INVITATION TO BID – ZNT 09/25/26

SUITABLE AND CAPABLE SERVICE PROVIDERS ARE INVITED TO BID FOR THE SUPPLY AND INSTALLATION OF CCTV SURVEILLANCE CAMERAS, 3-IN-ONE ACCESS CONTROL SYSTEM, ELECTRONIC BOOM GATES INTEGRATED WITH ACCESS CONTROL, INTRUDER DETECTION SYSTEM AND X-RAY SCANNERS AT KZN PUBLIC WORKS & INFRASTRUCTURE HEAD OFFICE, 191 PRINCE ALFRED STREET, PIETERMARTIZBURG

The Department reserves the right not to award to the lowest bidder

EVALUATION CRITERIA

NB: This tender will be evaluated in the following three (03) phases:

Phase 1: Administrative Compliance
Correctness of bid documents
Compliance with bid regulations (registration with CSD and other prescripts requirements)

Phase 2: Mandatory Criteria

- The bidder to provide a certified copy of an original for a qualification on Access Control Devices from an accredited institution
- The bidder to provide a qualification on installation of CCTV and turnstile or similar from an accredited institution.
- A valid proof of registration or letter of good standing with Compensation for Occupational Injuries and Disease Act (COIDA) / Workman's Compensation
- Detailed method statement for this project (detailed programme indicating key activities, timeframes, milestones and deliverables)
- The bidder must provide three (3) contactable reference letters and three (03) award letters for projects of a similar scope and complexity (i.e., integrated Access, CCTV, completed within the last 3 years)
- Proof of qualifications for employees that will be involved in the installation process (list of qualified employees, including experience, certified copies of qualifications and reference letters)
- Detailed warranty plan not less than 3 years and maintenance plan for a period not less than 5 years on CCTV, boom gates, access control system, turnstiles and communication devices.
- Valid ICASA certificate for communication devices with ATEX EXII certificate to be supplied by manufacturer to bidder. Provide an original or certified copy of an original.
- A formal letter of authorisation from the Original Equipment Manufacturer (OEM) of the primary equipment (CCTV/Access Control), confirming the bidder is an authorised reseller/installer in South Africa, ensuring local warranty and technical support which complies with Section L of the BID document.
- Proof of Public Liability Insurance with a stipulated minimum cover of R1 000 000,00 for covering

damages to third-party property or injury during installation.

- A signed declaration where the bidder commits to processing CCTV footage, biometric data, and personal access logs as an "Operator" in full compliance with the Protection of Personal Information Act (POPIA), 4 of 2013, including adhering to the client's privacy policies.
- Submission of the ICASA Type Approval Certificate for each model of communication device and any associated radio or GSM equipment to be supplied.
- A signed declaration confirming that the communication platform and devices utilise AES-256 or higher call encryption to ensure the confidentiality of all communications over the network

Failure to submit any of the above documentation in the prescribe format may lead to immediate disqualification

Phase 3: Price and Specific Goals

Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: The 80/20 specific goals point system is applicable and corresponding points must be indicated as such)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Applicable or Not Applicable	Number of points allocated (80/20 system) (To be completed by the organ of state)
"**Ownership by Black People** Documentary Proof Required: 1) Sworn Affidavit; signed and dated by Commissioner of Oaths	**Applicable**	**20 points**

Collection of Bid Documents

Bid documents can be obtained at no cost from Departmental website www.kznworks.gov.za/tender/bids and quotations or can be collected from 191 Prince Alfred Street, Lower Ground at R450

Briefing session : Applicable

The briefing session will be held as follows:
Date: TBC
Venue: TBC
Time: TBC
Site to be visited : Yes

SCM enquiries may be directed to:

Lindiwe Ngcobo Tel. No: 082 920 7630/ email Address: Lindiwe.ngcobo@kznworks.gov.za

Technical enquiries may be directed to:

Nontobeko Mthembu Tel. No: 072 099 9679/ email Address: nontobeko.mthembu@kznworks.gov.za

The closing time for receipt of Tenders is **11h00.**

KWAZULU-NATAL PROVINCIAL GOVERNMENT BIDDING FORMS

PART A	INVITATION TO BID (SBD 1)	4
PART B	TERMS AND CONDITIONS FOR BIDDING (SBD 1)	5
SECTION A	SPECIAL INSTRUCTIONS REGARDING COMPLETION OF BID	6
SECTION B	REGISTRATION ON CENTRAL SUPPLIERS DATABASE	7
SECTION C	DECLARATION THAT INFORMATION ON CENTRAL SUPPLIER DATABASE IS CORRECT AND UP TO DATE	8
SECTION D	OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE	9
SECTION E	PRICING SCHEDULE (SBD 3)	10-18
SECTION F	BIDDER'S DISCLOSURE (SBD 4)	19-21
SECTION G	PREFERENCE POINTS CLAIM FORM (SBD 6.1)	22-29
SECTION H	CONTRACT FORM (SBD 7)	30-35
SECTION I	GENERAL CONDITIONS OF CONTRACT	36-44
SECTION J	SPECIAL CONDITIONS OF CONTRACT	45
SECTION K	AUTHORITY TO SIGN	46
SECTION L	DETAILED SPECIFICATION	47-73

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF PUBLIC WORKS KZN HEAD OFFICE					
BID NUMBER:	**ZNT 09/25/26**	CLOSING DATE:	**09 FEBRUARY 2026**	CLOSING TIME:	**11:00**
DESCRIPTION	**SUITABLE AND CAPABLE SERVICE PROVIDERS ARE INVITED TO BID FOR THE SUPPLY AND INSTALLATION OF CCTV SURVEILLANCE CAMERAS, 3-IN-ONE ACCESS CONTROL SYSTEM, ELECTRONIC BOOM GATES INTEGRATED WITH ACCESS CONTROL, INTRUDER DETECTION SYSTEM AND X-RAY SCANNERS AT KZN PUBLIC WORKS & INFRASTRUCTURE HEAD OFFICE, 191 PRINCE ALFRED STREET, PIETERMARTIZBURG**				
BID RESPONSE DOCUMENTS MAY BE E-MAILED TO:					

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO		**TECHNICAL ENQUIRIES MAY BE DIRECTED TO:**	
CONTACT PERSON	**Mrs L Ngcobo**	CONTACT PERSON	**Ms N Mthembu**
TELEPHONE NUMBER	**082 920 7630**	TELEPHONE NUMBER	**072 099 9679**
FACSIMILE NUMBER	**N/A**	FACSIMILE NUMBER	**N/A**
E-MAIL ADDRESS	**Lindiwe.ngcobo@kznworks.gov.za**	E-MAIL ADDRESS	**nontobeko.mthembu@kznworks.gov.za**

NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		**OR**	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] ☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX] ☐ Yes ☐ No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS **THE** ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 Below

PART B

TERMS AND CONDITIONS FOR BIDDING

BID SUBMISSION:
BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.** THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**
TAX COMPLIANCE REQUIREMENTS
BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS. APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA. BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER: ……

CAPACITY UNDER WHICH THIS BID IS SIGNED: ……
(Proof of authority must be submitted e.g. company resolution)
DATE: ……

SECTION A

SPECIAL INSTRUCTIONS AND NOTICES TO BIDDERS REGARDING THE COMPLETION OF BIDDING FORMS

PLEASE NOTE THAT THIS BID IS SUBJECT TO TREASURY REGULATIONS 16A ISSUED IN TERMS OF THE PUBLIC FINANCE MANAGEMENT ACT, 1999, THE KWAZULU-NATAL SUPPLY CHAIN MANAGEMENT POLICY FRAMEWORK.

1. Unless inconsistent with or expressly indicated otherwise by the context, the singular shall include the plural and visa versa and with words importing the masculine gender shall include the feminine and the neuter.
2. Under no circumstances whatsoever may the bid forms be retyped or redrafted. Photocopies of the original bid documentation may be used, but an original signature must appear on such photocopies.
3. The bidder is advised to check the number of pages and to satisfy himself that none are missing or duplicated.
4. Bids submitted must be complete in all respects.
5. Bids shall be lodged at the address indicated not later than the closing time specified for their receipt, and in accordance with the directives in the bid documents.
6. Each bid shall be addressed in accordance with the directives in the bid documents and shall be lodged in a separate sealed envelope, with the name and address of the bidder, the bid number and closing date indicated on the envelope. The envelope shall not contain documents relating to any bid other than that shown on the envelope. If this provision is not complied with, such bids may be rejected as being invalid.
7. All bids received in sealed envelopes with the relevant bid numbers on the envelopes are kept unopened in safe custody until the closing time of the bids. Where, however, a bid is received open, it shall be sealed. If it is received without a bid number on the envelope, it shall be opened, the bid number ascertained, the envelope sealed and the bid number written on the envelope.
8. A specific box is provided for the receipt of bids, and no bid found in any other box or elsewhere subsequent to the closing date and time of bid will be considered.
9. No bid sent through the post will be considered if it is received after the closing date and time stipulated in the bid documentation, and proof of posting will not be accepted as proof of delivery.
10. No bid submitted by telefax, telegraphic or means will be considered.
11. Bidding documents must not be included in packages containing samples. Such bids may be rejected as being invalid.
12. Any alteration made by the bidder must be initialed.
13. Use of correcting fluid is prohibited
14. Bids will be opened in public as soon as practicable after the closing time of bid.
15. Where practical, prices are made public at the time of opening bids.
16. If it is desired to make more than one offer against any individual item, such offers should be given on a photocopy of the page in question. Clear indication thereof must be stated on the schedules attached.
17. Bidder must initial each and every page of the bid document.

NB: Failure to adhere to the above Instruction and notice will lead to immediate disqualification.

SECTION B

REGISTRATION ON THE CENTRAL SUPPLIERS DATABASE

1. In terms of the National Treasury Instruction Note, all suppliers of goods and services to the State are required to register on the Central Suppliers Database.

2. Prospective suppliers should self-register on the CSD website www.csd.gov.za

3. If a business is registered on the Database and it is found subsequently that false or incorrect information has been supplied, then the Department may, without prejudice to any other legal rights or remedies it may have;

   3.1 cancel a bid or a contract awarded to such supplier, and the supplier would become liable for any damages if a less favourable bid is accepted or less favourable arrangements are made.

4. The same principles as set out in paragraph 3 above are applicable should the supplier fail to request updating of its information on the Central Suppliers Database, relating to changed particulars or circumstances.

5. IF THE SUPPLIER IS NOT REGISTERED AT THE CLOSING TIME OF BID, THE SUPPLIER WILL BE DISQUALIFIED AT THE BID EVALUATION PROCESS.

SECTION C

DECLARATION THAT INFORMATION ON CENTRAL SUPPLIER DATABASE IS CORRECT AND UP TO DATE

(To be completed by bidder)

THIS IS TO CERTIFY THAT I (name of bidder/authorized representative) ……......, WHO

REPRESENTS (state name of bidder) ……..…….....CSD Registration

Number.....

AM AWARE OF THE CONTENTS OF THE CENTRAL SUPPLIER DATABASE WITH RESPECT TO THE BIDDER'S DETAILS AND REGISTRATION INFORMATION, AND THAT THE SAID INFORMATION IS CORRECT AND UP TO DATE AS ON THE DATE OF SUBMITTING THIS BID.

AND I AM AWARE THAT INCORRECT OR OUTDATED INFORMATION MAY BE A CAUSE FOR DISQUALIFICATION OF THIS BID FROM THE BIDDING PROCESS, AND/OR POSSIBLE CANCELLATION OF THE CONTRACT THAT MAY BE AWARDED ON THE BASIS OF THIS BID.

.....

SIGNATURE OF BIDDER OR AUTHORISED REPRESENTATIVE

DATE: .....

SECTION D

Applicable	x	Not Applicable	

OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE

N. B.: THIS FORM IS ONLY TO BE COMPLETED WHEN APPLICABLE TO THE BID.

Site/Building/Institution Involved:

Bid Reference No: ZNT 09/25/26

Goods/Service/Work: _____

****

This is to certify that (bidder's representative name) _____

On behalf of (company name) ____-

_____

Visited and inspected the site on ___/___/_____ (date) and is therefore familiar with the circumstances and the scope of the service to be rendered.

_____

Signature of Bidder or Authorized Representative

(PRINT NAME)

DATE: ___/___/_____

_____

Name of Departmental or Public Entity Representative

(PRINT NAME)

Departmental Stamp With Signature

SECTION E

PRICING SCHEDULE – FIRM PRICES

(RENDERING OF SERVICES)

APPLICABLE	**X**	**NOT APPLICABLE**	

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder……	Bid number **ZNT 09/25/26**
Closing Time 11:00	Closing date:

(***NB: INSERT THE GRAND TOTAL PRICE ON PG 13)*** BID PRICE INCLUDING VAT: R

…….....

AMOUNT IN WORDS:

…….....

.....

OFFER TO BE VALID FOR 120 DAYS FROM THE CLOSING DATE OF BID.

BILL OF QUANTITIES: PHASE 1

Size	Quantity	Description	Rate	Total amount
EA	17	4MP FIXED BULLET NETWORK CAMERA 2.8MM		
EA	45	4MP BUILD-IN MIC FIXED DOME NETWORK CAMERA 2.8MM		
EA	1	KH6 SERIES IP-BASED INDOOR STATION - 7INCH TFT TOUCH SCREEN POWER		
EA	32	SUPPLY WITH BATTERY BACKUP CAPABILITY 12V 3AMP BATTERY NOT INCLUDED POW-122		
EA	32	BATTERY 12VDC 7AH SEALED LEAD ACID MAINTENANCE FREE		
EA	32	SINGLE-DOOR MAGNETIC LOCK REQUIRES DS-K4H258-LZ		
EA	32	ACCESS CONTROL 1DOOR LICENCE		
EA	4	ALL IN ONE E&E MACHINE WITH CAPTURE UNIT - STRAIGHT BOOM 2M POLE AND LCD		
EA	1	RACKMOUNT VMS SERVER		
EA	32	DOOR CLOSER 80KG MEDIUM		
EA	1	D-LINK 1-PORT GIGABIT POE INJECTOR		
EA	32	FACE RECOGNITION TERMINAL (3 IN 1)		
EA	1	ENTRANCE AND EXIT BASE PACKAGE FOR ACCESS CONTROL		
EA	2	HIKCENTRALP-E&E-1 LANE		
EA	1	VIDEO SURVEILLANCE BASE PACKAGE		
EA	1	2AE / 2DE PTZ WALLMOUNT BRACKET		
EA	1	NETWORK KEYBOARD USB		
EA	4	43 INCH FHD 60HZ SMART TV SABC TV LICENSE REQUIRED		
EA	1	32 INCH FHD 60HZ SMART TV SABC TV LICENSE REQUIRED		
EA	5	10M HDMI MALE - HDMI MALE CABLE		

Size	Quantity	Description	Rate	Total amount
EA	32	KEY SWITCH		
EA	1	CAT6 305M ORANGE HIKVISION		
EA	32	FACE RECOGNITION TERMINAL		
EA	8	ZONE LITE 9U WALLBOX 400 DEEP 200 SWING FRAME WITH SINGLE FAN BLACK		
EA	8	5 WAY PDU PVC 5 X 16A 3PIN - 4 X 5A 2PIN - 1 X SCHUKO 3M		
EA	1	2MP PTZ 100M IR 25X OPTICAL ZOOM 16X DIGITAL INCLUDES WALL MOUNT BRACKET & PSU - NO POE INJECTOR		
EA	5	32CH 1U ACUSENSE 4K NVR		
EA	14	L2 SMART MANAGED 16 100M POE 2X1000M COMBO PORT		
EA	1	4MP ACUSENSE NETWORK BULLET CAMERA WITH STROBE LIGHT		
EA	32	ZL-BRACKET OF MAGNETIC LOCK FOR DS-K4H258S		
EA	32	EMERGENCY BREAK GLASS		
EA	32	L2 SMART MANAGED 16 100M POE 2X1000M COMBO PORT		
EA	24	WD PURPLE 8TB 3 5 SURVEILLANCE HDD		
EA	1	24-SLOT STORAGE WITH 24 PCS 8TB SATA IOT HDD		
EA	1	ACCESS CONTROL BASE-DOOR MANAGEMENT		
EA	140	DATA POINTS		
EA	1	CAT6 LINKS		
EA	140	FLY LEADS		
EA	140	PATCH LEADS		
EA	18	PATCH PANELS		
EA	18	BRUSH PANELS		
EA	9	FIBRE LINK - Includes: 2 SFP Modules, Splicing, Fibre Pigtails, 8 Core Multi-Mode Fibre (80 meters)		
EA		DECOMMISSIONING AND DISPOSAL OF THE OLD SYSTEM		
EA		LABOUR COSTS		
		Sub-Total		

BILL OF QUANTITIES: PHASE 2

Size	Quantity	Description	Rate	Total amount
EA	23	BULLET NETWORK CAMERAS		
EA	50	DOME NETWORK CAMERA 2.8MM		
EA	4	INDOOR STATION – 7INCH TFT TOUCH SCREEN		
EA	65	POWER SUPPLY WITH BATTERY BACKUP (BATTERY NOT INCLUDED)		
EA	65	BATTERY SEALED LEAD ACID		
EA	65	DOOR CLOSER 80KG MEDIUM		
EA	65	SINGLE-DOOR MAGNETIC LOCK		
EA	1	64 CAMERAS MANAGEABLE SOFTWARE - NO SERVER		
EA	65	1 CAMERA CONNECTION		
EA	49	ACCESS CONTROL 1DOOR LICENCE		
EA	65	ZL-BRACKET OF MAGNETIC LOCK		

Size	Quantity	Description	Rate	Total amount
EA	65	EMERGENCY BREAK GLASS		
EA	6	SWITCH - POE COMBO PORT		
EA	6	TWO-WAY COMMUNICATION DEVICES Secure communications: End-to-end encrypted PoC (AES-256) Secure tracking & monitoring: Real-time GPS, geofencing, dispatcher console Secure messaging: Encrypted voice, data, and multimedia Safety features: Panic button, Man-down & Lone-worker functionality Connectivity: Dual-SIM (model dependent), Wi-Fi & Bluetooth Durability: IP68 & 2m drop test Powering the device must be a minimum 5200mAh battery (with an accompanying MSDS and a spare battery supplied) Display: Gorilla Glass, feature multi-touch, support glove-wear touch, and measure 4.7'' LCD with 720 x 1280 dpi resolution Performance: a minimum Quad-core CPU 2.0GHz (supporting a pin Octa-core CPU), run on Android 12 or above, and include 4G RAM + 64G EMMC Sensors: Required sensors are a G-sensor, acceleration sensor, proximity sensor, light sensor, and gyro sensor Cameras: be minimum 13 megapixels (rear) and 5 megapixels (front) **NB**: The devices must support multi-language functionality and feature an M6 connector with secure earpieces- with battery The device must have a proven track record to be utilized in a South African Security government sector with State Security approval and able to fully integrate wholistically into the surveillance room.		
EA	6	TWO-WAY COMMUNICATION LICENSES - 2 YEARS		
EA	2	UNINTERRUPTED POWER SUPPLY		
EA	2	INSTALLATION LABOUR - UPS		
EA	7	GLASS ALUMINUM DOOR		
EA	1	CAT6 LINK		
EA	2	TRIPLE FIXED LENS BULLET CAMERA FOR PERIMETER PROTECTION		
EA	20	CAT6 500M		
EA	65	FACE RECOGNITION TERMINAL		
EA	12	9U CABINET WALLBOX		
EA	12	5 WAY PDU PVC 3M		
EA	1	PTZ WALLMOUNT BRACKET (Separate line, kept separate)		
EA	1	DESKTOP VOSTRO 3030 MT INTEL I7-12700 12TH GEN CPU 1X8GB 3200MHZ DDR5 RAM 5		
EA	140	FLY LEADS		
EA	140	PATCH LEADS		
EA	18	PATCH PANELS		
EA	18	BRUSH PANELS		
EA	9	FIBRE LINKS		
EA	65	KEY SWITCH		
EA		LABOUR COSTS		
		Sub-Total		

BILL OF QUANTITIES PHASE 3

Size	Quantity	Description	Rate	Total amount
EA	2	X-RAY METAL DETECTION WALKTHROUGH Metal Detector Door Detection zone: 33 zones Display: 7-inch LCD screen Detection sensitivity: D=25mm coin size Sensitivity of each detection zone: 0-999 levels People counting: support people entrance & exit counting.		

Size	Quantity	Description	Rate	Total amount
		Alarm: Light strip on both sides of the door panels & sound alarm & LCD screen Net working: Support		
EA	2	X-RAY INSPECTION X-Ray Inspection System for baggage security checking. Tunnel size: 500 mm(W) × 300 mm(H) X-Ray generator:140kV 1.0mA (Adjustable) Dual energy type Single view *AI support detection *2 cameras for person & baggage videos, 1 camera for tunnel *2 moving speeds function, 0.2m/s 0.3m/s *Fingerprint fast login function *Professional keyboard *With entrance & exit side baggage holding roller racks *image quality Ultra-HD *With tunnel cover *Display 23.8-inch 120Hz		
EA	2	UNINTERRUPTED POWER SUPPLY		
EA	2	INSTALLATION LABOUR - UPS		
EA	1	FIVE- YEAR (05) MAINTENANCE PLAN (preventive & corrective maintenance)		
		Sub-Total		

SUMMARY OF COSTS

ITEM NO.	QUANTITY	DESCRIPTION	SUB-TOTAL (PHASE 1- 3)
Phase 1 (2025/26 financial year)	Refer to the BOQ	▪ Decommissioning and disposal of old equipment ▪ Installation of electronic boom gates & access control (number plate recognition, facial and biometric) parking entrances ▪ Installation of CCTV camera, access control, and intruder alarm system at the following areas: Outside perimeters, reception area, Ground,2nd, 5th, 6th and 9th Floors. ▪ Installation of security doors at 2nd, 5th, 7th and 9th,	
Phase 2 (2026/27 financial year)	Refer to the BOQ	▪ Installation of CCTV cameras, access control and security door at Mezzanine floor, auditorium area, parking area library, 1st ,3rd, 4th, 7th & 8th floors ▪ Integration of the current access control system to the existing system	
Phase 3 (2027/28 financial year)	Refer to the BOQ	▪Installation of x-ray and metal detector scanners ▪ Five-year maintenance plan	
		TOTAL	
		VAT AT 15%	
		GRAND TOTAL (BID PRICE IN RSA CURRENCY WITH ALL APPLICABLE TAXES INCLUDED ***(TOTAL QUOTE TO BE CARRIED OVER TO PAGE 10 SECTION E)***	

NB: Bidders/Tenderers/Service Providers ought to fulfil and or satisfy special conditions of contract (Section J: Page 45 (Section K: Pages 46 Authority to sign the bid document). Section L Page 47 detailed specifications.

PRICING SCHEDULE – NON-FIRM PRICES

(PURCHASES)

APPLICABLE		**NOT APPLICABLE**	**X**

NOTE: PRICE ADJUSTMENTS WILL BE ALLOWED AT THE PERIODS AND TIMES SPECIFIED IN THE BIDDING DOCUMENTS.

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder……	Bid number…….....
Closing Time 11:00	Closing date……...

OFFER TO BE VALID FOR……DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	Unit Price	Total for each unit
		SUB-TOTAL		
		VAT AT 15%		
		GRAND TOTAL (BID PRICE IN RSA CURRENCY WITH ALL APPLICABLE TAXES INCLUDED)		

Required by: ……

- At: ……..……

Brand and model ……..……

Country of origin ……..……

- Does the offer comply with the specification(s)? *YES/NO

If not to specification, indicate deviation(s) …….

Period required for delivery …….

- Delivery: *Firm/not firm

** “all applicable taxes” includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

PRICE ADJUSTMENTS

A NON-FIRM PRICES SUBJECT TO ESCALATION

1. IN CASES OF PERIOD CONTRACTS, NON FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES

IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1-V)Pt\left(D1\frac{R1t}{R1o} + D2\frac{R2t}{R2o} + D3\frac{R3t}{R3o} + D4\frac{R4t}{R4o} \right) + VPt$$

Where:

Pa = The new escalated price to be calculated.
(1-V)Pt = 85% of the original bid price. **Note that Pt must always be the original bid price and not an escalated price.**
D1, D2.. = Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1, D2…etc. must add up to 100%.
R1t, R2t…… = Index figure obtained from new index (depends on the number of factors used).
R1o, R2o = Index figure at time of bidding.
VPt = 15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

3. The following index/indices must be used to calculate your bid price:

Index……. Dated……. Index……. Dated……. Index……. Dated…….

Index……. Dated……. Index……. Dated……. Index……. Dated…….

4. FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA. THE TOTAL OF THE VARIOUS FACTORS MUST ADD UP TO 100%.

FACTOR (D1, D2 etc. eg. Labour, transport etc.)	P PERCENTAGE OF BID PRICE

B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

PARTICULARS OF FINANCIAL INSTITUTION	ITEM NO	PRICE	CURRENCY	RATE	PORTION OF PRICE SUBJECT TO ROE	AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

PRICING SCHEDULE

(Professional Services)

APPLICABLE		NOT APPLICABLE	X

Name of bidder……	Bid number……....
Closing Time	Closing date……...

OFFER TO BE VALID FOR……DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	DESCRIPTION	BID PRICE IN RSA CURRENCY WITH ALL APPLICABLE TAXES INCLUDED)

The accompanying information must be used for the formulation of proposals

Bidders are required to indicate a ceiling price based on the total estimated time for completion of all phases and including all expenses inclusive of all applicable taxes for the project.

R……...

PERSONS WHO WILL BE INVOLVED IN THE PROJECT AND RATES APPLICABLE (CERTIFIED INVOICES MUST BE RENDERED IN TERMS HEREOF)

PERSON AND POSITION	HOURLY RATE	DAILY RATE
……	R……	……
……	R……	……
……	R……	……
……	R……	……
……	R……	……

PHASES ACCORDING TO WHICH THE PROJECT WILL BE COMPLETED, COST PER PHASE AND MAN-DAYS TO BE SPENT

……	R……	…… days
……	R……	…… days
……	R……	…… days
……	R……	…… days
……	R……	…… days

Travel expenses (specify, for example rate/km and total km, class of airtravel, etc). Only actual costs are recoverable. Proof of the expenses incurred must accompany certified invoices.

DESCRIPTION OF EXPENSE TO BE INCURRED	RATE	QUANTITY	AMOUNT
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……

TOTAL: R……

** ”all applicable taxes” includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

Travel expenses (specify, for example rate/km and total km, class of airtravel, etc). Only actual costs are recoverable. Proof of the expenses incurred must accompany certified invoices.

DESCRIPTION OF EXPENSE TO BE INCURRED	RATE	QUANTITY	AMOUNT
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……
……	……..	……..	R ……

TOTAL: R……..

Period required for commencement with project after acceptance of bid …….

Estimated man-days for completion of project …….

Are the rates quoted firm for the full period of contract? *YES/NO

If not firm for the full period, provide details of the basis on which adjustments will be applied for, for example consumer price index. ……

……

……

……

***[DELETE IF NOT APPLICABLE]**

Any enquiries regarding bidding procedures may be directed to the –

(INSERT NAME AND ADDRESS OF DEPARTMENT/ENTITY)

Tel:

Or for technical information –

(INSERT NAME OF CONTACT PERSON)

Tel:

SECTION F

BIDDER'S DISCLOSURE

PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest1 in the enterprise?
employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	**Identity Number**	**Name of State institution**

1 the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

……

……

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

If so, furnish particulars:

…….

…….

DECLARATION

I, the undersigned, (name)……. in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium2 will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

2 Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

……	..……
Signature	Date
……	……
Position	Name of bidder

SECTION G

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

---

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included);

1.2 **To be completed by the organ of state**

(*delete whichever is not applicable for this tender*

a) The applicable preference point system for this tender is the 80/20 preference point system.

b) the 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

(a) Price; and

(b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	**100**

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 O PREFERENCE POINT SYSTEMS

A maximum of 80 o points is allocated for price on the following basis:

80/20

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 points is allocated for price on the following basis:

80/20

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that the 80/20 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for the 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where the 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
"Ownership by Black People Documentary Proof Required: 1) Sworn Affidavit; signed and dated by Commissioner of Oaths	**20**	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm…….

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited

☐ Non-Profit Company
☐ State Owned Company
[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

……
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:……..

DATE: ……

ADDRESS:……

……..

……..

EME'S AND QSE'S MUST COMPLETE THE FOLLOWING APPLICABLE AFFIDAVIT FORM TO CLAIM PREFERENCE POINTS

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

The contents of this statement are to the best of my knowledge a true reflection of the facts.
I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name	
Trading Name (If Applicable):	
Registration Number	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – who are citizens of the Republic of South Africa by birth or descent; or who became citizens of the Republic of South Africa by naturalisationi- before 27 April 1994; or on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	"Black Designated Groups means: unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; Black people who are youth as defined in the National Youth Commission Act of 1996; Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; Black people living in rural and under developed areas; Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

I hereby declare under Oath that:

The Enterprise is _____% Black Owned as per Amended Code Series 100 of the amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as amended by Act No 46 of 2013,

The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
Black Designated Group Owned % Breakdown as per the definition stated above:
Black Youth % = _____%

Black Disabled % =_____%

Black Unemployed % =_____%

Black People living in Rural areas % = _____%

Black Military Veterans % =_____%

Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of _____, the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less

Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

100% Black Owned	**Level One** (135% B-BBEE procurement recognition level)	
At least 51% Black Owned	**Level Two** (125% B-BBEE procurement recognition level)	
Less than 51% Black Owned	**Level Four** (100% B-BBEE procurement recognition level)	

I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise, which I represent in this matter.
The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____/_____/_____

Stamp

_____
Signature of Commissioner of Oaths

I, the undersigned,

Full name & Surname	
Identity number	

Hereby declare under oath as follows:

The contents of this statement are to the best of my knowledge a true reflection of the facts.
I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf:

Enterprise Name	
Trading Name (If Applicable):	
Registration Number	
Enterprise Physical Address:	
Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):	
Nature of Business:	
Definition of "Black People"	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – who are citizens of the Republic of South Africa by birth or descent; or who became citizens of the Republic of South Africa by naturalisationi- before 27 April 1994; or on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
Definition of "Black Designated Groups"	"Black Designated Groups means: unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; Black people who are youth as defined in the National Youth Commission Act of 1996; Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act; Black people living in rural and under developed areas; Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;"

I hereby declare under Oath that:

The Enterprise is _____% Black Owned as per Amended Code Series 100 of the amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as amended by Act No 46 of 2013,
The Enterprise is _____% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
Black Designated Group Owned % Breakdown as per the definition stated above:
Black Youth % = _____%

Black Disabled % =_____%

Black Unemployed % =_____%

Black People living in Rural areas % = _____%

Black Military Veterans % =_____%

Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of _____, the annual Total Revenue was between R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands),

Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

100% Black Owned	**Level One** (135% B-BBEE procurement recognition level)	
At Least 51% black owned	**Level Two** (125% B-BBEE procurement recognition level)	

I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise, which I represent in this matter.
The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date: _____/_____/_____

Stamp

_____
Signature of Commissioner of Oaths

SECTION H

CONTRACT FORM - PURCHASE OF GOODS/WORKS

APPLICABLE		NOT APPLICABLE	X

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SUCCESSFUL BIDDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SUCCESSFUL BIDDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE BIDDER)

I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution)……..……. in accordance with the requirements and specifications stipulated in bid number……..…….. at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.

The following documents shall be deemed to form and be read and construed as part of this agreement:

Bidding documents, *viz*
Invitation to bid;
Tax clearance certificate;
Pricing schedule(s);
Technical Specification(s);
Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2022;
Bidder's disclosure
Special Conditions of Contract;
General Conditions of Contract; and
Other (specify)

I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

I confirm that I am duly authorised to sign this contract.

NAME (PRINT):…….

CAPACITY:……

SIGNATURE:……..

NAME OF FIRM:…….

DATE:……

WITNESSES

1 ……..…….

2. ……

DATE:……..

CONTRACT FORM - PURCHASE OF GOODS/WORKS

PART 2 (TO BE FILLED IN BY THE PURCHASER)

I……. in my capacity as……..….. accept your bid under reference number ……dated……for the supply of goods/works indicated hereunder and/or further specified in the annexure(s).

An official order indicating delivery instructions is forthcoming.

I undertake to make payment for the goods/works delivered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice accompanied by the delivery note.

ITEM NO.	PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ……ON……..

NAME (PRINT)……..

SIGNATURE……...

OFFICIAL STAMP

WITNESSES

1. …….

2. …….

DATE …….

CONTRACT FORM - RENDERING OF SERVICES

APPLICABLE	X	NOT APPLICABLE	

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

I hereby undertake to render services described in the attached bidding documents to (name of the institution)……. in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number……..…….. at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid .

The following documents shall be deemed to form and be read and construed as part of this agreement:

Bidding documents, *viz*
Invitation to bid;
Tax clearance certificate;
Pricing schedule(s);
Filled in task directive/proposal;
Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2022;
Bidders declaration;
Special Conditions of Contract;
General Conditions of Contract; and
Other (specify)

I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

I confirm that I am duly authorised to sign this contract.

NAME (PRINT):…….

CAPACITY:…….

SIGNATURE:……..
.
NAME OF FIRM:……..

DATE:……

WITNESSES

1 …….…….

2 …….…….

DATE:……..

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

I……. in my capacity as……...…….. accept your bid under reference number ……dated……for the rendering of services indicated hereunder and/or further specified in the annexure(s).

An official order indicating service delivery instructions is forthcoming.

I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ……ON……..

NAME (PRINT)……

SIGNATURE……..

OFFICIAL STAMP

WITNESSES

1 ….…….

2 …..…….

DATE: ……..

CONTRACT FORM - SALE OF GOODS/WORKS

APPLICABLE		NOT APPLICABLE	X

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SUCCESSFUL BIDDER (PART 1) AND THE SELLER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SUCCESSFUL BIDDER AND THE SELLER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE BIDDER)

I hereby undertake to purchase all or any of the goods and/or works described in the attached bidding documents from (name of institution)……..…..……. in accordance with the requirements stipulated in (bid number)……..…….. at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the seller during the validity period indicated and calculated from the closing time of bid.

The following documents shall be deemed to form and be read and construed as part of this agreement:

Bidding documents, *viz*
Invitation to bid;
Tax clearance certificate;
Pricing schedule(s);
Bidders Disclosure;
Special Conditions of Contract;
General Conditions of Contract; and
Other (specify)

I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) cover all my obligations and I accept that any mistakes regarding price(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

I undertake to make payment for the goods/works as specified in the bidding documents.

I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

I confirm that I am duly authorised to sign this contract.

NAME (PRINT)…….

CAPACITY……

SIGNATURE……..

NAME OF FIRM…….

DATE……

WITNESSES

1 ……..……..……...

3. ……

DATE: …….

CONTRACT FORM - SALE OF GOODS/WORKS

PART 2 (TO BE FILLED IN BY THE SELLER)

I……. in my capacity as……..….. accept your bid under reference number ……dated……for the purchase of goods/works indicated hereunder and/or further specified in the annexure(s).

I undertake to make the goods/works available in accordance with the terms and conditions of the contract.

ITEM NO.	DESCRIPTION	PRICE (ALL APPLICABLE TAXES INCLUDED)

I confirm that I am duly authorised to sign this contract.

SIGNED AT ……ON……

NAME (PRINT)……

SIGNATURE……

OFFICIAL STAMP

WITNESSES

3. …….

4. …….

DATE …….

SECTION I

GENERAL CONDITIONS OF CONTRACT

Definitions

The following terms shall be interpreted as indicated:

“Closing time” means the date and hour specified in the bidding documents for the receipt of bids.

“Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

“Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.

“Corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

"Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.

“Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

“Day” means calendar day.

“Delivery” means delivery in compliance of the conditions of the contract or order.

“Delivery ex stock” means immediate delivery directly from stock actually on hand.

“Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.

"Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.

”Force majeure” means an event beyond the control of the supplier and not involving the supplier’s fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

“Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

“GCC” means the General Conditions of Contract.

“Goods” means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

“Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the

factory in the Republic where the supplies covered by the bid will be manufactured.

“Local content” means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.

“Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.

“Order” means an official written order issued for the supply of goods or works or the rendering of a service.

“Project site,” where applicable, means the place indicated in bidding documents.

“Purchaser” means the organization purchasing the goods.

“Republic” means the Republic of South Africa.

“SCC” means the Special Conditions of Contract.

“Services” means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

“Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

Application

These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

General

Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.

With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

Standards

The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

Use of contract documents and information; inspection.

The supplier shall not, without the purchaser’s prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

The supplier shall not, without the purchaser’s prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.

Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.

The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

Patent rights

The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

Performance security

Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.

The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:

a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or

A cashier's or certified cheque

The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

Inspections, tests and analyses

All pre-bidding testing will be for the account of the bidder.

If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at

the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

Delivery and documents

Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

Documents to be submitted by the supplier are specified in SCC.

Insurance

The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

Transportation

Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

Incidental Services

The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

performance or supervision of on-site assembly and/or commissioning of the supplied goods;
furnishing of tools required for assembly and/or maintenance of the supplied goods;
furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

Spare parts

As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
in the event of termination of production of the spare parts:

Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

Warranty

The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

Payment

The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.

The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.

Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

Payment will be made in Rand unless otherwise stipulated in SCC.

Prices

Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

Contract amendments

No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

Assignment

The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

Subcontracts

The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

Delays in the supplier's performance

Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.

Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

Penalties

Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

Termination for default

The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
if the Supplier fails to perform any other obligation(s) under the contract; or
if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.

If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
the name and address of the supplier and / or person restricted by the purchaser;
the date of commencement of the restriction
the period of restriction; and
the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

Anti-dumping and countervailing duties and rights

When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

Force Majeure

Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

Termination for insolvency

The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

Settlement of Disputes

If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

Notwithstanding any reference to mediation and/or court proceedings herein,

the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
the purchaser shall pay the supplier any monies due the supplier.

Limitation of liability

Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;
the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

Governing language

The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

Applicable law

The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

Notices

Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice

The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

Taxes and duties

A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

National Industrial Participation (NIP) Programme

The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

Prohibition of Restrictive practices

In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).

If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.

SECTION J

SPECIAL CONDITIONS OF CONTRACT

This bid is subject to the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations, 2022; the General Conditions of Contract (GCC) and the following applicable other Special Conditions of Contract.

1. Supplier must be registered on CSD to be awarded.
2. Supplier must deliver as per the specification provided.
3. Should bidders not quote for all items, they will be considered as being non-responsive.
4. The total quotation price must be inclusive of the cost of the supply, delivery.
5. The price quoted must be fixed for the period of 120 days.
6. The Department reserves the right not to award to the lowest bidder.
7. The Department MAY conduct a detailed risk assessment prior to the award.
8. The offers must remain valid for a period of 120 days from the closing date of the submission of bids.

SECTION K

AUTHORITY TO SIGN A BID

The bidder must indicate the enterprise status by ticking the appropriate box hereunder.

(I) CLOSE CORPORATION	(II) COMPANIES	(III) SOLE PROPRIETOR	(IV) PARTNERSHIP	(V) CO-OPERATIVE	(VI) JOINT VENTURE / CONSORTIUM	
					Incorporated	
					Unincorporated	

I/We, the undersigned, being the Member(s) of Cooperative/ Sole Owner (Sole Proprietor)/ Close Corporation/ Partners (Partnership)/ Company (Representative) or Lead Partner (Joint Venture / Consortium), in the enterprise trading as:

.....

hereby authorise Mr/Mrs/Ms .....

acting in the capacity of .....

whose signature is .....

to sign all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise.

NAME	ADDRESS	SIGNATURE	DATE

(If the space provided is not enough, a separate list should be attached)

Note:

Members of the enterprise must complete this form in full according to the type of enterprise, authorising the signatory to sign all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise.

Note: In a case of a Sole proprietor, a director may appoint himself/herself if they will be the one signing all documents in connection with this bid and any contract resulting therefrom on behalf of the enterprise

SECTION L

Specification

INVITATION TO BID – ZNT 09/25/26

SUITABLE AND CAPABLE SERVICE PROVIDERS ARE INVITED TO BID FOR THE SUPPLY AND INSTALLATION OF CCTV SURVEILLANCE CAMERAS, 3-IN-ONE ACCESS CONTROL SYSTEM, ELECTRONIC BOOM GATES INTEGRATED WITH ACCESS CONTROL, INTRUDER DETECTION SYSTEM AND X-RAY SCANNERS AT KZN PUBLIC WORKS & INFRASTRUCTURE HEAD OFFICE, 191 PRINCE ALFRED STREET, PIETERMARTIZBURG

1. GENERAL BIDDER REQUIREMENTS AND CONDITIONS

1.1 Bidders need to take into account all necessary equipment requirements and must cover all caveats to ensure the system is fully functional in terms of scope.

1.2 The successful bidder must include all caveats to include installation.

1.3 Successful suppliers or bidders must include all necessary information, proposals, images, and other supporting documentation.

1.4 The Department of Public Works & Infrastructure reserves the right to cancel or refuse any bid that does not meet the requirements of the bid.

1.5 The Department of Public Works & Infrastructure has the right to extend the contract with the current service provider as it deems necessary in terms of the support, maintenance, and all functionality and upkeep systems tenure.

1.6 All terms and conditions are reserved subject to change without notice. Errors and Omissions Excepted (E&OE).

2. CCTV SYSTEM SPECIFICATION – GENERAL

2.1 The purpose of this section is to outline a video management system and the specifications required for a reliable platform and the required functions thereof.

2.2 The client is to be provided with a stable, reliable and functional working solution that operates on an open platform and does not have scalability or model limitations.

2.3 All equipment offered shall have a minimum MTBF of 50 000 hrs. Of continuous use.

2.4 The manufacturer's warranty shall be valid for a minimum of 24 months beginning with on the day of delivery.

2.5 The system shall offer open and documented interfaces. The manufacturer shall supply upon request a complete software developers' kit (SDK) for integration with third-party equipment free of charge including free developer support. Interfaces available shall be TCP/IP (network interfaces) or RS-232/USB.

2.6 The manufacturer and the bidder shall commit to 2 years warrantee including spare part delivery or functional replacement for all equipment as listed under the BOQ.

2.7 Software updates shall be available free of charge from the manufacturer or his representative.

2.8 The system shall allow for functional upgrades via simple software license installation without hardware changes

2.9 No recurring license fees will be applicable

2.10 Security Information Management software systems shall form part of the proposal to bridge from existing video management system assets to the newly specified technology as per this document

2.11 The video management system shall allow the ability to integrate to open video standards such as ONVIF for existing IP cameras

2.12 The video management system shall allow the ability to integrate to open video standards such as ONVIF for encoding any existing analogue camera products into compatible video encoders (Full IP or OMNIBRID options)

3. SPECIFICATIONS - VIDEO MANAGEMENT SOFTWARE

3.1 The Video Management Software (VMS), Network Video Recorder (NVR) Hardware, Network Surveillance Cameras and related components shall be installed and commissioned by authorized integrators trained and certified by the manufacturer. Certification and training for authorized integrators shall be available from the manufacturer or his local representative.

3.2 The manufacturer's warranty, extended warranty and replacement policies shall be included for each specified component. All major components are to carry a 36-month warranty

3.3 Interconnectivity between systems shall allow a powerful, flexible, multi-function software solution designed to simplify the monitoring and management of IP and analogue security video

3.4 The system apart from being easily inter-connectable shall be highly scalable, allowing for connections to and monitoring of hundreds of recorders and thousands of cameras

3.5 The system shall in addition, have the ability to add options for Health Dashboard, Maps, Reporting for BIRS – business intelligence reporting

3.6 VMS client shall provide a completely user-customizable 'Site View': enabling the organization of cameras, recorders, tours, salvos into user-defined, multi-level folders, similar to Windows Explorer-style file organization. On a large or distributed system, a Site will automatically be created in the Site List when a SAS is started.

3.7 VMS client shall support ability to manually track any person or object across multiple cameras and/or virtual PTZ pre-sets when configured with surveillance tracking arrows.

3.8 VMS client shall include an integrated Web Browser tab that can be combined with other user interface components (Video Views, Site View, Event Viewer, etc.) into an Application Layout. The Web Browser tab shall allow operators to continue monitoring their security system while also receiving weather or news updates from web-based information sources.

3.9 VMS client shall support the ability to provide Client-to-Client "Push" enabling a workstation the ability to "push" any layout (e.g. video, alerts, web site, etc.) to another workstation's monitor based on roles, security and license settings when using an Application Server. The receiving Client shall have the ability to accept or reject the incoming request.

3.10 The proposed video and access control surveillance system must be an on-premises solution and must include robust local backup storage solutions while providing functionality to remotely access and view video feeds from anywhere in the world to the user. Furthermore, the system must have the capability to be integrated with cloud storage as an option.

3.11 SPECIFICATIONS - RECORDING SERVER/FAILOVER RECORDING

3.11.1 The system shall facilitate simultaneous digital multi-channel MJPEG, MPEG4, MPEG-4 ASP, MxPEG, H.264 and H.265 video recording of IP cameras and IP video encoders without any software limitations on number of cameras per server

3.11.2 Pre-recording buffer (used for event/motion-based recording) in RAM shall minimizes the disk read/write operations when no video is recorded.

3.11.3 The generic framework shall receive and store metadata from compatible devices and clients.

3.11.4 Route traffic between multiple connected cameras and multiple clients shall be able to request live view, playback and export.

3.11.5 The system shall multicast one video stream to all VMS Clients. The infrastructure must support IGMP to reach remote networks.

3.11.6 Multi-live streaming shall give the possibility to define multiple streams for live viewing with different properties. It shall optimize VMS Client viewing performance according to the available bandwidth and view layouts, which is ideal for deployments with remote viewing.

3.11.7 A dedicated recording stream shall enable optimization stream properties (resolutions, encodings and frame rate) for video storage and forensic usage.

3.11.8 The system shall secure high speed recording database holding JPEG images or MPEG4, MPEG-4 ASP, MxPEG, H.264 or H.265 streams.

3.11.9 Flexible control of recording characteristics for MPEG4/H.264/H.265 streams, shall make it possible to toggle between recording key frames only or the full stream.

3.11.10 Recording quality shall depend entirely on camera and video encoder capabilities with not software limitations.

3.11.11 Pre-recording buffer (used for event/motion-based recording) in RAM shall minimize the disk read/write operations when no video is recorded.

3.11.12 Edge Storage with flexible retrieval shall enable video retrieval from camera storage based on time schedules, events or manual requests. This shall enable users to effectively retrieve video recordings across low-bandwidth connections.

3.11.13 Scalable Video Quality Recording shall enable seamless merging of video stored centrally in the recording server, and video retrieved from a camera associated edge storage, or interconnected system.

3.11.14 The system shall enable the possibility to import pre-event images recorded locally in camera or video encoder.

3.11.15 Built-in, real-time, camera-independent motion detection with the ability to generate motion metadata for VMS Search.

3.11.16 The recording server shall run as a Windows service under local system account or optional local Windows user or Microsoft Active Directory

account with run-as-a-service privileges.

3.11.17 Port forwarding shall enable clients to access the recording servers from outside a network address translation (NAT) firewall.

3.11.18 The system shall support for both IPv4 and IPv6 addressing.

3.11.19 The 64-bit recording servers shall allow more cameras to be run on a single server unit.

3.12 **SPECIFICATIONS - PAN-TILT-ZOOM (PTZ)**

3.12.1 Clients with user priority shall "Pass-through" control of manual PTZ operation.

3.12.2 The VMS shall be able to identify PTZ priority levels for control of rights between different operators and automatic patrolling schemes.

3.12.3 The VMS shall execute rule-based go-to preset position on events and patrolling.

3.12.4 The VMS shall pause PTZ patrolling on event and resume patrolling after manual session timeout.

3.12.5 The VMS shall import PTZ presets defined in the PTZ camera.

3.12.6 The VMS shall rename imported PTZ presets.

3.12.7 The VMS shall support devices with one or more input and output ports.

3.12.8 The Powerful rule processing engine shall execute start and stop actions triggered by events or time profiles.

3.12.9 The system shall act as a simple network management protocol (SNMP) agent that can generate an SNMP trap as a result of a rule activation.

3.12.10 Shall enable logging of system, audit and rule entries to the management server with local caching during offline scenarios.

3.13 **SPECIFICATIONS - VMS FEDERATED ARCHITECTURE**

3.13.1 The system concept that shall enable individual VMS systems to be interconnected with a central VMS system in a hierarchical architecture for infinite scalability and central management.

3.13.2 It shall provide centralized management access to all federated sites.

3.13.3 The VMS includes resilient architecture that shall allow the individual systems to function as autonomous sites in the event of network problems.

3.13.4 The site details (name, address, administrators and additional information) defined in the federating parent system shall be available in the site navigation.

3.14 **SPECIFICATIONS – DEVICES**

3.14.1 The Hardware wizard shall add devices; automatically using Universal Plug and Play (UPnP) discovery, via IP network range scanning, or using manual device detection. All methods support automatic or manual model detection.

3.14.2 The Wizard shall enable swift replacement of malfunctioning devices with preserved configuration settings and recordings.

3.14.3 The Wizard shall enable easy moving of hardware devices (with attached cameras, microphones, speakers, inputs, outputs and metadata devices) between recording servers in runtime without losing settings, recordings, rules, permissions etc. It shall enable and disable devices if they are not used or are down for maintenance.

3.14.4 It shall allow to adjust settings such as brightness, color level, compression, maximum bit rate, resolution and rotation per camera or camera group; select and configure video format, frames per second (FPS), resolution and quality for the video streams used per camera; select and configure one, or more, video streams per camera to be used for live viewing. Each stream can be in different video format, FPS, resolution and quality.

3.14.5 The VMS shall enable adjustable group of pictures (GOP) length for MPEG4 and H.264 encoded video. It also shall enable assigning camera shortcut number for easy operation by clients and shall provide optional preview window for immediate verification of video settings per camera or for a group of cameras.

3.14.6 The VMS shall allow to define multiple PTZ preset positions on the server, to import PTZ preset positions from cameras and to enable PTZ scanning on supported devices.

3.14.7 The VMS shall allow to define multiple PTZ patrolling schemes with adjustable wait time between shifts and customizable transitions with disabling of motion detection to avoid false alarms.

3.14.8 The VMS shall allow to run multiple patrolling schedules per camera per day, for example, run different schedules for day/night/weekend.

3.14.9 Privacy mask shall consistently hide certain areas in the camera view in live and playback video and in exported material.

3.14.10 It shall allow to configure device events like motion detection with pre- and post- buffers, or input signal behavior options and allow to fine-tune motion detection sensitivity per camera manually or automatically.

3.14.11 The VMS shall allow to apply one or multiple exclusion zones for where motion detection is to be disabled to avoid unwanted detection.

3.14.12 The VMS system and connected devices shall support a wide set of events that can be used to trigger actions using the rule system. Events shall be grouped in the following categories:

a. Hardware: events that relate to physical hardware devices connected to the system
b. Devices: events that relates to certain functions and states of devices available to the VMS system via the connected hardware devices
c. External Events: events that relate to VMS integrations
d. Recording server: events that relate to failover, archiving and

database functions.

e. Analytics: events from integrated applications and systems

3.14.13 Start actions: The triggering events may initiate a wide set of actions in the VMS system, connected devices or integrated systems. Stop actions: The rule engine may also trigger stop actions in the VMS system, connected devices or integrated systems upon the completion of a rule.

3.14.14 The VMS shall enable multi-recipient customizable email notification with image and/or AVI attachment of incidents.

3.15 USER RIGHTS MANAGEMENT

3.15.1 User rights management shall enable common and central management of all user rights across all user and programmatic (IP SDK) interfaces.

3.15.2 Overall system security definition shall make it possible to globally allow or deny permission to devices and functions (such as manage, read, edit and delete).

3.15.3 Device-specific security definition shall make it possible to allow or deny permission to individual devices and functions (such as manage, read, edit and delete).

3.15.4 User rights management shall control roles, user and administrator access to:

a. General: Management Client and VMS Client profiles, dual authorization rights, system log-in time profile

b. Cameras: visibility, administrate, live view (within time profile), playback (within time profile), search sequences, export, VMS search, AUX commands, manual recording, bookmark functions

c. Microphones and speakers: visibility, administrate, listen to live audio (within time profile), playback audio (within time profile), search sequences, export, manual recording, bookmark functions, speak to speakers

d. Inputs and outputs: visibility, administrate, status, activation
PTZ: manual control, activate PTZ presets, PTZ priority, manage PTZ presets and patrolling, lock/unlock PTZ presets, reserve and release PTZ session

e. Remote recordings: retrieve remote recordings

f. VMS Wall: visibility, administrate, control, playback

g. External events: visibility, administrate, trigger

h. View groups privileges
Servers: VMS Enterprise server access and authentication details, VMS Federated Architecture site permissions

i. Alarms: visibility of alarms and ability to manage alarms

j. MIP: Plug-in permissions

k. Application: manager, VMS Client/Web Client/Mobile, live/ playback/setup, status API and service registration API

3.16 **LOGGING**

3.16.1 Logs of system, audit and rule entries shall consolidate from all recording servers and clients.

3.16.2 Each log file shall have adjustable size and time limitations.

3.17 **CLIENT PROFILES**

3.17.1 Centralized management of VMS Client application options shall enable optimization of the Management Client for different user categories and skill levels.

3.17.2 Management Client profiles shall enable the ability to three different profiles.

3.17.3 VMS Client profiles shall enable ability to enforce or recommend optional Client application options for a user or group of users, using a maximum of three Client profiles.

3.17.4 Profiles shall enable defining general VMS Client application options, including (listing not exhaustive): visibility of time, visibility of camera live indicators, default image quality, default frame rate, keyboard and joystick setup, startup mode and de-interlacing filters.

3.17.5 Client profiles also shall:

a. provide access to live mode and the availability of individual control panes and overlay buttons

b. Shall provide access to playback mode and the availability of individual control panes, overlay buttons and settings for specific functions, such as default export path
provide access to setup mode and the availability of individual control panes and setup functions

c. provide access to Sequence Explorer, Alarm Manager, System Monitor

d. provide access to setup mode and the availability of individual control panes and setup functions

e. define available view layouts

3.18 **SYSTEM ADMINISTRATION**

3.18.1 System administration shall include built-in backup and restore support for manual system backup of all configuration data, including (listing not exhaustive): system configuration data, maps, alarm settings and definitions and client views.

3.18.2 The system monitor with customizable dashboard shall enable task or component specific live monitoring.

3.18.3 System administration shall enable historic performance and usage investigation and reports of storage usage, network use, server and camera performance.

3.18.4 The system monitor shall enable customizable Normal, Warning and Critical system monitor and event triggers for; CPU and Memory usage on

servers, used space, recording and live FPS on cameras, free space on disks and predicated retention time for storage definitions.

3.18.5 Configuration Reporting shall enable complete or partial documentation of system configuration. Custom and site-specific free-text information, integrator's notes and logo can be added to the printer-friendly reports.

3.19 **LICENSE ADMINISTRATION**

3.19.1 License overview shall include add-on products, Care coverage and renewal date. The License owner information shall synchronize with the software registration page on the VMS website.

3.19.2 The "Changes without activation" function shall allow additions and replacements of limited number of devices without requiring license activation.

3.20 **GENERAL**

3.20.1 VMS Client shall provide dedicated task-oriented tabs for the Sequence Explorer, Alarm Manager and System Monitor, in addition to the traditional Live and Playback tabs.

3.20.2 The client shall provide application theme support with choice of dark or light themes.

3.20.3 VMS Client shall provide true multi-window support where secondary windows have full functionality and can be operated in independent mode or synchronized mode where they follow the control of the main window.

3.20.4 It shall enable shortcuts to select a specific window or specific camera in a window.

3.20.5 The client shall provide a camera search function that promptly finds cameras, types of cameras and views in the system with the ability to create temporary views to display all or a subset of cameras matching the search criteria.

3.20.6 VMS Client shall display metadata bounding boxes from supported devices in live views and playback.

3.21 **CUSTOMIZATION**

3.21.1 The application options shall enable customization of the general behavior and look of the VMS Client. The customization shall be able to either be made as individual personalization managed by each operator or centrally enforced using VMS Client Profiles. The application shall offer a simplified user interface with the possibility option to toggle between "Simple" and "Advanced" modes, where advanced mode is default.

3.21.2 The VMS Client shall enable control of general look & feel and navigation properties, such as color mode, camera title bar, grid sizes etc.

3.21.3 The client shall provide the availability of control panels and functions in live and playback tabs, and in setup mode, as well as the behavior and availability of the expert function.

3.21.4 The application shall allow to include information in time line in the playback tab, setup keyboard short cuts and joystick controls, as well as specific behavior of alarms and access control notifications.

3.21.5 The VMS Client shall include advanced application settings such as use of multicast, hardware acceleration, videos diagnostics overlay and time zone settings.

3.22 **Independent Remote Maintenance Connectivity**

3.22.1 The service provider shall be solely responsible for the provision, cost and management of their own independent broadband connectivity solution (e.g. 4G/5G/LTE or separate fixed line) for the purpose of remote system support, software updates and maintenance. The service provider may not utilize the Department existing corporate network (LAN/WAN) for remote system support, software updates and maintenance. The proposed connectivity solution must ensure the CCTV system remains accessible to the Service Provider for SLA adherence regardless of the status of the Client's internal network.

3.23 **PTZ**

3.23.1 Control PTZ cameras by using;

a. PTZ preset positions
b. PTZ point-and-click control
c. Overlay buttons
d. PTZ zoom to a defined rectangle
e. Video overlaid PTZ control
f. Virtual joystick function
g. Joystick
h. Manage PTZ presets
i. View who have PTZ control and time to automatic release

3.23.2 Live view shall enable to take manual control of a PTZ camera that is running a patrolling scheme. After a timeout with no activity, the camera reverts to its scheduled patrolling scheme.

3.24 **I/O AND EVENTS**

3.24.1 Overlay buttons shall provide intuitive control of cameras, camera-integrated devices and other integrated systems directly from the camera view.

3.24.2 I/O and events shall enable to manually trigger output port relay operation, for example when controlling gates.

3.24.3 I/O and events shall enable to manually trigger events by activating a server- defined event from a list.

3.25 **BOOKMARKING**

3.25.1 Bookmarking shall enable to manually define quick or detailed bookmarks with the bookmark function.

3.25.2 Bookmarks shall be shown in timeline with instant preview.

3.25.3 The function shall enable to listen and preview bookmarks in recording search.

3.25.4 Bookmark reports shall enable effortless incident documentation.

3.25.5 Direct video export of a bookmark shall reduce the time needed to prepare forensic video material.

3.26 **PLAYBACK**

3.26.1 Playback shall provide playback video from 1-100 cameras per computer monitor/view.

3.26.2 Advanced video navigation shall include fast/slow playback, jump to date/time, single step and video motion search.

3.26.3 Playback shall include integrated video timeline with time navigation and playback controls, including an integrated function to select a time interval for export or video retrieval from Edge Storage devices and interconnected systems.

3.26.4 Playback shall allow to toggle between simple and advanced timeline mode.

3.26.5 The function shall provide overview of recorded sequences and bookmarks.

3.26.6 Independent playback capability shall allow the independent playback of recorded video from one or more cameras.

3.26.7 Instant camera placement in playback view shall allow users to instantly replace cameras in a view, where a new camera can be placed in a particular view and position with a simple drag-and drop operation.

3.26.8 Digital zoom shall allow the operator to see magnified details in the recorded video.

3.27 **EXPORT AND PRINT**

3.27.1 The snapshot function shall enable operators to produce instant visual documentation of a camera by saving the camera image to a file or sending it directly to a printer.

3.27.2 The VMS shall have storyboarding function that shall make it possible to include video sequences from different or overlapping time intervals from different cameras in the one and the same export.

3.27.3 The export and print function shall provide export in the VMS format; including the standalone VMS Client - Player application for instant and easy viewing by authorities.

3.27.4 The function shall allow export preview with looped playback.

3.27.5 Export and print shall enable encryption and password protection of exported video material with a choice of following strong encryption algorithms: 56-bit DES 128, 192 and 256-bit AES.

3.27.6 Secure video evidence handling with a digital signature of exported video material that shall enable users to verify the video has not been modified or tampered with when viewing the export in the VMS Client – Player.

3.27.7 Export and print shall allow to create evidence material in media player format (AVI files), MKV format, or still image format (JPEG images).

3.27.8 The function shall allow to disable re-export option to prevent undesirable

distribution of sensitive evidence material.

3.27.9 Export and print shall allow to bulk camera export in multiple formats to multiple destinations, including direct export to optical media, results in more efficient video exports and more secure handling of evidence material.

3.27.10 Export comment function shall enable users to add general and/or camera- specific comments to a video export when exporting to the VMS format.

3.27.11 In media player format comments shall be added as pre/post slides.

3.27.12 The VMS shall allow to print incident reports including image, surveillance details and free-text user comments.

3.28 **SEQUENCE EXPLORER**

3.28.1 The VMS client shall include a dedicated tab for the Sequence Explorer.

3.28.2 The search options shall be: recording sequences (with support for time slicing), bookmarks and VMS Search.

3.28.3 The sequence explorer shall include smooth navigation with sliding preview and “drag-and-throw” function for video thumbnails.

3.28.4 The VMS shall include preview of selected sequence with auto play and direct export support.

3.29 **SETUP AND MANAGEMENT**

3.29.1 Download and installation of the VMS Client from a web page on the management server shall enable notification about new updates at log-in.

3.29.2 Application options shall allow users to adapt the layout and personalize the application to their particular preferences.

3.30 **AUTHENTICATION**

3.30.1 System log-in shall use Microsoft Active Directory, local Windows or a basic user account. Furthermore, it shall use current Windows logon for authentication, and use Auto-log-in and auto-restore views.

3.30.2 Dual authorization shall offer an optional additional level of system security, where VMS Client users are granted access to the system only when a second user or supervisor has confirmed the log-in with a successful authorization of the second user.

3.31 **SYSTEM**

3.31.1 The system shall support for IPv4 and IPv6 addressing.

3.31.2 The 64-bit Windows® operating system support shall enable better performance when viewing and operating many cameras.

3.31.3 The system shall support multicast streams.

3.31.4 It shall support for hardware accelerated decoding using Intel Quick Sync video.

3.32 **VMS CLIENT – PLAYER**

3.32.1 The VMS Client - Player shall be able to play back recorded or archived video and audio evidence, including edited storyboard exports.

3.32.2 The player shall include same user-friendly interface and most functions as the VMS Client.

3.32.3 The player shall offer a simplified user interface with the possibility option to toggle between “Simple” and “Advanced” modes.

3.32.4 It shall provide instant one-click playback for easy viewing of exported video evidence.

3.32.5 Advanced second-level investigation tools shall make it easy to refine exported video and re-export the most essential evidence.

3.32.6 Metadata bounding boxes included in exports shall be displayed time synchronized in VMS Client – Player.

3.32.7 The project tool shall allow users to merge video exports or archives from two different locations or systems together into one new export.

3.32.8 The VMS Client – Player shall also:

a. provide view up to 100 cameras time-synched during playback
b. provide camera search function promptly finds cameras, types of cameras and camera views in the system
c. provide scrollable activity timeline with magnifying features
d. provide instant search on recordings based on date/time and activity/alarm (video motion detection)
e. Shall allow to view, modify or add general and/or camera-specific comments for a given video export
f. Shall allow de-interlacing of video from analog cameras

3.32.9 Evidence shall be generated as a printed report, a JPEG image, an AVI or MKV film or in the VMS format

3.32.10 Shall include export audio recordings in WAV, MKV or AVI format.

3.32.11 Exported video shall be digitally zoomed to view an area of interest and minimize export footprint size.

3.32.12 The player shall enable re-export evidence containing the relative format and VMS Client - Player for instant, easy viewing by authorities.

3.32.13 Verification of digital signatures added as a part of the export, shall enable users to verify that the video has not been modified or tampered with.

3.32.14 The player shall provide encryption and password protection of exported video material with a choice of the following strong encryption algorithms: 56-bit DES 128, 192 and 256-bit AES.

3.32.15 Secure video evidence handling with a digital signature of re-exported video material shall enable users to verify that the video has not been modified or tampered with when viewing the export in the VMS Client – Player.

3.33 **WEB CLIENT**

3.33.1 Views shall be accessed through the browser and avoid advanced setup.

3.33.2 Shared views shall be managed centrally via the server with administrator/user rights and user groups.

3.33.3 Camera search function shall promptly find cameras, types of cameras

and camera views in the system.

3.33.4 The client shall include:

a. Easy multi camera video playback including fast/slow playback, single frame step and jump to date/time with frame preview while adjusting time.
b. Investigation function with ability to save exports for later usage or download
c. List of alarms, that shall enable users to get a quick overview and act if needed
d. Option for client-side video decoding via browser plug-ins (please refer to http://www.sys.com/Product-System-Requirements/ for details on supported browsers)
e. Control PTZ cameras remotely, including preset positions
f. Dynamic bandwidth optimization when streaming from server to client gives better use of bandwidth
g. Create AVI files or save JPEG images
h. Preview exports on the server without downloading them
i. Trigger outputs and events with live view of related camera
j. System log-in using user name and password
k. System log-in using Microsoft Active Directory user
l. Secure connection through HTTPS

3.33.5 The Web Client shall allow to export on the server to avoid moving large video files back and forth. The client shall allow to only download needed files or save them for downloading when on a faster connection.

3.33.6 There shall no installation be needed on client computer.

3.34 **VMS MOBILE**

3.34.1 VMS mobile shall support any mobile device running Android® 2.2, iOS5, and Windows® Phone 8, or newer versions.

3.34.2 Add log-in credentials for multiple servers in Mobile shall allow to easily switch between sites or different connection addresses.

3.34.3 Views shall be inherited from the connected VMS system. The client shall automatically obtain the user's private and shared views from the system to be used as camera lists in Mobile.

3.34.4 Camera search function shall promptly find cameras, types of cameras and camera views in the system.

3.34.5 Cameras shall be viewed on a full screen to take better advantage of the device's screen. It is also possible to search through cameras in a view while in full screen by swiping left or right.

3.34.6 Digital pinch-to-zoom shall enable users to zoom in on a part of the image for closer review and conduct detailed investigation of video when using megapixel or high-definition cameras.

3.34.7 VMS Mobile shall allow to play back recordings from the database and select a specific time or recorded sequence to start playback, step

through recordings and select a playback speed.

3.34.8 VMS Mobile shall allow to view recordings from the database while keeping an eye on what is currently happening. The client shall display a live picture-in- picture frame of the same camera when in playback mode. The picture-in- picture shall be moved by dragging and double-tapping and will return to live view.

3.34.9 Control over the PTZ cameras shall be given with Mobile either manually or by selecting predefined presets for quick navigation.

3.34.10 Video Push shall allow users to use their mobile devices' cameras as cameras in the VMS. It is easy to use and requires no setup in the mobile device.

3.34.11 VMS Mobile shall include the option to include location metadata in Video Push.

4. SPECIFICATIONS - Thermal Network Bullet Camera

4.1 1/2.8" 4 Megapixel progressive scan CMOS

4.2 Support ROI, motion detection, colour palettes

4.3 Support temperature measurement

4.4 Support fire detection & alarm

4.5 Built-in 2/2 alarm in/out

4.6 Uncooled thermal sensor technology

4.7 Thermalized lens (thermal camera), focus-free

4.8 IP67 Rating

4.9 PoE and ePOE

5. SPECIFICATIONS - 2MP LPR Camera

5.1 1/2.8 inch 2Megapixel Progressive scan CMOS

5.2 WDR, Day/Night(ICR), 3DNR,BLC, HLC

5.3 H.265& H.264 dual-stream encoding

5.4 Powerful 2.7-13.5mm motorized lens and IR light, ideal for monitor ANPR distance 3- 8m

5.5 IP67 rating, and superior performance for outdoor applications

5.6 Embedded LPR algorithm inside the camera

6. SPECIFICATIONS - 4MP Outdoor High Speed PTZ

6.1 1/2.8" 2Megapixel CMOS

6.2 Powerful 45x optical zoom

6.3 Max. 50/60fps@1080P

6.4 Auto tracking and IVS

6.5 Support Hi-PoE

6.6 IR distance up to 300m

6.7 IP67

6.8 Aluminum pole mount bracket

7. SPECIFICATIONS - 2MP Temperature and Humidity Camera

7.1 Max 30fps@1080P

7.2 3.6mm fixed lens (2.8mm, 6mm optional)

7.3 Max. IR length 20m, Smart IR

7.4 Built-in temperature & humidity sensor

7.5 Detection range: -40°C~60°C, 10-95% RH

7.6 IP67

8. SPECIFICATIONS - 4 MP IR Bullet Outdoor Camera

8.1 1/3" 4Megapixel progressive CMOS

8.2 H.265 & H.264 dual-stream encoding

8.3 20fps@4M(2688×1520)&25/30fps@3M(2304×1296)

8.4 WDR(120dB), Day/Night(ICR), 3DNR, AWB, AGC, BLC

8.5 Multiple network monitoring: Web viewer, CMS(DSS/PSS) &

8.6 DMSS

8.7 Micro SD card slot, up to 128GB

8.8 2.7~13.5mm varifocal lens

8.9 Max IR LEDs Length 60m

8.10 IP67

8.11 PoE

9. SPECIFICATIONS - 4 MP Fixed Dome Network Camera

9.1 4MP, 1/2.8" CMOS image sensor, low illuminance, high image definition

9.2 Outputs 2MP (1920 × 1080)@25/30 fps

9.3 H.265 codec, high compression rate, ultra-low bit rate

9.4 Built-in IR LED, max IR distance: 40 m

9.5 ROI, SMART H.264/H.265, flexible coding, applicable to various bandwidth and storage environments

9.6 Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes

9.7 Intelligent detection: Intrusion, tripwire

9.8 Abnormality detection: Motion detection, video tampering, no SD card, SD card full, SD card error, network disconnected, IP conflict, illegal access, voltage detection

9.9 Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 GB Micro SD card

9.10 PoE power support

9.11 IP67 Protection grade

9.12 IK10 Protection Grade

10. SPECIFICATIONS - 2MP Entry-Level Network Bullet Camera (CC400-6 Type)

10.1 Max. Resolution: 1920 × 1080 (2MP)

10.2 Image Sensor: 1/2.8" Progressive Scan CMOS

10.3 Min. Illumination: Color: 0.01 Lux @ $(F1.2, AGC ON)$, B/W: 0 Lux with IR

10.4 Video Compression: H.265+/H.265/H.264+/H.264

10.5 Lens: 2.8 mm or 4 mm fixed lens options

10.6 IR Range: Up to 30 m

10.7 Protection: IP67

10.8 Features: Digital WDR, 3D DNR, BLC, ROI.

11. SPECIFICATIONS - 4 MP IR Fixed Bullet Network Camera

11.1 Intel Processor

11.2 Dual Controller architecture

11.3 Max 512 IP Camera Inputs

11.4 Max 1024 Mbps Incoming/recording Bandwidth

11.5 48 HDDs, SAS, Hot-Swap

11.6 Supports RAID 0/1/5/6/10/50/60/JBOD, Hotspare

11.7 Built-in Microphone.

11.8 Support Micro SD/SDHC/SDXC card slot, up to 128 GB.

11.9 IP67 Protection grade.

11.10 PoE.

12. SPECIFICATIONS - VMS WORKSTATION

12.1 Processor: High-performance latest generation Core i7 or equivalent processor.

12.2 RAM: Minimum 16GB DDR4 RAM.

12.3 Graphics Card: Dedicated GPU with at least 4GB VRAM to support multi-stream video decoding and VMS client multi-monitor operation.

12.4 Storage: Solid State Drive (SSD) for operating system and VMS client software.

12.5 Operating System: 64-bit Windows Operating System.

13. SPECIFICATIONS - Vehicle Access Control

13.1 Integration: Highly integrated device including a fast-speed barrier gate, smart capture camera, supplement light, LCD display, anti-fall radar, help button, voice prompt, and two-way audio.

13.2 Speed/Efficiency: Quick pass with high-speed rising and low-speed falling boom pole.

13.3 Anti-Following Mode: Supports anti-vehicle following mode via video and radar/loop.

13.4 Camera: 4 MP HD camera with max. 2688 × 1520 resolution (25 fps); 1/3'' progressive scan CMOS; 0.022 lux low illumination.

13.5 Lens: 3.1 to 6 mm motor-driven varifocal lens, supports focus auto-adjustment.

13.6 Display: 21.5 inch LCD for image, video, and advertisement playback.

13.7 Audio: Supports pressing a help button for real-time two-way audio.

14. SPECIFICATIONS - High-capacity enterprise server

14.1 Intel Processor

14.2 Dual Controller architecture

14.3 Max 512 IP Camera Inputs

14.4 Max 1024 Mbps Incoming/recording Bandwidth

14.5 48 HDDs, SAS, Hot-Swap

14.6 Supports RAID 0/1/5/6/10/50/60/JBOD, Hotspare

14.7 iSCSI and Mini SAS for Expanded Storage Space

14.8 Support standard iSCSI Protocol Storage

14.9 Modular & Cableless Design

14.10 Redundant Power

15. SPECIFICATIONS - Enterprise Drive for Bulk Data Applications

15.1 Minimum 8 TB per hard drive, x 48

15.2 2 million hour MTBF rating and support workloads of 550TB

15.3 Cache, on-the-fly error correction

15.4 Algorithms and rotational vibration design.

15.5 Performance in replicated and RAID multi-drive systems.

15.6 Magnetic recording (CMR) technology,

15.7 Easy integration into bulk storage systems

15.8 12Gb/s SAS and SATA interface.

16. SPECIFICATIONS - Video surveillance Server

16.1 512Mbps incoming bandwidth

16.2 256-channel IP video access

16.3 64-channel perimeter protection

16.4 32-channel face recognition with normal IPC

16.5 80-channel face recognition with face detection IPC

16.6 16-channel video metadata

16.7 300,000 face pictures database

16.8 Supports RAID 0/1/5/6/10

16.9 SAS3.0 for storage extension

16.10 Metadata of human and vehicles

16.11 Automatic Number Plate Recognition

16.12 High reliable redundancy N+M Hot Standby

16.13 Automatic tracking PTZ feature

17. SPECIFICATIONS - Rack mount 24 port 2 gigabit switch

Switching capacity	256 Gbit/s
Fixed port	24 x 100/1000Base-X optical port (8 x Combo port) 4 x 10G BASE-X SFP+ optical port
Link aggregation	Supports the following link aggregation features: . GE/10GE port aggregation . Dynamic aggregation . Cross-device aggregation
Port	Supports the following port features: . IEEE802.3x-based traffic control (full duplex) . Storm suppression based on port rate percentage . PPS-based and BPS-based storm suppression
IRF2	Supports the following IRF2 features: ●IRF2 . Stacking via standard Ethernet interfaces . Local stacking and remote stacking . Distributed device management and distributed link aggregation
IP routing	Supports static routing.

VLAN	Supports the following VLAN features: . Port-based VLANs . Protocol-based VLANs . QinQ and flexible QinQ . VLAN mapping . Voice VLANs . Guest VLANs
ACL	Supports the following ACL features: . Packet filtering on layer 2 (L2) to layer 4 (L4) . Flow classification based on the source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port, IP protocol type, and VLAN . ACLs based on time ranges . Global issuance of ACLs based on ports or VLANs
QoS	Supports the following QoS features: . Restriction of the packet receiving rate and packet transmission rate on ports . Packet redirection . Eight output queues on each port . Queue scheduling on ports (SP, WRR, and SP+WRR) . Re-marking of 802.1p and DSCP priorities of packets
DHCP	Supports the following DHCP features: . DHCP Client . DHCP Snooping . DHCP Snooping option82 . DHCP Relay . DHCP Server . DHCP auto-config (zero configuration)
Multicast	Supports the following multicast features: . IGMP Snooping/MLD Snooping . Multicast VLANs

Layer-2 ring network protocol	Supports STP, RSTP, MSTP, and PVST.
OAM	Supports 802.1ag and 802.3ah.
Mirroring	Supports the following mirroring features: .Port mirroring .Remote switched port analyzer (RSPAN) .Traffic mirroring

18. SPECIFICATIONS – Network Video Decoder

18.1 Standard 2.5U case, elegant appearance

18.2 Plug-in board design, easy to use and maintain

18.3 H.265/H.264/MJPEG/MPEG4/MPEG2 video decoding

18.4 Ultra-high decoding ability, up to 12 Megapixels

18.5 2ch HDMI and 2ch DVI-I input, support 4K collection(HDMI)

18.6 Support 1/4/9/16 display split

18.7 Support audio, alarm, bi-directional talk, RS485

18.8 Splicing screens control for zoom/merge/roam/overlay

18.9 4K decoding

18.10 4K collection

19. SPECIFICATIONS - Shielded Cat 6 Cable

19.1 The Category 6 Cable shall be of the highest quality.

19.2 The cable shall conform to the following flame-resistant standard:

19.3 IEC 60332-1: IEC 60754

19.4 The cable shall support network data transmission up to 100m.

19.5 The cable shall be sufficiently shielded to counteract Electromagnetic Interference especially when the cabling shall run in close proximity to power cables.

19.6 Construction

a. Bare Copper Wire conductor shall have a diameter of at least 0.56mm (AWG23/1)
b. The insulator shall be a Foam PE with a nominal diameter of 1.34mm
c. The sheath material shall be constructed from Low Smoke Zero Halogen materials.
d. The overall screen shall be a copper braid tinned material of which

the drain wire shall be AWG26 tinned.

e. The outer diameter of the cable shall be at least 8.05mm.

19.7 Mechanical Properties

Minimum bending Radius without load	8 x Diameter
Minimum bending Radius without load	8 x Diameter
Temperature range during operation	-10 degrees Celsius up to 60 degrees Celsius
Temperature range during installation	-10 degrees Celsius up to 60 degrees Celsius
DC Loop resistance	Less than or equal to 176 /km
Resistance unbalanced	Less than or equal to 2%
Insulation Resistance (500V)	More than or equal to 2000 M * km
Mutual Capacitance at 800Hz	Nom 43nF/km
Capacitance unbalanced (pair to ground)	Less than or equal to 1500 F/km
Mean characteristics impedance 100MHz	(100 5)
Nominal velocity of propagation	Nom 79 %
Propagation delay	Nom. 427 ns/100m
Delay Skew	Nom. 12 ns/100m
Test Voltage (DC, 1min) Core/core and Core Screen	Nom. 1000 V
Transfer Impedance	@ 1 MHz: ≤ 20 M /m @ 10 MHz: ≤ 50 M/m @ 30 MHz: ≤ 100 M/m
Coupling Attenuation	≥55 dB

20. SPECIFICATIONS - Fibre 8 Core Single Mode Fibre

20.1 The fibre layout shall be deployed on the ring principle to ensure redundancy.

20.2 Splicing shall comply to the relative IEC or SANS standard, whichever is greater.

20.3 The contractor shall provide a layout drawing detailing the rack layout and splicing diagrams.

20.4 Splicing methodologies shall be included in each contractor's submission.

20.5 The manufacturer shall imprint on the cable at 1m intervals the following information:

20.5.1 Manufacturers Name

20.5.2 Cable Type

20.5.3 Cable Size

20.5.4 Manufacture Year

20.5.5 Mark Of Meters Din Rail Mountable

20.6 The colour of the marking shall be white however should reprinting be required this shall be done in yellow in a different position.

20.7 Each cable end shall be sealed to heat shrinkable end caps to prevent water ingress.

20.8 Fibre Cable Performance

20.8.1 All four pairs shall be protected

Item	Specification
Type of fibre	Single Mode
Fibre material	Doped Silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤3.5 ps/ (nm. Km) ≤5.3 ps/ (nm. Km) ≤18 ps/ (nm. Km) ≤22 ps/ (nm. Km)
PMDQ (Quadrature average*)	≤0.2 ps/km ½
Attenuation at the water peak @1383nm ± 3nm	≤ 0.7dB/km
Attenuation with temperature (-40℃ ~ +85℃)	≤ 0.05dB
1550nm bending loss (75mm mandrel, 100 turns)	< 0.05dB
Mode field diameter @ 1310 nm	9.2±0.4 um
Mode field diameter @ 1550 nm	10.4±0.8 um
MFD concentricity error@1310nm	≤ 0.5 um
Core / Cladding concentricity error	≤ 0.5 um
Core diameter (Nominal)	8.3um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 5 um
Color coating diameter	250 ± 10 um

Radius of curvature	≥ 4m
Coating-cladding concentricity	<10um
Proof test level	100 kpsi(=0.69 Gpa), 1%

20.9 The cable bending radius shall be as follows

20.9.1 10 x Cable diameter (static)

20.9.2 20 x Cable diameter (dynamic)

20.10 Main Mechanical ad Environmental Performance Testing

20.10.1 Over and above the below table of tests, the fibre cable shall be Quality certified and physically tested. These tests and certifications shall be included within the submission directly from the fibre cable manufacturer and not the installer.

20.10.2 The fibre shall be expected to align with the following standards:

No	Item	Test Method	Acceptance Conditions
1	Tensile Strength IEC 794-1-E1	Load: short time:500N Length of cable under load: 50 m	Loss change ≤ 0.1 dB @1550 nm No fibre break and no sheath damage.
2	Crush Test IEC 794-1-E3	Load: 450N/100 mm Load time: ≥1min.	Loss change ≤ 0.1 dB @1550 nm No fibre break and no sheath damage.
3	Impact Resistance IEC 794-1-E4	Points of impact: 5 Times of per point: 5 Impact energy:4.5 N.m Radius of hammer head: 15mm Impact rate: 2 sec/cycle	Loss change ≤ 0.1 dB @1550 nm No fibre break and no sheath damage.
4	Repeated Bending IEC 794-1-E6	Bending radius:20 x cable diameter Load: 150 N Flexing rate: 3 sec/cycle No. of cycle: 30	Loss change ≤ 0.1 dB @1550 nm No fibre break and no sheath damage
5	Torsion IEC 794-1-E7	Length: 1 m - Load: 150 N Twist rate: 1 min/cycle Twist angle: ±180°	Loss change ≤ 0.1 dB @1550 nm - No fibre break and no sheath damage

		No. of cycle: 10	
6	Temperature Cycling Test IEC 794-1-F1	Temperature step: +20oC→20oC→+70oC →+20oC - Time per each step: 12 hrs Number of cycle: 2	Loss change ≤ 0.05 dB/km@1550 nm No fibre break and no sheath damage.

7		Compound Flow IEC 794-1-E14	Sample length: 30 cm - Temp: 70°C ± 2°C	No compound flow
8		Sheath High Voltage Test	On line test - 9t KV (t-sheath thickness)	No sheath breakdown

21. SPECIFICATIONS - Surge Protection

21.1 The Surge Arrestor shall support the following features

21.1.1 Single Port Poe Ethernet Surge Arrestor

21.1.2 Din Rail Mountable

21.1.3 IEEE 802.3af and IEEE 802.3at compliant

21.1.4 All four pairs shall be protected

21.1.5 Supply Protection for PoE, Poe+ and HPoE

21.1.6 1000 Mbps data rate

SINGLE PORT PoE SURGE ARRESTOR TECHNICAL SPECIFICATIONS

Standards Compliance	IEEE 802.3af, IEEE 802.3at
Ethernet input	RJ45 Socket PoE 10/100/1000BASE-T
Ethernet output	RJ45 Socket PoE 10/100/1000BASE-T
Grounding	300mm of 1.5mm stranded earth cable (requires connection to a good electrical earth)
Ethernet and PoE Protection	
Operating Voltage	48 V
Max Voltage	62 V
Operating Current	1.5 A
Max Discharge Current	10KA */20s

Impulse Life (10/1000□s)	400 times
Operating Temp	--40°C to 75°C
Operating Humidity	0% to 95%; non-condensing

22. SPECIFICATIONS - Rack Mount Ups

22.1 1500VA 230V Rack Mount

22.2 Output

22.2.1 Output power capacity - 1.0k Watts / 1.5kVA

22.2.2 Max Configurable Power (Watts) -1.0k Watts / 1.5kVA

22.2.3 Nominal Output Voltage - 230V

22.2.4 Output Voltage Note - Configurable for 220 : 230 or 240 nominal output voltage

22.2.5 Output Voltage Distortion - Less than 5% at full load

22.2.6 Output Frequency (sync to mains) - 47 - 53 Hz for 50 Hz nominal, 57 - 63 Hz for 60 Hz nominal

22.2.7 Other Output Voltages - 220, 240

22.2.8 Topology - Line Interactive

22.2.9 Waveform type - Sine wave

22.2.10 Output Connections - (4) IEC 320 C13 (Battery Backup) (2) IEC Jumpers (Battery Backup)

22.2.11 Transfer Time - 2ms typical

22.3 Input

22.3.1 Nominal Input Voltage - 230V

22.3.2 Input frequency - 50/60 Hz +/- 3 Hz (auto sensing)

22.3.3 Input Connections - IEC-320 C14

22.3.4 Input voltage range for main operations - 160 - 286V

22.3.5 Input voltage adjustable range for mains operation - 151 - 302V

22.3.6 Other Input Voltages - 220, 240

22.4 Batteries & Runtime

22.4.1 Battery type - Maintenance-free sealed Lead-Acid battery with suspended electrolyte: leak-proof

22.4.2 Typical recharge time – 3 hour(s)

22.4.3 Expected Battery Life (years) - 4 - 6

22.4.4 Battery Volt-Amp-Hour Capacity – 432

22.5 Communications & Management

22.5.1 Interface Port(s) - RJ-45 Serial, SmartSlot, USB

22.5.2 Control panel - Multi-function LCD status and control console

22.5.3 Audible Alarm - Alarm when on battery: distinctive low battery alarm: configurable delays

22.5.4 Emergency Power Off (EPO) - Optional

22.5.5 Available SmartSlot™ Interface Quantity - 1

22.6 Surge Protection and Filtering

22.6.1 Surge energy rating - 459Joules

22.6.2 Filtering - Full time multi-pole noise filtering: 0.3% IEEE surge let-through: zero clamping response time: meets UL 1449

23. SPECIFICATIONS - Control Room Ups

Capacity	400KVA
UPS Structure	Online Double Conversion
Appearance	Low Frequency with Output Isolated Transformer
Overall Efficiency (AC-AC)	94% (With Optional Accessories)
ECO	98%
Noise (In 2 Meters)	67dB
Working Temp.	0-40℃
Storage Temp.	-15 ~ 50℃ (without batteries)
Humidity	< 95% Non-Condensing
Protection	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low
DC Start	N/A
Generator Compatibility	Yes
Display	LCD Display(Multi-Language with all kinds of messages)+LED
Mute	Auto
Cabinet Standard	IP20

Cooling System	Intelligent Speed Control Cooling Fan
Elevation	＜1500M, Without Derated
Output Freq	±0.02% (BAT Mode)
Crest Ratio	3 : 1
Short-Circuit	Circuit Auto-Protection, Bypass Switch Tripping
Output Abnormal	INV. Output Auto-Locked Protection
Bypass Specification	
Static Bypass Transfer Time	0ms
Static Bypass Range	380/400/415Vac(±10%,±15%,±20% Selectable)3 Phase+N(3 Phase+N+PE)
Frequency Range	50/60Hz±10%

Bypass -> INV Transfer Time	2ms
Bypass Overload Ability	200%: 5 Mins; 1000%:10 Seconds
Manual Maintenance Bypass	Available
Battery Specification	
Type	Sealed Lead Acid Maintenance Free
Std. Model Rated Volts/Units	12V,384Vdc/32 Units
Float Charge Voltage	Equalized Charge, Float Charge, Intelligent Battery Management
BAT Low	Shutdown Protection