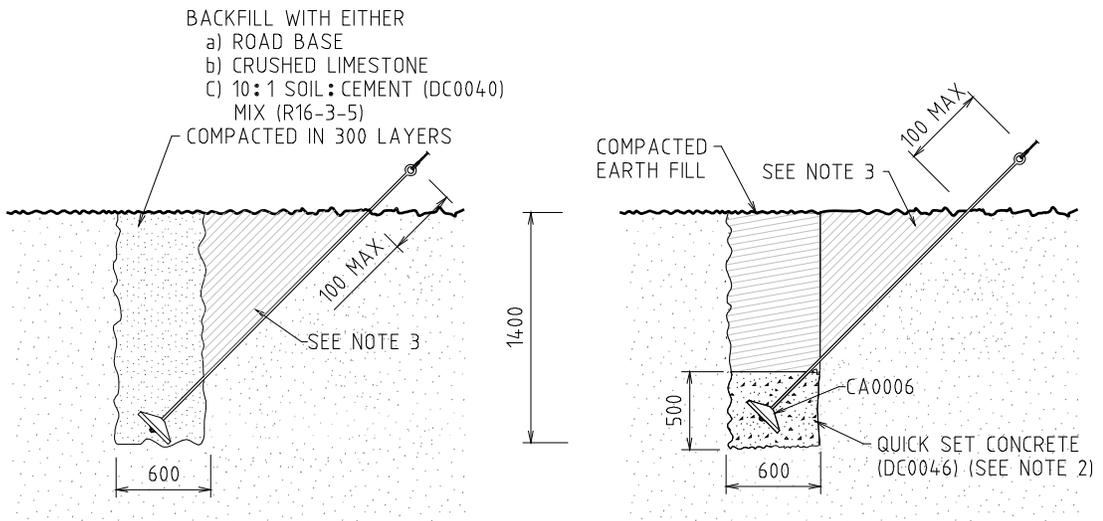
- 19/2.00 SC/GZ Stay and 200mm Screw Anchor for < 20° Deviation
- 19/2.75 SC/GZ Stay and 300mm Screw Anchor for ≥ 20° Deviation
- Use standard pole with standard embedment depth
- SSP3 Use SSP3 as per Drawing R13-2 in DCSH (14m/8kN pole with Embedment Depth of 3.0m)
- N/A Not Applicable (Specific Design Required)

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD				
				TITLE				DRAWN: JRR DATE: 11-06-2015		DRG. No.		
				SCREW ANCHOR EMBEDMENT DEPTH DISPENSATION TABLE FOR DISTRIBUTION POLES - 12.5m (Shft. 4/4)				ORIGINATED: AT SCALE: NTS		R16/2/9		
								CHECKED: DVT				
								APPROVED: GRANT STACY		REV. C SHT.		
REV	DATE	DESCRIPTION	DRG	CHKD	APRD							
C	08.03.16	TABLE REVISED		AT	DVT	GS						
B	11.08.15	TABLE REVISED		AT	DVT	GS						
A	16.06.15	ORIGINAL ISSUE		AT	DVT	GS						



- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. START WITH TWIN HELIX FOR HARD ROCKY SOILS.
 3. ANCHOR DIRECTION IS ALIGNED TO STAY WIRE.
 4. CHECK FOR MAXIMUM ALLOWABLE PROTRUSION ABOVE GROUND IN R16-2.

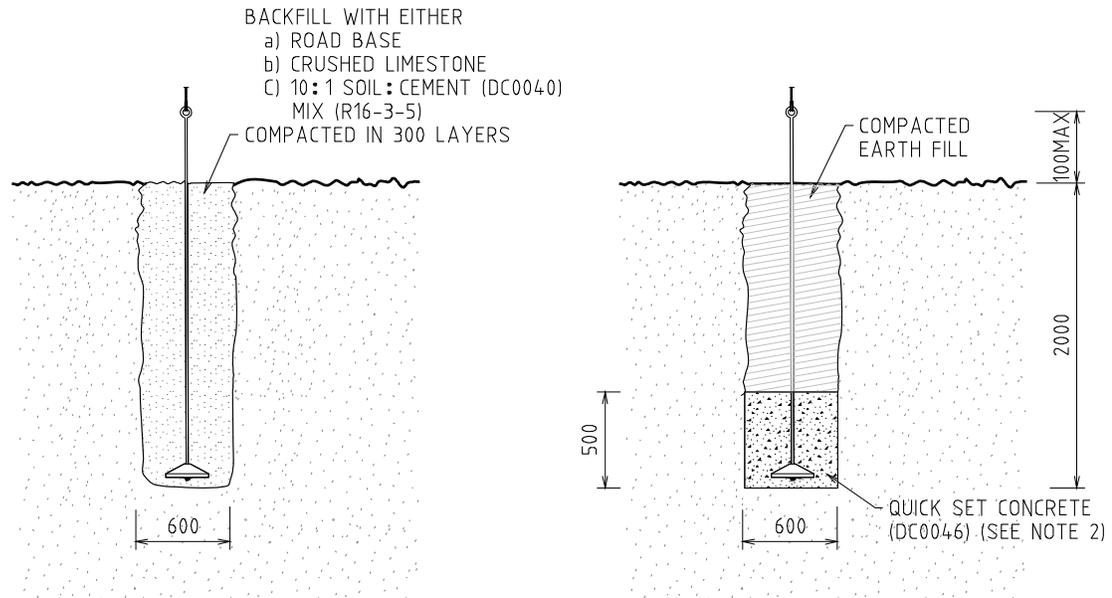
				REFERENCE			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE						
				SCREW ANCHOR INSTALLATION FOR MEDIUM TO HARD SOIL						
B	08.12.22	NOTES REVISED AND MORE DETAILS ADDED		SJ	LT	GS	DRAWN: JRR		DATE: 29-06-2017	DRG. No.
A	02.08.17	ORIGINAL ISSUE		DVT	LT	GS	ORIGINATED: DVT		SCALE: NTS	R16-3-1
REV	DATE	DESCRIPTION		DRGD	CHKD	APPRD	CHECKED: LT		APPROVED:	
							GRANT STACY		B	



OPTION 1

GROUND STAY

OPTION 2



OPTION 1

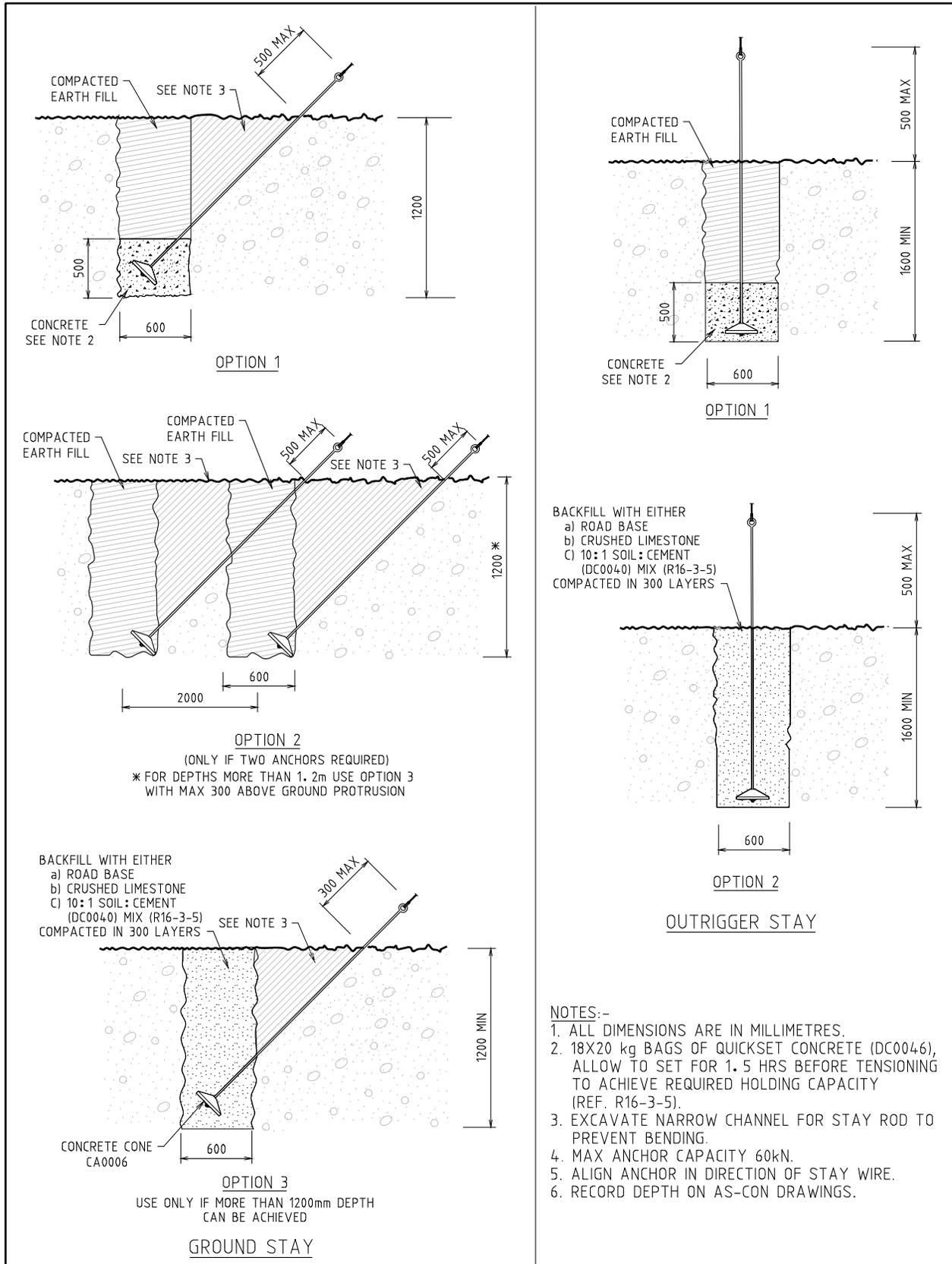
OUTRIGGER STAY

OPTION 2

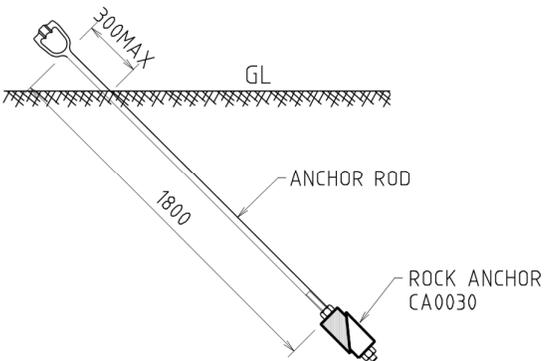
NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. 18X20 KG BAGS OF QUICKSET CONCRETE (DC0046), ALLOW TO SET FOR 1.5 HRS. BEFORE TENSIONING TO ACHIEVE REQUIRED HOLDING CAPACITY (REF. R16-3-5).
3. EXCAVATE NARROW CHANNEL FOR STAY ROD TO PREVENT BENDING.
4. MAX ANCHOR CAPACITY 60kN.
5. ALIGN ANCHOR IN DIRECTION OF STAY WIRE.
6. RECORD DEPTH ON AS-CON DRAWINGS.

