NIT NO	HYD/R1/23-24/002
DATE	26.12.2023

STATE BANK OF INDIA

TENDER DOCUMENT FOR

ELECTRICAL WORK AT SBI NMDC BRANCH , RBO BANJARA HILLS, AO HYDERABAD

> The Regional Manager, State Bank of India, RBO Banjara Hills, Patny Centre, Secunderabad, Telangana

NOTICE INVITING TENDER (NIT)

State Bank Of India, RBO Banjara Hills invites tenders for the following work in TWO BID SYSTEM from the Electrical Contractors of the respective category empanelled with SBI-LHO, Hyderabad <u>only</u> <u>need to apply</u>

1.	Name of the Work	ELECTRICAL WORK AT SBI NADC BRANCH, RBO BANJARA HILLS UNDER AO HYDERABAD.
2.	Estimated cost of work	Rs.6,90,956/- plus GST as applicable
3.	Time for Completion of work	60 DAYS from the date of PO or handover of the site whichever is earlier.
4.	Eligibility of the contractor	 Electrical Contractors of the respective category empanelled with SBI-LHO, Hyderabad. The vendor should have a valid digital signature to participate in the online tendering process.
5.	Earnest Money Deposit (EMD)	Rs.7,000/- Drafts/BCs shall be in favour of "The Regional Manager, RBO Banjara Hills payable at Hyderabad . Those empanelled contractors who have submitted onetime EMD, have to submit the proof. Note: EMD is exempted against submission of valid NSIC/MSME certificate under respective category.
6.	Address for submission of tender document along with EMD and opening of tenders :	Tender document along with Original EMD / valid certificate of MSE/ NSIC for EMD exemption should be submitted (before due date) physically at the office of The Regional Manager, State Bank of India, RBO Banajara Hills, Patny Centre, Secunderabad, Telangana Technical Bid of those firms / contractors who do not submit EMD or tender fee shall be rejected. Contact: Chief Manager
7.	Tender documents available for download from the websites:	 1) https://www.sbi.co.in under "SBI in the News" link "procurement news" 2) https://etender.sbi
8.	Availability for download from the above web site	From 26.12.2023 to 03.01.2024
9.	Last date and time for submission of bids	03.01.2024 by 3.00 P.M.
10.	Date and Time of opening of Tenders:	03.01.2024 at 3.10 P.M.
11.	Payment terms	 i) No advance payment. ii) Interim Payment – Rs. 4.0 Lakhs, subject to deductions as applicable. iii) Balance payment after completion of the work subject to deductions as applicable.
12.	Initial Security Deposit (ISD)	2% of the Contract value.
13.	Total Security Deposit	5 % of contract value which will be retained till the completion of the defects liability period.
14.	Defects Liability Period	12 Months from the date of completion or commissioning and handover of the work.
15.	Liquidated Damages for delay in work	If the work is delayed beyond the scheduled completion date, then 0.50% of the total value of the contract per week (or part thereof) of delay will be deducted from the final bill value subject to max 5% of the value of work.

16.	Validity of tender	90 days.
17.	Tax Deduction	As per applicable rates.
18.	Rates quoted by bidder	 The quoted rate should be inclusive of Cost of materials transport, loading, unloading charges, cost of installation, a taxes (excluding GST), wastages, machinery, temporary work such as scaffolding, cleaning, overheads, profit, statutor expenses, incidental charges and all related expenses required for the completion of the work. Additional claims other than the quoted amount will not be entertained. The quoted rates shall be firm throughout the completion of the project.
19.	Check list of documents to	1. The copy of DD/BC of EMD.
	be uploaded	 2. The bidders are required to submit the signed NIT by the Bank. 4. Proof of Empanelment with SBI in the respective category. 5. If your MSMES, please upload valid certificate of MSEs NSIC.
20.	Any additional information	1. The make of materials should be chosen strictly from the
		preferred makes as given in the tender.
		 Any clarifications sought after opening of the tenders wind not be entertained at any cost. Firm should visit the website the last date of submission for changes/ corrigendum, if any The Bank has reserves the right to cancel or postpone the tenders at any stage without assigning any reason. Claims for revision of the Quoted price by any bidder after the tender will not be entertained.
21.	The tender will be summarily	1. Failed to submit the original EMD at Bank office before due
	rejected if the Bidder	 date. 2. Failed to submit Entire tender document, which is downloaded from the website as a proof of accepting the terms and conditions. 3. Failed to submit the required documents as mentioned in the documents. 4. Partly or fully Modifies, alters or corrects the tender document uploaded by the Bank.
22.	For any queries or support in	Primary Contact: 9081000427, 9904407997, 079-68136826,
	connection with the online tendering process, please contact our E-procurement solutions agency.	1.Anshul Juneja:-079-68136840, anshul.juneja@eptl.in2. Kanchan Kumari:-079-68136820, kanchan.k@eptl.in3. JaymeetRathod:-079-68136829, jaymeet.rathod@eptl.in4. Salina Motani:-079-68136843, salina.motani@eptl.in5. Vinayak Khambe:-079-68136835, vinayak.k@eptl.in6. ImtiyazTajani :-079-68136852, hemangi@eptl.in7. HemangiPatel:-079-68136852, hemangi@eptl.in8. Nadeem Mansuri:-079-68136853, nadeem@eptl.in9. Deepak Narekar:-079-68136863, deepak@eptl.in10. Sujith Nair:-079-68136857, sujith@eptl.in11. Devang Patel:-079-68136859, devang@eptl.in
23.	Bank's reserves the right to accept of	pr reject any or all bids without assigning any reasons thereof, ev
LU.	after opening of the bids.	$\frac{1}{2}$ reject any of an bias without assigning any reasons thereof, e

GENERAL CONDITIONS OF CONTRACT

INTERPRETATION

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

In this connection, the following terms shall be interpreted as indicated below:

- i. "The Employer/Bank" 'means the State Bank of India (including branches and other offices) and any of its employees or representative authorized on their behalf.
- ii. "Bidder" means an eligible entity/firm submitting the Bid.
- iii. **"The Contract"** means the agreement entered into between the Bank and the Contractor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- iv. "Vendor/Contractor" is the successful Bidder to whom the work has been awarded.
- v. **"The Contract Price/Project Cost"** means the price payable to the Vendor under the Contract for the full and proper performance of its contractual obligations.
- vi. "**The Material/Product**" means all the materials along with the accessories which the contractor is required to supply to the Bank under the Contract.
- vii. "The Works/Project" shall mean the works to be executed or done under this contract.
- viii. **"The Site"** means locations where the proposed work is to be carried out and services as desired in this tender document are to be provided.
- ix. **"The Schedule of Quantities/BOQ"** shall mean the schedule of quantities as specified and forming part of this contract.

Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice verse where the Context requires.

1.0 SCOPE OF WORK

The detailed scope of the work is given in the BOQ.

2.0 SITE AND ITS LOCATION

The proposed work is to be carried out at the site whose address is given in the NIT.

3.0 BID DOCUMENTS

3.1 The work has to be carried out strictly according to the conditions stipulated in Bid consisting the following documents and in the most workman like manner,

- NIT
- General Conditions of Contract
- Price Bid

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

- Price Bid.

- General Conditions of Contract.
- NIT.

3.3 Complete set of Bid documents can be downloaded from the Bank's website http://www.sbi.co.in under "SBI in the News" link "procurement news" and during the period mentioned in the NIT.

4.0 BID PREPARATION:

4.1 The Bidder is advised to inspect the site and satisfy himself on his own responsibility and his own expenses all the following information and data which may be required for the purpose of preparation and submission of their bids:

i) The location of the Panel, DBs, Meter Board, Earth Pits etc,.

ii) Required civil work like making opening in the wall for cable entry, chipping the wall for concealing the conduits, DBs, space and provision for erection of panel.

iii) Feasibility for laying the cables and its route.

iv) Security gate pass requirements.

v) Storage space for the materials.

vi) Permissible working hours at the site.

vii) Any other adverse conditions or hindrance for executing the work.

viii) Traffic regulations, law & order situations in the area.

ix) Whether electrical work has to be executed in coordination with other agencies like interior, AC, Civil contractor etc..

4.2 The Bidder will be fully responsible for considering the financial effect of any or all the above factors while submitting his Bid. The Bank shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder regardless of the conduct or outcome of the bidding process.

5.0 CLARIFICATION / AMENDMENTS AND CORRIGENDUM:

5.1 Bidder requiring any clarification of the bidding document may notify us in writing at the address/by e-mail given in the NIT within the date/time mentioned.

5.2. The clarifications to the queries received or amendments in the tender will be posted on the Bank's website and as a corrigendum/Addendum. No individual communication will be conveyed to the Bidders. The interested parties/Bidders are advised to check the above website regularly till the date of submission of Bid document and ensure that clarifications / amendments issued, if any, have been taken into consideration before submitting the Bid. Such amendments/clarifications, if any, issued by the Bank will be binding on the participating Bidders, will not take any responsibility for any such omissions by the Bidder. Bank, at its own discretion, may extend the deadline for submission of Bids in order to allow prospective Bidders a reasonable time to prepare the Bid, for taking the amendment into account.

5.3 Depending upon the site conditions and the Bank's requirements, a pre-Bid meeting, if required, will be held on the date and time specified in the tender which may be attended by the interested Bidders or their representatives and get their queries clarified.

5.4. Bank reserves the right to amend, rescind or reissue the tender, at any time prior to the deadline for submission of Bids.

5.5. No request for change in commercial/legal terms and conditions, other than what has been mentioned in the tender or any addenda/corrigenda or clarifications issued in connection thereto, will be entertained and queries in this regard, therefore will not be entertained.

5.6. Queries received after the scheduled date and time will not be responded/acted upon.

6.0 EARNEST MONEY DEPOSIT (EMD):

6.1 The Bidder shall submit, as part of its Bid, an EMD as stipulated in the form of Demand Draft or Banker's Cheque in favour of "The Reginal Manger," drawn on any Bank in India. EMD

in any other form other than as specified above will not be accepted. **Bid not accompanied by the EMD** as above **shall be rejected.** No interest will be paid on the EMD.

6.2 The EMD of the unsuccessful Bidder shall be refunded soon after the decision to award the contract is taken. EMD of successful Bidder will be retained as a part of security deposit. EMD will be returned by Bank if entire 2% ISD is submitted by contractor as a single DD.

6.3 The EMD shall stand absolutely forfeited:-

a. If the finally selected bidder revokes his Bid at any time during the period when he is required to keep his Bid open for acceptance by the Bank.

(or)

b. After the bid is accepted by Bank, the vendor refuses to enter into a formal agreement with the Bank.

(or)

c. The bidder fails to pay the initial security deposit as stipulated.

(or)

d. The bidder fail to commence the works within the stipulated time.

6.4 If the tendering process is delayed for any reason, the Bank will insist on the revalidation of the DD and the bidder has to get it revalidated and submit again.

7.0 BID SUBMISSION

7.1 Only those bidders satisfying the eligibility criteria given in the NIT need to apply. Tenders should be submitted online in the website <u>https://etender.sbi</u>. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. <u>The server time (which is displayed on the online portal dashboard) will be considered as the standard time</u> for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission. Bidder will be responsible for any delay due to other issues.

