

SBI INFRA MANAGEMENT SOLUTIONS PVT.LTD. STATE BANK OF INDIA, CIRCLE OFFICE KOLKATA, SAMBRIDDHI BHAWAN, 1, STRAND ROAD, KOLKATA-700001

SBIIMS INVITE TENDERS ON BEHALF OF SBI

For

AIR CONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH

Part 1. Technical Bid

Manufacturers/OEM/Authorized dealers of reputed brands only eligible to apply

(To submit dealership certificate as a proof-THE DEALERSHIP SHOULD BE FOR VRF/VRV SYSTEM)

<u>LETTER OF AUTHORISATION FROM MANUFACTURER TO PARTICIPATE IN THIS TENDER SHOULD BE ENCLOSED.</u>

BIDDERS ARE REQUESTED TO SUBMIT ALL RELEVENT DOCUMENTS MENTIONED IN THE TECHNICAL BID. NO FURTHER QUERIES WILL BE ENTERTAINED FOR SUBMISSION OF DOCUMENTS. INSUFFICIENT DOCUMENTS ALONGWITH THE TENDER WILL LEAD TO DISQUALIFICATION OF THE BIDDER



SBI INFRA MANAGEMENT SOLUTIONS PVT.LTD. STATE BANK OF INDIA, CIRCLE OFFICE KOLKATA, SAMBRIDDHI BHAWAN, 1, STRAND ROAD, KOLKATA- 700001

E-TENDER NOTICE

Date: 06.06.2020

Tender No. KOL202006002

SBIIMS invites online tenders in two bid system followed by e-reverse Auction from the Manufacturers/OEM/authorized dealers of reputed Brands of VRV/VRF Air conditioning for Air Conditioning Works of State Bank of India SME EXIM BRANCH through System Portal https://www.tenderwizard.com/SBIETENDER. Details of tenders are as under:

1	Name of the work	E-TENDER NOTICE FOR AIRCONDITIONING WORKS OF STATE BANK INDIA SME EXIM			
2	Cost of application/ tender document.				
3	Date and Time where tender forms are available for sale. Details of web site:	UP TO 14:00Hrs 20.06.2020 Web site details: "www.sbi.co.in" or SBI e-tender portal www.tenderwizard.com/SBIETENDER			
4	Time and last date of Submission of Tender	Ûp to 15:00Hrs 20.06.2020			
5	Place & Address for submission of tender/ contact person/telephone no/ e-mail add.	20.06.2020, 15:00Hrs The tender must be submitted to THROUGH E-TENDERING PROCESS at M/s Antares Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: - #24, Sudha Complex, 3rd Stage, 4th Block, Bangalore – 560079. Ph: - 080-49352000 / 40482000 Fax: - 080-49352034			

Contact Person: Mr. Kushal Bose / Mr. Tousik Mobile no. 07686913157 / 09674758724 (On vidays-9 hours—18 hours) e-mail: kushal.b@antaressystems.com / tousik.g@antaressystems.com / tousik.g@antaressystems.com / tousik.g@antaressystems.com / tousik.g@antaressystems.com / tousik.g@antaressystems.com / tousik.g@antaressystems.com / thenders (Technical Bid) Date, Time and Place of opening of tenders (Technical Bid) Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER, Registered Office at: -#24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Phicology Systems Limited (https://www.tenderwizard.com/SBIETENDER, Registered Office at: -#24, Sudha	Ghosh
M/s Antares Systems Limited (https://www.tenderwizard.com/SBIETENDER) Registered Office at: - #24, Sudha Complex, 3rd Stage, 4th Block, Bangalore - 560079. Ph: - 080-49352000 / 40482000 Fax: - 080-49352034 Contact Person: Mr. Kushal Bose / Mr. Tousik Mobile no. 07686913157 / 09674758724 (On v days-9 hours—18 hours) e-mail: kushal.b@antaressystems.com / tousik.g@antaressystems.com Mill be intimated later. Only technically qua bidders will be allowed to participate in aud process Rs. 17,000.00/- (Rupees Seventeen Thousand only (Valid for a period of 90 Days from the last submission of the tender) from any scheduled alized Bank drawn in favour of State Ban Management Solutions Pvt. Ltd. payat Kolkata should submit at the office of Vice President & Circle Head SBI Infra Management Solutions Pvt. Ltd. Circle Office Kolkata, D Block, 9 th Floor, Sambriddhi Bhawan,	Ghosh
Mobile no. 07686913157 / 09674758724 (On vidays-9 hours—18 hours) e-mail: kushal.b@antaressystems.com / tousik.g@antaressystems.com Date, Time for conducting e-reverse Auction Button Guantum of Earnest Money Deposit (EMD) Runder Money Deposit (Valid for a period of 90 Days from the last submission of the tender) from any scheduled alized Bank drawn in favour of State Bank Management Solutions Pvt. Ltd. payate Kolkata should submit at the office of Vice President & Circle Head SBI Infra Management Solutions Pvt. Ltd. Circle Office Kolkata, D Block, 9 th Floor, Sambriddhi Bhawan,	
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before the date of tender (Technical Bid) openin case the EMD is not received within the aforesai od, the bid will be out rightly rejected.	date of Nation- k Infra ole at
9 Quantum of Security Deposit As per tender Rs(percentage) drawn in favour ofpayable at	
10 (penalty clause)Liquidated As per tender Damaged	
11 Stipulated time for completion of the work/supply. 45 days	
12 Estimated Value of tender/project 17.0 Lakhs (Excluding GST)	
13 Validity period of the tender. 6 months	
14.aTaxesRates quoted should include IT other chargesTransportation etc.	
14.b Income tax Income tax deduction at source would be done	

		bank before releasing any payment to the contractor.
14.c	Goods &Services Tax	GST will be paid by the bank
15	Electronic Payment	Payment shall be made by way of Electronic fund transfer. Firm should furnish details of the bank, a/c no, IFSC code.
16	Any additional Information	
17	Defect Liability Period	12 months
	Release of Initial Security Deposit	After Satisfactory virtual completion and Certification
18		of Final Bill
19	Release of Retention Money	As per tender.

- The bank reserves the right to cancel or postpone the tenders at any stage without assigning any reason.
- Firm should have the dealership certificate for VRV/VRF units (Copy should be enclosed)
- Scanned Copy of the EMD must be uploaded along with Technical Bid failing which their tender stands rejected.
- Firm should to visit the website till last date of submission for changes/ corrigendum if any
- > TENDER DOCUMENTS FOUND PARTLY OR FULLY MODIFIED / ALTERED/ CORRECTED ETC SHALL STAND SUMMERILY REJECTED

NOTICE INVITING TENDER

M/S	 		
Dear Sir,			

E-TENDER FOLLOWED BY E-REVERSE AUCTION FOR AIRCONDITIONING WORKS OF STATE BANK INDIA SME EXIM BRANCH, KOLKATA

Online tenders followed by e-reverse auction are invited in Two bid system for Air Conditioning works of **STATE BANK OF INDIA SME EXIM BRANCH** from reputed Manufacturers/ OEM/ Authorized Dealers who are eligible to participate as per the pre-qualification criteria mentioned in the tender document.

- Submission of BIDS/ Tender Documents: The soft copy of technical bid tender documents duly signed and sealed should be submitted online with our service provider on the website at: "https://www.tenderwizard.com/SBIETENDER" The last date of online submission is: 20.06.2020 at 3:00PM.
- 2. The technical bid with the relevant information/ scanned copy of EMD / work completion certificates/ electrical license/ audited reports of turn over documents / acceptance of all terms and conditions strictly as described in this tender document will be submitted online through M/s Antares Systems Ltd., Bangalore, the out sourcing agency approved by the Bank for e-tendering on the website https://www.tenderwizard.com/SBIETENDER. Only firms qualified in technical bid will be allowed to submit the Price Bid to M/s Antares Systems Ltd. (Please refer page No 10 of 61 for list of documents to be uploaded).
- 3. The vendors will have to upload the duly signed and scanned tender document containing all the pages along with the scanned copy of EMD DD/ Banker's Cheque as part of technical bid. The tender document is not required to be sent to us in hardcopy.
- 4. The Technical Bid with relative documents must be submitted online latest by 20.06.2020 before 3:00PM. Please ensure that all the documents are attached while submitting the tender.
- 5. The firms are requested to note that they cannot make their online submission after the time stipulated above and no extension of time will be permitted for submission of tenders.
- 6. The bidders are requested to note that it is mandatory to have a valid digital certificate issued by any of the valid certifying authority approved by Govt. of India to participate to participate in the online bidding. The bidders are requested to ensure that they have the same, well

in advance or if any assistance is required for the purpose, you can contact our service provider (M/s Antares Systems Ltd., Bangalore.) at the under mentioned numbers:

Mr. Kushal Bose / Mr. Tousik Ghosh Mobile no. 07686913157 / 09674758724 (On working days-9 hours—18 hours) e-mail: kushal.b@antaressystems.com / tousik.g@antaressystems.com

- 7. OPENING OF BIDS: The technical bid/tender will be opened online on the same day i.e., on 20.06.2020 at 4.00 P.M. Any change in opening date and time will be notified by the Bank in advance. After opening of the Tender Bid through online procedure no clarification from the bidder will be entertained. After technical evaluation of the bids firms found to be eligible will be short listed and invited to participate in the Price Bid. Incomplete, unsigned pages, non-submission of required documents or evidence as specified by the Bank will be treated as non-compliance and the vendors' bid will be liable for rejection.
- 8. CANCELLATION OF TENDER: Bank reserves the right to cancel the tender at any time at its sole discretion without assigning any reason.
- 9. EARNEST MONEY DEPOSIT: The original DD/ Bankers' Cheque for **Rs. 17,000.00** should be drawn in favour of State Bank of India, payable at Kolkata and should be submitted to:

Vice President & Circle Head, SBIIMS Pvt. Ltd., Circle Office, Kolkata D Block, 9th Floor, Samriddhi Bhavan 1, Strand Road, Kolkata-700001

- 10. Soft copy of the EMD DD should be uploaded along with the technical bid documents. If the EMD of any bidder is not received by the Bank till the deadline i.e. 3.00 PM on 20.06.2020, the technical bids of the concerned bidder is liable to be rejected and they will not be allowed to participate in the price bid.
- 11. EMD will be converted to Initial Security Deposit, if the vendor is evaluated as L-1.Refund of the EMD will be made only on completion of the tender exercise. EMD/ Security Deposit will be forfeited in the event of firm withdrawing their bid after becoming L-1 and not accepting the purchase order.

12. COMPLYING WITH THE TECHNICAL BID TERMS:

Insufficient, incorrect or invalid information provided by the vendor or his representative, if any will disqualify the vendor and vendor's tender will not be considered valid. Bank reserves the right to disqualify the vendor without any notice in all such events.

13. VALIDITY OF OFFER: The offer should be valid for a period of Six (6) Months.

- 14. PERSONNEL: The vendor shall provide the necessary personnel to render the services in consideration of the payment of the charges, the personnel must have the requisite knowledge and experience. The Bank may at its discretion arrange verification of antecedents of the personnel.
- 15. The contractors should quote in figures as well as in the words the rates, and amount tenders by them. The amount for each item should be worked out and the requisite totals given. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates, figures and words. However, if a discrepancy is found the rates, which correspond with the amount worked out by the contractor shall be taken as correct. If the contractor does not work out the amount of an item or it does not correspondent with the rate written either in figure or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor will be taken as correct and not the amount.
- 16. Earnest money amounting to **Rs. 17,000/-** (**Rupees Seventeen Thousand only**) is to be deposited with the tender in the form of Demand Draft/ Banker's Cheque payable at Kolkata and drawn in favour of State Bank Infra Management Solutions Pvt. Ltd. otherwise the tender is liable for rejection.
- 17. The successful tender will have to pay as the amount of initial security deposit which shall be 2% of the accepted value of the tender including the EMD, by means of D.D in favor of State Bank of India, payable at Kolkata. The initial security deposit is to be paid by the Contractor to Bank within 14 days of intimation to him of the acceptance of the tender. The initial security deposit will be invested with the bank for the duration of the contract period and will be refunded to the contractor without any interest, after issue of the virtual completion certificate. No interest is allowed on the retention money.
- 18.The acceptance of a tender, will rest with the Competent Authority, who tender. and not bind himself to accept the lowest reserves to himself the authority to reject any or all the tenders received, without assigning any All tenders in which any of the prescribed conditions are not fulfilled, or are incomplete in any respect are liable to be rejected.
- 19. All compensation or other sums of money payable by the Contractor to our Clients under the terms of this contract may be deducted from the security Deposit, or from any sum that may be or may become due to the Contractor on any account whatsoever and in the event of the Security Deposit being reduced by reasons of any such deductions, the Contractor shall within 15 days of being asked to do make good in cash or by cheque any sum which have been deducted from his security deposit.
- 20. Tender containing any condition leading to unknown/ indefinite liability, are liable to be summarily rejected.

If at all any rebate(s) is/are to be offered the tenderer shall first quote his rates strictly on the terms and conditions stipulated in tender document and then show separately and rebate(s) offered specifying the conditions for such rebate(s). Failure to follow this procedure will render the tender liable to summarily rejection.