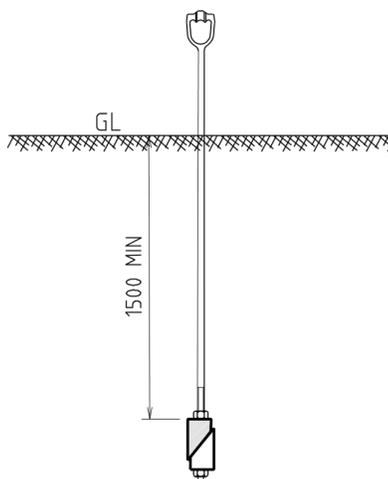
				REFERENCE				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR DATE: 03-07-2017		DRG. No.	
				ANCHOR INSTALLATION FOR SOFT SOILS				ORIGINATED: DVT SCALE: NTS		R16-3-2	
								CHECKED: LT		REV. SHT.	
								APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD						
B	08.12.22	ANCHOR CHANGED		SJ	LT	GS					
A	02.08.17	ORIGINAL ISSUE		DVT	LT	GS					



				REFERENCE			DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE			DRAWN: JRR DATE: 03-07-2017		DRG. No.	
				ANCHOR INSTALLATION FOR HARD SOIL			ORIGINATED: DVT SCALE: NTS		R16-3-3	
							CHECKED: LT		REV. C	
							APPROVED: GRANT STACY		SHT.	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD					
C	08.12.22	NOTE REVISED AND OPTION 3 ADDED	SJ	LT	GS					
B	21.08.17	NOTE ADDED TO GROUND ANCHOR OPTION 2	DVT	LT	GS					
A	02.08.17	ORIGINAL ISSUE	DVT	LT	GS					



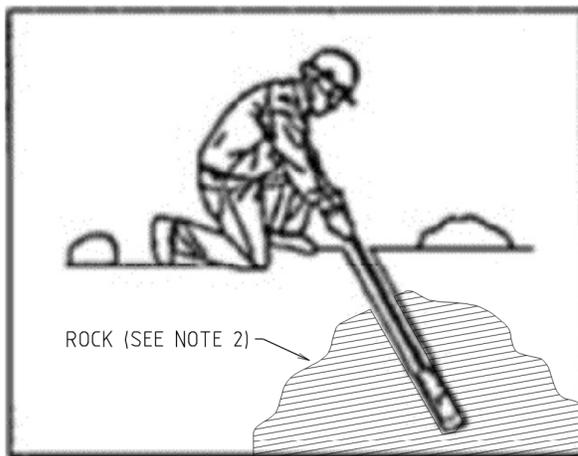
GROUND STAY



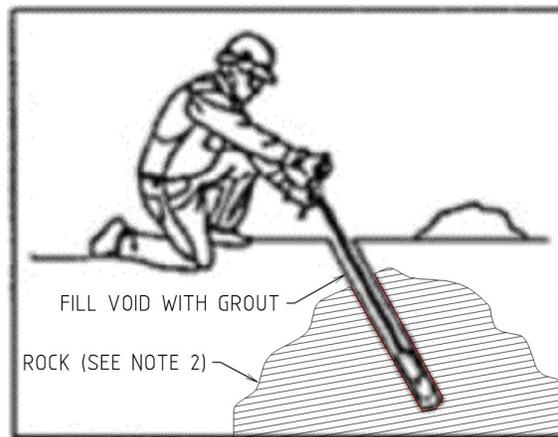
OUTRIGGER STAY



DRILL HOLE



PUSH ANCHOR INTO HOLE



USING BAR TURN ROD TO FIRMLY EXPAND AGAINST WALLS OF HOLE

- NOTES:-
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. MIN. PENETRATION IN ROCK 600mm TO ACHIEVE REQUIRED HOLDING CAPACITY.
 3. MAX HOLE SIZE 63mm, RECOMMENDED DRILL SIZE 60mm.
 4. HOLE DRILLING SHALL ALIGN TO STAY WIRE.
 5. FOR GROUT PREPARATION REF R16-3-5

				REFERENCE				DISTRIBUTION CONSTR STANDARD		westernpower	
				TITLE				DRAWN JRR DATE 30-06-2017		DRG No	
				ANCHOR INSTALLATION FOR ROCK				ORIGINATED DVT SCALE NTS		R16-3-4	
								CHECKED LT		REV B	
								APPROVED GRANT STACY		SHT	
REV	DATE	DESCRIPTION	DRG	CHKD	APRD						
B	08 12 22	EXPANSION ROCK ANCHOR ADDED		SJ	LT	GS					
A	02 08 17	ORIGINAL ISSUE		DVT	LT	GS					

SOIL & CEMENT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:

- a. SOIL - CLEAN NATIVE SOIL FREE FROM ORGANIC MATERIAL (GRASS, ROOTS ETC.,)
 - b. CEMENT (DC0040 - 20KG BAGS)
 - c. POTABLE WATER
2. SOIL & CEMENT DRY MIXING - MIX 10 PARTS SOIL TO 1 PART CEMENT
 3. MOISTURE CONDITIONING - MOISTEN THE EXCAVATED AUGAR HOLE IF IT IS DRY.
 4. BACKFILL WITH DRY SOIL & CEMENT MIX IN 300MM LAYER
 5. SPRINKLE WITH CLEAN WATER AND WELL COMPACT
 6. REPEAT STEP 3 TO 4 TILL GROUND LEVEL IS ACHIEVED

CAUTION - FOR WET SOILS, MOISTURE CONDITIONING IS NOT REQUIRED
FOR SWAMPY SOILS/ POOR SOILS, ROAD BASE AS BACKFILL IS PREFERRED OPTION.

MATERIAL ESTIMATE FOR R16-3-2 AND R16-3-3				
DIAMETER OF AUGAR HOLE	600MM		700MM	
	CEMENT 20KG BAGS (DC0046)	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME	CEMENT 20KG BAGS (DC0046)	SOIL MEASURED EQUIVALENT TO CEMENT BAG IN VOLUME
1200	2	12	3	17
1400	3	14	4	20
1600	3	16	4	22
2000	4	20	5	28

QUICKSET CONCRETE PREPARATION GUIDELINE

1. MATERIAL REQUIRED:

- a. QUICKSET CONCRETE - DC0046
 - b. POTABLE WATER
2. USE APPROX 2 LITRE OF WATER PER BAG TO PREPARE QUICKSET CONCRETE (DC0046)
 3. MIX WELL TO THICK CONSISTENCY.
 4. MOISTURE CONDITIONING: MOISTEN THE EXCAVATED AUGAR HOLE IF IT IS DRY.
 5. POUR THE MIXED QUICKSET CONCRETE IN EXCAVATED HOLE IN 150MM LAYER
 6. PLACE CONCRETE CONE ANCHOR (CA006) AT REQUIRED ANGLE, POUR REMAINING CONCRETE AND TAMP
 7. ALLOW TO SET FOR 1.5 HOURS BEFORE TENSIONING TO ACHIEVE REQUIRED HOLDING CAPACITY

CAUTION - CONCRETE STARTS TO SET IN 15 MINUTES OF MIXING

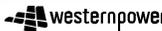
DIAMETER OF AUGAR HOLE	DEPTH OF IN SITU CONCRETE BLOCK	QUICKSET CONCRETE 20 KG BAG DC0046	POTABLE WATER LITRE	MIN. SETTING TIME BEFORE TENSIONING
700MM	500MM	18	36	1.5 Hrs.

GROUT PREPARATION GUIDELINE

1. MATERIAL REQUIRED:

- a. CEMENT - DC0040
 - b. POTABLE WATER
2. SLOWLY ADD WATER TO DRY CEMENT (DC0040)
 3. MIX WELL TO POURABLE CREAMY CONSISTENCY

DIAMETER OF HOLE	DEPTH	CEMENT BAG 20 KG BAG DC0040
63MM	UPTO 1000MM	1

				REFERENCE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 24-11-2022		DRG. No.	
				BACKFILL/ CONCRETE MIXING		ORIGINATED: SJ SCALE: NTS		R16-3-5	
						CHECKED: LT		APPROVED: GRANT STACY	
						APPROVED:		REV. A SHT.	
REV	DATE	DESCRIPTION	ORGD	CHKD	APPRD				
A	08.12.22	ORIGINAL ISSUE		SJ	LT	GS			

WOOD SCREWS

- WOOD SCREWS FOR FIXING SMALL ITEMS TO POLES, EG. SADDLES, CLEATS, END OF DISPERSION PLATES, GUARDS, SIGNS, POLE LABELS, ETC. (WOOD POLES ONLY).

STOCK CODE	DESCRIPTION	UNIT	TYPICAL APPLICATION
AS2512	WOOD SCREW 25mm LONG	PACK OF 500	HARD WOOD POLES *
AS2513	WOOD SCREW 50mm LONG	PACK OF 1000	SOFT WOOD POLES

* AS2512 MAY BE USED ON SOFT WOOD POLES TO ATTACH POLE LABELS.

COACH SCREWS

- COACH SCREWS FOR FIXING CABLE SUPPORTS (LV MAINS AND MV CABLES).
- REQUIRE PRE DRILLING (HOLE SIZE DEPENDANT ON WOOD TYPE)
- NOT TO BE HAMMER APPLIED.

STOCK CODE	DESCRIPTION	UNIT	HOLE SIZE	
			SOFT WOOD	HARD WOOD
AS1421	COACH SCREW M10, 50mm LONG	EACH	6mm MAX	8mm MAX
AS1423	COACH SCREW M10, 75mm LONG	EACH	6mm MAX	8mm MAX
AS1440	COACH SCREW M12, 65mm LONG	EACH	8mm MAX	10mm MAX
AS1441	COACH SCREW M12, 75mm LONG	EACH	8mm MAX	10mm MAX
AS1442	COACH SCREW M12, 90mm LONG	EACH	8mm MAX	10mm MAX
AS1443	COACH SCREW M12, 100mm LONG	EACH	8mm MAX	10mm MAX

POLE STRAPS

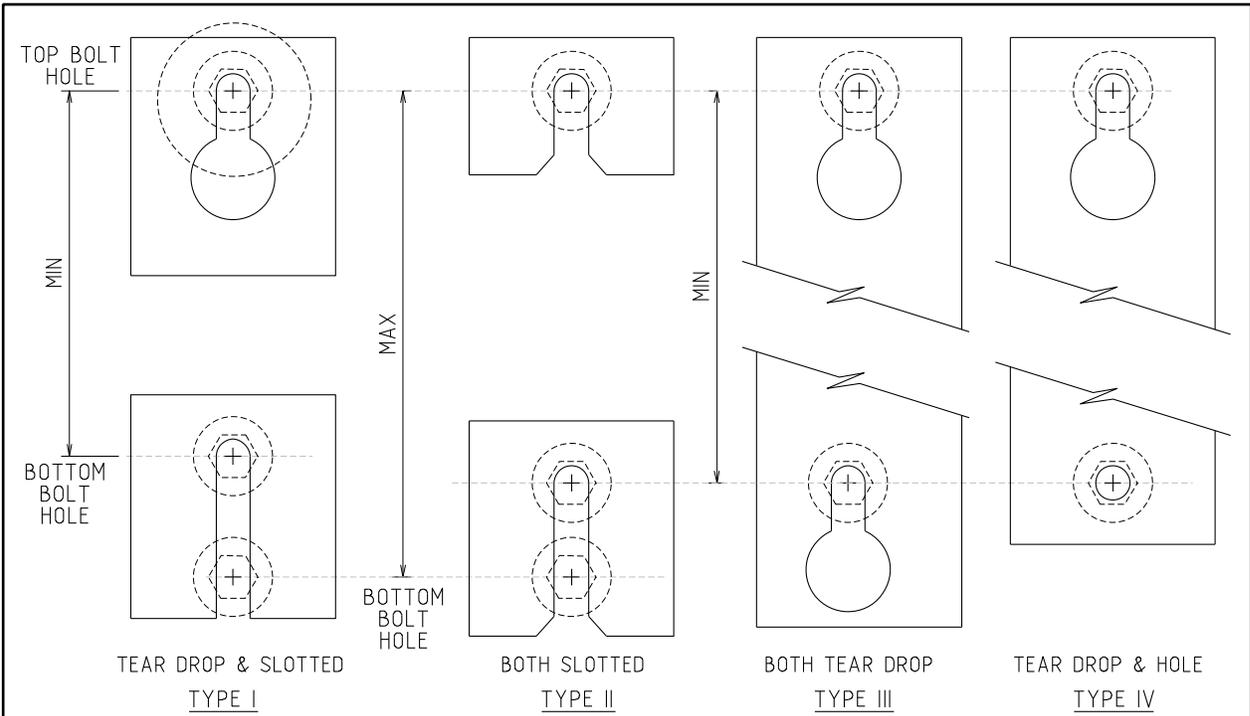
- POLE STRAPS FOR FIXING ITEMS TO CONCRETE POLES.

STOCK CODE	COMPATIBLE CLIP STOCK CODE	DESCRIPTION	UNIT	TYPICAL APPLICATION
OZ0012	OZ0017	STAINLESS STEEL STRAP 15.8mm	30m ROLL	NON-STRUCTURAL ATTACHMENTS
OZ0025	OZ0015	STAINLESS STEEL STRAP 32mm	30m ROLL	STRUCTURAL - MAX. 100kg

LOADS MORE THAN 100kg REQUIRE STRUCTURAL ASSESSMENT.

