



- NOTES :**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - POLE LENGTH AND STRENGTH.
 - SPECIAL FOUNDATION REQUIREMENTS.
 - POLE EMBEDMENT DEPTH.
 - PHASE CONDUCTOR AND OVERHEAD EARTHWIRE SIZE.
 - VARIATIONS TO STANDARD CROSSARM REQUIREMENTS.
 - STAY REQUIREMENTS.
 - DEVIATION ANGLE.
 - ASSESSED EARTHING REQUIREMENTS.
 - THE OVERHEAD EARTHWIRE DOWN LEAD IS TO BE FIXED TO THE POLE SO AS TO GIVE THE MAXIMUM CLEARANCE TO THE NEAREST PHASE CONDUCTOR.
 - THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
 - WHEN DESIGNING UNDERBUILT CIRCUITS ON A 33kV STRUCTURE, THE POSSIBLE USE OF LIVE LINE WORKING PROCEDURES MUST BE CONSIDERED WHEN NOMINATING THE CIRCUIT SEPARATION TO ALLOW A MINIMUM CLEARANCE OF 2500mm IF REQUIRED.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG : 520331.
 - LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - EYEBOLTS ARE TO BE INSTALLED IN THE DIRECTION OF THE OVERHEAD CONDUCTORS.
 - NON-TENSION COMPRESSION SLEEVES TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG : 514038.
 - CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
 - 'A' AND 'C' PHASE CONDUCTORS MAY BE BRIDGED UNDER THE CROSSARM PROVIDED THAT :
 - THE LINE IS SINGLE CIRCUIT OR STATUTORY CLEARANCES CAN BE MAINTAINED UNDER ALL OPERATING CONDITIONS.
 - MINIMUM CLEARANCES TO EARTH (POLE/HARDWARE) OF 380mm CAN BE MET.
 - WHEN THE CONDITIONS IN a AND b ARE NOT MET A 33kV 33/920 AERODYNAMIC INSULATOR AND PIN ARRANGEMENT IS TO BE INSTALLED FOR THE 'A' AND 'C' PHASE CONDUCTORS.
 - ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - THE EARTHING DOWN LEAD IS TO BE FIXED TO THE POLE WITH STAPLES AT INTERVALS NOT GREATER THAN 450mm. ONLY SUFFICIENT INSULATION IS TO BE REMOVED FROM THE DOWN LEAD TO MAKE AN EFFECTIVE CONNECTION TO THE POLE HARDWARE.
 - INSTALL A 33/920 PIN INSULATOR ARRANGEMENT TO HOLD THE CONDUCTOR TAPPING TO INCREASE THE CONDUCTOR CLEARANCE TO THE STEEL CROSSARMS AND REDUCE THE RISK OF A FLASHOVER DUE TO PERCHED BIRDS.
 - ONLY THE 3000mm STEEL CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRG : 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARM.
 - ONLY THE SINGLE PHASE CONDUCTOR WITH OPGW THROUGH TERMINATION OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
 - USE THE OPGW THROUGH TERMINATION ARRANGEMENT WHEN ERECTING AN UNBROKEN OPGW OVERHEAD EARTHWIRE. USE THE OPGW THROUGH SPLICE BOX TERMINATION ARRANGEMENT WHEN BREAKING AN OPGW OVERHEAD EARTHWIRE. USE THE STANDARD EARTHWIRE TERMINATION ARRANGEMENT WHEN ERECTING A NON OPGW OVERHEAD EARTHWIRE.
 - WHEN USING THE OPGW THROUGH SPLICE BOX TERMINATION ARRANGEMENT, REFER TO DRG : 565743 FOR SPLICE BOX AND COILED CABLE BRACKET MOUNTING DETAILS.
 - POLE STEPS SHOULD ONLY BE INSTALLED ON POLES WHERE ACCESS FOR NORMAL MAINTENANCE VEHICLES CANNOT BE MAINTAINED FOR THE LIFE OF THE POLE. IF POLE STEPS ARE INSTALLED, THEY ARE TO COMPLY WITH THE REQUIREMENTS OF NETWORK STANDARD NS128.
 - REFER TO DESIGNER SAFETY REPORT D20/256233 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
11	STEP - POLE, SCREW-IN (SEE NOTE 20)	250144	A/R
10	EARTHWIRE - TERMINATION, OVERHEAD, MOUNTING, ARRANGEMENT -1A (SEE NOTES 17 & 18)	519450	1
	OPGW - TERMINATION, CONDUCTOR, MOUNTING, ARRANGEMENT -1C (SEE NOTES 17, 18 & 19)	565747	
9	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 9 & 17)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 9 & 17)	514053	3
8	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 6 & 17)	250120	6
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 6 & 17)	158754	6
7	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 10)	514038	1m
6	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT (SEE NOTE 15)	514006	1
5	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING , ARRANGEMENT -3	514145	1
4	CROSSARM - MOUNTING ARRANGEMENT -3 (GALVANISED STEEL OR COMPOSITE FIBRE CROSSARM) (SEE NOTE 16)	514176	1
3	FOOTING - TIMBER POLE, ARRANGEMENT (SEE NOTE 1)	508726	1
2	EARTHING - ARRANGEMENT, TIMBER POLE STRUCTURE, TYPE SE-M5	508786	1
1	POLE - TIMBER (AS REQUIRED)	513988	1

ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE.

CAD DRAWING DO NOT MANUALLY AMEND AMENDMENTS DWN: PATRICIA RIOS CHKD: PHILLIP JONES DATE: 01/07/2020 NOTES & MATERIAL LIST AMENDED. POLE FOOTING DETAILS ADDED. SHEET SIZE CHANGED. APPD BY: GLENN FORD DWN: P.R. CHKD: P.J. APPD: G.F. DATE: 08/11/2022 MATERIAL LIST AMENDED.	1	2	3	4	5	6	7	8	
	OPGW CONDUCTOR SPLICE BOX & COILED CABLE BRACKET MOUNTING ARRANGEMENT 565743								
	COMPOSITE FIBRE CROSSARMS SPECIFICATION 237491								
	HV CONDUCTOR TIE SUPPORT ARRANGEMENTS 514038								
	20mm EYEBOLT AND EYENUT ASSEMBLY LOADING AND DEVIATION GRAPH 520331								
	ASSOCIATED DRAWINGS								

NETWORK STANDARD

 145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION 33kV THROUGH TERMINATION CONSTRUCTION WITH OVERHEAD EARTHWIRE 4-11E			
DESIGNED	-				
DRAWN	PETER SAUNDERS				
CHECKED	P.A.S				
APPROVED	G SKINNER				
DATE	29/05/1996				
PROJECT NUMBER	STD	SIZE	DRAWING No	SHEET	AMD
PROJTRAK NUMBER	-	A2	514169	01	7