Project Engineering Management

BHARAT HEAVY ELECTRICALS LTD.
(A Govt. Of India Undertaking)
PURCHASE ENQUIRY

REF :	PE-LPE/110
REF. DATE	09/07/2013
DUE DATE	24/07/2013

To,

Dear Madam/Sir,

Subject: Procurement & Installation of CCTV Camera

Quotations are Invited in sealed cover with Enquiry No.,Enquiry Date, Quotation Due Date & Time, Name/ Address of the Organisation submitting the offer legibly super- scribed on it, for the above- mentioned item so as to reach the undersigned before 2:00 P.M. on or before the above mentioned Due Date.

SCOPE:

Supply and installation of CCTV cameras at different location of PEM as per enclosed specification, quantity and layout details.Delivery as per page 9 of scope of work (4 weeks from order date)

PAYMENT TERMS

Refer page 9 of scope of work (100% after supply and installation).Liquidity damages @ 0.5% per week or part thereof but limited to 10% (excluding taxes) of contract value, if vendor is not able to complete delivery (as per clause b-1.0 of tender spec enclosed).

Please quote the total F.O.R. destination BHEL /PEM, NOIDA inclusive of all taxes, freight, handling packaging, charges, transit insurance etc and shall remain firm without any variation till completion of the contract.

BID SUBMISSION:

Submission of sealed offers (2 parts-technical and price bid) before 24-july-2013
Signed and stamped tender document may be submitted as a token of acceptance of tender terms. Page no 5,6 & 8 of the specification need to be filled.

SECURITY DEPOSIT:-10% of PO value without taxes & duties (in the form of Bank Guarantee, otherwise amount shall be withheld from supply bill) shall need to be submitted by vendor after award of contract to BHEL/PEM to cover the due performance of Contract
Security deposit shall be refunded after successful completion guarantee/warranty of minimum 2 years.

Thanking You,

Yours faithfully,
For and on behalf of BHEL
9/7/13
Vivek Singh Kuntia
BHEL PEM, Noida

Enclosure :-

Annexure1-14 pages containing spec, price schedule, PQR and terms and conditions (2 pages).

Please reply to:
Power Project Engineering Institute
HRD & ESI Complex, Plot No 25, Sector 16 A
Phone:
Fax No:
Regd. Office:
BHEL House
Siri Fort

BHARAT HEAVY ELECTRICALS LIMITED

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

SPECIFICATION NUMBER: PW/CPA/CCTV-01

21/6/2013

PROJECT ENGINEERING MANAGEMENT DIVISION
PPEI BUILDING, HRDI & ESI COMPLEX
PLOT NO. 25, SECTOR 16A
NOIDA – 201 301 (U.P.)

21/6/2013

21/6/13

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

A) GENERAL REQUIREMENTS

1. The intent of the specification is to define the functional & design requirements for the CCTV System meant for augmenting and strengthening the security system at our office (BHEL-PEM) premises. This is required for safe and smooth working in our office premises. In this regard, it is proposed to install CCTV camera at PPEI building, MPL block, Civil, Electrical building, Server room and IT Equipment storage area.
2. The Bidder shall be responsible for selection, design, installation and commissioning of the system to the satisfaction of BHEL. All the cables, power packs, erection hardware etc. are also included in bidder's scope.
3. The CCTV System offered by the Bidder shall be of the make as specified in Technical requirements.
4. The quantity of items is listed in the BOM. Any other item required for system completeness shall be in Bidder's scope.
5. Warranty/guarantee of minimum of 2 year.

B) SCOPE

1. Complete erection/installation, commissioning & handing over within 4 weeks is in bidder's scope.

   Therefore, complete E&C scope after order will now comprise of:-

   A. Visit to site/office premises for preliminary study of routings.
   B. Laying of cables in conduits/batten between cameras, to NVR to PC monitors, etc., and same shall include data / signal cables, power cables etc.
   C. Digging of trenches, if necessary.
   D. Erection & commissioning of each and every item like cameras along with lens, NVR, LVS/Monitor interface along with necessary software (e.g. CMS, Common Management software) etc.
   E. Integration of complete CCTV system for satisfactory operation to the user satisfaction.

