Tender ID	AHMVAO9/26-27/32

STATE BANK OF INDIA

INVITES ONLINE E-TENDERS

FOR

PROPOSED ELECTRICAL WORK OF SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA

FROM

THE SBI AHMEDABAD EMPANELLED ELECTRICALCONTRACTORS UNDER THE CATEGORY OF WORKS ABOVE 10 LAKHS AS PER THE LIST ENCLOSED

THE LAST DATE OF SUBMISSION OF ONLINE TENDERS: 19.10.2026 UP TO 03:00 PM

PART – A: TECHNICAL BID

TENDER SUBMITTED BY:

NAME : _____

ADDRESS : _____

_____

DATE : _____

ARCHITECT :

201, Galaxy Complex, B/h national plaza,
R.C. Dutt road, Alkapuri, Vadodara-390007
Mail id: nitinb9@gmai.com (M):9825466393

Tender ID	AHMVAO9/26-27/32

NOTICE INVITING TENDER (NIT)

SBI through its Architect - Ar. Nitin Bhardwaj, invites Online E-tender in two bid system, from the Bank's Empaneled Electrical contractors of Ahmedabad Circle for Electrical Work at SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA.

1	Name of Work	PROPOSED ELECTRICAL WORK OF SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA
2	Time allowed for completion	30 days from date of acceptance of work order.
2.1	Estimated cost of work	13,15,000.00
3	Earnest Money Deposit	*Rs. 13,100/-* by means of Demand Draft / Pay Order from any scheduled Nationalized Bank drawn in favor of State Bank Of India and payable at VADODARA. (Contractors registered with 'MSME UDYAM' need not submit EMD. Instead of EMD, they should submit registration certificate of 'MSME UDYAM')
4	Initial Security Deposit	2 % of final tender amount
5	Total Security Deposit	5% of the final bill amount including ISD
6	Cost of tender document.	NIL
7	Start and end date for downloading of tender documents form Bank's website	*13.10.2026 to 19.10.2026 at www.sbi.co.in under <Link><SBI in the news >procurement news.*
8	Last date & time for submission of online Technical bid and Sealed Price Bid	*19.10.2026 up to 03:00 PM*
9	Address at which Hard copy of Process Compliance Form and EMD or MSME Udhyam Certificate has to be submitted	**Asst. General Manager, SMECCC State Bank Of India, 6th Floor, Commerce Centre, opp. BBC Tower SMECC, Sarod, SMECC, Vadodara-390015.**
10	Date and time of opening of online Technical bid & Sealed Price bid	*19.10.2026 up to 03:30 PM*
11	Agency for arranging online Bidding (Technical bid and sealed price bid)	M/s. Antares Systems Limited, Mr. Kushal Bose Mobile No.: +91 9674758719 e-Mail: kushal.b@antaressystems.com
12	Defect liability period.	12 months from the date of Virtual Completion

13	Validity of offer.	90 days from the date of opening of Price-bid
14	Liquidated damages	0.50% of contract amount per weeks subject to max. 5% of contract value or final bill value.
15	Value of Interim Certificate	No advance on materials / plant / machinery or mobilization advance shall be paid under any circumstances Only full and final payment shall be made after satisfactory completion of work.
16	Insurance	The contractor shall obtain all necessary insurance policies as per the governing laws applicable at the center& shall require to produce the original policy of Insurance & receipt of the premium as applicable in the matter to the Architect/Bank.
17	Water and Electricity	If contractor is permitted to use SBI source of water & electricity, the SBI will recover @ 0.5% of contract amount from the final bill of contractor. However further distribution & extension & light fixtures etc. With required MCB switches, switch boards, lamp, tube etc. shall be arranged by the contractor at their own cost within the accepted tender amount. Bank will recover 0.5% of the final bill amount towards consumption of water & electricity.
18	Rates	Rates quoted shall be inclusive of all existing & future (including variation) taxes, duties, levies, royalties, transportation, other incidental charges, WCT etc. PVA & PVA Clause shall not be applicable. Note: GST will be paid Extra as per Applicable norms. If any tenderer puts any condition/anything/any taxes extra over and above their quoted rates the tender shall be summarily rejected.
19	Tenders can be downloaded from the bank's website www.sbi.co.in(link)<SBI In the news<Procurement News> or SBI e-Tender Portal www.tenderwizard.in/SBIETENDER. It shall be responsibility of the contractor to timely submit the technical and financial bid. SBI, in no case shall be responsible for site issues/ delay in tender submission.	
18	The contractor shall read and understand each page of the tender document thereby ensuring the number and sequence of all pages.	
19	No conditions other than mentioned in the tender will be considered, and if given they will have to be withdrawn before submission of final quote, else their bid will be rejected.	

20	Tenders received without EMD and Process Compliance Form shall be summarily rejected and such tenders shall not be allowed to participate in the Price bid process/ rejected/ not considered/ or as decided by Bank.
21	The Bank will place order as per its requirement and quoting minimum rate for any category does not provide any guarantee for receiving order for that item by the firm who quotes lowest rates.
22	Bank reserves right to cancel any/ all tender sat any stage without assigning any reasons.
24	The Bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other condition if his tender is accepted in parts.
25	In case the date of tendering is declared as a holiday, the tendering will be conducted on the next working day at the same time.
26	SBI reserves the right to accept or reject any or all the tenders, either in whole or in part without assigning any reason(s) for doing so, no claim / correspondence shall be entertained in this regard. For any clarification regarding Tendering procedure, please contact SBI Admin office, VADODARA , whose address is mentioned in the NIT or Architect NITIN BHARDWAJ.
27	It is vendor's/supplier's responsibility to be well prepared and get ready with E-Tendering procedures & well equipped with all requirements. SBI will not take any responsibility of delay in submission due to EMD, slow internet connectivity, system failures etc.
28	Only final payment will be made.
29	It's a running branch. If the assigned work is in running/working Branch, the contractor should execute the site erection work in odd hours, Holidays and Sundays.
30	Percentage, if any, to be deducted from bills and total amount to be retained :10 % from Running Bills, subject to maximum Total 5% of contract amount or actual Final Bill value.

Yours Faithfully,

Asst. General Manager, SMECCC
State Bank Of India,
6th Floor, Commerce Centre,
opp. BBC Tower SMECC, Sarod,
SMECC, Vadodara-390015.

Annexure-"B"

LIST OF EMPANELLED ELECTRICAL CONTRACTOR UP TO RS. 10.0 LAKH

SN	Name and address	Contact number	E-mail ID
1	Umesh Engineering Works, Gala No.A-10, D.M. Singh Compound, Opp. Shraddha Tower, Thaaaaaaaaakur Complex, Kandivadi, Mumbai-400010	9821098131	umeshengineeringwoooorks@gmail.com
2	RK Electricals, 30, Ghati Bhadbhunja, Nr. KMC School, Bhopal	9827216074	mosultan99@gmail.com
3	RP Enterprise, 309m Saraswati Complex, Manjalpur, Vadodara	9825467087	rpenterprise7@gmail.com
4	Vikalp Electricals, LL-1, Om Centre, Shreyash Crossing, Ambawadi, Ahmedabad-15	9825307125	vikalp1991@gmail.com
5	Vaidehi Enterprise, 15 Trishila Residency, Nr. Ganesh Park Twin Bunglow, Sola, Ahmedabad. 3800061	9327014869, 6352995533	piyushpatel@vaidehient.com, harshpatel@vaidehient.com

Annexure-"B"

LIST OF EMPANELLED ELECTRICAL CONTRACTORS UP TO Rs. 25.0 LAKH

SN	Name, Office Address of the Applicant in Gujarat State including U/T	Contact number	E-mail ID
1	Shree Electricals, B/5, Vantage Point, 69sampatrao Colony, BPC Rd., Alkapuri, Vadodara	9825032710	shree.electricals94@gmail.com
2	Dharmesh A Mewada, 123, Sangath Mall-1, Opp. Govt. Engg. College, Visat Gandhinagar Highway, Motera, Ahmedabad-382481	9725043778	dharmeshmewada17@gmail.com
3	Kirti Traders, Jivan Mansion, Lati Bazar, Bhavnagar	9426548801	ananddoshi62@gmail.com
4	Dhriti Engineers, 28 Mahadevnagar Society, O/s Panigate, B/h Govind Rao Park, Ayurvedik, Vadodara-19	9998981088	dhritiengineers@gmail.com
5	Maya Tranformer & Electricals, C/9, Gopinath Society, Opp. SK Complex, India Colony mRd., Bapunagar, Ahmedabad-380024	9825716962	mayatrel@yahoo.com
6	NK Electricals, SB/B3, Indraprasth Complex, Ellora Park, Vadodara-390007	9825061543	ketanna@gmail.com
7	Urmi Electric Co., B/5 Jaimini Society, Nava Vadaj, Ahmedabad-13	9825342374	urmiele22@gmail.com
8	Jay Engineers, F/5 Mansi Apartment, B/h Galaxy Cinema, Naroda, Ahmedabad-382330	98244031888	kumudrathod@yahoo.co.in
9	Pooran Chand Sharma & Sons, 1/70, W.H.S Timber Market, Kirti Nagar, New Delhi - 110015	9810111055, 01141420277	sds.pcss@gmail.com
10	Perameter Engineering Projects, 7&8, Third Floor, Jyoti Plaza, Shyasmal Cross Road, Ahmedabad 380015	07940060596, 07940060597	naidu@parameter.in
11	R S Enterprises, C-74, Patel Nagar, Raisen Road, Bhopal MP. 462022	9826961063, 9425378197	rsenterprises73@gmail.com
12	Mamta Electrical, 68 Shram Jivi Soc no 1 Umara, Ichanatha, Surat	9898599899	hem_sukhadia@yahoo.com
13	Sai Electrical Works, 19/2/28, Store Lane, S A Brelvi road, bahadur manzil, fort, Mumbai	9820326854	saielectricworks@gmail.com

Annexure-"B"

LIST OF EMPANELLED ELECTRICAL CONTRACTORS UP TO Rs.50.0 LAKH

SN	Name, Office Address of the Applicant in Gujarat State including U/T	Contact number	E-mail ID
1	Rudra Enterprise, B-9, Akahardeep Complex, Sanskar Mandal Chowk, Talaja Rd., Bhavnagar	9428996994	rudraenterprisework@gmail.com
2	RB Trading Co., 9 GF, HH Trust Building, Nr. Kothari Pole, Gandhi Rd., Ahmedabad--1	9033077332	rbtrading99@yahoo.co.in
3	Bhagat Electricals, 101, Shailja Saaaankul, Nr. Amrepali Railway Crossing, Ralya Rd., Rajkot	9825165426	bhagatelectricals@yahoo.co.in
4	Kruti Electrical, 626, Mandir Street, Mota Varacha, Surat	9723454883	archkrut@gmail.com
5	System Protection, 301/2, silverline Complex, Opp BBC Tower, Sayajiganj, Vadodara - 390005	2652225137	info@systemprotection.in

Annexure-"B"

LIST OF EMPANELLED ELECTRICAL CONTRACTORS UP TO Rs. 100.0 LAKH

SN	Name and Office Address	Contact number	E-mail ID
1	Alpha Enterprise, A/2, Shri Hari Co;ony, Lad Society Rd., Nehru Park, Vastrapur, Ahmedabad-15	9408281388	info@alphaenterprise.co.in
2	Janta Electric Co., Shop No. 6, Bldg. 3, Chaitanya CHS, Opp. Ram Mandir Rd., SV Rd., Goregaon (W), Mumbai-400104	7208000817	jantaelectriccompany@yahoo.in
3	Power Control, 18, Sursarthi Complex, B/H Rudra Complex, Ambawadi, Ahmedabad-6	9327030790	info@powercontrol.com
4	Indian Electric Carporation, 1-A Hemali Bunglows Nr. Old ptwa nursing home, Opp. Kachhi Samaj,Paldi Ahmedabad.7	9327578375, 9825306291	info@iecprojects.co.in
5	Parth Energy Solutions, Shop No 1, Sai Darshan Apt, Santosh Park Main Road, 150ft Ring Road, Rajkot 360007	9998517133	parth_energy@rediffmail.com
6	Aum Electric Engineering Pvt. LTD. Plot No 7 Kadiwala Street Opp. Shivram Dyeing, Behind Kiran Mortors, Surat 395002	9825093003, 9879593825	aumelectric1994@yahoo.co.in
7	Bhavani Construction, 212, 2nd Floor, Ratandeep Complex, Opp. Central Selt, Waghawadi Road, Bhavnagar	9427262860/ 9428078876	bhavani_const@yahoo.in

FORM TENDER

To,
Asst. General Manager, SMECCC
State Bank Of India,
6th Floor, Commerce Centre,
opp. BBC Tower SMECC, Sarod,
SMECC, Vadodara-390015

Dear Sir,

Having examined the drawings, specification, design and schedule of quantities relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender, I/We hereby offer to execute the works specified in the said memorandum at the rates mentioned in the attached Schedule of Quantities and in accordance in all respects with the specifications, design, drawings and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special Conditions, Schedule of Quantities and Conditions of Contract and with such materials as are provided for by, and in all other respects in accordance with such conditions so far as they may be applicable.

MEMORANDUM

Description of work	Proposed Electrical works of **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, SMECC, VADODARA**
Earnest Money	**Rs. 13,100/-** by means of Demand Draft / Pay Order from any scheduled Nationalized Bank drawn in favor of of State Bank Of India and payable at VADODARA. (Contractors registered with 'MSME UDYAM' need not submit EMD. Instead of EMD, they should submit registration certificate of 'MSME UDYAM')
Percentage, if any, to be deducted from Bills and total amount to be retained	10 % from Running Bills, subject to maximum Total 5% of contract amount or actual Final Bill value.
Time allowed for completion of the Works from fourteenth day after the date of written order or date of handing over of the site (whichever is later) to commence the work	**30 days**

I/We have deposited a sum of **Rs. 13,100/-** of the total tender amount as Earnest Money with

the SBI which is not to bear any interest. Should I / We fail to execute the Contract when called upon to do so I/ We do hereby agree that this sum shall be forfeited by me/us to State Bank of India.

1) Our Bankers are:

i)

ii)

The names of partners of our firm are: i)

ii)

Name of the partner of the firm Authorized to sign

Or

(Name of person having Power of Attorney to sign the Contract.)

(Certified true copy of the Power of Attorney should be attached)

Yours faithfully,

Signature of Contractors.

Signature and addresses of Witnesses

i)

ii)

SAMPLE BUISNESS RULE DOCUMENT
ONLINE E-TENDERING FOR ELECTRICAL WORK OF
SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA.

(A) Business rules for E-tendering:

1. Only Bank's empaneled ELECTRICAL WORK 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 an 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 various documents in sealed Envelope to the office of Asst. General Manager, SMECC BRANCH, VADODARA at the address mentioned hereinbefore by the stipulated date i.e. (1) Demand Draft of specified amount of EMD, (2) Process compliance form dully signed. Contractors not submitting any one or more documents shall not be eligible to participate in the on-line 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 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, 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.

2. M/s. Antares Systems Limited, 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. BID PRICE: The Bidder has to quote the rate as per the Tender Document provided by SBI through their appointed Architects.

5. 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.

6. Procedure off-tendering:

i. Online E-tendering:

(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.

(b) Online e-tendering is open to the empaneled bidders who receive NIT from the Architect and qualified for participating in the price bidding as provisions mentioned hereinabove through SBI approved Service Provider.

(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.

(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.

(e) It is mandatory to all the bidders participating in the price bid to quote their rates for each and every item.

(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.

7. LOG IN NAME & PASSWORD: Each Bidder is assigned a Unique User Name & Password by M/s. Antares Systems Limited. The Bidders are requested to change the Password after the receipt of initial Password from M/s. Antares Systems Limited. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.

8. **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 L1 Bidder backs out or fails to complete the work as per the rates quoted, SBI shall have the liberty to take action as deemed necessary including de-paneling such contractors and forfeiting their EMD/**

EMD amount through any means and imposing heavy penalty to contractor to recover the losses occurred to the Bank.

9. At the end of the E-tendering process, SBI will decide upon the winner. SBI decision on award of Contract shall be final and binding on all the Bidders.
10. SBIshallbeatlibertytocanceltheE-tenderingprocess/tenderatanytime,before ordering, without assigning any reason.
11. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
12. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.

13. 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 reserve 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 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 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 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.

- 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)

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

To,

M/s. Antares Systems Limited,
Mr. Kushal Bose
Mobile No.: +91 9674758719
e-Mail: kushal.b@antaressystems.com

AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ONLINE E-TENDERING FOR ELECTRICAL WORK OF SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA.

