



- 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 NS126.
 - 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 TO TERMINATE THE CCSX CONDUCTOR.
 - POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
 - TO MAINTAIN THE INTEGRITY OF A COVERED SYSTEM, IT IS ESSENTIAL THAT ALL STRIPPED AND PUNCTURED INSULATION IS CONTAINED WITHIN THE APPROPRIATE INSULATING COVER.
 - CCSX AND CCT CONDUCTOR INSULATION SHALL ONLY BE REMOVED BY THE USE OF AN APPROVED CONDUCTOR STRIPPING TOOL.
 - IPCS SUITED TO JOIN CCSX TO BARE CONDUCTOR ARE TO BE USED TO JOIN CONDUCTORS. THE CCT CONDUCTOR INSULATION IS TO BE STRIPPED AS CLOSE AS POSSIBLE TO THE IPC AND TREATED AS A BARE CONDUCTOR FOR THE PURPOSES OF THE CONDUCTOR JOINT. THE CENTRE PHASE IPC IS TO BE LOCATED ON THE CCT CONDUCTOR TERMINATION SIDE OF THE CROSSARM.
 - 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 ON DRG: 265905.
 - COVERS TO BE INSTALLED OVER ALL COVERED CONDUCTOR TERMINATIONS. COVER SHOWN REMOVED ON ONE PHASE OF THE CCSX TERMINATION TO SHOW DETAILS OF TERMINATION MATERIAL.
 - COMPOSITE FIBRE CROSSARMS ARE TO BE USED AS THE PREFERRED OPTION UNDER NORMAL CIRCUMSTANCES.
 - A 2406mm COMPOSITE FIBRE CROSSARM IS TO BE USED AS THE DEFAULT CROSSARM. AN ALTERNATE CROSSARM MAY BE CONSIDERED TO OVERCOME SITE REQUIREMENTS. A STEEL CROSSARM IS TO BE USED WHEN THE MAXIMUM LOAD OF THE ALTERNATE CROSSARMS IS EXCEEDED.
 - ONLY THE 2406mm 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.
 - A CCSX EARTHING POINT IS TO BE INSTALLED ON THE CCSX CONDUCTOR WHERE REQUIRED FOR OPERATIONAL PURPOSES OR AT LOCATIONS SPECIFIED IN NS126.
 - IF AN ABS IS INSTALLED WITH THIS CONSTRUCTION, A CCSX EARTHING POINT IS TO BE FITTED TO THE CCSX CONDUCTOR AND A CCT EARTHING POINT IS TO BE FITTED TO THE CCT CONDUCTOR.
 - 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 D26/62137 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	STOCK CODE	QTY
33	STEP - POLE, SCREW-IN (SEE NOTE 3)	250144	185198	A/R
32	EARTH - PARKING DEVICE, IPC CC TO EPD (ENSTO REF. SLW26 A2) (SEE NOTES 18 & 19)		186865	3
31	ARRESTER - SURGE, 11kV, CCSX ARRANGEMENT -1 (SEE NOTE 12)	265905		3
30	COVER - STRAIN CLAMP (SEE NOTES 9 & 13)		144543	3
	CLAMP - CONDUCTOR STRAIN, FOR CCT180		176313	
29	CLAMP - CONDUCTOR STRAIN, FOR CCT120		144527	3
	CLAMP - CONDUCTOR STRAIN, FOR CCT80		144535	
28	INSULATOR - STRAIN ROD (CLEVIS/TONGUE)		144550	3
27	LINK - SAG, 70kN (PLP PART No. CTSLEW-070-1)		PURCHASE	3
26	JOINT - NON TENSION, IPC TO BARE (ENSTO REF. SLW34 A) (SEE NOTES 10 & 11)		186864	3
25	WIRE - TIE, PREFORMED, INSULATED, FOR CCSX159 (SET OF 6) (ENSTO REF. SO216.157)		186874	
	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		1
23	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	
22	COVER - TERMINATION (ENSTO REF. SP67.3) (TO BE USED FOR CCSX159) (SET OF 3) (SEE NOTES 9 & 13)		186871	1
	COVER - TERMINATION (ENSTO REF. SP63.3) (TO BE USED FOR CCSX62) (SET OF 3) (SEE NOTES 9 & 13)		186872	
