

**CENTRE OF PLASMA PHYSICS**  
**INSTITUTE FOR PLASMA RESEARCH**  
 Nazirakhat, Sonapur-782402, Kamrup (M), Assam (India)

**NOTICE INVITING TENDER**

**E-mail: enquiry@cpiplr.res.in**  
**Phone No. 0361-2220010**

**TENDER NO.:CPP-IPR/TN/PUR/2017-18/60**  
**TENDER DATE: 28/02/2018**

**Estimated Cost: Rs. 9,06,850.00/- (Rupees Nine lakhs six thousand eight hundred and fifty only) and GST will be extra as applicable.**

Sealed tender in standard bidding documents is invited from reputed (govt. registered) contractors and firms for the following work:

NIT No & Date	Name of Work	Completion Time
CPP-IPR/ TN/PUR/2017-18/60 Dated: 28/02/2018	Supply, Installation and Commissioning of LT Power Panel for Dusty Laboratory at CPP-IPR, Sonapur	45 days from Receipt of Work Order

**Last Date of issue of Tender: 30/03/2018**

**Last Date and Time of Submission of Tender: 13:00 hrs. of 03/04/2018**

**Date of Opening of the Tender: 14:30 hrs. of 03/04/2018**

**Issue of Tender Document:**

Tender documents will be issued at Centre of Plasma Physics- Institute for Plasma Research, Nazirakhat, Sonapur-782402, Kamrup, Assam on any working day during office hour within the last date of issue of Tender.

**The Centre Director, CPP-IPR reserves the right to accept or reject any offer in full or part thereof without assigning any reason thereof.**

SEAL

Signature

**CENTRE OF PLASMA PHYSICS  
INSTITUTE FOR PLASMA RESEARCH**

Nazirakhat, Sonapur-782 402, Kamrup (M), Assam (India)

**QUOTATION DOCUMENT**

**TN No: CPP-IPR/TN/PUR/2017-18/60**

**Dated: 28/02/2018**

**NAME OF THE WORK:** Supply, Installation and Commissioning of LT Power Panel for Dusty Laboratory at CPP-IPR, Sonapur

Issued to : \_\_\_\_\_

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

Phone No : \_\_\_\_\_

Work value : \_\_\_\_\_

Last date for Submission : \_\_\_\_\_

Date of opening of Quotation : \_\_\_\_\_

Address for Quotation Inviting Authority:

Centre Director  
Centre of Plasma Physics-Institute for Plasma  
Research, Nazirakhat, Sonapur-782 402  
Kamrup (M), Assam

SEAL

Signature

**CENTRE OF PLASMA PHYSICS  
INSTITUTE FOR PLASMA RESEARCH**

Nazirakhat, Sonapur-782 402, Kamrup (M), Assam (India)

**TECHNICAL BID**

FOR

**Supply, Installation and Commissioning of LT Power Panel for Dusty  
Laboratory at CPP-IPR, Sonapur**

SEAL

Signature

**DETAILS OF THE BIDDER**

1. Name of the Bidder :  
With Address
  
2. Details of the contact persons :  
Along with name & Designation
  
3. Telephone/ Mobile Numbers :
  
4. FAX numbers :
  
5. E-mail ID :
  
6. Website :
  
7. GST registration no. :
  
8. PAN No :
  
9. Experience in this field (Years) :
  
  
10. Any other details :

SEAL

Signature

## ELIGIBILITY AND TERMS & CONDITIONS

The Quotation and any order resulting from this NIT shall be governed by our Conditions of contract, a copy of which is being provided with this document. The Bidder quoting this Quotation shall be deemed to have read and understood the same.

The bidder has to enclose signed copy of this document (ALL PAGES SIGNED) as well as the terms & conditions with his Quotation.

The bidder has to submit a tender fee of **Rs.500** in the form of demand draft from a Nationalized Schedule Bank issued in favour of “**Institute for Plasma Research A/c CPP**, payable at Sonapur (only applicable for bidders who have downloaded the tender). The tender fee should be submitted along with Quotation document or else tender will be rejected.