				REFERENCE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 07-12-2018		DRG. No.	
				POLE FIXINGS		ORIGINATED: CO SCALE: NTS		R17-1	
						CHECKED: NMc			
						APPROVED: GRANT STACY		REV. A	
A	22.02.19	ORIGINAL ISSUE		CO	NMc	GS			
REV	DATE	DESCRIPTION		DRGD	CHKD	APPRD			





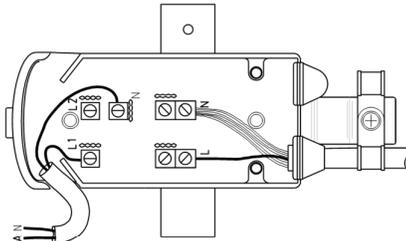
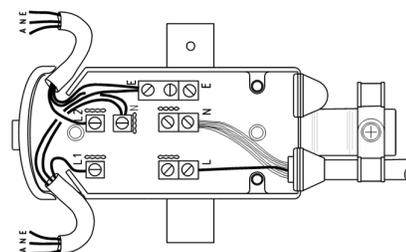
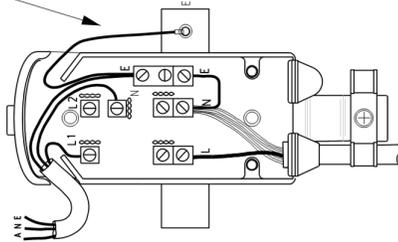
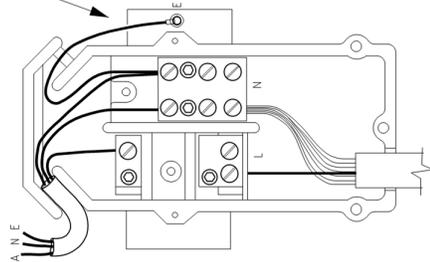
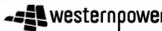
Equipment Type	Make & Model	Stock Code	Dimension TOP bolt to BOTTOM bolt		Type
			MIN (mm)	MAX (mm)	
Transformers All single phase (old & new)	Tyree	XT0202-XT0210	285	335	2
	ETEL	XT0202-XT0210	285	335	2
	ABB	XT0007-XT0040	285	335	2
Reclosers	NuLec N Series (N27) 3 phase	GS0311	360	380	1
	NuLec N Series (N33) 3 phase	GS0312	360	380	1
	NuLec W Series (W24) 1 phase	GS0310	360	380	1
	NOJA OSM38 3 phase	GS0315* & GS0320	280	320	1
	NOJA OSM 1 phase	GS0314* & GS0319	280	320	1
LBS (Load Break Switch)	Nulec RL38	GS0131	360	380	1
Capacitor Banks	ABB 22kV	RC0001/RC0002	460	470	2
	ABB 33kV	RC0013/RC0014	450	455	2
	Cooper	RC0031/RC0032	480	490	2
Voltage Regulator	General Electric	XA2601	TBA	TBA	2
	General Electric	XA2602	900	930	2
Pole Top Switch	Acculec Power BTLD 36/400	GS0130	240		3
Control Kiosk	NOJA	GS0316	1020		4
	Voltage Regulator		550		4
	Cap Bank	RC0015	460		4
	Nulec (Ultra Enclosure)		1080		1

*DOES NOT INCLUDE CONTROL KIOSK

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL DIMENSIONS ARE HOLE CENTRE TO CENTRE.
3. DRILLING TOLLERANCE -0/+5mm.
4. NULEC CHANGED TO SCHNEIDER.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR		DATE: 26-04-2023	
				POLE FIXTURES				ORIGINATED: LK		SCALE: NTS	
				DRILLING DIMENSIONS FOR				CHECKED: NMc		REV. No. R17-2	
				SLOTTED POLE MOUNTED EQUIPMENT				APPROVED: CHRIS OMODEI		SHT. B	
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD						
B	03.11.23	TABLE REVISED	JT	ML	CO						
A	15.05.23	ORIGINAL ISSUE	LK	NMc	CO						

<table border="1"> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>ORGD</th> <th>CHKD</th> <th>APRD</th> </tr> <tr> <td>B</td> <td>03 08 20</td> <td>DETAILS UPDATED</td> <td>CO</td> <td>REE</td> <td>GS</td> </tr> <tr> <td>A</td> <td>16 08 18</td> <td>ORIGINAL ISSUE</td> <td>REE</td> <td>JC</td> <td>GS</td> </tr> </table>	REV	DATE	DESCRIPTION	ORGD	CHKD	APRD	B	03 08 20	DETAILS UPDATED	CO	REE	GS	A	16 08 18	ORIGINAL ISSUE	REE	JC	GS	<p>A CLASS II LED LUMINAIRE</p>  <p>NO CONNECTIONS TO EARTH. ALL EQUIPMENT CLASS II INSULATED</p>  <p>CLASS II SYMBOL INDICATED ON UNDERSIDE OF LUMINAIRE</p> 	<p>B DOUBLE INSULATED (DI) LUMINAIRE</p>  <p>Di (double insulation) indicated on the underside of the luminaire.</p>  <p>Luminaire has each terminal as parking place for earth but must NOT be earthed to the bodywork of the luminaire.</p>	<p>C SINGLE INSULATED (SI) LUMINAIRE</p> 	<p>D SINGLE INSULATED (SI) LUMINAIRE</p>  	 <p>CLASS II (TYPICAL) SEE R26-7 SERIES</p>	 <p>SEPARATE NEUTRAL/EARTH (SNE) SEE MM13-R26-3</p>	 <p>SEPARATE NEUTRAL/EARTH (SNE) CONNECTED AS COMBINED NEUTRAL/EARTH (CNE) SEE MM13-R26-2</p>	 <p>COMBINED NEUTRAL/EARTH (CNE) SEE MM13-R26-1</p>	<p>NOTES:- 1. SEE R26-6 FOR EXPLANATION.</p>								
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD																														
B	03 08 20	DETAILS UPDATED	CO	REE	GS																														
A	16 08 18	ORIGINAL ISSUE	REE	JC	GS																														
<p>REFERENCE DRAWING</p>						<p>DISTRIBUTION CONSTRN STANDARD </p>																													
<p>TITLE STREETLIGHT (LED) WIRING INSTALLATION STANDARD (PART 1)</p>						<table border="1"> <tr> <td>DRAWN</td> <td>JRR</td> <td>DATE</td> <td>04-05-2018</td> <td>DRG No</td> <td rowspan="3">R26-5</td> </tr> <tr> <td>ORIGINATED</td> <td>REE</td> <td>SCALE</td> <td>NTS</td> <td></td> </tr> <tr> <td>CHECKED</td> <td>JC</td> <td></td> <td></td> <td></td> </tr> <tr> <td>APPROVED</td> <td colspan="3">GRANT STACY</td> <td>REV</td> <td>SHT</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>B</td> <td></td> </tr> </table>		DRAWN	JRR	DATE	04-05-2018	DRG No	R26-5	ORIGINATED	REE	SCALE	NTS		CHECKED	JC				APPROVED	GRANT STACY			REV	SHT					B	
DRAWN	JRR	DATE	04-05-2018	DRG No	R26-5																														
ORIGINATED	REE	SCALE	NTS																																
CHECKED	JC																																		
APPROVED	GRANT STACY			REV	SHT																														
				B																															

STANDARD A OF R26-5 :

- ◆ CLASS II INSTALLATIONS ARE NOW STANDARD FOR ALL LED LUMINAIRE INSTALLATION.
- ◆ CLASS II INSTALLATIONS REQUIRE NO EARTH CONNECTIONS AND USES 2 CORE CABLING (NO EARTH LEAD). ALTHOUGH THE CUTOUT HAS AN EARTHING TERMINAL THIS IS NEVER USED, THE EARTH AND NEUTRAL TERMINAL MUST NOT BE BRIDGED.

STANDARD B OF R26-5 :

- ◆ DOUBLE INSULATED INSTALLATION WAS THE STANDARD FROM 2006 TO 2019.
- ◆ THE INSTALLATION REQUIRES THE USE OF A SNE SEPARATE NEUTRAL EARTH CUT-OUT BOX AT THE BASE OF THE COLUMN. ALTHOUGH BOTH THE CUT OUT AND THE LUMINAIRE HAVE EARTHING TERMINALS THEY ARE PURELY A PARKING PLACE FOR THE EARTH CABLE. THE EARTH MUST NOT BE BONDED TO THE STEEL COLUMN OR LUMINAIRE BODY AT ANY POINT AND THE EARTH MUST NOT BE BRIDGED TO THE NEUTRAL AT ANY POINT. THE INSTALLATION MUST BE WIRED IN ACCORDANCE WITH STANDARD B AND R26/3.

STANDARD C OF R26-5 :

FOR SINGLE INSULATED INSTALLATIONS. WESTERN POWER ONLY STOCK SNE SEPARATE NEUTRAL EARTH CUT-OUTS. IF REPLACING AN OLDER CNE COMMON NEUTRAL EARTH CUT-OUT FROM A SINGLE INSULATED INSTALLATION WITH A SNE CUT-OUT, IT MUST BE WIRED IN ACCORDANCE WITH STANDARD C AND MM13 - R26-2. THE EARTH MUST BE BONDED TO THE STEEL COLUMN AT THE CUT-OUT AND BONDED TO THE LUMINAIRE BODY. THE EARTH MUST ALSO BE BRIDGED TO THE NEUTRAL AT THE CUT-OUT. THIS ARRANGEMENT CAN ONLY BE USED WITH SINGLE INSULATED EQUIPMENT.

STANDARD D OF R26-5 :

OLD SINGLE INSULATED INSTALLATIONS. THIS IS A SUPERSEDED INSTALLATION THAT SHOWS AN OLD HENLEY STYLE CNE CUT-OUT WHICH HAS A COMMON NEUTRAL EARTH TERMINATION BLOCK WHICH CAN ONLY BE USED FOR SINGLE INSULATED INSTALLATIONS. THE EARTH IS BONDED TO THE COLUMN AT THE CUT-OUT AND ALSO BONDED TO THE BODY WORK OF THE LUMINAIRE. SHOULD, UPON INSPECTION, YOU FIND ONE OF THESE INSTALLATIONS CONNECTED TO A DOUBLE INSULATED LUMINAIRE, MARKED DI AS IN THE PHOTO, IT MEANS THE CUT-OUT WIRING ARRANGEMENT IS NOT COMPLIANT WITH THE TYPE OF LUMINAIRE AND THE INSTALLATION MUST BE NOTED FOR REMEDIAL ACTION. THE DOUBLE INSULATED LUMINAIRES ARE CLEARLY MARKED DI AND ARE VISIBLE FROM STREET LEVEL.

THERE CAN NOT BE ANY COMBINATION OF SINGLE OR DOUBLE INSULATED / CLASS II EQUIPMENT.

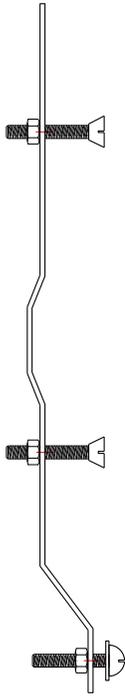
FOR ALL SYSTEMS :

- ◆ CURRENT CABLING IS 2 CORE CABLE WITH PVC OVER SHEATH (BLUE, BROWN CORES)
- ◆ THERMO - PLASTIC SHEATHED CABLING (TWIN & EARTH TPS) WAS USED FOR STREETLIGHTING UP TO 2019.
- ◆ HOWEVER, OLDER INSTALLATIONS MAY HAVE SINGLE INSULATED CABLES AND THIS SHOULD BE NOTED DURING INSPECTION. SINGLE INSULATED CABLE BETWEEN THE CUT-OUT AND THE LUMINAIRE IS NOT ACCEPTABLE WITH DOUBLE INSULATED INSTALLATIONS. THE OUTER INSULATION OF THE TPS SHOULD ONLY BE BARED BACK THE MINIMUM NECESSARY TO CONNECT TO THE CUT-OUT AND LUMINAIRE. THERE SHOULD NOT BE EXCESSIVE AMOUNTS OF EXPOSED SINGLE INSULATED TPS VISIBLE. THE NEUTRAL SCREEN FROM THE INCOMING CABLE TO THE CUT-OUT MUST BE SLEEVED.

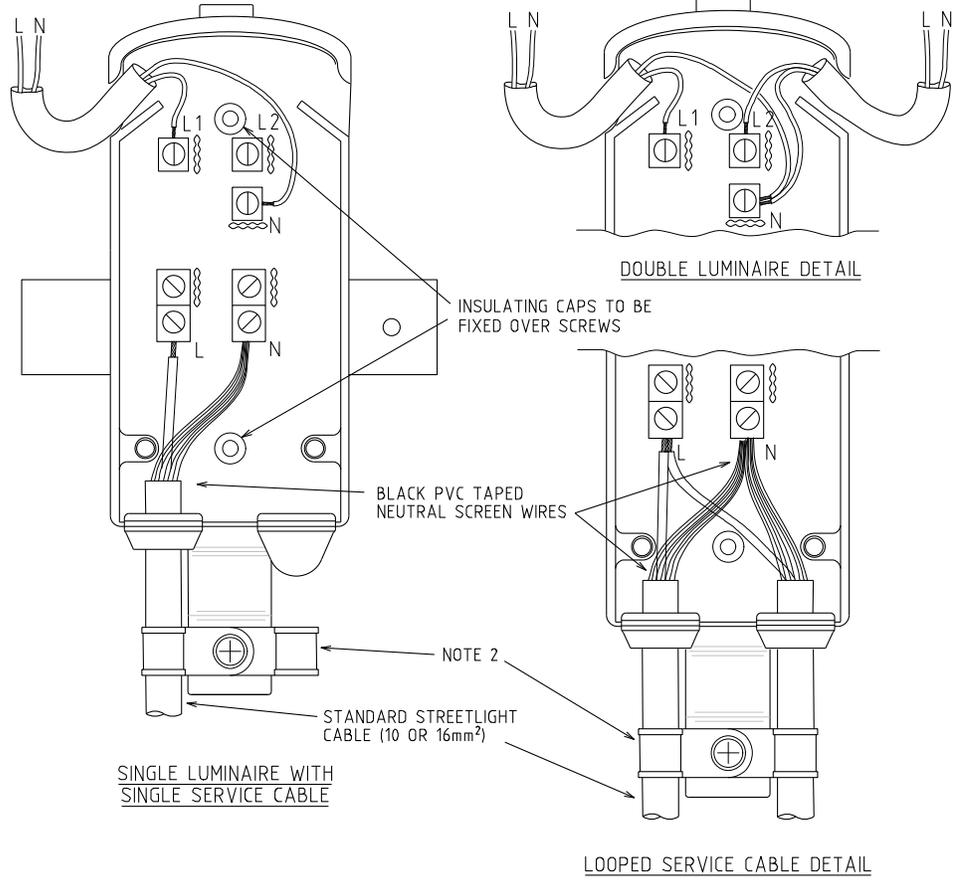
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD			
				TITLE				DRAWN: JRR		DATE: 30-12-2015	
				STREETLIGHT WIRING				ORIGINATED:		SCALE: NTS	
				INSTALLATION STANDARD				CHECKED: REE		DRG. No. R26-6	
				(PART 2)				APPROVED: GRANT STACY		REV. B	
B	16 08 18	INSTALLATION STANDARD REVISED	REE	JC	GS						
A	30 12 15	ORIGINAL ISSUE	REE	REE	GS						
REV	DATE	DESCRIPTION	DRGD	CHKD	APRD						



