

NIT NO	HYD201912507
DATE	16.12.2019



**SBI INFRA MANAGEMENT SOLUTIONS PVT LTD
(WHOLLY OWNED SUBSIDIARY OF SBI)
INVITES TENDERS ON BEHALF OF SBIRB, HYDERABAD.**

FOR

**AIR CONDITIONING WORKS FOR THE PROPOSED RENOVATION OF AUDITORIUM OF
SBIRB AT LINGAMPALLI, HYDERABAD**

BID THROUGH E-TENDERING PROCESS.

**CONSULTANT:
COMPUTER SUPPORT SERVICES
architects, interior designers & project managers
#10-2-168 FLAT NO D - 3
Essar Apartments
Street #5, West Marredpalli
SECUNDERABAD-500026
Mobile #9848027313
ravibhatnagar9@gmail.com**

**The Vice president,
SBI Infra Management Solutions Pvt. Ltd.
Ground floor, Beside Commercial Branch,
SBI LHO Campus, Bank Street, Koti,
Hyderabad – 500 095**

NOTICE INVITING TENDER (NIT)

NAME OF WORK: On behalf of SBIRB, Hyderabad, SBIIMS invites e-TENDER FOR AIR-CONDITIONING WORKS OF PROPOSED RENOVATION OF AUDITORIUM OF SBIRB AT LINGAMPALLI . HYDERABAD

1.	Name of the Work	AIR CONDITIONING WORKS OF PROPOSED RENOVATION OF AUDITORIUM OF SBIRB AT LINGAMPALLI, HYDERABAD
2.	Eligibility of the contractor	<p>1. AC MANUFACTURERS / OEM / AUTHORISED DEALER OR DISTRIBUTORS OF THE PREFERRED MAKES OF THE AIR CONDITIONERS WITH THE FOLLOWING EXPERIENCE</p> <p>2. Experience of executing similar work for a value of Rs21 lacs (one work) (or) 2 works of Rs13 lakhs each (or) 3 works of Rs10 lacs each – The similar work means supply, installation and commissioning of Ductable Splits or package AC units or VRF or chillers or PAC units or combination of any of these type of ACs.</p> <p>Experience certificate of Windows/splits or only AMC contracts will not be considered as similar works</p> <p>3. The vendor should be either based at Hyderabad or should have atleast an office at Hyderabad</p>
4.	Estimated cost of work:	Total value: Rs26,00,000/- plus GST as applicable
5.	Earnest Money Deposit. (EMD)	Rs.26,000/- all Drafts/BCs shall be in favour of "SBIIMS, Hyderabad". Payable at Hyderabad.
6.	Tender Cost	<p>Rs.3000/-</p> <p>to be paid through State Bank Collect ONLY as detailed under;</p> <p>1) login https://www.onlinesbi.com</p> <p>2) Select SB Collect from Top Menu, click the check box and "Proceed"</p> <p>3) Select "All India" in "State of Corporate/Institution" & Select "Commercial Services" in "Type of Corporate/Institution" then "Go"</p> <p>4) Select " SBI Infra Management Solutions Pvt. Ltd" in Commercial Services Name and "Submit"</p> <p>5) Select "Tender Application Fee" in "Payment Category" and enter the "Tender ID" exactly as given in first page top of this tender(characters in uppercase only).</p> <p>6) Fill up all fields such as email, GST No., Mobile No, Vendor/Firm Name etc and make payment.</p> <p>7) Enclose payment receipt having unique reference Number. along with EMD.</p>
7.	Time of Completion:	150 (One hundred & fifty) DAYS
8.	Payment terms	Minimum 10.00Lakhs in each running bill
9.	Date of download of tender documents from Bank's web site http://www.sbi.co.in under "procurement news".	From 27.12.2019 to 16.01.2020
10.	Last date and time for submission of online e-tender. at https://etender.sbi	Date: 16.01.2020 by 3.00 P.M.
11.	Date and Time of opening of e-Tenders: (Technical Bid and Price Bid)	Date: 16.01.2020 at 3.10 P.M.(IST).
12.	Address of opening of tender	Vice President & Head, SBI Infra Management Solutions Pvt. Ltd., Office, Ground floor, Adj to commercial branch, SBI LHO campus, Bank Street, Kothi, Hyderabad – 500 095. Technical Bid of those firms / contractors who do not submit EMD shall be

		rejected. Those who are already submitted the one time EMD need not to be submitted again. Representatives of Bidder may be present during opening of Bids. However Bids would be opened even in the absence of any or all the bidder's representatives.
13	EMD & Tender cost to be submitted at:	EMD should be submitted physically at above mentioned address before due date. Contact: Vice President. 040-23466346. vg.reddy@sbi.co.in
14	Bidder Contact Details (in the enclosed format)	Bidder to provide 1) Name of Company. 2) Contact Person. 3) Mailing address with Pin Code. 4) Mobile Number and E-MAIL.
15	Agency for arranging online bidding.	e-Procurement technologies Limited, Ahmedabad. 1. Anshul Juneja:- 079-68136840, anshul.juneja@eptl.in 2. Kanchan Kumari:- 079-68136820, kanchan.k@eptl.in 3. Jaymeet Rathod:- 079-68136829, jaymeet.rathod@eptl.in 4. Salina Motani:- 079-68136843, salina.motani@eptl.in 5. Vinayak Khambe:- 079-68136835, vinayak.k@eptl.in 6. Imtiyaz Tajani :- 079-68136831, imtiyaz@eptl.in 7. Hemangi Patel:- 079-68136852, hemangi@eptl.in 8. Nadeem Mansuri:- 079-68136853, nadeem@eptl.in 9. Deepak Narekar:- 079-68136863, deepak@eptl.in 10. Sujith Nair:- 079-68136857, sujith@eptl.in 11. Devang Patel:- 079-68136859, devang@eptl.in Primary Contact Numbers :- +91-9081000427, 9904407997 Alternate Contact No.:- Ms. Shubhangibanodiya :- 079-68136826 , shubhangi@auctiontiger.net
16	Initial Security Deposit	2% including EMD. in favor of SBI, Payable at Hyderabad.
17	Defects Liability Period	12 Months (Twelve months)
18	Total Security Deposit	5 % of contract value including initial security deposit.
19	Liquidated Damages	0.50% per week subject to max 5% of the value of work
20	Validity	90 days
21	Working time	As instructed by SBIRB.
22	Check list of documents to be uploaded	<ol style="list-style-type: none"> 1. Up load entire tender document in pdf format which is downloaded from https://etender.sbi (after signing in all pages) 2. Scanned copy of the Ductable AC Technical Data Sheet and Details of the Bidder – Duly filled in and signed in all the pages. 3. Scanned copy of Authorisation letter from Manufacturer/OEM to participate in the tender (or) Scanned copy of Valid dealership certificate (validity shall be for the current year or valid on the date of tender notice) 4. Scanned copy of DD/BC of EMD 5. Scanned copy of SBI Collect fee receipt 6. Scanned copy of the Experience certificate for a similar work for a value of Rs21 lacs (one work) (or) 2 works of Rs13 lakhs each (or) 3 works of Rs10 lacs each – The similar work means supply, installation and commissioning of Ductable Splits or package AC units or VRF or chillers or PAC units or combination of any of these type of ACs.

The SBIIMS reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever.

2. NOTICE TO CONTRACTOR

ADDRESS:

PROJECT: **AIR CONDITIONING WORKS FOR THE PROPOSED RENOVATION OF AUDITORIUM OF SBIRB AT LINGAMPALLI .HYDERABAD**

Dear Sirs,

1. On behalf of our clients, **M/s SBIIMS Hyderabad**, we have pleasure in inviting you to tender for the aforesaid work.

The scope of work broadly as given below is for Proposed **AIR CONDITIONING WORKS FOR THE PROPOSED RENOVATION OF AUDITORIUM OF SBIRB AT LINGAMPALLI .HYDERABAD**

2. **Tender Documents should be filled and uploaded on the site of M/S e-procurement Technologies Limited. E-mail: shubhangi@auctiontiger.net**
3. The tenderer must obtain for himself, on his own responsibility and at his own expenses, all the information which may be necessary for the purpose of filling this tender and for entering into a contract for the execution of the same and must examine the drawings and inspect the site of the work and acquaint himself with all local conditions and matters pertaining thereto.
5. Each of the tender documents page is required to be signed by the person or persons submitting the tender in token of his/their having acquainted himself/themselves with the General conditions etc., as laid down. Any tender with any of the documents not so signed will be rejected.
6. The tender documents must be filled in English and all the entries must be made by hand and written in ink. If any of the documents are missing or un-signed, the tender shall be considered invalid.
7. Each and every one of all erasures and additions/alterations made, while filling the tender, must be attested by initials of the tenderer. Over-writing of figures must be attested by initials of the tenderer. Overwriting of figures is not permitted. Failure to comply with either of these conditions will render the tender void. After submission of the tender no advice or any change in rate or conditions will be entertained. All the rates should be quoted both in figures and words. In-case of any discrepancy in rates quoted in words/figures and the amounts, the rate quoted in words shall be taken as final and binding.
8. The tender shall be valid for a period of 90 days from the date of opening.
9. TOTAL SECURITY DEPOSIT: shall comprise of:
 - a. Earnest Money deposit
 - b. Initial Security deposit
 - c. Retention money

- 9.1 The intending tenderer shall deposit with **SBIIMS HYDERABAD**, by Demand Draft a **sum of Rs. 26,000/-** as the **stipulated** Earnest Money, as a guarantee of good faith, which amount shall be forfeited as liquidated damages, in the event of any evasive/direct refusal or delay in starting the work and or signing the contract. The deposit of the unsuccessful tenderers will be returned, without interest, immediately after a decision is taken regarding the award of the contract. The Earnest money of the successful tenderer will be adjusted towards Security Deposit. A tender not accompanied by Earnest money deposit will not be considered.
- 9.2 **The successful tenderer will have to pay further sum equivalent to 2% of his contract value, less EMD already paid, as initial Security Deposit (ISD) by means of a D.D./Banker's cheque in favour of SBIRB, Hyderabad.14 days from the date of issue of work order to commence work. The EMD and Security deposit thus paid shall be held by the State Bank of India as Security deposit, for due execution and fulfillment of the contract, till the completion of the work and defect liability period in all respects and shall not bear any interest.**
- 9.3 Together with the money paid under clause 9.1 & 9.2 above, further retention of 10% of the value of the work done will be deducted from every running bill, till total retention, including EMD and initial SD paid earlier, comes to 5% of the contract value, and same shall be held by the Bank as Total Security Deposit. On the Architect's certifying the completion of work, 50% of the total security deposit shall be released to the contractor along with the final certificate of payment, and the balance amount will be retained in the manner stated elsewhere for a further period of twelve months after the completion date recorded in completion certificate, issued by the Architects and agreed to by the Bank.
10. Within one month of the receipt of intimation from the Architects of the acceptance of his/their tender, the successful tenderer shall be bound to sign an agreement, on a stamp paper in accordance with the Draft Agreement and conditions of contract attached herewith, but the work order or the written acceptance of a tender by the Employer will constitute a binding agreement between the Employer and the person tendering whether such formal contract is or not signed by the contractor.
11. All compensation or other sums of money payable by the contractors to the 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 so make good in cash or cheque, any sum which have been deducted from his security deposit.
12. The rates quoted by the Contractor shall include all eventualities, such as heavy rain, sudden floods, accidents, fire, riots etc., which may cause damage to the executed work or which may totally wash out the work. Until the completion certificate is issued to the Contractors, neither the Architect nor the clients will be responsible for such damage or wash out of the construction work.
13. Time is the essence of the contract. The work should be completed **within 150days** stipulated number of days from the date of commencement. The date of commencement shall be within ONE day after confirmation.
- a) The day two weeks from the date of issue of work order.(Or)
 - b) The day on which the contractor receives the possession of the site which ever is later.(Or)
 - c) The contractor is asked in writing to take over the possession of the site.

The successful contractor will have to give a CPM/PERT chart of various activities of work to be done so that the work gets completed within the stipulated time. The chart shall be submitted within 15 days from the date of acceptance of the tender.

14. 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 the rate of ½% of contract amount for each week of delay the work remains incomplete beyond the completion(Original/extended date), subject to maximum of 5% of the contract value (without extra items) as per the General conditions of contract.
15. The quantities contained in the Schedule are only indicative. The work as actually carried out and done will be measured up from time to time, for which payment will be made subject to the terms and conditions of contract.
16. The unit prices shall be deemed to be fixed prices. In case of extra items, a record of labour charges paid shall be maintained and shall be presented every month for extra/substituted items regularly to the Architects for checking. The settlement will be made based on figures arrived at jointly and taking into account unit prices of items of work mentioned in the contract assigned to the successful tenderers. In case, of extra items, where similar or comparable items are quoted in the tender, extra rates shall invariably be based on those tender rates to the extent reasonable.
17. Our clients, SBIIMS, do not bind themselves to accept the lowest or any tender and reserve to themselves the right to accept or reject any or all tenders, either in whole or in part, without assigning any reason whatsoever for doing so.
18. No employee of the bank or SBIIMS is allowed to work as a contractor for a period of two years of his retirement from bank service, without the previous permission of the bank or SBIIMS. This contract is liable to be cancelled, if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the bank or SBIIMS as aforesaid before submission of the tender or engagement in the contractor's service.
19. The tenderer, apart from being a competent contractor must associate himself with agencies of the appropriate class who are eligible to tender for (1) Electrical (2) Airconditioning works (3) Fire fighting systems & (4) Interiors (fixed furniture), as the case maybe.
20. Release of security deposit:
 - i) 50% of the total security deposit will be released along with the final certificate of payments as stipulated, in the Appendix to General Conditions of contract,
 - ii) Balance 50% of Retention money will also be released as noted under(i) above, subject to submission of a Bank Guarantee, to the satisfaction of SBI for an equivalent amount. This Bank Guarantee shall be valid upto completion of defects/removal liability period plus 3 months.

COMPUTER SUPPORT SERVICES
architects, interior designers & project managers
#10-2-168 FLAT NO D - 3
Essar Apartments
Street #5, West Marredpalli
SECUNDERABAD-500026

3. ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made the _____ day of _____ 2019
between

of

(hereinafter called the "Employer") of the one part and _____
of _____ (hereinafter called "The Contractor") of
the other part, where as the Employer is desirous of getting the work of
" _____ "

executed and has caused drawings, conditions of contract, specifications and schedule of quantities etc., describing the works prepared by **M/S COMPUTER SUPPORT SERVICES #10-2-168, FLAT NO D – 3, Essar Apartments, Street # 5,** West Marredpalli ,Secunderabad – 500 026 AND WHEREAS the SAID DRAWINGS numbered as per list attached inclusive of and the conditions of contract, specifications and schedule of quantities etc., have been signed by or on behalf of the parties hereto.

AND WHEREAS THE CONTRACTOR has agreed to execute upon and subject to the conditions set forth in the Schedule hereto (hereinafter referred to as "Said Conditions") the works shown upon the said drawings and described in the same specifications and included in the said schedule of quantities for such sum as may be ascertained to be payable in terms of the Bills of Quantities, and which sum is estimated to be Rs. _____ (Rupees _____ (hereinafter referred to as "Said Contract Amount").

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said sum to be paid at the times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions, execute and complete the work shown in the said drawings and described in the said specifications.
2. The Employer shall pay the contractor the said sum or such sums as shall become payable hereunder at the times and in the manner specified in the said conditions.

The term "Architect" in the said conditions shall mean the said **M/S COMPUTER SUPPORTSERVICES, 10-2—168, FLAT NO D – 3,Essar Apartments, Street # 5,**West Marredpalli, Secunderabad – 500 026

3. or in the event of their ceasing to be the Architect for the purpose of this contract, such other person as shall be nominated for that purpose by the Employer , not being a person to whom the contractor shall object for reasons considered to be sufficient by the Arbitrator mentioned in the said conditions provided always that no persons subsequently appointed to be the Architect under this contract shall be entitled to disregard or over-rule any previous decision or approval or direction given or expressed by the Architect for the time being.

4. Tender documents containing work order Notice to the Contractor, Conditions of Contract, Appendix thereto, Special Conditions of Contract, Specifications and Schedule of Quantities with the rates entered therein, shall be read and studied as forming part of this agreement and the parties hereto shall respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their part respectively in such conditions contained.
5. The contract is neither a fixed lumpsum contract or a piece work contract, but is a contract to carry out work in respect of the entire works to be paid for according to actual measured quantities, including variations from BOQ at the rates contained in the Schedule of rates and Probable bill of quantities or as provided in the said conditions.
6. The Employer through the Architect, reserves to himself the right of altering the drawings and natures of the work, of adding/substitution to or omitting any items of work or having portions of the same carried out through alternate agencies without prejudice to this contract.
7. Time shall be considered a the essence of this agreement and the contractor hereby agrees to commence the work soon after the site is handed over to him but within 15 days reckoned from the date of issue of work order to execute the work, as provided for in the said conditions and complete the entire work in **150 days** subject to nevertheless to the provisions for extension of time.
8. This agreement and contract shall be deemed to have been made in Hyderabad and any questions or dispute rising out of or in any way connected with this Agreement and Contract shall be deemed to have arisen in Hyderabad and only the courts in Hyderabad shall have jurisdiction to determine the same. The limitation period will be 45 days from the date of dispute having arisen.

AS WITNESS our hand this _____ day of _____ 2019

Signed by the said in the presence of:

WITNESS : SIGNATURE

NAME :

ADDRESS :

EMPLOYER

WITNESS : SIGNATURE

NAME :

ADDRESS :

4. APPENDIX TO GENERAL CONDITIONS OF CONTRACT

1. Earnest Money Deposit (EMD) : **Rs. 26,000/-**
2. Initial Security Deposit (ISD) : **2% of contract value including EMD.**
3. Period of completion : 150 DAYS
4. Defects Liability period : 12 months after completion as recorded in the completion certificate.
5. Agreed Liquidated Damages : ½% of contract amount per week of delay subjected to a maximum of 5% of contract value.
6. Period of final measurement : One **month** after completion as recorded in the completion certificate.
7. Minimum value of work to be Executed for issue of interim Certificates for making payment : Minimum Rs.10.00 Lakhs
8. a) Retention money from each bill : 10% of gross value of each interim bill, subject to 8(b) below.
b) Total retention money including Earnest money and initial security Deposit : 5% of the contract value.
9. Release of Security deposit after Virtual completion. : 50% of the total security to be released along with final certificate of payment, but only after removing all his materials, equipment, labour, huts/force, temporary sheds/stores, all his installations, machinery etc., from the site. Balance payment to be released on submission of Bank Guarantee on any Scheduled Bank, Other than SBI, and its associated banks in the prescribed manner and valid till the completion of defects liability period of 12 months plus 3 months.
10. Period for honouring certificate : 15 working days from date of Architects certificate of payment for interim bills and 45 working days for final certificate.

