

## ANNEXURE I

### Technical Specification Sheet SITC of CCTV surveillance system for Asha Niwas Building at ACTREC Campus

#### **Part A: General Terms and Conditions**

This tender document is for the Supply, Installation, Testing, Commissioning and Training of CCTV surveillance system for Asha Niwas Building at ACTREC Campus

The scope of the work includes

- Supply, Installation, Testing, Commissioning and Training of corridor Area Video Surveillance system consisting of IP cameras, NVR, Switches, etc.
- Inspection and testing of corridor Area Video Surveillance system as per the technical specifications at the supplier's premises.
- Supply of all corridor Area Video Surveillance system components / constituents required for **Asha Niwas Building ACTREC Kharghar Navi Mumbai**
- Installation of all the devices/components associated with the system. The bidder shall prepare a detailed report, illustrating the commissioning procedure and submit it for approval by the purchaser along with schedule indicating the dates of commissioning.
- Commissioning of the integrated system as per the approved commissioning report.
- Training to the officials of ACTREC
- Handing over the system after completion of installation and commissioning.
- Asha Niwas Building is G + 12 Floor building
- Tentative Location drawings are attached.

#### **1.1 Location**

The project site is located at ACTREC, Navi Mumbai, and Maharashtra. The environmental conditions are salty and corrosive due to vicinity of Sea. The relative humidity is from 90 to 96%. Supplier has to make his **own arrangement for travel and accommodation** during the installation and commissioning period.

#### **1.2 Delivery**

The entire system shall be delivered by road, direct from supplier's works, without transshipment to avoid transit damages to Asha Niwas **Building ACTREC Kharghar Navi Mumbai**

The corridor Area Video Surveillance system, inspected and approved by the purchaser shall be delivered, erected and commissioned at the site within **5 months** from the date of placement of the Work order.

The bidder's attention is drawn to the fact that no tender will be considered unless the bidder can satisfy the purchaser that he can meet delivery schedules specified as well as that he is prepared to carry out the work in the time frame made available.

#### **1.3 PRICE**

**Evaluation shall be for one complete System.**

#### **1.4 INFORMATION TO BE INCLUDED WITH THE OFFER**

The bidder shall submit all supporting information and technical data strictly in accordance with the specifications as mentioned in Scope of Work section. This will aid the purchaser to make a detailed comparison and evaluation of tenders without the need of calling for further information from the bidder.

#### **1.5 PACKING AND TRANSPORT**

Bidders shall note that packaging for shipment shall be in accordance with the following

instructions. Equipment shall be packed and protected so as not to suffer deterioration, damage or breakage during shipment, trans-shipment and storage in a tropical climate. All lifting points shall be clearly marked. Each package shall be properly labeled to indicate the type and quantity of material it contains, the purchase order number, dimensions and weights and any other necessary data to identify the equipment.

The supplier/bidder shall ship the equipment after the prior approval of the purchaser's inspector and subsequent written instructions to do so.

**1.6** Rate quoted must include all components required for meeting the specifications and performance requirements of the item irrespective of whether they are specifically brought out in the schedule or not. Rate shall be quoted in figures and words.

### **1.7 INSTALLATION AT SITE**

All the equipment supplied shall be installed at site as per the commissioning procedures and commissioned by qualified manpower of the supplier. The supplier shall obtain specific clearance in writing wherever a part of the work is sub-contracted. However, the bidder shall be responsible for the activities carried by the sub-contractor. **The bidder shall provide the safety equipment's like goggles, helmet, safety shoes, masks etc to all the personnel and ensure proper safety to all the people working in the site during the installation of corridor Area Video Surveillance system.**

The installation shall include all the accessories required at site like glands, lugs, ferrules with marking of locations of cameras, NVR's, cable ties, cable markers, any other accessories required, etc.

### **1.8 INSPECTION, TESTING AND COMMISSIONING**

The purchaser or his authorized representative shall have access to the suppliers' premises at reasonable times to the extent necessary to assess compliance with the provisions of the specifications.

All the constituent units of corridor Area Video Surveillance system, supplied to the provisions of this specification shall be subjected to visual, dimensional and functional inspection and testing to the satisfaction of the purchaser. Wherever functional and operating tests are performed, the equipment shall comply with all the provisions of this specification at the conclusion of such tests. To this effect written procedures describing the stepwise inspection and testing procedures in-detail shall be submitted to the purchaser for approval, prior to the commencement of such tests.

### **1.9 TESTS AT THE FACTORY**

All the electrical and electronic components prior to assembly and wiring shall be subjected to inward inspection by the supplier to check their conformance with the relevant specifications mentioned in the purchase order. All the electric and electronic modules shall be tested to ensure proper functioning of all controls, outputs as per relevant specifications.

### **1.10 FUNCTIONAL TEST**

All the functional tests shall be performed in the presence of the purchaser or his authorized representative at the factory. The supplier needs to prepare a detailed testing procedure for testing all the items and this document needs to get the approval of the purchaser prior to the testing of the system and its components. Integrated testing of the system shall be done for establishing the functionality of the system.

### **1.11 WARRANTY**

The corridor Area Video Surveillance system supplied shall have 1 year onsite warranty from the date of acceptance of the system. The bidder shall maintain the system during the warranty period by providing all necessary technical assistance to the purchaser for any replacement, modification, maintenance of all equipment of the system at site.

During the warranty period, the breakdown/problem in the corridor Area Video Surveillance system

shall be attended the next working day itself and shall be brought back the system to normal condition within 24 hours.

However, the preventive maintenance of the corridor Area Video Surveillance system shall be carried out once in three months at the user's convenience within the warranty period.

**1.12 DOCUMENTATION**

The supplier shall provide drawings containing complete details of wiring, cable routing and all necessary documents before the installation for the approval. The final documents as required by the user shall be submitted after the installation and commissioning is completed.

**1.13 CABLE TAGS AND MARKERS**

All the termination of cables shall have necessary markers and terminated through suitable ferrules by industrial type crimping only.

## Part B : System Description and Technical Specifications

### 2.0 System Description

Proposed system consists of indoor IP cameras, required Network recorders, storage, workstations, monitors etc. Additional outdoor Varifocal Bullet are considered at strategic locations like Entrances, corners. All the IP cameras should use POE or POE + functionality to avoid the conventional power cabling. Cameras shall be capable of transmitting any number of frames per second (fps) up to 30 for real time viewing/recording. System should allow any type of display on any of these monitors as per operator requirement i.e. Multiplexed, alarm, sequence or any combination. The Management software will provide monitoring and playback of cameras connected to multiple recorders. The system will be specified or Programmable to be capable of recording at lower frame rates.

