

# **TENDER DOCUMENT**

SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA  
(SIDBI)  
GUWAHATI REGIONAL OFFICE, IDBI BUILDING, 2<sup>ND</sup>  
FLOOR, GUWAHATI-781005

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## **VOL-I**

**INTERIOR & FURNISHING , ELECTRICAL & HVAC  
WORK**

“Interior and furnishing & Electrical & HVAC work of  
SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower,  
Christian Basti, G.S. Road, Guwahati-781006 ”  
**GENERAL TERMS & CONDITIONS**

Project Architects :  
designers' guild,  
House No. 3,  
Ward Street, Uzanbazar,  
Guwahati-781001

**TENDER DOCUMENT FOR INTERIOR & FURNISHING “Interior and furnishing & Electrical work of SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006 ”**

- DATE OF SUBMISSION : 04.11.2016 UPTO 2:00 PM
- DATE OF OPENING : 04.11.2016 UPTO 3:00 PM
- DATE OF PREBID MEETING: 28.10.2016 AT 3:00 PM

NAME OF THE FIRM : .....

ADDRESS OF FIRM : .....  
.....  
.....

**TENDER FEE DRAFT DETAIL**  
**(TO BE FILLED BY CONTRACTOR)**

Draft Amount **Rs. 2,000.00.**

Bank's Name .....

Bank Draft No. ....,

Dated .....

Place : .....

**EARNEST MONEY DRAFT DETAIL**  
**(TO BE FILLED BY CONTRACTOR)**

Draft Amount **Rs. 48,000.00**

Bank's Name .....

Bank Draft No. ....,

Dated .....

Place : .....

**NOTE:- THIS TENDER DOCUMENT IS MEANT ONLY FOR PREQUALIFIED CONTRACTORS FOR THIS WORK.**

## **SECTION – 1**

### **NOTICE OF INVITATION TO TENDER**

Sealed tenders on item rate basis are invited from **prequalified Interior & furnishing contractors**, for the interior work of SIDBI office premises at Guwahati. Tender documents may be directly downloaded from the bank's web site **www.sidbi.in**, or can be collected from the architects M/s Designers' Guild, House No.3, Ward Street, Bye Lane-1, Uzanbazar, Guwahati-781001, Tel : 0361-2732149 / 9864095201 on payment of the tender fee of Rs.2,000/- (non refundable). If the tenders are downloaded from the website, the tender fee in the form of Demand draft in name of "DESIGNERS GUILD" payable at Guwahati, is to be submitted as per the details given below.

#### **1.0 Submission of Tender**

**1.1** The tenders are to be submitted in Two separate envelopes each sealed and clearly identified as to envelope number and contents as indicated below. All the two envelopes shall be contained in a large envelope super scribed "**Tender for interior and furnishing & Electrical work of SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006**". Each tenderer will be issued one set of tender documents. Tenderers have to return all the documents and drawings issued to them while submission of their tender duly stamped and signed as per instructions.

##### **1.1.1 Envelope No.1**

The Envelope No.1 shall contain Two separate Demand Drafts, one towards cost of tender Rs. 2,000.00 in Favour of Designers Guild, Payable at Guwahati (if downloaded from websites) and other towards EMD Rs. 48,000.00 in favour of Dy. General Manager, SIDBI payable at Guwahti as stipulated.

##### **1.1. Envelope No.2**

Envelope No.2 shall contain all tender documents and drawings, tender specifications each page and correction duly signed by Tenderers including tender form dully filled in, complete details and description including all data are to be supplied by tenderers specified in the information and instructions to Tenderers.

This envelope shall be super scribed "Envelope 2:- Tender documents for "Interior and furnishing & Electrical work of SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006 "

**1.2** Sealed tenders as above will be received at the Regional Office of DGM, Small Industries Development Bank of India (SIDBI), IDBI Building, 2<sup>nd</sup> Floor, G.S. Road, Guwahati-781005 up to 2.00 PM, on last date indicated. Sealed offers will be opened on the same day at 3.00PM.

**1.3** Tenders received late on account of any reason whatsoever and telegraphic tenders may not be entertained.

1.4 Tender fee Rs.2000.00 as mentioned above item no. 1.1.1

1.5 EMD Rs. 48,000.00 as mentioned above item no. 1.1.1

1.6 Work completion period 90 days from the date of acceptance of work order.

**1.7** The earnest money deposited by demand draft must accompany each tender and the tenders not accompanied by the earnest money deposited by demand draft are liable to be rejected as NON-RESPONSIVE.

**1.8** The tender shall be valid for a period of not less than 90 days after the date of opening of envelop No. 2.

**1.9** For any further information on the tender, the Office of DGM, SIDBI Guwahati Branch Office or M/s Designers Guild, House No. 3, Ward Street, Bye Lane-1, Uzanbazar, Guwahati-781001, Tel : 0361-2131332, 098640-95201, may be contacted.

**1.10** The Bank will not be bound to accept the lowest tender and reserves the right to accept or reject any or all the tenders without assigning any reasons whatsoever.

SIGNATURE OF COMPETENT AUTHORITY  
DGM, SIDBI, Guwahati Regional Office.

**SECTION - II**  
**INSTRUCTIONS FOR TENDERERS**

**2.0** The details of work to be carried out and its scope are given in the specifications and bill of Quantities of these documents which also indicate a brief description of the Project where work is to be executed. The Tenderers are advised to study the same carefully before tendering and they shall be deemed to have fully acquainted themselves with the same.

**2.1** The Tenderers, in their own interest, are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders, in respect of the site conditions including but not restricting to the following which may influence or affect the work or cost thereof under the contract.

- a) Site conditions including access to the site, existing and required roads and other means of transport/communication for use by him in connection with the work.
- b) Requirement and availability of land and other facilities for his enabling works, stores and workshops etc.
- c) Ground condition including those having bearing upon transportation, disposal, handling and storage or materials required for the work or obtained there from;
- d) Source and extent of availability of suitable materials including water etc. and labour (skilled and unskilled) required for work and laws and Regulations governing their use and employment;
- e) The type of equipment and facilities needed preliminary for and in the performance of the work and for successful completion of work.
- f) All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.

**2.2** The tenderers should note that the information, if any, in regard to the site and local conditions, as contained in these tender documents has been given merely to assist the tenderers and is not warranted to be complete.

**2.3** The tenderers should note and bear in mind that the Bank shall bear no responsibility for the lack of acquaintance of the site and other conditions or any information relating thereto, on their part. The consequences of the lack of any knowledge as aforesaid on the part of the tenderers shall be at their risk and cost and no charges or claims whatsoever consequent upon the lack of any information, knowledge or understanding shall be entertained or payable by the Bank.

**2.4** The tender should be submitted in the prescribed form and the same should be signed as laid down here under;

- a)** If the tender is submitted by an individual, it shall be signed by the proprietor above his full name and full name of his firm with his current business address.
- b)** If the tender is submitted by a proprietary firm, it shall be signed by the proprietor above his full name and full name of his firm with its name and current business address.
- c)** If the tender is submitted by a firm in partnership, it shall be signed for and on behalf of the firm by all the partners of the firm above, their full names and current business address, or by a partner holding the power of attorney for the firm by signing the tender in which case a certified copy of the Power of Attorney shall accompany the tender. A certified copy of the partnership deed and current business address of all the partners of the firm shall also accompany the tender.
- d)** If the tender is submitted by a Limited company, or a Limited corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the Power of Attorney shall accompany the tender. Such Limited company or Corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.
- e)** If the tender is submitted by a group of firms, the sponsoring firms shall submit complete information pertaining to each firm in the group and state along with the bid as to which of the firm shall have the responsibility for tendering and for completion of the contract document and furnish evidence admissible in law in respect of the authority assigned to such firm on behalf of the group of the firms for tendering and for completion of the contract of the contract document. The full information and satisfactory evidence pertaining to the participation of each members of the group of firm in the tender shall be furnished along with the tender.
- f)** All witnesses and sureties (if any) shall be persons of status and their full names, occupations and address shall be stated below their signatures. All signatures affixed on each page in the tender will be dated.

**2.6** The tenderer shall furnish with his tender:

- a)** Construction schedule showing all activities of work in details and in the form of Bar Chart proposed to be completed within the stipulated period duly signed as token of acceptance.
- b)** Details of plant, equipment and Machinery immediately available with the tenderer for deployment on the work.

c) Detail of Technical and supervisory personnel already employed by tenderer which he proposes to utilize for this work and such other personnel which he proposes to employ further for this work.

d) Relevant information on the capacity, financial resources and experience about himself.

**2.7** The earnest money deposit without any interest will be returned to the unsuccessful tenderers only after validity period/award of work.

**2.8** The Bank or its duly authorized representative will open the tenders in the presence of tenderers who may choose to be present at the time. If any of the tenderer or his agent is not present at the time of opening of tender, the Bank or its duly authorized representative will, on opening of tenders of the absentee tenderer, prepare a statement of the attested and unattested corrections in the tender under his signatures. Such a statement shall then be binding on the absentee tenderer.

**2.9** Tenders, which should always be placed in sealed covers, with the name of the project written on the envelopes will be received at the office of DGM , SIDBI Guwahati Regional Office upto 2.00 p.m. on last date fixed for the receipt of the tenders and will be opened in his office at 3.00 p.m. on the same day.

**2.10** The time allowed for the carrying out of the work will be as mentioned in appendix to tender.

**2.11** The tenderers should quote for all the items of work as given in the bill of quantities. The rates shall be written in both the words and in figures. Tenderer shall also show cost of each item, total of each subhead and, the Grand total of the whole contract. Corrections, if any, shall be made by crossing out, initialing dating and rewriting.

**2.12** While a contractor signs a tender in an Indian language the total amount tendered should also be written in the same language. In the case of illiterate contractors the rates and the amount tendered should be attested by a witness.

**2.13** Tenders can be directly downloaded from the email sent to you.

**2.14** Earnest money in the form of Bank Draft drawn in favour of " Dy. General Manager, SIDBI " payable at Guwahati must accompany each tender and each tender is to be in a sealed cover super scribed the name of work, and addressed to the Regional office of DGM , SIDBI GUWAHATI.

**2.15** The contractor whose tender is accepted will be required to furnish by way of security deposit 2% of the accepted contract amount including earnest money for the due fulfillment of his contract. The Security Deposit shall be collected as detailed in General conditions of contract clause no. 5.12.

**2.16** The acceptance of a tender will rest with the SIDBI, which does not bind itself to accept the lowest tender, and reserves to itself the authority to reject any or all of the tenders received without the assignment of any reasons. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

**2.17** Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

**2.18** All item rates shall be quoted on the proper form of the tender alone.

**2.19** An item rate tender containing percentage below/above will be summarily rejected.

**2.20** On acceptance of tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Employer/Architect shall be communicated to the Employer/Architect.

**2.21** Special care should be taken to write in figures as well as in words and the amounts in figure only, in such a way that interpretation is not possible. The total amount should be written both in figures and words. In case of figures, the word 'Rs' should be written before, the figure of Rupees and words 'p' after the decimal figures, e.g. Rs 2.15 p and in case words, the word 'Rupees' should precede and the word paise should be written at the end, unless the rate is in whole rupees and followed by the words 'only', it should invariably be upto two decimal places. While quoting the rates in the bill of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.

**2.22 (a)** The Bank does not bind itself to accept the lowest tender but it may accept any tender and reserves to itself the right of accepting the whole or any part of a tender and the tenderer shall be bound to perform the same at the rate quoted.

**(b)** The Bank reserves the right to accept the tender in full or in parts and that the tenderer shall have no claim for revision of rates or other conditions if the tender is accepted in parts.

**2.23** The contractor shall give a list of his relatives working with the Bank along with their designations and addresses.

**2.24** No employee of the Bank is allowed to work under or as a contractor for a period of two years after his retirement from Bank services, without the previous permission of the Bank. 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 as aforesaid before submission of the tender or engagement in the contractor's service.



**2.25** The tender for works shall remain open for acceptance for a period of 90 days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period, then the Bank shall be at liberty to forfeit Earnest Money paid along with the tender. The Earnest Money Deposit of the tenderer whose tender is accepted shall be forfeited in full in case he does not remit the initial security deposits within the stipulated period or start the work by the stipulated date mentioned in the award letter.

**2.26** The tender form if required to be witnessed, wherever indicated, it will be witnessed by a person other than the contractor.

**2.27** It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter in to an agreement, for each component with the competent authority in the Bank.

**2.28** Sealed tenders are to be delivered in person to the officer nominated for the purpose or put in a sealed tender box kept in the office before the stipulated time.

