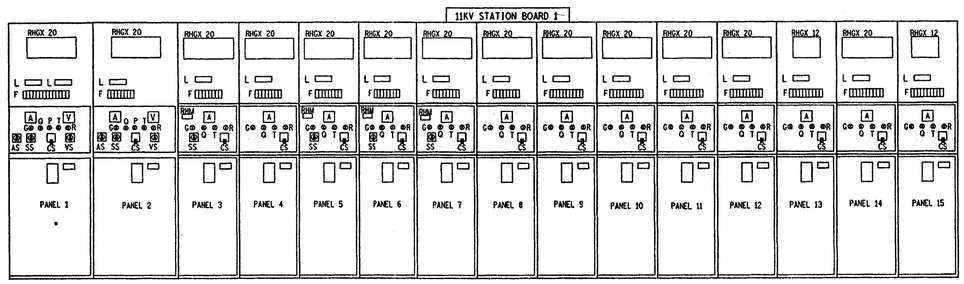
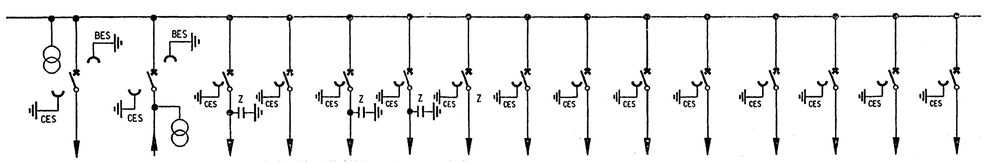
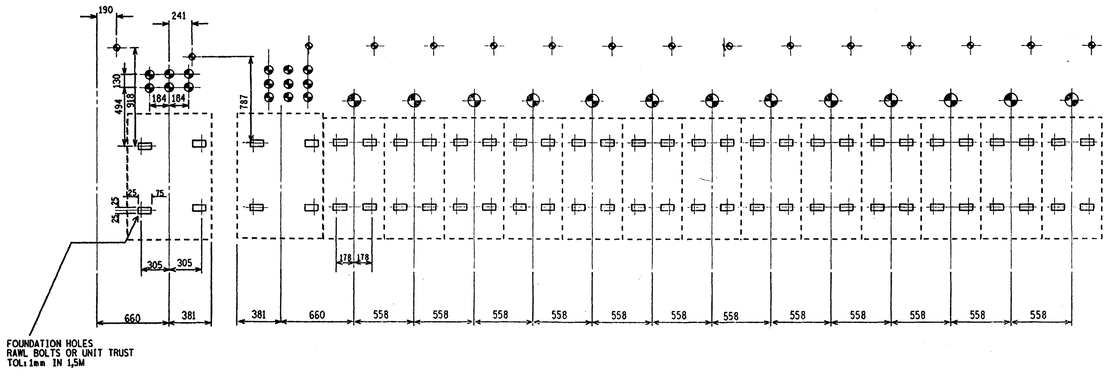
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	INTERCONNECTER STATION BRD 1 AND 2	INCOMER FROM STATION TRFR 1	ELECTRIC FEEDPUMP 5A	380V 500KVA TRFR FOR 2 (FUTURE)	ELECTRIC FEEDPUMP 3A	ELECTRIC FEEDPUMP 1A	C.W NORTH RESERVE PUMP	3,3KV SUBSTATION BRD 1B	3,3KV SUBSTATION BRD 1A	380V DISTRIBUTION BRD 1	400KV YARD BRD 1	380V 275KV RELAY HOUSE BRD 1	COMPOUND BRD 1	380V UNITS 1 AND 2 STANDBY BRD	CONVEYOR BRD 1	11KV STATION BRD 1 & 3 BUS ZONE PANEL
PANEL NUMBER																
CIRCUIT LABEL																
UNIT SERIAL NUMBER																
ISOLATOR																
BUSBAR RATING	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	2000A	
CB RATING & TYPE	2000A VCB V7/1	2000A VCB V7/1	1250A VCB V4/6	400A VCB V4/1	1250A VCB V4/6	1250A VCB V4/6	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	400A VCB V4/1	
TYPE	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	MWS	
TRIP DETAILS	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	220V DC STC	
PROTECTION	3 x 2000/1 10P15	6 x 2000/1 10P15	3 x 400/1 10P15	3 x 30/1 10P15	3 x 400/1 10P15	3 x 400/1 10P15	3 x 250/1 10P15	3 x 500/1 10P15	3 x 3500/1 10P15	3 X30/1 10P15	3 X30/1 10P15	3 X30/1 10P15	3 x 100/1 10P15	3 x75/1 10P15	3 x 400/1 10P15	ABB
METERING	3 x 2000/1 CL3	3 x 2000/1 CL3	1 x 400/1 CL3	1 x 30/1 CL 3	1 x 400/1 CL3	1 x 400/1 CL3	1 x 250/1 CL3	1 x 500/1 CL3	1 x 500/1 CL3	1 x 30/1 CL3	1 x 30/1 CL3	1 x 30/1 CL3	1 x 100/1 CL3	1 x 75/1 CL3	1 x400/1 CL3	
BUS ZONE	6 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	3 x 2000/1 CLX	
CB BREAKING CAPACITY	31.5kA	31.5kA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	20KA	
CIRCUIT AMP	1837A	1837A	365	26,3A	344	344	210A	253A	253A	26,3A	26,3A	26,3A	50A	40A	220A	
CURRENT TRANSFORMERS																
VOLTAGE TRANSFORMERS	11KV/110V 50 VA CL1	11KV/110V 50 VA CL1														
EXISTING CABLE DETAILS	6X EPW 1V	9X EPW 1V	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	EPW 3 S	
JOINT CABLE DETAILS	6X EXX 1VCV	9X EXX 1VCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	EXX 3 SCV	
SCHEMATIC DIAGRAM																
PICTORIAL DIAGRAM																
PANEL CUT-OUTS																
DOOR CUT-OUTS																
JOB NUMBER	21777	21778	21779	21780	21781	21782	21783	21784	21785	21786	21787	21788	21789	21790	21791	22080
ESKOM DRW. NUMBER 19.41/																