WITNESS :

DATE : SIGNATURE OF THE CONTRACTOR WITH DATE

5. INDEX TO GENERAL CONDITIONS OF CONTRACT

1. Interpretations
2. Scope of Contract
3. Drawings and Specifications
4. Schedule of Quantities
5. Sufficiency of Schedule of Quantities
6. Errors in schedule of Quantities
7. Contractor to provide everything necessary
8. Authorities, Notices, Patent rights and royalties
9. Materials and workmanship to conform to description.
10. The setting out
11. Removal of all offensive matters
12. Opening up works
13. Contractor's superintendence and representative on the work
14. Dismissal of workmen
15. Access to works
16. Employer's representative/PMC
17. Assignment of sub-letting
18. Sub contractors
19. Variations not to vitiate contract
20. Measurement to works
21. Prices of Extras etc., Ascertainment of
22. Unfixed materials
23. Removal of improper work and materials
24. Defects after completion
25. Certificate of virtual completion
26. Other persons engaged by the Employer

27. Insurance in respect of damage to persons and property
28. Contractor's All risk policy
29. Minimum amount of third party Insurance
30. Commencement and completion
31. Delay and extension of time
32. Damages for Non-completion
33. Failure by contractor to comply with Architect's instructions
34. Architect's delay in progress.
35. Supervision of works
36. Prime cost and provisional sums
37. Certificates and payments
38. Notices
39. Termination of contract by the Employer.
40. Termination of contract by the contractor.
41. Matters to be finally determined by the Architects
42. Settlement of dispute (Arbitration)

6. GENERAL CONDITIONS OF CONTRACT

1. INTERPRETATIONS:

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

- a. "Employer" shall mean Vice President, SBIIMS – Hyderabad
- b. and shall include his/their heirs, legal representatives, assignees and successors.
- c. "Contractor" shall mean _____
_____ and shall include his/their heirs, legal representatives, assignees and successors.
- d. "Banks Engineer" shall mean any Engineer who is employed by SBIIMS or any other Engineer appointed from time to time by the Employer, and certified in writing to the Architect and the contractor, to act as Engineer for the purpose of the Contract in place of the said engineer.
- e. "Architects" shall mean any Engineer/ representative appointed by **M/S COMPUTER SUPPORT SERVICES, 10-2—168, FLAT NO D-3, Essar Apartments, Street # 5, West Marredpalli , Secunderabad – 500 026**
- a. "Works" shall mean the works to be executed in accordance with contract specifications, quantities etc.
- b. "Contract" shall mean the Articles of Agreement, the General Conditions, Special Conditions, the Appendix, the Schedule of Quantities, Specifications and drawings, work order etc., attached hereto and duly signed.
- c. "Contract Price" shall mean the sum named in the Tender, subject to such amount additions thereto or deductions there from as may be made under the provisions, hereinafter contained.
- d. "Site" shall mean the Premises, on which the works are to be, provided, by the Employer or Architect for the purpose of the Contract.
- e. "Drawings" shall mean the drawings referred to in the contract etc., and any modifications of such drawings approved in writing by the Architect and the Bank and such other drawings as may from time to time be furnished or approved in writing by the Architect and Employer.
- f. "Notice in Writing" or written notice shall mean a notice in writing, typed 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 address and shall be deemed to have been received, when in the ordinary course of post, it would have been delivered.
- g. "Act of Insolvency" shall mean any Act of Insolvency as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any act amending such original.

- h. "Net Prices" if in arriving at the Contract Amount, the contractor has added to or deducted from the total of the items of the Tender any sum, either as a percentage or otherwise, then the net price of any items, 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. Provided 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 held to mean rates or prices so arrived at.
- i. "Virtual Completion" shall mean that the building is in the opinion of the Architect and Employer, sufficiently completed for occupation by the Employer, in relation to the scope of work of this contract.
- j. Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice versa, 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 with the directions of and to the satisfaction of the Architect and Employer. Architect, with the approval of the Employer, may issue further drawings and/or written instructions, details, directions and explanations, which are hereafter collectively referred to as "Architect's Instructions" in regard to:

- a. The variations or modifications of the designs, 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/ or drawings and/or specifications etc.
- c. The removal and/or re-execution or any works executed by the contractor.
- d. The removal from the site of any material brought there on by the contractor, and the substitution of any other material there from.
- e. The dismissal from the works of any person employed thereupon.
- f. The opening up for inspection of any work covered up.
- g. The amending and making good of any defects under clause "Removal of Improper works and Materials".

The contractor shall forthwith comply and fully execute any work comprised in such Architect's instruction, provided always that instructions, directions and explanations given to the contractor or his representative upon the works by the Architect shall, if involving a variation, be confirmed in writing by the contractor or within 7 days, and if not dissented from in writing within further 7 days by the Architect, such shall be deemed to be the Architects instructions within the scope of contract.

If compliance with the Architect's instructions as aforesaid involved work and/or expense and/or loss beyond that contemplated by the contract, then unless the

same were issued owing to some breach of this contract by the contractors, the employer shall pay to the Contractor on the Architect's certificate, the price of the said work (as an extra to be valued as herein after provided) and/or expense and/or loss.

3. **DRAWINGS AND SPECIFICATIONS:**

The works shall be carried out to the entire satisfaction of the EMPLOYER and the Architect, in accordance with the signed contract document, drawings and specifications and such further drawings and details as may be provided by the Architect, and in accordance with such written instructions, directions and explanations, as may from time to time be given by the Architect and the SBIIMS, whose decision as to the sufficiency and quality of the work and materials shall be final and binding on the contractor. 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 outside the scope of work or reasonably could not be inferred from the contract, he shall before proceeding with such work, give notice in writing to this effect to the Architect and the SBIIMS, and in the event of the Architects and the SBIIMS agreeing to the same in writing, the contractor shall be entitled to an allowance in respect of such extra work as an authorized extra. If the Architect and the contractor fail to agree, as to whether or not 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 if so, the amount thereof, shall failing agreement be settled by Arbitration as hereinafter provided, but such reference shall in no way delay the fulfillment of this contract.

No drawing shall be taken as in itself an order for variation, unless in addition to the Architect's signature, it bears express words stating that it is intended to be such an order or bears a remark "VALID FOR CONSTRUCTION". No claim for payment for extra work shall be allowed, unless the said work shall have been executed under the provisions of clause - Authorities, notices, patents, rights and royalties or by the authorities, of directions in drawing of the Architect as herein mentioned.

One complete set of the signed drawings and a copy of contract document (specifications and schedule of quantities etc) 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 drawings, which in his opinion may be necessary for the execution of any part of the work. Such copies shall be kept at the works, and the Architect or his representatives shall, at all reasonable times have access to the same and shall be returned to the Architect by the Contractor, before the issue of the final certificate. The original contract documents shall remain in the custody of employer.

4. **SCHEDULE OF QUANTITIES:**

The Schedule of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Procedure of the Architects and shall be considered to be approximate and no liability shall attach to the Architect for any error/variations that may be discovered therein.

5. **SUFFICIENCY OF SCHEDULE OF QUANTITIES:**

The contractor shall be deemed to have satisfied himself before tendering as 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 proper completion of the works.

6. **ERRORS IN SCHEDULE OF QUANTITIES:**

Should any error appear in the Schedule of Quantities, other than in the Contractor's prices and calculations, it shall be rectified and such rectification shall not vitiate the contract but shall constitute a variation of the contract and be dealt with as an authorised extra or deduction.

7. **CONTRACTOR TO PROVIDE EVERYTHING NECESSARY:**

The contractor shall provide everything necessary for the proper execution of works according to the true intent and meaning of the drawings, specifications and the Schedule of Quantities etc., taken together, whether the same may or may not be particularly shown or described there in, provided the same can be inferred therefrom. The several documents forming the contract are to be taken as mutually explanatory to one another; detailed drawings and figured dimensions in preference to scale, and special conditions in preference to General conditions and particular specifications in preference to General specifications.

In case of discrepancy between the Schedule of Quantities, the specifications and/or the drawings, the following order of preference shall be observed:-

- i) Description of Schedule of Quantities.
- ii) Particular specifications and special condition, if any.
- iii) Drawings.
- iv) C.P.W.D. specifications.
- v) Indian Standard specifications of B.I.S.

If there are varying or conflicting provisions made in any document forming part of the contract, the Architect shall be the deciding authority, with regard to the intention of the document and his decision shall be final and binding on the contractor.

Any error in description, quantity or rate in schedule of quantities or any omission therefrom shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works expressed therein according to drawings and specifications or from any of his obligations under the contract.

The contractor shall make his own arrangements for providing water, for carrying out the work, at his own cost. If water from any source other than Municipal main is to be used for construction, the same shall be tested at the contractor's cost, and a report submitted to the Architect for his approval, before such water is used for the works. Temporary Electrical connections shall be obtained by the contractor to facilitate execution and completion of work at their cost and all the charges there of should be borne by them.

The contractor shall supply, fix and maintain at his cost, during the execution of any works, all the necessary scaffolding, staging, hoarding, watching and lighting during nights as well as by day required not only for the proper execution and protection of the said works, but also for the protection of the public and the safety of any adjacent road, streets, cellars, vaults, pavements, walls, houses, buildings and all other erections, matters or things. The Contractor shall take down and remove any or all such scaffolding, staging, etc., as occasion shall require or when ordered or so to do, and shall fully reinstate at his own cost and make good all the matters and things disturbed during the execution of the works to the satisfaction of the Architects.

8. **AUTHORITIES, NOTICES, PATENT RIGHTS AND ROYALTIES:**

The contractor shall conform to the provisions of the statutes relating to the works, and to the regulation and by laws of any local authority, and of any water, lighting and other companies or authorities, with whose systems the structures are proposed to be connected; and shall before making any variation from the drawings or specifications, that may be necessitated by so conforming, give to the Architects a written notice, specifying the variations proposed to be made and the reason for making it and apply for instruction thereon. In case, the contractor shall not within ten days receive such instructions, he shall proceed with the work conforming with the provisions, regulations or by laws in question.

The contractor shall bring to the attention of the Architect all notices required by the said acts, regulations or bylaws to be given to any authority, and pay to such authority or to any Public Officer all fees that may be properly chargeable in respect of the works, and lodge the receipts with the Architects.

The contractor shall indemnify the Employer against all claims in respect of patent rights, designs, trademarks or name or other protected rights in respect of any constructional plant, machine, work or material used for or in connection with 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, licence fees, damages, cost and changes of all and every sort that may be legally incurred in respect thereof.

9. **MATERIALS AND WORKMANSHIP TO CONFORM DESCRIPTION:**

All materials and workmanship shall, so far as procurable be of the respective kinds specified in the Schedule of Quantities and/or specifications and in accordance with the Architect's instructions and the contractor shall on the request of the Architects furnish to them all invoices, accounts, receipts and the other vouchers to prove that the materials comply therewith. The contractor shall at his own cost arrange for and/or carry any test of any materials, which the Architect & Employer may require. The costs of materials used for testing, packing, transportation and testing shall be borne by the contractor and his quoted rates/amounts shall include all such expenses/contingencies.

- 9a. In case of non-availability of specified Make/brand of any material the alternate make/brand will be given by the Employer/Architect.

10. **THE SETTING OUT:**

The Contractor shall at his own expense, set out the works accurately in accordance with the plans and to the complete satisfaction of the Architect. The Contractor shall be solely responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress or on completion of any part of the work, the contractor shall at his cost rectify such error if called upon to the satisfaction of the Architects/Employer. The work shall from time to time be inspected by the Architect and/or his representatives, but such inspections shall not exonerate the contractor in any way from his obligation to remedy any defects, which may be found to exist at any stage of the work or after the same is completed, at his own cost.

11. **REMOVAL OF ALL OFFENSIVE MATTERS:**

All debris arising out of the work shall be disposed off as per the rules and regulations of the Local authorities concerned.

12. **OPENING UP WORKS:**

In the event of the Architect / Employer feels that the work is not carried out as per tender specifications, contractor at his cost shall open the concealed work at his cost for which no Extra cost will be paid.

13. **CONTRACTOR'S SUPERINTENDENCE & REPRESENTATIVE ON THE WORKS:**

The contractor shall give all necessary personal superintendence during the execution of the works and so long thereafter as the Architect may consider it necessary until the expiration of the "Defects Liability Period". The Contractor shall meet the Architect or his representative, whenever required and so informed by the Architect.

The Contractor shall maintain and be represented at site at all times, while the work is in progress, by a responsible and efficient foreman, approved by the Architect and who must thoroughly understand all the trades entailed and be constantly in attendance while the men are at work. Any directions, explanations, instructions or notices give by the Architect & Employer to such foreman shall be deemed to have been given to the contractor and shall be binding as such on the contractor. The Foreman shall be thoroughly conversant with the English language and should be able to read, write and speak English.

14. **DISMISSAL OF WORKMEN:**

The contractor shall on the request of the Architect and Employer immediately dismiss from the works any person employed thereon who may, in the opinion of the Architect and Employer be unsuitable or incompetent or who may misconduct himself, and such person shall not again be employed or allowed on the works without the permission of the Architect & Employer.

15. **ACCESS TO WORKS:**

The Architect, the Employer and any person authorised by them shall at all reasonable times have free access to the works and to the workshops, factories or other places where materials are being prepared or constructed by the contract and also to any place where the materials are lying or from which they are being obtained. The Contractor shall give every facility to the Architect and the Employer and their representatives for inspection and examination and test of the materials and workmanship. No person, unless authorised by the Architect or the Employer, except the representatives of Public authorities, shall be allowed on the works at any time. If any work is to be done at a place other than the site of works, the contractor shall obtain the written permission of the Architect for doing so.

16. **EMPLOYER'S REPRESENTATIVE/PMC:**

The Employer may appoint an assistant to the Engineer, any Site Engineer or Project Management Consultant (PMC), who shall be the representative of the Employer. The duties of the Employer's representatives are to watch and supervise the works and to test any materials to be used and 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 and measuring item and materials. Neither the Employer's representative nor any assistant to the Architect shall have power to revoke, alter, enlarge or relax the requirements of this contract, or to sanction any new-work, additions, alterations, deviations or omissions unless such an authority may be specially conferred by a written order of the Architect and Employer.

The Employer's representative shall have to give notice to the Contractor or his representation about the non-approval of any work or materials and such works shall be suspended or the use of such materials should be discontinued until the decision of the 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 any defects, which may be found to exist at any stage of the work or after the same is completed. Subject to the limitations of the clause, the contractor shall take instructions only from the Architect and Employer.

17. **ASSIGNMENT OF SUB-LETTING:**

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 thereof or interest therein without the written consent of the Architect and Employer, and no undertaking shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the works during their progress.

18. **SUB-CONTRACTORS:**

All specialists, merchants, tradesmen, and others, executing any work or supply and fixing any goods for which prime cost prices or provisional sums are included in the Schedule of Quantities and/or specifications, who may be nominated or selected by the Architect and employer and hereby declared to be sub-contractors employed by the Contractor, are herein referred to as nominated sub-contractors. No nominated sub-contractors shall be employed on or in connection with the works, against whom the contractor shall make reasonable objection or (see where the Architect and contractor shall otherwise agree), who will not enter into a contract provided.

- a. The nominated sub-contractors shall indemnify the contractor against the same obligations in respect of the sub-contract as the contractor is under, in respect of this contract.
- b. The nominated sub-contractors shall indemnify the contractor against claims in respect of any negligence by the sub-contractor, his servants or agents or any misuse by him or them of any scaffolding or other plant, the property of the contractor or under any Workman's Compensation Act in force.
- c. Payment shall be made by the contractor to the nominated sub-contractor, within 14 days of receipt of the Architect's certificate, provided that before any certificate is issued, the contractor shall upon request furnish to the Architect proof that all nominated sub-contractor's account included in the previous

certificates have been duly discharged; in default whereof the Employer may pay the same upon a certificate of the Architect and deduct the amount thereof from any sums due to the contractor. The exercise of this power shall not create any contract between Employer and Sub-contractor.

19. **VARIATIONS NOT TO VITIATE CONTRACT:**

The contractor shall when directed in writing by the Architect, omit from or vary works shown upon the drawings or described in the specifications or included in the priced schedule of quantities, but the contractor shall not make any alterations or additions to or omissions from the works or any deviations from the provisions of the Contract without such authorizations or direction in writing from the Architect and Employer.

No claim for any extra item or deviations shall be allowed, unless it shall have been executed by the Authority of the Architect and Employer as herein mentioned. Any such extra item or deviation is hereinafter referred to as an authorised extra item or deviation. No variations i.e., additions, omissions or substitutions shall vitiate the contract.

The rate of items not included in the bill of quantities shall be settled by the Architect and Employer in accordance with the provisions of clause hereof.

20. **MEASUREMENTS OF WORKS:**

The Architect/PMC may from time to time intimate the Contractor that he requires the works to be measured and the contractor shall forthwith attend or send a qualified agent to assist PMC/Architect's representative in taking measurements and calculations, and to furnish all particulars or give all assistance required by either of them.

Should the contractor not attend or neglect or omit to send such an agent, then the measurements and calculations, and to furnish all particulars or give all assistance required by either of them.

Should the contractor not attend or neglect or omit to send such an agent, then the measurements taken by the PMC/Architects representative approved by them shall be taken to be the correct measurements. The mode of measurements wherever not mentioned in contract documents be taken in accordance with the Indian Standard of Method of measurements of building works (I.S.1200 – 1958) and its revisions, if any. In case of any discrepancy between various contract documents on mode of measurements, the mode given in Bill of Quantities will take precedence over others.

The contractor or his agent may at the time of measurement take such notes and measurements as he may require.

All authorised extra works, omissions and all variations made without the Architect's knowledge, if substantially sanctioned by him in writing shall be included in such measurements.