The IP CCTV Surveillance System shall consist of the following elements:

- IP CCTV cameras (indoors and outdoors with housing).
- Network Video Recorders
- Network Management System
- Client / Operator Workstations
- Monitors & Video modules/devices
- All interface elements, alarms GUI, wiring & cabling required to make system complete and fully functioning.

#### APPLICABLE STANDARD:

**Original Equipment Manufacturer Standard**

### 2.1 Operating Conditions

Temperature range : 15°C to 50°C  
Humidity : 90 to 96% RH (non-condensing)

### 2.2 General features & requirements

- The power supply available to the electrical loads of the system is 240VAC  $\pm 10\%$ , 50Hz  $\pm 3\%$
- All the camera signals from different locations shall be brought to NVR's and Work stations shall be installed at convenient locations for viewing.
- In case additional viewing location is determined, necessary VMS software shall be supplied by the bidder.

**Training:** The supplier shall provide training at Asha Niwas Building ACTREC Kharghar Navi Mumbai

Premises for personnel of user department and security personnel on the operation, maintenance of the corridor Area Video Surveillance system. Two soft and three hard copies of training manuals towards the project shall be prepared and handed over to the purchaser before starting of the training.

**Detailed Specification**

**2.3 Specifications**

**BOQ SR No 1 IP DOME CAMERA STQC Certified**

Parameter	Specification
Imaging Device	1/2.8" or better.
Scanning	Progressive CMOS
Resolution	5 MP or better
ONVIF	Profile S, G & T or better
Required Illumination	Color : 0.07Lux or better B/W : 0.01 Lux or better
IR Range	30m or better
Day/Night	Yes
Signal-to-Noise Ratio	50 dB or better
Dynamic Range	120 dB minimum
Digital Noise Reduction	2D and 3D or better
Analytics	Video Motion Detection, Loitering, Line crossing/Trip wire/Intrusion, Tampering ,
Privacy Mask	4 or better
Image Settings	Backlight compensation
ROI	YES
Network	RJ-45 (10/100Base-T)
Power Input	PoE /12VDC
Local Storage	Micro SDHC 256GB or better
Lens	(2mm to 4mm at lower end) & (9mm to 15mm at higher end) auto focus motorized optical zoom or better
Video Encoding	H.265, H.264, MJPEG
Video Streams	3 Streams or Better
Streams	Main Stream: 2592 x 1944 and less
	Sub Stream: 1280 x 720 or better
	Aux Stream: 640 x 480/352 x 288 or better
Supported Protocols	TCP/IP, HTTP, ARP, QoS, DHCP, DNS, RTP/RTCP/RTSP, SMTP, NTP, HTTPS, TLS/SSL, IGMP, 802.1x, SNMP, UDP
Security	Network Authentication, HTTPS (TLS1.2, IEEE 802.1x
Operating Temperature	0°C to 55°C or better
Operating Humidity	0% to 90%, non-condensing or better
Housing	IP66 & IK10 or better
Certification	FCC, CE, UL, ROHS , BIS
Cyber Security Compliant	STQC
Inclusions	For Pigtails/ End termination of cameras, suitable water proof enclosure shall be provided. This enclosure shall be aesthetically suited as per site

**BOQ SR No 2 IP Bullet camera STQC Certified**

Parameter	Specification
Imaging Device	1/2.8" or better.
Scanning	Progressive CMOS
Resolution	5 MP or more
ONVIF	Profile S,G &T or better
Required Illumination	Color : 0.07Lux or better B/W : 0.01 Lux or better
IR Range	50m or better
Day/Night Method	Auto
Signal-to-Noise Ratio	50 dB or better
Dynamic Range	120 dB or better
Back light compensation	WDR or better
Digital Noise Reduction	3D Noise Reduction
Analytics	Video Motion Detection, Loitering, Line crossing/Trip wire/Intrusion, Tampering ,
Privacy Zone	3 or better
Network	RJ-45 (10/100Base-T)
Power Input	PoE (802.3af) Class 0 and 12VDC
Local Storage	Micro SDHC 256GB or better
Alarm I/O	01 In & 01 Out
Lens	(2mm to 4mm at lower end) & (9mm to 15mm at higher end) auto focus motorized optical zoom or better
Video Encoding	H.265, H.264 (CBR and VBR)
Video Streams	3 Streams or Better
Streams	Main Stream: 2592 x 1944 and less
	Sub Stream: 1280 x 720 or better
	Aux Stream: 640 x 480/352 x 288 or better
Supported Protocols	TCP/IP, HTTP, ARP, QoS, DHCP, DNS, RTP/RTCP/RTSP, SMTP, NTP, HTTPS, TLS/SSL, IGMP, 802.1x, SNMP, UDP
Security	Network Authentication, HTTPS (TLS1.2), IEEE 802.1x,
Operating Temperature	0°C to 55°C
Operating Humidity	0% to 90%, non-condensing
Housing	IP66 & IK10 or better , Vandal proof
Certification	FCC, CE, UL, ROHS , BIS
Cyber Security Compliant	STQC
Inclusions	For Pigtails/ End termination of cameras, suitable water proof enclosure shall be provided. This enclosure shall be aesthetically suited as per site

**BOQ SR No 3 , 32 CH – Network Video Recorder (Non- PoE)**

Description	Parameters
Channels	32 channels
Recording	32 channels
Sync Playback	8 channels or more
Video Compressing	H.265 /H.264/MJPEG
Audio Support	Two-way Audio support, 1 Channel Input/1 Channel Output, RCA
Recording Modes	Continuous, Manual, Event
Search Mode Support	Time/Date; Event/Alarm
Playback Function	Regular (play, pause, stop), play backwards, frame, Fast Forward and Fast Backward, speed control, timeline, timeline scale, Digital zoom, snapshot, back up etc.
On board Storage ports	04 or more SATA interface
On board Storage Capacity	At least 10 TB or higher per port
Recording Throughput	256 Mbps or better.
Event Trigger	Alarm In, Camera Events, System Events etc.
Event Actions	Buzzer, Alarm Out, etc.
Network Protocol Support	TCP/IP, UDP, RTSP/RTP, SMTP, FTP, DHCP, NTP, DNS, DDNS
Network Interface	1 x Gigabit Ethernet (RJ45) (10/100/1000Mbps) or better
Users (client connections)	4 or more.
USB Ports	2 Ports or more
Display out	1 or more
Display Split	1/4/9/16/25/32 or better.
Log	System Logging
NTP	Support required
Operating Temperature range	0C to 50C or better.
Operating Humidity range	10-90%, non-condensing.
Electrical System	100-240V AC, 50/60 Hz
Alarm Inputs	2 or better
Alarm Outputs	1 or better
Remote Access	Device Client /Browser
ONVIF	Profile S or better
Certification	FCC, CE, UL, ROHS <b>BIS</b>
Cyber Security Compliant	NDAA

