



JAIPUR METRO

## JAIPUR METRO RAIL CORPORATION LIMITED

1st Floor, A-Wing, Admin Building, Metro Depot

Bhrigu Path, Mansarovar, Jaipur-302020

CIN: U60221RJ2010SGC030630

Tel: No. 0141-2822780 Fax: 0141-2822781

Website: <http://transport.rajasthan.gov.in/jmrc>; email: [dp@jaipurmetrorail.in](mailto:dp@jaipurmetrorail.in)



F7(C-222)/JMRC/ S&T-1B/JNCIT/2017/2139

Date: 08.06.2020

### NOTICE INVITING QUOTATION

**Subject: Design, Supply, Installation, Testing and Commissioning of Passive & Active Components of LAN Systems (JNCIT-1B) for Jaipur Metro Rail Project (Chhoti Chaupar – Badi Chaupar Underground section).**

Sealed offers are invited for Design, Supply, Installation, Testing and Commissioning of Passive & Active Components of LAN Systems (JNCIT-1B) for Jaipur Metro Rail Project (Chhoti Chaupar – Badi Chaupar Underground section).

Sealed offer should reach at the office of GM (S&T), Room No. A-114, 1st Floor, Admin Building Depot of Jaipur Metro, Near Ganga Jamuna Petrol Pump, Mansarovar, Jaipur-302020 by 15:00 Hrs on date 12.06.2020.

Offer received after due date and time will not be entertained. Sealed offer will be opened on due date mentioned above immediately thereafter.

The RFQ detailing the subject work is enclosed alongwith.

#### Terms & Conditions:

Firm is required to quote the rate in this RFQ only with signature & stamp of the authorized signatory on each page as a token of acceptance of terms and conditions.

The offer submitted in any other format shall be rejected by JMRC.

Rate quoted should be all inclusive for carrying out all activities as detailed in the scope of work and will be deemed to include all incidental charges, supervision, transport, contractor's profit and establishment/overheads, all risks and other obligations set out or implied in the RFQ, complete as required.

Rate quoted must be excluding GST which is being considered in the above format separately. However rate of GST shall be as applicable at the time of billing.

Order will be given to only one firm, based on the gross quoted lowest cost mentioned in Section-2 of RFQ.

The Work mentioned in scope of work is to be completed within 10 days from the date of Work Order issued or earlier.

The work is to be done as per technical specification mentioned in the RFQ.

The bidder firm should have an experience in the field related to Supply, Installation, Testing and Commissioning of IT Infrastructure or similar work. Documentary evidence to this effect should be submitted at the time of submission of your offer.





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Anything that would be required to complete the above scope of work and proper functioning of IT infrastructure at JMRC site will be borne by the successful bidder.

Inspection Authority:- Nominated JMRC Representative.

Payment terms:- As per RFQ.

Consignee:- Jaipur Metro Rail Corporation Limited.

The duration for acceptance of work order will be 3 days from issuance of work order.

Validity of offer:- 30 days from the date of opening of offer.

Bidder Name, Bid Name, Due Date and time should also be mentioned on the sealed offer.

JMRC reserve right to Accept or Reject any offer in the whole or part without assigning any reason thereof.

The offer shall be unconditional and duly signed and stamped by the authorized signatory of bidding firm. Conditional offer shall be summarily rejected.



  
(Subodh Kumar Jindal)  
Director (Project)

Jaipur Metro Rail Corporation  
(Subodh Kumar Jindal)  
Director (Project)



## **SECTION-1: REQUEST FOR QUOTATION**

**Project Title: Design, Supply, Installation, Testing and Commissioning of Passive & Active Components of LAN Systems (JNCIT-1B) for Jaipur Metro Rail Project (Chhoti Chaupar – Badi Chaupar Underground section).**

**Source of Funding: Asian Development Bank**

**RFQ Ref: JNCIT-1B**

**Date of Issue of Request: 08.06.2020**

1. The Jaipur Metro Rail Corporation (Employer) hereby invites proposals in sealed envelope for following works :-

Design, Supply, Installation, Testing and Commissioning of Passive & Active Components of LAN Systems (JNCIT-1B) for Jaipur Metro Rail Project (Choti Chaupar – Badi Chaupar Underground section).

To assist in the preparation of price quotation, the necessary requirements, specifications, bill of quantities and scope etc. with necessary forms for submitting the quotation and a contract forms etc are enclosed.

The Agency must fulfill the requirements specify in Section- 4 (ToR).

2. The Borrower ("India") has received financing (hereinafter called "funds") from the Asian Development Bank (the "Bank") in the form of a loan toward the cost of Jaipur Metro Rail Extension Phase 1B Project. The Government of Rajasthan, acting through the Urban Development and Housing, and the Jaipur Metro Rail Corporation, an executing agency, intends to apply a portion of the proceeds of this loan to eligible payments under the contract for which this RFQ is issued. Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the loan agreement.