MOUNTING BRACKET (HZ0135)



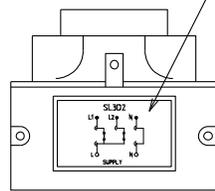
BILL CUTOUT (HZ0131)



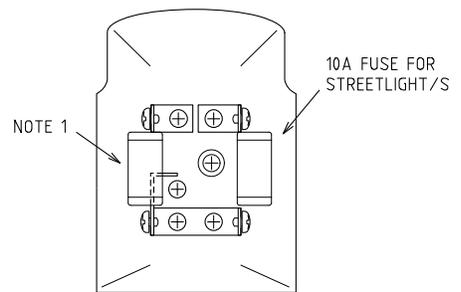
SINGLE LUMINAIRE WITH SINGLE SERVICE CABLE

LOOPEd SERVICE CABLE DETAIL

LABEL WITHOUT EARTH TERMINAL



LOWER COVER



NOTE 1

10A FUSE FOR STREETLIGHT/S

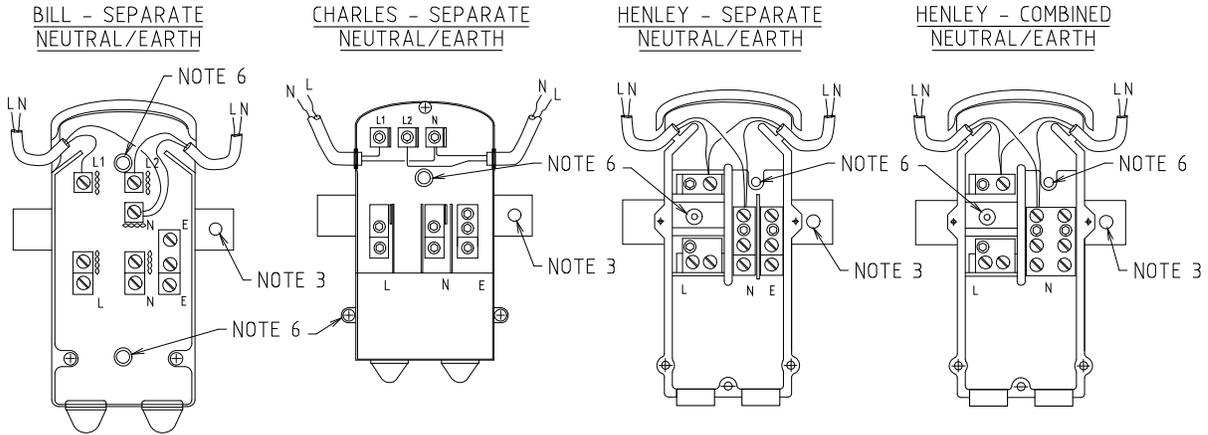
VIEW OF INSIDE OF FUSE LINK COVER

NOTES:-

1. INSERT SECOND FUSE FOR SECOND LUMINAIRE.
2. CABLE CLAMPS SUPPLIED WITH MOUNTING BRACKET.

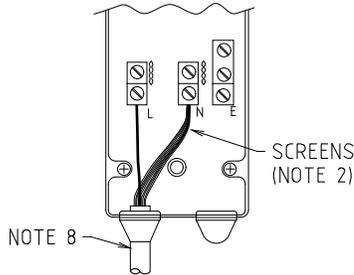
				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE				DRAWN: JRR DATE: 27-04-2018		DRG. No.	
				STREETLIGHT CUTOUT LED CLASS II LUMINAIRES				ORIGINATED: REE SCALE: NTS		R26-7-1	
								CHECKED: NMc		REV. SHT.	
								APPROVED: GRANT STACY		D	
REV	DATE	DESCRIPTION	ORGD	CHKD	APRD	REF	JC	FK			
D	27.02.24	PHASE INSULATION CLARIFIED	NMc	NMc	CO						
C	03.08.20	FUSE DETAILS REVISED	CO	NMc	GS						
B	30.10.18	ANNOTATION REVISED	CO	REE	GS						
A	16.08.18	ORIGINAL ISSUE	REE	JC	FK						

CUTOUT CONFIGURATIONS



SUPPLY CABLE CONFIGURATIONS

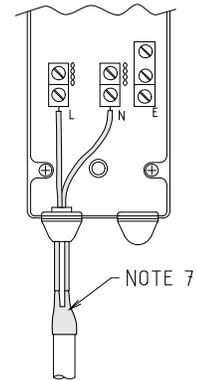
DOUBLE INSULATED HELICAL SCREENED



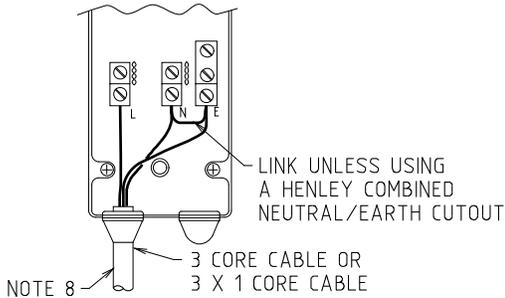
SINGLE INSULATION

APPLY MM13-01 AND INSTALL HELICAL CABLE
 BILL CUTOUT (OLD OR NEW) WITH NEW MOUNTING BRACKET (HZ0135) TO BE INSTALLED

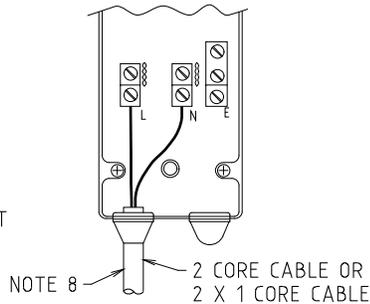
DOUBLE INSULATED HELICAL SCREENED WITH SHEATH CUT OUTSIDE OF CUTOUT



DOUBLE INSULATION TPS (ACTIVE, NEUTRAL & EARTH)



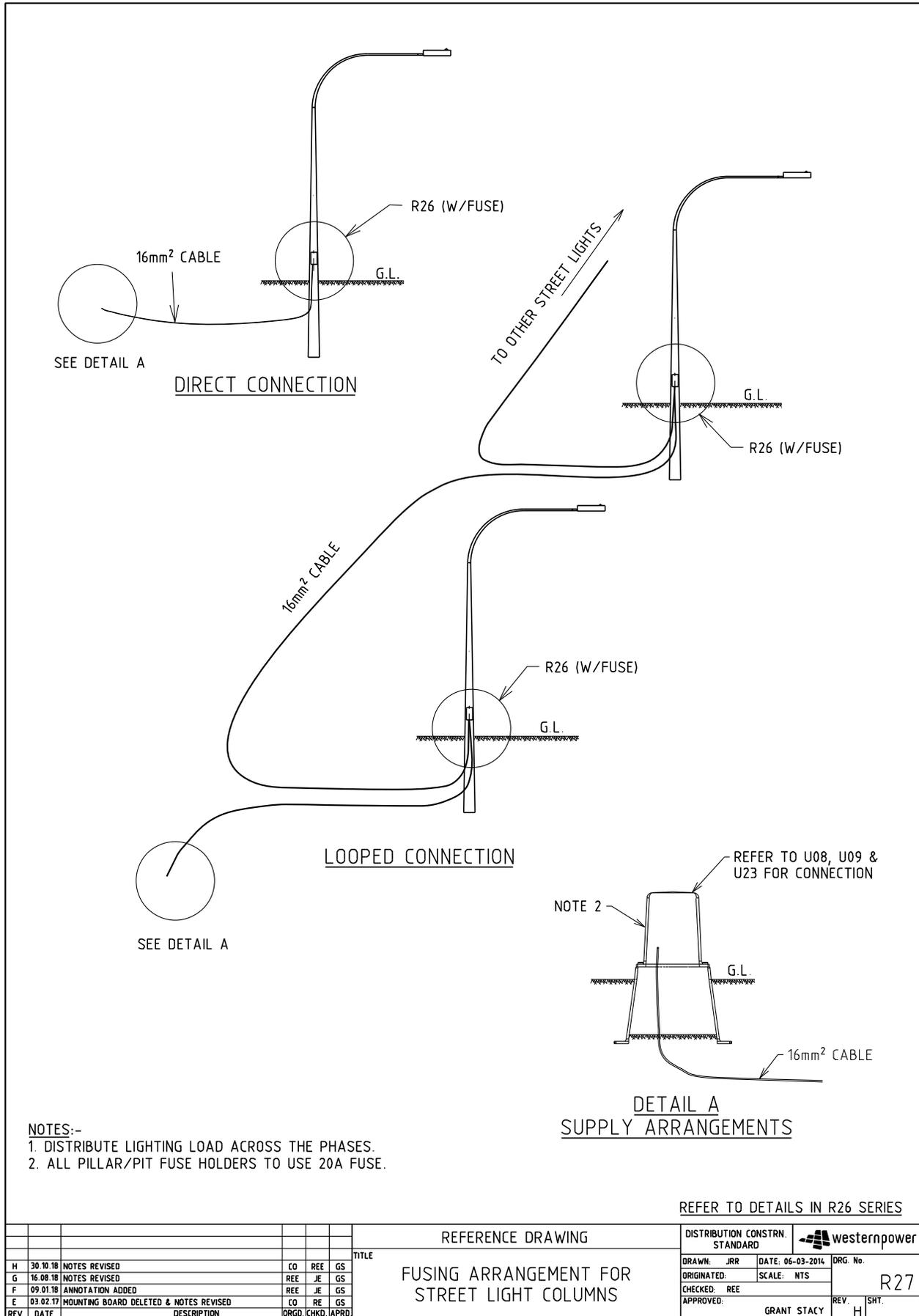
DOUBLE INSULATION TPS (ACTIVE & NEUTRAL)