- 21. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 22. The tenderer should quote their (own) rates for undertaking the work.
- 23. All taxes including Sales Tax or any other tax on material or on finished works like work's contract tax, turn over tax etc. in respect of this contract shall be payable by contractor and the Bank will not entertain any claim whatsoever in this respect.
- 24. Time is the essence of the contract. The work should be completed in one month from the date of the work order issued to the contractor to commence Contractor CPM/PERT The successful will have to give gets completed various activities of work to be done so that the work the stipulated time. The chart shall be submitted within 15 days from the date of acceptance of the tender.
- 25. Tenders for works shall remain open for acceptance for a period of 120 days of opening of tenders. If the tenderer withdraws his tender the date before the expiry of the said period or makes any modifications in terms and condition of the tender which are not acceptable the then the bank to Bank. without prejudice to any other right or remedy be at liberty to forfeit earnest money.
- 26. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the competent authority in the Bank.
- 27. The tenderer, apart from being a competent contractor must associate himself with the agencies of appropriate class who are eligible to tender for (I) Electrical (ii) Sanitary and water supply installations (iii) interior furnishing works.
- 28. The tenderer should visit the site to ascertain the working conditions and local authority regulations/restrictions if any and other information required for the proper execution of the work.
- 29.The quantities of various items given in the schedule of approximate. The quantities of work may vary at time of allotment/execution omit/delete work. Bank reserves the right to any item(s) of work from schedule at the time of allotment/before the commencement of work without assigning any reason whatsoever. Contractor will be paid for the actual work done at the site duly verified by the concerned official of the Bank.
- 30. The unit price shall be deemed to be fixed price. In case of extra items, a paid of labor maintained and shall presented record charges shall be be regularly to the Employer's for checking. The settlement will be maid based on figures arrived at jointly price and taking unit in the contract assigned given Tenderer. successful case. items where the In of extra similar or comparable items are quoted in the tender, extra rates shall be based on tender rates.

- 31.If the rate quoted by the contractor for any item/ items are not workable or lower than the market rate. the bank mav demand guarantee from the contractor satisfactory completion of these for work. bank guarantee amount will be not less than 50% of the estimated amount which the rates are not workable or abnormally low. This bank guarantee will be released after completion of these works (unworkable abnormally low rated items) to the satisfaction of the bank.
- 32. No employee of the Bank is allowed to work as a Contractor for a period of 2 years of his/her retirement from Bank Services without previous permission of the Bank. This contract is liable to be cancelled, if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of Bank as aforesaid before submission of the tender or engagement in the contractor's service.
- 33. The EMD (in original) is to be addressed and sent to Vice President & Circle Head SBI Infra Management Solutions Pvt. Ltd., Circle Office Kolkata, D Block, 9th Floor, Samriddhi Bhawan, 1, Strand Road, Kolkata 700001
- 34. Estimated Cost Rs. 13.10 Lakhs

Vice President & Circle Head, SBIIMS Pvt. Ltd., Circle Office, Kolkata D Block, 9th Floor, Samriddhi Bhavan 1, Strand Road, Kolkata-700001

AIR CONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH, KOLKATA **ELIGIBILITY CRIETERIA**

ELIGIBILITY OF INTENDING APPLICANTS FOR QUALIFICATION IN PARTICIPATION IN THE TENDER

Firms of repute having executed projects as mentioned below need only apply.

Average annual financial turnover during the last 3 years ending 31st March 2019, should be at least Rs 6.0 lacs

And

Experience of having successfully completed similar works during the last 3 years ending 31-03-2020, should be either of the following:

a) THREE Similar works of each not less than 6.8 LAKHS.

OR

b) TWO Similar works of each not less than 8.5 LAKHS.

OR

c) ONE similar works not less than 12.6 LAKHS.

Similar work is defined as SUPPLY INSTALLATION TESTING AND COMMISSIONING OF VRV/VRF SYSTEM OF AIR CONDITIONING only.

WORK COMPLETION CERTIFICATES OF SIMILAR WORKS ONLY WILL BE CONSIDERED. WORK ORDERS WILL NOT BE ACCEPTED.

DOCUMENTS TO BE UPLOADED ALONG WITH THE TECHNICAL BID

- 1. Completion certificates of similar works i.e . VRV/VRF system
- 2. Annual Turnover for the last three years with supporting documents.
- 3. Registration of Company.
- 4. Registration under Labour Laws.
- 5. Sales Tax/works Contract Tax Registration Certificate, Service Tax, GST Registration Certificate (as applicable).
- 6. Copy of Dealership certificate for VRV/VRF system of AC.
- 7. Authorization Letter from the manufacturer.
- 8. Scanned Copy of EMD.
- 9. Scanned copy of technical bid consisting of Pages 1 to 09 duly filled and signed in all pages.
- 10. Technical data sheet of VRF/VRV system matching with specification of price bid.

Note: Annexure-I to V (given below) to be filled in before scanning/ Uploading.

Annexure-I

ANNUAL TURNOVERS FOR THE LAST THREE YEARS

S.No.	Year	Turnover from Electrical works (in lakhs)	Turnover from all other sources (in lakhs)	Remarks
1				
2				
_				
3				

1.	List your sources of finance
	Own resources
	Bank credit
	Other sources specify if any?
2.	Name and address of Bank from who reference can be obtained.
	Name:
	Address:

Note:

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- 1. Please attach certified/attested copies of the latest ITCC and/or Profit and Loss account statement to support the information furnished, failing which your firms will be summarily rejected.
- 2. In case of joint venture, the information is to be furnished by both the partners.
- 3. Please attach certified Certificate of financial Soundness by Bank of not less than six months from the date of advertisement.

Annexure-II

EXPERIENCE PROFILE

DETAILS OF ALL WORKS AND SIMILAR WORKS COMPLETED IN LAST SEVEN YEARS									
S.No.	Description of the work	Name and ad- dress of the Em- ployer	Contract No. and date.	Date of award of work	Stipulated date of completion	Actual date of completion	Value of completed work (in lakhs)	Reasons for delay	Penalty if any
1									
2									
3									
4									

Relevant certificates of having completed similar works issued by competent authority must be enclosed failing which your tender will be summarily rejected.

- 2. Tenderer must attach copies of the certificates issued by the Client / Employer.
- 3. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached

Annexure-III

RESOURCES PERSONNEL

DETAILS OF SKILLED AND TRANINED MANPOWER INCLUDING ENGINEERS AND TECHNICAL STAFF PRESENTLY EMPLOYED

S.No.	Name	Qualification	Designation	Total Experi- ence (in years)	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

Note:

1 in case of Joint venture, the information is to be furnished by both the partners.

Annexure-IV

DETAILS OF SAFETY APPLIANCES AND EQUIPMENT OWNED Description | Make | Model & Capacity Any other relevant Condition Nos. Re-**Proposed** S. Year of marks to be deinformation Ν Manufacployed ture 1 2 3 4

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N	Λt	Δ	•

1 In case of joint venture, the information is to be furnished by both the partners

Annexure-V

DETAILS OF ON GOING WORKS								
S.No.	Description of the work	Name and address of the Employ- er	Contract No. and date.	Date of award of work	Stipulated date of completion	Value of work as per order (in lakhs)	Value of work completed so far (in lakhs)	Remarks
1								
2								
3								
4								
5								

Note:

- 1. Please attach copies of the certificates issued by the Client.
- 2. Only those works shall be considered for evaluation for which copies of the certificates issued by the client are attached
- 3. In case of joint venture, the information is to be furnished by both the partners.

FORM OF SUBMISSION OF TENDER

(To be filled by the tenderer)

Vice President & Circle Head SBI Infra Management Solutions Pvt. Ltd. Circle Office Kolkata, D Block, 9th Floor, Sambriddhi Bhawan, 1, Strand Road, Kolkata – 700001

Dear Sir/s,

Ref: TENDER FOR AIRCONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH, KOLKATA

I / We the undersigned have carefully gone through and clearly understood after visiting the site, the Tender drawings and Tender documents comprising of the tender form, Notice of Contractors, Agreement and Conditions of building contract, Special Conditions, Specifications and Schedule of Probable Quantities prepared by your Engineer.

I / We do here by undertake to execute and complete the whole or part of the work (as desired by you) at the respective rates quoted.

In the event of this Tender being accepted I/We agree to enter into an agreement as and when required and executed the contract according to your form of Agreement, in default whereof, I / We do hereby bind myself / ourselves to forfeit the aforesaid deposit.

I / We further agree to complete the work included in the said Schedule of Quantities within days from the date of the work order issued to commence the same.

Date of commencement shall be either one week, from the date, the acceptance letter is issued to the contractor or the day on which the contractor is instructed to take possession of site whichever is letter.

I / We agree not to employ sub-contractors other than those that may be approved by Architects / Employer.

I / We agree to pay Government, Goods and Service Tax (State and Central), Excise and Octroi duties, for insurance and all other taxes including works contract tax,

I / We agree to pay Government, Goods and Service Tax (State and Central), Excise and Octroi duties, for insurance and all other taxes including works contract tax, turnover tax, VAT etc as prevailing foretime to time, on such items for whom same is to be levied, and the rates quoted by me / us are inclusive of the same.

AIR CONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH, KOLKATA Yours Faithfully, Contractor's Signature ______ Designation ______ Address ______ 1.

3.

General Notes

1. PROCEDURE OF FILLING AND SUBMISSION OF TENDER

- i) The tenderer should quote their rates in figures and words where the quantities have been indicated in the relevant items of the schedule of quantities, failures to do so may invalidate the tender. Erasing or over writing shall not be allowed. Corrections in the tender should be avoided if this becomes unavoidable, the entire rate (and not a portion only) shall be scored out and signed (not simply initiated) by the tenderer as token of such cancellation. A fresh rate in specified manner shall then be correctly written.
- ii) In the event of the tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so, and if called for, the legal documents in support thereof must be produced for inspection and the same in the case of the firm carried out by one member of a joint family. It must disclose that the firm is duly registered under the India Partnership Act. Any tender signed by a member not holding a power of attorney shall be treated as informal.
- iii) All corrections are to be initialed.
- iv) The tenderer is to quote the rate in ink both in words and figures in English. In case of any variation, the rates quoted in the words in the "Original" copy of the tender shall only be valid. The tender shall be clearly and legibly written and whole writing must be by the hand of the person signing the tender and with the same pen and ink. Failure to do so may invalidate the tender.

The employer reserves to itself the right to accept the lowest or any tender or split up and distribute any items of work to any specialist firm or firms without assigning any reason. The employer reserves the right to split up and distribute the work to more than one tenderer, if necessary. Person tendering shall submit and return together with his tender, this condition of contract, specifications and the priced schedule of quantities and all set of papers signed on all the pages in a sealed cover. Signature will be deemed to be the acceptance of the contents of these tender papers by the tenderer. All enclosures to the tender shall be in duplicate.

Tenderer shall note that their tenders shall remain open for acceptance for a minimum period of three months from the date of opening the tenders. The tender must be unconditional. Conditional tenders may be summarily rejected.

Submission of tenders:

The tenders are to be submitted along with the copy of "General Clause of Contract and Technical Specifications" duly signed by the tenderer in a sealed cover at the office as mentioned in the tender notice. The authorized representatives of tenderer with valid authorization letter will be allowed to present during opening of the tender.

2. RATES TO INCLUDE:

While quoting their rates the tenderer should include the following if otherwise not stated herein before.

- a) Necessary cost of taking samples of materials supplied by them for work including plywood, wood/tiles etc., testing of the same at Govt.'s / approved laboratory including transportation, cost of the samples, as and when required.
- b) Submission of test reports of other materials as may be specified by Architects or Bank's Engineer.

3. WORKING HOURS:

Since the site is a Working/ running branch, the Contractor has to execute the work after working hours, nights & on holidays. No extra payments will be made for the work being done during odd hours.

4. STORAGE OF MATERIALS:

The contractor shall not store their materials and debris within the premises other than the work site handed over to him.

5. LABOUR HUTMENT:

Shelter or stay and other amenities for the labors have to be arranged by the contractor at his own expense and responsibility.

6. IDLE LABOUR:

In case the work is held up for any site conditions not attributable to the contractors or for any decisions instructions / want of details from Employer / Architects or for any of the conditions, the contractor shall be allowed reasonable extension of time by the employer but any claim for idle labour shall not be entertained by the employer. Contractor's quoted rates should include for all such contingencies.

- 7. The contractor shall engage one competent person at site who shall take the instructions from the Employer. The work should not suffer due to lack of supervision, manpower and materials.
- 8. The Contractor is required to co-ordinate his works along with other agencies working at site. He has to reimburse any of the damage made by him or any of his representatives for any of the other agency or owner at site.
- 9. Making of any cut-out / opening for electrical wiring / fitting in any of false ceiling, partition, Paneling, masonry work etc., and providing panels of the same finish in partitions, paneling shall not be paid extra.
- 10. The contractor is required to fabricate a sample where required, or any item so installed for approval. Any changes made by the Architect/Employer, in the sample to the specifications as mentioned in the tender, shall not be deducted or paid extra. The bulk production of the furniture can only be taken up after the final approval of the sample of the item.

