

COLLEGE OF ENGINEERING MUTTATHARA
St. Sebastian Church Road, Near BSF Sector Headquarters, Vallakadavu P.O,
Thiruvananthapuram - 695 008
Tel: 0471-2500211

RETENDER DOCUMENT

**Construction of CC trench and machine foundation at Electrical machines lab at
College of Engineering, Muttathara, Thiruvananthapuram**

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FORM OF TENDER

Name of work : **Construction of CC trench and machine foundation
at Electrical machines lab at College of Engineering,
Muttathara, Thiruvananthapuram**

Date of Issue : -----

Name of Tenderer : -----

Address : -----

Class of Registration : **D Class.**

NOTICE INVITING TENDERS FOR EXECUTION OF WORK

Tender No. W-05 /2018-19/CEM

Dated: 06.02.2019

Sealed competitive tenders are invited by the undersigned from financially sound and well experienced valid Registered 'D' class contractors/firms of KPWD/CPWD/Railway/Irrigation for the construction work prescribed below up to 3.00 pm on 13.02.2019 Bidders shall submit the tender document fees and EMD through in the Demand draft .payable at Tvm .

1	Name of Work	:	Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM
2	Estimate PAC	:	Rs.2,74,021/-
3	Nature of work	:	Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM
4	Time of completion	:	Two Months
5	Cost of Tender Documents	:	Rs.560/- (including 12%GST)
6	EMD	:	Rs.6,900/-
7	Issue of tender documents	:	To be downloaded from the website www.cemuttathara.org
8	Last date and time of submission of tender	:	13.02.2019 up to 3.00 PM – online submission
9	Date and Time of opening of tender	:	14.02.2019 at 11.00 AM

The details of the work, plan, tender conditions and documents can be downloaded and submitted to Principal, College of engineering Muttathara through the Speed post before 3pm on 13.02.2019 For any further details or clarification, the Assistant Engineer, College of Engineering Muttathara may be contacted. The Principal reserves the right to reject any or all the tenders without assigning any reason therefor and his decision is final and binding.

PRINCIPAL

I – GENERAL

Name of Work : **Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara,TVM**

Time of Completion : **Two Months**

All communications shall be addressed to the Principal, College of Engineering Muttathara in the following address by post / person

College of Engineering Muttathara
St.Sebastian Church Road,
Near BSF Sector Headquarters,
Vallakadavu P.O,
Thiruvananthapuram-695008

Sd/-
Principal

Thiruvananthapuram
Date: 06.02.2019

II- DETAILS OF TENDER

Name of Work: Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM

Competitive tenders quoting percent rate are hereby invited by College of Engineering Muttathara for the above-referred work.

1. The contract documents consisting of Technical specification, Bills of Quantities to be duly signed on every page by the bidder shall be submitted to the Principal. The time allowed for the work is **Two Months** days from the date of execution of agreement
2. The tender shall be accompanied by registration cost of **Rs.560/-**(including 12%GST).and Earnest Money deposit for **Rs.6900/-** The payment shall be made through online
..
3. The successful tenderer shall furnish a Performance Guarantee (security deposit) calculated at 5 percent of the Contract Value.
4. The Tenderer shall submit his tender only after carefully examining the whole tender documents and the conditions thereof.

This notice, the conditions of tender and the duly completed form of tender will inter alia form part of the agreement to be executed by the tenderer with the Principal.

**Principal
College of Engineering Muttathara**

Note : 1. Detailed notice inviting tender deemed as part of Contract and agreement.

- 2. Guarantee period of the work is 24 (Twenty four) months from the date of completion.*
- 3. Defects if any noticed within the guarantee period from the date of completion will be got rectified by the Contractor at his own cost.*

III- FORM OF COVERING LETTER

To

The Principal,
College of Engineering Muttathara,
St. Sebastian Church Road,
Near BSF Sector Headquarters,
Vallakadavu P O,
Thiruvananthapuram-695008
Tel No.0471-2500211

Sub: Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM

Sir,

1. Having examined the above tender details along with the specifications relating to the above subject work and the general conditions therein referred to, we hereby offer to carry out the work described in the said specification and general conditions for the sums and percentage rates quoted in the tender submitted herewith.
2. I/We hereby undertake to complete the work envisaged in accordance with contract conditions within the time specified in the tender.
3. I/We hereby guarantee the accuracy and correctness of particulars entered into the tender submitted by me/us.

Signature of Tenderer

(Name, Title and Position)

Address:

Place:

Date:

NOTICE INVITING TENDER

Name of work: Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM

Sealed Percentage rate quoting tenders are invited on behalf of College of Engineering Muttathara (THE OWNER) for the Construction of CC trench and machine foundation and Electrical machines lab at College of Engineering Muttathara from eligible Contractors possessing appropriate class of registration in Irrigation/CPWD/Kerala PWD or Railways for executing this work. The details of contract together with the estimate cost are given under

- 1.01 Owner /Employer - Principal, College of Engineering Muttathara
- Engineer - Project Director CAPE, Thiruvananthapuram
- Site Engineer - Assistant Engineer,
College of Engineering, Muttathara

1.02 The Project contract mainly include the following

SL. No	Description of main construction	Estimate cost
	Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, TVM	Rs.274021/-

Broad scope and salient features of work

The project is for **Construction of CC trench and machine foundation at electrical machines lab at College of Engineering, Muttathara, TVM**

The work is meant for connecting with main cable entry to the lab and providing AC and DC connection separately and providing foundation for lab equipment.

The estimate is prepared based mainly on DSR 2014 with Cost index 46.67% (Trivandrum)

1.04 The general information on the project may be found from the bidding document. The information is only indicative. The tenderers must visit the site and familiarize themselves with the site conditions, availability of construction materials, etc., before quoting. The drawings, conditions of contract, schedule of quantities and the specifications may be carefully studied before they offer their prices. No claims for extra compensation over and above the quoted rates will be entertained by THE OWNER on the ground that the tenderer have misjudged site conditions, tender conditions or any item of tender. The tender documents will be available from the website of www.cemuttathara.org from 06.02.2019

1.06 The priced tender documents signed and complete in all respects shall be submitted through the portal of www.cemuttathara.org on or before 3.00 pm on 13.02.2019. Any tender received after the due time on this date will be summarily rejected. It may be noted that separate Submission of details, explanatory notes, any relevant documents etc. will not be entrained.

1.7 Tender should be submitted through online enclosing the following contents:

1.8

1. **Registration cost may be paid in the form of D.D submitted along with tender document.**
2. **Earnest Money may be paid in the form of D.D.**
3. **Duly signed Tender documents**
4. **Preliminary agreement duly filled and signed in stamp paper worth Rs.200/-**
5. **Duly signed and stamped Price Bid only, without any conditions.**
6. **Schedule of Quantities with percentage quoted duly filled and signed on each page and stamped by the tenderer along with quoted page of tender schedule.**

1.08.

01 Tender will be opened in the presence of tenderers or their authorized representatives who are present at 11.00 am on 14.02.2019 at College of Engineering muttathara

THE OWNER reserves the right to reject any bid without assigning any reasons.

.02 Subject to THE Owner's right to accept any tender and reject any or all tenders; the work will be awarded to the tenderer whose bid has been determined to be substantially responsive to the tender documents and who has offered the lowest Evaluated Tender Price provided further that the tenderer has the capability and resources to carry out the contract effectively.

.03 Prior to the expiry of the period of validity of the tender THE OWNER will notify the successful tenderers in writing their name the sum which THE OWNER will pay to the contractor in consideration of the execution, completion, operation, defect maintenance and guarantee of the work by the contractor as specified by the contract (hereinafter called the contract price). This letter of acceptance will constitute the formation of a contract.

.04 The tenderer shall make a security deposit as given in clause 1.11 of this notice and furnish the same for the proper fulfillment of the contract and shall execute an agreement for the work in required non-judicial stamp paper in the format

given as “Articles of Agreement” within 30 (Thirty) days from the date of award of communication (selection notice). Further time of 10 (Ten) days shall be allowed to execute agreement on realizing a fine of 1% of the PAC subject to minimum of Rs.500/- and maximum of Rs.15,000/-. The tenders will be rejected if agreement is not executed within 30 (Thirty) days and work will be awarded to the next lowest tenderer or rearranged as per rules.