7.2 The bidders should submit their bids online with their valid digital certificate, which confirms that the bidders have read and understood the tender terms and conditions. Claiming ignorance of all the terms and conditions in this tender either before or after the PO is issued or during the progress of the work will not be accepted.

7.3 The bidder shall submit the documents enlisted in the checklist in the NIT in the softcopy format. ie scanned copy of the documents either in PDF or JPEG format as required. The SBIIMSPL will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders. The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.

7.4 The documents submitted online in the **Technical Bid should <u>NOT</u> contain any price information.** Such Bid, if received, will be rejected.

7.5 The bidder shall submit his quotes **online** through the PRICE BID in the e-procurement portal. The price bid will be opened only if the Bid is **unconditional** and the bidder qualifies as per eligibility criteria and meets technical specifications.

7.6 If required, SBIIMSPL shall conduct e-reverse auction among the qualified bidders and the same shall be communicated to the bidders.

7.7 No claim for submission of offline bids will be entertained. Such bids will not be considered.

8.0 PRICE BID: RATES QUOTED BY BIDDER

8.1 The contractor shall satisfy himself before Bidding as to the correctness and sufficiency of his Bid for the works and the rates/ amounts stated in the schedule of quantities and / or the schedule of rates and amount as provided covering all his obligations under the contract and all matters necessary for proper completion of the works expected in this document.

8.2 The rate quoted shall be firm and shall include costs of all materials, loading, transport, unloading, Installation charges, wastage of materials during execution, levies, Octroi(if applicable), local body taxes(if applicable), all type of Insurance Charges, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work etc..

8.3 Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and No extra charges will be paid over and above the contract amount on account of any other charges (existing or future addition) or on any other account.

8.4 The GST shall be paid extra as applicable.

8.5 Rate Revision in the contract amount is not permitted during the validity period of the contract for any reason including during the extended period, if any.

8.6 Any request for review of the price bid after the bid opening will not be entertained.

8.7 The Bidder shall quote their offers he will be willing to execute the work, in terms of "Specific Numerical Value" (only up to two decimal places). The same percentage offer is applicable for each and every item of the work including all sections / sub sections / sub heads of the work.

9.0 OPENING AND EVALUATION OF BIDS

9.1 The Bids will be opened at the office of the respective the Regional Office. Representatives of Bidder may be present during opening of Bids. However, Bids would be opened even in the absence of any or all the bidder's representatives.

9.2 In the two bid system, the technical bids will be opened at the scheduled time mentioned in the NIT. In case, if the date of opening is declared as nonworking day or Holiday, the bids will be opened on the next working day. The price bid of the qualified vendors will be opened on the same day or on a subsequent date which will be intimated to the bidders.

9.3 VALIDITY OF BID

Bids shall remain valid and open for acceptance for a period stipulated in this document from the date of opening of price bid. If the Bidder withdraws his/her offer during the validity period or makes modifications in his/her original offer, which are not acceptable to the Bank, without prejudice to any other right or remedy, the Bank shall be at liberty to forfeit the EMD.

10.0 **PRELIMINARY EXAMINATION**

10.1 Bank will examine the Bids to determine whether they are complete, on required formats & accompanied by supporting Documents and the Bids are conforming to all the terms and conditions of the Bidding Document without any deviations and are generally in order.

10.2 If a Bid is not conforming to the terms and conditions, it will be rejected. However, Bank will have right to demand submission of more information as required, if any of the document is partly submitted. If the bidder does not respond within the stipulated time, Bank will reject or disqualify the bid.

11.0 TECHNICAL EVALUATION

11.1 Only those Bidders and Bids who have been found to be in conformity of the eligibility terms and conditions during the preliminary evaluation would be taken up for further detailed evaluation. Those Bids who do not qualify the eligibility criteria and all terms during preliminary examination will not be taken up for further evaluation.

11.2 During evaluation of bids, the Bank may, at its discretion ask the bidders for clarification of its bid. The request for clarification shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. No post bid clarification at the initiative of the bidder shall be entertained.

11.3 The tenders must be unconditional. Conditional tenders leading to unknown / indefinite liability may be summarily rejected.

12.0 EVALUATION OF PRICE BIDS AND FINALIZATION

12.1 Only those Bidders who qualify in Technical evaluation would be shortlisted and the price bid submitted by the bidder will be opened.

12.2 The L1 Bidder will be selected on the basis of net total of the price evaluation as quoted in price bid.

13.0 CONTACTING THE BANK:

13.1 No Bidder shall contact Bank on any matter relating to its Bid, from the time of opening of Price Bid to the time the Contract is awarded.

13.2 Any effort by a Bidder to influence Bank in its decisions on Bid evaluation, or contract award may result in rejection of the Bid.

14.0 AWARD OF WORKS

14.1 Bank will award the Contract to the successful Bidder whose Bid is the lowest evaluated Bid.

14.2 Bank reserves the right at the time of award of contract to increase or decrease the quantity of work and / or services from what was originally specified while floating the tender, without any change in unit price or any other terms and conditions.

14.3 BANK'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

Bank reserves the right to accept or reject any Bid in part or in full or to cancel the Bidding process and reject all Bids at any time prior to award of the contract, without incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Bank's action.

14.4 The acceptance of a tender rests with the Competent Authority, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled, or are incomplete in any respect are liable to be rejected.

14.5 The notification of award will constitute the formation of the Contract. The selected Bidder should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the PO within 15 days of receipt of the communication and to enter into an agreement with the Bank.

15.0 INITIAL SECURITY DEPOSIT

15.1 Initial security deposit shall be 2% of contract value in favour of the Bank, unless or otherwise specified.

15.2 The successful Bidder will have to submit ISD by means of D/D within a period of 15 days of acceptance of Bid

15.3 No interest shall be paid on the amount retained by the Bank as Security Deposit.

16.0 SIGNING OF CONTRACT DOCUMENTS

The successful Bidder shall be bound to execute the Agreement within 15 days from the receipt of intimation of acceptance of his Bid by Bank. However, the written acceptance of the Bid by the Bank will constitute a binding agreement between the Bank and successful Bidder pending execution of formal agreement. All expenses, stamp duty and other charges/ expenses in connection with the execution of the Agreement as a result of this tendering process shall be borne by the successful bidder.

17.0 EXECUTION OF ELECTRICAL WORKS:

17.1 The Contractor shall carry out and complete the Electrical work as per standard specifications / as stipulated in this contract and relevant IS recommendations in coordination with other agencies like Interior, AC and civil contractors and to the satisfaction of the Bank. Bank issue further written instructions, detailed directions and explanations with respect to the specifications, quality or quantity of works or the addition or omission or substitution of any work.

17.2 **METER BOARD:**

The Main DB/Meter Board shall be provided in the place free from leakages and in a covered location. The Meter Board shall be as per TSSPDCL requirements and shall be fixed firmly on the wall. Any opening made in the wall for feeder cable entry should be sealed properly after installation to avoid entry of rodents and rain water. The meter Board shall be properly earthed as per the regulatory requirements.

17.3 LT PANEL INSTALLATION:

Panel shall be covered properly to prevent dust, contamination & damage during transportation. In case of damages during transportation or unloading etc, the same shall be rectified and made to perfection before installation. No excuse for delay on account of the above will be accepted.

For floor mounted panel, the exact location of the panel and fixing holes to be marked on the concrete plinth for the installation. Install the panel in proper alignment and fix properly. Tighten all the connections as required. Access around the panel to be provided as per regulatory requirements for future maintenance. Ensure the services like AC drain lines or water pipe lines or sewage lines are away from the panel or the panel is properly protected against any accidental leakages.

Incoming and outgoing cables shall be marked/identified as per approved drawing. All components of the panel shall be verified against the approved panel drawing for correct rating & size. Ensure that all internal connections are proper and loose connections are tightened. All breakers (incoming/outgoing) shall be in "OFF" position and to be locked to prevent mishandling Before commissioning. All earth terminals of the panel are firmly connected to the designated earth pits with suitable size of GI strips as required. Check whether the metering equipment and indication lamps are working as desired and rectify the defects, if any. After installation, the panel shall be properly cleaned and protected to prevent dust & contamination.

17.4 **INSTALLATION OF DBs**:

All DBs wall mounting and floor mounted arrangement shall be in accordance with BOQ and the approved material. Ensure that painting of the wall is completed prior to marking and mounting of DB. Confirm label/marking to ensure that is the correct DB and check the position according to the approved layout and mark the fixing position of the DB's support. After marking, drill according to the selected sizes of anchor bolts to appropriate depth. Permanently fix the DB to the wall/slab with anchor bolts. If there is more than one DB to be installed at the same location, they shall be installed side by side and clearance shall be maintained for easy maintenance and

trouble shooting. The height of Distribution Board shall be maintained so that easy access for termination of cables and other maintenance work can be carried out. Cut-out shall be made for inserting the wire in DB and same cut out shall be provided with a rubber gasket so that there will be no sharp edges and secure the wire insulation from damage.

Wire inserted in the DB shall be cross-checked for existing circuit number and final ferruling shall be done. Wire in DB shall be used cable tie and dress with bunching of the phase-neutral and earth and suitably lugged to the respective MCBs and Bus bar. Bunching shall be done as per phase separation respectively R, Y and B. After Crimping insulation sleeves shall be provided in the Wire/ Cable to avoid accidental short circuit between the adjacent terminals. DBs shall be provided with body earthing connections as per provisions available in the DB. Identifications labels of approved engraved type nameplate/Radium stickers of suitable font size shall be fixed on DB. After complete termination of wire/cable same DB compartment shall be cleaned before fixing the door.

When the DB is fixed on the partition care should be taken to ensure the holding capacity of the partition, to avoid the DB from falling and getting damaged or causing injury. The installation of DB shall be done in such a way to add to the ambience of the Branch. It shall be firmly fixed on the wall / partition.

17.5 LAYING OF LT CABLE

17.5.1 IN CABLE TRAY:

Wherever the cable trays are provided, the cables shall be laid in the cable tray. The cable shall be laid from one end of the route or any other suitable point as per site conditions. Wherever the cable needs to be bended, the cables bending radius shall conform to the cable manufacturer's recommendation. Prior to cable cutting, check both ends to make sure there is sufficient length for proper dressing and end termination. After cable laying is finished, all cables shall be tested for insulation resistance. Install the cable tags, dress the cables and clamp it as per the standards. Whenever, single core cables are used, Trefoil (three-foil formation) laying shall be used with single-core cables.

17.5.2 LAYING THE LT CABLE UNDERGROUND:

A trench of about 1.5 meters deep and 45 cm wide is dug. Then the trench is covered with a 10 cm thick layer of fine sand. The cable is laid over the sand bed. The sand bed protects the cable from the moisture from the ground. Then the laid cable is again covered with a layer of sand of about 10 cm thick. When multiple cables are to be laid in the same trench, a horizontal or verticle spacing of about 30 cm is provided to reduce the effect of mutual heating. Spacing between the cables also ensures a fault occurring on one cable does not damage the adjacent cable. The trench is then covered with bricks and soil to protect the cable from mechanical injury. The LT Cable route markers shall be provided as per standards.

17.5.3 The end termination shall be provided as per the cable size. Unless specified, the termination shall be single compression type glands of proper size and lugs shall be suitable for termination as per the point of termination like switchgear terminals, Bus bar, terminal connectors etc. Only the respective metal lugs shall be used for termination. Aluminium lugs shall not be used to terminate in the copper bus bars or vice versa.