**2.29** The 'Notice Inviting Tender' and this 'Instructions for Tenderers' shall form part of the tender Documents.

**SECTION - III**  
**FORM OF TENDER**

To,

**The DGM  
SIDBI,  
Guwahati Regional Office.  
IDBI Building, 2nd Floor  
G.S. Road,  
Guwahati-781005**

**NAME OF WORK** : Interior and furnishing & Electrical work of SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006 ”

Sir,

**3.1** Having visited the site and examined the drawings, conditions of contract, special conditions of contract, General specifications and detailed specifications, schedules and bill of quantities for the construction of the above named works, we offer to construct, complete and maintain the whole of the said works in conformity with the said drawings, conditions of contract, specifications, schedules and bill of quantities for the sum stated in bill of quantities of this Tender Document or such other sum as may be ascertained in accordance with the said conditions of contract.

**3.2** We undertake to complete and deliver the whole of the works comprised in the contract within the time stated in the appendix hereto.

**3.3** We have independently considered the amount of liquidated damages shown in the Appendix hereto and agree that it represents a fair estimate of the loss likely to be suffered, by you in the event of the works not being completed in time.

**3.4** We agree to abide by this tender for the period of 90 days from opening of tender or extension there of as required by the employer from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of that period.

**3.5** We confirm that the period and rates as referred in the agreement or general conditions of contract are given or summarized in the appendix hereto, to which we give our consent and agree to abide by the same.

**3.6** If this tender is accepted, we undertake to enter into and execute at our cost, when called upon by the employer to do so, a contract agreement in the prescribed form. Unless and until a formal agreement is prepared and executed this tender together with your written acceptance there of, shall constitute a binding contract between us.

**3.7** We understand that you are not bound to accept the Lowest or any tender you may receive and may reject all or any tender, accept or entrust the entire work to the contractor or divide the work to more than one contractor without assigning any reason or giving any explanation whatsoever.

**3.8** We understand that if our tender is accepted, we are to be jointly and severally responsible for the due performance of the contract.

Dated this \_\_\_\_\_ day of \_\_\_\_\_  
2016\_\_\_\_\_  
Signature \_\_\_\_\_ in the capacity of  
\_\_\_\_\_ of  
duly authorized to sign tenders for and on behalf of  
\_\_\_\_\_

(IN BLOCK CAPITALS)

DATE:  
CONTRACTOR

SIGNATURE OF THE

Witness :  
Signature/ Address:

**APPENDIX TO FORM OF TENDER**

**GENERAL CONDITIONS OF CONTRACT**

Earnest Money Deposit	Rs.48,000/- drawn in the form of DD in favour of Dy. General Manager, SIDBI, Guwahati
Date of Pre-bid Meeting	28.10.2016 at 3.00 PM at SIDBI Regional office, IDBI Building, 2 <sup>nd</sup> Floor, G.S. Road, Guwahati
Date of commencement	Seven days from the date of acceptance letter issued to contractor or day on which the contractor is instructed to take possession of the site whichever is later. (Clause No 5.14)
Time of completion	90 Days from the date of commencement. (Clause No. 5.14)
Period of Final Measurement	One month from the date of virtual completion (Clause No. 5.31)
Liquidated damages	Upto 1% of the contract amount per week of delay or part thereof subject to the ceiling of 10% of the accepted contracted sum. (Clause No. 5.15)
Minimum value of work for interim certificate	10 Lakhs (This value shall be the difference of work done of two consecutive bills). (Clause No. 5.29)
Initial security deposit	2% of the accepted tender value including earnest money deposit (Clause No. 5.12)
Retention percentage	5% of the accepted Contract amount (Clause No. 5.12)
Defects Liability period	12 Months (Clause No. 5.37)
Refund of total security comprising EMD, ISD and Retention	The initial security deposit comprising EMD, shall be refunded to the contractor within 14 days of the issue of certificate of Virtual completion. The retention amount will be refunded to the contractor 14 days after the end of the defect liability period. (Clause No. 5.12). The retention money deposit, can also be refunded against submission of bank Guarantee, by the contractor in the approved format.
Period of honoring Certificate	10 days from date of receipt of certificate from the Architect. (Clause No. 5.29)

**SECTION - IV**  
**ARTICLES OF AGREEMENT**

This agreement is made on \_\_\_\_\_ day of \_\_\_\_\_ 2016 between SIDBI GUWAHATI REGIONAL Office, \_\_\_\_\_ (hereinafter called "The Employer") of the one part and \_\_\_\_\_ (hereinafter called "the Contractor") of the other part. WHEREAS the Employer is desirous of execution of Interior and Furnishing & Electrical Works for SIDBI new office premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006, and has, by letter of acceptance dated \_\_\_\_\_ accepted a tender by the contractor for the execution, completion, and maintenance of such works, now THIS AGREEMENT WITNESSES as follows :

**4.1** In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the said conditions of contract hereinafter referred to :

**4.2** The following documents shall be deemed to form and to read construed as part of this agreement, viz.

- i)** Original tender document.
- ii)** Relevant correspondence all letters/correspondence forming part of contract and referred to in acceptance letter.
- iii)** Acceptance letter.
- iv)** Bill of quantities.
- v)** The drawings.
- vi)** Time and progress chart.
- vii)** Other additional documents as required,
  - a)**
  - b)**
  - c)**
- viii)** Article of Agreement.

**4.3** The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities of discrepancies the latest documents issued by the Bank shall prevail over on earlier documents. \* Give the Name, Destination and Address of the Contractor.

**4.4** In consideration of the payment to be made by the employer to the contractor as hereinafter mentioned, the contractor hereby covenants with the employer to perform execute, complete and maintain the work in conformity in all respects with the provision of the contract.

**4.5** The employer hereby covenants to pay the contractor in consideration of the execution, completion and maintenance of the works such sums as shall become payable hereunder at the time(s) and in the manner prescribed in the said conditions and price schedule of quantities/bill of quantities prescribed in the contract.

IN WITNESS whereof the parties hereto have caused their respective common seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day, month and year first above written.

**SIGNED AND SEALED AND DELIVERED BY THE**

said \_\_\_\_\_  
\_\_\_\_\_  
(Name \_\_\_\_\_)  
\_\_\_\_\_  
on behalf of the contractor  
In the presence of  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

said \_\_\_\_\_  
\_\_\_\_\_  
(Name \_\_\_\_\_)  
\_\_\_\_\_  
on behalf of the employer  
In the presence of  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

\* This form is included in the tender documents only for the information of the tenderers. Only the successful tenderer will be, in due course, required to complete the form.

**SECTION - V**  
**GENERAL CONDITIONS OF CONTRACT**

Except where provided for in the description of the individual items in the Schedule of Quantities and in the specifications and conditions laid down hereinafter and in the drawings, the work shall be carried as per standard specifications and under the directions of the Employer/Architects.

**5.1 INTERPRETATION**

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

**i) Employer :** The term employer shall denote SIDBI GUWAHATI Regional Office, and any of its employees or representative authorized to act on their behalf.

**ii) The Bank :** The term Bank shall mean SIDBI, the Employer.

**iii) Architects :** The term Architects shall means M/S Designers Guild, House No. 3, Ward Street, Bye Lane-1, Uzanbazar, Guwahati-781001 or in the event of his/their ceasing to be the Architects for the purpose of this contract such other persons as the Employer shall nominate for the purpose.

**iv) The Engineer in charge :** The term means technical person, if any deployed by SIDBI, to look after the work.

**v) Site Engineer :** The term shall means person if any, posted at site who shall work under the orders of Architects/Employer/Engineer-in-charge to inspect the works.

**vi) Contractor :** The term Contractor shall mean \_\_\_\_\_(name and address of the contractor) and his/their heirs, legal representatives assigns and successors.

**vii) Site :** The site shall mean the site where the works are to be executed as shown within boundary on the Site Plan including any building and erections thereon allotted by the Employer for the Contractor's use.

**viii) Drawings :** The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the employer during the execution of the work.

All the drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer/Architects shall be given access to such drawings or schedule of quantities whenever necessary. In case any detailed drawings are necessary, contractor shall prepare such detailed drawings and/or dimensional sketches therefore and have it confirmed by the architect/ employer prior to taking up such work. The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 10 days ahead of the time when it is required for implementations so that the Employer may be able to give decision thereon.

**ix)** "The works" shall mean the work or works to be executed or done under this contract.

**x)** "Act of Insolvency" shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency Act or any Amending Statutes.

**xi)** "The Schedule of Quantities" shall mean the schedule of quantities as specified and forming part of this contract.

**xii)** "Priced Schedule of Quantities" shall mean the schedule of quantities duly priced with the accepted quoted percentage of the contractor.

**xiii)** Order of precedence for any ambiguity in the schedule of quantities, general conditions, special conditions, specifications and drawings for the contractor shall be as per the decision of the Employer and the same will be binding on the Contractor, and shall be read as under in the decreasing order of importance.

- a)** Schedule of Quantities.
- b)** Drawings.
- c)** Special Conditions.
- d)** General Conditions.
- e)** Technical Specifications of Contract.
- f)** C.P.W.D. specifications.
- g)** Bureau of Indian Standards specifications.
- h)** State P.W.D./General Engineering Practice.

Any ambiguity observed shall be brought to the notice of Architect/ Employer and be executed after obtaining approval of the same.



## **5.2 SCOPE**

The work consists of Interior, Furnishing & Electrical Works at SIDBI New Office Premises at 4<sup>th</sup> Floor, Shreeji Tower, Christian Basti, G.S. Road, Guwahati-781006, in accordance with the "Drawings" and "Schedule of Quantities". The Interior works, related civil, interior, electrical works etc. complete are within the scope of this tender. It includes furnishing all materials, labour, tools and equipment and management necessary for, and incidental to, the construction and completion of the work. All work during its progress and upon completion shall conform to the lines, elevations and grades as shown on the drawings furnished by the employer. Should any detail essential for efficient completion of the work be omitted from the drawings and specifications, it shall be the responsibility of the contractor to inform the employer and to furnish and install such detail with employer's concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use. Employer may in their absolute discretion issue further drawings and/or written instructions, details, directions and explanations, which are, hereafter collectively, referred to as "the employer's instructions" in regard to :

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

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

### **5.3 TENDERER SHALL VISIT THE SITE**

Intending Tenderer shall visit the site and make himself thoroughly acquainted with the local site conditions, nature and requirements of the works, facilities of transport conditions, effective labor and materials, accesses and storage for materials. The Tenderer shall provide in their tender for cost of carriage, freight, applicable taxes and other charges as also for any special difficulties and including police restriction for transport etc. for proper execution of work as indicated in drawings. The successful Tenderer will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site conditions which existed before the commencement of the work or which in the opinion of Employer might be deemed to have reasonably been inferred to be so existing before commencement of work.

**5.4 TENDERS** The entire set of tender paper issued to the tenderer should be submitted duly priced and also signed on the last page together with initials on every page. Initials/Signature will indicate the acceptance of the tender papers by the tenderers.

The schedule of quantities shall be filled in as follows :

- i) The rates column to be legibly filled in ink in both English figures and English words.
- ii) Amount column to be filled in figures for each item and the amount for each subhead as detailed in the "Schedule of Quantities".
- iii) All corrections are to be initialed.
- iv) The "Rate Column" (for alternative items shall be filled up).
- vi) The "Amount" for alternate items of which the quantities are not mentioned shall not be filled up.
- vii) No modifications, overwriting or corrections can be made in the tender papers by the tenderer, but he may at his option offer his comments or modifications in a separate sheet of paper attached to the original tender papers.

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

The Bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rate or other conditions if his tender is accepted in parts.

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

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

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved directly related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump sum charges in the tender in respect of any item of works, the payment of such items of work will be made for the actual work done on the basis of lump sum charges as will be assessed to be payable by the employer.

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

The tenderer shall note that his tender shall remain open for consideration for a period of 90 days from the date of opening of the tender .

## **5.5 AGREEMENT**

The successful contractor may be required to sign agreement as may be drawn up to suit local conditions and shall pay for all stamps and legal expenses, incidental thereto.

## **5.6 PHOTOGRAPHS**

The contractor shall supply the Architect & Employer weekly with well executed unmounted photographs 4 (four) No. of size 200 x 250mm in duplicate showing the progress of the works and also such particular section of the works, site plan, machinery or materials as the Engineer may direct within his quoted prices.