3. **The following mentioned documents are included -**

SECTION 1 - Request for Quotation

SECTION 2 - Forms of Quotation

SECTION 3 – Price Proposal

SECTION 4 - Terms of Reference [ToR]

SECTION 5 - Conditions of Contract (CC)

SECTION 6 - Conditions of Contract (CC)



4. RFQ documents can be collected between 08.06.2020 to 12.06.2020 in all working days from the office of:-

**Director (Project)**

**Jaipur Metro Rail Corporation Limited,**

**1st Floor, A-Wing, Admin Building**

**Mansarovar Depot**

**Bhrigu Path Mansarovar**

**Jaipur (Rajasthan) Postal Code-302020**

**Country: India.**

**Telephone: +91-141- 2822780 / 785**

**E-mail address: [dp@jaipurmetrorail.in](mailto:dp@jaipurmetrorail.in) & [gmst@jaipurmetrorail.in](mailto:gmst@jaipurmetrorail.in)**

5. Offer shall be valid for a period of 30 days from the latest date of submission
6. The Proposal shall comprise single envelope submitted simultaneously, containing the Technical Proposal and the Price Quotation. The envelope which should be sealed and superscribed with RFQ Notice No. and date /time of opening.
7. The proposal in the relevant form duly signed & sealed, along with other required documents shall be submitted in an envelope. The envelope must be addressed to and delivered on 12.06.2020 before 15:00Hrs. at the following address:

**Director (Project)**

**Jaipur Metro Rail Corporation Limited,**

**1st Floor, A-Wing, Admin Building,**

**Mansarovar Depot, Bhrigu Path Mansarovar,**

**Jaipur (Rajasthan) Postal Code-302020**

**Country: India.**

**Telephone: +91-141- 2822780 / 785**

**E-mail address: [dp@jaipurmetrorail.in](mailto:dp@jaipurmetrorail.in) & [gmst@jaipurmetrorail.in](mailto:gmst@jaipurmetrorail.in)**

8. The Agency shall submit with its proposal the following documents:
- Letter of the Proposal
  - Technical proposal
  - Completed Price Schedule
  - All pages signed copy of RFQ
  - The details of registration of the Firm with Income Tax Department: Permanent Account Number (PAN).  
Details of GST Registration of the Firm

9. **Evaluation:**

- RFQ shall be opened on the same time by JMRC authority. The award of work shall be done after scrutiny and evaluation of RFQ.





- b. The Employer shall examine the RFQ proposal to confirm the completeness of documents submitted. If any of these documents or information is missing, the Proposal will be rejected.
- c. In evaluating the quotations, the Employer will adjust for any arithmetical errors as follows:
  - i. if there is a discrepancy between amounts in figures and in words, the amount in words will govern;
  - ii. if there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern;

If the Agency refuses to accept the correction, the quotation will be rejected.

- d. For the items covered under Price Proposal, Taxes as applicable, are payable if the work is awarded to the Agency.
  - e. The Employer shall award to the work Agency whose offer has been determined to be the lowest evaluated offer to the RFQ Document.
10. If Agency withdraws the quotation during the validity period and/or refuse to accept the award of a Work when and if awarded, it will be excluded from the list of contractors for the project for 2 years.
  11. The Work will be governed by the terms and conditions detailed in ToR & elsewhere of the attached proposal.
  12. The agency whose quotation has been accepted will be notified of the award of Assessment Work through the Letter of Acceptance issued by the Employer.
  13. Completion period of work shall be within 10 days from Notice to proceed.
  14. The Employer intends to apply funds from the Asian Development Bank (ADB) for eligible payments under the Work resulting from this Request for Proposal.
  15. Under the ADB Anticorruption Policy, Agencies shall observe the highest standard of ethics during the procurement and execution of such contracts. ADB will reject a proposal for award and will impose sanctions on the parties involved if it determines that the agency recommended for award or any other party has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. At the time of submission of quotation, Agency should not be on the ADB sanctions list.



**Section- : 2 Form of Quotation****Letter for RFQ Proposal****-- Note --**

*The Agency must accomplish the Letter for RFQ Proposal on its letter head clearly showing the Agency's complete name and address.*

Date: .....

RFQ No.: .....

To: .....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the RFQ Document.
- (b) We offer to design, manufacture, test, deliver, install, pre-commission, and commission in conformity with the RFQ Document the following Plant and Services: \_\_\_\_\_  
\_\_\_\_\_
- (c) To confirm compliance to all Terms of Reference (ToR) and technical specification as specified at Section- 4 of the RFQ document.
- (d) The total price quoted in accordance with CC Clause 10, excluding any discounts offered in item (d) below is the sum of



- (e) We undertake to comply clause by clause the technical proposal as specified in RFQ Terms of Reference (ToR) & CoC.
- (f) Our RFQ Proposal shall be valid for a period of 30 days from the date fixed for the RFQ submission deadline in accordance with the RFQ Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.



