

SBU – Greases & Lubricants, P-43, Hide Road Extension, Kolkata – 88.

Phone : [033] 2450-0124 : Fax : [033] 2449-8493

TENDER ENQUIRY

Tender Enquiry No. : GLK/TE18/336
Date of Issue : 02.01.19
Closing Date and Time : 22.1.19 5PM

Sub: CCTV System for G&L –Kolkata Plant

Online electronic offers are invited from contractors of repute having strong financial background and meeting pre-qualification criteria for supply, installation and Commissioning of CCTV System as per Specifications & Scope of work, General terms & conditions, and HSE Schedule attached in Annexure - A, B & C respectively.

If the tenderer find any discrepancy, omission, ambiguity or conflict in or among the documents forwarded or be in doubt as to their meaning and interpretations, such matter shall be brought to the attention of us, at least four working days prior to the due date of the Tender. However no change in price/value shall be allowed after placement of the order or during the execution of work at site.

The bidders are requested to kindly check all technical parameters and made a site visit, if required, and acquaint themselves before quoting against the same.

For any clarification, please contact

Mr. Susanta Kumar Sethi
HR Dept.(mobno-8826005656 HSE)

Tel : 033 24500148
e-mail id : sethi.sk@balmerlawrie.com

The bidders are requested to submit their offer on-line before the due date and time of the tender.
Thanking you,

Yours faithfully,
for **Balmer Lawrie & Co. Ltd.**

(Arnab Ghatak)
Sr. Manager (SCM)

TENDER DOCUMENT FOR

SUPPLY, INSTALLATION,

&

COMMISSIONING OF

IP BASED CCTV SURVEILLANCE SYSTEM,

AT

BALMER LAWRIE AND CO. LTD

G&L PLANT KOLKATA

1. BACKGROUND AND PURPOSE OF TENDER

Balmer Lawrie intends to provide a IP based CCTV surveillance system with video analytic facility through for monitoring the movement of vehicle and men transiting through BALMER LAWRIE are secure against theft, pilferage, mishandling, interference and tampering apart from ensuring safety.

The following documents must be submitted in the

Pre-Qualification Bid (technical):

Detailed list of documents indicating documents/statements submitted as part of

- 1.1 All the technical Documents/ printed literature pertaining to the system (cameras, NVR, POE Switches, Units) etc. Proposed for supply and installation at BALMER LAWRIE & Co. Ltd. **(To be submitted by Courier)**
- 1.2 Bidder should have at least Three years of experience in sales, services, implementing and maintenance of IP based CCTV solution with not less than 25 cameras in the relevant Industry. **Documentary proof to be enclosed along with tender.** Letters of satisfactory performance from the organizations where similar CCTV system have been supplied and installed.
- 1.3 The Bidder and the OEM should be able to support the project site and the equipment for a period of one year from the date of installation and commissioning upto satisfaction of BALMER LAWRIE. This basically means the technology support should be provided for a minimum period of one year. All hardware, Software Updates shall be provided during the warranty period of one (1) year. **A letter of confirmation is required with bid.**
- 1.4 The bidder should have at least 100 lakhs turnover in any of the last 3 years. **Balance sheet/PLA to be submitted with bid.**

2.0 SCOPE OF WORK

2.1	Supply, installation and commissioning of outdoor and indoor, all weather proof Day /Night Motorized Zoom camera with varifocal lens complete in all respect with all material as per price schedule, man and material etc.
2.2	All cameras to be monitored at security room as well as plant head cabin or as per instruction of site In-charge.
2.3	The offered system shall be installed and commissioned on turnkey basis by the supplier Within 8 weeks from the date of receipt at BALMER LAWRIE. Commissioning will be considered as complete after demonstrations are carried out to the full satisfaction of the customer.
2.4	Cost of any work/electrical/any type of work involved in the commissioning/ Installation of all the system shall be included in the quotation. Separate billing or any additional invoicing for the same shall not be considered.
2.5	The expenditure for testing the systems till the commission & handling over to BL shall be borne by the vendor.
2.6	U rack must be provided at camera site to accommodate all the equipment except the camera. Housing of some cameras meant for indoor use shall vandal proof IK10 where as outdoor camera housing shall be of IP66 or better rating. These must be integrated by the camera manufacturer.
2.7	Proper protection (all weather proof) and lightening/surge protection as per standards must be Provided for the whole system.
2.8	MCB's of appropriate rating must be provided at convenient locations. Power supply boards must have 5 /15 amps with independent piano type switches.
2.9	Location, direction, height and camera positioning should be decided by the vendors and in no way
2.10	Provision for standby power supply (UPS BACKUP) for each camera, NVR, display unit, PC and other.
2.11	Self-supporting poles/mast of GI material IS standards and must be grounded in concrete structure where ver required for installation of cameras.
2.12	Supply and laying of cat6 flexible cable, OFC Cable and 1.5 sq mm x 2 core power supply cable with 25mm PVC conduit pipe and HDPE pipe with proper support, tie etc with all materials.
2.13	Vendor should give instruction, operation, maintenance and circuit diagram manual or all complete at the time supply & commissioning.
2.14	All Cameras NVR and VMS Software video analytic Housing of camera must be one make only.