17.5.4 The cables from the Panel to DB or from Main DB to Sub DBs should be duly fixed with suitable size clamps if laid in the wall. If more number of cables are to be laid, then they shall be laid in cable trays of suitable size firmly fixed to the ceiling with threaded rods.

17.5.5 To avoid rodent menace, the contractor shall close all openings made by him in the wall, the unused knockout holes in the DB, Panels, Junction Boxes with suitable dummies, Blanking plates etc and also provide sufficient protection to the panels, DB. No claim for additional amount towards rectifying the work on account of damages caused by rodents will be entertained during the defects liability period.

17.6 CONDUITS:

Unless otherwise specified all wiring shall be in rigid PVC conduit embedded in wall, or ceiling or concealed in the false ceiling. The size of conduits shall be selected in accordance with the IS regulations and the minimum size of the conduit shall be 20 mm dia unless otherwise indicated or approved. Conduits shall be kept at minimum of 100 mm from the pipes of other non-electrical services.

Separate conduits and runways shall be used for:

- 1. Lighting system.
- 2. Power outlets.
- 3. Emergency light.
- 4. Telephone system.
- 5. Fire alarm system.
- 6. Sound / public address system.
- 7. Television system.
- 8. Computer system.

Wiring for short extensions to outlets in hung ceiling or to equipment, motors etc. shall be installed in **flexible MS conduits**. Otherwise rigid conduits shall be used. PVC conduits shall not be used in outdoor system. Conduits shall be free from sharp edges and burrs and grease or oil shall not be used for the purpose of pulling the wire. The entire system of conduits must be completely installed and rendered electrically continuous before the conductors are pulled in.

All PVC conduits shall be jointed with plain PVC couples using approved PVC jointing materials as recommended by the manufacturer. All joints shall be water tight. Junction between conduit and adaptable boxes, back outlet boxes, switch outlet boxes and the like must be provided with entry spouts and smooth PVC bushes.

17.6.1 LAYING OF CONDUITS IN SURFACE:

Conduits run on surfaces shall be supported on galvanized / PVC saddles which in turn are properly screwed to the wall or ceiling. Saddles shall be at intervals of not more than 60 cm. Fixing screws shall be with round cheese head or and rustproof materials. Exposed conduits shall be neatly run parallel or at right angles to the wall of the building. Pull boxes must be provided at the right angles and at a distance of not exceeding 20 meter

17.6.2 CONCEALING THE CONDUITS IN THE WALL:

Conduits embedded into the walls shall be fixed by means of staples at not more than 60 cm intervals. Chase in the wall shall be neatly made and refilled after laying the conduit and brought to the finish of the wall. Chasing shall be done with the wall cutting machine. Hammer and chisel shall be used on chased portion to get uniform depth of 50 mm. Uniform depth of 50 mm shall be maintained on chased portion. Conceal Back box shall be installed by using cement mortar. Alignment of the back box shall be done by using a calibrated spirit level. PVC adaptor shall be used for connection between JB and conduit. PVC solvent shall be used.PVC solvent cement shall be applied on conduit before interconnection. Embedded JB shall be protected by covering with brown tape filled with jute/gunny bag. Cement mortar 1:5 ratio(1 portion of the cement+5 portion of sand)shall be used for patchwork in chased area. Chicken (wire) mesh and GI nails shall be used for all chasing width of the embedded conduit. Curing shall be carried out for a minimum of three days.

17.6.3 CONCEALING IN THE CONCRETE:

Conduits buried in concrete structure shall be put in position and securely fastened to the reinforcement and got approved by the consultant/Engineer before the concrete is poured. Proper care shall be taken to ensure that the conduits and boxes 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. Inspection boxes shall be provided for periodical inspection to facilitate draw and removal of cables. Such inspection boxes shall be flush with the wall in the case of recessed conduits. Inspection boxes shall be spaced at not more than 12 meters apart or two 90 degree solid bends or equal.

17.7 WIRING AND ACCESSORIES:

17.7.1 LAYING OF WIRES:

Unless otherwise specified all wires shall be FRLS PVC insulated single core, stranded copper conductor. All wires shall be colored as follows:

Phase R: Red Color of wire

Phase Y: Yellow Color of wire

Phase B: Blue Color of wire

Neutral: Black

Ground: Yellow Green or Green (One color only to be used for the complete Installation).

The size of wires shall be as indicated in the drawings or in the BOQ.

When more than one wires are installed in the same raceway, they should be pulled in the raceway at the same time. Use guide wires and similar equipment when wire pulling, to support the tension and avoid possible damage. Conductor splices must be enclosed in junction boxes. Use a minimum of 300mm of slack conductors inside DB and at each outlet as needed. Ensure proper wire installation in all boxes. After installation, the Wires Insulation Test should be conducted.

17.7.2 SWITCH BOARDS AND POWER OUTLET SOCKETS:

Switch Boards for light points, socket outlets, power outlets, pull / junction boxes shall be of galvanized steel, and shall be of shapes and size to suit their respective locations and installations and shall be provided with covers to suit their function and installation. All outlet boxes shall be provided with brass ground terminals. All junction boxes/pull boxes shall have suitable covers. Surface mounted outlet and junction boxes in the outdoor locations shall be of weatherproof. The surface mounted indoor boxes shall be of sheet steel painted or PVC for surface installation. For internal use Switches shall be of the grid assembly pattern with rocker operated switch units suitable for operation with inductive loads. Switches shall be either one way or two way as specified in the BOQ. Switch plates shall be of suitable shade and size as specified in BOQ or approved by BANK. Surface installation switches shall be provided with matching steel box.

17.7.3 CIRCUIT WIRING

Unless and otherwise specified in the BOQ, all sub main circuit conductor sizes for lighting and appliances, shall be as shown in the schedule of quantities. Each circuit phase wire from the distribution boards should be followed with a separate neutral wire of the same size as the circuit wire or as specified in the BOQ. For the light/fan point wiring individual phase, Neutral and Earth wires shall be run from the switch board to the respective ceiling rose. Looping of neutral and Earth wires for adjacent light points are not allowed except for the secondary points. For the secondary points Neutral and Earth looping should be done only from the respective primary points. This will avoid nuisance tripping of ELCB/RCCB in case of leakage and identifying the faulty circuit and rectifying will be easy. Each light point and outlet shall be identified with their circuit number and DB number with a label pasted on them. Flexible cords for connection to appliances, fans and pendants shall be 250/440V grade, three or four cores, with tinned stranded copper wires, insulated, twisted and sheathed with strengthening cord. If demanded by Bank, the contractor shall supply a certificate issued by the manufacturer of wires and switches stating origin, date of manufacture, batch number and standard to which it complies and the test certificates. Looping system of wiring shall be used. Wires shall not be jointed. Where joints are unavoidable, these shall be made through approved mechanical connector. 230 V power supply wiring shall be distinctly separate form any other different voltage system and lighting wiring.

17.7.4 CONTROL SWITCHES

Control switches shall be connected in the phase conductors only and shall be 'ON' when knob is down. Switches shall be fixed in galvanized steel boxes. Chromium plated screws shall be used. The rating of the Switches shall as per the BOQ.

For the UPS power sockets provided in the workstations and counters, the control switches shall be provided separately above the counter and the sockets below the counter.

Similarly, for the wall mounting fan points, the control switches shall be provided separately in the Switch board and the socket outlet provided near the wall mounted fans.

17.7.5 TESTING OF ELECTRICAL WIRING SYSTEM

The entire installation shall be tested in accordance with IS regulations for:

- 1. Insulation resistance.
- 2. Earth continuity.
- 3. Polarity of single pole switches.

17.8 LIGHT FIXTURE INSTALLATION:

17.8.1 Inspect the site to install light fixtures as per approved lighting layout. If any mismatch is observed between the approved layout and the actual layout, please consult the Bank Engineer and re-plan the lighting layout to suit the actual site conditions.

If there is no false ceiling, chalk lines (geru powder cement colour removable type) shall be used to mark the spacing of light fixtures as per approved drawing. After marking, the light fitting support and accessories shall be fixed. Wires shall be connected to the connector of light fitting as per standard. Light fitting shall be mounted on the support fitted. Line level and final alignment shall be checked with line dori.

17.8.2 INSTALLATION OF LIGHT FIXTURES IN THE FALSE CEILING:

While installing light fixtures in the false ceiling, the contractor has to check the distance between the roof and the false ceiling and ensure that the sufficient height is available for fixing the light fixtures and if requires any change in the lighting layout. Any hindrance like beams, sewerage pipe lines, electrical cables etc. has to be informed to the Bank Engineer and necessary guidance obtained before installation. Support to hang the fixture to be provided in the roof with suitable length of chain links or GI wires of suitable size, as per recommendation of the light manufacturer. The supports shall be of sufficient length to enable change of location of fixtures to the adjacent grid/cutout, if required by Bank. The supports should not be fixed to the pipes or cables or electrical conduits running above the false ceiling. The Light fixtures should not be loosely laid on the false ceiling grid without any support.

17.8.3 In case of the Gypsum false ceiling, the marking shall be made in the false ceiling first as per the lighting layout and the cutout shall be made in coordination with the interior contractor. Wherever required, the suitable frame required have to provided by the contractor for the 2'x2' fixtures.

17.8.4 The cutouts for the light fixtures and down lighters shall be properly marked in the false ceiling to make the cutout neatly and as per the desired lighting layout. Nylon line dori shall be used to ensure that all light fixtures are in a straight line.

17.8.5 If the works involves, some architectural features in the false ceiling, the contractor shall consult the interior contractor and Bank Engineers before installation of light fixtures, ceiling fans, laying of cables above false ceiling to avoid any damage or any hindrance to the proposed architectural features.

17.9 EARTH STRIPS / CABLE TRAYS:

17.9.1 GI/COPPER STRIP LAYING:

Before installation of GI and copper earth strip, the inspection shall be carried out to confirm size, quantity and galvanizing of GI strip. Arrangement shall be made for proper scaffold for strip laying on the tray. Check wall and beam finishing before strip clamping on the wall and beam. Ensure that all Earth strip installation are straight. The earth strip route and size shall be confirmed/verified with approved earthing drawing.

Ensure that there is no overlapping in strips at joints. Where required for Joint area, use "C" type holding clamp for avoiding gap between two strips. GI strip fixing inside cable tray with using of GI nut bolt at every 5 mtr.interval. Clamps shall be fixed at an interval of 1000mm. Copper to GI earth strip connection shall be done by using the bimetallic washer

17.9.2 EARTH STRIP LAYING BY WELDING ON WALL/SLAB.

Whenever longer length of Earth strips are to be Installed on wall/ slab, the overlapping in strips at joints shall be minimum. Overlapping area to be properly welded and ensure no gap in the joint area. Approved PVC sleeve shall be provided to 50x6mm and 75x10mm GI earth strip wherever accessible areas such as inside substation, all embedded portion etc. Welding joints are cleaned with wire brush and then coated with Galva brite. All paint, scale and enamel shall be removed from the contact before the earthing connections are made. All sizes of GI strips shall be fixed by using GI clamp, GI spacer, and 35x8mm GI screw with PVC nylon fasteners (PVC Grip). Clamps shall be fixed at an interval of1000mm (in case of wall/slab). The earthing for Equipment shall be tapped from the main earth conductor/strip. Equipment earthing shall be done by GI nut bolting. Ensure GI nut bolt shall be fully tightened at equipment earthing. GI strip laid underground shall be at depth of 500mm below finished grade level. All joint below ground level shall be welded by two coats of bitumen paint. All connections to the grounding grid shall be made with earthing strip welded to the grid and bolted at equipment ends. All joints and cut ends shall be properly painted with galvabrite.