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 ----------

(On Non -Judicial Stamp paper of appropriate value)

ARTICLES OF AGREEMENT

Articles of Agreement made this_____ day of_____ _____

between **State Bank Of India, a body, corporate constituted under the State Bank Of India Act and having its Corporate office at Madame cama Road, Mumbai.** hereinafter called the Bank which expressions shall include its successors and assigns of the one part and _____(name & address of contractor) _____ hereinafter called the "Contractor" which expression shall include the successors and assigns of the other part.

WHEREAS the Bank is desirous of executing the work of Interior Decoration & Furnishing work: **ELECTRICAL WORK** of **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA** for **State Bank of India**
and has caused drawings, specifications, and schedule of quantities etc. describing the works to be prepared by the Architect.

AND WHEREAS for the said construction of local Regional Office Building for State Bank of India at VADODARA, Terms & Conditions, Specifications and the Schedule of items, quantities etc., have been signed by and on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon, subject to the conditions set forth herein and Schedule of Items and quantities, General & Special Conditions of Contract, specifications etc contained in the tendered documents including all correspondences exchanged by or between the parties from the submission of tender till the award of work, both letters inclusive, (all of which are collectively hereinafter referred to as "the said conditions" , details of which are described in the schedule attached hereto, the works shown upon the said drawings and/or described in the said specification and included in the schedule of items and quantities at the respective rates therein set forth amounting to the sum as therein arrived at or such other sum shall become payable there under arrived at or such other sum as shall become payable there under (hereinafter referred to as "the said contract amount")

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said contract amount to be paid at the time and in the manner set forth in the said conditions, the contractor shall upon and subject to the said conditions execute and complete the work shown in the said drawings and described in the said specifications and the schedule of items and quantities, as per the terms and conditions contained in the said conditions.

2. The Bank shall pay the Contractor said contract amount, or such other sum as shall become payable, at the time and in the manner specified in the said conditions.

3. The Architects in the said condition shall mean the *Ar. Nitin Bhardwaj, 201-Galaxy Complex, B/h National Plaza, R.C. Dutt Road, Vadodara-390007* In the event of their ceasing to be the Architects for the purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Bank, provided always that no person subsequently appointed as Architects under this contract shall be entitled to disregard or over rule any previous decisions or approvals or directions given or expressed in writing by the Architects for the time being.

4. The said general condition, Special condition, technical drawings, Notice Inviting Tender, specifications, Guarantee, Instruction to Tenderers Price Bid (Schedule of Quantities), Correspondences, Letter of Acceptance, Agreements and Appendices there to, contained in the tendered documents/said conditions shall be read and considered as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the agreements on their part respectively in the said conditions contained therein.

5. The plans, agreements and documents mentioned herein shall form the basis of this contract. This contract is neither a fixed Lump Sum contract but is a contract to carry out the work in respect of the "Interior Decoration & Furnishing work: **ELECTRICAL WORK** of **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA** for **State Bank of India** as per the scope described and to be paid for according to actual measured quantities at the rates contained in the Schedule of Rates and /or negotiated rates and Probable quantities or as provided in the said conditions.

6. The Bank reserves to itself the rights of altering the specifications and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.

7. (a) The Contractors represent that they have experience and competent staff which will enable them to ensure proper quality check on the materials, whether brought by the contractors or supplied by the Bank to the contractors, and which will ensure that the contractor will carry out proper tests as required by the specifications and will supervise the day to day working and execution of the contract work.

   (b) If the contractors have any doubt about the quality of the materials or any difficulty in supervision of the day to day work it shall be duty of the contractors to report the matter in writing forthwith to the Bank and for the time being suspend that portion of the work about which difficulty is experienced, and the contractors will abide by the directions given by the Bank.

(c) The contractors are aware that the Bank will not give day to day supervision but will periodically supervise and the contractor has to perform their obligations under the instructions given to him periodically and under sub clauses (a) and (b) above.

(d) The contractors covenant and warrant that completed items of work as well as the entire work on completion will be in conformity with the specifications and the terms and conditions contained in the said conditions and will be of contract quality and description.

(e) The employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.

8. Time shall be considered as the essence of this contract and the contractor hereby agrees to commence the work on the day on which he is instructed to take possession of the site or from the fourteenth day after the day of issue of formal Work Order as provided for in the said conditions whichever is later and to complete the entire work within 30 days subject nevertheless to the provisions for the extension of time.

9. Any dispute arising under this Agreement shall be referred to arbitration in accordance with the stipulation laid down in the general conditions of contract.

10. The contents of this contract agreement have been read by the contractor and fully understood by the contractor.

IN WITNESS WHERE OF the Bank and the Contractor have set their respective hands to these Presents and two duplicates here of the day and year first herein above written (If the Contractor is a Partnership Firm or an Individual.

IN WITNESS WHERE OF the Bank has set its hands to these presents through its duly authorized official and the contractor has caused its common seal to be affixed here unto and the said duplicates have/has caused these presents and the said two duplicates here of to be executed on its behalf, the day and year first here in above written(If contractor is a Company).

Signature clause:

_____

SIGNED AND DELIVERED

By the hand of Shri ---------- **Assistant General Manager** of **State Bank Of India**

(Name and Designation)

In presence of _____

1. _____
Address _____
2. _____
Address _____
(Witness)

SIGNED AND DELIVERED by (If the Contractor is a Partnership Firm or an individual, should be signed by all partners or by duly authorized person on behalf of all partners)

(1) _____
Address _____

(2) _____
Address _____
(Witness)

THE COMMON SEAL OF was hereinto affixed pursuant to the resolution By Board of Directors at the Meeting held on (If the Contractor signs under its common seal, the Signature Clause should tally with the sealing clause in the Articles of Association)

SIGNED AND DELIVERED by
(1) _____
(2) _____

1) _____
Address _____
(2) _____
Address _____
(Witness)

SIGNED AND DELIVERED by _____(If the Contractor has signed by the hand of Power of Attorney , whether a Company or Individual)

(1) _____
Address _____

(2) _____
Address _____
(Witness)

SECTION – 1

INSTRUCTIONS TO THE TENDERERS

1.0 Scope of work

Sealed Tenders are invited by SBI on behalf of SBI for Proposed Electrical works for **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA**

1.1 Site and its location

The proposed work is to be carried out at **SBI SMECC BRANCH (FF), AT NEW PREMISES KIRTIMANDIR, SMECC, VADODARA, 390001, GUJARAT**

Tender documents

2.0 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

2.1 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

2.2 Complete set of tender documents including relative drawings can be downloaded from the website www.sbi.co.in

2.3 The tender documents are not transferable.

3.0 Site Visit:

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.

4.0 Earnest Money:

4.1 The tenderers are requested to submit the Earnest Money of **Rs. 13,100/- by means of Demand Draft/Pay Order** (Valid for a period of 90 Days from the last date of submission of the tender) from any scheduled Nationalized Bank drawn **in favor of SBI and payable at VADODARA.** (Contractors registered with 'MSME UDYAM' need not submit EMD. Instead of EMD, they should submit registration certificate of 'MSME UDYAM')

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.

4.3 No interest will be paid on the EMD.

4.4 EMD of unsuccessful tenderer will be refunded within 20 Days of award of Contract.

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

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 favor of SBI Payable at VADODARA within a period of 7 days of acceptance of tender.

5.1 Security Deposit:

Total security deposit shall be 5% of contract value. Out of this **NIL** 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) 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.

5.2 Additional Security Deposit:

Not applicable

5.3 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 in to or not.

6.0 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 **30 days** from the date of award of work.

7.0 Validity of tender:

Tenders shall remain valid and open for acceptance for a period of 90 days from the date of e-reverse auction. 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.

8.0 Liquidated Damages:

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

9.0 Rate and prices:

9.0.1 In case of item rate tender:

The tenderers shall quote their rates for individual items both in words and figure. In case of discrepancy between the rate quoted in words and figures, the unit rate quantity in words will prevail. If no rate is quoted for a particular item the contractor shall not be paid for that item when it is executed. The amount of each item shall be calculated and the requisite total is given. In case of discrepancy between the unit rate and the total amount calculated from multiplication of unit rate and the quantity the unit rate quoted will govern and the amount will be corrected.

The tenderers 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.

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

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

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

The rate quoted shall be firm and shall include all costs, allowances, materials, labours, taxes etc. except G.S.T, which shall be payable / reimbursed at actual

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.

SIGNATURE OF THE CONTRACTOR WITH SEAL

GENERAL CONDITIONS OF CONTRACT

1.0 Definitions:-

"Contract means the documents forming the tender and the acceptance thereof and the formal agreement executed between SBI. (client) and the contractor, together with the documents referred there in including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Architects / Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

'SBI' shall mean SBI having its **Dy. General Manager (B&O), Admin. Office, VADODARA** and includes the client's representatives, successors and assigns.

1.0.1 'Architects/ Consultants' shall mean Ar. Nitin Bhardwaj, Architects & Interior Designers, Ahmedabad.

1.0.2 'Site Engineer' shall mean an Engineer appointed by the SBI at site as their representative for day-to-day supervision of work and to give instructions to the contractors.

1.0.3 'The Contractor' shall mean the individual or firm or company whether incorporate not, undertaking the works and shall include legal personal representative of individual or the composing the firm or company and the permitted assignees of individual or firms of company.

The expression 'works' or 'work' shall mean the permanent or temporary work description in the "Scope of work" and/or to be executed in accordance with the contract includes materials, apparatus, equipment, temporary supports, fittings and things of kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.

1.0.4 'Engineer' shall mean the representative of the Architect/consultant.

1.0.5 'Drawings' shall mean the drawings prepared by the Architects and issued by the Engineer and refer red to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time Contract value shall mean value of the entire work as stipulated in the letter of acceptance of tender subject such additions there to or deductions there from as may be made under the provide herein after contained.

1.0.6 Specifications' shall mean the specifications referred to in the tender and modifications thereof as may time to time be furnished or approved by the Architect/Consultant.

1.0.7 "Month" means calendar month.

1.0.8 “Week” means seven consecutive days.
1.0.9 “Day” means a calendar day beginning and ending at 00 Hrs and 24 Hrs respectively.

1.1.11 “SBI Engineer” shall mean The Civil/Electrical Engineer in-charge of the Project, as nominated by the **Dy. General Manager (B&O), Admin. Office, VADODARA**

1.1.12 The following shall constitute the Joint Project Committee (herein under referred to as JPC) for assessing and reviewing the progress of the work on the project and to issue instructions or directions from time to time for being observed and followed by the Architects Site Engineer / PMC and other consultants / contractors engaged in the execution of the project.

i) AGM, SMECC BRANCH, VADODARA of SBI
ii) SBI Engineer (Civil and Electrical) in-charge of the Project
iii) Concerned partner of the Architects and their Resident Architect Member.

CLAUSE

1.0 **Total Security Deposit**

Total Security deposit comprise of Earnest Money Deposit, Initial security deposit and Retention Money

1.1 Earnest Money Deposit-

The tenderer shall furnish EMD of **Rs. 13,100/-** in the form of Demand draft or bankers cheque drawn in favour of of SBI Payable at VADODARA, on any Scheduled Bank. No tender shall be considered unless the EMD is so deposited in the required form. No interest shall be paid on this EMD. The EMD of the unsuccessful tenderer shall be refunded soon after the decision to award the contract is taken without interest. The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time the period when he is required to keep his tender open acceptance by the SBI or after it is accepted by the SBI , the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the commence the work within the stipulated time. (Contractors registered with ‘MSME UDYAM’ need not submit EMD. Instead of EMD, they should submit registration certificate of ‘MSME UDYAM’)

1.2 Initial Security Deposit (ISD)

The amount of ISD shall be **NIL** of accepted value of tender in the form of DD/Fixed Deposit Receipt (FDR) drawn on any scheduled Bank and shall be deposited within 30 days from the date of acceptance of tender.

1.3 Retention Money:

Besides the SD as deposited by the contractor in the above said manner, the Retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. ISD plus EMD plus Retention Money shall both together not exceed 5% of the contract value. The 50% of the total security deposit shall be refunded to the contractor without any interest on issue of

Virtual Completion certificate by the Architect/consultant. The balance 50% of the total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

2.0 **Language:**

The language in which the contract documents shall be drawn shall be in English.

3.0 **Errors, omissions and discrepancies:**

In case of errors, omissions and/ or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

i) Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.

ii) Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the former shall be taken as correct.

iii) Between written description of the item in the specifications and descriptions in bills of quantities of the same item, the former shall be adopted:

a) In case of difference between rates written in figures and words, the rate in words shall prevail.

b) Between the duplicate / subsequent copies of the tender, the original tender shall be taken as correct.

4.0 **Scope of Work:**

The contractor shall carryout complete and maintain the said work in every respect strictly accordance with this contract and with the directions of and to the satisfaction Bank to be communicated through the architect/consultant. The architect/consultant at the directions of the SBI from time to time issue further drawings and / or write instructions, details directions and explanations which are here after collectively references to as Architect's / consultant's instructions in regard to the variation or modification of the design, quality or quantity of any work or the addition or omission or substitution work. Any discrepancy in the drawings or between BOQ and / or drawings and/or specifications. The removal from the site of any material brought thereon by the Contractor and any substitution of any other materials therefore the removal and/or re- execution of any work executed by him. The dismissal from the work of any person engaged the re upon.

5.0 i) **Letter of Acceptance:**

Within the validity period of the tender the SBI shall issue a letter of acceptance directly or through the architect by registered post or otherwise depositing at the of the contractor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a bind contract between the SBI and the contractor.

ii) **Contract Agreement:**

On receipt of intimation of the acceptance of tender from the SBI /Architect the successful tenderer shall be bound to implement the contract and within fifteen days there of shall sign an agreement in a non-judicial stamp paper of appropriate value.

6.0 **Ownership of drawings**:
All drawings, specifications and copies thereof furnished by the SBI through its Architect / consultants are the properties of the SBI They are not to be used on other work.

7.0 **Detailed drawings and instructions:**
The SBI through its architects / consultants shall furnish with reasonable proper additional instructions by means of drawings or otherwise necessary for the execution of the work. All such drawings and instructions shall be consistent with contract documents, true developments thereof and reasonably inferable there.

The work shall be executed in conformity there with and the contractor prepare a detailed program schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI through the architect/consultant

7(a) Copies of agreement:
Two copies of agreement duly signed by both the parties with the drawings shall be handed over to the contractors.

8.0 Liquidated damages:
If the contractor fails to maintain the required progress in terms of clause 6.0 of GOC or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion, without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of 0.50% of the contract value which subject to a maximum of 5% of the contract value.

9.0 Materials, Appliances and Employees:
Unless or otherwise specified the contractor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless or otherwise specified all materials shall be new and both workmanship and materials shall be best quality. The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the SBI /Architect/ consultant he shall be removed from the site immediately.

10.0 Permits, Laws and Regulations:
Permits and licenses required for the execution of the work shall be obtained by the contractor at his own expenses. The contractor shall give notices and comply with the regulations, laws, and

ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI in writing under intimation of the Architect/ Consultant. If the contractor performs any act, which is against the law, rules and regulations he shall meet all the costs arising the reform and shall indemnify the SBI any legal actions arising there from.

11.0 Setting out Work:

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the architect / consultant before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact that the layout had been approved by, the architect / consultant the contractor shall be responsible for the same ad shall his own expenses rectify such error, if so, required to satisfaction of the SBI

12.0 Protection of works and property:

The contractor shall continuously maintain adequate protection. of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss, except due to causes beyond his control and due to his fault or negligence.

He shall take adequate care and steps for protection of the adjacent properties. The contractor shall take all precautions for safety and protections of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies' safety laws and building codes to prevent accidents, or injuries to persons or property on about or adjacent to his place of work. The contractor shall take insurance covers as per clause at his own cost. The policy may be taken in joint names of the contractor and the SBI and the original policy may be lodged with the SBI

13.0 Inspection of work:

The SBI / Architect / Consultant or their representatives shall at all reasonable times have free access to the work site and / or to the workshop, factories, or other places where materials are lying or from where they are obtained and the contractor shall give every facility to the SBI/Architect/consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBI/ Architect /Consultant except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its construction stage or its completion can also be inspected by the Chief Technical Examiner's Organization a wing of Central Vigilance commission.

14.0 Assignment and subletting:

The whole of work included in the contract shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share there of or interest therein without the written consent of the SBI through the Architect and no undertaking shall relieve the contractor from the responsibility of the contractor from active & superintendence of the work during its progress.

