

TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)

**TENDER PART-A**

**STATE BANK OF INDIA**

**TENDER FOR ELECTRICAL WORKS**

**AT**

**MANAWAR BRANCH  
Distt. DHAR (M.P)**

**(DHAR - REGION)**

**(TECHNICAL BID)**

**ARCHITECTS**

**DESIGN AVENUES**

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**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****NOTICE INVITING TENDERS**

**Name of Work: ON Behalf of State Bank OF India, Invites E-Tender for Proposed Electrical Works at MANAWAR BRANCH, DISTT. DHAR (M.P.) ( DHAR- Region).**

**The SBI Empaneled contractors who receive NIT from Architect are only entitled to quote for this tender.**

**The details of tender are as under:-**

S.No.	Description	
1.	Name of work	<b>Proposed Electrical work at MANAWAR BRANCH, DISTT. DHAR (M.P.).</b>
2.	Nature of Work	<b>Electrical Work</b>
3.	Time allowed for completion	<b>45 (Forty Five) Days from the date of Commencement.</b>
4.	Tender Processing Fees	NIL
5	Earnest Money Deposit	<b>Rs. 6200 (Rupees Six Thousand two Hundred only) by means of Demand Draft / Banker's cheque (Valid for a period of 90 Days from the last date of submission of the tender) from any Nationalized Bank drawn in favour of The Regional Manager, State Bank of India payable in DHAR.</b>
6	Initial Security Deposit	The successful tenderer will have to submit a sum equivalent to 2% of accepted tender value less EMD by means of DD drawn in favour of <b>The Regional Manager, State Bank of India payable in DHAR.</b> within a period of 15 days of acceptance of tender.
7	Date of issue of tender documents form Bank's website	From- <b>02/11/2024</b> to <b>22/11/2024</b> www.tenderwizard.com/SBIETENDER
8	Last date & time for submission of Online Technical and Price bid, EMD and cost of tender document	Up to 3:00 P.M. On <b>22/11/2024</b> Note: It is sole responsibility of the bidder to ensure submission of their EMD and cost of tender document cum processing by stipulated date and time at specified address failing which they will not be allowed to participate in e-tendering
9	Date & Time of opening of e-tenders	3:30 P.M. On <b>22/11/2024</b>
10	Address at which along with EMD & Cost of tender document proof has to be submitted.	<b>REGIONAL BUSINESS OFFICE, State Bank of India, DHAR,</b> However Bids would be opened even in the absence of any or all the bidder's representatives.
11	Place of opening tenders	<b>REGIONAL BUSINESS OFFICE, State Bank of India, DHAR</b> However Bids would be opened even in the absence of any or all the bidder's representatives.

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12	Liquidated Damages	0.50% of contract amount per weeks subject to max. 5% of contract value or final bill value.
13	Defect's liability period	12 Months from the date of Virtual Completion
14	Validity of offer	90 days from the date of opening of Price-bid
15	Value of Interim Certificate	Rs. 3.0 Lakhs. No advance on materials / plant / machinery or mobilization advance shall be paid under any circumstances
16	Submission of Technical Bid (Hard Copy)	Contractors shall download the entire Technical Bid to get acquainted with terms and conditions and without fail in the e-tendering portal after putting the signature and seal. Failing to upload as stated above, the tender will be rejected. However, L1 Tenderer should submit the whole technical bid spirally bound securely and in serial order containing all pages duly signed with company seal and date to this office within 7 days of receipt of confirmation. Failure to submit the hardcopy of Technical Bid may render the bidder disqualified.
17	Agency for arranging e-tender/online bidding	<b><u>E-Tender Portal Address:</u></b> www.tenderwizard.com/SBIETENDER <b><u>Service provider:</u></b> M/s. Antares Systems Limited, Registered Office: #24, Sudha Complex, 3rd Stage, 4thBlock, Bangalore – 560079, Karnataka. Ph.: 080-49352000 / 40482000 Fax:080-49352034 Help Desk: 7503347659 / 9044314492 / 9073677150/ 151 / 152 / 9674758506 / 9674758723 / 26 / 7980085370 / 033 4604 6611 Project In-charge Mr. Kushal Bose, Mobile No.: +91 7686913157, e-Mail: kushal.b@antaressystems.com
18	Corrigendum	The contractors have to visit the Bank's web site regularly for any corrigendum till the last date and time of opening of tender.

19. Tenders can be downloaded from the bank's website [www.sbi.co.in](http://www.sbi.co.in) (link) <Procurement News>. It shall be responsibility of the contractor to arrange and ensure that all pages of technical and financial bid are properly bound separately. Tenders in loose pages may be disqualified.

20. The contractor shall sign and stamp each page of the tender document thereby ensuring the number and sequence of all pages.

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21. No conditions other than mentioned in the tender will be considered, and if given they will have to be withdrawn before opening of the price-bid.
22. The SBI reserve their rights to accept or reject any or all the tenders, either in whole or in part without assigning any reason(s) for doing so and no claim / correspondence shall be entertained in this regard.
23. Tenders received without EMD and Cost of Tender Documents shall be summarily rejected and such tenders shall not be allowed to participate in the online price bidding process.
24. In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.
25. SBI has the right to accept / reject any / all tenders without assigning any reasons and no correspondence shall be entertained in this regard.

**The Regional Manager,  
DHAR**

**FORM OF TENDER**

To,  
THE REGIONAL MANAGER,

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

**RBO, STATE BANK PREMISES,  
DHAR**

**NAME OF WORK: Electrical Works at MANAWAR BRANCH, DISTT. DHAR (M.P.) .**

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 envelope 3 or extension thereof 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 thereof, shall constitute a binding contract between us.

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

**3.8** 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.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2024 Signature  
\_\_\_\_\_ in the capacity of \_\_\_\_\_ duly authorized to sign  
tenders for and on behalf of \_\_\_\_\_

(IN BLOCK CAPITALS)

Witness :

Signature/ Address:

**APPENDIX TO FORM OF TENDER**

GENERAL CONDITIONS OF CONTRACT CLAUSE NO.

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Defects Liability period	12 Months (Clause No. 5.37)
Date of commencement	5 days from the date of acceptance letter is 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	<b>45 Days</b> from the date of commencement. (Clause No. 5.14)
Period of Final Measurement	One months from the date of virtual completion (Clause No. 5.31)
Liquidated damages	0.5% of the tendered amount shown in the tender per week subject to the ceiling of 5% of the accepted contracted sum. (Clause No. 5.15)
Minimum value of work for interim certificate	3.0 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 (Clause No. 5.12)
Retention percentage	10% of the accepted tender amount subject to maximum as per clause (Clause No. 5.12)
Refund of total security comprising of EMD, ISD and Retention	The initial security deposit comprising of EMD, shall be refunded to the ISD and retention 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)
Period of honoring Certificate	15 days from date of receipt of certificate from the Architect. (Clause No. 5.29)
GST	Contractor to Quote rates excluding GST, the same shall be paid separately by the Bank as applicable

**SAMPLE BUSINESS RULE DOCUMENT**

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

ONLINE E-TENDERING FOR PROPOSED ELECTRICAL WORK AT MANAWAR BRANCH, DISTT. DHAR (M.P.)

**(A) Business rules for E-tendering:**

1. Only empaneled contractors with SBI under appropriate category who are invited by the project Architect/SBI shall only be eligible to participate.
2. SBI will engage the services of and E-tendering service provider who will provide necessary training and assistance before commencement of online bidding on Internet.
3. In case of e-tendering, SBI will inform the vendor in writing, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, closing and opening time etc. also will be communicated through service provider for compliance.
5. Contractors have to send by email, the compliance form in the prescribed format (provided by service provider), before start of E-tendering. Without this the vendor will not be eligible to participate in the event.
6. The Contractors will be required to submit the hard copy of EMD and proof of tender application copies in sealed Envelope to the office of State Bank of India at the address mentioned hereinbefore by the stipulated date and time. Contractors not submitting any one or more documents shall not be eligible to participate in the online price bidding.
7. E-tendering will be conducted on schedule date & time.
8. **The e-tendering will be treated as closed only when the bidding process gets closed in all respects for the item listed in the tender.**

**(B) Terms & conditions of E-tendering:**

SBI shall finalize the Tender through e-tendering mode for which **M/s Antares Systems Limited, Bangalore**, has been engaged by SBI an authorized service provider. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. E-tendering shall be conducted by SBI through **M/s Antares Systems Limited, Bangalore** on pre-specified date. While the Contractors shall be quoting from their own offices/ place of their choice, Internet connectivity and other paraphernalia requirements shall have to be ensured by Contractors themselves. In the event of failure of their Internet connectivity, (due to any reason whatsoever it may be) it is the bidders' responsibility. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives such as back-up power supply whatever required so that they are able to circumvent such situation and still be able to participate in the E-tendering successfully. Failure of power at the premises of Contractors during the E-tendering cannot be the cause for not participating in the E-tendering. On account of this the time for the E-tendering cannot be extended and SBI is not responsible for such eventualities.

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2. **M/s Antares Systems Limited, Bangalore** shall arrange to train your nominated person(s), without any cost to you. They shall also explain you all the Rules related to the E-tendering. You are required to give your compliance on it before start of bid process.
3. **BIDDING CURRENCY AND UNIT OF MEASUREMENT:** Bidding will be conducted in Indian currency & Unit of Measurement will be displayed in Online E-tendering.
4. **VALIDITY OF BIDS:** The Bid price shall be firm for a period specified in the tender document and shall not be subjected to any change whatsoever.
5. Procedure of E-tendering:

**Online E-tendering :**

- (a.a.1.a.i.3.a) The hard copy of the Technical as well as Price Bid is available on the Bank's website during the period specified in the NIT.
  - (a.a.1.a.i.3.b) Online e-tendering is open to the empaneled bidders who receive NIT from the SBI and qualified for participating in the price bidding as provisions mentioned here in above through SBI approved Service Provider.
  - (a.a.1.a.i.3.c) The Price-Bid shall be made available online by the Service Provider wherein the contractors will be required to fill-in their Item-wise rates for each item.
  - (a.a.1.a.i.3.d) The Contractors are advised not to wait till the last minute to submit their online item-wise quote in the price bid to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.
  - (a.a.1.a.i.3.e) It is mandatory to all the bidders participating in the price bid to quote their rates for each and every item.
  - (a.a.1.a.i.3.f) In case, contractor fails to quote their rates for any one or more tender items, their tender shall be treated as "**Incomplete Tender**" and shall be liable for rejection.
6. **LOG IN NAME & PASSWORD:** Each Bidder is assigned a Unique User Name & Password by **M/s Antares Systems Limited, Bangalore**. The Bidders are requested to change the Password after the receipt of initial Password from **M/s Antares Systems Limited, Bangalore**. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.
  7. **BIDS PLACED BY BIDDER:** Bids will be taken as an offer to execute the work as specified. Bids once made, cannot be cancelled / withdrawn and the Bidder shall be bound to execute the work at the quoted bid price. In case the L-1 Bidder backs out or fail to complete the work as per the rates quoted, SBI shall at liberty to take action as deemed necessary including depaneling such contractors and forfeiting their EMD.
  8. At the end of the E-tendering, SBI will decide upon the winner. SBI decision on award of Contract shall be final and binding on all the Bidder
  9. SBI shall be at liberty to cancel the E-tendering process / tender at any time, before ordering, without assigning any reason.