- .05 If the tenderer fails to execute the agreement as stated above within the specified period, the earnest money deposit shall be forfeited to THE OWNER and the work will be arranged through the 2nd lowest tenderer or retendered as the case may be.
- 06 Tenders not properly filled, mutilated with incorrect calculations or generally not complying with the conditions are susceptible shall be rejected.
07. The rate quoted as percentage rate will be deemed to include the cost of all materials, labour, hire charges for all machinery, cost of fuel, power, all leads and lifts, taxes, levies, incidental charges all overheads contingencies, profits, etc.
- .08 If the tender is made by an individual, it shall be signed with his full name and his complete address shall be given. If it is made by partnership firm it shall be signed by the authorized signatory with name and seal of the firm. **No price preference will be allowed to any Corporation/Society/firm/individual for the finalization of financial bid. There will not be any allowance to any Corporation /Society/firm/individual for the exemption of the EMD and security deposit mentioned in the tender documents.**

1.9 Instructions to applicant

- i. Tenders in all respect shall be submitted through the portal www.cemuttathara.org on or before 13.02.2019 up to 3.00 pm.
- ii. No costs incurred by bidders in making this offer in providing clarification on attending discussions or site visits will be reimbursed by the employer or Engineer
- iii. Incomplete offers will be rejected
- iv. The enclosed documents should be filled in completely
- v. Financial rate, project value of work etc, should be given in Indian Rupees only.
- vi. For any clarification the Assistant Engineer College of Engineering Muttathara may be contacted.
- vii. If the application is made by a firm in partnership, it should be signed by all the partners of the firm, with their full name and current address or by a partner holding power of attorney for the firm by signing the application in which case a certified copy of the power of attorney shall accompany the application.
- viii. A certified copy of the partnership deed, current address of the firm and the full name and current address of the all the partners of the firm shall also accompany the application.
- ix. If the application is made by a limited company or a Ltd corporation, it shall be signed duly by authorized person holding the power of attorney for signing the application in which case a certified copy of the power of attorney shall

accompany the application of such Ltd Company or Corporation will be required to furnish satisfactory evidence of its existences before the contract is awarded.

- x. The language for submission of bid should be in English/Malayalam.
- a. Copies of original documents defining the constitution of legal status, place of registration and principal place of business of the company of firm or partnership there to constituting the bidder.

1.10 EMD

- .01 Earnest Money Deposit is Rs 6900/- and shall be submitted in form of Demand Draft along with the tender.
- .02 E.M.D. of the unsuccessful tenders will be refunded by Cheque without any interest on finalization of the contract with the successful Tenderer.
- .03 E.M.D. deposited with THE OWNER will be forfeited,
 - i) if a bidder withdraws his bid during the period of validity specified.
 - ii) if the successful bidder fails within the time limit to sign the contract document or fails to furnish the required security deposit.

1.11 Performance guarantee (Security Deposit)

- .01 The successful tenderer on receipt of the letter of acceptance will deposit an amount equal to 5% of the value of contract within 20 days from the date of award of work.
- .02 E.M.D. of the successful tender will be refunded by Cheque without any interest on execution of agreement.
- .04 The SECURITY DEPOSIT will be released without any interest to the contractor after expiry of the defects liability period of **24 (Twenty four)** months from the date of completion.

1.12 RETENTION AMOUNT

- .01 In addition to Performance Guarantee, Security deposit for the work shall be collected by deduction from the running/final bill of the contractors @ 2.5% of the gross amount of each running and or final claim till expiry of defect liability period..
- .02 All kinds of deposits of EMD/Performance Security Deposit/Security Deposit/Retention amount will not bear any interest whatsoever.

1.13 All statutory payments in connection with the employment of the workmen for this work will be recovered from the bill

- .02 The contractor is the employer of all the workers engaged for this work and should therefore take all required registrations and pay premium correctly to

labour welfare funds constituted by the Union Government and State Governments from time to time.

1.15 All statutory deductions shall be made from the amount eligible to the contractor in each part bill at current rates. The deduction towards the work contract tax shall be as per the prevailing rates of State Government Sales Tax Rules. Any tax omitted, to be deducted in any part bill shall be deducted in the subsequent bills/final bill. The above recovery will be altered based on subsequent government orders if any issued.

1.16 PERIOD OF VALIDITY

The tender shall remain valid for acceptance for a period of **twenty four months** from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or makes any modifications in terms and conditions of the tender, then *THE OWNER* has the liberty to forfeit the said Earnest Money Deposit.

1.17 INSPECTION OF SITE

Every tenderer must inspect the site of the proposed work and acquaint himself with the site conditions of substrata, approaches, availability of raw materials, geological and weather conditions, etc., before quoting his rates. He must go through all the drawings/plan, specifications and other tender documents. Any further clarifications in the drawings and documents can be had from *THE OWNER* at the above-mentioned address.

1.18 QUANTUM OF WORK

.01 A schedule of approximate quantities for various items accompanies this tender. It shall be definitely understood that *THE OWNER* do not accept any responsibility for the correctness or completeness of this schedule in respect of items and quantities and this schedule during the execution as necessitated at site is liable to alteration by deletions , deductions or additions at the discretion of *THE OWNER* without affecting the terms of the contract.

.02 *THE OWNER* reserves the right to increase or decrease the quantum of work at site without assigning any reason.

.03 Variations in the quantities put to tender will not be the basis of any claim or disputes. The rates agreed by the contractor shall hold good for any amount of variation in the quantities and no claims whatsoever will be entertained on this amount. The contractor shall carry out all works as directed by *THE OWNER* at the same agreed rates.

1.19 ALL INCLUSIVE RATES

The contractor's rate must be firm and include the cost of transportation of material to the site, royalty, all taxes and the fixing or placing in position for which the item of work is intended to be operated. The rates quoted by the contractor shall be firm throughout the contract period and there shall be no upward revision of the rates quoted by the contractor for any reasons whatsoever. It should be clearly understood that any claims for extra Sales Tax, Excise duty, construction tax or any tax or additional tax, etc., shall not be entertained in any case

whatsoever once the tenders are opened. No incidental charges will be paid other than the quoted rates for finished items

1.20 INTERPRETING SPECIFICATIONS

.01 In interpreting the specifications, the following order or decreasing importance shall be followed:

- a. Specification mentioned in Schedule of Quantities
- b. Special conditions of contract,
- c. Unit Rate Specifications and Technical Specifications of CPWD
- d. Drawings

.02 Matters not covered by the specifications given in the contract, as a whole shall be covered by the relevant Indian Standard Codes. If such codes on a particular subject have not been framed, the decision of THE OWNER shall be final.

1.21 No alterations shall be made by the tenderer in the Notice Inviting Tender, Instructions to the contractors, Contract form, conditions of the contract, special conditions, drawings and specifications and if any such alterations are made or any conditions attached, the tender is liable to be rejected.

1.22.

.01 The acceptance of a tender rests with the owner/ Authorized Representative of THE OWNER who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason(s) whatsoever.

.02 The owner /authorized representative of THE OWNER reserves the right of accepting the whole or any of the tenders received and the tenderer shall be bound to perform the same at the rates quoted.

1.23 The work shall be carried out under the direction and supervision of THE OWNER/CONSULTANT or their representative at site. On acceptance of the tender, the contractor shall intimate the name of his accredited representative who would be supervising the construction and would be responsible for taking instructions for carrying out the work.

1.24 THE OWNER/Consultant's decision with regard to the quality of the material and workmanship will be final and binding; any material rejected shall be immediately removed by the contractor and replaced by materials as per specifications and standards.

1.25 SUB-LETTING

No part or whole of the contract shall be sublet without the written permission of THE OWNER nor shall transfers be made by the Power of Attorney authorizing others to carry out the work or received payment on behalf of the tenderer.

1.26 DEFECTS LIABILITY PERIOD

Any defect developed within 'Defect Liability Period' of 24 months from the date of completion of work will have to be rectified by the contractor at their own cost

failing which the OWNER/CONSULTANT or their representative shall get the work done at the risk and cost of the contractor.

1.27 DELAYS IN COMMENCEMENT

The contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause for such delays may be including delays in procuring Government Controlled or other materials.

1.28 OCCUPATION IN PART

If THE OWNER wants to occupy areas in part, the contractor shall complete the work of these areas in conjunction with THE OWNER and hand over the same to THE OWNER without affecting any of the clauses of contract agreement.

1.29 The contractor should inspect the source of materials, their quality, quantity and availability. All materials must strictly comply with the relevant B.I.S. specifications.