## **5.7 GOVERNMENT AND LOCAL RULES**

The contractor shall conform to the provisions of all local By-laws and acts relating to the work and to the regulations etc. of the Government and local authorities and of any company with whose system the structure is proposed to be connected. The contractor shall give all notices required by said act, rules, regulations and Byelaws etc. and pay all fees payable to such authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities for licenses, fees for footpath encroachment and restorations etc. He shall indemnify the employer against such liabilities and shall defend all actions arising from such claims or liabilities.

## **5.8 TAXES AND DUTIES**

The tenderers must include in their tender prices quoted for all duties, royalties, cess and sales tax, Govt. of India Service Tax or any other taxes or local charges, if applicable. However, work contract tax, TDS, etc. shall be deducted at source at the specific rate as per applicable directives. Necessary certificate in respect of the same shall be issued by the Bank. No claim whatsoever on this account shall be entertained.

## **5.9 PROVISIONAL SUM (P.S.)**

All provisional sums described in the schedule of quantities as P.S. shall be exclusively allotted to the purchase of materials and not for any handling and fixing to be done by the contractor. Such costs of handling and fixing with profit (including transport charges if required) shall be separately included in the contract price as described in the schedule of quantities. The disposal of the amounts covered under this head will be absolutely at the discretion of the employer. Contractor is to make payments for these materials to the suppliers on certificate or order issued by the employer and realize them through his bills from the employer.

## **5.10 QUANTITY OF WORK TO BE EXECUTED**

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore.

## **5.11 OTHER PERSONS ENGAGED BY THE EMPLOYER**

The employer reserves the right to execute any part of the work included in this contract or any work which is not included in this contract by other agency or persons and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work.

## **5.12 EARNEST MONEY AND SECURITY DEPOSIT**

The tenderer will have to deposit mentioned Earnest Money along with the tender. The employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit an initial security deposit, a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial Security Deposit will have to be made by the contractor to the Bank within 14 days of acceptance of award letter, failing which the employer at his discretion may revoke the letter of acceptance and forfeit the earnest money deposit furnished along with the tender. The initial security deposit shall be accepted in the form of Demand draft and not by Bank Guarantee. The initial security will be refunded to the contractor within fourteen days after the issue of certificate of virtual completion.

Apart from the initial security deposit made as above, retention money shall be deducted from the progressive running bills at 10 % of the gross value of each running bill subject to maximum 5% of Contract value. However, the retention money on secured advance payable will not be deducted. The retention amount will be refunded to the contractor fourteen days after the defect liability period. Provided the contractor has satisfactorily carried out all the works and to all the defects in accordance with the conditions of contract. No interest is allowed on Retention Money. If requested by the Contractor, the retention money deposit, can also be refunded against submission of bank Guarantee, in the approved format.

### **5.13 CONTRACTOR TO PROVIDE EVERYTHING NECESSARY**

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

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract and beyond the unit price. No extra payments will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific taxes, if any, stipulated in the tender documents.

The contractor shall supply, fix and maintain at his own cost for the execution of any work, all tools tackles, machinery and equipment's and all the necessary scaffolding, , watching and lighting by night as well as by day required not only for the proper execution and protection of the said work but also for the protection of the public and safety of any adjacent roads, streets, walls, houses, buildings, all other erections, matters and things and the contractor shall take down and remove any or all such scaffolding, etc. as occasion shall be required or when ordered to do so and shall fully reinstate and make good all matters and things distributed during the execution of works to the satisfaction of the Employer/Architect.

The Contractor shall at all times give access to workers employer by the Architect / Employer or any men employed on the buildings and to provide such parties with proper sufficient and if required special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc. in any work where directed by the employer as may be required to enable such workmen to lay or fix pipes, INTERIOR wiring, special fittings etc. The quoted rates of the tenders shall accordingly include all these above mentioned contingent works.

## **5.14 TIME OF COMPLETION, EXTENSION OF TIME & PROGRESS**

### **CHART 5.14.1 Time of completion**

The entire work is to be completed in all respects within the stipulated period. The date of commencement will be the date of acceptance of work order issued to the contractor. Time is the essence of the contract and shall be strictly observed by the contractor.

The work shall not be considered as completed until the Employer have certified in writing that work has been completed and the defects liability period shall commence from the date of such certificate.

### **5.14.2 Extension of Time**

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

- (a) by reason of any exceptionally inclement weather, or
- (b) by reason of instruction from the employer in consequence of proceedings taken or threatened by or disputes, with adjoining or neighboring owners or
- (c) by the works, or delay, of other contractors or tradesmen engaged or nominated by the Employer and not referred to in the specification or
- (d) by reason of authorised extra and additions or
- (e) by reason of any combination of workmen or strikes or lockout affecting any of the building trades or
- (f) from other causes which the employer may consider are beyond the control of the contractor, the Employer on the request of the contractor, shall grant fair and reasonable extension of the time for completion in respect therefore. In the event of the Employer failing to give possession of the site upon the day specified above the time of completion shall be extended suitably.

In case of such strikes or lockouts, as are referred to above, the contractor, shall immediately give the employer, written notice thereof. Nevertheless, the contractor shall use his best endeavors all that to prevent delay, and shall do all that may be reasonably required, to the satisfaction of the employer to proceed with the works and on his doing so that it will be ground of consideration by the employer for an extension of time as above provided. The decision of the Employer as to the period to be allowed for an extension of time for completion hereunder (which decision shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lockout and the employer shall then, in the event of an extension being granted, determine and declare the final completion date. The provision in clause 5.15 with respect to payment of liquidated damages shall, in such case, be read and construed as if the extended date fixed by the employer were substituted for and the damage shall be deducted accordingly.

### **5.14.3 Progress of work**

During the period of construction the contractor shall maintain proportionate progress on the basis of a program chart submitted by the contractor immediately before commencement of work and agreed to by the employer/Architect. Contractor should also include planning for procurement for scarce material well in advance and reflect the same in the programme chart so that there is no delay in completion of the project.

### **5.15 LIQUIDATED DAMAGES**

Time is the Essence of the contract. Should the work be not completed to the satisfaction of the Employer/Architect within the stipulated period, the contractor shall be bound to pay to the employer a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains un-commenced or unfinished after the expiry of the completion date.

Upto 1% of the contract amount per week delay or part thereof subject to ceiling of 10% of the accepted contract sum.

### **5.16 TOOLS, STORAGE OF MATERIALS, PROTECTIVE WORKS AND**

#### **SITE OFFICE REQUIREMENTS**

**5.16.1** The contractor shall provide, fix up and maintain in an approved position proper office accommodation for the contractor's representative and staff, if required, which offices shall be open at all reasonable hours to receive instruction, notices or communication and clear away on completion of the work and make good all work disturbed.

The contractor shall provide at site at his own cost all artificial light required for the work and to enable other contractors and subcontractors to complete the work within the specified time.

The Contractor shall provide a suitable temporary hut for the watchmen, if required, and clear away the same when no longer required and to provide all necessary attendants, lights etc. required.

The contractor shall arrange for temporary latrines if required, for the use of workers and field staff and keep the same in a clean sanitary condition to the satisfaction of the Public Health Authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works disturbed by these conveniences.

Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the works during the construction and all receptacles, cisterns, water tanks etc. used for the storage of water must be suitably protected against breeding of mosquitoes. The contractor shall indemnify the employer against any breach of rules in respect of anti-malarial measures.

The contractor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed in or upon any boarding, gantry, building structure other than those approved by the Employer.

#### **5.16.2 Protective Measures**

The contractor from the time of being placed in possession of the site must make suitable arrangements for watching, lighting and, protecting the work, the site and surrounding property by day, by night, on all days including Sundays and other holidays.

Contractor shall indemnify the employer against any possible damage to the building, roads, or member of the public in course of execution of the work.

The contractor shall provide necessary temporary enclosures, gates, entrance etc. for the protection of the work and materials and for altering and adopting the same as may be required and removing on completion of the works and making good all works disturbed.

#### **5.16.3 Storage of materials**

The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of the materials etc., and other work that may be executed on the site including the tools and materials of subcontractors and remove same on completion.

#### **5.16.4 Tools**

All instruments like steel tape etc. which is found necessary for the works shall be provided by the contractor for due performance of the contract.

All measuring tapes shall be of steel and suitable scaffolding and ladders that may be require for safety taking measurements and shall be supplied by the contractor.

The Mistry's and the supervisors on the works shall carry with them always a one metre or two metre steel tapes, a measuring tape of 30 metres, a spirit level, a plumb bob and a square and shall check the work to see that work is being done according to the drawings and specifications. The site engineer will use any or all measuring instruments or tools belonging to the contractor as he chooses for checking the works executed or being executed on the contract.

The contractor should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plants etc. by subcontractors for their work.



## **5.17 NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS**

The Contractor shall confirm to the provisions or any acts of the legislature relating to the work, and to the regulations and By-Laws of any authorities, and / or any water, lighting and other companies, and / or authorities with whose system the structures were proposed to have constructed and shall before making any variation from the drawings or specifications that may be associated to so confirm, give the Employer/Architects written notice, specify the variations proposed to be made and the reasons for making them and apply for instructions thereon. the Employer on receipt of such intimation shall give a decision with a reasonable time.

The Contractors shall arrange to give all notices required for by the said acts, regulations or By-laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer

The contractor shall indemnify the employer against all claims in respect of patent rights, royalties, damages to buildings, roads or member of public in course of execution of work and shall defend all actions arising from such claims and shall keep the employer saved harmless and indemnified in all respects from such actions, costs and expenses.

## **5.18 CLEARING SITE AND SETTING OUT WORKS**

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work 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 of any parts of the works the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the employer. The contractor shall further set out the work to the alternative positions at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

## **5.19 ACCESS**

Any authorised representative of the employer/architect shall at all reasonable times have free access to the works and/or to the workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the contractor shall give every facility to the

Bank or their representatives necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the employer, no person shall be allowed at any time without the written permission of the employer.

## **5.20 MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS**

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

If required by the Employer/Architect the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the employer at his own cost to prove that the materials etc. under test confirming to the relevant IS standards or as specified in the specifications. The necessary charges for preparation of samples, transporting, testing etc. shall have to be borne by the contractor. No extra payment on this account would in any case be entertained.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales taxes, octroi and other charges and must be the best of their kind available and contractor/s must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workman like manner. Samples of all materials to be used must be submitted to the Employer/Architect when so directed by the Engineer/Architects and written approval from Employer/Architect must be obtained prior to placement of order. The approved samples shall be kept with the Employer till the completion of work.

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

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

### **5.21 REMOVAL OF IMPROPER WORK**

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

### **5.22 SITE ENGINEER**

The term "Site Engineer" shall mean the person if posted at site by Architect/Employer to superintend the work.

The contractor shall afford the Site Engineer every facility and assistance for examining the works and materials for checking and measuring work and materials. The Site Engineer shall have no power to revoke, alter, enlarge or relax any requirements of the contractor or to sanction any day work, additions, alterations, deviations, or omissions or any extra work

whatever, except in so far as such authority may be specially conferred by a written order of the Employer.

The Site Engineer shall have power to give notice to the contractor or to his foreman of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the employer is obtained. The work will from time to time be examined and supervised by the Architects, Engineer from the premises department of the Employer or the Site Engineer as the case may be. But such examination shall not in any way exonerate the contractor from the obligation to remedy and defects which may be found to exist at any stage of the work or after the same is complete. Subject to the limitations of this clause the contractor shall take instructions only from the Employer.

### **5.23 CONTRACTOR'S EMPLOYEES**

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

The contractor shall employ local labourers on the work as far as possible. No labourers below the age of sixteen years and who is not an Indian National shall be employed on the work.

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

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

a) The payment of Wages Act.

b) Employer's Liability Act.

c) Workmen's Compensation Act.

d) Contractor Labour (Regulation & Abolition) Act, 1970 and Central Rules 1974.

e) Apprentices Act 1961.

f) Any other Act or enactment relating thereto and rules framed thereunder from time to time. The contractor shall keep the Employer saved, harmless and indemnified against claims if any of the workmen or any other person and all costs and expenses as any be incurred by the Employer in connection with any claim that may be made by any workman or any other person.

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

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

#### **5.24 DISMISSAL OF WORKMEN**

The contractor shall on the request of the employer immediately dismiss from works any person employed thereon by him who may in the opinion of the employer be unsuitable or incompetent or who may misconduct himself. Such discharges shall not be the basis of claim for compensation or damages against the employer or any of their officers or employee.