## CERTIFICATE

**I/We have gone through the eligibility criteria and terms & conditions carefully (Annexure I), and I/we hereby certify that**

1. I/ We possess the minimum eligibility for participating in the Quotation process.
2. I/ We agree to the mentioned terms and conditions, a signed copy of which is being enclosed with this document
3. Strike out whichever is not applicable
  - a. We have provided our own terms & conditions.
  - b. We will not accept the work order if our conditions are not agreed upon.
  - c. Even if our conditions are not agreed upon, we are ready to work according to your terms & conditions.
  - d. We have accepted your terms & conditions.

SEAL

Signature

## ANNEXURE - I

### **ELIGIBILITY CRITERIA**

The bidder/contractor should satisfy the following conditions:

- (1) The Firm shall be a reputed organization with sound technical backing, registered and approved with any of the Central / State Government Departments, Railway, Defense, PSUs, etc. and providing satisfactory services. (please enclose up to date registration certificate)
- (2) The vendor/contractor/organization and any of its sister concern has not been banned/ blacklisted /debarred from working with any Central Govt./PSU / State Govt. / Any other Govt. Agencies/ Any other Institute or organization of National or International Repute for the last three years.
- (3) Bidders must have executed at least one (01) work with same nature for Panel installation services of 800A class and above in any of the previous three (03) years.
- (4) The firm should be a profit making organization for the last three (03) financial years ending 31/03/2017.
- (5) Should submit upto date Labour license certificate.
- (6) Should submit GST registration certificate.

### **TERMS & CONDITIONS**

1. The quotation and any order resulting from this NIT shall be governed by our Conditions of contract and contractor quoting this NIT shall be deemed to have read and understood the same in to. **Non-acceptance of these terms & conditions may lead to rejection of the bid.**
2. **Single Bid:** The quotation will have to be submitted in single bid, in a **properly sealed cover**. Quotation number, Date and subject (“QUOTATION FOR \_\_\_\_\_”) has to be mentioned over the envelope along with the bidder’s full postal address, failing which the bid will not be considered. The Quotation should bear a court fee stamp of Rs. 8.25 (Rupees eight and twenty five paisa) only (non-refundable) to be affixed with the Quotation without which no Quotation will be considered for acceptance.
3. Late and delayed Quotations will not be considered, irrespective of the cause of the delay.
4. In case, any unscheduled holiday occurs on prescribed closing date the next working day shall be the prescribed date of closing.
5. **Earnest Money Deposit:** EMD of **Rs. 18,150/-** in the form of demand draft from a Nationalized Schedule Bank issued in favour of “**Institute for Plasma Research**” A/c CPP, payable at Sonapur. The EMD should be submitted along with Quotation document or else tender will be rejected.
6. **Rates:** Rates quoted for all items should be **FOR CPP-IPR Nazirakhat, Sonapur, on DOOR DELIVERY basis.**
  - a. Prices are required to be quoted according to the units indicated in the NIT. When Quotations are given in terms of units other than those specified in our document, relationship between the two sets of units must be furnished.
  - b. Wherever options are specified in the NIT documents, CPP-IPR reserves the right to accept any option/s irrespective of whether all the contractors/bidders have quoted for all the options or not. The decision of CPP-IPR in this regard will be final.
7. The bid for works shall remain open for acceptance for a period of **90 days** from the date of opening of bids.
8. The Contractor whose tender is accepted will be required to furnish “**Performance Bank Guarantee of 5%**” (Five Percent) of the tendered amount within 10 days from issue of “**Letter of Acceptance**”.
9. **Security Deposit:** On acceptance of tender, the Contractor shall at the option of the Purchaser and within the period specified by him, submit a Bank Guarantee from SBI or any one of the nationalized banks or reputed private banks, viz. AXIS Bank, ICICI Bank, IDBI Bank and HDFC Bank towards Security Deposit not exceeding 10% (ten percent) of the tendered value of the contract/purchase order valid till acceptance of the material, as the Purchaser shall specify. If the Contractor is called upon by the Purchaser to submit Security Deposit and the contractor fails to

provide the same within the period specified such failure shall constitute a breach of the Contract and the Purchaser shall be entitled to make other arrangements for the repurchase of the stores contracted for at the risk and expenses of the Contractor and/or recover from the Contractor damages arising from such cancellation. No claim shall lie against the purchaser either in respect of interest if any due on Security Deposit or depreciation in value. The security deposit should be valid for six months beyond the date of completion of all contractual obligations. EMD shall be refunded to the successful bidder on receipt of security deposit. The Security Deposit shall be held by CPP-IPR as security for the due performance of the CONTRACTOR's obligations under the Contract. The security deposit shall be refunded to the contractor within six months from the date of expiry/termination of the contract.

10. **Genuine Pricing:** The contractor is to ensure that quoted price is not more than the price offered to any other customer in India.
11. **Measurement:** Various dimensions of the works executed will be measured jointly in presence of contractor and engineer in charge of CPP-IPR. Based upon these field data quantities for payment will be calculated. Dimensions will be measured correct up to a centimeter.
12. **Rate:** The rate shall include the cost of all materials, transportation, forest royalty (weather applicable) and labour/machine involved etc. in all the operations described above.
13. **Payment:** The Payment will be made by a crossed account payee cheque normally within 30 days from the date of completion of the work or receipt of invoice, whichever is later. Wherever, advance payment is involved, it will be paid only against Bank Guarantee from Nationalized/Scheduled Bank. No correspondence will be entertained within 30 days from the date of submission of final bill for payment.
14. **Guarantee:** The workmanship offered by the bidder should be guaranteed for a minimum period of 6 (six) months, against defective materials, design, workmanship. For defects noticed during the Guarantee period, replacement/rectification should be arranged free of cost by the contractor within a reasonable period of such notification.
15. **Time allowed:** The time allowed for completion of the work will be 45(forty five) days from the receipt of formal work order. However more completion time may be allowed depending upon the work schedule to be decided by the authorities of the centre.
16. Where counter terms and conditions have been offered by the contractor the same shall not be deemed to have been accepted by us, unless our specific written acceptance thereof is obtained.
17. The bidders must ensure that their offers are strictly as per our specifications.
18. Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the constructions.
19. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
20. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other service required for executing the work unless otherwise specifically provided for in the contract document.
21. 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, local conditions and other factors having a bearing on the execution of the work.
22. **The acceptance of a quotation will rest with the Center Director, CPP-IPR who does not bind himself to accept the lowest bid and reserves himself the authority to reject any or all of the bids received, without assigning any reason. Center Director, CPP-IPR further reserves the right to accept any part of the bid and the bidder shall be bound to perform the same at the rates quoted.**
23. On acceptance of the bid, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-charge shall be communicated to the Engineer-in-charge.

24. **GOODS AND SERVICES TAX** where legally liveable will be admitted and reimbursed at the rate applicable during original delivery period. When GOODS AND SERVICE TAX is claimed as extra by the vendor in general, the following certificates should be submitted by the vendor to the Paying Authority on the bills itself:-

Certified that the GOODS AND SERVICES TAX charged has not been exempted under the GST Act or the rules made there-under and the amount charged on account of GST are not more than what is payable under the provision of relevant ACT or the rules there-under.

Certified further that we are being assessed to GST and also that where there are statutory exemptions under the Relevant Act/Law of the State Government concerned, we have availed ourselves of it and certified non-availability of such a provision for GST wherever claimed.

Certified further in respect of amount claimed into the bill no claim is pending for refund/or admissible. Certified that in the event of our getting refund in whole or in part of the element of GOODS AND SERVICES TAX claimed from Government, we shall pass on the benefit to the Purchaser by remitting to Government the amount equivalent to the amount of refund obtained by us.

Certified further that we (our Branch or agent) \_\_\_\_\_ (address) are registered in the state of \_\_\_\_\_ under GST Regn. No. \_\_\_\_\_.

(Stamp & Signature of the Vendor)

The vendor shall solely be responsible for declaration of Goods and Service Tax made in his invoice and shall indemnify the purchaser from any claim or its liability from concerned authorities at any stage.

Certificate with each bill to the effect that no refund has been obtained in respect of the reimbursement of GST made to vendor during three months immediately preceding the date of the claim covered by the relevant bill. AN UNDERTAKING to the effect that in case any refund of GST is granted to the vendor by concerned authorities in respect of stores supplied under the contract, they shall pass on the credit to the purchaser immediately along with a certificate from their Director/Manager/Proprietor/Accountant to the effect that the credit so passed on relates to the GST originally paid for the stores supplied under the contract. In case of their failure to do so within 10 days of the issue of the refund orders to them by the Authorities, the purchaser would be empowered to deduct a sum equivalent to the amount refunded by the authorities without any further reference to the vendor, from any of their outstanding bills against this or any other pending Government Contracts and that no dispute on this account would be raised by the vendor.

Vendor should provide GSTIN Certificate along with HSN code of the tendered item along with their quotation.

25. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India/ State Governments allowed to work as a contractor for a period of two years of his retirement from Government Services, without the previous permission of the Government of India/State Government. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the



permission of the Government of India/State Government as aforesaid before submission of the bid or engagement in the contractor's service.

26. Signed copy of this document as well as the Quotation paper being provided to the bidder (ALL PAGES TO BE SIGNED) should be enclosed with each Quotation as a token of acceptance for the terms and conditions specified in the quotation.
27. Canvassing in connection with the Quotation is strictly prohibited and the Quotation submitted by the contractor who resorts to such canvassing will be liable to rejection.
28. The contractor must produce income tax clearance certificate on the latest form as prescribed by the Ministry of Finance, Govt of India. The contractor should submit Xerox copy of PAN card.
29. Rates quoted by the bidder/contractor in item rate shall be accurately filled in so that there is no discrepancy in the rates written in figures and in words- However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall be taken as correct.
30. If the amount of an item is not worked out by the bidder/contractor, or it does not correspond with the rate written either in figures or in words, then the rates quoted by bidder in words shall be taken as correct.
31. Where the rate quoted by the bidder in figures and in words tally, but the amount is not worked out correctly, the rate quoted by the contractor will be taken as correct, not the amount.
32. The bidders should quote in figures as well as in words the rate and amount Quoted by them. The amount of each item should be worked out and the requisite total be given. All corrections shall be attested with date and signature of the bidders.
33. When a bidder signs a Quotation in an Indian Language, the total amount Quoted should also be written in the same language. In the case of illiterate contractors, the rates or the amounts Quoted should be attested by a witness.
34. Any changes in works can be made by Centre Director or Engineer-in-Charge as per requirement and the contractor will bind himself to do the job.
35. The contractor will have to follow sequential work program in consultation with the Engineer-in-charge.
36. Proper safety precautions to be taken during execution of work.
37. Any damage of existing facilities that may occur during execution will be considered as contractors fault and will be rectified free of cost by the contractor.
38. All works shall have to be carried out by the contractor as per C.P.W.D general specification.
39. No compensation will be paid by Client for loss and damage to contractors materials during execution.
40. Suitable water supply and electricity arrangement for staff and labour as well as for the work to be provided by the contractor at his own cost.
41. The contractor shall comply with all the provisions of the Minimum wages act, 1984, Contract Labour (R&A) Act 1970 the rules framed there under and other labour laws affecting contract labour that may be brought in to force time to time.
42. The Engineer-in-Charge may instruct the contractor to dismiss or remove from the site of work any person or persons employed by the contractor who may be incompetent or misconduct himself and the contractor should follow such instruction.
43. **Delay in delivery:** The date of delivery is an essential part of this tender. The supply of the item shall have to be completed within the scheduled time mentioned in the purchase order/ contract. The tenderer failing to do so shall entitle the purchaser to recover Liquidated Damages at the rate of 0.5% (half percent) of the total order value for the delay of each week in the scheduled time of supply, subject to a maximum of 5% (five percent) of total order value.

**CENTRE OF PLASMA PHYSICS  
INSTITUTE FOR PLASMA RESEARCH**  
Nazirakhat, Sonapur-782 402, Kamrup (M), Assam (India)

**TECHNICAL SPECIFICATION AND PRICE BID**

FOR

**Supply, Installation and Commissioning of LT Power Panel for Dusty  
Laboratory at CPP-IPR, Sonapur**

**ANNEXURE – II****TECHNICAL SPECIFICATIONS & PRICE BID****TECHNICAL SPECIFICATIONS****Annexure-A****Bill of Materials for LT panel :**

<b>Sl no</b>	<b>Specification</b>	<b>Rating</b>	<b>Quantity (Nos.)</b>	<b>Make</b>
A	<b>Incomer Module</b>			
1	ACB , EDO, 4pole, 50KA, Breaking Capacity with Microprocessor Based Release for O/L and S/C and E/F Protection	800A	2	Legrand/Schneider/ Havells/L&T
2	Phase indicating lamp	LED type	6	-do-
3	Digital Multifunction Meter	0-500 V	2	-do-
4	CT coil 10 VA Accuracy class 1	800/5A	3	-do-
5	MCB, SP, 10KA, 'C' Curve for control protection	6A	3	-do-
6	Numerical relay with protection O/C, S/C, E/F, OVER VOLTAGE, Under-voltage.	6A	2	-do-
B	<b>Outgoing Module</b>			
1	MCCB 3pole, 50KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	320A	2	Legrand/Schneider/ Havells/L&T
2	Spreader Link for Above MCCB	320A	2	-do-
3	Extended rotary handle	320A	2	-do-
4	MCCB 4pole, 50KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	100A	2	-do-
5	Spreader Link for Above MCCB	100A	2	-do-
6	Extended rotary handle	100A	2	-do-

BIDDER

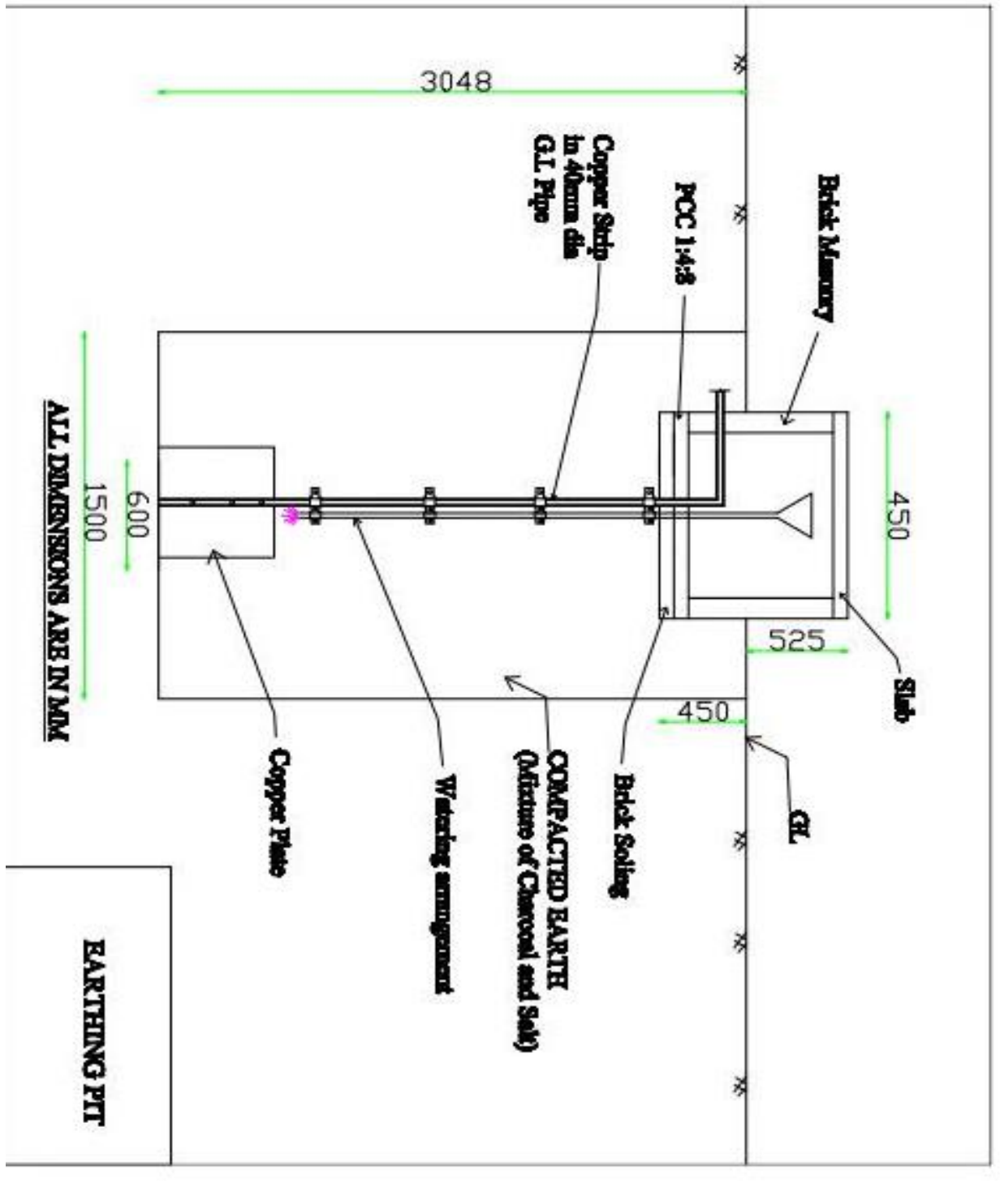
CPP-IPR

<b>Sl no</b>	<b>Specification</b>	<b>Rating</b>	<b>Quantity (Nos.)</b>	<b>Make</b>
7	MCCB 4pole, 50KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	63A	1	Legrand/Schneider/ Havells/L&T
8	Spreader Link for Above MCCB	63A	1	-do-
9	Extended rotary handle	63A	1	-do-
10	MCCB 4pole, 50KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	200A	1	-do-
11	Spreader Link for Above MCCB	200A	1	-do-
12	Extended rotary handle	200A	1	-do-
13	MCCB 3pole, 25KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	160A	2	-do-
14	Spreader Link for Above MCCB	160A	2	-do-
15	Extended rotary handle	160A	2	-do-
16	MCCB 4pole, 25KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	40A	3	-do-
17	Spreader Link for Above MCCB	40A	3	-do-
18	Extended rotary handle	40A	3	-do-
19	MCB 2pole, 10KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	16A	2	-do-
20	MCB 2pole, 10KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	10A	3	-do-
21	MCB 2pole, 10KA, Breaking Capacity with Thermal Magnetic Based Release for O/L and S/C Protection	6A	3	-do-

Annexure-B**Bill of Materials for Cables,Tray & End Termination Kit:**

Sl no	Specification	Units	Quantity	Make
1	Supply and laying of following size Solid Aluminium conductor up to 10 sq. mm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape inner sheathed, unarmoured, extruded PVC Type ST2 sheathed, 650/1100V grade as per IS 7908(Part 1) 1988, laid in air or through existing cable trench/ duct/ cable tray/ HDPE pipe including fitting required size of lugs at the both end of the cable by using crimping tool and making good damaged done as specified and directed by the deptt. A. 35 Sq.mm four core unarmoured cable B. 4 Sq.mm four core unarmoured cable C. 70 Sq.mm two core unarmoured cable D. 4 Sq.mm two core unarmoured cable	Sq.mm Sq.mm Sq.mm Sq.mm	70 m 35 m 50 m 150 m	NICCO/ HAVELLS/ RPG/CCI/ POLYCAB/ GLOSTER/ FINOLEX make.
2	Supplying, installation of GI PERFORATED cable tray on wall or from ceiling including necessary channel, nuts and bolts, washer etc. as required as directed and specified by the department. Size of Tray : A) 152 B) 304  Size of Bend: A) 152 B) 304	mm mm  mm mm	18m 28m  1 nos. 3 nos.	LEGRAND/ AKG /STRUTFAST make.
3	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. A) 3½ X 400 sq. mm	Each	1	

**Drawing of Earth Pit:**



**PRICE BID**A. Electrical:

Sl no	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
1	Supply of 800A, Main LT with Distribution panel made out with 2 mm CRCA sheet steal, 3-phase, suitable for floor mounted, user front facia, powder coated for long lasting finish, cubical type, suitable cable entry position and including of all necessary electrical protections including Aluminum Bus-bar etc. and Bill of material as Annexure-A	No.	1		
2	Supply and laying of following size Solid Aluminium conductor up to 10 sq mm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape inner sheathed, unarmoured, extruded PVC Type ST2 sheathed, 650/1100V grade as per IS 7908(Part 1) 1988, laid in air or through existing cable trench/ duct/ cable tray/ HDPE pipe including fitting required size of lugs at the both end of the cable by using crimping tool and making good damaged done as specified and directed by the deptt. A. 35 Sq.mm four core unarmoured cable B. 4 Sq.mm four core unarmoured cable C. 70 Sq.mm two core unarmoured cable D. 4 Sq.mm two core unarmoured cable	Sq.mm Sq.mm Sq.mm Sq.mm	70 m 35 m 50 m 150 m		
3	Supplying, installation of GI PERFORATED cable tray on wall or from ceiling including necessary channel, nuts and bolts, washer etc. as required as directed and specified by the department. Size of Tray : A) 152 B) 304  Size of Bend: A) 152 B) 304	mm mm  mm mm	18m 28m  1 nos. 3 nos.		
4	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required. A) 3½ X 400 sq. mm	Each	1		

Sl no	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
5	Laying and fixing of one number PVC insulated and PVC sheathed/XLPE Power Cable of 1.1kV grade of following size on cable tray as required				
	a)Upto 35 sq.mm.(Clamped with 1mm thick saddle)	Meter	255		
	b)Above 35 sq.mm. and upto 95 sq.mm.(Clamped with 25 x 3 mm MS Flat Clamp)	Meter	50		
	c)Above 185 sq.mm. and upto 400 sq.mm.(Clamped with 40 x 3 mm MS Flat Clamp)	Meter	18		
<b>Total</b>					



B. Earthing:

Sl no	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
1	Supply, installation & testing of Copper Plate earth station with 600mmX 600 mm X 6mm heavy duty copper earth plate with necessary 40 mm dia. G.I. medium duty watering pipe with G.I. Fittings such as socket, tee elbow, nipple and 50 mm X 40mm G.I. reducing socket for funnel including locking arrangement with 300mmX 6mm C.I. hinged cover plate complete with digging of earth pit, construction of brick chamber and plastering of both inner & outer surface of wall as specified by the department.	Each	2		
2	Supplying and laying of 25mm X 5mm size copper strips drawn on surface from earth electrode to electrical switch gears, machineries etc complete with supply of Brass nuts & bolts, screws etc including riveting, soldering & making necessary connection as approved, specified and directed by department.	Metre	30		
3	Extra for using salt 5 Kg and charcoal 64 Kg in copper plate earth station pit to provide low impedance ground in location of high soil resistivity as and when required and specified by the department.	Each	2		
<b>Total</b>					

## C. Civil: SOR (APWD)

Sl no	Item No.	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
1	8.1.33	Providing Pre Painted Galvanized Iron Sheet Roofing (PPGI) at all levels including fitting and fixing with self drilling, self tapping screws complete. (Roof trusses, purlins etc. to be measured and paid separately.) TATA Blue scope/ Dyna roof / Durakolor /Wonder Roof or equivalent as directed by the Departement (iii) 0.50 mm thick	Sq.m	17		
2	18.3.2	Providing, fitting, hoisting and fixing of roof trusses fabricated out of combination of any two or all of the following sections (i) Square section (ii) Rectangular Hollow section of specification RSH/SHS and (iii) M.S. circular hollow section of Grade 210 including purlins, bottom runners and providing M.S. cleat, M.S. angle base plank, bolts and nuts with red oxide primer including fitting bottom runner and cleat etc. for fixing ceiling joist as per design complete as directed as per specifications. a) Using TATA make RHS/SHS/NEZON of Grade 310 conforming to relevant I.S. code 4923 : 1997	Qntl.	1.95		
3	11.4.2	Providing, fitting and fixing coloured anodised aluminium partition walls of standard sections of approved brand, joints mitred and welded (manufactured to relevant I.S. specification) and providing and fitting angle cleat, rubber gasket, bolting device screws etc. at all levels. (i)Partly 6mm thick glass panes and 12mm prelamated ply board )	Sq.m	15.5		
4	11.2.4	Providing, fitting and fixing coloured anodised aluminium framed glazed doors with anodised aluminium frame made of 63mm x 38mm x 2.5mm section of approved brand with door style of size 50mm x 45mm x 2.0mm, top rails 50mm x 45mm x 2.5mm, middle rail 100mm x 45mm x 2mm and bottom rails 100mm x 45mm x 2.5mm fitted with glazing clip, special type rubber gasket complete including hydraulic floor spring, pivot, tower bolt in each leaf, aluminium door	Sq.m	2.52		

Sl no	Item No.	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
		handle, lock, angles, cleat etc complete as specified and directed by the department at all levels. (i)6mm clear glass				
5	13.7.4	Painting two coats (excluding priming coat) on new steel and other metal surface with enamel paint of approved brand and manufacture(Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac) to give an even shade including cleaning the surface of all dirt, dust and other foreign matter. (i).Surfaces over 100mm in width or girth. a). General purpose (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac).	Sq.m	8.5		
6	4.1.8	1st class brick nogged wall in cement mortar including racking out joints and curing complete as directed in super structure above plinth up to 1st floor level (protruding M.S rod/Tor steel of column to be embeded in cement mortar and will be measured and paid separately) (A) 112mm thick brick wall (a) In cement mortar in proportion 1:4. (1 cement:4 sand)	Sq.m	6.2		
7	4.1.14	Extra for brick walling for each subsequent floor or part thereof above the 1st floor level. (a) 112mm thick brick/ R.B wall	Sq.m	6.2		
8	6.2.2	15 mm thick Cement plaster in single coat on single or half brick wall for interior plastering up to 1st floor level including arises, internal rounded angles, not exceeding 80mm girth and finished even and smooth including curing complete as directed.				
		A) On rough side b) In cement mortar 1:4	Sq.m	15.5		
		B) On fair side b) In cement mortar 1:4	Sq.m	15.5		

Sl no	Item No.	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
9	13.3.4	Providing two coats of Birla White Wall Care Putty (Water Resistant White Cement based putty for concrete/ mortar walls and ceiling both internal and external) after removing all loosely adhering material from the wall surface with the help of emery stone, putty blade or wire brush and moistening the wall with sufficient quantity of clean water as specified and directed by the department. (Total thickness of two coats is maximum 1.5mm) (i) Thickness = 1.5 mm thick	Sq.m	26.5		
10	13.2.2	(n) Distempering two coats with oil bound distemper of approved brand and manufacture and of required shade on new wall surface to give an even shade, over and including a priming coat with alkali resistant primer of approved brand and manufacture after thoroughly brooming the surface free from mortar droppings and other foreign matter and also including preparing the surface even and sand papered smooth. (i).Priming coat with alkali resistant primer	Sq.m	26.5		
		(ii). Top coat	Sq.m	26.5		
11	13.2.4.7	Wall painting (two coats) with Plastic emulsion paint of approved brand and manufacture (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac) on new surface to give an even shade after thoroughly brushing the surfaces free from mortar droppings and other foreign matter and sand papered smooth. (a).Plastic Emulsion Paint of approved brand and manufacture (Asian paint/ Berger paint/ ICI paint/ J & N paint/ Nerolac)	Sq.m	26.5		
12	2.1.1	Plain cement concrete works with coarse aggregate of sizes 13mm to 32mm in foundation bed for footing steps, walls, brick works etc. as directed and specified including dewatering if necessary, and curing complete (shuttering where necessary shall be measured and paid separately).				

Sl no	Item No.	Specification	Units	Quantity	Rate in RS (Both in fig & words)	Amount in Rs (Both in fig. & words)
		(a) In prop 1cement: 3 sand :6 coarse aggregate by volume	cum	0.25		
<b>Total</b>						

**NOTE:**

- (1) Quantities mentioned above are liable to change up to some extent and the contractor is bound to do the same as instructed.
- (2) The LT Panel should be manufactured in modules and should be assembled at site. The bidders are advised to visit the site before submission of their bids.
- (3) All items used in the process have to be of premium/ best quality available in the market.
- (4) All work to be executed as per standard, drawing and specification.
- (5) Test certificate of materials (if applicable) to be submitted.
- (6) Quality control to be done with proper record and documentation. The same will be submitted in the time of billing. Bill will not be released in absence of the same (if applicable).
- (7) Proper procedures to be followed as directed by the Engineer-in-Charge.