21. **PRICES FOR SUBSTITUTIONS/EXTRA ETC., ASCERTAINMENT OF:**

Should it be found after the completion of the works from measurements taken (in accordance with the previous paragraph) that any of the quantities or amounts specified for the works in the priced schedule of quantities of work thus ascertained are less or greater than the amounts and/or tender or that any variations, is made, and

any substituted/ extra (new) items have been executed, the valuation of such quantities/items, amounts or variations, unless previously or otherwise agreed upon, shall be made in accordance with the following rules:

- a. The net rates or prices in the original tender shall determine the valuation of the extra (additional quantities and or extra/substituted item of work), where that work is of a similar character and executed under similar conditions of the work priced therein. This applied to extra and substituted items of work to the extent, they are similar in nature to the items in the contract.
- b. The net prices given in the original tender shall determine the value of the items omitted, provided if omissions vary the conditions under which any remaining items of work are carried out, the prices for the same shall be valued under thereof.
- c. Where extra/substituted item of works are not of similar character (either partly & fully) and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omission or additions relative to the amount of the whole of the contract works or to be any part thereof shall be such that in the opinion of the Architects the net rate or price contained in the priced schedule of quantities or tender or for any item of the work involves less or more beyond that reasonably contemplated by the Contractor or is by reason of such omission or addition rendered unreasonable for in-applicable, the Architect shall fix in consultation with the Employer such other rates or prices as in the circumstances he shall think reasonable and proper, which shall be final and binding on the contractor. For extra and substituted items this will apply for portions of the items for which, items of similar nature are not available in the contract.
- d. Where extra and or substituted items of work cannot be properly measured or valued, the contractor shall be allowed based on the net local day work rates and wages for the district and prevalent market rates for materials etc., at the time of ordering that item; provided that in either case vouchers for wages paid 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.

The measurements and valuations in respect of the extra and substituted items of work shall be completed within the "Period of final measurement" or within 3 (three) months from the completion of the contract works as defined under clause - certificate of virtual completion.

22. **UNFIXED MATERIALS:**

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

23. **REMOVAL OF IMPROPER WORK AND MATERIALS:**

The Architect shall, during the progress of the works, have power to order in writing from time to time the removal from the works, within such reasonable times as may be specified in the order, of any materials which in the opinion of the Architect and Employer are not in accordance with the specifications or the instructions of the Architect and Employer; and the substitution with proper materials and the removal and proper re-execution of any work, which has been executed with materials or workmanship, not in accordance with the contract/drawings and specifications or instructions etc., the contractor shall forthwith carry out such orders at his own cost. In case of default on the part of the contractor to carry out such orders, the Employer shall have the power to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the Contractor, and shall be recoverable from the contractor by the Employer, or may be deducted by the Architect, from any money due or may become due to the contractor for this work or on any other account.

Instead of this procedure for work not done in accordance with the contract, the Architect and Employer may allow such work to remain, and in that case may make allowance for the difference in value together with such further allowance for damages to the Employer, as in his opinion may be reasonable. This allowance shall be recoverable from the contractor by the Employer, or may be deducted by the Architect, from any money due or may become due to the contractor for this work or on any other accounts. The decision of Architects in these matters shall be final and binding on the contractor.

24. **DEFECTS AFTER COMPLETION:**

Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability Period" stated in the Appendix i.e. within 12 months after the virtual completion of the works arising in the opinion of the Architect and the Bank, from materials or workmanship not in accordance with the contract, shall upon the directions and writing of the Architect and Employer and within such reasonable time as shall be specified therein, be rectified and made good by the Contractor at his own cost. In case of default, the Employer may employ any other person to amend and make good such defects, shrinkage, settlements or other faults. All damages, loss and expenses consequent therein or incidental thereto shall be made good and borne by the contractor and such damage, loss and expenses shall be recoverable from him by the employer or may be deducted by the Employer, the damages, loss and expenses from any sums that may be due to the contractor or amount retained under condition Certificate and payment and in event of the amount retained being insufficient recover the balance from the amount held against EMD & Security deposit or any other amounts due or may become due later.

25. **CERTIFICATE OF VIRTUAL COMPLETION:**

The contractors shall intimate in writing to the Architects, as and when the works are complete in all respects in order to enable the Architect to intimate the Employer to take possession of the same. The works shall not be considered as virtually completed, until the Architect has certified in writing that the same have been "Virtually completed" and accepted by the Employer. The defects liability period shall commence, only from the date of such virtual completion certificate.

26. **OTHER PERSONS ENGAGED BY THE EMPLOYER:**

The Employer reserves the right to use the premises and any portions of the site for

the execution of any work not included in this contract which he may desire to carry out through other persons, and the contractor is to allow all reasonable facilities for the execution of such work, except by special arrangement with the Employer. Such work shall be carried out in such a manner as not to impede the progress of the works included in the contract, and the contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

27. **INSURANCE IN RESPECT OF DAMAGE TO PERSONS AND PROPERTY:**

The contractor shall be responsible for all injury to persons, animals or things and for all structural and decorative damage to property, which may arise from operation or neglect of himself or any of his or sub-contractor's employees, whether or any other cause whatever in any way connected with the carrying out of this contract. This clause shall be held to include, inter alia any damage to buildings, whether immediately adjacent or otherwise, any damage to roads, caused to the buildings and works forming the subject of this contract by frost or other inclement weather. The contractor shall indemnify the employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of government or otherwise, and also in respect of any award of compensation or damages consequent upon such claim.

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

The contractor shall indemnify the Employer against all claims which may be made against the Employer, by any member of the Public or other party, in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own cost, effect and maintain until one month after the works are taken over by the Employer or three months after the date of completion of the contract with an approved office, a policy of Insurance in the joint names of the Employer and the contractor against such risks and signing of the contract. The contract shall also indemnify the employer against all claims which may be made upon the Employer whether under the Workmen's compensation act or any other statute in force during the currency of this contract or at common law in respect of any employees of the contractor or of any sub-contractor and shall at his own expense effect and maintain until one month beyond the virtual completion of the contract, with an approved office. A policy of Insurance in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the Architects from time to time, during the currency of the contract. In default of the contractor insuring as provided above, the Architect on behalf of the Employer may so insure and may deduct the premiums paid from any money due or which may become due to the contractor.

The contractor shall be responsible for anything which may be excluded from the Insurance Policies above referred to and also for all other damages to any property arising out of and incidental to the negligent or defective carrying out of this contract however, such damage shall be caused.

The Contractor shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any Award of or compensation of damages arising therefrom.

The Employer with the concurrence of the Architect shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges

and expenses arising or occurring from or in respect of any such claims of damages from any sums due or to become due to the contractor.

28. **CONTRACTOR'S ALL RISK POLICY:**

The contractor shall within 14 days from the date of commencement of the work insure the works at his cost and keep them insured until one month after the works are taken over by the Employer or three months after the date of completion whichever is earlier, against loss or damage by fire and usual risks other than fire against which insurers generally provide cover in a CONTRACTOR'S ALL RISK POLICY, with an insurer to be approved the Architects, in the joint names of the Employer and contractor (the name of the former being placed first in the policy), progressively for the full amount of the contract, in three stages, beginning with 1/3 of the contract value, and for any further sum as called upon to do so by the Architect, with the prior written consent of the Employer, the premium of such further sum being allowed to the contractor as an authorised extra. Such policy shall cover the property of the Employer only and Architects and surveyor's fees for assessing the claim and in connection with his services generally in reinstatement and shall not cover any property of the contractor of any subcontractor or employee. The contractor shall deposit the policy and receipts for the premiums paid with the Architects, within twenty one days of the date of commencement of work, unless otherwise instructed, as provided above failing which the employer or the Architect on his behalf may insure and may deduct the premium paid from any money that may be due or that may become due to the contractor. The contractor shall as soon as the claim under the policy is settled, or the work reinstated by the insurers should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire or other such risk had not occurred and in all respects under the same conditions of contract.

The contractor in case of rebuilding or reinstatement after fire or other such usual risk shall be entitled to such extension of time for completion as recommended by the Architect.

Please refer Special Conditions of Contract, clauses.

29. **MINIMUM AMOUNT OF THIRD PARTY INSURANCE:**

Such insurance shall be effected with an insurer and in terms approved by the SBIIMS which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required, produce to the Architect/Consultant the policy or policies of insurance cover and receipts for payment of the current premium.

The minimum insurance cover for physical property, injury, and death is Rs.5.00 lakhs per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

30. **COMMENCEMENT AND COMPLETION:**

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 and complete the same (except such painting or other decorative work as the Architect may desire to delay) on or before the "Day of Completion" started in the Appendix subject nevertheless to the provisions for extension of time hereinafter contained.

31. **DELAY AND EXTENSION OF TIME:**

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

- a. by force majeure, or
- b. by reason of any exceptionally inclement weather, or
- c. by reason of proceedings taken on threatened by or dispute with adjoining or neighbouring owners or public authorities arising otherwise, than through the contractor's own default, or
- d. by the works or delays of the contractors or tradesmen engaged or nominated by the Employer or Architect and not referred to in the Schedule of Quantities and/or specifications, or
- e. by reason of civil, commotion, local combination of workmen or strike or lock-out affecting any of the buildings/traders, or
- f. by reason of the Architect's instructions, or
- g. In consequence of the contractor not having in due time, necessary instructions from the Architect, for which he shall have specifically applied in writing ahead of time, giving reasonable time to prepare such instructions.

The Architect shall make a fair and reasonable assessment for extension of time, for completion of the contract works which may be approved by the Employer.

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

32. **DAMAGES FOR NON-COMPLETION:**

If the contractor fails to complete the works by the date stated in clause date of completion or within any extended time certified under clause extension of time and if the Architect shall certify in writing on or before the date of issue of the certificate for the last payment to which the contractor may become entitled hereunder that the works could have been reasonably completed by the said date or within the said extended time, then the contractor shall pay to the Employer or allow the employer to recover from dues to the contractor on any account the sum stated in "Notice to contractors" (liquidated damages and not by way of penalty), subject to a maximum amount of 5% as stated in Appendix of General Conditions of contract and as stated in "Notice to contractors" and such damages may be deducted from any money due or which may become due to the contractor.

The deduction of such sums shall not, however, absolve the contractor of his responsibility and obligations to complete the work in its entirety.

33. **FAILURE BY CONTRACTOR TO COMPLY WITH ARCHITECT'S INSTRUCTIONS:**

If the contractor after receipt of written notice from the Architect requiring compliance with such further drawings and/or Architects instruction, fails within seven days to comply with the same, the Architect and Employer may employ and pay other persons

to execute any such work whatsoever as may be necessary to give effect thereto and all costs incurred in connection therewith shall be recoverable from the contractors by the employer on a Certificate by the Architect as a debit or may be deducted by him from any money due or which may become due to the contractors.

34. **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 consequence of such delay, and the contractor shall not make any claim for compensation or damage in relation thereto.

35. **SUSPENSION OF WORKS:**

If the contractor, except on account of any legal restraint upon the employer preventing the continuance of the works, or on account of any of the causes mentioned in the clause "Extension of time" or in the case of certificate being withheld or not paid when due, shall suspend works or in the opinion of the Architects, 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 in the respects mentioned in clause (removal of improper work and materials), the Employer through the Architect shall have the power to give notice in writing to the contractor required that the works be provided within a reasonable manner, and with reasonable despatch, such notice shall not be unreasonably given and must signify that it purports to be a notice under the provisions of this clause and must specify the acts or defaults on the part of the contractor upon which it is based. After such notice shall have been given, the contractor shall not be at liberty to remove from the site of works, or from any ground contiguous thereto, the site of works, or from any ground contiguous thereto, any plant or materials belonging to him which shall have been placed thereon for the purpose of work, and the Employer shall have lien upon such plants and materials to subsist from date of such notice being given until the notice shall have been complied with, provided always that such line shall not under any circumstances subsist after the expiration of 30 (thirty) day from the date of such notice given, unless the employer shall have entered upon and taken possession of the works and site, as hereinafter provided.

If the contractor shall fail for seven days after such notice has been given, to proceed with the works as therein prescribed, the Employer may enter upon and take possession of the works and site, and of all such plants, machinery and materials thereon intended to be used for the works, and the Employer shall retain and hold a lien upon all such plants, machinery and materials until the work shall have been completed, under powers hereinafter conferred upon him;

If the Employer shall exercise the above power, he may engage any other person to complete the works and exclude the contractor, his agents and servants from entry upon or access to the same, except that the contractor or any person appointed in writing may have access at all times during the progress of the works to inspect, survey and measure the works. Such written appointments or a copy thereof shall be delivered to the Architects before the person appointed comes on to the works and the Employer shall take such steps as in the opinion of the Architect may be reasonably necessary for completion the works, without undue delay or expenses using for that purpose the plant, machinery and materials above mentioned in so far as they as they are suitable and adopted to such use.

Upon the completion of the works, the Architects shall certify the amount of the

expenses properly incurred consequent on and incidental to the default of the contractor as aforesaid and in completion the works by other persons.

Should the amount so certified as the expenses properly incurred be less than amount which should have been due to the contractor upon the completion of the works by him, the difference shall be paid to the contractor by the Employer, should the amount of the former exceed the later, the difference shall be paid by the contractor to the Employer. The Employer shall not be liable to make any further payments or compensations to the contractor for or on accounts of the proper use of the plant for the completion of the works under the provisions herein before mentioned other than such payments as is included in the contract.

After the works shall have been so completed by persons other than the contractor, under the provisions herein before contained, the Architect shall give notice to the contractor to remove his plan and all surplus materials as may not have been used in the completion of the works from the site.

If such plant and materials are not removed within a period of 14 days after the notice shall have been given, the Employer may remove and sell the same, holding the proceeds less the cost of the removal and sale, to the credit of the contractor. The Employer shall not be responsible for any loss sustained by the Contractor from the sale of the plant in the event of the Contractor not removing it after notice.

36. **PRIME COST AND PROVISIONAL SUMS:**

- a. Where "Prime Cost" (P.C.) prices or provisional sums of money are considered for any goods or works in the specifications or Schedule of quantities or deviations hereof, the same are exclusive of any trade discounts, or allowances, discount for cash, or profit which the contractor may require and or carriage and fixing.
- b. All goods or work, for which prime cost prices or provisional sums of money are considered may be selected or ordered from any manufacturer's or firms, at the discretion of the Architect or the Employer. The Employer reserves to himself the right of paying directly for any such goods or work and the Architect may deduct the said prices or sums from the amount of the contract. Should any goods or works for which prime cost prices or provisional sums are considered or portions of same be not required, such prices or sums, together with the profits allowed for such additional amount as the Contractor may have allowed for carriage and fixing will be deducted in full from the amount of the Contract. Whether the goods be ordered by the Contractor or otherwise, the contractor shall at his own cost fix the same, if called upon to do so, and the contractor shall also receive and sign for such goods and be responsible for their safe custody as and from the date of their delivery upon the works.
- c. In cases in which provisional quantities of items/materials are contained in the contract, the contractor shall provide such materials and or execute such items to such amounts or to greater or lesser amounts as the Architect shall direct in his schedule of quantities.
- d. No prime cost sum or sums (or any portion thereof) shall be included in any certificate for payment to the contractor until the receipted accounts relating to them have been produced by the contractor to the Architect. Such accounts shall show all discounts and any sum or sums in respect of such discounts shall be treated as a trade discount. Provided always, that should the contractor in lieu of producing such receipted accounts, request the Architect in writing to issue a certificate to the Employer for such sum or sums, due either on account or in settlement to a sub-contractor direct, the Architect shall, upon satisfying himself that the sub-contractor is entitled to the same,

so issue the certificate and such sum or sums be deducted from the amount of the contractor, at the settlement of accounts and any profit or sum to which the contractor is properly entitled, in respect of such sub-contract, and which is in conformity with the terms of contract as though the amount of such certificates to the sub-contractor has been included in a certificate drawn in favour of the contractor.

- e. If the contractor neither produces the receipt nor gives authority to the Architect to issue a certificate in favour of such sub-contractor direct, the Architect may upon giving the contractor SEVEN DAYS NOTICE in writing of his intentions to do so, issue to the sub-contractor such certificate direct to the Employer and obtain a receipt from the sub-contractor, which receipt shall be deemed as a discharge for the amount of such certificates, as though given by the contractor. In such event, the contractor shall not be allowed any profit he may have added in the Schedule of Quantities upon such sub-contract.
- f. The exercise of the option before referred to by the Contractor and the issue of certificates, as before described to sub-contractor direct or certificates by the Architect, shall not however, relieve the contractor from any of the liabilities in respect of insufficient, faulty or incompleting work of the sub-contractor for which he may be liable under the terms of the contract.

37. **CERTIFICATES AND PAYMENTS:**

The contractor shall be paid by the Employer after due checking and after making necessary correction from time to time, by instalments under Interim Certificates to be issued by the Architect on account of the works executed by the contractor based on the joint measurements taken by the PMC, the Architects representative and the contractors representative 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 Architect & Employer) has been executed in accordance with the Contract, subject however, to a retention of the percentage of such value named 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 instalments shall be upto the full value of the work subsequently so executed plus such amount as he may consider proper on account of materials delivered upon the site by the contractor for use in the work and available on the date of billing.

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

The Contractor shall be entitled to the payment of the final balance (balance security deposit/retention money) in accordance with the final certificate to be issued in writing by the Architect at the expiration of the period referred to as 'The Defects Liquidation Liability period' in appendix hereto, from the date of virtual completion or as soon after the expiration of such period as the work shall have been finally completed and all defects 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 contractor from his liabilities in cases of fraud, dishonesty or fraudulent concealment relating to the works or materials or any matter dealt within the certificate, and in case of all such defects and insufficiencies in the works or materials, which reasonable examination would

have disclosed. No certificate of the Architect shall by itself be conclusive evidence that any works or 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 parts thereof are not being carried out to his and employers satisfaction. The Architect may by any certificate make any correction in any previous Certificate, which shall have been issued by him. Payment upon the Architect's Certificates shall be made within the period named in the Appendix as 'Period of Honoring of Certificates, after such certificates have been delivered to Employer.

38. **NOTICES:**

Notices for the Employer, the Architect, or the Contractor may be served personally or by being left at or sent by registered post to the last known place of abode or business of the party to whom the same is to be given or in the case of the contractor by being left on the works. In case of a company or corporation, notices may be served at or sent by registered post to the Registered Offices of the Company or Corporation. Any notice sent by registered post shall be deemed to be served at the time, when in the ordinary course of post it would be delivered.

39. **TERMINATION OF CONTRACT BY THE EMPLOYER:**

If the contractor being an individual or a firm, commit any act of insolvency, or shall be adjudged as Insolvent or being an incorporated Company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the Supervision of the Court and of the Official Assignee of the Liquidator in such acts of insolvency or winding up, shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Architect that he is able to carry out and fulfill the contract, and to give security thereof, if so required by the Architect.

Or if the contractor (whether an individual, firm or incorporated Co.) shall suffer execution to be issued.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the Architects/Employer first obtained.

Or shall charge or encumber this Contract or any payments due or which may be due to the Contract thereunder.

Or if the Architect shall certify in writing to the Employer that the contractor,

- a. has abandoned the contract or
- b. has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for 14 days, after receiving from the Architect written notice to proceed, or
- c. has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or

- d. has failed to remove materials from the site or to pull down and replace work for 7 days after receiving from the Architect written notice that the said materials or work were condemned and rejected by the Architect under these conditions, or
- e. has neglected persistently to observe and perform all or any of the acts, matters or things by this contract to the observed and performed by the Contractors for 7 days after written notice shall have been given to the contractor requiring the contractor to observe or perform the same, or
- f. has to the detriment of good workmanship or in defiance of the Architect's instructions to the contrary, sublet any part of the contract.