1.30 The contractor must co-operate and co-ordinate with other contractors involved in other works at the site.

The contractor should note that they shall have to clear the site of vegetation, if any debris, etc. before the commencement of the work. The contractor should also keep the premises clear during the execution for the inspection of the site

1.31 PERIOD OF CONSTRUCTION

Time is the essence of this contract. The construction period shall be **Two Months**. For the period of completion, the Commencement of the work shall be considered from the date of execution of agreement. The contractor shall draw a detailed schedule of programme in the form of PERT CHART/ BAR CHART on whole work, within one week of award of work and submit to THE OWNER for their approval.

1.32 Handing over the Site

After executing the agreement the contractor or his authorized persons should take over the site from the Assistant Engineer within 10 days so as to commence the work.

1.33 LIQUIDATED DAMAGES

Liquidated Damages will be levied as per KPWD rules.

1.34 CONTRACTOR'S STORE AND SITE OFFICE

Suitable area in the site of work shall be allowed to the contractor at free of cost for constructing temporary structures for storing his tools and plants, materials, site office and cement Godown. However, the structure will be provided by him at his own expense and he will be solely responsible for guarding his property with requisite insurance against theft, fire, etc. The contractor however will have to dismantle the sheds and vacate the land clearing all debris, construction materials etc. at his own expense after completion of work. The responsibility for

safe custody of materials at work site and during transit will be vested with the contractor.

1.35. Quality control of work

The contractor shall arrange the quality control test and the quality certificate shall be handover to the Assistant Engineer for confirmation. The Assistant Engineer and Project Engineer should certify the quality of the work done by the contractor while recommending the each payment of the bills.

1.36 MEASUREMENT AND BILLING

- .01 The contractor or his representative shall accompany THE OWNER /CONSULTANT or their representative in taking measurements and shall agree to the measurements taken on spot. All necessary tapes shall be of steel and shall be supplied by the contractor. The contractor shall then present his bill based upon the agreed and recorded measurements and as per the directions of THE OWNER /CONSULTANT. If the contractor fails to accompany THE OWNER /CONSULTANT's representatives for measurements, then he shall be bound by the measurements taken by THE OWNER /CONSULTANT or their representative.
- .02. The contractor shall be allowed to raise bills only for more than 10% of contract amount in each bill.
- .03 Payments towards all bills will be usually made by THE OWNER within 30 (Thirty) days on presentation by the contractor. The interval for submission of two consecutive bill shall be more than 30 (thirty) days
- .04 Period of final measurement shall be maximum of one month from the time of completion of the project.

1.37 EXTRA ITEMS

- .01 Any item of work that do not find a place in the schedule of quantities, in the original tender or in the accepted tender or contract as has been directed by THE OWNER /CONSULTANT to execute is deemed as an extra item of work. All such works that are necessary to be carried out under the direction of THE OWNER /CONSULTANT shall be carried out by the contractor. No such variation will violate the Contract.
- .02 Extra items of work thus carried out by the contractor will be paid at the rates worked out by THE OWNER /CONSULTANT in the following manner.
- .03 In the case of all extra items whether additional, altered or substituted, if accepted rates for identical items are provided for in the contract such rates shall be applicable.
- .04 In the case of extra items whether altered or substituted, for which similar items exists in the contract, the rates shall be derived from the original item by appropriate adjustment of cost of affected components with reference to the departmental estimated rates applied in deriving the rates for such items.
- .05 In the case of extra items, whether additional altered or substituted, for which the rates cannot be derived from similar items in the contract, and only partly from the schedules of rates, the rates for such part of items not covered in the

schedule of rates shall be determined by THE OWNER/CONSULTANT on the basis of the prevailing market rates giving due consideration to the analysis of the rate furnished by the contractor with supporting document including contractor's profit and over head. Tender Excess will not be admissible for market rate components.

.06 In the case of extra item whether additional, altered, substituted, for which the rates cannot be derived either from similar items of work in the contract or from the departmental schedule or rates, the contractor shall within 14 days of the receipt of order to carry out the said extra item of work, communicate to the Engineer the rate which he proposes to claim for the item, supported by analysis of the rate claimed and THE OWNER shall be within one month thereafter, determines, the rate on the basis of the market rate giving due consideration to the rate claimed by the Contractor. Tender excess will not be admissible in such cases.

1.38 The contractor shall make his own arrangement for water and electricity required for the work. THE OWNER has no responsibility for the supply of either electricity or water for the work.

1.39 INSURANCE

The contractor shall be responsible for the safety of the labour employed by him and he shall be liable to pay necessary compensation in case of accidents as per the workman's compensation Act.

1.40 This Notice Inviting Tender will form part of the tender document and also the agreement executed by the successful tenderer.

**Sd/-
PRINCIPAL**

Place: Thiruvananthapuram

SUMMARY OF NOTICE INVITING TENDER

Sl. No.	Item	Description
1	Date of submission of tender and time	13.01.2019 at 3.00 p.m.
2.	Date of Opening Tender	14.02.2019 at 11.00 a.m.
3.	Firm period of the tender	Two months
4.	Cost of tender / Registration cost	Rs.560/-(including 12%GST)
5.	EMD of tender	Rs.6900/-
6.	Performance Security deposit	5% of contract amount (while executing agreement)
7.	Date of Execution of agreement	Within 20 days from the date of acceptance of tender (selection notice)
8.	Period of completion	Thirty days
9.	Site handover	Within 10 days after execution of agreement
10.	Date of Completion of work	Two Months from Date of executing agreement
11	Interim payment	One bill
12	Security Deposit (retention)	@2.5 % of the gross amount of each running and/or final bill.
13	Release of Security Deposit	On expiry of Defect liability period
14	Final measurement	Within 1 month from the date of completion
15	Defect liability period	24 months from the date of completion
16	Escalation	Not applicable
17	Liquidated damages	As per PWD rules
18	Kerala workers welfare fund	1% of bill amount recovered during the payment of the bills
19	I.T	2% for firms and 1% for individuals
20	GST	12%

Principal
 College of Engineering Muttathara
 St. Sebastian Church Road,
 Near BSF Sector Headquarters,
 Vallakadavu P.O
 Thiruvananthapuram-695008 Tel No.0471-2500211

IV. CONDITIONS OF CONTRACT

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the Principal on behalf of College of Engineering Muttathara, St. Sebastian Church Road, Near BSF sector Headquarters, Vallakadavu P.O, Thiruvananthapuram and the CONTRACTOR, together with the documents referred to therein including the conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-
 - i) The expression **works or work** shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract, contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional. The works under the scope is all works upto basement level and all works of superstructure including masonry, concrete, finishing, Electrification, plumbing and sanitary.
 - ii) The **Site** shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The **CONTRACTOR** shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
 - iv) The **CONSULTANT** shall mean the individual, firm or company, whether incorporated or not, undertaking the architectural & structural consultancy and supervision and Management of the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company

- v) The **Engineer-in-charge** means the Project Engineer or any other Engineer of College of Engineering Muttathara who will supervise and be in-charge of the work on behalf of CAPE.
 - vi) **Accepting Authority** shall mean Principal, College of Engineering Muttathara
 - vii) **Owner shall mean the Principal College of Engineering Muttathara**
 - viii) **Excluded Risk** are risks due to riots (other than those on account of CONTRACTOR's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, damages from aircraft, acts of God, such as earthquake, lightning and unprecedented floods, and other causes over which the CONTRACTOR has no control.

 - ix) **Market Rate** shall be the rate as decided by the Engineer-in-charge on the basis of the cost of materials and labour at the site where the work is to be executed plus 15% to cover, all overheads and contractor's profits. Tender excess *will not be allowed* for Market rate Component

 - x) **Schedule(s)** referred to in these conditions shall mean mainly the relevant DSR 2014 with Cost index 46.67%.

 - xi) **Department** means College of Engineering Muttathara which invites tenders.

 - xii) **Site Order book** is a book to be maintained by the Contractor at site and produced when demanded by the Engineer in-charge to record any instruction /comments by the Engineer in-charge).

 - xiii) Contract value means the value of entire work as stipulated in letter of award.

 - xiv) Estimate value means the value of entire work as stipulated in the tender schedule.
3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
 4. Headings and marginal notes to these General Conditions of contract shall not be deemed to form part thereof nor be taken into consideration in the interpretation or construction thereof or of the contract.
 5. The work to be carried out under the contract shall, except as otherwise provided in these conditions, includes all labour, materials, tools, plants, equipments and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of quantities shall, unless otherwise stated, be held to include wastage of materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.
 6. The CONTRACTOR shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates

and prices quoted in the schedule of quantities, which rates and prices shall except as otherwise provided cover all his obligation under the contract and all matters and things necessary for the proper completion and maintenance of the works.