2.0	Other Requirements as a part of scope of work:
2.15	The activity through CCTV shall be viewed by the BL official on their PC's or laptop placed in their cabin/room at a time which shall be connected to the CCTV system through existing LAN setup.
2.16	The activity through CCTV shall be viewed by the BL official on their PC's/ laptop/Mobile at a time which shall be connected to the IP based/internet. BL will Provide the internet connection to the system.
2.17	The BL official should have the choice of magnifying the view / other selections as desired. To facilitate this, the vendor should include necessary VMS as required.

2.18	Possible applications of the proposed CCTV System should include tracking movements/ verification and recognition, through high quality images, of persons and objects including vehicles. Their recordings of the scene of the Jurisdiction shall be helpful in case of enquiries etc. in establishing the truth.
2.19	Manufacturer products shall have quality system compliance with the IS/ISO 9001 and the equipment's shall be CE/FCC/UL approved.
2.20	Maintenance service shall cover services, repairs and replacements necessary to keep the Equipment's in good working order on reasonable use of the equipment's during the contract period. Monthly preventative maintenance check should be carried out to keep the equipment's in good working conditions. Maintenance will include all cameras, accessories, etc.
2.21	CCTV quoted should permit recording of 365 days x 24 hours on continuous basis. There Should be facility for there trivial of data backup storage for at least last one (1) months so that whenever required it can be downloaded and viewed.
2.22	The bidder should provide schematic diagram of the proposed configuration and locations of Cameras, control room etc. and describe in detail all the systems, subsystems, component and connectivity.
2.23	Hands on Training to BL personnel shall be part of the contract. During installation at BL site, the associated BL Coordinators shall be guided on the system usage.
2.24	The entire cable laying (power and control) either overhead or underground as required and connectivity of equipment In the system, supply of suitable brackets for cameras, fixing will be in the scope of bidder.
2.25	The Bidder shall maintain required spares to maintain the specified up time. This includes at least two (1) number of standby cameras at BALMER LAWRIE site during warranty period. No extra payments shall be made by BALMER LAWRIE or keeping/maintaining standby equipment/accessories.
2.26	The bidder should carry out the site survey before submit the tender.
2.27	The cameras are to be fixed or mounted on the existing structure/top of galvanized pole. The scope includes supply , erection and installation, mounting arrangements, supply of suitable brackets/ stands, wiring, necessary civil works, etc to complete and handover the job in all respect.

TECHNICAL SPECIFICATIONS FOR IP BASED SURVEILLANCE SYSTEM

Technical Specifications for 2 MP IR Network Bullet Camera

Feature	Specification	Compliance (Yes/No/specify)			
Camera					
Image Sensor	1/2.8" 2Megapixel progressive scan CMOS				
Effective Pixels	1920(H) x 1080(V)				
RAM/ROM	256MB/32MB				
Scanning System	Progressive				
Electronic Shutter Speed	Auto/Manual, 1/3(4)~1/100000s				
Minimum Illumination	0.006Lux/F1.4 (Color,1/3s,30IRE) 0.05Lux/F1.4 (Color,1/30s,30IRE) 0Lux/F1.4 (IR on)				
S/N Ratio	More than 50dB				
IR Distance	Distance up to 50m (164ft)				
IR On/Off Control	Auto/ Manual				
IR LEDs	4				
Lens					
Lens Type	Motorized/ Auto Iris(DC)				
Mount Type	Board-in				
Focal Length	2.7mm~12mm				
Max. Aperture	F1.4				
Angle of View	H: 97°~34°, V:52°~20°				
Optical Zoom	4x				
Focus Control	Motorized				
Close Focus Distance	0.3m				
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	48m(157ft)	19m(62ft)	10m(33ft)	5m(16ft)
	T	133m(436ft)	53m(174ft)	27m(89ft)	13m(46ft)
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range	Pan:0°~360°; Tilt:0°~90°; Rotation:0°~360°				
Intelligence					
IVS (optional)	Tripwire, Intrusion, Object Abandoned/Missing				
Advanced Intelligent Functions	Face Detection				
Video					
Compression	H.265+/H.265/H.264+/H.264				
Streaming Capability	3 Streams				

Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280x720)/D1(704x576/704x480)/VGA(640x480)/CIF(352x288/352x240)	
Frame Rate	Main Stream: 1080P(1~50/60fps)	
	Sub Stream: D1(1~50/60fps)	
	Third Stream: 1080P(1~25/30fps)	
Bit Rate Control	CBR/VBR	
Bit Rate	H.264: 24~9472Kbps H.265: 14~5632Kbps	
Day/Night	Auto(ICR) / Color / B/W	
BLC Mode	BLC / HLC / WDR(120dB)	
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D DNR	
Motion Detection	Off / On (4 Zone, Rectangle)	
Region of Interest	Off / On (4 Zone)	
Electronic Image Stabilization (EIS)	N/A	
Smart IR	Support	
Defog	N/A	
Digital Zoom	16x	
Flip	0°/90°/180°/270°	
Mirror	Off / On	
Privacy Masking	Off / On (4 Area, Rectangle)	
Audio		
Compression	G.711a/ G.711Mu/ AAC/ G.726	
Network		
Ethernet	RJ-45 (10/100Base-T)	
Protocol	HTTP; HTTPS; TCP; ARP; RTSP; RTP; UDP; SMTP; FTP; DHCP; DNS; DDNS; PPPOE; IPv4/v6; QoS; UPnP;NTP; Bonjour; 802.1x; Multicast; ICMP; IGMP; SNMP	
Interoperability	ONVIF, PSIA, CGI	
Streaming Method	Unicast / Multicast	
Max. User Access	10 Users /20 Users	
Edge Storage	NAS Local PC for instant recording Mirco SD card 128GB	
Web Viewer	IE, Chrome, Firefox, Safari	
Smart Phone	IOS, Android	

Certifications		
Certifications	CE (EN 60950:2000) UL:UL60950-1 FCC: FCC Part 15 Subpart B	
Interface		
Video Interface	1 Port(For adjustment only)	
Audio Interface	1/1 channel In/Out	
RS485	N/A	
Alarm	2 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC	
Electrical		
Power Supply	DC12V, PoE (802.3af)(Class 0)	
Power Consumption	<11.5W	
Environmental		
Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH	
Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH	
Ingress Protection	IP67	
Vandal Resistance	N/A	

Technical Specifications For 30 X PTZ Camera

Feature		Specification	Compliance (Yes/No/specify)
Camera			
Image Sensor		1/2.8" CMOS	
Effective Pixels		1920(H) x 1080(V), 2 Megapixels	
RAM/ROM		256M/128M	
Scanning System		Progressive	
Electronic Shutter Speed		1/1s~1/300,000s	
Minimum Illumination		Color: 0.05Lux@F1.6; 0Lux@F1.6 (IR on)	
S/N Ratio		More than 55dB	
IR Distance		Distance up to 100m (328ft)	
IR On/Off Control		Auto/Manual	
IR LEDs		6	
Lens			
Focal Length		4.5mm~135mm	
Max. Aperture		F1.6 ~ F4.4	
Angle of View		H: 67.8° ~ 2.4°	
Optical Zoom		30x	
Focus Control		Auto/Manual	
Close Focus Distance		100mm~ 1000mm	
DORI Distance			
Detect	Observe	Recognize	Identify
1929m(6329ft)	771m(2530ft)	386m(1266ft)	193m(633ft)
Video			
Compression		H.264+/H.264 / MJPEG	
Streaming Capability		3 Streams	
Resolution		1080P(1920×1080) / 720P(1280×720) / D1(704×576/ 704×480) /CIF(352×288/352×240)	
Frame Rate	Main stream	1080P/ D1 (1 ~ 25/30fps), 720P(1~50/60fps)	
	Sub stream1	D1/CIF(1 ~ 25/30fps)	
	Sub stream2	720P/D1/ CIF (1 ~ 25/30fps)	

Bit Rate Control	CBR/VBR	
Bit Rate	H.264+/H.264: 448K ~ 8192Kbps, MJPEG: 5120K ~ 10240Kbps	
Day/Night	Auto(ICR) / Color / B/W	
Backlight Compensation	BLC/HLC/DWDR	
White Balance	Auto, ATW, Indoor, Outdoor, Manual	
Gain Control	Auto / Manual	
Noise Reduction	Ultra DNR (2D/3D)	
Motion Detection	Support	
Region of Interest	Support	
Electronic Image Stabilization (EIS)	N/A	
Defog	Support	
Digital Zoom	16x	
Flip	180°	
Privacy Masking	Up to 24 areas	
Audio		
Compression	G.711a/G.711u(32kbps)/PCM(128kbps)	
Network		
Ethernet	RJ-45 (10/100Base-T)	
Protocol	IPv4/IPv6,HTTP,HTTPS,SSL,TCP/IP, UDP, UPnP,ICMP,IGMP,SNMP,RTSP,RTP, SMTP, NTP,DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x	
Interoperability	ONVIF, PSIA, CGI	
Streaming Method	Unicast / Multicast	
Max. User Access	20 users	
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 128GB	
Web Viewer	IE, Chrome, Firefox, Safari	
Smart Phone	IOS, Android	
Certifications		
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpart B,ANSI C63.4- 2014 UL:UL60950-1+CAN/CSA C22.2,No.60950-1	
Interface		
Video Interface	1	
Audio Interface	1/1	
RS485	1	
Alarm	2/1	
Electrical		