- (g) We, including any Subcontractors or Manufacturers for any part of the Contract, have or will have nationalities from eligible countries, in accordance with RFQ
- (h) We are not participating, as an Agency in more than one RFQ in this RFQ process in accordance with RFQ other than alternative offers submitted in accordance with RFQ.
- (i) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.
- (j) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of RFQ].<sup>1</sup>
- (k) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: <sup>2</sup>

Name of Recipient	Address	Reason	Amount
.....	.....	.....	.....
.....	.....	.....	.....

- (l) We understand that this Proposal, together with your written acceptance thereof included in your notification of award, shall constitute a binding Work between us, until a formal Work is prepared and executed.

We understand that you are not bound to accept the proposal that you may receive.

- (m) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

.....



<sup>1</sup> Use one of the two options as appropriate.

<sup>2</sup> If none has been paid or is to be paid, indicate "None."  
RFQ for JNCIT Phase-1B

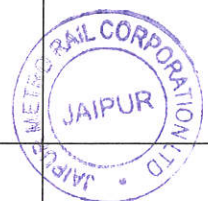
**SECTION- 3: PRICE PROPOSAL****Schedules of Rates and Prices:****Supply, Installation and Other Services (e.g. testing)**

Item	Description	Quantity	Unit Price <sup>a</sup>	Total Price <sup>a</sup>	GST	Grand Total
			In INR	In INR		
1	2	3	4	5	6	7=(5)+(6)
1	Supply, Installation, Testing & Commissioning of PC Workstation (i-5 Processor, 4 GB RAM, 1 TB HDD, 19.5" Monitor, OS Win-10 Pro, with 01 years warranty).	2				
2	Supply, Installation, Testing & Commissioning of Printer Workstation (A4 Laserjet black and white printer without LAN having 01- year warranty).	2				
3	Supply, Installation, Testing & Commissioning of Cat-6 UTP cable with fire retardant low smoke zero halogen material (mtr) of make schneider/ molex/Digisole or similar.	4000				
4	Supply, Installation, Testing & Commissioning of Cat-6 I/O Jacks of make D-link or similar.	24				
5	Supply, Installation, Testing & Commissioning of Cat-6 Face plate with Dual IO slot with shutter of make D-link or similar.	12				
6	Supply, Installation, Testing & Commissioning of Cat-6 Mounting	10				





	cords (4ft).					
7	Supply, Installation, Testing & Commissioning of Cat-6 Mounting cords (7ft).	10				
8	Supply, Installation, Testing & Commissioning of Cat-6 Jack panel 24 port with fully loaded I/O Jacks.	2				
9	Supply, Installation, Testing & Commissioning of Cable manager.	2				
10	Supply, Installation, Testing & Commissioning of 9 U rack with Front Glass Door Lock & Key, Hardware Pkt., Power Manager, Fan Assembly (2) & Cable Manager(HCL/Rittal/AWP/President or equivalent).	2				
11	Supply, Installation, Testing & Commissioning of Gang box for I/O.	12				
12	Penta Scanning of I/O Points.	24				
13	Supply, Installation, testing & commissioning of 25mm dia flexible conduit/for cat-6 cable(per mtr).	200				
14	Supply, Installation, Testing & Commissioning of 8 port switch with additional 2 WAN Port with provision of 1 spares 8 port switch.	3				
15	Installation of GI conduit with accessories (GI Pipe to be supplied by JMRC) (meters).	30				
16	Application Engineering, Documentation & Project Management.	LS				



17	Interface Application Engineering and design with designated Telecom, DDC, civil Contractor of Station, etc.	LS				
18	As built drawings (2 sets).	LS				
<b>TOTAL Grand Summary</b>						

- a. Column 4,5 Prices shall be inclusive of insurance, freight and all taxes & duties as applicable as per Condition of Contract, Clause 8 Section 6 except GST. GST applicable as per Condition of Contract, Clause 8 Section 6 shall be indicated separately in column 6.***
- b. The quantity mentioned in the BOQ is reference quantity for evaluation purpose and the payment shall be done as per the actual usage during execution.***

Name of Agency

Signature of Agency





## **SECTION-4: Terms of Reference (ToR)**

### **1. INTRODUCTION**

#### **1.1. General**

1.1.1. This Chapter specifies the particular requirements of the Local Area Network System for Phase 1-B, JMRTS.

### **2. SCOPE OF THE WORKS**

#### **2.1. General Requirements**

2.1.1. The specific requirements on the scope of Works for the LAN system shall be as specified below.

#### **2.2. Scope of Supply and Work**

- a. Supply, Installation, Testing & Commissioning of Active & Passive Components of LAN for two underground stations of Phase 1-B of JMRTS as per Section 4
- b. Integration of Phase 1-B LAN with existing LAN network of Phase 1-A. This includes updation and reconfiguration of OCC IT/LAN switches, Firewall and other equipment including any licenses therein.
- c. Transportation, Handling and Storage of the material;
- d. User's Certificates , OEM's Reports and Test Reports as per specifications;
- e. Interface management as specified in the Particular Specification;
- f. Preparation and submission of documentation including ,test plans, as-built drawings, manuals, specifications etc.
- g. Any other service needed to provide a complete LAN system in Phase 1B network.