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10. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.

11. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.

**12. OTHER TERMS & CONDITIONS:**

- The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders.
- The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party.
- SBI decision on award of Contract shall be final and binding on all the Bidders.
- SBI reserves their rights to extend, reschedule or cancel any E-tendering within its sole discretion.
- SBI or its authorized service provider **M/s Antares Systems Limited, Bangalore** shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
- SBI or its authorized service provider **M/s Antares Systems Limited, Bangalore** is not responsible for any damages, including damages that result from, but are not limited to negligence.
- SBI or its authorized service **M/s Antares Systems Limited, Bangalore** will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

**N.B.**

- All the Bidders are required to submit the Process Compliance Statement (Annexure II) duly signed to M/s Antares Systems Limited, Bangalore.
- **All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event.**

**PROCESS COMPLIANCE STATEMENT (ANNEXURE II)**

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

*(The bidders are required to print this on their company's letter head and sign, stamp before emailing)*

To,  
M/s. Antares Systems Limited,  
24, Sudha Complex,  
3rd Stage, 4thBlock, Bangalore – 560079,  
Karnataka. Ph.: 080-49352000 / 40482000  
e-Mail: kushal.b@antaressystems.com

**AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ON LINE E-TENDERING FOR PROPOSED ELECTRICAL WORK AT MANAWAR BRANCH, DISTT. DHAR (M.P.).**

Dear Sir,

This has reference to the Terms & Conditions for the E-tendering mentioned in the Tender document.

This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied the Commercial Terms and the Business rules governing the E-tendering as mentioned in RFP of SBI as well as this document and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the E-tendering tool and have understood the functionality of the same thoroughly.
- 4) We confirm that SBI and **M/s Antares Systems Limited**, shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-E-tendering platform due to loss of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the E-tendering event.
- 5) We confirm that we have a valid digital signature certificate issued by a valid Certifying Authority.
- 6) We, hereby confirm that we will honor the Bids placed by us during the E-tendering process.

With regards,

Date:

Signature with company seal

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

Scan it and send to this Document on -----

**SECTION - II**

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****I N S T R U C T I O N S F O R T E N D E R E R**

**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 effect 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 bearing upon transportation, disposal, handling and storage or materials required for the work or obtained therefrom;

**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 effect 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** Immediately on receipt of the Tender Documents from the BANK but at least seven days prior to the date fixed for opening of Envelope No. 1 & 2 of Tender, the Tenderer may submit in writing any tender enquiry on matters where clarifications or additional information is desired.

If considered appropriate, the BANK reserves the right to issue addendum(s) or amendment(s) to any condition/specifications/schedules to all Tenderers before the date of submission. Tenders submitted by the tenderers shall be deemed to cover the effect of such addendum(s)/amendment(s) issued and such addendum(s)/amendment(s) duly signed by the tenderers shall be submitted along with the tenders.

**2.5** 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

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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 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 by The Regional Manager State Bank of India AT DHAR **upto 3:00 PM On 22/11/2024** and will be opened by him in his office after 3:30 PM.

**2.10** The time allowed for the carrying out of the work will be **45 days** from the date of written orders to commence the work.

**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** Issue of tender form will be stopped one days before the date fixed for the opening of tenders.

**2.14** Earnest money amounting to **Rs. 6200 (Rupees Six Thousand two Hundred only)** in the form of BANK Draft drawn in favour of " The Regional Manager State Bank of India at DHAR a/c (name

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of/Contractor's firm ) " must accompany each tender and each tender is to be in a sealed cover superscribed "Tender for Electrical Works at MANAWAR BRANCH, DISTT. DHAR (M.P.) "STATE BANK OF INDIA" and addressed to the office of RBO at DHAR.

2.15 The contractor whose tender is accepted will be required to furnish by way of security deposit 2% of the accepted tender 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 STATE BANK OF INDIA, 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. However, where a tenderer voluntarily offers a rebate for payment within a stipulated period. This may be considered.

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 a 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 Envelope No. 3 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 for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the said work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tender liable to summary rejection.

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**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.

SIGNATURE OF THE COMPETENT AUTHORITY  
STATE BANK OF INDIA

**SECTION III****ARTICLES OF AGREEMENT**

(On non-judicial Stamp Paper of Rs. 1000/- or as per latest Govt. Rules)

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

This agreement is made on \_\_\_\_\_ day of \_\_\_\_\_ 2024 between (Regional Manager STATE BANK OF INDIA at DHAR, \_\_\_\_\_ (hereinafter called "The Employer") of the one part and \_\_\_\_\_ (hereinafter called "the Contractor") of the other part.

WHEREAS the Employer is desirous of certain works should be executed viz. Electrical Works for STATE BANK OF INDIA at MANAWAR BRANCH, DISTT. DHAR (M.P.) 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:

**1.1** 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:

**1.2** 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.

**1.3** 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.

**1.4** 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.

**1.5** 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.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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 \_\_\_\_\_

said \_\_\_\_\_

(Name \_\_\_\_\_)

(Name \_\_\_\_\_)

on behalf of the contractor

on behalf of the employer

In the presence of

In the presence of

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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.



**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****SECTION IV**  
**INSTRUCTIONS TO THE TENDERERS****4.1.0 Scope of work**

- Regional Manager at DHAR invites e-tender's for Proposed Electrical Work at MANAWAR BRANCH, DISTT. DHAR (M.P.)

**Site and its location**

- The proposed work is to be carried out at SBI MANAWAR BRANCH, DISTT. DISTT AGAR (M.P.).

**4.2.0 Tender documents**

4.2.1 The work has to be carried out strictly according to the conditions stipulated in the tender consisting of the following documents and the most workmen like manner.

- **Instructions to tenderers**
- **General conditions of Contract**
- **Special conditions of Contract**
- **Additional specifications**
- **Drawings**
- **Priced bid A**

4.2.2 The above documents shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies, shall take precedence in the order given below;

- a) Price Bid
- b) Additional Specifications
- c) Technical specifications
- d) Drawings
- e) Special conditions of contract
- f) General conditions of contract
- g) Instructions to Tenderers

4.2.3 Complete set of tender documents including relative drawings can be downloaded from the website [www.sbi.co.in](http://www.sbi.co.in)

4.2.4 The tender documents are not transferable.

**4.3.0 Site Visit**

4.3.1 The tenderer must obtain himself on his own responsibility and his own expenses all information and data that may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The tenderer is requested satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labour, the law and order situation, climatic conditions local authorities requirement, traffic regulations etc;

- The tenderer will be fully responsible for considering the financial effect of any or all the factors while submitting his tender.

## TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)

### 4.4.0 Earnest Money

4.4.1 The tenderers are requested to submit the Earnest Money of **Rs. 6200 (Rupees Six Thousand two Hundred only)** by means of Demand Draft / Pay Order only (Valid for a period of 90 Days from the last date of submission of the tender) from any Nationalised Nationalized Bank drawn in favour of The Regional Manager State Bank of India, at DHAR. TDR / STDR SHALL NOT BE ACCEPTED AS EMD

4.4.2 **EMD in any other form other than as specified above will not be accepted.** Tender not accompanied by the EMD in accordance with clause 4.1 above shall be rejected.

4.4.3 No interest will be paid on the EMD.

4.4.4 EMD of unsuccessful tenderer will be refunded within 30 days of award of Contract.

4.4.5 EMD of successful tenderer will be retained as a part of security deposit.

### 4.5.0 Initial/ Security Deposit

- The successful tenderer will have to submit a sum equivalent to 2% of accepted tender value less EMD by means of DD drawn in favour of The Regional Manager State Bank of India, at DHAR within a period of 15 days of acceptance of tender.

### 4.6.0 Security Deposit

4.6.1 Total security deposit shall be 5% of contract value. Out of this 2% of contract value is in the form of Initial Security Deposit (ISD) which includes the EMD. Balance 3% shall be deducted from the running account bill of the work at the rate of 10% of the respective running account bill i.e., deduction from each running bill account will be @10% till Total Security Deposit (TSD) including ISD reaches to 5% of contract value. The 50% of the Total Security Deposit shall be paid to the contract on the basis of architect's certifying the virtual completion. The balance 50% would be paid to the contractors after the defects liability period as specified in the contract.

### 4.6.2 Additional Security Deposit

- In case L-1 bidder quotes abnormally low rates (i.e. 10% or more, below estimated project cost), the bank may ask such bidder to deposit additional security deposit (ASD) equivalent to difference of estimated cost vis-à-vis L-1 quoted amount for due fulfillment of contract. Such ASD could be in the form of DD / Banker Cheque in the Bank's name as per format approved by the Bank. On successful completion of work ASD will be returned to the contractor. In case contractor fails to complete the work in time or as per tender specification or leave the job incomplete, the bank will be at liberty to recover the dues from ASD or to forfeit such ASD as the case may be within its sole discretion.

4.6.3 No interest shall be paid to the amount retained by the Bank as Security Deposit.

### 4.7.0 Signing of contract Documents

- The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract attached herewith within 30 days from the receipt of intimation of acceptance of the tender by the Bank. However, the written acceptance of the tenders by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

### 4.8.0 Completion Period

- Time is essence of the contract. The work should be completed in all respect accordance with the terms of contract within a period of 45 days (**Forty Five days**) from the date of award of work.

### 4.9.0 Validity of tender

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

- Tenders shall remain valid and open for acceptance for a period of 90 days from the date of opening price bid. If the tenderer withdraws his/her offer during the value period or makes modifications in his/her original offer which are not acceptable to Bank without prejudice to any other right or remedy the Bank shall be at liberty forfeit the EMD.

**4.10.0 Liquidated Damages**

- The liquidated damages shall be 0.50% per week subject to a maximum of 5% of contract value.

**4.11.0 Rate and prices:**

4.11.1 The tenderers need not quote their rates for which no quantities have been given. In case the tenderers quote their rates for such items those rates will be ignored and will not be considered during execution.

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

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

4.11.3 Each page of the BOQ shall be signed by the authorized person and cutting or overwriting shall be duly attested by him.

4.11.4 Each page shall be totaled and the grand total shall be given.

4.11.5 The rate quoted shall be firm and shall include all costs, allowances, taxes, levies.

4.11.6 The SBI reserve their rights to accept any tenders, either in whole or in part or may entrust the work in phases or may drop the part scope of work at any stage of the project within its sole discretion without assigning any reason(s) for doing so and no claim / correspondence shall be entertained in this regard.

4.11.7 In case it is decided by the SBI to drop one or more buildings from the scope of work at any stage of the project, the contractor shall not be entitled to raise any claim / compensation for such deleted scope of work. Also, the SBI may consider issuing work order for various buildings in phases but within a reasonable time interval and the contractor shall be bound to execute the same within the stipulated time period and as per rates quoted by them in this tender without any claim for price escalation.

