



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. PHASE CONDUCTOR AND OVERHEAD EARTHWIRE SIZE.
 - e. VARIATIONS TO STANDARD CROSSARM REQUIREMENTS.
 - f. STAY REQUIREMENTS.
 - g. DEVIATION ANGLE.
 - h. ASSESSED EARTHING REQUIREMENTS.
2. OVERHEAD EARTHWIRE BRACKET TO BE INSTALLED ON THE OUTSIDE FACE OF THE POLE AT ANGLE STRUCTURES.
3. ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
4. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
5. 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.
6. 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.
7. THE CROSSARM BRACE ATTACHMENT POINT ON A CONCRETE POLE IS TO BE AN M12 STAINLESS STEEL EARTH FERRULE.
8. THE OHEW IS TO BE BONDED TO AN M12 STAINLESS STEEL EARTH FERRULE ON THE CONCRETE POLE.
9. 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.
10. ALTERNATE THE CENTRE PHASE INSULATOR ON EITHER SIDE OF THE POLE ALONG THE LINE.
11. COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE PREFERRED OPTION UNDER NORMAL CIRCUMSTANCES.
12. 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 OR ADDITIONAL CENTRE PHASE CLEARANCE IS REQUIRED FROM A LARGE DIAMETER POLE.
13. ONLY THE 2706mm COMPOSITE FIBRE CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRGS: 262732 & 514373 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
14. FOR DETAILS OF APPROVED ALTERNATE WAGNER COMPOSITE FIBRE CROSSARMS, REFER TO DRG: 265964.
15. ONLY THE OPGW OVERHEAD EARTHWIRE OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
16. USE THE OPGW SUSPENSION ARRANGEMENT WHEN ERECTING AN OPGW OVERHEAD EARTHWIRE. USE THE STANDARD EARTHWIRE SUSPENSION ARRANGEMENT WHEN ERECTING A NON OPGW OVERHEAD EARTHWIRE.
17. 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.
18. REFER TO DESIGNER SAFETY REPORT D23/234174 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
20	STEP - POLE (SEE NOTE 17)	514084	A/R
19	EARTHWIRE - SUSPENSION, OVERHEAD, MOUNTING, ARRANGEMENT -2 (SEE NOTES 2, 15 & 16)	513974	1
	OPGW - SUSPENSION, CONDUCTOR, MOUNTING ARRANGEMENT -2b (SEE NOTES 2, 15 & 16)	244708	
18	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 5)	514038	4m
17	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT (SEE NOTES 6 & 10)	514006	3
	INSULATOR - 33kV, AERODYNAMIC, (33/710) AND PIN ARRANGEMENT (SEE NOTES 6 & 10)	513998	
16	BLOCK - GAIN, ALUMINIUM, 100mm (S/C: 146274)		1
15	WASHER - FLAT, M20, GALVANISED	518081	1
14	WASHER - CONICAL, M20, GALVANISED (USE WITH HARDWOOD CROSSARM)	518082	1
	WASHER - SPRING, M20, GALVANISED (USE WITH COMPOSITE FIBRE CROSSARMS)	518082	
13	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	2
12	BOLT & NUT - M20, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
11	WASHER - CONICAL, M12, GALVANISED (USE WITH HARDWOOD CROSSARM)	518082	2
	WASHER - SPRING, M12, GALVANISED (USE WITH COMPOSITE FIBRE CROSSARMS)	518082	
10	WASHER - FLAT, M12 GALVANISED	518081	4
9	BOLT & NUT - M12x130mm, HEX., GALVANISED	515466	2
8	CROSSARM - 2700x100x100mm, TYPE B, HARDWOOD (SEE NOTES 11, 12 & 13)	514373	
	CROSSARM - 3006x102x102mm, TYPE 10, COMPOSITE FIBRE (SEE NOTES 11, 12 & 13)	262732	1
	CROSSARM - 2706x102x102mm, TYPE 9, COMPOSITE FIBRE (SEE NOTES 11, 12 & 13)	262732	
7	WASHER - SPRING, M12, STAINLESS STEEL	518082	1
6	WASHER - FLAT, M12, STAINLESS STEEL	518081	1
5	SCREW - SET, M12x40mm, STAINLESS STEEL	515467	1
4	BRACE - CROSSARM, FLAT, 690mm, GALVANISED	514385	2
3	FOOTING - CONCRETE POLE, ARRANGEMENT (SEE NOTE 1)	512331	1
2	EARTHING - CONCRETE/STEEL, SINGLE POLE, BUTT, ARRANGEMENT	520209	1
1	POLE - CONCRETE (AS REQUIRED)		1

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

CAD DRAWING DO NOT MANUALLY AMEND A M E N D M E N T S DWN: PATRICIA RIOS CHKD: PHILLIP JONES DATE: 21/12/2010 SECOND BRACE ADDED. NOTES AMENDED. APPD by: GLENN FORD DWN: GARY HUGHES CHKD: GARRY CRAIG DATE: 11/10/2013 AUSGRID BORDER APPLIED APPD by: GLENN FORD 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 Ausgrid 145 NEWCASTLE RD WALLSEND. NSW 2287		SCALE 1:20 DESIGNED PHIL JONES DRAWN PATRICIA RIOS CHECKED PHIL JONES APPROVED STEPHEN CONNOR DATE 20/12/2007 PROJECT NUMBER STD PROJTRAK NUMBER -		STANDARD CONSTRUCTION 33kV HORIZONTAL PIN CONSTRUCTION WITH OVERHEAD EARTHWIRE 4-1C/E SIZE A2 DRAWING No 174126 SHEET 1 AMD 3	
	ASSOCIATED DRAWINGS					PROJECT NUMBER STD PROJTRAK NUMBER -		SHEET 1 AMD 3		