7. The several documents forming the part of contract are to be taken as mutually explanatory of one another; detailed drawings being preferred to small scale drawing, figured dimensions being preferred to scale, special conditions in preference to General conditions.
- 7.1 In the case of discrepancy between the schedule of Quantities, the specifications and/or the Drawings, the following order of preference shall be observed.
 - i) Description of Schedule of Quantities.
 - ii) Particular Specification and special condition, if any
 - iii) Drawings.
 - iv) C.P.W.D Specifications
 - v) Indian Standard specifications of B.I.S.
- 7.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the documents and his decision shall be final and binding on the CONTRACTOR.
- 7.3 Any error in description, quantity or rate in schedule of Quantities or any omission there from shall not vitiate the CONTRACT or release the CONTRACTOR from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.
- 7.4 **Commencement and completion of work-** The work shall commence within 10 days from the date of execute of agreement and complete the whole work within **Two months** from the agreement date
8. **Agreement-** The contractor, on acceptance of his tender by the Accepting Authority, shall sign the agreement within 20 days from the date of award of work and commence the work within 10 days from the date of agreement.
 - a) The tender conditions, all the documents including drawings, if any, forming the part of tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - b) Model Rules which are applicable to KPWD for the protection of health, sanitary arrangements for workers employed by CONTRACTOR at site
 - c) CONTRACTOR's Labour Regulations of the KPWD.

MEASUREMENT BOOKS:

Conventional measurement book shall be used for recording the measurements. The Assistant Engineer designated for the charge of site of Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara, Thiruvananthapuram will be the custodian of the M-Books. The pages of these

measurements books shall be serially numbered and a record of these measurements book shall be maintained in a separate register. The measurements shall be carried forward from the previous recorded measurement as per the existing procedure of Kerala PWD.

MODE OF MEASUREMENTS:

Measurement of works shall be made as per principles adopted in Kerala PWD and ISI codes for measurement of works. The measurements shall be jointly taken by the CONTRACTOR or his representative and the Engineer –in charge or his representative ie, Assistant Engineer of Partition Work in computer lab at College of Engineering Muttathara and recorded and entered in the M. Books by the Assistant Engineer. The Engineer-in-charge shall incorporate with signature changes or corrections, as may be done during the checks to the recorded measurements. Cuttings/over writing/insertions in the M.Books are not allowed after final checking.

EXTRA ITEMS:

If any extra item has to be executed at site which may be absolutely necessary for the work and which are not included in BOQ shall be executed on written orders from the Project Engineer of CAPE. The contractor shall bring to the notice of the concerned official in advance, the requirement of extra item to be executed. The rates shall be derived from parallel items or similar items if possible or shall be derived from the reasonable existing market price plus the cost of labour plus 15 percent for contractor's overheads and profits. The CONTRACTOR shall furnish the rate analysis which supporting statements to the Owner for approval. However the CONTRACTOR shall not delay the work for finalization of the rates of the concerned item. Supplemental agreement for the extra item has to the executed for the same

BILL TO BE SUBMITTED BY THE CONTRACTOR:

Based on the quantities worked out as per the joint measurements recorded the CONTRACTOR shall submit his running and final bill in the appropriate format as followed in PWD. The CONTRACTOR shall submit as many copies of the bills as may be required for the purpose of reference and record. The bill shall be carried forward from the previous running account bill as per the existing procedure.

CONTRACTOR's Superintendence, Supervision, Technical Staff & Employees:

The CONTRACTOR shall provide all necessary superintendence during execution of the work and as long thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The CONTRACTOR shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. The Engineer-in-Charge shall within 3 days of receipt of such communication, intimate in writing his approval or otherwise of such representative(s) to the CONTRACTOR. Any such approval may at any time be withdrawn and in case of such a withdrawal, the CONTRACTOR shall appoint

another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the CONTRACTOR in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the CONTRACTOR soon after receipt of the approval from Engineer-in-Charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all time when any contractual activity is in progress and also present himself /themselves, as required, to the Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative and other technical representative(s) shall deemed to have the same force as if these for have been given of the CONTRACTOR. The principal technical representative(s) and other representatives shall be actually available fully during all stages of execution of work recording/checking/ test checking of measurement of work and wherever so required by Engineer-in-Charge and shall also note instructions conveyed by the Engineer-in-Charge or his designated representative(s) in the order book and shall affix his/their signature in token of noting down the instructions and in of acceptance of measurements/ checked measurements/test checked measurements. The representative(s) shall not look after other work. Substitutes, duly approved by Engineer-in-Charge of the work in the manner as aforesaid shall be provided for absence of any of the representation for more than two days.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the CONTRACTOR, is convinced that no such technical representation is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the CONTRACTOR @ Rs.500/day of his absence and the decision of the Engineer-in-Charge as recorded in the "site order book" and measurements checked/test checked in Measurement books shall be final and binding on the CONTRACTOR. Further if the CONTRACTOR fails to appoint suitable Principal technical representative and other technical representative(s) or if such appointed persons are not effectively present or absent by more than two days without duly approved substitute or do not discharge their responsibility satisfactorily, the Engineer-in-Charge shall have powers to suspend the execution of the work until such date as suitable other representative(s) is/are appointed and the CONTRACTOR shall be held responsible for the delay so caused to the work. The CONTRACTOR should submit a certificate of employment of the technical representatives(s) and shall produce evidence if any time required by the Engineer-in-Charge.

ADDITIONAL CONDITIONS

1. The CONTRACTOR shall make arrangement for obtaining electric connections if required and make necessary payments for the same as per rules

2. Other agencies doing works related with this project will also simultaneously execute the works and the CONTRACTOR shall afford necessary facilities for the same. The CONTRACTOR shall leave such necessary holes, openings etc, for laying/burying in the work of pipes, cable, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies. Conduits for electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.
3. (a) The building work will be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the authorities under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra will be paid of this account.

(b) The work of water supply, internal sanitary installations and drainage work etc. shall be carried out as per the existing regulations and the CONTRACTOR shall produce necessary completion certificate from such authorities after completion of the work, if required.

(c) Water tanks, taps, sanitary, water supply and drainage pipes, fitting and accessories should conform to specifications. The CONTRACTOR should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested if required, by the authorities wherever required at his own cost.
4. The CONTRACTOR shall give a performance test of the installation(s) as per standing specification, before the work is finally accepted and nothing extra whatsoever shall be payable to the CONTRACTOR for the test.
5. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable or extra cement considered in consumption on this account.
6. The CONTRACTOR shall furnish along with the tender his proposed methodology and programme of construction in comprehensive manner of executing and completing the work within the stipulated period. The programme shall consist of the various components for each part of the work stipulated to be completed and a bar chart may be submitted in this connection.
7. The CONTRACTOR shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building materials shall be stacked on areas where other buildings, roads, services compound walls are to be constructed.
8. Construction labour shall not be permitted (except staff for watch and ward if permitted) to stay inside the campus. The CONTRACTOR has to arrange for necessary photo identity passes for the labour for entry in to the campus. The labour movement should be restricted to the areas where work is carried out.
9. Royalty at the prevalent rates shall have to be paid by the CONTRACTOR on all the metals, shingles, sand, earth etc., collected by him for the execution of the

work direct to the Revenue authority or authorized agent of the State Government concerned.

10. The CONTRACTOR should construct proper mortar bands of lean mix for flooding with water & proper curing. In case of columns wet gunny bags shall be used for a period of two weeks.
11. Tenderers are advised to study the specifications and drawings before tendering.
12. Sample of all materials, fixtures, fittings like flooring tiles, wall tiles, doors, windows, sanitary fittings, roofing sheets etc, shall be got approved in advance from the Engineer-in-Charge before taking up the work.
13. The contractor should engage at his own cost atleast a diploma holder (Civil Engineering) for the proper execution and supervision of work costing upto 20 Lakh and one Engineering graduate and one diploma holder (Civil) for works costing above 20 Lakh and one Engineering graduate and two diploma holder for Pre-Qualification works and sufficient no. of skilled and unskilled labour according to the tenure of contract.