### **3. Technical Specification**

The function of the backbone wiring shall be to provide interconnections between telecommunications closets, equipment rooms and entrance facilities in the telecommunications wiring system. The backbone wiring shall consist of the transmission media, intermediate and main cross connects, and mechanical terminations for interconnection of telecommunications closets, equipment rooms and entrance facilities. The backbone wiring shall include transmission media in the building.

The backbone wiring shall use the star topology wherein each telecommunications closet shall be wired to a main cross connect/patch panel or an intermediate cross connect then to a main cross-connects/



patch panel. There shall be no more than two hierarchical levels of cross connects/patch panel in the backbone wiring. Interconnections between any two telecommunications closet shall pass through three or fewer cross-connects/patch panel.

Bridged taps shall not be permitted as part of the backbone wiring.

The contractor has to assure that cross talk coupling between individual, unshielded twisted-pairs shall not affect the transmission performance of multi-pair cables.

### **3.1 Cables & Cabling system**

- 3.1.1 This specification covers the design and construction requirements for low smoke, zero halogen cables for cabling system for data & Power Cables.
- 3.1.2 Cables shall comply with the latest version of the relevant requirements of British Standards, IEC standard, ASTM standards, ITU recommendations or equivalent international standards.
- 3.1.3 All cables shall have continuous operating life of at least 25 years.
- 3.1.4 The Employer's Representative shall have free access to the works of the manufacturer and to be present at all reasonable times and shall be given facilities by the manufacturer to inspect the manufacturing of the cables at any stage of manufacture. He shall have the right to reject in whole or part of any work or material that does not conform to the terms of this specification or and may order the same to be removed/ replaced or altered at the expense of the manufacturer.
- 3.1.5 The Contractor shall satisfy the Employer's Representative by producing certificate from a recognized testing laboratory or otherwise that the materials used and the cable itself is of the highest possible standards and complies with all relevant specifications. In case of no relevant test certificates being available tests shall be carried out by the Contractor (manufacturer) as those laid down with relevant specification but this shall not preclude any test desired by the Employer's Representative to determine the quality of the cable.
- 3.1.6 All terminations to I/O jack, LIU, MDF & Cat 6 Jack panel shall be done by contractor.
- 3.1.7 Proper numbering/feruling at each termination on either side of Cat 6 IO, LIU, MDF & jack Panel etc. shall be done by contractor.

### **3.2 Fire and Smoke Performance Requirements**

- 3.2.1 General





- 3.2.1.1 It is essential that hazardous conditions arising from overheating or ignition of cables especially in the underground areas are avoided.
- 3.2.1.2 The cables shall be manufactured from fire retardant/ resistant, low smoke, zero halogen materials.(FRLSOH)
- 3.2.1.3 The cables for installation in this section shall be manufactured as per Indian Railways RDSO/TEC specifications, wherever available in TEC/RDSO specifications for a particular cable type. Wherein the RDSO/TEC specifications are not available then the specifications as laid down herein shall be complied with.
- 3.2.1.4 The requirements described herein below shall meet the anti-termite, pest resistant properties as far as possible and mechanical & electrical properties of the cables both during and after installation to meet the other requirements of the specifications.
- 3.2.1.5 All insulation shall be moisture and heat resistant, with temperature ratings appropriate to the application conditions and in no case lower than 60 degree C.(except Data)

### 3.2.2 **Flammability**

- 3.2.2.1 The bedding and over sheath of the cable shall have a minimum oxygen index of 30 when tested in accordance with ASTM D2863/BS 2782: Part 1: Method 141 /NES 715.
- 3.2.2.2 The temperature index of the bedding and over sheath of the cable shall not be less than 250 ° C when tested in accordance with ASTM D2863/ BS 2782: Pat 1: Method 143/ NES 715.

### 3.2.3 **Fire Resistance**

- 3.2.3.1 Unless otherwise specified for the fire resistant requirements, all cables shall comply with reduced fire and flame propagation requirements of IEC 60332-1 & 60332-3 Cat C for single and bunched cables respectively.

### 3.2.4 **Corrosive and Acid Gas Emission**

The level of hydrochloric acid of the fire retardant low smoke, zero halogen compound (filler bedding , over sheath , etc.) and the insulation of the cable shall not be greater than 0.5% when tested in accordance with BS 6425/IEC 60754: Part 1. In the case of fire retardant, low smoke, low halogen compound (filler bedding over sheath etc.) and the insulation of the cables, the level of the hydrochloric acid shall not exceed 20%. Corrosion and acid gases are defined as those, which are determined as hydrochloric acid.



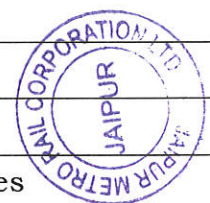
### 3.2.5 **Smoke Emission**

The value of the smoke generated shall meet the requirements of transmittance  $\geq 40\%$  as per IEC 1034/BS 6724).