17.9.3 CABLE TRAY INSTALLATION:

Cable tray supports and cable tray material shall confirm the size, quantity and quality as per technical specification. Cable tray routes shall be cleared of any debris. Necessary cable tray route and supports shall be checked as per approved drawings. If required, make suitable size opening in the wall for cable tray entry into the building. All accessories used such as joint plate, nut, bolts with washer, bends, reducers, etc. used in cable trays shall be of the same manufacturer as that of the cable trays. Necessary Scaffolding shall be arranged wherever applicable. Throughout the work execution, safety standards shall be followed.

Chalk lines (geru powder cement colour removable type) are used to mark the cable tray route at the deck slab. After marking of supports location, drill the hole & install anchor fastener. Ceiling bracket and top hat section shall be fixed on anchor fastener. Install the threaded rod supports using with ceiling bracket as per approved drawing. Check the vertical and horizontal alignment of threaded rod support by spirit level. Supports shall be installed at spacing not exceeding 1.5 meters and all branches, bends, Endpoints supports shall be installed as shown on the approved drawings. Nylon line dori will be used to ensure that all supports are in a straight line. After the installation of supports install the proper size cable tray and check the alignment using of line dhori & Sprit level. Two lengths of cable tray shall be connected with the joint plate. Minimum clearance shall be maintained between bottom of the tray and the ceiling. End cap to be provided at end cut portion of tray.

17.10 CORE CUT:

Core cut hole shall be carried out at the site as per the site requirement after consulting Civil Engineer. Ensure marking of core cut is in line of existing cut out at the floor above or below to have vertical alignment. If more than one Core cut is required, required spacing shall be provided. Centre of core cut to be drilled with drill machine to receive core bit of machine. This will avoid displacement of core machine bit. The Core cut Machine will be Fixed to Slab using Machine Clamp and anchor Fastener. Check that machine is firmed enough not to displaced from its location. Check the electrical supply and run the machine with minimal force. Maintain proper gaps between adjacent core cuts to allow pipe jointing in future. Upon completion of the core cut, protect the Core cut hole using the ply piece.

17.11 CONCEALING INSIDE WALL/PARTITIONS/GROUND/CEILING :

17.11.1 The contractor shall give due notice to the Employer whenever any work like opening for the earth pits, under ground laying of cables, concealing the conduit piping, cabling or any work is to be concealed in the wall/false ceiling/partitions or finished up or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before concealing.

17.11.2 If the Contractor has concealed the items without informing Bank Engineer, the same shall be opened up for measurement and made good to the original finishing at the contractor's expenses. If the contractor refuses to do so, then the same will not be considered for measurement and no payment may be made for such materials.

17.11.3 The contractor shall not execute any extra work other than the Bank's written instruction. No works, for which rates are not specifically mentioned in the price bid, shall be taken up without written permission of the Bank.

17.11.4 Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the decision of Bank shall be accepted as correct and binding on the contractor.

17.11.5 It is the responsibility of the Contractor to arrange/provide the tools, ladder, stands or any other gadgets or supports required for the execution of the work at site and Bank will not provide or entertain such requests.

18.0 MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS

18.1 All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workman like manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by Bank during the execution of the work and to his entire satisfaction. The Contractor shall use only products bearing ISI marking in the work for those materials for which no makes are mentioned in the tender.

18.2 No refurbished, second hand and spurious materials should be used. If required, the contractor has to submit the details of the source of his purchase of materials to Bank. Bank reserves its right to enquire and collect data from the supplier to confirm the authenticity of the materials. Bank has the right to stringent action against the contractor, as deemed fit, in addition to suspend / cancel the contract.

18.3 Contractor should get approval of the samples of materials in advance with Bank's Engineer before use of the same in the work, should be contractor desire to substitute any specified materials with "Equal" or "Other approved" etc., he/they must obtain the specific approval of the Bank in writing for any such substitution, well in advance.

18.4 Samples of all materials to be used must be submitted when so directed by Bank. If required, the contractor shall have to carry out tests on materials in approved materials testing laboratories or as prescribed by Bank at his own cost to prove that the materials etc., under test conform to the relevant I.S Standards or as specified in the specifications. The necessary charges, transporting, testing etc., shall have to be borne by the contractor. No extra payment on this account will be entertained.

18.5 If the contractor has used any material which is not complying with the specifications, or the workmanship is bad or the material used is substandard or second hand etc, Bank shall during the progress of the work have power to order the removal and substitution of the material or proper re-execution of the work within a reasonable time. In case the contractor refuses to comply with the order, Bank shall have the power to employ other agencies to rectify or reexecute the work at the cost and risk of the contractor.

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

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

When the employer observes that the progress of the work is not satisfactory or very 18.8 slow or not in a workmanship manner or of poor quality or violative of safety protocols etc, the contractor shall be issued a suitable advise to rectify the same or replace the materials or redo the entire work, within a reasonable time frame. If the contractor could not rectify the things within the time frame given, in the interest of the work, the Employer reserves the right to execute any part of the work included in this contract or the entire work by any other Agency or persons and contractor shall allow all reasonable facilities and extend cooperation for the execution of such work.

18.9 All expenses consequent thereon or incidental thereto as certified by Bank shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate, shall relieve the contractor from his liability in respect of unsound work or bad materials.

19.0 PERIOD OF CONTRACT & EXTENSION OF TIME

19.1 Time is the essence of the contract. The Contract shall be executed within the stipulated period in the NIT. No request for extension will be entertained and the bidder has to plan and mobilize his resources for the satisfactory completion of the project within the time period agreed in the tender.

19.2 If in the opinion of the Employer, the work is delayed due to the following reasons not attributable to the contractor, the employer shall make a fair and reasonable extension of time, for completion of the Contract works

- By force majure (or) a)
- b) By reason of any exceptionally inclement weather (or)

By reason of proceedings taken or threatened by or dispute with adjoining or c) neighboring owners of public authorities arising, than through the Contractor's own default (or) By the works not referred in the Schedule of Quantities or specifications (or)

d)

e) By reason of civil commotion, workmen strike or lock-out (or)

In consequence of the Contractor not having in due time, necessary instructions from f) the Employer for which he shall have specifically applied in writing ahead of time, giving reasonable time to prepare such instructions

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

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

20.0 PAYMENT TERMS

- No advance payment. i)
- ii) No part payment. For certain works, part payment will be considered if stipulated in the NIT.
- iii) Payment shall be made by way of Electronic fund transfer and the bill will be paid by the Branch.
- iv) Contractor should furnish details of the bank a/c no, IFSC code along with their invoices.

20.1 Part/Interim payment is paid as per the payment terms mentioned in the NIT. All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude, determine or affect in any way the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract.

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

20.3 The final bill shall be accompanied by a certificate of completion or Commissioning report signed by an official of the Bank. Payments of final bill shall be made after deduction of Retention Money as specified, which shall be refunded after the completion of the Defects Liability Period provided the contractor has rectified all defects to the satisfaction of the Bank. The acceptance of the payment of the final bill by the contractor would indicate that he has no further claim in respect of the work executed.

20.4 **GST as applicable shall be paid extra** and the same shall be clearly shown in the invoices.

20.5 Statutory deduction towards income tax and other taxes as and when directions from statutory bodies are received will be made at the time of making payments. Currently, I.T. will be recovered @ 2 % plus surcharge or as applicable as per Government Rules. GST-TDS as per applicable rates will be deducted, wherever applicable.

20.6 GST:

a. It is the responsibility of the bidder to ensure that the GST is valid and active. Payments will not be made to inactive or invalid GST invoices.

b. Reimbursement of GST will be made only on submission of proper GST invoice as per applicable GST provision. Non-GST invoices will not be accepted. The contractor should comply with the following.

c. Contractor should have GST Registration Number

d. Invoice should specifically disclose the amount of GST levied at applicable rate as per GST provision

e. In case of Correction in the bills after scrutiny, contractor should submit fresh bills for payment

f. Contractor should timely file his GST return in accordance with GST provisions to enable the bank to claim the credit of GST paid to the contractor

g. The GST Number of State Bank of India for Telangana State -36AAACS8577K1ZQ

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

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

21.0 SECURITY DEPOSIT

21.1 Retention Money: From each running bill, an amount at the rate of 8% of the gross value of the running bill shall be recovered as retention money, till the total retention amount including the ISD amount already with the Bank become 5% of the value of the contract amount. This amount is called as Total Security Deposit, which consists of two components.

a) ISD - Initial Security Deposits.

b) RM - Retention Money.

21.2 The total security deposit (5%) will be kept with the Bank. The total security deposit amount shall be refunded without interest to the contractor 30 days after the end of defects liability period, provided he has satisfactorily carried out all the works and attended to rectification of all defects in accordance with the conditions of the contract including clearing the site.

21.3 The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, which may appear within the defects liability period. In case of failure on the part to do so, the cost of rectifying the defects through any other agency shall be deducted from the amount of security deposit due to the contractor.

21.4 During the contract period, all compensation or other sums of money payable by the Contractor to Bank under the terms of this contract, will be deducted from the security deposit, or from any sum that may become due to the Contractor on any account whatsoever.

21.5 In the event of the Security Deposit being reduced by reasons of any such deductions, the Contractor shall within 7 days of being asked to make good, by DD, any sum which have been deducted from his security deposit.

22.0 PENALTY CLAUSE

The successful bidder shall execute the work in a workmanship like manner and complete the work within the stipulated period in the NIT. If the work is delayed beyond the stipulated period for reasons attributable to the bidder, Bank shall penalize them a penalty @ 0.5% per week for every week of delay or part thereof beyond the scheduled date of completion, in any case, not exceeding 5% of the contract value or the completed value of work.

23. VARIATION IN QUANTITY / SUBSTITUTION OF ITEM

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

23.2 The Employer reserves the right to increase or decrease or delete or omit or execute only a part or the whole or any excess thereof, as per the site requirements, without assigning any reason therefore at the time of allotment / execution of work. Contractor will be paid for the actual work done at the site. No variation shall vitiate the contract.

23.3 The tender rates shall be fixed and applicable for any increase or decrease in the tendered quantities. Nothing extra will be paid by the Bank on account of omission / deletion of items or decrease in the quantity of items. The Bank shall not entertain any claim whatsoever from the contractor on this account. Payment will be made on actual measurement of the work done. All measurements shall be as per relevant I.S. standards

23.4 Bank reserves the right to order more quantities than what is mentioned in this tender (at the same rate and terms and conditions) either at the same site or other sites as per the need within the validity of this tender.

23.5 The price of all additional items/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on

prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

24. CONTRACTOR'S EMPLOYEES

24.1 The Contractor shall employ technically qualified / having appropriate skill and competent persons fully trained and adequately experienced Electricians, who are medically fit. They should be free from any contagious diseases. The Electricians shall be well mannered and properly dressed with shoes etc.