#### **5.25 ASSIGNMENT**

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

#### **5.26 DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.**

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

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

The contractor shall obtain - contractor all risk Policy(C.A.R.) within 10 days of Issue of letter of intent at his own cost. The insurance must be placed with company approved by the employer and must be effected jointly in the name of the contractor and the employer and the policy lodged with the latter. The scope of insurance is to include damage or loss to the contract itself till this is made over in a complete state. Insurance is compulsory and must be effected for the very initial stage. The contractor shall also be responsible for anything which may be excluded from the damage to any property arising out of incidents, negligence or defective carrying out of this contract.

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

### **5.27 INSURANCE**

Unless otherwise instructed the contractor shall insure the works for all risk (include fire, flood, earthquake & third party) of the contractor for total tender value and keep them insured until the virtual completion of the contract against any loss or damage of the material and of the project. The insurance must be placed with a company approved by the Employer in the joint names of the Employer and the contractor for such amount and for any further sum if called to do so by the Employer. The premium of such further sum being allowed to the contractor as an authorised extra. The contractor shall deposit the policy and receipt premium paid with the Architect/ Employer within 10 days from the date of issue of work order unless otherwise instructed. In default of the contractor insuring as provided above the Employer on his behalf may so insure and may deduct the premiums paid from any money due, or which may become due to the contractor. The contractor shall as soon as the claim under the policy is settled or the work reinstated by Insurance Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as though the fire has not occurred and in all respects under the conditions of the contract. The Contractor in case of rebuilding or reinstatement after fire shall be entitled to extension of time for completion as the Architect/ Employer may deem fit.

### **5.28 ACCOUNTS RECEIPT & VOUCHERS**

The contractor shall, upon the request of the architect/ employer furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract. If the contractor shall use materials less than what he is required under the contract, the value of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the architect / employer shall be final and binding on the contractor as to the amount of materials. The contractor is required to use for any work under this contract.

Before taking any measurement of any work the site Engineer or a subordinate deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend at the measurements after such notice or fails to countersign or to record the difference within a week from the date of measurement in the manner required by the Site Engineer then in any such event the measurements taken by the Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the contractor and the contractor shall have no right to dispute the same.

## **5.29 PAYMENTS**

All bills shall be submitted by the contractor in the form prescribed by the architect. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents.

The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities of work done and must show deductions for all previous payments, retention money etc. The bill shall be checked at site by site Engineer and thereafter the Architect shall issue a certificate after due scrutiny of the contractor's bill which may be further verified by the Employer and the contractor shall be entitled to payment there of, within the period of honoring certificates named in these documents, as per final verified amount by the Employer.

The amount as stated in an interim certificate shall be the total value of work properly executed and secured advance on the materials as described under the heading of secured advance less the amount to be retained by the employer as retention money vide clause 5.12 of these conditions and less installments previously paid under these conditions, provided the such certificate shall only include the value of said material and goods as and from such time as they are reasonably, properly and not prematurely brought to or placed adjacent to the work and then only if adequately protected against weather or other casualties.

The employer will deduct retention money as described in clause 5.12 of these conditions. The refund of retention money will be made as specified in the said clause.

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

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

### **5.30 FINAL PAYMENTS**

The period of Final Measurements will be One Month from date of Completion, The final bill shall be accompanied by a certificate of completion from the Architect. Payments of final bill shall be made after deduction of Retention Money as specified in clause 5.12 of these conditions, which sum shall be refunded after the completion of the Defects Liability Period after receiving the Employer and Architect's certificate that the contractor has rectified all defects to the satisfaction of the Employer and Architects. The acceptance of payments of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

### **5.31 VARIATION/ DEVIATIONS**

The contractor may when authorized and shall, when directed in writing by the architect with the consent of employer add or omit, or vary the works shown in the drawings or described in the specifications or included in the priced schedule of the quantities. The contractor on his own accord shall make no addition, omission or variation without such authorisation of direction. A verbal authorization of direction by the architect/ employer shall when confirmed correctly by the contractor in writing within 3 days shall be deemed to have been given in writing.

The contractor shall send to the Architect/Employer once in every Month a statement giving particulars, as full and detailed as possible, of all claims for any additional payment to which the contractor may consider himself entitled and of all extra or additional work ordered by the employer which he has executed during the preceding month.

No final interim claim for payment for any such work or expense, will be considered which has not been included in such a statement provided always that the Architect shall be entitled after taking employer's sanction to authorize payment to be made for any such work or expense, notwithstanding the contractor's failure to comply with this condition, if the contractor has, at the earliest practicable opportunity, notified the Architect in writing that he intends to make a claim for such work.

The rates for additional, altered, substituted work shall be arrived at in accordance with the following rules :

i) The net rates or prices in the contract schedule shall determine the valuation of (the rates for) the extra work (items) where such extra work is of similar character and is executed under similar conditions as the work priced therein.



ii) If the rates for the extra, altered or substituted or (deviated) work are not provided for (available) in the schedule of quantities, they shall to the extent possible be derived out of rate given in that schedule for similar or near similar items or based on present CPWD DSR. For the purpose of such deviation, where necessary and when so directed, the contractor shall furnish detailed analysis for the said similar or near similar items in the contract schedule. For such portions of the analysis, for the extra, altered or substituted (deviated) work for which prices cannot be abstracted from the corresponding analysis of rates for the said similar or near similar items in the contract schedule or CPWD DSR, market rates substantiated by purchase bills/vouchers dependable printed price schedule of building materials of different type shall be adopted, using factors and constants for quantum of materials, labor, T & P and sundries, form standard analysis of rates adopted by the CPWD, and adding 15% over towards profit and overheads. When called upon to do so, the contractor shall submit the required purchase bills/vouchers.

iii) In respect of a contract which incorporates more than one schedule, the rate applicable in case (i) above if not provided for in the schedule pertaining to the work in which the addition, alteration or substitution (deviation) occurs, shall be taken as the lowest applicable rate in other schedules. Similarly in case (ii) above if similar in near similar items cannot be found in the schedule pertaining to the work in which the addition, alteration or substitution (deviation) occurs, similar or near similar items from the other schedule shall be adopted.

iv) The question as to what particular items, being similar or near similar to the additional, altered or substituted (deviated) work in the contract schedule are to be adopted for deviation of rates for the additional, altered for substituted deviated work and whether the said rates cannot be derived from similar or near similar items in the contract schedule will be decided by the architect in consultation with the employer.

vi) In case (ii) to (iv) the contractor is required to submit his analysis of rates adopting the principles enunciated and the Architect, after scrutinising the analysis any other papers furnished will allow such rates as he considers reasonable after obtaining Employer's sanctions.

vii) Where extra work is of such a nature that it cannot be properly measured or valued, the contractor shall be allowed day work priced at the net rates stated in the tender or the priced schedule of quantities or if not so stated then in accordance with the minimum local day work rates and wage for the district notified by the concerned authority provided that in either case if required by the Architects, vouchers, muster rolls and other documents, required for proper verification of the labour employed and the materials deployed on the said work and the costs thereof be delivered to the Site Engineer, Architect or his representative on or before the end of the week following that in which the work has been executed.

The question as to whether extra work is of such nature that it cannot be properly measured or valued will be decided by the Architects and Employer. The margin to be allowed on actual costs to the contractor towards profit and overhead shall be 15%.

### **5.32 DEVIATION FROM CONTRACT COST BEYOND 5%**

The quoted rates shall hold good for any increase in the tendered quantities upto variation of 5% in the total contract cost.

### **5.33 SUBSTITUTION**

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

### **5.34 CLEARING SITE ON COMPLETION**

Within Three Days, on completion of the works, the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Employer and Architects.

### **5.35 DEFECT LIABILITY PERIOD AFTER COMPLETION**

The defects liability period (D.L.P.) shall commence from the certified date of virtual completion issued jointly by the Bank & Architects. The contractor shall make good at his own cost and to the satisfaction of the employer all defects, shrinkages or other faults which may appear within 12 Months after completion of the work. In case the contractor fails to do so, within reasonable time as decided by the employer, he may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, losses and expenses shall be recoverable from him by the employer or may be deducted by the employer, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under clause No. 5.12 together with any expenses the Employer may have incurred in connection therewith.

### **5.36 CONCEALED WORK**

The contractor shall give due notice to the Employer and Architects whenever any work is to be buried in the earth, concrete or in the bodies of walls or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burial, in default whereof the same shall, at the option of the Employer/Architect be either opened up for measurement at the contractor's expense or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the notes of the Employer shall be accepted as correct and binding on the contractor.

### **5.37 IDLE LABOUR**

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

### **5.38 SUSPENSIONS**

If the contractor, except on account of any legal restraint upon the Employer preventing the continuance of the work, abandons, suspends work or in the opinion of the Employer, the contractor neglects or fails to proceed with due diligence in the performance of his part of the contract, the Employer shall have the power to give notice in writing to the contractor requiring the work be proceeded within a reasonable manner and with reasonable dispatch, such notices purport to be a notice under this clause.

After such notice shall have been given the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the contractor shall fail for 7 (seven) days after such notice has been given to proceed with the works as therein prescribed, the Employer may proceed as provided in clauses 5.41 (Termination of contract by Employer).

### **5.39 TERMINATION OF CONTRACT BY EMPLOYER**

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

of the contractor the whole of which shall continue in force as fully as if the contract,

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

#### **5.40 ARBITRATION**

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination for closure or Breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall be first resolved by the architects.

The work under the contract shall however continue during the disputes, differences and reasonable payments shall be released to the contractor as recommended by the architect. Subject to the above, other provisions of the Arbitration Act 1996 or any statutory modification or reenactment thereof and the rules made thereunder and for the time being in force, shall apply to the Arbitration proceeding under this clause.

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

#### **5.41 EXCEPTED MATTERS FROM ARBITRATION**

If the dispute of difference pertains to the under-noted matters (called excepted matters) the decision and in writing of the architect/ Employer shall be final, conclusive and binding on the parties.

- a) Instructions.
- b) Transactions with local authorities.
- c) Proof of quality of materials.
- d) Assigning or underletting of the contract.
- e) Certificate as to the causes of delay on the part of the contractor and justifying extension of time.
- f) Rectifying 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 of the determination of the contract by the employer.

#### **5.42 SPECIALISTS WORKS**

The Contractor must associate himself with the specialist firm to be approved by the Bank,/ Architect in writing for wooden flooring for INTERIOR works are to be executed by specialist firms.

#### **5.43 CONTRACT DRAWINGS GENERAL**

Two copies of each of the drawings and one copy of each of the condition of contract specification tender preamble and bill of quantities will be provided for the use of the contractor who must satisfy himself as to the accuracy of the said copies in every detail, and make all other copies necessary for the conduct of the work.

Any comments on drawings to be given by the contractor within 7 days from receiving of drawings. One copy of each drawing or sketch furnished to the contractor shall be kept in an office at the works and the Engineer or any person authorised by the Employer shall have free access to the drawings and sketches whenever they desire.

#### **5.44 RIGHTS OF TECHNICAL SCRUTINY BY CHIEF TECHNICAL EXAMINER**

The work is liable to be technically audited by the Chief Technical Examiner of the Central Vigilance Commission Government of India from time to time. Any defects, improvements or testing etc. pointed out by the Chief Technical Examiner should be carried out by the contractor at his own cost and any deduction suggested by the CTE will be effected.

The Employer shall have a right to cause a technical examination and audit of works and the final bills of the contractor including all supporting vouchers, abstract, etc. to

be made at the time of payment of the final bill. If as a result of this examination or otherwise any sum is found to have been over paid in respect of any work done by the contractor under the contract the contractor shall be liable to return the amount of over payment and it shall be lawful for the employer to recover the same from him from any sum or sums due to him and in any other manner legally permissible and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by the employer.

Any sum of money due and payable to the contractor (including Security Deposit returnable to him) under this contract may be appropriated by the Employer and set off against any claim of the employer of the payment of a sum of money arising out of or under any other contract made by the contractor with employer.

#### **5.45 WATCHING AND LIGHTING**

The contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Architects and Employer for the protection of the works or for the safety and convenience of those employed on the works or the public.

#### **5.46 CONTROL RECORDS**

The necessary records books at the site of work shall be maintained by the contractor.

#### **5.47 SECURITY ARRANGEMENT**

- (a) Proper arrangements shall be made to keep all records under lock and key.
- (b) It shall be ensured that the contractor provides for adequate fences, watch and ward and security of basic materials such as cement and steel etc.
- (c) Movement of material, stores and plant, especially of those in which the Bank has got a financial interest or those which influence progress of work, shall be strictly controlled. Checks shall be exercised at gate (entrance and exit shall be preferably through one gate only).
- (d) When the work is completed and handed over to the user, the responsibility of proper security arrangement shall rest with the users.