**3.3** The Switch 8 port (without SFP) shall confirm to the following specifications:

<b>Sr. No.</b>	<b>Specification</b>
1	Architecture
1.1	8 RJ-45 autosensing 10/100/1000 ports with 2 dual-personality ports
1.2	1 RJ-45 (serial RS-232C)
1.3	Shall have 128 MB flash and 256 MB DRAM
2	Resiliency
2.1	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol
2.2	IEEE 802.3ad Link Aggregation Control Protocol (LACP) up to eight links (ports) per group
3	Layer 2 Features
3.1	MAC address table size of 8000 entries
3.2	Shall support VLANs
3.3	Internet Group Management Protocol (IGMP)
3.4	Multicast Listener Discovery (MLD) snooping
3.5	IEEE 802.1AB Link Layer Discovery Protocol (LLDP) and LLDP-MED (Media Endpoint Discovery)
3.6	IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6
4	QoS and Security Features
4.1	Access Control Lists for traffic filtering
4.2	Source-port filtering or equivalent feature to allow only specified port to communicate with each other
5	Management Features
5.1	Configuration through the CLI, console, Telnet, SSH and browser-based management GUI (SSL)management GUI (SSL)
5.2	SNMPv1, v2, and v3 and Remote monitoring (RMON) support
5.3	Flow (RFC 3176) or equivalent for traffic analysis
5.4	TFTP and Secure FTP support
5.5	Dual flash images to provide independent primary and secondary operating system files.
5.6	Multiple configuration files to allow multiple configuration files to be stored to a flash image
5.7	RADIUS/TACASC for switch security access administration
5.8	Simple network time protocol(SNTP) or equivalent support
5.9	Shall support single IP address management up to 16 switches
6	Environmental Features
6.1	Shall support IEEE 802.3az Energy-efficient Ethernet (EEE) to reduce power consumption



7	Warranty and Support
7.1	2 years onsite comprehensive

### 3.4 The UTP Cabling shall confirm to the following specifications:

Sr No.	Details	Specification
1	Type	Unshielded twisted pair cabling system, Certificate by Intertek (ETL) for the 4-Connectors channel testing to the Cat 6 Cabling system as per the ANSI/TIA 568 C.2 & as well as the ISO 11801 standards up to 250 MHz.
2	Networks Supported	10 / 100/1000 Ethernet, 155 Mbps ATM, 1000 Mbps IEEE 802.3ab Ethernet, and proposed Cat 6 Gigabit Ethernet
3	TIA / EIA 568 C.2	ETL Verified / UL Listed
5	Performance characteristics	(a) Attenuation, Pair-to-pair and PS NEXT, ELNEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel
		(b) Should perform to CAT6 with short channel
		(c) 4-Connectors channel testing to the Cat 6 Cabling system as per the ANSI/TIA 568 C.2 & as well as the ISO 11801 standards up to 250 MHz.
		(d) CAT6 cabling system should be tested and verified by the Independent third party laboratories for Zero BER (Bit Error Rate) testing at the data transmission speed of 1 Gbit/s.

### 3.5 Faceplate shall confirm to the following specifications:

Sr No.	Details	Specification
1	Type	Single Gang, AS
2	Material	ABS / UL94 V-0
3	No. of ports	Two
4	Shutter	
5	Spring of Shutter	Steel, Stainless
6	Holder, Jack	ABS UL 94V-0
7	Cover Label	Acrylic UL94V-0
8	ROHS Compliance	ROHS/ELV Complaint

## 4. Warranty Support

The warranty shall be provided by the OEM vendor to Owner and shall be administered in India. The duration of the warranty shall be for a minimum of 01 year from OEM and shall cover the system performance, application assurance and the costs of the supply of components and installation.



## 5. INTERFACE

### 5.1 Interface with Civil

- 5.1.1 The LAN System Contractor shall co-ordinate with the Designated Contractors for the access of rooms with suitable conditions to install the LAN System equipment and clearance of path in station building for carrying the material.
- 5.1.2 The LAN System Contractor shall review the Combined Services Drawings (CSD) and ensure that all information required by him is incorporated in these drawings. The Contractor shall review the details of these works and notify the designated contractors and Employer of any amendments required or omissions therein.

### 5.2 Interface with Fibre Optic Transmission System (FOTS)

- 5.2.1 JP/JS14(1B) Contractor and LAN System Contractor will jointly develop the Channelling Plan(s) covering the requirements of their respective systems. LAN System Contractor shall convey its channel requirements to FOTS Contractor. This jointly agreed Channelling Plan(s) shall be submitted for review of Employer's Representative.
- 5.2.2 JP/JS14 (1B) Contractor will provide Channels/Fibres as per reviewed Channelling Plan(s) for LAN System Contractor. The physical interface point shall be Main Distribution Frame/Digital Distribution Frame/Patch panel. Necessary protection as per provisions of JP/JS14(1B) Work against Transient/Surge/Lightening etc. shall be provided by LAN System Contractor, at his end.
- 5.2.3 JP/JS14(1B) Contractor and LAN System Contractor(s) will jointly test the Channels/Fibres as per reviewed Channelling Plan(s). Joint Test Report shall be submitted for review of Employer's Representative.

