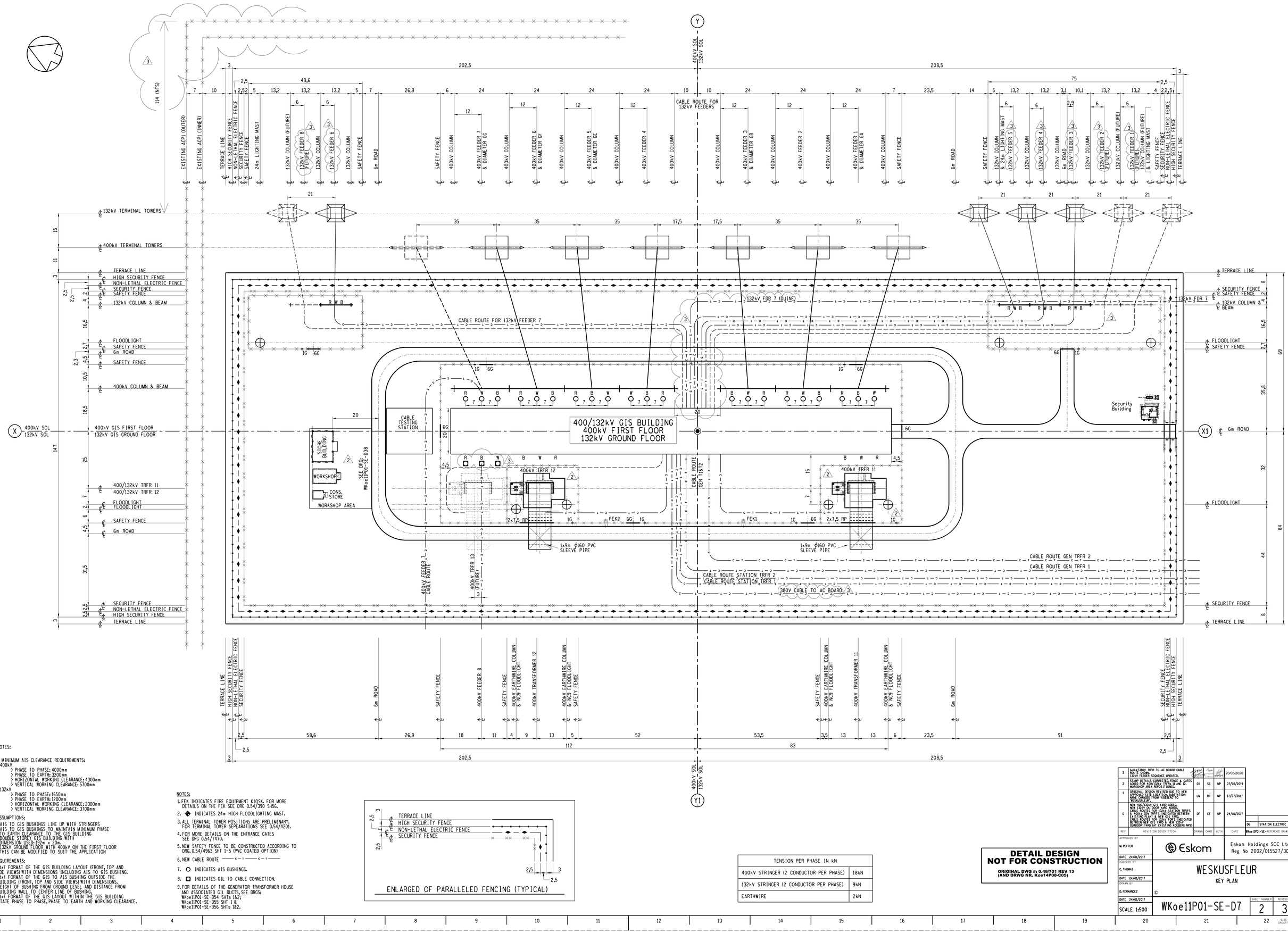


NOTES:

1) MINIMUM AIS CLEARANCE REQUIREMENTS:
-400kV
  › PHASE TO PHASE: 4000mm
  › PHASE TO EARTH: 3200mm
  › HORIZONTAL WORKING CLEARANCE: 4300mm
  › VERTICAL WORKING CLEARANCE: 5700mm
-132kV
  › PHASE TO PHASE: 1650mm
  › PHASE TO EARTH: 1200mm
  › HORIZONTAL WORKING CLEARANCE: 2300mm
  › VERTICAL WORKING CLEARANCE: 3700mm

ASSUMPTIONS:
-AIS TO GIS BUSHINGS LINE UP WITH STRINGERS
-AIS TO GIS BUSHINGS TO MAINTAIN MINIMUM PHASE TO EARTH CLEARANCE TO THE GIS BUILDING
-DOUBLE STOREY GIS BUILDING WITH DIMENSION USED: 192m x 20m.
-132kV GROUND FLOOR WITH 400kV ON THE FIRST FLOOR THIS CAN BE MODIFIED TO SUIT THE APPLICATION