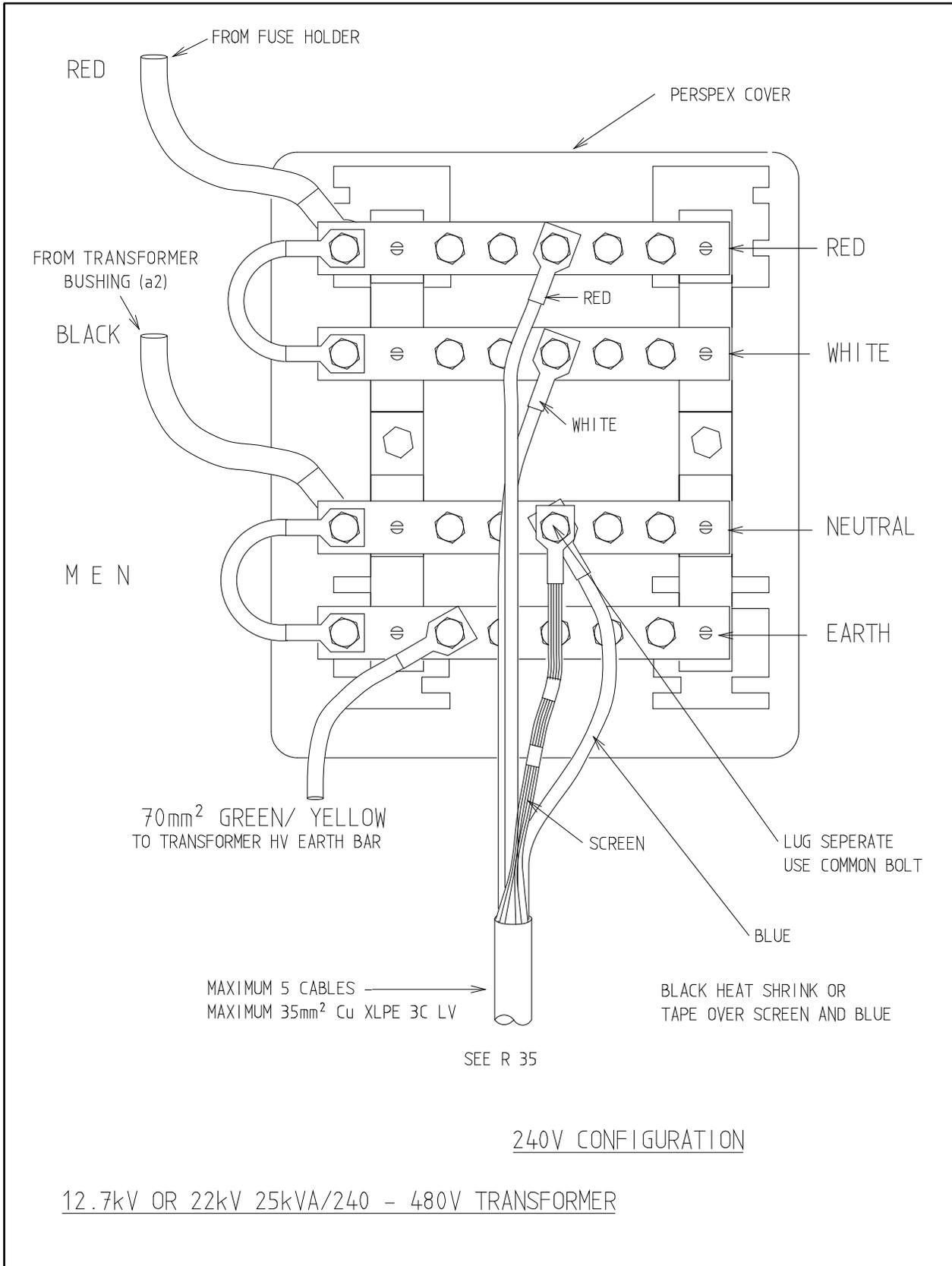


NOTES:-

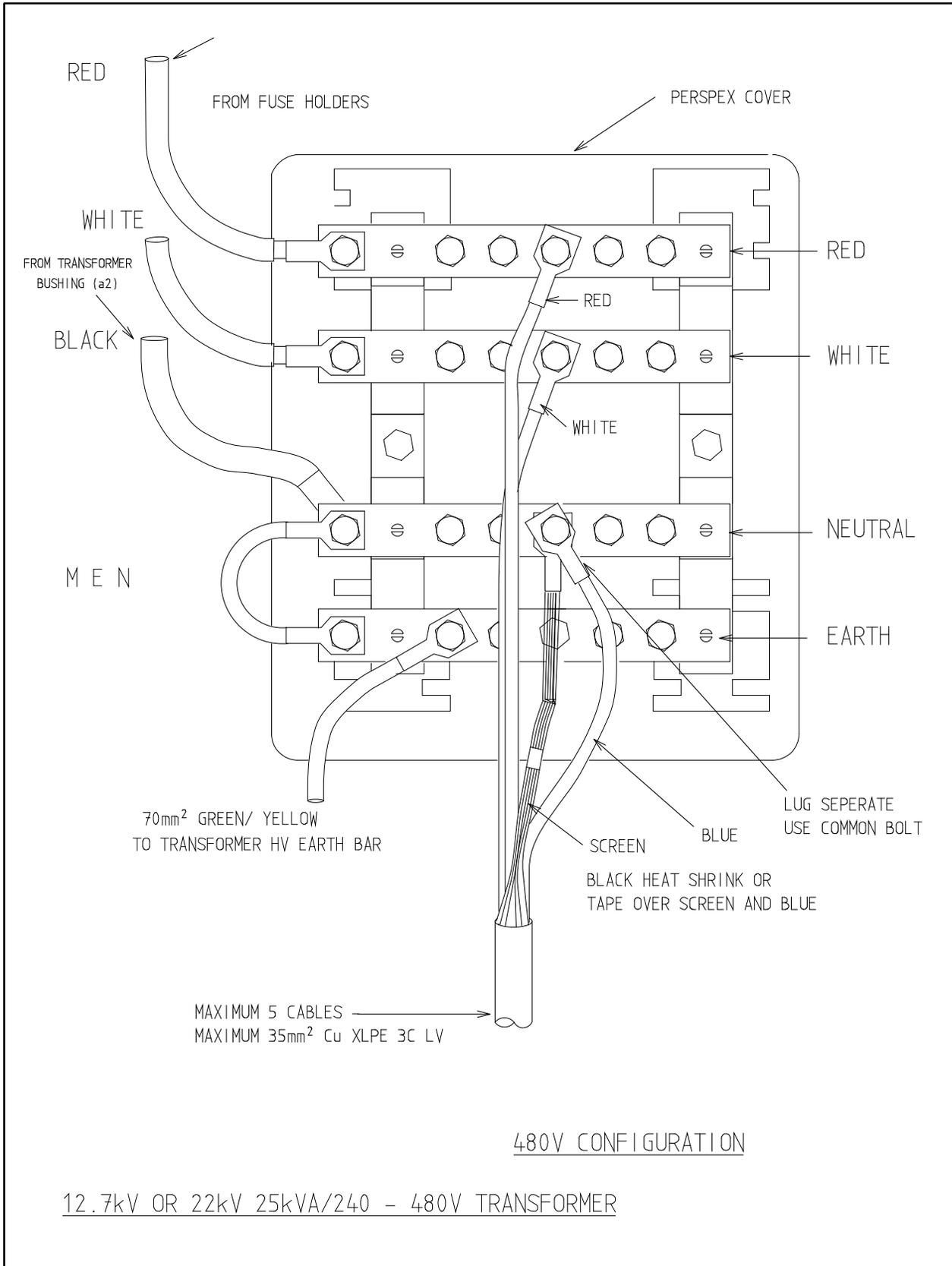
- IF SIGNIFICANTLY DEGRADED OR UNSERVICEABLE REPLACE CUTOUT TO R26-7-1 STANDARD CONSTRUCTION. CONSIDER THE CONDITION OF THE CUTOUT BODY, SCREW HEADS, SPRING CONTACTS, CORROSION AT TERMINAL BLOCKS, EVIDENCE OF ARCING ETC.
- NEUTRAL SCREEN WIRES SHALL BE TAPED WITH BLACK PVC TAPE.
- NO EARTH CONNECTIONS FROM EARTH TERMINAL TO THE COLUMN OR LUMINAIRE.
- ALL TERMINALS REQUIRED TO BE RE-TIGHTENED.
- IF REPLACING A LUMINAIRE REPLACE ALL LUMINAIRES, E.G. LED AND TRADITIONAL SHALL NOT COEXIST ON A DOUBLE OUTREACH.
- APPLY SILICONE SEALANT OVER FIXING SCREW HEAD(S) TO PREVENT ACCIDENTAL CONTACT WITH WIRES.
- APPLY GLOVE AND HEAT SHRINK SLEEVE (FE0112) OVER PHASE AND NEUTRAL.
- SUPPLY CABLE SHEATH MUST ENTER CUTOUT.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 16-06-2020		DRG. No.	
				EXISTING STREETLIGHT CUT-OUT AND SUPPLY CABLE WITH NEW LED CLASS II LUMINAIRES		ORIGINATED: CO SCALE: NTS		R26-7-2	
						CHECKED: NMc		REV. SHT.	
						APPROVED: GRANT STACY		B	
REV	DATE	DESCRIPTION	ORGD	CHKD	APPRD				
B	23.05.22	DETAILS REVISED	CO	NMc	GS				
A	23.07.21	ORIGINAL ISSUE	CO	NMc	GS				

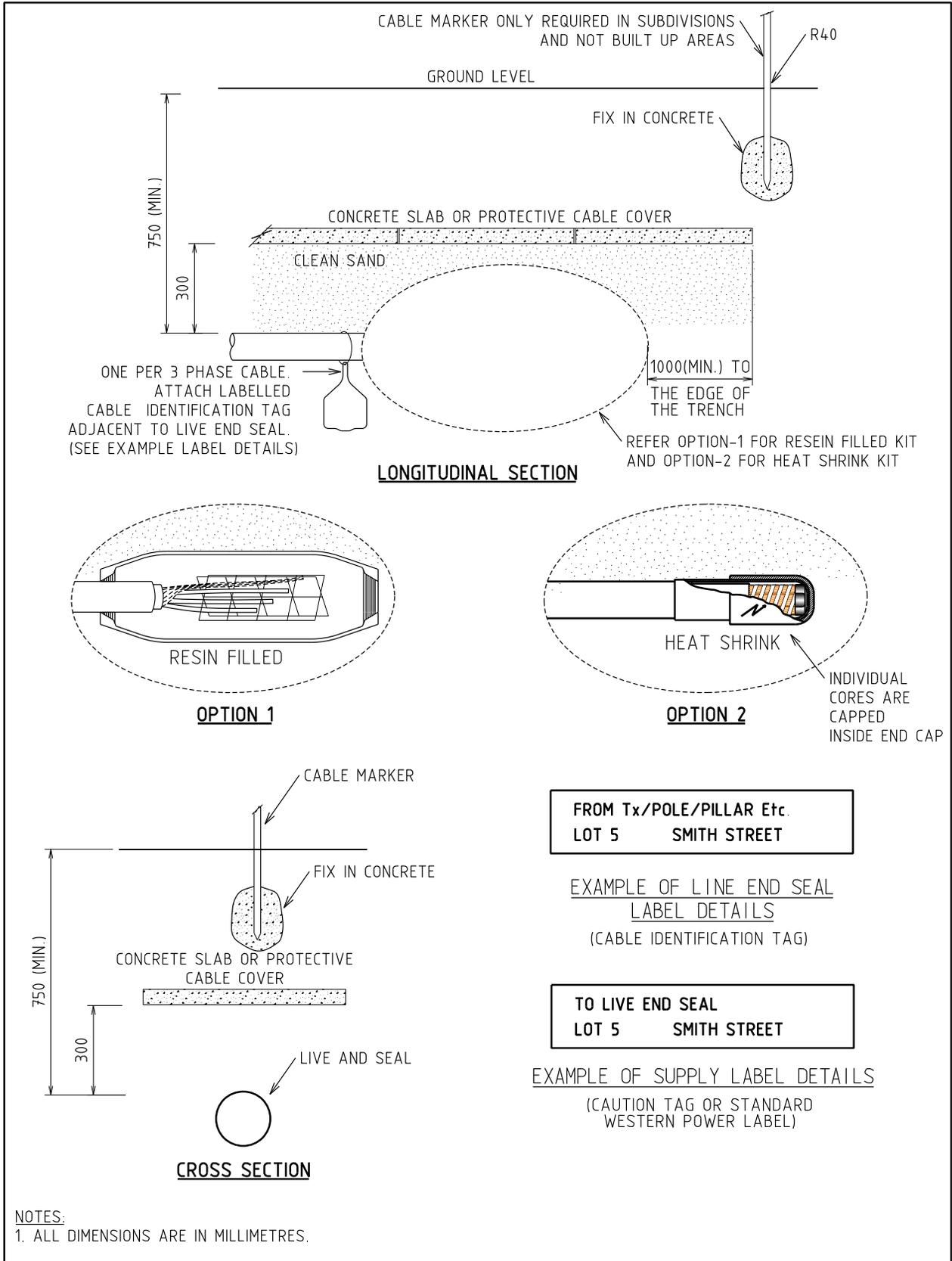




				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 06-03-2014		DRG No	
				25kV PADMOUNT Tx LV DIST BOARD		ORIGINATED: SCALE: NTS		R29	
				240V STREET FEEDER/CONSUMER MAINS		CHECKED: RE		APPROVED: GRANT STACY	
				TERMINAL BLOCK		REV. A		SHT.	
A	13.07.00	ORIGINAL ISSUE		DRGD.	CHKD.	APRD.			
REV.	DATE	DESCRIPTION							