- 11. The partitions shall be so fixed that all joinery work is in plumb and true in line. The partition frame shall be firmly fixed to the floor and ceiling by using suitable wall plugs and screws.
- 12. The contractor shall check all dimensions before fabricating and fixing the partitions or any other items in position at site.
- 13. All measurements given in the schedule hereunder are for the purpose of tender only. Payment will be made on actual measurement of the work done.
- 14. All measurements shall be as per relevant I.S. standards.

GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the drawings, the work shall be carried out as per standard specifications and under the direction of Employer / Architect.

1. INTERPRETATION

In constructing these conditions, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

- i. **Employer**: The term employer shall denote **State Bank of India** with their Corporate office at Mumbai and any of its employee's representative authorized on their behalf.
- ii. **Architects / Consultants:** The term Architects shall mean the Architects appointed by the employer for the purpose of preparing detailed drawing, supervision etc. It is the Bank to decide whether to appoint Architect or not and to change the Architect at any stage of work.
- iii. **Contractor:** The term contractor shall mean ______ (Name and address of the contractor) and his / their heirs, legal representatives, assigns &successors.
- iv. **Site:** The site shall mean the site where the works are to be executed, i.e State Bank of India, SBI, SME EXIM Branch Kolkata including any building and erection thereon, allotted by the employer for the contractors use.
- v. **Site Engineer:** Any Engineer appointed from time to time by the Employer and certified in writing to the Architects and the Contractor, to be positioned at site to supervise the work.
- vi. **Drawings:** The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Employer or Architects during the execution of the work.

All drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer / Architects shall be given access to such drawings or schedule of quantities wherever necessary.

In case any detailed Drawings are necessary contractor shall prepare such detailed drawings and / or dimensional sketches therefore and have it confirmed by the Employer as case may be prior to taking up such work.

The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 10 days ahead from the time when it is required for implementation so that the Employer may be able to give decision thereon.

vii. "The Works" shall mean the work or works to be executed or done under this contract.

- viii. "Act of Insolvency" shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency act or any amending status.
- ix. "The Schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.
- x. "**Priced Schedule of Quantities**" shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.
- xi. "Contract" shall mean the Articles of Agreement, the general conditions special conditions, the appendix, the schedule of quantities, specifications and drawings attached here to and duly signed.
- xii. 'Contract Price' shall mean the sum named in the Tender subject to such additions thereto or deductions their form as may be made under the provisions hereafter contained.
- xiii. 'Notice in Writing' or written notice shall mean a notice in writing, type or printed characters sent (unless delivered personally or otherwise provided to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- xiv. 'Net Prices' any arriving at the Contract amount the Contractor shall have added to or deducted from the total of the items if the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the tender as the price of that item a similar percentage or proportionate sum. Providing always that in determining the percentage or proportion of the sum so added or deducted by the contractor, the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the Tender. The expression 'net rates' or 'net prices' when used with reference to the contract or account shall be hold to mean rates or prices so arrived at.
- xv. 'Virtual Completion' shall mean the premises is in the opinion of the Architect and Employer fit for occupation.
- xvi. Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice verse where the Context requires.

2. SCOPE OF CONTRACT

The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Architect and Employer. The Architect with approval of Employer or Employer issue further drawings and/or written instructions, detailed directions and explanations which hereafter collectively referred to as 'Instructions' in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and / or drawings and / or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and / or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any persons employed there upon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned and those arising during the maintenance period (Defect Liability Period).

The contractor shall forthwith comply with and duly execute any work comprised in such Employer's or his agent / Architect's instructions, provided always that verbal instructions, directions and explanations given to the contractor's or his representative upon the works by the Employer's or his agent / Architects shall, if involving a variation, be confirmed in writing to the contractor/s within seven days. No works, for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer. The employer as provided in clause "variation" shall fix rates of items not mentioned in the priced schedule of quantities.

Regarding all factory made products for which ISI marked products are available, only products bearing ISI marking shall be used in the work.

3. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site and make him thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport conditions, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc., for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site condition.

4. TENDERS

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on all the pages. Initial / signature will indicate the acceptance of the tender papers by the tenderer.

(Also see general rules and instructions for the guidance of Tenderers)

The schedule of quantities shall be filled in as follows:

- I. The "Rate" column to be legibly filled in ink in both English figures and English words.
- II. Amount column to be filled in for each item and the amount for each sub head as detailed in the "Schedule of Quantities".
- III. All corrections are to be initialed.
- IV. In case of any errors / omissions in the quoted rates, the rates given in the tender marked "original' shall be taken as correct rates.

No modifications, writings or corrections can be made in the tender papers by the tenderer, but may at his option offer his comments or modifications in a separate sheet of paper attached to the original tender paper.

The Employer reserves the right to reject the lowest or any tender and also to discharge any or all of the tenders of each section or to split up and distribute any item of work to any specialist firm or firms, without assigning reasons.

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting. If called upon by the Employer/Architects detailed analysis of any or all the rates shall be submitted. The Employer/Architects shall not be bound to recognize the contractor's analysis.

The works will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract, unless otherwise specified.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly related to and reasonably detectable from the drawings, specifications and schedule of quantities and no fur-

ther extra charges will be allowed in this connection. In the case of lump-sum charges in the tender in respect of any items of work will be made for the actual work done on the basis of lump sum charges as will be assessed to be payable by the Employer / Architects.

The employer has power to add, omit from any work as shown in drawings or described in specifications or include in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Employer. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period of three months from the date of opening of the tender.

5. AGREEMENT

The successful contractor will be required to sign agreement in accordance with the draft agreement enclosed and the schedule conditions. The contractor shall pay for all stamps and legal expenses, incidental thereto. However the written acceptance by the employer of a tender will constitute a binding contract between the employer and the person so tendering such formal agreement is subsequently executed.

6. AUTHORITIES, NOTICES, PATENT RIGHTS AND ROYALTIES:

The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-Laws of any authorities, and / or any water, lighting and other companies, and / or authorities with whose systems the structures were proposed to have connection and shall before making any variations from the drawings or specifications that may be associated to so conform, give the Employer / Architects written notices specifying the variations proposed to be made and reasons for making them and apply for instruction thereon. The Employer / Architects on receipt of such intimation shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Byelaws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer

The Contractor shall identify the Employer against all claims in respect of patent rights, designs, trademarks or name or the protected rights in respect of any constructional plant, machine, work or material used for or in connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the Architects, before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, coat and charges of all and every sort that may be legally incurred in respect thereof.

7. TAXES AND DUTIES

The tenderers must include in their tender prices quoted for Icome taxes and duties royalties, cess or any other taxes or local charges if applicable. No extra claim on this account will in any case be entertained. The GST shall be paid by the bank.

8. NOTICES AND STATUTORY REGULATIONS:

The contractor shall give all notices and pay all fees and shall comply all Acts and Regulations for the successful completion of the contract works.

The whole of the work is to be complied with as per the requirements and bylaws of the relevant statutory authorities including contract labour (Regulation and Abolition) Act 1970.

9. QUANTITY OF WORK TO BE EXECUTED

The Schedule of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Procedure shall be considered to be approximate and no liability shall attach to the employer for any error may be discovered therein. The Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore.

The Contractor shall be deemed to have satisfied himself before tendering to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and / or the Schedule of Rates and Prices, which rates and prices shall cover all things necessary for the completion of the works.

10. OTHER PERSONS ENGAGED BY THE EMPLOYER

The Employer reserves the right to execute any part of the work included in this contract or any work, which is not included in this contract by the other Agency, or persons and contractor shall allow all reasonable facilities and use of his scaffoldings for the execution of such work. The main contractor shall extend all cooperation in his regard.

11. EARNEST MONEY AND SECURITY DEPOSITS

The tenderer will have to deposit an amount of Rs. 17,000.00 (Rupees Seventeen thousand only) in the form of Bank draft drawn in favor of State Bank Infra Management Solutions Pvt. Ltd., payable at Kolkata at the time of submission of tender as an Earnest money. The employer is not liable to pay any interest on the earnest money. The Earnest money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit an initial security deposit/performance security a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial security deposit will have to be made within 14 days from the date of acceptance of tender, failing which the employer at his discretion may revoke the letter of acceptance and forfeit the earnest money deposit furnished along with the tender. The initial security deposit shall be refunded to the contractor within 14 days on virtual completion of work.

Apart from the initial security deposit made as above, retention money(FSD) shall be deducted from progressive running bills @5% of the gross value of each running bill:

Total Security Deposit will be 2% of Tender amount including EMD + FSD (5%)

The initial security deposit including EMD will be refunded after virtual completion of work without any interest. The Retention Money (FSD) will be refunded after completion of defect liability period of one year from virtual completion of work without any interest.

12. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The Contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provide that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Employer / Architects whose decision shall be final and binding.

13. TIME OF COMPLETION, EXTENSION OFTIME&PROGRESS CHART

The Contractor shall be allowed admittance to the site on the 'Date of Commencement' stated in the Appendix, and he shall thereupon and forthwith begin the works and shall regularly proceed with to complete the same. On or before the 'Day of Completion' stated in the Appendix subject nevertheless the provision for the extension of time hereinafter contained.

If in the opinion of the Employer/Architect the works be delayed:

- a) By force major or
- b) By reason of any exceptionally inclement weather or
- c) By reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners of public authorities arising, than through the Contractor's won default or
- d) By the works or delays of the contractors tradesmen engaged or nominated by the Employer / Architect and not referred in the Schedule of Quantities and / or specifications or
- e) By reason of civil, commotion, local combination of workmen or strike or lock-out effecting any of the buildings traders or
- f) In consequence of the Contractor not having in due time, necessary instructions from the Employer for which he shall have specifically applied in writing ahead of time, giving reasonable time to prepare such instructions, the employer shall make a fair and reasonable extension of time for completion of the Contract works

In case of such strike or lock-out, the Contractor shall as soon as possible give written notice thereof to the employer, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all they may reasonably be required, to the satisfaction of the employer to proceed with the work.

The Contractor on starting the works shall furnish to the Employer / Architect a PERT / CPM Programme for carrying out the work stage in the stipulated time for the approval of Architect / Employer and follow strictly the approved time schedule incorporating charges if any, to ensure the completion of the work in stipulated time. A graph or chart on individual work shall be maintained showing the proportionate progress of work week by week a weekly progress report stating the number of skilled and un skilled laborers employed on the work, working hours done, place, type, and quantity of work done during the period.

The Contractor must inform the employer within 10 days in advance of all drawings and detailed required by him from time to time. The Contractor shall adhere to the approved program and arrange for the materials and labour etc accordingly.

Despite repeated instructions, if the Contractor fails to show proportionate progress of the work, the Architect / Employer may take suitable action and deemed fit without prejudice to any terms and conditions of the contract

14. LIQUIDATED DAMAGES

Should the work be not completed to the satisfaction of the Employer /Architects within the stipulated period, the contractor shall be bound to pay to the Employer a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncommenced or unfinished after the expiry of the completion date.

If the contractor fails to complete the work by the Scheduled date of completion or within any sanctioned extended time, he will have to pay liquidated damages at 1% of contract amount for each week beyond the date that the work remains incomplete subject to maximum of 10% of the contract value (without extra items).

15. MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS.

All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workmanlike manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Employer / Architects during the execution of the work and to his entire satisfaction.

All mandatory tests shall be carried out as per CPWD specifications. If required by the Employer / Architects, the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer / Architects at his own cost to prove that the materials etc., under test conform to the relevant I.S Standards or as specified in the specifications. The necessary charges, transporting, testing etc., shall have to be bome by the contractor. No extra payment on this account should in any case be entertained.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charges for import duties, sales tax, octroi and other charges and must be the best of their kind available and the contractors must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workmanlike manner. Samples of all materials to be used must be submitted to the Employer when so directed by the Engineer and written approval from Employer must be obtain prior to placement of order.

Any damage (during the work) to any part of the work or to the premises for any reasons due to rain, storm or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the contractor shall take all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

The contractor shall cover up and protect from damage, from any cause, all new work and supply all temporary doors, protection to windows, and any other requisite protection for the execution of the work whether by himself or special tradesmen or sub-contractor and any damage caused must be made good by the contractor at his own expenses.

Contractor should take all precaution to safeguard the flooring and if any damages to the flooring should be rectified by the contractor in the same quality at his own cost.

16. REMOVAL OF IMPROPER WORK

The Employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Employer / Architects are not in accordance with specification or instructions, the substitution or proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions. In case the contractor refuses to comply with the order the Employer shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Employer / Architects shall be bome by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate shall relieve the contractor from his liability in respect of unsound work or bad materials.

17. SITE ENGINEER

The Employer may appoint a Site Engineer or clerk of works who shall be representative of the Employer. The duties of the Employer representative are to watch and supervise the works and to test any materials to be used of workmanship employed in connection with the works. He shall have no authority either to relieve the Contractor of any of his duties or obligations under the Contract, or except those expressly provided hereunder, to order any work involving delay or any extra payment by the Employer or any variation of or in the works.

