

TENDER DOCUMENT

TENDER SPECIFICATION No : **BAP:CTS:OT:02 / 2011-12 Dt. 11.07.2011**

NAME OF WORK:

INTERNAL ELECTRIFICATION OF NEW 'B', 'C' & 'D' TYPE QUARTERS (B Type – 96; C Type – 144 & D Type – 12, TOTAL 252 HOUSES) UNDER CONSTRUCTION IN ZONE – III, BHEL TOWNSHIP, RANIPET – 6.

Issued to M/s. :

PART – I – TECHNICAL BID (or Qualification Bid) (Pages 1 – 47)



CIVIL TOWNSHIP DEPARTMENT
BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
BOILER AUXILIARIES PLANT
INDIRA GANDHI INDUSTRIAL COMPLEX
RANIPET – 632 406

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CIVIL TOWNSHIP DEPARTMENT

<i>NOTICE INVITING TENDER</i>	
Tender Notice No	BAP:CTS:OT:02 / 2011 – 12 Dt. 11.07.2011
Name of work	INTERNAL ELECTRIFICATION OF NEW B, C & D TYPE QUARTERS (252 HOUSES) UNDER CONSTRUCTION IN ZONE – III, BHEL TOWNSHIP, RANIPET – 6.
Period of contract	12 Months
Tender Document Cost	Rs. 750/- (Non – Refundable) + Rs. 100/- for postal charges
Earnest Money Deposit (EMD) Amount	Rs. 2,00,000/- (Rs. Two Lakh only)
Last date & Time for Receipt of the Tender	04.08.2011 .15.00 Hrs.
Date of Technical bid Opening	04.08.2011 .15.00 Hrs..
<i>(Please obtain updated information from the website about the latest applicable dates & other changes if any in the tender contents)</i>	
Date of Price Bid Opening	Tenderers whose technical bids are found acceptable will be intimated separately about the status of their offers and the date of opening of Price Bids / Reverse auction .
Place of submission of Tender	Tender Box placed in Civil Township Office, BHEL Township Ranipet – 632 406
Address on the Sealed Tender Cover to be:	ADDITIONAL GENERAL MANAGER CIVIL TOWNSHIP DEPARTMENT BHARAT HEAVY ELECTRICALS LIMITED RANIPET – 632 406 VELLORE DISTRICT TAMIL NADU
Venue of the Tender Opening	Civil Township Office
Guarantee Period	6 months from the date of actual completion of the entire work and handed over to Bharat Heavy Electricals Limited.
<p>1. The Tender documents can be down loaded from BHEL website (http://www.bhel.com/tender/list_tender.php). Tender document charges shall be paid along with or before submission of offer.</p>	
Contd...3..	

NOTICE INVITING TENDER

2. Interested bidders may alternately collect hard copy of tender specification documents from Civil Township Dept / BHEL / Ranipet on all working days (between 10.00 to 15.00 hrs) within the sale period on payment of tender document charges.
3. **Tender specification document charges (Non-refundable)** : Rs.750/- by Demand Draft (DD) in favour of BHEL payable at Ranipet or by Cash. Courier / Postal charges will be Rs.100 extra if tender specification documents are requested through courier / post. The tender documents are not transferable.
4. BHEL will not take any responsibility for delay / loss of documents or correspondence sent by courier / post.
5. BHEL reserves the right to accept or reject any or all tenders without assigning any reasons whatsoever.
6. All corrigenda, addenda, amendments, clarifications etc. to tender specification will be hosted in the web page (www.bhel.com > **Tender notifications** > **view corrigendum**) only and not in the news papers. **Bidders shall keep themselves updated with all the such developments.**
7. BHEL reserves the right to reject any tender on the basis of unsatisfactory performance of the bidder in any on going job or any similar job in the past.

NOTICE INVITING TENDER

IMPORTANT NOTE TO TENDERERS

Tenderers are requested to submit their offers 'in a sealed cover' **consisting of three inner sealed covers** such as 1) EMD cover containing DD for EMD & DD for Tender Document cost 2) Technical Bid cover & 3) Price Bid cover, all super scribing the name of the work, Tender Number, Due date etc.

- 1) **EMD cover shall contain requisite EMD in the form of Demand Draft (DD). Tenderers who had already remitted one time EMD of Rs. 2 Lakh should furnish the details of Cash Receipt No. & Date on the top of the EMD cover. Tender without EMD / One time EMD reference will be summarily rejected and the Qualification bid & Price bid shall not be considered. EMD in any other form except DD will not be accepted.**
- 2) **Technical Bid (or called Qualification bid) cover shall contain duly filled in qualification bid document signed by the Tenderer in all the pages with documentary evidences for pre-qualification such as Balance sheet, PL A/c, experience, value of work executed in the similar nature of work etc. Any bid without proper documentary evidence for pre-qualification shall not be considered for further evaluation.**
- 3) **The price bid cover shall contain price bid document duly filled in and signed by the tenderer in all the pages. The tenderer has to quote most competitive rates for all the items in the Bill of Materials in price bid. The completed qualification bid and price bid along with requisite EMD of Rs 2,00,000 /- for the work in the form of Demand Draft drawn from any Nationalized bank, in favor of 'Manager / Finance, BHEL, Ranipet' payable at SBI, Mukundarayapuram Branch (Code : 7013) shall reach the Office of the undersigned on or before 04.08.2011 at 15.00 Hrs.**

(This earnest money deposit will be refunded to the unsuccessful tenderers after finalization of the award of work. In case of successful tenderer, the earnest money will be retained as part of the Security Deposit for satisfactory completion of the work in accordance with BHEL's General Conditions of Contract enclosed. No interest will be paid on the earnest money deposit. EMD by the bidder will be forfeited if i) After opening the tender / price bid / completion of Reverse Auction process, the bidder revokes his tender within the validity period or increases his earlier quoted rates ii) The bidder does not commence the work within the period as per LOI / Contract. In case the LOI / Contract is silent in this regard then within 15 days after award of contract)

- 4) **The Qualification bid / Technical will be opened on the same day at 15.00 hrs. In case of opening day falls on holiday or happened to be declared as a holiday the receipt and opening of the Tender shall automatically fall at the same timing on the next working day. Date and time of opening of the price bid / Reverse auction shall be intimated to those bidders who have qualified after evaluation of the qualification bid. You / Your authorized representative may participate in the tender opening for which they shall bring authorization letter for attending tender opening.**

NOTICE INVITING TENDER

- 5) **Tenderers are required to submit their price bid in the BHEL format only (page 50 to 70).**
- 6) **Seeking clarification on Tender Specification :** Clarifications on tender specification if any may be sought by the bidders so as to reach this office at least seven days before the last date for tender submission. BHEL shall not be responsible for receipt of queries after the due date for seeking of clarification due to postal delay.

**BHEL's Contact Officials 1) Dy. Manager / Electrical – 04172 – 284755; 09443625498
2) Dy. Manager / Civil – 04172 – 284440; 09442201087**

- 7) All the information as called for in the various clauses and annexure of tender specification should be furnished. Please refer to the check list. The details so furnished should be complete in all respects and as per the formats prescribed in the Tender specification (Statutory requirement of Contract). The bidder may have to produce original documents for verification, if so decided by BHEL.
- 8) Offers received with any deviation or without relevant information are liable to be rejected.
- 9) Price bids received in any form other than prescribed in Part-II (PRICE BID) are liable to be rejected.
- 10) The tenderer has to quote his Rate for all individual items in the Rate Schedule of Price Bid. If the tenderer has not quoted the Rate for any item(s), it is considered as incomplete tender and tender can not be accepted.
- 11) **The tender offer should be kept valid for 3 MONTHS from the date of bid opening** for acceptance by BHEL. No unsolicited revision in the tender offer shall be entertained after opening of tenders and till expiry of the validity period.
- 12) **Liquidated Damages/Penalty:** BHEL will impose Liquidated Damages and Penalty as per suitable clauses in the Tender Specifications on account of delay, violation of contract conditions and non-performance attributable to the contractor.
- 13) **REVERSE AUCTION:** BHEL Reserves the right to adopt the process of **Reverse Auction (ON LINE BIDDING on INTERNET)** among the bidders who are found to be qualified on the basis of technical bid. Refer the **General Terms and Conditions of reverse auction** in in Pages **8 & 9**. No extension of time on this account will be entertained for bid submission
- 14) Quoted rate shall be firm through out the contract period of 12 months and extended contract period also and no cost escalation is allowed on any account.
- 15) **The similar works executed in the own name of the tenderer only will be considered for eligibility / qualification criteria.**

NOTICE INVITING TENDER

SPECIAL TERMS AND CONDITIONS TO ENQUIRY

1. BHEL reserves the right to increase or decrease the tendered quantity.
2. Lowest prices received against BHEL tenders need not be the technically acceptable one, and in that case, BHEL reserves the right not to consider the same.
3. BHEL reserves the right to negotiate or refloat the tender opened, if L1 Price is not lowest acceptable price to them inter-alia other reasons.
4. BHEL reserves the right to negotiate the L1 rate.
5. The contract will be finalized based on the overall LOWEST value and to be awarded to single party only since split in schedules is not possible.

Clarification if any can be obtained from the undersigned before submitting the offer.

Kindly acknowledge the receipt of the entire set of tender document.

Thanking you,

Yours faithfully,
For Bharat Heavy Electricals Limited,

**Dy. Manager / Electrical
Civil Township Department**

E FORMAT

THE PURCHASE / CONTRACT EXECUTING AGENCY / BHEL

ACCEPTANCE FOR ELECTRONIC FUND TRANSFER / RTGS TRANSFER

01	Name & Address of the Supplier / Sub-contractor	
02	VENDOR CODE assigned by BHEL	
Details of Bank Account:		
03	NAME & ADDRESS OF THE BANK	
04	NAME OF THE BRANCH	
05	BRANCH CODE	
06	MICR CODE	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
07	ACCOUNT NUMBER	
08	TYPE OF ACCOUNT	CURRENT A/C / OD / CASH CREDIT
09	BENEFICIERY'S NAME	
10	IFSC CODE OF THE BRANCH	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
11	EMAIL ID	
12	TELEPHONE/MOBILE NO.	

CERTIFICATE

I / We hereby agree to receive the payments due from BHARAT HEAVY ELECTRICALS LIMITED by the National Electronic Funds Transfer and/or RTGS Transfer mode by credit to my / our above mentioned Bank Account. I / We also agree that payments made to the above mentioned Account are a valid discharge of the liability of Bharat Heavy Electricals Limited. I / We also agree to bear the applicable Bank Charges for the above mode of transfer. **A copy of the cheque leaf/cancelled cheque leaf of the above account is sent herewith.**

AUTHORISED SIGNATORY WITH NAME SEAL

Banker's Certification

We confirm that we are enabled for receiving RTGS and NEFT credits and we _____ further confirm that the account number of _____ (name of account holder), the signature of the authorized signatory and the MICR and IFSC codes of our Branch mentioned above are correct.

PLACE:

(Manager / Officer's)

DATE :

Signature Under Bank stamp and Name Seal
With Membership No.

(Telephone / Mobile No. _____)

Forwarded to Accounts Dept.

We confirm the above details are verified with the records available with us.

Signature of the BHEL Executive with Name Seal (Operating the Contract/Services)

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GENERAL TERMS AND CONDITIONS OF REVERSE AUCTION

Against this enquiry, for carrying out the tendered work with detailed scope of execution as per our specification **BHEL, Ranipet** may resort to " Reverse Auction Procedure " i.e **ON LINE BIDDING on INTERNET**

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHEL will engage the services of a service provider who will provide all necessary training and assistance to the qualified bidders free of charges before commencement of on line bidding on Internet.
3. BHEL will inform the vendor in writing, in case of reverse auction, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, time, start price, bid decrement, extensions, etc. also will be communicated through service provider for compliance.
5. Vendors have to fax the compliance form in the prescribed format (provided by service provider) before start of Reverse auction. Without this the vendor will not be eligible to participate in the event.
6. BHEL will provide the rate schedule (e.g. auto formulated EXCEL sheet) for the vendor to enable them to fill-in the price and keep it ready for keying in during the auction. In the event of discrepancy in rate and amount against any item of work, the least of the two will be taken for bid price. In case of discrepancy between the total price indicated in price bid and the arithmetic sum arrived based on rate quoted, then also the least of the two will be taken for the bid price. The bids are compared on the total price quoted and NOT on individual ITEM of works.
7. Reverse auction will be conducted on scheduled date & time, which will be fixed and informed by the service provider.
8. At the end of reverse auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to fax the duly signed filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of auction without fail.

10. Any variation between the on-line bid value and signed document will be considered as sabotaging the tender process and will invite disqualification of vender to conduct business with BHEL as per prevailing procedure.
11. **Opening bid in reverse Auction:** The `opening bid' (in the reverse Auction) of the bidders shall be `same as that quoted in their final sealed price' submitted to BHEL (along with Technical offer). The bidder shall confirm this in writing to BHEL before start of Reverse Auction.

If any bidder offered a unsolicited discount or rebate, in separate cover etc., in any place other than the sealed price bid, then the `opening price bid' in reverse auction, by such a bidder shall be the price offered in final sealed price bid submitted (against this NIT) minus discount offered in any place other than the sealed price bid.
- 12 BHEL reserves the right to cancel Reverse Auction (RA) without assigning any reasons and resort to considering the sealed bids submitted by vendor for processing and finalizing the tender.
- 13 In case the process of reverse auction is found unsuccessful by BHEL, then BHEL at its discretion may decide to call the L1 bidder of reverse auction for further negotiation.
- 14 In case BHEL decides not to go for Reverse auction procedure for this tender enquiry, the Price Bids and price impacts, if any already submitted and available with BHEL shall be opened as per BHEL's standard practice. Hence please quote your best lowest price in first instant itself.
- 15 Only those vendors, who participate in the Online Initial Opening Bid, will be eligible to participate in the subsequent Online English Reverse Auction.
- 16 Price bids offered by the bidders during reverse auction process is considered as an offer to execute the work. Bids once made by a bidder cannot be cancelled / withdrawn and bidders shall be bound to execute the work at the final bid price. BHEL shall take appropriate action if the bidder fails to do so.

Authorization of representative who will participate in the on line Reverse Auction Process:

1	NAME & DESIGNATION OF OFFICIAL	
2	POSTAL ADDRESS (COMPLETE)	
3	TELEPHONE NOS. (LAND LINE & MOBILE PHONE)	
4	FAX NO.	
5	E-MAIL ADDRESS	
6	NAME OF PLACE / STATE / COUNTRY, WHERE FROM S/HE WILL PARTICIPATE IN REVERSE AUCTION	

QUALIFICATION REQUIREMENTS (QR) :

Qualifying Criteria for Tenderer :

The essential qualification requirements of contractor for tender submission shall be as under :

- a. Average annual financial turnover of the Contractor during the last 3 years ending on 31st March 2010, should be **at least Rs. 64.76 Lakh** and the tenderer should submit audited balance sheet and Profit & Loss Account for the last three years (2007 – 08, 2008 – 09 & 2009 – 10), duly certified by chartered accountant / auditor.
- b. Contractors having experience of successfully completed similar works (**ref. Note 1 below**) during the last 7 years as on 30.06.2011 should be either of the following.
 - i. **Three similar completed works each costing not less than Rs. 86.35 Lakh.**

OR
 - ii. **Two similar completed works each costing not less than Rs. 107.94 Lakh.**

OR
 - iii. **One similar completed work costing not less than Rs. 172.70 Lakh .**
- c. The bidders to note that possession of Provident Fund (PF) code is not a pre-condition for participation in the tender. However, the successful tenderer should ensure to get the PF code No. and the PF amount deducted from their employees are to be deposited in this PF code along with their contribution.
- d. Contractor should have relevant valid **Electrical EB / ES A / EA / ES B grade license** from State Electrical Licensing Board of Tamilnadu / other states for carrying out this work..