**4.12. Restriction under Rule 144 9XI) of General Financial Rules 2017 of Ministry of Finance, India order no. F. No. 6/18/2019/PPD dated 23<sup>rd</sup> July 2020.**

- Any bidder from a country which shares a land border with India will be eligible to bid in this tender ONLY if the bidder is registered with the Competent Authority (registration committee constituted by the Department for promotion of industry and internal Trade).
- 'Bidder' (including the terms 'tender' 'consultant or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial judicial person

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

- ‘bidder from a country which shares land border with India (such a country); for this purpose means:
  - An entity incorporated, established or registered in such a country, or
  - A subsidiary of an entity incorporated, established or registered in such a country or
  - An entity substantially controlled through entities incorporated, established or registered in such a country, or
  - An entity whose beneficial owner is situated in such a country or
  - An Indian (or other) agent of such an entity or
  - A natural person who is a citizen of such a country or
  - A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
    - The beneficial owner for the purpose of (iii) above will be as under:
      - In case of A Company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more judicial person, has a controlling interest or who exercise control through other means.
      - Explanation-
        - “Controlling ownership interested” means ownership of or entitlement to more than twenty five percent of shares or capital or profits of the Company;
        - “Control” shall include right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
        - In case of a partnership firm, the beneficial owner is the natural person(s), who whether acting alone or together, through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
        - In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who whether acting alone or together, through one or more judicial person, has ownership of or entitlement to more than fifteen percent of capital or profits of such association or body of individuals.
      - Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
      - In case of a trust, the trustiest, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

- An Agent is a person to do any act for another, or to represent another in dealing with third person .
- [To be inserted in tenders for Works contracts, including Turnkey contract]. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- All bidders need to submit a declaration-cum-certificate (along with evidence) in this regards as per “Annexure-I” failure to submit such valid declaration-cum-Certificate will make the bid liable for rejection.”

SIGNATURE OF THE CONTRACTOR  
WITH SEAL

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****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 STATE BANK OF INDIA with their RBO DHAR, and any of its employees or representative authorized to act on their behalf.

**ii) The BANK** : The term BANK shall mean STATE BANK OF INDIA BANK, the Employer.

**iii) Architects**: The term Architects shall means M/s Design Avenues, MZ4, Shri Lakshmi Leela Tower, Sapna Sangeeta Road, Indore -452001 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 Engineer to STATE BANK OF INDIA of the STATE BANK OF INDIA deployed to look after the work.

**v) Site Engineer** : The term shall means person 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 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 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 from 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.

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

**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 Employer and be executed after obtaining approval from the Employer.

### **5.2 SCOPE**

The work consists of Electrical Works STATE BANK OF INDIA at MANAWAR BRANCH, DISTT. DHAR (M.P.), in accordance with the "Drawings" and "Schedule of Quantities". The 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

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

mentioned in the priced schedule of quantities shall be fixed by the employer in consultation with the Architects as provided in clause "variations".



**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****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 labour and materials, accesses and storage for materials. The Tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc. for proper execution of work as indicated in 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 the 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).
- v) The "Amount" for alternate items of which the quantities are not mentioned shall not be filled up.
- vi) In case of any errors/omissions in the quoted rates, the rates given in the tender marked "original" shall be taken as correct rates.

No modifications, 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 authorisation from the Employer. No variation shall vitiate the contract.

## TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)

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 (Envelope No. 3).

### 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 (GST )

**The tenderers to exclude GST**, which shall be payable by the Bank separately as applicable. However, work contract tax shall be deducted at source at the specific rate in state legislative, if applicable. The certificate in respect of T.D.S. shall be issued by the BANK as per rate. 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 realise 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. However the contractor shall employ "A" grade Licence holder Electrical contractor to Complete the electrical work in the scope of the tender

### 5.12 EARNEST MONEY AND SECURITY DEPOSIT

The tenderer will have to deposit an amount of **Rs. 6200 (Rupees Six Thousand two Hundred only)** in the form of BANK draft drawn in favour of The Regional Manager SBI at DHAR a/c (*name of/Contractor's firm*) at the time of submission of tender as an Earnest Money. The employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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. However the retention money on secured advance payable will not be deducted.

The retention amount of 5% will be refunded to the contractor in the Final bill and balance 5% will be refunded 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.

### **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 excluding GST 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, electrical 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 Three days from the date of acceptance letter issued to the contractor or the day on which contractor is instructed to take possession of site, whichever is latter. 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**

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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 authorized extra and additions or
- (e) by reason of any combination of workmen or strikes or lockout effecting any of the building trades or
- (f) from other causes which the employer may consider are beyond the control of the contractor, the Employer at the completion of the time allowed for the contract, shall make 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 the 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 programme 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**

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.

0.5% of the tendered amount shown in the tender per week subject to ceiling of 5% of the accepted contracted 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, 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.

All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants and other insects.

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 and clear away the same when no longer required and to provide all necessary attendants, lights etc. required.

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

The contractor shall arrange for temporary latrines 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 meter or two meter steel tapes, a measuring tape of 30 meters, 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.

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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 authorized 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 of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars and instructions as may from time to time be given by the Employer/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 mould (in case of concrete cube), 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 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.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****5.21 REMOVAL OF IMPROPER WORK**

The employer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Employer/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 the employer shall 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 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 by the Architects, Engineer from the premises department of the Employer and the Site Engineer. 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 there-under from time to time.

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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 effect the insurance necessary and indemnify the employer entirely from all responsibility in this respect. 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.



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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 authorized extra. The contractor shall deposit the policy and receipt premium paid with the Employer within twenty one 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 Employer may deem fit.

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

The contractor shall, upon the request of the 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 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 employer. 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.

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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 SECURED ADVANCE FOR MATERIAL AT SITE**

No secured advance shall be paid.

### **5.31 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 Employer, 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.

### **5.32 VARIATION/DEVIATIONS**

The contractor may when authorized and shall, when directed in writing by the 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 authorization of direction. A verbal authorization of direction by the 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

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similar or near similar items. 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, 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, labour, T & P and sundries, form standard analysis of rates adopted by the National Building Organization, Ministry of Works and Housing, Government of India in preparation of All India Standard Schedule of Rates, 2002/DAR and adding 10% 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) In the case of additional, altered substituted (deviated) for which rates cannot be reasonably be derived as at (ii) and (iii) above, the rates shall be worked out adopting market prices, substantiated by purchase bills/vouchers using factors and constants for quantum of materials, labour, T & P and sundries from standard analysis of rates adopted by the National Building Organization, Ministry of Works and Housing, Government of India in preparation of All India Standard Schedule of Rates, 2002 DAR and adding 10% over towards profit and overheads. When called upon to do so the contractor shall submit his purchase bills/vouchers to the Architect's and Employer.

v) 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 decided by 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 scrutinizing 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%.

**5.33 DEVIATION LIMIT FOR TENDER QUANTITIES BEYOND 25%**

The tender rates shall hold good for any increase in the tendered quantities up to variation of 25%. In case tender quantities of an individual item exceeds the deviation limit of 25%, the same item is to be got approved by submitting the **Market Rate Analysis** of the above item, negotiated, and got to be approved by the competent authority. Please note that in no case contractor should execute the deviated item without prior approval the rates for the excess quantities. Over and above the deviation limit shall be payable as per market rate analysis, sustained by purchase vouchers/bill using constant only of materials, labour, T & P etc. from all Indian Standard analysis of rates published by NBO/DAR with 15% contractor's profit and

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overheads. For non schedule items, constant of material, labour, T & P etc. shall be decided by the Engineer in-charge of Employer, and Architect based on the actual observation at site.

**5.34 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.

### **5.35 CLEARING SITE ON COMPLETION**

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.

### **5.36 DEFECTS 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 default, the employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, 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.

### **5.37 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.

**5.38 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.

### **5.39 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).

### **5.40 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

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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 therefore, or if the contractor shall suffer execution to be issued, or shall suffer any payment under this contract to be attached by or on behalf of and 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 there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials 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, the BANK may not withstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the employer of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so 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 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.

### **5.41 ARBITRATION**

#### **Settlement of Disputes and Arbitration**

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

- i) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to the made from contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim or dispute to the Regional Manager S.B.I. .... and endorse a copy of the same to the Architect, within 30 days from the date of disallowance there of or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

entitled to raise any claim nor shall the Bank be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the Regional Manager SBI in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his right in respect of any claim not notified to the Regional Manager in writing in the manner and within the time aforesaid.

- ii) The Regional Manager SBI shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of the Regional Manager submit his claims to the conciliating authority namely the Circle Development Office/General Manager (O.L. & Corporate Services). S.B.I. .... for conciliation alongwith all details and copies of correspondence exchanged between him and the RM.
- iii) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination there of shall give a notice to the concerned Chief General Manager/Dy. Managing Director & Corporate Development Office of the Bank for appointment of an arbitrator to adjudicate the notified claims falling which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- iv) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes of differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the Chief General Manager/Dy. Managing Director & Corporate Development Officer. It will also be no objection to any such appointment that the Arbitrator so appointed is a Bank Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as Bank Officer. F the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said Chief General Manager / Dy. General Managing Director & C.D.O. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

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

It is also a term of this contract that no person other than a person appointed by such Chief General Manager /Dy. Managing Director & Corporate Development Officer as aforesaid should act as arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or reenactment there of and the rules made there under.

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

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

**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 Electrical works are to be executed by specialist firms.

**5.43 CONTRACT DRAWINGS GENERAL**

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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 authorized 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 under-noted records books at the site of work shall be maintained in addition to normal routine requirements by the contractor.

- a) Daily progress record.
- b) Work site order book.
- c) Instruction by BANK's Officers.
- d) Test registers of other materials/fittings fixtures equipments as stipulated in the tender.
- e) Register of drawings and working details.
- f) Log book of defects.
- g) Hindrance registers giving details of commencement and removal of each hindrance.
- h) Dismantled materials account register.
- i) Supply and consumption register of scarce / costly materials like laminates special paints white cement, or any material as directed by Architect / Employer.
- j) Specifications C.P.W.D. & I.S.I. as applicable to the contract.
- k) IS : 1200 relating to measurements.
- l) Conversion Table IS 786.

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

These registers are to be got signed by the Bank's Engineer/ Architect on their visits.

### **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 or enactment relating thereto and rules framed thereunder from time to time.

### **5.50 HANDING OVER BUILDING/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 (Riim mortice and cylindrical) and night latches all with duplicate keys.



## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

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

### **5.51 DELINQUENCIES OF CONTRACTORS**

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.
  - 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.

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 for non-entertainment of this publication for contract work.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****SECTION VI**  
**SPECIAL CONDITIONS OF CONTRACT****Scope of work**

- 6.1.0 The scope of work is to carry out for the Proposed Electrical Work at MANAWAR BRANCH, DISTT. DHAR (M.P.). for State Bank of India
- 6.2.0 **Address of site**  
The site is located at SBI MANAWAR, DHAR (M.P.) .
- 6.3.0 **Dimensions and levels**  
All dimensions and levels shown on the drawings shall be verified by the contractor at the site and he will be held responsible for the accuracy. Figured dimensions are in all cases to be accepted and dimension shall not be scaled. Large scale details shall take precedence over small scale drawings. In case of discrepancy the contractor shall ask for clarification from the Architect / consultant before proceeding with the work.
- 6.4.0 **Notice of operation**  
The contractor shall not carry out any important operation without the Consent in with from the Bank's Engineer/Architect / Consultant:
- 6.5.0 **Construction records**  
The contractor shall keep and provide to the Architect / consultant full and accurate records of the dimensions and positions of all new work and any other information necessary to prepare complete drawings recording details of the work as construction.
- 6.6.0 **Safety of adjacent structures and trees**  
The contractor shall provide and erect to the approval of the Architect / consultant supports as may be required to protect effectively all structures and protective give to trees, which may be endangered by the execution of the works or otherwise such permanent measures as may be required by the Architect to protect the tree structures. .
- 6.7.0 **Temporary works.**  
Before any temporary works are commenced the contractor shall submit at least in advance to the architect / consultant for approval complete drawings of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the architect / consultant may require in accordance with the conditions of contract at his own cost The contractor shall be solely responsible for the stability and safety of all temporary works and unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.
- 6.8.0 **Water power and other facilities**  
a) The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his own arrangements for the supply of good quality water suitable for the construction and good quality drinking water for their workers If necessary the contractor has to sink a tube well / open well and bring water by means of tankers at his own cost for the purpose The SBI will not be liable to pay any charges in connection with the above

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

- b) The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges
- c) The contractors for other trades directly appointed by the SBI shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor. However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for Construction purposes shall be borne by the contractor and charges payable for permanent connections, if any, shall be initially paid by the contractor and the SBI will reimburse the amount on production of receipts
- d) The SBI as well as the Architect / consultant shall give all possible assistance to the Contractor's to obtain the requisite Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor

**6.9.0 Facilities for contractor's employees**

The contractor shall make his own arrangement for the housing and welfare of his staff and workmen including adequate drinking water facilities. The contractor shall also make the arrangements at his own cost for transport where necessary for his staff and workmen to and from site of work at his own cost.