24.2 The contractor shall provide necessary training on safety measures while executing the work wherever necessary so as to avoid accident. The Bank shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor shall also provide all risk insurance policy including third party insurance as may be necessary to cover the risk.

24.3 The contractor / firm shall be held responsible for any misdeeds / misbehaviour of their employees within the premises. Bank is not responsible for any damages or claims on account of the misbehavior / misdeeds of his employees. For this purpose, any person supplied by the contractor to be engaged on the work on regular basis or as an alternate arrangement, under the direct order or control of the Employer or his representative shall be deemed to be a person employed by the contractor.

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

24.5 No employee of the Bank is allowed to work as a contractor for a period of 2 years of his/her retirement from Bank Services without previous permission of the Bank. This contract is liable to be cancelled, if either the contractor or any of his employees is any time to be such a person who had not obtained the permission of Bank as aforesaid before submission of the tender or engagement in the contractor's service.

24.6 Contractor should not engage child labour in any of the activities in this contract.

24.7 The contractor shall not employ person who is not an Indian National.

24.8 The Electrician shall not over stay in the Bank premises other than the time permitted by the Bank or in the odd hours or holidays unless or otherwise required by the Branch for specific reasons like maintenance, repair works etc.

24.9 In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provisions, B.I.S recommendations, factory act, workman's compensation act, CPWD code and instructions issued from time to time.

24.10 The Contractor's workmen will not have any right whatsoever to get absorbed in the Bank. The Contractor shall be responsible for all the claims of the employees of the Contractor and shall not make and claim whatsoever against the Bank. The Contractor shall be responsible for all statutory requirements e.g. ESI, PF, labour registrations, Insurance coverage etc. The operator is responsible for compliance of all the rules & safety regulations etc.

Minimum wages as prescribed by the Labour Act shall be payable to the operator(s) by the contractor as the case may be. The Contractor shall bind himself and keep the Employer saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

25. WORKING HOURS AT THE SITE

As instructed by Bank. Contractor to ensure that the routine operations at the site are not affected by the contract work. If required, they have to work on the Bank Holidays in coordination with other agencies and Bank.

26.0 SUBCONTRACTING

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

27.0 STORAGE OF MATERIALS

27.1 The contractor shall store their materials like fixtures, cables, conduits, wires, tools etc in the site with the permission of the Bank. However, the contractors shall be responsible for the custody and security of all materials and equipment at site. No claim for loss or theft will be entertained by the Bank.

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

27.3 On completion of the works, the contractor shall remove all tools, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Bank.

28.0 FORCE MAJEURE

28.1 Notwithstanding the provisions of General terms and conditions of the Contract, the contractor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that the delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

28.2 For the purposes of this clause, 'Force Majeure' means and includes wars, insurrections, revolution, civil disturbance, riots, terrorist acts, public strikes, hartal, bandh, fires, floods, epidemic, quarantine restrictions, freight embargoes, declared general strikes in relevant industries, Vis Major Act of Government, impeding reasonable performance of the Contractor and / or Sub-Contractor but does not include any foreseeable events, commercial considerations or those involving fault or negligence on the part of the party claiming Force Majeure.

28.3 If a Force Majeure situation arises, the Vendor shall promptly notify the Bank in writing of such condition and the cause thereof. Unless otherwise directed by the Bank in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

29.0 COMPLIANCE OF STATUTORY REGULATIONS

29.1 The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-Laws of any authorities like Electricity, Pollution Control Boards, Municipal Authorities, water and Sewarage boards and shall before making any variations from the drawings or specifications that may be associated to so conform, give the Employer written notices specifying the variations proposed to be made and reasons for making them and apply for instruction thereon. The Employer on receipt of such intimation shall give a decision within a reasonable time.

29.2 The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be given to any authority, and to pay to such authority or to any public officer all

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

29.3 The contractor should strictly abide by the Central/State labour regulation for the Minimum Wages, Payment of wages, Workmen Compensation, PF, ESI, Contract labour, including the latest amendments, if any and other safety regulations.

29.4 The contractor shall keep the Employer saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

30.0 INSURANCE & DAMAGE TO PERSONS AND PROPERTY ETC

30.1 The insurance shall be for an amount equal to 110 percent of the value of the contract on "All Risks" basis, valid until the Completion of the project or handing over whichever is later.

30.2 Should any loss or damage occur, the Vendor shall initiate and pursue claim till settlement and promptly make arrangements for repair and / or replacement of any damaged item to the satisfaction of the Bank, irrespective of settlement of claim by the underwriters.

30.3 The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and / or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract.

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

30.5 The contractor shall affect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect.

30.6 The contractor shall be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

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

31. TERMINATION OF CONTRACT BY BANK

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a Deed or arrangement with his creditors, or if the Official Assignee in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a receiver of the contractor's firm appointed by the court shall be unable within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the BANK that he is able to carry out and fulfill the contract, and if so required by the Bank to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or shall suffer any

payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials of workmanship in carrying on the works, or shall in the opinion of the Bank not exercise such due diligence and make such progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the Bank after three clear das notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned or shall abandon the contract, then and in any of the said cases, the Bank may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the Bank of the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determine and as if the works subsequently executed by or on behalf of the contractor (without thereby creating any trust in favor of the contractor) further the Bank or his agent, or servants, may enter upon and take possession of the work and all plants tools scaffolding sheds machinery, steam, and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractors or other persons or person to complete the works, and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractors or other persons or person employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be the Bank shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor to remove his surplus materials after receipt by him the BANK may sell the same by Public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the contractor for the amount so realized. Any expenses or losses incurred by the BANK in getting the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractors or against the Security Deposit.

32.0 DISPUTES/ARBITRATION:

32.1 All disputes or differences whatsoever arising between the parties out of or in connection with this contract or in discharge of any obligation arising out of the Contract (whether during the progress of work or after completion of such work and whether before or after the termination of this contract, abandonment or breach of this contract), shall be settled amicably.

32.2 If however, the parties are not able to solve them amicably, either party (SBI or Vendor), give written notice to other party clearly setting out there in specific dispute(s) and/or difference(s) and shall be referred to a sole arbitrator mutually agreed upon, and the award made in pursuance thereof shall be binding on the parties.

32.3 In the absence of consensus about the single arbitrator, the dispute may be referred to joint arbitrator; one to be nominated by each party and the said arbitrators shall nominate a presiding arbitrator, before commencing the arbitration proceedings. The arbitration shall be settled in accordance with the applicable Indian Laws. Any appeal will be subject to the exclusive jurisdiction of courts at Hyderabad.

32.4 The Vendor shall continue work under the Contract during the arbitration proceedings unless otherwise directed by the Bank or unless the matter is such that the work cannot possibly be continued until the decision of the arbitrator is obtained.

32.5 Arbitration proceeding shall be held at Mumbai, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be in English.

33. Governing Language:

All communication with respect to the Bid, clarifications, replies, contract documents etc shall be in English.

34. Safety Guidelines for the Contractor:

The Contractor should follow the following General safety Guidelines while executing the work: 34.1 Smoking is strictly prohibited at workplace.

34.2 No one is allowed to work at or more than three meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level. Chinstrap of safety helmet shall be always on and safety boot is worn.

34.3 Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs eye protection has to be provided as per the need.

34.4 All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job.

34.5 Excavated pits for earthing, cable laying shall be barricaded till the backfilling is done. Safe approach to be ensured into every excavation.

34.6 Preferably the work shall be carried out during the daytime. However, adequate illumination at workplace shall be ensured in case any work is carried out at night.

34.7 All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.

34.8 Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.

34.9 Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work everyday. Dismantled Material shall not be thrown from the height and shall be properly disposed off to prevent any injury to public/staff.

34.10 Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.

34.11 All electrical connections shall be made using 3 or 5 core cables, having a earth wire.

34.12 Inserting of bare wires for tapping the power from electrical sockets is completely prohibited and plug tops of suitable capacity only shall be used.

34.13 All the unsafe conditions, unsafe acts identified by contractors, reported by SBI to be corrected on priority basis.

34.14 No children or physically challenged persons shall be allowed to enter the workplace and shall not be utilized for any service during execution of the work.

34.15 All the Gas cutting, sharp tools, flammable materials and tackles shall be stored properly and safely when not in use.

34.16 Clamps shall be used on Return cables to ensure proper earthling for welding works.

34.17 Return cables shall be used for earthling.

34.18 All the pressure gauges used in gas cutting apparatus shall be in good working condition and in case of any leakages, the same shall not be used.

34.19 Proper eye washing facilities shall be made in areas where chemicals are handled.

34.20 Connectors and hose clamps are used for making welding hose connections.

34.21 Tapping of power by cutting electric cables in between must be avoided. Proper junction boxes must be used.

READ, UNDERSTOOD AND ACCEPTED

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LIST OF I.S.CODES FOR INTERNAL ELECTRIFICATION INSTALLATIONS

S.No.	Description	IS Code
1.	EXTERNAL ELECTRIFICATION wiring installation (system voltage not exceeding 650V	IS 732 – 1989
2.	Graphical symbols used in Electro-technology art-XI-Electrical Installation buildings	IS 2032-1969
3.	Fire safety of buildings (General) Electrical Installation	IS 1646-1961
4.	3 pin plugs and sockets	IS 1293
5.	Earthing	IS 3043-1966
6.	Fittings for electrical wiring	IS 26671964
7.	General and safety requirements for electric lighting fittings	IS 1913-1969
8.	Busbar ratings	IS 8084-1976
9.	On load change over switches	IS 4064-1978
10.	Panel shall comply with the latest Relevant Indian Standards and	IS-13947-1993
	Electricity Rule and Regulations	
11.	The general construction shall for factory built assembled	IS-8623-1977
	switchgear & control gear for voltage up to and including 1100 V AC	(Part-1)
12.	DBS	IS-13947-1993
13.	The general construction for factory built assembled switchgear	IS-8623-1977
	& control gear for voltage up to and including 1100 V AC	(Part-1)
14.	The degree of protection shall be IP-42 for indoor application, IP-	
	55 for kitchen and IP-65 for outdoor application.	
15.	Conduits for electrical installations, Part 3: Rigid plain conduits of insulating materials. General requirements [ETD 14: Electrical Wiring Accessories].	IS 9537-3 (1983)
16.	Fittings rigid non-metallic conduits [ETD 14: Electrical Wiring	IS 3419 (1989)
10.	Accessories]	10 01 0 (1009)

FORM OF SUBMISSION OF TENDER

(To be filled by the tenderer)

The Regional Manager, Sate Bank of India, RBO _____,

Dear Sir/s,

Ref: TENDER FOR

I/We have examined the above tender and subsequent pre-bid clarifications/ modifications / revisions, if any, furnished by the Bank and I/We have inspected the site of works and have made me / us fully acquainted with the local conditions in and around the sites of works and offer to undertake Contract as detailed in this tender by submitting my/our bids.

2. While submitting this Bid, I / We certify that:

i) The undersigned is authorized to sign on behalf of the Bidder and the necessary support document delegating this authority is uploaded along with the bid.

ii) We certify that we have not made any changes in the contents of the tender document read with its amendments/clarifications provided by the Bank, submitted by us in our Bid document.

iii) The rate quoted in the *price Bids are as per the tender* and subsequent pre-Bid clarifications/ modifications/ revisions furnished by the Bank, without any exception.