#### **5.48 WORKING HOURS**

Site officers working hours shall normally be fixed as may be prevailing in the locality. Normally no construction work of important structural nature shall be carried out on Sundays, Holidays and during nights. In exceptional circumstances, however, the work may be carried out with proper approval of the Site Engineer who shall depute supervision staff to be present on the occasion.

**5.49 LABOUR RECORD**

The contractor shall maintain relevant records and fulfill all conditions and requirements in accordance with the following Act and Rules made hereunder.

- (a) The Payment of Wages Act.
- (b) Employer's Liability Act.
- (c) Workmen's Compensation Act.
- (d) Contract Labour (Regulation & Abolition) Act, 1970 and Central Rules 1971.
- (e) Apprentices Act 1961.
- (f) Minimum wages Act 1948.
- (g) Industrial Disputes Act 1947.
- (h) Maternity benefit Act 1961.
- (i) ESI Act.
- (j) Payment of Bonus Act.
- (k) Payment of Gratuity Act.
- (l) Any other Act enactment relating thereto and rules framed thereunder from time to time.

**5.50 HANDING OVER PROJECT WORK TO THE Bank**

Handing and taking over report and inventories/statement (in quadruplicate) at the time of handing over shall be prepared. The reports and inventories shall be signed by :

- (a) The contractor (Only the relevant papers).
- (b) The Site Engineer, and
- (c) Competent authority in the Bank.

The following inventories/statements shall be prepared : i. Inventory of furniture (Table, Chairs, Almirah etc.).

ii. Inventories of builders hardwares etc.) locks (Rim mortice and cylindrical) and night latches all with duplicate keys.

iii. Inventory of fixtures & fittings of installations (INTERIOR light fittings, fans, bells, air-conditioning, lifts pumps and the like ).

**5.51 DELINQUENCIES OF CONTRACTORS**

5.54. Procedures for dealing with Delinquencies/ Defaults/ Misconduct/ Misdemeanors of tenderers/ Contractors.

- i) The undernoted delinquencies/defaults/misconduct/misdemeanors on the part of tenderer or enlisted contract will attract disciplinary action.
  - a) Incorrect information about credentials, about his performance, equipment, resources, technical staff etc.
  - b) Non-submission of the fresh/latest Income tax clearance certificate.
  - c) Irregular tendering practice.
  - d) Submission of tender containing for too many arithmetical errors and freak rates.
  - e) Revoking a tender without any valid reasons.

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- f) Tardiness in commencing work.
- g) Poor Organisation at site & lack of his personal supervision.

- h) Ignoring Bank's notices for replacement/rectification of rejected materials, workmanship etc.
  - i) Violating any of the important conditions of contract, i.e. site facilities, insurance, labour laws, ban on subletting etc.
  - j) Lack of promptitude and cooperation in measurement of work and settlement of final account.
  - k) Non-submission of vouchers and proofs of purchase etc.
  - l) Tendency towards putting up false and untenable claims.
  - m) Tendency towards suspension of work for frivolous reasons.
  - n) Bad treatment of labour.
  - o) Bad treatment of subcontractors (piece workers) and un-business like dealings with suppliers of materials.
  - p) Lack of cooperation with nominated contractors or Bank's labour.
  - q) Contractor becoming Bankrupt or insolvent.
  - r) Contractor's conviction by a court of law.
  - s) Failure to satisfactorily rectify defects during Defects Liability Period (DLP) and discovery of latent defects in contractor's work after the expiry of DLP of his contract.
- 5.54. Disciplinary action against (Delinquencies of) contractor.

ii) Action

The award of the undernoted disciplinary action shall be considered.

- a) Placing embargo on issue of tenders of temporary suspension from the Bank's approved list.
- b) Permanent ban on issue of tenders & removal from the Bank's approved list.
- c) Circulation of the contractor's name to other Public Under taking or Government Department.



## **SECTION - VI**

### **TECHNICAL SPECIFICATIONS FOR THE PROPOSED INTERIOR FURNISHING WORKS OF SIDBI OFFICE AT GUWAHATI**

These specifications are for work to be done, item to be supplied and materials to be used in the work as shown and defined on the drawings and described herein, to the satisfaction of the Architect.

#### **6.1 General**

- 6.1.1 The workmanship is to be the best possible and of a high standard. The Contractor shall take all steps immediately to make up deficiency if any noticed by the Employer/Architect. Use must be made of special tradesman in all aspects of the work and allowance must be made in the rates for the same.
- 6.1.2 The materials to be provided by the contractor shall be in accordance with the samples already got approved from the Architect by the Contractor and the conformity with specification and approval list of manufacturers and brand. The Contractor shall produce all invoices, vouchers or receipts for any materials if called upon to do so by the Architect.
- 6.1.3 Samples of all materials are to be submitted to the Architect for their approval before the contractor orders or delivers the material to the site. Samples together with their packing are to be provided free of charge by the Contractor and should any materials be rejected they will be removed from the site at the Contractors expense. All samples will be retained by the Architect for comparison with materials which will be delivered at site. Also the Contractor will be required to submit specimen finishes of colors, fabrics, etc. for the approval of the Architects before proceeding with the work.
- 6.1.4 The Contractor shall be responsible for providing and maintaining temporary coverage required for the protection of finished work. He is also to clean out all wood shavings, cut ends and other waste from all parts of the work before covering or in fillings are constructed.
- 6.1.5 Contractor shall maintain uniform quality and consistency in workmanship throughout the execution of the work.

**7.0 Joinery in Woodwork**

- 7.1 The contact surfaces between internal frame and skinning shall be glued with approved adhesive in addition to fixing with necessary screws etc.
- 7.2 After preparing proper surface of skinning by sand-papering etc., the laminates or veneers shall be fixed on it with the help of approved adhesive.
- 7.3 Framework for full height partitions shall be rigidly fixed to the floor, walls and ceilings of it.
- 7.4 Any portions that are warped or found with other defects are to be replaced. The whole of the work is to be framed and finished in a workman-like manner in accordance with the detailed drawings and the direction of the Architect and whenever required, fitted with all necessary metal ties, straps, screws, adhesive etc. Joinery work generally to be finished with fine sand/glass paper.
- 7.5 All joints shall be standard mortise and tenon, dowel or cross-halved. Screws, nails, etc. will be of standard iron or wire. Tenons should fit the mortises exactly.
- 7.6 Nailed or glued butt joints will not be permitted.
- 7.7 Wherever screw heads are on a finished surface those will be sunk and the hole plugged with a wood plug of the same wood and grain to match the colour.

**8.0 Timber**

- 8.1 All the Salwood, CP Teak, etc. to be used shall be properly seasoned, of natural growth and shall be free from worm holes, loose or dead knots or other defects, sawn square and shall not suffer from warping, splitting or other devices.
- 8.2 The moisture content shall not exceed 12%.
- 8.3 All internal framework shall be treated with approved wood preservative and with fire retardant treatment / paint.
- 8.4 All wood brought to site be clean, it shall not have any preservative or other coating/covering.
- 8.5 All rejected, decayed, bad quality wood shall be immediately removed from site.

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8.6 All the dimensions mentioned for T.W. members are finished sizes.

8.7 All exposed T.W. is to receive melamine polish and should be of 1<sup>st</sup> quality BTC.

## 9.0 Plywood

**Note : All plywood , block board, pre-laminated boards are to be IS 303 Grade**

## 10.0 Hardware and Metals

10.1 All the screws/bolts with nuts to be used shall have oxidized finish (unless required otherwise) of approved shape, size and quality.

10.2 Fittings shall be of brass oxidized heavy duty unless specified otherwise.

10.3 Samples of all hardware are required to be approved in advance.

10.4 The agency should cover-up and protect the brass surface by a thick grease or other suitable material veneer as necessary and subsequently clean it away at the same time of handing over.

10.5 All hardware shall be fitted with good workmanship without the surrounding edges being damaged.

10.6 All chair stands shall be 5-prong aluminum tilting as approved by the Architects, with a diameter of 25 ½ inches, and finished with powder coating of high quality. In case M.S. stands are approved, the same shall be embossed with a seven-tank anti-rust treatment procedure before powder coating.

10.7 All castors shall be of approved make, quality and type. They shall be glass-reinforced nylon castors, with twin wheels having independent movement, and with a load carrying capacity of 100 kg per castors.

**11.0 . Laminate**

Note : All Laminates and veneers may be Eco marked certificated

11.1 All laminate shall be of 0.8mm, 1mm thickness as specified in Bill of Quantity.(EURO-I)

11.2 The Contractor shall get the sample showing the surface texture, pattern and colour approved, by Architect.

11.3 All edges, beadings, etc. shall also be finished in laminate or PVC edge banding

**12.0 Fabrication in Metal**

12.1 All brazing and welds are to be executed in a clean and smooth manner, rubber down and finished in flat and tidiest way, particularly where exposed.

**13.0 Glazier**

13.1 All glass is to be approved manufacture , complying with I.S. 3548-1960, or as per approved quality and sample, to be of the qualities specified and free from bubbles, air holes, waviness and other defects.

13.2 In cutting glass, proper allowance shall be made for expansion.

13.3 Glass for mirror shall be silvering quality (S.Q.) conforming to I.S. 3458-1958 or as approved sample and quality.

13.4 On completion, all glass surfaces shall be cleaned inside and out. All cracked, scratched glass / mirror shall be replaced.

13.5 Sun control film shall be non-reflective type, of approved make and shade. The fixing shall be without any defects such as air bubbles / creases / adhesive marks, etc.

13.6 All toughening on glass to be done as per approved finish and free from waves and bends.

#### **14.0 Paint & Polishes**

All material required for the work shall be specified and approved manufacture, delivered to the site in the manufacturer's containers with the seals, etc., unbroken and after use empty containers shall be stored till finally cleared by the Architect.

All iron or steel/metal surfaces shall be thoroughly scraped and rubbed down with wire brushes and shall be entirely free from rust, mill scale, etc., before applying the primary coat.

Melamine and P.U. polish finishes shall be properly finished, without any flow marks, spots, roughness etc.

Painting work shall be of high standard, without any brush marks on the finished surface and no spots on adjacent furniture, glass, etc.

#### **15.0 Civil Work**

15.1 The Contractor shall use cement of approved make only.

15.2 Only first quality ceramic tiles of approved make shall be used. All tile joints shall be filled up properly using cement slurry mixed with matching pigments.

15.3 Only best quality granite and marble of the basic rate specified and of approved shade shall be used. (Basic rates wherever mentioned are ex-godown and excluding taxes). The granite/marble shall be from the same lot and without colour / shade variations or any other defects.

15.4 All edge chamfers/cutting of granite/marble shall be mirror polished and no extra shall be paid for the same.

#### **16.0 APPROVAL OF MOCK-UPS AND SAMPLES**

The Contractor shall make one sample of each of the item / articles of furniture as listed under clause 2 of special conditions and got the sample approved through the Architects before manufacturing in bulk.

#### **17.0. APPROVAL OF FINAL FINISH IN CASE OF POLISHING AND PAINTING**

For items involving painting and polishing, normally primer and three coats should suffice. However, to achieve the final finish to the Architect's satisfaction, it may become necessary to have more than three coats. The Contractor shall apply such extra coats of final finish at no extra cost to SIDBI.

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#### 18.0. NON- AVALIABILITY OF NOMINATED MATERIALS / ITEMS

In case of materials /items which are not available, the Contractor shall have to submit a certificate in writing from the manufacturer to that effect. After proper verification, alternative and equivalent material may be selected by the Architects. In such case, there will not be any increase of the quoted rates. However, if the accepted alternative is cheaper, the cost benefit is to be passed on to SIDBI.

- 19.0. The Contractor shall furnish the address of the workshop where the furniture to be supplied under this Contract is manufactured. The material procured for the manufacture of the furniture, shall at all times be open for inspection by the SIDBI / Architect and /or their authorized representatives. It shall be the responsibility of the Contractor to afford full cooperation and assistance for such inspection.
- 20.0. The rates quoted by the Contractor will be considered to be inclusive of supplying the furniture and other items forming part of this Contract and placing them in position as directed by the Architects, and nothing extra on account of carriage, wastage, lift, lead, taxes, cesses or duties and the like or any other incidental charges of any kind whatsoever shall be paid to the contractor.
- 21.0. Any damage or any sort whatsoever which might occur to the furniture during carriage or at other stage shall be made good or replaced by the Contractor at his cost and risk.
- 22.0. The Contractor shall be responsible in all respects including watch and word, damages etc. for the safety of the work during execution/ manufacture till these are taken over. He shall also provide and maintain, at his own cost, any temporary covering required for the protection of the finished / unfinished items, that are likely to be damaged during the progress of work if left unprotected. The Contractor shall start supplying and placing / fixing the same in position so as to complete the work / stages of the work within the period stipulated in the Contract and /or as directed by SIDBI.
- 23.0. The rates for the different items of work under this contract shall be applicable for all heights, leads and lifts.
- 24.0. The Contractor shall get himself thoroughly acquainted with the site of work, approach conditions, storage space available etc. and study the specifications and the conditions carefully before tendering. No claim whatsoever for want of any information or on any other account shall be entertained.