15.0 Quality of materials, workmanship &Test:

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Architect/consultant instructions and shall be subject from time to time to such tests as the architect/consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor shall provide such assistance, instruments, machinery, labor, and materials as are normally required for examining measuring sampling and testing any material or part of work before in corporation in the work for testing as may be selected and required by the architect/consultant.

ii) Samples:

All samples of adequate numbers, size, shades & pattern as per specifications shall be supplied by the contractor without any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature / test certificate of the same shall be provided to the satisfaction of the Architect/consultant before submitting the sample/literature the contractor shall satisfy himself that the material / equipment for which he is submitting the sample / literature meet with the requirement of tender specification. Only when the samples are approved in writing by the architect/consultant the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall by the signed by the Architect / Consultant for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. The Architect/Consultant shall take reasonable time to approve the sample. Any delay that might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the contractor.

iii) Cost of tests:

The cost of making any test shall be borne by the contractor if such test is intended by or provided for in the specification or BOQ.

iv) Costs of tests not provided for:

If any test is ordered by the Architect/ Consultant which is either

a) If so intended by or provided for or (in the cases above mentioned) is not so particularized, or though so intended or provided for but ordered by the Architect / Consultant to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested or any Government / approved laboratory, then the cost of such test shall be borne by the contractor.

16.0 Obtaining information related to execution of work:

No claim by the contractor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment

of contract.

17.0 Contractor's superintendence:

The contractor shall give necessary personal superintendence during the execution the works and as long, thereafter, as the Architect/Consultant may consider necessary until the expiry of the defects liability period, stated hereto.

18.0 Quantities:

The bill of quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements and quantities. The rate quoted shall remain valid for variation of quantity against individual item to any extent. The entire amount paid under Clause 19, 20 hereof as well as amounts of prime cost and provision sums, if any, shall be excluded.

19.0 Works to be measured:

The Architect/Consultant may from time to time intimate to the contractor that he requires the work to be measured and the contractor shall forthwith attend or send a quantity representative to assist the Architect in taking such measurements and calculation and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detail in the specifications. The representative of the Architect / Consultant shall take measurements with the contractor's representative and the measurements shall be entered in the measurement book. The contractor or his authorized representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance. All the corrections shall be duly attested by both representatives. No over writings shall be made in the M book should the contractor not attend or neglect or omit to depute his representative to take measurements the measurements recorded by the representative of the Architect/consultant shall be final. All authorized extra work, omissions and all variations made shall be included such measurement.

20.0 Variations:

No alteration, omission or variation ordered in writing by the Architect/consultant vitiates the contract. In case the SBI/ Architect / Consultant thinks proper at any during the progress of works to make any alteration in, or additions to or omission from the works or any. Alteration in the kind or quality of the materials to be used therein, the Architect / Consultant shall give notice thereof in writing to the contractor shall confirm in writing within seven days of giving such oral instructions the contract shall alter to, add to, or omit from as the case may be in accordance with such but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulations, specifications or contract drawings without previous consent in writing of the Architect/ Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Architect / Consultant and the same shall be added to or deducted from the contract value, as the case maybe.

21.0 Valuation of Variations:

No claim for an extra shall be allowed unless it shall have been executed under the authority of the Architect / Consultant with the concurrence of the SBI as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

(i) The net rates or prices in the contract shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work price herein.
(ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.

The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of Works are carried out, otherwise the prices for the same shall be valued under sub- Clause 'c' hereunder.

Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the contractor shall within 7 days of the receipt of the letter of acceptance inform the Architect/ consultant of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Architect/consultant shall fix such rate or prices as in the circumstances in his opinion are reasonable and proper, based on the market rate.
Where extra work cannot be properly measured or valued the contractor shall be allowed day work prices at the net rates stated in the tender, of the BOQ or, if not, so stated then in accordance with the local day work rates and wages for the district; provided that in either case, vouchers specifying the daily time (and if required by the Architect/Consultant) the workman's name and materials employed be delivered for verifications to the Architect /consultant at or before the end of the week following that in which the work has been executed.

It is further clarified that for all such authorized extra items where rates cannot be derived from the tender, the Contractor shall submit rates duly supported by rate analysis worked on the 'market rate basis for material, labour hire / running charges of equipment and wastages etc. plus 15% towards establishment charges, contractor's overheads and profit. Such items shall, not be eligible for escalation.

22.0 Final measurement:
The measurement and valuation in respect of the contract shall be completed within two months of the virtual completion of the work.

23.0 Virtual Completion Certificate (VCC):
On successful completion of entire works covered by the contract to the full satisfaction of the SBI, the contractor shall ensure that the following works have been completed the satisfaction of the SBI:

Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour equipment and machinery.

Demolish, dismantle and remove the contractor's site office, temporary works, structure including labour sheds/camps and constructions and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the SBI not incorporated in the permanent works.

Remove all rubbish, debris etc. from the site and the land allotted to the contractor by the SBI and shall clear, level and dress, compact the site as required by the SBI

Shall put the SBI in undisputed custody and possession of the site and all land allot by the SBI

Shall hand over the work in a peaceful manner to the SBI

All defects / imperfections have been attended and rectified as pointed out by the Architects to the full satisfaction of SBI

Upon the satisfactory fulfillment by the contractor as stated above, the contractor is entitled to apply to the Architect / consultant is satisfied of the completion of work. Relative to which the completion certificate has been sought, the Architect/ consultant shall within fourteen (14) days of the receipt of the application for completion certificate, issue a VCC in respect of the work for which the VCC has applied.
This issuance of a VCC shall not be without prejudice to the SBI rights and contractor liabilities under the contract including the contractor's liability for defects liability nor shall the issuance of VCC in respect of the works or work at any site be construction as a waiver of any right or claim of the SBI against the contractor in respect of or work at the site and in respect of which the VCC has been issued.

24.0 Work by other agencies:

The SBI / Architect / consultant reserves the rights to use premises and any portion the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

25.0 Insurance of works:

Without limiting his obligations and responsibilities under the contract the contractor shall insure in the joint names of the SBI And the contractor against all loss of damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and in such a manner that the SBI and contractor are covered for the period stipulated I clause of GCC and are also covered during the period of maintenance for loss or damage arising from a cause,

occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor in the course of any operations carried out by him for the purpose of complying with his obligations under clause.

The Works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.

The constructional plant and other things brought on to the site by the contractor to the replacement value of such constructional plant and other things.

Such insurance shall be effected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Architect / consultant the policy if insurance and the receipts for payment of the current premiums.

26.0 Damage to persons and property:

The contractor shall, except if and so far as the contract provides otherwise indemnify the SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to:

a) The permanent use or occupation of land by or any part thereof.

b) The right of SBI to execute the works or any part thereof on, over, under, in or through any lands.

c) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract.

d) Injuries or damage to persons or property resulting from any act or neglect of the SBI their agents, employees or other contractors not being employed by the contractor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the contractor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

27.0 Contractor to indemnify SBI:

The contractor shall indemnify the SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision sub-clause 26.0 of this clause.

28.0 Contractor's superintendence:

The contractor shall fully indemnify and keep indemnified the SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect to any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Architect / consultant in this behalf.

29.0 Third Party Insurance:

Before commencing the execution of the work the contractor but without limiting his obligations and responsibilities under clause 25.0 of GCC shall insure against his liability for any material or physical damage, loss, or injury which may occur to any property including that of SBI, or to any person, including any employee of the SBI, by or arising out of the execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to clause 25.0 thereof.

30.0 Minimum amount of Third Party Insurance:

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

The minimum insurance cover for physical property, injury, and death is Rs.5 Lakh per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

31.0 Accident or Injury to workman:

The SBI Shall not be liable for or in respect to any damages or compensation payable at law in respect or inconsequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

32.0 Insurance against accidents etc. to workmen:

The contractor shall insure against such liability with an insurer approved by the SBI During the whole of the time that any persons are employed by him on the works and shall, when required, produce to the architect / consultant such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligation to insured as aforesaid under this sub-clause shall be

satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that SBI is indemnified under the policy but the contractor shall require such sub-contractor to produce to the Architect /consultant when such policy of insurance and the receipt for the payment of the current premium.

33.0 Remedy on contractor's failure to insure:

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

Without prejudice to the others rights of the SBI against contractors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the contractor the amount of any damages costs, charges, and other expenses paid by the SBI And which are payable by the contractors under this clause. The contractor shall upon settlement by the Insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies received from the Insurer in respect of such damage shall be paid to the contractor and the Contractor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

34.0 Commencement of Works:

The date of commencement of the work will be reckoned from the date of award of letter by the SBI

35.0 Time for completion:

Time is essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period of 30 **Days** from the date of commencement. If required in the contract or as directed by the Architect / consultant. The contractor shall complete certain portions of work before completion of the entire work. However, the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

36.0 Extension of time:

If, in the opinion of the Architect/consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the contractor shall apply to the SBI Through the Architect' Consultant in writing at least 30 Days before the expiry of the scheduled time and while applying for extension of time he shall furnish the reason in detail and his justification if an', for the delays. The architect/consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of

time. While granting extension of time the contractor shall be informed the period extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the provision of liquidated damages as stated under clause 10.0 shall become applicable. Further the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

37.0 Rate of progress:

Whole of the materials, plant and labour to be provided by the contractor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the Architect/consultant should the rate of progress of the work or any part thereof be at any time be in the opinion the. Architect / consultant too Slow to ensure the completion of the whole of the work the prescribed time or extended time for completion the Architect/consultant shall the re upon take such steps as considered necessary by the Architect / consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Architect / consultant neither shall relieve. The contractor from fulfilling obligations under the contract nor he will be entitled to raise any claims arising out of such directions.

38.0 Work during nights and holidays:

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the Architect/consultant, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the Architect / consultant. However the provisions of the clause shall not be applicable in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required / continued with the prior approval of the Architect / consultant at no extra cost to the SBI.

All work at night after obtaining approval from competent authorities shall be carried out without unreasonable noise and disturbance.

39.0 No compensation or restrictions of work:

If at any time after acceptance of the tender SBI shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the work to be carried out. The Architect / consultant shall give notice in writing that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise what so ever on account of any profit or advantage which he might have derived from the execution of the Work fully but which he did not derive in consequence of the fore closure of the whole or part of the work.

Provided that the contractor shall be paid the charges on the cartage only of materials actually and bonafide brought to the site of the work by the contractor and rendered surplus as a result

of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the Architect/Consultant shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less.

In case of such stores having been issued from SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of Architect / consultant shall be final.

40.0 Suspension of work:

The contractor shall, on receipt of the order in writing of the Architect / consultant (whose decision shall be final and binding on the contractor) suspend the progress of works or any part the offer such time and in such manner as Architect/consultant may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons:

a) On account any default on the part of the contractor, or
b) For proper execution of the works or part thereof for reasons other than the default the contractor, or
c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works the extent necessary and carry out the instructions given in that behalf by the Architect / consultant.
i)If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

The contractor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

41.0 Action when the whole security deposit is forfeited:

In any case in which under any clause or clauses of this contract, the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the Architect / consultant shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBI:
To rescind the contract (of which rescission notice in writing to the contractor by - Architect / consultant shall be conclusive evidence) and in which case the security, deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI.

To employ labour paid by the SBI and to supply materials to carry out the work, or part of the work, debiting the contractor with the cost of the labour and materials cost of such labour and materials as worked out by the Architect / consultant shall final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract certificate of architect /consultant as to the value of work done

shall be final conclusive against the contractor.

To measure up the work of the contractor, and to take such part thereof as shall unexecuted, out of his hands, and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (The amount of which excess the certificates in writing of the Architects / consultant shall final and conclusive) shall be borne by original contractor and may be deducted any money due to him by SBI under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or sufficient part thereof.

In the event of any of above courses being adopted by the SBI the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material or entered into any engagements or make any advances on account of, or with a view to the execution of the work or the performance of the contract and incase the contract shall be rescind under the provision aforesaid, the contractor shall not be entitled to recover or to be paid any sum or any work thereto for actually performed under this contract, unless, and until the Architect / consultant will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only been titled to be paid the value so certified.

42.0 Owner's right to terminate the contract:

If the contractor being an individual or a firm commit any 'Act of insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Govt. and of the Official Assignee of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the Architect / Consultant that he is able to carry out and fulfill the contract, and to dye security therefore if so required by the Architect /Consultant.

Or if the contractor (whether an individual firm or incorporated Company) shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor.

Or shall assign or sublet this contract without the consent in writing of the SBI through the Architect/Consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor there under:

has abandoned the contract; or

has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for 14 days after receiving from the SBI through the Architect / consultant written notice to proceed, or

has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or has failed to remove

the materials from the site or to pull down and replace work within seven days after written notice from the SBI through the Architect / Consultant that the said materials were condemned and rejected by the Architect/ consultant under these conditions; or has neglected or failed persistently to observe and perform all or any of the acts matters or things by this contract to be observed and performed by the contactor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to the detriment of good workmanship or in defiance of the SBI or Architect's / consultant's instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI and or the Architect / consultant, may not withstanding any previous waiver, after giving seven days' notice in writing to the contractor, determine the contract, but without thereby affecting the powers of the SBI or the Architect/consultant or the obligation and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been determined and as if the works subsequently had been executed by or on behalf of the contractor. And, further the SBI through the Architect / consultant their agents or employees may enter upon and take possession of the work and all plants, took scaffoldings, materials, sheds, machineries lying upon the premises or on the adjoining lands or roads use the same by means of their own employees or workmen in carrying on and completing the work or by engaging any other contractors or persons to the work and the contractor shall not in any was interrupt or do any act, matter or thing to prevent or hinder such other contractor or other persons employed for complement and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient the SBI Or architect/consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receive thereof by him the SBI sell the same by publication, and after due publication, and shall, adjust the amount realized by such auction. The contractor shall have no right to question any of the act of the SBI incidental to the sale of the materials etc.

43.0 Certificate of payment:

The contractor shall be entitled under the certificates to be issued by the Architect / consultant to the contractor within 10 working days from the date of certificate to payment from SBI From time to time SBI shall recover the statutory recovering other dues including the retention amount from the certificate of payment. Provided always that the issue of any certificate by the Architect / consultant during progress of works or completion shall not have effect as certificate of satisfaction relieve the contractor from his liability under clause.

The Architect / consultant shall have power to withhold the certificate if the work or in part thereof is not carried out to their satisfaction. The Architect/consultant may by any certificate make any corrections required previous certificate.

The SBI shall modify the certificate of payment as issued by the architect/ consultant from time to time while making the payment

The contractor shall submit interim bills only after taking actual measurements and properly recorded in the Measurement books.

The Contractor shall not submit interim bills when the approximate value of work done by him is

less than **Rs. NIL**

The final bill may be submitted by contractor within a period of one month from the date of virtual completion and Architect / consultant shall issue the certificate of payment within a period of two months. The SBI Shall pay the amount within a period of three months from the date of issue of certificate provided there is no dispute in respect of rates and quantities.

The contractor shall submit the interim bills in the prescribed format with all details.

44.0

A. Settlement of Disputes and Arbitration:

Except where otherwise provided in the contract all questions and disputes 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 orders 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 thereof shall be dealt with as mentioned hereinafter:

If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contractor raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to The Dy. General Manager (B&O), SBI , Administrative Office, VADODARA and endorse a copy of the same to the Architect, within 30 Days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the SBI 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 CMGB SBI, Administrative Office, VADODARA in the manner and within the time as aforesaid. The Contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the CMGB SBI, Administrative Office, VADODARA in writing in the manner and within the time aforesaid.

B. Settlement of Disputes and Arbitration:

The Dy. General Manager (B&O), Admin. Office, VADODARA SBI, Administrative Office, VADODARA shall give his decision in writing on the claims notified by the receipt of the contractor may within 20 Days of the receipt of the decision of the Submit his claims to the conciliating authority namely the CDO., SBI, LHO, Ahmedabad for conciliation along with all details and copies of correspondence exchanged between him and the SBI

If the conciliation proceedings are terminated without settlement of the disputes, the contractor

shall, within a period of **20 Days** of termination thereof shall give a notice to the concerned CDO. of the SBI 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.

Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the contractor as aforesaid and all claims of the SBI shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the CDO. and who will be of Deputy General Manager rank. It will also be no objection to any such appointment that the Arbitrator so appointed is a SBI, Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as SBI, Officer. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said CDO. of the SBI Such person shall be entitled to proceed with the reference from the stage at which it was let 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 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 or any accordance modification or reenactment thereof 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 SBI 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 arbitrators 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 din what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

45.0 Water supply:

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following condition.

i) That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Architect /consultant's.

ii) The contractor shall make alternative arrangements for the supply of water if the

arrangement made by the contractor for procurement of water in the opinion of the Architect / consultant is unsatisfactory.

iii) In case contractor is permitted to use SBI source of water i.e. Municipal connection, Bore well (existing or new) etc., the SBI will recover as per clause 51.0 of this document form the final bill of contractor.

