



- 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 STANDADRD CROSSARM REQUIREMENTS.
 - STAY REQUIREMENTS.
 - DEVIATION ANGLE.
 - ASSESSED EARTHING REQUIREMENTS.
 - 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.
 - LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG: 520324.
 - STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
 - THE OVERHEAD EARTH WIRE DOWN LEAD IS TO BE FIXED TO THE POLE SO AS TO GIVE THE MAXIMUM CLEARANCE TO THE NEAREST PHASE CONDUCTOR.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
 - ALL BOLTS AND EYEBOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - THE EARTHING DOWN LEAD IS TO BE FIXED TO THE POLE USING DOUBLE SIDED GALVANISED STEEL SADDLES AT INTERVALS OF NOT GREATER THAN 450mm.
 - EYEBOLTS ARE TO BE INSTALLED IN THE DIRECTION OF THE OVERHEAD CONDUCTORS.
 - NON TENSION COMPRESSION JOINT TO BE USED WHEN REQUIRED TO JOIN THROUGH CONDUCTORS.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG: 514038.
 - CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
 - INSTALL A 33/920 PIN INSULATOR ARRANGEMENT TO HOLD THE CONDUCTOR TAPPING TO INCREASE THE CONDUCTOR CLEARANCE TO THE CROSSARM AND REDUCE THE RISK OF A FLASHOVER DUE TO PERCHED BIRDS.
 - COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE PREFERED OPTION UNDER NORMAL CIRCUMSTANCES.
 - A 2706mm COMPOSITE FIBRE CROSSARM IS TO BE USED AS THE DEFAULT CROSSARM. A LONGER COMPOSITE FIBRE CROSSARM IS TO BE USED WHERE ADDITIONAL MID SPAN SEPARATION IS REQUIRED. A STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF THE ALTERNATE CROSSARMS IS EXCEEDED.
 - ONLY THE 2706mm COMPOSITE FIBRE CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS: 262732 & 514377 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
 - ONLY THE SINGLE PHASE CONDUCTOR WITH OPGW THROUGH TERMINATION AND OPGW TEE OFF TERMINATION OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
 - USE THE OPGW THROUGH TEE OFF TERMINATION ARRANGEMENT WHEN ERECTING AN UNBROKEN AND A BROKEN OPGW OVERHEAD EARTHWIRE.
USE THE OPGW TEE OFF SPLICE BOX TERMINATION ARRANGEMENT WHEN BREAKING ALL OPGW OVERHEAD EARTHWIRES.
USE THE STANDARD EARTHWIRE TEE OFF TERMINATION ARRANGEMENT WHEN ERECTING A NON OPGW OVERHEAD EARTHWIRE.
 - 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 D22/272353 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
14	STEP - POLE, SCREW-IN (SEE NOTE 23)	250144	A/R
13	OPGW - SPLICE BOX & COILED CABLE BRACKET, CONDUCTOR, MOUNTING ARRANGEMENT (USE WITH OPGW OHEW OPTIONS ONLY)	565743	1
12	EARTHWIRE - TERMINATION, TEE OFF, OVERHEAD, MOUNTING, ARRANGEMENT -1 (SEE NOTES 21 & 22)	514147	1
	OPGW - TERMINATION, TEE OFF, CONDUCTOR, MOUNTING, ARRANGEMENT -1B (SEE NOTES 21 & 22)	251960	
11	OPGW - TERMINATION, TEE OFF, CONDUCTOR, MOUNTING, ARRANGEMENT -1A (SEE NOTES 21 & 22)	251960	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 13 & 21)	514053	
10	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 13 & 21)	514053	3
	CLAMP - PARALLEL GROOVE, 3 BOLT (TO SUIT DUAL CONDUCTORS) (SEE NOTE 21)	514099	
9	CLAMP - PARALLEL GROOVE, 3 BOLT (TO SUIT SINGLE CONDUCTOR) (SEE NOTE 21)	514099	3
	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 4 & 21)	250120	
8	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 4 & 21)	158754	9
	EARTHWIRE - OVERHEAD, DOWN LEAD, POLE HARDWARE, MOUNTING & BONDING, ARRANGEMENT -3 (SEE NOTES 7 & 11)	514145	
7	CROSSARM - MOUNTING ARRANGEMENT -2 (COMPOSITE FIBRE OR GALVANISED STEEL CROSSARM) (SEE NOTE 17, 18, 19 & 20)	514176	1
6	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 14)	514038	2m
5	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT (SEE NOTE 16)	514006	2
4	CROSSARM - MOUNTING ARRANGEMENT -3 (COMPOSITE FIBRE OR GALVANISED STEEL CROSSARM) (SEE NOTES 17, 18, 19 & 20)	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

CAD DRAWING DO NOT MANUALLY AMEND A M E N D M E N T S	DATE: 08/11/2022 MULTIPLE CROSSARM OPTION & FOUNDATION DETAILS ADDED. NOTES & MATERIAL LIST AMENDED. DUAL CONDUCTOR & OHEW OPTIONS ADDED.	DATE: 22/08/2024 COMPOSITE CROSSARMS ADDED TO MATERIAL LIST. NOTES & DIMENSIONS AMENDED.
DWN: P.R.	APP'D: G.F.	
CHKD: P.J.		
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ASSOCIATED DRAWINGS

COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION 265964

HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS 514377

COMPOSITE FIBRE CROSSARMS SPECIFICATION 262732

HV CONDUCTOR TIE SUPPORT ARRANGEMENTS 514038

20mm EYEBOLT & EYENUT ASSEMBLY LOADING AND DEVIATION GRAPH 520331

20mm EYEBOLT LOADING AND DEVIATION GRAPH 520324

NETWORK STANDARD

Ausgrid

145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE 1:25

DESIGNED -

DRAWN PETER SAUNDERS

CHECKED P.A.S

APPROVED G.SKINNER

DATE 29/05/1996

PROJECT NUMBER STD

PROJTRAK NUMBER -

STANDARD CONSTRUCTION

33kV THROUGH TERMINATION

TEE-OFF CONSTRUCTION WITH

OVERHEAD EARTHWIRE

4-17E

SIZE A2

DRAWING No 520271

SHEET 1

AMD 6