### 5.3 Interface with UPS Supply Contractor

- 5.3.1 3 Phase 415 V AC Power Supply from UPS to meet the requirement of Signalling, Telecom, IT and AFC Contractors shall be provided by JP/JS14(1B) at an AC Distribution Board in UPS (S&T) room. The interface will be through MCBs in AC Distribution Board (to be provided by JP/JS14(1B)). JP/JS14(1B) shall extend AC Power Supply from their ACDB in UPS (S&T) room to TER and install AC Distribution Board in TER to meet the AC Power requirements of Telecom/IT equipment. The interface will be through MCBs in AC Distribution Board (to be provided by JP/JS14(1B) Contractor). LAN system Contractor will inform the UPS Contractor of its location-wise (at OCC and stations) AC power requirement in TER. Further cabling from ACDB in TER upto the IT/LAN system shall be done by LAN system Contractor.



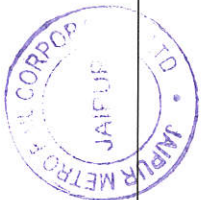


**SECTION- 5: CONDITIONS OF WORK (CC)**

1.	<p><b>Definitions</b></p> <p><b>The Employer is:</b> Jaipur Metro Rail Corporation (JMRC) and its legal successors or permitted assigns.</p> <p><b>The Project Manager is:</b> Authorized Officer of DMRC</p> <p><b>The Bank is :</b> Asian Development Bank</p>
2.	<p><b>Law and Language</b></p> <p>The Work shall be interpreted in accordance with the laws of Republic of India</p>
	The ruling language is English
	The language for communication is English
3.	The material used in this Work will first be inspected and verified by the Engineer-in-Charge or personnel deputed by Engineer in-charge of JMRC.
4.	<p><b>Scope of Facilities</b></p> <p>No storage facility for materials at site will be provided by JMRC. Material shall be installed / commissioning directly at stations other than spares.</p>
5.	<p><b>Time for Commencement</b></p> <p>The Contractor shall commence work on the Facilities</p> <p>The Contractor shall not commence the construction, manufacture or installation of the Works or of any part of the Works unless and until the Project Manager has endorsed the relevant Working Drawings in accordance with the Employer's Requirements.</p>
6.	<p><b>Time for Completion</b></p> <p>Completion period of work shall be within 2 months from Notice to proceed.</p> <p>Note: Tentative date for Notice to Proceed is 4<sup>th</sup> week of February 2020 &amp; ROD is March 2020.</p>
7.	<p><b>Access Route</b></p> <p>All operations for the execution of the Works shall be carried out so as not to interfere unnecessarily with the convenience of the public or the access to public or private roads or footpaths or properties owned by the Employer or by any other person.</p> <p>The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any incidents relating with the contract.</p> <p>If during the execution of the Works the Contractor shall receive any claim arising out of the execution of the Works in respect of damage, he shall immediately report the facts to the Engineer. The Contractor shall negotiate a settlement in respect of such claims and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses in relation thereto.</p>

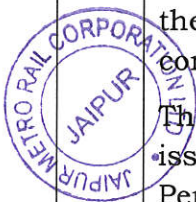


8.	<p><b>Contract Price</b></p> <p>The Contract Price shall be specified as per NTP.</p> <p>The rates and prices quoted in the Price Proposal shall be quoted in Indian Rupees.</p> <p>The Agency is required to note the following while quoting his prices:</p> <p><b>A. Bid Evaluation:-</b></p> <ol style="list-style-type: none"> <li>1. The Agencies shall quote as per Price Schedule inclusive of taxes, levies, duties, cess, freight, insurance and all other incidental charges except GST including statutory deduction viz., TDS towards income Tax/GST etc..</li> </ol>
	No price escalation shall be provided.
9.	<p><b>Design and Engineering</b></p> <p><b>Submission of Documents</b></p> <p>The Contractor shall submit drawings and documents, as required by the Contract, to the Engineer in accordance with any submittal schedule agreed with the Engineer. This submittal shall be made sufficiently before the Works are to be carried out to give the Engineer and the Employer reasonable time to examine the drawings or other documents, to prepare comments and for any changes to be accommodated by the Contractor.</p> <p>Where the consent of the Engineer is required, the Engineer shall notify the Contractor in writing of his decision either within such period as may expressly be stipulated in the Contract or otherwise within a reasonable time.</p> <p>If the Engineer has reasonable cause for being dissatisfied with the proposals set out in the Contractor's drawings or documents, the Engineer shall, within a period of one week from the date of submittal, require the Contractor in writing to make such amendments thereto as the Engineer may consider necessary. The Contractor shall make and be bound by such amendments at no additional expense to the Employer and shall resubmit the amended drawings or documents for Engineer's consent.</p> <p>Within 14 days of notification of the Engineer's consent the Contractor shall provide the Engineer with the type and number of sets of the relevant drawings or documents as stipulated in the Employer's Requirement. Should it be found at any time after notification of consent that the relevant drawings or documents do not comply with the Contract or do not agree with drawings or documents in relation to which the Engineer has previously notified his consent, the Contractor shall, at his own expense, make such alterations or additions as, in the opinion of the Engineer, are necessary to remedy such non-compliance or non-agreement and shall submit all such varied or amended drawings or documents for the consent of the Engineer.</p> <p>No examination by the Engineer of the drawings or documents submitted by the Contractor, nor any consent of the Engineer in relation to the same, with or without amendment, shall absolve the Contractor from any of his obligations under the Contract or any liability for or arising from such drawings or documents.</p>





