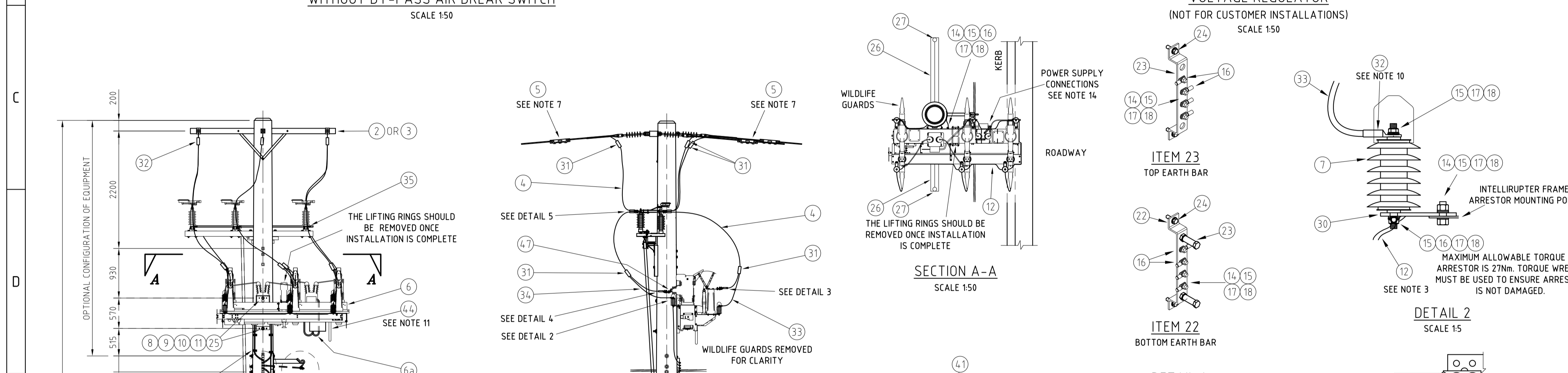


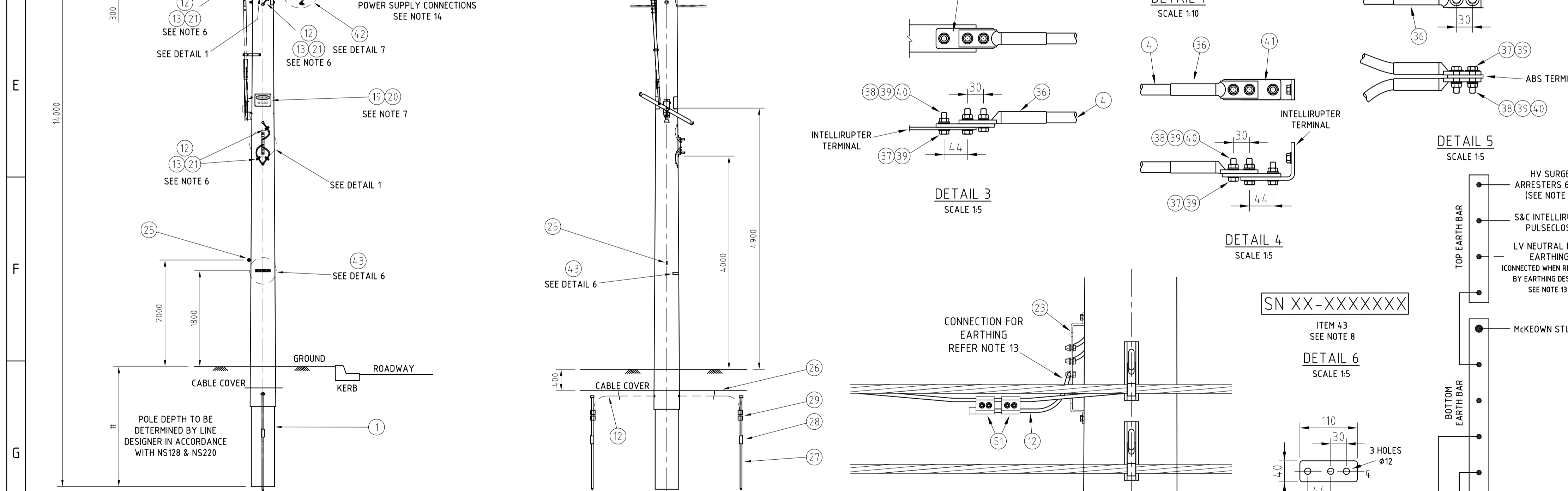
OPTION 2
WITHOUT BY-PASS AIR BREAK SWITCH
SCALE 1:50

- NOTES**
- MINIMUM CLEARANCE 11kV TO EARTH IS TO BE GREATER THAN 200mm. HV PHASE TO PHASE CLEARANCE IS TO BE GREATER THAN 280mm.
 - LV ATTACHMENT POINT IS TO BE DETERMINED BASED ON GROUND CLEARANCE REQUIREMENTS WHILST GIVING CONSIDERATION TO AUSGRID'S ELECTRICAL SAFETY RULES. MINIMUM SAFE WORKING DISTANCES WHERE BARE LV MAINS EXIST THEY SHALL BE CONVERTED TO ABC FOR AT LEAST ONE SPAN EITHER SIDE OF THE PULSECLOSER. ITEM 43 IS REQUIRED FOR ALL INTELLIRUPTER INSTALLATIONS.
 - HV SURGE ARRESTORS ARE TO BE EARTHED BY DAISY CHAINING AND ELECTRICALLY BONDED TO MAIN EARTH CONDUCTOR USING 70mm² PVC INSULATED CONDUCTOR (ITEM 12).
 - INSTALL 4 x 12mm (ITEM 25) COACH SCREWS IN ADDITION TO KING BOLTS TO ENSURE STABILITY OF INTELLIRUPTER UNIT.
 - DANGER SIGNS TO BE INSTALLED ON BOTH FRONT AND REAR OF POLE. SIGNS MUST BE BENT AROUND POLE BEFORE SECURING.
 - ALL EARTHING CABLES ARE TO BE SECURED TO THE POLE WITH SADDLES (ITEM 13) BEFORE ENTERING POLE EARTHING CABLE HOLES.
 - WHERE CCT CABLES ARE USED, STANDARD EARTHING POINTS AND COVERS ARE TO BE INSTALLED AS DETAILED IN NS126.
 - INTELLIRUPTER SERIAL NUMBER SIGN (ITEM 43) IS TO BE BENT AROUND POLE BEFORE SECURING. IT IS TO BE MOUNTED ON THE SAME POLE FACE AS THE INTELLIRUPTER 1800mm ABOVE GROUND LEVEL AT ALL SITES. THE SIGN IS TO BE MADE FROM 25mm HIGH UV STABLE WEATHERPROOF LETTERING AND CAN UTILISE POLE NUMBERING METHODS OR SIMILAR.