Power Supply	AC24V/3A(±10%)	
Power Consumption	10.5W,26W (IR on)	
Environmental		
Operating Conditions	-40°C ~ 60°C (-40°F ~ +140°F) / Less than 90% RH	
Ingress Protection	IP66	
Vandal Resistance	N/A	

Technical Specifications for ANPR Camera

Feature	Specification	Compliance (Yes/No/specify)
Camera		
Image Sensor	1/1.9" 2 Megapixel progressive scan starvis CMOS	
Effective Pixels	1944 H x 1092 V	
Scanning System	Progressive	
Electronic Shutter Speed	1/25~1/10000	
Min. Illumination	0.002Lux/F1.2 (Color), 0 Lux/F1.2 (IR On)	
IR Distance	8-40m	
IR LEDs	6	
Lens		
Mount Type	CS	
Intelligence		
LPR function	Embedded with lpr engine in the camera	
Detection model	Loop or video detection	
Snapshot	Overview and cutout of plate for picture	
OSD overlay	Time, place, plate number, lane No	
White list	10000 records database inside the camera	
Barrier control	1 ch relay out to control the barrier	
Video		
Compression	H.264/H.264H/H.264B/MJPEG	
Resolution	1080P(1920x1080)/1.3M(1280x960)/720P(1280x720) /D1(704x576/704x480)/CIF(352x288/352x240)	
Frame Rate	1080P/720P(1 ~ 25/30fps)	
Bit Rate Control	CBR VBR	
Bit Rate	H.264: 80K bps~ 10Mbps	
Day/Night	Auto(ICR) / Color / B/W	
BLC Mode	BLC,HLC,WDR(120db)	
White Balance	Auto/Manual	
Gain Control	Auto/Manual	
Noise Reduction	3D	
Network		

Ethernet	RJ-45 (10/100Base-T)	
Protocol	IPv4/IPv6, HTTP, TCP/IP, UDP, NTP, DHCP, DNS	
Interoperability	CGI, Onvif	
Max. User Access	20	
Edge Storage	Micro SD, Max 64GB Status Display Local PC for Instant Recording	
Web Viewer	IE8,IE9,IE10,IE11	
Certifications		
Certifications	CE FCC	
Interface		
Video Interface	BNC(1.0Vp-p /75Ω), PAL/NTSC	
Audio Interface	Input/ Output 1 Input / 1 Output	
RS485	Support	
RS232	Support	
Alarm	2/1 In/Out	
Video Interface	BNC(1.0Vp-p /75Ω), PAL/NTSC	
Electrical		
Power Supply	POE+	
Power Consumption	25W	
Environmental		
Operating Conditions	Temperature-40°C~+70°C, humidity10%~90%	
RS485 Ingress Protection & Vandal Resistance	IP66	

Technical Specifications for 32 Channel NVR

Feature	Specification	Compliance (Yes/No/specify)
System		
Main Processor	Quad-core embedded processor	
Operating System	Embedded LINUX	
Display		
Interface	1 HDMI, 1 VGA	
Resolution	3840×2160, 1920×1080, 1280×1024, 1280×720, 1024×768	
Multi-screen Display	1/4/8/9/16	
OSD	Camera title, Time, Video loss, Camera lock, Motion detection, Recording	
Video Detection and Alarm		
Trigger Events	Recording, PTZ, Tour, Alarm out, Video Push, Email, FTP, Snapshot, Buzzer & Screen tips	
Video Detection	Motion Detection, MD Zones: 396(22×18), Video Loss & Tampering	
Alarm input	16 Channel, Low Level Effective, Green Terminal Interface	
Relay Output	4 Channel, NO/NC Programmable, Green Terminal Interface	
Playback and Backup		
Playback	1/4/8/16	
Search Mode	Time/Date, Alarm, MD & Exact search (accurate to second), Smart search	
Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, Digital Zoom	
Backup Mode	USB Device/Network	
Storage		
Internal HDD	8 SATA III Port, Up to 6 TB capacity for each HDD	
HDD Mode	Single	
eSATA	N/A	
Auxiliary Interface		
USB	3 USB Ports (2 USB2.0, 1 USB3.0)	
RS232	1 Port, for PC Communication and Keyboard	
RS485	1 Port, for PTZ Control	
Audio and Video		
IP Camera Input	32 Channel	
Two-way Talk	1 Channel Input, 1 Channel Output, RCA	
Recording		