The contractor shall afford the Employer's representative every facility and assistance for examining the works and materials and checking the measuring time and materials. Neither the Employer's representative nor any Deputy to the Architect shall have power to revoke, alter enlarge or relax the requirements of this Contract, or to Sanction any day-work, additions, alterations, deviations or omissions unless such an authority may be specially conferred by a written order of the Employer.

The Employer's Representative shall have to give notice to the Contractor or his foremen about the non-approval of any work or materials and such works shall be suspended or the use of such material should be discontinued until the decision of the employer/Architect is obtained, the work will from time to time be examined by the Architect or the Employer's representative but such examinations shall not in any way exonerate the Contractor from the obligation to remedy defects which may be found to exist at any stage of the work of after the same is completed. Subject to the limitations of this cause, the Contractor shall take instruction from the Architect / Employer.

18. CONTRACTOR'S EMPLOYEES

The Contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of the Employer / Architects. The contractor shall engage at least one experienced Engineer as site-in-charge for execution of the work. The contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently.

The contractor shall not employ labour below the age of sixteen years and who is not an Indian National.

Any labourer supplied by the contractor to be engaged on the work on day work basis either wholly or partly under the direct order or control of the Employer or his representative shall be deemed to be a person employed by the contractor.

The contractor shall comply with the provisions of all labour legislation including the requirements of

- a) The payment of Wages Act.
- b) Employer's Liability Act.
- c) Workmen's Compensation Act.
- d) Contract Labour (Regulation & Abolition) Act. 1970 and Central Rules 1971
- e) Apprentices Act 1961
- f) Minimum Wages Act
- g) Any other Act or enactment relating thereto and rules framed there under from time to time. The contractor shall keep the Employer saved harmless an indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

The contractor shall comply at his own cost with the order for requirement of any Health Officer of the State or any local authority or of the Employer regarding the maintenance of proper environmental sanitation of the area where the contractor's labourers are housed or accommodated, for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The contractor shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all times for the use of men engaged on the works and shall remove and clear away the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works report such accident to the Employer and also to the competent Authority where such report is required by law.

19. DISMISSAL OF WORKMEN

The contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who in the opinion of the Employer be unsuitable or incompetent or who

may misconduct him. Such discharges shall not be the basis of any claim for compensation or damages against the Employer or any of their officer or employee.

20. ASSIGNMENT

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the Employer and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress.

21. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.

The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and / or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alias, any damage to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, foot paths or ways as well as damages caused to the buildings and the works forming the subject of this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the Employer and hold harmless in respect of all and any expenses arising from any such injury or damages to the person or property as aforesaid and also in respect of any claim made in respect of injury of damage under any acts on compensation or damage consequent upon such claim.

The contractor shall reinstate all damages of every sort mentioned in this clause so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property of third parties.

The contractor shall affect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect. The insurance must be placed with a company approved by the Employer and must be effected jointly in the name of the Employer and contractor and the policy lodged with the Employer. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be affected from the very initial stage. The contractor shall also be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due to or to become due to the contractor.

22. MEASUREMENTS

Before taking any measurement of any work the Site Engineer or employer's representative shall give reasonable notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to countersign or to record the difference within a week from the date of meas-

urement in the manner required by Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the contractor and contractor shall have no right to dispute the same.

The Employer / Architect shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the Employer and the contractor shall be entitled to payment thereof, within the period of honoring certificates named in these documents.

23. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Employer's / Architects. Normally one interim bill shall be prepared each month subject to minimum value as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurements in M-book in support of the qualities of work done and must show deductions for all previous payments, retention money, etc.

The Employer / Architect shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the Employer and the contractor shall be entitled to payment thereof, within the period of honouring certificates named in these documents.

The Employer will deduct all statutory deductions such as IT and retention money as described in this document. The refund of retention money will be made as specified.

If the Employer has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor in accordance with the quantities consumed in the work.

All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removal and taken away and reconstructed, or re-erected or be considered as and admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude, determine or affect in any way the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one week of the date fixed for completion of the work or of the date of certificate of completion and payment shall be made within one month from the date of receipt of the bill.

Final Payment

The final bill shall be accompanied by a certificate of completion from the Employer / Architects. Payments of final bill shall be made after deduction of Retention Money as specified, which shall be refunded after the completion of the Defects Liability Period after receiving the Branch Manager's certificate that the contractor has rectified all defects to the satisfaction of the Employer. The acceptance of the payment of the final bill by the contractor would indicate that he has no further claim in respect of the work executed.

24. VARIATION / DEVIATION

The Employer / Architect can increase or decrease any quantities to any extend or even delete particular item as per the site requirements and the contractor shall not be paid anything extra on this account. Nothing extra will be paid by the Bank on account of omission / deletion of items or decrease in the quantity of items. The Bank shall not entertain any claim whatsoever from the contractor on this account.

The price of all additional items/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

25. SUBSTITUTION

Should be contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer/ Architects in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such term as "Equal" or "Other approved" etc. specific approval of the Employer / Architect has to be obtained in writing.

26. CLEARING SITE ON COMPLETION

On completion of the works the contractor shall clear away and remove from the site all machinery, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Employer/Architects.

27. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, peeling off laminate, false ceiling cracks, or any other faults, which may appear within 12 months after completion of the work. In the default, the Employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient recover that balance from the contractor from the amount retained(retention money) together with any expenses the Employer may have incurred in connection therewith.

28. CONCEALED WORK

The contractor shall give due notice to the Employer/Architects whenever any work is to be covered up or finished up or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such covering, in default whereof the same shall, at the opinion of the Employer/ Architect be either opened up for measurement at the contractor's expenses or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or

checked, the notes of the Employer / Architects shall be accepted as correct and binding on the contractor.

29. IDLE LABOUR

Whatever the reasons may be, no claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

30. SUSPENSION OF WORKS

If the contractor except on account of any legal restraint upon the Employer preventing the continuance of the work or in the opinion of the Employer shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Employer shall have the power to give notice in writing to the contractor requiring the work to be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be a notice under this clause.

After such notice shall have been given, the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been compiled with. If the contractor fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the employer may proceed as provided in clause 31 (Termination of Contract by Employer)

31. TERMINATION OF CONTRACT BY EMPLOYER

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a receiver of the contractor's firm appointed by the court shall be unable within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials of workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and make such progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the employer after three clear das notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned or shall abandon the contract, then and in any of the said cases, the Bank may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the employer of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if

the contract, had not been so determine and as if the works subsequently executed by or on behalf of the contractor (without thereby creating any trust in favour of the contractor) further the employer or his agent, or servants, may enter upon and take possession of the work and all plants tools scaffolding sheds machinery, steam, and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractors or other persons or person to complete the works, and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractors or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be the employer shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor to remove his surplus materials after receipt by him the employer may sell the same by Public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the contractor for the amount so realized. Any expenses or losses incurred by the employer in getting the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractors or against the Security Deposit.

32. ARBITRATION

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof this contract or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, the Employer will send within thirty days of receipt of the notice, to the contractor a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed from the following categories of Arbitrators":-

- a) Retired High Court/Supreme Court judge who have experienced in handling Arbitration Cases.
- b) Member of Council of Arbitrators
- c) Fellow of the Institution of Engineers
- d) Eminent Retired Chief Engineer from State/Central PWD/Public sector undertaking of good reputation and integrity
- e) Fellow of Indian Institute of Architects

The contractor shall on receipt of the names as aforesaid, select any one of the persons name to be appointed as a sole Arbitrator and communicate his name to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the Sole Arbitrator. If the contractor fails to communicate such selection as provided above within the period specified, the Competent Authority shall make the selection and appoint the selected person as the Sole Arbitrator.

If the Employer fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all

be unconnected with either party. The Employer shall on receipt appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as the Sole Arbitrator within 30days of receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from panel as the Sole Arbitrator and communicate his name to the Employer.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another Sole Arbitrator shall be appointed as aforesaid.

The work under the Contract shall, however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fixing date of the first hearing.

The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

The arbitrator shall give a separate award in respect of each dispute or difference referred to him. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his Sole discretion.

The award of the Arbitrator shall be final and binding on the both the parties.

Subject to aforesaid the provisions to the Arbitration Act. 1992 or any statutory modification or reenactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

The Employer and the contractor hereby also agree that arbitration under clause shall be condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

SPECIAL CONDITIONS OF CONTRACT

1. DRAWINGS AND SPECIFICATIONS

The works shall be carried out to the entire satisfaction of the EMPLOYER and the Architect, in accordance with the signed drawings and specifications and such further drawings and details as may be provided by the Architect/Employer, and in accordance with such written instructions, directions and explanations as may from time to be given by the Employer/Architect, whose decision as to the sufficiency and quality of the work and materials shall be final and binding upon all parties. If the work shown on any such further drawings or work that may be necessary to comply with any such instructions directions or explanations, be in the opinion of the contractor extraction that comprised in or reasonably to be inferred from the contract he shall before proceedings with such work, give notice in writing to this effect to employer/Architect, and in the event of the employer/Architects agree to the same in writing the contractor shall be entitled to an allowance in respect of such extra work as on authorized extra. If the Architect and the contractor fail to agree as to whether or to there is an extra, then, if the Architect decided that the contractor is to carry out the said work, the contractor shall do so, and the question whether or not there is any extra, and it so the amount thereof, shall failing agreement, be settled by Arbitration as hereinafter provided, but such references shall in no way delay the fulfillment of this contract.

No drawings shall be taken as in itself on order for variation unless, in addition to the employer/Architect's signature, it bears express words stating that is intended to be such an order or bears a remark 'VALID FOR EXECUTION'. No claim for payment for extra work shall be allowed unless the said work shall have been executed under the provisions of clause 6 (Authorities notices, patent right and royalties) or by the Authorities of directions in drawing of the Architect as herein mentioned.

One complete set of the signed drawings and specification and scheduled of quantities shall be furnished by the Architect to the Contractor. The Architect shall furnish within such time, as he may consider reasonable, one copy of any additional drawing, which is his opinion, may be necessary for the execution of any part of work. Such copies shall be kept at the works, and the architect or his representatives shall, at all reasonable time have access to the same and shall be return to the Architect by the contractor before the issue of the Final certificate. The contract shall remain in the custody of the Architect, and shall be produced by him at his office as and when required by the Employer or by the contractor.

2. INSPECTION OF DRAWINGS

Before filling in the tender, the contractor will have to check up all drawings/specification and schedule of quantities, and will have to get an immediate clarification from the employer/Architect on any point that he feels is vague or uncertain. No claim of damages or compensation will be entertained on this account.

3. EXECUTION OF WORK (PRICES TO INCLUDE)

The whole of the work is described in the contract a (including the schedule of Quantities, the specifications and all drawing pertaining there to) and as advised by Employer / Architect from time to time is to be carried out and completed in all its parts to the entire satisfaction of the Employer / Architect. Any minor details of the work which may not have been definitely referred to in this con-

tract, but which are usual in practice and essential to the work, are deemed to be include in this contract. Rates quoted in the Schedule shall be inclusive of all freights, taxes, such as octroi, sales tax, Royalties, duties, excise, turnover tax, sales tax on works contract, etc., as well as transportation, so as to execute the contractor as per the rules and regulations of Local Bodies, State Government and Government of India.

The rates quoted in the tender should include all charges for:

- a) Labor, maintenance fixing, carrying, cleaning, making good, hauling, watering etc
- b) Plant, machinery, scaffolding, framework, English ladders, ropes, nails, spikes, tools, materials and workmanship protection from weather, shuttering, temporary supports, platform and maintenance of the same.
- c) Covering for the walling and other works during inclement weather or striking or whenever directed as necessary.

4. SITE SUPERVISION

The contractor shall appoint at his own cost competent and adequate number of qualified Engineers at site, for (1) joint measurements and preparations of bills, (2) for testing materials at site and outside laboratory, (3) for other general supervision. Their appointment shall be approved by the Employer / Architect. The site Engineers shall not be removed from the site without the written consent of the Employer / Architect.

5. DIMENSIONS

Figures, dimensions, are in all case to be accepted preferences to scaled sizes. Large-scale details take precedence over small scale drawings. In case of discrepancy, the contractor is to ask for a clarification before proceeding with the work. Accordingly if any work is executed without prior clarification it is liable to be rejected and shall not be paid for.

6. PROGRAMME OF WORKS

Contractor shall have to prepare and submit the CPM/PERT charges for employer/Architect's approval immediately after issue of the work order and display the approved charts in the site office. He shall also make bar charts indicating individual items and during the progress of work he shall update the bar charts showing the proportionate progress of work every week.

He shall strictly adhere to the programme of works as per CPM/PERT charts showing the proportionate progress of work.

7. PROCUREMENT OF MATERIALS

Contractor shall procure all the materials for the work from the open market. Time is the essence of the contract. Acceptance of the completion date by the contractor shall mean that he has taken into consideration the availability of all material of approved make and quality in sufficient quantities at site to enable him to complete the entire work in the stipulated period.

Contractor will get sample of all materials approved by the Employer / Architect before placing order / purchase / procurement. They shall conform to I.S. codes and or tender specification as applicable.

For all materials the contractor shall quote for the best quality of the materials of best make / source or supply and it will be got approved by Employer / Architect before procurement.

