



- 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.
 - ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - 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.
 - USE THE 33/920 AERODYNAMIC PIN INSULATOR ARRANGEMENT WHERE THE CONSTRUCTION IS LOCATED WITHIN 1km OF THE COAST OR IN A VERY HIGH POLLUTION AREA.
 - 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.
 - 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. A LONGER CROSSARM IS TO BE USED WHERE ADDITIONAL MID SPAN SEPARATION IS REQUIRED.
 - ONLY THE 2706mm COMPOSITE FIBRE CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS: 262732 & 514373 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
 - 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 D20/256184 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
18	STEP - POLE, SCREW-IN (SEE NOTE 12)	250144	A/R
17	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 5)	514038	4m
16	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT (SEE NOTE 6)	514006	3
	INSULATOR - 33kV, AERODYNAMIC, (33/710) AND PIN ARRANGEMENT (SEE NOTE 6)	513998	
15	BRACKET - POLE TOP, GALVANISED	514380	1
14	BLOCK - GAIN, ALUMINIUM, 100mm (S/C: 146274)		1
13	WASHER - FLAT, M20, GALVANISED	518081	1
12	WASHER - CONICAL, M20, GALVANISED	518082	1
11	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	1
10	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
9	WASHER - CONICAL, M12, GALVANISED	518082	1
8	WASHER - CONICAL, M12, GALVANISED (USE WITH HARDWOOD CROSSARM)	518082	2
	WASHER - SPRING, M12, GALVANISED (USE WITH COMPOSITE FIBRE CROSSARMS)	518082	
7	WASHER - FLAT, M12 GALVANISED	518081	3
6	BOLT & NUT - M12x130mm, HEX., GALVANISED	515466	2
5	CROSSARM - 2700x100x100mm, TYPE B, HARDWOOD (SEE NOTES 8, 9, 10 & 11)	514373	1
	CROSSARM - 3006x102x102mm, TYPE 10, COMPOSITE FIBRE (SEE NOTES 8, 9, 10 & 11)	262732	
	CROSSARM - 2706x102x102mm, TYPE 9, COMPOSITE FIBRE (SEE NOTES 8, 9, 10 & 11)	262732	
4	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
3	BRACE - CROSSARM, FLAT, 690mm, GALVANISED	514385	2
2	FOOTING - TIMBER POLE, ARRANGEMENT (SEE NOTE 1)	508726	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: P.R. CHKD: P.J. APPD: G.F. DATE: 23/07/2024 COMPOSITE CROSSARMS ADDED TO MATERIAL LIST. NOTES & DIMENSIONS AMENDED. SHEET SIZE CHANGED.	1	2	3	4	5	6	7	8		
	COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION 265964 2700mm CROSSARMS FOR LV, 11kV, 22kV AND 33kV CONSTRUCTION DETAILS 514373 COMPOSITE FIBRE CROSSARMS SPECIFICATION 262732 HV CONDUCTOR TIE SUPPORT ARRANGEMENTS 514038				NETWORK STANDARD 145 NEWCASTLE RD WALLSEND, NSW 2287		SCALE 1:20 DESIGNED - DRAWN PETER SAUNDERS CHECKED - APPROVED R.BREMPELL DATE 26/03/96 PROJECT NUMBER STD PROJTRAK NUMBER -		STANDARD CONSTRUCTION 33kV SMALL DELTA CONSTRUCTION 4-5 SIZE A2 DRAWING No 513925 SHEET 01 AMD 9	
	ASSOCIATED DRAWINGS									