2. Replacement/repair of CCTV systems during the warranty/guarantee period shall be in bidder's scope.

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

C) TECHNICAL SPECIFICATION

CAMERA	
General	
Make	Bosch, Pelco, Axis, Panasonic, Samsung, Honeywell, DVtel, Hikvision, Sony.
Type	IP Camera
Image Sensor	1/3" CMOS
Minimum Resolution	2 MP or better
Wide dynamic range	Minimum 50 DB
Wide balancing range	Required
Shutter time	1/25(30) to 1/100000
Minimum IR View Distance	10 meters for indoor cameras and 30 meters for outdoor camera
Lens Type	Minimum 4 mm
Minimum Illumination/sensitivity	Color 0.1 lux and B/W 0.03 lux
S/N Ratio	Minimum 50 DB
Backlight compensation	Required
3D Noise reduction	Required
Video Output	
Compression	H.264
Maximum frame rate	25/30 fps @ 1080p (1920 X 1080)
Network/Connectivity/Security	
Protocol	IPv4, TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, SNMP, HTTPS, FTP, 802.1x, Qos
Communication interface	RJ45 10M/100M Ethernet port
Users	Minimum 6 users simultaneously
POE	IEEE 802.3af compliant
Security access	Password protected
Environmental	
Operating temperature	0-55 degree Celcius
Humidity	Upto 90% RH (non-condensing)
Ingress protection	IP66
Impact protection	IK10
Certification and Rating	
IEC/EN 55022	
IEC/EN 55024	
FCC, class B	
UL	
IEC60068-2-75EH	
EN50102	

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

NETWORK VIDEO RECORDER	
Make	Same as of Camera and should be compatible with suggested solution
Video/Audio Input	
IP Video input	32 Channel
Incoming Bandwidth	Minimum 80 Mbps
Compression	H.264
PAL/NTSC	Auto detection
Video/Audio Output	
Recording Resolution	5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
HDMI output	Required
VGA output	Required
Playback resolution	5MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
Synchronous playback	minimum 12 channels
Hard disk	
Make	SEAGATE/WD
Type	SATA
Capacity	3 TB
External interface	
Network Interface	RJ45
Serial Interface	RS-232/485
USB Interface	Minimum 2 nos. USB 2.0
Alarms	Required
Others	
Power supply	240 VAC, 50Hz
Security	Password protected
Recording	Continuous
Playback function	Fast forward/reverse, frame forward/reverse, freeze
Zoom feature	Required
Search mode	Date and time

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

D) DATA SHEET- B (TO BE FILLED BY BIDDER)

CAMERA	
General	
Make	
Type	
Image Sensor	
Minimum Resolution	
Wide dynamic range	
Wide balancing range	
Shutter time	
Minimum IR View Distance	
Lens Type	
Minimum Illumination/sensitivity	
S/N Ratio	
Backlight compensation	
3D Noise reduction	
Video Output	
Compression	
Maximum frame rate	
Network/Connectivity/Security	
Protocol	
Communication interface	
Users	
POE	
Security access	
Environmental	
Operating temperature	
Humidity	
Ingress protection	
Impact protection	
Certification and Rating	
IEC/EN 55022	
IEC/EN 55024	
FCC, class B	
UL	
IEC60068-2-75EH	
EN50102	

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

DATA SHEET -B (TO BE FILLED BY BIDDER)

NETWORK VIDEO RECORDER	
Make	
Video/Audio Input	
IP Video input	
Incoming Bandwidth	
Compression	
PAL/NTSC	
Video/Audio Output	
Recording Resolution	
HDMI output	
VGA output	
Playback resolution	
Synchronous playback	
Hard disk	
Make	
Type	
Capacity	
External interface	
Network Interface	
Serial Interface	
USB Interface	
Alarms	
Others	
Power supply	
Security	
Recording	
Playback function	
Zoom feature	
Search mode	

SCOPE &TECHNICAL SPECIFICATIONS FOR CCTV SYSTEM

E) Documents to be submitted along with technical bid.

1. Authorization letter from OEM in case of authorized sales and service Centre / channel partner.
2. Complete technical specs to be duly signed & stamped by the bidder.
3. Satisfactory performance certificate from at least 2 reputed firms for successful execution of the job.
4. Un-priced bid.
5. Duly filled signed & stamped Data sheet-B.
6. Test/Regulatory certificates for the main equipment (Camera & NVR).
7. Catalogues of the offered make & model.