Then and in any of the said cases the Employer with written consent of the Architect, may notwithstanding any previous waiver, after giving 7 days notice in writing to the contractor, determine the contract, but without hereby affecting the powers of the Architect to continue in force as full as if the contract has not been so determined and as if the works subsequently executed has been executed by or on behalf of the contractor.

And further, the Employer under recommendations of the Architect, by his Agents, or servants may enter upon and take possession of the works and all plants, tools, scaffoldings, sheds, machinery, and other equipment and materials also laying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completion the works or by employing any other contractors or other persons to complete the works and the contractor shall not in any way interrupt or do not act, matter or thing to prevent or hinder such other contractor or other persons or person employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or soon thereafter as convenient, the Architect shall give a notice in writing to the contractor to remove his surplus materials and plant, and should the contractor fail to do so, within a period of 14 days, after receipt thereof by him, the Employer shall sell the same by publication and shall give credit to the contractor for the amount realised. The Architect shall thereafter ascertain and certify in writing under his hand when (if anything) what shall be due to or payable by the Employer for the value of the said plant and materials so taken possession of by the Employer, and the expense or loss, which the Employer shall have incurred due to the contractor, and the amount which shall be so certified shall thereupon be paid by the Employer to the contractor or by the contractor to the Employer, as the case may be.

40. **TERMINATION OF CONTRACT BY CONTRACTOR:**

If payment of the amount payable by the Employer under certificate of the Architect as provided for hereinafter shall be in arrears and unpaid for 30 (thirty) days after notice in writing requiring payment of the amount, as aforesaid shall have been given by the Contractor to the Employer, or if the Employer obstructs the issue of any such certificates, or if the employer commits any Act of insolvency, or if the Employer (being an incorporated company) shall have an order made against him or pass an effective.

Resolution for winding up, either compulsorily or subject to the supervision of the Court or voluntarily, or if the Official Liquidator or the Employer shall repudiate the contract, or if the if the Official Liquidator in any such winding up shall be unable within 15 days

notice to him requiring him to do so, to the reasonable satisfaction of the contractor that he is not able to carry out and fulfill the contract and to give security for the same (including Earnest money), or if the works be stopped for any payments due, and to become due thereunder and if required under the order of the Architects or the Employer or by an injunction or other order of any court of law, then in any of the said cases, the contractor shall be at liberty to determine the contract by notice in writing to the Employer/Architect, and he shall be entitled to recover from the Employer, payment for all works executed and for any losses he may sustain, upon any plant or materials supplied or purchased or prepared for the purpose of the contract.

In arriving at the amount of such payment, the net rates contained in the contract shall be followed, or where the same may not apply, valuation shall be made in accordance with the relevant clause thereof.

41. Matters to be finally determined by the Architects and the Bank (Called excepted matters) – which shall be final, conclusive and binding on the following matters:

- a) Instructions
- b) Transactions with local authorities
- c) Proof of quality of materials
- d) Assigning or under letting of the contract,
- e) Certificate as to the causes of delay on the part of the contractor and justifying extension of time or otherwise,
- f) Rectification of defects pointed out during the defects liability period.
- g) Notice to the contractor to the effect that he is not proceeding with due diligence.
- h) Certificate that the contractor has abandoned the contract.
- i) Notice for determination of the contract by the Employer.

42. **ARBITRATION:**

- a. When the contractor is dissatisfied with the decision of the Architect/Employer, the contractor is required to give a notice to the Employer within 30 days of the receipt of such decision, for the appointment of the Arbitrator for the settlement of the outstanding disputes.
- b. Vice President, SBIIMS, HYDERABAD shall be appointed to refer those disputes for adjudication to a sole arbitration.
- c. It is also a term of the contract that if the contractor does not make any demand for Arbitrator in respect of any claims within 90 days of receiving the intimation from the Bank that the final bill is ready for payment, the claims if any received after 90 days period shall be absolutely barred from reference to the Arbitrator.
- d. 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 the rights touching or of this contract, effect thereof, or to the rights or liabilities of the parties arising out of or in relation thereto, whether during progress or after determination, foreclosure or breach of the contract (other than those in respect of which the decision expressed to be final and binding in cases listed out in condition above), Architects shall, after written notice to either party to the contract and to the appointing Authority, who shall be appointed for this purpose by the employer refer those disputes for adjudication to a sole arbitrator, to be appointed as hereinafter provided.

- e. For the purpose of appointing the sole arbitrator referred to above, the Appointing authority will send, within thirty days of receipt by him of the written notice aforesaid, to the contractor a panel of three names of persons, who shall be presently unconnected with the organization for which the work executed.
- f. The contractor shall on receipt by him of the names as aforesaid, select any one of the persons named to be appointed as a sole arbitrator and communicate his name to be appointed as a sole arbitrator to the Appointing Authority, within thirty days of receipt of the names by him. The Appointing Authority 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 Appointing Authority shall make the selection and appoint the selected person as the sole arbitrator.
- g. If the Appointing Authority fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the appointing authority a panel of three names of persons, who shall be unconnected with either party. The Appointing Authority shall on receipt by him of the names as aforesaid select any one of the persons named and appoint him as the sole arbitrator. If the Appointing Authority fails to select the person and appoint him as the sole arbitrator within 30 days of receipt by him of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from the panel as the sole arbitrator and communicate his name to the Appointing Authority.
- h. If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reasons whatsoever, another sole arbitrator shall be appointed as aforesaid.
- i. 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.
- j. The arbitrator shall be deemed to have entered on the reference, on the date he issues notice to both the parties, fixing the date of first hearing.
- k. The arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.
- l. 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 a place, as may be fixed by the Arbitrator in his sole discretion.

The fees, if any, of the Arbitrator, if required to be paid before the award is made and published, shall be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any, of the Arbitrator, who may direct to any by whom and in what manner such costs or any part there of shall be paid and may fix or settle the amount of costs to be so paid.
- m. The award of the Arbitrator shall be final and binding on both the parties.
- n. Subject to aforesaid, the provisions of the Arbitration and Conciliation Act, 1996, or any statutory modifications or re-enactments thereof, and the rules made thereunder, and for time being in force, shall apply to the arbitration proceedings under this clause.

7. INDEX TO SPECIAL CONDITIONS OF CONTRACT

1. Inspection of drawings
2. Contractor to visit site
3. Execution of work (Prices to include)
4. Schedule of Quantities
5. Quantities liable to alterations
6. Filling of tenders
7. Access for inspection
8. Dimensions
9. Program of works
10. Stores, Sheds at Site
11. Water and Electricity
12. Procurement of materials
13. Sanitary accommodation at Site
14. Facilities to other contractors
15. Testing
16. Site meetings
17. Custody and security of materials
18. Notices
19. Statutory regulations
20. Measurements to be recorded before work is covered up.
21. Working at night or on holidays.
22. Action where there is no specification
23. Reporting of accident
24. Cleaning the site on completion/determination of work
25. Possession of buildings/work completed
26. Typographic, Clerical and other errors.
27. Information to be supplied by the Contractors.

28. Force Majeure
29. Architect's drawings and instructions
30. Completion of work and liquidated damages
31. Bill of payments
32. Workmanship
33. Schedule of quantities
34. Site Supervision
35. Engagement of Apprentices
36. Rates
37. Income tax
38. Extra items rates
39. Service drawings/shop drawings/catalogue
40. Payment
41. Permission
42. Maintaining Registers at site
43. Agreement
44. Insurance
45. Indebtedness and liens
46. Work performed at contractor's risk
47. Photographs
48. Inspection by the Chief Technical Examiner
49. Special conditions of contract
50. B.I.S. Codes
51. As Built Drawings

8. SPECIAL CONDITIONS OF CONTRACT

1. INSPECTION OF DRAWINGS:

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

2. CONTRACTOR TO VISIT SITE:

Each tenderer must, before submitting his tender, visit the site of works, so as to ascertain the physical site conditions prices and availability and quality of materials according to specifications before submitting the quotations. No excuse regarding non-availability of any materials or changes in the price will be entertained or extra allowed on that account.

The existing adjacent buildings belonging to Govt/private which are in close proximity of the proposed Interiors, hence the contractor shall cater for all arrangements to carry out the work without causing any disturbance to the occupants by providing screens with bamboo matting or other suitable material approved by Architects/Engineer. The contractor shall ensure that no dust or construction material falls near/around the existing buildings.

3. EXECUTION OF WORK (PRICES TO INCLUDE):

i) The whole of the work as described in the Contract (including the Schedule of Quantities, the specifications and all drawings pertaining thereto) and as advised by the Architect & employer from time to time is to be carried out and completed in all its parts to the entire satisfaction of the Architect & Employer. Any minor details of construction, which may not have been definitely referred to in this contract, but which are usual in sound building, road and all construction practice and essential to the work, are deemed to be included in this contract. Rates quoted in the Tender is inclusive of transportation and other over heads.

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

- a) 1. Carrying
 - 2. Hauling
 - 3. Labour
 - 4. Fixing
 - 5. Watering
 - 6. Cleaning
 - 7. Making good and
 - 8. Maintenance etc.
- b) The contractor should arrange timely at his cost for all required.
- i) Plant, machinery, scaffolding, formwork, ladders, ropes, nails, spikes, shuttering, temporary supports, platforms, tools, all materials etc., required for executing the work, and protecting them from weather and other normal/natural causes.
- ii) Covering/protecting for the walling and other works, during inclement weather, strikes etc., as and when necessary and or as directed.
- iii) All temporary canvas covers/covering, lights, tarpaulin, barricades, water shoots etc.
- iv) All stairs and steps, thresholds and any other requisite protection for the works.

v) All required temporary weather-proof sheds at such places and in a manner approved by the Architect, for the storage and protection of materials, against the effects of sun and rain.

vi) All required temporary fences, lighting/sign-boards etc., guards, approaches and roads as may be necessary for execution of the contract works and for safeguarding the public.

c) The Architect & Employer will be the sole judge in deciding as to the suitability or otherwise of the tools/formwork/machinery or plant that may be brought to the work site by the contractor for the proper execution of the work.

d) The rates quoted by the tenderer in the Schedule of Probable items of work will be deemed to be for the finished work.

4. **SCHEDULE OF QUANTITIES:**

The Schedule of quantities forms part of the contract, but the Employer reserves the right to modify the same or any part thereof as per variation clause stated herein below. The contractor shall not be allowed any compensation or damages for the work which is so omitted or cancelled or added or substituted by the Architect & Employer.

5. **QUANTITIES LIABLE TO VARY:**

This clause applies for unlimited variations (+ or -) for items of foundations and those executed below plinth level. For all other items, only in case where + variations of any item exceeds 100% of Quantities of respective items given in the schedule of quantities of the contract, such additional quantities of those items shall be treated as extra items and valued as per special conditions of contract, considering of that rates for these items cannot be derived from the contracted items of work.

The quantities indicated in the bill of quantities are only approximate, and hence may vary on either side (+ or -) for accomplishing the works enunciated under the scope of works, in accordance with designs, drawings and specifications and or instructions of the Architect & Employer. Variations may also occur, consequent upon addition or deletion or substitution of particular items, change of designs or specifications during the course of execution. The contractor, in either case, is bound to carryout the modified quantities upto +100% (plus one hundred percent) variation, without any enhancement in rates and at the same rates as per accepted original tendered rates.

6. **FILLING OF TENDERS:**

The rates and amounts for each tendered item should filled in separate columns provided for in the Schedule of quantities and all the amounts should be totaled up in order to show the aggregate value of the entire tender. All rates shall be filled in both words and figures. These figures and words shall be preceded by 'Rs' and 'Ps' as the case may be, and while filling in words, must end with "Only". Example:

- i) Rs.15.25 (Rupees fifteen and paise twenty five only)
- ii) Rs.20.00 (Rupees twenty only)

The rates quoted in figures should be clearly show the rates in full. While filling rates in words, each line should end in '-', and if continued further, last line for the rate of each item shall end in "Only". All corrections, by the contractor in the tender schedule shall be duly attested by the initials of the tenderer. Corrections which are not attested or overwritings in rates may entail the rejection of the tender.

In case the rate written in figures/words/amount differ, the following procedure shall be followed:

- a) When there is a difference between the rates in figures and in words, the rates which correspond to the amounts worked out by the contractor will be taken as correct.
- b) When the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figures or in words, then the rate quoted by the contractors in words shall be taken as correct.
- c) When the rates quoted by the contractor in figures and in word tallies but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount.

7. **ACCESS OF INSPECTION:**

The contractor is to provide at all times, during the progress of the works and the maintenance period, means of access with ladders, gangways etc., and the necessary attendants to move and adopt the same as directed for the inspection or measurement of the work by the Architect and Employer or any other agency employed by the client.

8. **DIMENSIONS:**

In all cases figured dimensions are to be accepted in preference to scaled sizes. Large scale details shall take precedence over small scale details/drawings. In case of any discrepancy, the contractor shall 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,

9. **PROGRAMME OF WORKS:**

The contractor on starting the work shall furnish to the Employer and Architect a PERT/CPM programme, for carrying out the work stage by stage in the stipulated time, for the approval of Architects and Employer, and follow strictly the approved time schedule by incorporating changes, if any, so authorised by the Architect and Employer, to ensure the completion of construction work ins stipulated time. A graph or chart on individual item/group of items/trades of work shall be maintained, showing the progress both in terms of quantities and value, week by week. The contractor shall submit to the Employer and Architect a weekly progress report stating the number of skilled and unskilled labourers employed on the work, working hours done, quantity of cement, steel and other major items of materials (quantity and value wise) used and corresponding place, type and quantity of work done during the period.

The contractor must inform the Architects, 10 days in advance of requirement of respective drawings and details by him, from time to time. The contractor shall strictly adhere to the approved programme and arrange for the materials and labour etc., accordingly.

Despite repeated instructions, if the contractor fails to show satisfactory progress of the work, the Employer/Architect may take suitable action as deemed fit, including levying of liquidated damages not exceeding ½% of contract price for delay of every week or part thereof, subject to a limit of total liquidated damages levied under this clause to 5% of contract price without prejudice to any terms and conditions of the contract.

10. **OFFICES, STORES, SHEDS ETC., ON THE SITE:**

a. The contractor shall provide for all necessary storage on the site, in a specified area for all materials, in such a manner that all such materials, tools etc., shall be duly protected from damages by weather or any other cause. Stores for storage of cement shall have all weather proof floors, walls and roof and have proper locking arrangements and must be secure. All these must be maintained till the work is completed and so certified by the Architect. Necessary and adequate watch and ward for all such accommodations and stores shall be provided for by the contractor at his cost and same included in the rates/amounts quoted by him. All such stores shall be cleared away and the ground left in good and proper order on completion of this contract unless otherwise expressly mentioned herein.

b. All materials which are stored on the site such as plywood, false ceiling material etc., shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials and prevent deterioration in quality due to water etc.

11. **WATER AND ELECTRICITY:**

Contractor shall make his own and adequate arrangements for water required for drinking and construction purposes and also for required electric supply at site for satisfactory execution and completion of the work, at his own cost. The contractor shall get the water used for construction purpose tested periodically as per relevant BIS codes at his cost, and shall get the same approved from Architect and clients before using such water for the work.

12. **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 materials of approved make and quality in sufficient quantities at respective markets/sources, to enable him to complete the entire work in the stipulated period.

Contractor will get samples of all materials approved by the Architect and employer, before placing order/purchase/procurement. They shall conform to relevant B.I.S. codes and or tender specifications as applicable.

For all materials, the contractor shall quote for the best quality of the materials of best make/source or supply and they should be got approved by the architect and employer, before procurement.

In case sufficient quantities of approved quality materials from approved sources are not available in time, contractor may have to procure the same from neighbouring areas even with longer leads, as required and directed, at no extra cost.

13. **SANITARY ACCOMMODATION IN SITE:**

The contractor shall provide and maintain at his own cost and expense adequate closet and sanitary accommodation for the use of his workmen and others in accordance with the rules and regulations of the relevant local authorities.

14. **FACILITIES TO OTHER CONTRACTORS:**

The contractor shall give full facilities and co-operation to all other contractors working at site doing plumbing, Electrical, civil works etc., as directed by the Architect & Employer and shall arrange his programme of work, so as not to hinder the progress of other works. The decision of the Architect & Employer, on any point of disputes between the various contractors, shall be final and binding on all parties concerned.

15. **TESTING:**

The contractor shall, as and when directed by the Architect & Employer, arrange to test materials and/or portions of the work at site in any approved laboratory at his own cost, in order to provide their soundness and efficiency. The contractor shall transport all the materials from site to the approved laboratory at his own cost. The contractor shall carryout all the mandatory tests as per list attached at the frequencies stated therein. Even after such tests, any materials brought to site or incorporated in the works are found to be defective or unsound or not as per approved samples, the contractor shall remove the same and re-erect at his own cost and without any additional time/period for the same, with reference to the date fixed for completing the work. In case these tests are not carried out at the frequencies stated, then proportionate costs of materials not so tested, including cost of testing and quantities of items of work executed with such materials, if otherwise accepted for retention in the work, will be deducted from the dues to the contractor. The deductions will be worked out by the Architect/client and shall be final and binding on him.

Tolerance on various material and items of work shall be allowed laid down in the documents below and the order of precedence shall be:

- a) Relevant Indian Standards Specifications.
- b) CPWD norms.
- c) Manufacturer's Specifications.

In absence of above Architect's decision basing on the general practice being following shall be final.

16. **SITE MEETINGS:**

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

17. **CUSTODY AND SECURITY OF MATERIALS:**

The contractor shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman/watchmen to look after his materials, stores, equipments etc., including cement and steel at site and ensure that at no time unauthorised persons gains any access at works site.

18. **NOTICES:**

The contractor shall give all notices and pay all necessary and relevant fees and shall comply with all Acts and Regulations, for the successful completion of the contract work.

19. **STATUTORY REGULATIONS:**

The whole of the work including sanitation and electrical is to be complied with, as per the requirements and bylaws of the relevant statutory authorities, including Contract Labour (Regulation and Abolition)Act, 1970 of Central Government.

20. **MEASUREMENT TO BE RECORDED BEFORE WORK IS COVERED UP:**

The contractor shall take joint measurements with the Employer's representative (Project Management Consultant or any Engineer identified by the Bank) and Architect's representative before covering up or otherwise placing beyond the reach of measurement any item of work.

Should the contractor neglect to do so, the same shall be uncovered at the contractor's expense or in default thereof, no payment or allowance shall be made for such work or the materials with which the same was executed.