**BOQ SR NO 4 256 GB MICROSD CARD SPECIFICATION FOR IP CAMERA**

- **Type:** microSDXC (Secure Digital Extended Capacity)
- **Storage Capacity:** 256 GB
- **Application Class:** Class 10, UHS-I (U1 or preferably U3)
- **Video Speed Class:** V30 or higher (recommended for continuous video recording)
- **Endurance Rating:** High Endurance / Industrial Grade (designed for 24x7 recording)
- **Read Speed:** Up to 90–100 MB/s (or higher)
- **Write Speed:** Minimum 30 MB/s (sustained write for video recording)
- **File System Compatibility:** exFAT (default for SDXC)
- **Operating Temperature:** -25°C to +85°C (or as per OEM specification)
- **Durability Features:**

- Waterproof
- Shockproof
- Temperature-proof
- X-ray proof
- **Compatibility:**
  - Suitable for IP cameras, CCTV surveillance systems, NVR-compatible edge storage
  - Must support continuous loop recording and overwrite function
- **Certifications:** CE, FCC, RoHS compliant

● **BOQ SR NO 5 SURVEILLANCE HDD, 10 TB CAPACITY**

Parameter	Tender specification
Digital Storage Capacity	10 TB, Surveillance Grade
Hard Disk Interface	Serial ATA
Hard Disk Form Factor	3.5 Inches
Network bit rate	SATA 6 Gb/s or better
Inclusions	All accessories, including Power and SATA Cable.

**BOQ SR NO 6 PATCH PANEL FOR CAT 6 UTP 24 PORT-FULLY LOADED.**

Parameter	Tender specification
Features	Six-port RJ45 modules (4 nos.) IDC compatible with 110 & Krone tool Terminating 4 pairs, 22-26 AWG, unshielded cable Improved cable management with an optional cable management bar Universal labels color-coded for T568A and T568B wiring schemes
ID Plate	PC, transparent color with paper
Housing	PBT +Glass fiber UL94V-0
RJ45 Jack Contact	Material: Phosphor bronze with nickel plated Finish: 50 micro-inch Gold plated on plug contact area
IDC	Housing: PC, UL 94V-0 Terminal: phosphor bronze with tin plated

Jack bracket set:	ABS
Support Bar	SPCC, 1.5mm thickness with Black colour painted
Accessories	All required accessories including cable manager 2 sets each.

**BOQ SR NO 7 24 PORT POE SWITCH**

Parameter	Tender specification
Interfaces	24 x 10/100/1000BASE-T PoE,
LEDs Power	Link/Activity/Speed (per port) PoE OK/PoE Fail (per PoE port)
Port Standards	IEEE 802.3i 10BASE-T Ethernet (twisted-pair copper) IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) 802.3az Energy-Efficient Ethernet (EEE) IEEE 802.3x Flow Control
Network Cables	UTP Cat. 6, Cat. 6e or better.
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports
Performance	48 Gbps or better

Switching Capacity	
MAC Address Table	4K or better
Packet Buffer Memory	192KB or better
PoE Standard	IEEE 802.3af/at
PoE Capable	24 Ports
Network Cables	UTP Cat.6, Cat. 6e or better
PoE Power Budget	250 W or better.
Temperature	Operating: 0 to 50 °C Storage: -20 to 70 °C
Humidity	Operating: 0% to 95% non-condensing Storage: 0% to 95% non-condensing
Safety	CB,CE LVD, UL
EMI	CE Class A, VCCI Class A, FCC Class A, IC,
Power Input	100 to 240 V AC 50/60 Hz internal universal power supply
Form Factor	2U or smaller
Management	As per Mfg.
Certification	MTCTE certification shall be considered

**BOQ SR NO 8 INDOOR WALL MOUNTING NETWORK 15U RACK**

Parameter	Tender specification
Size	15U Double section double door
Type	Wall mounted type.
Load capacity	200 N or better
Product description	For flexible use as a wall-mounted
Basic material	Sheet steel
Construction	Metal body, powder coated heavy duty extruded aluminum frame for rigidity and sheet steel frames for enhanced load carrying capacity. Color of panel shall be powder coated light grey (RAL – 7035) or as per manufacturer standard color. The panel shall be provided with all standard accessories like 10" mounting angles with 'U' marking at front along with accessories.
Inclusions of basic accessories	Front Door - Acrylic Glass Door with lock (toughened tinted glass), Fan housing unit with 2 exhaust fan position, 2# Fan 90CFM 230V AC, AC Main Channel 6 sockets of 5A/15A with FUSE, MCB along with spike guard of reputed OEM, 1 U Horizontal cable manager, 2 nos component shelf .
additional components	Supply includes Flat-packed enclosure, wall section, basic supports, roof/base plates, with cut-outs for cable entry via brush strips, side panels, lockable, glazed door, lockable, security lock 3524 E, door hinge point, selectable Connection, components for tool-free, fast assembly, Earthing kit for system-compatible earthing of all enclosure parts, 482.6 mm (19") mounting angles

**BOQ SR NO 9 42U FLOOR MOUNTED RACK**

**Rack Type:** Floor Mounted, Free Standing

- **Rack Size:** 42U
- **Standard Compliance:** 19-inch rack as per EIA-310 / IEC 60297 standards
- **Dimensions (Approx.):**
  - Height: ~2000 mm
  - Width: 600 mm / 800 mm
  - Depth: 800 mm / 1000 mm / 1200 mm (as per requirement)
- **Construction:**
  - CRCA steel sheet, welded frame structure
  - Powder-coated finish (anti-corrosive, typically black/grey)
- **Load Bearing Capacity:**
  - Minimum 800 kg (static load)
- **Front Door:**
  - Toughened glass door with lock and key
  - Perforated / mesh option for better airflow
- **Rear Door:**
  - Steel perforated / mesh door with lock
- **Side Panels:**
  - Removable and lockable side panels