In case sufficient quantities of approved quality materials from approved source are not available in time, contractor may have to procure the same for neighboring area with longer leads as required and directed at no extra cost. The material will be, however as per relevant I.S code as and wherever applicable.

8. UNFIXED MATERIALS

When any materials intended for the works shall have been placed at site by the Contract, such material shall not be removed there from (except for the purposes of being used on the works) without the written authority of the Employer / Architect and when the contractor shall have received payment in respect of any certificate in which the architect shall have stated that he has taken in to account to value of such unfixed materials on the works such material shall become the property of the Employer and the contractor shall be liable for any loss or damage to any such materials.

9. CUSTODY AND SECURITY OF MATERIALS

The contractors shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman / watchmen to lock after his materials, stores equipments etc.

10. RATES

Contractor shall quote all the rates both in figures and in words and any alterations shall have to be initiated by the contractor. Rates quoted by the contractor for the same item in different schedules will be same and in case different rates are quoted, the lowest will be taken as correct and the schedule corrected accordingly. Incase of discrepancy between figures and the words the rate quoted in words shall be taken as correct one. All quoted rates should be inclusive of sales tax on works contract tax. Rates quoted by the contractor shall hold good for all the work carried out to any height and depth as shown in detailed drawings and as required and directed by the Architect.

Rates quoted by the contractor shall also hold good for any small work at any place at site.

11. PRICES FOR EXTRAS ETC., ASCERTAINMENT

The rates of extra items will be ascertained as below

- a) The rates will be derived from the rates of items already quoted in the original tender for the extra work.
- b) Where extra work cannot be properly measured or valued, the contractor shall be allowed any work prices at the net rates stated in the tender or the priced schedule of quantities, or if not so stated, then in accordance with the local day work, rates and wages for the district, provided that in ei-

ther case vouchers specifying the daily time (and if required by the Architect, the workmen's name) and materials employed at or before the end of the week following that in which the work has been executed.

c) The measurements and valuations in respect of the extra items of contract shall be completed within the 'period of final measurement' or with in three months of the completion of the contract works as defined under clause (Certificate of Virtual Completion)

12. EXTRA ITEMS RATES

The work or extra items shall be started only after the approval of extra items rates by client / Architect. Rates for additional or extra items work which can not be derived from the contract item rates shall be calculated on the basis of actual cost plus 15 % for profit.

13. DRAWINGS AND INSTRUCTIONS

A set of major drawings along with the contract documents shall be provided to the contractor. For any clarifications or further drawings are required by the contract, during or before the start of construction work, the Contractor shall inform the employer/Architects in writing to provide the same. Working details will be given to the contractor from time to time during the progress of work as and when required. Incase of other drawing is required by the contractor he will give a minimum ten days notice to the Employer / Architect.

14. FAILURE BY CONTRACTOR COMPLY WITH ARCHITECT EMPLOYER'S INSTRUCTIONS

If the contractor after receipt of written notice from the employer/architect requiring compliance with such further drawings and / or instruction, fails within seven days to comply with the same, the Employer / Architect may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all cost incurred in connection there with shall be recoverable from the contractors by the Employer as a debit or may be deducted from any money due or which become due to the Contractors.

15. INFORMATION TO BE SUPPLIED BY THE CONTRACTOR

The contractor shall furnish the Employer / Architect the following:

- a) Detailed industrial statistics regarding the labor employed by him etc
- b) The Power of Attorney, name and signature of his authorized representative who will be in charges for the execution of work
- c) The list of technically qualified persons employed by him for the execution of this work.
- d) The total quantity and quality of materials used for the works.
- e) The list of plant and machinery employed for this work.

16. ARCHITECT'S DELAY IN PROGRESS

The Architect may delay the progress of the works in case of rains or otherwise, without vitiating the contract and grant such extension of time with the approval of the employer for the completion of

the contract as he may think proper and sufficient in consequences of such delay, and the contractor, shall not make any claim for compensation or damage in relation thereto.

17. CERTIFICATE AND PAYMENTS

The contractor shall be paid by the Employer from time to time, by installments under interim Certificates to be issued by the Architect/Engineer to the contractor on account of the works executed by the contractor when in the opinion of the Architect, work to the approximate value, named in the Appendix as 'Value of work for interim Certificates' (or less at the reasonable discretion of the Employer / Architect) has been executed in accordance with this contract, subject however, to a retention of the percentage of such value need in the Appendix hereto mentioned as 'retention percentage for interim Certificates' until the total amount retained shall reach the sum named in the appendix as Total Retention money after which time the installments shall be up to the full value of the work subsequently so executed in the interim Certificate, such amount as he may consider proper on account materials delivered upon the site by the Contractor for use in the work.

And when the works have been virtually completed and the Architect shall have certified in writing that they have been completed, the contractor shall be paid in accordance with the Certificate issued by the Architect the sum of money named in the Appendix after satisfying themselves as 'Installment after Virtual Completion 'being a part of the said 'Total Retention Money'.

The Contractor shall be entitled to the payment of the final balance in accordance with the final Certificate to be issued in writing by the Architect at the expiration of the period refer to as 'The Defect Liability Period' in the Appendix hereto, from the date of Virtual Completion or as soon as after the expiration of such period as the work shall have been finally completed and all defect made good according to the true intent and meaning hereof, whichever shall happen, provided always that the issue by the Architect of any certificate during the progress of the works or after the completion shall not relieve the Contract from his liabilities in cases of fraud, dishonesty or fraudulent concealment relating to the works of materials or any matter dealt within the certificate, and in case of all defects and insufficiency in the works or materials which reasonable examination world have disclosed. No certificate of the Architect shall of itself be conclusive evidence that any works and materials to which it relates are in accordance with the contract.

The Architect shall have power to withhold any certificate if the works or any part thereof is not being carried out to his / employer satisfaction.

The Architect may by any Certificate make any correction in any previous Certificate, which shall have been issued by him.

Payment to contractor upon the Architect/Engineer's Certificates shall be made within a period mentioned in the Abstract of general conditions.

18. DELAYED PAYMENTS

Any amounts payable by the Employer to the contractor in pursuance of any Certificate given by the Architect hereunder shall, if not paid within the 'Period of honoring of Certificate' no interest will be paid by the Employer.

19. FORCE MAJEURE

Neither party shall be held responsible by the other for breach of any condition of this agreement attributable to any 'Act of God' Act of state, lockout of control or any other reason, beyond the control of the parties and any breach of clauses arising from much force majeure conditions as aforesaid shall not be regarded as a breach of the provision of this Agreement.

20. INCOME-TAX AND WORKS CONTRACT TAX

Income Tax and Works Contract Tax shall be deducted at source by the client from the contractor' interim and final bill payments as per Statutory Regulations.

21. SITE MEETINGS

A senior representative of the contractor shall attend weekly meetings at works site and in addition meetings as and when arranged by employer / Architect to discuss the progress of the work and sort out problems, if any and ensure that the work is completed in the stipulated time.

22. WORKING HOURS

Since the site is a Working Branch, the Contractor has to execute the work after working hours, nights & on holidays. No extra payments will be made for the work being done during odd hours. The site will be handed over to the contractor in phased manner and the contractor has to schedule his activities accordingly. No extra payment shall be made on this account.

23. ACTION WHERE THERE IS NO SPECIFICATION

In case of any class of work for which is there is no specification mentioned, the same will be carried out in accordance with the Indian Standards Specifications subject to the approval of the Employer / Architect.

24. REPORTING OF ACCIDENT

The contractor shall be responsible for the safety of persons employed by him on the works and shall reports serious accidents to any of them whenever and wherever occurring on the works to employer who shall make every arrangement to render all possible assistance. This shall be without prejudice to the responsibility of the contractor under the Insurance Clause of the general conditions. Contractor shall take all precaution detailed in the safety code attached separately.

25. TYPOGRAPHICAL CLERICAL ERRORS

The Employer / Architect clarification regarding partially omitted particulars of typographical or Clericals errors shall be final and binding on the contractors.

26. WORK PERFORMED AT CONTRACTOR'S RISK

The contractor shall take all precautions necessary and shall be responsible for the safety of the work and shall maintain all lights, goods, signs, temporary passages or other protection necessary for the

purpose. All works shall be done by the contractor's risk and if any loss or damage shall result from fire or from others cause, the contractor shall promptly repay or replace such loss or damage free from all expenses to the employer.

The contractor shall be responsible for any loss or damage to materials, tools or other articles used held for use in connection with the work. The work shall be carried on to completion without interferences with the operations of existing machinery or equipment, if any.

27. SPECIAL CONDITIONS OF CONTRACT

In the event of any discrepancy with clauses mentioned anywhere else in the tender with the clauses mentioned within special conditions of contract, the clauses mentioned within the special conditions of contract shall supersede those mentioned elsewhere.

FORM OF AGREEMENT

ARTICLES of AGREEMENT made this day of year 2020 between the The
Regional Manager, State Bank of India, RBO-III, Kolkata-700071 (Hereinafter referred to as
the "Employer /Owner /client" which expression shall, unless excluded by or repugnant to the con-
text, includes its successors and assigns) of the ONE PART and of(Hereinafter re-
ferred to as "Contractor" unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.
WHEREAS the Employer intends to carry out AIR CONDITIONING WORKS FOR STATE
${\tt BANK\ OF\ INDIA\ SME\ EXIM\ BRANCH,\ KOLKATA,\ of\ State\ Bank\ of\ India,\ (Herein\ referred\ to\ Colored and\ Colored\ and\ and\ And\ Colored\ and\ And\ And\ And\ And\ And\ And\ And\ A$
as "Project").
AND WHEREAS the Employer in order to effectively carry out the said works has engaged
(Hereinafter referred to as "Architects") to prepare plans, drawings and speci-
fications describing the works to be executed by the contractors, namely, interior etc. for the project,
to open tenders received at the office of the Employer, to scrutinize and recommend to the Employer
the name(s) of the Contractor(s) from whom tenders were received and recommended to the Employer for the issue of week order to the contractor.
ployer for the issue of work order to the contractor.
AND WHEREAS for the purpose of the said project, the Employer invited sealed tenders from expe-
rienced, resourceful and bonafide contractors vide his Notice Inviting Tender
(NO).
WHEREAS the contractor submitted his Tender Documents containing General Notes, General
Conditions of the Contract, Technical Specifications and Schedule of Quantities etc. for the works,
(Hereinafter collectively referred to as the "said conditions"), duly signed on each page as a token of
his acceptance of the same, along with requisite Earnest Money Deposit of Rs
AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most
suitable for the project.
AND WHEDEAC the England And that have a small all the standards and an advantage of the standard and advantage of
AND WHEREAS the Employer/Architect has accordingly issued the work order (NOdt) to the contractor subject to his furnishing the requisite Security Deposit.
to the contractor subject to his furnishing the requisite security Deposit.
AND WHEREAS the Contractor has accepted the aforesaid Work Order vide his letter of acceptance
NO and has also deposited with the Employer a sum of
Rs which with the Earnest Money of RS forms the requisite Security Deposit @ 5 % of the accepted Tender Value of Rs
Deposit & 5 % of the accepted Tender variet of Rs
AND WHEREAS the Employer has caused the plans, drawings, specifications, schedule of quanti-
ties etc. relating to the project at the work site at to be issued to the Contractor.
NOW, therefore, it is hereby agreed to and between the parties as follows:
1) Contract documents
The following documents shall constitute the Contract Documents.

I. This Article of Agreement. II. Tender submitted by the Contractor including the N.I.T and Tender Documents. III. All correspondence between the Bank/Architects and the Contractor from the date of issue of N.I.T and the date of issue of work order. IV. Work order Nodt
2) In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions, execute and complete the contracted works shown upon the said drawings etc. and such further detailed drawings as may be furnished to the contractor by the said Owner/Employer and described in the said Specifications and the said Schedule of Quantities.
3) Notwithstanding what are stated in the N.I.T conditions of Tendering, Conditions of Contract of herein before stated by the Employer, reserves itself the right of altering the drawings and the nature of the work and addition to or omitting any items of work or of having portions of same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.
4) As mentioned in Article 1 above, the said conditions shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.
5) Any dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the General Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of the Kolkata thereto. The decision of the arbitration shall be final and binding on both the parties.
IN WITNESS WHEREOF THE PARTIES to their present have hereunder set and subscribed their hands, the day, month and year first above written.
Signed and delivered for and on behalf of State Bank of India Shri
Its duly authorized official
In the presence of –
1. (Name and Address)

2. (Name and Address)

Signed and delivered for and or The Contractor	by			
Shri	his			
Duly authorised official				
T .1				
In the presence of –				
1. (Name and Address)				
2. (Name and Address)				

AIR CONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH, KOLKATA SCHEDULE OF APPROXIMATE QUANTITIES AND RATE

- 1. The quantities given herein are approximate and they are subjected to alterations omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of the work to be done.
- 2. It is to be expressly understood that the measured work is to be taken net (notwithstanding) any custom or practice to the contrary according to the actual quantities when in place and finished according to the drawings or as may be directed from time to time by the employer/Architects, and the cost calculated by measurements or weight, at the respective prices, without any additional charge for any necessary or contingent works connected there with. The rates quoted are for work in site and complete in every respect.
- 3. If any operation of work, which is specified in the respective items mentioned in the schedule of quantities, is not executed by the contractor then proportionately the rate quoted in the schedule shall be refixed.