REQUIREMENTS:
-.dxf FORMAT OF THE GIS BUILDING LAYOUT (FRONT, TOP AND SIDE VIEWS) WITH DIMENSIONS INCLUDING AIS TO GIS BUSHING.
-.dxf FORMAT OF THE GIS TO AIS BUSHING OUTSIDE THE BUILDING (FRONT, TOP AND SIDE VIEWS) WITH DIMENSIONS.
-HEIGHT OF BUSHING FROM GROUND LEVEL AND DISTANCE FROM BUILDING WALL TO CENTER LINE OF BUSHING.
-.dxf FORMAT OF THE GIS LAYOUT WITHIN THE GIS BUILDING
-STATE PHASE TO PHASE, PHASE TO EARTH AND WORKING CLEARANCE.

NOTES:
1. FEK INDICATES FIRE EQUIPMENT KIOSK. FOR MORE DETAILS ON THE FEK SEE DRG 0.54/390 SH6&.
2. ◆ INDICATES 24m HIGH FLOODLIGHTING MAST.
3. ALL TERMINAL TOWER POSITIONS ARE PRELIMINARY. FOR TERMINAL TOWER SEPARATIONS SEE 0.54/4201.
4. FOR MORE DETAILS ON THE ENTRANCE GATES SEE DRG 0.54/7470.
5. NEW SAFETY FENCE TO BE CONSTRUCTED ACCORDING TO DRG. 0.54/4963 SHT 1-5 (PVC COATED OPTION)
6. NEW CABLE ROUTE ——— c – t ——— c – t ———
7. ○ INDICATES AIS BUSHINGS.
8. □ INDICATES GIL TO CABLE CONNECTION.
9. FOR DETAILS OF THE GENERATOR TRANSFORMER HOUSE AND ASSOCIATED GIL DUCTS, SEE DRGS:
WKoe11P01-SE-054 SHTs 1&2;
WKoe11P01-SE-055 SHT 1 &
WKoe11P01-SE-056 SHTs 1&2.



ENLARGED OF PARALLELED FENCING (TYPICAL)

| TENSION PER PHASE IN kN | |
|---|---|
| 400kV STRINGER (2 CONDUCTOR PER PHASE) | 18kN |
| 132kV STRINGER (2 CONDUCTOR PER PHASE) | 9kN |
| EARTHWIRE | 2kN |

**DETAIL DESIGN**
**NOT FOR CONSTRUCTION**
ORIGINAL DWG #: 0.46/701 REV 13
(AND DRWG NR. Koe14P08-C05)

| REV | REVISION DESCRIPTION | DRAWN | CHKD | AUTH | DATE |
|---|---|---|---|---|---|
| 3 | 6.6kV/380V TRFR TO AC BOARD CABLE ROUTE SHOWN. 132kV FEEDER SEQUENCE UPDATED. | LM | SS | MP | 20/05/2020 |
| 2 | STAMP DETAILS CORRECTED, FENCE & GATES ADDED FOR 400/132kV TRFR 11 AND 12, WORKSHOP AREA REPOSITIONED. | CK | SS | MP | 07/03/2019 |
| 1 | ORIGINAL DESIGN REVISED DUE TO NEW 132kV OUTDOOR YARD AT EXISTING SUBSTATION NAME CHANGED FROM 'KOEBERG' TO 'WESKUSFLEUR'. | LM | RR | MP | 17/07/2017 |
| 0 | NEW 400/132kV GIS YARD ADDED. NEW 132kV OUTDOOR YARD ADDED. CABLE ROUTES FOR 132kV FEEDERS, 132kV TRFR'S AND 400kV TRFR'S INDICATED BETWEEN EXISTING PLANT & NEW GIS YARD. CABLE ROUTES FOR 132kV FDR'S INDICATED BETWEEN NEW GIS YARD & NEW 132kV OUTDOOR YARD (AT EXISTING KOEBERG MPS) | DF | CT | MP | 24/01/2017 |

| APPROVED BY | | Eskom Holdings SOC Ltd Reg No 2002/015527/30 |
|---|---|---|
| W. PEFFER | Eskom | |
| DATE 24/01/2017 | | |
| CHECKED BY | | WESKUSFLEUR |
| C. THOMAS | | KEY PLAN |
| DATE 24/01/2017 | | |
| DRAWN BY | © | |
| D. FERNANDEZ | | |
| DATE 24/01/2017 | | |
| SCALE 1:500 | WKoe11P01-SE-D7 | SHEET NUMBER 2 / REVISION 3 |

06 STATION ELECTRIC
WKoe11P01-SE- REFERENCE DRAWINGS

SIZE: GROOTTE A1L