Tender bids not meeting any of the above pre-qualification criteria shall be rejected

Note 1 : 'Similar Works' mentioned in clause b) above shall mean successfully executed internal electrification works of Residential houses, Multi – storey housing complexes, Office / public buildings & Industrial buildings of Government Departments, Government Undertakings, **reputed private sectors / Institutions** etc.

Documents Required for proof of QR:

The Tenderers should submit documents in support of possessing Qualifying requirements as under, duly certified and stamped by their authorized signatory :

- a. Copy of Income tax return of previous three years (actual copy of Financial Year (FY) 07-08, 08-09 & for FY 09-10 copy of Balance sheet, Profit & Loss Account duly certified & audited by Chartered Accountant) and work orders along with BOQ and completion certificates in support of the qualifying criteria.
- b. Tenderer has to submit a copy of registration of PAN No. , VAT / TIN No. , Service Tax Registration No. If the contractor has the valid PF & ESI registration No. the proof of those may be submitted.
- c. The contractor / authorized signatory of the contractor (**authorization letter / power of attorney should be enclosed**) shall affix his signature with stamp at the end of each page of this tender documents (both technical bid and price bid) and submit.
- d. Tenderer has to submit the **No Deviation Certificate** duly signed in the format in page- 15.
- e. The work executed in the own name of the tenderer only will be considered for similar works executed for meeting the eligibility criteria.

QUESTIONNAIRE

Questionnaire to be answered by the tenderer by ticking the suitable boxes.

Sl.No.	Description	Yes	No
01	Whether the tenderer has understood the scope of work and agrees to deploy required man power as indicated in the tender. (If there is any clarification required, the same may be got cleared from the Executive-in-charge, before submitting the offer.)		
02	Whether the tenderer has agreed to all Terms & Conditions given in the tender. (If there is any deviation, the same may be mentioned in separate sheet.)		
03	Whether the tenderer has their own code for ESI & PF. (A copy of the certificate to be enclosed).		
04	Whether the tenderer has enclosed copy of the present Service / Sales / Works contract sales Tax registration certificates. If a vendor is exempted from the registration under Service / Sales Tax, the reason there of be stated.		
05	Whether the vendor / Contractor is availing service Tax credit / VAT Credit for their inputs.		
06	Whether the vendor will submit Service Tax invoice as per the existing ACT and the rules their under.		
07	Whether the tenderer agrees to Pay Wages as per Minimum wages Act, EL Wages, Holiday Wages as per Tamil Nadu Factory rules. (Necessary proof should be submitted while claiming running bill and final bill.)		
08	Whether the PAN Number of the vendor is furnished. If exempted from IT, the exemption certificate shall be enclosed.		
09	Whether the tenderer agrees to keep the validity of their offer for three months from the date of opening of bid and keep the prices firm throughout the contract period.		
10	Whether the tenderer agrees for the payment terms of BHEL.		
11	Whether the tenderer has agreed to submit EMD of <u>Rs.2,00,000/-</u> and has submitted the same along with technical bid. (If not enclosed the tender will not be considered) shall be in the form of Pay order or DD payable at Ranipet.		
12	Whether the tenderer has agreed to submit Security Deposit immediately after receipt of the work order.		
13	Whether the tenderer has enclosed the list of their clients with addresses & contact persons.		
14	Whether the tenderer has enclosed the completion certificates received from Government / Reputed		

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	organization for the similar work done for the last 7 years ending 31.03.2010.		
15	Whether the tenderer has enclosed the list of similar works carried out with supporting documents		
16	Whether the includability / excludability of the taxes and duties in the rates offered has been clearly indicated. If the same is not done, BHEL will choose to assume the rates are inclusive only.		
17	All payments by BHEL will be made through e-payment only. The required certificate as enclosed in the tender is submitted by the vendor with Banker's signature.		
18	Whether the tenderer has enclosed the list of technical personnel, their qualification & experience who will be deployed for this work.		
19	Whether the tenderer has indicated the address of their local office in Ranipet along with phone no. & fax no.		
20	Whether the tenderer has enclosed the DD towards the cost of Tender Document, along with the Technical bid. (In case the tenderer has downloaded the tender document directly from the Web Site and If DD is not enclosed, the tender will not be considered).		
21	Whether the tenderer accepts reverse auctioning process through internet.		
22	Whether the tenderer has enclosed the annual report for the last three years,		
23	Whether the tenderer has submitted the proof of average annual turnover for last 3 years for a value of Rs. 64.76 lakhs or more.		

Note: If any of the question is not applicable, please mention as "Not Applicable (NA)"

CERIFICATE OF NO DEVIATION

I / We of M/s

hereby certify that **there is no deviation** from the tender conditions either technical or commercial and I am /We are agreeing to all the terms and conditions mentioned in the Tender Specification.

Date:

Signature of the tenderer

BRIEF SCOPE OF WORK

- BHEL, Ranipet has recently started constructing 252 new Quarters (houses) for their employees in the location Zone – III adjacent to existing Township as per the details given below:
 - i) Type `B` – 12 Blocks, each with 4 Quarters in Ground Floor and 4 Quarters in the First Floor (Total 96 quarters)
 - ii) Type `C` – 36 Blocks, each with 2 Quarters in Ground Floor and 2 Quarters in the First Floor (Total 144 quarters)
 - iii) Type `D` – 4 dual Blocks, each with 2 quarters – each quarter having a Ground Floor and a First Floor

Type `D` – 4 single Blocks, each with a Ground Floor and a First Floor as one Quarter. (Total D type – 12 Quarters)
- This tender is floated for carrying out the work of internal electrification of all these quarters by supplying all electrical fittings, cables / wires, conduits etc as detailed in the Rate Schedule / Bill of Quantities in Part – II, Price Bid of the tender.
- The contractor for this work shall **carry out the whole work with his materials, required suitable man power, consumables and all tools and plants. Modern tools & plants have to be used for the work.** The widths of grooves taken on walls may be as minimum as possible with lesser impacts to the walls while making grooves for concealed wiring.
- **BHEL will supply only ceiling fans 924 nos. for all the quarters on free issue basis. The value of the free issue ceiling fans is about Rs. 15.00 Lakh; The service tax (if applicable) for the free issue ceiling fans shall be considered within the service tax quote to be made in the Rate Schedule / absorb within the quoted rates.**
- BHEL will supply water and electricity for the work at one point only at free of charges.
- **No advance / Mobilisation advance will be given to the contractor.**
- The contractor should use only the materials of brand and quality as approved by BHEL. All materials brought by the contractor for incorporation in the work shall be got inspected and approved by the Engineer – in –Charge before they are incorporated in the work.
- BHEL shall allot a temporary place to the contractor at the site of work for constructing a site office and store shed at free of charges. After the work, the sheds to be removed, material cleared and the location to be leveled, cleaned and made pucca.
- Contractor shall do rough / smooth plastering of the grooves made by them in the walls etc for concealed wiring using their cement, sand etc with in the quoted rates.

- The contractor shall liaison with TNEB for getting service connection to the houses with due certificates of the electrical works carried out by them with complying required formalities within the quoted rates. Though the energy meters, switch boards, Main Fuse carrier boxes, and wiring between them, receiving service connection from pole etc may be executed by other agency under another contract, the main contractor (of this tender) may verify this other agency's work for certifying and applying for obtaining service connection within the quoted rates.
- The contractor should extend fullest co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay / difficulty.

BHARAT HEAVY ELECTRICALS LIMITED
BOILER AUXILIARIES PLANT RANIPET - 6

CIVIL TOWNSHIP DEPARTMENT

GENERAL CONDITIONS OF CONTRACT / ELECTRICAL

1. DEFINITION

In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them, except where the context otherwise requires.

- a) The "Contract" means, the documents forming the tender and acceptance thereof, together with all the documents referred to therein including general and special conditions of contract. All these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- b) The "Work" means, the work described in the tender documents in individual work-orders as may be issued from time to time to the contractor by the Officer-In charge including all notified or additional items of works and obligations to be carried out as required for the performance of contract.
- c) The "Contractor" means, the individual, Firm or Company whether incorporated or not, undertaking the work and shall include the legal representatives or the successors of the individual, firm or company and the permitted assigns of such individual or firm or Company.
- d) "The Officer-In charge" means, the Officer deputed by the AGM / CF&TS (Civil Factory & Township) to supervise the work or part thereof.
- e) "Approved" and "Directed" means, the approval or direction of AGM/ CF&TS, or person deputed by him for the particular purposes.
- f) "BHARAT HEAVY ELECTRICALS LIMITED" (herein after referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or other Administrative Officer of the said Company including AGM/ CF&TS authorized to invite tenders and enter into contract for works on behalf of the Company.
- g) The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in tender and / or the contract rates as payable to the contractor for the execution of the work during the currency of the contract.
- h) A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.

- i) A "day" means, the day of 24 hours (TWENTY FOUR) irrespective of the number of hours worked or not worked in that day.
- j) A "working day" means, any day other than that prescribed by the NEGOTIABLE INSTRUMENTS ACT as being a Holiday, and consists of the number of hours of labour as commonly recognised by good employers in the trade in the district where the work is carried out or as laid down in the BHEL regulations.

2. HEADING TO THE CONTRACT CONDITIONS

The heading to these conditions shall not affect the interpretations thereof.

3. WORK TO BE CARRIED OUT

The Contract shall include all labour, materials, tools, plant, equipment and transport which may be required for the execution of the work. The Contractor will be deemed to have satisfied himself as to the scope of the work, nature of the site, local facilities of access and all matters affecting the effective execution of the work. No extra charges whatsoever in nature, consequent on any misunderstanding in these respects or otherwise will be allowed.

4. DEVIATIONS

The contractor shall not carry out any work not covered by schedule except in pursuance of the written instructions of AGM/ CF&TS. No such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.

5. PLANT AND EQUIPMENT

The Contractor shall at his own expense, supply all tools, plant and equipment (Herein after referred to as T&P) required for the satisfactory execution of the contract unless specified otherwise.

6. ASSIGNMENT OF TRANSFER OF CONTRACT

The Contractor shall not without the prior written approval of the BHEL, assign or transfer the contract or any part thereof, or any share, or interest thereon to any other persons. No sum of money which may become payable under the contract shall be payable to any person, other than the contractor unless the prior written approval of the BHEL to the assignment or transfer of such money is given.

7. SUB-CONTRACT

The Contractor shall not sub-let any portion of the contract without the prior written approval of the BHEL.

8 COMPLIANCE TO REGULATIONS AND BY-LAWS

The Contractor shall conform to the provisions of any statute relating to the work and regulations and Byelaws of any local authority. The Contractor shall be bound to give all notices required by statute regulations or By-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

9. SECURITY DEPOSIT

- a) Security Deposit shall be collected from the successful tenderer. The rate of Security Deposit will be as below:

Upto Rs.10 Lakhs: 10%

Above Rs.10 lakhs up to Rs.50 Lakhs: 1 Lakh + 7.5% of the amount exceeding Rs.10 Lakhs

Above Rs.50 Lakhs : Rs.4 Lakhs + 5% of the amount exceeding Rs.50 Lakhs

The Security Deposit shall be paid before start of the Work.

- b) Security Deposit may be furnished in any one of the following forms:

- i) Cash (as permissible under the Income Tax Act)
- ii) Pay Order, Demand Draft in favour of BHEL.
- iii) Local cheques of Scheduled Banks, subject to realization.
- iv) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc., (Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- v) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
- vi) Fixed Deposit Receipts issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the Contractor, A/C BHEL, duly discharged on the back.
- vii) Security Deposit shall also be recovered at the rate of 10% from the running Bills. However, in such cases at least 50% of the Security Deposit should be remitted before the start of the work and the balance 50% may be recovered from the running bills.
- viii) EMD of the successful tenderer can be converted and adjusted against the Security Deposit.
- ix) The security deposit shall not carry any interest.

Note:

Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to Hypothecation or endorsement on the documents in favour BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith. The Earnest Money paid at the time of tender will be adjusted as part of the Security Deposit and the balance amount will be recovered by deduction from the running bills of the contractor at the rates mentioned above.

Security Deposit shall not be refunded except in accordance with the terms of Security Bond or Agreement. No interest shall be allowed on Security Deposits. BHEL shall not be responsible for any depreciation in the value of the securities while in their charge or for any loss of interest there on.

All compensation or other sums of money payable by the Contractor to BHEL under the terms of this contract or under any other contract with BHEL may be deducted from the Security Deposit or from any sums which may be due or may become due to the contractor by BHEL and in the event of this Security Deposit being deducted by reason of such deductions as aforesaid, the Contractor shall within 7 days thereafter, make good in cash or in securities endorsed as aforesaid, any sum by which the Security Deposit has been reduced.

If the contractor fails to execute the contract either fully or partially or violates the contract conditions leading to cancellation of the contract, the security deposit will be forfeited

10. ORDERS UNDER THE CONTRACT

All orders, notices etc. to be given under the contract shall be only in writing. The initial delivery shall be thro e-mode followed by delivery of hard copy. The date of delivery of any such communication shall be deemed to be the date of e-mode communication. The Contractor shall carry out all orders without any delay

11. CONTRACTOR'S SUPERVISION

The Contractor shall either himself supervise the execution of the contract or shall appoint a competent agent acceptable to AGM/ CF&TS, to act in his stead.

Orders given to the Contractor's agent shall be considered to have the same force as if they have been given to the Contractor himself.

The Contractor or his agent shall attend when required without making any claim for doings, either the office of the AGM/ CF&TS or the OFFICER-INCHARGE, to receive instructions.

AGM/CF&TS, shall have full powers and without assigning any reason, require the Contractor to immediately cease to employ in connection with this contract, any agent, servant or employee where continued employment is, in his opinion undesirable. The Contractor shall not be allowed any compensation on this account.

12. LABOUR

The Contractor shall remain liable for the payment of all wages or other moneys to his work-people or employees under the payment of Wages Act 1936, Employees Liability Act. 1938, Workmen's Compensation Act 1923 or any other Act or enactment, relating thereto and rules framed, there under from time to time.

The current Minimum wages for Skilled Worker is Rs 191.30 / day, Semi Skilled Worker is Rs 185.30 / day and for Un Skilled Worker it is Rs. 178.30 / day. The contractor shall ensure to pay wages not less than this minimum wage to the workers deployed by him in this work along with other statutory payments. Any increase in wages during currency of the contract also to be paid by the contractor within the quoted rates.

13. PRECAUTIONS AGAINST RISK

The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

14. DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO WORKMEN

The Contractor shall at his own expense reinstate and make good to the satisfaction of the AGM/ CF&TS, and pay compensation for any injury, loss or damage occurred to any property or rights whatever including property and rights of BHEL (or agents) servants or employee of BHEL, the injury loss or damage arising out of or in any way in connection with the execution or purported execution of the contract and further the contractor shall indemnify the BHEL against all claims enforceable against BHEL (or any agent, servant or employee of BHEL) or which would be so enforceable against BHEL where BHEL is a private person, in respect of any such injury (including injury resulting in death) loss or damage to any person whomsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise.

15 LAWS GOVERNING THE CONTRACT

The Contract shall be governed by the Indian Laws for time being in force.

16. CANCELLATION / TERMINATION CONDITIONS

a) CANCELLATION OF CONTRACT FOR CORRUPT ACTS

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued /shall accrue thereafter to BHEL cancel the contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extent as provided in the case of cancellation for default.

If the Contractor shall

- i) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act, in relation to the obtaining or execution of this or any other contract for BHEL service,

OR

- ii) Enter in to a contract with BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL.

OR

- iii) Obtain a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering, without first disclosing the fact in writing to BHEL.

b) CANCELLATION OF CONTRACT FOR INSOLVENCY ASSIGNMENT OF TRANSFER OR SUB-LETTING OF CONTRACT

BHEL, without prejudice to any other right or remedy, which shall have accrued or shall accrue thereafter to BHEL, shall cancel the contract in any of the following cases:

If the Contractor,

- i) being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors

OR

- ii) being a Company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or Manager on-behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager,

OR

- iii) Assigns, Transfers, Sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the BHEL .