TESTING OF MATERIAL

The CONTRACTOR shall produce all the materials in advance so that there is sufficient time for testing and approving the material and clearance of the same before use at works. The contractor should arrange for the mandatory tests and the cost of the same has to be borne by him

Pre-cast concrete cobbles for floor: Concrete cobbles to be used in flooring shall be of hard, made out of 1:2:4 mix.

Progress Reports to be submitted by the CONTRACTOR

The CONTRACTOR shall submit weekly progress report of the work in a computerized form. The progress report shall contain the following.

1. Project information giving the broad features of the contract.
2. Introduction, giving a brief scope of the work under the contract and the broad structural or other details.
3. Construction schedule of the various components of the work through bar chart, showing the milestone targeted tasks and up to date progress.
4. Progress chart of the various components of the work through that are planned and achieved for the week as well as cumulative up to month with reasons for deviations, if any, in a tabular format.
5. Plant and machinery statement, indicating those deployed in the work , and their working status.
6. Man power statement, indicating individually the names of all the staff deployed in the work along with their designations.

7. Financial statement, indicating the broad details of all the running account payments received up to date, such as gross value of work done. Advances taken, recoveries affected, amounts withheld, net payments, details of Cheque payments received, etc.
8. A statement showing the extra and substituted items submitted by the CONTRACTOR and the payments received against them, items pending for sanctions /decisions by the Owner, broad details of the bank guarantees, indicating their validity period, board details of the insurance policies taken by the CONTRACTOR, if any, advances received and adjusted from the department etc.
9. Periodical photographs in colour of the various items / components of the work done up to date to indicate visually the actual progress of the work.
10. Quality assurance and quality control tests conducted during the week with results thereof.
11. Other details asked for by the Engineer in charge.

The CONTRACTOR has to furnish weekly progress report, both physical and financial, as per proforma given below;

PHYSICAL

	Name of Item	Quantity as per Agreement	Quantity executed during the week	Total up to date quantity executed	Anticipated balance quantity

FINANCIAL

Total tendered amount	Amount of work done during the week	Total amount of work done up to date	Anticipated amount of balance work

The CONTRACTOR has to submit the progress report to the Engineer in-charge in triplicate by the first working day of every week as per the above proforma along with photographs of the work done during that week.

SPECIAL CONDITIONS

1. No plot rent shall be charged for materials stocked in the specified land during the course of construction with the prior approval the engineer provided all such materials are removed after the works are completed.
2. Royalty or charges due for use of private quarries and private land shall be paid by the CONTRACTOR.
3. No labour camps shall be permitted in side the Site. Workers should be made to confine themselves to the work areas and should not wander in to the near by areas / buildings/ forests.
4. If night work is required to be carried out to fulfill the agreed rate of progress, all arrangement shall be made by the CONTRACTOR inclusive of lighting the area, necessary charges has to be paid to the concerned authority for power utilization and necessary safety measures are taken.
5. The works shall be carried as per specifications and as per best Engineering practice.
6. No variations from, additions to and omissions from in the items of work shall vitiate the contract. All such variations, additions, substitutions etc shall be decided as per the terms of the contract agreement.
7. Child Labour is strictly prohibited in the work.

8. **Water and Electricity:**

The Contractor shall have to make his own arrangement at his own cost for adequate supply of water and for electric power that may be required for in connection with the works.

9. The work shall be carried out with least hindrance to the adjoining building and offices and the CONTRACTORs will be responsible for any damages, caused to the existing fixtures, electric fitting, etc. in the course of execution and the CONTRACTOR shall make good any such, damages without any claim for extra.
10. The debris / construction waste and other waste generated from the work spot should not be thrown inside the site. All waste material should be taken out of the site or should be dumped at a place earmarked by the Engineer in charge.
11. All construction material should be stored only at places earmarked by the engineer in charge. Material like cement, aggregate, steel etc should not be stored in buildings that are in use. If any material stored in un-authorized location the same shall got removed at the cost of CONTRACTOR.
12. Preparation of concrete, mortars in the roads, pavements etc is strictly prohibited.
13. The useful vegetation inside the campus should not be damaged.
14. Drinking water requirement of the labour should be arranged by the CONTRACTOR.
15. The labours should be instructed neither to misuse any facilities available in the various buildings nor to disturb the classes conducting in the ground floor and first floor.

16. While transporting the materials along the road, spillage of material should be avoided. If any spillage occurs the same should be got cleaned immediately without waiting for any notice from the department.

Any violation of above will attract levy of compensation on the CONTRACTOR.

Sub-Contractor's conditions:

Subcontracting:

It is preferred for the contractor not to engage in sub-contracting or subletting the work to others. In any case or so subcontracting may be allowed prior to the condition that the profile as well as the credibility of the contractor should be approved by the Architect, the Client and the project in-charge.

The client will have no direct financial dealings or commitments with the subcontractor. Moreover the sub-contractor should abide with the technical instructions issued by the Architect/Consultant/Engineer-in-charge. The Principal contractor will completely be responsible for any technical anomalies or deviations in the work executed.

Special conditions for Safety at the Site

1. No workmen below 18 years and above 70 years of age shall be engaged for a job at the site. Sick and unhealthy persons should be avoided.
2. All the workmen shall undergo Safety Induction, screening before engaging them on the job. Physical fitness of the person to certain critical jobs like working at height or other dangerous locations to be ensured before engaging the person on work.
3. Smoking is strictly prohibited at the workplace.
4. Sub-contractors shall ensure adequate supervision at workplace. They shall ensure that all persons working under them shall not create any hazard to self or to co-workers. Details of Sub –Contractors engaged shall be intimated to the Project Principal/Engineer-in-charge in writing.
5. Nobody is allowed to work without wearing safety helmet. Chinstrap of safety helmet shall be always on.
6. No one is allowed to work at or more than three meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level.
7. No one is allowed to enter into workplace and work at site without adequate foot protection.
8. Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs as and when site safety co-coordinator insists eye protection has to be provided.
9. All excavated pits shall be barricaded & barricading to be maintained till the backfilling is done. Safe approach to be ensured into every excavation.

10. Adequate illumination at workplace shall be ensured before starting the job at night.
11. All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.
12. Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.
13. Erection zone and dismantling zone shall be barricaded and nobody will be allowed to stand under suspended loads.
14. Contractor should spray water using Water sprayer periodically in the site to reduce the dust arising due to wind.
15. Horseplay is completely prohibited at workplace. Running at the site is completely prohibited, except in the case of emergency.
16. Material shall not be thrown from the height. The area shall be barricaded if required and one person shall be posted outside the barricading for preventing the trespassers from entering the area.
17. Other than electricians with red helmet no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.
18. All electrical connections shall be made using 3 or 4 core cables, having a earth wire.
19. Proper Earthing pits at site to be constructed. And the sensitivity must be maintained less than 1 ohm.
20. Main panel boards should have MCB's and RCCB / ELCB's (30 mA sensitivity).
21. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
22. All major, minor accidents in the premises and to be recorded and reported to the Engineer- in- charge.
23. Scaffoldings used should be of proper construction. No inferior quality Casuarinas pole / bamboo scaffolding is permitted. It should be inspected by competent person(s) before use/concreting.
24. All tools and tackles shall be inspected before use. Defects to be rectified immediately. No lifting tackle to be used unless it is certified by the competent authority.
25. Good housekeeping to be maintained. Passages shall not be blocked with materials. Materials like bricks shall not be stacked to the dangerous height at workplace.

26. Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work everyday.
27. Adequate fire fighting equipment shall be made available at workplace and persons are to be trained in fire fighting techniques with the co-ordination of site safety coordinator.
28. All the unsafe conditions, unsafe acts identified by CONTRACTOR, reported by site supervisors and / or safety personnel to be corrected on priority basis.
29. No children shall be allowed to enter the workplace.
30. All the lifting tools and tackles shall be stored properly when not in use.
31. Clamps shall be used on Return cables to ensure proper earthing for welding works.
32. Return cables shall be used for earthing.
33. All the pressure gauges used in gas cutting apparatus shall be in good working condition.
34. Connectors and hose clamps are used for making welding hose connections.
35. Proper warning boards and caution notices to be displayed at required areas inside the site.
36. All underground cables for supplying construction power shall be routed using conduit pipes.
37. Tapping of power by cutting electric cables in between must be avoided. Proper junction boxes must be used.

Workmen's Insurance

Owner shall not be liable for any payment in respect of any damages or compensation payable according to law in respect or in consequence of any accident or injury or loss of life to any workman or other person in the employment of the CONTRACTOR or any sub-contractor. The CONTRACTOR shall insure against such liability with an insurer for sum of the established norms during the entire period till completion of work.