- **Mounting Rails:**
  - 4 No. adjustable vertical mounting rails
  - Marked with U-height numbering
- **Cable Management:**
  - Top and bottom cable entry provisions with gland plates
  - Adequate cable managers (horizontal & vertical)
- **Ventilation & Cooling:**
  - Provision for fan mounting at top
  - Minimum 2–4 cooling fans with power cord
- **Power Management:**
  - Provision for PDU mounting (vertical/horizontal)
  - 2 x 6 sockets 16A power distribution units, 3 numbers closed cable organizer, Hardware mounting screws packet of 20 x 1number, etc. complete as required
- **Earthing:**
  - Proper earthing studs with earthing kit
- **Mobility & Stability:**
  - Heavy-duty castor wheels with brakes
  - Leveling feet for stability
- **Accessories (to be included):**
  - Mounting hardware (nuts, bolts, cage nuts)
  - 1U/2U cable managers
  - Blank panels (if required)
  - Fan tray
- **Finish:**
  - Powder coated with minimum 70–80 microns thickness
- **Ingress Protection:**
  - IP20 or better
- **Standards & Certifications:**
  - ISO certified manufacturer
  - Compliance with relevant IEC standards

## BOQ SR NO 10 MEDIA CONVERTER

**Type:** Standalone Media Converter

🔍 **Conversion:** 10/100/1000Base-T (Copper) to 1000Base-LX (Fiber)

🔍 **Copper Port:**

- 1 × RJ-45 port
- Auto MDI/MDIX
- Auto-negotiation (10/100/1000 Mbps)
- IEEE 802.3, 802.3u, 802.3ab compliant

🔍 **Fiber Port:**

- 1 × LC Connector

- Single Mode Fiber (SMF)
- Wavelength: 1310 nm
- Max Distance: Up to 15 km

🔍 **Standards Compliance:**

- IEEE 802.3 (Ethernet)
- IEEE 802.3u (Fast Ethernet)
- IEEE 802.3ab (Gigabit over copper)
- IEEE 802.3z (Gigabit over fiber)

🔍 **Transmission Mode:** Full Duplex / Half Duplex (Auto)

🔍 **LED Indicators:**

- Power
- Link/Activity (Copper & Fiber)
- Speed indication

🔍 **Power Supply:**

- External AC Adapter (230V AC, 50 Hz)
- Output: 5V/12V DC (as per OEM design)

🔍 **Operating Conditions:**

- Temperature: 0°C to +50°C (or better)
- Humidity: 10% to 90% non-condensing

🔍 **Performance Features:**

- Low latency conversion
- Store-and-forward switching
- Flow control support (IEEE 802.3x)
- Jumbo frame support (minimum 9K)

🔍 **Build & Design:**

- Compact metal/plastic enclosure
- Wall mount / DIN rail / rack mount (optional)

🔍 **Protection:**

- Surge and ESD protection on RJ45 port

🔍 **Compatibility:**

- Compatible with standard IP cameras, switches, NVR systems
- Interoperable with other OEM standard devices

#### Installation & Commissioning

- Installation at site including mounting, power connection, and fiber patching
- Testing for link stability, throughput, and connectivity
- Proper labeling and documentation

Certifications [CE](#) / [FCC](#) / [RoHS certified](#) / [BIS](#)

#### **BOQ SR NO 11 SFP MODULE 10G FIBER SUPPORT 10KM**

❓ **Form Factor:** SFP+ (Small Form-Factor Pluggable Plus)

❓ **Data Rate:** 10 Gbps (10G Ethernet)

❓ **Standards Compliance:**

- IEEE 802.3ae (10GBASE-LR)
- SFF-8431 / SFF-8432

❓ **Fiber Type:**

- Single Mode Fiber (SMF)

❓ **Connector Type:**

- Duplex LC Connector

❓ **Wavelength:**

- 1310 nm

❓ **Transmission Distance:**

- Up to 10 km over SMF

❓ **Optical Parameters:**

- Transmit Power: As per IEEE 10GBASE-LR standard
- Receiver Sensitivity: As per IEEE standard

- Digital Diagnostic Monitoring (DDM/DOM) support

**Compatibility:**

- Compatible with existing network switches/routers
- Vendor-compatible or OEM-coded as per installed equipment (to be specified)

**Power Consumption:**

- ≤ 1.5 W (typical)

**Operating Conditions:**

- Temperature: 0°C to +70°C (commercial) or wider if required
- Humidity: 5% to 95% non-condensing

**Hot Swappable:**

- Yes

**Safety & EMI Compliance:**

- Laser Class 1 compliant
- CE, FCC, RoHS certified

**BOQ SR NO 12 PATCHCORD, SM (OS2), DUPLEX LC-LC, PC TYPE, 3M, LSZH**

**3 m SM OFC Duplex Patch Cord compatible with LIU and SFP Module**

Parameter	Tender specification
Patch Cable Length	3 Meters and 10 Mtr
Outer diameter	2.0 mm
Mode	1/10/40/100Gb Multimode, Duplex (2 Fiber Strands)
Terminations	LC-UPC to LC-UPC
Core / Cladding	Corning 50µm (micron) diameter fiber core / 125µm diameter cladding
Modal Bandwidth	850nm / 1300nm
Fiber Network Bandwidth	3600/500 MHz-km @850/1300 nm
Ethernet Over Multimode Fiber	Fast Ethernet 100Basw-FX 2000m 1Gb Ethernet 1000Base-SX 550m 10Gb Ethernet 10GBase-SR 400m 40Gb Ethernet 40GBase-SR4 150m (550m QSFP+ eSR4) 100Gb Ethernet 100GBase-SR10 150m

**Installation, Testing & Commissioning**

- Proper routing, dressing, and termination in racks

- Testing for continuity and insertion loss
- Ensuring proper labeling at both ends
- Compliance with site standards and cable management practices