- 25.0. The Contractor shall be responsible for the safe custody /security of the work under this Contract till the work is taken over by SIDBI.
- 26.0. Each item of work and/or article of furniture to be supplied under this Contract shall be got approved by the Architect at the site before it is polished or otherwise finished /treated. The approved articles duly approved by the Architect shall only be taken to the site where they are required to be finally placed /fixed.
- 27.0. The work shall be executed in accordance with the approved programme of work.
- 28.0. The necessary fittings for operating the drawers, cupboards etc. for locking arrangement needed shall be provided by the Contractor and his rates quoted are deemed to be inclusive of all such fittings and fixtures. In case any clarification about full details of fittings and fixtures and / or any other details as required, the same shall be obtained by the Contractor before tendering.
- 29.0. Foam rubber wherever specified shall be in one piece. It shall be shaped and fixed / fitted properly as directed by the Architect with the material specified.
- 30.0. The detailed drawings are self contained but if some details are missing the Contractor shall consult the Architect before taking up the work. The contractor should not kill the working time by giving excuses like non-receipt of drawings etc. and should bring to the notice of the Architect well before in advance prior to the starting of work.
- 31.0. All sharp edges, corners and sides of all the item of furniture shall be suitably rounded off to the required degree as decided by the Architect. This shall be done before the finishing and / or polishing etc. are taken up. Nothing extra shall be payable to the Contractor on this account.
- 32.0. Pest Control Treatment: Necessary pest control and anti-termite for all wood works shall be carried by a Pest Control Agency who is a member of the Pest Control Association of India. A written gurantee valid for 5 years shall be obtained from the Pest Control Agency against infestation of white ants, termites, wood borers etc. and furnished to SIDBI before the work is handed over.

## II. ELECTRICAL SPECIFICATIONS

### 33.0. MV SWITCHGEAR – POWER PANELS

#### Scope

The scope of work shall cover the supply, installation, testing and commissioning of all power panels, incorporating circuit breakers, switch fuse units, busbars, interconnections, earthing etc., meeting the requirements shown in equipment schedule and the drawings.

#### Standards

The following standards and rules shall be applicable:-

- 1) IS: 2516-1972 : Specification for AC circuit breakers.
- 2) IS: 4047-1988 : Specification for heavy duty air breaker switchgear & fuses for voltage not exceeding 1000V.
- 3) IS: 1818-1972 : Specification for AC isolator and earthing switches.
- 4) IS : 3072-1975 : Code of Practice for installation and maintenance of switchgear
- 5) IS: 3106-1966 : Code of Practice for selection, installation and maintenance of fuses (Voltage not exceeding 650 V)
- 6) IS : 4237-1967 : General requirements for switchgear and control gear for voltage not exceeding 1000V
- 7) IS : 2607-1976 : Air break isolators for voltage not exceeding 1000V
- 8) IS : 8623-1977 : Specification for factory built assemblies of switchgear and control gear for voltages up to and including 1000VAC and 1200V DC
- 9) IS : 375-1963 : Marking and arrangement of switchgear busbars main connections and auxiliary wiring.



10) Indian Electricity Act and Rules.

All codes and standards mean the latest wherever not specified otherwise. The installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of corresponding Indian Standard.

**Circuit Breaker**

Circuit breakers shall be air break horizontal draw out type fully interlocked and meeting the requirements of IS : 2516 or BS : 3659. Breakers shall be rated for a medium voltage of 600V and rated full load amperes as indicated on drawings. Breaker shall be capable of making and breaking system short circuits specified.

Breakers shall be unless specified otherwise manually operated complete with front – of the panel operating handle, isolating plug with safety shutters, mechanical ON/OFF indicator, silver plated arching and main contacts, are chutes trip – free operation. Breakers shall be capable of being racked out into testing 'Isolated' and 'Maintenance' positions are kept locked in any position. Breakers for remote operation shall be motor operated spring charged.

**Switch fuse units & disconnects**

Switch fuse units shall have quick–make, quick-breaker silver plated preferably double break contracts with operating mechanism suitable for rotary operation in the case of cubical mounting. All switches shall be rated according to the equipment schedule or drawings and shall withstand the system prospective fault current let through. Cam operated rotary switches with higher rating switch fuse units shall be heavy duty type conforming to IS” 4047.

Fuses shall be HRC cartridge type conforming to IS : 2208 with a breaking capacity corresponding to system fault level. Fuses shall be link type with visible indication screw type diazed fuses are not acceptable for any rating.

All ddiconnects shall consist of switch units quick–make, quick-break type with silver plated contacts. The switches shall preferably have double breaks. All switches shall be mounted in steel sheet enclosure, which in turn is mounted on suitable angle from frame work. In wet locations switches shall have cast iron enclosure. Disconnects shall have minimum breaking capacity.

### **Instrument Transformers & Meter & Relays**

Ammeters and Voltmeters shall have moving iron spring controlled dead-beat elements in square/bezel flush type cases and suitable for switch board mounting.

Meter shall conform to BS : 89 and have grade 'A' accuracy. Scale ranges shall meet with the requirements or as indicated on the drawing or in the Schedule of Quantities.

Energy meters shall be two element switch board mounting type suitable for unbalanced load. Meters should incorporate a KVA demand meter with an integration time of 30 minutes. In case of two incoming feeders, a summing C.T. shall be provided with the meter, Meters shall conform to BS : 37.

### **Earthing**

All switch panels shall be provided with an earth bar as specified.

Earthing of the switch boards shall be through the equipment. Earthing system provided in the building.

All meters shall be calibrated and tested through secondary injection tests.

All field tests shall be witnessed by Consultants and recorded. Certificates shall be furnished.

## **2. DISTRIBUTION BOARD**

### **Scope**

The scope of work shall cover the supply, installation, testing and commissioning of lighting & power distribution boards. Associated minor civil work required for the erection of the DB's are also included in the scope of this contract.

### **Standards**

The following standards and rules shall be applicable :

- 1) IS : 2675-1983- Enclosed distribution fuse boards and cutouts for Voltages not exceeding 1000V.
- 2) IS : 375-1963 Marking and arrangement of switchgear busbars main connections and auxiliary wiring.
- 3) IS : 8828- 1978 Miniature circuit breakers
- 4) IS : 2607-1976- Air break isolators for voltages not exceeding 1000V.

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5) IS : 9926-1981 Fuse wire used in Rewirable type Elec. Fuses  
up to 650Volts.

6) Indian electricity Act 1910 and rules issued there under.

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of Indian Standard.

#### Distribution boards

Distribution board along with the controlling MCB'S, isolator as shown shall be fixed in an M.S box suitable for recessed mounting in all. Distribution boards shall be made of 16 SWG sheet steel duly rust inhibited through a process of degreasing , acid pickling , phosphating and spray painted to an approved colour over a coat of red oxide primer. Three phase boards shall have phase barriers and a wire channel on three sides generally as shown on drawings. Neutral bars shall be solid tinned copper bars and tapped holes and chase headed screws. For 3 phase DN's, 3mm independent neutral bars shall be provided.

Conduit knockouts shall be provided as required/ Shown on drawings and the entire boards shall be rendered dust and vermin proof and shall have conduit knock out entry. MCB's shall have quick and break non-welding self wiping silver alloy contacts both on the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal over load and instantaneous over current tripping elements, with trip free mechanism. In case of multipole breakers, the tripping must be on all the poles and operating handle shall be common. Breakers must conform to BS 3871 with facility for locking in off position. Pressure clamp terminals for stranded /solid conductor insertion are acceptable up to 4 sq. mm. Aluminum or 2.5sq.mm.Copper and for higher ratings, the terminals shall be suitable shrouded. Wherever MCB isolators are specified they are without the tripping elements.

Fuse shall be HRC link type OR DZ type necessary fuse Carriers and with rating of not less than 25 MVA. Bottle type fuses are only acceptable. Fuse carrier terminals shall be suitable shrouded.

Distribution boards shall have HRC or DZ as shown on the schedule and drawings. Boards shall meet with the requirements of IS 2675 and marking arrangement of busbar shall be in accordance with IS 375. Bus bars shall be suitable for the incomer switch rating and sized for a temperature rise of 35 degree C over the ambient. Each board shall have two separate earthing terminals. Circuit diagram indicating the load distribution shall be pasted on the inside of the DB as instructed. One earthing terminal for single phase and two terminals for 3 phase DBs shall be provided with an earth strip connecting the studs and the outgoing ECC earth bar.

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In the case of MCB distribution boards, the back up fuses wherever shown shall be not less than 63A with a delayed Characteristic and a minimum preparing time of 0.5 sec. At 5 KVA fault current.

All outgoing feeders shall terminate on a terminal strip which in turn is interconnected to the MCB. Base by means of insulated single conductor copper wires as follows.

Up to 15A. 2.5 sq.mm.

25A. 4.0 sq.mm

63A. 6.00 sq.mm

#### Installation & Testing

All distribution boards shall be mounted on necessary angle iron frame work. All mounting frames shall be prim coated with two finish coats after the completion of the work. All distribution boards shall be touched up for damaged painting.

All boards shall be meggered phase and to neutral using a 1000V megger with all switchgear in closed position. The megger value should not be less than 2.5 megohms between phase and 1.5 megohms between phase and neutral.

### **3. MEDIUM VOLTAGE CABLING**

#### **Scope**

The scope of work shall cover supply, laying, connecting testing and commissioning of medium voltage power cabling.

#### **Standards**

The following standards and rules shall be applicable:

- 1) IS : 1554 PVC insulated electric cable (heavy.duty)
- 2) IS : 1753 Aluminum conductors for insulated cables
- 3) IS : 3961 Recommended current ratings for cables
- 4) Indian Electricity act and rules.

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard Codes of practice or the British Standard Codes of practice where Indian Standards are not available.

**Cable**

All cable shall be 1100 Volts grade PVC insulated, sheathed with or without steel armouring as specified and with an outer PVC protective sheath. Cables shall have high conductivity stranded aluminum or copper conductors and cores shall be colour coded to the Indian Standards.

All cables shall be new without any kinds or visible damage. The manufacturers name, insulating material, conductor size and voltage class shall be marked on the surface of the cable at every 600mm centers.

**Installation**

Cables shall be laid in the routes marked in the drawings. Where the route is not marked the Contractor shall mark it out on the drawings and also on the site and obtain the approval of the Architect/ Consultant before laying the cable. Procurement of cables shall be on the basis of actual site measurements and the quantities shown on the schedule of work be regarded as a guide.

Cables, rising indoors shall be laid on wall, ceiling inside shafts, or trenches. Single cable laid shall be fixed directly to wall or ceiling. All supports shall be at not more than 500 mm. Where number of cables are run, necessary perforated cable trays shall be provided wherever shown. Cables laid in built-up trenches shall be on steel supports. Plastic identification tags shall be provided at every 20m.

Cable shall be bent to a radius not less than 12 times the overall diameter of the cable, or in accordance with the manufacturer's recommendations whichever is higher.

In case of direct buried cables, the cables, the cable route shall be parallel or perpendicular to roadways, walls, etc., cable shall be laid in an excavated, graded trench, over a sand cushion to provide protection against abrasion. Width of excavated trenches shall be as per drawings. Backfill over buried with a minimum earth cover of 600 mm the cables shall be provided with cable markers at every 20 meters.

All cables shall run from panel to panel without any joints or splices. Cable shall be identified at end terminations indicating the feeder number and the Panel/Distribution Boards from where it is being laid. All cable terminations for conductors up to 4 sq.mm. may be insertion type and all higher sizes shall have tinned copper compression lugs. Cable terminations shall have necessary brass cable gland. The end armouring shall be earthed at both ends.

**Testing**

MV cables shall be tested upon installation with a 500V. Megger and the following reading established.

- 1) Continuity on all phases
- 2) Insulation Resistance (a) between conductors  
(b) all conductors and ground

All test readings shall be recorded.

