



NOTES :

1. THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - a. POLE LENGTH AND STRENGTH.
 - b. SPECIAL FOUNDATION REQUIREMENTS.
 - c. POLE EMBEDMENT DEPTH.
 - d. CONDUCTOR SIZE.
 - e. CROSSARM SIZE AND BRACE REQUIREMENTS.
 - f. STAY REQUIREMENTS.
 - g. DEVIATION ANGLE.
 - h. ASSESSED EARTHING REQUIREMENTS.
2. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
3. POLE STEPS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NS126.
4. IN AREAS WHERE THE 11kV NETWORK CANNOT BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 1200mm. IN AREAS WHERE THE 11kV NETWORK CAN BE WORKED ON USING LIVE LINE TECHNIQUES, UNDERBUILT CIRCUITS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 2500mm.
5. ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
6. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG : 520324.
7. LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
8. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
9. IF THE CONDUCTOR DEVIATES AT THE INSULATOR, USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT, OTHERWISE USE THE INTERMEDIATE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG : 514038.
10. A 2700mm CROSSARM IS TO BE USED AS THE DEFAULT TERMINATION CROSSARM. FOR NARROW FEEDER ALIGNMENTS, A 2400mm CROSSARM MAY BE CONSIDERED TO OVERCOME DESIGN AND SITE CONSTRAINTS. A 3070mm COMPOSITE FIBRE OR 3000mm STEEL TERMINATION CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF A TIMBER CROSSARM IS EXCEEDED.
11. ONLY THE 2700mm TERMINATION CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS : 15232, 514377 & 237491 FOR DRILLING PATTERN OF ALTERNATE TERMINATION CROSSARMS.
12. THE 690mm CROSSARM BRACES ARE TO BE USED ON A 2100mm, 2700mm, 3000mm & 3070mm CROSSARM. THE 740mm CROSSARM BRACE IS TO BE USED ON A 2400mm CROSSARM.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
30	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
29	CLAMP - PARALLEL GROOVE, 3-BOLT (TO SUIT CONDUCTOR)	514099		3
28	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR -2	565715		3
27	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 9)	514038		5m
26	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		4
25	BRACKET - POLE TOP, GALVANISED	514380	H17314	1
24	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 3070mm TERMINATION CROSSARM)		146282	
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2400mm, 2700mm & 3000mm TERMINATION CROSSARMS)		146274	1
23	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2100mm CROSSARM)		146274	1
22	WASHER - FLAT, M20, GALVANISED (USE WITH 2400mm & 2700mm TERMINATION CROSSARMS)	518081	177986	2
21	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 3070mm TERMINATION CROSSARM)	518081	H39231	2
	WASHER - LIP, M24, GALVANISED (USE WITH 2400mm, 2700mm & 3000mm TERMINATION CROSSARMS)	518081	176912	
20	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	513653	H37881	2
19	WASHER - SPRING, M20, GALVANISED (USE WITH 3000mm & 3070mm TERMINATION CROSSARMS)	518082	175569	
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2400mm & 2700mm TERMINATION CROSSARMS)	518082	H39655	2
18	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 6)	513653		1
	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm TERMINATION CROSSARMS)	518082	H12047	2
17	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm TERMINATION CROSSARM)	518082	H39639	1
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2700mm TERMINATION CROSSARM)	518082	H39639	2
16	WASHER - FLAT, M12, GALVANISED (USE WITH 2400mm TERMINATION CROSSARM)	518081	177982	2
	WASHER - FLAT, M12, GALVANISED (USE WITH 2700mm, 3000mm & 3070mm TERMINATION CROSSARMS)	518081	177982	4
15	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm TERMINATION CROSSARM)	515466	46847	2
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2400mm TERMINATION CROSSARM)	515466	46847	1
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2700mm & 3000mm TERMINATION CROSSARMS)	515466	46888	2
14	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 10 & 11)	237491	183935	
	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 10 & 11)	514377	H23787	1
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 10 & 11)	15232	71910	
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 10 & 11)	514373	H23907	
13	SCREW - COACH, M12x100mm, GALVANISED		H40484	1
12	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 12)	46	99119	1
	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 12)	514385	H17738	2
11	WASHER - FLAT, M20, GALVANISED	518081	177986	2
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	2
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	5
8	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
7	WASHER - CONICAL, M12, GALVANISED	518082	H39639	3
6	WASHER - FLAT, M12, GALVANISED	518081	177982	6
5	BOLT & NUT - M12x130mm, HEX., GALVANISED	515466	46805	2
4	CROSSARM - 2100x100x100mm, TYPE C, HARDWOOD	514374	H23834	1
3	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466		1
2	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 12)	514385	H17738	2
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: 16/08/2019
M20 FLAT WASHER & 2400mm
CROSSARM OPTION ADDED.
NOTES & MATERIAL LIST AMENDED.
SHEET SIZE CHANGED.
APPD BY: GLENN FORD

DESCRIPTION	DRG. No
COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
WOODEN CROSSARMS FOR 11kV LINES	15232
HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
20mm EYEBOLT LOADING & DEVIATION GRAPH	520324
ASSOCIATED DRAWINGS	

NETWORK STANDARD
Ausgrid
145 NEWCASTLE RD WALLSEND,
NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION
DESIGNED	-	11kV TEE-OFF
DRAWN	PATRICIA RIOS	CONSTRUCTION
CHECKED	W.G	2-14
APPROVED	I.NICHOLS	
DATE	07/11/94	
PROJECT NUMBER	STD	
PROJ/TRAK NUMBER	-	
SIZE	A2	DRAWING No
		513917
SHEET	01	AMD
		13