Compression	H.265/H.264	
Resolution	8Mp/ 6Mp/ 5MP/ 4MP/ 3MP/ 1080P/ 1.3MP/ 720P etc.	
Record Rate	200Mbps	
Bit Rate	16Kbps ~ 20Mbps Per Channel	
Record Mode	Manual, Schedule (Regular, Continuous), MD (Video detection: Motion Detection, Tampering, Video Loss), Stop	
Record Interval	1 ~ 120 min (default: 60 min), Pre-record: 1 ~ 30 sec, Post-record: 10 ~ 300 sec	
Network		
Interface	2 RJ-45 Ports	
PoE	N/A	
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DNS, IP Filter, PPPoE, DDNS, FTP,	
Max. User Access	128 users	
Smart Phone	iPhone, iPad, Android	
Interoperability	ONVIF 2.4, CGI Conformant	
Electrical		
Power Supply	AC100V ~ 240V, 50 ~ 60 Hz	
Power Consumption	<12W (Without HDD)	
Environmental		
Operating Conditions	-10°C ~ +55°C (+14°F ~ +131°F), 86 ~ 106kpa	
Storage Conditions	-20°C ~ +70°C (-4°F ~ +158°F), 0 ~ 90% RH	
Certifications		
CE	EN55032, EN55024, EN50130-4, EN60950-1	
FCC	Part 15 Subpart B, ANSI C63.4-2014	
UL	UL60950-1+CAN/CSA C22.2 No.60950-1	

Technical Specifications for 24 Port POE Network Switch

Feature	Specification	Compliance (Yes/No/specify)
Interfaces	24 Auto-sensing Gigabit ports, and four dedicated and four dedicated Gigabit SFP fiber ports.	
PoE Ports	Port 1-8: IEEE 802.3at PoE+, providing up to 30W of DC power through each port Port 9-24: IEEE 802.3af PoE, providing up to 15.4W of DC power through each port	
Bandwidth	56 Gbps	
Acoustic noise (ANSI-S10.12)	31.8 dBA	
Mean Time Between Failures (MTBF)	345,901 hours	
Heat Dissipation (at AC 97VAC/47Hz and full PoE load)	901.2 Btu/H	
POE Budget	264 W	

Technical Specification of Workstation

1	High configured PCI5 processor 8GB ram 4 GB graphic Card cabinet and wireless mouse and key board(without monitor) with license OS(lenova/HP/IBM)	Compliance (Yes/No/specify)
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General Terms & Conditions**2.1 Submission of offer**

Bidder shall submit their online electronic bid in **TWO** parts within the due date and time of the tender without any deviation of technical specifications. Also send Hard Copy of Technical bid (Annexure 'A') along with all necessary supporting documents, EMD amount and Tender document (**without price**).

Please do not leave any space blank or incomplete and write NA/NIL/Free in such case(s). Each page of the offer (enclosures) has to be acknowledged by the bidder with their acceptance (signature & company stamp). In case of offer, which are not found in line with our guidelines and Terms & Conditions, may subject to rejection. Only the technically Qualified bidders (Technical specifications, scope of work, HSE practice & submission of EMD in line with tender documents) shall be considered for price bid evaluation.

2.2 Earnest Money Deposit (EMD) & Security Deposit (SD)

An amount of Rs. 20,000 (Rupees Twenty thousand only) as EMD is to be submitted along with the Technical bid by means of Pay Order / Demand Draft in favour of Balmer Lawrie & Co. Ltd. payable at Kolkata.

The EMD of the successful bidder will be retained as security deposit till the execution of order.

EMD of the unsuccessful bidder(s) will be returned to the respective bidders once the tender is finalized and acceptance of order by the successful bidder.

2.3 Provisions for Micro , Small and Medium Enterprises (MSME) :

(a) Qualification Criterion : MSME vendor must confirm that UAN No has been uploaded on CPPP website as required by minister vide circular no F:No21(17) / 2016 dated 06.04.18 for qualifying to be considered as MSME vendor under this tender.

(b) Micro & small scale manufacturing units registered with MSME/ NSIC are exempted from payment of EMD. Small scale units registered with MSME / NSIC should enclose a copy of their valid registration certificate to make their bid eligible for consideration.

2.4 Acceptance of offer & Placement of Order

Balmer Lawrie & Co. Ltd. (BL) reserves the right to reject/accept all or any tender(s). A tenderer must have to quote for all the items/heads under supply for this tender. Purchase order will be placed on a single technically & commercially qualified bidder, whose total price of subject tender stands lowest. Portion of order to be placed on MSME vendors as per tender clause no 2.3.c subject to matching L1 rates for all the items in totality. Accordingly total tender quantity may be splitted between L1 vendor & L1 matching MSME

vendor.

2.5 **Delivery period**

The supply and commissioning of complete CCTV system to be made within 8 weeks from the date of placement of PO/LOI whichever is earlier.

2.6 **After sales service**

Bidder shall furnish the contact details of after sales service facility available in and around Kolkata and has to submit a declaration for the availability of all 'Spare/assembly parts' of the supplied high mast for at least next five years for replacement and / or maintenance.

2.7 **Price schedule**

The price shall be quoted as per online specified format.

2.8 **Payment terms**

- (i) 80% of basic order value with applicable taxes and duties for the entire contract value will be released within 30 days from the date of supply.
- (ii) 10% of basic order value with applicable taxes and duties for the entire contract value will be released within 30 days from the date of commissioning.
- (iii) Balance 10 % of basic order value shall be kept as retention money & will be released after completion of guarantee period without any interest or against submission of Performance Bank Guarantee (on BL format) for equal amount.