21. **WORKING AT NIGHT OR ON HOLIDAYS:**

The contractor can carry out major work at night, only with prior permission of the Site Engineer of Employer/Architect and with proper supervision. However, all concrete work will be carried out only during the day light.

21a. **WORKS AT NIGHT:**

If the contractor is required to do preliminary works at night, in order to complete the work within the Time Schedule, the contractor shall provide and maintain at his own cost necessary and sufficient barricades/lights etc., to enable the work to proceed satisfactorily without danger. Approaches to the site also shall be sufficiently lighted by the contractor.

21b. **WORKING ON HOLIDAYS:**

No work shall be done on Sunday or other Bank holidays that may be notified by the Architect & Employer, without the specific sanction in writing of the Architect & employer or his representatives.

22. **ACTION WHERE THERE IS NO SPECIFICATION:**

In case of any item/class of work, for which there is no specification mentioned (either in part or full), the same will be carried out in accordance with the relevant CPWD specifications (only for the specifications missing in the contract) and if not available even there (either in part or full) in, relevant standards of BIS shall be followed (only for the portions of specifications missing in the contract specifications and CPWD specifications). Indian standard specifications, subject to the approval of the Architect & Employer.

23. **REPORTING OF ACCIDENT TO:**

The contractor shall be responsible for the safety of all persons employed by him on the works and shall report serious accidents to any of them, whenever and wherever occurring one 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 the precautions as detailed in the safety code attached separately.

24. **CLEARING THE SITE ON COMPLETION/DETERMINATION OF WORKS:**

The contractor shall clear the site of works as per the instructions of the Architect. The site of works shall be cleared of all men, materials, sheds, huts etc., belonging to the contractor. The site shall be delivered in a clean and neat condition, as required by Architect, within a period one week after the job is completed. In case of failure by the contractor, the Employer, under advice to the Architect, have the right to get the site cleared to his satisfaction at the risk and cost of the contractor.

25. **POSSESSION OF BUILDINGS/WORK COMPLETED:**

The contractor shall hand over to the Employer possession of the completed works in stages, as and when required, and as directed by the Architect & Employer.

The Employer will take over the possession of completed works in stages as directed by the Architect, and defects liability period will commence only from the date of final handing over of all the work accordingly.

Please refer Appendix to General Conditions of contract.

26. **TYPOGRAPHIC, CLERICAL AND OTHER ERRORS:**

The Architects/Employer's clarification regarding partially omitted particulars or typographical, clerical and other errors shall be final and binding on the contractors.

27. **INFORMATION TO BE SUPPLIED BY THE CONTRACTOR:**

The contractor shall furnish to the architect & Employer the following from time to time:

- a) Detailed industrial statistics regarding the labour employed by him, etc., every month (within 5th of succeeding month),
- b) The Power of Attorney, name and signature of his authorised representative, who will be in charge for the execution of work.
- c) The list of technically qualified persons (to be approved by the Architect) employed by him for the execution of the work within 15 days from date of start of work,
- d) The total quantity and quality of materials used for the works, every month within 5th of succeeding month.

Failure to submit any of these details in time, shall be treated as a breach of the contract and likely to result in,

- i) Levying a fine of Rs.500 for each default for each month, and or
- ii) Withholding payments, otherwise due.
- iii) For the periods for which name of technically qualified persons are not given or for which such persons are not employed, recoveries shall be made at Rs.7,500/- per month for each month of default. In all these matters the decision of the Architect shall be final and binding.

e) **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, Strike, lock-out or control or any other reason, beyond the control of the parties and any breach of clauses arising from such Force Majeure conditions as aforesaid shall not be regarded as breach of the provisions of this Agreement.

f) **ARCHITECT'S DRAWINGS AND INSTRUCTIONS:**

A set of major drawings, along with the contract documents shall be provided to the contractor. If any clarification or further drawings are required by the Contractor during or before the start of construction work, the contractor shall inform the Architects and the SBIIMS sufficiently in advance 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. In case, any other drawing/detail is required by the contractor, he will give a minimum of fifteen days notice to the Architect.

30. **COMPLETION OF WORK AND LIQUIDATED DAMAGES:**

The work shall be completed in 90 DAYS, and reckoned as under: WITHIN ONE DAY AFTER CONFIRMATION.

- (a) The day two weeks from the date of issue of work order.
or
(b) The day on which the contractor receives the possession of the site – whichever is later.
or
(c) The contractor is asked in writing to take over the possession of the site.
- Time is the essence of the Contract. The Contractor shall strictly adhere to the programme/chart agreed to. In case the contractor fails to complete the work as mentioned above, the liquidated damages may be imposed at the rate of 0.5% per each week (or part thereof) of delay, subject to a maximum of 5% of contract amount.

31. BILLS OF PAYMENTS:

The minimum value of work for interim payments will be Rs. 10.00 lakhs, as stated in Appendix. The contractor shall submit interim bills, once a month on the basis of joint measurements recorded at site by the contractor's Employer's and the Architects representatives. The bill will be certified by the Architect within 15 working days from the date of submission of the bill by the contractor, and the Employer will make payment as stated in the Appendix to General Conditions of Contract. All such interim payments shall not be considered as an admission of the due performance of the contract or any part thereof in any respect and shall not preclude the requiring of bad unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected at contractor's cost, all as per Employer and Architect's instruction and directions.

32. WORKMANSHIP:

Quality of materials and workmanship shall conform strictly to specifications given/stipulated in the tender/contract, and contractor will ensure that the best quality of work will be done to the satisfaction of the Architect and Employer, with strict control on the materials, workmanship and supervision.

33.SCHEDULE OF QUANTITES:

Quantities mentioned in the Schedule of Quantities, included in the contract, are approximate and are subjected to variations as per actual site conditions & requirements and as directed by the Architect & Employer. The work shall be executed and completed accordingly.

34.SITE SUPERVISION:

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

35. ENGAGEMENT OF APPRENTICES:

The Contractor shall during the currency of the contract, when called upon by the clients, engage and also ensure engagement by sub-contractors and others employed by the contractor in connection with the works such number of apprentices in the categories mentioned in the act and for such period as may be required by the clients. The contractor shall train them as required under the Apprentice Act 1961 and the Rules made thereunder and shall be responsible for all obligations of the clients under the said Act, including the liability to make payment of apprentices, as required under the said Act.

36. RATES:

Contractor shall quote all the rates both in figures and in words and any alterations shall have to be initialled by the contractor. Rates quoted by the contractor for the same item in different schedules shall be same, and in case different rates are quoted, the lowest will be taken as correct and the schedule corrected accordingly. In case of discrepancy between rates given in words and figures or in the amount worked out, the following procedure will be followed:

In case of item rate tender:

The tenderers shall quote their rates for individual items both in words and figures in case of discrepancy between the rates quoted in words and figures the unit rate quoted in words will prevail. If no rate is quoted for a particular item the contractor shall not be paid for that item when it is executed.

The amount of each item shall be calculated and the requisite total is given. In case of discrepancy between the unit rate and the total amount calculated from multiplication of unit rate and the quantity the unit rate quoted will govern and the amount will be corrected.

The tenderers should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the contractor would be paid accordingly.

The tenderer should not change or modify or delete the description of the item. If any discrepancy is observed he should immediately bring to the knowledge of the Architect / SBIIMS.

37. INCOME TAX:

Income tax shall be deducted at source by the client from the contractor's interim and final bill payments as required by law.

38. EXTRA/SUBSTITUTED ITEM RATES:

Such items shall be executed as per directions/instructions of the Architects of the employer.

The work on extra/substituted items shall be started only after the receipt of written order from the client/Architect. Rates for additional/extra or substituted (altered) items of work, which are not covered in the contract cannot be derived from the contract item rates either in full or partly, shall be calculated on the basis of actual costs plus 15% for overhead and profit etc., only to the extent not derivable from the contract item rates.

39. SERVICES DRAWINGS/SHOP DRAWINGS/CATALOGUE:

After getting approval from the Architect & Employer, the contractor shall submit to the concerned local authorities necessary services drawings showing layouts etc., for getting approval of the schemes. On completion, the contractor shall arrange to get Drainage Completion Certificate and other Certificate necessary for obtaining Building Completion certificate. The contractor shall furnish completion drawings of all services in triplicate, showing the work as actual executed, along with levels. Contractor shall submit for approval 4 copies of shop drawings/ catalogue/ equipment characteristics/ manufacturer's specifications, drawings etc., as and when required and directed by the Architect & Employer. Costs of all these are deemed to have been included in the respective item rates quoted by the contractor and nothing extra shall be paid on account of any of these requirement/acts.

40. PAYMENT:

No payment whatsoever shall be made by the Employer, if the Contractor abandons the work, due to any site difficulties etc.,

41. PERMISSION:

The contractor shall also obtain necessary permission approvals from the relevant authorities shall be obtained by the contractor at no extra cost.

42. MAINTAINING REGISTERS AT SITE:

The contractor shall maintain registers for consumption of various specials, testing of materials etc., in the preform which shall be given by the Architect & Employer from time to time.

43. AGREEMENT:

The successful contractor shall be required to enter into an agreement in accordance with the Draft Agreement and Schedule of Conditions etc., within 15 days from the date the contractor is advised by the Architect & Employer that his tender has been accepted. The contractor shall pay for all stamps and legal expenses incidental thereto. However, the written acceptance of the tender by the Employer, will constitute as a binding contract between the Employer and contractor, whose tender has been accepted, whether such formal agreement is or is not subsequently executed.

44. INSURANCE:

The contractor shall provide insurance in respect of damage to persons and property and firm insurance as per relevant clause of General conditions of contract. In addition he will also insure against riots and civil commotion. The insurance shall also cover third party and all the persons working at site and visitors including contractor's, worker's, Architect's and clients people, other contractor's workers etc. The contractor shall indemnify the Employer against any claim or compensation or mishaps of whatsoever nature at site during the progress of work.

The contractor shall prove to the Architect/Client from time to time that he has taken out all the insurance policies as required and directed and has paid the necessary premium for keeping the policies valid as per the General Conditions of Contract.

In case of failure by the Contractor or sub-contractor to effect and keep in force the insurance policies, then the client, without being bound to, may pay such premiums as may be necessary and deduct the same from any money due or which may become due to the contractor or recover the same as a debt due from the contractor.

45. INDEBTEDNESS AND LIENS:

The contractor agrees to furnish the Employer from time to time, during the progress of the work as requested, verified statement showing the contractor's total outstanding indebtedness in connection with the work covered by the contract. Before final payment is made, the Employer may require the contractor to furnish the Employer with satisfactory proof that there are no outstanding debts or liens in connection with the contract. If during the progress of the work, the contractor shall allow any indebtedness to accrue to sub-contractor or other and shall fail to pay or discharge same within five (5) days after demand, then the Employer may withhold any money due to the contractor until such indebtedness is paid, or apply the same towards the discharge thereof.

46. 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, guards, signs, barricades, temporary passages or other protection necessary for the purpose. All work shall be done at the contractor's risk and if any loss or damage shall result from fire or from any other cause, the contractor shall promptly repair 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 or held for use in connection with the work. The work shall be carried on to Employer or of others and without interference with the operation of existing machinery or equipment, if any.

47. PHOTOGRAPHS:

The contractor at his own cost shall take photographs of site and individual buildings during the progress of the work as directed by the Architect/Client and submit two copies of each photograph with minimum size 20 cm x 15 cm to the client/Architect.

48. INSPECTION BY THE CHIEF TECHNICAL EXAMINERS (VIGILANCE):

The proposed work covered under this tender, during the progress and/ or after completion, can also be inspected by the Chief Technical Examiner/ Technical Examiner or Officers of the Central Vigilance Commission, Government of India, on behalf of Architect & Employer to ascertain that the execution of the work has been done with materials and workmanship all as stipulated in the contract and as directed.

Contractor shall afford all reasonable facilities to the above vigilance staff and also provide them with ladders, tapes, plum bob, level etc., as required and directed and also necessary labourers skilled/unskilled to enable them to complete their inspection/study/technical scrutiny and no extra shall be admissible to the contractor on this account.

49. 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 there mentioned elsewhere.

50. BIS CODES

It is compulsory for the contractor to keep all the B.I.S. codes mentioned in this tender document at his cost at the site to ensure the proper supervision/quality of work and materials.

51. AS BUILT DRAWINGS

The contractor shall prepare and submit a set of as-built drawings, duly certified by the Architect. The set consists of 2 soft copies and 3 sets of hard copies.

9. GENERAL AND TECHNICAL SPECIFICATIONS

CONTENTS:

- A) SPECIAL CONDITIONS
- B) TECHNICAL SPECIFICATIONS
- C) PREFERRED MAKES OF MATERIAL
- D) SCHEDULE OF QUANTITIES

SPECIAL CONDITIONS

1. General:

1.1 These special conditions shall be read in conjunction with the description of the item of work in the Bill(s) of Quantities, the particular Specifications, Local Statutory Regulations, Indian Standards Specifications/Codes and the drawings. All the above quoted documents, shall be considered supplementary to each other. However, in the case of conflict amongst the various provisions the owner's and the consultants opinion will be final and shall be adopted.

1.2 The tenderer is advised to inspect the site to ascertain the nature of site, access thereto, local facilities for procurement of materials and working labour rates prevalent in the area, in fact all matters affecting his prices and execution of the work. The tenderer shall be deemed to have full knowledge of the site and drawings whether or not he actually inspects them.

2. **Rates**

2.1 The rates quoted shall be deemed to allow for all minor extras and constructional details which are not specifically shown on drawings or given on the specifications but are essential in the opinion of the Engineer-in-charge to the execution of works to conform to good workmanship and sound engineering practice. The Consultant/SBIIMS reserves the right to make any minor changes during the execution without any extra payment.

2.2 The Consultants/SBIIMS decision to clarify any item under minor changes, minor extras and constructional details shall be final, conclusive and binding on the Contractor.

2.3 The rates quoted by the Contractor shall be net so as to include all requirements described in the contract agreement and no claim whatsoever due to fluctuations in the price of material and labour will be entertained.

2.4 The rates quoted by the Contractor shall include for supplying materials and labour necessary for completing the work in the best and most workmanship like manner to the satisfaction of the Consultant/SBIIMS and which in the opinion of the Consultant cannot be made better, and for maintaining the same. The rates shall be complete in all respects also including cost of materials, erection, fabrication, labour, supervision, tools and plant, transport, sales and other taxes, royalties, duties and materials, contingencies, breakage, wastage, sundries, scaffoldings, etc., on the basis of works contract. The rates quoted shall include all transport, insurance, octroi, or any other levies applicable under the statute.

3.0 **Materials:**

3.1 The Contractor shall ensure to the satisfaction of the Consultant/SBIIMS that the materials are packed in original sealed containers/packing bearing manufacturer's markings and brands etc., except where the gross quantity required is a fraction of the smallest packings. Materials not complying with this requirement shall be rejected.

3.2 Testing of Materials:

a) When required by the Consultant / SBIIMS, the Contractor shall provide all facilities at site or at manufacturer's works or in an approved laboratory for testing the materials and/or workmanship. All the expenditure in respect of this shall be borne by the Contractor unless specified otherwise in the Contract. The Contractor shall, when required to do so by the Consultant shall submit at his own cost, manufacturer's certificate of tests, proof sheets, mill sheets etc., showing that the materials have been tested in accordance with requirements of these specifications. The samples for Tests shall be selected by SBIIMS / Consultant.

4.0 Rectification of Defects:

4.1 Any defect in the work done or materials used in the works pointed out by the Consultant / SBIIMS shall be rectified within a week or such extended time as may be allowed in this failing which the said defect shall be got rectified by the Consultant at the risk and cost of the Contractors.

5.0 Conduit and Cables Layout :

5.1 Prior to the pulling of wires, the Contractor shall verify the conduits laid at site by Civil Contractors and satisfy themselves about the adequacy of the same. The contractors shall prepare Wiring layout along with Conduit layout and submit for approval. Prior to laying of the cables, the Contractor shall submit to the Consultant /SBIIMS detailed layout plans of the cable net work and get the same approved. The layout plans shall contain particulars regarding size and routes of the cables. The Cables shall be procured only after approval of Layout Drawings.

6.0 Regulations &Standards :

6.1 The installation shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS:732 and IS:2274. It shall also be in conformity with the current Indian Electricity Rules and Regulations and requirements of the local Electric Supply Authority in so far as these become applicable to the installation. Wherever this specification calls for higher standard of material and/or workmanship than those required by any of the above regulations then this specification shall take precedence over the said regulations and standards.

7.0 Shop Drawings :

7.1 The Contractor shall prepare and submit to the Consultant / SBIIMS for the approval of detailed fabrication drawings for Main LT Panels/SwitchGears/Rising Mains special boxes and Distribution Board, switch board, special any other equipment to be fabricated by Contractor within 7 days of signing of the contract.

8.0 Completion Drawings :

8.1 At the completion of the work and before issuance of certificate of virtual completion the contractor shall submit to the consultant / SBIIMS layout drawings drawn at approved scale indicating the complete wiring system "As Installed". These drawings shall in particular, give the following information.

- (a) Run and size of conduits, inspection, junction and pull boxes.
- (b) Location and rating of sockets and switches, controlling the light and power outlets.

- (c) Number and size of conductors in each circuit.
- (d) Location and details of distribution boards, mains, switches, switchgear and other particulars.
- (e) A complete wiring diagram, as installed and schematic drawings showing all connections in the complete electrical system.
- (f) Location of telephone outlets, T.V. Music & Fire Alarm outlet boxes, junctions boxes, sizes of various conduits.
- (g) Locations of all earthing stations, routs and size of all earthing conductors, manholes etc.
- (h) Layout and particulars of all cables.

9.0 Manufacturer's Instructions:

9.1 Where manufacturers have furnished specific instructions, rating to the materials used in this job, covering points not specifically mentioned in the documents, these instructions shall be followed in all cases.

10.0 Completion Certificate :

10.1 On completion of the Electrical Installation a certificate shall be furnished by the Contractor counter signed by a licensed supervisor, under whose direct supervision the installation was carried out.

This certificate shall be in the prescribed form as required by the local supply authority. The Contractor shall be responsible for getting the drawings and Electrical Installation inspected and approved by the local Authority concerned.

11.0 Qualified Competent Supervision :

11.1 The Contractor shall employ competent fully licensed, qualified full time Engineer to direct the work of Electrical installation in accordance with drawings and specifications. The Engineer shall be available at all times on the site to receive instructions from Consultant in the day to day activities, through out the duration of the contract. The foremen shall co-relate the progress of the work in conjunction with all relevant requirements of the supply authorities.

