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Date:  
18 July 2024

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Dear Ernest

## **SITE INSPECTION REPORT FOR NO-CRITICAL BUILDING SIMMERPAN COMPLEX**

These quantities and sizing are only representative of the system components; the suppliers design would apply.

### **1. Ackerman building**

- a) 16 card readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

### **2. Engineering building, DC Lab & Metering Lab, Technology LAB, Telecomms LAB**

- a) 05 Dome Camera at reception
- b) 40 card readers
- c) 08 biometric readers
- d) 02 Mini Turnstiles in the building already be installed.
- e) 01 Bullet camera at entrance

### **3. Carrier LAB**

- a) 01 card reader with sun protection
- b) 1 Dome Camera
- c) 01 Robust Large door
- d) 01 Bullet camera at entrance

### **4. Voice and Data LAB**

- a) 01 card reader with sun protection
- b) 01 Robust Large door
- c) 01 Bullet camera at entrance

### **5. Bearer LAB**

- a) 01 card reader with sun protection
- b) 01 Dome Camera

- c) 01 Robust Large door
- d) 01 Bullet camera at entrance

**6. Live Line Building**

- a) 14 Card readers
- b) 02 Bullet camera at entrance

**7. School of Technology**

- a) 04 card readers
- b) 05 Dome Camera
- c) 03 Bullets camera around the building including entrance.

**8. Transport office building**

- a) 02 card readers
- b) 03 Dome Cameras
- c) 01 Bullet camera at entrance

**9. Dumping area**

- a) 01 PTZ ( 2MP 45X IR Network dome ) Cameras

**10. Switchgear building**

- a) 07 additional Dome Camera
- b) 16 card readers
- c) 01 Bullet camera at entrance

**12. Main, South, West gate buildings at entrance before security main gate**

- a) 18 card readers
- b) Boom gates for two gates in and out with 04 readers
- c) 01 Bullet camera on each house entrance (09 bullet cameras)

**13. Simmer Centre building (system in place)**

- a) 10 Dome Camera
- b) 16 Card readers
- c) 01 Bullet camera at entrance

**14. Central Grid**

- a) 02 biometric readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**15. Eskom Transmission Warehouse (WP&CS – Prefab, ET Stores).**

- a) 06 card readers
- b) 04 Dome Camera
- c) 02 Bullet camera at entrance

**16. Transmission Real Estate building**

- a) 06 card Readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**17. Medical Centre Building**

- a) 01 Dome Camera

- b) 02 card readers
- c) 01 Bullet camera at entrance

**18. Transmission safety risk assurance**

- a) 02 card readers (in place)
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**19. Hume buildings 1& 2**

- a) 36 card readers (includes Hume building 3)
- b) 04 Dome Camera inside buildings
- c) Main gate boom gate and 02 in and our readers
- d) 02 PTZ cameras (2MP 45X IR Network dome) for visitor parking and refuse area.
- e) 05 Bullet cameras along perimeter

**20. Gymnasium**

- a) 02 card readers

**21. T System**

- a) 02 card readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**22. Tom Store**

- a) 02 card readers
- b) 01 Bullet camera at entrance

**23. Victor Lake Inn**

- a) 04 card readers
- b) Entrance Boom gates in and out finger
- c) 19 Dome cameras
- d) 12 Bullets cameras

**24. Maintenance Workshop**

- a) Two doors 04 readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**25. Instrument Workshop**

- a) 04 card readers
- b) 01 Dome Camera
- c) 01 Bullet camera at entrance

**25. Zero Control building**

- a) 04 Access card reader
- b) 02 Access control employee management computer system (for capturing).
- c) 03 Decoding card machines/device
- d) 03 Access control printers
- e) 03 Access card digital cameras
- f) 03 biometric scanner/decode or readers system.

- g) 02 Dome Camera
- h) 02 Bullet camera at entrance
- i) 01 PSIM system location server (6GHz 8MB, Quad core CPU, 1Gbt NIC)
- j) 01 application server (6GHz 8MB, Quad core CPU, 1Gbt NIC)
- k) 01 workstation (3.9GHz, 8GB RAM, 2GB graphics card, 1Gbit NIC)
- l) 01 ACS server
- m) 01 CCTV system NVR
- n) 01 UPS for 8-hour standby time
- o) 01 workstation (9GHz, 8GB RAM, 2GB Graphics, 64bit Windows 10)
- p) Sum of PSIM software expansions
- q) 10 8TB hard drives
- r) 01 42U equipment cabinet

**26. Simmerpan Complex Perimeter fence**

- a) 05 turnstiles with in/out 10 card readers
- b) 50 thermal bullet cameras with smart AI
- c) 20 PTZ cameras
- d) 6 electric fence energizers including their controllers and relay cards
- e) 2.24mm galvanized steel wire conductor (24 conductors) along the entire site perimeter
- f) Sum (1) of Intrusion pre-detection system readers along the entire site perimeter
- g) 50 strobe lights
- h) 42 poles (6m, 2/6 fully galvanized steel, including bolt and cage).
- i) Sum of perimeter intrusion pre-detection sensors
- j) Victoria house site perimeter- 04 boom gates and 04 access readers

**27. Main entrance gate and emergency gate**

- a) Main gate- 04 Boom gates in and out 04 access readers.
- b) 02 Dome Camera in guard and reception
- c) Visitor Management system at the reception 01 computer
- d) 04 Automatic Security roller doors
- e) Emergency gate- boom gates in and out 02 access readers
- f) 02 bullet camera and 01 dome cameras

**28. Access Control System (ACS) general components**

- a) Sum of access control system controllers
- b) Sum of heavy-duty door closers (40 -65kg)
- c) Sum of override key switches
- d) Sum of junction boxes
- e) Sum of maglocks (272kg, 12/24vdc & LED)
- f) Sum of Dual height goosenecks
- g) Sum of 24 way junction boxes

**29. Alarm system general components**

- a) Sum of alarm system control panels
- b) Sum of TCP/IP communication modules
- c) Sum of LCD keypads with RFID readers
- d) Sum of outdoor optical sirens
- e) Sum of PIR motion detectors (active anti masking IR, GRADE 3)
- f) Sum of zone expansion modules

**30. PA system general components**

- a) Sum of SIP intercoms (one button, video and card reader, surface mount camera: 3M pixels)
- b) 42 IP horn speakers

**29. Cabling and accessories**

- a) Sum of Cat 6 UTP cable
- b) Sum of POE Ethernet (RJ 45) protectors
- c) Sum of Connectors, power supplies, adapters, power sockets and cables to complete the installation

- d) Sum of single mode fiber cable
- e) Sum of multimode fiber cable
- f) Sum of conduit, accessories, pigtails, splice, splice protectors, cable foil,

30. **Network infrastructure**

- a) Sum of Industrial managed POE field switches (2\*100 baseX, 240W, 48VDC).
- b) Sum of optical transceivers (1.25G, SFP 1310nm SMF, 20k, Duplex LC, DDM, industrial).
- c) Sum of rackmount SFP switches (24 x Gigabit optical SFP, 8 x Gigabit Tx/SFP Combo, 10G Optical SFP+).
- d) Sum of unmanaged POE switches (24+2 port 10/100/1000, 2x 1000M SFP).

31. **General equipment**

- e) Sum of power distribution frames
- f) Sum of wallbox enclosures (swing, 15U-450+100)
- g) Sum of power supply units (5 Amp, 13.6VDC 17AH battery)
- h) Sum of mini kiosks (3CR12)
- i) Sum of concrete plinth (25mpa, 800x500x150, re-inforced)
- j) Sum of batteriesc(48V DC, 4.8kWH lithium battery)

Notes:

- *Perimeter bullet cameras should at minimum be: 384x288, with high sensitivity thermal sensor: <480mK, spectral range 8-14um, video content analytics, ONVIF compliant, IP66, PoE compliant.*
- *Buildings bullet cameras should at minimum be: 4MP, Ultra 265/H.264/MJPEG, IP67&IK10, 120dB, IR range: up to 100m.*
- *Dome cameras should at minimum be: 265/H.264/MJPEG, Triple streams, AC24V&DC12V & POE, IP67, Alarm in/out 1/1, Audio, 120dB WDR, IR range: up to 40m*
- *PTZ cameras should at minimum be: 2MP 45X IR Network dome, 2.0MP progressive scan CMOS, colour stream at minimum illumination 0.0005Lux, full HD 1920\*1080 @60fps, IR range up to 250m, True WDR 120dB, IP66, 45x optical zoom, AF automatic focusing and motorized zoom lens, ONVIF profile S, G, T, 6KV surge protection).*

*The site perimeter is about 3km in length*

Yours sincerely



Name Surname

**BP Chiloane**

**Senior Advisor Security Operations: TRE**