2.9 **Performance Bank Guarantee (PBG)**

PBG may be furnished in lieu of retention money in specified format of BL and shall be valid for the entire guarantee period from the date of successful commissioning of the complete high mast.

2.10 **Guarantee/Warranty Period**

12 (twelve) months from the date of successful commissioning or 18 (eighteen) months from the date of supply of complete unit whichever is earlier.

During this guarantee period the performance of the supplied & commissioned item has to be in line with the expected / agreed quality as per tender/PO and if not then vendor has to replace/rectify the same at no extra cost to BL to the satisfaction of BL.

2.11 **Validity of offer**

The offers shall remain valid for a period of 60 days from the due date of the tender.

2.12 **Liquidated Damages**

In case of failure to deliver the item (of acceptable quality) by the successful vendor, as per the completion period, a pre-determined liquidated damages @ ½ % per week of the

basic order value subject to a maximum of 5% of the basic order value shall be deducted from the invoice.

2.13 Jurisdiction

All disputes are subject to Kolkata jurisdiction.

Procedure for Bid Submission

The bidder shall submit their response through bid submission to the tender on e-Procurement platform at <https://balmerlawrie.eproc.in> by following the procedure given below.

Registration with e-Procurement platform:

For registration and online bid submission bidders may contact HELP DESK of M/s C1 India Pvt., Ltd., or they can register themselves online by logging in to the website <https://balmerlawrie.eproc.in>

Digital Certificate authentication

The bidder shall authenticate the bid with his Digital Certificate for submitting the bid electronically on e-Procurement platform and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-Procurement platform.

All the bidders who do not have Digital Certificates need to obtain Digital Certificate. You may contact Help Desk of C1 India Pvt Ltd.

M/s C1 India Pvt Ltd.

C 104, Sector - 2, Noida 201 301. You may also get in touch with their representative

Mr. Tirtha Das, e-mail id : tirtha.das@c1india.com , Contact No: +91-9163254290 alternately you may contact

Mr. Ravi Gaiwal e-mail id- ravi.gaiwal@c1india.com , Phone : 022 – 6686 5633

Bid Submission Acknowledgement

The user should complete all the processes and steps required for bid submission. The successful bid submission can be ascertained once acknowledgement is given by the system through bid submission number after completing all the processes and steps. Tender Inviting Authority and C1 India Pvt. Ltd. will not be responsible for incomplete bid submission by users. Users may also note that the incomplete bids will not be saved by the system and are not available for the Tender Inviting Authority for processing.

Note :

Bids of any tenderer may be rejected if a conflict of interest between the bidders and Company is detected at any stage.

for Balmer Lawrie & Co. Ltd.

**(Arnab Ghatak)
Sr. Manager (SCM)**

HSE Requirements BY CONTRACTORS

(To be a part of contract document)

1.0 Housekeeping

Contractors shall ensure that their work area is kept clean tidy and free from debris. The work areas must be cleaned on a daily basis. Any disposal of waste shall be done by the Contractor.

All equipment, materials and vehicles shall be stored in an orderly manner. Access to emergency equipment, exits, telephones, safety showers, eye washes, fire extinguishers, pull boxes, fire hoses, etc. shall not be blocked or disturbed.

2.0 Confined Space

Before commencing Work in a confined space the Contractor must obtain from BL a Permit to Work, the Permit to Work will define the requirements to be followed.

As minimum Contractors must ensure the following:

- i. Confined spaces are kept identified and marked by a sign near the entrance(s).
- ii. Adequate ventilation is provided
- iii. Adequate emergency provisions are in place
- iv. Appropriate air monitoring is performed to ensure oxygen is above 20%.
- v. Persons are provided with Confined Space training.
- vi. All necessary equipment and support personnel required to enter a Confined Space is provided.

3.0 Tools, Equipment and Machinery

The Contractor must ensure that all tools & equipment provided for use during the Work is:

- i. suitable for its intended use
- ii. safe for use, maintained in a safe condition and where necessary inspected to ensure this remains the case (any inspection must be carried out by a competent person and records shall be available);
- iii. Used only by people who have received adequate information, instruction and training to use the tool or equipment.
- iv. Provided with Earth leakage circuit breaker (ELCBs) at all times when using electric power cords. Use of electrical tape for temporary repairs is prohibited.

4.0 Working at Height

Any Work undertaken where there is a risk of fall and injury is considered to be working at height. For any Contractor Personnel working at height, Contractors shall provide fall prevention whenever possible and fall protection only when fall prevention is not practicable. Before commencing Work in a height for more than 6 ft height, the Contractor must obtain Permit to Work from BL, the Permit to Work will define the requirements to be followed. Supervisor must be present at all point of time, to ensure no deviation occur during the course of work.