12. Approval from SEB/ Electrical Inspectorate:

The Contractor shall prepare and submit all the relevant drawings as per the Requirement of AP TRANSCO/ Electrical Inspectorate and obtain the Approvals from CEIG,CEA, Hyderabad. No incidental expenses will be paid towards the same. Only statutory fees if any will be paid by SBIIMS. (Not applicable for this work)

TECHNICAL SPECIFICATIONS **DUCTABLE SPLIT AIR CONDITIONERS**

GENERAL

All the Duct-able split air conditioners units shall be factory assembled and tested complete in all respects and conforming to Indian/ASHRAE standards. They shall be supplied pre-charged with refrigerant gas and oil ready for installation at site. The Air-cooled split Unit shall be a two piece assembly comprising of the following:

CONDENSING UNIT

- a) Hermetically sealed Scroll type compressors with refrigerant cooled motor.
- b) Air-cooled Condenser.
- c) Condenser fan with sufficient air discharging capacity.
- d) Steel structure with sheet metal casing in which the above are mounted.
- e) Automatic capacity control devices along with safety gauges/devices.
- f) Full charge of refrigerant along with refrigerant oil.

EVAPORATOR UNIT

- a) Direct expansion-cooling coil.
- b) Inter connected Seam less copper refrigerant piping.
- c) Centrifugal fan with motor.

CONDENSING UNIT (OUT-DOOR UNIT)

The condensers should be fitted with in built circuit breaker or external weather proof isolater with encloser of required capacity.

COMPRESSOR

The Scroll compressor shall be Hermetically sealed in design. The compressor shall be a direct shaft mounting of the refrigerant cooled hermetic motor.

EXTERNAL

The compressor housing shall be made of gas tight steel shell which is made up of two shells, these shells are welded together to form a Hermetic (Airtight) seal. One shell is fitted with a suction tube and a Glass-matic terminal used for supplying power to the motor, fitted inside the compressor shell and the other is fitted with a discharge tube. The shell also acts as an oil sump.

INTERNAL

The internal parts shall be accurately machined for installation of the required parts. The Impellers, valve plate and connecting shaft shall all be made of Aluminum alloy having high compressive strength.

LUBRICATION

The oil pump formed by drilling number of holes on the surface shall do the lubrication of the bearing. One end of the crankshaft shall be always dipped in the oil.

CONDENSER COIL

The condenser coil shall be internally grooved copper tube with split aluminum fins. The condenser shall be fitted with a fan of propeller type. The condenser shall be built on an air-cooled design using outside ambient air up to 45°C to condense the refrigerant. The condenser coils shall be constructed of 12 mm OD integrally enhanced Seam less copper tubes arranged in staggered rows. This shall have a minimum of 3 rows to provide proper heat rejection. The copper tubes shall be mechanically expanded into lanced and rippled Aluminum fins of minimum 0.1mm thick with 13 fins per inch.

CONDENSER FANS

The condenser fans shall be of propeller type with the motor directly fitted to the shaft of the fan. The fan shall have a minimum of 6 blades for delivering maximum air quantity of air without any motor overloading. The fan blade should be either moulded unbreakable plastic or die cast aluminum material. The motor shall be of TEFC construction and shall be of IP 55 protection with resistant to high ambient.

REFRIGERANT PIPING

The refrigerant piping interconnecting all the condensing unit and the evaporator unit shall be of Seam less copper with tube dia as required and having a wall thickness of minimum 2mm and able to withstand pressure up to 450 PSI. Necessary gas mufflers, flexible connections on discharge and suction side shall be provided to reduce vibration / noise of refrigerant/compressor.

SAFETY DEVICES

The condensing units shall be provided with all necessary safety devices, which are essential for proper operation of the equipment. These shall not be limited to the scope of this specification and shall have all safety devices required for optimum operation of the unit. The following minimum safety devices are suggested:

- a. Low voltage cutout
- b. Low evaporating cutout
- c. In-built internal overload
- d. Pressure relief valve
- e. Low pressure cutout
- f. High condensing pressure cutout
- g. Motor overload trip/protection

MOTOR

Motor shall be squirrel cage constant speed, suitable for 220+ 10 % volts, 50 Hz, 1phase power supply. Motor speed shall not exceed 1450 RPM. The fan and motor combination selected for particular requirement shall be for the most efficient type so that sound level and energy consumption is minimal. Motor conduit box shall be mounted on exterior of the casing. Wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit.

EVAPORATOR UNIT

FAN

Fan impeller and housing shall be fabricated from heavy gauge steel. Fan wheels shall be of double width, double inlet forward-curve multi-blade type enclosed in Housing and mounted on a common shaft. Fan housing shall be made of die-formed steel sheets with streamlined inlets and guide vanes to ensure smooth airflow into the fans. The fan shall be belt driven with pulley having belt-tensioning arrangements. All rotating parts shall be statically and dynamically balanced. Fan speed shall not exceed 1500 RPM and maximum fan outlet velocity shall be 450 meters per minute (1500 FPM). The average air quantity for the air handling units shall be 400 CFM per TR of refrigeration. However the fan should be facilitated with capacity adjustment for lower or higher air quantities as per individual air requirements as the site demands. Stretch less V-Belts should be used. The fan shall be able to deliver the desired air quantity with sufficient static pressure for carrying out the ducting and also be able to add fresh air.

COOLING / COILS

Cooling coils shall have 12.5 to 15 mm dia copper tubes min. 24 gauge thick, with aluminum fins firmly bonded to copper tubes assembled in zinc coated steel frame. Face and surface areas shall be such as to ensure rated capacity from each unit and such that the air velocity across each coil shall not exceed 150 meters per minute. The coil shall be pitched in the unit

casing for proper drainage. Each coil shall be factory tested at 21 Kg / Sq. cm. air pressure while submerged in water. Tubes shall be hydraulically expanded for minimum thermal contact resistance with the fins. Fin spacing shall be 13 fins per inch. (4-5 Fins/CM.). The units shall be fitted with minimum 3-row coil for giving the cooling effect.

STEEL STRUCTURES

The evaporator unit shall be assembled on formed corrosion resistant galvanized sheet metal steel sections which shall be pre treated and finished with epoxy painting/polyester powder coating. The steel structure shall be sturdy enough to withstand transport without getting distorted and when stationary handle the equipment load. There should be proper encasing of unit with acoustic lining in all inside to reduce noise level of the equipment.

MOTOR

Motor shall be squirrel cage constant speed, suitable for 220+ 10 % volts, 50 Hz, 1phase power supply. Motor speed shall not exceed 1450 RPM. The fan and motor combination selected for particular requirement shall be for the most efficient type so that sound level and energy consumption is minimal. Motor conduit box shall be mounted on exterior of the casing. Wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit.

PERFORMANCE

The performance of the unit shall be proved at site at the time of installation and also the power consumption should not exceed the confirmed rating through out the period of service of the equipment. The company shall stand guarantee for the aforesaid condition and shall compensate the client in case the power consumption proved at site is more than the stipulated power. The rate of compensation shall be as indicated in penalty clause as given earlier in the conditions of contract.

The contractor shall submit along with the tender the rating charts of the machines offered indicating the percentage capacity, power consumed, rated amperage, locked rotor amps and also inrush currents of equipment at maximum ambient conditions.

PAINTING

Shop coats of paint that have become marred during shipment or erection shall be cleaned off with mineral spirits, wire brushed and spot primed over the affected areas, then coated with enamel paint to match the finish over the adjoining shop painted surfaces.

TESTING

Cooling capacity of various Unit models shall be computed from the measurements of airflow and dry and wet bulb temperatures of air entering and leaving the coil. Flow measurements meters shall be accurately calibrated. The temperature gauges shall be mercury-in glass thermometers. Computed results shall conform to the specified capacities and quoted ratings. Power consumption shall be computed from measurements of incoming voltage and input current.

SHEET METAL WORK

Sheet metal ducting required for air distribution system is shown in drawings forming part of these specifications. These drawing indicate the duct sizes and configuration required to meet design air distribution requirements and also to provide the Contractor with necessary data for bidding; they are not meant to serve as working drawings which will have to be prepared by the successful contractor, giving due attention to the structural features of the building and to other site requirements, as well as partition layouts, lighting and false ceiling patterns etc, and for which approval has to be obtained from the Architects/Owners.

1. GSS sheets shall be used for ducting. Only new, fresh, clean (unsoiled) and bring sheets shall be used. The thickness of the sheets to be used shall be as shown in the table below:
- 2.1 RECTANGULAR DUCT

Dimensions of Ducts (mm)	Gauge – G. I.	Gauge – Aluminum.	Type of Joints.	Type of Bracings.
Upto 600	24	22	G. I. Flange at 2.5 Center.	Cross Bracings.
601 to 750	24	22	22 x 225 x 3 mm angle frame with 6mm dia nuts and bolts.	25 x 25 x 3 mm MS angles bracing at 1500mm from joints.
750 to 1000	22	20	25 x 25 x 3 mm angle frame with 6mm dia nuts and bolts.	25 x 25 x 3 mm MS angles bracing at 1500mm from joints.
1001 to 1500	22	20	40 x 40 x 5 mm angle frame with 8mm dia nuts and bolts.	40 x 40 x 3 mm MS angles bracing at 1500mm from joints.
1501 to 2250	20	16	50 x 50 x 3 mm angle to be cross braced diagonally with 10mm dia nuts and bolts at 125 center.	40 x 40 x 3 mm MS angle bracing at 1200mm from joints or 40 x 40 x 3 mm MS angle diagonal bracing.

Sheet metal ducts shall be fabricated as per ISI Standards/SMACNA out of galvanized steel sheets. Sheets used shall be produced by hot dip process and galvanizing shall be Class VI - Light Coating of zinc nominal 185 gm/sq. m.

2.2 HANGERS FOR DUCT

Duct Size (mm)	Spacing (M)	Size of MS angle (mm x mm)	Size of rod – dia (mm)
Up to 750	2.5	40 x 3	10
751 to 1500	2.0	40 x 3	12
1501 to 2250	2.0	50 x 3	15
2251 & above	2.0	50 x 3	15

The fabrication of the ducting including details of transverse joint connections, bracing, scams, etc., for longitudinal joints etc., will be generally as per ISS-655-1963, the intent being to obtain duct pieces that are robust and rigid enough to preclude flutter, buckling etc., and to avoid air leakage's

Angle iron flanges shall be used

All supports for ducting shall be provided by the successful contractor, MS angles, rods and other sections shall be used as required for the purpose. The supports shall be taken independently to the building structure, in other words they should not be tied on to supports for light fixtures.

All bolts, nuts, rivets, washers, etc., sued for duct joints shall be of GI and not MS.

All duct joints shall be made tight and the interior surfaces shall be smooth. Necessary gaskets of rubber or similar material shall be used to secure tightness of joints.

ALL MS angles, flats, etc., used for flanges, stiffening etc., shall be finished with two coats of Red Oxide and one coat of Black paint. These requirements shall apply to supporting arrangements / members also.

Minimum thickness of structural members employed for supports shall be as per IS 800.

Where ducting is supported from ceiling/ roof slab, Anchor grip bolts shall be used to fasten the suspension rods (for duct supports) to the ceiling/ roof slab.

All civil works involved including the drilling of holes for fixing the grip bolts and any chipping and finishing of the ceiling/ roof slab, if found unavoidable, shall be carried out by the successful contractor at no extra cost.

Elbows, bends, offsets, etc. should be fabricated with a width to radius ratio of not less than 1.0 to 1.5. Alternately, turning vanes should be provided at intervals so chosen that the aspect ratio of the various sections so formed by the vanes will be at least five.

Turning vanes shall be provided at branch take-offs and collars wherever possible. Similarly, straightening vanes shall be provided in all the collars unless and except in case where conditions at site do not permit their installation.

All supply air diffusers shall be of powder coated extruded aluminum sections and removable core type. Volume control dampers shall be provided for all diffusers.

Return air diffusers shall be identical to supply air diffusers except that they do not incorporate volume control dampers.

Supply air grilles shall be double deflection type & powder coated extruded aluminum construction. They shall be complete with volume control dampers of aluminum mounted on grilles. The vanes at the front shall be horizontal while those at the rear shall be vertical. The width of the perimeter flanges shall be 32 mm. The vanes shall be 3 mm thick and 25 mm deep.

Return air grilles shall also be Powder coated extruded aluminum construction. They shall incorporate (only) horizontal vanes, which shall be fixed. The perimeter flanges shall be 32 mm width. The vanes shall be 3 mm thick and 25 mm deep. The pitch of vanes shall be 20 mm.

All dampers shall be louvered dampers (of GI) of robust construction and tightly fitted in epoxy painted MS angle iron frame. They shall be provided with suitable links, levers and quadrants as required for their proper operation, control or setting in any desired position.

Dampers and their operating devices shall be made robust, easily operable and accessible through suitable access doors in the ducts/ false ceiling. Where required, dampers shall have an indicating device, clearly showing the damper position at all times.

Dampers shall be placed in ducts and at every branch (whether or not indicated on the drawings) for the proper volume control and for balancing the system.

All sheet metal connections, partitions and plenums required to confine the flow of air to and through the filters, fans, etc., shall be constructed of 18 G GI Sheets, thoroughly stiffened with 25 mm x 25 mm angle iron braces and fitted with all necessary doors as required to give access to all parts or apparatus. Doors shall not be less than 450 mm x 600 mm in size.

Where sheet metal ducts sleeves terminate in woodwork, brick or masonry openings, Tight joints shall be made by means of closely fitted heavy flanged collars.

Connection of ducts to fans shall be of suitable flexible synthetic material.

On completing the erection, the system shall be pressure tested with dry nitrogen or carbon Dioxide.

The test pressures shall be as under for R-22

High pressure side	- kg/sqcm(psi) -	28.5 (420)
Low pressure side	- kg/sqcm(psi) -	10.0 (150)

The systems shall hold the pressure for a minimum period of 24 hours without revealing any leaks. After the leak test has been completed successfully, the pressure due to the nitrogen gas/carbon-di-oxide in the system shall be used to blow-out the system.

The system shall then be dehydrated by drawing a vacuum. The vacuum achieved shall be at least as deep as 500 microns and shall be maintained for a period of at least 24 hours after the vacuum pump has been shut off.

INSULATION & ACOUSTIC LINING

THERMAL INSULATION

The scope of this Section comprises the supply and application of insulation to condensate drain piping, refrigerant piping, sheet metal ducting,

The materials used shall be rigid poly urethane foam, suction lines, condensate drain pipes and equipments, while for sheet metal ducting, resin bonded fibre glass in mat form shall be used.

The RPUF used shall conform to the following requirements:

- | | | | |
|----|-----------------------|---|---|
| A) | Density | : | Not less than 24 kg/ cum |
| b) | Compressive strength: | | Not less than 1.73 |
| c) | 'K' value | : | Not greater than 0.019 w/m deg C at 10 Deg. C |
| d) | Water vapour | : | Not more than 13 mg/Nh. |

The fiber glass used for insulation of sheet metal ducts & for acoustic lining shall have a density of not less than 24 kg/cum & 'K' value of not less than 0.033 w/m² Deg C at a mean temperature of 10 deg C

The owners / consultants also reserve the right to require that the weights dimensions, etc., of the materials supplied be measured and shown to conform to values specified.

The insulation material used for insulating equipment shall be in the form of panels while for piping the RPUF shall be in the form of pre-formed cylindrical sections

Notwithstanding the above specifications, however, the final choice of the material rests on the owners whose approval shall be obtained before the AC contractor place his order or brings material to site.

Samples of all insulation material specified in various forms i.e. panels, pipe sections, mats, etc., shall be submitted by the successful contractor and approval obtained therefore. The owners/ consultants shall have the right to reject all supplies, which do not conform to the samples so approved.

All insulation on equipment, piping etc. shall be applied only after they have been pressure tested satisfactorily.

Where stipulated, supply and return air ducts running in unconditioned spaces shall be insulated with 50 mm thick fiber glass mats. The fiber glass mats shall conform to the specifications contained in clause 2.2.2 It shall be in the form of blankets incorporating factory laminated 0.009 mm thick aluminium foil. The material shall be as manufactured by KIMMCO – Kuwait / UP TWIGA, the contractor shall submit a sample of the material before placing his order for total requirements.

The blanket shall be so applied that the face incorporating the aluminium foil is in contact with ambient air while the fiber glass material shall be applied directly on to the external surface of the sheet metal ducting.

The insulation shall be applied as under:

Wire brush the surfaces of the ducts to remove dirt and rust.

Apply a thick coat of bituminous primer.

When the primer is still tacky, apply the slabs of insulation material, so that, it hugs the duct/equipment casing snugly. Seal all joints using 75 mm wide self adhesive PVC tape, taking care a minimum overlap of 50mm for all joints.

ACOUSTIC LINING

Where stipulated the supply air ducts – whether of masonry or sheet metal – shall be lined acoustically using 25 mm thick rigid fiber glass boards with 28 gauge aluminum perforated facing on one side. The density of the material used shall be 48 kg/ cum

The rigid fiber glass boards shall be fixed to the inner surface of the ducts so that the plain fiber glass finish facing will be in contact with sheet metal ducting while the face with RP tissue facing will be in contact with air. The boards shall be fixed using GI bolts, nuts, & washers.

The joints between the boards be sealed using PVC adhesive tapes.

The joints between the boards be sealed using PVC adhesive tapes.

REFRIGERANT PIPING INSULATION

Insulation of refrigerant piping shall be carried out with Nitrile Rubber material. The Nitrile Rubber shall be closed cell structure of minimum 13mm thickness.

Application

Clean the surface of the pipe which is to be insulated.

Select the size of the section and cut the section longitudinally along with length. The cut shall be straight throughout the length.

Apply a thin layer of Adhesive on the surface of the Pipe and leave it to dry for 2-3 minutes.

Fix the insulation material after drying and both the surfaces shall be matched properly.

Apply self adhesive black cotton tape on both the longitudinal and circumferential joints.

FUSIBLE LINK FIRE DAMPERS

All supply / return air ducts of air handling units and return air openings shall be provided with approved fire dampers of at-least 1/2 hour fire rating. These shall be of approved make. The damper shall be fabricated of 16gauge GSS housing with blades formed out of 1.6 mm sheets. The damper shall be pivoted on both ends using chrome plated spindles in bronze bushes. The stop seals shall be provided on top and bottom of the damper housing. The damper blades shall be held in horizontal position using spring actuator bimetallic fusible link. the damper blades shall close in the event of fire by motor actuation capable of taking signal from the controller.

SUPPLY AND RETURN AIR GRILLS

Supply and return air grilles shall be of anodized extruded Aluminium construction with adjustable bars. Supply air grills shall be generally double deflection type backed with GI damper. The supply/return air grills being provided with removable key operated volume control dampers. Aluminium supply and return grills shall be powder coated and should have the color of client's choice as per bill of quantities.