**Mode of Measurement**

Cable will be measured on the basis of unit length and shall include the following :

- I) Cable and clamps
- II) Installation , commissioning and testing
- III) Cable marking

Each cable termination will be measured as one unit for payment. Certain cable sizes are grouped together and rates shall be furnished against each group. The item shall include the following.

- i) Cable glands, lugs , bolts, nuts,
- ii) All jointing materials
- iii) Installation, testing and commissioning.
- iv) Earthing the glands.

Cables buried under ground will be measured on the basis of unit length and paid for at unit rates and shall include:

- i) Excavation and back filling
- ii) 6" Sand cushioning below and above cable
- iii) Protective bricks / tiles
- iv) Cable markers.

#### **4. CONDUIT WIRING**

##### **Scope**

The scope of work shall cover supply, installation testing and commissioning of all conduit wiring

The conduit shall be rigid PVC, Black coloured for lighting and sockets and Grey coloured for sockets for computers, manufactured to IS :9537 (Part III) including latest amendments, if any and in accordance with the requirement set out in the schedule. The conduit wall thickness shall be “heavy”. The conduit accessories shall be manufactured to IS : 3419 and should be compatible to the conduit installed.

The conduit shall be provided with couplers for straight joints. All joint between conduits/ conduit accessories should be properly sealed.

##### **Wires**

All wires shall be single core copper PVC insulated to IS: 694 and shall be 660V Grade.

All wires shall be colour coded as follows.

<u>Phase</u>	<u>Colour of wire</u>
R	Red
Y	Yellow
B	Blue
N	Black
Earth	Green (insulated)
Control (if any)	Grey.

**Installation**

The size of conduits shall be selected in accordance with the number of wires permitted under table given below. The minimum size of the conduit shall be 20 mm dia unless otherwise indicated or approved. Size of wires shall be not less than 1.5 sq.mm. Copper or 2.5sq.mm.copper

Nominal Dia of	Nominal Cross sec. area s.(mm)	20mm		25mm		32mm		38mm	
Wires (mm)	area s.(mm)	S	B	S	B	S	B	S	B
1 / 2.40	1.50	4	3	8	6	15	9	-	-
1 / 1.80	2.50	4	2	6	4	10	8	-	-
1 / 2.24	4.00	2	2	4	3	8	6	-	-
1 / 2.80	6.00	1	-	4	3	6	6	-	-
1 / 3.55	10.00	1	-	3	2	5	4	6	5

S- runs of conduits which have distance not exceeding 4.25 m between draw of boxes & which do not deflect from the straight by an angle of more than 15 degree.

B- runs of conduit which deflect from the straight by more than 15 degree.

Conduits shall be kept at a minimum of 100 mm from the pipes of other non – electrical services.

Separate conduits / raceways shall be used for:

- 1) Normal lights and 5A.3 pin sockets on lighting circuits,
- 2) Power outlets –15A 3 pin 20A /30A. 2 pin + scraping earth metal clad sockets.
- 3) Emergency lighting.

Wiring for short extensions to outlets in hung ceiling or to vibrating equipments, motors etc. shall be installed in flexible conduits, Otherwise rigid conduits shall be used.

Conduits run on surfaces shall be supported on saddles which in turn are properly screwed to the wall or ceiling. Saddles shall be at intervals of not more than 500mm Fixing screws shall be with round or cheese head and of rust proof materials. Exposed conduits shall be neatly run parallel or at right angle to the walls of the building. Unseemly conduit bends and offsets shall be avoided. No cross- over of conduits installation shall be clean and neat in appearance.



Conduits embedded into the walls shall be fixed by means of staples at not more than 500mm intervals. Chases in the walls shall be neatly made and refilled after laying the conduit and brought to the finish of the wall but final finish will be done by the building contractor.

Inspection boxes shall be provided for periodical inspection to facilitate drawal and removal of wires. Such inspection boxes shall be flush with the wall or ceiling in the case of concealed conduits. Inspection boxes shall be spaced at not more than 12 meters apart or two 90 degree solid bends or equal. All junction and switch boxes shall be covered by 6mm clear Perspex plates truly cuts and fixed with cadmium plated brass screws. These junction boxes shall form part of point wiring or conduit wiring as the case may be including the cost of removing the Perspex cover for painting and refixing. No separate charges shall be allowed except where specially mentioned.

### **Lighting & Power wiring**

All final branch circuits for lighting and appliances shall be single conductor cables run inside conduits. The conduit shall be properly fixed into sockets, junction boxes.

Final branch circuits shall preferably be kept in a separate conduit up to the distribution Board. No other wiring shall be bunched in the same conduit except those belonging to the same phase. Each, lighting branch circuit shall not have more than ten outlets or 800 watts whichever is lower.

Flexible cords for connection to appliances shall be 650/1100 V grade (three or four cores i.e. with insulated neutral wire of same size) with tinned standard Aluminum / Copper wires, insulated twisted and sheathed with strengthening cord.

Looping system of wiring shall be used. Wires shall not be jointed. Where joints are unavoidable, they shall be made through approved mechanical connectors, No such joints shall be made unless the length of the sub circuit, sub main or main is more than the length of the standard coil.

Power wiring shall be distinctly separate from lighting wiring. Call Bell / Buzzer wiring shall be in separate conduits.

### **Testing**

The entire installation shall be tested for

- a) Insulation resistance
- b) Earth continuity.
- c) Polarity of single pole switches.

The final sub circuit conduit wiring commencing from the distribution board till the first switch box or light fighting shall be measured on the basis of unit length. In the case of buried conduits, the wiring shall be measured before the concealing.

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The definition of point wiring shall be in accordance with section 1 of the CPWD general specification for Electrical Works Part – I Internal, 1972 and should include all junction boxes, switch boxes with 5mm thick transparent Perspex cover plate of approved colour with square out corners & champhered edges screwed to the box using cadmium plated brass counter sunk or round headed screws connectors, earth wire, fixing accessories, junction boxes, connection to all light fittings etc. as specified and shown on drawings. The length and nomenclature of the points shall be as follows.

- 1) Extra short point : Up to 1 meter in length
- 2) Short point : Above 1 M. but not exceeding 3.0m.
- 3) Medium point : Over 3.0 M but not exceeding 8.0m
- 4) Long point : Over 8.0 M but not exceeding 12.0m.
- 5) Very long point : Over 12.0M.but not exceeding 18.0M.
- 6) Extra long point : Over 18.0M but not exceeding 24M
- 7) Special point : Exceeding 24M.

## **5. EARTHING**

### **Scope**

The scope of work shall cover earthing station, laying aluminum / copper earth strips and connecting the power panels, DBs and switch boards. All minor civil work involved shall be covered in the scope of their contract.

### **Standards**

The following standards and shall rules shall be applicable:

- 1) IS : 3043 – 1966 Code of Practice for earthing.
- 2) Indian Electricity Act and rules

All codes and standards mean the latest. Where not specified otherwise the installation shall generally follow the Indian Standard code of Practice or the British Standard Codes of Practice in the absence of Indian standards.

**Pipe Earthing station**

The earth electrode shall be 2.5M long 50mm dia galvanized steel pipe. The earth resistance shall be maintained and should not exceed 5 ohms with a suitable soil treatment.

**Earth leads and connections**

Earth lead shall be bare copper or aluminum or galvanized steel as specified. Copper lead shall have a phosphor contact of not over 0.15 per cent. Aluminum and galvanized steel buried in ground shall be protected with bitumen and hessian wrap or polythene faced hessian and bitumen coating. At road crossing necessary Hume pipes shall be laid. Earth lead run on surface of wall or ceilings shall be fixed on saddles or wall so that the strip is at least 8mm away from the wall surface.

The complete earthing system shall be mechanically and electrically connected to provide an independent return path to the earthing source.

**Equipment earthing**

All Apparatus and equipment transmitting or utilizing power shall be earthed in the following manner. Copper earth wires shall be used where copper wires are specified. Aluminum wires may be used where aluminum phase wires are specified unless otherwise indicated in the schedule of work.

**1) Power transmission apparatus**

a) A separate insulated bare earth continuity conductor of size 50% of the phase conductor subject to the minimum and maximum shall be provided.

	<b>Copper</b>	<b>Aluminum</b>	<b>Galvanized Steel</b>
Minimum	2.5 sq.mm.	1.5 sq.mm.	6 sq.mm.
Maximum	65 sq.mm	100 sq.mm.	200 sq.mm

The earth continuity conductor may be drawn inside the conduit in which case, it should be insulated.

b) Non-metallic conduit shall have an insulated earth continuity conductor of the same size as for metallic conduit. The earth conductor shall be distinctly coloured (Green) for easy identification.

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c) Armoured cables shall be earthed by 2 distinct earth connections to the armouring at both the ends and the size of connection being as for the metallic conduit.

d) In the case of unarmoured cable, an earth continuity conductor shall either be run outside along the cable or should form a separate insulated core of the cable.

e) 3 Ph. Power panels and distribution boards shall have 2 distinct earth connections of the correlated to the incoming cable size. In case of 1 ph. DB's a single earth connection is adequate. Similarly for 3 Ph and 1Ph. Isolating switches there shall be 2 and 1 earth connections respectively sizes being correlated to the incoming cable.

## **2. Utilities equipments**

a) 3 Ph. Motors and other 3 Ph. Apparatus shall have 2 distinct earth connections of size equal to 50% of the connecting cable subject to the following.

<b>Copper</b>	<b>Aluminum</b>	<b>Galvanized Steel</b>	
Minimum	6.5 sq.mm	10 sq.mm	20 sq.mm
Maximum	65 sq.mm	100 sq.mm.	200 sq.mm

b) For 1 Ph. Motors and 1 Ph. Apparatus, the single earth connections shall be provided of the above size. For all light fittings and fans a single earth connection with 2.5 sq.mm. Copper or equivalent size shall be provided.

c) All street light poles have an earth stud and shall be connected to the cable armouring using 6.5 sq.mm. Copper or equivalent unless shown otherwise.

d) For street lighting poles in ground, 2.5m long 10 SWG bare copper wire shall be coiled and buried with every fourth pole in addition to connection to cable armouring.

## **Testing**

The following earth resistance values shall be measured with an approved earth meggar and recorded.

- 1) Each earthing station
- 2) Earthing system as a whole
- 3) Earth continuity conductors

## **Mode of Measurement**

Providing, earthing station complete with excavation, electrode, watering pipe, soil treatment, Masonry chamber etc. shall be treated as one unit of measurement.

The cost of earthing the following items shall become part of the cost of the items itself and no separate payment for earthing shall be made.

- a) Motors-earthing forming part of the cabling / wiring for the motors.
- b) Isolation switches and starters should form part of mounting frame, switch starter etc.
- c) Light fittings – form part of installation of the light fittings.
- d) Conduit wiring cabling – should form part of the wiring or cabling.

## **6. LIGHT FIXTURES**

The scope of work shall cover the supply, installation & testing of fluorescent and incandescent light fixtures as specified in Schedule of Quantities.

All fixtures shall be complete with accessories and fixings necessary for installation whether so detailed under fixture description or not.

Fixtures housing, frame or canopy shall provide a suitable cover for the fixture outlet box or fixture opening.

Fixtures and/or fixture outlet boxes shall be provided with hangers to adequate support the complete weight of the fixtures. Design of hangers and method of fastening other than specified shall be submitted to the Architect / Consultant for approval.

Flush mounted and recessed fixtures shall be installed so as to completely eliminate light leakage withing the fixture and between the fixture and adjacent finish surface.

Fixture mounted on outlet boxes shall be tightly secured to a fixture stud in the outlet box extension pieces shall be installed where required to facilitate proper installation.

Wiring withing the fixtures and for connection to the branch circuit wiring shall be not less than 1.5. sq.mm. Copper for 250 volt application. Wire insulation shall suit the temperature conditions inside the fixture and wires by passing the choke shall be heat protected with a heat resistant sleeve.

- 1) Lamps shall be supplied and installed in all lighting fixtures furnished under this contract.
- 2) Lamps used for temporary lighting service shall not be used in the final lamping of fixture units.

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- 3) Lamps shall be of wattage and as shown in schedule.
- 4) Lamps for permanent installation shall not be placed in the fixtures until so directed by the Architect/ Consultant and this shall be accomplished directly before the building is ready for occupation.

#### **LED fittings.**

Only single and /or two lamps ballast shall be used in any one fixture. Ballasts shall be completely enclosed inside sheet steel casing and shall have a corrosion – resistant finish. All ballasts shall be of high power factor compensated to above 0.9 PF.