BOQ CUM PRICE SCHEDULE

S. No	Item Description	Required Make	Make (To be filled by bidder)	Model No. (To be filled by bidder)	Qty	Unit	Unit Price (Ex Works in INR)	Total Price(Ex Works in INR)
IP CCTV COMPONENTS								
1	**Minimum 2 Megapixel High Resolution IR Bullet Camera** with HD Video output with low illumination, & as per technical specs.	Bosch,Pelco, Axis, Panasonic, Samsung, Honeywell, DVtel, Hikvision, Sony.			4	Nos.		
2	**Minimum 2 Megapixel Outdoor Network Mini Dome Camera** as per technical specs.	Bosch,Pelco, Axis, Panasonic, Samsung, Honeywell, DVtel, Hikvision, Sony.			19	Nos.		
RECORDING UNIT WITH NVR								
3	**32 Channel Network Video Recorder** supported up to 5 Megapixels resolution recording with HDMI and VGA output at up to 1920 X 1080 resolution & as per technical specs.	SAME AS CAMERA			2	Nos.		
4	3 Sata HDD as per technical specificaition	SEAGATE/ WD			8	Nos.		
ACTIVE & PASSIVE NETWORK ACCESSORIES								
5	24 Port PoE 10/100/1000 Gigabit Switch with 2 SFP slot populated	CISCO			2	Nos.		
6	8 Port Switch with 4 Port PoE	CISCO/ TP LINK			1	Nos.		
7	Single Mode 10/100 Base Media Converter	D LINK/ TP LINK			4	Nos.		
8	Fiber Patch Chord	AMP/ AVAYA			4	Nos.		
9	Rack Mounted 6 Port LIU Fully loaded with pigtails, adaptor plate, splice etc	REPUTED			2	Nos.		
10	Rack Mounted 12 Port LIU Fully Loaded with Pigtails	REPUTED			1	Nos.		
CABLE & CONDUITS								
11	CAT-6 UTP Cable	AMP/ AVAYA			1190	RM		
12	6 Core Single Mode Optical Fiber Cable	AMP/ AVAYA			170	RM		
13	2 Core X 1.5 Sqmm Power Cable	BIS MARKED			370	RM		
14	30 mm HDPE Conduit	BIS MARKED			130	RM		
15	22 MM PVC Conduit	BIS MARKED			1050	RM		
16	Installation, testing and commissioning charges of the system				1	Lot		
	Grand Total (INR)							
Note:-	1. Price evalution shall be done on overall L1 basis.							
	2. Payment shall be made on actual measurement basis at site after completion of work.							

PQR, SCOPE OF WORK & PAYMENT TERMS

Prequalification Requirement (PQR) (supporting documents to be submitted) :

- Supplier should be OEM/ authorized sales and service centre/ channel partner.
- Supplier should have sales and service centre in Delhi & NCR to provide prompt support.
- PAN card
- Service tax registration certificates.
- ITR for last 3 years.
- Satisfactory performance certificate from at least 2 reputed firms for successful execution of the job.

Scope of work & Payment terms:

- The party has to supply the materials as per the Specifications.
- The L-1 party must be able to supply & install the system within 4 weeks after commercially clear purchase/ work order.
- Product should have minimum 02 years on site comprehensive warranty/guarantee.
- 100% payment shall be made after supply, installation, successful commissioning & acceptance of CCTV system by BHEL.
- Payment shall be made on actual measurement basis at site.

SYSTEM LAYOUT PLAN

Annexure -1

1. INTRODUCTION:

To augment and strengthen the security system at BHEL office premises, continuous efforts are always needed for upgrading the same. This is required for safe and smooth working environment in our office premises. In this regard, it is proposed to install CCTV camera arrangement at PPEI building, MPL block, Civil & Electrical building at different locations for a security concern.