GENERAL AND TECHNICAL SPECIFICATIONS

- 1. These specifications are for the work to be done, items to be supplied and materials to be used in the works as shown and defined on the drawings and described her in all under the supervision and to the satisfaction of the Consultant/Bank.
- 2. The workmanship is to the best available and of a high standard, use must be made of Specialist tradesman in all aspects of the work and allowance must be made in the rates for doing so:
- 3. The materials and items to be provided by the contractor shall be the best of their respective kinds and as approved by the consultants/Bank in accordance with the samples which may be submitted for approval and generally in accordance with the specifications.
- 4. Samples of all materials including those specified by name of the manufacturer or the brands, trades name or b the reference to catalogue Nos. are to be submitted to the Consultant/Bank for their approval before the contractor either orders delivers in the bulk to site. Samples together with their packings are to be provided by the contractor free of any charge and should any materials are rejected, the same will be removed from the site at the expense of the contractor.
- 5. The contractor is also required to submit specimen finishes of all colours, fabrics, polish shades etc., for approval of the consultant/Bank before proceeding with such works.
- 6. Should it be necessary to prepare shop drawing, the contractor at his own expense prepare and submit at least four sets of such drawings to Consultant/Bank for approval.
- 7. The contractor shall produce all invoices, vouchers or receipts account of all purchases done by him for materials if called upon to do so either by Consultants or the Bank.
- 8. The contractor should verify all measurements given in the drawings at the site before commencing the work. Any difference should be clarified with the consultant before commencing the work.
- 9. Partition lien out shall be done at the site before starting the work and got approved from the Consultants.
- 10. The contractor shall submit Bar Chart (CPM method) for the complete work within oneweek of letter of acceptance of tender and get the same approved from Consultant/Bank in advance to co-ordinate the work with other agencies.
- 11. In order to complete the work in time, the contractor may have to work in more than one shift and beyond office hours. He will do so without any extra charges and without causing any disturbance/inconvenience to the neighborhood.
- 12. The contractor shall make necessary security arrangements at the site for the safety of his tools, materials and equipment etc. his own cost.
- 13. The contractor shall quote his rate including the cost of materials as specified, corresponding wastages, labour, sales tax or any other taxes & duties, octroi, transportation to work site etc.

The rates are firm and no escalation on any account shall be allowed on accepted rates.

14. The contractor shall be responsible for providing and maintaining temporary coverage required for the protection of dressed, finished or semi-finished works if left unprotected. He is also to clean out all shavings, cut ends and other wastages from all parts of the work at his expenses.

15. INSPECTION AND TESTING:

The consultant/Bank shall be entitled at all times at the risk of contractor to inspect and/or test by itself or through an independent agency appointed by the Employer to Inspect, and/or test all the materials, components, and items of work at the expenses of the contractor. All such test shall be done as per ISI guidelines and as directed by Consultant/Bank.

AIR COOLED SPLIT TYPE AIR CONDITIONERS

1.0 GENERAL:

- 17. Air cooled split type air conditioner shall consist of units.
- Evaporator unit (indoor unit)
- Condensing Unit (Outdoor Unit)
- The evaporator unit comprises evaporator coil, evaporator fan assembly installed together in a single sheet metal casing and with inter-connecting refrigerant piping, refrigerant ontrols, safety devices, etc., The unit shall be complete with electronic center & control pad incorporating the thermostat & speed control.
- The condensing unit comprise compressor-motor unit, condenser coil, condenser fan, fan control, casing supporting stand etc.
- Both the evaporator unit and the condensing units shall be factory manufactured.
- The Panel for casing shall be machine pressed and folded. The entire casing shall be factory manufactured, it shall be of robust construction and shall present a neat appearance. The tenderers shall also bring out in their tenders clearly the manufacturing techniques, finishes employed to meet the service conditions involved, etc..
- The units supplied with control panel incorporating switch fuse units, contactors, over load relays, single phase preventors, push bottons, etc., compressor and condenser fans.

2.0 EVAPORATOR UNIT.

- c) All the components of the evaporator units shall be housed in a sturdy MS/GSS casing. In the case of MS casing, it should be dully painted/treated to resist corrosion, rust and other deleterious effects.
- d) Removable panels shall be provided to finish access to the cooling coil, fan motor compartments filter to facilitate servicing and maintenance work.
- e) The fan section shall consist of fan, fan casing (scroll) shaft and driven motor.
- f) The fan shall be centrifugal type and impeller shall incorporate forward curved blades. the fan shaft and impeller shall be both statically and dynamically balanced.
- g) The fan scroll shall be designed and shaped to optimize recovery static pressure and maximize efficiency at rated delivery and static pressure
- h) The fan shall be direct driven by a TEFC squirrel cage induction motor, the tenderers shall confirm electrical characteristics of the motor as required in technical data.

- i) The fan motor drive etc., shall all be design and mounted so as to minimize noise and vibration.
- j) The cooling coil shall be of copper tubes and aluminum fins, the concentration shall be not less than 3/cm (8\in).

3.0 CONDENSING UNIT:

The unit shall be factory manufactured and shall be suitable for out door installation. It shall comprise compressor unit, condenser coil, fan fan motor, drive casing supporting stands etc,.

The compressor unit shall consist of direct driven reciprocating compressor with compressor and motor housed in a common shell, it shall be either hermetic or semi-hermetic type. in case the compressor motor is semi-hermetic type, the end plate shall be bolted to the shell.

The compressor shall be suitable for use with R-22 refrigerant.

The tenderers are required to narrate in detail all protective devices, controls and such other features provided for the compressor motor units offered by them, like high temperature protection and over current protection, high and low pressure cut-outs. low oil pressure protection etc,.

The condensing unit shall be installed on a pedestal on the terrace of the building as shown in the drawing. the fan shall be propeller type direct-driven by an electrical motor. The unit shall be mounted in such a manner as to minimise transmission of vibration to the structure using vibration isolation pads, if necessary to secure satisfactory results.

The casing and structure for the condensing unit shall be of robust construction. The panels shall be of heavy gauge hot dip galvanized steel and they shall be machine-pressed and folded. All joints shall be folded joints. The supporting structure shall use only hot dip galvanized sections, i.e. angels channels etc,.

The tenderers shall bring out in any case clearly, (and in detail) the details of construction of the equipment offered by them, highlighting in particular, the thickness and kind of materials used, manufacturing techniques employed, finish provided for whether protection etc,.

Air cooled condensing unit shall incorporate necessary number of propeller fans of adequate size to obtain the required air flow rate under operating conditions, the fan shall be balanced both statically and dynamically. The fan motor shall be of TEFC squirrel cage construction.

The fan motor sets shall be complete with protecting guards.

The condenser coil shall be made of copper tubes and aluminum fans. the coils shall be sized so as to optimize performance with respect to air flow rate, pressure drop, condensing temperature, power consumption etc., thus the values furnished for the parameters of the coil in section III, schedule of equipment shall be regarded as suggested values rather than specified values.

suggested values father than specified values.

The coils shall be pressure tested for values not less than those indicated below.

Factory test - kg/sqcm (psi) : 30 (440)

Field test - kg/sqcm (psi) : 25 (440)

The coils shall be so positioned wit respect to the floor level that, dust pick-up by entering air is minimized.

As noted in clause the condensing units have to be installed out door on suitable pedestals or any other appropriate supporting arrangements. Masonary work, if any required for supporting units shall be provided by the owner, but the tenders shall furnish all necessary information including drawings. further any supports made of MS structural sections if required should be designed, supplied and installed by the air condition-

ing contractor himself. He shall show the details of such supports in appropriate drawings and shall obtain the approval of the owners/consultants before providing them. the charges for such works shall be included in the prices quoted by the tenderers: in any case, no extra sum will be payable on that account.

2. VRF UNITS:

VRF units are to be incorporated with Twin rotary / scroll DC inverter compressor. Energy efficiency and quite operation are very important criteria for the selection of the VRF units. Refrigerant shall be R407c / R410A. The total operation times of all the compressors shall be monitored by a microcomputer, so that there is no unbalance for the operation times of all compressors in the same refrigerant system. Compressors with a shorter operation time are operated with preference. Floor space occupied shall be the lowest possible.

Units shall have microprocessor control panel for ease of operation, self diagnostics, efficient and precision running. Each indoor unit in VRF system shall have its own microprocessor based controller. Each indoor unit shall have corded or cordless remote to operate the unit and set the required room temperature. Unit shall have auto restart facility in case of power failure to avoid operator interference. The unit shall be compatible for operating from remote location through one point centralized controllers.

If one of the three compressors in an outdoor unit malfunctions, one of the other compressors shall take over emergency operation. If one out door unit malfunctions in a system, other outdoor units provide emergency operation until repair is effected.

Condenser coil aluminium fins shall have PE treatment for longer life by improving the resistance to corrosion.

Shift and install the out door units and indoor units as per the manufacturer's instructions and approved drawings. Outdoor units and indoor units shall be leveled before connecting the copper piping.

3. COPPER REFRIGERANT PIPING:

Soft copper piping of 20 SWG shall be used for VRF indoor unit connections. All other copper piping shall be hard drawn 16 G shall be used. Copper piping shall be of VRF grade with 100% eddy current testing. Copper piping shall be supported or clamped at every 1.5 mt distance. Only imported refnet joints imported from the equipment supplier should be used for VRF piping. All other pipe fittings shall be of approved make drawn with 16 G copper piping. Pressure testing of copper piping should be carried out floor wise as per site condition. Final pressure testing should be carried out after completing the entire piping and after connecting to the indoor units and out door units. Copper piping shall be tested at 400 PSI for 24 hours. Valves for the maintenance shall be provided at the required places. Proper supports on the terrace shall be provided for copper refrigerant piping at 1.5 mt. interval. UV layer protection finish shall be given for the refrigerant piping which is exposed to the sun light. Refrigerant piping on the terrace shall be covered at bottom and top with powder coated cable tray to avoid physical damage.

4. INSULATION TO REFRIGERANT PIPING:

19 mm thick nitrile rubber tube insulation shall be used for VRF copper piping. Both the copper refrigerant piping shall be insulated. Insulated shall be finished properly and neatly at all fittings and joints. PVC sleeve shall be provided at all supports and shall be tied firmly with wire tie. Insulation shall not be damaged at supports. PVC sleeves shall be provided over the insulation when passing through the walls or slabs. All joints shall be sealed with self adhesive tape. UV layer protection finish shall be given for the refrigerant piping which is exposed to the sun light.

5. COMMUNICATION CABLE AND CONTROL CABLING:

Communication cable and control cabling: Communication cable and control cabling shall be laid in 20 mm dia FRLS PVC conduits. PVC conduit should be clamped neatly. Cable terminations and dressing shall be done properly and neatly.

6. DRAIN PIPING:

2.5 mm thick Blue PVC drain piping shall be used for the drain piping. Proper care shall be taken to lay the drain piping with sufficient slope and should be clamped or supported at 1.5 m interval. All drain pipe joints shall be done with adhesive. Drain piping should be tested for leaks before commissioning. After testing for leaks, drain pipe shall be insulated with 9 mm thk. nitrile rubber tube insulation. Insulation shall be finished with self adhesive tape.

- 1. The Gauges, Joints and Bracings for sheet metal duct work, shall further conform with the provisions as shown on the drawings.
- 2. Ducts larger than 450mm shall be cross broken, duct sections upto 1200 mm length may be used, with bracing angle omitted.
- Changes in section duct of work shall be affected by tapering the ducts with as long taper as possible. All branches shall be taken off at not more than 45 deg. angle from the axis of the main duct, unless otherwise approve by the enginer-in-inchare.
- ❖ All ducts shall be supported from the structural/RCC slab by means of MS rods of 9mm (3/8") dia, with MS angle at the bottom as per requirements of engineer-in-charge.

INSTALLATION:

- > During the construction, the contractor temporarily close duct openings with sheet metal covers, to prevent debris entering to the ducts and to maintain the opening, straight and square, as per the direction of engineer-in-charge.
- > Great care should taken to ensure that, the duct work does not extend out side and beyond the height limits as noted in the drawings.
- ➤ All duct work shall be of high quality approved galvanized sheet steel, guaranteed not to crack or peel on bending or fabrication of ducts and all joints should be tight and smooth.
- ➤ All air turns of 45 Degrees or more shall include curved metal blades or vanes arranged so as to permit the air to make abrupt turns, without an appreciable turbulences, turning vanes shall be securely fastened to prevent noise or vibration. All ducts shall be fabricated
- and installed in accordance with modern design practice. the sheet metal gauges and fabrications procedures as given in IS specifications, shall be considered as an integral part of these specifications.