- iv) Whenever BHEL exercise the authority to cancel the contract under this conditions, BHEL may have the work done by any means at the Contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by AGM/ CF&TS which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Contractor under the contract, the Contractor shall either pay the excess amount ordered by AGM/ CF&TS, or the same shall be recovered from the Contractor by other means.
- v) In case BHEL carries-out the work under the provisions of this condition the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and/or labour provided by the BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the AGM/ CF&TS , whose decision shall be final and conclusive.

c) CANCELLATION OF CONTRACT IN PART OR FULL FOR CONTRACTOR'S DEFAULT

If the Contractor

- i) makes default in carrying out the work as directed and continues in that state after a reasonable notice from AGM/ CF&TS or his authorized representative ;
- ii) fails to comply with any of the Terms and Conditions of the contract or after reasonable notice in writing with orders properly issued there under;
- iii) BHEL, may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the contract as whole or in part thereof or only such work order or items of work in default from the contract. Whenever BHEL exercise the authority to cancel the contract as whole or part under this condition BHEL may complete the work at the contractor's risk and cost (as certified by AGM/ CF&TS, which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL. If the cost exceeds the moneys due to the Contractor under this contract the Contractor shall either pay the excess amount ordered by AGM/ CF&TS or the same shall be recovered from the Contractor by other means. In case the BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by the BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the AGM/ CF&TS, whose decision shall be final and conclusive.

d) TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

Without prejudice to any of the rights or remedies under this contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated BHEL shall have the option of terminating the contract without compensation to the Contractor.

e) SPECIAL POWER TO TERMINATION

If at any time after the award of contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the AGM/ CF&TS shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

17. SUBMISSION OF BILLS BY CONTRACTOR

The Contractor at the end of each month shall submit a bill in triplicate detailing the various items of work done during the month supported by the requisitions issued from time to time. The Contractor shall once in every month, submit to the AGM/ CF&TS or authorized officials of BHEL separately details of his claims for the work done by him up to and including the previous month which are not covered by his contract agreement in any of the following respects:

- a) Deviation from the items provided in the contract documents.
- b) Extra items / new items of work.
- c) Items in-respect of which rates have not been settled. He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of the work done up to and including the period under report.

18. PAYMENT OF BILLS

All payments to be made to the Contractor, under this contract shall be by “ NEFT ” (National Electronic Fund Transfer) / “ RTGS ” (Real Time Gross Settlement) within a reasonable time say one month after the certification of bills by the AGM/ CF&TS or any official of TOWNSHIP CIVIL department authorized by him for this purpose..

19. RECOVERY FROM CONTRACTOR

Whenever under the contract, any sum of money, shall be recoverable from or payable by the Contractors, the same may be deducted from or any sum then due or which at any time thereafter may become due to Contractor under the contract or under any other contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

20. POST- TECHNICAL AUDIT OF WORK AND BILLS

BHEL reserves the right to carry out the post-payment Audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and enforce recovery of any sum becoming due as a result thereof in the manner provided in the presiding sub-paragraphs. However no such recovery shall be enforced after three years of passing the final bill.

21. REFUND OF SECURITY DEPOSIT

The Security Deposit mentioned in condition 10 above may be refunded to the Contractor after a period of 6 months on termination or expiry of the contract provided always that the Contractor shall first have been paid the last and final bill and have rendered a "NO DEMAND CERTIFICATE".

22. FORCE MEJEURE CLAUSE

If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy, Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to the other within 7 days from the date of any such occurrence thereafter neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the contract and the work shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by the AGM / CF&TS subject to prompt notification by the contractor.

23. ARBITRATION & JURISDICTION

All disputes between the parties to the contract, arising out-of or relating to the contract, other than those for which the decision of the AGM/ CF&TS, or Accepting Officer or any other person is by the contract expressed to be final and conclusive shall after written notice by either party to the contract to the other party be referred to the sole Arbitration of GENERAL MANAGER or other Officers of BHEL appointed as Arbitrator, by the GENERAL MANAGER of BHEL in his sole discretion.

Unless the parties otherwise agree, such reference shall not take place until after the completion, alleged completion or abandonment of the work of the determination of the contract.

The venue of Arbitration shall be such a place or places as may be fixed by the Arbitrator in his sole discretion. The award of the Arbitrator shall be final, conclusive and binding on both parties to the contract.

In case of any suit or other legal proceeding arising under or relating to this contract, the courts at Ranipet, Walajah Taluk, Vellore District, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the Arbitration as above.

24. SIGNING OF CONTRACT

Each Contract document shall be signed by the Contractor with his usual signature. Contract by partnership of Hindu Joint Family firm, may be signed in the FIRM'S name by one of the Partners or the Karta or Manager as the case may be or by any other duly authorised representative followed by the name and designation of the persons so signing. Contracts by a Company shall be signed with the name of the Company by a person authorised in this behalf and a power of attorney or other satisfactory proof showing that the persons signing the Contract documents on behalf of the Company is duly authorised to do so, shall accompany the contract.

25. All statutory requirements under Minimum Wages Act 1948, Factories Act 1948, Workmen Compensation Act 1923, Employees Provident Fund and Miscellaneous Provisions Act, 1952, Payment of Gratuity Act 1972, Employee State Insurance Act 1948, Contract Labour (R&A) Act 1970, Payment of Bonus Act 1965, Income Tax Act, Service Tax Act and all other applicable Acts shall be complied with by the Contractor.
26. Contractor shall comply with all statutory requirements, rules, regulations and notifications in relation to employment of his employees issued from time to time by the concerned authorities.
27. Contractor shall indemnify BHEL against all claims and losses under various Labour Laws, statutes or any civil or criminal law in connection with employees deployed by him.
28. Contractor wherever applicable shall maintain proper records prescribed by the concerned statutory authorities and provides a copy of the same to BHEL.
29. Contractor shall furnish proper returns to the concerned statutory authorities and provide a copy of the same to BHEL.
30. **Compensation for Delay** : If any delay in completion of the work occurs beyond the stipulated / extended contract period due to reasons attributable to the contractor, the contractor shall compensate BHEL for the delay and pay a penalty @ ½ % per week subject to maximum of 7 1/2 % (seven & half) of at contract rates of the work ordered.

The amount of compensation may be adjusted or set-off against any sum payable to the contractor under this or any other contract with the BHEL.

31. General

The Contractor should follow all the provisions of Labour Legislation and Statutory obligations. Provisions as and when amended will also apply.

GENERAL INSTRUCTIONS TO TENDERERS

1. Sealed Tenders for the work mentioned in the Schedule are invited from Contractors experienced in works of similar kind and magnitude.
2. Tenders must be submitted **in sealed covers** and should be addressed to

**Additional General Manager,
Civil Township Department,
Bharat Heavy Electricals Limited,
RANIPET – 632 406.**

The Name, Address of the Tenderer and the name of work shall be clearly mentioned on the cover.

3. Tenders will be received up to 15.00 Hrs. on 04.08.2011 in the prescribed form and will be opened on 04.08.2011 at 14.30 Hrs. at CIVIL TOWNSHIP in the presence of such of those Tenderers or their agents who may choose to attend.
4. All entries in the tender documents should be in one ink. Erasures and over-writing are not permitted. The Tenderers concerned should duly sign all cancellations and insertions.
5. Tenderer should fill in all the required particulars in the blank spaces provided for this purpose in the tender documents and also sign and seal each and every page of the tender document including the drawings/annexure attached thereto before submitting the tender.
6. Conditional and un-witnessed tenders, tender containing absurd rates and amounts, tenders, which are incomplete or otherwise, considered defective and tenders not in accordance with the tender conditions laid down by the Accepting Officer are liable for rejection.
7. Tenders not submitted in the prescribed forms are liable for rejection.
8. In quoting the rates, the Tenderers are advised to take into account all factors including any fluctuations in the market rates etc. No claim will be entertained on this account after acceptance of the tender or during the currency of the contract.
9. Before tendering, the Tenderers are advised to inspect the site of work and its environments and be well acquainted with actual working and other prevalent conditions, position of materials and labor. General instructions to Tenderers, drawings, specifications and other documents also form part of the agreement to be entered into.
10. The rates quoted in the tender shall remain valid for a period of **THREE MONTHS** from the date of opening of the tender.
11. In the event of tender being submitted by a firm, the tender must be signed separately and legibly by each partner or member of the firm or in their absence, by the person holding the Power of Attorney on behalf of the firm concerned. In the latter case, a copy of the Power of Attorney duly attested by a Gazette Officer must accompany the tender.

12. Every Tender must be accompanied by 'Earnest Money Deposit' of Rs.2,00,000/- (Rupees Two Lakh only) in the form of **Demand Draft** drawn from any Nationalized bank, in favor of 'Manager / Finance, BHEL, Ranipet' payable at SBI, Mukundarayapuram Branch (Code : 7013).

EMD will not carry any Interest.

13. Unless the Contractor whose tender is accepted, signs the contract and makes necessary Security Deposit specified within fourteen days from the date of the order directing him to do so, the earnest money deposited by him will be forfeited and acceptance of his tender withdrawn.

14. The Bharat Heavy Electricals Limited, reserves the right to reject any or all the tenders received or accept any tender or part thereof without assigning any reason there for. In case of acceptance of a part of tender, time for completion may also be reduced to the extent considered appropriate by the accepting authority.

15. Unit rates should be quoted in figures as well as in words with reference to each item and for all the items shown in the attached schedule. These rates shall be for the finished work at site.

16. Rates for each item of the tender schedules should be quoted in rupees and paise only. In case of any difference in the rates quoted in figures and in words, the lower of the two rates will be taken as the tendered rate.

17. Rates quoted SHALL INCLUDE ALL royalties, terminal taxes, octroi, duties, central and provincial excise tax, sales tax / VAT and other taxes levied under the State or Central Government Rules **excluding service tax which is to be quoted extra at the end of the Rate Schedule, if service tax is applicable for this work.** BHEL will reimburse the service tax to the contractor, subject to service tax rules in force. The Bharat Heavy Electrical Limited will not entertain any claim whatsoever in this respect after the issue of contract. The lowest bidder will be decided including the service tax amount.

The quoted rates shall also include expenditures towards complying statutory payments like Provident fund, ESI payments, bonus etc for the labours & staff deployed in the work.

The tenderer shall not include Service Tax in their quoted rates. The contractor will have to submit the Service Tax Registration certificate to BHEL and claim the Service Tax from BHEL by submitting Tax invoice as per Rules & Regulations of Service Tax and the documentary evidence will have to be submitted along with the next bill. If for any reason, the contractor has to pay penalty, interest on service tax, the contractor has to bear such additional payment. BHEL will pay only the service tax at actual. **The Bharat Heavy Electricals Limited will not entertain any claim in this regard.**

18. Should a Tenderer find discrepancies or omissions in the tender documents or should be in doubt as to their meaning, he should at once address the authority inviting the tender for clarification. Every endeavor is made to avoid any error which can materially affect the basis of the tender but the successful tenderer shall take up on himself to provide for the risk of any error which may be subsequently discovered and shall make no subsequent claim on account thereof.
19. Tenders submitted by post should be sent "REGISTERED POST WITH ACK.DUE". This should be posted with due allowance for any delay in postal delivery. On no account, will tenders received after the due date and time of opening tenders, be considered.
20. Quantities shown in the attached schedules are only approximate and liable to change without entitling the contractor for any compensation.
21. Should a Tenderer or a contractor has a relative or in the case of a firm or company of contractors any of its shareholders or share holder's relative, employed in Bharat Heavy Electricals Limited, the authority inviting tenders shall be informed of this fact at the time of submission of the tender failing which tender may be disqualified or if such fact subsequently come to light, the contract may be rescinded.
22. If the Tenderer expires after submission of his tender, the Bharat Heavy Electricals Limited may be at the discretion of cancel such tender.
23. If a partner of a firm expires after submission of the tender or after the acceptance of the tender, Bharat Heavy Electricals Limited may cancel such tender at the discretion unless the firm retains his character.
24. The Bharat Heavy Electricals Limited will not bound by any Power of Attorney granted by the Tenderer or changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contract concerned.
25. The contractor deliberately, gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, Bharat Heavy Electricals Limited reserves the right to reject the tender at any stage.
26. Words imparting the singular number shall also deem to include the plural number and vice versa where the context so requires.
27. The expenses for completing and stamping the agreement shall be to the contractor's account.
28. The General and Special Conditions of Contract are complimentary to each other and where they are in conflict, the Special Conditions shall prevail. In regard to matters not covered by the General or Special Conditions of Contract, those contained in the specifications approved by Bharat Heavy Electricals Limited shall apply.

29. Tenderers shall not increase their quoted rates in case Bharat Heavy Electricals Limited negotiated for reduction of rates, such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be binding on the Tenderers for a period of Three months from the date of opening of tender.
30. Canvassing in any form in connection with the tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
31. All contractors will have to produce Income Tax clearance certificate from the Income Tax authorities concerned along with their tenders. Those contractors whose income is not taxable will be required to give an affidavit of their income on the prescribed form.
32. The "GENERAL INSTRUCTIONS TO TENDERERS" shall be deemed to form an integral part of contract for the work to be entered into.
- 33. The contractor should possess necessary licenses, Permanent PF A/c No., and should take Insurance for his workers and produce them before commencement of work. The Contractor shall insure all his materials, tools, tackles etc. and also for third party.**
- a. As per employees PF and misc. provisions Act 1952, the employee's contribution payable at present is 12% of wages which shall be recovered by the Contractor from the wages of his workmen and the contractor should pay equal contribution in addition to any administrative charges in this behalf that may be decided from time to time. Remittance shall be made on time (i.e. on or before 15th of the following month).
- b. All the contract workers shall be enrolled in ESI (Employees' State Insurance). The effective date will be first day of the latest commencement of running contract concerned. The date shall be entered in the 'Date of Appointment' column of the ESI Declaration Form. The workers who are already members of ESI need not be enrolled again.
- c. The filled ESI declaration forms shall be submitted to the Executive (HR-CLX, REX). In the Declaration Form full address of the contractor shall be mentioned. Whenever a fresh and unregistered worker is engaged during the operation of contract, declaration form in respect of that workman which should be submitted to Human Resources Department within two days of such engagement.
- d. ESI contributions (1.75% employees contribution + 4.75% employer contribution of the total monthly wages) before 20th day of every following month. Prescribed challans are available at ESI local office, Ranipet (near Sipcot). Contractors who have got their own code number can remit the contributions on that number.
- e. Along with the challan copy, the details of remittance shall be submitted to the Executive (HR-CLX, REX) in the ESI compliance form.

34. The contractor should deduct Provident Fund and ESI amount as per the provisions and amount so deducted along with the matching contribution of the contractor shall be remitted to the authorities concerned within the stipulated time. The statement of deduction along with the challans evidencing remittance shall be submitted to Officer-in-charge. If the evidences are not shown, further bills of the contractor will not be paid.

BHEL have the right to withhold the payment of his bills. Submission of statutory returns such as Half Yearly returns of ESI (Form 6), P.F. return (Form 12A), Form 5 and Form 10, Form 3A & Form 6A should be send to the concerned officers in time.

35. In case of any increase in wage rates on account of revision of minimum wages by Government of Tamil Nadu and any revision of rate of contribution in Provident Fund, ESI and Bonus percentages due to statutory amendments, the contractor is bound to pay the revised amount. In case the revision of minimum wages is made by Government of Tamil Nadu with retrospective dates, the contract is bound to pay such arrears arising out of such revision of minimum wages retrospectively, failing which BHEL as the principal employer will retain the amount from the contractor and pay to contract labourers working under him.

36. The workers' particulars such as Name, Age, Father's name, address etc., and their daily attendance have to be maintained by the contractor. The details of Provident Fund and ESI compliance have to be maintained by the contractor in the prescribed format/register.

37. As per the Contract (Regulation & Abolition) Act, 1970 & Allied Rules, the contractor employing 20 or more labourers is required to obtain license from the Inspector of Labour, Vellore. This license shall be amended and/or renewed whenever there is an increase in the workman employed by him or in the event of contract being extended or renewed. The contractor shall inform the License Number so obtained to the Human Resources Department.

38. The contractor shall maintain the following Registers and Records and make them available for inspection at any time. (The list is only for example, but not exhaustive).

- a) Muster Roll
- b) Register of Wages
- c) Register of Deductions
- d) Register of Overtime
- e) Register of Fine
- f) Register of Advance
- g) Wage slips
- h) Register of Accidents
- i) Register of Leave with Wages
- j) ESI Register in Form-7

All registers are required to be maintained as above and shall be produced as and when Government Officials and Statutory Authorities to make inspection from time to time.

39. In case a contract labourer meets with an accident while on duty, the contractor shall immediately intimate the information to Safety Department, Contracting Agency and Human Resources Department and submit the Accident Report duly filled in all respect and send a copy to ESI local office, ESI Dispensary and Inspector of Factories (for major accidents) with in 24 hours of accident through Safety and Human Resources Departments. All assistance for the injured workman such as to taking him to ESI Dispensary for treatment must be rendered by the contractor.
40. Compliance of the above provisions does not absolve the obligation of contractor arising out of other statutory obligations.
41. Employment of child labour is strictly prohibited.
42. Contractor should employ only persons having sound health and not above the age of 58 years, and not below the age of 18 years.
43. Payment of Bonus: In respect of work done by the labour, the contractor has to pay to his labourers as laid down by the Payment of Bonus Act – 1965.
44. The Tenderer should be present if called for negotiation both technical and commercial. In case, the Tenderer's authorized person is attending the negotiation such person should have the authorization letter and he should be capable of taking spot decisions.
45. In case the tenderer is not interested in submitting your quotation, they should return all the tender papers with a covering letter stating that your regrets for not submitting your offer for this tender.
46. If required Tenderers may visit the site/working area and obtain all clarifications from Tender Issuing Officer regarding the nature of job before offering their quotation.
47. The tenderer shall clearly indicate all the applicable Taxes in the Price Bid and also shall state clearly whether these taxes are inclusive or exclusive of the Basic rate quoted. If any tender does not indicate applicable taxes, BHEL will assume, price quoted is inclusive of all Taxes and Tender will be evaluated accordingly.
48. The contractor should have registered for Service Tax and a copy of registration certificate shall be attached along with the offer.
49. The contractor shall indicate all the applicable taxes in the offer and any claim after the issue of contract will not be entertained.
50. In case if any Taxes not applicable, like due to threshold limit etc. Same may be clearly indicated in the offer by the Tenderer.

SPECIAL INSTRUCTIONS TO TENDERERS

SL. No.	Name of accessory	<u>Recommended make for all B, C & D Type Quarters</u>
01	MCB Distribution Boards	Legrand, L&T hager, Siemens make Only
02	Single core multi strand copper cable	1100 Volt Grade, Flame Retardant Low Smoke Type Only. FINOLEX, OMEX, L&T, HAVELLS, SUNCAB, MARDIA, ANCHOR, KUNDAN CAB OR ANY ISI APPROVED MAKES ONLY.
03	Television Socket, Telephone Socket.	Modular Type – Anchor, Havells, L&T.
04	G.I. Modular Switch Box / Inner and Outer Plates, Modular Switches, Sockets, Blank (Dummy) plate etc	Anchor – Roma, Havells, L&T Only.
05	Luminaries such as Tube light fittings, CFLs, Incandescent Bulbs etc.,	Philips, GEC, Crompton Greaves, Bajaj, Havells or any ISI Approved make Only. Tube light fittings shall be with copper choke & starter type.
06	Ceiling Fan Speed Regulator	2 Module, Step Fan Regulator. Anchor – Roma, Havells, L&T – Modular Type Only.
07	For Air Conditioner – Metallic MCB Distribution Board with Metal Clad Socket + Plug top.	Legrand, L&T hager, Siemens make Only.
08	Rotary Switches	L&T Salzer, Kaycee, Siemens
09	Exhaust fan	Orient, Crompton Greaves, Usha, Khaitan, Havells, Almonard. Self Closing Louvers shall also be provided.
10	PVC Conduits	2 mm Thickness for RCC roof concrete portion. 1.5 mm Thickness for concealing in wall.
11	Ceiling Rose	Ceiling rose with 3 pin connection has to be provided to facilitate Phase, Neutral & Earth connection.
12	Combination Fuse switches / Switch fuses	GEC Alstom, L&T, Havells, Standard
13	Generally all materials supplied by the Contractor	Shall be of standard make agreeable to the Engineer-in-Charge & should have been certified by ISI.

SPECIAL NOTES:

1. **The Contractor's Scope is INCLUSIVE of Co-ordination works with Local TNEB authorities to obtain EB Service connections for all the individual quarters.**

2. **The Contractor should present at the time of receiving EB Service connections. Any defect pointed out by the EB authorities in the equipment (or) installations supplied by the contractor should be immediately rectified by the contractor free of cost.**

3. **BIDDERS SHALL QUOTE "SAME UNIT RATES" FOR "SAME ITEMS" IN ALL THE RATE SCHEDULES OF B, C & D TYPE QUARTERS ATTACHED IN THE PART – II - PRICE BID ATTACHED .**

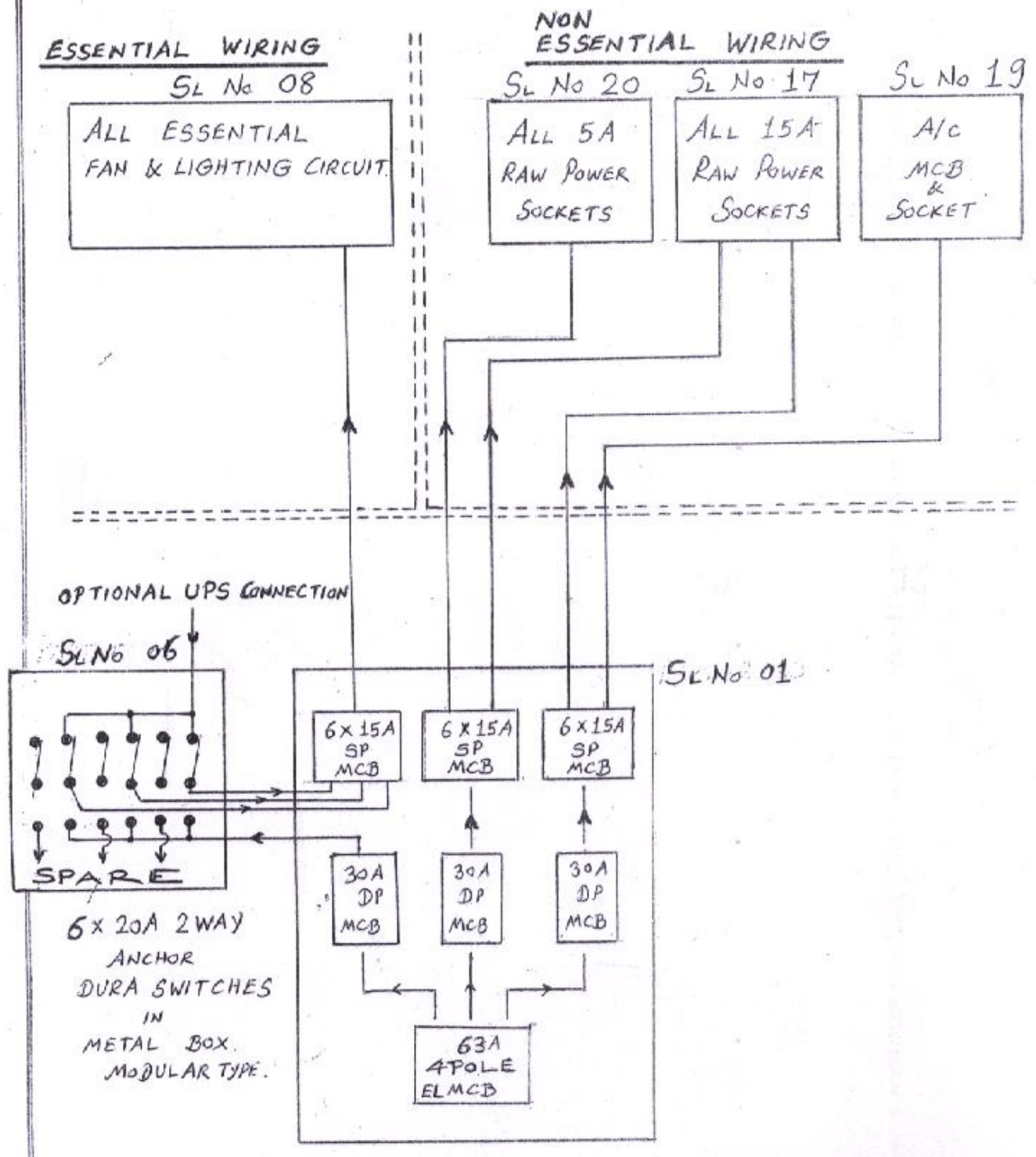
DRAWINGS

(Pages 37 – 47)

(Note : The attached drawings are for Tender Purpose only ; During actual execution, some changes may occur)

ELECTRIFICATION OF 'B' TYPE QUARTERS - 96 Nos

SCHEMATIC DIAGRAM.



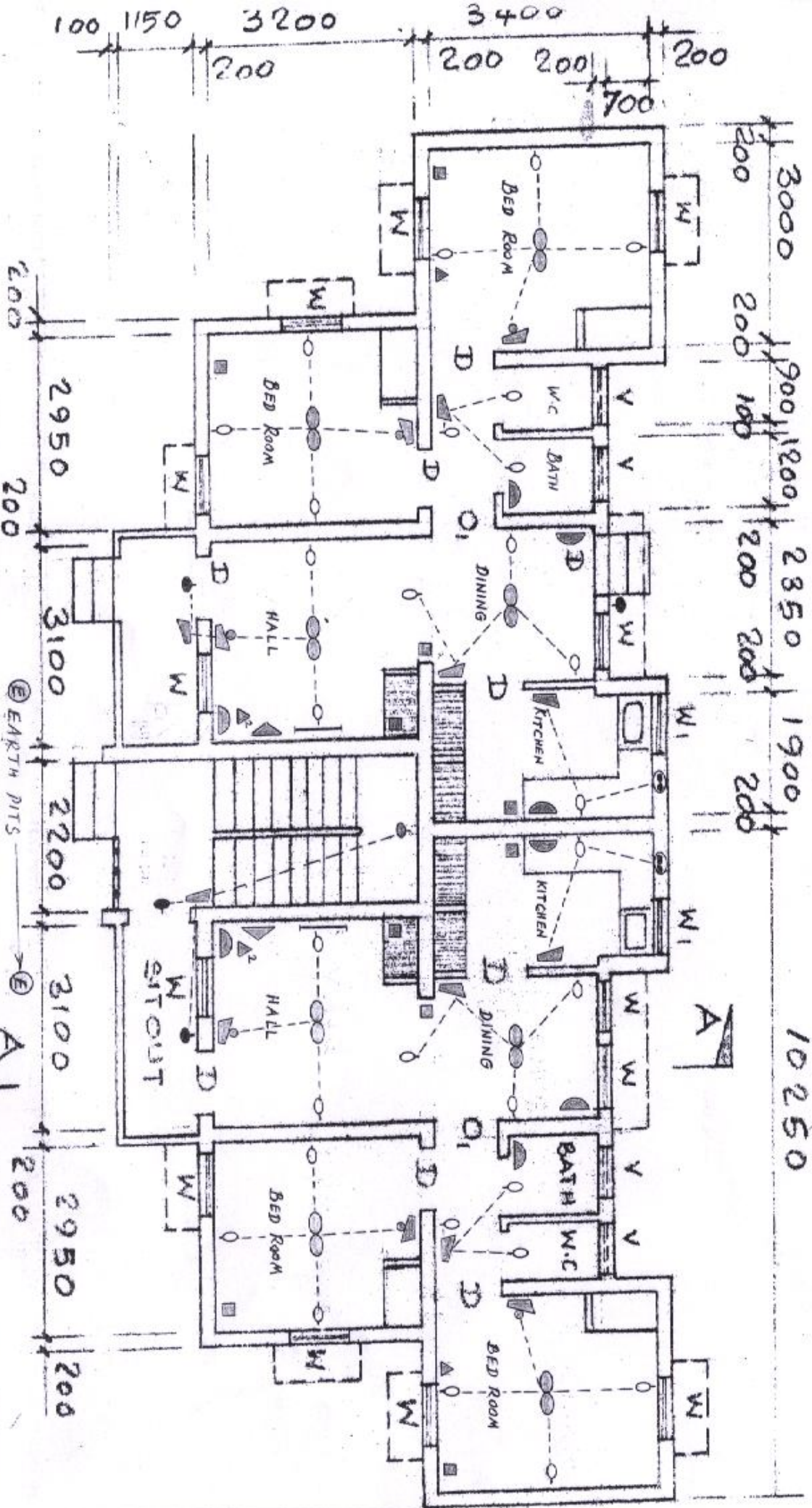
INCOMING WIRING

PREPARED BY	P. Venkatesan P. VENKATESAN
CHECKED BY	W. V. N. (V.A. NARASIMHAN)
APPROVED BY	<i>[Signature]</i>

ELECTRIFICATION OF 'B' TYPE QUARTERS

- 96 Nos

10250



- MINIATURE CIRCUIT BREAKER (MCB)
- DISTRIBUTION BOX
- 2 WAY MODULAR SWITCHES
- MODULAR SWITCH BOX + 5A SOCKET

- 1200 W/M SLEEP CEILING FAN
- 4 FEET, 40W TUBE LIGHT
- IVORY SLANTING HOLDER POINT
- BULK HEAD LIGHT FITTING POINT
- SWITCH BOX WITHOUT SOCKET
- MODULAR TYPE

- EXHAUST FAN
- 5A 2PIN COM 3PIN MODULAR SWITCH, SOCKET IN MODULAR BOX
- 15A COM 5A 3PIN MODULAR SWITCH, SOCKET IN MODULAR BOX
- SINGLE POLE MCB + SOCKET FOR AC METAL CLAYS

Prepared By	P. Mohan Babu
Checked By	P. Venkatesan
Approved By	M. N. A. R. S. (M. N. A. R. S. M. N. A. R. S. M. N. A. R. S.)

NON ESSENTIAL WIRING

ELECTRIFICATION OF 'B' TYPE QUARTERS WIRING DIAGRAM

All Sockets Raw Power (or) EB Power

HALL	BATH	DINING	KITCHEN	HALL- KITCHEN	BED ① BED ②	BED 1 A/c 20A
15A	15A	15A	15A	2 x 5A	2 x 5A	

Circuit ① → ② → ③ → ④ → ⑤ → ⑥ → ⑦

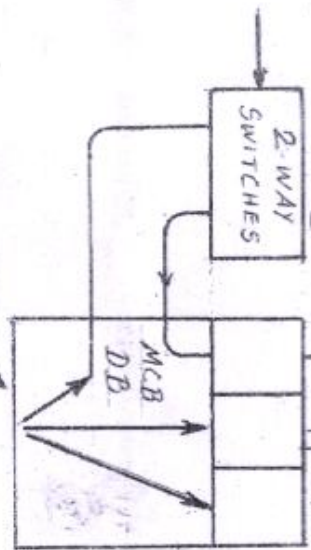
HALL	260 W
DINING	220 W
KITCHEN	120 W
BED 1	260 W
BED 2	260 W
TOILET, BATH, PASSAGE	120 W

Sl No 20
3 Run
2.5 Cu

Sl No 17
3 Run
4 Cu

Sl No 20
3 Run
2.5 Cu

ESSENTIAL WIRING-06

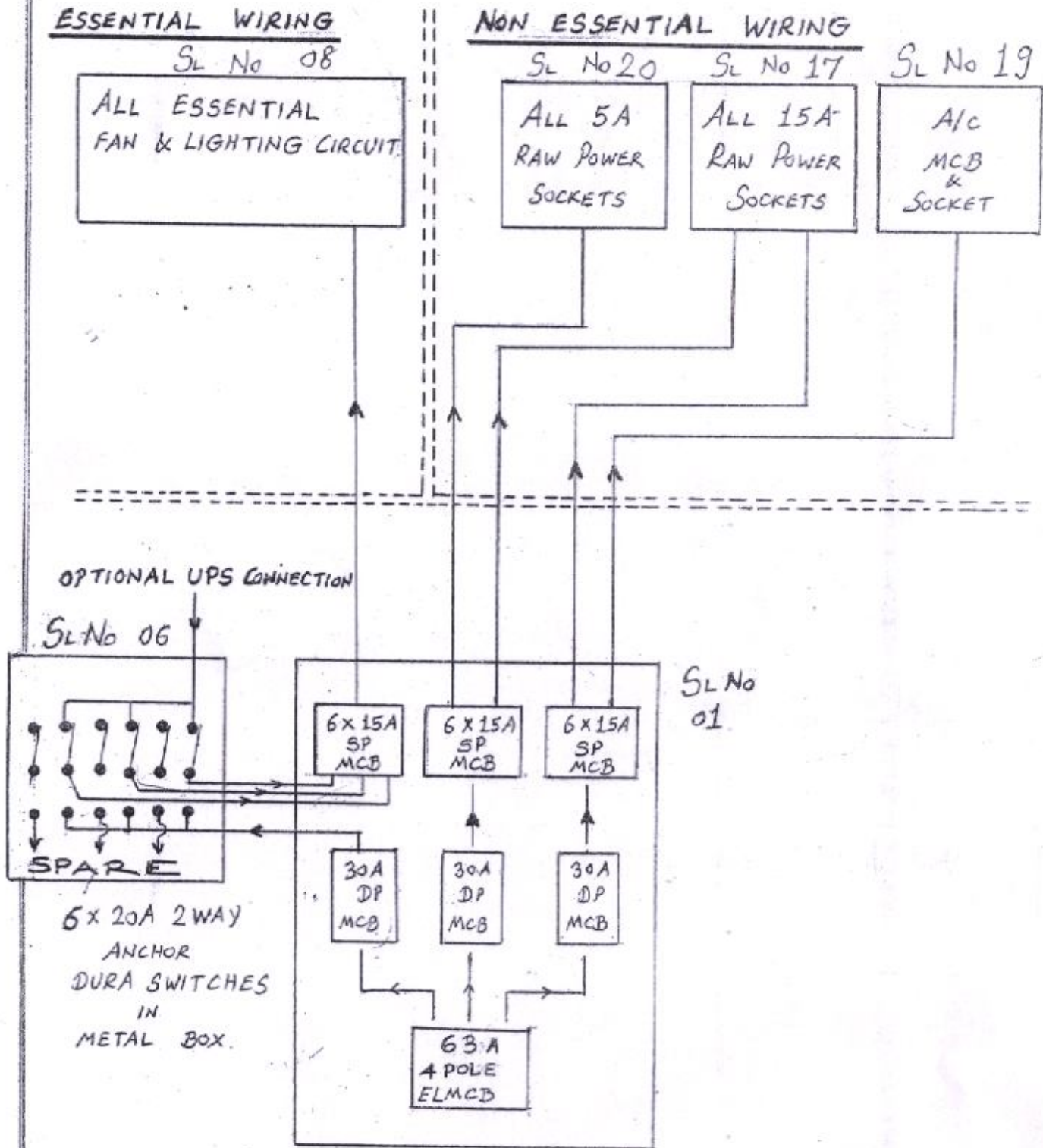


Sl No 01

PREPARED BY	P. Venkatesan
CHECKED BY	P. Venkatesan
APPROVED BY	(Signature)

ELECTRIFICATION OF 'C' TYPE QUARTERS -144 Nos

SCHEMATIC DIAGRAM.

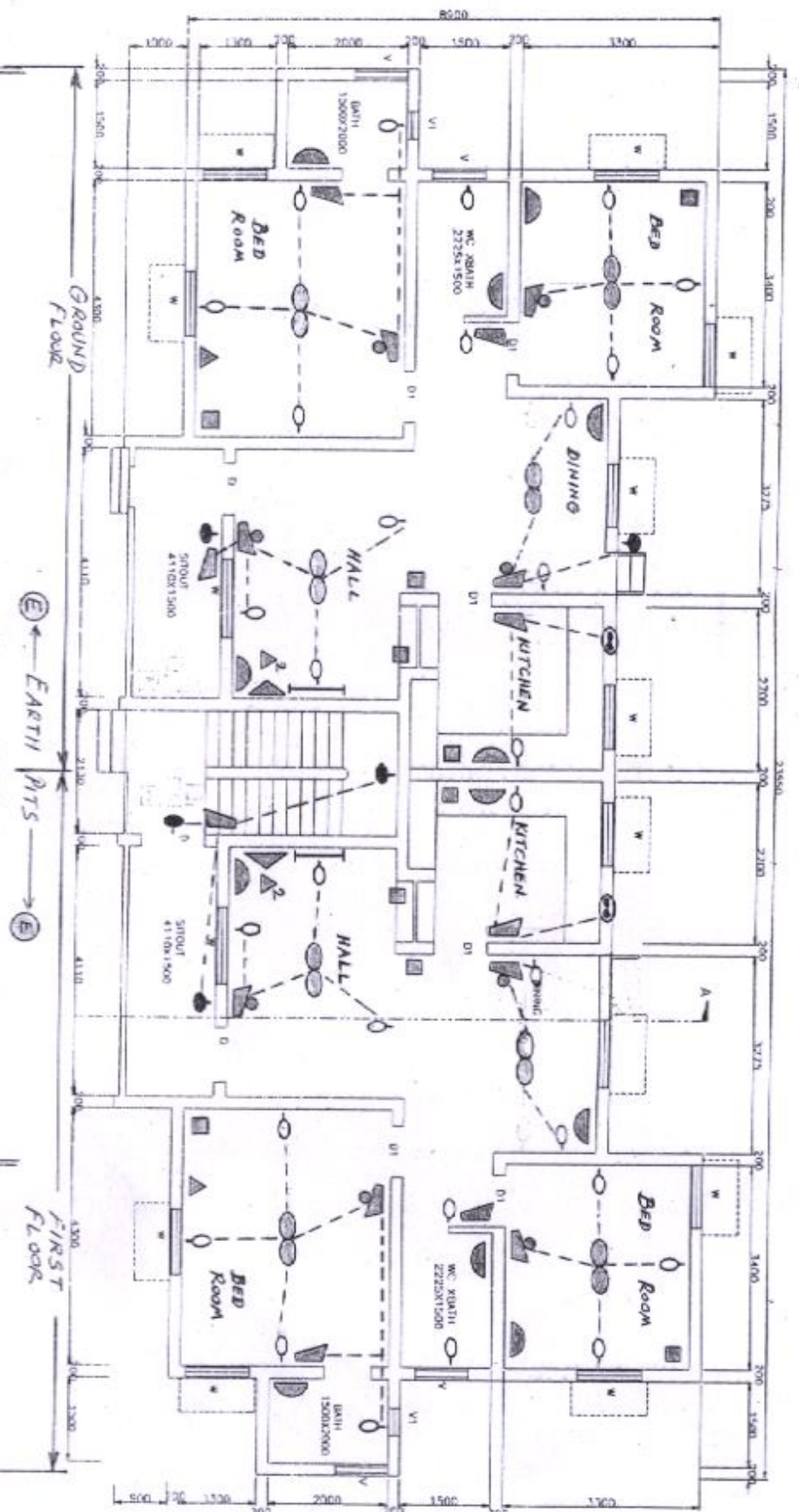


INCOMING WIRING

PREPARED BY	P. Venkatesan P. VENKATESAN
CHECKED BY	(G.A. NARASIMHAN)
APPROVED BY	

ELECTRIFICATION OF 'C' TYPE QUARTERS.

- 144 Nos



⊙ EXHAUST FAN
 ▽ SINGLE POLE MCB + METAL CLAD SOCKET FOR AC

▷ MINIATURE CIRCUIT BREAKER (MCB) DISTRIBUTION BOX
 ▲ 2 WAY MODULAR SWITCHES
 Ⓜ MODULAR SWITCH BOX CONTROL + SOCKET
 Ⓞ 1200 WATT SWEEP CEILING FAN
 ─── 4 FEET, 40W TUBE LIGHT

○ IVORY SLANTING HOLDER POINT.
 ● BULK HEAD LIGHT FITTING POINT.
 ▽ MODULAR SWITCH BOX WITHOUT SOCKET
 Ⓜ 5A 2 PIN CUM 3 PIN MODULAR SWITCH, SOCKET IN MODULAR BOX.
 ▽ 15A CUM 5A 3 PIN MODULAR SWITCH, SOCKET IN MODULAR BOX

Ⓧ EARTH PITS

HALF GROUND FLOOR AND FIRST FLOOR PLAN

FIRST FLOOR

PREPARED BY	P. Venkatesh
CHECKED BY	M. Anandaraman
APPROVED BY	<i>(Signature)</i>

ELECTRIFICATION OF 'C' TYPE QUARTERS WIRING DIAGRAM

NON ESSENTIAL WIRING

ALL SOCKETS RAW (OR) EB POWER

HALL 15A	BED ATT 15A	BED ATT 15A	COM BATH 15A	KITCHEN 15A	DIN 15A
BED ATT 5A			BED (WOT) 15A	KIT 5A	BED (WOT) 5A
HALL 5A				DIN 5A	

ESSENTIAL WIRING

HALL	300W	
DINING	300W	720W
KITCHEN	120W	
BED ROOM (NORMAL)	260W	
BATH	80W	640W
BED ROOM (ATTACHED)	300W	

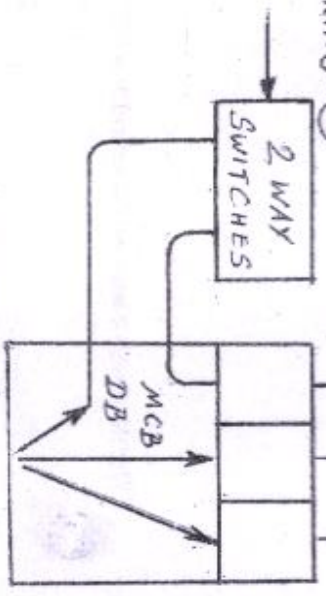
Sl No 20
3 Run
2.5 Ga

Sl No 17
3 Run
4 Ga
for
15A Soc

Sl No 20
3 Run
2.5 Ga
for
5A Soc

Sl No 06
ESSENTIAL WIRING-06

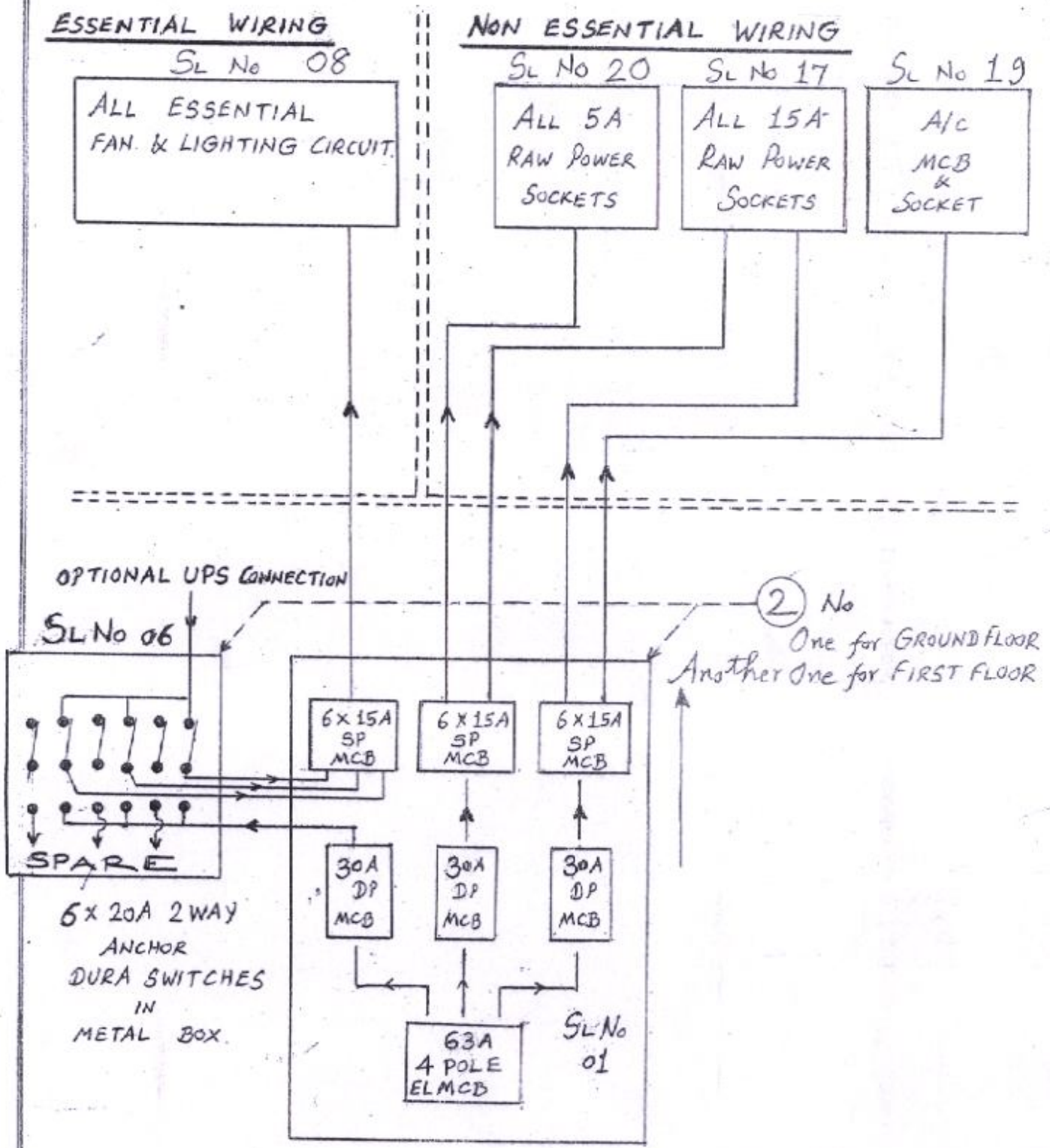
Sl No 01



PREPARED BY	P. K. Subrahmanyan
CHECKED BY	P. VENKATESAN
APPROVED BY	(Signature)

ELECTRIFICATION OF 'D' TYPE QUARTERS - 12 Nos

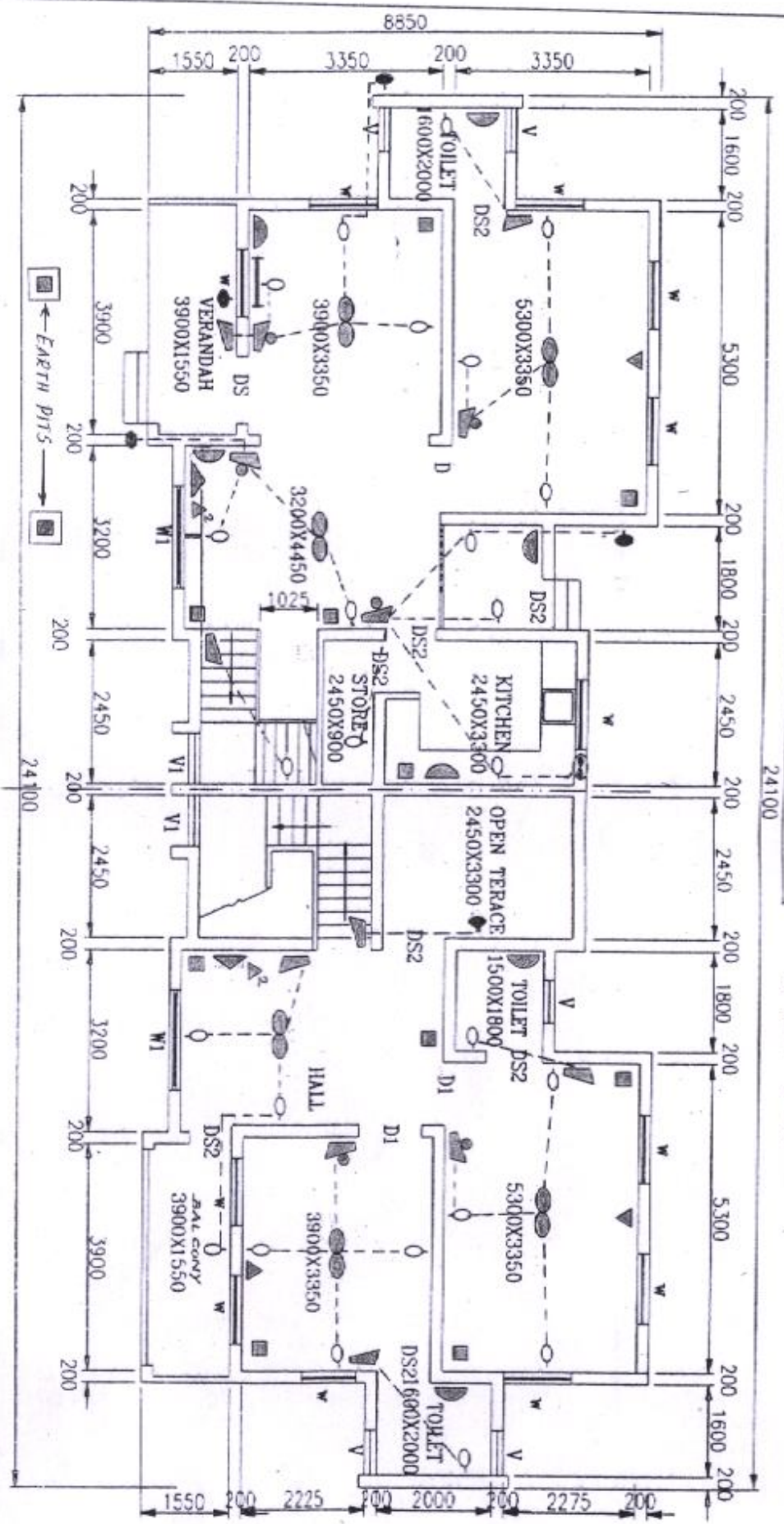
SCHEMATIC DIAGRAM.



INCOMING WIRING

PREPARED BY	P. Venkatesan P. VENKATESAN
CHECKED BY	(V.A. NAGASIMHAN)
APPROVED BY	

ELECTRIFICATION OF 'D' TYPE QUARTERS - 12 Nos



HALF GROUND FLOOR & FIRST FLOOR PLAN

- MODULAR SWITCH BOX CONTROL + 5A SOCKET.
- 1200MM SWEEP CEILING FAN
- 4 FEET, 40W TUBE LIGHT.

- IVORY SLANTING HOLDER POINT.
- BULK HEAD FITTING POINT
- MODULAR SWITCH BOX WITHOUT SOCKET.
- EXHAUST FAN
- TPN+DP+SP MCB DISTRIBUTION BOX

- MODULAR 5A 2PIN CUM 3PIN SOCKET
- MODULAR 15A CUM 5A 3PIN SOCKET
- SINGLE POLE MCB BOX FOR AC + METAL CLAD SOCKET
- EARTH PITS
- 2 WAY MODULAR SWITCHES

PREPARED BY	P. VENKATESH
CHECKED BY	(Signature)
APPROVED BY	(Signature)

ELECTRIFICATION OF 'D' TYPE QUARTERS WIRING DIAGRAM

NON ESSENTIAL WIRING

GROUND FLOOR EB POWER

ALL SOCKETS		EB POWER	
Hall 15A	Both 15A	Din 5A	Kit 15A
Din 15A	Hall 5A	Kit 5A	W/c 15A
Bed 5A	Step 5A		

FIRST FLOOR EB POWER

ALL SOCKETS		EB POWER	
Bed 15A	Bed 15A	Hall 5A	Bed 5A
		Hall 5A	Bed 5A
		Bed 5A	

ESSENTIAL WIRING

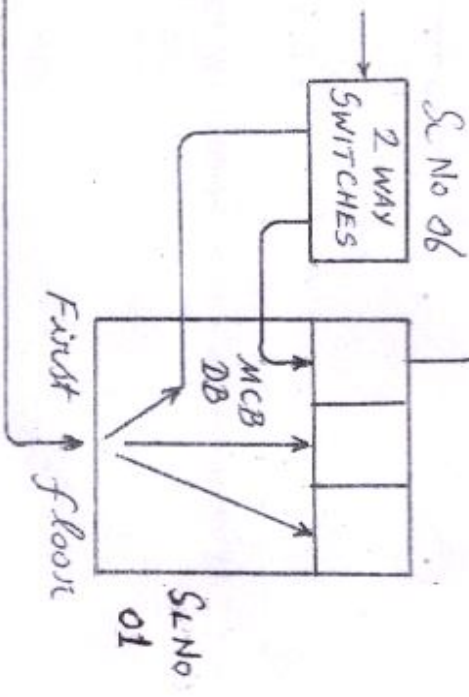
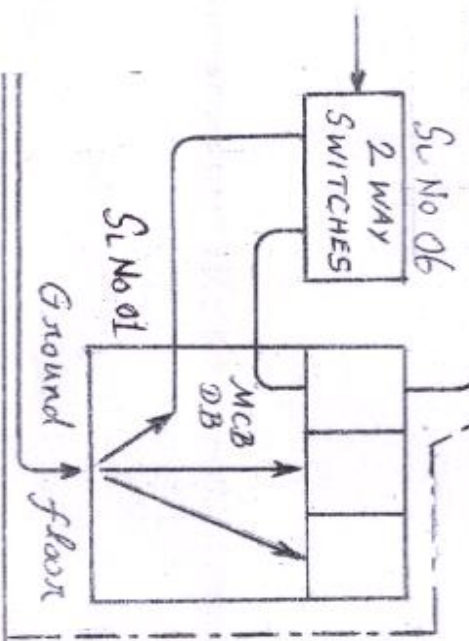
GROUND FLOOR

CIRCUIT ①		CIRCUIT ②	
HALL	300W		
BED ROOM	300W		
DINING	320W		
KITCHEN	260W		
			580W

FIRST FLOOR

CIRCUIT ①		CIRCUIT ②	
HALL, OPEN TERRACE, BALCONY	240W		
BED ROOM	300W		
BED ROOM	300W		
			300W

PREPARED BY P. Murugesan
 CHECKED BY P. Venkatesan
 APPROVED BY N.A. NARASIMHAN

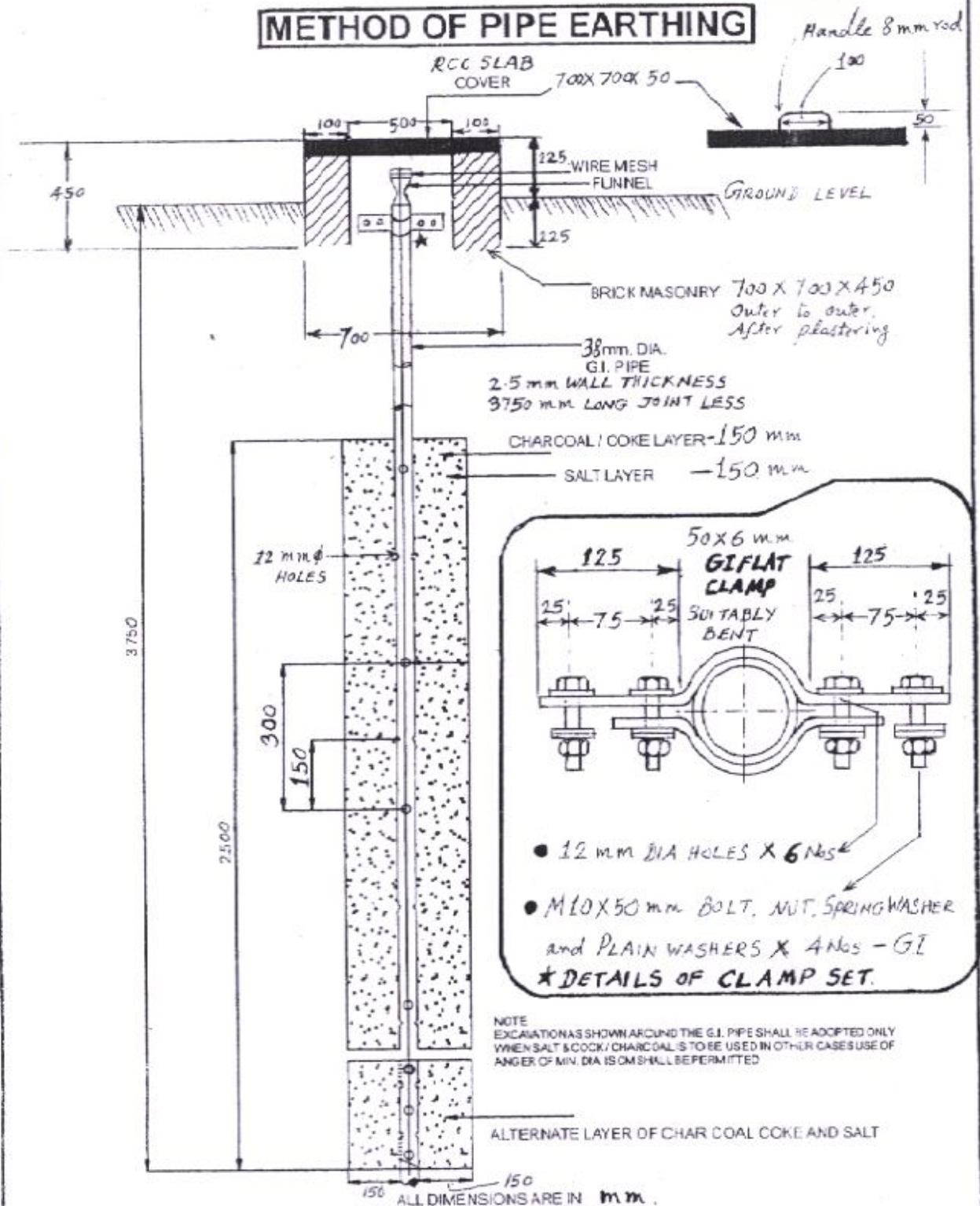


REFERENCE DRAWING No: BAP:CTS:EL:PLNG: 2010

FOR SL No 22 OF BILL OF MATERIALS OF B, C, D TYPE QUARTERS
NOT TO SCALE

ELECTRIFICATION WORKS

METHOD OF PIPE EARTHING



THE EARTH PIT RESISTANCE VALUE HAS TO BE MEASURED & THE RESISTANCE VALUE SHOULD BE NEATLY WRITTEN WITH PAINT ON THE PIT SLAB COVER.

P. Venkatesan	M. V. A. VARASIMHAN	
PREPARED BY	CHECKED BY	APPROVED BY

TENDER DOCUMENT

TENDER SPECIFICATION No : **BAP:CTS:OT:02 / 2011-12 Dt. 11.07.2011**

NAME OF WORK:

INTERNAL ELECTRIFICATION OF NEW 'B', 'C' & 'D' TYPE QUARTERS (B Type – 96; C Type – 144 & D Type – 12, TOTAL 252 HOUSES) UNDER CONSTRUCTION IN ZONE – III, BHEL TOWNSHIP, RANIPET – 6.

Issued to M/s. :

PART – II – PRICE BID

(Pages 49 – 70)



CIVIL TOWNSHIP DEPARTMENT
BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)

BOILER AUXILIARIES PLANT

INDIRA GANDHI INDUSTRIAL COMPLEX

RANIPET – 632 406

SPECIAL INSTRUCTIONS TO TENDERERS

Page-49

SL. No.	Name of accessory	<u>Recommended make for all B, C & D Type Quarters</u>
01	MCB Distribution Boards	Legrand, L&T hager, Siemens make Only
02	Single core multi strand copper cable	1100 Volt Grade, Flame Retardant Low Smoke Type Only. FINOLEX, OMEX, L&T, HAVELLS, SUNCAB, MARDIA, ANCHOR, KUNDAN CAB OR ANY ISI APPROVED MAKES ONLY.
03	Television Socket, Telephone Socket.	Modular Type – Anchor, Havells, L&T.
04	G.I. Modular Switch Box / Inner and Outer Plates, Modular Switches, Sockets, Blank (Dummy) plate etc	Anchor – Roma, Havells, L&T Only.
05	Luminaries such as Tube light fittings, CFLs, Incandescent Bulbs etc.,	Philips, GEC, Crompton Greaves, Bajaj, Havells or any ISI Approved make Only. Tube light fittings shall be with copper choke & starter type.
06	Ceiling Fan Speed Regulator	2 Module, Step Fan Regulator. Anchor – Roma, Havells, L&T – Modular Type Only.
07	For Air Conditioner – Metallic MCB Distribution Board with Metal Clad Socket + Plug top.	Legrand, L&T hager, Siemens make Only.
08	Rotary Switches	L&T Salzer, Kaycee, Siemens
09	Exhaust fan	Orient, Crompton Greaves, Usha, Khaitan, Havells, Almonard. Self Closing Louvers shall also be provided.
10	PVC Conduits	2 mm Thickness for RCC roof concrete portion. 1.5 mm Thickness for concealing in wall.
11	Ceiling Rose	Ceiling rose with 3 pin connection has to be provided to facilitate Phase, Neutral & Earth connection.
12	Combination Fuse switches / Switch fuses	GEC Alstom, L&T, Havells, Standard
13	Generally all materials supplied by the Contractor	Shall be of standard make agreeable to the Engineer-in-Charge & should have been certified by ISI.

1. The Contractor's Scope is INCLUSIVE of Co-ordination works with Local TNEB authorities to obtain EB Service connections for all the individual quarters.
2. The Contractor should present at the time of receiving EB Service connections. Any defect pointed out by the EB authorities in the equipment (or) installations supplied by the contractor should be immediately rectified by the contractor free of cost.
3. BIDDERS SHALL QUOTE "SAME UNIT RATES" FOR "SAME ITEMS" IN ALL THE RATE SCHEDULES OF B, C & D TYPE QUARTERS ATTACHED.