3. We agree to abide by all the Bid terms and conditions, contents of Agreement and the rates quoted in the bid, which shall remain binding upon us.

4. If our Bid is accepted, we undertake to enter into and execute at our cost, when called upon by the Bank to do so, a contract in the prescribed form and we shall be jointly and severally responsible for the due performance of the contract.

5. Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

6. It is further certified that the contents of our Bid are factually correct. We also accept that in the event of any information / data / particulars proving to be incorrect, Bank will have the right to disqualify us from the Bid.

7. We understand that you are not bound to accept the lowest or any Bid you may receive and you may reject all or any Bid without assigning any reason or giving any explanation whatsoever.

8. We hereby undertake that our name does not appear in any "**Caution**" list of RBI / IBA or any other regulatory body.

9. We also confirm that we have not been **blacklisted** by any Bank / PSU / State or Central Govt departments for any reasons.

10. We confirm that we do not have any **litigation / cases** pending against us in any Bank / PSU / State or Central Govt departments.

11. We confirm that we are responsible to obtain all necessary licenses, permission, NOC from all the statutory /local authorities for the smooth execution of this contract in SBI premises.

12. We hereby confirm that all the materials/components/spare parts/equipment etc. to be supplied / used as a part of this contract shall be original / new materials / components / parts / equipment only, from respective OEMs of the products and that no refurbished / duplicate / second hand materials/components /parts/ equipment shall be supplied or shall be used.

13. For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Engineer-in-charge for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the Bank as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

Yours Faithfully,

Contractor's Signature_____

Name: _____

Address: _____

FORM OF AGREEMENT

ARTICLES of AGREEMENT made this ____ day of _____ year 202_ between ______ (Hereinafter referred to as the "Employer/Bank" which expression shall, unless excluded by or repugnant to the context, includes its successors and assigns) of the ONE PART and ______ of _____ (Hereinafter referred to as "Contractor" unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.

WHEREAS the Employer intends to carry out

_and shall

herein after referred to as "Project".

AND WHEREAS for the purpose of the above said project, the Employer invited tenders from experienced, resourceful and bonafide contractors through the Bank, Hyderabad vide its Notice Inviting Tender (No._____ dated.____).

WHEREAS the contractor submitted his Tender containing Notice Inviting Tender, General Conditions of Contract, Special conditions, Bill of Quantities, Form of Agreement, Preferred makes of materials, Form of Submission of tender, Technical Specifications etc. for the above said project, (Hereinafter collectively referred to as the "said conditions"), signed as a token of his acceptance of the same, along with requisite Cost of tender and Earnest Money Deposit.

AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most suitable for the project.

AND WHEREAS the Employer through Bank has accordingly issued the work order (No._______dated.____) to the contractor subject to his furnishing the requisite Security Deposit.

AND WHEREAS the Contractor has accepted the aforesaid Work Order vide his letter of acceptance No._____ dated_____ and has also deposited with the Employer a sum of Rs._____ which with the Earnest Money of Rs._____ forms the requisite Security Deposit @2 % of the accepted Tender Value of Rs._____.

NOW, therefore, it is hereby agreed to and between the parties as follows:

1) Contract documents

The following documents shall constitute the Contract Documents.

I. This Article of Agreement.

II. Tender Document submitted by the Contractor including the "said conditions", N.I.T and Schedule of quantities.

III. All correspondence between the Employer and the Contractor from the date of issue of N.I.T and the date of issue of work order.

IV. Work order No. _____dt.____

2) In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions, execute and complete the contracted project works and such further detailed drawings as may be furnished to the contractor by the said Employer and described in the said Specifications and the said Schedule of Quantities.

3) Notwithstanding what are stated in the N.I.T conditions of Tendering, Conditions of Contract of herein stated before, the Employer reserves itself the right of altering the nature of the work and addition to or omitting any items of work or of having portions of same

carried out through another agency or otherwise and such alterations or variations shall be carried out without prejudice to this contract.

4) As mentioned above, the "said conditions" shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.

5) Any dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the General Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of the Hyderabad thereto. The decision of the arbitration shall be final and binding on both the parties.

6) The Vendor / Contractor shall promptly notify SBI of any changes in the constitution of their firm. It shall be open to SBI to terminate the agreement on the death, retirement, insanity or insolvency of any person/s is being director/s or partner/s in the said company / firm, or on the addition or introduction of a new partner without the previous approval in writing of SBI. But in absence of and until its termination by SBI as aforesaid, this agreement shall continue to be of full force and effect notwithstanding any changes in the constitution of the firm by death, retirement, insanity or insolvency of any of its partners or the addition or introduction of any new partners. In case of retirement / death, the surviving or remaining partners of the firm shall be jointly and severally liable for the due and satisfactory performance of the terms and conditions of the agreement.

7) The Contractor agrees and hereby keeps the Bank indemnified against all claims, actions, loss, damages, reputation loss, costs, expenses, charges, including legal expenses (Attorney, Advocates fees included) which the Bank may suffer or incur on account of any deficiency in Services rendered by The Contractor or breach of any obligations under this contract, including without limitation, breach of confidentiality obligations or any acts of commission / omission on the part of employees, agents, representatives or Sub-Contractors of the Contractor. The Contractor agrees to make good the loss suffered by the Bank.

IN WITNESS WHEREOF THE PARTIES to their present have here under set and subscribed their hands, the day, month and year first above written.

Signed and delivered for and on behalf of

Shri. _____ its duly authorized official, In the presence of -

1. (Name and Address)

2. (Name and Address)

Signed and delivered for and on behalf of the Contractor _____by Shri_____ his duly authorized representative, in the presence of

- 1. (Name and Address)
- 2. (Name and Address)

REFERRED MAKE OF MATERIALS TO BE USED :

Sno	ITEMS	BRAND NAME
	MCCB / MCB / RCCB / MCB	L&T/SIEMENS/ SCHNEIDER/ ABB / LEGRAND /
1.	DB	HAVELLS
2.	HT/LT CABLES	L&T/UNIVERSAL / FINOLEX / POLYCAB / HAVELLS
3.	CABLE GLANDS	HAX/DOWELLS/HMI/BRACO/COMET/
4.	CABLE LUGS	DOWELL/3D/JAINSON
5.	CHANGE OVER SWITCH	HPL/L&T/C&S
6.	INDICATING METERS	L&T/AE/IMP/MECO/CONZERV
7.	RELAYS	L&T/ GE/TELEMECANIQUE/AREVA
8.	CT'S RESIN-CAST	KAPPA/IMP/AE/KALPA
9.	SELECTOR SWITCHES	L&T/SIEMENS/KAYCEE
10.	FRLS WIRES	RR KABEL/FINOLEX/POLYCAB/L&T/HAVELLS/KEI
		ANCHOR/LEGRAND/
11.		HONEYWELL/HAVELLS/SCHNIDER
	PVC CONDUITS	VIP/PRECISION/ATUL/SUDHAKAR/MODI
13.	CASING / CAPPING	CLASSIC/ MODI/SUDHAKAR
14.	LIGHT FITTINGS	PHILIPS / CROMPTON/ WIPRO/ HAVELLS
15.	EXHAUST FANS	CROMPTON/ GEC/ ARMONALD/HAVELLS
16.	CEILING FANS	CROMPTON/HAVELLS/ BAJAJ/ USHA
17.	ACB	L&T/SIEMENS/ SCHNEIDER/ ABB
18.	CONTACTORS	L&T/SIEMENS/ SCHNEIDER/ ABB
19.	CABLE TRAY	STELCO/STEELWAYS/SLOTCO/PILCO
20.	BUS BAR SUPPORT SYSTEM(SMC SHEETS)	POWERMAT/L&T/C&S/LEGRAND
	BUS BAR TAPING BOX	SIEMENS/SCHNEIDER/ABB/C&S
22.	M S CONDUITS	BHARAT / ZINDAL/
23.	CAPACITOR BANKS	SCHNIDER/L&T/LEGRAND/EPCOS
24.	CAT-6/TELEPHONE CABLES	D-LINK/FINOLEX/POLYCAB/LEGRAND/SKYTONE
25.	LAN SWITCHES I/O PORT	CISCO/D-LINK/ JUNIPER/LEGRAND
26.	NETWORK RACK	D-LINK/VALRACK/NETRACK/EMERSON
	Important: Please Tick (/) the	e make of materials considered in the Tender.

SI	BOQ FOR NMDC BRANCH ELECTRIC	Unit		Unit	Total
No	Description	Unit	Qty	Rate	amount
	DISTRIBUTION BOARDS:-				
	Supply, installation and concelling/surface of				
1	following size MCB/MCCB/RCBO distribution boards				
T	with following combination of C curve-MCBs as				
	required. the scope of work includes supply of				
	blanking plates for Vacent slots.				
	MCCB NEAR ENERGY METER	No	1		
1.1	Supply & Installation of 125A,4Pole, 25KA MCCB in a fabricated IP 65 enclosure near Energy Meter (
	MCCB should not visable to outside.				
	Master Control DB:	No	1		
	Supply & fabrication of free stnading wall mounted		-		
	M V panel made out of 14SWG MS sheet after seven				
	tank process and painting with epoxy powder coating with vertical cubicles as detailed below.				
	<u>CUBLICLE-1</u> : 100A,4P,25KA MCCB with vary deep				
	extendable handle -1 no and a busbar arrangement				
	at output				
1.2	Input:from MCCB at Energy meter, output 1:To MTS				
	Output 2: To PDB				
	<u>CUBICLE-2:</u> 63A, 4P Changeover(Manual Transfer				
	Swtich-MTS) with vary deep extendable handle-1no.				
	Input 1: From the O/P of Cubicle-1 MCCB i.e from				
	the busbar.				
	Input 2: From COS O/P				
	Output : MTS DB				
	PDB/Main DB:	No	1		
	3 phase 4 way Ekinox ³ TPN DB-VTPN				
	DPX ³ 160 MCCB DB's IP 43 - #IK 09 with metal				
	Double door:-				
1 2	(1) 100A,25KA, 4P, MCCB-1 no (input Master				
1.3	Control DB cubicle-1)) (2) 82A,3P, MCB- 02 NO (I/P to AC DB, COS)				
	(3) 40A, 3P, MCB-01 No,(I/p to AC DB, COS)				
	(4) 6-32A, SP MCb-3 No (Spare)				
	Note: for indicating lamps, tap the power supply				
	from output of incomer				
	AC DB	No	1		
	3 phase 4 way Ekinox ³ TPN DB-VTPN DB's				
	for DX ³ MCB, IP 43 - #IK 09 with metal				
1.4	Double door:-				
-	(1) 63A, 4P, MCB-1 no (input from PDB)				
	(2)63A,4P, 100mA, RCCB-1 no (Input) (3)63A,3P, MCB- 2 NO (odu)				
	(4) 6-32A SP MCb-6 No (cassette Acs)				