- > The duct work shall be varied in shape and position, to fit actual conditions in the building. all changes shall be in accordance with accepted air-cooling duct design subject to the approval the engineer-in-charge. The contractor shall also verify all measurements in the building and shall notify to the engineer in incharge of any difficulty in carrying out his work before fabrication.
- > Sponge rubber of approved equal gaskets, shall be installed between duct flanges as well as between all connections of sheet metal ducts to walls, floor columns, heater casings and filter casing. Sheet metal connections shall be made to wall and floors, by means of galvanized
- > steel angles, anchored to the building structure with anchor bolts and with the sheet bolted to the angles. sheet metal connections shall be as shown in the false ceiling/boxing or supports grouted in the wall.
- Flanges and supports are to be black, mild steel and are to be primer coated on all surfaces, before erection and painted with aluminum thereafter. Accessories such as damper blades and access panels, are to be of materials of appropriate thickness & the finish, similar to the adjacent ducting as specified.
- > Joints, seems, sleeves, splitters, branches, take off and supports are to be as per duct details specified or as decided by the engineer-in-charge.
- > Joints requiring bolting or riveting, may be fixed by hexagonal nuts and bolts, stove bolts and buck bolts, rivets or closed center top rivets or spot welding, self tapping screws must not be used. All fixing must have a permanently non-corrosive finish such as cadmium
- plating or galvanizing, whichever is appropriate. Spot welds and bronze welds are to be coated on all surfaces with zin.
- The flexible joints are to be fitted to the suction and delivery of all fans. The material is to be normally double heavy canvas or as directed by the engineer-in-charge. On all circular spigots the flexible materials are to be screwed or clipboard with adjustable screws or toggle fittings. For rectangular ducts flat or bolted to making flange with backing flat.
- ➤ The flexible joints are to be not less than 75mm and not more than 250mm between faces.
- > The duct work should be carried out in a manner and at such a time as not to hinder or delay the work of the other agencies especially the false ceiling contractors.
- At the junction of such branch duct with main duct and split of main duct, volume dampers shall be of an approved type, lever operated and complete with locking devices, that will permit the damper to be adjusted and locked in any positions.
- The dampers shall be of splitter, butterfly or louver type. the damper blade shall be not less than 1.25mm (18 gauge) reinforced with 25mm angles, 3mm thick along any unsupported side longer than 250mm angles, shall not interfere with the operation of damper, nor cause any turbulence.
- Automatic and manual volume apposed blade diffusers, shall be complete with frames and bronze bearings as per drawings. Dampers and frames shall be constructed of 1.5mm steel & Blades shall not be over 225mm wide.

ACCESS PANEL

A hinged and gasketted access panel shall be provided on the duct work before each control device that may be located inside the duct work.

MISCELLANEOUS:

- xvii. All ducts above 450mm are to be cross broken, to provide rigiditly to the ducts.
- xviii. All duct work joints are to be true right angle or approaching with all sharp edges removed.

- xix. Sponge rubber gaskets also should be provided behind the flange of all grilles.
- xx. Each shoot from the duct, leading to a damper, shall be provided with an air deflector to divert the air into the diffuser through the shoot.
- xxi. Inspection doors measuring at least 450x 450mm are to be provided in each system, at an appropriate location, as directed by the engineer-in-charge.
- xxii. Diverting vanes must be provided at the bends exceeding 600mm and at branches connected into the main duct, without neck.
- xxiii. Proper hangers and supports should be provided to hold the ducts rigidly, to keep them straight & to avoid vibrations. Additional supports are to be provided where required, for rigidity or directed by the engineer in incharge.
- xxiv. The ducts should be supported by approved type supports at a distance not exceeding 2.4 meters.
- xxv. Sheet Metal connection pieces, partitions and plenums required, shall be constructed of 1.25mm (18 Gauge) sheet thoroughly stiffened with 25mm x 25mm angle iron braces and fitted with access doors.

Grilles/diffusers

- The Supply air diffusers shall be fabricated from MS/AL sections. The grille shall have horizontal extruded section fixed louvers.
- The Diffusers shall have opposed blade dampers of MS/AL which shall be key operated from the grille face, wherever required.
- The damper blades shall be of 1.25mm (18 Gauge) Al/MS Black sheets and shaped to form air tight joints. The frame work for dampers shall be fabricated from 1.25mm (18 Gauge) Al/MS Black sheet. the grille frame shall be fabricated from extruded aluminum angle. Grilles longer than 450mm, Shall have intermediate supports for the horizontal louvers. the grilles shall generally be to the design of Tuttle & baley grilles and registers.

PAINTING

- All grilles and diffusers shall be powder coated in color as approved by the architects/consultants, before installation.
- ❖ All ducts immediately behind the grilles/diffusers, are to be given two coats of black paint in Matt finish.

TESTING:

- ❖ After completion, all duct system shall be tested for air leakage.
- The Entire air distribution system, shall be balanced to supply the air quantity as required in various areas and the final balance of air quantity through each outlet, shall be submitted to the engineer- in charge. for approval.

INSULATION

GENERAL:

Insulation material will be resign bonded fiber glass or expanded polystyrene of TF (Treated for fire) quality or rigid pre laminated with aluminum foil polyurethane foam or phenotherm rigid phenalic foam.

The thermal conductivity of thermal glass shall not exceed 0.034 kcal-m/hr Deg C or 0.27 BTU in/hr sq.ft Deg F at 32 Deg C (90 Deg F) mean temperature, and density shall not be less than 24kg/cu.m. for resign bonded fiber glass thermal conductivity shall not exceed 0.022 kcal-m/hr sq.m Deg C or 0.018 BTU-in/hr-sq.ft Deg F at 32 Deg c mean temperature, and density shall not less than 36 kg/cu.m (3 lb/cu.ft). For expanded polystyrene the thermal conductivity shall not exceed 0.025 kcal-m/hr.sq.m Deg C/m or 0.024 BTU-in/hr.sq.ft.-Deg C(90 Deg F) mean temperature and density shall not less than 24 kg/cu.m (1.5 ib/cu.fot)

for pre rigid prelaminated with aluminum foil polyurethane foam, the thermal conductivity shall not exceed 0.02 kcal m/hr sq.m Deg C or 0.16 BTU-/hr sq.ft. deg F at 32 Deg C (90 Deg F) mean temperature and density shall not less than 36 kg/cu.m (2.26 lb/cu.foot). thickness of the insulation shall be as specified for the individual applications. Adhesive used for setting the insulation shall be non flammable, vapour proof adhesive.

ACOUSTIC LINING

The acoustic lining for ducts so identified and marked in the drawing and included in the schedule of quantities shall be provided with acoustic lining of thermal insulation.

INSTALLATION:

- h) The duct surface shall first be cleaned from inside.
- i) The insulation boards shall be wrapped in glass cloth of 7 mil thickness with end stitched.
- j) Then the Boards shall be fixed inside the duct.
- k) The insulation shall then be covered with 0.5mm perforated aluminum sheets.
- The sheet and the insulation shall be secured to the duct by means of cadmium plated bolts, nuts washers. The ends should be completely sealed off, so that, no insulation material is exposed.

DUCT THERMAL INSULATION. EXTERNAL

- Wherever supply air ducting exposed to atmosphere shall be insulated with 50mm thick thermocole. first external duct shall be cleaned with a wire brush to remove dirt and dust. Apply a thick coat of bituminous primer. when the primer is still tacky, apply the insulation material.
- ❖ Seal the joints using bitumen. Warp the insulation with 24 gauge GI chicken wire mesh around the insulation and two layers of smooth setting cement plaster each of 6mm thickness applied over length of wire mesh. Duct shall be painted with water proof paint of approved make.

ROOF INSULATION

- Exposed roof over the conditioned areas shall be insulated with 50mm thick expanded polystyrene. For under deck insulation in the conditioned areas, the insulation of TF Quality shall be used.
- ❖ Under deck insulation shall be done by fixing the thermocol slabs by wire and mesh method. raw plugs shall be fixed in the grid of 500mm x 500mm, tie wires and fix thermocol slab rigidly using 24G Plate washers through the GI Wires.

REFRIGERANT PIPING

- The specifications that follow cover the requirements of piping.
- Only copper piping/tubing of refrigeration quality shall be used. Soft copper tubing can be employed for sizes upto and including 22mm (7/8") OD and 9.5mm (3/8") OD shall have a minimum nominal thickness of 0.76mm (0.030") and 0.81mm (0.032") respectively.
- All piping / tubing shall be new fresh, clean and dry.
- ❖ Fittings like bends, tees, sockets, etc. shall be of copper or forged brass. Flare type fittings may used for copper tubing while hard drawn tubes upto and including 15mm size may be bent to from 90 Deg bends with throat radius being not less than 3 times the tube diameter. for bigger sizes, bends should be used as noted already.

- Valves for pipe sizes upto 15mm OD shall be all brass, hand wheel operated, Diaphragm packless type, globe or angle valves, for sizes over 15mm OD Valves shall be of bronze, globe or angle type, packed back sealed.
- Liquid line strainers shall be made of brass shall incorporate bronze screen and permanent management. Strainers shall be provided with shut valves on either side.
- ❖ Thermostatic expansion valve shall be complete with remote bulb and external equalizer and external super head adjustment. Solenoid valves shall have manual opening system to serve as by pass in case of failure of solenoid valve. Liquid-moisture indicator shall be
- provided in the liquid line.
- Flare type joints may be used for copper tubing while for a hard-drawn pipe only brazed joints shall be used. For Small lines also such as equalizer lines, expansion valves connections, gauge connections, connecting pressure switches etc., Flared fittings and joints shall be used.
- ❖ Piping shall be insulated sufficient number of bends and turns to ensure sufficient fleetly and minimize vibration. Supports, Clamps, Saddles, hangers etc., of adequate strength should be provided as required to support the piping adequately and minimize vibration.
- Necessary isolating material like rubber, felt, spring, etc,. should also be provided as an additional measure to limit transmission of noise and vibration.
- * Refrigerant piping shall be carried out giving due consideration to the need to ensure oil return and avoid liquid slope-over into the compressor, Accordingly, the piping shall include necessary loops, traps, slopes, etc., to achieve these objectives.
- While installing the piping, adequate clearance between pipes should be provided for insulation is called for
- On completing the erection, the system shall be pressure tested with dry nitrogen or carbon de-oxide. The test pressure shall be a sunder for R-22.
- High Pressure side kg /sqcm(psi) : 25 (365)
- Low Pressure side kg /sqcm(psi) : 110 (150)
- The system shall hold the pressure for a minimum period of 24 hours without revealing leaks.
- After the leak test has been completed successfully, the pressure due to Nitrogen or Carbon-de-oxide in the system.
- ❖ The System shall then be dehydrated by drawing a vacuum. The vacuum achieved shall be achieved shall be atleast as deep as 500 microns and shall be maintained for a period of atleast 24 Hours after the vacuum pump has been shut off.

INSULATION FOR REFRIGERANT PIPING:

All suction lines (insulated both indoors & outdoors) and liquid lines laid outdoors shall be applied over a coat of bituminous primer applied on the pipe surface.

CONDENSATE DRAIN PIPING:

- PVC Pipes (Medium) shall be used for condensate drain piping.
- Piping shall be supported suitably on walls/floor and all charges involved there to shall be applied in the prices quoted by the tenderers.

❖ While Installing the piping the contractor shall keep in mind the requirement that it should not foul with the structural or architectural features of the building. Further, all piping must be installed in a neat and workman - like - manner.

MODE OF MEASUREMENTS

	Unit prices in the schedule of quantities.
	The item description in the schedule of quantities is in the form of a condensed resume. The Unit price shall be held to include everything necessary to complete the work covered by this item in accordance with the specifications and drawings. The sum total of all the individual item prices shall represent the total price of the installation ready to be handed over.
	The Unit price of the various items shall include the following.
0	All equipment, machinery, apparatus and materials required as well as the cost of any tests which, the consultant may request in addition to the tests generally required to prove the quality & performance of equipment.
	All the labour required to supply and install the complete installation accordance with the specifications.
	Use of any tools, equipment's, machinery, lifting tackle, scaffolding, ladders, etc., required by the contractor to carry out his work.
	All the necessary measures to prevent the transmission of vibration.
	The necessary material to isolate equipment foundations from the building structure, wherever necessary.
	Storage and insurance of all equipment, apparatus and materials.
	The contractor's unit price shall include all equipment, apparatus material and labour indicated in the drawings and/or specifications in conjunction with the item in question on its own (and with in the system as a whole) complete, even though not specifically shown described or other wise referred to.
	Measurements of sheet metal ducts, grilles/diffusers etc.,
	Sheet metal Ducts:
	All measurements shall be taken as per actual outer duct surface area including bends, tees, reducers, collars, vanes and other fittings. gaskets, nuts, bolts, vibration/rotation pads are included in the basic duct items of item of the B.O.Q.
	The Unit of Measurements shall be the finished sheet metal surface area in square meters. No extra shall be allowed for laps and wastage's.
	All the guide vanes, deflectors in duct elbows, branches, grille, collars, quadrant dampers, etc., shall be measured for actual sheet metal surface and paid for at the same rate as a duct of the same thickness.
	The unit duct price shall include all the duct hangers and supports, exposing of concrete reinforcement for supports and making good of the same, as well as any materials and labour required to complete

the duct frame.