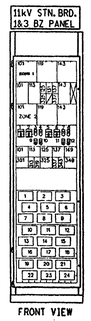


FRONT VIEW

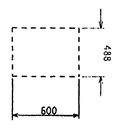




FOUNDATION PLAN



FRONT VIEW

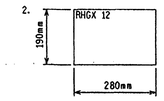


NOTES:

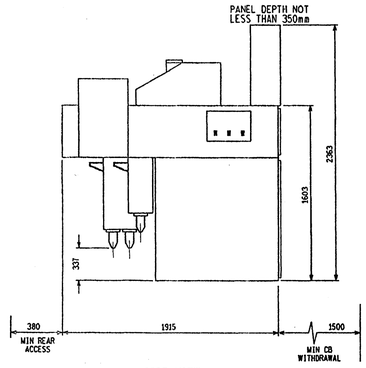
1. 2PA PROTECTION SCHEME CUTOUTS

NOT TO SCALE

2.



3. FOR BUS ZONE PANEL DETAIL SEE 19.41/22080 SHT 1-19
4. 2 PA PROTECTION SCHEME AND BUS ZONE SUPPLIED BY ESCOM
5. USE MAKERS DRAWINGS FOR ERECTION OF PANELS



SIDE VIEW

LEGEND	
A	AMMETER
B	MOTOR PROTECTION RELAY (SPAM 150 C)
C	MASTER TRIP LOCKOUT RELAY (RXMVB 2)
D	INTERPOSING TRIP/CLOSE RELAY (RXSF1)
E	TRIP REPEAT RELAY (RXME1)
F	FUSE
G1	INDICATION LAMP GREEN VCB OPEN
H	BUCHHOLZ TRIP RELAY (RXSF1)
J	TRFR NEUTRAL / E/F RELAY (RXIL 23)
K	UNDERVOLTAGE TRIP RELAY (SPAU 120)
L	PK-2 TEST BLOCK 6 WAY
M	INTERPOSING RELAY
N	AUTO CHANGE OVER RELAY (RXSF1)
O	MASTER TRIP RESET (SWISSTAC)
RHM	RUNNING HOUR METER
CES	CABLE EARTH SWITCH
R1	INDICATION LAMP RED VCB CLOSED
V	VOLTMETER
BES	BUSBAR EARTH SWITCH
Z	ZORC SURGE ARRESTOR
AS	AMMETER SWITCH
CS	CONTROL SWITCH TRIP/NEUTRAL/CLOSE
SS	SELECTOR SWITCH LOCAL/REMOTE
VS	VOLTMETER SWITCH
I	INDICATION LAMP WHITE CB RACKED IN
O	VCB RACKED IN CABLE EARTH POSITION IND
P	VCB RACKED IN BUSBAR EARTH POSITION IND

22080	BUS ZONE
0.41/304	SINGLE LINE
21796	UNIT BRD 3
21795	UNIT BRD 2
21794	UNIT BRD 1
21793	INC STATION TRFR 2
21792	INTERCONNECTOR BRD 3
21791	CONVEYOR BRD 1
21790	UNIT 1/2 STANDBY BRD
21789	COMPOUND BRD 1
21788	275KV R/HOUSE BRD 1
21787	400KV YARD BRD 1
21786	DISTRIBUTION BRD 1
21785	S/S BRD 1A
21784	S/S BRD 1B
21783	C.W.H.R. PUMP
21782	E.F.P 1A
21781	E.F.P 3A
21780	380V 500KVA TRFR
21779	E.F.P 5A
21778	INC STATION TRFR 1
21777	INTERCONNECTOR BRD 1,2
21776	PANEL ARRANGEMENT

REV	AUTH	DATE	REVISION/REVISIES	BY	CHKD
19 3	M.V.	12/2003	STATION BRD 3 UPGRADED, SEE 19.41/38551	P.van	P.S.
19 2	MAN	10/94	RETROFIT 20MVA STN TRFR. 3. TO PANEL 2	PABEZ	C.R
19 1	CJS	10/94	AS BUILT	C.F	C.R
0			FIRST ISSUE / EERSTE UITREIKING		

19.41/ REFERENCE DRAWINGS VERWYSINGSTEKENINGE

PROTEK REGISTR: CJSNOT

REVISSER: MV 10/93

CHKD MAKER: CR 10/93

DRAWN DESIGNED: L.ZB 10/93

APPROVED: CJS 10/93

SCALE: NTS

ESKOM

ARNOT POWER STATION

11kv STATION BOARDS 1 & 3

PANEL ARRANGEMENT

19.41/21776 REV 3