



- NOTES :**
- THE FOLLOWING INFORMATION IS OBTAINED FROM THE PROJECT DESIGN DRAWINGS :
 - POLE LENGTH AND STRENGTH.
 - SPECIAL FOUNDATION REQUIREMENTS.
 - POLE EMBEDMENT DEPTH.
 - CONDUCTOR SIZE.
 - CROSSARM SIZE AND BRACE 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.
 - POLE STEPS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NS126.
 - 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.
 - ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT IS TO BE DETERMINED FROM DRG : 520324.
 - 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.
 - NON-TENSION COMPRESSION SLEEVES TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG : 514038.
 - A 2700mm CROSSARM IS TO BE USED AS THE DEFAULT CROSSARM. FOR NARROW FEEDER ALIGNMENTS, A 2400mm CROSSARM MAY BE CONSIDERED TO OVERCOME DESIGN AND SITE CONSTRAINTS. A 3070mm COMPOSITE FIBRE OR 3000mm STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF A TIMBER CROSSARM IS EXCEEDED.
 - ONLY THE 2700mm CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS : 15232, 514377 & 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - THE 690mm CROSSARM BRACES ARE TO BE USED ON A 2700mm, 3000mm & 3070mm CROSSARM. THE 740mm CROSSARM BRACE IS TO BE USED ON A 2400mm CROSSARM.

22	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
21	JOINT - NON TENSION, COMPRESSION (TO SUIT CONDUCTOR)	514053		3
20	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 10)	514038		2m
19	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		2
18	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR -2	565715		6
17	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 3070mm CROSSARM)		146282	2
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2400mm, 2700mm & 3000mm CROSSARMS)		146274	
16	WASHER - FLAT, M20, GALVANISED (USE WITH 2400mm & 2700mm CROSSARMS)	518081	177986	4
15	WASHER - FLAT, M20, GALVANISED	518081	177986	4
14	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE)(SEE NOTE 6)	513653		2
13	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 3070mm CROSSARM)	518081	H39231	4
	WASHER - LIP, M24, GALVANISED (USE WITH 2400mm, 2700mm & 3000mm CROSSARMS)	518081	176912	4
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	513653	H37881	4
11	WASHER - SPRING, M20, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	175569	4
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2400mm & 2700mm CROSSARMS)	518082	H39655	4
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	4
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	12
8	BOLT & NUT - M20, GALVANISED (LENGTH TO SUIT POLE)	515466		2
	WASHER - SPRING, M12, GALVANISED (USE WITH 3000mm & 3070mm CROSSARMS)	518082	H12047	4
7	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518082	H39639	2
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2700mm CROSSARM)	518082	H39639	4
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518081	177982	4
	WASHER - FLAT, M12, GALVANISED (USE WITH 2700mm, 3000mm & 3070mm CROSSARMS)	518081	177982	8
5	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 3070mm CROSSARM)	515466	46847	4
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2400mm CROSSARM)	515466	46847	2
	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)	515466	46888	4
	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 11 & 12)	237491	183935	
4	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11 & 12)	514377	H23787	2
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 11 & 12)	15232	71910	
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 11 & 12)	514373	H23907	
3	SCREW - COACH, M12x100mm, GALVANISED		H40484	2
2	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 13)	46	99119	2
	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 13)	514385	H17738	4
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: 12/03/2019
M20 FLAT WASHER ADDED.
NOTES & MATERIAL LIST AMENDED.
SHEET SIZE CHANGED.

APPD by: GLENN FORD

ASSOCIATED DRAWINGS	
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

NETWORK STANDARD
Ausgrid
145 NEWCASTLE RD WALLSEND,
NSW 2287

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
SCALE	1:20			
DESIGNED	-			
DRAWN	PETER SAUNDERS			
CHECKED	-			
APPROVED	I.NICHOLS			
DATE	07/11/04			
PROJECT NUMBER	STD			
PROJTRAK NUMBER	-			
SIZE	DRAWING No			
A2	513943			
SHEET	01			
AMD	10			