



- 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.
 - ALL BOLTS AND INSULATOR PINS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
 - 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.
 - CCSX CONDUCTOR INSULATION SHALL ONLY BE REMOVED BY THE USE OF AN APPROVED CONDUCTOR STRIPPING TOOL.
 - IPC'S ARE TO BE USED TO JOIN CONDUCTORS.
 - SURGE ARRESTERS ARE TO BE INSTALLED ON AN OVERHEAD CCSX CONDUCTOR SYSTEM AT THE INTERFACE TO AN ALTERNATE CONDUCTOR SYSTEM AND IN ACCORDANCE WITH THE REQUIREMENTS OF NS128. SURGE ARRESTERS ARE TO BE INSTALLED ON THIS CONSTRUCTION AS PER THE TYPICAL CROSSARM INSTALLATION ARRANGEMENT 1 SPECIFIED IN DRAWING 265905.
 - COVERS TO BE INSTALLED OVER ALL TERMINATION WEDGE CLAMPS/COMPRESSION DEADENDS. COVER SHOWN REMOVED ON ONE PHASE TO SHOW DETAIL OF TERMINATION MATERIAL.
 - 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 & 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARMS.
 - THE 690mm CROSSARM BRACES ARE TO BE USED ON A 2706mm, 2700mm, 3006mm, 3000mm, 2750mm & 3070mm CROSSARM.
 - THE 740mm CROSSARM BRACE IS TO BE USED ON A 2406mm & 2400mm CROSSARM.
 - IF AN ABS IS INSTALLED WITH THIS CONSTRUCTION, A SET OF EARTHING POINTS ARE TO BE FITTED TO THE CCSX CONDUCTOR SIDE OF THE CONSTRUCTION.
 - REFER TO DESIGNER SAFETY REPORT D24/84269 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
30	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
29	EARTH - PARKING, DEVICE, IPC CC TO EPD (ENSTO REF. SLW26.A2) (SEE NOTE 17)		186865	3
28	ARRESTER - SURGE, 11kV, CCSX, ARRANGEMENT 1 (SEE NOTE 11)	265905		3
27	JOINT - NON TENSION, IPC TO BARE (ENSTO REF. SLW34.A) (SEE NOTE 10)		186864	3
26	WIRE - TIE, PREFORMED, INSULATED, FOR CCSX159 (SET OF 6) (ENSTO REF. SO216.157)		186874	1
	WIRE - TIE, PREFORMED, INSULATED, FOR CCSX62 (SET OF 6) (ENSTO REF. SO216.62)		186875	1
	WIRE - TIE, PREFORMED, INSULATED, FOR CCSX25 (SET OF 6) (ENSTO REF. SO216.25)		186876	1
25	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT	513997		1
24	CAP - CONDUCTOR (ENSTO REF. CSEC1.2) (TO BE USED FOR CCSX159)		186887	3
	CAP - CONDUCTOR (ENSTO REF. CSEC1.1) (TO BE USED FOR CCSX25 & CCSX62)		186886	3
23	COVER - TERMINATION (ENSTO REF. SP67.3) (TO BE USED FOR CCSX159) (SET OF 3) (SEE NOTE 12)		186871	1
	COVER - TERMINATION (ENSTO REF. SP63.3) (TO BE USED FOR CCSX62) (SET OF 3) (SEE NOTE 12)		186872	1
22	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO255.2S) (TO BE USED FOR CCSX159)		186867	3
	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO255.2S) (TO BE USED FOR CCSX62)		186868	3
	DEADEND - COMPRESSION (ENSTO REF. CDE.2S) (INCLUDES COLDSHRINK COVER) (TO BE USED FOR CCSX25)		186870	3
21	SHACKLE - BOW, 70kN, REF. 70'S, A.S.1154.2		30890	3
20	INSULATOR - LONGROD, 11/22kV, POLYMERIC, 70kN (CLEVIS/TONGUE) (SEE NOTE 7)		150375	3
19	TONGUE - 'Y' CLEVIS, 70kN, A.S. 1154.2 (PLP PART No.: CTY-070-1)			3
18	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR-2 (SEE NOTE 7)	566715		3
17	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 2750mm & 3070mm CROSSARMS)		146282	1
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2706mm, 2406mm, 3006mm, 2700mm, 2400mm & 3000mm CROSSARMS)		146274	1
16	EYENUT - M20, GALVANISED (SEE NOTE 6)	513951	H38853	3