Recovery from the CONTRACTOR

Without prejudice to the other rights of THE OWNER against the CONTRACTOR in respect of such default, HE OWNER shall be entitled to deduct from any sums payable to the CONTRACTOR the amount of any damages, compensation costs, charges and other expenses paid by the Owner and which are payable by the CONTRACTOR under this clause.

Delay, Compensation for Delay and Extension of Time

Time is the essence of this contract and CONTRACTOR shall complete the Work in all respects as per the contract within the date/period of completion specified. Should the CONTRACTOR feel that he will not be able to complete the work in time, he may apply for extension of Time to the Owner along with reasons and justifications there to for delays, if any.

If the contractor fails to execute the work within agreed /extended period as per the specification agreed, THE OWNER will arrange the balance through other agencies at risk and cost of the contractor.

If in the opinion and absolute discretion of THE OWNER. whose decision shall be final, conclusive and binding, the work is delayed on account of valid reasons not within the control of the CONTRACTOR; THE OWNER shall make a fair and reasonable Extension of Time for completion of the Contract subject to agreement condition and supplemental agreement for the same to be executed. The CONTRACTOR shall not make any claim for compensation or damage in relation thereto.

Defect Liability Period

The defect liability period shall be **24(Twenty four) months** after the date of issue of virtual completion certificate to the CONTRACTOR.

The CONTRACTOR shall be responsible to make good and remedy at his own expense any defects which may appear within the Defects Liability Period arising in the opinion of THE OWNER who shall be the final authority.

In case of default, THE OWNER may employ and pay other persons to amend and make good such defects and expenses consequent thereon or incidental thereto and shall be made good and borne by the CONTRACTOR and shall be recoverable from him.

Arbitration

No arbitration of any disputes on contracts will be allowed under any circumstances.

Law Governing the Contract

The Indian laws shall govern this contract for the time being in force.

ADDITIONAL CONDITIONS
ADDITIONAL & PARTICULAR SPECIFICATIONS

GENERAL

The quoted rates for various items in the tender shall be inclusive of all the additional conditions and particular specifications and for adherence to all these conditions and specifications, no extra payment shall be made to the contractor. Any infringement and/or breach of these specification and condition(s) etc. shall render the contractor liable to action(s) under various clauses of the contract and such action stipulated in conditions therein.

“A” ADDITIONAL CONDITIONS

1. The Contractor shall maintain safe custody of materials brought to the site. The Contractor shall also employ necessary watch and ward establishment for the work and other purposes as required at his own cost.
2. For Cement and Steel and other materials, as prescribed, the quantities brought at site shall be entered in the respective material accounts at site and shall be treated as issued for maintenance of daily consumption.
3. The procurement of Cement and Reinforcement Steel, and, their issue and consumption shall be governed as per conditions laid down hereunder.

3.1. Cement

3.1.1. The contractor shall procure 43 grade (Conforming to IS: 8112) Ordinary Portland Cement, as required in the work, from reputed manufactures of cement, having a production-capacity of one million tonnes per annum or more, such as A.C.C. L&T, India Cements, Malabar Cement, and Cement Corporation of India etc. as approved by Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product whose name shall be got approved from Engineer-in-Charge. Supply of cement shall be taken in 50 kg bags bearing manufacture's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

3.1.2. The Cement shall be brought at site in bulk supply of approximately 20 tonnes or as decided by the Engineer-in-Charge.

- 3.1.3. The cement godown of the capacity to store about 500 bags of cement or as decided by the Engineer-in-Charge shall be constructed by the contractor at site of work for which no extra payment shall be made. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge or his authorised subordinate at any time.
- 3.1.4. The contractor shall supply free of charge the cement required for testing. The cost of tests shall be borne by the contractor/ Department in the manner indicated below:
- i. By the contractor, if the results show that the cement does not conform to relevant BIS codes.
 - ii. By the Department, if the results show that the cement conforms to relevant BIS codes.
- II.1.5 The cement should be stored safely without getting damaged. The owner is not responsible for any damaged clotting of cement.

3.2. **Steel**

- 3.2.1. The contractor shall procure steel reinforcement bars conforming to relevant BIS codes from main producers like SAIL, TISCO, VSP, IISCO etc. as approved by the Ministry of Steel. In cases when the contractor is required to procure steel reinforcement bars conforming to relevant BIS codes from other than main producers such as secondary producers or having BIS License, can be done with prior approval of the Engineer-in-Charge. The procurement of TMT Bars conforming to relevant BIS codes shall be made from main producers and secondary producers having BIS License with prior approval of the Engineer-in-Charge. The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge. The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work. Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in the relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to BIS codes, the same shall stand rejected and shall be removed from the site of work within a weeks' time of written order from the Engineer-in-Charge to do so.
- 3.2.2. The steel reinforcement shall be brought to the site in quantity of lots as approved by the Engineer-In-Charge.
- 3.2.3. The steel reinforcements shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes (diameters) and lengths shall be stored separately to facilitate easy counting and checking.
- 3.2.4. For steel procured from main producers, for checking nominal mass, tensile strength, bend test, etc. specimen of sufficient length shall be cut from each diameter of the bar at random at frequency not less than that specified below. In case of works costing more that 2 Crores and when the steel is procured from other than main producers, additional tests such as, retest, re-bend test, elongation test, proof stress may also be conducted

Size (Diameter) of bar	For consignment	
	Below 100 tonnes	Over 100 tonnes
Under 10mm dia	One sample for each 25 tonnes or part thereof	One sample for each 40 Tonnes or part thereof
10mm to 16mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 Tonnes or part thereof.
Over 16mm dia	One sample for each 45	One sample for each 50

	tonnes or part thereof.	Tonnes or part thereof.
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- 3.2.5. The contractor shall supply free of charge the steel bars required for testing. The cost of tests shall be borne by the contractor/ Department in the manner indicated below:
1. By the contractor, if the results show that the steel does not conform to relevant BIS codes.
 2. By the Department, if the results show that the steel conforms to relevant BIS codes.
- 3.2.6. Coefficient of weight i.e. the weight per unit length of the steel procured by the contractor shall be ascertained at site before using it and certified by the Engineer-In-Charge. In case weight per unit length is beyond the rolling margin as laid down in the BIS: 1786, the steel will be rejected and shall be removed from the site of work within; a weeks' time from the date of written order from the Engineer-in-Charge to do so. In case weight per unit length is more than the standard coefficient of weight for the diameter, but is within the rolling margin, then the payment shall be made as per the standard weight per unit length, and, where the weight per unit length is lesser than the standard coefficient of weight for the diameter, but is within the rolling margin, the payment shall be restricted with respect to the actual weight per unit length of the diameter.
- 3.3. The standard sectional weights referred to in standard table in KPWD Data Book for Cement Mortar, Cement Concrete and RCC works, are to be considered for conversion of length of various sizes of Steel Reinforcement bars into weight.
- 3.4. The actual issue and consumption of steel and Cement on the work shall be regulated and proper accounts maintained.
- 3.5. Steel and Cement brought to site and remaining unused shall not be removed from site without the written permission of the Engineer-In-Charge.
4. No payment shall be made to the contractor for any damage caused during the execution of work because of cause(s) not covered. The damage to work will be made good by the contractor at his own cost, and no claim on this account shall be entertained.
5. Some restrictions may be imposed by the security staff etc. on the working and/ or movement of labour, materials etc. and the contractor shall be bound to follow all such restrictions/ instructions and nothing extra shall be payable on this account.
6. The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charges which he may be liable and nothing extra shall be payable on this account. The work shall be carried out without infringing on any of the local Municipal Bye-Laws.
7. The contractors shall given a performance test of the entire installations as per standard specifications before the work is finally accepted and nothing extra what so ever shall be payable to the contractor for the tests.
8. The contractor shall engage licensed plumber for sanitary, water supply, drainage work and also get all the materials and system (including the materials supplied if any, by the department) tested by the Municipal Authority, Whenever required at his own cost including all testing fees, transport etc. according to Municipal by Laws. The contractor shall produce necessary certificate from the Municipal Authorities after completion of work. Nothing extra

will be paid on this account. The Contractor shall execute the guarantee for removal of defects after completion in respect of water supply and sanitary installation.