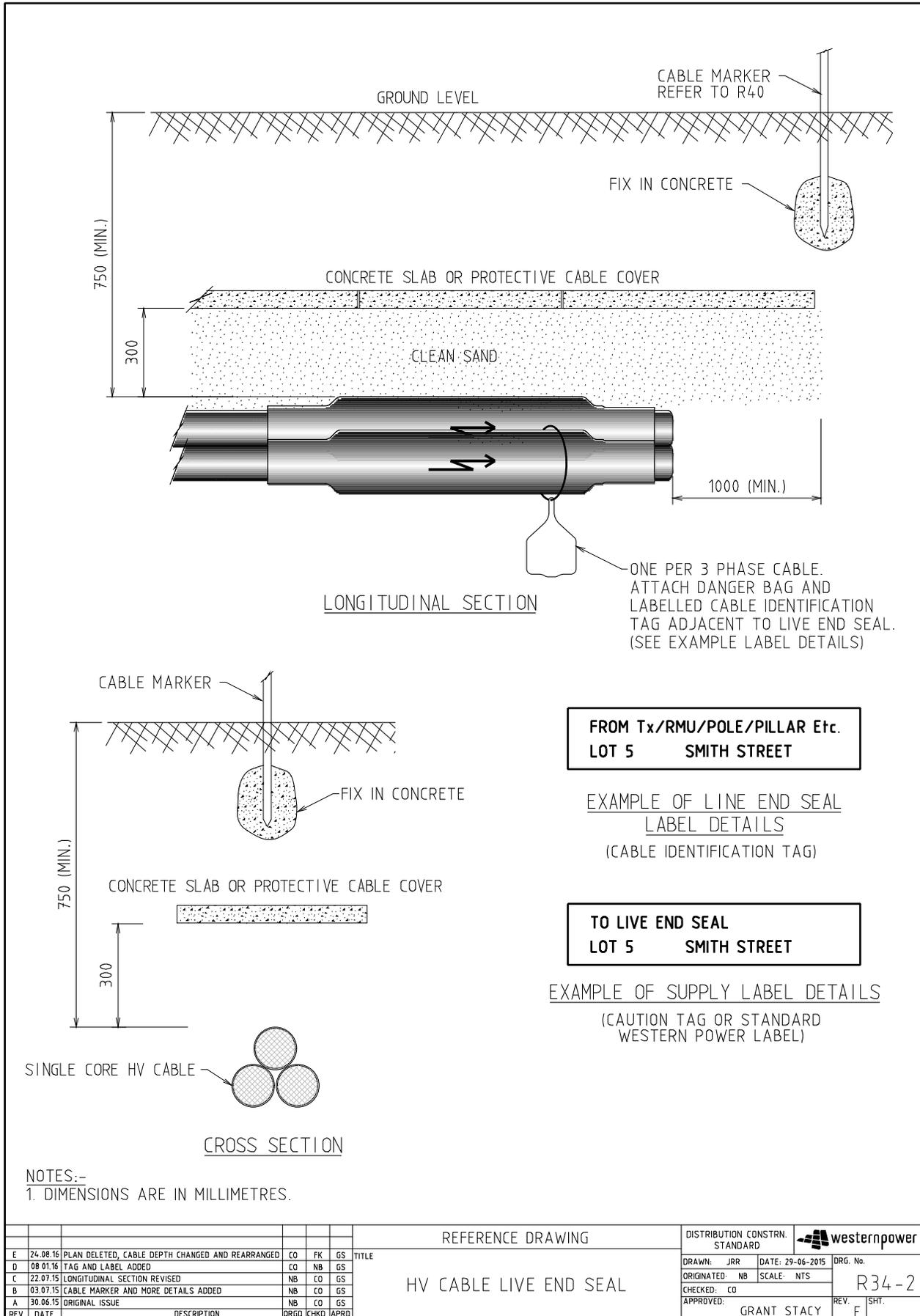
				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				25kV PADMOUNT Tx LV DISTR BOARD)		DRAWN: JRR DATE: 06-03-2014		DRG No	
				480V STREET FEEDER/CONSUMER MAINS		ORIGINATED: SCALE: NTS		R30	
				TERMINAL BLOCK		CHECKED: RE		APPROVED: GRANT STACY	
A		12.12.06		ORIGINAL ISSUE				REV. SHT.	
REV.		DATE		DESCRIPTION		DRGD. CHKD. APRD.		A	

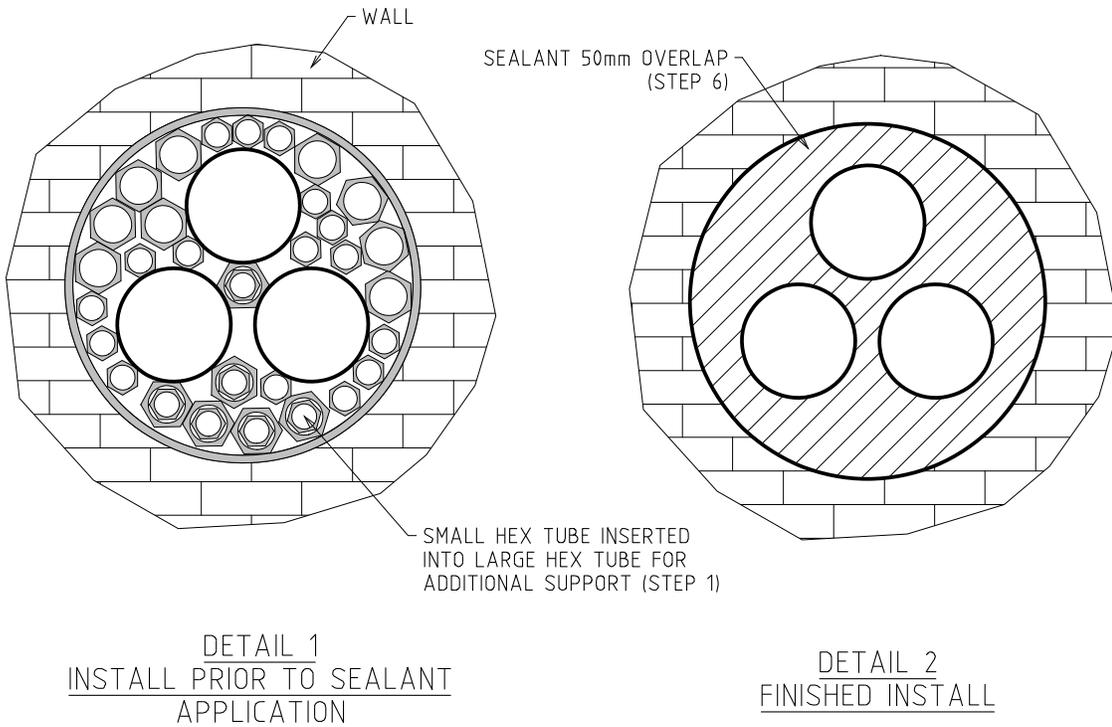


NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.

				REFERENCE DRAWING				DISTRIBUTION CONSTR. STANDARD		westernpower	
G	10.11.25	OPTION 1 AND 2 ADDED	NG	VAS	CO	CO	TITLE LV CABLE LIVE END SEAL				
F	09.09.22	SHELL TYPE REVISED	CO	FK	GS						
E	24.08.16	CABLE DEPTH CHANGED & PLAN DELETED	CO	NB	GS						
D	08.01.16	TAG AND LABEL ADDED	CO	NB	GS						
C	22.07.15	MORE DIMS & DETAILS ADDED	NB	CO	GS						
REV.	DATE	DESCRIPTION	DRGD.	CHKD.	APRD.			DRAWN: JRR	DATE: 29-06-2015	DRG. No.	
								ORIGINATED: NB	SCALE: NTS	R34-1	
								CHECKED: CO	APPROVED: GRANT STACY	REV. G	SHT. 1/1





INSTALLATION INSTRUCTIONS FILOSEAL KIT FM0215

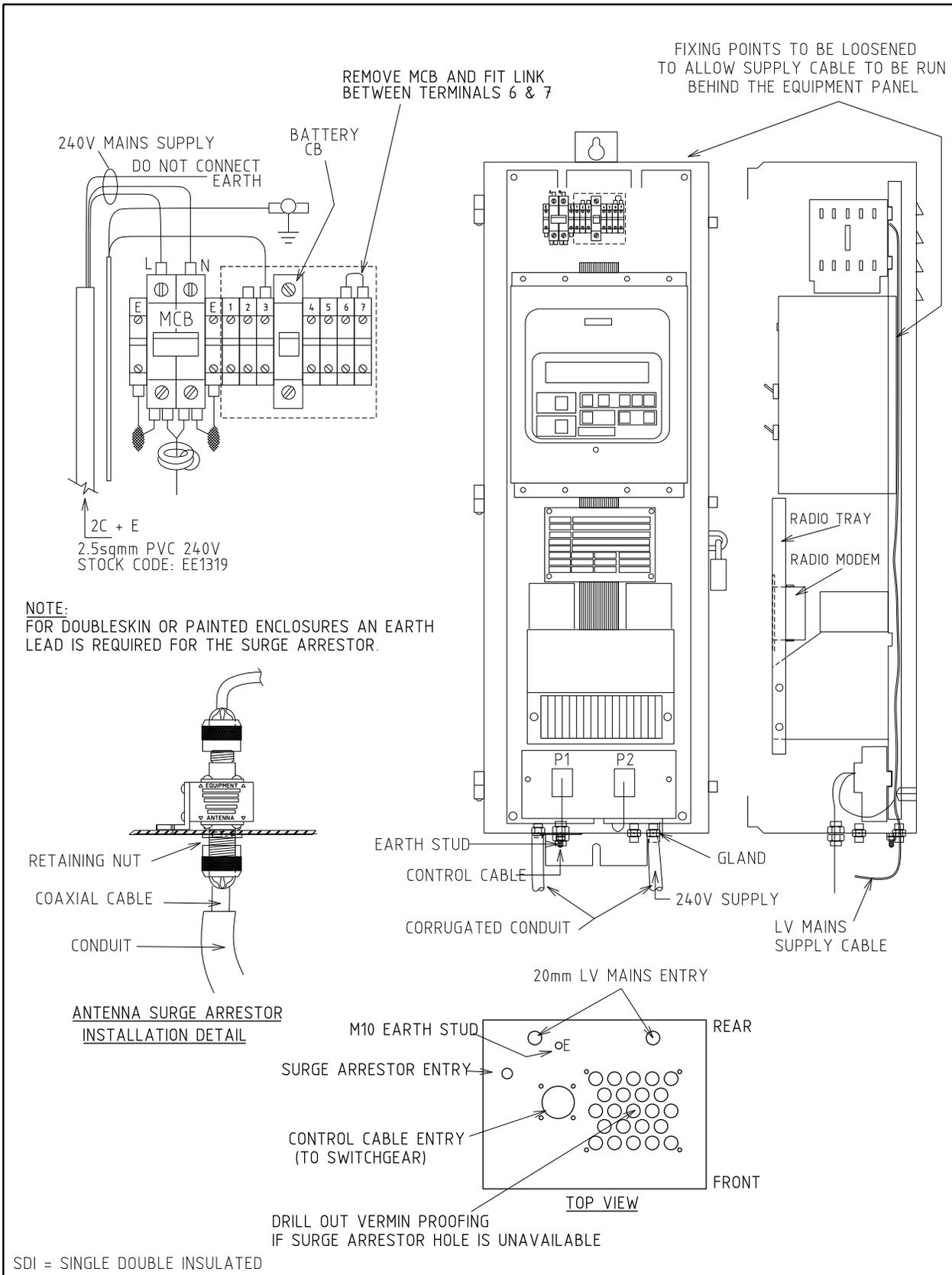
STEPS:-

1. INSERT HEX TUBES AROUND AND BETWEEN THE CABLES ENSURING 5mm SPACING IS MAINTAINED. ALL HEX TUBES SHOULD BE INSERTED SO THAT THE FIRST 25mm OF THE DUCT IS CLEAR IN FRONT FOR THEM WHERE THE SEALANT IS TO BE PLACED.
2. CLEAN THE FIRST 25mm OF THE DUCT INNER AND THE CABLES
3. ABRABE THE DUCT INNER AND CABLES FOR THE FIRST 25mm TO PROVIDE A SURFACE FOR THE SEALANT TO ADHERE TO.
4. APPLY THE SEALANT IN FRONT OF THE HEX TUBES UNTIL SLIGHTLY PROUD OF THE DUCT END.
5. IMMERSE THE PROVIDED FINISHING CLOTH IN WATER AND PAT THE SEALANT INTO THE DUCT ENSURING THE SEAL IS APPLIED EVENLY.
6. USE THE PAD TO APPLY SEALANT OVER WALL BY 50mm TO SEAL THE GAP BETWEEN CONDUIT AND WALL.
7. ONCE INSTALLED THE CABLES ARE NOT TO BE DISTURBED IN ANY WAY FOR 8-10 DAYS. THE INSTALLATION OF CABLE CLAMPS PRIOR TO SEALING WILL MITIGATE THIS RISK.

