







EARTHING DESIGN INPUTS/OUTPUTS - SCHEDULE 'G' - STAGE 2017							
SOIL RESISTIVITY VALUES:				SEE UPINGTON SOIL RESISTIVITY REPORT:			
MAX DESIGNED 1Ø CURRENT		31.5	kA	ASSOCIATED GRID CURRENT			kA
STEP POTENTIAL	CALCULATED LIMIT	2202.81	V	TOUCH POTENTIAL	CALCULATED LIMIT	667.7	V
	CALCULATED MAX.	661.4	V		CALCULATED MAX.	661.4	V
CALCULATED GPR		29.34	kV	EARTH TAIL CONNECTION SHT C26		0.93	OHMS
CDEGS FILE DIRECTORY LOCATION & FILE NAME: TO BE CONFIRMED							

- NOTES:
1. ALL CIVIL AND BUILDING WORK COMPLY WITH S.A.B.S. 1200 STD SPECS.
  2. FOR STANDARD EARTHING SPEC. SEE 0.54/393.
  3. MAIN EXISTING EARTHMAT SHOWN THUS: AND NEW EARTHMAT SHOWN THUS: TO BE BURIED 1000mm BELOW GROUND.
  4. 2x 10 COPPER EARTHING SHOWN THUS: INDICATES ORIENTATION OF EQUIPMENT FOUNDATIONS WHEN LINED UP WITH SIMILAR ARROW ON BAY LAYOUT SCHEDULE.
  5. FOR EARTHING OF EQUIPMENT & TRANSFORMERS, SEE BAY LAYOUT SCHEDULE SoIP21P05-SE-D16.
  6. ARROW SHOWN ON BAY THUS: INDICATES ORIENTATION OF EQUIPMENT FOUNDATIONS WHEN LINED UP WITH SIMILAR ARROW ON BAY LAYOUT SCHEDULE.
  7. REFER TO DRG. SoIP21P05-SE-D14 FOR SECURITY FENCE SETTING-OUT DIMENSIONS.
  8. FOUNDATIONS INDICATED AS BEING GROUPED TO BE IN ACCORDANCE WITH S.A.B.S. 1200 STD SPECS.
  9. SEE TERRACE LAYOUT DRG FOR LEVELS RELATIVE TO DATUM '0'.
  10. ALL COLUMNS, GANTRY COLUMNS, LIGHTING MASTS AND EARTHWIRE MASTS TO BE EARTHED ONCE WITH 2 x 10Ø AS PER SPEC.
  11. OUTER FENCE TO BE EARTHED ALONG ENTIRE PERIMETER EVERY 20m

SCHEDULE 'A' MAIN EARTHMAT (400kV YARD)		
DESCRIPTION	QUANTITIES	
CRIMPET JOINTS (0.54/393 SHT C4)	180	
10mm DIAMETER ROUND COPPER	1420m	

SCHEDULE 'B' MAIN STEELWORK EARTHING (400kV YARDS)		
DESCRIPTION	QUANTITIES	
CRIMPET JOINTS (0.54/393 SHT C4)	14	
EARTH CLAMPS (0.54/393 SHT C6)	7	
10mm DIAMETER ROUND COPPER	70m	

SCHEDULE 'C' 400kV BUSBAR EARTHING		
DESCRIPTION	QUANTITIES	
CRIMPET JOINTS (0.54/393 SHT C4)	124	
EARTH CLAMPS (0.54/393 SHT C6)	72	
10mm DIAMETER ROUND COPPER	640m	

1	TERACE EXTENSION MODIFIED. 400kV BB 1 SHIFTED IN DIAMETER OF EARTHING AND SCHEDULES REVISED. BUSBAR SUPPORT EARTH LINES SHOWN.				20/09/2023	013	STEELWORK
						08	FOUND. TRENCH
0	EARTHING EXTENDED AS SHOWN SCHEDULE AA ADDED					07	KEY PLAN
						06	STATION ELECTRIC
REV	REVISION DESCRIPTION	DRAWN	CHECK	AUTH	DATE	SoIP21P05-SE - REF DRAWING	

APPROVED BY:	MARK PEPPER		Eskom Holdings SOC Ltd Reg No 2002/015521/30
DATE:	19/03/2022		

CHECKED BY:	SANDISO BANDA	UPINGTON 400kV/132kV YARD EARTHMAT LAYOUT
DATE:	18/03/2022	
DRAWN BY:	ALFRED LE GRANGE	SCALE 1:600
DATE:	18/03/2022	

**DETAIL DESIGN  
NOT FOR CONSTRUCTION**  
ORIGINAL DWG # 0.18/7602 REV 2  
CONCEPT DWG # 0.18/7602

SHEET NUMBER	REVISION
SoIP21P05-SE-D10	- 1