The contractor shall construct temporary well / tube well in SBI land for taking water for construction purposes only after obtaining permission in writing from the SBI The contractor has to make his own arrangements for drawing and distributing the water at his own cost. He has to make necessary arrangements. To avoid any accidents or damages caused due to construction and subsequent maintenance of the wells. He has to obtain necessary approvals from local authorities, if required, at his own cost. He shall restore the ground to its original condition after wells are dismantled on completion of work or hand over the well to the SBI without any compensation as directed by the architect /consultant.

46.0 Power supply:

The contractor shall make his own arrangements for power and supply / distribution system for driving plant or machinery for the work and for lighting purpose at his own cost, the cost of running and maintenance of the plants are to be included in his tender prices, He shall pay all fees and charges required, by the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

In case contractor is permitted to use Bank's source of power supply provided at one point, the SBI will recover as per clause 51.0 of this document from the final bill of contractor.

47.0 Treasure trove etc.

Any treasure trove, coin or object antique which may be found on the site shall be the property of SBI and shall be handed over to the bank immediately.

48.0 Method of measurement:

Unless otherwise mentioned in the schedule of quantities or in mode of measurement, the measurement will be on the net quantities or work produced in accordance with up to date rules laid down by the Bureau of Indian Standards. In the event any dispute/ disagreement the decision of the Architect / consultant shall be final and binding on the corrector.

49.0 Maintenance of registers:

The contractor shall maintain the following registers as per the enclosed perform at site of work and should produce the same for inspection of SBI /Architect / consultant whenever desired by

them. The contractor shall also maintain the records / registers as required by the local authorities / Govt. from time to time.

i) Register for secured advance
ii) Register for hindrance to work
iii) Register for running account bill
iv) Register for labour

50.0 Force Majeure:

Neither contractor nor SBI shall be considered in default in performance of the obligations if such performance is prevented or delayed by events such as but not war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of or for any other cause beyond the reasonable control of the party affected or prevents or delayed. However, a notice is required to be given within 30 Days from the happening of the event with complete details, to the other party to the contract, if it is not possible to serve a notice, within the shortest possible period without delay.

As soon as the cause of force majeure has been removed the party whose ability perform its obligations has been affected, shall notify the other of such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.

From the date of occurrence of a case off or force majeure obligations of the party affected.

51.0 Water power and other facilities:

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

The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges

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 contactor and charges payable for permanent connections, if any, shall be initially paid by the contactor and the SBI will reimburse the amount on production of receipts.

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.

In case contractor is permitted to use Bank's source of water and power supply provided at one point, the SBI will recover @ 0.50% of final bill amount for water and electricity (combined) from the bill of contractor.

52.0 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.

53.0 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.

54.0 Firefighting arrangements:

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 shall be provided at suitable prominent and easily accessible place and shall be properly maintained.

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 makes 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.
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 tire fighting equipment.
f) General housekeeping.

55.0 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 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.

56.0 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/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.

57.0 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 he held if required by the architect/ consultant.-

58.0 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.

59.0 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.

60.0 Displaying the name of the work:

The contractor shall put up a name board of suitable size as directed by the architect/ consultant indicating there in 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.

61.0 As built drawings:

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.

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.

62.0 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 treatment, aluminum 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/mockup.

63.0 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.

64.0 Excise duty, taxes, levies etc.;

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees, cess or charges in respect of the works including but not limited to sales tax, tax on works contract excise duty, and Octroi, payable in respect of materials, equipment plant and other things required for the contact. All of the aforesaid taxes, duties, levies, fees and charges 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, 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, 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. However, GST will be paid extra.

65.0 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.

66.0 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 each Running Bill for the project clearing showing major progress of work measured and claimed therein failing which the Architect/ SBI may consider returning the Bill to the contractor and no claim for delay on this account will be entertained.

67.0 Safety Codes:

1. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.

2. An injured person shall be taken to a public hospital without loss of time, in cases when the injury necessitates hospitalization.

3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.

4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent running's shall not be more than 30 cm. When a ladder is used an extra labour shall be engaged for holding ladder.

5. The excavated material shall not be placed within 1.5 meters of the edge of the trench half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.

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

7. No floor, roof or other part of the structure shall be so overloaded with debris or material as to render it unsafe.

8. Workers employed on mixing and handling material such as asphalt, cement, mortar, concrete

and lime shall be provided with protective footwear and rubber hand gloves.

9 Those engaged in welding works shall be provided with welders' protective eye shield and gloves.

10. (i) No paint containing lead or lead products shall be used except in the form of paste readymade paint.
(ii)Suitable face masks should be supplied for use by the workers when the paint applied in the form of spray or surface having lead paint dry rubbed and scrapped.

11. Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during cessation of work.

12 Hoisting machines and tackle used in the works including their attachments anchor and supports shall be in perfect condition.

13. The ropes used in hoisting or lowering material or as a means of suspension shall be durable quality and adequate strength and free form defects.

APPENDIX HEREIN BEFORE REFERRED TO

1) Name of the organization Offering Contract: **Asst. General Manager, SMECCC**
State Bank Of India,
6th Floor, Commerce Centre,
opp. BBC Tower SMECC, Sarod,
SMECC, Vadodara-390015

2) Consultants : Ar. Nitin Bhardwaj, VADODARA

3) Site Address : **SBI SMECC BRANCH, AT NEW PREMISES KIRTIMANDIR, FF, VADODARA-390001, GUJARAT**

4) Scope of Work : Proposed Electrical works of **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA**

5)Name of the Contractor : ----------

---

6)Address of the Contractor : ----------

---

7) Period of Completion : **30 days** from the date of Issue of work order.

8) Earnest Money Deposit : **Rs. 13,100/-**

by means of Demand Draft/Pay Order (Valid for a period of 90 Days from the last date of submission of the tender) from any scheduled Nationalized Bank drawn **in favor of State Bank of India. and payable at VADODARA.** (Contractors registered with 'MSME UDYAM' need not submit EMD. Instead of EMD, they should submit registration certificate of 'MSME UDYAM')

9) Retention Money : As per clause no. 1.4 of general Conditions

10) Defects Liability Period : Twelve Months from the date of Virtual Completion.

11) Insurance to be undertaken by the : 125% of Contract Value Contractor at his cost (Contractor's all risk policy)

12) Liquidated damages : 0.5% of the Contract amount shown in the tender per week subject to max. 5% of the contract value or actual final bill value.

13) Value of Interim Bill(Min.) : **Only full and final payment shall be made after satisfactory completion of work**

14) Date of Commencement :From the date of work order issued to the Contractor/ or the day on which the Contractor is instructed to take possession of the site whichever is earlier.

15) Period of Final Measurement :2 Months from the date of Virtual Completion.

16) Initial Security Deposit : **NIL** of the Accepted Value of the Tender.

17) Total Security Deposit : 5% of the final bill amount including ISD.

18) Refund of initial Security Deposit comprising of EMD and ISD. : 50% of the Security Deposit shall be refunded to the Contractor on completion of the work and balance refunded only after the Defect Liability Period is over.

19) Period for Honoring Certificate : One Month for R.A.Bills

20) The final bill will be submitted by the Contractor within one month of the date fixed for completion work and the Bill shall be certified within 3 months from the date of receipt of final bill provided the bills are submitted with all pre-requisite documents/test reports etc. prescribed in the tender.

_____

Signature of Tenderer.

Date:

LETTER OF DECLARATION

To,
Asst. General Manager, SMECCC
State Bank Of India,
6th Floor, Commerce Centre,
opp. BBC Tower SMECC, Sarod,
SMECC, Vadodara-390015

Dear Sir,

PROPOSED ELECTRICAL WORKS OF SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA

Having examined the terms & conditions, drawings, specifications, design relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto and affecting the quotation, I/We hereby offer to execute the works specified in the said memorandum within the time specified in the said memorandum on the item rate basis mentioned in the attached schedule and in accordance in all respect with the specifications, design, drawings and instructions in writing referred to in conditions of Tender, the articles of agreement, conditions of contract and with such conditions so far as they may be applicable.

MEMORANDUM

(a)	Description of work	Proposed Electrical works of **SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA**
(b)	Earnest Money	**Rs. 13,100/-** by means of Demand Draft / Pay Order from any scheduled Nationalized Bank drawn in favor of SBI and payable at VADODARA. (Contractors registered with 'MSME UDYAM' need not submit EMD. Instead of EMD, they should submit registration certificate of 'MSME UDYAM')
(c)	Time allowed for completion of work from the date of issue of work order.	**30 days** from the date of commencement as per tender.

Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to SBI, the amount mentioned in the said conditions.

I/we have deposited Demand Draft / Banker's Chaque for a sum of **Rs. 13,100/-** as Earnest money deposit with the State Bank of India. Should I/we do fail to execute the contract when called upon to do so, I/we hereby agree that this sum shall be forfeited by me/us to SBI.

We understand that as per terms of this tender, the SBI may consider accepting our tender in

part or whole or may entrust the work of various buildings proposed (i.e. Institute Building, Staff Qtrs. And Director's Bungalow/Interior work) in phases. We, therefore, undertake that we shall not raise any claim/compensation in the eventuality of Bank deciding to drop any of the building/buildings from the scope of work of this tender at any stage during the contract period. Further, we also undertake to execute the work entrusted to us in phases on our approved rates and within the stipulated time limit without any extra claim for price escalation as provided for in Clause 9.0.1 "Instructions to Tenderers" of this tender.

We, hereby, also undertake that, we will not raise any claim for any escalation in the prices of any of the material during the currency of contract/execution/completion period.

Yours faithfully,

Signature of contractor With Seal

PROFORMA FOR RUNNING A/C BILL
TABLE - XIII

i. Name of Contractor/ Agency :

ii. Name of Work :

iii. Sr. 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		Up to Previous R.A. Bill		Up to Date (Gross)		Present Bill		Remarks
				Qty	Amount (Rs.)	Qty	Amount (Rs.)	Qty	Amount (Rs.)	Qty	Amount (Rs.)	
1	2	3	4	5	6	7	8	9	10	11	12	13

Note:

1.	If part rate is allowed for any items, it should be indicated with reasons for allowing such a rate.	_____ _____ Net Value since previous bill
2.	If ad-hoc payment is made, it should be mentioned specifically.	

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

TABLE - XV

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 up to date amount Rs.	Rs.....
	Less already recovered	Rs.....
	Balance to be recovered	Rs.....
iii)	Mobilization Advance, if any	Rs.....
(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.....
iv.	Any other Departmental service charges to be recovered if any, as per contract (water, power etc.) enclose statement.	Rs.....

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 Banks/ SBI Engineer

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

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

Date:----------

Signature of the Manager, SBI SMECC BRANCH (FF) AT KIRTIMANDIR, VADODARA

SPECIFICATION OF MATERIALS

All the material to be used shall be as per the specified make of the materials list and ISI approved Brand. Any deviation from this shall be got approved from Architect / Owner, the contractor shall submit samples of material to be used for verifications and Produce Bill in original.

1. SAMPLES : After receipt of the bids but prior to award of the contract, bidder shall, Upon notification from owner submit samples of materials he intends to Use.

The owner shall reserve the right to evaluate the sample with regard to the Specification before award of work. Samples as directed by the Architect / Owner for various items shall be prepared / brought for approval without Any cost.

Special Notes :

a) The successful tendered will have to supply the make of the materials as recommended and in consultation with the Client / Architect / Consultant without any extra cost. Client / Architect / Consultant reserve the rights to choose any make out of above list.

b) Tenderer should have to specify the list of makes considered in the tender while quoting the rates in the tender, in covering letter of separate letter enclosure. However, the final decision for accepting make specified by tenderer would be of client / Architect / Consultants.

c) As far as possible, the successful tenderer will have to place order directly to the manufacturer or it's authorized dealer.

d) The client / Architect/ Consultant have right to Check the Challans of supplier.

e) The RCCB, RCBO, MCB and MCB DBs must be of same make.

f) Make of components required to be used by contractor to complete the installation, if not mentioned anywhere, shall be required to GOT it Approved by Client / Architect/ Consultant before installation in writing manner.

g) Within a week of work order, the contractor shall submit the sample of each item / component of above-mentioned approved make for the approval of the Client / Architect / Consultant.

APPLICABLE STANDARDS

Sr. No.	IS No.		Description
1)	IS:2026-1977	:	Distributing transformers & fittings.
	IS 3639		Fittings and acc. For P.T.
2)	IS:7886		
	IS:660	:	Installation of Transformer.
3)	IS:2516-1972	:	Specification for AC circuit Breakers.
4)	IS:335	:	Insulating oil for Transformers & switch gear.
5)	IS:2705	:	CT for measuring and protection.
6)	IS:3155	:	Voltage (Potential) Transformers.
7)	IS:3236 Part II	:	Voltage Transformer.
8)	IS:373	:	Busbar arrangement and marking.
9)	IS:2099	:	Bushing
10)	IS:5621	:	Large Hollow Porcelains
11)	IS:2544	:	Insulators
12)	IS:2629 & 2633	:	Hot Dip Galvanizing
13)	IS:3842	:	Relays.
14)	IS:1248-1958	:	Meters (measuring).
15)	IS:3072-1975	:	Installation of Switch gears.
16)	IS:692	:	HV cable.
17)	IS:1255	:	Installation of HV cables and jointing.

18)	IS:3043	:	Code of practice for earthing.
19)	IS:4047-1977	:	HD Air breaker, Switch gears and fuses for Voltage not exceeding 1000 Volts.
20)	IS:8106-1966	:	Selection, installation and maintenance of fuses upto 650 Volts.
21)	IS:4237-1967	:	for voltage not exceeding 1000 Volts.
22)	IS:2607-1976	:	Air-break isolators for Voltage not exceeding 1000 Volts.
23)	IS:8623-1977	:	Factory built assemblies of switch gears and control gears for voltage upto and including 1000 Volts A.C. and 1200 Volts D.C.
24)	IS:375-1963	:	Marking and arrangement of switch gear bus bars main connectors and auxiliary wiring.
25)	IS:2147-1962	:	Cubical Boards.
26)	IS:8084-1972	:	Insulated conductor rating.
27)	IS:2675-1983	:	Enclosed distribution fuse boards and cutouts for Voltage not exceeding 1000 Volts.
28)	IS:8828-1978	:	Miniature Circuit Breaker.
29)	IS:9926-1981	:	Fuse wire used in re-wearable type electric fuses upto 650Volts.
30)	IS:1554 (Part I)	:	PVC insulated electric cables Heavy duty.
31)	IS:3961 (Part II)	:	Recommended current rating for cables.
32)	IS:2982	:	Copper conductor in insulated cables and cores.
33)	IS:8130	:	Conductor for insulated electric cables and flexible rods.
34)	IS:3975	:	Mild steel wires, strips and tapes for armouring cables.
35)	IS:5831	:	PVC insulation and sheath of electric cables.
36)	IS:1753	:	Aluminum conductor for insulated ables.
37)	IS:4288	:	PVC insulated and PVC sheathed solid aluminum conductor cables of voltage rating not exceeding 1100 volts.

38)	IS:961	:	Recommended current rating for Cable.
39)	S:732	:	Code of practice for electrical wiring installation system Voltage not exceeding 650 Volts.
40)	IS:1646	:	Code of practice for fire safety of Buildings (general) electrical installation.
41)	IS:1653	:	Rigid steel conduits for electrical wiring.
42)	IS:2667	:	Fittings for rigid steel conduits for electrical wiring.
43)	IS:3480	:	Flexible steel conduit for electrical wiring.
44)	IS:3837	:	Accessories for rigid steel conduits for electrical wiring.
45)	IS:694	:	PVC insulated cables (wires).
46)	IS:2509	:	Rigid non-metallic conduits for electrical wiring.
47)	IS:6946	:	Flexible (playable) nonmetallic conduits for electrical installation.
48)	IS:1293	:	Three pin plugs and sockets.
49)	IS:8180	:	Conductors for insulated electrical cables and flexible codes.
50)	IS:9537-1980	:	Specification for conduit for electrical installation.
51)	IS:3419	:	Accessories for non-metallic conduits for electrical wiring.
52)	IS:3854	:	Switches.
53)	IS:6538	:	Plugs.
54)	IS:2834-1954	:	Shunt Capacitors for power systems.
55)	IS:2208	:	HRC cartridge fuse and links up to 660 volts.
56)	IS:1913-1969	:	General and safety requirement for lighting fittings.
57)	IS:2944-1981	:	Code of practice for lighting public thorough fares.