15	WASHER - FLAT, M20, GALVANISED (USE WITH 2700mm & 2400mm CROSSARMS)	518081	H7986	2
14	WASHER - FLAT, M20, GALVANISED	518081	H7986	1
13	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 2750mm & 3070mm CROSSARMS)	518081	H39231	5
	WASHER - LIP, M24, GALVANISED (USE WITH 2706mm, 2406mm, 3006mm, 2700mm, 2400mm & 3000mm CROSSARMS)	518081	H76912	1
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	513653	H37881	2
	WASHER - CONICAL, M20, GALVANISED (USE WITH 2700mm & 2400mm CROSSARMS)	518082	H39655	1
11	WASHER - SPRING, M20, GALVANISED (USE WITH 2706mm, 2406mm, 3006mm, 3000mm, 2750mm & 3070mm CROSSARMS)	518082	H75569	2
10	WASHER - CONICAL, M20, GALVANISED	518082	H39655	1
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	H39231	1
8	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 6)	513653		1
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518082	H39639	1
	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, 2750mm & 3070mm CROSSARMS)	518082	H12047	2
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2406mm & 2400mm CROSSARMS)	518081	H7982	2
	WASHER - FLAT, M12, GALVANISED (USE WITH 2706mm, 2700mm, 3006mm, 3000mm, 2750mm & 3070mm CROSSARMS)	518081	H7982	4
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2750mm & 3070mm CROSSARMS)	515466	46847	2
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2400mm CROSSARM)	515466	46847	1
5	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
	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)	237491	183935	1
	CROSSARM - 2750x125x125mm, ITEM 1, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)	237491	183933	1
	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 13, 14 & 15)	514377	H23787	1
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 13, 14 & 15)	15232	71910	1
4	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 13, 14 & 15)	514373	H23907	1
	CROSSARM - 3006x102x102mm, TYPE 13, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)	262732	186783	1
	CROSSARM - 2406x102x102mm, TYPE 11, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)	262732	186781	1
	CROSSARM - 2706x102x102mm, TYPE 12, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)	262732	186782	1
3	SCREW - COACH, M12 x 100mm, GALVANISED		H40484	1
	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 16)	46	99119	1
2	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 16)	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: P.R. CHKD: P.J. APPD: G.F. DATE: 09/05/2024 ITEM 29 ADDED. MATERIAL LIST & NOTES AMENDED.	2700mm CROSSARMS FOR LV, 11kV, 22kV & 33kV CROSSARM DETAILS	514373	NETWORK STANDARD Ausgrid 145 NEWCASTLE RD WALLSEND, NSW 2287	SCALE	1:20	STANDARD CONSTRUCTION 11kV CCSX TO BARE CONDUCTOR THROUGH TERMINATION CONSTRUCTION 2-411CCSX							
	COMPOSITE FIBRE CROSSARMS SPECIFICATION	262732		DESIGNED	J.BROOKS								
	COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491		DRAWN	P.RIOS								
	HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377		CHECKED	P.JONES								
	WOODEN CROSSARMS FOR 11kV LINES	15232		APPROVED	G.FORD								
	11kV CCSX CONDUCTOR SURGE ARRESTER ARRANGEMENTS	265905		DATE	04/04/2024								
20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331	PROJECT NUMBER	STD	PROJTRAK NUMBER	-	SIZE	A2	DRAWING No	265898	SHEET	1	AMD	1
ASSOCIATED DRAWINGS													