SUPPLY AND RETURN AIR DIFFUSERS

The supply air diffuser shall be provided with removable key operative volume control dampers. Aluminium supply and return air diffusers shall be powder coated and should have the colour of client's choice or shall be extruded Aluminium. Supply/return air linear diffuser shall be Extruded Aluminium construction, square, rectangular, or round diffusers with flush fixed pattern or adjustable flow pattern. Diffusers for different spaces shall be selected in consultation with the Client/Consultants. Supply air diffusers may be equipped with fixed air-distribution grids, removable key-operated volume control dampers, and anti-smudge rings as per requirements of schedule of quantities.

FRESH AIR INTAKE AND EXTRACT LOUVERS

All the louvers shall be rain protection type and shall be fabricated from extruded aluminum section. The louvers shall additionally be provided with heavy duty expanded metal bird screen and Cowl. They shall be factory made with powder coating finish. The louvers shall be provided with control damper with lever for operation and control of fresh air.

C. LIST OF PREFERRED MANUFACTURERS / NATURAL SOURCES OF MATERIALS TO BE USED IN THE (AIR CONDITIONING) WORKS SUBJECT TO THE APPROVAL OF SAMPLES BY SBIIMS / CONSULTANT.

<u>S.No.</u>	<u>Material Name.</u>	<u>Brand / Manufacturer / Recommended Make.</u>
1.	Ductable Split AC units	Blue Star / LG / Carrier / Toshiba / Daikin / Mitsubishi / Panasonic / O-General / Hitachi
2.	GI Sheets	TATA / HSL / SAIL / NIPPON DENRO or approved equivalent.
3.	Fire Damper	Caryaire / AirMaster / Air Breeze / Ravistar or approved equivalent.
4.	Vibration Isolators / Flexible Connectors	Resistoflex / Dunlop or approved equivalent.
5.	INSULATION / Fibre glass.	UP Twiga / Kimmco / Owens corning or approved equivalent.
6.	Power Cables	CCI / ICC / Gloster / UCL or approved equivalent.
7.	Control Cables	Finolex / Delton or approved equivalent.
8.	Aluminum Grilles Diffusers / Linear Grilles	Caryaire / Air Master / Air Breeze / SRIFABS or approved equivalent.
9.	Filters	Klenzoids / Airtech / Aerosol / Anfilco or approved equivalent.
10.	Cooling Coils / Heating Coils	Bluestar / Rohini / Ethos / Carrier / Jaypee / Coil Company / ZECO or approved equivalent.
11.	Nitrile rubber	Armaflex / vedoflex / AERO FLEX / ARMACELL or approved equivalent.
12.	CO2 Monitoring and control system	Johnson Controls, Siemens, Honeywell, Build Track, Schneider Electric, Fasilisite

NOTE: The contractor shall use only above mentioned material or equivalent make to be approved by SBIIMS / Consultant. All other materials shall confirm to the specifications laid down. The tenderer shall take this into account while tendering rates / prices.

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 herein all under the supervision and to the satisfaction of the Consultant/Bank.
2. The workmanship is to be 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 consultant/Bank in accordance with 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, trade name or the Consultant/Bank for their approval before the contractor either orders or delivers in bulk to the site. Samples together with their packings are to be provided by the contractor free of any charge and should any materials be rejected, the same will be removed from the site at the expenses 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 drawings, the contractor at his own expenses 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 drawing at the site before commencing the work. Any difference should be clarified with the Consultant before commencing the work.
9. Partition line 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 one week 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 neighbourhood.
12. The contractor shall make necessary security arrangements at the site for the safety of his tools, materials and equipment etc., at his own cost.
13. The contractor shall quote his rate including the cost of materials as specified, corresponding wastages, labour, any other taxes and duties, octroi, transportation to worksite etc. **The rates are firm and no escalation on any account shall be allowed on accepted rates.**
14. **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 Bank to inspect, and/or test all the materials, components, and items of work at the expenses of the contractor. All such tests shall be done as per ISI guidelines and as directed by Consultants/Bank.

15. SAFETY CODE

Suitable scaffolds should be provided for workman for all the works that cannot safely be done from the ground or from solid construction, except in cases of short duration works, which can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, it shall be of rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 450mm and a maximum rise of 300mm. Suitable foot and hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than 1 in 4 (1 horizontal to 4 vertical).

Scaffolding or staging more than 300mm above the ground or floor, swung or suspended from an overhead support, shall be erected with stationery supports and shall have guard rails properly attached, bolted, braced and otherwise secured and atleast 900mm high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such openings as may necessary for the access of persons and delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

Working platform, gangways and stairways should be so constructed that they should not sag unduly or unequally and if the height of the platform or the gangway or the stairway is more than 3-6m above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened, as described in (ii) above.

Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing, whose minimum height shall be 900mm.

Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 M in length while the width between side rails in ring ladder shall be in no case be less than 300mm. For longer ladders, this width should be increased atleast 6mm for each additional foot of length. Spacing of steps shall be uniform and shall not exceed 300mm.

Adequate precautions shall be taken to prevent danger from electrical equipment. At the work site, no materials shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall also provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay damages and costs, which may be awarded in such suit, action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by any such person.

Demolition:

Before any demolition work is commenced and also during the progress of the work.

- a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- b. No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
- c. All practical steps shall be taken to prevent danger to persons employed, from the risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so over-loaded with debris or materials, so as to render it unsafe.

- d. All necessary personal safety equipments as considered adequate by the Architects should be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by the concerned.
- e. Workers employed in mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective gloves.
- f. Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
- g. Those engaged in welding works shall be provided with welder's protective (eye) shields.
- h. Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- i. When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated atleast for an hour before the workers are allowed to get into the manhole and the manholes so opened shall be cardoned off with suitable railing and provided with warning signals or boards to prevent accidents to the public.
- j. The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken.
 - i) No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
 - ii) Suitable face masks should be supplied for use to the workers when paint is applied in the form of spray or a surface having lead paint is rubbed and scrapped.
 - iii) Overalls shall be supplied by the contractors to the workers and adequate facilities for washing shall be provided to the working painters during and on cessation of work.
- k. When the work is done near any place, where there is risk of drowning, all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
- l. Use of hoisting machine and shackle including their attachments, in charge and supports shall conform to the following standards or conditions.
 - i) These shall be of good mechanical construction, sound material and adequate strength and free from any patent defects and shall be kept in good working order.
 - ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from patent defects.
 - iii) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding or give signals to the operator.
 - iv) In case of every hoisting machine and of every chain, ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be

ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

V) In case of departmental machines, the safe working load shall be notified by the clients. As regards contractor's machines the contractor shall notify the safe working load of the machines to the consultants, whenever he brings any machinery to site of work and get it verified by the consultants.

m. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce and minimise the risk of accidental descent of loads. Adequate precautions should be taken to reduce to the minimum risks of any part of a suspended load becoming accidentally displaced. Sleeves and boots as may be necessary should be provided, whenever workers are employed on electrical installations. The workers should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.

n. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition. No scaffold, ladder, or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near place of work.

o. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the clients or the Architect.

p. These safety provisions should be brought to the notice of all concerned by display of a notice board at a prominent place of the workspot. The person, responsible for compliance of the safety code, shall be named therein by the contractor.

q. Notwithstanding the above clauses for (i) to (xiv), there is nothing in these to exempt the contractor from the operation of any other Act or Rules in force in the Republic of India.

16. LABOUR LAWS AND RULES

The Site Engineer shall ensure that the contractor maintains relevant records and fulfils all conditions and requirements in accordance with

- a. The payment of Wages Act
- b. Employer's Liability Act
- c. Workmen's Compensation Act
- d. Contract Labour (Regulations & Abolition) Act 1970 and Central Rules 1971.
- e. Apprentices Act 1961.
- f. Any other Act or enactment relating thereto and rules framed thereunder from time to time.

The Site Engineer shall refrain from involving himself and the supervisors under him by comments/advice/attempts at mediation in any kind of labour dispute at site. His job is only to report to his superiors any happenings of the this sort in an objective manner.

EMPLOYER'S RESPONSIBILITY – CONTRACT LABOUR (REGULATIONS AND ABOLITION) ACT 1970 AND RULES 1971

With a view to ensuring that the provisions of the Act are not contravened, the Site Engineer should give particular attention to the following points and see that all the provisions of the Act are enforced:

1. Principal Employer (Banks) is registered as per the Act.
2. Contractor holds a licence under the Act from the Local Labour Commissioner for the appointment of Contract labour.
3. Required notice boards, registers and records as provided in section 29 of the Act are maintained by the contractor.
4. Payment of proper wages as per the rules are effected within the prescribed time limits by the contractor.
5. Prescribed facilities and amenities are provided by the contractor.
6. Proper efforts are made by the contractor to set right contravention of law, as soon as the notice pointing out the same is received from the Labour Enforcement Officer, and reports "on action taken" are sent to the Labour Enforcement officer at the earliest with copies to the Employer.

SPECIAL CONDITIONS.

1. Contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, what ever the cause of the delays may be, including delays arising out of modifications to the work entrusted to him or in any subcontract connected there with or delays in awarding contracts for other trades of the project or in commencement or completion of such works in obtaining water and power connections for construction purpose or for any other reason what so ever and the Employer shall not be liable for any claim in respect thereof. The Employer does not accept liabilities for any sum besides the tender amount, subject to such variations as are provided for herein.
2. The successful tenderer is bound to carry out any items of work necessary for completion of the job if such instructions in respect of such additional items and their quantities will be issued in writing by the Architects with the prior consent in writing of the Employer.
3. The contractor must bear in mind that the work shall be carried out strictly in accordance with specifications made by the Architects.
4. The rates quoted in tender shall also include electric consumption charges for power. If no power is available at site the contractor shall have to make his own arrangement to obtain power connection and maintain at his expense an efficient service of electric light and power and shall pay for the electricity consumed. The Employer shall give all possible assistance to the contractor to obtain the requisite permission from the various authorities, but the responsibility for obtaining the same shall be that of contractor.
5. Contractor shall strictly comply with the provisions of safety code in addition to all local rules and regulations.
6. The contractor shall be responsible for the observance of all rules and regulations framed by the government under the contract labour act. The Employer shall be entitled to deduct all losses, damages that he might suffer on account of non-observance of these rules by the contractor, from the amount payable to the contractor.
7. Time shall be considered the essence of this contract. The entire work must be completed within 90days from the commencement of the work. If the completion of the work is delayed beyond 1 month, a penalty at the rate of ½ % per week over the contract value will be imposed subjected to a maximum of 5%.

If the work is delayed beyond 30 days after the date of completion, the remaining work will be carried out through other agencies at the risk and cost of the contractors under the contract with prevailing market rates.
8. The successful tenderer shall submit the phased programme of execution of different items of work within 2 days after receipt of acceptance letter.
9. Payment will be made subjected to a minimum of Rs. 10,00,000/- (Rupees Ten Lakhs Only) and will be made within a period of TWO weeks after the bill is submitted to the Employer's Office with Architects Certificate.
10. Before filling in the tender the contractor will check all the drawings and schedule of quantities and will get an immediate clarification from the employer / Architects on item not clearly understood. No claims for any loss or compensation will be entertained on this account.
11. All the work shall be carried out as per detail drawings and specifications or as directed

by employer / Architects.

12. The rates quoted in the tender shall be for the finished items of work They shall include all the charges labour, materials, transportation of material equipment, double scaffolding water and electric charges, tool and plants, marking out and cleaning of site, to do all things necessary to provide complete finished item for work consistent with the specifications attached to this tender document. The rates shall be inclusive of octroi duty, excise duty, packing and forwarding, loading or unloading or any other duties or fees levied by any government, public or local bodies. The rates shall be firm and shall not be subject to exchange variations, labour conditions or any other conditions whatsoever.

13. The calculations made by the tenderer should be based upon the probable quantities of the several items of work which are furnished for the tenderer's convenience in the schedule of quantities ,but it must be clearly understood that the contract is not a lumpsum contract , that neither the probable quantities nor the value of individual items nor the aggregate value of the entire tender will form part of the contract and that the employer / Architects do not in any way assure the tenderer or guarantee that the work would correspond there to.

14. Adequate engineering and technical staff to be appointed at site. The contractor should inform of their number and qualification. An Approval of employer / Architects should be taken prior to appointing such technical staff on site.

15. **The contractor shall keep the tender submitted by him open for acceptance for a minimum period of three months from the date of its submission** .When once the tender is accepted the rates quoted by the successful tenderer shall be firm and the variation in rates of any one or all the items on any account shall not be allowed during the entire duration of the contract.

16. During the execution of work, contractor must check the work with his drawings .The contractor shall be responsible for all the errors in this connection and shall have to rectify all the defects at his own cost, failing which the client reserves the right to get the same rectified at the risk and cost of contractor.

17. No claim for extra item or deviation from specification shall be entertained unless the same is pointed out and accepted as such before the work is taken in hand or within 15 days of work by the successful tenderer.

18. The contractor shall comply with all bye- laws and tax regulations (including GST) of local and other statutory authorities having jurisdiction over the works and shall be responsible for the payment of all the fees and other charges and for giving and receiving of all necessary notices drawings and test certificates.

19. The successful tenders shall properly safeguard against damage or injury to the public and to any property or thing and shall alone be responsible for any such damage and injury to any person or persons or thing arising in connection with it's execution of work .The successful tenderer shall protect and hold harmless the employer against any or all claims for any such injury or damage.

20. The work in every respect during the progress and till final acceptance by the employer, including raw materials delivered at the site to be incorporated or used in ELECTRICAL work by the successful tenderer will be at his own risk . Any loss or damage to any such material or work shall immediately be replaced by the successful tenderer at his own expense.

21. The employer shall have the right to direct the contractor to purchase and use the materials from any source for proper execution of work.

22. The employer / Architects or their authorized representatives shall have full power for inspecting the contractor's works or at any place from which the material is obtained. Acceptances of any such materials shall no way relieve the contractor of his responsibility for meeting the requirements and /or analysis not called for in the specifications shall be borne by the employer in case the material or work is found defective or of inferior quality .tests and /or analysis shall be done in the laboratory approved by the client and the contractor shall permit SBIIMS and or the client's or their authorized representative to be present during any of the tests and /or analysis.

23. INSURANCE

The contractor shall indemnify the employer up to CAR Policy (Contractor's All Risk Policy) against all claim which may be made against SBIIMS by any member of the public or third party in respect of anything which may arise in consequence thereof and shall at his own expense arrange to effect and maintain up to one month, after the virtual completion from an office approved by the SBIIMS a policy of insurance in the joint names and deposit such policy or policies with the employer from time to time during the currency of this contract. The contractor shall also indemnify SBIIMS against all claims which may be made upon the employer under the workman's compensation act or any other statute in force during the currency of this contract or at common law in respect of any employee of the contractor or any sub contractor and shall at his own expenses effect and maintain upto one month after virtual completion of the contract, from an office approved by SBIIMS a policy or policies of insurance in the joint names of the employer and the contractor as aforesaid .The contractor shall be responsible for any other thing which may be excluded from the insurance policies above referred to and also for any other damage to any property arising out of and incidental to the negligent or defective carrying out of this contract.

He shall also indemnify SBIIMS in respect of any costs,.charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation or damage arising therefrom. SBIIMS shall be at liberty and is hereby empowered to deduct the amount of any damages, compensation caused, charges and expenses arising or occurring from or in respect of any such claims or damages from any sum or sums due or to become due to the contractor.

24. WORKMAN AT SITE :

The contractors workpeople shall not be allowed to live on the site at any time throughout the contract nor to trespass beyond the limits of the site. The contractor will be held responsible for any acts of trespass by his workpeople.

25. DIMENSIONS :

Figures dimensions are to be taken in preference to scaled dimensions in all cases. Before commencing any work the contractor shall verify all measurements. If any discrepancies are found they shall immediately be brought to the notice of the Architects.

26. DISCREPANCIES

All the items shown on the drawings or specifications are taken to be included in both. Any discrepancies , which occur in either the drawings or specifications, shall immediately be brought to the attention of the Architects.

27. CUTTING AND MAKING GOOD

Where it is found necessary to interfere with finished work in order to execute this contract, the contractor will be required to do all necessary work at his expenses. Only approved hangers and bolts or other metal fixing devices shall be used to secure frames panels and other units in position .Wooden plugs will not be permitted .Holes shall be formed with electric drills whenever possible .Structural members shall not be cut or drilled without prior consent of the client .

28. MAINTENANCE AND GUARANTEE

The whole of the work to be performed under this contract shall be completed to the satisfaction of the Architects / Bank.

The contractor without additional charge to the employer renew or replaces any works which prove faulty from workmanship or materials and fully maintain the whole installations for a period of 6 months after the commencement of defects liability period of the main contract and a sum of 5% of the contract amount shall be retained by the employer for his period.

29. PREVENTION OF SPOIL DUMPING

The contractor shall take all reasonable steps to prevent spoil, rubbish, debris surplus materials etc..arising from a work being dumped on an area other than a recognized or approved tipping area and the Contractor will be held responsible for and shall indemnify the employer against any claim or loss arising therefrom.

30. LEAVE PERFECT :

The Contractor shall remove all rubbish and superfluous material from the site of the works with all reasonable speed from time to time and at completion. On no account shall W.C' S or the employer's receptacles to be used for this purpose.

The client reserves its right to clear contractors un cleared debris at contractors own cost without any reasons & not more than one notice will be given for this.

31. SETTLEMENT OF DISPUTES AND ARBITRATION:

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship of materials used on the work or as to any other question, claim, right matter or thing whatsoever in any way arising out of our relating to the contract, designs, drawings, specifications, estimates, instructions orders or these conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

(a) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**, HYDERABAD – 500 095and endorse a copy of the same to the Architect, within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the bank be in any way liable in respect of any claim by the contractor unless notice of such claim have been given by the Contractor **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**, HYDERABAD – 500 095in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**, HYDERABAD – 500 095in writing in the manner and within the time aforesaid.

(b) **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**,

HYDERABAD – 500 095 shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**, HYDERABAD – 500 095 submit his claims to the conciliating authority namely the Circle Development Officer, State Bank of India, Local Head Office, Hyderabad for conciliation along with all details and copies of correspondence exchanged between him and **The Vice President**, SBI Infra Management Solutions Pvt. Ltd., Hyderabad Circle Adjacent to Commercial Branch State Bank of India, **LHO Campus Bank Street, Kothi**, HYDERABAD – 500 095.

(c) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the SBIIMS for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.