10.	<p><b>Safety Precautions</b></p> <p><b>The obligations and requirements for safety and industrial health under this Contract are entirely without prejudice to, and do not derogate from, the Contractor's statutory obligations, with respect to safety and industrial health.</b></p>
11.	<p><b>Site Regulations and Safety</b></p> <p>The Contractor shall take all measures necessary to ensure such security, including exercising control over all persons and vehicles which are employed or engaged on the Site or in connection with the Works or the other works comprising the Project and with the security arrangements applicable to any other site within the Project.</p> <p>The Contractor shall arrange the issue of passes for the admission of all persons and vehicles to the Site or to any part thereof and may refuse admission to or remove from the Site any person or vehicle failing to show an appropriate pass on demand to any duly authorised person. If required by the Engineer/ Project Manager, the Contractor shall submit a list identifying all persons to whom passes have been issued together with two photographs of each person and all entities to which a pass has been issued in respect of any vehicle and shall satisfy the Project Manager of the bonafides of any such person or entity.</p> <p>The Contractor shall not, without the written permission of the Engineer / Project Manager or otherwise in accordance with the Contract, allow access to the Site to any person unless the presence on Site of such person is necessary in connection with the execution of the Works or with the discharge of the duties of any relevant authority.</p>
12.	<p><b>Completion of the Facilities</b></p> <p>The Works shall be taken over by the Employer when the same have been completed in accordance with the Contract, have passed the Tests on Completion, including Integrated Testing and Commissioning where ever applicable as per the contract, and a Completion Certificate/ Taking Over Certificate for the Works shall be issued.</p> <p>The contractor shall be responsible for care and custody of the works including risk of loss or damage thereto before works are taken over by employer with issuance of Taking Over Certificate.</p> <p>The Contractor may apply by notice to the Engineer / Project Manager for a Completion Certificate/ Taking Over Certificate not earlier than 14 days before the works or section (as the case may be) will, in the Contractor's opinion, be complete and ready for taking over.</p> <p>The Engineer / Project Manager may, at the sole discretion of the Employer issue a Completion Certificate/ Taking Over Certificate for any part of the Permanent Works by following the procedure stipulated in this CC clause if:</p> <p>(a) The Employer uses that part of the Works for revenue service before the Completion Certificate/ Taking Over Certificate is issued for the entire work.</p> <p>(b) The balance part is not completed not due to the fault of the contractor and contractual date of completion for the completed part is over.</p>





13.	<p><b>Commissioning and Operational Acceptance</b></p> <p>The contractor shall obtain clearance of satisfactory commissioning of the above work from the engineer in charge.</p>
14.	<p><b>Change in Laws and Regulations</b></p> <p>Any new taxes/duties or any statutory variation in the existing taxes/duties applicable to the JMRC project during the contractual completion shall be to the employers account i.e. reduction is to be passed on to the employer and increase to be reimbursed by the employer, The contractor shall furnish the documentary evidence in support of their claims for reimbursement from JMRC. However, any increase in cost due to new taxes/duties or any statutory variation in the existing taxes/duties applicable to the JMRC project during extended contractual period due to contractors fault shall be to contractor account, whereas any decrease in the taxes /duties shall be employers account.</p>
15.	<p><b>Extension of Time for Completion</b></p> <p>Time is the essence of RFQ and will remain so at all times during the pendency of the RFQ including the extended period of RFQ. The Contractor shall ensure defect free completion and have passed the tests on the completion, including integrated testing where ever in the scope of work and commissioning of the whole of the Works and/or parts thereof before the same is taken over by the Employer.</p> <p>In case of delay on the part of the Contractor, the Contractor shall be liable to pay liquidated damages and any other compensation for the damages suffered by the Employer as per relevant clause. This is without prejudice to the right of the Employer to rescind the Contract.</p> <p>Failure or delay by the Employer or the Project Manager, to hand over to the Contractor the Site necessary for execution of Works, or any part of the Works, or to give necessary notice to commence the Works, or to provide necessary Drawings or instructions or clarifications or to supply any material, plant or machinery, which under the Contract, is the responsibility of the Employer, shall in no way affect or vitiate the Contract or alter the character thereof; or entitle the Contractor to damages or compensation thereof but in any such case, the Project Manager shall extend the time period for the completion of the Contract, as in his opinion is / are reasonable.</p> <p>The Contractor shall not be entitled to any extension of time where the instructions or acts of the Employer or the Project Manager are necessitated by or intended to cure any default of or breach of Contract by the Contractor or where any delay is due to</p> <ol style="list-style-type: none"> <li>the failure of sub-contractor, to commence or to carry out work in due time,</li> <li>non-availability, or shortage of Contractor's equipment, labour, utility services, Plant and Materials,</li> <li>inclement weather conditions, and</li> <li>the Contractor not fulfilling his obligations under contract.</li> </ol> <p>The Project Manager shall proceed in consultation with the Contractor and the Employer in an endeavour to reach agreement or determine either prospectively or retrospectively such extension of the Time for Completion as may be due. If agreement is not achieved, the Project Manager shall determine the matter fairly, reasonably and in accordance with the Contract, with the approval of</p>



