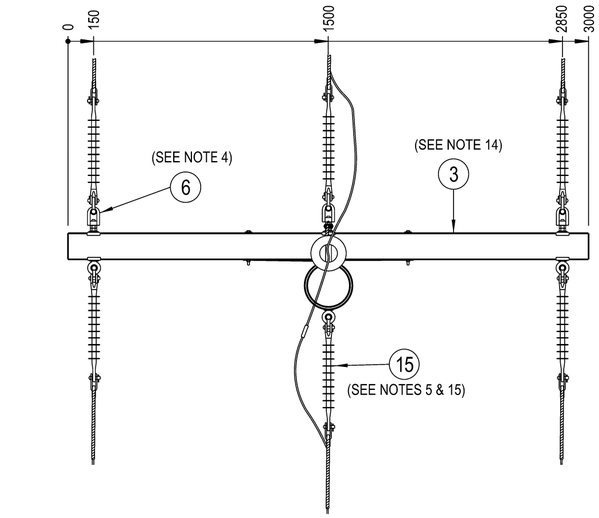

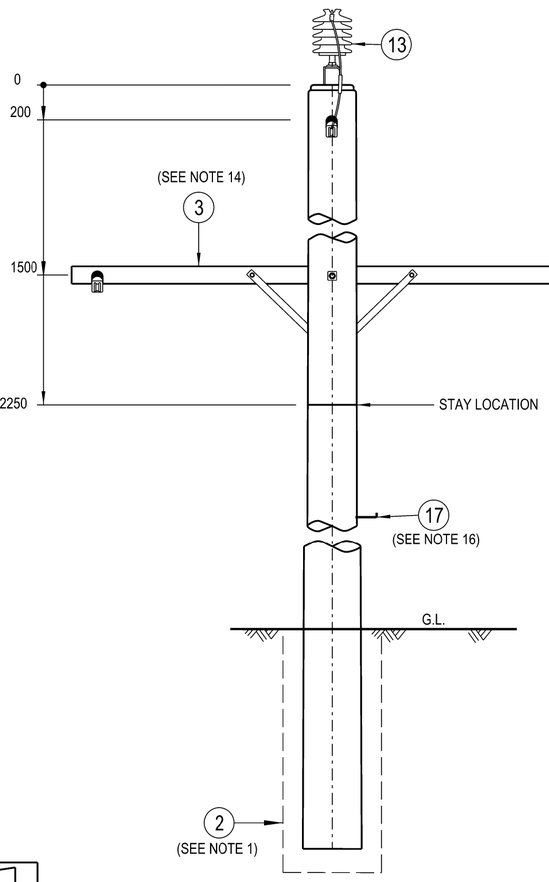

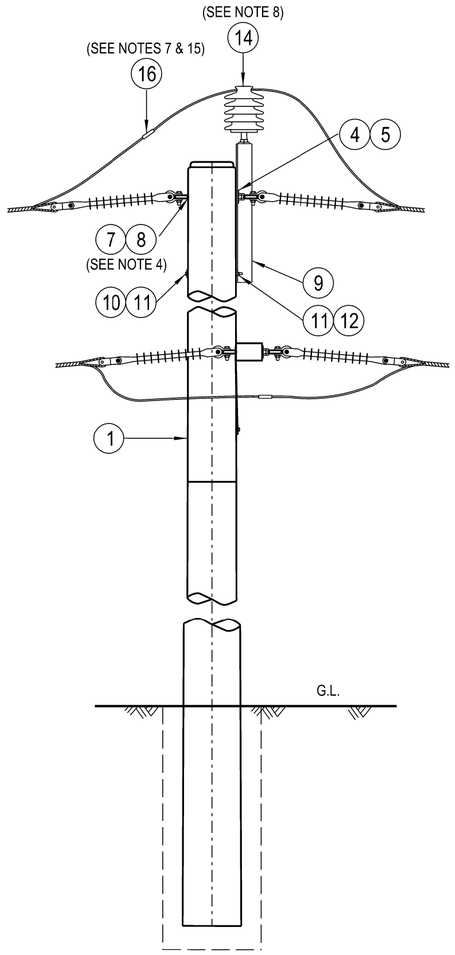

NOTES :