**Certifications**

- RoHS compliant
- ISO certified manufacturer

**BOQ SR NO 13 PATCHCORD, SM (OS2), DUPLEX LC-LC, PC TYPE, 10 M, LSZH**

**10 m SM OFC Duplex Patch Cord compatible with LIU and SFP Module**

Parameter	Tender specification
Patch Cable Length	3 Meters and 10 Mtr
Outer diameter	2.0 mm
Mode	1/10/40/100Gb Multimode, Duplex (2 Fiber Strands)
Terminations	LC-UPC to LC-UPC
Core / Cladding	Corning 50µm (micron) diameter fiber core / 125µm diameter cladding
Modal Bandwidth	850nm / 1300nm
Fiber Network Bandwidth	3600/500 MHz-km @850/1300 nm
Ethernet Over Multimode Fiber	Fast Ethernet 100Basw-FX 2000m 1Gb Ethernet 1000Base-SX 550m 10Gb Ethernet 10GBase-SR 400m 40Gb Ethernet 40GBase-SR4 150m (550m QSFP+ eSR4) 100Gb Ethernet 100GBase-SR10 150m

**Installation, Testing & Commissioning**

- Proper routing, dressing, and termination
- Testing for continuity and insertion loss
- Proper labeling at both ends

**Certifications**

- RoHS compliant
- ISO certified manufacturer

**BOQ SR NO 14 WIFI ACCESS POINT WITH TRANSMITTER AND RECEIVED WITH POWER SUPPLY FOR LIFT INSIDE CAMERA**

Technical Specification for Wifi Access point
<p>For a lift (elevator) inside camera, specialized wireless bridges are used in pairs (one transmitter/ fixed AP, one receiver/mobile AP) to ensure reliable video transmission without physical cables.</p> <p>Receiver and Transmitter Specifications</p> <p>The specifications are optimized for stability in a moving environment rather than raw speed or vast coverage.</p> <ul style="list-style-type: none"> <li>• Frequency: 2.4 GHz devices,</li> <li>• Data Rate: Typically 300 Mbps to 900 Mbps Wi-Fi speeds, which is sufficient for high-definition (1080p) H.264/H.265 video streams at 25-60 frames per second.</li> <li>• Antenna: Built-in directional panel antennas are common, with gain typically ranging from 6 dBi to 14 dBi to focus the signal across the elevator shaft.</li> <li>• Range: far exceeding the needs of most elevator shafts.</li> <li>• Latency: Very low latency (often under 50ms) to ensure real-time monitoring.</li> <li>• Power Supply: Support for PoE (Power over Ethernet) (e.g., 24V Passive PoE or 802.3af/at) is standard, simplifying installation by allowing power and data to run over a single cable. Some models also offer a 12V DC input port.</li> <li>• Durability: Enclosures are often IP65-rated for weather, dust, and moisture protection to operate reliably in the elevator shaft's environment.</li> <li>• Configuration: Features like signal strength indicators (LEDs) and "one-key pairing" simplify the setup of the point-to-point link.</li> </ul>

**BOQ SR NO 15 2-METER CAT-6 PATCH CORDS**

Parameter	Tender specification
Standard	TIA/EIA-568-C.2
Features	Tight conductor twist and cable construction for good performance, Tangle free latch prevents snags Boot provides easy access in high density applications and reliability for consistent performance Contacts plated with gold for a strong and consistent connection to support
Conductor	24 AWG Multi-strands
Connector Type	Both side RJ- 45 with sleeve.
Conductor Metal	Bare Copper
Insulation Material	High Density Polyethylene
Outer Jacket	FR-PVC
Heat Resistance	60° C
Length	1 mtr.
Insertion Cycles:	750 times

**BOQ SR NO 16 4 PAIR CAT-6 UTP CABLE**

Parameter	Tender specification
Features	Confirming to EIA/TIA 568-C.2 Operates at bandwidth of 250 MHz
Category	6 UTP Solid cable
Conductor Metal	Solid Bare Electrolytic Grade Copper
Conductor size:	23 AWG (Solid)
Insulation Material	Polyethylene
OD	6.1mm ±0.2
Capacitance Unbalance	330pF/100m
Resistance Unbalance	5% Max
Delay Skew	<45nS
Pulling Force:	11.5 Kg
Operating Temperature	0°C to +50°C
Rip Cord	Yes
Inner Jacket	PVC
Outer Jacket	PE
Temperature Rating	At least max 60°C or better.

**BOQ SR NO 17 32 MM DIA. UPVC CONDUIT (WHITE)**

Parameter	Tender specification
Nominal Outer Diameter	32 mm
Colour	Off- White
Permissible Eccentricity	0.2

Permissible Ovality	0.5
Features required	<ul style="list-style-type: none"> <li>• High strength</li> <li>• Long service life</li> <li>• Crack resistance</li> <li>• Dimensional accuracy</li> <li>• UV-resistant</li> <li>• Corrosion-resistant</li> </ul>
Material	u-PVC
Thickness	1.5mm
Accessories	Elbow, Junction-T, Junction Cross etc shall be provided as per site conditions.
Standards	IS: 9537 Part 3 BIS standard

## BOQ SR NO 18 PVC CABLE TRUNKING 50 X 50 MM

- **Type:** PVC Cable Trunking with Cover
- **Size:** 50 mm (Width) × 50 mm (Height)
- **Material:**
  - High impact, rigid PVC (Polyvinyl Chloride)
  - Flame-retardant and self-extinguishing grade
- **Construction:**
  - Two-piece design: base and snap-fit / clip-on cover
  - Smooth internal surface to prevent cable abrasion
  - Precision-molded for proper alignment
- **Thickness:**
  - Minimum 1.8 mm to 2.2 mm
- **Color:**
  - Grey / Off-white (standard industrial finish)
- **Load Capacity:**
  - Suitable for light to medium cable loads (power and data cables)
- **Mounting Arrangement:**
  - Wall / ceiling / panel mounting using screws, rawl plugs, or anchors
  - Pre-slotted base (preferred) for easy installation
- **Accessories:**
  - Couplers / jointers
  - Internal & external bends
  - Tees and reducers
  - End caps
  - Partition strips (if required for segregation of power & data cables)
- **Fire & Safety Properties:**
  - Flame retardant as per relevant standards
  - Low smoke emission
  - Non-conductive and corrosion-resistant
- **Standards Compliance:**
  - IS 14927 / IS 9537
  - IEC 61084 (Cable trunking and ducting systems)
- **Operating Conditions:**
  - Temperature: -5°C to +60°C (or better)
  - Suitable for indoor installations

### Installation, Testing & Commissioning

- Proper alignment, cutting, and fixing of trunking
- Neat cable routing and dressing inside trunking
- Installation of all accessories for complete system
- Ensuring secure fixing of cover and mechanical stability
- Final inspection and site handover