	<p>Employer. The Project Manager shall notify the Contractor accordingly.</p> <p>The Contractor shall not be entitled to an extension of time by reason of any delay to any activity in the carrying out of the Works unless in the opinion of the Project Manager such delay results in or may be expected to result in a delay to completion of the Works, Date. Whether or not the Contractor fails to achieve any Milestone by reason of any delay shall not by itself be material to the Contractor's entitlement to an extension of time.</p>
16.	<p><b>Interface Requirement</b></p> <p>The contractor shall be responsible to interface with the other contractors. JMRC will supervise/facilitate the coordination between the contractor and other designated contractors. However, the contractor will allow for liaison with, and modifications to his design to cater for the work of such other contractors. The list of interface items is indicative only and the ultimate responsibility of commissioning lies with the contractor.</p>
17.	<p><b>As Built Record</b></p> <p>The Contractor shall prepare, and keep up-to-date, a complete set of "as-built records of the execution of the works, showing the exact "as-built" locations, sizes and details of the works as executed, with cross reference to relevant specifications and data sheets. These records shall be kept on the Site and shall be used exclusively for the purpose of this sub-clause. Two copies shall be submitted to the Project Manager prior to the CMRS inspection of the section.</p> <p>The Contractor shall prepare and submit to the Project Manager "as Built drawings" of the works, showing all works as executed. The drawing shall be prepared as the works proceed and shall be submitted to the Project Manager for his inspection. The Contractor shall obtain the consent of the Project Manager as to their size, the referencing system and other pertinent details.</p> <p>Prior to the issue of any Completion Certificate, the Contractor shall submit to the Project Manager/ Employer one electronic copy, one full-size original copy and two printed copies of the relevant "as-built drawing", two copies of O&amp;M manuals(if applicable) and any further construction and/or Manufacture Documents specified in the Employers Requirements. The works shall not be considered to be completed for the purpose of Taking Over under Sub- Clause 19 until such documents have been submitted to the Project Manager.</p>
18.	<p><b>Terms and Procedures of Payment</b></p> <p><b>Payment Schedule</b></p> <ol style="list-style-type: none"> <li>The Contractor shall be paid for the works at the rates in the accepted schedule of rates for the quantity as per the actual usage during execution.</li> <li>The Engineer shall, on submission of running bill/s duly supported with certified measurements and other submittals as required, certify on account payments to the Contractor in respect of the value of the Work executed including any materials and goods on site for the purposes of the Work. All payments due on the Engineer or his Representative's certificates shall be subject to applicable adjustment for previous payments already made.</li> <li>In case a false claim is made by the Contractors in any of his bill, a penalty of amount equal to ten times of false claim shall be deducted from the</li> </ol>



correct amount due on the bill under dispute. Penalty under this clause can be deducted or adjusted at any time whenever any false claim/s are detected, if any without prejudice to any other claims provided for in this contract.
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### **'On -Account' Payment**

The Contractor shall be entitled to be paid on his on account running bills from time to time by way of on account payments only for all such works as in the opinion of the Engineer he has executed in terms of the contract. "On-account" payments made to the contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the measurements as 'Final Measurements' and as such have been signed by the contractor) and shall in no respect be considered, used as evidence of any facts stated in or to be inferred from accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.

### **Rounding off amounts.**

The total amount due on each certificate shall be rounded off to shall be reckoned as one Rupee.

### **Manner of Payments**

Unless otherwise specified, payment to the Contractor will be made by cheque/ epayment.

### **Final Payment:**

1. Provided the contractor shall have supplied the final measurements and all documentation reasonably necessary for the computation of the amount to be certified, the Engineer shall accept the final bill from the contractor and then proceed with its certification.
2. The Engineer shall pass the Certificate on the final bill certifying the total amount due to the Contractor and such sum of the final certificate will be payable to the Contractor by Company less amounts already paid.
3. On the Engineer's certificate in respect of the final bill of works an adjustment shall be made and the balance of account based on the Engineer's certified final measurements of the total quantity of works executed by the contractor upto the date of completion and on the accepted schedule of rates.