9. The water supply sanitary installation and drainage work shall be carried out in a manner complying in all respects with the requirement of relevant by laws of the local municipal authority of the place at no extra cost of the department.
10. The rate for every item of work to be done under this contract shall be for all heights, depths, lengths and widths of the structure (except where specially mentioned in the item) and nothing extra will be paid on this account.
11. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards such as day and night boards, speed limit boards and flags, red lights and providing barriers etc. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of work. No extra payment shall be paid on this account.
12. The contractor will work in close liaison, during the works, with other contractors of water supply, sanitary, drainage arrangements, electrical installation and any other works and adjust his work plan accordingly.

B. ADDITIONAL SPECIFICATIONS

1. GENERAL

- 1.1.1. Should there be any difference between the specifications mentioned above and the specifications given in the schedule of quantities, the later shall prevail.
 - 1.1.2. If the specifications for any item are not available in the CPWD Specifications cited above, relevant BIS Specifications should be followed.
 - 1.1.3. In case BIS Specifications are also not available, the decision of Engineer-in-Charge given in writing based on acceptable good engineering practice and local usage shall be final and binding on the contractor.
 - 1.1.4. Articles classified as first quality by the manufacturer shall be used unless otherwise specified.
- 1.1 The work will be carried out in accordance with the architectural drawings and structural drawings to be issued by the Engineer-in-Charge. The structural and architectural drawings shall have to be properly correlated before executing the work.
- 12.1 In case of any difference noticed between Architectural and Structural drawings, the contractor shall obtain final decision in writing of the Engineer-in-Charge.
 - 12.2 In case of any discrepancy in the item given in the schedule of quantities appended with the tender and architectural drawings relating to the relevant item, former shall prevail unless otherwise given in writing by the Engineer-in-Charge
- 1.2 For items where so desired, samples shall be prepared before starting the particular items of work for prior approval of the Engineer-in-Charge and no extra payment shall be made on this account.

1.3 Materials brought at site of work shall not be used in the work before getting satisfactory Mandatory test results. For details, relevant provisions in CPWD specification shall be referred to.

1.3.1 Wherever it is desired to procure factory-made materials, such factory-made materials shall be procured from reputed and approved manufacturers or through their authorized dealers. The contractor shall obtain the approval from the Engineer-in-Charge of such firms prior to procurement of such factory-made materials. The Engineer-in-charge may, at any stage, inspect such factories/ manufacturing units. The contractor shall have no claim if the factory made materials brought to the site are rejected by the Engineer-in-charge in part or in full due to bad workmanship/ quality etc. even after the inspection of the manufacturing units.

1.3.2 The manufactured materials brought at site of work shall, in general, conform to the relevant specifications. The source for supply of the manufactured materials shall be approved by the Engineer-in-charge. The contractor shall have no claim if the manufactured materials brought to the site are rejected by the Engineer-in-charge in part or in full due to bad workmanship/ quality etc.

1.3.3 The preference amongst the various alternative materials available shall be as follows.

- (a) The materials shall be as per the Brand specified to be used in the work.
- (b) If the Brand specified material is not available then the material shall be ISI marked.
- (c) If ISI marked item is not available then it should be from ISO certified Company.
- (d) If the ISI marked or ISO certified items are not available then the best available items in the market to be procured.

1.3.4 Equivalent for the various materials and the materials of approved make shall be got approved from the Engineer-in-Charge of work in writing before using them on the work.

1.3.5 The contractor shall maintain register for cement, paint and other registers as required by the Engineer-in –charge and those should be signed by the contractor or his authorised agents and the Asst. Engineer in charge of the work.

2. The following modifications to the above specifications shall, however, apply.

2.1 Earth Work

2.1.1 During excavation and trenching work etc., the contractors shall ensure compliance to the guidelines in such matters laid down by the local body / bodies to ensure that there is minimum hazard to the operating personnels and users, minimum inconvenience to the users, minimized damage to the underground plant/services of other utilities in a coordinated way, in the interest of public convenience and overall safety.

2.1.2 Any trenching and digging for laying sewer lines/ water lines/ cables etc. shall be commenced by the contractor only when all men, machinery's and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

- 2.1.3 Surplus excavated earth which is beyond the requirement of the CAPE shall have to be disposed of by the contractor beyond the municipal limits or at places identified by the local bodies or as directed by the Engineer-in-Charge after obtaining written permission of the Engineer-in-Charge for such disposal of this surplus excavated earth.
- 2.1.4 The contractor shall, at his own expense and without extra charges, make provision for all shoring, pumping, dredging or bailing out water, if necessary, irrespective of the source of water. The foundation trenches shall be kept free from water while all the works below Ground Level are in progress.

2.2 Reinforced Cement Concrete Work & Plain Cement Concrete- General

- 2.2.1 Stone Aggregate.** Stone aggregate to be used in the work shall be of hard broken stone to be obtained from source approved by Engineer-In-Charge and shall conform to the relevant provisions in the CPWD Specifications.
- 2.2.2 Fine Sand / Coarse Sand:** Fine sand / Coarse sand to be used in the work shall be obtained from sources approved by Engineer-In-Charge and shall conform to the relevant provisions in the CPWD Specifications.
- 2.2.2.1 Where only one variety of sand is available, the sand will be sieved for use in finishing work to achieve the required particle size distribution as per CPWD Specifications in order to obtain smooth surface and nothing extra shall be paid to the contractor on this account.
- 2.2.3 Water:** - It shall conform to requirements laid down in IS: 456-2000

2.3 R. C. C. work (Design Mix Concrete) - Wherever the RCC work is specified to be done with Design Mix Concrete, the particular specifications, as applicable, shall apply.

2.4 R.C.C.Work (Nominal mix concrete)- Water-Cement Ratio: - For RCC Works, wherever nominal mix of concrete is stipulated in the items for work, for maintaining proper quality and durability requirements of the structure, maximum water-cement ratio shall be restricted to 0.55. If in normal course of work, the required workability is not achieved; suitable plasticizers/ admixtures may be used for improving the workability of concrete with the approval of Engineer-in-Charge for which nothing extra shall be paid.

2.5 Centering and Shuttering for R.C.C Work: - The concrete surface shall be free from honey combing, offsets, superfluous mortar, cement slurry and foreign matter. The formwork shall be assembled in such a way as to facilitate removal of their parts in proper sequence without any damage to the exposed cement concrete surfaces and corners etc. The contractor shall keep skilled staff for special care and supervision to check the formwork and concreting so that every member is made true to its size, shape, level and alignment so that it does not result in any deformation, snag, bulges etc. The contractor shall also take suitable precautionary measure to prevent breaking and chipping of corners and edges of completed work until the building is handed over. The size of shuttering plates for slabs shall not be less than 0.6mx0.9m in general. However, contractor has to provide tape or wooden fillets or rubber gaskets to seal the joint properly to get smooth surface. Further shuttering shall be of such quality that there are no undulations and surfaces will be fairly even and no extra thick ceiling plaster shall be permitted to make the surface even. Any honey-combed or poorly formed concrete shall be repaired with polymer concrete of any suitable design by the Contractor at his own cost.

2.6 **BRICK WORK:** - Bricks used in the work shall be of class designation specified to be obtained from kilns approved by Engineer-In-Charge. In all other respects they shall conform to the provisions in CPWD specifications.

2.7 **STONE WORK:** Stone used for stone masonry work shall be hard granite/ basalt/ quartz stone/sand stone to be obtained from quarries approved by Engineer-In-Charge and shall conform to the relevant provision in the CPWD specifications.

2.8 All above materials like stone aggregates, coarse sand, fine sand, Bricks, Surkhi, Stone etc. conforming to the CPWD specifications to be brought from the sources approved by Engineer-In-Charge. In case, at any stage during execution of work, the material from the approved source being not available or otherwise, and, is required to be arranged from other sources conforming to relevant CPWD specifications and duly approved of Engineer-in-charge, involving extra lead etc. no extra payment made shall be on this account.

2.9 **WOOD WORK:** - Timber required for manufacture of chowkhats and shutters for doors, windows, ventilators, and partitions etc. in the work shall be kiln seasoned and preservative treated. The Timber shall be kiln seasoned before applying preservative treatment. The rate quoted for various items shall be inclusive of kiln-seasoning and preservative treatment of wood. The wood used in the work shall conform to the provisions in the CPWD Specifications

2.10 **STEEL WORK:-** All steel doors, steel windows, steel ventilators, wire gauge, steel glazing, steel grill shall be according to the Architect's detailed drawings and factory made and obtained from approved suppliers.