### Certifications

- RoHS compliant
- ISO certified manufacturer

## **BOQ SR NO 19 ACCESSORIES & CONNECOTRS RJ45 & DC PINS PAIR**

As per standard

## **BOQ SR NO 20 PVC BOX 4 X 4 WEATHER PROOF FOR CAMERA IP 67**

- **Type:** Weatherproof Junction Box
- **Size:** 4" × 4" (100 mm × 100 mm)
- **Material:**
  - High-quality rigid PVC / Polycarbonate
  - UV stabilized for outdoor use
- **Ingress Protection:**
  - IP67 rated (dust tight and protected against temporary immersion in water)
- **Construction:**
  - Robust enclosure with gasket sealing
  - Removable/hinged cover with screw fastening
  - Smooth internal finish
- **Mounting:**
  - Wall / ceiling / pole mount suitable
  - Pre-drilled holes or provision for drilling
- **Cable Entry:**
  - Provision for multiple cable entry points
  - Suitable for gland fittings (PG/M type)
  - Cable glands to maintain IP67 protection
- **Sealing:**
  - Rubber/Neoprene gasket for watertight sealing
- **Temperature Range:**
  - -10°C to +60°C (or better)
- **Color:**
  - Grey / Off-white
- **Application:**
  - Suitable for outdoor CCTV/IP camera installations
  - Housing of RJ45 connectors, DC connectors, and fiber terminations

### Installation, Testing & Commissioning

- Proper mounting at camera location
- Use of suitable cable glands and sealing to maintain IP rating
- Neat termination and dressing of cables inside box
- Ensuring waterproofing and mechanical stability

### Accessories (to be included):

- Mounting screws and rawl plugs
- Glands (if specified)
- Sealing gaskets

### **BOQ SR NO 21 HDMI CABLE 10MTR**

- **Type:** HDMI Cable (High Definition Multimedia Interface)
- **Length:** 10 Meter
- **Standard Compliance:**
  - HDMI 2.0 or higher (backward compatible with HDMI 1.4)
- **Supported Resolution:**
  - Up to 4K @ 60 Hz (minimum)
  - Backward compatible with Full HD (1080p)
- **Bandwidth:**
  - Minimum 18 Gbps
- **Connector Type:**
  - HDMI Type-A (Male to Male)
- **Cable Construction:**
  - High-quality copper conductor
  - Triple shielding (foil + braid) for EMI/RFI protection
  - Gold-plated connectors for better conductivity and corrosion resistance
- **Jacket Material:**
  - PVC / LSZH outer jacket
- **Signal Performance:**
  - Low attenuation over 10 m length
  - Supports audio and video transmission without lag
- **Compatibility:**
  - Suitable for NVR/DVR, CCTV monitors, LED/LCD displays
  - Compatible with standard HDMI devices
- **Additional Features (Preferred):**
  - Support for HDR (High Dynamic Range)
  - ARC (Audio Return Channel)
  - Plug and play

### Installation, Testing & Commissioning

- Proper routing and connection between NVR and display
- Testing for video clarity, resolution, and signal stability
- Ensuring secure connections and cable management

### Certifications & Make

- CE / RoHS compliant
- ISO certified manufacturer

### **BOQ SR NO 22 METAL BRACKET FOR CAMERA INSTALLATION**

### **AS PER SITE REQUIREMENTS**

**BOQ SR NO 23 / 24 /25 SINGLE PHASE. UPS 2 KVA AND 6 KVA INCLUDING BATTERIES , RACKS AND ALL ACCESSORIES**

Supplying, installation, Testing & Commissioning of following capacity at full load (Unity Power Factor) ON LINE Uninterrupted Power Supply (UPS) system suitable for Single Phase input, Single Phase output AC Supply.

The UPS shall include a Rectifier, inverter, battery bank suitable for 30 minutes back up (Battery VAH capacity shall not be less than 1600 VAH per KVA of UPS rating per Hour backup time) on full load (Battery shall be VRLA, SMF in ABS Container) and Static Bypass switch along with provision for manual bypass, suitable isolation transformer for additional protection against neutral faults etc.

The UPS systems shall be Microprocessor based Digital Control, using Insulated Gate Bipolar Transistor (IGBT)'s both for the rectifier & inverter with PWM (Pulse Width Modulation) Technology.

The quality of design, manufacturing and inspection process should confirm to the relevant Inter-national standards such as IEC/EN/VDE. The operating efficiency of the UPS systems shall be >95% at 100% non-linear loads. Current total harmonic distortion(ITHD)/ total demand distortion (TDD) on the input grid shall be < 5% at 100 %load. (The required LC filters shall be included in UPS cost), extreme power factor kit to be include to limit the input pf to 0.99 and output power factor shall be unity (i.e. kw rating of the UPS shall be kva rating x 1 ) however UPS shall be suitable to take load at 0.7 lagging to 0.7 leading power factor loads.

UPS shall be suitable for incoming supply AC single phase 160-270V 50 Hz and delivering output AC supply true sine wave single phase 220/230/240 Volt, 50 Hz +/- 0.2Hz, Overload capacity of 120% for 10 mins and 150% for 1 minute. Operating temperature 0 to 40 0C, Relative humidity 0-95% non condensing, noise level less than 60db at 1 meter distance, Protection for Under voltage, over voltage, abnormal output voltage, battery over charging, output over current, short circuit, battery deep discharge , 10 KV surge. Display for watt/VA, Amp and Voltage power parameters etc. UPS shall comply with low voltage electromagnetic compatibility (EMC) achieved as per EN 6204, EN6204 Part I and Part 2, it shall be a Voltage and Frequency Independent (VFI) type UPS (as per standard IEC 62040-1, 2 & 3) . The UPS should be with IGBT Based Inverter Technology, Communication RS232/ RS485/ SNMP port open protocol for BMS integration as per approved by Engineering in charge. Required battery racks, DC breaker of suitable rating and interconnecting copper conductor cable of suitable size and connectors and all required accessories are inclusive in the cost.

The UPS should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc.

**BOQ SR NO 26 CLIENT WORKSTATION:**

**Hardware**

	Processor	Intel® Core™ i7 or better
	Memory	16 GB or more
	Storage	512 GB SSD + 1 TB Seagate SATA HDD or higher
	Graphic card	Intel® HD Graphics 8 GB Graphic Card, Wired Keyboard & Mouse
	Power	Adapter 100 - 240 V AC, 50/60 Hz
	Ports	4 x USB RJ45 1000M LAN Port HDMI-Out
	Display	23.8" or more TFT-LCD (LED Backlight) 1024 X 768 or higher
<b>General</b>		
	Operating system	Microsoft® Windows® Pro or better
	Mounting	Panel, Wall, Stand and Arm VESA 75mm x 75mm / VESA 100mm x 100mm
	Wall Mount Bracket	Full Motion Rotatable Wall Stand with Swivel & Tilt Adjustment (Wall mount kit PPC-174T-WL-MTE / ACC-ARM-D29R or Equivalent)
	Operating conditions	0 °C to 40 °C (32 °F to 104 °F) <b>Humidity:</b> 10–90% RH (non-condensing)
	Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F)
	IP level	IP65 Front Panel
	Thermal Solution	Fan less Operation
	Touch Screen	Projected capacitive touch panel
	Power Requirement	Compatible Power Adapter
	Standard Accessories	Power Adapter , Power Cable , Screw Kit
	Warranty	Minimum 1 year onsite warrantee

**BOQ SR NO 27 LED DISPLAY**

55" LED 4K UHD smart LED TV with VGA input , 2HDMI port with Wallmount Stand , with remote and other accessories as per site installation and as directed by OIC-EIC  
 Resolution: 4K Ultra HD (3840x2160) | Refresh Rate: 60 hertz  
 Connectivity: Wi-Fi (Built-in) | 3 HDMI portse | 1 USB ports to connect hard drives and other USB devices | eARC | Bluetooth 5.0 | Optical | Ethernet  
 Sound: 20 Watts Output | 2.0 Ch Speaker | AI Sound (Virtual Surround 5.1 up-mix) | Auto Volume Levelling | Bluetooth Surround Ready  
 Smart TV Features: AI ThinQ & WebOS 22 with User Profiles α5 Gen5 AI Processor 4K |  
 Display: 4K Ultra HD LED Display | 4K Upscaler | AI Brightness Control

**2.3.1 25 x 16 mm PVC Casing Capping**

Parameter	Tender specification
Usage/Application	Cat-6, Power etc.
Mounting	Wall, Desk etc.
Features	Secure and Firm Locking, Easy-to-use and Quick-to-install, Completely Shock-Proof, ISI-Marked
Size/Diameter	25 x 16 MM
Material	Polyvinyl Chloride(PVC)
Standard	ISI Standard Product
Accessories	All the accessories required during installation shall be provided.

**Note:**

1. All miscellaneous Items to fulfil the work shall be part of the supply of the entire contract without any additional cost. Miscellaneous items and accessories required for completion of this project shall be installed as per site conditions/ requirement.
2. The open cables and cable joints shall be properly dressed with conduits.
3. All the necessary accessories like screws, pegs, ferrules, bends, clamps, reinforced Flexible Conduits, Rj-45 Connectors, Cable tags, CCTV sign Boards, cable Glands, clips for PVC pipe fitting etc or any accessory required for installation shall be in the scope of supplier.
4. Installation, Testing & Commissioning of all above items:  
 The system shall be installed, tested and Commissioned as per site requirements. Also all as build drawings shall be provided. 3 copies of user Manual and SOP each shall be provided.

## Scope of work for corridor Area Video Surveillance system.

### The Scope of Work:

- A. No any Free Issue Material/services will be provided to Vendor//bidder/supplier. All the transportation & delivery of items at site will be sole responsibility of Vendor//bidder/supplier.
- B. This section of the specification includes IP cameras, Network Video Recorders, Management Software, cabling required to form a complete coordinated system ready for operation.
- C. Vendor/bidder/supplier shall supply all the mounting related accessories required for proper installation of the IP cameras, NVR, Network Racks. All these accessories should be from OEM.
- D. The Scope of the work includes design, inspection, testing, delivery, supply, installation, integration, commissioning of IP based CCTV Surveillance System as per technical specifications, documentation, training & handing over of the system.
- E. It shall include **pre-dispatch inspection & testing** at supplier's work /premises of all components to be used in the system. All systems and components shall have been thoroughly tested and proven in actual use & before delivery of these items.
- F. It shall include packaging & safe delivery of all the components / materials to be used in this system.
- G. Vendor//bidder/supplier shall be responsible for Installation, testing, commissioning and configuration of Workstation with all necessary software's. The VMS software should have licensed for 54 IP cameras to simultaneously view, record, configure & operate.
- H. Each Workstation shall have pre-installed and pre-activated licensed version of latest windows OS & MS-Office software with media and authentic serial no.
- I. It shall include Project Documentation, Network architecture which shall be done and handed over in three sets of hard copy & Three CDs. Documentation shall include documents like Project handover report, Site Acceptance test, as built layout of cable and Camera Installations, layout details, interconnection schematics, Camera Nomenclature and Standard Operational Procedure (SOP) manuals, maintenance procedures, troubleshooting tips & repair maintenance guide. Offer shall include above report preparation and submission.
- J. Camera mounting pole/fixtures shall be provided and installed wherever required to mount the cameras as per site requirement. All indoor items for cameras like JB's. power supply etc. shall be in water proof and dust proof enclosures with proper **glandings**.
- K. It shall include installation at site of various components, cameras, laying of control, network & power cables, JB's for cameras, NVRs, and LED monitors etc.
- L. It shall include Conduit, Casing Capping work wherever needed. The rates quoted shall be inclusive of all the material required for job such as clamps, spacers, saddles, mounting on wall etc. All the underground cables shall be laid in GI Conduit/ HDPE pipe.
- M. Installation rate shall include all the accessories required for cabling & labour rates.
- N. The price quoted by the Vendor//bidder/supplier should include all the expenses incurred in commissioning of all cameras with power supply, accessories and other devices complete with related software if any.
- O. It shall include O&M training on CCTV system at site & 12-month warranty from date of Installation/acceptance of user.
- P. OEM Authorization letter/Certificate is required for all CCTV items mentioning tender specific reference no. for extension of product supply, service support and minimum 5 years spare availability & OEM should mention that any software/firmware should not get end of life in minimum 7 years after issue of these work order.

- Q. **Vendor shall provide a permanent technically competent supervisor at site throughout Installation for supervising the overall work, failing which penalty shall be levied in order of Rupees 2000 per working day.**

**Note: PVC for all staff of contractor is mandatory to work inside ACTREC premises.**

### **Submittals**

The Vendor/Bidder/Supplier shall submit along with the tender:

- Make & Model of all components and Catalogues/datasheets.