2. PLANNED LOCATION:

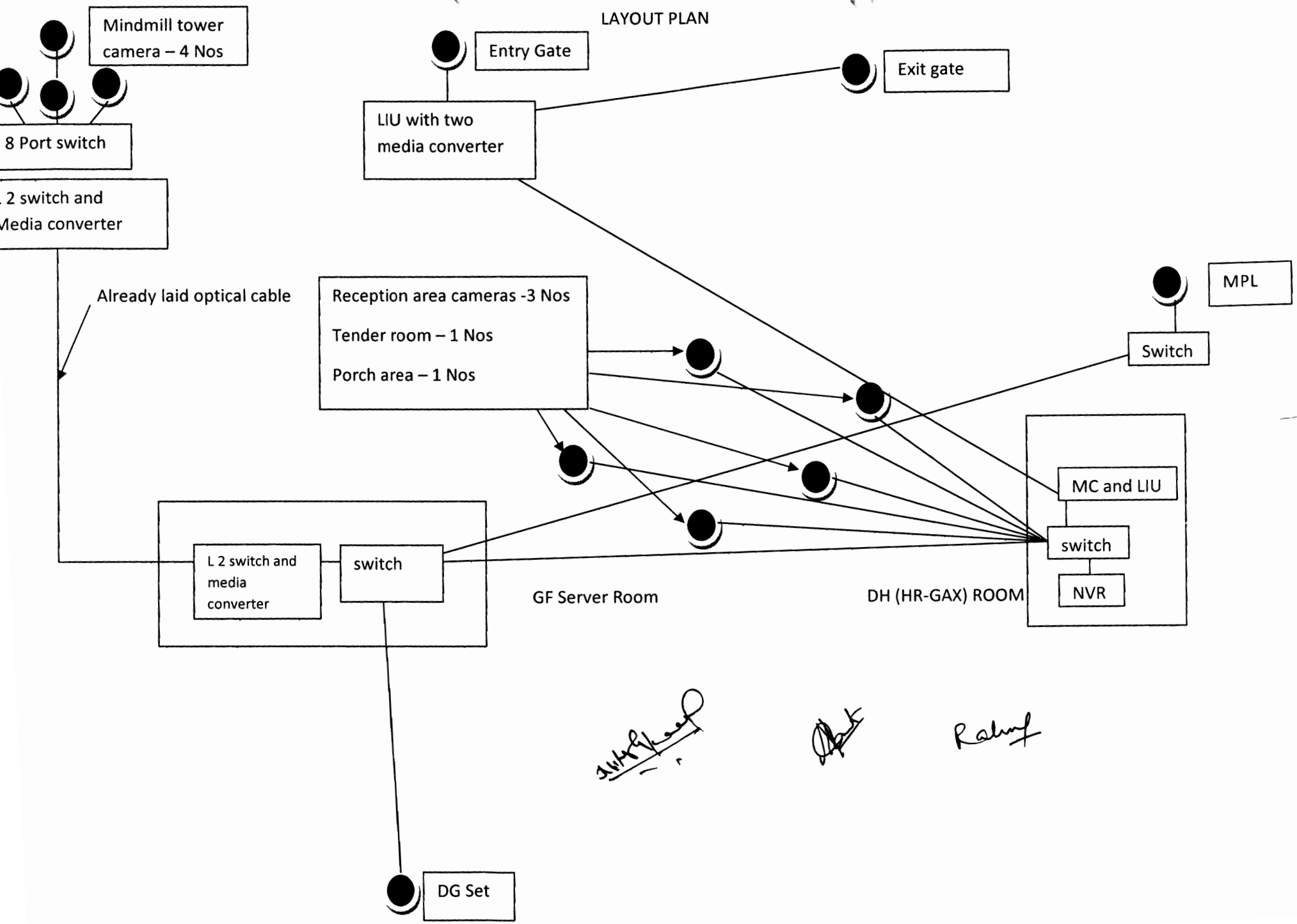
CCTV camera is planned to install at following locations:-

S.No.	Location	Type of camera	Number of camera
1.	Mindmill tower 4th Floor	Indoor	2
2	Mindmill tower 5th floor	Indoor	2
3	Main PPEI entry gate	Outdoor	1
4	Main PPEI exit gate	Outdoor	1
5	Main Reception area PPEI (outside)	Outdoor	1
6	Main reception area PPEI (Inside)	Indoor	3
7	Tender room	Indoor	1
8	MPL building	Indoor	1
9	DG set area(outside)	Outdoor	1
10	GF server Room	Indoor	3
11	GF switch room	Indoor	1
12	GF IT store area	Indoor	1
13	FF Server room	Indoor	3
14	FF IT store area	Indoor	1
15	FF Training room	Indoor	1