	CHANGEOVER SWITCH(COS):	No	1	
	SITC of fabricated 100A, 4 pole on load Change			
	over switch with provision for the armoured cable			
	termination as required.			
1.5	(1) Input-1: From PDB			
	(2)Input-2: From DG set			
	(3) Output:7 segment display(LDB) and MTS 2nd			
	Input.			
	LDB	No	1	
	Ekinox ³ TPN DB - 6way 7 segment DB's for DX ³			
	MCB, Isolator, RCCB and RCBO : With provision for			
	FP MCB/Isolator/RCCB/RCBO as incomer and SP			
1.6	MCB's as			
	(1) 40 A 4 Pole MCB-1no (Input From COS)			
	(2) 40A 2P 30mA RCCB-3no			
	(3)6-10A SP MCB-14no for raw power sockets and light point circuits			
	(4) 16A SP MCB-3 nos of water cooler, Kitchen			
	power point			
	(5) 20A SP MCB-1 no for BM AC			
	OUTPUT OF MTS	No	1	
	Ekinox ³ 4 way ETPN DB's for DX ³ MCB, Isolator,		-	
	RCCB and RCBO IP 43 - #IK 09 with Double door.			
	(1)63A,4P, MCB-1no(Input from main DB MTS)			
1.7	(2)40A, 2P, MCB-1no(Branch UPS I/P)			
	(3)32A,4P, MCB-1no(ATM Raw Power DB)			
	(4)6A,2P, MCB-1no (sign board I/P)			
	(5)6A,2P,MCB-1 No(exhaust fans in UPS room)			
	CAPACITOR PANEL.	No	1	
	Supply, installation, testing and commissioning of 1			
1.8	no. of 5KVAR heavy duty capacitor box type. The			
	scope of work includes supply & fixing of 1 no. of			
	16A TP MCB and its related work			
	supply & installation of 1 no of 63A 4P MCB and 1	No	1	
1.9	no of 63A 4P RCCB ina weather proof enclosure for			
	VRF ODU			
1.11	UPS & RELATED DBS	NI -	2	
1 1 7	UPS INPUT DB:	No	2	
1.12	DP/TP/FP Metal enclosure with 1 no of 32A DP MCB for 2 to 5 KVA UPS.			
	UPS OUTPUT DB	No	2	
1.13	DP/TP/FP Metal enclosure with 1 no of 32A DP MCB		2	
	UPS OUTPUT DISTRIBUTION DB NEAR UPS	NO	1	
	SPN 8 way IP 43 - #IK 09 with metal Double door		Т	
	DB for UPS sockets. The scope of work includes			
1.14	supply & fixing of following MCBs:			
	(1) 32A DP MCB-1NO, (2)6-32A SP MCB-6NO (
	Hub/NETWORK RACK,CCTV, Fire panel, Burgalarm			
	and Distribution boards in banking hall)			
	UPS DB IN BANKING HALL	No	2	
	SPN 8 way IP 43 - #IK 09 with metal Double door			
1.15	DB for UPS sockets. The scope of work includes			
	supply & fixing of following MCBs:			
	(1) 32A DP MCB-1NO, (2)6-10A SP MCB-6NO			

	ATM UPS DB	No	1	
	SPN 8 way IP 43 - #IK 09 with metal Double door		_ _	
	DB for UPS sockets. The scope of work includes			
1.16	supply & fixing of following MCBs:			
	(1) 32A DP MCB-1NO, (2)6-10A SP MCB-6NO			
	ATM RAW POWER DB (TO BE INSTALLED	No	1	
	INSIDE THE ATM)	_		
	7segment 4 way DB's IP 43 - #IK 09 with Double			
	door.			
	(1)32A,4P, MCB-1no(Input)			
1.17	(2)40A,100mA,1P RCCB-2 no (Input for lighting &			
	(3)32A, 2P, MCB-1no(ATM UPS I/P) (4) 32A,2P MCB-1 no (ATM AC)			
	(4) 32A,2P MCB-110 (ATM AC) (5)10A,2P, MCB-1no(ATM lighting SB)			
	(6)6A,2P, MCB-2no (ATM sign board & Banking Hall			
	Sign Board)			
	ARMOURED CABLES FOR DB INPUT, CASSETTE			
	ACS & UPS INPUT DB:-			
	Supply,Laying, Testing and commissioning of 1.1 KV grade XLPE insulated armoured alluminium/copper			
	conductor cable of the following size including			
2	laying in trenches, cable trays, on wall including			
	claming and including civil works etc complete as			
	per IS 7098 - Part 1 - 1983. The scope of work			
	includes supply & laying of 2 runs of 8 SWG GI wire			
	along with the cable			
2.1	3.5C X 25 SQMM ALU CABLE	Rmt	140	
2.2	4C X 6 SQMM CU CABLE for AC ODU	Rmt	40	
2.3	4C X 4 SQMM CU CABLE FOR ATM	Rmt	150	
2.4	3 C X 4 SQMM CU CABLE for UPS	Rmt	100	
2.5	3 C X 2.5 SQMM CU CABLE for cassette Acs	Rmt	99	
	TERMINATIONS: Termination of the following cables with double			
3	compression(DC) cable glands and also with			
5	suitable size alluminiumn/copper lugs including			
	supply and fixing of Lugs.			
3.1	3.5C X 25 SQMM ALU CABLE	No	12	
3.2	4C X 6 SQMM CU CABLE	No	2	
3.3	4C X 4 SQMM CU CABLE	No	2	
3.4	3 C X 4 SQMM CU CABLE	No	8	
3.5	3 C X 2.5 SQMM CU CABLE	No	8	
4	UPS INTERNAL WIRING			
	Supply, laying and dressing of following 1.1KV			
	XLPE Insulated, PVC tape/PVC Extruded Innersheathed for Multicore copper flexible			
	Cables , extruded PVC Type ST2 Sheathed,			
	650/1100 V grade as per IS 7098 (Part 1) 1988.			
	The scope of work includes laying of cable in a			
	suitable metal hose flexible pipe .complete the			
	work as directed by the SBI. the cable should be			
	laid from UPS I/P to UPS I/P enclosure & UPS O/P to			
	UPS ouput enclosure only.			
4.1	3 core X 4 sqmm coppe flexible cable	Rmt	60	
5	AC WIRING	1		

	SPLIT AC WIRING:-	No	4		
	Supply and Fixing of 20 A DP MCB fixed on a				
	suitable module metal box including all				
	interconnections as required. (for High Wall Spli				
5.1	ACs) along with supply & laying of $3 C^* 4$ sqmm				
5.1	copper armoured cable concealed on wall/ Ceiling				
	etc as required. The wires should be conforming to				
	IS 694 (with latest amendments). The scope of work				
	includes wiring from AC DB to DP MCB to AC unit .				
	SPLIT AC WIRING FOR LOCKER ROOM	No	1		
	Supply and Fixing of 20 A industrial socket with	INO	L L		
	metal clad socket on a suitable module metal box				
	including all interconnections as				
	required near locker room door & one 20A MCB in a suitable enclosure inside the locker room near				
	locker doorm. (for High Wall Spli ACs) along with				
гэ	supply 7 laying of 3C* 4 sqmm copper armoured				
5.2	cable concealed on wall/ Ceiling etc as required. The				
	wires should be conforming to IS 694 (with latest				
	amendments). The scope of work includes wiring				
	from AC DB to meal clad socket to AC unit Supply				
	and run the 3X4 Sqmm copper flexible from metal				
	clad socket to indoor unit, one side to be flexible				
	cable to fited in above socket for plug-top				
	arrangement and other side should terminate IN AC				
	indoor unit side	Durat	60		
	GLOW SIGN BOARD:-	Rmt	60		
6	Supply & laing of 3core 1.5sqmm Copper flexible				
U	Cable in a suitable FRLS PVC pipe for Glow Sign				
	Board including all terminations				
	EMERGENCY LIGHTING(UPS SUPPLY)	No	1		
	Supply & laying of 3 core 1.5 sqmm copper flexible				
	cable in a suitable FRLS PVC pipe for emergency				
	lighting. The scope of work includes supply &				
7	fixing of 2A DP MCB in a suitable enclosure. No of				
	points :One primary point & two secondary points.				
	The scope of work extends to supply & fixing of 3				
	no of square type 15 watts recess mounted LED				
	lights also.				
	LIGHT & FAN POINT WIRING:-				
	Point Wiring for Light/fan point with 3X1.5 sqmm				
	copper conductor FRLS insulated 1100v grade multi				
	strand wires (P+N+E) in concealed/ surface using				
	20/25/32 Medium duty FRLS PVC conduit 16swg				
	thick with all bend, tees, saddle mounting box,				
	cover plate, ceiling rose, etc. complete as required				
	etc. The scope of work includes the <u>circuit wiring</u>				
	from DB to point control box /switch box using				
8	<u>3x2.5 sqmm coppe</u> r conductor <u>FRLS</u> insulated				
	1100V grade multistrand wire (P+N+E) in FRLS				
	PVC conduit 16 swg thick complete in all respect.				
	Each circuit shall have separate earth wire. All				
	switch socket must be modular type with M.S.				
	Boxes and plate etc. as required. (Switch &				
	Sockects:MK: Honeywell or equilent for other				
	Makes)				
	1	1		1	
8.1	Primary points	No	41		

	same as the above secondary point (only one	No	14	
8.2	secondary point on the primary point	NO		
8.3	one switch controlled by three lights	No	3	
	Call bell points for the cabins including supply of call	No	1	
8.4	bell as required			
	MODULAR SOCKETS:			
	Supply and fixing of switch(s) & socket(s) fixed on			
	a suitable module metal box(16 guage) and white			
	front plate (Modular type) including all			
	interconnections as required and blank plate has to be provided if necessary. The scope of work extends			
	to Supply and wiring with <u>2runs of 4.0 sg.mm &</u>			
	one run of 2.5sqmm 1100 V grade PVC insulated			
9	multi strand FRLS copper conductor wires			
	conforming to IS 694 (with latest amendments) in			
	suitable size FRLS PVC CONDUIT of 2mm thick			
	concealed in the above ducts in the floor and supply			
	of all fixing materials and accessories,			
	interconnections complete as required for the UPS/			
	raw power sockets in the single window counters and officer tables.(Switch & Sockects:MK:Honeywell			
	or equilent for other Makes)			
	PRIMARY POINT: RAW POWER	No	1	
9.1	1 no of 6/16A socket with 1 no of 16A switch For			
5.1	power point in banking hall cooler, Kitch			
	PRIMARY POINT: RAW POWER	No	2	
9.2	2 nos of 6/16A socket with 2 no of 16A switch For			
512	Kitchen			
	Supply and fixing of switch(s) & socket(s) fixed on			
	a suitable module metal box(16 guage) and white			
	front plate (Modular type) including all			
	interconnections as required and blank plate has to			
	be provided if necessary. The scope of work extends			
	to Supply and wiring with <u>3runs of 2.5</u> <u>sq.mm</u> 1100 V grade PVC insulated multi strand			
10	FRLS copper conductor wires conforming to IS			
10	694 (with latest amendments) in suitable size FRLS			
	PVC CONDUIT of 2mm thick concealed in the above			
	ducts in the floor and supply of all fixing materials			
	and accessories, interconnections complete as			
	required for the UPS/ raw power sockets in the			
	single window counters and officer tables. (Switch &			
	Sockects:MK:Honeywell or equilent for other Makes) PRIMARY POINT- RAW POWER	No	2	
	1nos6/16A Socket and 1nos 16A switch (Rawpower	No	2	
	point switch and socket to be installed ina metal			
	box) . The scope of work extends supply of 3 meter			
	length of flexible 3core 2.5sgmm multi core			
10.1	copper cable one end connected to plug top 16A			
	and the other connected to the SB inside and a			
	suitable hook arrangment as required for hanging			
	the cable required for Record rooms & Safe			
	room , LOCKER room, Strong room, stationary			
	room(Independent Circuits)			