Upon completion/award of the contract the following submittals shall be made:

- Final block diagrams along with as build drawing.
- Layout drawings of all floors showing runs of conduits and cables.
- Catalogues and selections of all equipment and component.

All submittals shall be got approved before procurement. All the manuals, software CDs and related documents shall be supplied

### **Acceptance & Qualifying Criteria of the Tender**

- 1. Vendors/Bidders/Suppliers have to quote all the items as per the tender BOQ List of Deliverables specifying make & models clearly. *Vendors/Bidders/Suppliers shall provide technical specifications/data sheet for Camera, NVR, Hard Disk, Client PC, LED Display, POE Switch, CAT6 Cable, Wi-Fi Access point, SD Card, Patch Panel, Rack, UPS for technical compliance. Failing to adhere to above, offer shall be considered as incomplete & liable to reject. Even if the bidder has marked "YES" in the compliance form, failure to submit the required technical data sheets will render the bid liable for rejection.***
2. All the items offered shall be strictly as per the technical specification of the tender. If any items of the offers are not as per the technical specifications of the tender, then such offer will be rejected.
3. **All the items provided under this contract must be latest and shall not be purchased from OEM/firms before issue of this Purchase order. Items not suitable under this condition will be rejected. An undertaking for at least 5 years support from the date of handover must be submitted on OEM letter head.**
4. None of the CCTV Cameras; System Software proposed by the bidder should near End of Life product and all applications or software must of latest licensed versions. An undertaking for at least 5 years support from the date of handover must be submitted on letter head of OEM mentioning **the tender No. & description**. Training shall provide on initial configuration and for change in configuration.
5. The IPR of all important Hardware & Equipment's, System, Software and Source Code Software (including camera / network switches / active hardware; firmware) must not reside in any Country that shares a Land Border with India or within the restricted list of countries as designated by competent authorities.
6. **IP CCTV System & Components OEM should have direct presence as registered company in India for last FIVE (5) years from the date of publishing of bid.**
7. IP CCTV OEM should have their own Repair/Service-Support Centers with Toll-Free TAC helpdesk Number, R&D Centre &/or Regional Technical Service-Support Centre &/or RMA set up in India for a minimum period of 05 years from the date of publishing of bid.
8. Blacklisting / Banned / Debarred: The OEM shall not be under a declaration of ineligibility for corrupt or fraudulent practices and should not be blacklisted / banned / debarred by any State Govt./Central Govt./PSU in India for any reason on the date of bid submission. **Self-declaration shall be provided on the letter head by the OEM, duly signed by the authorized signatory along**

with bid document.

9. The Active Components' OEMs must confirm of not using or procuring any such equipment's or processors or software patches or firmware or in SKD/CKD/ CBU/parts/spares from those or any blacklisted companies (or any subsidiary or affiliate or its 3rd party agencies or such blacklisted or barred entities) either by ONVIF or by any State Govt in India or GOI &/or any of its institutions or any Global Government or by any recognized global Forum or Institutions in-view or reporting of suspicious activities of hacking/cyber-attacks/malwares/etc. to safeguard the public safety & security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, including the scope of video surveillance system & components. A declaration cum undertaking must be submitted by OEM in this regard.
10. Critical / Core components OEM should not have any requirements to have proprietary platforms and should conform to open standards. OEM must be free from HI Silicon Chipset; SOC/processor; coded firmware and PCBs from restricted countries; countries sharing land border with India and including those companies or their subsidiaries or group companies or parent company from restricted list of countries /companies. **Necessary supporting documents with an undertaking must be submitted along with bid.**
11. The IP CCTV System & Components OEM must confirm that Firmware shall be secured through Signed Digital certificates on all Active Devices including their updates. Firmware must be retained by OEM and, it's IPR. The IPR must reside either in India or shouldn't reside or belong to any of its entity in restricted country as designated by GOI. Must comply with 3rd party run PKI or certificates or encryption policy or SSL Certifications. **Necessary supporting documents with an undertaking must be submitted.** OEM must own its own PGP PKI. & Firmware Version & Details must be submitted.
12. Vendor's/Bidder's/Supplier's solution shall adhere to the model framework of cyber security guidelines issued by MeitY inforce. (Ministry of IT). The IP CCTV Camera System (including NVRs, H/W, S/W etc.) must be having prescribed Global/India Standards Cyber Security Certificate or equivalent, as on the date of bidding. All the necessary supporting documents **including undertaking cum declaration from OEM with Certificates/Test Reports** may be submitted for necessary evaluation.
13. **Vendor/Bidder/Supplier shall mention the OEM's manufacturing plant address where the offer products were manufactured.**
14. **Safety & Security Rule:** The Vendor//bidder/supplier shall follow all the safety procedures as per the normal industrial practice during the execution of the job at site. Any mishap occurring during the work due to unsafe workmanship shall be the Vendor//bidder/supplier's liability. Security and transportation rules at ACTRE premises shall be strictly followed. All workers/labourers of the Vendor//bidder/supplier/Contractor employed for execution of job in this tender should have proper Personal Protective Equipment (PPE), the arrangement of which shall be made by Vendor//bidder/supplier/Contractor (in the scope of Vendor//bidder/supplier)
15. **Confidential Clauses:**
  - I. Confidentiality: No party shall disclose any information to any third party concerning matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party shall not be disclosed to any third party without the prior written consent of the original disclosing party This clause shall apply to the sub-contractors, consultant advisors, or the employees engaged by a party with equal force.
  - II. "Restricted information" categorise under section 18 of the Atomic Energy Act, 1962 and "official secrets" under section 5 of the official Secret Act, 1923: Any contravention of the above mentioned provisions by any contractor, sub – contractor, consultant, advisor or the employee of a contractor will invite penal consequences under the aforesaid legislation.
  - III. Prohibition against use of ACTREC's name without permission for any publicity purpose. The contractor or sub- contractor, consultant, advisor or the employees engaged by the

contractor shall not be use any public purpose through any media like press, TV, or internet, without the prior written approval of ACTREC.

16. Workers/labourers given by the Vendor//bidder/supplier should be well experienced in Fabrication, installation, servicing and commissioning of similar type jobs.
17. The department reserves the right to modify any of above conditions in exception cases except the Confidential Clauses & Safety &Security Rule.
18. The offers which shall not fulfil any of above mentioned criteria shall be liable to reject.

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