3. CABLE LAYOUT PLAN

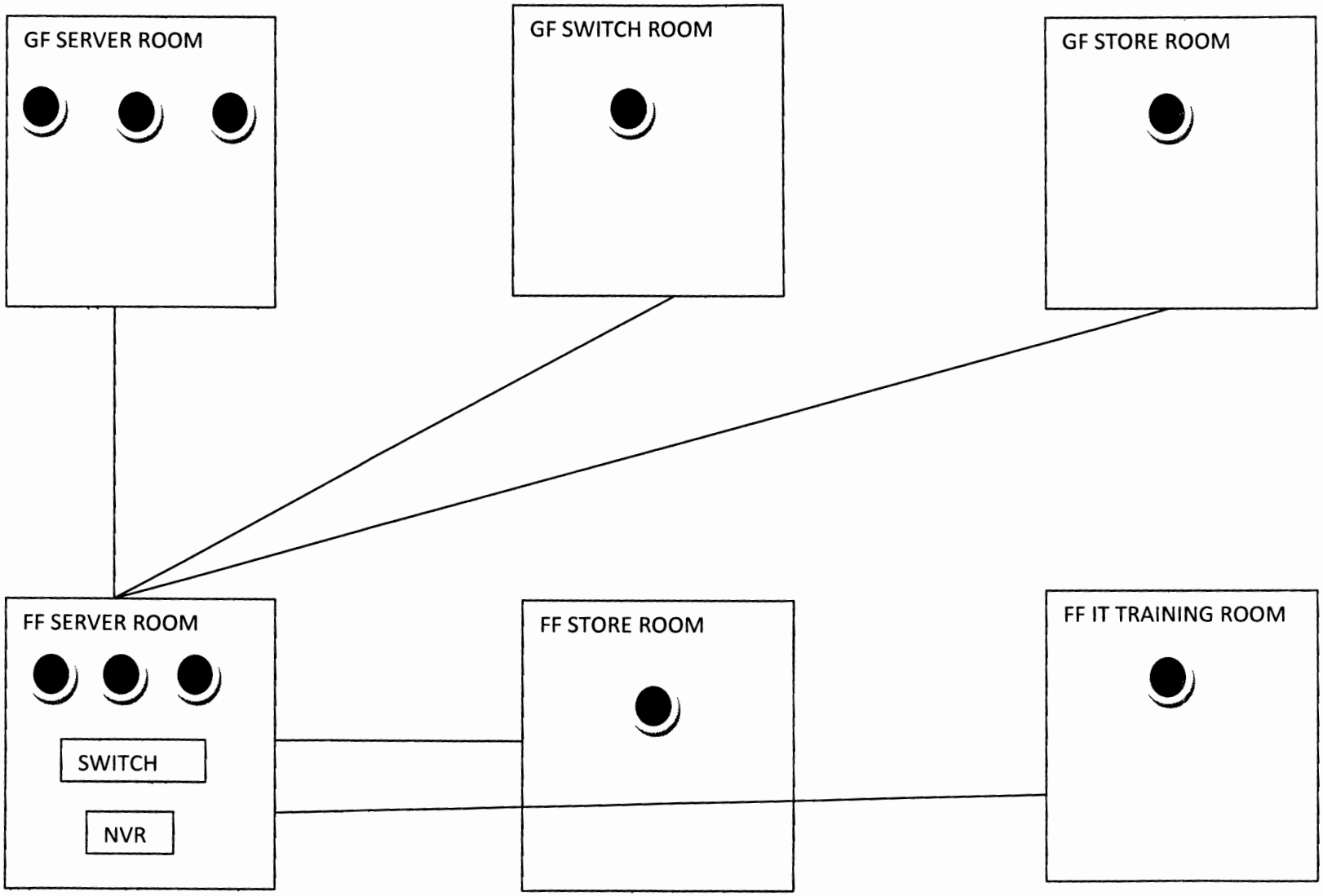
1. Camera shall be installed at identified location and as marked in layout.
2. One NVR shall be installed at Reception Area (in DH HR-GAX room) and another in FF server room.
3. Planned Cabling details shall be as per layout plan. However, any other system components required to make system complete shall be in vendor's scope.
4. Cables should be laid inside conduit/Batten only.
5. Cables inside the building shall be laid above false ceiling or flooring.