	PRIMARY POINT- RAW POWER	No	4	
10.2	1nos6/16A Socket and 1nos 16A switch (Rawpower point switch and socket to be installed ina metal box). The scope of work extends supply of <u>3 meter</u> <u>length of flexible 3core 2.5sqmm multi core</u> <u>copper cable</u> one end connected to <u>plug top 16A</u>			
	a required for ATM (Independent Circuits)			
10.3	PRIMARY POINT:UPS POWER <u>4nos. 6A sockets</u> with <u>1 no 16A switch</u> for NET WORK RACK, CCTV etc)	No	4	
11	Supply and fixing of switch(s) & socket(s) fixed on a suitable module metal box(16 guage) and white front plate (Modular type) including all interconnections as required and blank plate has to be provided if necessary. The scope of work extends to Supply and wiring with <u>3runs of 1.5</u> <u>sq.mm</u> 1100 V grade PVC insulated multi strand FRLS copper conductor wires conforming to IS 694 (with latest amendments) in suitable size <u>FRLS PVC</u> <u>CONDUIT</u> of 2mm thick concealed in the above ducts in the floor and supply of all fixing materials and accessories, interconnections complete as required for the UPS/ raw power sockets in the single window counters and officer tables. if these sockets are mounted in SB (along with point wiring) we will treat it as on board socket. (Switch & Sockects:MK:Honeywell or equilent for other Makes)			
11.1	PRIMARY POINT:UPS POWER <u>4nos. 6A sockets</u> with <u>1 no 16A switch</u> (Switch shall be fixed above the table and sockets shall be fixed below the counter OF BM, SWO, field officer, Grahakamitra, Cash officers, gold loan, etc)	No	9	
11.2	PRIMARY POINT: RAW POWER <u>2nos 6A SocketS</u> with <u>1 No of 6A switch</u> (Raw Sockets)- for counters(Switch & Socket should be mounted above the table	No	4	
11.3	SECONDARY POINT: RAW POWER (2 X6A socket & 1 X6A switch) same as above but looped from nearest point (Primary point to Secondary point) from counter to counter	No	4	
11.4	PRIMARY POINT:UPS/ RAW POWER <u>2 nos of 6A socket</u> with <u>2 no of 6A switch</u> for display,coin vending machine, pass book printing	No	6	
11.5	PRIMARY POINT: UPS/RAW POWER <u>1 nos of 6A socket</u> with <u>1 no of 6A switch</u> for fire panel	No	5	
12	Supply and fixing of switch(s) & socket(s) fixed on a suitable module metal box(16 guage) and white front plate (Modular type) including all interconnections as required and blank plate has to be provided if necessary. (Switch & Sockects:MK:Honeywell or equilent for other Makes)			

			2		
	ON BOARD SWITCH & SOCKET	No	2		
12.1	<u>1 no of 6A socket</u> with <u>1 no of 6A</u> switch and it				
	should be fixed in the switch board -RAW POWER				
	SOCKET FOR WALL MOUNTING FAN <u>1 no of 6A</u>	No	7		
12.2	socket 3" below the false ceiling for wall mounting				
	fan - RAW POWER				
	SUPPLY & FIXING OF EXHAUST FANS WITH	No	1		
	TIMER				
10	Supply & fixing of <u>2 no of bird cage exhaust fans</u>				
13	with <u>timer</u> control for the exhaust fans in the UPS				
	room. The scope of work includes point wiring &				
	making provision in the wall for installation of				
1.4	exhaust fans and bring back to original finish. NETWORKING				
14	POINT WIRING:	No	21		
	Supplying, laying, tesing and commissioning of four	NO	21		
	pair CAT 6, UTP cable 23 AWG solid bare copper or				
	better;Insulation - Polyethylene;Jacket - Flame				
	Retardant PVC;Pair Separator - Star Quad Separator				
	or equivalent; 250 MHz;UL Subject 444, EIAITIA-				
14.1	568 B.2.1, ISO/IEC 11801 & IEC61156.5for LAN in				
14.1	a suitable FRLS PVC conduit of 2mm thick and				
	making connection on both ends complete as				
	required with all acessories including labour				
	charges. The scope of work includes supply & fixing				
	of RJ-45 LAN socket outlet(I/O) in GI metal box and				
	front cover plate				
	SITC of branded UTP Category 6 four pair, 1 meter	No	21		
	Patch Cord with factory crimped boots on RJ 45				
14.2	plugs at both ends. Should conform or exceed				
	ISO/IEC 11801, EIA/TIA 568, EN50173 and UL, ETL				
	SITC of branded UTP Category 6 four pair, 2 meter	No	21		
	Patch Cord with factory crimped boots on RJ 45	110	_ <u></u>		
14.3	plugs at both ends. Should conform or exceed				
14.5	ISO/IEC 11801, EIA/TIA 568, EN50173 and UL, ETL				
144	Supply of Cat-6 24 port jack panel make-D-link or	No	2		
14.4	equient				
	Supply of 9U wall mount rack with all	No	1		
	accessories(self, power manager, cable Manager,				
	Fan etc. PI note that while installing the rack, power				
14.5				1	
14.5	supply sockets and switch to be installaed above the				
14.5	supply sockets and switch to be installaed above the rack. To avoid loose hanging power wires.				

	POINT WIRING				
	Supply, installation, testing and commissioning of high Conductivity Solid Annealed Bare Copper industrial 0.5mm dia Telephone (Switchboard) Cables with High Density Polyethylene Insulation, Paired, Polyester and Sheathed with High Oxygen Index, Fire Retardant, PVC Compound, Grey Outer Sheath generally conforming ITD Specification. the scope of work inclusive of all fixing accessories & laying in a suitable ISI medimum PVC conduit. The scope of work extends to Supply and Fixing of modular type RJ11 Telephone outlet with anodized GI box and front plate complete as required.				
15.1	2 pair	No	8		
16	KRONE ENCLOSURE				
	Supply, installation, testing & commissioning of Telephone krone in an MS powder coated enclosure for the following sizes.				
16.1	20 PAIR KRONE	No	1		
17	FIXTURES/FANS(All light fixtures and fans to be supplied COMMERCIAL MODELS only)				
	Supply & Installation of following type direct/ indirect type recess/surface/ wall mounted light fixtures. The fixtures shall be installed including supply and wiring between Ceiling rose to fixture with supply and laying of 3core 1.5Sq.mm copper flexible cable and fixing of Lamp with all required accessories, support chains & interconnections etc. including cost and conveyance of all materials, taxes and all labor charges etc., complete.				
17.1	Supply & Installation of 15W Led down light fixture. (Havells:- Integra neo 15W, 857 CROMPTON: LCDRQ-15-CDL/LCDRO-15-CDL or DN296B LED15S 6500K in Philips or equivalent) including cost and conveyance of all materials, taxes and all labor charges etc., complete.	No	15		
17.2	Supply & Installation of 33-36W 2X2 LedLight fixtures (Havells - PLANO2X2PLR36WLED857S / VENUSNEOHE2X2PLR34WLED8XXS or CROMPTON: LCTLRNE-36-FO-CDL or Philips RC 375B30S 6500K or Equl) including cost and conveyance of all materials, taxes and all labor charges etc., complete. Weight of the light should not be on the grid/ Gypsum ceiling. light has to be fixed with the help of GI/chain wires and to the anchroed to the ceiling.	No	14		
17.3	Supply & Installation of 610x610 Led Light fixtures Frames including cost and conveyance of all materials, taxes and all labor charges etc., complete.	No	14		

17.4	Supply & Installation of 9-12W T5 led Light fixtures and giving connections and all labour charges etc., complete for eraction. (LUMILINEBS9WLED857SPCWH - Havels or BN021-12S in Philips or Equl)	No	2	
17.5	Supply and Installation of 18-20W T5 fixtures SURFACE type with all interconnections and fixing arrangement as required. (LUMILINEBS18WLED857SPCWH - Havels or BN021-21S in Philips or CROMPTON: LDL-20-CDL or equivalent)	No	12	
17.6	supply & fixing of 20 watts per meter rope lights	Rmt	60	
17.7	WALL MOUNTING FANS Supply and Fixing of 18 inch metal(body & Blades) wall mounted fans with 3 pin socket, fan body should be earthed if 3 pin socket not available in the market .(BM, counters, Server RM, Field Officer,), Make: Storm model in CG or equivalent	No	7	
17.8	EXHAIST FAN:- Supply & Installation of fresh air exhaust fan 50W of light duty 300mm size (12"), Metallic body & blades, wire mesh, bird louvers etc. including cost and conveyance of all materials, taxes and all labor charges etc., complete for eraction	No	1	
17.9	CEILING FAN:- supply & Fixing of 1200mm sweep 5 star High speed ceiling fan with electronic step regulator in suitable locations as required. And Supplying of double anchor fastener hooks and down rods . complete in all respects as directed by Bank. CG/ Havells	No	5	
18	Earthing:			
18.1	COPPER EARTHING: Providing independent earthing for sophisticated electronic equipment with 600 mm x 600 mm x 3.5 mm thick copper plate rigidly fixed to 40 mm dia G.I. pipe of 3 mtr length connected with reducer providing .GI. funnel with wire mesh as per national electric code including C.C. Chamber of size 400 mm x 400 mm x 400 mm covered with RCC slab filling with salt and charcoal giving earth connection from electrode copper strip 2 runs of 50 mm x 6 mm x 3000 mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (Part II)	No	3	

				1	
18.2	GI EARTHING: Providing independent earthing for important equipment with 40 mm dia "B" class 2.5m long G.I pipe and 19mm dia "B" class G.I pipe of 0.3 mtr. Long connected with reducer providing G.I. funnel with mesh enclosed in C.C. Chamber of 400mm x 400 mm x 400 mm with RCC slab cover duly providing staggered holes filling with salt and charcoal from the bottom of the pipe giving earth connection from electrode through G.I. strip 2 runs of 50 x 6 mm x 3000 mm length with all accessories and labour charges complete, as per IS specifications 732/1982 (part II)	No	3		
18.3	Supply and laying of 8SWG Cu bear conductor in 20mm dia rigid pvc conduit For Body	Rmt	48		
18.4	Supply and laying of 25*3 mm hot dipped GI flat	Rmt	180		
18.5	Supply & Laying of 100mmX 25mmX 5mm Copper strip with supporting insulator and holes	no	3		
18.6	Supply & Laying of 100mmX 25mmX 6mm GI strip with supporting insulator and holes	No	3		
18.7	Supply & Installation of 3 no of 3watts(R,Y,B) bulbs in a suitable enclosure For indicating the electricity board supply. The scope of work includes wiring from DB.	No	1		
18.8	Temporary LAN & Electrical wiring for running counters/ Branch at the time of renovation and removing of old wiring including temporary	No	1		
	Total amount				

NOTE: GST EXTRA