**6.10.0 Lighting of works**

The contractor shall at all times provide adequate and approved lighting as required for the proper execution and supervision and inspection of work.

**6.11.0 Firefighting arrangements**

- i) The contractor shall provide suitable arrangement for firefighting at his own cost. This purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are to be always kept filled with sand and some with water these equipment's shall be provided at suitable prominent and easily accessible place and shall be properly maintained.
- ii) Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and, to the approval of the relevant authorities. The contractor make the following arrangements at his own cost but not limited the following:
  - a) Proper handling, storage and disposal of combustible materials and waste.
  - b) Work operations which can create fire hazards.
  - c) Access for fire-fighting equipment's.
  - d) Type, number and location of containers for the removal of surplus materials and rubbish.
  - e) Type, size, number and location of fire extinguishers or other fire fighting equipment.
  - f) General house keeping

**6.12.0 Site order book**

A site order book shall be maintained at site for the purpose of quick communication between the Architect / Consultant. Any communication relating to the work may be conveyed through records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages **in triplicate** and shall be carefully maintained and preserved by the contractor and shall be made available to the architect / consultant as and when demanded- Any instruction which the architect / consultant may like to issue to the contractor or the contractor may like to bring to the architect / consultant two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****6.13.0 Temporary fencing/ barricading**

The contractor shall provide and maintain a suitable temporary fencing / barricading and gates at his cost to adequately enclose all boundaries of the site for the protection of the public and for the proper execution and security of the work and in accordance with the requirement of the architect I consultant and regulations of local authorities. These shall be altered, relocated and adopted from time to time as necessary and removed on completion of the work.

**6.14.0 Site meetings**

Site meetings will be held to review the progress and quality evaluation. The contractor shall depute a senior representative along with the site representative and other staff of approved sub-contractors and suppliers as required to the site meetings and ensure all follow up actions. Any additional review meetings shall be held if required by the architect/ consultant. -

**6.15.0 Disposal of refuse**

The contractor shall cart away all debris, refuse etc. arising from the work from the site and deposit the same as directed by the architect / consultant at his own cost. It is the responsibility of the contractor to obtain from the local authorities concerned to the effect that all rubbish arising out of contractor's activities at the construction site or any other off-site activities borrow pits has been properly disposed off.

**6.16.0 Contractor to verify site measurement**

The contractor shall check and verify all site measurements whenever requested other specialists contractors or other sub-contractors to enable them to prepare the own shop drawing and pass on the information with sufficient promptness as will in any way delay the works.

**6.17.0 Displaying the name of the work**

The contractor shall put up a name board of suitable size as directed by the architect/ consultant indicating therein the name of the project and other details as given by the architect/consultant at his own cost and remove the same on completion of work.

**6.18.0 As built drawings**

- i) For the drawings issued to the contractor by the Architect / Consultant. The architect Consultant will issue two sets of drawings to the Contractor for the items for some changes have been made. From the approved drawings as instructed by the SBI/ architect / consultant. The contractor will make the changes made on these copies and return these copies to the architect / Consultant for their approval. In cases revision is required or the corrections are not properly marked the architect / Consultant will point out the discrepancies to the contractor. The contractor will have to incorporated these corrections and / or attend to discrepancies either on copies as directed by the architect / consultant and resubmit to him for approval. The architect / consultant will return one copy duly approved by him.
- ii) For the drawings prepared by the contractor  
The contractor will modify the drawing prepared by him wherever the changes made by the SBI / architect / consultant. And submit two copies of such modified drawings to the architect/ consultant for approval. The architect / consultant will return one copy of the approved drawing to the contractor.

**6.19.0 Approved make**

The contractor shall provide all materials from the list of approved makes at his own cost and also appoint the specialized agency for the waterproofing anti-termite, aluminium doors and windows and any other item as specified in the tender. The architect/consultant may approve any make / agency within the approved list as given in the tender after inspection of the sample/mock up.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****6.20.0 Procurement of materials**

The contractor shall make his own arrangements to procure all the required materials for the work .All wastages and losses in weight shall be to the contractors account

**6.21.0 Excise duty, taxes, levies etc;**

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees, cess or charges except GST in respect of the works including but not limited to sales tax, tax on works contract excise duty, and octroi, except GST payable in respect of materials, equipment plant and other things required for the contract. All of the aforesaid taxes, duties, levies, fees and charges except GST shall be to the contractor's account and the SBI shall not be required to pay any additional or extra amount on this account. Variation of taxes, duties, fees, levies etc if any except GST, till completion of work shall be deemed to be included in the quoted rates and no extra amount on this account. Variation of taxes, duties, fees, levies etc if any excluding GST, till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under as statutory law during the currency of contract the same shall be borne by the contractor.

**6.22.0 Acceptance of tender**

The SBI shall have the right to reject any or all tenders without assigning any reason. They are not to bind to accept the lowest or any tender and the tenderer or tenderers shall have no right to question the acts of the SBI. However adequate transparency would be maintained by the SBI.

**6.23.0 Photographs:**

- The Contractor shall at his own expense supply to the Architects with duplicate hard copies of large photographs not less than 25 cm. x 20 cm. (10" x 8") of the works, taken from two approved portions of each building, at intervals of not more than one months during the progress of the work or at every important stage of construction.
- In addition to above, the contractor shall be bound to submit adequate no. of site photographs along with their each Running Bill for the project clearing showing major progress of work measured and claimed therein failing which the Architect/Bank may consider returning the Bill to the contractor and no claim for delay on this account will be entertained.

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)****PROFORMA FOR RUNNING A/C BILL**

- i. Name of Contractor / Agency :
- ii. Name of Work :
- iii. Sl.No. of this Bill :
- iv. No. & Date of previous Bill :
- v. Reference to Agreement No. :
- vi. Date of Written order to commence :
- vii. Date of Completion as per Agreement :

S.No.	Item Description	Unit	Rate (Rs.)	As per Tender	
				Quantity	Amount (Rs.)
1	2	3	4	5	

Upto Previous R.A. Bill		Up Date (Gross		Present Bill		Remarks
Quantity	Amount (Rs.)	Quantity	Amount (Rs.)	Quantity	Amount (Rs.)	
6		7		8		9

- Note: 1. If part rate is allowed for any items, it should be indicated with reasons for allowing such a rate.
2. If ad-hoc payment is made, it should be mentioned specifically.

\_\_\_\_\_

\_\_\_\_\_

Net Value since previous bill

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

**CERTIFICATE**

The measurements on the basis of which the above entries for the Running Bill No. -----  
--- were made have been taken jointly on ----- and are recorded at pages -----  
--- to ----- of measurement book No. -----.

-----  
  
Signature and  
date of Contractor

-----  
  
Signature and  
date of Architects  
Representative (Seal)

-----  
  
Signature and  
date of Site Engineer

The work recorded in the above mentioned measurements has been done at the site satisfactorily as  
per tender drawings, conditions and specifications.

-----  
  
Architect

-----  
  
Signature and  
date of Site Engineer

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

TABLE

**ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON MATERIALS HELD AT SITE BY THE CONTRACTOR**

S.No.	Item	Quantity	Unit	Amount	Remarks
1	2	3	4	5	6

Total value of materials at Site.

Secured Advance @ ----- of above value - B

**CERTIFIED:**

- (i) That the materials mentioned above have actually been brought by the Contractor to the site of the work and on advance on any quantity of any of this item is outstanding on their security.
- (ii) That the materials (are of imperishable nature) and are all required by the Contractor for use in the work in connection with the items for which rates of finished work have been agreed upon.

Dated Signature of  
Site Engineer  
Preparing the bill  
Rank -----

Date signature of  
Banks Architects-----  
(Name of the Architects)

-----  
Dated Signature of  
the Contractor



**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

TABLE

**MEMORANDUM FOR PAYMENT**

R/A BILL NO.

1.	Total value of work done since previous bill (A)	Rs. -----
2.	Total amount of secured advance due since Previous Bill (B)	Rs. -----
3.	Total amount due since Previous Bill (C) (A+B)	Rs. -----
4.	PVA on account of declaration in price of Steel, Cement and other materials and labour as detailed in separate statements enclosed.	Rs. -----
5.	Total amount due to the Contractor	Rs. -----

**OBJECTIONS:**

i)	Secured Advance paid in the previous R/A	Rs. -----
ii)	Retention money on value of works as per accepted tenders upto date amount Rs.	Rs. -----
	Less already recovered	Rs. -----
	Balance to be recovered	Rs. -----
iii)	Mobilization Advance, if any	
(a)	Outstanding amount (principal + interest) as on date	Rs. -----
(b)	To be recovered in this bill	Rs. -----
iii.	Any other Departmental materials cost to be recovered as per contract, if any	Rs. -----

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

iv. Any other Departmental service charges to be recovered if any, as per contract (water, power etc.) enclose statement.	Rs. -----	
Total Deduction as per contract (F)		Rs. -----
Adjustments, if any ----- Amount less received by Contractor in --- ----- R/A Bill (as per statement of Contractor)	Rs. -----	
P.V.A.	Rs. -----	
Total amount payable as per contract (E+F+G)		Rs. -----
(Rupees ----- in words)		

The bill amount to Rs. ----- (both figures and words) has been scrutinized by us after due checking of the measurements of work as required and is recommended for payment.

Date: -----

-----  
Signature of Architect  
with Seal

The bill amount to Rs. ----- certified by Consultants has been scrutinized by me after due test checking of measurements of works as required and is recommended for payment for an amount of Rs.....

Date : -----

Signature of Owners  
Engineer

**STATUTORY DEDUCTION:**

i) Total Amount due (E)	Rs. -----
ii) Less I.T. Payable	Rs. -----
iii) Less S.T. Payable	Rs. -----
Net Payable	Rs. -----

**TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

This figures given in the Memorandum for payable has been verified and bill passed for payment -----  
----- (in words and figures)

Date: -----

-----  
Signature of the RM

**SECTION – VII**  
**PREAMBLE TO BILL OF QUANTITIES**  
**& ELECTRICAL WORK SPECIAL INSTRUCTIONS**

**Note:- The following specifications and instructions are a general guideline for electrification and other related work, contractors shall ignore the specification for items which are not in the scope of contractor.**

**RATES TO INCLUDE :**

Rates quoted shall be for the items completed in all respect at all floors/heights/levels including all taxes, and the cost of all materials, fittings, fixtures, all labour and for all the operations as detailed in the specifications and contract conditions. Apart from other factors mentioned in the specifications and contract conditions, rates quoted for the items in this schedule shall also include the following :

**7.1.0 GENERAL:**

- 7.1.1 Whether mentioned or not in the Bill of Quantities, all works are to be carried out as per the drawings, designs, catalogues and or instructions of the Architects/ BANK. Nothing extra shall be paid over the quoted rates for not understanding the designs etc. before hand.
- 7.1.2 Sample of all works/items shall be got approved from the Architects/ BANK before taking the mass production in hand and nothing shall be paid for the cost of samples.
- 7.1.3 Any incidental work required to complete the item and not specifically covered in the item as mentioned in Bill of Quantities shall be completed at no extra cost.
- 7.1.4 Rates for Insulating Rubber matting in Electrical Room/ Electrical Panel area shall be included in the works.
- 7.1.5 For supply of equipment: Prices shall be quoted in INR on the basis of FOR Site. Applicable duties, taxes and local transit and insurance for delivery to site shall be included in Prices.
- 7.1.6 For all ancillary work and installation and commissioning of equipment and complete system: Unit rates for supply, installation, testing and commissioning of each item shall be given on Unit rate basis, inclusive of all material, accessories, tools tackles, consumables and labour required for completing the job, Indicating value of applicable VAT and Service Tax. VAT shall be applicable on “material content” and service tax shall be applicable on “labour content” of each item.
- 7.1.7 Unit Rates shall be applicable to the finished work.
- 7.1.8 Billing shall be done as per measurement of actual executed work.

**7.2.0 CONCEALED/ SURFACE POINT WIRING/CONDUITING****7.2.1 CONDUITING:**

The specifications described here refers to concealed conduit wiring required for light/power socket. Under the scope of point wiring, Contractor has to supply and fix from switchboard to all points, specified approved make of 16 gauge heavy duty ERW grade black enameled MS conduit of sizes specified in bill of quantities and heavy duty

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

accessories like bends, junction boxes, MS pull boxes of specified sizes with top MS covers, checknuts etc. Complete conduit shall be concealed in walls, ceiling etc. by chiselling i.e. ziri cutting with mechanical cutter, installation before slab casting. All accessories and joints shall be fixed by threaded method and in no circumstances pin type accessories to be used. The capacity of conduit shall be as per IS732/1963 revised up to date. The conduits pipes in chase shall be installed by means of GI saddles fixed maximum at 400 mm distance. Fixing of standard bends shall be preferably avoided and instead as far as possible conduit shall be bent using conduit offset machine with long radius bend. All conduit in switchboard/power boxes should be connected by threaded method by checknuts. After installation of conduits, steel wires of appropriate sizes shall be installed to enable pulling of wires after completion of entire conduiting. (All joints shall be painted with two coats of redoxide paint. All conduits where lengths are cut should be filed to remove sharp edges at the ends to avoid damage to wires.) The conduiting method/specification are applicable for point, fan, exhaust fan, bell point, two way point, group control point, power socket wiring as specified in bill of quantities.

### **7.2.2 WIRING:**

The point wiring shall be carried out by supply and laying 660/1100V graded PVC insulated copper wires of specified sizes (preferably 2x1.5 mm<sup>2</sup> copper). These two wires are to be used for phase and neutral. An earth wire of 660/1100 V insulation grade of 1.5 sq. mm copper shall be used for all points. Complete wiring shall be strictly done as per specifications and drawing details. Point shall be individually wired with phase, neutral (unless specified otherwise) earthwires and all point neutrals shall be looped at switchboards (on connector in switchboard). All earthwires shall be fixed on switchboard box and connected with main earthwire brought along with circuit wire. In no circumstances neutral should be loosely connected by twisted joint. Entire precautions should be taken while drawing wires inside conduit to ensure safe installation. Regular pull boxes of MS are to be provided maximum at 4.5 Mtr. length for ease in maintenance. The maximum number of wires per conduit shall be as per specifications given herein and no attempt shall be made to accommodate more wires. Under the scope of point wiring Contractor has to quote considering WITH MATERIAL JOB BASIS for installation of point with all accessories like junction boxes, bends, conduits, pull boxes, ceiling rose, round hylam plates (white colour) and wires. The switchboard supply is to be considered only if it is specified in bill of quantities, however installation work of switchboard shall be considered as included in point wiring. The call bell points which will be done in a similar way as in point wiring and shall be paid in similar way. Fan point wiring shall be done in same way and with the same material like point wiring. Fan regulator is NOT to be provided in the rate for point wiring but the space for the same is to be provided in the switchboard. Rates include fixing of fanhook box of 12.5cm dia and 7.5cm height of SWGHS sheet 5/Anchor bolt for fan hook. Contractor has to quote considering with material job basis for installation of switch board, power point with all accessories like junction boxes, bends, tee, elbow, PVC boxes on surface, MS boxes concealed in walls, switch, socket plates as specified in list of approved make.

### **7.3.0 CONCEALED/ SURFACE CIRCUIT WIRING/MAINS WIRING**

#### **7.3.1 CONDUITING**

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

Supply and Fixing of specified size of 25 / 32 mm PVC HMS conduits & Casing -Capping of approved make with heavy duty accessories like bend, junction box, MS pull boxes with covers, adapters, check nuts etc. The junction boxes to be used should be 62 mm deep for wall. Separate conduiting shall be done for mains /circuit wiring and in no case it should be mixed with point wiring conduits. Complete work has to be performed as per drawing and specifications. The work includes supply & laying of conduit, pull boxes, bends in slab casting and wall conduits shall be installed after chasing of wall i.e. zirri cutting with mechanical cutter. The switchboard to be fitted with conduit on double check nut mounting. Conduit in chase shall also be fixed with GI stapples maximum at 400 mm distance. Complete hardware like conduit reducers, bends, junction boxes to be fitted with thread type joint. All joints should be painted with red oxide primer.

### **7.3.2 WIRING**

The scope of wiring shall be from distribution board to each switchboard , power socket and complete wiring shall be done with 660V/1100V grade PVC insulated flexible copper wires. Independent wires with colour code shall be used for phase, neutral and earth. Wire sizes shall be used as per bill of quantities and drawings. Mains wiring also includes termination of wires at DB and power outlet including providing ferrules at both ends for identification. Looping of power sockets shall be done only where it is specifically mentioned .Earthing wires shall be dedicated type and is to be used for each power point/switch board/flat DB. For a three phase circuit two earth wires of specified sizes are to be used from meter panel to power points. The earth wire are to be terminated at earthing link of panel and power outlet box.

### **7.4.0 COLOUR CODE OF WIRING**

	Color
Phase wire	Red Yellow Blue
(As per schedule of wiring given along with drawings.)	
Neutral wire	Black
Earth wire	Green
UPS wire (Phase)	Gray
Inverter wire(Phase)	White

Point wiring Colour of point wire (phase) shall be opposite as of circuit coming to that switchboard

### **7.5.0 CABLE LAYING IN UNDERGROUND TRENCH**

The cable trench in ground has to be prepared by excavating soft murrum/black soil/hard murrum as per details given in trench drawing with specifically maintaining clear dimensions of trench i.e. (width/depth/length). The rates for excavation shall be quoted after visiting site. After complete excavation of length of trench, the sand bed of 50 to 100 mm thickness has to be created in bottom of trench. Fine Narmada river sand has to be used for this purpose and it is to be ensured that this sand does not contain stone/gravel etc. The sand bed has to be even and a pre inspection of this shall be arranged with consultant/Engineer-in-charge. The cables are than to be laid in these trenches. Cable drums has to be shifted from stores to site of laying by the Contractor and hydraulic jack shall be arranged for lifting of drums. Sufficient manpower shall be arranged for uncoiling/laying of cables in order to avoid damage to

## TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)

cable. The work includes supply of cables. Length of cable piece has to be properly measured and cut from the drum. The cables are to be laid in the trenches maintaining minimum spacing of 100 mm (or as specified in the drawing). After laying of all cables in trenches, cable identification tags are to be installed at every Mtr. distance. These tags are of Aluminium flat (minimum size 25 x 3 mm) and shall bear punch mark of cable number. The cable number shall match to that of given in cable schedule and in case of any alterations prior to permission of Consultant has to be obtained. After this another sand bed of 100 mm has to be prepared over cable. The bricks are then to be kept on the edges of cable over sand as per drawing and details. The backfilling of soil and proper leveling, length compacting shall be done. After completion of complete work, the route markers of cable trench has to be installed along the trench. The size of route marker shall be minimum dia 100 mm x 3 mm bolted on MS angle of size 40mmx40mmx5 mm. These markers are to be grouted in ground approximately and every turning has to be provided with separate route marker. For every road crossing, entry in building etc. cable sleeves RCC/GI in specified sizes are to be provided as per drawing and details. Complete work shall be done to ensure reliability of system. The work is including supply of cables.

Depth of trench - The desired minimum depth of laying from ground surface to the top of cable is as follows:

Cable Specifications	Minimum depth of trench
High voltage cables, 1.1kV	0.75 m
High voltage cables, 3:3kV to 11kV rating	1.00 m
High voltage cables, 22kV, 33kV rating	1.2 m
Low voltage and control cables	0.5 m
Cables at road crossings	1.0 m
Cables at railway level crossing (measured from bottom of sleepers to the top of pipe)	1.10 m

Width of trench –

The minimum width of the trench for laying a single cable shall be 35 cm. Where more than one cable is to be laid in the same trench in horizontal formation, the width of the trench shall be increased such that the inter-axial spacing between the cables, except where otherwise specified, shall be at least 20 cm. The bottom of the trench shall be level and free from stones, bricks bats etc.

### 7.6.0 CABLE LAYING ON TRAYS/WALLS

The cable trays are to be fabricated out of MS angle of given sizes. The trays has to be fabricated in two parts i.e. cable trays and its supports. Complete fabrication work of tray/support has to be done by straightening of angles, fabricating specified sizes, removal of sharp edge and installation of trays on supports. The tray has to be installed in such a way that same level is maintained on one runner (unless specified otherwise). The 'T' section, bend has to be long radius type and shall be minimum 16 x outside dia of biggest size cable. The supports at such sections has to be provided in addition to that shown in the drawing. Complete cable trays are to be painted with one coat of red oxide/two coats of black synthetic enamel paint. After completion of above work cable laying has to be started from LT panels to machines/power outlets. The pre measurement of cable length has to be carried out and only after ensuring correct required length, cable has to be cut. The cables are to be laid on trays with minimum spacing of 75 mm (or as specified in the drawing). After laying of all cables, 'AL' tags are to be installed along with 'AL' clamps (made from 'AL' strip of minimum 25mm x 3mm). The spacing between such clamps shall be maximum at 450 mm and that between tag is same as specified in (1). For installation of cables in walls,

## **TENDER FOR ELECTRICAL WORKS AT MANAWAR BRANCH DHAR (M.P)**

MS/GI spacers shall be used. Spacers shall be MS/GI flat of 25mm x3 mm up to 16 mm<sup>2</sup> cable and 40mm x 6mm above 16 mm<sup>2</sup> cables. The spacing shall be maximum 200 mm and it shall be fixed with GI machine screws. Complete work has to be executed ensuring safe installation.

### **7.7.0 CABLE END TERMINATION**

The cable end termination of all cables has to be done by a skilled cable jointer (to be arranged by Contractor) using proper size cable glands, lugs, ferrules of approved make. All such required material shall be supplied by Contractor. The cable glands shall be installed by punching appropriate size hole on gland plate. No extra hole shall be punched unless specified otherwise. The gland plate has to be refitted properly to ensure vermin proofness of panels. The lugs shall be of Copper and shall be crimped using crimping tool compression type. Above 50 mm<sup>2</sup>, hydraulic crimping tools are to be arranged by the Contractor. Before crimping lugs contact enhancement paste has to be provided of approved make. The termination is then to be carried out ensuring tightness/proper contact at the point of termination.

### **7.8.0 TESTING OF CABLES**

Prior to burying of cable, following tests shall be carried out:

Insulation test between phase and phase and earth for each length of cable before and after jointing.

On completion of cable laying work, the following test shall be conducted in the presence of the Architect / Consultant

- a. Insulation Resistance Test (section and overall)
- b. Continuity Resistance Test.
- c. Sheathing Continuity Test.
- d. Earth test.

All test shall be carried out in accordance with Relevant Indian Standard Code of Practice and Indian Electricity Rules.

The contractor shall provide necessary instruments, equipments and labour for conducting the above test and shall bear all expenses in connection with such test. All tests shall be carried out in the presence of the, Architect / Consultant.

### **7.9.0 FANS AND FIXTURES**

Fans and fixtures shall be supplied by the contractor rates to include storage and handling. Connections to the Fans, Fixtures and Exhaust Fans shall be with 3x1.5 sq mm copper conductor PVC insulated round flexible cord. Connection charges shall exclude all sundry material required for erection like connector strip, PVC tape, MS and wooden screws of GI, round blocks, wooden plates etc. The installation charges for Fans, Exhaust Fans shall include installation and connection of regulator, installation of exhaust fans shall include grouting of frame or tightening of frame with Anchor bolts as per site condition i.e repairing the hole with plaster 1:3 and painting to match as original work. Wall fans shall be fixed on 15 mm thick teak wood plate of 300 mm x 180 mm size and shall be grouted/ fixed on wall by 6 nos. Anchor bolts of 1/2" dia of coach screw as per site conditions. All work shall be carried out neatly and as per the direction and to the satisfaction of Consultant. All fans and fixtures shall be connected with earthwire.

### **7.10.0 HANGING TYPE TUBELIGHT FIXTURE:**

Installation, testing, fixing and commissioning of all types of tube light fixture hanging up to 750 mm from ceiling/roof trusses etc. with 19 mm dia (3/4") 1.6 mm thick conduit pipe duly painted after installation with 2 coats of synthetic enamel paint of white colour. Nickel chrome brass sockets shall be heavy duty type approved by consultant used to hold the conduit to be fixed on wooden round block.

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Wooden block shall be fixed on ceiling directly or on existing MS/PVC junction box (as per site condition) all sundry material to be included like screw, check nuts, PVC tape etc. Round blocks shall be painted by 2 coats of synthetic enamel paint of white colour approved by Consultant.

### **7.11.0 EARTHING**

Under the scope of earthing work earthing of HT Yard, street lighting, Control and distribution boards, individual equipment, machines etc. is covered The earthing is segregated in different items and is to be done as per following details. The work includes supply of all materials required for earthing.

#### **7.11.1 Earthing Electrode/Pit Earthing :**

The earthing electrode has to be installed by excavation of soil in size 900mm x 900mm x 2000 mm (Depth). On completion excavation, earthing plate electrode of 600mmx600mmx6 mm hot dipped plate or 300mmx300mmx3 mm copper or 600mmx 600mmx 6mm copper or pipe electrode as per specification has to be installed. The plate has to be connected with 2 No. 45mm x5mm GI or 25mmx5mm copper or 45mmx5mm copper strip with help to 2 Nos. GI/brass bolts /nuts and is to be suspended in excavation pit along with perforated GI Pipe for watering. The plate is to be then covered with common salt, coat powder, black soil as per drawing and specifications. After back-filling, the PCC in 1:2:4 is to be applied in an area of 300mmx300mm and brick masonry chamber( thickness of chamber wall 200 mm) has The chamber cover and frame of 300mmx300mm of CI shall be supplied and grouted in brick masonry. The chamber cover shall have lifting hook and shall have space in frame for proper placement. The watering fennel, is to be installed over watering pipe. The test link between earthing pit clamps and running earthing strip is to be provided for testing . After completion of work, resistance of earthpit has to be measured 4 pin method and results shall be recorded /handed over to Bank /consultant in 1 sets.

#### **7.11.2 Earthing Strip**

The scope of work includes supply of hot dipped galvanized iron strips/wire as per details and drawings . The GI Strip supplied for purpose shall be continuous (minimum single length acceptable in 10 mtr.) The strip has to be straightened without damaging galvanizing. The strip has to be welded by overlapping and three side continuous welding joint. These joint shall then be cleaned and jute covering has to be provided (wherever strip is buried in ground). After this black bituminous anti corrosive paint has to be applied on all joints. Same process has to be adapted for all tappings also In case if earth wire is required to be connected on strip with the help of bolt, GI bolts, nuts are to be used along with covering and painting. The earthing strip wherever indicated in drawing, has to be supplied in ground at a depth specified in dwg. The earthing strip shall be covered with black soil and in no case sand has to be used around strip.

### **7.12.0 TELEPHONE SYSTEM**

The wires and cable used for telephone system shall be as mentioned in list of approved make and PVC insulated and sheathed 0.5 sqmm tinned copper conductor wires of various pairs should be laid in previously laid metal conduits. The telephone wiring shall be carried out in the under mentioned manner confirming to the particular specifications

- a. In Concealed system including providing and laying conduits , bends , junctions boxes , pull boxes , hardware etc.
- b. The installation generally will be carried out in conformity with the norms and rules laid down by the P&T depatt. of govt. of india and IS specifications. The rate shall be on the basis of supply and fixing of



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dummy conduits and supply , installation , testing and commissioning of telephone cables as described above on per meter basis and of tag blocks and distribution frames on per unit basis.

Capacity Of Telephone Wires/Cables

Size of Cable	Conduit Size
Up to 5 pair	20 mm
Above 5 pair up to 10 pair	25mm
Above 10 pair up to 20 pair	32 mm
6 Nos. 2 pair	20 mm
8 Nos. 2 pair cable	25 mm
10 Nos 2 pair cable	32 mm

The size of conduit shall depend upon no. of wires to be drawn. However minimum size of conduits shall be 19/20mm.

### 7.13.0 STATUTORY APPROVALS

All statutory approvals from electrical inspectors and MPEB are to be obtained by the electrical contractor at no extra cost only the official payment made in the govt. treasury for the first inspection of the electrical inspector will be reimbursed to you against receipt. The work also includes getting connection sanctioned from MPEB for individual meter for office/flat and common meters at no extra cost. Only official charges to be deposited for deposit of MPEB shall be reimbursed against treasury slip.

### IS SPECIFICATIONS

The following Indian Standard Specifications revised as on date will apply to the equipment and contract.

1.	Switch fuse units on cubicle switch boards	IS 4047	1967
2.	Switchgears Bus Bars	IS 375	1963
3.	Distribution boards	IS 2675	1966
4.	Enclosure for low voltage switchgears	IS 2147	1962
5.	PVC cables	IS 1554	1964
6.	tubular filament lamps	IS 2410	1963
7.	Tungsten filament lamps	IS 415	1963
8.	Ceiling fans	IS 374	1966
9.	Industrial light fittings	IS 1771	1961
10.	Water tight electric light fittings	IS 3553	1966
11.	Steel boxes for enclosure of electrical accessories	IS 5133	1966
12.			
13.	Fittings for rigid conduits	IS 2667	1964
14.	Rigid steel conduits for electrical wiring	IS 9537	1984
15.	Accessories for rigid steel conduits for electrical wiring	IS 5133	1966
16.	Switch socket outlet	IS 4615	1968
17.	Three pin plugs and socket outlet	IS 1293	1967
18.	Switches for domestic and similar	IS 3854	1966

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	purpose		
19.	PVC wires	IS 694	1964
20.	Call bell and buzzers	IS 2268	1966
21.	Earthing	IS 3043	1966
22.	Electrical wiring installation	IS 732	1963
23.	Switchgears	IS 3072	1965
24.	Lighting protection	IS 2309	1969

Indian electricity rule 1956 amended as on date.

**ANNEXURE-1****Maximum Capacity Of Ms Conduits For Simultaneous Drawing-In Of PVC Insulated Copper Conductor Cables 660v/1.1 Kv Grade (Flexible wires)**

Size Of Conductor Of Cables	Maximum Number Of Cables					
	20 mm	25 mm	32 mm	40 mm	50mm	63mm
<b>Nominal Area mm<sup>2</sup></b>						
1.0 sqmm	5	10	14	-	-	-
1.5 sqmm	5	10	14	-	-	-
2.5 sqmm	5	8	12	-	-	-
4 sqmm	3	7	10	-	-	-
6 sqmm	2	5	8	-	-	-
10 sqmm	-	4	7	-	-	-
16 sqmm	-	-	3	6	-	-
25 sqmm	-	-	2	4	6	7
35 sqmm	-	-	-	3	5	6
50 sqmm	-	-	-	-	4	5

No steel conduit less than 20 mm in dia shall be used.

Specifications of the conduit will be as per following

Nominal Size	Outside Dia	Tolerance Outside Dia	Minimum Inside Dia For Medium Conduit
20	20	0.3	16.9
25	25	0.4	21.4
32	32	0.4	27.8
40	40	0.4	35.4

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All specification for conduit shall be as per IS 9537.

**7.14.0 INSTRUCTIONS FOR CARRYING OUT ELECTRICAL INSTALLATIONS.**

- 7.14.1** The Contractor will have to bring all the necessary and proper tools and tackles for carrying out the work.
- 7.14.2** The work is to be carried out, when the building or parts are ready for installation
- 7.14.3** Jointing of copper strips shall be done by brazing or by way of butt jointing, bolt, nut, washer used for jointing shall be either of brass/GI. The size of bolt shall be approved by Engineer-in-charge / Architect.
- 7.14.4** Fixing of copper strip on MS structure shall be done by welding/fixing MS clamps with GI saddles as directed by site Engineer in charge /Architect
- 7.14.5** The materials to be supplied by the Bank will have to be received by the Contractor from Bank godown.
- 7.14.6** All material to be supplied by the Contractor must be of approved quality and make and must be got/approved by Engineer-in-charge/Architect before use.
- 7.14.7** The Contractor shall follow all the rules and regulations like factory act, workmen compensation act and shall be responsible for any injury or accident to persons working at site.
- 7.14.8** The work is to be carried out as per the Indian Electricity Rules & Standard code of practice and other relevant specifications. Workmanship shall be to the satisfaction of the Engineer-in-charge/Architect. Preference to the work/items shall be given as per requirement of Bank and site situations.
- 7.14.9** The installation shall have to be approved by Electrical Inspector/M.P.E.B. and/or any other local authorities, if required and such approval shall have to be arranged by Contractor. Any alterations, additions suggested by them shall have to be incorporated by the Contractor at his cost
- 7.14.10** After getting permission of charging from Electrical Inspector's office it is duty of Contractor to follow-up for installing energy meter and getting line charged from MPEB as early as possible. All follow-up expenses shall have to include in offer.
- 7.14.11** The Contractor shall keep at site of work one engineer having diploma in electrical engineering for receiving instruction and shall have to give satisfactory progress of work .The contractor will have to obtain prior approval of EIC by submitting the credentials of the electrical engineer he propose to appoint on site of work .Even during execution if EIC/Architect feels that the said engineer appointed by contractor has failed to perform his duties satisfactorily ,they can instruct the contractor to appoint another engineer and contractor will have to comply it immediately.
- 7.14.12** Any extra items that may crop during the progress of the work shall have to be carried out by Contractor, if ordered so and shall be paid for the same at the rates to be worked out with mutual agreement. Payment of extra items of work will be made on the basis of cost of material and labour + 15%. The latter figure would include all costs towards supply of

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all tools, plant hire charges, scaffolding charges, overhead expenses, Contractor's profit margin etc.

- 7.14.13** In case of any dispute with setting of claims for extra items, the decision of Bank will be considered final and binding of the Contractor.
- 7.14.14** If any part or whole of the work or any item is not executed to the entire satisfaction of the Engineer-in-charge/Architect. The Contractor shall have to demolish and do the same work again with out any extra cost if so ordered by the Engineer-in-charge/Architect.
- 7.14.15** No materials supplied by the Bank shall be allowed to be removed from site of work unless and until ordered so by the Engineer-in-charge/Architect. The Contractor shall ensure the safety of the materials from date of receipts from the Bank's store till actual installation at the works and handed over to Bank after connection and testing. The Contractor shall maintain a proper site order book at the site which remain in the custody of the Engineer-In-Charge.
- 7.14.16** The place after any work is completed should be cleaned by the Contractor. Breaking of walls, slabs, roads etc. necessary for laying cables, conduits drawing of cables/wires etc. and making them good to original position will have to be done by the Contractor through skilled workers.
- 7.14.17** The measurement will be taken in presence of Consultants authorized representative at site.
- 7.14.18** Whatever material/equipments supplied by the Contractor, he has to supply 4 sets of test certificates from the manufacturers ,like electrical control panel, sub distribution boards, MCB, MCCB, wires, cables and other item etc
- 7.14.19** The quantities as shown in the Tender are approximate and may change or delete according to site situation/conditions. However, the payment will be made on the actual supply and work carried out at site and duly certified by the Consultant.
- 7.14.20** On the completion of the work the Contractor shall supply free of charges, completion plan in triplicate, in blue prints and also in original drawing on tracing cloth. Insulation and earth test report of the Internal and External electrification installation shall be supplied in 3 copies. These shall be handed over to the Consultant in good condition by the Contractor before the finalization of his final bill.
- 7.14.21** Meter connection , MPEB's approval for sanction of power and DG set ,Electrical Inspector's approval for HT yard and DG set is included in scope of contractor and all such work shall be completed by contractor within time without any extra cost however all legal fees deposited by him shall be reimbursed by Bank against production of treasury challans.
- 7.14.22** All materials brought at site shall be as approved by Consultant and if desired so contractor shall arrange for testing of materials at laboratory (ERDA ,Baroda)for any electrical parameter checking. All such expenses shall be borne by contractor and are included in quoted rates.
- 7.14.23** General repairs should be done before completion of work.
- 7.14.24** Guarantee period for all work/supply and complete installation (without tube light and lamp) will be of one year or more from date of completion of work as per manufacturer guarantee .

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### **7.15.0 TESTING AND COMMISSIONING**

Before the lighting/power installation is made alive the Contractor shall carry out tests enumerated below in presence of Engineer-in-charge or his authorized representative. All testing equipments necessary to carry out the tests shall be arranged by Contractor and the tests results recorded on approved proforma. Nothing extra shall be payable for testing.

- 7.15.1** Measure insulation resistance of each circuit without lamps being in place and it should not be less than 5 mega ohms to earth.
- 7.15.2** Before energizing, measure insulation resistance of the cable from phase to phase and that from phase to ground, Insulation resistance of the busbars at the lighting panel from phase to phase and from phase to ground shall be measured before energizing the panel and should comply latest IS.
- 7.15.3** Current and voltage of all phase shall be measured at the lighting panel busbars with all circuits on with fixture and also in all switchboard.
- 7.15.4** Check the earth continuity for all sockets outlets. A fixed relative position of the phase and neutral connection inside the socket shall be established for sockets.
- 7.15.5** The earth electrodes shall be tested for earth resistance by means of standard earth tester. The resistance between the earthing system and the general mass of earth shall not be greater than 1 ohm.
- 7.15.6** While crossing the expansion joints in building conduits shall be provided with flexible pipe shall not be more than 250 mm, at both the ends of conduit proper flexible couplings shall be provided and earth wire shall be properly connected to earthing terminal of coupling.
- 7.15.7** Contractor should quote after site visit only. In case for cable trench, street light pole pit, earthing pit etc. or any place where Contractor has to dig the earth in hard strata or rock he has to do so at quoted rates only for item. No blasting shall be allowed for such digging.
- 7.15.8** For earthing of street light tubular pole earth spirit shall be used. Out of 8 SWG GI wire as per standard specification.

### **7.16.0 TECHNICAL SPECIFICATION FOR ELECTRICAL PANEL**

#### **7.16.1 LT PANEL AND DISTRIBUTION BOARDS**

Scope of work under this item shall cover detailed Engineering, fabrication, assembly of switchgears, testing of distribution boards at factory, delivery at site, testing of LT distribution boards for 500V 50 Hz operation. Complete panel shall be fabricated at premises of approved vendor where fabrication, hydraulic/power press, 7 tank metal treatment facilities are available. The design of distribution board shall confirm to latest applicable Indian Standards, safety codes as per detailed specifications given in bill of quantities

#### **7.16.2 ENERGY METER PANELS**

These shall be made as per the prevailing norms laid down by the concerned EB division of the area. Sizes of meter chambers, slotted angles, transparent acrylic plate for meter reading, card holder, MCB compartment, locking and sealing arrangement etc shall all be

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as per the requirement of MPEB. All other details would be as per above mentioned LT PANEL AND DISTRIBUTION BOARD specifications and those given in the schedule of items of the tender. The panels should be got approved by the competent authority of MPEB.

### **7.16.3 ENCLOSURES:**

The fabrication details of distribution boards shall be worked out on the basis of type (Floor mounted/wall mounted), area of utilization (on trench/on floor etc.) For free standing distribution board a robust base channel of not less than 10 gauge with section of 100x50 shall be prepared. Complete panel shall be fabricated as per following details:

Door, mounting plates of switchgears,	14 gauge
vertical compartment sheets	
Compartment partition horizontal plates	16 gauge
Gland plates ( with minimum 4 nos. of fixing bolts)	10 gauge

The panel shall be provided with top as well as bottom gland plate unless specified otherwise. One gland plate shall be made suitable for maximum 4 nos. of cable, if no. of feeders in particular alley has more cables, then multiple cable glands has to be provided. The panel should be fabricated with separate provisions for busbar chamber, cable alleys, instrumentation & metering units. Facility of front & back maintenance doors shall be provided for every maintenance. Cable alley shall be provided with slotted angel supports of suitable size for cable supports at every 300 mm vertical hinges on one side. The front doors shall have panels door locks openable by key & back doors shall be with bolt type arrangement having locking washers. All doors shall have rubber gaskets along the periphery to ensure dust proof/vermin proof conditions. Suitable stiffeners if required due to larger size of doors are to be provided while fabricating doors.

The panel cubical shall be fabricated strictly as per details given in drawing. The panel shall be front operated front maintenance type, unless specified otherwise. The meters relays, indication lamps shall be provided on front doors with proper cutouts. The arrangement to mount ACB, SFU shall be made within the panel, however operating handles etc. shall be mounted on doors. Arrangement for earthing terminals extended flats of 'AL' on both sides to connect 50x5 GI earth strips shall be provided on panel.

### **7.16.4 VENTILATION:**

Ventilation louvers with removable type welded wire mesh are to be provided on sides of panel, backside covers of busbar chamber doors. Also on PCC at top of busbar chamber welded wire mesh protected ventilation duct with canopy of sheet shall be provided for proper cooling & to ensure temperature rise within limits as per standards. 3/4" size propeller fan should be fixed on opening at both ends in case of main panel & floor mounted distribution boards.

### **7.16.5 BUSBARS:**

High conductivity electrolytic grade 'Cu'/ 'Al' alloy of size as per details/specifications confirming to E 91 E IS-5082 shall be used to construct busbar. The busbar size shall remain same throughout the length of panel up to incomer & only branch sizes are to be

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different as per requirement & arrangement of outgoing feeders. Maximum current density permissible in aluminium busbar shall be 0.8A/sq. mm. The busbar shall be provided with heat shrinkable sleeves with appropriate colour code for phase & neutral. The material sleeves shall be non inflammable & self extinguishing type. The busbars shall be adequately supported by SMC-DMC fingers/Supporters, epoxy compound casted in desired no. & size to take care of thermal/mechanical stresses during normal & short circuit condition (50 KVA fault level)

### **7.16.6 HARDWARE/MISCELLANEOUS ITEMS:**

The hardware to be used in panels shall be zinc plated & all joints & connections shall be made with galvanized zinc passivated or cadmium plated high tensile strength steel bolts/nuts/spring washers etc.. The make of hardware items shall be UNBREKO/GKW. All control wires shall be of 1.1KV grade flexible copper of FINOLEX/MILAX make with DOWELL/3D make copper pin type lugs. The control fuses of HRC 2A/4A of ENGLISH ELECTRIC make shall be provided with ferrules for identification of wires. PVC grey casing for wires shall be provided in cubicles. All wire shall be suitably tied with PVC button straps. Appropriate rubber bushes, clamps are to be crossover of control wiring in cubicles etc.

### **7.16.7 POWDER COATING:**

After completion of fabrication work, complete fabricated structure shall be thoroughly cleaned to remove traces of grease, rust, scale and dust. The seven tank process for treatment of fabricated structure shall be used. After preparation of fabricated surfaces, the panel shall be powder coated with synthetic enamel paint up to 50 microns thickness. The finished panels shall be dried in storing ovens in dust free atmosphere to ensure fine quality finish. The paint shall be Berger Luxol Higlloss, with siemens gray color for inside outside .

### **7.16.8 INCOMING & OUTGOING TERMINATION ARRANGEMENT:**

All incoming & outgoing feeders are to have termination arrangement in separate cubicle. The incomer bus extension shall be provided from incomer SFU/ACB/MCCB up to incomer termination chamber. Also all outgoing feeders shall have busbars extension up to cable alleys. Sufficient space has to be provided for termination of cable/wires in cable alleys. The feeders below 40A can be provided with flexible cable & ELMEX connectors. All feeder outlet shall be provided with insulated barrier plates between two outgoing.

## **7.17.0 COMPONENTS**

### **7.17.1 MOULDED CASE CIRCUIT BREAKERS (MCCB)**

MCCBs shall satisfy the requirements of IS – 2516 and shall be current limiting type. MCCB shall conform to the latest IS : 13947 – 1993 and IEC : 947 – 1989. MCCB shall provide type ‘C’ protection to the contactors as per IEC 158-IB. MCCBs shall be quick make, quick break, and preferably double break contact system, are extinguishing device, independent manual type with trip free feature with mechanical ON, OFF, and TRIP indications. A trip button shall be provided for tripping the breaker. All short circuit ratings shall be Ics values. MCCB shall be a compact high strength, heat resistant, flame retardant, insulating moduled case with high withstand capability against thermal and mechanical stresses. All MCCBs shall be capable of

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defined variable overload adjustment. All MCCBs rated 200 Amps and above shall have adjustable Magnetic short circuit pick up.

**7.17.2 MINIATURE CIRCUIT BREAKER (MCB)**

Miniature circuit breakers shall be quick make and break type and conform to IS: 8828- 1996 / IEC : 898-1985. The housing of MCBs shall be heat resistant and having a high impact strength. The fault current of MCBs shall not be less than 10 KA, at 230 volts. The MCBs shall be flush mounted and shall be provided with trip free manual operating mechanism with mechanical 'ON' and 'OFF' indications. The circuit breaker dollies shall be of the trip free pattern to prevent closing the breaker on a faulty circuit. The MCB contacts shall be silver nickel and silver graphite alloy and tip coated with silver, Proper arc chutes shall be provided to quench the arc immediately. MCB's shall be provided with magnetic Thermal release for over current and short circuit protection. MCB shall be current limiting type (class-3) MCBs shall be classified (B,C,D ref IS standard) as per the tripping characteristic curves. MCB shall have the minimum power use (watts) per pole as defined in IS/IEC. The over load or short circuit devices shall have a common trip bar independent to the external operating handle in the case of DP and TPN/4P Miniature Circuit Breakers. All the MCB's shall be tested and certified as per Indian Standards, Prior to installation.

**7.17.3 FUSE**

Fuse shall be of high rupturing capacity (HRC) fuse links and shall be in accordance with relevant ISS and having rupturing capacity of not less than 35 MVA at 415 volts. The backup fuse tagging for each motor/equipment shall be so chosen that the fuse does not operate on starting of motors/equipment. HRC fuses shall be of English Electric make or approved equivalent.

**7.17.4 CURRENT TRANSFORMER**

Current transformers shall be cast resin type. The short time withstand rating of CT's shall be equal to that of the associated switchgear for one second. The protection of CT's shall be 15VA, accuracy class 5P & an accuracy limit factor of 10 unless otherwise specified. The instrument CT's shall be of 10VA, accuracy class 1.0 & an instrument safety factor of 5. CT's shall not be directly mounted on the buses. CT's on ACB feeders shall be mounted on fixed portion of compartment. CT's shall be terminated through terminals/disconnectable links which gives help during testing. Separate CT's shall be provided for protection & metering.

**7.17.5 PROTECTIVE RELAY**

The relays shall be mounted on front door of the compartment & accessible for setting & resetting from the front. Hand reset flag indicators visible from the front shall be provided. The relays shall be mounted with rubber gasketing on cutout of installation. Provisions for clipping relay wires on door panels & cubicle shall be made for safety.

**7.17.6 INDICATING INSTRUMENTS:**

These shall be 144 mm<sup>2</sup> for MEP & 96 mm<sup>2</sup> for PDBS, flush mounting type with range as per corresponding feeder. Energy meters shall be suitable for measuring unbalanced loads & shall be provided with all out-going feeders of PCCS. 96 mm<sup>2</sup> size CTR ammeter with ASS shall be provided for each out-going feeders. All voltmeter and indications shall be provided with VSS & control fuse.



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Indicating lamps shall be of 22.5 mm dia LED type & shall be Red, Yellow, & Green colours

**7.17.8 PUSH BUTTONS**

Push button shall be momentary contact type rated to carry 10A, 240V AC with 2 NO+2 NC contacts for START/STOP of green & red colors & other suitable colors.

**7.17.9 EARTHING**

An earthing strip of 50 x 6 mm<sup>2</sup> size for MEP & 25 x 6 mm<sup>2</sup> for PDBS of 'Al' shall be provided in each panel. All the CT terminals shall be earthed by two wires at different places & all metal castings of current carrying components shall be connected to earthing strips. All the hinged doors & PCCS & PDBS shall be earthed through flexible copper wire PVC insulated & crimped at both ends.

**7.18.0 GENERAL**

**7.18.1** Terminal blocks shall be of ELMEX make & of suitable capacity. Control & power terminals shall be segregated.

**7.18.2** Suitable HYLAM/BAKELITE shroud be provided of minimum 3 mm size where bus links from busbar chamber & feeder chamber to cable chamber will be terminated.

**7.18.3** All the components shall be as per the relevant ISS & shall be of highest manufacturing quality & standard. The SFU shall be of AC23 duty only & ACB shall not have rupturing capacity less than 50 KA.

**7.18.4** As given in the drawing in case of PCCS all cable chambers & bus chambers are in back of all out-going feeders.

**7.18.5** All the PCCS & PDBS have sufficient quantity of bolted type lifting lugs welded at 50 x 6 angles along the depth of panels.

**7.18.6** One side of each shipping section should be pasted with gasket.

**7.19.0 TESTS TO BE CONDUCTED ON PCCS ON PDBS**

The equipment shall be subject to standard routine test as per IS-2026 1977 on amended up to date.

- a) 2.5 KV high pot test with leakage current measurement.
- b) Meggar test.
- c) Load test by primary injection test kit at 70% capacity of the incomer.
- d) Secondary injection test for relays, meters & CT's.
- e) Temperature rise test FOR MEP.
- f) Functional test.

The above tests must be conducted in the manufacture premises in presence of Consultant's/Bank's representative. The bidder who are not having those testing facility are not entitled to participate in the bid. Protective relays are to be tested/calibrated at installation prior to commissioning. Test certificates of the above tests shall be approved by Bank/Consultant.

**7.20.0 TYPE TEST CERTIFICATES**

The bidder shall produce following type tests certificate of CPRI.

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- a) Short circuit test at 41.7 KA fault level.
- b) Temperature rise test.
- c) Degree of protection test-IP55/IP54
- d) H.V. test.

**7.21.0 FIRE INSURANCE APPROVAL**

The bidder shall have TAC approval from Tariff Advisory committee & copy of approval shall be enclosed with bid.

**7.22.0 INSPECTION**

The Consultant's representative shall be free to inspect the equipment at several stages to be decided mutually. The equipment shall be dispatched only after the inspection & successful testing at manufacturers works.

**7.23.0 DRAWINGS**

Before starting the manufacture of the equipment, the successful bidder shall have to take approval from the Consultant. Any manufacturing done prior to approval or any change in specification shall be rectified by supplier. Minimum two sets of drawings sent for every approval & three sets shall be furnished after job completion.

**7.24.0 OPERATION MANUALS**

Three sets of operation manuals with the technical leaflets of the components used in the CPC & PBS are to be provided after completion of job.

**7.25.0 PERFORMANCE GUARANTEE**

All the equipments shall be guaranteed for 12 months from the date of commissioning.

**7.26.0 APPLICABLE STANDARDS**

The equipments covered under above specifications shall be designed, fabricated & tested in accordance with the applicable sections of the latest revisions of relevant Indian standards (IS) & all International Electro technical Commission's recommendations (IEC) As well as specifications given in this document.

The PCC & PDBS shall generally confirm to the requirement of the following standards amended upto date :

- a) IS-4237 General requirements of switchgear & control gear for voltage not exceeding 1000V
- b) IS-375 Arrangement of busbars, main connection, auxiliaries & wiring.
- c) IS-2516 Requirement of the circuit breakers not exceeding 1000 V, selection & testing.
- d) IS-4047 Specification for heavy duty air break switches & fuses for voltages not exceeding 1000V.
- e) IS-2208 Specification for HRC cartridge fuse links up to 650V.
- f) IS-2507 Indian standards for current transformers (Part- I/II/III/IV)
- g) IS-4201 Application guide for current transformers.

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- h) IS-2959 Specification for AC Suppliers of voltage not exceeding 1000V.  
 i) IS-1822 Specifications for motor starters of voltages not exceeding 1000V.  
 j) IS-5569 Electrical power connectors.  
 k) IS-1336 Color code recommendations for push buttons.  
 l) IS-1248 Electrical indicating buttons.  
 m) IS-4483 Preferred panel cutout dimensions.  
 n) IS-2147 Degree of protection provided by enclosures for LV switchgears.  
 o) IS-3072 Code of practice for installations & maintenance of switch gears  
 for system voltages not exceeding 1000V.  
 p) IES-439 Low voltage switchgear & control gear assemblies.  
 q) IS-2032 Graphic symbols.  
 r) IS-8623 Factory built assemblies.

**LIST OF APPROVED MAKES IN ELECTRICAL FITTINGS AND FIXTURES****(THE MAKE LISTED BELOW SHOULD BE FIRST APPROVED BY THE BANK BEFORE USE IN CONSTRUCTION)**

S.NO	LIST OF MATERIALS	SPECIFICATIONS
1	Switch fuse unit (HRC type) with HRC fuses	Larsen and Tubro , Siemens, English Electric,
2	MCB and MCB DB's	Legrand, Schneider,Siemens, and ABB (10 KA,fault level)
3	PVC insulated aluminum/copper (1.1 KV XLPE)	Cable corp. of India conductor armoured cables, Incab upto 1100 V. Grade , Finolex, Havels.
4	1100 V-G Node Copper conductor PVC (FRL) wire insulated	Finolex, RR, Havells Mutistrand wires.
5	PVC/ M.S. conduit (ISI marked)	B.E.C., AKG,NIC
6	Telephone wires (0.6mm)	D-link, Delton, Finolex
7	Fabrication of main, L.T. panel (main board)	To be fabricated locally as per Technical Specifications & schedule of Quantities.
8	E.L.C.B.	Siemens MDS, English Electric(GEC Alsthom), Schneider
09	CTs	Kappa Automatic Electric MDC (AARCEE Industries)
10	Selector switches	Larsen and Tubro (Slezer) Kaycee
11	Volt/Amp. meters (96 Sq.mm)	Automatic Electric
12	Indicating Lights	Concord Siemens L & T
13	Telephone Socket (3 pin)	Anchor ,Roma, Legrand ,MK, Crabtree

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14	Lugs	Dowells
15	Change over switch	H.H. Elecon/ Havells (on load front operated) private limited (HPL
16	Electronic fan regulator	Anchor, Roma, Legrend ,MK, Crabtree
17	Modular Switches and Sockets	Legrand, Crabtree, Roma, Anchor Modular Series,MK
18	Light fixture	Philips, Wipro, Havells, CG.
19	Ceiling fan, Exhaust Fan	Usha, orient(PSPO),CG,Havells
18	Modular Switches and Sockets	Legrand, Crabtree, Roma, Anchor Modular Series,MK

Note : All the materials to be ISI Marked. The materials shall be only of the approved makes as specified in this List. The contractor shall submit sample of all the makes and the specified in this List and the architect/ Bank shall have the proper to select any of them Bank/ Architect decision in this regard shall be binding on the contractor. In case any material is not available for any one or all of this approved make the architect/ Bank shall select and approved other alternative makes and material. The Contractor shall get we samples of all item covered in this List from Bank/Architect before commissioning of work.