Fall Prevention System

Fall prevention systems (e.g. fixed guardrails, scaffolds, elevated work platforms) must provide protection for areas with open sides, including exposed floor openings.

Fall Protection Systems

Where fall protection systems are used then the Contractor must ensure the following is applied:

- i. Only approved full body harness and two shock-absorbing lanyards are used,
- ii. Prior establishment of a rescue plan for the immediate rescue of an employee in the event they experience a fall while using the system,
- iii. Anchorage points must be at waist level or higher; and capable of supporting at least the attached weight,
- iv. Lifeline systems must be approved by BL before use.
- v. Use of ISI marked industrial helmet at all point of time.
- vi. Safety net must be fixed in the working zone for double layer protection.

5.0 Scaffolding

All scaffolds shall subject to a documented inspection by a competent person and clearly marked prior to use. The footings or anchorage for scaffolds shall be sound, rigid and capable of carrying the maximum intended load without settling or displacement. All scaffolding materials should be of MS tubular type.

Guardrails and toe-boards shall be installed on all open sides and ends of scaffold platforms. Scaffolds shall be provided with an access ladder or equivalent safe access. Contractor Personnel shall not climb or work from scaffold handrails, mid-rails or brace members.

6.0 Stairways and Ladders

Ladders should only be used for light duty, short-term work or access in line with the below and the Site Requirements.

- i. Fabricated ladders are prohibited.
- ii. Ladders will be secured to keep them from shifting, slipping, being knocked or blown over.
- iii. Ladders will never be tied to facility services piping, conduits, or ventilation ducting.
- iv. Ladders will be lowered and securely stored at the end of each workday.
- v. Ladders shall be maintained free of oil, grease and other slipping hazards
- vi. Ladders will be visually inspected by a competent person and approved for use before being put into service. Each user shall inspect ladders visually before using.
- vii. Ladders with structural defects shall be tagged "Do Not Use," immediately taken out of service, and removed from the Site by the end of the day.

7.0 Roof Work/Access

Roof work and access to roofs must not be undertaken without prior authorization from BL.

8.0 Overhead Work

A secure exclusion zone shall be maintained by Contractor below overhead work to prevent access. It is forbidden to work beneath a suspended load.

9.0 Lifting Operations

Cranes and Hoisting Equipment

Contractors shall operate and maintain cranes and hoisting equipment in accordance with manufacturers' specifications and legal requirements.

Only Contractor Personnel trained in the use of cranes and hoists are permitted to use them.

10.0 Lifting Equipment and Accessories

All lifting equipment / accessories e.g., slings, chains, webbing, chain blocks, winches, jacks etc shall be indicated with their safe working load have an identification number visible on the unit and be inspected and tested in accordance with legal requirements.

Damaged equipment / accessories and equipment shall be tagged "out of use" and immediately removed from Site.

11.0 Lockout Tag out ("LOTO")

Prior to performing work on machines or equipment, the Contractor shall ensure that it is familiar with LOTO and Permit to Work procedures and that all of its affected Contractor Personnel receive the necessary training.

12.0 Barricades

Floor openings, stairwells, platforms and walkways, and trenching where a person can fall any distance shall be adequately barricaded and where necessary, well lit. Where there is a risk of injury from a fall then rigid barriers must be used.

Barricades must also be used to prevent personnel entering an area where risk of injury is high e.g., during overhead work activity or electrical testing etc. Such barricading must provide clear visual warning.

13.0 Compressed Gas Cylinders

Gas cylinder shall be securely stored and transported, and identified and used in line with the local requirements. Hose lines shall be inspected and tested for leaks in line with local requirements. Flash Back arrestor to be used to prevent any explosion due to back fire.

14.0 Electrical Safety

Prior to undertaking any work on live electrical equipment the Contractor must obtain a Permit to Work from BL. Where ever possible live work should be avoided. Any control measures highlighted shall be implemented prior to work commencing.

The below measures will be taken :

- i. Work practices must protect against direct or indirect body contact by means of tools or materials and be suitable for work conditions and the exposed voltage level.
- ii. Energized panels will be closed after normal working hours and whenever they are unattended. Temporary wiring will be de-energized when not in use.
- iii. Only qualified electrical Contractor Personnel may enter substations and/or transformer and only after being specifically authorized by BL.
- iv. Distribution switch board must have ELCB .

15.0 Hot Works

A Permit to Work must be obtained from BL prior to any hot works (welding, grinding, open flame work). Suitable fire extinguishing equipment shall be immediately available. Objects to be welded, cut or heated shall be moved to a designated safe location, or, if they cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place. Personnel working around or below the hot works shall be protected from falling or flying objects.

Prior to the use of temporary propane or resistance heating devices approval must be obtained from BL.

16.0 Trenching, Excavating, Drilling and Concreting

A Permit to Work must be obtained from BL and all underground lines, equipment and electrical cables shall be identified and located prior to beginning the work. The Contractor shall assign a competent Contractor Personnel to all trenching and excavation work.