NOTES :-

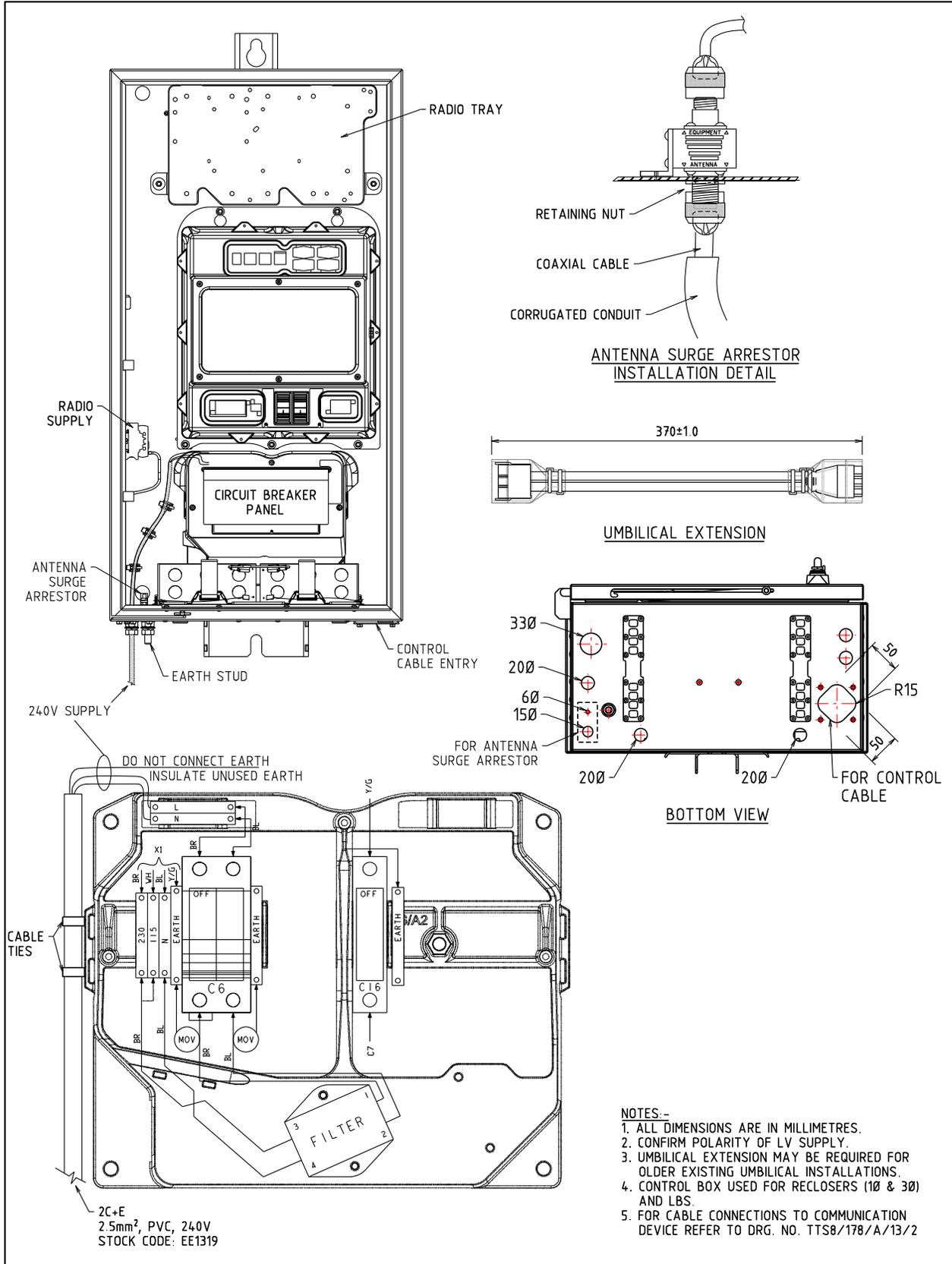
1. 3x1 CORE FEEDER CABLE SHOWN. KIT CAN BE USED FOR VARYING CABLES TYPES AND DUCT SIZES.

				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 12-12-2022		DRG. No.	
				CONDUIT SEALING DETAILS		ORIGINATED: CO SCALE: NTS		R34-3	
						CHECKED: SH		REV. A	
						APPROVED: PHILLIP CAPPER		SHT.	
A	23.12.22	ORIGINAL ISSUE		CO	SH	PC			
REV	DATE	DESCRIPTION		ORGD	CHKD	APRD			

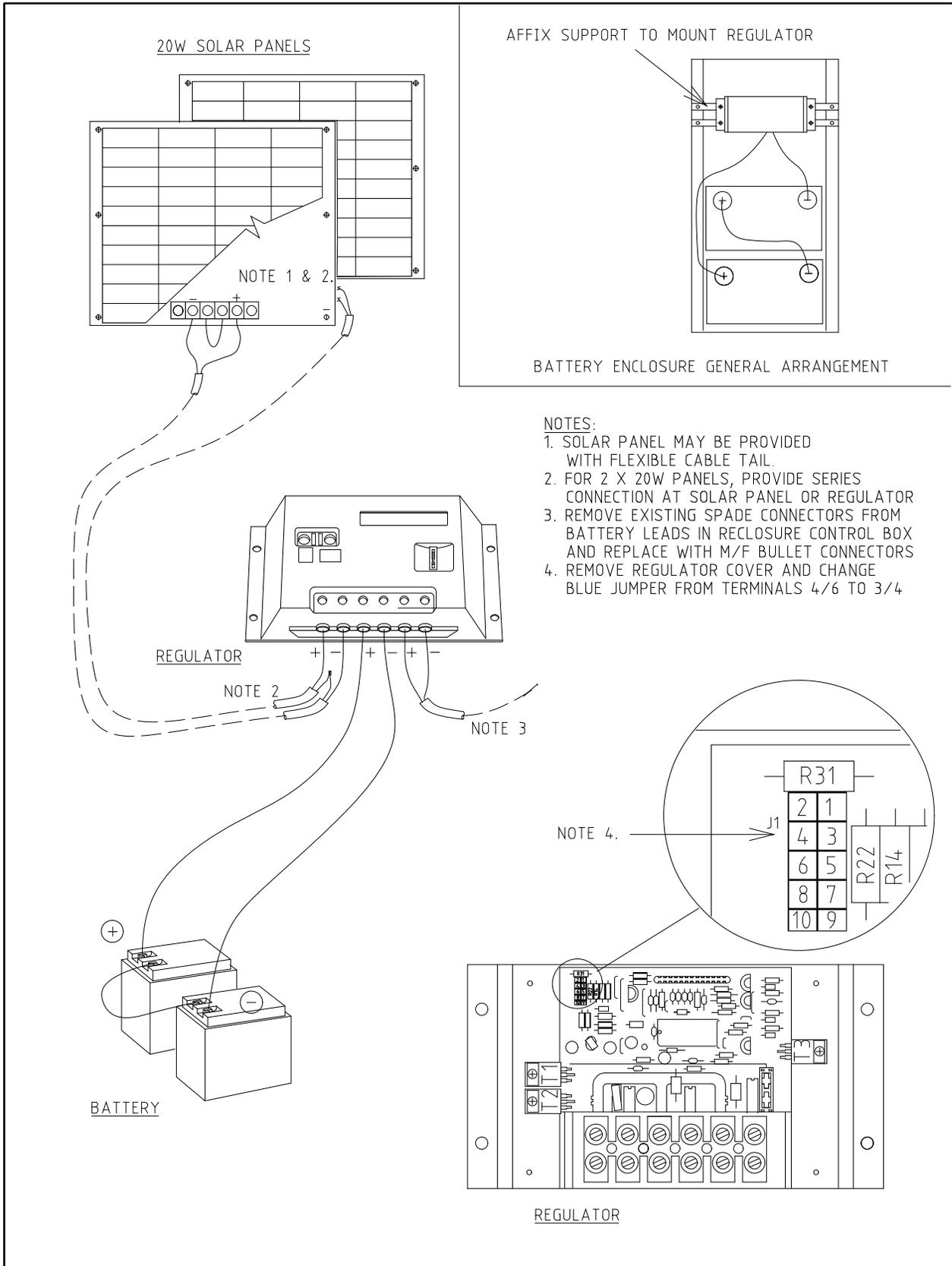


SDI = SINGLE DOUBLE INSULATED

				REFERENCE DRAWING		DISTRIBUTION CONSTRUCTION STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 07-03-2014		DRG. No.	
				SCHNEIDER (NULEC) RECLOSER CONTROL BOX CONNECTION DETAIL		CHD/EXAMD: KJ SCALE: NTS		R36-1	
						APPROVED:		REV.	
						MURALI GOVINDASWAMY		B	
						DATE: 18-07-2014			
REV. No.	DATE	DESCRIPTION	APPRD.						
B	18.07.2014	FORMAT & TITLE CHANGED AND SURGE ARRESTOR DELTD	MG						
A	10.12.2005	ORIGINAL ISSUE							



				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR DATE: 06-06-2014 DRG. No.		R36-2	
				SCHNEIDER - ADV2		ORIGINATED: KJ SCALE: NTS			
				POWER SUPPLY CONTROL BOX		CHECKED: KJ			
				CONNECTION DETAIL		APPROVED: MURALI GOVINDASWAMY		REV. SHT.	
								A	
A	18.07.14	ORIGINAL ISSUE		KJ	KJ	MG			
REV	DATE	DESCRIPTION		DRG	CHKD	APRD			

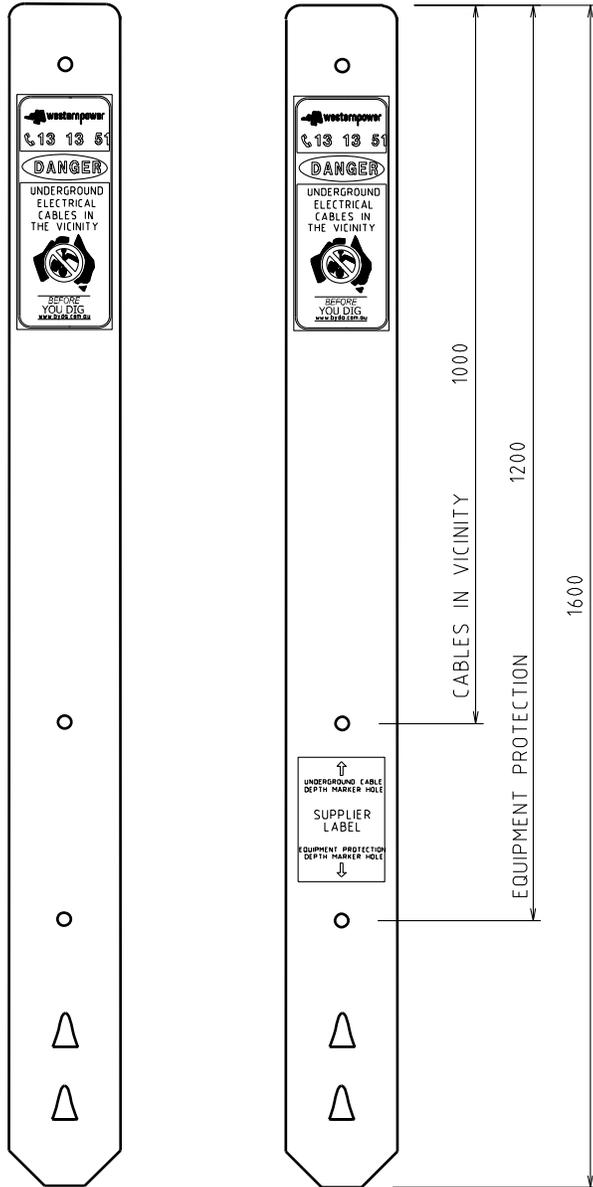


				REFERENCE DRAWING		DISTRIBUTION CONSTR. STANDARD		westernpower	
				TITLE		DRAWN: JRR		DATE: 10-03-2014	
				NULEC RECLOSER SOLAR CONNECTION		ORIGINATED:		SCALE: NTS	
						CHECKED: REE		DRG. No. R37	
						APPROVED: GRANT STACY		REV. A	
								SHT.	
A	10.07.01	ORIGINAL ISSUE		DRGD.	CHKD.	APRD.			

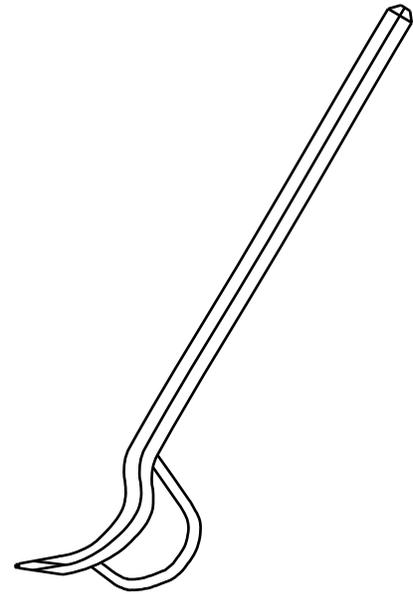
FRONT VIEW

BACK VIEW

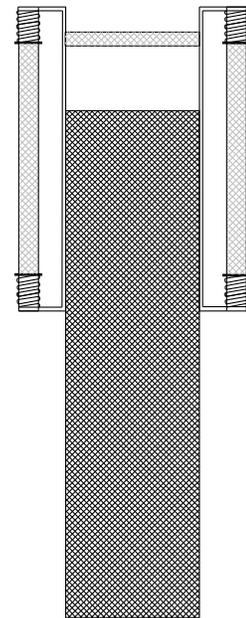
STOCK CODE: CR0327



REMOVAL TOOL



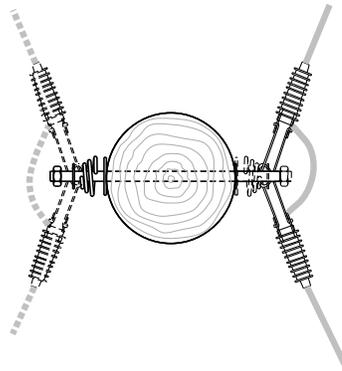
INSTALLATION TOOL
STOCK CODE: CR0328



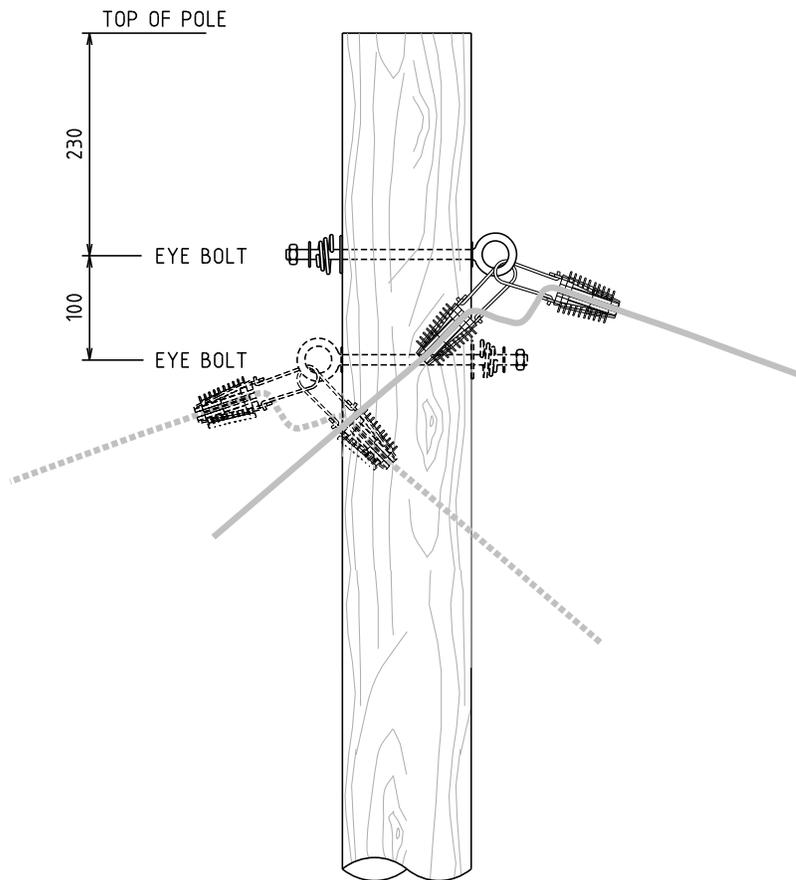
NOTES:

1. ALL DIMENSION ARE IN MILLIMETRES.
2. REMOVAL TOOL TO BE ORDERED FROM SUPPLIER AS NEEDED

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD				
				TITLE			DRAWN: JRR		DATE: 10-03-2014		
				INSTALLATION OF ABOVE GROUND CABLE MARKER			ORIGINATED: REE		SCALE: NTS		
							CHECKED: REE		APPROVED: GRANT STACY		
							REV. C		SHT. 1		
									R40		
REV	DATE	DESCRIPTION	ORGD	CHKD	APPR						
C	02.05.24	UPDATED LABELS.		TCM	SH	CO					
B	18.12.19	FORMAT CHANGED		CO	NMc	GS					
A	30.07.09	ORIGINAL ISSUE									



TOP VIEW

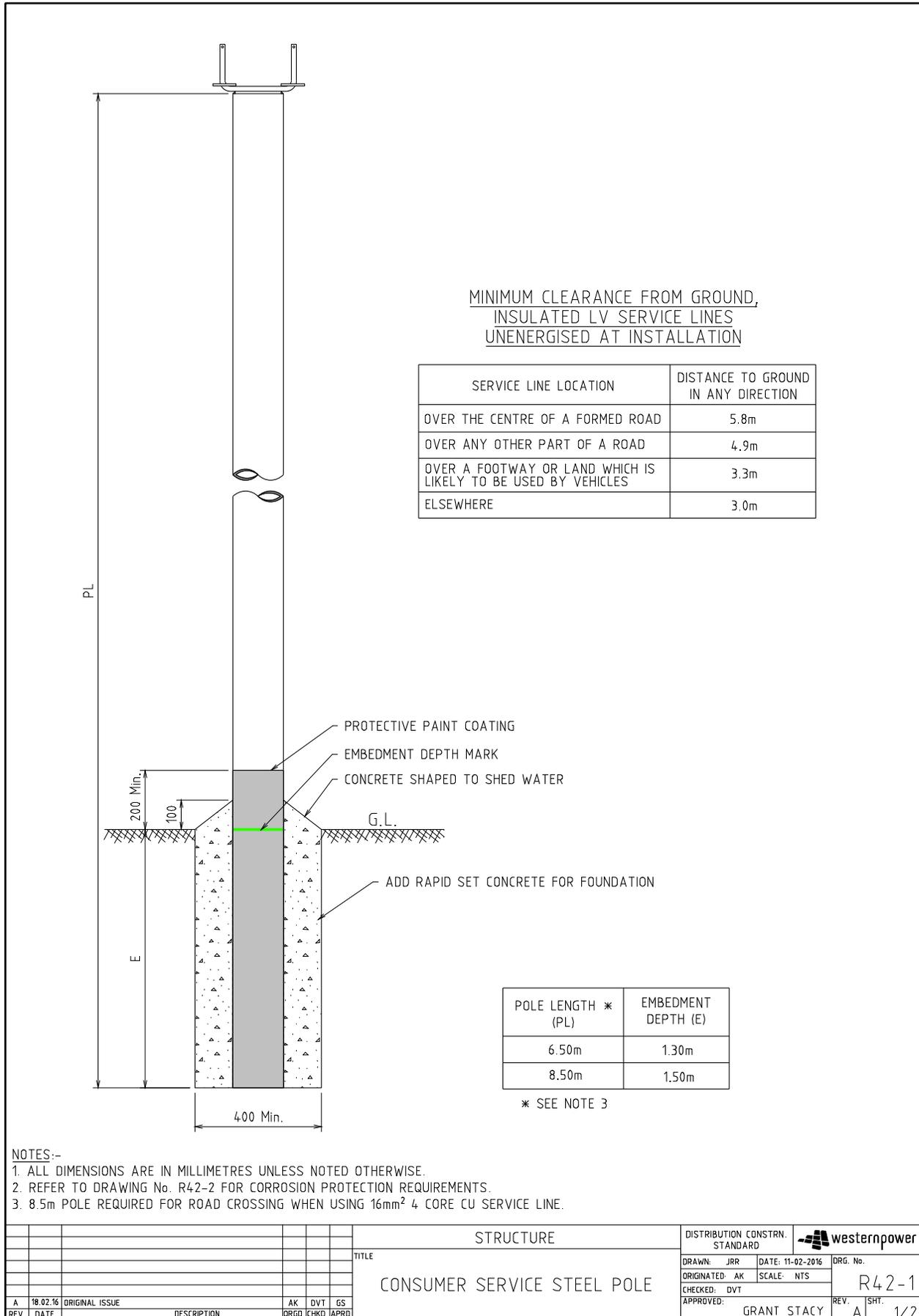


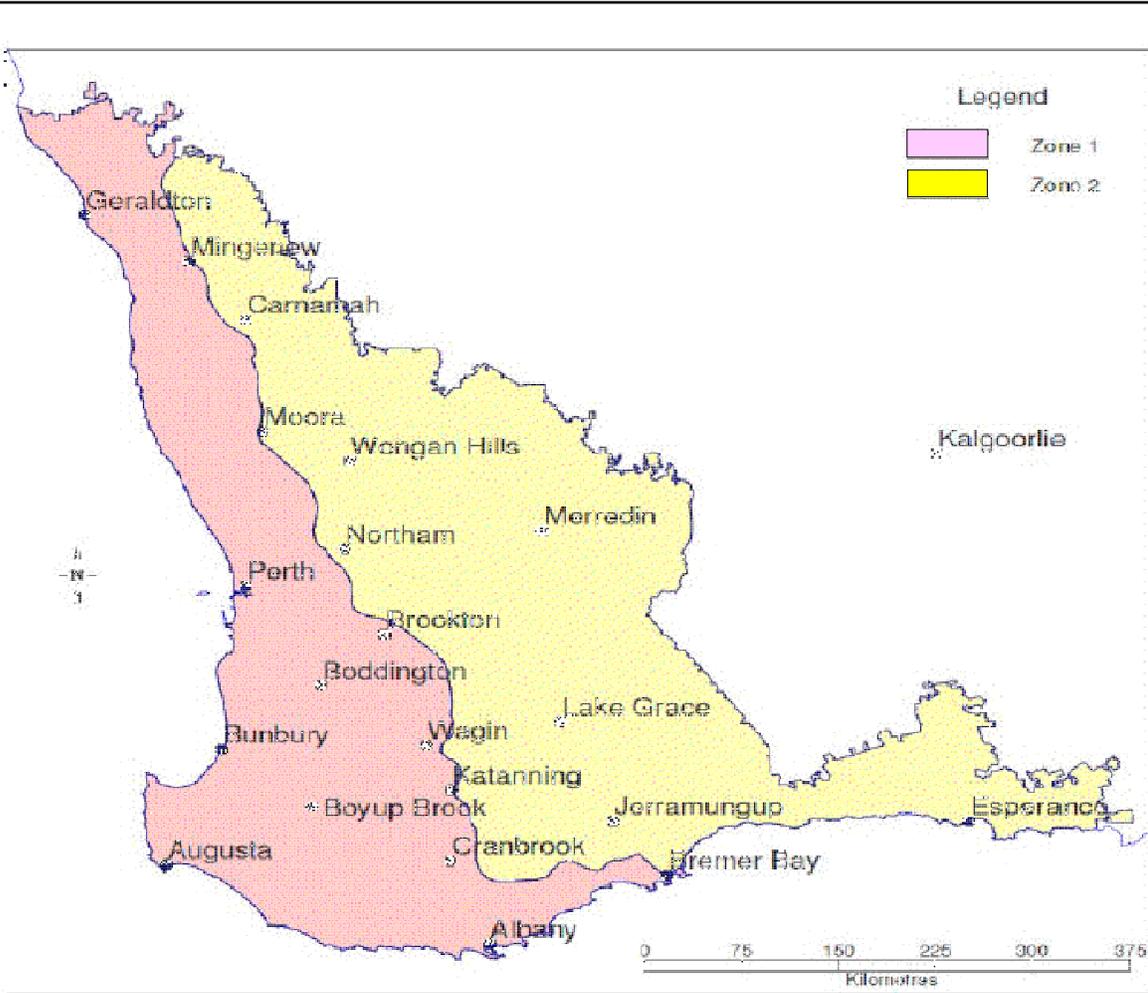
WOOD POLE

NOTES:

1. MAXIMUM SPAN LENGTH OF 30m, GOVERNED BY THE STRENGTH OF THE WEDGE CLAMP.
2. THREE CUSTOMER SERVICE CONNECTIONS ARE ALLOWED PER EYEBOLT WITH THE CONDITION THAT THE CUSTOMER SERVICE WIRE DOES NOT RUB AGAINST THE POLE.

				REFERENCE DRAWING			DISTRIBUTION CONSTR. STANDARD			
				TITLE			DRAWN: JRR DATE: 30-09-2014		DRG. No.	
				CUSTOMER SERVICE CARRYOVER CONNECTION			ORIGINATED: JC SCALE: NTS		R41	
							CHECKED: REE		REV. A	
							APPROVED: GRANT STACY		SHT.	
A	13-10-14	ORIGINAL ISSUE		JC	REF	GS				
R. No.	DATE	DESCRIPTION		ORGD.	CHEC.	APROD.				





LOCATION (REFER TO THE MAP)	LOCAL GROUND CONDITION	REQUIRED POLE TYPES	
		UNPAINTED STEEL POLE	PAINTED STEEL POLE
ZONE 1	WELL DRAINED SOIL	✓	
	SALINE SOIL OR LOW LYING AREA SUBJECT TO SEASONAL FLOODING		✓
ZONE 2	ALL SOILS		✓
REST OF THE STATE	WELL DRAINED SOIL	✓	
	SALINE SOIL OR LOW LYING AREA SUBJECT TO SEASONAL FLOODING		✓

THIS DRAWING TO BE READ INCONJUNCTION WITH Dwg. No. R42-1.

				STRUCTURE		DISTRIBUTION CONSTR. STANDARD			
				TITLE		DRAWN: JRR DATE: 11-02-2016		DRG. No.	
				CONSUMER SERVICE STEEL POLE CORROSION PROTECTION REQUIREMENTS		ORIGINATED: AK SCALE: NTS		R42-2	
						CHECKED: DVT			
						APPROVED: GRANT STACY		REV. SH. 2/2	
A	18.02.16	ORIGINAL ISSUE		AK	DVT	GS			
REV	DATE	DESCRIPTION		DRGD	CHKD	APRD			