 - THE INTELLIRUPTER IS TO BE LABELLED IN ACCORDANCE WITH NS158 TABLE 4.6 - 'RECLUSERS & SECTIONALISERS'. THE POLE NUMBER IS TO BE INSTALLED IN ACCORDANCE WITH NS148.
 - INSTALL MEDIUM WALLED MASTIC LINED BLACK HEATSHRINK OVER THE BARE LUG BARREL AND CABLE INSULATION. ANY ANTENNA USED MUST HAVE AN RF INDUSTRY N-243 N ADAPTER M/M BARREL FITTED.
 - THE ANTENNA LISTED AS ITEM 44 CAN BE ANY OF THE FOLLOWING:
FOR GENERAL USE: A BENELEC 024614 CELLULAR UNITY GAIN ALL BAND MARINE ANTENNA CAN BE USED.
FOR AREAS WHERE SIGNAL STRENGTH IS LOW USE A MOBILE ONE CN812K HIGH PERFORMANCE TRIBAND CELLAR ANTENNA.
FOR AREAS OF HIGH SIGNAL STRENGTH USE AN ELEMENT 14 173519201 MULTICOMP - 05-UMTS-0103-CO ANTENNA.
 - THE BOTTOM OF THE INTELLIRUPTER SHOULD BE MOUNTED NOT MORE THAN 8 METRES ABOVE THE GROUND TO ALLOW FOR MANUAL OPERATION. EXCEPTIONS TO THIS MAY BE ACCEPTABLE IF LONGER OPERATING STICKS HAD BEEN APPROVED FOR USE IN THE AREA.
 - IF THE SITE SPECIFIC EARTHING DESIGN REQUIRES THE LV MAINS NEUTRAL TO BE CONNECTED TO THE INTELLIRUPTER EARTHING SYSTEM, DETAIL 7 SHOULD BE USED FOR THE CONNECTION. IF TWO MAINS CABLES ARE ON THE POLE, ONLY ONE LV MAINS CABLE IS TO BE CONNECTED.
 - AFTER INSTALLATION OF THE POWER MODULE CONNECTIONS TO THE POWER SOCKET ON THE INTELLIRUPTER BODY AND THE VT TERMINAL BLOCK ARE TO BE MADE VIA THE FLEXIBLE CONDUIT, SOCKETS AND CABLE SUPPLIED. REFER TO TECHNICAL DOCUMENTS FOR FURTHER INFORMATION.