AIR CONDITIONING WORKS OF STATE BANK OF INDIA SME EXIM BRANCH, KOLKATA GRILLE / DIFFUSERS:

- □ All grilles/diffusers as per tender requirements, shall be treated as a lumpsum item., where extra grilles/diffusers shall be actual outlet size, excluding the outer flange.
- ☐ The square or rectangular grilles/diffusers shall be measured in plain square meters.
- ☐ All round diffusers shall be measured by their diameter in cm.
- ☐ All linear diffusers shall be measured as per actual length in meters.
- □ ACOUSTIC DUCT LINING:
- □ In the case of acoustic lining of air ducts, measurements of the bare inside duct surface in square meters, shall be final for billing purpose.
- ☐ The insulation/acoustic panels shall include cost of batteries, supports, adhesives, vapour proofing, finished tiles/boards/sheets as well as additional labour and materials required for completing the work.

MEMORANDUM

1. Name of the work : "Air conditioning works of SBI SME EXIM Branch,

Kolkata"

2. Estimated Cost : Rs. 17,00,000/-

3. Earnest Money Deposit : Rs. 17,000/-

4. Date of commencement of work : From date of marking at site.

5. Period Completion : 45 days

of commencement.

6. Value of work to be taken for issue

of interim certificate for payment : Nil

7. Retention percentage to be deducted

from Bills : 5% of the gross value of Bill

8. Total Security Deposit : as per clause No:10 (page7)

9. Defect Liability period : 12 Months from completion.

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10. Refund of Security Deposit : After expiry of defects liability

period.

11. Liquidated Damages : 0.5% of the value of contract for every

week subject to a maximum of 5% of contract value / final bill amount.

12. Period of Final measurements : 30 days

13. Period of honouring Interim Cer-

tificate for payment : 30 days

14. Period of honoring final Certifi-

cate for payment : 45 days

ITEM	ACCEPTABLE MAKES
MACHINES	
Air Cooled VRV/VRF Units	Daikin, Blue Star, Hitachi, Toshiba, Carrier, Mitsubishi
Split AC Units	Daikin, Blue Star, Hitachi, Carrier, Mitsubishi
VENTILATION/EXHAUST FAN	
Propeller Fans	Alsthom
Inline Centrifugal Fans	Nicotra, Caryaire, Kanalflakt
DUCTING & ACCESORIES	
G.I Sheets	Tata/HSL/SAIL
Aluminium Grilles, Diffusers, Linear Grilles	Caryaire, Mapro,
MS Grilles, Diffusers	Tanus, Mapro, RCS
VALVES	
Refrigerant Valves	Brassomatic Sant
'Y' Strainers	Sant, Maharaja Casting

Temp/Pressure Gauges	Taylor, Fiebig, H Guru
Fire Dampers	Carryaire, Conaire
Vibration Isolators	Resistoflex, Dunlop, Kanwal
INSULATION	
Glass wool	UP Twiga, Owens Corning, Kimco
Expanded Polystyrene (TF Quality)	Beardsell, Lloyd Insulation
Air Filters	Purolator, Thermadyne
V belts/Pulleys	Fenner, Dunlop
Electric Motors	Siemens, Kirloskar, NGEF, Crompton, ABB
Air Curtains	Sidwal/Thermo king
Enamel paint	Berger, Nerolac Asian

CONTRACTOR

DECLARATION

I/We have inspected the site of works and have made me / us fully acquainted with the local conditions in and around the sites of works. I/We hereby declare that I/We have gone through the conditions laid down in the Notice Inviting Tender, Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I/We quoted our rates in the Schedule of Quantities attached with the tender documents.

I/We shall also uniformly maintain such progress as may be directed by the Employer / Architect to ensure completion of same within the target date as mentioned in the tender document.

CHECKLIST

S.No	To be uploaded	Complied YES/NO
1.	Scanned copy of Technical Bid Pages 1 to 09 duly signed by	
	the authorized signatory of the company with company seal	
2.	Completion certificates of similar works VRV/VRF	
3.	Scanned Copy of EMD	

4.	Scanned Copy of valid dealership certificate for VRV/VRF AC system
5.	Scan copy of Goods & Services Tax Registration Certificate (as applicable)/PAN/ TAN
6.	Supporting documents for annual Turnover for the last three years
7.	Registration of Company
8.	Registration under Labour Laws
9.	Annexure-I to V (page no 13 to 17 of 6 pages) filled in before scanning/ Uploading
10	Letter of authorization from manufacturer to participate in this tender should be enclosed
11	Technical data sheet of the VRF/VRV system. matching with the specifications of Price Bid.

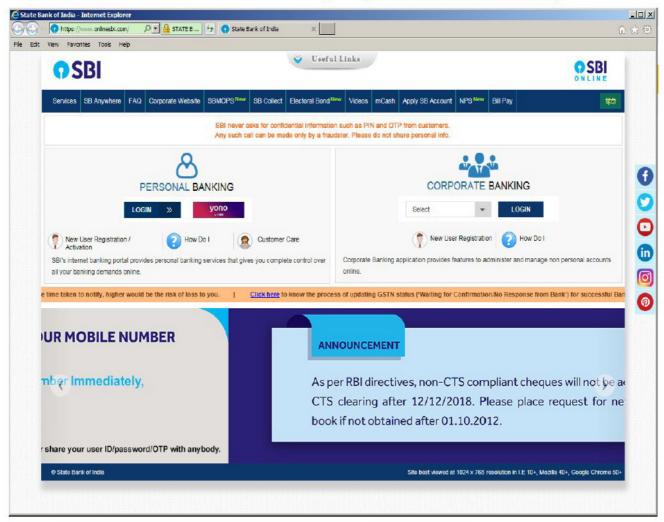
Note: Please ensure that the size of each file should not be more than 5MB. In case of larger file please split it into more number of files of size 5MB.

Witness:		
	Signature of Tenderer	
	Address	
	Date:	
	Daic.	

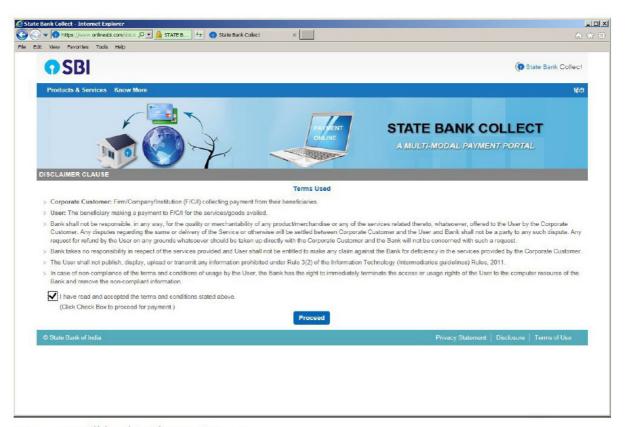
	PROCESS COMPLIANCE STATEMENT (ANNEXURE I)
	(The bidders are required to print this on their company's letter head and sign, stamp and submit with technical Bid)
	To,
	M/s,
	<u></u>
	Email id:
	Phone no: AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE
	ONLINE E-TENDERING FOR AIR CONDITINING WORK AT SBI SME EXIM BRANCH,
	KOLKATA.
	Dear Sir,
	This has reference to the Terms & Conditions for the E-tendering mentioned
	in the Tender document
1\	This letter is to confirm that: The undersigned is authorized representative of the company.
	We have studied the Commercial Terms and the Business rules governing the
,	E- tendering as mentioned in RFP of SBIIMS Pvt. Ltd. as well as this document
3)	and confirm our agreement to them. We also confirm that we have taken the training on the E-tendering tool and
Ο,	have understood the functionality of the same thoroughly.
4)	We confirm that SBIIMS Pvt. Ltd. and M/s. e-Procurement Technology, shall
	not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-E-tendering platform due to loss of internet connectivity,
	electricity failure, virus attack, problems with the PC, any other unforeseen cir-
5)	cumstances etc. before or during the E- tendering event. We confirm that we have a valid digital signature certificate issued by a valid
٥)	Certifying Authority.
6)	We, here by confirm that we will honour the Bids placed by us during the E-
	tendering process.
	With regards
	Date:
	Signature with company seal Name:
	Company / Organization: Designation within Company / Organization

ganization: Address of Company / Organization:

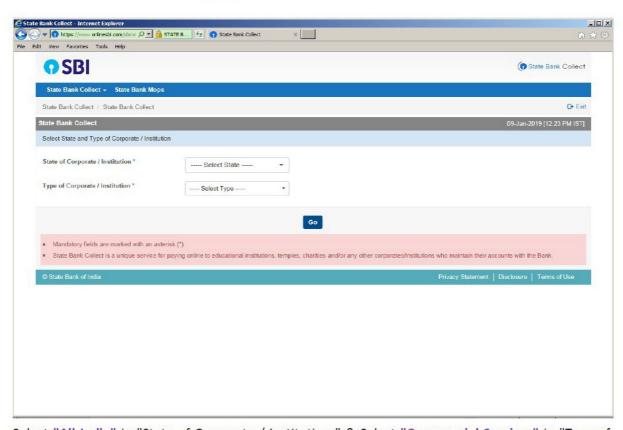
The Vendor needs to use SBI internet banking site https://www.onlinesbi.com/.



Select "SB Collect" from Top Menu, that will lead to the next page:

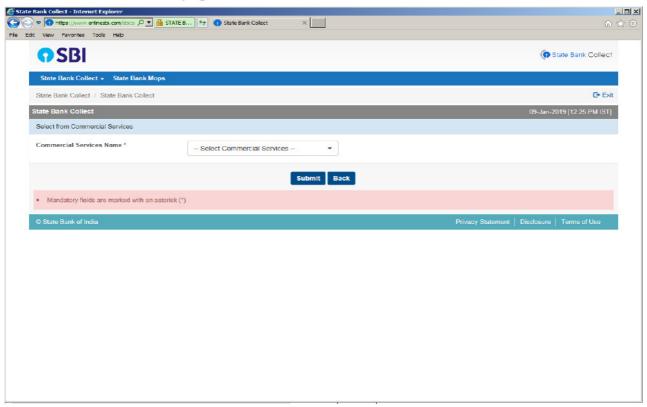


"Proceed" will lead to the next page:

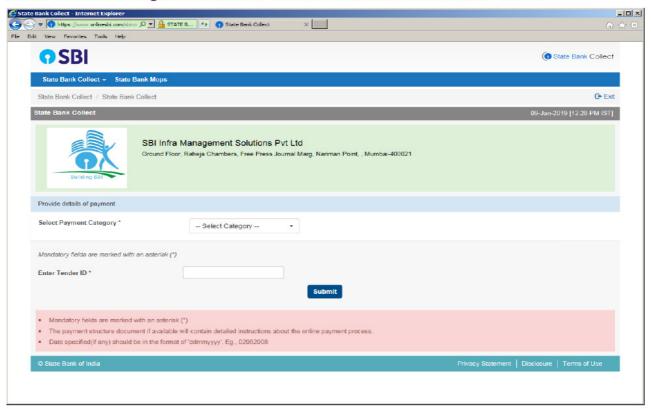


Select "All India" in "State of Corporate / Institution " & Select "Commercial Services" in "Type of Corporate / Institution".

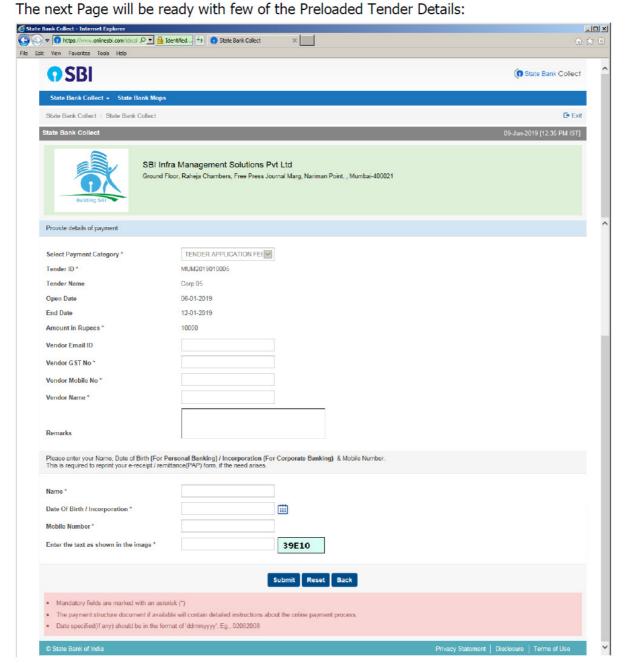
"Go" will lead to the next page:



Select "SBI Infra Management Solutions" in Commercial Services Name and "Submit"



Select "Tender Application Fee" in "Payment Category" and enter the "Tender ID" exactly as we preloaded with characters in Uppercase only in place of Circle Codes.



The Vendor will have to fill up the fields properly and upon making the payment a receipt will be generated with a Reference No.

NOTE:

- 1. VENDORS ARE REQUESTED TO SUBMIT THE COPY OF PAYMENT RECEIPT OF TENDER APPLICATION FEE ALONG WITH EMD IN HARD COPY.
- 2. VENDORS ARE REQUESTED TO CONTACT THE CONCERNED EIC FPR ANY FUTHER QUARRY RELATED TO THIS PROJECT.