58)	IS:3528	:	Waterproof electric lighting fittings.
59)	IS:3553-1966	:	Water tight electric lighting fitting.
60)	IS:1239-1958	:	Mild Steel tubular and other wrought steel pipe fitting.
63)	IS:2149-1970	:	Luminaries for street light.
64)	IS:9224	:	HRC fuses having rupturing capacity of 90 KA.
65)	IS:2312-1967	:	Exhaust Fan.
66)	IS:374-1979	:	Class I Ceiling Fan.

NOTE : All codes and standards means the latest where not specified otherwise the installation shall generally follow the Indian Standard codes of practice or relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

PLEASE FOLLOW:

a. Indian Electricity Act of 1910 and rules issued there under revised up to date.
b. Special Attention should be given to Rule No. 50.
c. Regulations for electrical equipment in building issued by The Bombay Regional Council of insurance Association of India

ELECTRICAL MATERIAL SPECIFICATION

DISTRIBUTION BOARDS

The scope of work shall cover supply, installation testing and commissioning of all distribution boards -

Standards :

AS PER SCHEDULE OF INDIAN STANDARDS, ATTACHED IN THE DOCUMENT.

Distribution Boards :

Distribution boards along with the controlling MCB's/Fuse or Isolator as shown shall be fixed in an M.S. Box with hinged door suitable for recessed mounting in wall. Distribution boards shall be made of 18 SWG steel sheet duly rust inhibited through a process of de-greasing, acid pickling, phosphate and powder coated to an approved color of adequate micron rating duly approved by architect/consultant.

Three phase boards shall have phase barriers and a wire channel on three sides. Neutral bars shall be solid tinned copper bars with tapped holes and chase headed screws. For 3 phase DB's, 3. independent neutral bars shall be provided. All DB's shall be internally pre-wired using copper insulated PVC wires brought to a terminal strip of appropriate rating for outgoing feeders.

Conduit knockouts shall be provided as required/shown on drawings and the entire board shall be rendered dust and vermin proof with necessary sealing gaskets. The top and bottom side of DB should be detachable.

MCB's shall have quick make and break non - welding self-wiping silver alloy contacts for 10 KA short circuit both on the manual and automatic operation. Each pole of the breaker shall be provided with inverse time thermal over load and instantaneous over current tripping elements, with trip - free mechanism. In case of multi-pole breakers, the tripping must be on all the poles and operating handle shall be common. Breakers must conform to BS 3871 with facility for locking in OFF position. Pressure clamp terminals for stranded/solid conductor insertion are acceptable up to 4 sq.mm. aluminum or 2.5 sq.mm. copper and for higher ratings, the terminals shall be suitably shrouded. Wherever MCB isolators are specified they are without the tripping elements.

Fuses shall be HRC link type re-wire able with necessary fuse carriers and with rating of not less than 25 MVA. Bottle type fuses are not acceptable. Fuse carrier terminals shall be suitably shrouded. Re-wireable fuse carriers shall be porcelain. HRC fuses for motor duty should be time lag type.

Distribution boards shall have HRC/re-wire able fuses as shown on the schedule and drawings. Board shall meet with the requirements of IS 2675 and marking arrangement of bus bars shall be in accordance with I.S. standards.

Bus bars shall be suitable for the incoming switch rating and sized for a temperature rise of 35° C over the ambient. Each board shall have two separate earthing terminals. Circuit diagram indicating the load distribution shall be pasted on the inside of the DB as instructed. One earthing terminal for single phase and two terminals for 3 phase DB's shall be provided with an earth strip connecting the studs and the outgoing ECU earth bar.

In the case of MCB distribution boards, the backup fuses wherever shown shall be not less than 63 A with a delayed characteristic and a minimum pre-arcing time of 0.5 sec. At 9 KA/3 KA fault current.

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

Up to 15 A	2.5 sq.mm.	40 A	10 sq.mm.
25 A	4.0 sq.mm.	63 A	16 sq.mm.
32 A	6.0 sq.mm.		

RCCB / MCB :

The RCCB should suffices all the requirements of IS as per code IS – 12640 – 1988. The RCA should be current operated and not on line voltage.

The RCCB should ensure mainly the following functions.

Measurement of the fault current value.

Comparison of the fault current with a reference value.

The RCCB should have a torroidal transformer which has the main conductors of primary (P – N) which check the sum of the current close to zero.

All metal parts should be inherently resistant to corrosion and treated to make them corrosion resistant.

It should be truly current operated.
It should operate on core balance torroidal transformer.
It's accuracy should be ± 5 %.
It should operate even in case of neutral failure.
It should trip at a present leakage current within 30 M.S.
It's enclosure should be as per IP 30.
It's mechanical operation life should be more than 20,000 operations.

It should provide full protection as envisaged by IE rules – 61-A, 71 – ee, 73 – ee, 1985 and also rule 50 of IE rule1956.

It should conform to all national and international standards like IS 8828 : 1993, IS 12640 – 1988, BS 4293 – 1983, CEE 27 (International commission Rules for the approved of electrical equipment)

MEDIUM VOLTAGE CABLING

Scope :

The scope consists of Laying & testing L. T. Cable and its termination.

Standards :

AS PER SCHEDULE OF INDIAN STANDARDS; ATTACHED IN THE DOCUMENT

Cables :

All cables shall be 1100 Volt grade XLPE insulated, sheathed with or without steel armoring as specified and with an outer PVC protective sheath. Cables shall have high conductivity stranded aluminum or copper conductors and cores color coded to the Indian Standards. All cables laid up to load should be without any joint.

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

Cable joints and termination:

Connectors :

Cable terminations shall be made with copper Heavy duty long nack copper crimping lugs only crimped type solder less lugs for all aluminum cables and stud type terminals. For copper cables copper crimped solder less lugs shall be used. Crimping shall be done with the help of hydraulically operated crimping tool. All cable lugs should be long neck type only.

Cable Glands :

Cable glands shall be of heavy duty brass single compression type as specified. Generally single compression type cable glands shall be used for indoor protected locations and double compression type shall be used for outdoor locations. Glands for classified hazardous areas shall be CMRS approved.

Ferrules :

Ferrules shall be of self sticking type and shall be employed to designate the various cores of the control cable by the terminal numbers to which the cores are connected, for ease in identification and maintenance.

Cable joints :

Kit type joint shall be done and filled with insulating compound. The joint should be for 1.1 KV grade insulation.

CONDUIT WIRING

1.0 Scope :

1.1 The scope of work shall cover supply, installation testing and commissioning of all.

2.0 Standards : **As per annexure - iv**

3.0 Rigid and Flexible conduits :

3.1 All PVC conduits shall be laid in open/concealed manner which are approved by F.I.A. & I.S.I. & of 25 mm. Diameter.

3.2 Flexible conduits shall be formed from a continuous length of spirally wound interlocked steel strip with a fused zinc coating on both sides. The conduits shall be terminated in brass adapters.

4.0 Accessories :

4.1 PVC conduit fittings such as bends, elbows, reducers, chase nipples, split couplings, plugs etc. shall be specifically designed and manufactured for their particular application. All conduit fittings shall conform to IS:2667-1974 and IS:3887-1966. All fitting associated with galvanized conduit shall also be galvanized.

5.0 Wires :

5.1 All wires shall be single core multi-strand/ flexible copper or single strand Aluminum / Copper, PVC insulated as per IS:694 and shall be 660v/ 1100V grade.

5.2 All wires shall be color coded as follows :

Phase	Colour of wire
R	Red
Y	Yellow
B	Blue
N	Black
Earth	Green (insulated)
Control (If any)	Grey
All off wires	Same as Phase wire

5.3 **Color code should be strictly used for all wiring**.

ii) Installation, commissioning and testing.
iii) Cable marking.

For cable buried underground :

i) Cables and protective bricks & tiles.
ii) Installation, commissioning & testing.
iii) Cable markers.

6.0 Switches & Sockets:

6.1 Switches shall be module type/ flush piano type with silver-coated contacts. Sockets shall be 3 pin with switch and plate type cover. Combination of multiple switch units and sockets should be used to minimize the switch boxes.

6.2 For heavy duty, metal clad sockets with M.C.B./ Isolator mounted in a galvanized steel box shall be provided.

7.0 Installation:

7.1 Conduits shall be kept at a minimum distance of 100 mm. From the pipes of other non-electrical services. And maintain minimum 300 mm distance between telephone, TV & Computer piping.

7.2 Separate conduits/raceways shall be used for:
1. Normal lights and 5 A 3 pin sockets on lighting circuit.
2. Separate conduit shall be laid from D.B. to switch board or point.
3. Power outlets – 15 A 3 pin 20 A/30 A, 2 pin scraping earth metal clad sockets.
4. Emergency lighting.
5. Telephones.
6. Fire alarm system.
7. Public address system & Music system.
8. For all other voltages higher or lower than 230 V.
9. T.V. Antenna.
10. Water level guard.
11. Computer Wiring.

7.3 Call bell wiring layout of conduits shall be generally indicated on drawings and the layout shall be supplemented and complemented by contractor on site with approval of the Engineer.

7.4 Wiring for short extensions to outlets in hung ceiling or to vibrating equipments, motors etc., shall be installed in flexible conduits. Otherwise rigid conduits shall be used. No flexible extension shall exceed

1.25 m.

7.5 Conduits run on surfaces shall be supported on metal 12 mm. thick saddles which in turn are properly screwed to the wall or ceiling. Saddles shall be at intervals of not more than 500 mm. Fixing screws shall be with round or cheese head and of rust-proof materials. Exposed conduits shall be neatly run parallel or at right angles to the walls of the building. Unseemly conduit bends and offsets shall be avoided by using fabricated mild steel junction/pull through boxes for better appearances. No cross-over of conduits shall be allowed unless it is necessary and entire conduit installation shall be clean and neat in appearance.

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

7.8 Conduits buried in concrete structure shall be put in position and securely fastened to the reinforcement and got approved by the Engineer, before the concrete is poured. Proper care shall be taken to ensure that the conduits are neither dislocated nor choked at the time of pouring the concrete suitable fish wires shall be drawn in all conduits before they are embedded.

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

7.10 Conduits shall be free from sharp edges and burrs and the threading free from grease or oil. The entire system of conduits must be completely installed and rendered electrically continuous before the conductors are pulled in. conduits should terminate in junction boxes of not less than 32 mm. deep.

7.11.1 An insulated earth wire of copper rated capacity shall be run in each conduit for entire length.

8.0 Lighting & Power Wiring:

8.1 all final branch circuits for lighting and appliances shall be single conductor/ stranded/ flexi-cables run inside conduits. The conduit shall be properly connected or jointed into sockets, bens, and junction boxes.

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

8.3 Flexible cords for connection to appliances, fans and pendants shall be 650/1100V grade (three or four

cores i.e with insulated neutral wire of same size) with tinned stranded copper wires, insulated, twisted and sheathed with strengthening cord. Color of sheath shall be subject to the Engineer's approval.

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

8.5 Control switches shall be connected in the phase conductors only. Switches shall be fixed in 3 mm. thick painted or galvanized steel boxes with cover plates as specified. Cadmium plated brass screws shall be used.

8.6 Power wiring shall be distinctly separate from lighting wiring. Conduits not less than 25 mm. and wires not less than 2.5 sq. mm. copper shall be used.

8.7 Every conductor shall be provided with identification ferrules at both ends matching the drawings.

9.0 Testing :

9.1 The entire installation shall be tested for :

a) Insulation resistance.

b) Earth continuity.

c) Polarity of single pole switches.

A test certificate shall be submitted in the Performa shown under Appendix – I.

10.0 Mode of measurement:

10.1 The definition of point wiring shall be in accordance with sketch drawing and should wiring from D.B. onwards together with all junction boxes, connectors, earth wire, fixing accessories, connection to all light fittings switches etc. as specified and shown on drawings. The point rate shall include circuit wiring from distribution board to switch board and/or directly to the point. The circuit wire shall be in separate conduit. The contractor may draw maximum 2/3 circuits of the same phase in circuit mains conduit.

10.2 All switches sockets with boxes, earthing interconnection and plate type silver contact switch shall be inclusive in point wiring.

10.3 All empty conduit runs, including junction boxes fish wires etc. shall be paid on the basis of unit length.

Measurements shall be along the conduit and concurrent length of sub-circuit wiring.

10.4 Buzzer indicator of the ways specified shall consist of indicating lamps, reset button, electromagnet,

Perspex cover plate, chromium plated brass screws etc. shall be considered as on unit for measurement and payment.

10.5 Two way light points shall be classified according to and consist of 2 Nos. 2 way plate type switches, wiring from the 1 st 2 way switch to the 2nd 2 way switch to the first light controlled. Subsequent lights, if any, shall be measured as ordinary secondary point.

EARTHING
Scope :

The Scope of work shall cover supply of earthing stations, laying copper earth strips and connecting the power panels, DB's and switch boards.

Standards :

AS PER ANNEXURE – IV.

Plate Earthing Station :

The substation earthing shall be with copper plate earthing station unless otherwise specified.

The earthing station shall be as shown on the drawing. The earth electrodes shall be 450 x 450 x 3 mm / 600 x 600 x 6 mm. Copper plate – as specified in B.O.Q. The earth resistance shall be maintained with a suitable soil treatment as shown on drawings.

The resistance of each earth station should not exceed 1 ohms.

The earth lead shall be connected to the earth plate through copper/brass bolts as shown on the drawing.

Minimum distance between two earth pits shall be 2 Mts.

All earth pits shall be minimum 1 Mt. Away from building foundation.

Pipe Earthing Station :

The earth station shall be as shown on the drawing and shall be used for equipment earth grid. The earth electrode shall be 2.5 m. long 50 mm. Diameter galvanized steel pipe. The earth resistance shall be maintained with a suitable soil treatment as shown on drawings.

The resistance of each earth station should not exceed 5 ohms.
The earth lead shall be fixed to the pipe with a and safety set screws. The clamps shall be permanently accessible.

Earth leads and connections :

Earth lead shall be bare copper or aluminum or galvanized steel as specified with sizes shown on drawings. At road crossings necessary Hume pipes shall be laid. Earth lead run on surface of wall or ceiling shall be fixed on saddles or wall.

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

Equipment Earthling:

All apparatus and equipment transmitting or utilizing power shall be earthed in the following manner. Copper earth wires shall be used unless otherwise indicated in the schedule of work and drawings.

Power transmission apparatus :
Metallic conduit shall not be accepted as an earth continuity conductor. A separate insulated/bare earth continuity conductor of size 50% of the phase conductor subject to the minimum and maximum shall be provided.

Non-metallic conduit shall have an insulated earth continuity conductor of the same size as for metallic conduit. All metal junction and switch boxes shall have an inside earth stud to which the earth conductor shall be connected. The earth conductor shall be distinctly colored (green) for easy identification.

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

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

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

Each earthing station

Earthing system as a whole

Earth continuity conductors

Mode of measurements :
Providing earthing station complete with excavation, electrode, watering pipe, soil treatment, masonry chamber with cast iron cover etc. shall be treated as one unit of measurement.

The following items of work shall be measured and paid per unit length covering the cost of the earth wires/strips clamps, labor etc.

Main equipment earthing grid and connections to the earthing stations.

Connections to the switchboard, power panels, distribution boards etc.

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

Isolating switches and starters should form part of mounting frame, switch starter etc.

Light fittings – form part of installation of the light fitting.

Conduit wiring cabling – should form part of the wiring or cabling.

TELEPHONE DISTRIBUTION

This cover supply,installation, testing, commissioning of telephone system.

1) The scope of work shall cover supply, installation, commissioning and testing of :

Telephone cables

Telephone Tag Blocks

Telephone wiring in conduits

The telephone exchange and the handsets shall be supplied by the clients.

2) Conduits:

Conduits shall be as given below :

Indoor : medium gauge Rigid PVC conduit.
If in flooring provide heavy gauge.

The conduit shall generally be as specified under section `CONDUIT WIRING'.

3) Cables and Wires :

The type of cables and the services shall be as follows :

Indoor Multi pair, PVC insulated sheathed armored and sheathed.

Inside Twin core PVC insulated with conduit twisted cores.

All multi core cables and wires shall be of tinned copper conductor of not less than 0.5 mm dia and shall be color coded twisted pairs with rip cord.