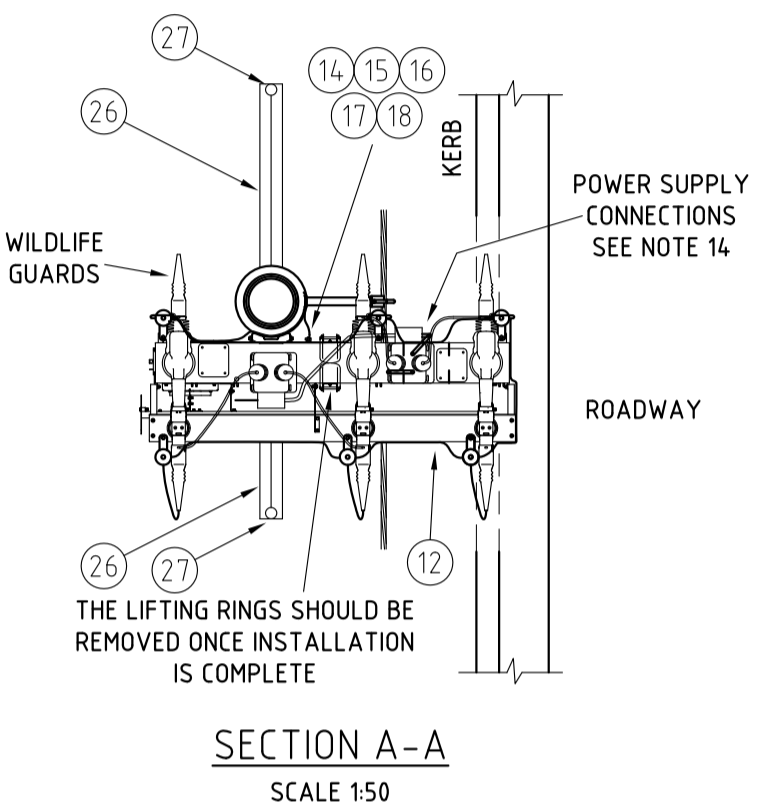


OPTION 3
VOLTAGE REGULATOR
(NOT FOR CUSTOMER INSTALLATIONS)
SCALE 1:50

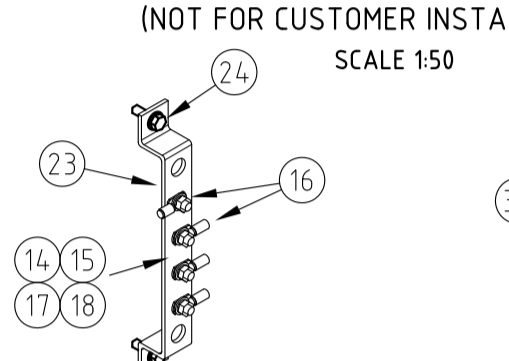
REFERENCE DRAWINGS	
TITLE	DRAWING No
INTELLIRUPTER WITH PHASE TO PHASE VT COMPOSITE POLE DRILLING DETAILS	244231
AIR BREAK SWITCH	175902
VOLTAGE REGULATOR ARRANGEMENTS	224227



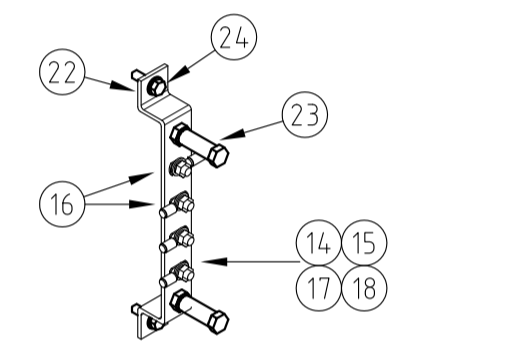
OPTION 1
WITH BY-PASS AIR BREAK SWITCH
(NOT FOR CUSTOMER INSTALLATIONS)
SCALE 1:50