Surface mounted fixtures longer than two feet shall have one additional point of support besides the outlet box fixture and when installed individually. Pendant individually mounted fixtures four feet long and smaller shall be provided with twin stem / conduit hangers. Stems shall have ball aligners or similar devices and provided for a minimum of 25mm vertical adjustment. Stems shall be of appropriate length to suspend fixtures at required mounting height.

Lamps shall have bi-pin bases and minimum approximate rated and guaranteed life of 6000 hrs. Colour spectrum of light shall be equivalent to 'Philips White'. Lamp starter and ballast shall match the lamp.

#### **Incandescent fittings**

Incandescent fittings shall be of the type generally specified on the drawings. Contractors should have sample approved by Architect / Consultant before procurement.

Incandescent fixtures shall be equipped with porcelain, medium base, screw/ pin type sockets for lamps up to and including 200 watts and mogul screw type base for lamps 300 watts and over.

#### **Mode of Measurement**

Each fixture shall be measured as a unit complete with accessories lamp, connectors, earthing etc.

Suspension stems for light fittings shall be measured as bare conduits and paid at the rate per unit length.

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**List of Tender Drawings:**

<b>Sl no:</b>	<b>Drawing no</b>	<b>Details</b>	<b>Drawing Title</b>
1	DRAWING-1	Layout Plan	SIDBI/FL/01
2	DRAWING-2	RCP	SIDBI/RCP/01
3	DRAWING-3	Electrical	EL/01

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## PROFORMA-I

FORM OF BANK GUARANTEE IN LIEU OF EARNEST MONEY DEPOSIT (Clause 4.1 of ' Instruction to Bidders'), Initial security deposit (Clause 8 of 'Instructions to Bidders')

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To

**Small Industries Development Bank of India, (SIDBI)**

**IDBI Building, 2<sup>nd</sup> Floor,**

**G.S. Road**

**Guwahati-781006**

Dear Sirs,

In consideration of the **Small Industries Development Bank of India, (SIDBI)** (hereinafter called the owner) having invited tenders in respect of proposed Interior furnishing & electrical works for SIDBI's office work at Guwahati (hereinafter called "the said work") upon certain conditions that the owner may accept a Bank Guarantee of a schedule / Nationalize/ Commercial Bank in lieu of cash earnest Money Deposit / Initial Security Deposit / Final Security Deposit, We \_\_\_\_\_(Name of the Bank) do hereby undertake to pay to the Owner an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ Only) against any loss or damage caused to or suffered by the owner by reasons of any breach of any of the terms and conditions of the said Tender Documents by \_\_\_\_\_ (Name & address of Bidder):

We, \_\_\_\_\_ (name of the Bank), a body registered / constituted under the \_\_\_\_\_ and having our registered office at \_\_\_\_\_(herein after "the Bank") at the request of the said Bidder and with the intent to bind the Bank and its successors and permitted assigns, do hereby unconditionally and irrevocably guarantee payment to the Owner a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) due and payable under this Guarantee / Undertaking without any demur. Any such demand made on the Bank by the said Owner shall be conclusive as regards the amount due payable by the Bank under this Guarantee / Undertaking, However, our liability under this Guarantee / Undertaken shall be restricted to an amount not exceeding Rs. \_\_\_\_\_(Rupees \_\_\_\_\_ only)

And the Bank doth hereby further agrees as follows:



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- (i) The Guarantee / Undertaking herein contained shall remain in full force and effect during the period that would be taken for the performance of the said contract and the claims of the owner relative thereto are satisfied and / or discharged and until the owner shall have no claims under this Guarantee / Undertaking has been served on the Bank before the expiry of the said date, in which event the same shall be enforceable against the Bank notwithstanding that the same in enforced after the expiry of the said date, namely \_\_\_\_\_ 2016.
- (ii) The owner shall have the fullest liability without reference to the Bank and without affecting in any way the liability of the bank under this Guarantee / Undertaking, at any time and / or from time to time to anywise vary the said contract and / or any of the terms and conditions thereof or of or relative to the said earnest money / initial security / final security deposit or to extend time of performance of the said contract in whole or part or to postpone for any time and / or the power exercisable by the owner against the contractor and either to enforce or forbear for enforcing any of terms & conditions of or governing the said contract or the said earnest money / / initial security / final security deposit or the securities available to the owner or any of them and the bank shall not be released from its liability under these presents and the liability of the bank shall remain in full force and effect notwithstanding any exercise by the owner of the liberty with reference to any or all the matters aforesaid or by reason of time being to the contractor or any other forbearance , act or omission of the part of the owner or any indulgence by the owner to the contractor or of any other act, matter or things whatever which under the law relating to sureties would, but for this provisions, have the effect of releasing the Bank from its liability hereunder or any part thereof.
- (iii) If shall not be necessary for the owner to proceed against the contractor before proceeding against the Bank and the guarantee / undertaking herein contained shall be enforceable against the Bank notwithstanding the existence of any other security for any indebtedness of the contractor to the owner.
- (iv) The amount stated by the owner in any demand, claim or notice as the unpaid being shall as between the bank and the owner for the purposes of these presents be conclusive of the said balance.

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- (v) The liability of the bank to the owner under the Guarantee / undertaking shall remain in full force and effort notwithstanding the existence of the difference of dispute between the contractor and the owner and / or the existence of any difference of the dispute between the contractor and the Bank and / or the existence of the difference of the dispute between Bank and the owner, or otherwise whosever touching or effecting these presence or the liability of the contractor to the owner, and notwithstanding the existence of any instruction or purported instructions by the contractor or any other person to the bank not to pat or for any causes or to the with hold or defer payments to the owner under these presents, with the intent that notwithstanding the existence of such difference.
- (vi) The bank shall not revoke this Guarantee / undertaking during its currency except with the previous consent of the owner in writing and also agree that any changes in the constitution of the contractor or the bank or the shall not discharge the Bank's liability hereunder.
- (vii) The Bank doth hereby declare that Shri: \_\_\_\_\_ (name of the person signing on behalf of the bank) who is \_\_\_\_\_ (his designation is authorized to sign this Gurantee / Undertaking on behalf of the Bank and to bind the bank thereby.

Dated this        Day of        2016.

Yours truly,

Signature:

Name;

Name of the Bank:

Name of the Branch:

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## PROFORMA-II

## RUNNING A/C BILL

- i) Name of Contractor/ Agency :
- ii) Name of Work :
- iii) Sr No. of this bill :
- iv) No. and date of previous bill :
- v) Reference to Agreement No. :
- vi) Date of written order to commence :
- vii) Date of completion as per agreement :

Sl no. <u>tender</u> (Rs)	Item Description	Unit	Rate (Rs)	Qty	<u>As per</u> Amt
1	2	3	4	5	

Upto Previous R/A Bill		Upto Date (Gross)		Present Bill		Remarks
Qty	Amount (Rs)	Qty	Amount (Rs)	Qty	Amount (Rs)	
6		7		8		9

**Note** :1.If part rate is allowed for any item, it should be indicated with reasons for allowing such a rate.

2.If adhoc payment is made, it should be mentioned specifically

Net value since  
previous bill

**LIST OF APPROVED MAKES/BRANDS-CIVIL- INTERIOR**

<b>SI No</b>	<b>Materials</b>	<b>Brand Name</b>
1	Cement	Ambuja/JK Super/ACC
2	Gypsum Board	India Gypsum
3	Grid Ceiling System	Armstrong
4	Laminated wooden floor	VISTA/Alps Industries
5	Plyboards/Block boards	Austin/Century/Fiden
6	Laminate	Century/Signature/Elvee
7	Glass	Modi/Atul/Asahi
8	Modular Furniture/ Chairs	ISO make or Featherlite equivalent
9	Vertical Blinds	Vista/Alps Industries
10	Paints	Asian/Nerolac/Berger
11	Aluminium Section	Jindal, Nalco
12	Blind	Vista/Mac/Aerolex
13	Putty	Shalimar/Berger/Asian
14	Texture Paint	Spectrum/Unite/Heritage
15	Flush Door	Duro/Swastik/Green Ply/Anchor
16	Door Closure	Dorma
17	Brass Hard Ware	Godrej/EL-Bihari (EBCO)
18	Locks	Godrej/Dorma/Rich/Ozone
19	SS Hardware	Godrej/Dorma/Rich/Ozone
20	Glass/Mirror	Modiguard/Asahi/Saint Gobhan

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21	Resin/Adhesive	Fevicol/Vemical
22	Melamine Polish	Asian/Berger/ICI
23	Modular Furniture	Godrej/Feather Lite/MPRO/PSL
24	Chair	Feather Lite/Wipro/Godrej

**LIST OF APPROVED MAKES/BRANDS-ELECTRICAL**

<b>SI No</b>	<b>Materials</b>	<b>Brand Name</b>
1	Rigid PVC Conduit	Medium Gauge wall 1.5mm thickness ISI manufactured from virgin material Precision, BEC, AKG and Polypack
2	Accessories for PVC Conduit	Same as Sl. No. 1 above
3	M.S. Conduit 16 gauge	Precision, BEC, AKG
4	Accessories for M.S. Conduit	Same as Sl. No. 3 above
5	Copper conductor PVC insulated wire (Flexible) FRLS	As per IS:694-1977 of Finolex/Havells/Polycab/RR Wires
6	Modular Switches / Sockets	Anchor Roma/MK India/Crabtree
7	Main Switch fuse upto 63 Amps –A.C. 23 duty	L&T/Havells/PHL
8	Above 63 Amps A.C. 23 duty	L&T/Siemens/Havells/HPL
9	HRC Fuses	L&T/English Electric/HPL
10	MCBs	Legrand/HPL/Havells/Schnider
11	Distribution Board	Legrand/HPL/Havells/Schnider
12	Rewireable Porcelain Fuse	CPL/KEW/Havells
13	Telephone wires	Delton/Finolex/Havells/Polycab
14	PVC tape	Steel grip
15	Compound	Shalimar No.6
16	Main Cables Aluminium/ Copper	PVC armoured/ unarmoured cable for 1.1 KV as per ISI 1554. CCI/Asian/National/Polycab
17	PVC XLPE Cable Aluminium 1.1 KV	Havells/Polycab/RR Kable/Gloster
18	Glands	Double compression type, Siemens type with rubber ring and double washers (Sample to be approved) Comet/Comex

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19	Cable Lugs	Dowells, 3-D
20	Metal Clad Plugs	Legrand/Crompton/Havells
21	Switch Plate	Decolam Hylam sheet 3.0 mm thick. OR Sintex SMC Sheets
22	Connectors/ Indicator	Decolam Hylam sheet 3.0mm thick. OR Sintex SMC Sheets
23	Connectors/ Indicator	Technic, Mimic (Static LED type), Technoplast, Porcelain
24	Button, holder, Angle holder, ceiling rose	Anchor, Precision
25	M.S. Boxes for Modular Switch Board	Anchor Roma/Mk India/Crabtree/CURVE
26	ELCB	Legrand/HPL/Havells/Schnider
27	A.C.B Drawout type (LT)	L&T/Siemens/Schnider
28	Telephone tag block	Krone India Ltd.
29	Capacitor	L&T/Crompton Greaves/Datar/Siemens
30	Relay	L&T Siemes / Schnider
31	MCCB	L&T/Legrand/Siemens/Havells
32	KWH Meter	L&T//Siemens/Schnider
33	Light Fixture	Phillips/ Crompton Greaves / Briallant
34	Ceiling Fans / Wall Fan	Crompton/Orient/Havells
35	Exhaust Fan MS / PVC	Crompton/Havells
36	Electronic call bell / timer	Anchor / Precision
37	TV Cable	Finolex / Polycab
38	Volt meter & Ammeter (Digital)	Meco, AE
39	Current Transformer	AE, Kappa

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40	L.T. Panel	L&T or Fabricated by CPRL approved fabricator
41	Data cabling & its Components Cat-6 and Cat-5	Molex/Systemax/Avaya/Tyco/DG Link
42	Change over switch	Havells/HPL/GE
43	24 port jack Panel	Molex/Systemax/DG Link/Havells
44	4U/9U/12U/15U Rack for jack panel	Systemax/Vlrack/AMP
45	RJ 45	Molex/Systemax/AMPS/DG Link
46	RJ 11	Molex/Systemax/AMPS/DG Link

**Note : Whether a product is equivalent or not, will be decided by the Architect/BANK only.**



**LIST OF APPROVED MAKES/BRANDS-HVAC**

<b>SI No</b>	<b>Materials</b>	<b>Brand Name</b>
1	Air-Conditioners	Carrier Media / Voltas or equivalent