(d) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes of differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by SBIIMS. It will also be no objection to any such appointment that the Arbitrator so appointed is a Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as Officer. 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 in the manner aforesaid by the said SBIIMS. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such SBIIMS as aforesaid should act arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules mad there under.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank Officer.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their settlement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parities. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

32. TERMINATION OF CONTRACT BY EMPLOYER:

If the contractor (being an individual or a firm) commit any “ Act of Insolvency “, or shall be adjudged as insolvent, or shall make an assignment or composition of the greater part in number of amount of his creditors, or shall enter into a Deed of Assignment with his creditors,

or (being an incorporated Company) shall have an order made against him or pass an effective Resolution for winding up either compulsorily, or Subject to the supervision of the court or voluntarily, or if the official Assignee of the contractor shall repudiate the Contract, or if the Official Assignee or the Liquidator in any such winding up shall be unable, within seven days after notice to them requiring him to do so, to show to the reasonable satisfaction of the Architect that he is able to carry out and fulfill the Contract and if required by the Architect to give a security there for, or if the contractor shall suffer any payment under this contract to be attached by or on behalf of any of creditors of the Contractor, if the Contractor shall assign or sublet the contract without the consent in writing of the Architect first obtained, or if the contractor shall charge or encumber this Contract for any payments due or which may become due to the Contractor thereunder, or if the Architect shall certify in writing to the Employer that in his opinion the Contractor:

- (a) Has abandoned the Contract, or
- (b) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the work for fourteen days after receiving from the Architect written notice to proceed, or
- (c) Has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed within time agreed upon or
- (d) Has failed to remove materials from site or to pull down and replace works within seven days after receiving from Architect written notice that the said materials or work were condemned and rejected by the Architect under these conditions or
- (e) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things required by this Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the contractor to observe or perform the same, or
- (f) Has to the detriment of good workmanship or in defiance of the Architects instructions to the contrary, submit any part of the contract or has used in the permanent works important materials which are substandard and not as per specification fraudulently making the Architect / Employer to believe that it is the specified material.

Then and in any of the said cases caused the Employer with the written consent of the Architect may, notwithstanding any previous waiver, after giving seven days notice in writing to the Contractor, determine the contract, but without thereby affecting the powers of the Architect or the obligations and liabilities of the Contractor, the whole of which shall continue to be in force as fully as if the contract has not been so determined and as if the works subsequently executed and being executed by or on behalf of the contractor. And further, the Employer with the consent of the Architect by his agents or servants may enter upon and take possession of the works and all plant, tools, scaffoldings, shed, machines, steam and other power utensils and materials lying upon premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workman in carrying on and completing of the works or by employing any other Contractor or any other person or persons 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 Contractor or other person or persons employed for completing and finishing or using the materials and plant for the works, when the work shall be completed, or as soon thereafter as convenient, the Architect shall give a notice in writing to the Contractor, to remove his surplus material and plant and should the Contractor fail to do so within a period of fourteen days after receipt thereof by him, the Employer may sell the same by public auction and shall give credit to the Contractor for the amount so realized. The Architect shall thereafter shall assert and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer, for the value of the said plant and materials so taken possession of by the Employer, and the expense or loss which the Employer shall have been put to in getting the works to be so completed, and the amount, if any owing to the Contractor and the amount which shall be so certified shall, thereupon, be paid by the Employer to the Contractor or by the Contractor to the Employer as the case may be, and the

certificate of the Architect shall be final and conclusive between the parties.

33. The mode of measurements shall be as per IS: 1200.
34. The contractor should co-ordinate with other agencies viz., Interior, HVAC (Air-Conditioning), Civil, LAN cabling etc.,
35. CONTRACTOR SHOULD WORK AT ODD HOURS, ON HOLIDAYS TO KEEP UP TIME SCHEDULE. CONTRACTOR TO CO-ORDINATE WITH L/W WITH REGARDS TO WORKING HOURS.
36. Partitions shall be measured from finished floor level to bottom level of false ceiling.
37. The Contractor shall not be eligible for any material advance.

Abstract Terms and Conditions:

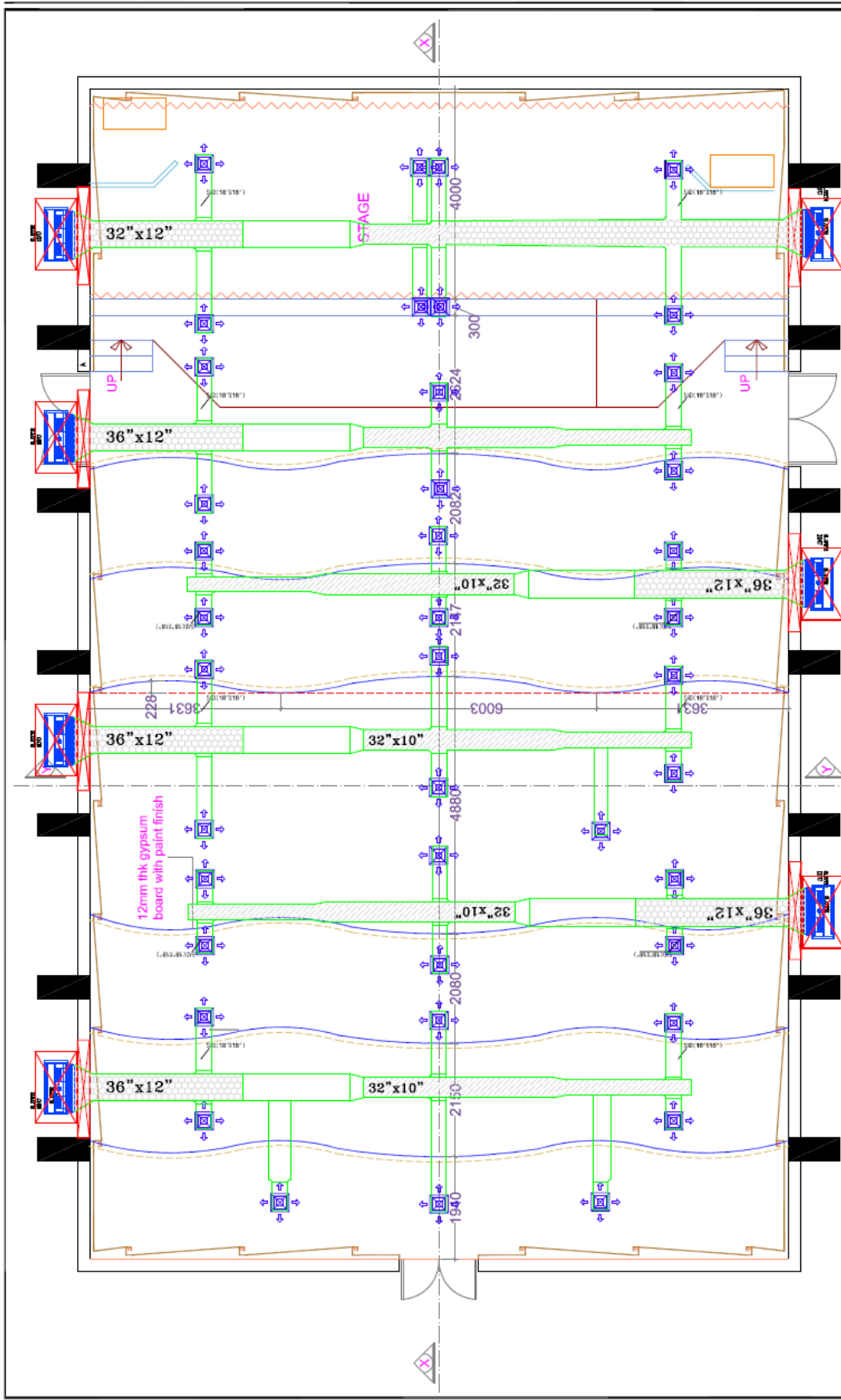
1.	Defects Liability Period.	12 calendar months.
2.	Period for final measurement and valuation.	One month.
3.	Date of commencement.	Within 1 day after confirmation.
4.	Date of completion.	ONE HUNDRED& FIFTY (150) DAYS from date of commencement.
5.	Minimum value of Interim Certificate.	Rs.10,00,000/-
6.	Agreed liquidated damages.	½ % of the total contract amount per week beyond the date of completion subject to maximum of 5%.
7.	Initial Security Deposit.	2% to be paid within seven days from the date of receipt of work order.
8.	Retention Money.	10% of interim certificate amount of running account bill.
9.	Total retention money in final bill including EMD & ISD Amount.	5% of the contract value.
10.	Installment after virtual completion.	Initial Security Deposit – after the contractor removes all the left over materials, machinery etc.,
11.	Period of honoring certificate.	15 days.
12.	Income Tax Deduction and S. T. under works contract act.	As per Central / State Government rules.
13.	Insurance, Custom duties and taxes.	To be provided and paid by contractor.
14.	Price Escalation.	Will not be considered.
15.	Rate of BOQ's items.	To include item complete in all respects.
16.	GST TAX:	The rate quoted by contractor must be exclusive of GST. GST will be paid as per prevailing government norms.

AIR CONDITIONING WORKS FOR THE PROPOSED RENOVATION OF AUDITORIUM OF SBIRB AT LINGAMPALLI .HYDERABAD (Refer List of Preferred makes given and visit the site before quoting)

S.No	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT()
	Part A - Equipment supply -				
	Supply, Installation, Testing and Commissioning of following nominal capacity air cooled ceiling suspended Ductable air conditioners complete with hermetic/semi-hermetic type scroll compressor(single or multiple compressors) with first charge of refrigerant, drive motors, aluminum finned air cooled Copper Condensers, propeller type condenser fans, evaporator section with Copper tube aluminum finned cooling coils, refrigerant control switches.				
1	8.5 TR Ductable split AC with 3400 Cfm	5	nos.		
2	5.5 TR Ductable split AC with 2200 Cfm	2	nos.		
	Sub Total Part - A				
	Part B - Low Side Work				
1	Installation of indoor and outdoor unit, lifting shifting, commissioning run testing of ductable AC.	7	nos.		
2	Supply & Installation of Hard drawn copper refrigerant piping (Both Liquid and Gas line - as per manufacturer requirements) with proper Hi-Tech Supports /hangers from ceiling /wall as required at site and duly insulated with closed cell elastomeric nitrile insulation of 9 mm thick. (Note: In case of multiple compressors, the number of circuits shall be considered as one circuit and the bidder should quote the rate of copper refrigerant piping accordingly)				
2.1	8.5 Tr Ac	110	mts.		
2.2	5.5 Tr Ac	20	mts.		
3	Supply and Erection of Factory fabricated GI Ducting of suitable size duct as per approved drawing with Hitech support as per the IS:655 standard and Practice				
3.1	22 g	100	sqm		
3.2	24 g	250	sqm		
3.3	Supply, installation, testing & commissioning of 25mm dia PVC pipe for drain with 6mm thick nitrile rubber insulation including support	60	mts		

4	Supply, Laying & commissioning of Acoustic Insulation of Ducting with 25mm thick fiber glass wool, RP tissue covered with 26 g aluminum perforated sheet with premier adhesive layer on duct with as per standard	110	sqm		
5	Supply, Laying & commissioning of Thermal Insulation of ducting with 25 mm thick fiber Glass wool with factory Laminated aluminum foil faced finished 1 layer of bitumen or adhesive layer on duct and covered with GI wire mesh.	130	sqm		
6	Supply erection & commissioning of powder coated in approved color extruded aluminum removable center core type supply / Return air grilled.	30	sqm		
7	Canvass connection	7	nos		
8	a) Supply and laying of Control Cable laying connecting the IDU`s and ODU`s (Control wiring using 3C X 2.5 Sqmm Copper cable) with Conduit support	250	mts		
	b) Supply and laying of FRLS Cable laying for power supply to the ODU`s 4CX6 Sqmm Copper armored cable.	300	mts		
9	1 1/2" PVC pipe for covering the Cable	600	mts		
10	Supply and erection of Fresh air louver of GI made Duct with VCD`s Bird Screen as per the drawing	7	nos		
11	Outdoor unit MS Structure support and service accessibility. (Contractors to visit site before quoting)	7	nos		
12	CO2 wall mountable sensor for automatic ventilation / fresh air control with two switch outputs CO2 controlled for 2 stage control, with manual and automatic mode as well as display of switching status operating voltage 24 VDC SELV output voltage 3 x 0–10V, warning display for CO2 concentration.	2	nos		
13	4 Channel Actuator to control ventilation system with provision of manual override, interface and integrated with A C System	1	no.		
14	<u>400 X 400mm Damper with Actuator</u> Supply, installation, testing and commissioning of motorized non spring return GI damper and its integration with the CO2 monitoring system to adjust the damper position as per the outside air	3	nos		

	requirement. Actuator with 10 Nm torque and IP 55 protection operating on AC 220V and DC 24/12V. Scope includes making the suitable size opening in the wall / ventilator metal frames including providing a wooden frame work and fixing of 400x400 mm size GI net to protect from birds entry. Foam filling to seal the gaps after the wooden partitions are fixed.				
15	Flexible Power Cable (2 core x 1.0 sqmm) Supply and installation of flexible FRLS power cable to provide connections between the power supply points and DDC controller/Motorized damper.	125	rmt		
	Sub Total for Low side work - Part B				
	Total (A + B)				

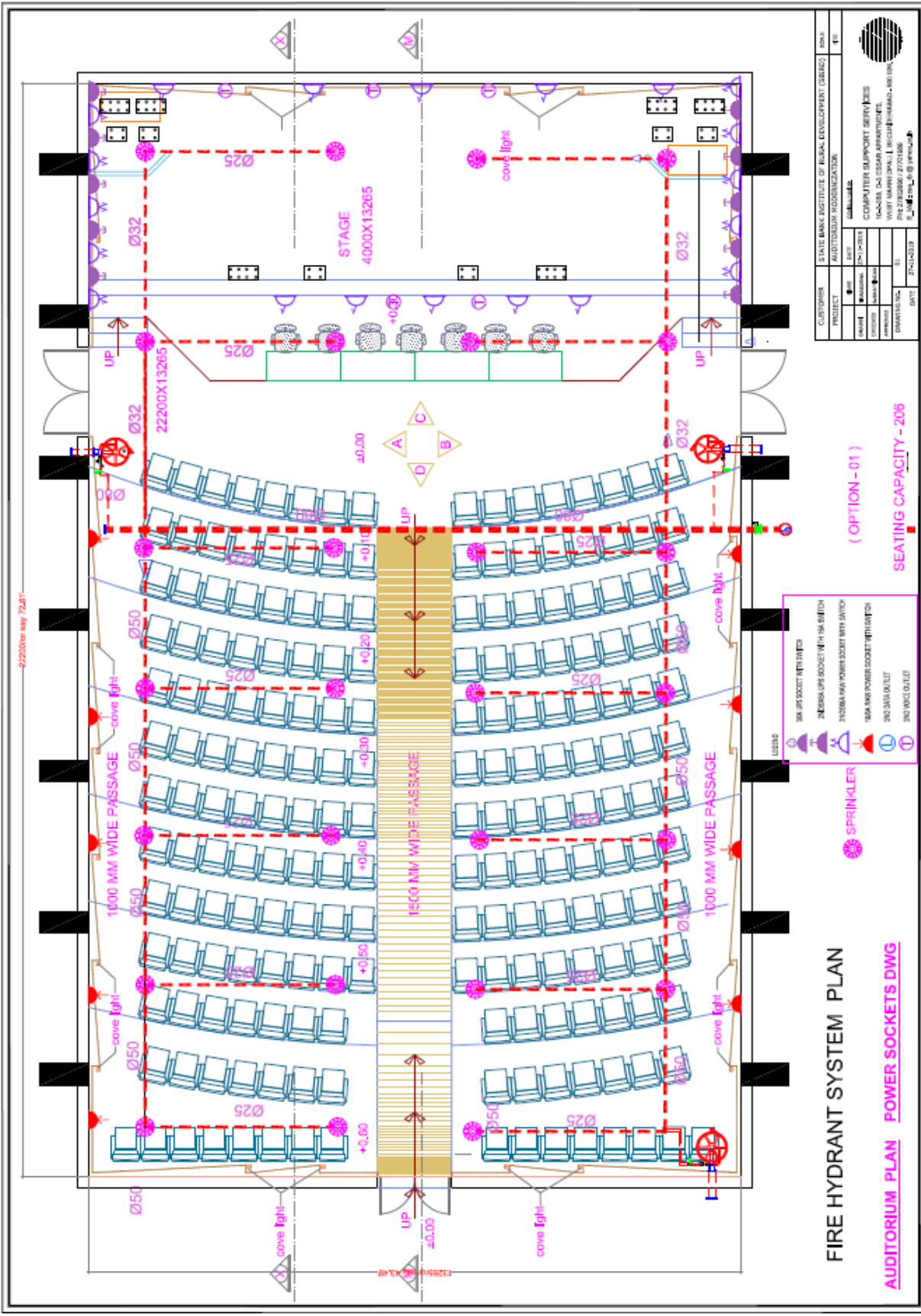


CUSTOMER	STATE BANK INSTITUTE OF RURAL DEVELOPMENT (SRBD)			SCALE	
PROJECT	AUDITORIUM MODERNIZATION			REF.	
DATE	27-1-2019	COMPILED BY			
DRAWN BY	MAHARISHI	DATE	27-1-2019		
CHECKED BY	MAHARISHI	DATE	27-1-2019		
APPROVED BY		DATE	27-1-2019		
DRAWING NO.	01				
DATE	27-1-2019				


COMPUTER SUPPORT SERVICES
 114-2881, DAS BISSAR APARTMENT, 114
 114-2881, DAS BISSAR APARTMENT, 114
 PH: 2720280 | 27201880
 E-MAIL: cscs@yemca.org.ph

DUCTABLE SPLIT AIRCONDITION PLAN

AUDITORIUM PLAN



CUSTOMER	STATE BANK INSTITUTE OF RURAL DEVELOPMENT (SBIRD)	SCALE	1:1
PROJECT	AUDITORIUM MODERNIZATION		
DATE	27/04/2019		
DRAWING NO.	27/04/2019		
DATE	27/04/2019		
PROJECT	AUDITORIUM MODERNIZATION		
CLIENT	STATE BANK INSTITUTE OF RURAL DEVELOPMENT (SBIRD)		
DESIGNER	CDM SMITH SUPPORT SERVICES		
CONTRACT	WEST MARRIOTT L. RECAPITALIZATION		
ADDRESS	WEST MARRIOTT L. RECAPITALIZATION		
PHONE	PH: 2326286 / 270188		
EMAIL	E: info@cdmsmith.com		

(OPTION - 01)
SEATING CAPACITY - 206

- 300 UPS SOCKET WITH SWITCH
- 2500 UPS SOCKET WITH 10A SWITCH
- 16250A 10A POWER SOCKET WITH SWITCH
- 16250A 10A POWER SOCKET WITH SWITCH
- 300 DATA OUTLET
- 300 WOOD OUTLET

FIRE HYDRANT SYSTEM PLAN
AUDITORIUM PLAN POWER SOCKETS DWG