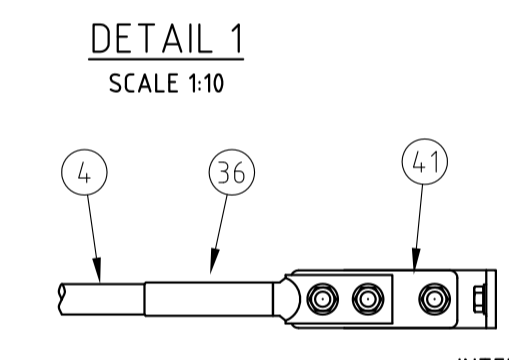
SECTION A-A
SCALE 1:50



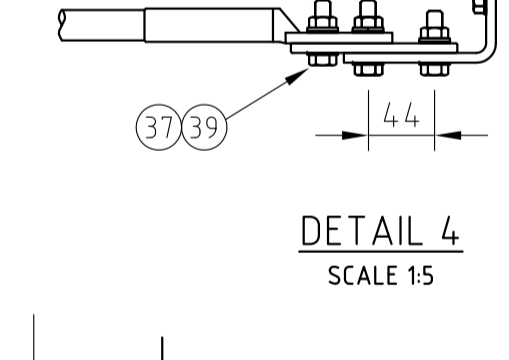
ITEM 23
TOP EARTH BAR
SCALE 1:10



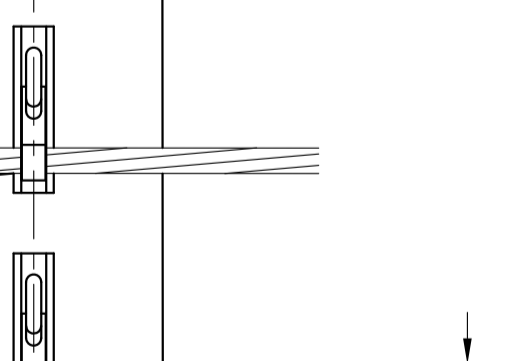
ITEM 22
BOTTOM EARTH BAR
SCALE 1:10



DETAIL 1
SCALE 1:10



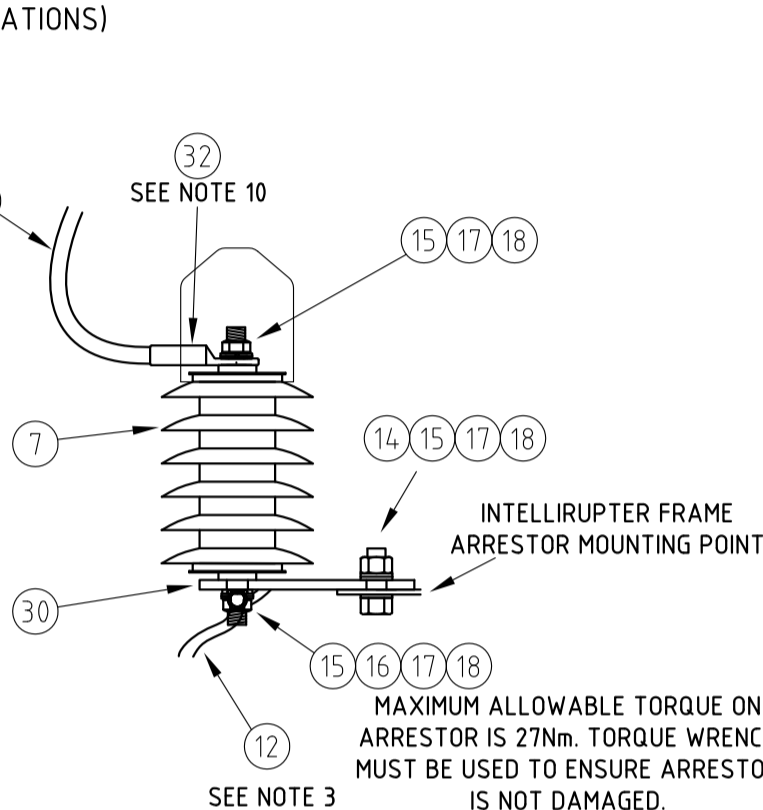
DETAIL 4
SCALE 1:5



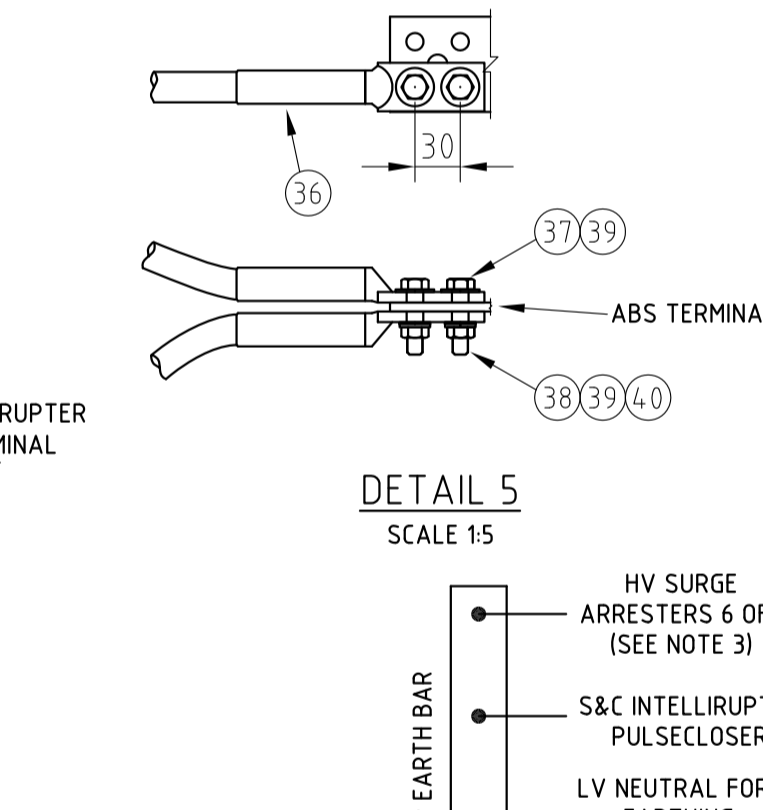