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 SIZE.
   e. VARIATIONS TO STANDARD CROSSARM REQUIREMENTS.
   f. STAY REQUIREMENTS.
   g. DEVIATION ANGLE.
2. THE MAXIMUM LINE DEVIATION ANGLE TO BE CONSTRUCTED ON THIS ARRANGEMENT IS TO BE DETERMINED BY THE LINE DESIGNER.
3. 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.
4. THE LOAD AND DEVIATION ALLOWABLE ON THE EYEBOLT AND EYENUT ASSEMBLY IS TO BE DETERMINED FROM DRG: 520331.
5. LONGROD INSULATORS TO BE USED UNDER NORMAL CONDITIONS.
6. POLES SHALL BE DRILLED, SCARFED AND DRESSED ON SITE. DRILLING AND SCARFING TO BE TREATED WITH APPROVED PRESERVATIVES.
7. NON TENSION COMPRESSION JOINTS TO BE USED WHEN REQUIRED TO JOIN CONDUCTORS.
8. USE THE ANGLE TYPE CONDUCTOR TIE ARRANGEMENT AS SHOWN ON DRG: 514038.
9. CONDUCTOR TO POLE CLEARANCE IS TO BE A MINIMUM OF 380mm.
10. 'A' AND 'C' PHASE CONDUCTORS MAY BE BRIDGED UNDER THE CROSSARM PROVIDED THAT:
    a. THE LINE IS SINGLE CIRCUIT OR STATUTORY CLEARANCES CAN BE MAINTAINED UNDER ALL OPERATING CONDITIONS.
    b. MINIMUM CLEARANCES TO EARTH (POLE/HARDWARE) OF 380mm CAN BE MET.
    c. WHEN THE CONDITIONS IN a AND b ARE NOT MET, A 33kV 33/920 AERODYNAMIC INSULATOR AND PIN ARRANGEMENT IS TO BE INSTALLED FOR THE 'A' AND 'C' PHASE CONDUCTORS.
11. ALL BOLTS AND EYEBOLTS PASSING THROUGH TIMBER ARE TO BE COATED WITH GRAPHITE GREASE.
12. STAYS TO BE INSTALLED SO THAT THE STAY WIRE CLEARANCE FROM THE PHASE CONDUCTORS COMPLIES WITH THE STATUTORY REQUIREMENTS.
13. EYEBOLTS ARE TO BE INSTALLED TO BISECT THE ANGLE OF DEVIATION.
14. ONLY THE 3000mm STEEL CROSSARM OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING. REFER TO DRG: 237491 FOR DRILLING PATTERN OF ALTERNATE CROSSARM.
15. ONLY THE SINGLE PHASE CONDUCTOR OPTION IS SHOWN ON THIS CONSTRUCTION DRAWING.
16. 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.
17. REFER TO DESIGNER SAFETY REPORT D21/206601 FOR ATYPICAL HAZARDS ASSOCIATED WITH THIS STANDARD CONSTRUCTION.

ITEM	DESCRIPTION	DRG. No	QTY
17	STEP - POLE, SCREW-IN (SEE NOTE 16)	250144	A/R
16	JOINT - COMPRESSION, NON TENSION (TO SUIT DUAL CONDUCTORS) (SEE NOTES 7 & 15)	514053	6
	JOINT - COMPRESSION, NON TENSION (TO SUIT CONDUCTOR) (SEE NOTES 7 & 15)	514053	3
15	INSULATOR - LONGROD, 33kV, DUAL CONDUCTOR, POLYMERIC STRING, ARRANGEMENT -2 (SEE NOTES 5 & 15)	250120	6
	INSULATOR - LONGROD, 33kV, POLYMERIC STRING, ARRANGRMENT -2 (SEE NOTES 5 & 15)	158754	
14	TIE - CONDUCTOR, HIGH VOLTAGE, SUPPORT ARRANGEMENT (SEE NOTE 8)	514038	1m
13	INSULATOR - 33kV, AERODYNAMIC, (33/920) AND PIN ARRANGEMENT	514006	1
12	WASHER - CONICAL, M12, GALVANISED	518082	1
11	WASHER - FLAT, M12, GALVANISED	518081	2
10	BOLT & NUT - M12, HEX., GALVANISED (LENGTH TO SUIT POLE)	515466	1
9	BRACKET - POLE TOP, GALVANISED	514380	1
8	WASHER - SQUARE, 75x75x6mm, GALVANISED (Ø22mm HOLE)	518081	1
7	EYEBOLT - M20, GALVANISED (LENGTH TO SUIT POLE) (SEE NOTE 4)	513653	1
6	EYENUT - M20, GALVANISED (SEE NOTE 4)	513951	1
5	WASHER - FLAT, M20, GALVANISED	518081	1
4	WASHER - CONICAL, M20, GALVANISED	518082	1
3	CROSSARM - MOUNTING ARRANGEMENT 3 (GALVANISED STEEL OR COMPOSITE FIBRE CROSSARM) (SEE NOTE 14)	514176	1
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

7 DWN: PRIOS CHKED: P.JONES DATE: 07/07/2021 LONGROD ARRANGEMENT UPDATED. FOOTING DETAILS ADDED. NOTES & MATERIAL LIST AMENDED. APPD by: GLENN FORD

COMPOSITE FIBRE CROSSARM MECHANICAL LOAD REQUIREMENTS	237491
HV CONDUCTOR TIE SUPPORT ARRANGEMENTS	514038
20mm EYEBOLT & EYENUT ASSEMBLY LOADING & DEVIATION GRAPH	520331

ASSOCIATED DRAWINGS

NETWORK STANDARD Ausgrid

145 NEWCASTLE RD WALLSEND, NSW 2287

SCALE	1:25
DESIGNED	-
DRAWN	PETER SAUNDERS
CHECKED	P.A.S.
APPROVED	G.SKINNER
DATE	29/05/1996
PROJECT NUMBER	STD
PROJTRAK NUMBER	-

STANDARD CONSTRUCTION
33kV LARGE DELTA THROUGH TERMINATION CONSTRUCTION
4-30

SIZE A2 | DRAWING No 513936 | SHEET 1 | AMD 7

20110901