



- 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 IS TO BE DETERMINED FROM DRG: 520324.
 - 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 NS126. 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 2406mm & 2706mm COMPOSITE FIBRE CROSSARM IS TO BE USED AS THE DEFAULT CROSSARMS. 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 2406mm & 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.
 - REFER TO DESIGNER SAFETY REPORT D24/84286 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
28	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
27	ARRESTER - SURGE, 11kV, CCSX ARRANGEMENT 1 (SEE NOTE 11)	265905		3
26	JOINT - NON TENSION, IPC TO BARE (ENSTO REF. SLW34 A) (SEE NOTE 10)		186864	3
	WIRE - TIE, PREFORMED, INSULATED, FOR CCSX159 (SET OF 6) (ENSTO REF. SO216.157)		186874	
25	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	
24	INSULATOR - 11/22kV AERODYNAMIC, (22/450) AND PIN ARRANGEMENT		513997	2
23	CAP - CONDUCTOR (ENSTO REF. CSECL2) (TO BE USED FOR CCSX159)		186887	3
	CAP - CONDUCTOR (ENSTO REF. CSECL1) (TO BE USED FOR CCSX25 & CCSX62)		186886	
22	COVER - TERMINATION (ENSTO REF. SP63.3) (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	
	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO256.2S) (TO BE USED FOR CCSX159)		186867	
21	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO256.2S) (TO BE USED FOR CCSX62)		186868	3
	DEADEND - COMPRESSION (ENSTO REF. CDE 2S) (INCLUDES COLD SHRINK COVER) (TO BE USED FOR CCSX25)		186870	
20	SHACKLE - BOW, 70kN, REF. 70/S, A.S.1154.2		30890	3
19	INSULATOR - LONGROD, 11/22kV, POLYMERIC, 70kN (CLEVIS/TONGUE) (SEE NOTE 7)		150375	3
18	TONGUE - 'Y' CLEVIS, 70kN, A.S. 1154.2 (PLP PART No.: CTY-070-1)			3
17	INSULATOR - 11/22kV LONGROD, STRING ARRANGEMENT AR-2 (SEE NOTE 7)		565715	3
16	BLOCK - GAIN, ALUMINIUM, 125mm (USE WITH 2750mm & 3070mm CROSSARMS)		146282	2
	BLOCK - GAIN, ALUMINIUM, 100mm (USE WITH 2406mm, 2706mm, 3006mm, 2400mm & 3000mm CROSSARMS)		146274	
15	WASHER - FLAT, M20, GALVANISED (USE WITH 2700mm & 2400mm CROSSARMS)		518081	4
14	WASHER - FLAT, M20, GALVANISED		518081	2
13	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE) (USE WITH 2750mm & 3070mm CROSSARMS)		518081	4
	WASHER - LIP, M24, GALVANISED (USE WITH 2406mm, 2706mm, 3006mm, 2400mm & 3000mm CROSSARMS)		518081	4
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)		513653	4
11	WASHER - CONICAL, M20, GALVANISED (USE WITH 2400mm & 2700mm CROSSARMS)		518082	4
	WASHER - SPRING, M20, GALVANISED (USE WITH 2406mm, 2706mm, 3006mm, 3000mm, 2750mm & 3070mm CROSSARMS)		518082	4
10	WASHER - CONICAL, M20, GALVANISED		518082	2
9	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)		518081	8
8	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 6)		513653	2
	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)		518082	2
7	WASHER - CONICAL, M12, GALVANISED (USE WITH 2700mm CROSSARM)		518082	4
	WASHER - SPRING, M12, GALVANISED (USE WITH 2406mm CROSSARM)		51082	2
	WASHER - SPRING, M12, GALVANISED (USE WITH 2706mm, 3006mm, 3000mm & 3070mm CROSSARMS)		518082	4
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2406mm & 2400mm CROSSARMS)		518081	4
	WASHER - FLAT, M12, GALVANISED (USE WITH 2706mm, 2700mm, 3006mm, 3000mm, 2750mm & 3070mm CROSSARMS)		518081	8
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2750mm & 3070mm CROSSARMS)		515466	4
	BOLT & NUT - M12x150mm, HEX., GALVANISED (USE WITH 2400mm CROSSARM)		515466	2
5	BOLT & NUT - M12x180mm, HEX., GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)		515466	4
	BOLT & NUT - M12x130mm, HEX., GALVANISED (USE WITH 2406mm CROSSARM)		515466	2
	BOLT & NUT - M12x130mm, HEX., GALVANISED (USE WITH 2706mm & 3006mm CROSSARMS)		515466	4
	CROSSARM - 3070x125x125mm, ITEM 3, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)		237491	183935
	CROSSARM - 2750x125x125mm, ITEM 1, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)		237491	183933
	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 13, 14 & 15)		514377	H23787
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 13, 14 & 15)		15232	71910
4	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 13, 14 & 15)		514373	H23907
	CROSSARM - 3006x102x102mm, TYPE 13, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)		262732	186783
	CROSSARM - 2406x102x102mm, TYPE 11, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)		262732	186781
	CROSSARM - 2706x102x102mm, TYPE 12, COMPOSITE FIBRE (SEE NOTES 13, 14 & 15)		262732	186782
3	SCREW - COACH, M12 x 100mm, GALVANISED		H40484	2
	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 16)		46	99119
2	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 16)		514385	H17738
1	POLE - TIMBER (AS REQUIRED)		513988	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: P.R.
CHKD: P.J.
APPD: G.F.
DATE: 09/05/2024
MATERIAL LIST AMENDED.

DESCRIPTION	ITEM
2700mm CROSSARMS FOR LV, 11kV, 22kV & 33kV CROSSARM DETAILS	514373
COMPOSITE FIBRE CROSSARMS SPECIFICATION	262732
COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV TERMINATION STEEL CROSSARM CONSTRUCTION DETAILS	514377
WOODEN CROSSARMS FOR 11kV LINES	15232
11kV CCSX CONDUCTOR SURGE ARRESTER ARRANGEMENTS	265905
20mm EYEBOLT LOADING & DEVIATION GRAPH	520324

NETWORK STANDARD
Ausgrid
145 NEWCASTLE RD WALLSEND,
NSW 2287

SCALE	1:20
DESIGNED	J.BROOKS
DRAWN	P.RIOS
CHECKED	P.JONES
APPROVED	G.FORD
DATE	04/04/2024
PROJECT NUMBER	STD
PROJ/TRAK NUMBER	-

STANDARD CONSTRUCTION	
11kV CCSX TO BARE CONDUCTOR	
CORNER POLE TERMINATION CONSTRUCTION	
2-412CCSX	
SIZE	A2
DRAWING No	265899
SHEET	1
AMD	1