DETAIL 6
SCALE 1:5



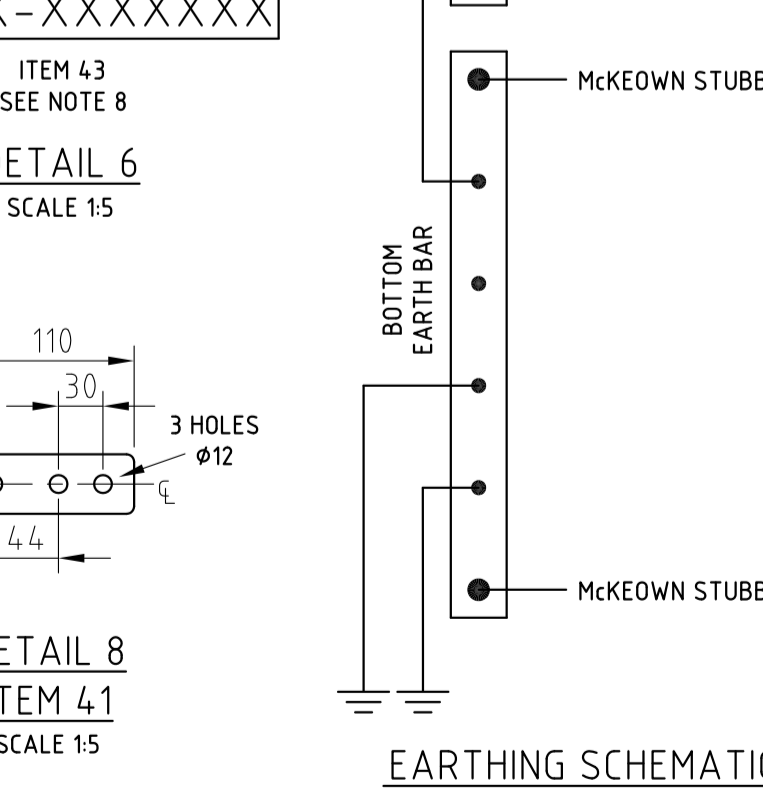
DETAIL 8
ITEM 41
SCALE 1:5



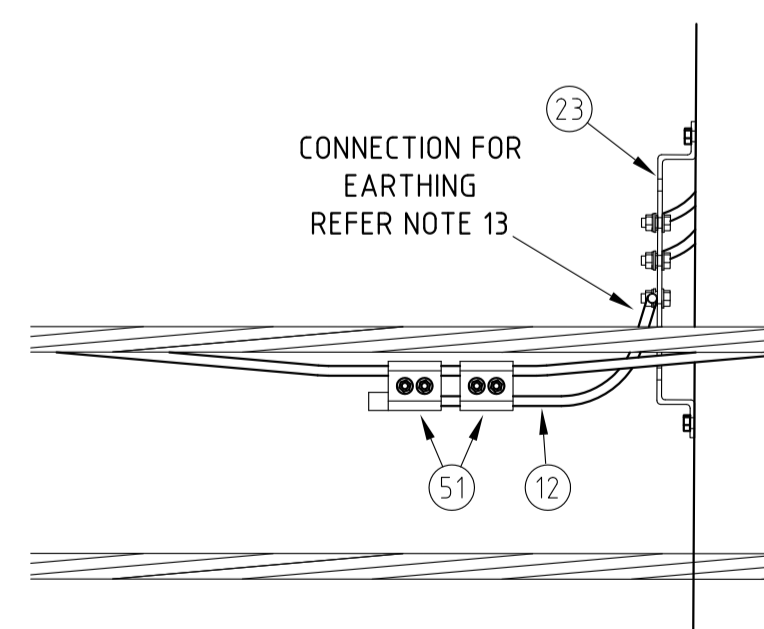
DETAIL 2
SCALE 1:5



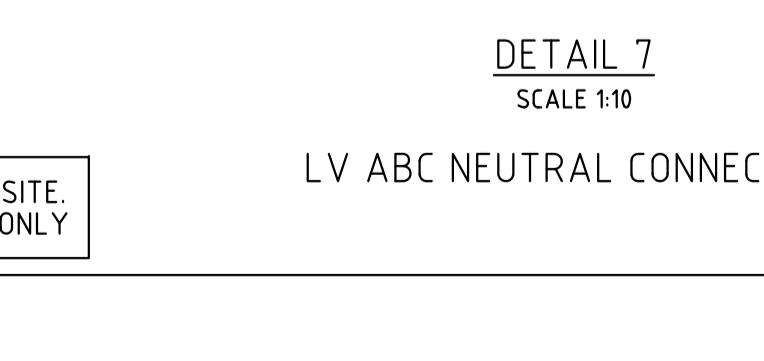
DETAIL 5
SCALE 1:5



EARTHING SCHEMATIC



DETAIL 3
SCALE 1:5



DETAIL 7
SCALE 1:10

LV ABC NEUTRAL CONNECTION

EQUIPMENT WEIGHTS	
INTELLIRUPTER	460kg
AIR BREAK SWITCH	135kg

AN EARTHING DESIGN MUST BE UNDERTAKEN FOR EACH SITE. THE EARTHING SHOWN ON THIS DRAWING IS INDICATIVE ONLY

CAD DRAWING
DO NOT MANUALLY AMEND
A.M.E.N.D.M.E.N.T.S
1. ITEM 5 ADDED TO
REGULATOR SUPPLY CABLES
ON OPTION 3.
CUSTOMER INSTALLATION USE
ADDED TO OPTION TITLES.
PN 12/02/0640
CHECKED: C.MABBUTT
APPROVED: D.GRICEV

CONSTRUCTION



ITEM	DESCRIPTION	DWG No	STOCK CODE	QTY
1	POLE - COMPOSITE			1
2	11kV OVERHEAD ARRANGEMENT 2-11CCT (MINUS BRIDGING)	174962		1
3	11kV OVERHEAD ARRANGEMENT 2-11 (MINUS BRIDGING)	513915		1
1b	15.5m x 24kN	244222	185016	
1a	14m x 24kN	244221	185015	
4	COVERED CONDUCTOR THICK - TO SUIT FEEDER RATING (MINIMUM CCT 120)			AS REQ.
5	CCT EARTHING POINT COVER	144741		6 OR 9
6	S&C INTELLIRUPTER PULSECLOSER	183071		1
6a	S&C INTELLIRUPTER PULSECLOSER POWER MODULE	111948		6
7	ARRESTER & CAP - 11kV	515466		2
8	BOLT & NUT - M20, HEX, GALVANISED, LENGTH TO SUIT	515466		2
9	WASHER - SQUARE, M20 x 75 x 6mm	518081	H39231	2
10	WASHER - CONICAL, M20, GALVANISED	517278	H39655	2
11	WASHER - FLAT ROUND, M20, GALVANISED	518081	H77986	4
12	CONDUCTOR - 19/2.14 Cu BLACK PVC INSULATED HD (70mm ² EARTH)	60111		AS REQ.
13	DOUBLE SIDED GALVANISED STEEL CABLE SADDLES	176494		AS REQ.
14	SET SCREW - M12 x LENGTH TO SUIT, STAINLESS STEEL	515467		AS REQ.
15	WASHER - FLAT, M12, STAINLESS STEEL	518081	49429	AS REQ.
16	LUG - CRIMP, M12, FOR 70mm ² COPPER	31077	74831	AS REQ.
17	WASHER - BELLEVILLE, M12, STAINLESS STEEL	518082	175903	AS REQ.
18	NUT - M12, STAINLESS STEEL	515467	8987	AS REQ.
19	SIGN - DANGER HIGH VOLTAGE	H47012		2
20	SELF DRILLING SCREWS - #12 x 4.5mm	175567		AS REQ.
21	BOTTOM EARTH BAR - FLAT, TINNED COPPER, 50.8mm x 6.3mm	182110		1
22	TOP EARTH BAR - FLAT, TINNED COPPER, 50.8mm x 6.3mm	'DETAIL 1'		1
23	EARTH STUB - McKEOWN	520088	H108415	2
24	COACH SCREW - M12 x 100mm, GALVANISED	H40484		8
25	COACH SCREW - EYE, M6, GALVANISED			PURCHASE 1
26	COVER STRIP - CABLE, 150mm WIDE	151100		AS REQ.
27	ELECTRODE - DRIVEN EARTH, Ø15 x 1800mm	H31631		AS REQ.
28	COUPLER - EARTH ELECTRODE, TO SUIT Ø15 ROD	H31649		AS REQ.
29	CONNECTOR - COPPER, COMPRESSION, 70mm ² CONDUCTOR TO Ø15 ROD	H31699		AS REQ.