2.10.1 In the case of composite steel windows the rates shall include the cost of coupling mullion and transom etc. Where windows with inside open able shutters are fixed along-with windows with shutters openable outside, such inside openable windows shall be fitted with suitable friction hinges and openable outside with box type hinges, lever handles or otherwise as approved by the Engineer-in-Charge of the work. For such windows, cement concrete blocks of size 15cmx 10cmx 10cm shall be provided.

2.10.2 In the case of steel windows and doors, steel glazing, wire gauge steel ventilators, rolling shutters, grills etc. an approved quality-priming coat of zinc chromate shall be applied over and above shop coat of primer. No extra payment shall be made for providing shop-coat primer.

2.11 **Sanitary and Water supply installations**

The contractor shall engage licensed plumber for sanitary, water supply, drainage work and shall be carried out in a manner complying in all respects with the requirement of relevant by rules of the local municipal authority. The Contractor shall give a guarantee to the effect that the work shall remain structurally stable and shall guarantee against faulty workmanship, finishing, manufacturing defects of materials and leakages etc.

2.12 **Approval of sample work** of repetitive/ typical nature prior to general execution of work shall be as enumerated hereafter.

2.12.1.1 Samples of typical portion of the works of repetitive nature such as typical room, toilet room, or any other work shall be prepared by the contractor under the directions and to the satisfaction of Engineer-in-Charge and got approved from him in writing before the commencement of these items for the entire work.

2.12.1.2 The work shall be so arranged to be carried out that the requirement for preparation of samples are observed and fulfilled without any detriment to the general progress of work. In other words, this will not be allowed to have any effect on the general progress of work or on any of the terms and conditions of the contract. No claims of any kind whatsoever including the claim of extension of time will be entertained due to the incorporation of this requirement.

2.13. **Measurement:-** As per KPWD norms.

2.14. **Tolerance:-** As per KPWD norms

2.15 **Rate:-** The rate includes the cost of materials and labour involved in all the operations described above including the cost of centering,shuttering curing, placing and fixing in position which are not specially mentioned

TO BE TYPED IN RS. 200/- KERALA STAMP PAPER

FORM OF PRELIMINARY AGREEMENT

Preliminary agreement entered into on this..... day of.....Two thousand and nineteen between Principal, College of Engineering Muttathara (Hereinafter called the Client) and M/s.....

(Hereinafter called the 'Contractor') of the other part for the execution of the agreement as well as for the execution of the work of "Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering Muttathara Thiruvananthapuram". WHEREAS, The Principal, College of Engineering Muttathara invited tenders for work of "Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara Thiruvananthapuram" vide notification No.W-05/2018-19/CEM dated 06.01.2019

Before commencing work or within 20 days after the date when the acceptance of the tender has been intimated to him, the tenderer shall deposit a sum sufficient to make up the balance of 5percent of the probable value of contract which together with the amount of earnest money deposit shall be treated as security for the proper fulfillment of the same and shall execute an agreement for the work. If he fails to do this or in the case of contracts maintain a specified rate of progress to be specified in each case in the tender schedule, the earnest money and security deposit shall be forfeited to CEM and fresh tenders shall be called for or the matter otherwise deposed off. It, as a result of such measures due to the default of the tenderer pay the requisite deposit, sign contracts or take possession of the work, any loss to the client, results the same will be recovered from him as arrears of revenue, but should it be a saving to CEM, the original Contractor shall have no claim whatever to the difference. Recoveries on this or any other account will be made from the sum that may be due to the contractor on this or any other subsisting contracts or under the Revenue Recovery Act, or otherwise the client may decide.

NOW THEREFORE THESE PRESENTS WITNESS and it is mutually agrees as follows: -

1. The terms and conditions for the said contract having been stipulated in the said tender form to which the contractor agreed a copy of which is hereto appended which forms part of this agreement, it is agreed that the terms and conditions stipulated therein shall bind the parties to this agreement except to the extent to which they are abrogated or altered by express terms and conditions herein agreed to and in which respect the express provisions herein shall supersede those of the said tender form.
2. The contractor hereby agreed and undertake to perform and fulfill all the operations and obligations connected with the execution of the said contract work viz. - work of "Construction of CC trench and machine foundation at Electrical machines lab at College of Engineering, Muttathara Thiruvananthapuram" if awarded, in favour of the contractor.

If the contractor does not come forward to execute the original agreement after the said work is awarded and selection notice issued in his favour or commits breach of any of the conditions of the contract as stipulated in the tender as quoted above within the period stipulated therein, the client may re-arrange the work otherwise or get it done by the Company at the risk and cost of the Contractor and the loss so sustained by the client can be realized from the Contractor under the Revenue Recovery Act as if arrears of land revenue as assessed, quantified and fixed by an adjudicating authority authorized by client in this behalf taking into consideration the prevailing rates and after giving arrears due not to the contractor. The decisions taken by such Authority, Officer, or officers shall be final and conclusive and shall be binding on the contractor

3. The contractor further agrees that any amount found due to the client under or by virtue of this agreement shall be recoverable from the contractor from his EMD and his properties, movable or immovable as arrears of land revenue under the provisions of the Revenue Recovery Act for the time being in force or in any other manner as the client may deem fit in this regard.

IN WITNESS WHEREOF Sri....., Principal, College of Engineering
Muttathara for and

on behalf of College of Engineering Muttathara and

Sri.....

the contractor has set their hands on the day and year first above written.

Signed by..... () in the

presence of witnesses:-

1.

2.

Signed and delivered by Sri.

..... the Contractor in the presence of witnesses:-

1.

2.

TENDER SCHEDULE

Name of work: Construction of CC trench & Machine foundation at electrical lab at College of Engineering Muttathara

Tender Schedule

Item No	Description of Item	Quantity	Unit	Rate		Amount
					In words	
1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix) 15.2.2	7	cum	807.41	Rupees Eight Hundred and Seven Paise Forty One Only	5,651.87
2	Earth work in excavation; by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. 2.8.1	12	cum	231	Rupees Two Hundred and Thirty One Only	2,772
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :1:4:8 (1 Cement: 4 coarse sand:8 graded stone aggregate 40 mm nominal size) 4.1.8	3.5	cum	6308.5	Rupees Six Thousand Three Hundred and Eight Paise Fifty Only	22079.75
4	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :5.2.3	9	cum	9636.21	Rupees Nine Thousand Six Hundred and Thirty Six Paise Twenty One Only	86725.89
5	Centering and shuttering including strutting, propping etc. and removal of form for Foundations, footings, bases of columns, etc. for mass concrete. 5.9.1	45	sqm	248.53	Rupees Two Hundred and Forty Eight Paise Fifty Three Only	11183.85
6	Centering and shuttering including strutting, propping etc. and removal of form for Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	20	sqm	529.18	Rupees Five Hundred and Twenty Nine Paise Eighteen Only	10583.6
7	Solid block masonry using pre cast solid blocks (Factory made) of size 30x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 15cm and above in: CM 1:6 (1 cement: 6 coarse sand) etc complete.	8	cum	5529.55	Rupees Five Thousand Five Hundred and Twenty Nine Paise Fifty Five Only	44236.4

Item No	Description of Item	Quantity	Unit	Rate		Amount
					In words	
8	plastering with cement mortar 1:4 , 12mm thick one coat to the brick wall etc complete	150	sqm	252.71	Rupees Two Hundred and Fifty Two Paise Seventy One Only	37906.5
9	Steel reinforcement for RC.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level	455	kg	99.88	Rupees Ninety Nine Paise Eighty Eight Only	45445.4
10	lifting conveying and placing the newly constructed concrete covering slab on the top of the trench to lines and levels including all charges and miscellaneous expense to complete	2.5	cum	1785.7	Rupees One Thousand Seven Hundred and Eighty Five Paise Seventy Only	4464.25
11	Distemping with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification. Two or more coats on new work 13.42.1	40	sqm	74.28	Rupees Seventy Four Paise Twenty Eight Only	2971.2
Total amount						274020.71

(Rupees Two Lakh Seventy Four Thousand Twenty Paise seventy one only)

Principal

**Name of work: Construction of CC trench and machine foundation at
Electrical machines lab at College of Engineering Muttathara TVM**

QUOTED RATE OF THE CONTRACTOR

I/We agree to undertake to execute the work

1. At Estimate rate

2. _____% below
estimate rates

3. _____% above
estimate rates

Note: Score out which is not applicable

The rates may be quoted in words and figures

Signature of Tendered

Date

**(Name, Title and position)
Address**