LAYOUT PLAN


Mindmill tower camera – 4 Nos
8 Port switch
2 switch and Media converter
Already laid optical cable
Entry Gate
LIU with two media converter
Exit gate
Reception area cameras -3 Nos
Tender room – 1 Nos
Porch area – 1 Nos
MPL
Switch
MC and LIU
switch
NVR
L 2 switch and media converter
switch
GF Server Room
DH (HR-GAX) ROOM
DG Set

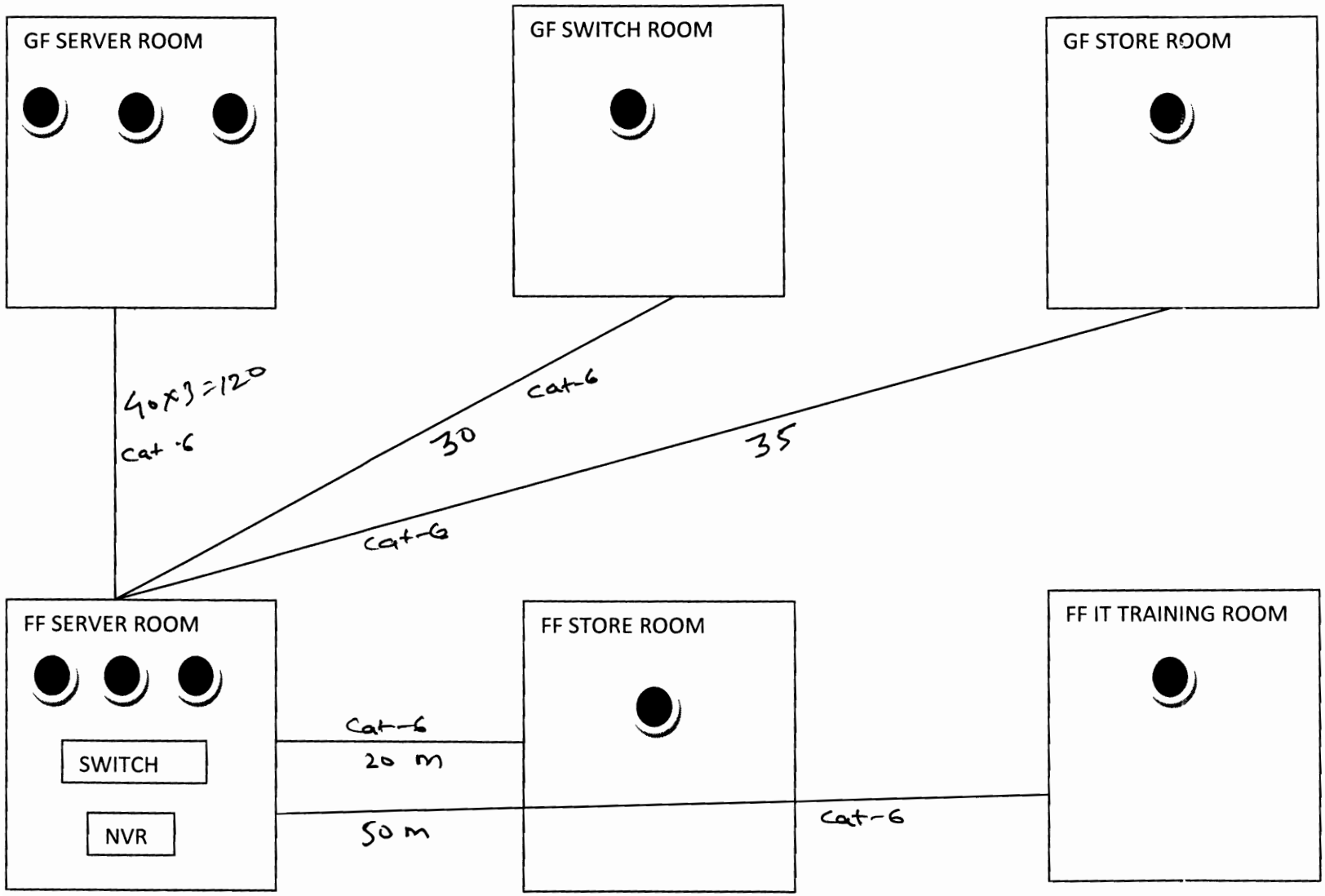
LAYOUT PLAN

SERVER ROOM CABLE LAYOUT

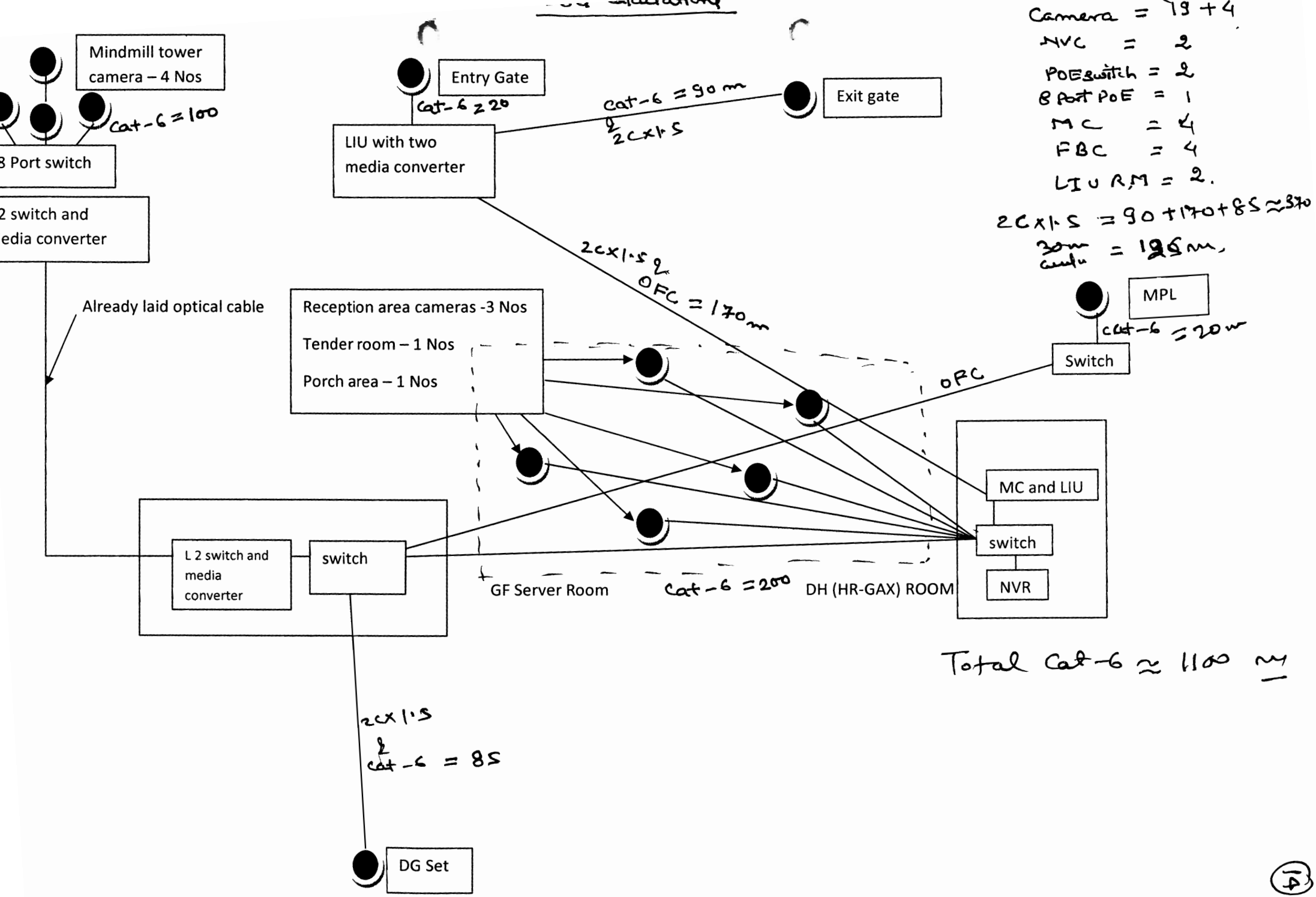


Rahul

SERVER ROOM CABLE LAYOUT



IT requirement = 400 m.