30	TINNED COPPER PLATE	116989 (ITEM 3)	91132	6
31	INSULATOR - PIN POST LONG STUD (FOR CCT)	145052		6
32	WASHER - CONICAL M16 GALVANISED	517278	H39647	6
33	WASHER - CONICAL M12 GALVANISED	517278	H39639	4
34	WASHER - FLAT M12 GALVANISED	518081	H77982	8
35	WASHER - FLAT M12 GALVANISED	515466	46805	4
36	BRACE - CROSSARM FLAT 69mm GALVANISED	514385	H17738	4
37	BOLT - M10 x 30mm, HEX, STAINLESS STEEL	515467	45088	24
38	NUT - M10, HEX, STAINLESS STEEL	515467	H39401	24
39	WASHER - M10, FLAT, STAINLESS STEEL	518081	49411	48
40	WASHER - M10, BELLEVILLE, STAINLESS STEEL	518082	177296	24
41	CONVERSION FLAG - TINNED COPPER 38mm x 6.35mm (SEE DETAIL 8)	519981 118409	147256 (STAND OFF)	AS REQ.
42	LV ATTACHMENT - ABC INTERMEDIATE CONSTRUCTION (1-70) WITH STAND OFF			6
43	INTELLIRUPTER SIGN - SERIAL NUMBER (SEE NOTE 10)	'DETAIL 6'		1
44	ANTENNA - SEE NOTE 14			PURCHASE 1
45	WIRE - TIE PREFORMED INSULATED FOR CCT TOP SUIT CONDUCTOR			6
46	BRACE - CROSSARM FLAT 69mm GALVANISED	514385	H17738	4
47	BOLT & NUT - M12x130mm HEX GALVANISED	515466	46805	4
48	WASHER - FLAT M12 GALVANISED	518081	H77982	8
49	WASHER - CONICAL M12 GALVANISED	517278	H39639	4
50	WASHER - CONICAL M16 GALVANISED	517278	H39647	6
51	INSULATOR - PIN POST LONG STUD (FOR CCT)	145052		6
52	WIRE - TIE PREFORMED INSULATED FOR CCT TOP SUIT CONDUCTOR			6
53	IPC 95-150 LV ABC / 95-150 LV ABC (SEE NOTE 17)	'DETAIL 7'	176591	2
54	PROTECTOR - BLACK EARTH CABLE GUARD	205775	157522	AS REQ.
55	WASHER - LIP, M24, GALVANISED	518081	176912	3
56	LINK - SAG, 70kN (PLP PART NO TSLW-070-1)			PURCHASE 3
57	INSULATOR - STRAIN ROD	144550		3
58	CLAMP - CONDUCTOR STRAIN FOR CCT120	144527		3
59	COVER - STRAIN CLAMP	144543		3
60	HV SUPPORT & VOLTAGE REGULATOR SUPPLY CROSSARM	71589		AS REQ.