21	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO256.2S) (TO BE USED FOR CCSX159)		186867	
	CLAMP - TERMINATION, WEDGE (ENSTO REF. SO256.2S) (TO BE USED FOR CCSX62)		186868	3
	DEADEND - COMPRESSION (ENSTO REF. CDE 2) (INCLUDES COLDSHRNK 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		187140	3
17	BLOCK - GAIN, ALUMINIUM, 100mm		146274	1
16	EYENUT - M20, GALVANISED (SEE NOTE 6)	513951	H38853	3
15	WASHER - FLAT, M20, GALVANISED (USE WITH 2400mm & 2700mm CROSSARMS)	518081	177986	2
14	WASHER - FLAT, M20, GALVANISED	518081	177986	1
13	WASHER - LIP, M24, GALVANISED	518081	176912	5
12	EYEBOLT - M20x200mm, GALVANISED (SEE NOTE 6)	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	175659	
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 2700mm CROSSARM)	518082	H39639	2
7	WASHER - CONICAL, M12, GALVANISED (USE WITH 2400mm CROSSARM)	518082	H39639	1
	WASHER - SPRING, M12, GALVANISED (USE WITH 2706mm, 2700mm & 3006mm CROSSARMS)	518082	H12047	2
	WASHER - SPRING, M12, GALVANISED (USE WITH 2406mm CROSSARM)	518082	H12047	
6	WASHER - FLAT, M12, GALVANISED (USE WITH 2706mm, 2700mm, 3006mm & 3000mm CROSSARMS)	518081	177982	4
	WASHER - FLAT, M12, GALVANISED (USE WITH 2406mm & 2400mm CROSSARMS)	518081	177982	2
5	BOLT & NUT - M12x180mm, HEX, GALVANISED (USE WITH 2700mm & 3000mm CROSSARMS)	515466	46888	2
	BOLT & NUT - M12x150mm, HEX, GALVANISED (USE WITH 2400mm CROSSARM)	515466	46847	1
	BOLT & NUT - M12x130mm, HEX, GALVANISED (USE WITH 2706mm & 3006mm CROSSARMS)	515466	46805	2
	BOLT & NUT - M12x130mm, HEX, GALVANISED (USE WITH 2406mm CROSSARM)	515466	46805	1
4	CROSSARM - 3000x150x100x5mm, RHS, GALVANISED (SEE NOTES 14, 15, 16, 20 & 21)	514377	H23787	
	CROSSARM - 2700x150x100mm, TYPE C, HARDWOOD (SEE NOTES 14, 15, 16, 20 & 21)	514373	H23907	
	CROSSARM - 2400x125x100mm, TYPE H2, HARDWOOD (SEE NOTES 14, 15, 16, 20 & 21)	15232	71910	
	CROSSARM - 3006x102x102mm, TYPE 13, COMPOSITE FIBRE (SEE NOTES 14, 15, 16, 20 & 21)	262732	186763	1
	CROSSARM - 2706x102x102mm, TYPE 12, COMPOSITE FIBRE (SEE NOTES 14, 15, 16, 20 & 21)	262732	186762	
	CROSSARM - 2406x102x102mm, TYPE 11, COMPOSITE FIBRE (SEE NOTES 14, 15, 16, 20 & 21)	262732	186761	
3	SCREW - COACH, M12 x 100mm, GALVANISED		H40484	1
2	BRACE - CROSSARM, ANGLE, TYPE H, 740mm, GALVANISED (SEE NOTE 17)	46	99119	1
	BRACE - CROSSARM, FLAT, 690mm, GALVANISED (SEE NOTE 17)	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	COMPOSITE FIBRE CROSSARMS WAGNER SPECIFICATION	265964
	11kV CCSX CONDUCTOR SURGE ARRESTER ARRANGEMENTS	265905
	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
	20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331
ASSOCIATED DRAWINGS		

NETWORK STANDARD
Ausgrid
 42 HONEYSUCKLE DRIVE,
 NEWCASTLE WEST NSW 2300

SCALE	1:20	STANDARD CONSTRUCTION 11kV CCSX TO CCT CONDUCTOR THROUGH TERMINATION CONSTRUCTION 2-511
DESIGNED	P.JONES	
DRAWN	P.RIOS	
CHECKED	R.HAMILTON	
APPROVED	G.FORD	
DATE	21/04/2026	
PROJECT NUMBER	STD	
TRIM REF NUMBER	-	

SIZE	DRAWING No	SHEET	REV
A2	273278	1	0