Safe means of access and egress shall be located in trench excavations. Daily inspections shall be conducted by a competent Contractor Personnel for evidence of a situation that could result in

possible cave-ins, indications of failure of protective systems or other hazardous conditions.

Physical barriers shall be placed around or over trenches and excavations. Flashing light barriers shall be provided at night.

17.0 Environmental Requirements
Waste Management

The Contractor is responsible to remove any waste generated by the work being done on the Site. The Contractor must dispose of the waste in line with the relevant local legislative requirements. The waste disposal route shall be documented and made available for BL to review at any time and may be subject to BL's prior approval.

Wastes (includes rinse from washing of equipment, PPE, tools, etc.) are not to be poured into sinks, drains, toilets, or storm sewers, or onto the ground. Solid or liquid wastes that are hazardous or regulated in any way are not to be disposed of in general site waste receptacles.

Spills

The Contractor is responsible for the provision of adequate spill kits/protection and the clean-up and disposal costs arising from such spills.

18.0 Emissions

The Contractor shall identify and quantify any emission sources associated with the Works. The control measures associated with these emission shall be subject to the approval of BL. Emissions include but are not limited to noise, dust, fumes, vapours.

Price Schedule For CCTV

Sub: Supply, Installation, Testing and Commissioning of CCTV system at Balmer Lawrie & Co. Ltd. (G&L - Kolkata)

Sr no	Description of Supply Part as per specification given in tender	Qty.	Unit	M/s.....			
				Unit Rate	Amount	HSN	GST %
1	Bullet camera IP IR 50 mtrs, 1/2.8"2MP IP IR Bullet camera with 50 mtr IR range, 2.8 mm - 12mm varifocal lens, IP 67, POE. Approved make : Dahua/Panasonic/BOSCH/Pelco	44	Nos				
2	1080p HD PTZ Camera complete with 1/2.8" progressive scan Exmor CMOS, Effective pixels , 30x Optical Z, 16X Digital Zoom. Necessary Mounting arrangement shall be included. WDR 150 IR. Approved make : Dahua/ Panasonic/ BOSCH/Pelco	1	No				
3	ANPR Camera with Bracket, Approved make : Dahua/ Panasonic/ BOSCH/Pelco	1	No				
4	32 Channel NVR with 8 sata slot	2	Nos				
5	24 port 10/100/1000 POE network switch	3	Nos				
6	08 port 10/100/1000 POE network switch	2	Nos.				
7	SFP Modules	16	Nos.				
8	24 port LIU with fully loaded	1	No				
9	12 port LIU with fully loaded	5	Nos				
10	Fiber patch cord	50	Nos				
11	Cat 6 Armoured cable	1525	mtr				
12	1.5 sqmm x 2 core, Cu Armored copper power supply cable	1500	Mtr				

13	12 core Single mode Armoured OFC cable	1500	Mtr				
14	43" inch full HD LED TV (Make: Sony/Samsung/ LG),Sony/Samsung/LG	2	Nos				
15	HDMI cable	2	Nos				
16	High configured PC i5 processor 8 GB ram 4 Gb graphic card cabinet and wireless mouse and keyboard (without monitor) with licence OS (Without Monitor)	2	Nos				
17	Surveillance Type hard disk 04 TB (Make: Seagate/ WD)	16	Nos				
18	Camera support for bullet and PTZ	46	Nos				
19	3 Inch 10 feet pole	1	No				
20	Weather proof junction box 100x100x70 IP 65 Polycarbonate	46	Nos				
21	U rack with accessories	4	Nos				
22	Floor Standing Rack 27U/600W/800D, M.S frame FULL Welded Top cover with fan provision. Top & Bottom cover with cable entry gland plates. Depth support channels -2 pairs.	1	No				
23	Splicing material/charges	100	Nos				
24	MCB , Spike guard termination box , OFC accessories, Switch Socket and other fixing accessories etc.	1	LS				
25	PVC Conduit Pipe	600	Mtrs				
26	Any major item of work(s) not mentioned in this tender document but which may be required during the execution of work in order to make the site complete in all respects must be quoted separately and total lump sump value must be quoted against this head, if required subject to proper justification by the bidder	1	LS				

Sr no	Description of Service Part Installation and Commissioning	Qty.	Unit	M/s.....			
				Unit Rate	Amount	SAC	GST %
27	Installation, and Commissioning of the complete system in all respect as per scope of work using above materials with all manpower, tools & tackles etc.	1	LS				
28	Total of All items[Basic Value]from Item no 1 to 27- Excluding GST						
29	Grand Total of all items from Item no 1 to 27-Including GST						

Tolerance: Quantity of item no. 14,15 & 16 may be revised to 3 nos each in case budget permits.

****** All items should be of reputed brand/ make, where ever specific brand/make is not specified. For details specification kindly refer to the tender document.

Authorised Signature of the Vendor.

Date: