Tender document for Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

Ref. No. : 47/01/Earthing&LTcableworks (Elect.)/2018/RIS/ES-162

Publishing Date : 31-03-2018 at 11.00 AM
Bid Submission Start Date : 31-03-2018 at 5.00 PM
Last Date of Bid Submission : 06-04-2018 at 11.00 AM
Technical Bid Opening : 07-04-2018 at 11.00 AM

INDEX
Name of Work: - Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Contents</th>
<th>Page No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cover Page</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Index</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PART - A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Notice inviting tender</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Information and instructions for Contractors</td>
<td>4 to 5</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Notice inviting tender</td>
<td>6 to 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(CPWD - 6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Integrity Pact</td>
<td>9 to 16</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Tender and contract (ELECTRICAL)</td>
<td>17 to 18</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Schedule “A” to “CLAUSES” (ELECTRICAL)</td>
<td>19 to 23</td>
<td></td>
</tr>
<tr>
<td>PART - B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Amendments</td>
<td>24 to 25</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Form</td>
<td>26 to 26</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>T&amp;C</td>
<td>27 to 28</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Technical specifications</td>
<td>29 to 30</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Electrical resistivity survey report</td>
<td>31 to 34</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Schedule of Quantities</td>
<td>35 to 37</td>
<td></td>
</tr>
</tbody>
</table>

Certified that this bid document contains pages 1 to 37 (One to thirty Seven page).

Executive Engineer
AIIMS, Rishikesh

Tender document may be downloaded from CPPP site [https://eprocure.gov.in](https://eprocure.gov.in)
NIT may be downloaded from institute’s website [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in)
AIIMS, Rishikesh

NOTICE INVITING TENDER

The Superintending Engineer, AIIMS Rishikesh on behalf of Director, AIIMS Rishikesh invites Item rate e-tenders from approved and eligible contractors of CPWD, MES, Railways, state government contractor for the following work :-
NIT No. : 47/01/Earthing&LTcableworks(Elect.)/2018/RIS/ES-162

Name of Work: - Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

Estimated Cost: **Rs. 77,08,433.00** Earnest money: **Rs. 1,54,169.00** & period of completion: **03 Months**

Last date & time of submission of bids: 06-04-2018 upto 1100 hours

The tender forms and other details can be seen and downloaded from the website [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in) or CPPP site [http://eprocure.gov.in](http://eprocure.gov.in)
INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

The Superintending Engineer, AIIMS Rishikesh on behalf of Director, AIIMS Rishikesh invites Item rate e-tenders from approved and eligible contractors of CPWD, MES, Railways for the following work:

<table>
<thead>
<tr>
<th>Name of work &amp; Location</th>
<th>Estimated cost put to bid</th>
<th>Earnest Money</th>
<th>Period of Completion</th>
<th>Last date &amp; time of submission of bid</th>
<th>Time &amp; date of opening of technical bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earthing &amp; LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh</td>
<td>Rs. 77,08,433.00</td>
<td>Rs. 1,54,169.00</td>
<td>03 Months</td>
<td>06-04-2018 upto 1100 Hrs</td>
<td>07-04-2018 at 1100 Hrs</td>
</tr>
</tbody>
</table>

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

2. Information and Instructions for bidders posted on website shall form part of bid document.

3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in) or [https://eprocure.gov.in](https://eprocure.gov.in).

4. But the bid can only be submitted after depositing tender fee in favour of AIIMS Rishikesh and uploading the mandatory scanned documents such as Demand draft or pay order or banker’s cheque or deposit at call receipt or fixed deposit receipts and bank guarantee of any scheduled bank towards EMD in favour of AIIMS Rishikesh and other documents as specified.

5. Those contractors not registered on the website mentioned above, are requested to get registered beforehand.

6. The intending bidder must have valid class-III digital signature to submit the bid.

7. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.

8. Contractor should upload documents in the form of PDF format only and hard copy of all the documents should be submitted in tender office before the last date of submission of Bid.

9. Contractor must ensure to quote rate of each item. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as “0”. Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such items shall be treated as “0” (Zero).

10. The contractor should quote the rate of item including GST as per statutory rules.
11. (i) The bidder shall pay the respective amount of Bid Security (EMD) as mentioned in table by Demand Draft FD/TD/CD in favour of “AIIMS, Rishikesh” drawn on any Nationalized Bank/ Scheduled Bank and payable at Rishikesh and must be valid for (6) six month. Bids received without Earnest Money deposit (EMD) shall stand rejected and thus shall not be considered for evaluation etc at any stage. The original EMD will be submitted alongwith bid documents.

(ii) Earnest Money deposited with AIIMS, Rishikesh in connection with any other tender enquiry even if for same/similar material / Stores by the tenderer will not be considered against this tender.

(iii) The EMD will be forfeited if the bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to the notice that the information/documents furnished in its tender is incorrect or false.

12. The bid security (EMD) without interest shall be returned to the unsuccessful bidders after finalization of contract with successful bidder.

13. The successful bidders has to execute a contract on Indian non judicial stamp paper of Rs.100/- (Rupees one hundred only) within fifteen (15) days from the date of award of this tender in his favour and also required to furnish the security deposit @ 10% against performance guarantee of contract value in the form of FD/BG/TD/CD from any Nationalized/Schedule bank duly pledged in favour of AIIMS, Rishikesh & payable at Rishikesh only. The EMD deposited by successful bidder may be adjusted towards Security Deposit as demanded above. If the successful bidder fails to furnish the full security deposit or difference amount between Security Deposit and EMD within 15 (fifteen) days after the issue of Letter of Award of Work, his bid security (EMD) shall be forfeited and award of tender in suppliers favour automatically stands terminated at his cost & liability, unless time extension has been granted by AIIMS, Rishikesh.

14. The bid shall be valid and open for acceptance by the competent authority of AIIMS Rishikesh for a period of 60 (sixty) days from the published date of opening of the tenders and no request for any variation in quoted rates and / withdrawal of tender on any ground by bidders shall be entertained. The unilateral withdraw at any stage will cause forfeiture of EMD in addition to any remedy that the purchaser may have under the law. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the re-bidding process of the work.

15. List of Documents to be scanned and uploaded within the period of bid submission:

   I. Treasury Challan /Demand draft/Pay order or Banker’s Cheque/ Deposit at call Receipt/FDR/Bank guarantee of any scheduled bank against EMD and tender fee.

   II. Enlistment Order of the Contractor.

   III. Certificate of Registration for GST/ Sales Tax /VAT and acknowledgement of up to date filed return.

   IV. Certificate of work experience (As specified in Clause 1.2.1 of CPWD-6)

   V. Singed on each pages of NIT
CPWD - 6

Govt. of India
AIIMS, Rishikesh
Notice Inviting e-Tender

Item rate tenders are invited on behalf of Director, AIIMS Rishikesh from approved and eligible contractors of CPWD, MES, and Railways for the work of “Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work) at AIIMS Rishikesh.”.

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1.1 The work is estimated to Cost Rs. 77,08,433.00, this estimate, however, is given merely as a rough guide.

1.2 Intending tenderer is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of bid documents

1.2.1 Criteria of eligibility
Three similar works each of value not less than Rs. 30,83,373.00 or two similar work each of value not less than Rs. 46,25,059.00 or one similar work of value not less than Rs. 61,66,746.00 in last 7 years ending last day of the month previous to the one in which the tenders are invited.

Similar works means Electrical work

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of tenders.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 8 which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The time allowed for carrying out the work will be 03 (three) month from the date of start as defined in schedule ‘F’ or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.

4. The site for the work is available.

5. The tender document consisting of plans if any, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions Of Contract Form can be seen from website www.aiimsrishikesh.edu.in or https://eprocure.gov.in. The cost of tender is Rs.1180 (inclusive GST). Those who downloads the tender document from website should upload scan copy of DD/Pay Order for Rs.1180.00 (non – refundable) in favour of “AIIMS, Rishikesh”, payable at Rishikesh.
The required EMD shall be uploaded with the required documents otherwise tender submitted may stand rejected.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of time (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

8. Work completion period of above work is 3 months from the date of award.

9. The contractor whose bid is accepted will be required to furnish performance guarantee of 10% (Ten Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker’s cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs. 1, 00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule ‘F’ including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The Earnest Money deposited along with tender shall be returned after receiving the aforesaid performance guarantee.

10. A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 Laks, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for Six months or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only within a week physically in the office of tender opening authority.

Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited and other documents scanned and uploaded are found in order.

11. The Bid submitted shall become invalid and e-Tender Processing Fee shall not be refunded if:

(i) The bidders is found ineligible.
(ii) The bidder does not deposit original EMD with Superintending Engineer, AIIMS Rishikesh (The EMD document shall only be issued from the place in which the office of receiving division office is situated).
(iii) The bidders does not upload all the documents (including service tax registration/ VAT registration/ Sales Tax registration) as stipulated in the bid document including the copy of receipt for deposition of original EMD.
If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of tender opening authority.

11. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

12. The competent authority does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.

13. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

14. The competent authority reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

15. The contractor shall not be permitted to tender for works in AIIMS Rishikesh in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer, Executive Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in AIIMS Rishikesh. Any breach of this condition by the contractor would render him liable to reject his Bid submitted by him.

16. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor’s service.

17. The bid for the works shall remain open for acceptance for a period of 60 days from the date of opening of bids/60 days from the date of opening of financial bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.

18. This notice inviting Bid shall form a part of the contract document. The successful bidders /contractor,
on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:

a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender.
b) Standard C.P.W.D. Form 8 or other Standard C.P.W.D. Form as applicable.

INTEGRITY PACT

To,

..............................
..............................
..............................

Sub: 47/01/Earthing&LTcableworks(Elect.)/2018/RIS/ES-162 Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

Dear Sir,

It is hereby declared that AIIMS Rishikesh is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender / bid documents, failing which the tenderer / bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the AIIMS Rishikesh.

Yours faithfully,

Executive Engineer
AIIMS Rishikesh
To,

The Executive Engineer,
AIIMS Rishikesh,

Sub: Submission of Tender for Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

Dear Sir,

I / We acknowledge that AIIMS Rishikesh is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I / We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by AIIMS Rishikesh. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, AIIMS Rishikesh shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)
To be signed by the bidder and same signatory competent / authorised to sign the relevant contract on behalf of Director AIIMS Rishikesh.

INTEGRITY AGREEMENT

This Integrity Agreement is made at.............................. on this.............. day of...............20

BETWEEN

AIIMS Rishikesh represented through Director.......................................................... (Name of Division)

AIIMS Rishikesh.........................................................., (Hereinafter referred as the

<Address>

'Principal / Owner', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

(Name and Address of the Individual/firm/Company)

Through..........................................................(hereinafter referred to as the

(Details of duly authorized signatory)

“Bidder/Contractor” and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal /Owner has floated the Tender (NIT No.
.................................) (hereinafter referred to as “Tender/Bid”) and intends to award, under laid down organizational procedure, contract for

(Name of work)

Hereinafter referred to as the “Contract”.

AND WHEREAS the Principal / Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as “Integrity Pact” or “Pact”), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:
Article 1: Commitment of the Principal / Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

   (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

   (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

   (c) The Principal / Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC) / Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal / Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder (s) / Contractor (s)

1) It is required that each Bidder / Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

   a) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal / Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
b) The Bidder(s) / Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s) / Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d) The Bidder(s)/ Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

d) The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose (with each tender as per performa enclosed) any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract

3) The Bidder(s) / Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake / forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

5) The Bidder(s) / Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his / her reputation or property to influence their participation in the tendering process).
Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal / Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder / Contractor accepts and undertakes to respect and uphold the Principal / Owner's absolute right:

1) If the Bidder (s) / Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal / Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2) Forfeiture of EMD / Performance Guarantee / Security Deposit:

If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder / Contractor.

3) Criminal Liability:

If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Indian Penal code (IPC)/Prevention of Corruption Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holding listing of the
Bidder/Contractor as deemed fit by the Principal/Owner.

3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

**Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors**

1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder / Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.

2) The Principal / Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

3) The Principal / Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

**Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor / Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, Director, AIIMS Rishikesh.

**Article 7- Other Provisions**

1) This Pact is subject to Indian Law, place of performance and jurisdiction is Rishikesh.

2) Changes and supplements need to be made in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation** there of shall not be subject to arbitration.

**Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender / Contract documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/Owner)

(For and on behalf of Bidder/Contractor)

**WITNESSES:**

1. .......................................................... (Signature, name and address)

2. .......................................................... (Signature, name and address)

lace: -

Dated: -
I/We have read and examined the notice inviting tender, schedule, A,B,C,D,E & F, specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Ninety (90) days from the due date of opening of financial bid and not to make any modification in its terms and conditions.

A sum of ₹ 1,54,169.00 is hereby forwarded in Multiple Treasury Challan or Demand Draft or Pay order or Banker’s Cheque or Deposit at Call Receipt / Fixed Deposit receipts of a scheduled bank / demand draft of a scheduled bank/bank guarantee issued by a scheduled bank as earnest money. If I/We fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said Director of AIIMS Rishikesh or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that Director of AIIMS Rishikesh or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely. The said Performance Guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I/we agree that in case of forfeiture of earnest money or both earnest money and performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has / have not been got executed through another contractor on back to back basis. Further that, if such avilation comes to the notice of AIIMS Rishikesh, then I/We shall be debarred for tendering in AIIMS Rishikesh in future forever. Also, if such a violation comes to the notice of Department before date of start of work, The Engineer – in – Charge shall be free to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee.
I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any person other than a person to whom I/We am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the State.

ACCEPTANCE

The above tender (as modified vide letters mentioned hereunder) is accepted by me for and on behalf of the Director, AIIMS Rishikesh for a sum of ₹. ____________

(Rupees___________________________________________)

The letters referred to below shall form part of this contract Agreement:-

a)  

b)  

c)  

For & on behalf of Director, AIIMS Rishikesh

Signature....................................

tारीख Dated ....... ............

Designation.........................

# To be filled in by the contractor/witness as applicable
Anusuchiyon SCHEDULES
[ FOR MAJOR (ELECTRICAL) COMPONENT]

Anusuchiyon 'A' SCHEDULE 'A'
Majraon ki Anusuchiyon (Samar)

Schedule of quantities (Enclosed)   Page No. -

Anusuchiyon 'B' SCHEDULE 'B'
Terekhda kri nirgit ki jaane vaali samagriyon ki Anusuchiyon
Schedule of materials to be issued to the contractor.

Anusuchiyon 'C' SCHEDULE 'C'
Terekhda kri bhadre ph diye jaane vaale Jijaray evam santram
Tools and plants to be hired to the contractor

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Hire charges per day</th>
<th>Place of Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Anusuchiyon 'D' SCHEDULE 'D'
Karya ke liye vishe saheer / dastavez yadi koi hain, ki atraik Anusuchiyon
Extra schedule for specific requirements/documents for the work, if any. Adll. Specifications attached.

Anusuchiyon 'E' SCHEDULE 'E'
Karya ke samanya jaroon ke samandar
1. Reference to General Conditions of contract for CPWD works
   2014 as amended upto date.

Name of work: Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh.

Karya ki Anumanit Lagnat Estimated cost of work
(i) Vhoro Rashi Earnest money
   ₹ 77,08,433.00
   ₹ 1,54,169.00
(ii) Performance guarantee:

10% of tendered value. निर्मिति मूल्य का 10 प्रतिशत

(iii) Security Deposit:

2.5% of tendered value plus 50% of performance guarantee for contract, involving maintenance of the building and services / other work after construction of same building and services / other work.

General Rules & Directions:

निविदा आभाषण करने वाला प्राधिकारी

Officer inviting tender - कार्य की मदद की मात्रा के लिए अधिकार प्रतिशत जिससे अधिक निषेधातिक मदद के लिए दरों का निर्धारण खण्ड 12.2 और 12.3 के अनुसार होगा

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3.

see below

Definitions:

2(v) Engineer-in-Charge

EE, AIIMS Rishikesh

2(viii) Accepting Authority

Director, AIIMS Rishikesh

2(x) Percentage on cost of materials and labour to cover all overheads and profits.

15% (Fifteen per cent)

2(xi) Standard Schedule of Rates:

S.R.(Int., Ext.) with upto date correction slips & market rates

2(xii) Department:

AIIMS Rishikesh

9(ii) Standard CPWD contract Form:

GCC 2010, CPWD form 8 as modified & corrected up to date (Whether correction vide latest circulars are incorporated or not in this document).

9(ii) Standard Schedule of Rates:

CPWD form 8 (Print edition -2016) as modified with up to date correction slip.

खण्ड Clause 1

Time allowed for submission of performance guarantee from the date of issue of letter of acceptance : 15 days

Maximum allowable extension with late fee @ 0.10% per day of performance guarantee amount beyond the period as provided in (i) above : 7 days
Clause 2
Authority for fixing compensation under clause 2
Director, AIIMS Rishikesh

Clause 2A
Whether clause 2A shall be applicable
No

Clause 5
No. of days from the date of issue of letter of acceptance for reckoning date of start
15 days.

Milestone(s): -
NA

Time allowed for execution of work
06(Six) Months

Authority to decide
(i) Extension of Time
SE, AIIMS Rishikesh
(ii) Rescheduling of milestones
SE, AIIMS Rishikesh.

(iii) Shifting of date of start in case of delay in handing over of site
SE, AIIMS Rishikesh

Clause 6, 6A
Clause applicable
Clause 6

Clause 7
Gross work to be done together with net payment/adjustment of advances for material collected, if any since the last such payment for being eligible to interim payment
NA

10 d Clause 10A
List of testing equipment to be provided by the contractor at site lab.
N.A.

Clause 10B(ii)
Whether clause 10B (ii) shall be applicable
No
Clause 10C
Component of labour expressed as Percent of value of work

NA

Clause 10CC - NOT APPLICABLE.
Clause 10CC to be applicable in contracts with stipulated period of compensation exceeding the period shown in next column:

......... Months

Clause 11
Specifications to be followed for execution of work

General specifications for electrical works with up to date correction slips (Hereinafter called CPWD specifications also)

Clause 12
Type of Work

Original Work

12.2 & 12.3 Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work (Other than foundation)

30%

12.5 (i) Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except earth work)

NA

Clause 16
Competent Authority for deciding reduced rates

SE, AIIMS Rishikesh or successor therof

Clause 18
List of mandatory machines, tools and plants to be deployed by the contractor at site.

N.A.

Clause 25
<table>
<thead>
<tr>
<th>Constitution of Dispute Redressal Committee (DRC)</th>
<th>Competent Authority to appoint DRC and Arbitrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRC shall constitute one Chairman and two members</td>
<td>Director, AIIMS Rishikesh</td>
</tr>
</tbody>
</table>
Clause 36(i)  Requirement of Technical Representative(s) and Recovery Rate

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Minimum Qualification of Technical Representative</th>
<th>Discipline</th>
<th>Designation (Principal Technical/Technical representative)</th>
<th>Minimum experience</th>
<th>number</th>
<th>Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i) Per person</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i) Diploma/Graduate Engineer</td>
<td>E &amp; M</td>
<td>Principal Technical Representative</td>
<td>5/2 years</td>
<td>1 No</td>
<td>35000/50,000/-(₹ Per person) Thirtyfive thousand/Fifty Thousand</td>
</tr>
</tbody>
</table>

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Even if contractor (or partner in case of firm/company) is himself an Engineer/Overseer(s), it is necessary on part of contractor to employ Engineer(s) and/or/Overseer for the supervision of the work(s) as per stipulation.

खण्ड Clause 42

I) क) सीमेंट और बिटुमेन की अनुमानमूलक मात्रा निर्धारित करने के लिए अनुसूची/विवरण

I) (a) Schedule/statement for determining theoretical quantity of cement & bitumenNA

II) अनुमानमूलक मात्राओं में अनुमय विचलन

Variations permissible on theoretical quantities. NA

d½ सीमेंट जिन कार्यों के लिए निबंधया में अनुमानित मूळ रु. 5 लाख से अधिक न हो

a) Cement for works with estimated cost put to tender not more than Rs. 5 lakhs

जिन कार्यों के लिए निबंधया में अनुमानित मूळ रु. 5 लाख से अधिक हो

for works with estimated cost put to tender more than Rs. 5 lakhsNA

ढ) बिटुमेन सभी कार्यों के लिएNA

b) Bitumen for all works NA

g) इस्पात प्रस्तुत व्यापा, कोट और श्रेणी के लिए

पूर्वांश और संरचनात्मक इस्पात काटNA

c) Steel Reinforcement and structural steel sections for each diameter, section and category. NA

घ) सभी अन्य सामग्रियांNA

d) All other materials NA
### AMENDMENTS TO GENERAL CONDITIONS OF CONTRACT 2014

**OM No. DG/CON/282 Dated 10-12-2014**

**Sub: Modification in the 5th Paragraph of clause-25(ii) of GCC 2014**

The following 5th Paragraph of clause-25(ii) of GCC 2014 is modified as under

<table>
<thead>
<tr>
<th>EXISTING Provision</th>
<th>Modified Provision</th>
</tr>
</thead>
</table>
| Clause 25 (ii) 5th Paragraph  
The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act- 1996 (26 of 1996) or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause. | Clause 25 (ii) 5th Paragraph  
The arbitration shall be conducted in the accordance with theprovisions of the Arbitration and Conciliation Act- 1996 (26 of 1996) /The Jammu & Kashmir Arbitration and Conciliation Act, 1997(35 of 1997) (as the case may be) or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause. |

**OM No DG/SE/CM/CON/283 Dated 05-05-2015**

**Sub: Payment of wages to the labour by Contractor**

The Following provision of CPWD contractor labour Regulation of GCC2014 are amended

<table>
<thead>
<tr>
<th>Existing Provision</th>
<th>Modified Provision</th>
</tr>
</thead>
</table>
| C.P.W.D. Contractor’s Labour Regulations 5. Payment of Wages  
vi) Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.  
vii) All wages shall be paid in current coin or currency or in both.  
x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Junior Engineer or any other authorized representative of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.  
x) The contractor shall obtain from the Junior Engineer or any other authorized representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the “Register of Wages” or the “Wage cum-Muster Roll” as the case may be in the following form:-  
“Certified that the amount shown in column No ………….has been paid to the workman concerned in my presence | C.P.W.D. Contractor’s Labour Regulations 5. Payment of Wages  
v) Wages due to every worker shall be paid to him direct by contractor through Bank or ECS or online transfer to his bank account.  
vii) All wages shall be paid through Bank or ECS or online transfer.  
x) It shall be the duty of the contractor to ensure the disbursement of wages through bank account of labour.  
x) The contractor shall obtain from the Junior Engineer or any other authorized representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the “Register of Wages” or the “Wage cum-Muster Roll” as the case may be in the following form:-  
“Certified that the amount shown in column No …………has been paid to the workman concerned through bank account of labour on ………….at ………………” |
**OM No DG/CON/285 Dated 05-06-2015**

**Sub: Amendment in general conditions of contractor (GCC)-2014**

The following provision of GCC 2014 is modified as under

<table>
<thead>
<tr>
<th>Clause 5.1</th>
<th>Clause 5.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The contractor shall submit a programme Chart (Time and Progress) for each mile stone along with performance guarantee and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract document for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of section of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule ‘F’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clause 7A</th>
<th>Clause 7A</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Provision</td>
<td>No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the Contractor to the Engineer-in-Charge.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clause 19</th>
<th>Clause 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Contractor shall obtain a valid license under the Contract Labour (R&amp;A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.</td>
<td>The Contractor shall obtain a valid license under the Contract Labour (R&amp;A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 before the commencement of the work, and continue to have a valid license until the completion of the work.</td>
</tr>
</tbody>
</table>
FORM OF EARNEST MONEY (BANK GUARANTEE)

WHEREAS, contractor ............................................. (Name of contractor) (Hereinafter called "the contractor") has submitted his tender dated ..... (date) for the construction of (name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we ................................................................. (name of bank) having our registered office at ................................................................. (hereinafter called "the Bank") are bound unto ................................................................. (AIIMS Rishikesh) in the sum of Rs. ................................................................. (Rs. in words .................................................................................................................) for which payment well and truly to be made to the said AIIMS Rishikesh the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this ............................................. day of ................................................................. 20...

THE CONDITIONS of this obligation are:
(1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

(2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:
   (a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR
   (b) Fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor, OR
   (c) fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor, OR
   (d) Fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

We undertake to pay to the Engineer-in-Charge either up to the above amount or part thereof upon receipt of first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date.* after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE ............................................. SIGNATURE OF THE BANK

WITNESS ............................................. SEAL

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.
**TREMS AND CONDITIONS**

1. The work shall be carried out strictly in accordance with CPWD specifications for electrical works Part-I Internal 2013 and 1995 (external) as amended up to date and in accordance with Indian Electricity Rules, 1956, Indian Electricity Act, 1910 as amended up to date and as per instructions of the Engineer-in-Charge including as below and nothing will be paid extra.

2. All materials to be used on this work by the contractor shall be got approved from the Engineer-in-Charge and deptt. Has right to inspect the material at manufacturers’ place before installation at site.

3. The work shall be carried out according to approved drawings/details which shall be subsequently issued to the successful for execution of work and as per instructions of the Engineer-in-Charge who will have the right to change the layout as per requirement at site and the contractor shall not have any claim due to change in layout.

4. All damages done to the building, roads, pathways, floors, walls during execution of electrical work shall be the responsibility of the contractor and the same will be made good immediately at his own cost to the satisfaction of the Engineer-in-Charge. Any expenditure incurred by the department in this condition shall be recovered from the contractor and decision of the Engineer-in-Charge about recovery shall be final.

5. The bad workmanship will not be accepted and defects shall be rectified at contractor’s cost of the satisfaction of the Engineer-in-Charge. The programme of electrical works are to be co-ordinated in accordance with the building work and no claim for idle labour will stipulated in the tender, electrical work shall have to be completed within 30 days of the completion of civil work.

6. All the debris of the electrical works should be removed and the site should be cleared by the contractor immediately after the accruing of debris. Similarly any rejected material should be immediately cleared off from the site by the contractor.

7. Issue of material to the contractor wherever stipulated, shall be according to the requirement at site from time to time depending upon the progress of work.

8. Cement for this bonafied work is to be arranged and used by the contractor himself and nothing extra will be paid on this account.

9. The contractor or his representative is bound to sign the site order book as and when required by the Engineer-in-Charge and to comply with the remarks therein.

10. The size of conduit and wiring shall be got approved from the Engineer-in-Charge before taking up to the execution.

11. The contractor shall make his own arrangement at his own cost for electrical/general tools and plants required for the work

12. Main board and main distribution board: The work shall be carried out according to the drawings/details as approved by the Engineer-in-Charge. The contractor shall have to get the samples approved before the whole lot is brought to site and it shall include all inter connections etc.

13. No Central/State sales tax/VAT/Contract tax/Excise duty etc. shall be separately paid by the department. The rates tendered should be inclusive all taxes and duties (exclusive of service tax) Deduction of contract tax at source shall be made while releasing payment through running/final bills as applicable. A certificate specifying the rate and amount of deduction shall however be issued. No Form-D, 31/32 (Road permit) shall be issued by the department. The road permit shall be arranged by the tenderer on his own.
14. The entire installation shall be at the risk and responsibility of the contractor until these are tested and handed over to the department. However if there is any delay in construction from the department side, the installation may be taken over in parts, but the decision on the same shall rest with Engineer-in-Charge which shall be binding on the contractor.

15. Not withstanding the schedule of quantities, all items of interrelated works considered necessary to make the installation complete and operative are deemed to be included shall be provided by the contractor at no extra cost.

16. The connection, inter connection, earthing and inter earthing shall be done by the contractor wherever required and nothing extra shall be paid on this account.

17. Some of the items of work, if already executed on that case the successful tenderer shall have to use these items for completing the work. For wiring, the existing conduit wherever required shall be used by the contractor. The recovery will be made for these items as accepted rate of other agencies.

18. Nothing extra shall be paid for :-
   (a) Inter connections with thimbles/wires/tapes strips etc.

Executive Engineer,
AIIMS Rishikesh
TECHNICAL SPECIFICATIONS

1. All hardware items such as screws, thimbles, G.I. wires etc. which are essentially required for completing an item as per specifications will be deemed to be included in the item even when the same have not been specifically mentioned.

2. All hardware materials such as nuts/bolts/screws/washers etc. to be used in the work shall be zinc/cadmium plated iron.

3. Any conduit which is not be wired by the contractor shall be provided with GI fish wire for wiring by some other agency subsequently. Nothing extra shall be paid for the same.

4. While laying conduit, suitable junction boxes shall be left for pulling the wires.

5. Copper wire shall be FRLS PVC insulated multi-stranded conductor. Termination of multi-stranded conductors shall be done using crimping type thimbles at both the ends. Nothing extra shall be paid for the same.

6. The makes of material have been indicated in the list of acceptable makes. No other make will be acceptable. The material to be used in the work shall be got approved from the Engineer-in-Charge before its use at site. The Engineer-in-Charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not as per specifications.

7. The proof of purchase in the form of Invoice/cash memo, of all the major components such as Cables, Wires, Fittings, MCB DB’s, Geysers, Exhaust fans etc. shall have to be produced by the contractor at the time of final bill or as and when demanded by the deptt.

8. Test report of all the XLPE insulated PVC sheathed armoured power cables used at site of work shall have to be submitted by the contractor at the time of submission of final bill.

9. Where switches/sockets/telephone outlets are to be provided, the same shall be of only one make.

10. The MCB distribution boards shall be factory fabricated in the works of the manufacturer of the MCB’s of any of the makes specified and the same shall be duly pre-wired in the works. The board shall be brought to site in ready for installation condition. The MCBs and the MCB distribution board shall be of the same make.

11. The earthing shall be carried out in the presence of the Engineer-in-Charge or his authorized representative.

12. All fittings/fans will be earthed as per specifications.

13. Whole scope of work includes 5 years CMC, Guarantee and Warranty including cost of consumables and rates should be quoted accordingly.


15. BG/PG must be valid for a period of 6 years.

16. The bidder must visit the site and assess the quantity & material. Even if certain items are not included within the tender, but are essentially required for completion of the job, the bidder have to do the same without any extra cost.

17. Cable, copper flat and cable Tray may be 100% deviate.

Executive Engineer
AIIMS Rishikesh
## LIST OF ACCEPTABLE MAKE

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Item</th>
<th>Name of Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>FRLS PVC insulated copper conductor single core cable for wiring. (ISI marked)</td>
<td>Universal/Nicco/Finoex /R.R Kable/ Havells/ Batra Henlay/Anchor/Grandlay/Bonton</td>
</tr>
<tr>
<td>2.</td>
<td>Telephone Cables Co-exail TV cables</td>
<td>Delton/Kent/Finoex /Polycab</td>
</tr>
<tr>
<td>3.</td>
<td>CAT-6 Cables for LAN wiring &amp; Internet Cable</td>
<td>D-Link/Legrand /Finoex/Avaya/Lucent/ RR Kable.</td>
</tr>
<tr>
<td>4.</td>
<td>MS Conduit i/c accessories (ISI marked)</td>
<td>AKG/BEC/NIC/Steelcraft / JPC Pipes/RMCON</td>
</tr>
<tr>
<td>5.</td>
<td>DWC Pipe</td>
<td>REX/Duraline/Gemini pipe</td>
</tr>
<tr>
<td>6.</td>
<td>Modular switch, socket/Telephone socket/cable TV socket/Data outlet Socket/Fan Regulator/Metal Boxes/ Occupancy sensor</td>
<td>Legrand-(Arteor)/ M.K.(Blenze)/ Crabtree/Anchor Woods/C&amp;S</td>
</tr>
<tr>
<td>7.</td>
<td>GI Pipe</td>
<td>Tata/Jindal (Hissar)/Prakash Surya/Swastik</td>
</tr>
<tr>
<td>8.</td>
<td>Paints</td>
<td>ICI/Asian/Berger</td>
</tr>
<tr>
<td>9.</td>
<td>Terminal Blocks and connectors</td>
<td>Elmex/Essen/Connect Well.</td>
</tr>
<tr>
<td>10.</td>
<td>Compact air insulated rising main.</td>
<td>Legrand/Schneider/L&amp;T/GE</td>
</tr>
<tr>
<td>11.</td>
<td>MCB, MCBDB, RCBO’s/RCCB’s</td>
<td>Schneider Electric/Legrand/L&amp;T Hagger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Siemens/ABB/Anchor/C&amp;S</td>
</tr>
<tr>
<td>12.</td>
<td>MCCB/Timer</td>
<td>Schneider Electric/ Siemens/Larsen &amp; Toubro/ Legrand/L&amp;T Multiline/ Havells/ABB/C&amp;S</td>
</tr>
<tr>
<td>13.</td>
<td>SFU, FSU, HRC Fuses, cable management system/DLP Trunking</td>
<td>Schneider Electric/ Siemens/ Legrand/ L&amp;T/ Havells/C&amp;S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(only digital type to be used)</td>
</tr>
<tr>
<td>15.</td>
<td>Selector Switch/CT’s</td>
<td>Kayee/Siemens/Bhartiya Cutler Hammer/L&amp;T</td>
</tr>
<tr>
<td>16.</td>
<td>Change over Switch</td>
<td>HPL/H-Elcon/Standard/L&amp;T/Siemens/ Havells/C&amp;S</td>
</tr>
<tr>
<td>17.</td>
<td>Indicating Lamps</td>
<td>Teknic/Siemens/L&amp;T/Yaishnov</td>
</tr>
<tr>
<td>18.</td>
<td>Panel Board/Feeder Pillar</td>
<td>Manufacturers having ISO 9001 certification &amp; CPRI approved</td>
</tr>
<tr>
<td>20.</td>
<td>Fresh Air Fan/Wall Mounted Fan/Ceiling fan/Exhaust fan. (only energy efficient fans, consuming ≤ 50 W and CMM ≥ 200 for 1200 mm &amp; 60 W and CMM ≥ 240 for 1400 mm shall be used).</td>
<td>Crompton/Orienpt/Polar/Khaitan/ Ortem/ Usha</td>
</tr>
<tr>
<td>21.</td>
<td>Fluorescent/CFL/LED/Flood/Bulk head Fitting</td>
<td>Phillips/GE/Wipro/Crompton/C&amp;S</td>
</tr>
<tr>
<td>22.</td>
<td>Lamps</td>
<td>GE/Osram/Phillips/Wipro/C&amp;S</td>
</tr>
<tr>
<td>23.</td>
<td>Wall Brackets</td>
<td>DECON/Phillips/GE/Havells</td>
</tr>
<tr>
<td>24.</td>
<td>Angle Holder/Batten Holder (ISI marked)</td>
<td>Kinjal/Emperor/Anchor</td>
</tr>
<tr>
<td>25.</td>
<td>Geyser</td>
<td>Racold/Crompton/Jaguar./AO Smith</td>
</tr>
<tr>
<td>26.</td>
<td>NRV/Gate Valve</td>
<td>Sant/Leader/BS</td>
</tr>
<tr>
<td>27.</td>
<td>XLPE inslated PVC sheathed aluminium cable upto 1.1 KV Gd</td>
<td>Polycab/Finoex//Nicco/KEI/Grandlay/ Gloster/Universal/Bonton/RR Kabel</td>
</tr>
<tr>
<td>28.</td>
<td>PVC conduit i/c accessories</td>
<td>Precision/Asian/Diamond/Mod./AKG/JPC Pipes</td>
</tr>
<tr>
<td>29.</td>
<td>Paino type Switches/Socket/TV / Telephone Outlet (ISI marked)</td>
<td>Anchor/Rider/Leader</td>
</tr>
</tbody>
</table>

Executive Engineer,
AIIMS Rishikesh
CHAPTER - III
ELECTRICAL RESISTIVITY SURVEY

3.1  INTRODUCTION
The work of electrical resistivity was conducted for AIIMS building like institutions at Rishikesh for determination of strata of site.

3.2  EXPERIMENT
The distance was fixed horizontally 10.00 meters and resistance of 10 ohms in the investigation the three spots were selected and testing was done at 10.00 metres distance for 3 points both on right and left from fixed central point. The readings have been tabulated in tables 1-3. The resistivity is were calculated and given in the separate tables 4-6 and strata have also been mentioned against them.

3.3  FIELD INVESTIGATION
Electrical Resistivity test was conducted at the site at one point location as directed by Engineer in charge and observed values are as under.

<table>
<thead>
<tr>
<th>Table - 1 (PIT NO. 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (meter)</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>70</td>
</tr>
<tr>
<td>80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table - 2 (PIT NO. 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (meter)</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>
### Electrical Resistivity Survey for Site Rishikesh, Haridwar

<table>
<thead>
<tr>
<th>Distance (meter)</th>
<th>L.H.S. (R = E/I)</th>
<th>R.H.S (R = E/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>0.19</td>
<td>0.16</td>
</tr>
<tr>
<td>40</td>
<td>0.17</td>
<td>0.19</td>
</tr>
<tr>
<td>50</td>
<td>0.14</td>
<td>0.19</td>
</tr>
<tr>
<td>60</td>
<td>0.16</td>
<td>0.18</td>
</tr>
<tr>
<td>70</td>
<td>0.17</td>
<td>0.17</td>
</tr>
<tr>
<td>80</td>
<td>0.16</td>
<td>0.19</td>
</tr>
</tbody>
</table>

#### Table 3 (PIT NO. 3)

<table>
<thead>
<tr>
<th>Distance (meter)</th>
<th>L.H.S. (R = E/I)</th>
<th>R.H.S (R = E/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.07</td>
<td>0.08</td>
</tr>
<tr>
<td>20</td>
<td>0.17</td>
<td>0.17</td>
</tr>
<tr>
<td>30</td>
<td>0.08</td>
<td>0.19</td>
</tr>
<tr>
<td>40</td>
<td>0.16</td>
<td>0.17</td>
</tr>
<tr>
<td>50</td>
<td>0.18</td>
<td>0.18</td>
</tr>
<tr>
<td>60</td>
<td>0.19</td>
<td>0.18</td>
</tr>
<tr>
<td>70</td>
<td>0.20</td>
<td>0.20</td>
</tr>
<tr>
<td>80</td>
<td>0.23</td>
<td>0.23</td>
</tr>
</tbody>
</table>

### 3.4 CALCULATION OF RESISTIVITY

#### Table 4 (PIT NO.1)

<table>
<thead>
<tr>
<th>Distance (meter)</th>
<th>L.H.S. Ohm meter</th>
<th>R.H.S Ohm meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2X3.143X1000X0.03=188.58</td>
<td>2X3.143X1000X0.06=377.16</td>
</tr>
<tr>
<td>20</td>
<td>2X3.143X2000X0.15=1885.80</td>
<td>2X3.143X2000X0.16=2011.52</td>
</tr>
<tr>
<td>30</td>
<td>2X3.143X3000X0.16=3017.28</td>
<td>2X3.143X3000X0.15=2828.70</td>
</tr>
<tr>
<td>40</td>
<td>2X3.143X4000X0.12=3017.28</td>
<td>2X3.143X4000X0.13=3268.72</td>
</tr>
<tr>
<td>50</td>
<td>2X3.143X5000X0.14=4400.20</td>
<td>2X3.143X5000X0.15=4714.50</td>
</tr>
<tr>
<td>60</td>
<td>2X3.143X6000X0.16=6034.56</td>
<td>2X3.143X6000X0.16=6034.56</td>
</tr>
<tr>
<td>70</td>
<td>2X3.143X7000X0.16=7040.32</td>
<td>2X3.143X7000X0.17=7480.34</td>
</tr>
<tr>
<td>80</td>
<td>2X3.143X8000X0.18=9051.84</td>
<td>2X3.143X8000X0.18=9051.84</td>
</tr>
</tbody>
</table>

WAPCOS Limited
Table - 5 (PIT NO.2)

<table>
<thead>
<tr>
<th>Distance (meter)</th>
<th>L.H.S. Ohm meter</th>
<th>R.H.S Ohm meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2.3.143X1000X0.04=261.44</td>
<td>2.3.143X1000X0.08=502.88</td>
</tr>
<tr>
<td>20</td>
<td>2.3.143X2000X0.17=2137.24</td>
<td>2.3.143X2000X0.18=2262.96</td>
</tr>
<tr>
<td>30</td>
<td>2.3.143X3000X0.19=3583.02</td>
<td>2.3.143X3000X0.16=3017.28</td>
</tr>
<tr>
<td>40</td>
<td>2.3.143X4000X0.17=4274.46</td>
<td>2.3.143X4000X0.19=4777.36</td>
</tr>
<tr>
<td>50</td>
<td>2.3.143X5000X0.14=4401.20</td>
<td>2.3.143X5000X0.19=5971.70</td>
</tr>
<tr>
<td>60</td>
<td>2.3.143X6000X0.16=6034.56</td>
<td>2.3.143X6000X0.18=6788.88</td>
</tr>
<tr>
<td>70</td>
<td>2.3.143X7000X0.17=7480.34</td>
<td>2.3.143X7000X0.17=7480.34</td>
</tr>
<tr>
<td>80</td>
<td>2.3.143X8000X0.18=9051.84</td>
<td>2.3.143X8000X0.19=9554.72</td>
</tr>
</tbody>
</table>

PIT NO.3 (Table No. 6)

<table>
<thead>
<tr>
<th>Distance (meter)</th>
<th>L.H.S. Ohm meter</th>
<th>R.H.S Ohm meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2.3.143X1000X0.07=440.02</td>
<td>2.3.143X1000X0.08=502.88</td>
</tr>
<tr>
<td>20</td>
<td>2.3.143X2000X0.17=2137.24</td>
<td>2.3.143X2000X0.17=2137.24</td>
</tr>
<tr>
<td>30</td>
<td>2.3.143X3000X0.16=3394.44</td>
<td>2.3.143X3000X0.19=3583.02</td>
</tr>
<tr>
<td>40</td>
<td>2.3.143X4000X0.16=4023.04</td>
<td>2.3.143X4000X0.17=4274.48</td>
</tr>
<tr>
<td>50</td>
<td>2.3.143X5000X0.18=5657.40</td>
<td>2.3.143X5000X0.18=5657.40</td>
</tr>
<tr>
<td>60</td>
<td>2.3.143X6000X0.19=7166.04</td>
<td>2.3.143X6000X0.18=6788.88</td>
</tr>
<tr>
<td>70</td>
<td>2.3.143X7000X0.20=8800.40</td>
<td>2.3.143X7000X0.20=8800.40</td>
</tr>
<tr>
<td>80</td>
<td>2.3.143X8000X0.23=11566.24</td>
<td>2.3.143X8000X0.23=11566.24</td>
</tr>
</tbody>
</table>

3.5 CONCLUSION

The interpretations of results have been done on the basis of I.S. 1892-1975. They indicate that the strata up to 10.00 metres depth is dry in nature which resembles with the results already obtained from soil exploration. The depth was measured from mid point of the actual location. The value up to
20 meter indicates that the strata are clayey soil. From 20.00 meter to 50.00 meter the strata indicate lime stone and then after moraines as per I.S. 1892-1979, Page -38.
Up to 30 mtr. Morairies
Up to 40 mtr. Sand Stone
Up to 70 mtr. Granite
Then after Rock Sat
<table>
<thead>
<tr>
<th>S.No</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>Unit</th>
<th>Rate</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>providing and fixing Copper Bonded SS Earth Rods (UL listed &amp; Approved, UL-467, IEC 62561-2) 10'length, 25mm dia, Copper bonding 250 micron, 99.9% copper, 300mmx25mmx6mm copper flat at the top of copper bonded earth rod with 4 nos. 12mm holes. Back fill compound resistance value shall not increase more than 0.064-ohm meter (specially designed for rocky area 50kgs.) (CPWD/CPRI approved make , Neutral to ground voltage = 0.5V to 1.0 V , IR value required less than 1.0 ohm. ”) Heavy duty poly plastic earth pit cover top -440mm (L) X300mm (w), bottom 534 mm (L) X 400 mm(W), Height 310 mmproviding and fixing Copper Bonded SS Earth Rods (UL listed &amp; Approved, UL-467, IEC 62561-2) 10'length, 25mm dia, Copper bonding 250 micron, 99.9% copper, 300mmx25mmx6mm copper flat at the top of copper bonded earth rod with 4 nos. 12mm holes. Back fill compound resistance value shall not increase more than 0.064-ohm meter (specially designed for rocky area 50kgs.) (CPWD/CPRI approved make , Neutral to ground voltage = 0.5V to 1.0 V , IR value required less than 1.0 ohm. ”) Heavy duty poly plastic earth pit cover top -440mm (L) X300mm (w), bottom 534 mm (L) X 400 mm(W), Height 310 mm, Outer Electrode hot dip galvanized 250-300 micron length - (3000mm) outer Electrode thickness ( 10 SWG class 'B') DIA ( Outer ) - (50 mm ) Dia ( Inner ) - (25 mm ) inner Electrode hot dip galvanized 70-100 micron Terminal Strip Hole Diameter 25mm Earthing Chamber 300mmx300mmx300mm Space inside Electrode filled with crystalline graphite powder mixture ( back fill compound ) a mixture of sodium bintonate, Magnesium Sulphate, Graphite and Portland cement with black soil</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Providing and fixing 50x6mm copper flat</td>
<td></td>
<td></td>
<td>75.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing and fixing 50x6mm Copper flat on surface in recess connection etc and required</td>
<td>150.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Providing and fixing 25 Sqmm copper cable green clour</td>
<td></td>
<td></td>
<td>440</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing and fixing 1c X25 Sqmm Copper cable PVC on surface in recess connection etc and required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Providing and fixing 50 Sqmm copper cable green clour</td>
<td></td>
<td></td>
<td>1310</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing and fixing 1c X50 Sqmm Copper cable PVC on surface in recess connection etc and required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Providing and fixing 95 Sqmm copper cable green clour</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing and fixing 1c X95 Sqmm Copper cable PVC on surface in recess connection etc and required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **6** | **4.6** | Hot Dipped Galvanized Iron Cable Tray  
Supplying and installing following size of perforated Hot Dipped  
Galvanised Iron cable tray (galvanisation thickness not less than  
50 microns) with perforation not more than 17.5%, in convenient  
sections, joined with connectors, suspended from the ceiling  
with G.I. suspenders including G.I. bolts & nuts, etc. as required. |
|   | **4.6.4** | 300 mm width X 50 mm depth X 1.6 mm thickness 1200 Meters |
| **7** | **MR** | Supply of Aluminum conductor XLPE insulated sheath,  
Armoured cable of 1.1 KV grade, IS : 1554 |
| a | 3.5x300 Sqmm | 500 meters |
| b | 3.5x185sqmm | 500 meters |
| c | 3.5x50sqmm | 250 meters |
| **8** | **MR** | Supply and Fixing of MCCB along with Bus bar on wall with  
MCCB Distribution Box with all MCCB’s rotary handle  
operated. |
|   |   | MCCB 400A 4 pole, 35KA 3 Nos |
|   |   | MCCB 200A 4 pole, 16KA 6 Nos |
|   |   | MCCB 63 A 4 pole 16Ka 3 No |
| **9** | **2.2** | Providing and fixing following rating and breaking capacity and  
pole MCCB with thermomagnetic release and terminal  
spreaders in existing cubicle panel board including drilling holes  
in cubicle panel, making connections, etc. as required. with all  
MCCB’s rotary handle operated. |
|   | **2.2.2** | 125 A, 16 kA,TP MCCB 3 Nos |
|   | **2.2.4** | 200 A, 16 kA,TPMCCB 6 Nos |
|   | **2.2.9** | 400 A, 35 kA,TPMCCB 3 No |
| **10** | **3.12** | Supplying, installation, testing & commisioning of following  
capacity Plug In/ tap off box on the existing Air Insulated  
Compact  
Type bus trunking/ rising mains for use on 3 phase 4 wire 415  
V, 50Hz A.C. supply made with 1.6mm thick sheet steel  
enclosure (IP54) duly powder coated with provision of MCCB  
(but without MCCB) complete etc. as required , Make C&S,  
type –sandwich , design – PIBX- B-200, with all MCCB’s  
rotary handle operated. |
|   | **3.12.4** | MCCB 400A 4 pole, 35KA 3 Nos |
|   | **3.12.2** | MCCB 200A 4 pole ,16KA 6 No |
|   | **3.12.1** | MCCB 125 A 4 pole 16KA 3 No |
| **11** | **7.8** | Laying and fixing of one number PVC insulated and PVC  
sheathed / XLPE power cable of 1.1 kV grade of following size  
on cable tray as required. |
|   | **7.8.2** | Above 35 sq. mm and upto 95 sq. mm (clamped with  
25x3mmMS flat clamp) 250 meters |
|   | **7.8.4** | Above 185 sq. mm and upto 400 sq. mm (clamped with  
40x3mm MS flat clamp) 1000 meters |
Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td>9.1.4</td>
<td>2 X 25 sq. mm (22mm)</td>
<td>12 Each</td>
</tr>
<tr>
<td>9.1.6</td>
<td>2 X 50 sq. mm (28mm)</td>
<td>24 Each</td>
</tr>
<tr>
<td>9.1.13</td>
<td>3 X 95 sq. mm (38mm)</td>
<td>4 Each</td>
</tr>
<tr>
<td>9.1.22</td>
<td>3½ X 50 sq. mm (35 mm)</td>
<td>4 Each</td>
</tr>
<tr>
<td>9.1.27</td>
<td>3½ X 185 sq. mm (57mm)</td>
<td>8 Each</td>
</tr>
<tr>
<td>9.1.30</td>
<td>3½ X 300 sq. mm (70 mm)</td>
<td>8 Each</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>