RATE SCHEDULE / BILL OF MATERIALS for Internal Electrification of 'B' Type quarters – 96 No. Page-50

Sl No	B 96	Description of work	INCOMING WIRING	Qty	Unit	Rate	Amount
						Rs	Rs
B 01		Supply and fixing of most elegantly designed, Pre wired, surface mounting MCB Distribution Box mounted on suitable MS angle iron frame work grouted in wall inside the hall, comprising of the following: INCOMER: 1 No - 63 Ampere, Four Pole EL MCB, Sensitivity 30 mA Intermediate MCB: 3 No - 30 Ampere, Double Pole MCB. OUTGOING: 3 Set of – 6 No x 10/20 Ampere, Single pole MCB. The MCB DB shall also be fitted with 3 No of 63 A Salzer make Rotary switches / Phase selector switches, 3 Phase indication lamps, earth bar, neutral link, Double door MCB Box.		96	No		
B 02		Supply and laying of 5 runs of Single core 10 Sq mm PVC insulated, Copper, flexible, multi-strand, FRLS (Flame Retardant Low Smoke) cable in 1.25 inch dia PVC conduit laid concealed in wall / Ceiling. Cable color code is Red, Yellow, Blue for phase connections, Black for Neutral, Green for Earth connection.					
	02 A	Between <u>3 Phase main switch fixed at outside</u> and <u>MCB DB Fixed at hall,</u> with necessary inter connections, earth connections etc as required. For Ground floor quarters.		200	Mtr		
	02 B	Between <u>3 Phase main switch fixed nearer the entrance of First floor steps</u> to the <u>Distribution box fixed in hall of First floor quarters,</u> with necessary inter connections, earth connections etc as required – For First floor quarters.		300	Mtr		
B 03		Making end termination using crimping paste for 5 runs of Single core 10 Sq mm, PVC Insulated, flexible, multi-strand Copper cable, with 10 Sq mm Copper Pin or Eye type sockets, without glands etc, and providing connections as required.		192	No		
B 04		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TV socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.		96	Pt		
B 05		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TELEPHONE socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.		192	Pt		

ESSENTIAL WIRING

SI No	B 96	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
B 06		<p>Supply and fixing of GI Modular type switch box with 6 No of 15 / 20 Ampere, 2 way Modular DURA switch GI Modular box, Anchor ROMA make, Code 21543 (or) Equivalent with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required, adjacent to MCB DB inside the hall.</p> <p>Note : All the ceiling fans and lighting circuits of all rooms shall be connected with these modular switch out going.</p> <p>One incoming power source shall be connected with Raw EB power. And the other incoming source shall be kept opened, for the future usage with UPS power.</p>	96	No		
B 07		<p>Supply and wiring with 3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between</p> <p>(i) MCB DB & all lighting circuit switch boxes as Circuit / Sub main incoming wiring of all interior rooms.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	4800	Mtr		
B 08		<p>Supply and wiring with 3 runs of, Single core, 1.5 Sq mm Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling for LIGHT, FAN, calling BELL points of all interior rooms.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	2112	Pt		

ESSENTIAL WIRING

SI No	B 96	Description of work	Qty	Unit	Rate	Amount								
					Rs	Rs								
B 09		Supply and fixing of Modular type switch boxes with the following modules, for lighting, fan, bell circuit of all the rooms of ' B' Type Quarters , with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.												
B 09A		<table border="1"> <tr> <td>2 WAY</td> <td>BELL</td> </tr> </table> <p>Ground Floor Entrance</p>	2 WAY	BELL	48	No								
2 WAY	BELL													
B 09B		<table border="1"> <tr> <td>2 Way</td> <td>L TL</td> <td>L CFL</td> <td>FAN</td> <td>REG.</td> <td>SWITCH</td> <td>5 A SOCKET</td> </tr> </table> <p>Ground Floor Hall</p>	2 Way	L TL	L CFL	FAN	REG.	SWITCH	5 A SOCKET	48	No			
2 Way	L TL	L CFL	FAN	REG.	SWITCH	5 A SOCKET								
B 09C		<table border="1"> <tr> <td>L</td> <td>L WB</td> <td>L FOTO</td> <td>L Rear</td> <td>FAN</td> <td>REG</td> <td>SWITCH</td> <td>5 A SOCKET</td> </tr> </table> <p>Ground Floor Dining</p>	L	L WB	L FOTO	L Rear	FAN	REG	SWITCH	5 A SOCKET	48	No		
L	L WB	L FOTO	L Rear	FAN	REG	SWITCH	5 A SOCKET							
B 09D		<table border="1"> <tr> <td>L</td> <td>F Exhaust</td> </tr> </table> <p>All Kitchen</p>	L	F Exhaust	96	No								
L	F Exhaust													
B 09E		<table border="1"> <tr> <td>L Bath</td> <td>L WC</td> <td>L Passage</td> </tr> </table> <p>All Toilet, Bath, Passage</p>	L Bath	L WC	L Passage	96	No							
L Bath	L WC	L Passage												
B 09F		<table border="1"> <tr> <td>L</td> <td>L CFL</td> <td>L NL</td> <td>FAN</td> <td>REG</td> <td>SWITCH</td> <td>SOCKET</td> </tr> </table> <p>All Bed Rooms (1)</p>	L	L CFL	L NL	FAN	REG	SWITCH	SOCKET	96	No			
L	L CFL	L NL	FAN	REG	SWITCH	SOCKET								

B 96

B 09G

L	L CFL	L NL	FAN	REG	SWITCH	SOCKET
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All Bed Rooms (2)

96

No

B 09H

2 WAY

First – Stair case

24

No

B 09 I

2 WAY	2 WAY	BELL
----------	----------	------

All First floor entrance

48

No

B 09J

2W	L TL	L CFL	L S.OUT	FAN	REG	SWITCH	SOCKET
----	---------	----------	------------	-----	-----	--------	--------

First floor Hall

48

No

B 09K

L	L WB	L Foto	FAN	REG.	SWITCH	SOCKET
---	---------	-----------	-----	------	--------	--------

First Floor Dining Hall

48

No

B 09L

L Switch

Open Terrace Right side

24

No

B 09M

2W	L Switch
----	-------------

Open Terrace Left side

24

No

Sl No	B 96	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
B 10		Supply and fixing of Ivory slanting holder for all light points. Work inclusive of providing interconnections, earth connection etc, as required.	1440	No		
B 11		Supply & fixing of 4 feet, 40 Watts, Fluorescent Patty type light fitting with copper choke & with suitable metal bracket set. Work is inclusive of supply of silk wire, adopter, interconnections, earth connection etc as required.	96	No		
B 12		Assembling & fixing of 1200 mm sweep ceiling fan on the existing hook. Work is inclusive of supply and fixing of ceiling rose, silk wire etc, providing inter connections, regulator connections and earth connections as required. (Ceiling fan will be supplied by BHEL)	288	No		
B 13		Supply and providing STAIR CASE wiring with, Single core, 1.5 Sq mm Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall / ceiling, including supply of ceiling rose, earth connection for Bulk head fittings, (i) Ground floor MAIN entrance Bulk head fitting. (ii) First floor steps Bulk head fitting. (iii) First floor MAIN entrance Bulk head fitting. (iv) First floor to Open terrace steps Bulk head fitting NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	144	Pt		
B 14		Supply and fixing of Bulk head fittings with necessary silk wire, adapter / ceiling rose connection, earth connection etc as required, at Main entrance, rear side garden, staircase, open terrace.				
	14 A	Bulk Head Fitting with 11 W CFL	96	No		
	14 B	Ordinary Bulk Head Fitting with 40 W Incandescent lamp	192	No		
B 15		Supply and fixing of 40 Watts, 230 Volt, Incandescent lamps in Kitchen, Dining hall, Bed rooms, Bath, Toilet, Passage and in all Bulk head fittings.	1200	No		
B 16		Supply and fixing of 12 inch dia Exhaust fan with self closing louvers, on the existing opening of kitchen wall. Work inclusive of providing fan connection, earth connection, checking and ensuring proper working of exhaust fan.	96	No		

NON-ESSENTIAL WIRING

SI No	B 96 Description of work	Qty	Unit	Rate	Amount
				Rs	Rs
B 17	Supply and wiring with 3 runs of, Single core, 4 Sq mm Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB and RAW power 15 A 3 pin sockets, (ii) MCB DB and Air Conditioner Metal Clad sockets. NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	7000	Mtr		
B 18	Supply and fixing of Modular type switch box with 1 No of 15 Ampere Modular switch & 1 No of Modular type 15 Ampere cum 5 Ampere, 3 pin socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	384	No		
B 19	Supply and fixing of metallic MCB Distribution Box mounted concealed in wall, comprising of 20 Ampere- Single pole MCB, 'C' Curve & 20 A, 3 pin metal clad socket with 3 pin Metal clad plug top etc for Air Conditioner.	96	No		
B 20	Supply and wiring with 3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB & 5 Ampere 2pin cum 3 pin RAW power (EB Power) sockets NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	3840	Mtr		
B 21	Supply and fixing of Modular type switch box with 1 No of Modular switch & 1 No of Modular type 5 Ampere 2 pin cum 3 pin RAW power socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	480	No		

EARTHING CIRCUIT

Sl No	B 96 Description of work	Qty	Unit	Rate	Amount
				Rs	Rs
B 22	Supply and providing Earth pit as per the Drawing No: BAP:CTS:EL:PLNG:2010 attached. All the materials required for providing the earth pit, as per the drawing is under contractor's scope. 22 A - In Ordinary Earth ----- 22 B - In Soft Rock ----- 22 C - In Hard rock -----	25 15 8	No No No		
B 23	Supply and laying of 6 SWG bare GI wire on wall surface / concealed in wall / at 0.5 Mtr depth below ground , from Earth clamp at meter board to the Earth pit. Providing proper earth connections of both ends for 96 Service connections.	2880	Mtr		
B 24	Supply and laying of 4 mm dia Copper wire on surface from (i) Meter board to ICTPN (ii) From ICTPN to MCB DB. Providing proper earth connections of all ends.	300	Mtr		

TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'B' TYPE QUARTERS – 96 Nos

LEGEND : No – Number; Pt – Point; Mtr - Metre

RATE SCHEDULE /BILL OF MATERIALS for Internal Electrification of ‘C’ Type quarters – 144 No. Page- 57

SI No	C 144	Description of work	INCOMING WIRING	Qty	Unit	Rate	Amount
						Rs	Rs
C 01		Supply and fixing of most elegantly designed, Pre wired, surface mounting MCB Distribution Box mounted on suitable MS angle iron frame work grouted in wall inside the hall, comprising of the following: INCOMER: 1 No - 63 Ampere, Four Pole EL MCB, Sensitivity 30 mA Intermediate MCB: 3 No - 30 Ampere, Double Pole MCB. OUTGOING: 3 Set of – 6 No x 10/20 Ampere, Single pole MCB. The MCB DB shall also be fitted with 3 No of 63 A Salzer make Rotary switches / Phase selector switches, 3 Phase indication lamps, earth bar, neutral link, Double door MCB Box.		144	No		
C 02		Supply and laying of 5 runs of Single core 10 Sq mm PVC insulated, Copper, flexible, multi-strand, FRLS (Flame Retardant Low Smoke) cable in 1.25 inch dia PVC conduit laid concealed in wall / Ceiling . Cable color code is Red, Yellow, Blue for phase connections, Black for Neutral, Green for Earth connection.					
	02 A	Between 3 Phase main switch fixed at outside and MCB DB Fixed at hall , with necessary inter connections, earth connections etc as required. For Ground floor quarters.		300	Mtr		
	02 B	Between 3 Phase Main switch fixed nearer the entrance of First floor steps to the Distribution box fixed in hall of First floor quarters , with necessary inter connections, earth connections etc as required – For First floor quarters.		500	Mtr		
C 03		Making end termination using crimping paste for 5 runs of Single core 10 Sq mm, PVC Insulated, flexible, multi-strand Copper cable, with 10 Sq mm Copper Pin or Eye type sockets, without glands etc, and providing connections as required.		288	No		
C 04		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TV socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.		144	Pt		
C 05		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TELEPHONE socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.		288	Pt		
							Page 08 of 21

ESSENTIAL WIRING

Sl No	C 144	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
C 06		<p>Supply and fixing of <u>GI Modular type switch box with 6 No of 15 / 20 Ampere, 2 way Modular DURA switch GI Modular box, Anchor ROMA make, Code 21543 (or) Equivalent,</u> with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required, adjacent to MCB DB inside the hall.</p> <p>Note : All the ceiling fans and lighting circuits of all rooms shall be connected with these modular switch out going.</p> <p>One incoming power source shall be connected with Raw EB power.</p> <p>And the other incoming source shall be kept opened, for the future usage with UPS power.</p>	144	No		
C 07		<p>Supply and wiring with <u>3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper,</u> PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between</p> <p>(i) MCB DB & all lighting circuit switch boxes as Circuit / Sub main incoming wiring of all interior rooms.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	6800	Mtr		
C 08		<p>Supply and wiring with <u>3 runs of, Single core, 1.5 Sq mm Multi-strand, Copper,</u> PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling <u>for LIGHT, FAN, calling BELL points</u> of all interior rooms.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	3168	Pts		

C 144

C 09	Supply and fixing of Modular type switch boxes with the following modules, for lighting, fan, bell circuit of all the rooms of ' C' Type Quarters. with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.												
C 09A	<table border="1" data-bbox="226 256 726 318"> <tr> <td>2 WAY SWITCH</td> <td>BELL</td> </tr> </table> <p>Ground Floor Entrance</p>	2 WAY SWITCH	BELL	72	No								
2 WAY SWITCH	BELL												
C 09B	<table border="1" data-bbox="226 376 1024 448"> <tr> <td>2 Way</td> <td>L TL</td> <td>L CFL</td> <td>L Foto</td> <td>Fan</td> <td>REG.</td> <td>SW</td> <td>5 A SOCKET</td> </tr> </table> <p>Ground Floor Hall</p>	2 Way	L TL	L CFL	L Foto	Fan	REG.	SW	5 A SOCKET	72	No		
2 Way	L TL	L CFL	L Foto	Fan	REG.	SW	5 A SOCKET						
C 09C	<table border="1" data-bbox="226 568 1024 659"> <tr> <td>L</td> <td>L WB</td> <td>L Rear</td> <td>FAN</td> <td>REG</td> <td>SWITCH</td> <td>5 A SOCKET</td> </tr> </table> <p>Ground Floor Dining</p>	L	L WB	L Rear	FAN	REG	SWITCH	5 A SOCKET	72	No			
L	L WB	L Rear	FAN	REG	SWITCH	5 A SOCKET							
C 09D	<table border="1" data-bbox="226 717 520 782"> <tr> <td>L</td> <td>F Exhaust</td> </tr> </table> <p>All Kitchen</p>	L	F Exhaust	144	No								
L	F Exhaust												
C 09E	<table border="1" data-bbox="226 899 537 987"> <tr> <td>L Bath</td> <td>L Passage</td> </tr> </table> <p>All Common Bath</p>	L Bath	L Passage	144	No								
L Bath	L Passage												
C 09F	<table border="1" data-bbox="226 1049 999 1117"> <tr> <td>L</td> <td>L CFL</td> <td>L NL</td> <td>FAN</td> <td>REG</td> <td>SWITCH</td> <td>SOCKET</td> </tr> </table> <p>All Bed Rooms (1)</p>	L	L CFL	L NL	FAN	REG	SWITCH	SOCKET	144	No			
L	L CFL	L NL	FAN	REG	SWITCH	SOCKET							
C 09G	<table border="1" data-bbox="226 1211 999 1279"> <tr> <td>L</td> <td>L CFL</td> <td>L NL</td> <td>FAN</td> <td>REG</td> <td>SWITCH</td> <td>SOCKET</td> </tr> </table> <p>All Bed rooms (2)</p>	L	L CFL	L NL	FAN	REG	SWITCH	SOCKET	144	No			
L	L CFL	L NL	FAN	REG	SWITCH	SOCKET							
C 09 H	<table border="1" data-bbox="226 1341 344 1416"> <tr> <td>2 WAY</td> </tr> </table> <p>First Stair case</p>	2 WAY	36	No									
2 WAY													
					Page 10 of 21								

C 144

C 09 I

2 WAY	2 WAY	BELL
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All First floor Entrance

72

No

C 09J

2W	L TL	L CFL	L S.OUT	L Foto	FAN	REG	SW	SOC
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All First Floor Hall

72

No

C 09 k

L	L WB	FAN	REG.	SWITCH	SOCKET
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All First floor Dining Hall

72

No

C 09L

L Switch

All Attached Bath (144 Nos) & Open Terrace – Right side (36 Nos)

180

No

C 09M

2W	L Switch
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Open Terrace – Left side

36

No

Internal Electrification of 'C' Type quarters – 144 No.

Sl No	C 144	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
C 10		Supply and fixing of <u>Ivory slanting holder</u> for all light points. Work inclusive of providing interconnections, earth connection etc, as required.	2160	No		
C 11		Supply & fixing of <u>4 feet, 40 Watts, Fluorescent Patty type light fitting with copper choke</u> & with suitable metal bracket set. Work is inclusive of supply of silk wire, adopter, interconnections, earth connection etc as required.	144	No		
C 12		Assembling & <u>fixing of 1200 mm sweep ceiling fan</u> on the existing hook. Work is inclusive of supply and fixing of ceiling rose, silk wire etc, providing inter connections, regulator connections and earth connections as required. (Ceiling fan will be supplied by BHEL)	576	No		
C 13		Supply and providing <u>STAIR CASE wiring with, Single core, 1.5 Sq mm Multi-strand, Copper</u> , PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall / ceiling, including supply of ceiling rose, earth connection for Bulk head fitting etc for, (i) Ground floor MAIN entrance Bulk head fitting. (ii) First floor steps Bulk head fitting. (iii) First floor MAIN entrance Bulk head fitting. (iv) First floor to Open terrace steps Bulk head fitting NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	216	Pts		
C 14		Supply and fixing of <u>Bulk head fittings</u> with necessary silk wire, adapter / ceiling rose connection, earth connection etc as required, at Main entrance, rear side garden, staircase, open terrace.				
	14 A	Bulk Head Fitting with 11 W CFL	144	No		
	14 B	Ordinary BHF with 40 W Incandescent lamp	288	No		
C 15		Supply and fixing of <u>40 Watts, 230 Volt, Incandescent lamps</u> in Kitchen, Dining hall, Bed rooms, Bath, Toilet, Passage and in all Bulk head fittings.	1700	No		
C 16		Supply and fixing of <u>12 inch dia Exhaust fan with self closing louvers</u> , on the existing opening of kitchen wall. Work inclusive of providing fan connection, earth connection, checking and ensuring proper working of exhaust fan.	144	No		
						Page 12 of 21

NON-ESSENTIAL WIRING

Sl No	C 144 Description of work	Qty	Unit	Rate	Amount
				Rs	Rs
C 17	Supply and wiring with 3 runs of, Single core, 4 Sq mm Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB and RAW power 15 A, 3 pin sockets, (ii) MCB DB and Air Conditioner Metal Clad Sockets. NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	12500	Mtr		
C 18	Supply and fixing of Modular type switch box with 1 No of 15 Ampere Modular switch & 1 No of Modular type 15 Ampere cum 5 Ampere, 3 pin socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	864	No		
C 19	Supply and fixing of metallic MCB Distribution Box mounted concealed in wall, comprising of 20 Ampere- Single pole MCB, 'C' Curve & 20 A, 3 pin metal clad socket with 3 pin Metal clad plug top etc for Air Conditioner.	144	No		
C 20	Supply and wiring with 3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB & 5 Ampere 2pin cum 3 pin RAW power (EB Power) sockets NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	5500	Mtr		
C 21	Supply and fixing of Modular type switch box with 1 No of Modular switch & 1 No of Modular type 5 Ampere 2 pin cum 3 pin RAW power socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	720	No		
					Page 13 of 21

EARTHING CIRCUIT

Sl No	C 144	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
C 22		Supply and providing Earth pit as per the Drawing No: BAP:CTS:EL:PLNG:2010 attached. All the materials required for providing the earth pit, as per the drawing is under contractor's scope. 22 A - In Ordinary Earth ----- 22 B - In Soft Rock ----- 22 C - In Hard rock -----	40 20 12	No No No		
C 23		Supply and laying of 6 SWG bare GI wire on wall surface / concealed in wall / at 0.5 Mtr depth below ground , from Earth clamp at meter board to the Earth pit. Providing proper earth connections of both ends for 144 Service connections.	1500	Mtr		
C 24		Supply and laying of 4 mm dia copper wire on surface from Meter board to ICTPN (ii) From ICTPN to MCB DB. Providing proper earth connections of all ends.	400	Mtr		
TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'C' TYPE QUARTERS – 144 No						

RATE SCHEDULE / BILL OF MATERIALS for Internal Electrification of 'D' Type quarters – 12 No. Page-64

SI No	D 12	Description of work INCOMING WIRING	Qty	Unit	Rate	Amount
					Rs	Rs
D 01		Supply and fixing of most elegantly designed, Pre wired, surface mounting MCB Distribution Box mounted on suitable MS angle iron frame work grouted in wall inside the hall, comprising of the following: INCOMER: 1 No - 63 Ampere, Four Pole EL MCB, Sensitivity 30 mA Intermediate MCB: 3 No - 30 Ampere, Double Pole MCB. OUTGOING: 3 Set of – 6 No x 10/20 Ampere, Single pole MCB. The MCB DB shall also be fitted with 3 No of 63 A Salzer make Rotary switches / Phase selector switches, 3 Phase indication lamps, earth bar, neutral link, Double door MCB Box.	24	No		
D 02		Supply and laying of 5 runs of Single core 10 Sq mm PVC insulated, Copper, flexible, multi-strand, FRLS (Flame Retardant Low Smoke) cable in 1.25 inch dia PVC conduit laid concealed in wall / Ceiling. Cable color code is Red, Yellow, Blue for phase connections, Black for Neutral, Green for Earth connection.				
	02 A	Between 3 Phase, 63 A main switch fixed at outside and MCB DB Fixed at hall of Ground floor, with necessary inter connections, earth connections etc as required. For Ground floor portion control.	75	Mtr		
	02 B	Between 3 phase, 63 A main switch fixed at outside and MCB DB fixed at first floor portion, with necessary inter connections, earth connections etc as required – For First floor portion control.	120	Mtr		
D 03		Making end termination using crimping paste for 5 runs of Single core 10 Sq mm, PVC Insulated, flexible, multi-strand Copper cable, with 10 Sq mm Copper Pin or Eye type sockets, without glands etc, and providing connections as required.	48	No		
D 04		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TV socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.	12	Pt		
D 05		Supply and laying of 19 mm dia PVC pipe concealed on wall including supply and fixing of Havells make or equivalent make Modular TELEPHONE socket with GI modular box mounted concealed on wall, from outside of the quarters to the convenient location inside the hall.	24	Pt		Page 15 of 21

ESSENTIAL WIRING

SI No	D 12	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
D 06		<p>Supply and fixing of <u>GI Modular type switch box with 6 No of 15 A / 20 Ampere, 2 way Modular DURA switch GI Modular box, Anchor ROMA make, code 21543 (or) Equivalent,</u> with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required, adjacent to MCB DBs of Ground Floor & First Floor portions.</p> <p>Note : All the ceiling fans and lighting circuits of all rooms shall be connected with these modular switch out going.</p> <p>One incoming power source shall be connected with Raw EB power. And the other incoming source shall be kept opened, for the future usage with UPS power.</p>	24	No		
D 07		<p>Supply and wiring with <u>3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper,</u> PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between</p> <p>(i) MCB DB & all lighting circuit switch boxes as Circuit / Sub main incoming wiring of all interior rooms of Ground floor.</p> <p>(ii) MCB DB & all lighting circuit switch boxes as Circuit / Sub main incoming wiring of all interior rooms of First floor.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	800	Mtr		
D 08		<p>Supply and wiring with <u>3 runs of, Single core, 1.5 Sq mm Multi-strand, Copper,</u> PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling <u>for LIGHT, FAN, calling BELL points</u> of all interior rooms.</p> <p>NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.</p>	456	Pt		

D 12

D 09	Supply and fixing of Modular type switch boxes with the following modules, for lighting, fan, bell circuit control of all the rooms of ' D' Type Quarters , with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.																																
D 09A	<table border="1" data-bbox="218 365 716 430"> <tr> <td>2 WAY SWITCH</td> <td>BELL</td> </tr> </table> <p>Entrance</p>	2 WAY SWITCH	BELL	12	No																												
2 WAY SWITCH	BELL																																
D 09B	<table border="1" data-bbox="218 511 1041 576"> <tr> <td>2 W</td> <td>L</td> <td>L</td> <td>L</td> <td>L</td> <td>FAN</td> <td>REG.</td> <td>SW</td> <td>5 A</td> </tr> <tr> <td>BHF</td> <td>TL</td> <td>CFL</td> <td>NL</td> <td>BHF</td> <td></td> <td></td> <td></td> <td>SOC</td> </tr> </table> <p>Ground Floor Hall</p>	2 W	L	L	L	L	FAN	REG.	SW	5 A	BHF	TL	CFL	NL	BHF				SOC	12	No												
2 W	L	L	L	L	FAN	REG.	SW	5 A																									
BHF	TL	CFL	NL	BHF				SOC																									
D 09C	<table border="1" data-bbox="218 625 1041 690"> <tr> <td>L</td> <td>L</td> <td>L</td> <td>FAN</td> <td>REG</td> <td>SW</td> <td>5 A</td> </tr> <tr> <td></td> <td></td> <td>BHF</td> <td></td> <td></td> <td></td> <td>SOC</td> </tr> </table> <p>Dining</p> <table border="1" data-bbox="218 722 1071 787"> <tr> <td>L</td> <td>L</td> <td>L</td> <td>FAN</td> <td>REG</td> <td>SW</td> <td>5A</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>SOC</td> </tr> </table> <p>All Bed Rooms (3 x 12)</p>	L	L	L	FAN	REG	SW	5 A			BHF				SOC	L	L	L	FAN	REG	SW	5A							SOC	12	No		
L	L	L	FAN	REG	SW	5 A																											
		BHF				SOC																											
L	L	L	FAN	REG	SW	5A																											
						SOC																											
D 09D	<table border="1" data-bbox="218 868 1014 950"> <tr> <td>L</td> <td>L</td> <td>L</td> <td>L</td> <td>L</td> <td>L</td> <td>Ex</td> </tr> <tr> <td>WB</td> <td>Opp</td> <td>BHF</td> <td>Rear</td> <td>Kitchen</td> <td>Store</td> <td>Fan</td> </tr> </table> <p>Wash Basin, Rear Door, Kitchen etc</p>	L	L	L	L	L	L	Ex	WB	Opp	BHF	Rear	Kitchen	Store	Fan	12	No																
L	L	L	L	L	L	Ex																											
WB	Opp	BHF	Rear	Kitchen	Store	Fan																											
D 09E	<table border="1" data-bbox="218 1063 741 1144"> <tr> <td>L</td> <td>L</td> <td>L</td> <td>FAN</td> <td>REG</td> </tr> <tr> <td></td> <td>CFL</td> <td>NL</td> <td></td> <td></td> </tr> </table> <p>First Floor Hall, Balcony etc</p>	L	L	L	FAN	REG		CFL	NL			12	No																				
L	L	L	FAN	REG																													
	CFL	NL																															
D 09G	<table border="1" data-bbox="218 1258 333 1339"> <tr> <td>2</td> </tr> <tr> <td>WAY</td> </tr> </table> <p>Stair case - Bottom</p>	2	WAY	12	No		Page 17 of 21																										
2																																	
WAY																																	

D 12

D 09H

2 WAY	L Open Terrace
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Stair case - Top

12

No

D 09 I

L Switch

All Bath Rooms

36

No

Sl No	D 12	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
D 10		Supply and fixing of ivory slanting holder for all light points. Work inclusive of providing interconnections, earth connection etc, as required.	300	No		
D 11		Supply & fixing of 4 feet, 40 Watts, Fluorescent Patty type light fitting with copper choke & with suitable metal bracket set. Work is inclusive of supply of silk wire, adopter, interconnections, earth connection etc as required.	12	No		
D 12		Assembling & fixing of 1200 mm sweep ceiling fan on the existing hook. Work is inclusive of supply and fixing of ceiling rose, silk wire etc, providing inter connections, regulator connections and earth connections as required. (Ceiling fan will be supplied by BHEL)	60	No		
D 13		Supply and providing STAIR CASE wiring with, Single core, 1.5 Sq mm Multi-strand, Copper , PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall / ceiling, including supply of ceiling rose, earth connection for Bulk head fittings, (i) Ground floor MAIN entrance Bulk head fitting. (ii) First floor steps Bulk head fitting. NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	24	Pt		
D 14		Supply and fixing of Bulk head fittings with necessary silk wire, adapter / ceiling rose connection, earth connection etc as required, at Main entrance, rear side garden, staircase, open terrace.				
	14 A	Bulk Head Fitting with 11 W CFL	12	No		
	14 B	Ordinary BHF with 40 W incandescent lamp.	24	No		
D 15		Supply and fixing of 40 Watts, 230 Volt, Incandescent lamps in Kitchen, Dining hall, Bed rooms, Bath, Toilet, Passage and in all Bulk head fittings.	325	No		
D 16		Supply and fixing of 12 inch dia Exhaust fan with self closing louvers , on the existing opening of kitchen wall. Work inclusive of providing fan connection, earth connection, checking and ensuring proper working of exhaust fan.	12	No		

NON-ESSENTIAL WIRING

SI No	D 12 Description of work	Qty	Unit	Rate	Amount
				Rs	Rs
D 17	Supply and wiring with 3 runs of, Single core, 4 Sq mm Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB and RAW power 15 A 3 pin sockets, (ii) MCB DB and Air Conditioner Metal Clad Sockets. Both in Ground & First Floor Hall, rooms, kitchen etc., NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	1900	Mtr		
D 18	Supply and fixing of Modular type switch box with 1 No of 15 Ampere Modular switch & 1 No of Modular type 15 Ampere cum 5 Ampere, 3 pin socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	84	No		
D 19	Supply and fixing of metallic MCB Distribution Box mounted concealed in wall, comprising of 20 Ampere- Single pole MCB, 'C' Curve & 20 A, 3 pin metal clad socket with 3 pin Metal clad plug top etc for Air Conditioner.	36	No		
D 20	Supply and wiring with 3 runs of, Single core, 2.5 Sq mm, Multi-strand, Copper, PVC insulated, FRLS (Flame Retardant Low Smoke) cable in PVC Conduit laid concealed in wall, ceiling between (i) MCB DB & 5 Ampere 2pin cum 3 pin RAW power (EB Power) sockets Both in Ground & First Floor Hall, rooms, kitchen etc., NOTE : Color code for 3 runs of cable is as follows RED-Phase, BLACK-Neutral, GREEN-Earth.	800	Mtr		
D 21	Supply and fixing of Modular type switch box with 1 No of Modular switch & 1 No of Modular type 5 Ampere 2 pin cum 3 pin RAW power socket, with suitable size GI Modular box with Modular plate and cover in front, mounted concealed in wall, including interconnections, earth connections as required.	120	No		

EARTHING CIRCUIT						
Sl No	D 12	Description of work	Qty	Unit	Rate	Amount
					Rs	Rs
D 22		Supply and providing <u>Earth pit as per the Drawing No: BAP:CTS:EL:PLNG:2010</u> attached. All the materials required for providing the earth pit, as per the drawing is under contractor's scope. 22 A - In Ordinary Earth----- 22 B - In Soft Rock----- 22 C - In Hard rock-----	15 05 04	No No No		
D 23		Supply and laying of 6 SWG bare GI wire on wall surface / concealed in wall / at 0.5 Mtr depth below ground , from Earth clamp at meter board to the Earth pit. Providing proper earth connections of both ends for 12 Service connections.	200	Mtr		
D 24		Supply and laying of 4 mm dia copper wire on surface from (i) Meter board to ICTPN (ii) From ICTPN to MCB DB. Providing proper earth connections of all ends.	100	Mtr		
TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'D' TYPE QUARTERS – 12 No						

<u>ABSTRACT:-</u>	
TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'B' TYPE QUARTERS - 96 No	
TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'C' TYPE QUARTERS - 144 No	
TOTAL AMOUNT FOR THE INTERNAL ELECTRIFICATION OF 'D' TYPE QUARTERS - 12 No	
<u>GRAND TOTAL</u> of all 'B' Type, 'C' Type & 'D' Type Electrification works =	
Service Tax % & Amount (As applicable) %
<u>GRAND TOTAL WITH SERVICE TAX =</u>	