Mindmill tower camera – 4 Nos
Cat-6 = 100
8 Port switch
2 switch and
edia converter
Already laid optical cable
Entry Gate
Cat-6 = 20
LIU with two media converter
Cat-6 = 90 m
2CX1.5
Exit gate
2CX1.5 & OFC = 170m
Reception area cameras -3 Nos
Tender room – 1 Nos
Porch area – 1 Nos
MPL
Cat-6 = 20m
Switch
OFC
MC and LIU
switch
NVR
L 2 switch and media converter
switch
GF Server Room
Cat-6 = 200
DH (HR-GAX) ROOM
2CX1.5 & Cat-6 = 85
DG Set
Camera = 19 + 4
NVC = 2
POE switch = 2
8 Port POE = 1
MC = 4
FBC = 4
LIU RM = 2.
2CX1.5 = 90 + 170 + 85 ≈ 370
30m = 125m.
Total Cat-6 ≈ 1100 m

ANNEXURE-1

TERMS AND CONDITIONS

1. BID SUBMISSION

Bids will be submitted by 2 p.m. on or before the due date, in a Sealed Cover with bidder's distinctive Seal super scribed with correct Enquiry No., Item of supply and due date of opening.

2. BID OPENING

Bids will be opened at 3 p.m. on the due date in the presence of bidders who may like to be present.

GENERAL

3. Prices shall be net F.O.R. destination inclusive of freight, handling and packing charges, transit insurance etc. and remain valid for 2 months from the due date.

4. Taxes and duties payable should be indicated separately, otherwise it will be presumed that the goods quoted are inclusive of all taxes, duty, octroi etc., if any and BHEL in such cases shall not pay any tax, duty, octroi etc..

5. No revision of prices shall be entertained after bids have been opened.

6. PRICES shall remain FIRM without any variation till completion of contract.

7. Manufacturer's name, trade Mark or Patent No., if any, should be specified.

8. Illustrative leaflets giving technical details of items offered should be enclosed, wherever necessary.

9. Products with I.S.I. certification marks will be preferred.

10. BHEL shall be under no obligation to accept the lowest or any other bid and shall have the right to accept or reject any bid in part or in full without assigning any reason whatsoever.

11. Late tenders will be rejected.

12. Bid should be free from CORRECTIONS AND ERASURES. Corrections, if any, must be counter-signed. All prices should be indicated both in words as well as in figures. If there is a difference between price quoted in words and figures or there is any other discrepancy in the Price Schedule, higher value(s) will be considered for evaluation and lower values will be considered for ordering.

13. BHEL reserves the right to split the order for individual item(s) with different bidders and also increase/decrease the quantities.

14. **PACKING AND MARKING** : vendor shall arrange for sound packing and marking the goods to avoid any loss or damage during transit.

15. **TERMS OF PAYMENT** : 100% payment shall be released after supply & acceptance of material and submission of Invoice along with specified documents by the Vendor.

16. **SUBMISSION OF INVOICE** : All Invoices along with specified documents shall be submitted in triplicate, to CMM/LP Deptt. of BHEL/PEM, Noida.

17. **LIQUIDATED DAMAGES** : It is clearly understood among the parties to the contract that time is the essence of the contract. Therefore, the delivery of the goods specified in the Purchase Order should be made within the stipulated delivery period. Where delivery is made after the stipulated period, the Purchaser shall be under no obligation to accept the goods. However, if accepted, Liquidated Damages at the rate of half percent per week of delay or part thereof shall be levied on the value of goods delayed limited to ten percent of the total contract value, without prejudice to any other relief or compensation due to the Purchaser under any other condition of the Purchase Order.

18. **RISK PURCHASE** : Purchaser will have the option to terminate the contract and purchase from elsewhere at the risk and cost of the Vendor, either the whole or part of the goods which the Vendor has failed to deliver or despatch within the stipulated delivery period or if the same were not available, the best and the nearest available substitute thereof. The Vendor would be liable to compensate the Purchaser for any loss which the Purchaser may sustain by reason of such risk purchase, in addition to Liquidated Damages at the rate mentioned above.

19. **PREFERENTIAL DELIVERY** : It should be noted that if Order is placed on a higher value tender as a result of this Enquiry in preference to the lowest acceptable tender in consideration of the earlier delivery, the Vendor will be liable to pay to the Purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R. destination including elements of taxes, duties, freight, etc. and other incidentals in case of failure to complete the supplies within the stipulated delivery period.

NOTE : Bidders need to submit their offers only if all the Terms & Conditions are acceptable to them. If the offer has been submitted, any deviations to the Terms & Conditions taken by the bidder shall be ignored .

(a) If, in the price structure quoted for the required goods/ services/ works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.

(d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

CONTACT PERSON DETAILS

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