The conductor resistance shall be less than 150 ohms per KM and the insulation resistance between the conductors not less than 50 mega ohms and the nominal capacitance of about 0.1 micro farad per kilometer.

Cables laid underground or locations subject to dampness and flooding shall be filled with Polyethylene compound and shall have sufficient protection against moisture and water ingress.

All armoring shall be of galvanized steel wires and protected against corrosion by an outer sheath of PVC in the case of indoor cables and polyethylene in the case of outdoor cables. Outer sheathing must be fire retarding and anti - termite.

All unarmored single core cables and inner sheath of armored cables shall be provided with rip cord.

All single pair cables for final extension to the telephone outlet box shall be unarmored tinned copper conductors of not less than 0.6 mm. Diameter and shall be drawn in conduits. All telephone outlets shall consist of 2 A 2 pair polythene connector in G.I box with 6 mm bus bar cover with bus bar edges and chromium plated brass hardware.

Tag blocks:

The telephone tag blocks shall be suitable for the multi core telephone cables and shall have two terminal blocks, cross connect type. All incoming and outgoing cables shall be terminated on separate terminal blocks and termination shall be silver soldered. The cross connecting jumpers shall be insulated wires of same diameter and screw connected.

The tag blocks shall be mounted inside fabricated sheet steel boxes with removable hinged covers and shall be fully accessible. The enclosure shall be painted with 2 coats of red oxide and stove bus bar.

Installation:

The installation of conduits shall generally be as specified under section `CONDUIT WIRING'.

Telephone / Data pipes shall be kept 100 from power conduit.

Separate J.B. shall be provided for telephone & Computer.

All cables shall be on cable racks and neatly stitched together.

The connection at the tag blocks shall be silver soldered so as to achieve minimum contact resistance.

The final branch connections with single pair cables in conduits and the maximum number of cables in each conduit shall be as follows :

Conduit diameter inch	mm.	Max. No. of cables
¾"	20	2 Nos. single pair
1"	25	6 Nos. single pair
1¼"	32	12 Nos. single pair
1½"	40	18 Nos. single pair

INSTALLATION TESTS CERTIFICATE

BY ELECTRICAL CONTRACTOR

This contractor is to certify that the work is carried Out work confirming to IE Rules and

Code of practice. He has to give the test report is under.

(i) Insulation Resistance test is R - N M. Ohms
Y - N M. Ohms
B - N N. Ohms

(ii) Load test: -

5A - 1000 W Power Point - 15 Minutes

15A - 3000 W Power Point - 15 Minutes

(iii) Earth resistance for each electrode - 1 Ohm
- 2 Ohm
- 3 Ohm
- 4 - N - E Volts

(iv) Certificate of makes of materials used in the work

(v) Circuit diagram

(vi) Certified that the electrification work has been carried out under the supervision of licensed Electrical supervision.

(vii) Certified that the earthing plate / pipe has been verified and Placed at Correct depth confirming to IE Rules.

Signature of Electrical Supervision Signature of Contractor

Name:

License No. :

IMPORTANTPOINTS TO BE NOTED

1) Rates for **LIGHT, FAN, EX. FAN, CALL BELL, RAW POWER ETC. POINTS** includes the cost of main wires and PVC pipes from **LDB-ROW POWER DB** to **DIFFERENT SWITCHBOARDS WITH REQUIRE CIRCUITS .**
2) Rates for **COMPUTER POWER POINTS** include the cost of wires and PVC pipes from **UPS DB** To **COMPUTER POWER POINTS**.
3) Rates for **COMPUTER I/O** include the cost of **DATA** cables and PVC pipes from **SERVER SWITCH** to **COMPUTER NODES**.
4) Rates for **TELEPOINTS** include the cost of TELEPHONE Wires and PVC pipes from **EPABX/CRONEBOX** to **TELE.POINTS**.
5) Rates for **A.C./ POWER POINTS** include the cost of wires and PVC pipes from **A.C. DB** to **DIFFERENT A.C.ANDPOWERPOINTSWITHREQUIRECIRCUITS**.
6) THECONTRACTORSHOULDSUBMITTHE BUILTUP**SLDOFPANEL,SLDOFDIFFERENTDBS TO DIFFERENT SWITCHBOARDS WITH NUMBERING, SLD OF DATARACK TODIFFERENT I/O POINTS WITH NUMBERING, TELE. KRONE BOX TO DIFFERENT TELE.POINTS WITH NUMBERING**, ETC. AFTEREXECUTION OF THE BRANCH. – 2 SETS OFCOPIES –1WITHLAMINATION.
7) **THECONTRACTORSHOULDUSEMAX. 3CIRCUITSINONECONDUITFORUPS&RAWPOWERPOINTS.**
8) **THECONTRACTORSHOULDUSEMAX. 3WIRESOFDATA&TELE. INONECONDUIT.**
9) **EVERYCONDUITFORUPS, RAWPOWER,DATA&TELE., POWERPOINTS,ACPOINTS ,LIGHTINGPOINTSSBSHOULDBESEPARATE.**
10) **FORDATA&TELE. POINTS, BIGJUNCTIONBOXMUSTBEREQUIRED.**
11) **FORUPS&RAW POWERPOINTS,BIG/ SMALLJUNCTIONBOXMUSTBE REQUIRED.**
12) **EMPTYCONDUITMUSTBELAIDFORSECURITYSYSTEM.**
13) **PVCCONDUITSMUSTBECLAMPEDWITHSADDLESINCEILINGONLY.**
14) **ELE.CONTRACTORMUSTSUBMITCERTIFIEDLOADLISTWITHELE.LICENSE NO./SUPERVISOR CERTIFICATE NO.**
15) **CONTRACTORSHOULDSUBMITTESTREPORT.**
16) **CONTRACTORSHOULDPRESENTEARTHINGPLATESBEFOREEX**

APPROVED MAKE LIST OF EQUIPMENT AND ACCESSORIES		
1	PVC rigid conduits &Accessories(FRLS)	1.5 mm thick ISI and FIA approved - Precision /Vraj / Nihir /BLP/PFI /Anchor/Polycabmake.(Onlywhitecolouredpipes tobeused.).
	MS Pipeconduit& Accessories(MMSISIMark)	BEC/Bharat/ERW/AKGMake(MMS)
2	L.T. Cables	Havells/ Diamond/ KEI/ Finolex./PolyCab
3	Wires(FRLS)	R.R.Kable/Havells/L &T/KEI/PolyCab
4	MainDistributionBoards	MDS Legrand (Lexic) /Hager / Crabtree XPRO /Schneider (Eazy9)L&TExora/ C&SWintrip
5	ELCB/RCCB/MiniatureCircuit Breaker	MDSLegrand(Lexic)/Hager /CrabtreeXPRO /Schneider(Eazy9)L&TExora/ C&SWintrip
6	SwitchGears	MDSLegrand(Lexic)/ Hager/CrabtreeXPRO/Schneider(Eazy9)L& TEXORA/C &SWintrip
7	ChangeOverSwitch	HPLSocomac/Havells/L&T./Hager
8	Domesticfittings	
	a)AllSwitchingModularAccessories.	Schneider Livia /L & T Oris/ Crabtree Verona / Salzer S90 (ElitePlate) /LegrandMyris.
	b)Holder/Ceillingroses	AnchoreorEquivalentApprovedmake.
	c)AdhesiveTape	Bhor(SteelGrip) orapproved .
9	10-30APolycarbonate Socket& Top	MDSLegrand (Lexic)/Hager/CrabtreeXPRO/Schneider(Eazy9). L&TEXORA/C&SWintrip
10	TelephoneWires/Cable	Finolex/R.R.Kable/Havells /L&T./Polycab
11	Telephonetagblock	Krone make.
12	CableLugs	Dowell /Lotus/ Jainson/3D.
13	Cable glandSingle/ DoubleCompression	HMI /Comet/3D.

14	Ammeter/Voltmeter	AE/HPL/MECO/Enerconmake.
15	Selectorswitches	L&Tsalzer /Kaycee make.
16	Indicatorlamps	LEDtypeTeknic/Precifine/ Binay.
17	Connectorstrips	Wago/Elmexmake.
18	LightingFixtures	Philips/Havells/GE/Crompton/Orient Make.
19	Exhaustfan(Lightduty)	Khaitan/ Crompton/ Havells./Luminious.
20	CeilingFan	Orient(PSPO)/Crompton(High Breeze)/Havells/ Luminious.
21	Wall mountedFan	Crompton/ Khaitan /Havells/Luminious.
22	Data Cable-I/OUnit	D-Link./DigiLink
	LIGHTINGFIXTURES-SEECATNO.&SPECIFIEDMAKEINTHEFINANCIALBID.OR APPROVEDEQUIVALENTASPERAPPROVEDMAKELISTDIRECTEDBYARCHITECT/BANK	

Note:

[a] Where other Material are proposed to be used these should be got Approved from the Architect before execution of particular item. Incase of Non- Availability of any material of specified make, The Alternative should be used only after it is Approved in writing by the Employer or the Architect. The Material shall be used in preferential Order only

[b] Before starting of work contractor must get all samples/make approved from Architect before using at site.

[c] Consultants reserve the right to add or delete name of any manufactures and when required.

[d] Consultants reserve rights to select any of the specified brands mentioned above.

વાયરિંગ કામ માટે ના મહત્વ નાં મુદ્દા

- યુપીએસ , રૉ પાવર માં સર્કિટ ૨.૫ sqmm કોર નો ફેઝ, ન્યુટરલ તથા ૧.૫ sqmm કોર નો અરથિંગ આપવો. (FR વાયર નહીં વાપરવો FRLS જ વાપરવો. કામ કરતી વખતે વાયર ખાસ જોઇ લેવો.)
- એક સર્કિટ માં માત્ર ૩ જ પોઈન્ટ કરવા. ૩ થી વધારે પોઈન્ટ ચલાવવા માં નહીં આવે.
- ફેઝ માટે લાલ કલર , ન્યુટરલ માટે કાળો કલર તેમજ અરથિંગ માટે લીલા કલર નો વાયર જ વાપરવો. ગમે તેમ કલર વાપરવાથી ફોલ્ટ શોધવામાં અકસ્માત નો ભય વધી જાય છે.
- એસી ની સર્કિટ માં પણ કલર નું ધ્યાન રાખવું. એસી ભલે ૧ટન હોય કે ૨ ટન સર્કિટ હમેશા ૪ sqmm કોર નો ફેઝ, ન્યુટરલ તથા ૨.૫ sqmm કોર નો અરથિંગ આપવો. (FR વાયર નહીં વાપરવો FRLS જ વાપરવો. કામ કરતી વખતે વાયર ખાસ જોઇ લેવો.). એસી પોઈન્ટ માં જોઇન્ટ મારવા નહીં આખા વાયર નો જ ઉપયોગ કરવો. એસી ના પોઈન્ટ માં એસી ના પોઈન્ટ થી એસી ઈનડોર યુનિટ સુધી પીવીસી પાઇપ કન્સિલ કરી ને આપવી જેથી કરી ને એસી નો વાયર બહાર દેખાય નહીં.
- સર્વર રૂમ ના બે એસી ના પોઈન્ટ ની સર્કિટ મેઇન પેનલ માથી લાવવી અને ટાઈમર ને મેઇન પેનલ પાસે જ રાખવું. સર્વર ના એસી માટે મેઇન પેનલ માં 2 નંગ DP MCB રાખવી તેમાથી ટાઈમર ને કનેક્શન આપવું અને પછી બન્ને સર્કિટ સર્વર રૂમ સુધી લઈ જવી અને ત્યાં DP ELCB લગાવવી. ટાઇમર નો ડબ્બો પાઉડર કોટેડ લગાવવો તેમજ ડબ્બા ની સાઇઝ 300 X 300 mm જેટલી રાખવી નાનો ડબ્બો નહીં ચાલે. ડબ્બા માં 2 નંગ ઈંડિકેશન લૅમ્પ લગાવવા AC-1 ઓન/ ઓફ તેમજ AC -2 ઓન/ઓફ માટે. તૈયાર CYCLIC ટાઈમર ના ડબ્બા લાવી નાખવા નહીં.
- લાઇટિંગ ની સર્કિટ માં પણ કલર નું ધ્યાન રાખવું. હમેશા ૨.૫ sqmm કોર નો ફેઝ, ન્યુટરલ તથા ૧.૫ sqmm કોર નો અથિંગ આપવો. (FR વાયર નહીં વાપરવો FRLS જ વાપરવો. કામ કરતી વખતે વાયર ખાસ જોઇ લેવો.) સ્વિચ બોર્ડ નું લૂપિંગ પણ 2.5 X 1.5 થી જ કરવું.
- ખુલા વાયર નાખવા ને બદલે પીવીસી પાઇપ માંજ નાખવા. ફ્લેક્સિબલ પાઇપ નો ઉપયોગ શક્ય એટલો ટાળો.
- દરેક ડીબી તેમજ પેનલ ને અંદર તથા બહાર થી અરથીંગ કનેક્શન લગ કરી ને જ આપવું.
- MCCB ને બહાર કવર પર અથિંગ કરવા. મેઇન પેનલ માં બહાર GI પટ્ટી થી કનેક્શન આપવું. અથિંગ કનેક્શન લગ કરી ને જ આપવું.
- અરથીંગ કામ ના ખાડા તેમજ પાઇપ ના ફોટા લેવા. અરથીંગ નો પાઇપ 10 ફૂટ જેટલો લાંબો હોવો જોઈએ તેમજ ખાડો પણ 10 ફૂટ જેટલો ઊંડો હોવો જોઈએ. અરથીંગ માં ખાડો પૂરતી વખતે પૂરી 25 કિલો ની 2 નંગ થેલી નો પાઉડર વાપરવો. અરથીંગ મીટર થી અરથીંગ ની વેલ્યુ ચેક કરી લેવી તેમજ તેનો ફોટો બિલ સાથે જોડવો. અરથિંગ માટે કુંડી કરવી તેમજ તેને બહાર દેખાય એમ રાખવી. મકાન માલિક ને પણ સૂચન કરી દેવું. બિલ ચેકિંગ વખતે કુંડી નહીં મળે તો અરથીંગ ચલાવવા માં નહીં આવે.
- યુપીએસ , રો પાવર , તેમજ લાઇટિંગ માં લૂપ પોઈન્ટ આપતી વખતે પણ 2.5 sqmm કોર નો વાયર જ વાપરવો. 1.5 sqmm કોર ના વાયર નો ઉપયોગ કરવો નહીં .
- યુપીએસ , રો પાવર , તેમજ લાઇટિંગ માં એક સિંગલ પોલ એમસીબી થી માત્ર 3 જ પોઈન્ટ ચાલુ થવા જોઈએ.
- ટેલિફોન તેમજ ડેટા પોઈન્ટ માં દરેક પોઈન્ટ માટે અલગ પ્લેટ નોજ ઉપયોગ કરવો. એક પ્લેટ માં બે પોઈન્ટ કે રૉ પાવર પોઈન્ટ માં ટેલિફોન ના પોઈન્ટ ચલાવાશે નહીં.
- રો પાવર ની ડીબી હમેશા મેઇન પેનલ પાસે જ રાખવી.

- ટેલિફોન પોઈન્ટ માં 2 પેર વાયર નોજ ઉપયોગ કરવો. CAT 5 કે CAT 6 ના પોઈન્ટ વાપરવા નહીં.
- જૂની ઇએલસીબી તેમજ એમસીબી, MCCB વાપરવાની બંધ કરવી.
- મેઇન પેનલ CPRI APPROVED certificate ની જ લેવી. પેનલ નો diagram જે તે Engineer કે કન્સલ્ટન્ટ પાસે થી મેળવી લેવો.તેમજ તે પ્રમાણેજ બનાવવી.
- ટેન્ડર આઇટમ સિવાય નું કોઈ પણ એકસ્ટ્રા કામ કરવાનું નહીં. વાયરિંગ drawing પ્રમાણે જ કામ કરવું.
- કામ ના બિલ સાથે વાયરિંગ ડ્રૉઇંગ , ડેટા ડ્રૉઇંગ , યુપીએસ રો પાવર ડ્રૉઇંગ જોડવુ (ડ્રૉઇંગ હાથ થી ના બનાવવું વ્યવસ્થિત બનાવવું) તેમજ કાર અને વર્કર ના વીમા પોલિસી જોડવી.
- યુપીએસ , રો પાવર , ડેટા પોઈન્ટ ના નંબર આપવા તેમજ તેને પ્લેટ પર તેમજ ડીબી તથા રૅક માં લખવા અને ડ્રૉઇંગ માં દર્શાવવું.
- લૉકર રૂમ, રેકોર્ડ રૂમ તથા સેફ રૂમ ના વાયરિંગ ના પોઈન્ટ માટે લાઇટિંગ ડીબી માથી 2.5 sqmm કોર વાયર ની સર્કિટ લાવી 15 એંપિયર નો પોઈન્ટ બનાવવો.
- બાકી બધા પેંટ્રી , વોટર કૂલર , પાણી ની મોટર વગેરે પોઈન્ટ રો પાવર માથી 2.5 sqmm કોર વાયર સર્કિટ લાવી 15 એંપિયર નો પોઈન્ટ બનાવી આપવા. લાઇટિંગ સાથે મિક્સ કરવા નહીં.
- મેટલ ગ્લેન્ડ નોજ ઉપયોગ કરવો. પીવીસી ગ્લેન્ડ ચલાવવામાં નહીં આવે.
- મેઇન પેનલ તેમજ ટાઈમર વગેરે માં ખુલ્લા ઓપનિંગ રહી ગયા હોય તો તેને એલ્યુમિનિયમ શીટ થી પેક કરવા.
- લાઇટિંગ વાયરિંગ માં પોઈન્ટ બનાવતી વખતે ફોલ્સ સીલિંગ ની અંદર પીવીસી જંક્શન નાખવા અને તેનો પ્લેટ માં હૉલ કરી ફ્લેક્સિબલ પાઇપ થી જ કનેકશન આપવું.
- દરેક એલઇડી લાઇટ 2X2 હોય કે ડાઉન લાઇટર તેને અરથીંગ કનેક્શન આપવું . લાઇટ માં અરથીંગ કનેક્સન ના હોય તો બોડી અરથીંગ આપવું.
- કામ પૂરું થાય એટ્લે જંક્શન બોક્સ ને સ્ટીલ ની પ્લેટ થી બંધ કરી દેવા.
- યુપીએસ ,રો પાવર તથા ડોર બેલ ની સ્વિચ ટેબલ નીચે હાથ સરળતા થી પોહચે એમ રાખવી.
- દરેક પોઈન્ટ ને કન્સિલ કરવા. ક્યાય પણ ખુલ્લા હોલ મૂકવા નહીં દરેક હૉલ ને સીમેંટ થી પૂરી દેવા. કામ પૂરું થાય એટ્લે સાઇટ ને સ્વચ્છ કરી ને જ નીકળવું.
- કામ પૂરું થયે દરેક કામ ચેક કરી લેવું કામ માં જો ભૂલ બાદ માં જણાશે તો બધુ કામ ફર્નિચર , ઇલેક્ટ્રિકલ અને એસી તે કોંટ્રાકટરે ભોગવવા નું રેહશે. કામ ની ગુણવત્તા માં બાંધછોડ ચલાવાશે નહીં.

ઇલેક્ટ્રિકલ કામ માં તમારી નાની ભૂલ કોઈ મોટો અકસ્માત કે જાનહાનિ સર્જી શકે છે.

BILL OF QUANTITY
(NOT TO BE FILLED)

BOQ : Interior Decoration & Furniture work : ELECTRICAL WORK of SMECCC BRANCH, 1ST FLOOR, KIRTIMANDIR, SAYAJUGUNJ, VADODARA, VAO for State Bank of India.			
Sr. No.	**DESCRIPTION**	**QTY**	**UNIT**
	NOTE : ALL CHARIS OR CHASES IN WALLS / COLUMNS / SLABS MADE BY THE ELECTRICAL CONTRACTOR FOR INSTALLATION OF CONDUITS / S.B. / BOXES ETC. THE FILLING OF THE SAME IS IN THE SCOPE OF THE ELECTRICAL CONTRACTOR INCLUDING ALL NECESSITY MATERIAL AND LABOUR.		
	PART - A :::: BRANCH		
A	*INTERNAL WIRING* **:Phase wire must be Red colour for LDB, Blue colour for PDB & Yellow for ACDB, Neutral Wire of Black colour & Green Wire for Earthing. Color code must be maintained. Tagging from DB MCB and Switch board must be done.**		
1	**SITC** of point wiring in concealed in walls, furniture's & for above false ceiling, or on ceiling, on beams shall be fixed with saddles & spacers etc., with conduits taken in slab with 20 mm dia PVC Rigid conduits 1.5 mm thick ISI mark with 2 nos. of 1.5 sq. mm. phase & nutral & 1 nos. of 1.0 sq. mm. earthing with modular switch with company made flush metal box/surface PVC box etc. comp. with nec. main lines for switch board from LDB of mains of 2 nos. of 2.5 sq.mm wire and 1 no.of 1.0 sqmm pvc Insulated copper conductor wire FRLS type laying in with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark .**These will be used with point wiring of light, fan, ex. fan, callbell points, etc { Max. 3 Switchboards in one circuit - One Sp MCB }.Phase wire must be Red colour, Nutral Wire must be Black color & Green Wire for Earthing. Color code must be maintained. Tagging from Lighting DB MCB and Switch board must be done.**		
1.1	One 6 A switch controling one light / fan point.	43	nos
1.2	One 6 A switch controlling Two light points .	68	nos
1.4	6 A socket outlet with 6 A switch (on common board).	28	nos

1.5	6 A socket outlet with 6 A SP switch (as an independent point) **[for ex. Fan, wall fan , QMS, Token M/C Display, etc. points.]**	21	nos
1.6	Call bell point with bell push complete.	3	nos
1.7	**SITC** of loop light points 0f **2 nos. of 1.5 sq. mm. off wires & 1 nos. of 1.0 sq. mm. earth wire** from **from nearest light point** laying in with 20 mm/25 mm dia type PVC rigid conduits 1.5 mm thick ISI mark. - **on product display in AGM cabin.**	2	nos
2.1	**SITC** of 6/16 Amp. Switch and socket complete with necessory require wiring from **LDB** of **2 no of 2.5 sq mm wires and 1 no of 1.0 sq mm** PVC Insulated copper conductor earth wire laying in with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark. These will be used with point wiring of power points ,etc. **No Looping of Neutral or earthing is allowed. Each point needs to provide seperate circuit.This Points Need to Be Connected through LDB. (For Cash Room, Locker Room, Record room - wiring points).**	2	nos
2.2	**SITC** of 6/16 Amp. Switch and socket complete with necessory require wiring from **PDB** of **2 no of 4.0 sq mm wires and 1 no of 2.5 sq mm** PVC Insulated copper conductor earth wire laying in with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark. These will be used with point wiring of power points ,etc. . **No Looping of Neutral or earthing is allowed. Each point needs to provide seperate circuit.This Points Need to Be Connected through PDB. (For Printer, Water Cooler, Freeze, Motor, Note Counting Machine points).**	3	nos

3	SITC of 20 A/ 25 A , 230 V, with DP RCCB, 100 mA all enclosed in a prefabricated M S boxes complete to the satisfaction of E.I.C. For SPLIT AC 1.5TR / 2.0 TR unit with necessory require wiring from ACDB of 2 no of 4.0 sqmm wires and 1 no of 2.5 sqmm PVC Insulated copper conductor wire FRLS type laying in with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark. These will be used with point wiring of A.C. points ,etc . **Color code must be maintained. Tagging from DP MCB and AC point must be done. This point should be installed near Split / window AC in concealed manner. No Looping of Neutral or earthing is allowed. Each point needs to provide seperate circuit. The height of switchboard must be at reachable point for easily operation.from that point to Split AC,empty conduit + necessary bends must in concealed mode by ele. contractor. THE ENCLOSURE SHOULD BE SAME MAKE AS MCB MAKE.**	1	nos
B	***LIGHTING FIXTURES :***		
	(NOTE : ANY OF FIXTURES AND FITINGS SHALL BE RE-CONFIRMED WITH THE ARCHITECTS / CONSULANTS BEFOTE ORDERING THEM.		
4	**SITC** of (including supply and fixing flexible wires from holder to fixtures hardwares etc.) of…. - **The LED lamps should be of same make as fixture make. - The marking & cutting of fixtures should be in ele. contractor's scope.. fixtures should be approved by bank's ele. engineer / ele. consultant / architect. from the given make list before installations. LM 79 & LM 80 test reports to be submited. nichia / LUmileds / cree - LED should be used by manufacture. Lighting Luminaire of LED for Office single piece die cost aluminium M24 housing complete with driver unit, mirror optic and other accessories Lamps of about 100 lumen/W injection moulded PC diffusers with high brightness complete unit complying with international standard (LU49, LH801) - opertive on 190V - 270 V 50 Hz with Mini 3 years warranty complete with mounting stystem and lamp dully wired and tested Details as under.**		

4.1 A	**SITC** of LED 1 x 36 W (3100 lumens) (2' X 2') RECESS MOUNTED LUMINAIRE with 2KV surge protection, making earthing conection complete to be recessed in false ceiling with all necessary hardwares, hanging - die cast frame arrangement, chains or hook arrangement with ceiling, connected to supply wire with PVC connector. Earthing connection with lugging need to given to body of Fixture, etc. complete. (Crompton Model ORION II Cat Ref No: LCTLRN-36-FO-CDL, CCT 6000 K and CRI > 80, lumen O/P > 3300 lumen, Syatem wattage (LED + Driver) < 40 Watt. or Equivalent in GE/ Philips / Havells / Wipro make) .	30	nos
4.1 B	**Removal of exisiting** LED 1 x 31 W (2' X 2') RECESS MOUNTED LUMINAIRE from old premises & reinstallation , testing & commissioning at new premises with making earthing conection complete to be recessed in false ceiling with all necessary hardwares, hanging - die cast frame arrangement, chains or hook arrangement with ceiling, connected to supply wire with PVC connector. Earthing connection with lugging need to given to body of Fixture, etc. complete.	17	nos
4.2	SITC of 1 x 12 / 15 W Square / Round LED DOWN LIGHT pressure die cast fixture with 2KV surge protection (950 lumens) to be recessed in false ceiling with all necessary hardwares, chains, hook etc. complete.(CROMPTON make cat no. Crompton Model CROM LCDD-15-CDL/TL/ WW ,CCT 6000 K and CRI > 80,Lumen output1450 lumen, System wattage (LED + Driver) 12 Watt or Equivalent in GE / Philips / Havells / Wipro make). **Energy Efficient round recessed mounted LED down lighter with premium white powder coating and die cast aluminium housing. as per details above. Die casting material should not be CRCO type material. should be connected to supply wire with PVC connector. Earthing connection with lugging need to given to body of Fixture.**	98	nos
4.3	**SITC** of LED tube light 1 x10 W (560 lumens) Surface mounting type with LED tube, complete. (Crompton Model : LINNET; CAT Ref No: LCL-07-CDL or Equivalent PHILIPS / GE / Wipro make) . For Toilet area.	4	nos
4.4	**SITC** of Call bell with Indicatore. (Max or equivalent make)	3	nos

4.5	**SITC** of Exhaust fan of 150 mm / 300 mm, fresh air heavy duty industrial type complete & 6 Amp. 3 pin TOP. (Crompton/ Khaitan / Havells make) **[Wooden mounting frame should be fixed in coordination with carpenter - furniture contractor.] - Two Ex. Fan of 300 mm are of heavy duty industrial for Ups room.**	8	nos
4.6	**SITC** of 48" Ceiling Fan with fan step socket modular regulator, Max. 3 feet Fan Rode, Anchor Fastner, etc. (WHITE COLOUR - **BEE 5 star labeled ceiling fan BLDC fans anti rust, 2 year manufacturing warranty** only.) (Crompton energion hyperjet make or Equivalent approved make in Orient make Aeon BLDC pro with 5 year manufacturing warranty/ Havells. - first approved by bank's ele. engineer & then to be installed.	8	nos
4.7	**SITC** of 1 x 18W led batten light fixture (T-5) with electronic driver and tube complete with necessory hardwares, etc and per watt lumens output must be above 120/watt and 90%lumems maintaiance for 90% of life with input voltage 90-270v ac 50hz operational without affecting the life, input mov.gtd protection in driver for above 270v protection. and 2 years waranty.LED Batten Comprises of Thermally conductive material. Pre-wired with high efficiency electronic driver. High translucent frosted diffuser gets glare free, smooth light distribution. (Cormpton / GE/ Philips / Havells / Wipro make) .	21	nos
4.8 A	SITC of 450 mm sweep wall mounted fan with metal body, metal stand, guard and blade, 6 a. 3 pin top **With on site 2 years warranty. (ALMONARD tempest mark II or equivalent make.) Wall fan with PVC body strictly rejected.**	4	nos.
4.8 B	**Removal of exisiting** wall fans (metal bod) from old premises & reinstallation , testing & commissioning at new premises with all necessary hardwares for fixing & 6 a. 3 pin top.	4	nos.

4.10	**SITC** of Decoretive 3 W (180 lumens) LED EYE BALL LIGHT fixture with its driver also. (wipro make or philips or equivalent co. make). (Approved by Architrct) basic rate of fixture Rs. 375/-. (**This is for light on digital wall b/h. swo area).**	3	nos
C	*COMPUTER POWER SUPPLY & NETWORKING - TELE. SYSTEM.:* **Phase wire must be Yellow colour for UPS O/P DB, Blue colour for PDB , Neutral Wire of Black colour & Green Wire for Earthing. Color code must be maintained. Tagging from DB MCB and Switch board must be done.**		
5	**SITC** of 2 nos. of 6 A, 5 pin Sockets and 1 no. of 6 \ 16 A socket below table outlets with one 16 A switch with indicator Computer power supply with concealed company made metallic boxes or PVC flush box on walls / furniture's / trunking etc complete all respect with necessory wiring of mains of 2 no of 2.5 sq mm and 1 no of 1.5 sqmm pvc insulated copper conductor multi-stranded flexible wire with 20/25 dia. PVC conduits with accessories duly burried under floor with necessary chasing / breaking in floor and to be refinished with all necessary civil material etc. complete from UPSDB to Computer power supply boards. {Maxi. 3 computers in one circuit}. complete with necessary termination etc. complete. **LOOP POINTS MUST BE OF SAME SIZED WIRES. Phase wire must be Yellow colour, Neutral Wire must be Black color & Green Wire for Earthing. Color code must be maintained. Tagging from UPS O/P DB MCB and Switch board must be done.**	51	nos

6	**SITC** of 2 nos. of 6 A, 5 pin Sockets and 1 no. of with one 6 A switches raw power supply with concealed company made metallic boxes or PVC flush box on walls / furniture's / trunking etc complete all respect with necessory wiring of mains of 2 no of 2.5 sq mm and 1 no of 1.5 sqmm pvc insulated copper conductor multi-stranded flexible wire with 20/25 dia. PVC conduits with accessories duly burried under floor with necessary chasing / breaking in floor and to be refinished with all necessary civil material etc. complete from PDB to Computer power supply boards. {Maxi. 3 Raw Power Points in one circuit}. complete with necessary termination etc. complete. **LOOP POINTS MUST BE OF SAME SIZED WIRES. Phase wire must be Blue colour, Neutral Wire must be Black color & Green Wire for Earthing. Color code must be maintained. Tagging from PDB MCB and Switch board must be done. .**	46	nos
7	SITC of CAT 6 UTP pvc insulated copper conductor data cable of D - Link with 20/25 dia. PVC conduits with accessories duly burried under floor with necessary chasing / breaking in floor and to be refinished with all necessary civil material etc. or to be cleated on wall / ceiling with saddles / spacer etc. necessary termination etc. with ferrule numbering at both ends of each piece of cable complete. **[2 Lines from server rack to tele. krone box nr main panel.].**	60	mtr
8	**SITC** of CAT 6, RJ 45 information outlet (I/O) of D-link mke with front modular cover plate, flush box metallic or PVC for trucking system etc. complete with terminations etc complete.with Providing, installing, testing, commissioning of CAT 6 UTP pvc insulated copper conductor data cable of D-link make with 20/25 dia. PVC conduits with accessories duly burried under floor with necessary chasing / breaking in floor and to be refinished with all necessary civil material etc. or to be cleated on wall / ceiling with saddles / spacer etc. necessary termination etc. with ferrule numbering at both ends of each of piece of cable etc. complete as per the requirement from data rack to I/O points below tables. etc. **Dual jack plate will not be allowed. Cross Ferruling need to be provided for each point. on Data point tagging must be done).**	67	nos

9	**SITC** of 21 U metal rack for computer clamping switch etc complete with Tray Mounting Fan + power supply board. **Bank's hardware - port switch / patch panel must be installed by ele. Contractor in this rack. - (make : D Link / Digi Link / Elixer).**	1	nos
10	**SITC** of 24 port patch panel for computers mounting in metal rack. **(make : D Link / Digi Link).**	3	nos
11	**SITC** of the Patch cord 1 mtr. Long (factory built) .-When supplying , then first ask to BM / Consultant / Architect / Bank Authority.	67	nos
12	**SITC** of the Patch cord 2 mtr. Long (factory built) .-When supplying , then first ask to BM / Consultant / Architect / Bank Authority.	65	nos
13	**SITC** of telephone point with Telephone socket outlets of RJ 11 of aapproved make with company made concealed boxes in walls / furniture's etc. complete with Providing, installing, testing, commissioning of 2 pair of 0.51 cross section pvc insulated copper conductor telephone wire of ITI approved with 20/25 dia. PVC conduits with accessories duly burried under floor with necessary chasing / breaking in floor and to be refinished with all necessary civil material etc. or to be cleated on wall / ceiling with saddles / spacer etc. necessary termination etc. complete.from krone box to tele. RJ - 11 sockets below tables. etc.- for Intercom / fax / direct Tele. facility. Cross Ferruling need to be provided for each point. on Telephone point tagging must be done.	46	nos
14	**SITC** of **50 pair krone** telephone tag block duly enclosed in sheet **metal powder coated box with locking arrangement complete with necessary terminations.**	1	nos
D	*DISTRIBUTION BOARD AND PANELS :*		
15	**SITC** of metallic double door type distribution board with all necessary connection complete to be installed concealed in wall / surface mount complete to the satisfaction of the Engineer in charge. **The DB should be of same make as MCB make.**		

15.1	**SITC** of 4 - WAY TPN DB : (**LDB 1 & 2 - PPI DB**.) . All MCB should be ' B ' type.	2	nos
	Incoming : 40 A FP MCB - 1 NO.		
	Outgoing : 25 A DP RCCB, 100 mA - 3 NO .		
	Outgoing : 6 to 20 A SP MCB (6 nos).		
15.2 A	**SITC** of 6 - WAY TPN DB : (**PDB 1 - PPI DB.**). All MCB should be ' C ' type.	1	nos
	Incoming : 63 A FP MCB - 1 NO .		
	Outgoing : 40 A DP RCCB, 100 mA - 3 NO .		
	Outgoing : 10 to 20 A SP MCB (6 nos) for raw power points.		
	Outgoing : 10 to 20 A SP MCB (3 nos) for 6/16 A power point .		
15.2 B	**SITC** of 6 - WAY TPN DB : (**PDB 2 - PPI DB.**). All MCB should be ' C ' type.	1	nos
	Incoming : 63 A FP MCB - 1 NO .		
	Outgoing : 40 A DP RCCB, 100 mA - 3 NO .		
	Outgoing : 10 to 20 A SP MCB (10 nos) for raw power points.		
	Outgoing : 25 A DP MCB (1 nos) for 2.0 TR split ac - non VRF unit.		
15.3	4 - WAY TPN DB : (**ACDB - VRF INDOOR UNITS**). All MCB should be ' C ' type.	1	nos
	Incoming : 32 / 40 A FP RCCB, 100 mA - 1 NO .		
	Outgoing : 16 A DP MCB (2 nos) for VRF INDOOR AC UNITS. - 14. 0 HP units.		
	Outgoing : 6 A DP MCB (4 nos) for VRF INDOOR AC UNITS. - split ac units.		
15.4	**SITC** of 12 WAY SPN DB : **UPS DB - OUTPUT** - branch . - All MCBs must be C Type Characteristic.	2	nos
	Incoming : 63 A DP 100 mA RCCB, 100 mA.		
	Outgoing : 10 to 20 A SP MCB (8 nos).		
15.5	**SITC** of 4 WAY SPN DB . (For essential ups points - **UPS O/P DB**.) - branch. - in UPS ROOM.	1	nos
	Incoming : 16 A. DP MCB - 1 NO FOR UPS OUTPUT.		
	Outgoing : 10 A / 20 A. SP MCB - 2 NO FOR essential ups points - DATA RACK / FIRE PANEL / CCTV NVR PTS.		

15.6	**SITC** of 8 WAY SPN DB . (For **UPS O/P DB** IN UPS ROOM).	1	nos
	Outgoing : 63 A. DP MCB - 2 NO FOR UPS OUTPUT. - ups o/p db feeder in ups room. Outgoing : 25 A. DP MCB - 1 NO FOR UPS OUTPUT - Essential ups o/p db feeder in ups room.		
15.7	**SITC** of **UPS INPUT** - 12 WAY SPN DB (For all computers). - All MCBs must be C Type Characteristic.	1	nos
	Incoming : 63 A FP MCB - 1 NO FOR 3 - phase UPS.(big) . Incoming : 40 A. DP MCB - 1 NO FOR 1 phase UPS. Outgoing : 10 A SP MCB - 1 NO FOR UPS ROOM LIGHTING.		
16	**SITC** of 63 A FP MCB (C - Curve) with powder coated compny made metallic double door sheet stell enclosure complete for three phase 18.0 HP VRF outdoor AC units. This will be executed near trap door of indoor unit at reachable height. (as per IP 65 protection). THE ENCLOSURE SHOULD BE SAME MAKE AS MCB MAKE.	2	nos
17	**SITC** of **160A FP MCCB- C&S Make CSE1N160ETM4P-160A (36KA)** (1 No.) with **(Ics =100% Icu., confirmed to IS / IEC 60947 -2 adujstable Ir rating from 0.7 to 1)** Unit M. S. compartment enclosure IP65 with hinged door & locking arrangement duly fabricated from 18 SWG sheet metal box duly painted with one coat of red-oxide paint and two coats of approved enamell paints with 100A OPEN TYPE FP MCCB UNIT **with Phase indicator lamps phase wise** , control fuses & wooden back complete. THIS WILL BE INSTALLED NEAR MAIN DOOR - INSIDE OR OUTSIDE - OF THE BANK. (first ask to BM / Consultant / Architect / Bank Authority.	1	nos

18	**SITC** of Main panels as per drawing and specifications. Panel should be dust and vermin proof. Panel shall be fabricated from 14/ 16 SWG CRCA sheet metal duly powder coated of approved paints. **Panel should be as per the sepecifications of ERDA/CPRI. fabrication, Switch gear installation. Internal wiring and Test Certificate from Manufacturer to be submitted. - All MCBs must be C Type Characteristic. <u>Panel Drawing Need to be approved by Electrical Consultanat / Bank's Engineer before starting work. READ SLD CARFULLY.</u>**		
	MAIN PANEL :	1	nos
	Incoming feeder : 160 A C&S Make CSE1N160ETM4P-160A (1 No.). The MCCB should have inbuilt Earth Fault & Nutral Overload Protection with Power Supply & Display Module for Metering & Fault Recording + spreader link (set of 8) 4P for 160 A. + phase barrier (set of 6) for 160 A.		
	Incoming feeder : 100 A C&S Make CSE1N100ETM4P-100A (1 No.). **REGULAR POWER**. + spreader link (set of 8) 4P for 100 A. + phase barrier (set of 6) for 100 A.		
	Incoming feeder : 80 A C&S Make CSE1N80ETM4P-80A (1 No.). - **ESSENTIAL POWER**. + spreader link (set of 8) 4P for 80 A. + phase barrier (set of 6) for 80 A.		
	* 80 A, FP Change over switch (1 No.). - ESSENTIAL POWER.		
	* 80 A, FP Change over switch (1 No.). REGULAR POWER.		
	* 200 AMP. 500 Volts, 3 phase 50 Hz FP **Alu**. bus bars of suitable length -Current ratio shall be 1 sq mm = 1.2 A.		
	* 125 AMP. 500 Volts, 3 phase 50 Hz FP **Alu**. bus bars of suitable length -Current ratio shall be 1 sq mm = 1.2 A.		
	* 100 AMP. 500 Volts, 3 phase 50 Hz FP **Alu**. bus bars of suitable length -Current ratio shall be 1 sq mm = 1.2 A.		
	* Digital AVF Meter with control fuses. C.T. shall be of 15VA class 1 type and shall be resin cast type.		
	* Phase indicator lamps phase wise.		
	* **Outgoing feeder:**		
	* Timer of L & T make Cat. No. 67DDTO digicom Timer with 16A. 4P contactor / Theben make Cat no. SUL 180 a - T180 0 001 ANALOG Timer with L & T make contactor MNX 18 (operating coil voltage 230V, 50 Hz). (24 hrs).- **1 No for signage light.**		
	* 25 A DP MCB (1 no - Sign board for branch).		
	* 40 A FP MCB (1 NO - LDB).		

	* 63 A FP MCB (2 NO - PDB).		
	* 63 A FP RCCB, 100 mA (2 NO - VRF OUTDOOR ACDB).		
	* 40 A FP MCB (1 NO - VRF INDOOR ACDB).		
	* 63 A FP MCB (1 NO - UPSDB).		
	* 40 A FP MCB (1 NO - SPARE DB).		
E	*EARTHING SYSTEM:*		
19	**SITC** of Earthing Pit with all necessary material and making masonry kundi, watering arrangment etc complete as per ISI 3043-1987 **(FOLLOWING ITEMS MAY OPERATE). Resistivity as per IEC / IS. (3 years Manufacturer Warranty. Earthing Certificate Need to Attached). (At the Time of buried of earthing Photograph must be taken Without Photographic Proof Earthing Will be Rejected. Earthing Rod Photo Must be attached with Bill.). Earthing need to measure at Site and it should be less than 5 Ohm. If found more than 5 ohm than will be rejected. Earthing Pit Must be Provided for both Cu as well as GI earthpit.**		
19.1	**SITC** of ECO SAFE environment friendly electrical grounding system with T-193- Copper electrode used upto 11 KV, having 50 mm dia. of outer pipe and 25 mm dia. of inner pipe and length of 3 mtrs with 50 kg Back Fill Compound as per UL 476, of Powerfill Eco friendly electrical grounding backfill compound and clamp. ERDA & NSIC approved, E link or ETP MAKE or ASHLOK MAKE. Any other make will not be consider. - Cu. (1 for UPS & 1 for DB - MAIN PANEL.) .	2	nos
20	**SITC** and jointing of following wire / strip / earth cable on walls, ceiling etc. With necessary non rusting clamps, washers, nuts and bolts etc complete.		
20.1	**SITC** of 16.0 sq. mm. Cu. Flexible wire with 20 / 25 mm dia. PVC rigid conduit duly cleated / concealed / burried in floor etc. complete From Cu. earthing pit to Main Panel + From Cu. Earthpit to UPS I / P DB.	110	Rmt
20.2	SITC of 10.0 sq. mm. Cu. Flexible wire with 20 / 25 mm dia. PVC rigid conduit duly cleated / concealed / burried in floor etc. complete for AC outdoor units, etc.v- from main panel to VRF AC outdoor units.	140	Rmt

20.3	**SITC** of 4.0 sq. mm. Cu. Flexible wire with 20 mm dia. PVC rigid conduit duly cleated / concealed / burried in floor etc. complete for all DBS, etc.	22	Rmt
F	***CABLES & CABLE TERMINATIONS:***		
21	**SITC of** commissionig of following sizes of PVC insulated PVC sheathed copper / aluminum conductor armoured cable to be laying in existing cable trench or to be laid in existing pipes or open with necessary clamps, spacers with cleating on wall ceilling etc. complete to the satisfaction of EIC with end termination of PVC insulated armoured cables including **SITC** of brass single compression type cable glands and crimping type aluminum / copper lugs suitable for terminations of armoured cables of following overall diameters, incl. . All types of cable excavation works should be in contractor's scope.(LENTH TO BE VERIFY AT SITE) .		
21.1	3 C x 2.5 sq. mm Cu . Conductor YWY cable. (for Signboard).	15	mtr
21.2	4 C x 10.0 sq. mm Cu. Conductor YWY cable. (Main Panel to UPS I/P DB) .	35	mtr
21.3	4 C x 16.0 sq. mm Cu. Conductor YWY cable. (Main Panel to 18 TR VRF AC outdoor AC DB) .	140	mtr
21.4	4 C x 16.0 sq mm Alu. Conductor AYFY cable. (Main Panel to LDB, PDB.) .	25	mtr
21.5	3.5 C x 95.0 sq. mm Alu. Condudtor AYFY cable. (main cable from Panel to main mccb nr. energy meter) (LENGTH as per site contition) .	75	mtr
21.6	3.5 C x 50.0 sq. mm Alu. Condudtor AYFY cable. (dg set cable from Panel to DG SET). (LENGTH as per site contition) .	90	mtr
21.7	35.0 sq. mm single core Cu. wire supply & laying for main load wire from meter to main switch in flexible pipe.**if required.**	8	mtr
21.8	3 C X 10.0 sq. mm flexible Cu. cable with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark . **(UPS to UPS O/P DB & UPS I/P DB to UPS). - for branch.**	56	mtr

21.9	3 C X 4.0 sq. mm flexible Cu. cable with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark . **(ups o/p db in ups room to essential ups o/p db in ups room + VRF AC indoor DB to 14.0 HP VRF indoor units.).**	63	mtr
###	3 C X 2.5 sq. mm flexible Cu. cable with 20 mm/25 mm dia PVC rigid conduits 1.5 mm thick ISI mark . **(VRF AC indoor db to VRF indoor ac units.).**	105	mtr
G	***MISCELLANEOUS ITEMS :***		
22	**SITC** of 2.5 sq. mm. 3 core flexible cable of approved make (3 mtr. Length) with heavy duty industrial pvc flexible pipe & 15 amp. 3 pin top of approved make for the supply of Locker Room, Cash Room, Record room.	2	nos
23	**SITC** of 24 Hr, 7 days A/C timer with 2 nos of DP power contactor of M.D.S, L & T , SEIMENS, THEBEN (indoasian) Make. All enclosed in sheet steel powder coated enclosure of 200 X 200 mm complete with all necessary termination for UPS room ex fan supply. **Here Ready made Cyclic Timer Will not be permited. - to be installed in ups room.**	1	nos
24	**SITC** OF 8 MODULE POP UP BOX HONEYWELL MAKE WITH 2NOS OF 5AMP SOCKET AND 1NO 15AMP SOCKET WITH 15AMP SW. - Black Colour.	2	nos
25	**SITC** OF HONEYWELL MAKE WITH 4MODULE POP UP BOX WITH HDMI CONNECTOR.	2	nos
26	**SITC** OF HDMI CABLE OF DIFF. LENGTH FOR VC FROM CPU TO TV IN DGM CABIN & FROM TABEL TO TV IN CONFERENCE ROOM WITH ALL NECESSARY TERMINATIONS.	20	mtr
27	**SITC** OF VGA CABLE DIFF. LENGTH FOR VC FROM CPU TO TV IN DGM CABIN & FROM TABEL TO TV IN CONFERENCE ROOM WITH ALL NECESSARY TERMINATIONS.	20	mtr

28	Laisioning work (addition Load) WITH Electric suppply Co. in branch & Apporoval and Neccessary cirtificate. Contrctor must submit latest light bill + load sheet (duly signed) with final bill. Also check where load wires from ele. Supply vij co feeder to meter box must be carried full lod of branch & submit report.	1	job
29	Providing necessary plug points **(3 boards - each including 25 DP RCCB, 30 mA + 3 nos switches & 3 nos plugs, 16 a switch & 16 a plug)** & light points for tube lights (including necessry wiring) at various locations as required by various contractors for execution of various works / to run equipments such as drill / cutter etc. during the entire execution process. The accessaories used for this purpose shall be of temp. nature (anchor piano or eq.) & the contractor has to take back the same on completion of the project. The supply for this shall be taken from the temporary connection provided at / from nearby general meter under co.ordintion with the LANDLORD. & also providing temporary power supply for computers and data connection for computers with wiring, switchboard, Comp. I/O Points,etc. for smoothly running of the branch with removing & reshifting of the computers , printers, etc. bank hardware accessories. **- photos of switchboard to be posted in whatsapp group.**	1	job
	TOTAL - PART A :::		
	PART - B :::: BUYBACK		
30	**BUY BACK** : FROM old premises - Entire existing electrification, telephone wirings, LAN wirings with conduits shall be removed and shall be purchased by the contractor including switches and accessories, all light fixtures **except (2 x 2) 20 nos**, ceiling fans, exhaust fan , wall fans **except 4 nos**., all cables, all dbs, main panel, etc. (Contractor shall last visit site before quoting and the submit the list of material with quantities which are buying and the quoted rate shall be lump sump basis).	1	Job
	TOTAL - PART A - PART B (BUYBACK) ::::		

TENDER DRAWINGS

(ONLY FOR REFERENCE)