



- 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.
 - 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 NS128.
 - 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.
 - THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
 - LONGROD INSULATORS ARE 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 ARE TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
 - USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG: 514038.
 - ALL BOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE PREFERRED OPTION UNDER NORMAL CIRCUMSTANCES.
 - A 2706mm COMPOSITE FIBRE CROSSARM IS TO BE USED AS THE DEFAULT CROSSARM. FOR NARROW FEEDER ALIGNMENTS, A SHORTER CROSSARM MAY BE CONSIDERED TO OVERCOME DESIGN AND SITE CONSTRAINTS. A LONGER 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, 514373, 15232 & 514377 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - THE 690mm CROSSARM BRACES ARE TO BE USED ON A 2706mm, 2700mm, 3006mm & 3000mm CROSSARM. THE 740mm CROSSARM BRACE IS TO BE USED ON A 2406mm & 2400mm CROSSARM.
 - FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
 - WHEN SPECIFYING WAGNER COMPOSITE FIBRE CROSSARMS, A REVIEW OF ALL THE HARDWARE ATTACHED TO THE CROSSARM WILL BE REQUIRED.
 - REFER TO DESIGNER SAFETY REPORT D23/216423 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
27	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
26	JOINT - NON TENSION, COMPRESSION (TO SUIT CONDUCTOR) (SEE NOTE 8)	514053		3
25	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 9)	514038		1m
24	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		1
23	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR-2 (SEE NOTE 6)	565715		6
22	BRACKET - POLE TOP, GALVANISED	514380	H17314	1
21	BLOCK - GAIN, ALUMINIUM, 100mm		146274	1
20	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 5)	513653		1
19	WASHER - CONICAL, M12, GALVANISED	518082	H39639	1
18	WASHER - FLAT, M12, GALVANISED	518081	177982	2
17	BOLT & NUT - M12, HEX, GALVANISED (LENGTH TO SUIT POLE)	515466		1
16	EYENUT - M20, GALVANISED (SEE NOTE 5)	513951	H38853	3
15	WASHER - FLAT, M20, GALVANISED (USE WITH 2700mm & 2400mm CROSSARMS)	518081	177986	2
14	WASHER - FLAT, M20, GALVANISED	518081	177986	2
13	WASHER - LIP, M24, GALVANISED	518081	176912	4
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 5)	513653	H37881	2
11	WASHER - CONICAL, M20, GALVANISED (USE WITH HARDWOOD CROSSARMS)	518082	H39655	2
	WASHER - SPRING, M20, GALVANISED (USE WITH COMPOSITE FIBRE & STEEL CROSSARMS)	518082	175569	
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	2
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	3
8	BOLT & NUT - M20, HEX, GALVANISED (LENGTH TO SUIT POLE)	515466		1
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518082	H39639	1
7	WASHER - CONICAL, M12, GALVANISED (USE WITH 2700mm CROSSARM)	518082	H39639	2
	WASHER - SPRING, M12, GALVANISED (USE WITH 2406mm CROSSARM)	51082	H12047	1
	WASHER - SPRING, M12, GALVANISED (USE WITH 2706mm, 3006mm & 3000mm CROSSARMS)	518082	H12047	2
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2406mm & 2400mm CROSSARMS)	518081	177982	2
	WASHER - FLAT, M12, GALVANISED (USE WITH 2706mm, 2700mm, 3006mm & 3000mm CROSSARMS)	518081	177982	4
5	BOLT & NUT - M12x150mm, HEX, GALVANISED (USE WITH 2400mm CROSSARM)	515466	46847	1
	BOLT & NUT - M12x180mm, HEX, GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)	515466	46888	2
	BOLT & NUT - M12x130mm, HEX, GALVANISED (USE WITH 2406mm CROSSARM)	515466	46805	1
	BOLT & NUT - M12x130mm, HEX, GALVANISED (USE WITH 2706mm & 3006mm CROSSARMS)	515466	46805	2
4	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 11, 12, 13, 15 & 16)	514377	H23787	
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 11, 12, 13, 15 & 16)	15232	71910	
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 11, 12, 13, 15 & 16)	514373	H23907	1
	CROSSARM - 3006x102x102mm, TYPE 13, COMPOSITE FIBRE (SEE NOTES 11, 12, 13, 15 & 16)	262732	186783	
	CROSSARM - 2406x102x102mm, TYPE 11, COMPOSITE FIBRE (SEE NOTES 11, 12, 13, 15 & 16)	262732	186781	
	CROSSARM - 2706x102x102mm, TYPE 12, COMPOSITE FIBRE (SEE NOTES 11, 12, 13, 15 & 16)	262732	186782	
3	SCREW - COACH, M12 x 100mm, GALVANISED		H40484	1
2	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 14)	46	99119	1
	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 14)	514385	H17738	2
1	POLE - TIMBER (AS REQUIRED)	513988		1

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

ITEM	DESCRIPTION	DRG. No
9	COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION	265964
	2700mm CROSSARMS FOR LV, 11kV, 22kV AND 33kV CONSTRUCTION DETAILS	514373
	COMPOSITE FIBRE CROSSARMS SPECIFICATION	262732
	HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
	WOODEN CROSSARMS FOR 11kV LINES	15232
	HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
	20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331
10	ASSOCIATED DRAWINGS	

NETWORK STANDARD

 145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1:20	STANDARD CONSTRUCTION
DESIGNED	-	11kV LARGE THROUGH DELTA
DRAWN	PETER SAUNDERS	TERMINATION CONSTRUCTION
CHECKED	P.A.S	2-30
APPROVED	I.NICHOLS	
DATE	07/11/94	
PROJECT NUMBER	STD	
PROJTRAK NUMBER	-	
SIZE	A2	DRAWING No
		513919
SHEET	1	AMD
		10